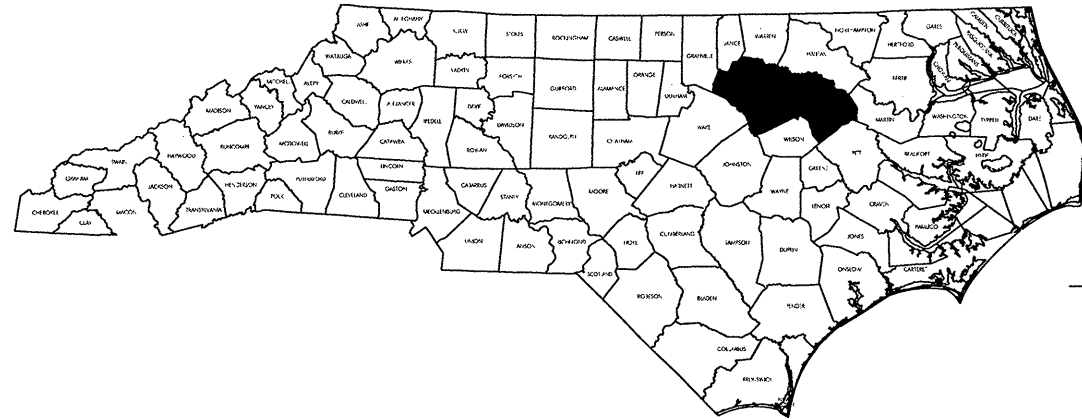


CONTRACT NO. C202788 TIP PROJECT: BP-5300D



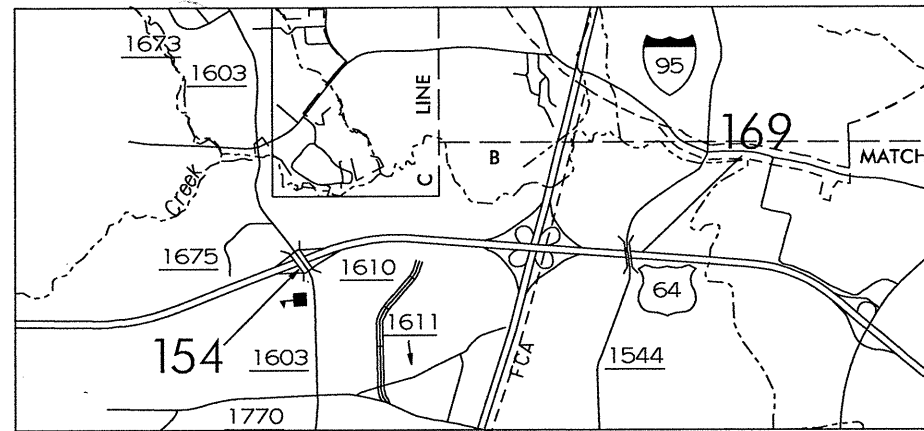
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**EDGECOMBE, FRANKLIN
AND NASH COUNTY**

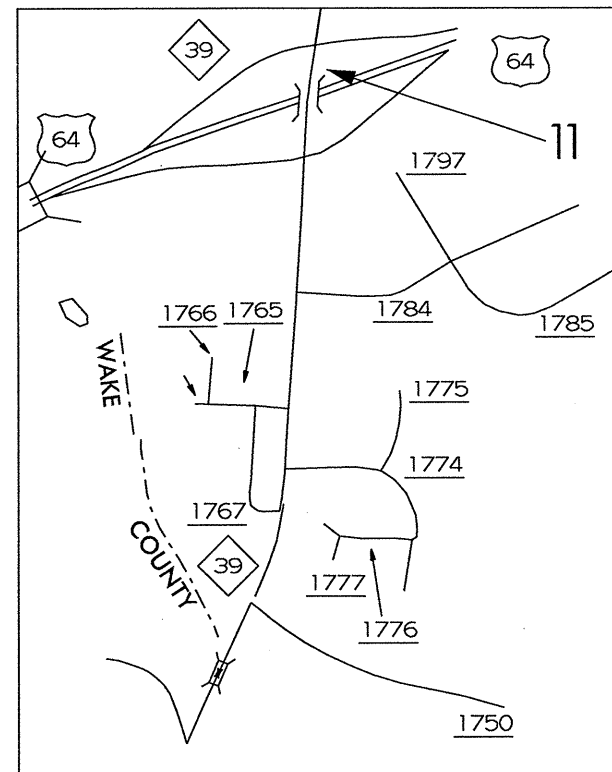
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N.C.	BP-5300D	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45438.1.1	BRNHS-0064(150)	P.E.	
45438.3.4	BRNHS-0064(150)	CONST	

LOCATION: BRIDGE #154 ON SR 1603 ACROSS US 64, BRIDGE #169 ON SR 1544 ACROSS US 64, BRIDGE #11 ON NC 39 ACROSS US 64, BRIDGE #104 ON US 64 ACROSS TAR RIVER.

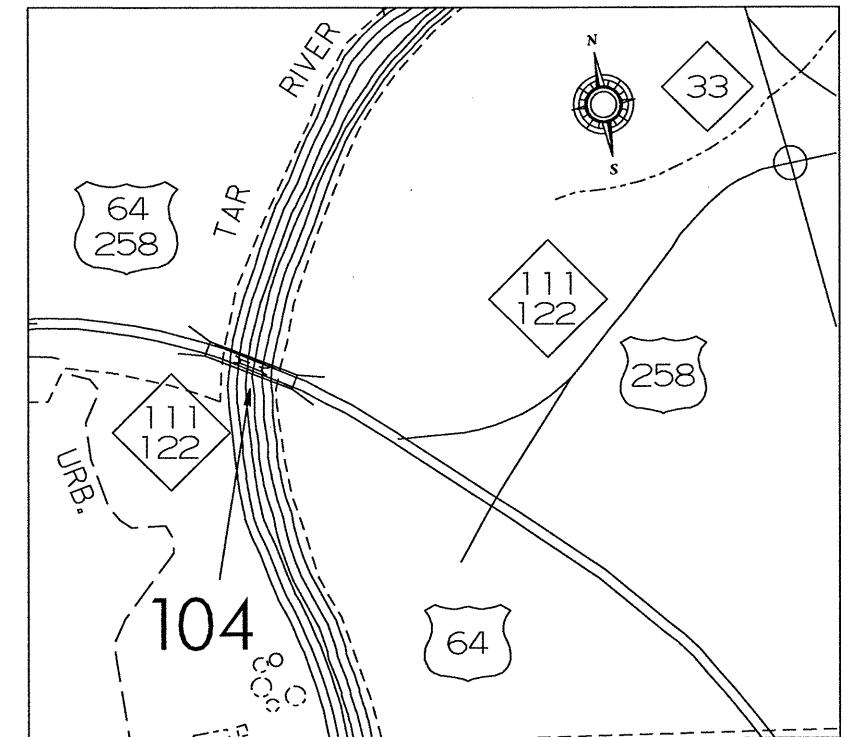
TYPE OF WORK: BRIDGE PRESERVATION – STRUCTURAL STEEL REPAIR & PAINTING



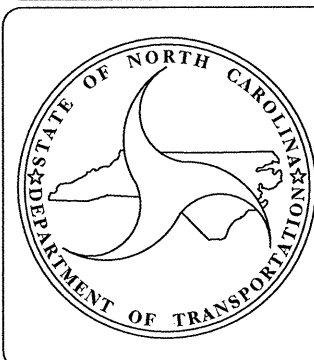
NASH COUNTY



FRANKLIN COUNTY



EDGECOMBE COUNTY



DESIGN DATA

PROJECT LENGTH

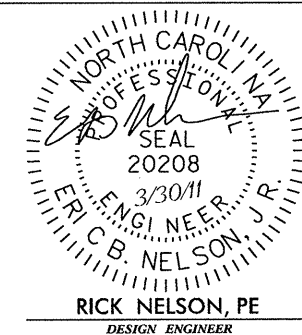
Prepared in the Office of:
BRIDGE MANAGEMENT UNIT
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2006 STANDARD SPECIFICATIONS

LETTING DATE:
JUNE 21, 2011

DAN HOLDERMAN, PE
STATE BRIDGE
MANAGEMENT ENGINEER

MIKE SUMMERS
BRIDGE MANAGEMENT
PROJECT MANAGER



TIP PROJECT: BP-5300D

CONTRACT NO. C202788

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

**EDGECOMBE, FRANKLIN
AND NASH COUNTY**

**LOCATION: BRIDGE #154 ON SR 1603 ACROSS US 64,
BRIDGE #169 ON SR 1544 ACROSS US 64, BRIDGE
#11 ON NC 39 ACROSS US 64, BRIDGE #104 ON US 64
ACROSS TAR RIVER.**

**TYPE OF WORK: BRIDGE PRESERVATION – STRUCTURAL STEEL
REPAIR & PAINTING**

INDEX OF SHEETS

1	TITLE SHEET
1A	INDEX OF SHEETS
2	SUMMARY OF QUANTITIES
S1-S8	STRUCTURE PLANS
TCP-1 THRU TCP-9	TRAFFIC CONTROL PLANS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP-5300D	1A	
STATE PROJECT NO.	F. A. PROJ. NO.	DESCRIPTION	
45438.1.1	BRNHS-0064(150)	PE	
45438.3.4	BRNHS-0064(150)	CONST	



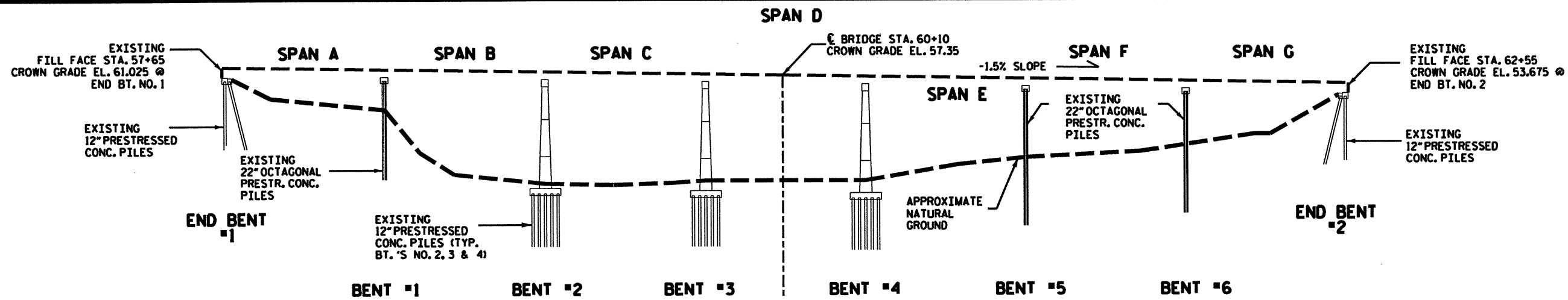
Prepared in the Office of:
BRIDGE MANAGEMENT UNIT
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2006 STANDARD SPECIFICATIONS

<p>LETTING DATE: JUNE 21, 2011</p>	<p>DAN HOLDERMAN, PE <small>STATE BRIDGE MANAGEMENT ENGINEER</small></p>
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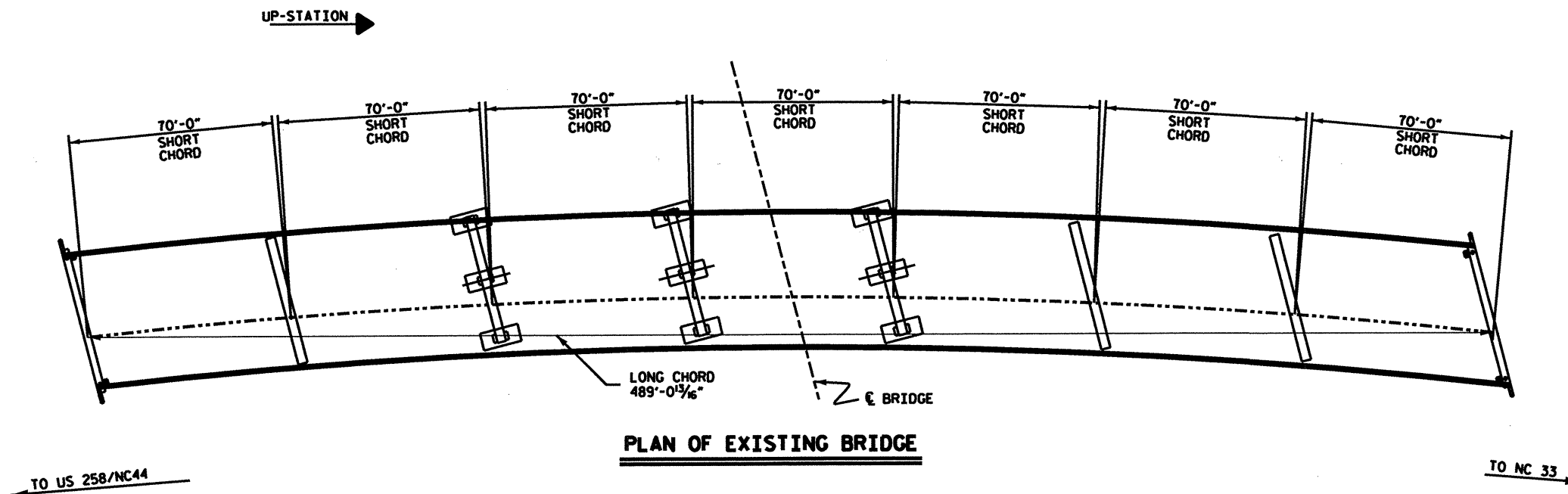
MIKE SUMMERS
BRIDGE MANAGEMENT
PROJECT MANAGER

RICK NELSON, PE
DESIGN ENGINEER



SECTION UNDER EXISTING BRIDGE

(BENTS ON SECTION NORMAL TO E CAP)



PLAN OF EXISTING BRIDGE

TOTAL BILL OF MATERIAL									
MOBILIZATION	GRIDER REPAIR BRIDGE #104	DIAPHRAGM MODIFICATION BRIDGE #104	ELASTOMERIC BEARINGS P1, P2, P3 & P4 BRIDGE #104	CLEANING & REPAINTING BRIDGE #104	CLEANING & REPAINTING BRIDGE #154	CLEANING & REPAINTING BRIDGE #169	CLEANING & REPAINTING BRIDGE #11	POLLUTION CONTROL	SPAN JACKING BRIDGE #104
LUMP SUM	LBS.	LBS.	EACH	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	EACH
LUMP SUM	10,996	18,538	72	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	12

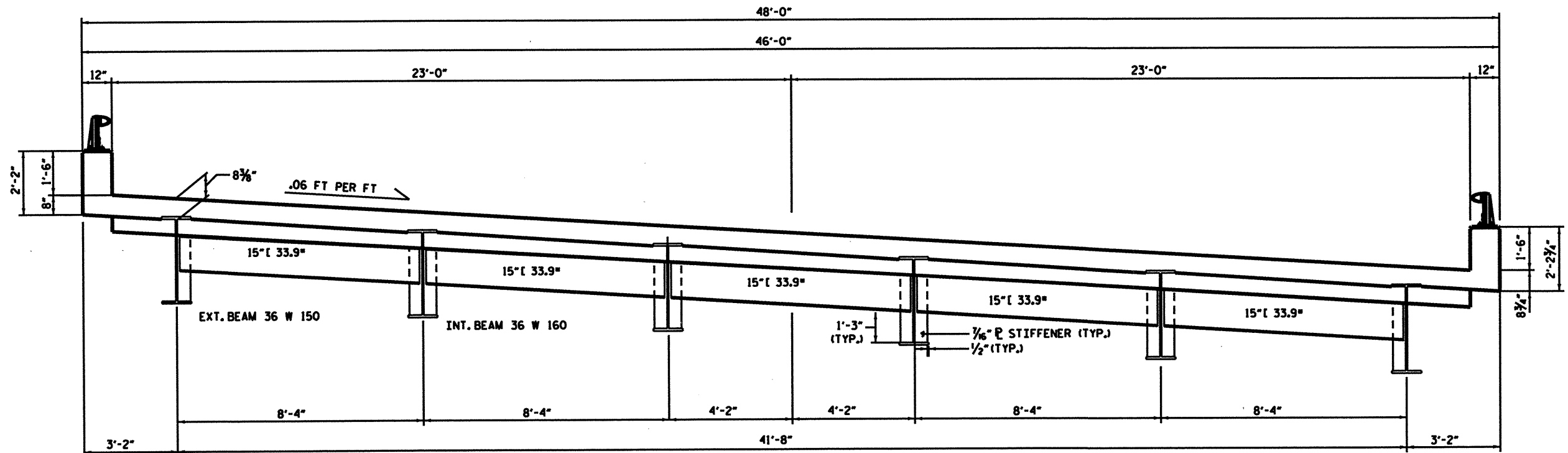
PROJECT NO. BP-5300D
 COUNTY: EDGECOMBE
 STATION: _____
 BRIDGE NO. 104

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALPH
 GENERAL DRAWING
 OF EXISTING BRIDGE
 OVER TAR RIVER ON US 64
 BETWEEN
 US 258/NC 44 & NC 33

REVISIONS				NO.	DATE
NO.	BY	DATE	NO.		
1			2		
2			4		

S1

DRAWN BY: MW DATE: 1/11
 CHECKED BY: AGA DATE: 1/11



EXISTING TYPICAL SECTION

(SHOWING DIAPHRAGMS AT BENTS)

GENERAL NOTES:

EXISTING BRIDGE AND REPAIR DETAILS INDICATED ON THE PLANS ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN THE EXISTING BRIDGE AND REPAIR DETAILS SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO VERIFY INFORMATION SHOWN ON THESE PLANS AND SHALL OBTAIN ALL OTHER EXISTING BRIDGE DATA NECESSARY FOR THE EXECUTION OF THE WORK.

INASMUCH AS THE PAINT SYSTEM OF THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTORS ATTENTION IS DIRECTED TO ARTICLE 107-1 OF THE STANDARD SPECIFICATIONS. ANY COST RESULTING FROM COMPLIANCE WITH APPLICABLE STATE OR FEDERAL REGULATIONS PERTAINING TO HANDLING OF MATERIALS CONTAINING LEAD BASED PAINT SHALL BE IN THE BID PRICE FOR THE VARIOUS ITEMS OF WORK.

THE CONTRACTOR TO PROVIDE BLOCKING FOR ALL JACKS AS NECESSARY. A BLOCKING PLAN SHALL BE SUBMITTED FOR ALL SPANS LIFTED FOR APPROVAL BY THE ENGINEER.

THE CONTRACTOR SHALL MONITOR THE PLAN LOCATION OF THE GIRDERS FROM INITIAL JACKING UNTIL GIRDERS ARE SECURED ON THEIR PERMANENT BEARINGS. IF THE PLAN LOCATION OF THESE GIRDERS SHIFT FROM ITS ORIGINAL POSITION, ALL WORK SHALL CEASE AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

PRIOR TO JACKING THE CONTRACTOR SHALL ENSURE THERE ARE NO OBSTACLES PREVENTING THE SPAN FROM BEING LIFTED.

PRIOR TO JACKING THE SPANS, LOCATE THE APPROXIMATE POSITION OF THE ANCHOR BOLT HOLES ON EACH CAP USING A PACHOMETER, CHECK THE CAP FOR MAIN REINFORCING STEEL INTERFERENCE WITH THE HOLES. IF NECESSARY, ADJUST THE HOLE LOCATIONS SLIGHTLY TO AVOID REINFORCING STEEL AND MARK THE LOCATIONS, DRILL THE HOLES AND CLEAN IN ACCORDANCE WITH THE SPECIAL PROVISION "ADHESIVELY ANCHORED ANCHOR BOLTS". CLEAN THE CAP OF DEBRIS.

SEE SPECIAL PROVISIONS FOR "SPAN JACKING".

REPAIR BEAMS, DIAPHRAGMS AND CONNECTOR PLATES AS INDICATED ON THE PLANS.

REPLACE BEARINGS AS INDICATED ON THE FRAMING PLAN.

WELDING SOLE PLATES AND ANCHOR BOLT INSTALLATION SHALL BE PERFORMED WITHIN 24 HOURS OF SPAN JACKING.

UPON REMOVAL OF EXISTING BEARINGS, CLEAN THE CAP AND REMOVE ANY EPOXY COATING FROM THE AREA WHERE THE NEW BEARING WILL REST.

GRIND SURFACES OF THE SOLE PLATES THAT HAVE BEEN GALVANIZED IN AND AROUND THE AREA OF THE PLATE THAT IS TO BE WELDED.

SOLE PLATE WELDS SHALL BE MADE IN ONE PASS USING A MAXIMUM 1/8" ELECTRODE, AND THEN ALLOWED TO COOL BEFORE MAKING ANOTHER PASS. APPLY TWO COATS OF ZINC-RICH PAINT TO THE WELDED AREAS AND ANY DAMAGED AREAS IN ACCORDANCE WITH THE SPECIFICATION.

INSTALL BOLTS USING APPROVED ADHESIVE BONDING AGENT.

REAPPLY EPOXY COATING TO CAP IF, AFTER THE BEARING IS INSTALLED, UNCOATED PORTIONS OF THE CAP AREA AROUND THE BEARING ARE EXPOSED OR PORTIONS OF THE EXISTING EPOXY ARE DAMAGED.

SEE SPECIAL PROVISIONS FOR "REPLACEMENT OF BRIDGE BEARINGS."

ALL WORK SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL SUBMIT PLANS FOR REMOVAL AND REPAIR IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

ALL WELDING TO BE DONE IN ACCORDANCE WITH THE AWS "BRIDGE WELDING CODE".

INSPECTION OF WELDS WILL BE PERFORMED BY NCDOT.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISION.

ALL FIELD CONNECTIONS TO BE 7/8" Ø HIGH STRENGTH BOLTS U.N.O.

TENSION ON THE AASHTO M164 BOLTS SHALL BE CALIBRATED USING DIRECT TENSION INDICATOR WASHERS IN ACCORDANCE WITH ARTICLE 440-8 OF THE STANDARD SPECIFICATIONS, FOR DIRECT TENSION INDICATORS, SEE SPECIAL PROVISIONS.

FOR HIGH STRENGTH BOLTS SEE SPECIAL PROVISIONS.

THE COST OF LABOR, MATERIALS, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO REMOVE THE EXISTING DIAPHRAGMS, CONNECTOR PLATES, PORTIONS OF CONNECTOR PLATES, AND ANY MISCELLANEOUS STEEL SHALL BE INCLUDED IN THE BID PRICE FOR "DIAPHRAGM MODIFICATION".

CLEAN AND PAINT STRUCTURAL STEEL AFTER ALL REPAIRS ARE MADE.

FOR PAINTING EXISTING STRUCTURAL STEEL SEE "PAINTING EXISTING STRUCTURES" SPECIAL PROVISIONS.

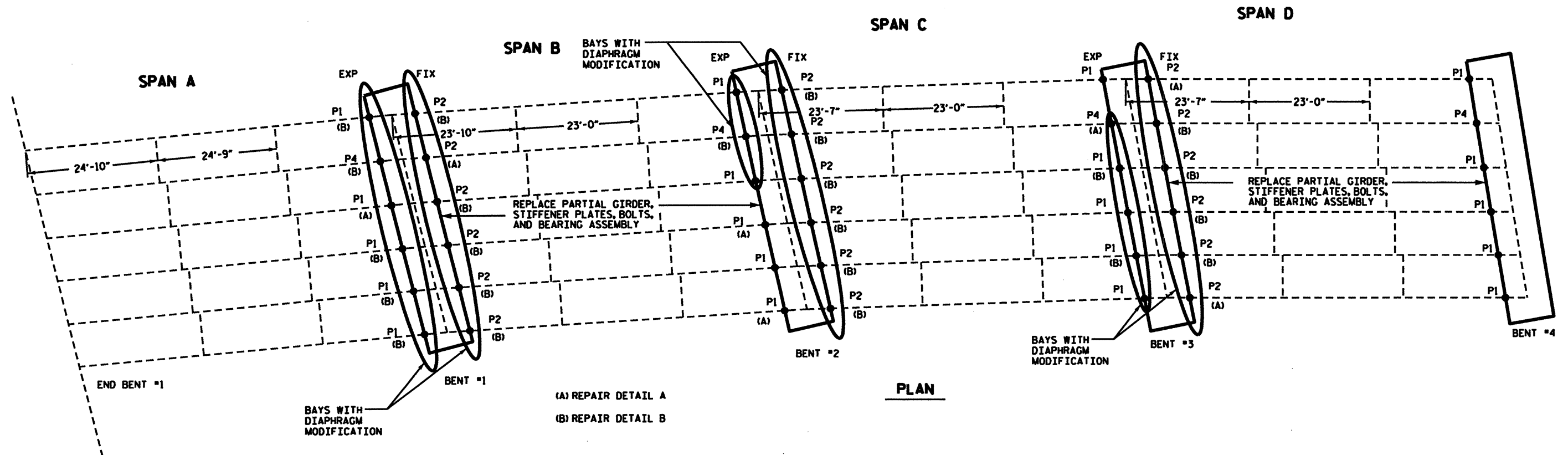
PROJECT NO. BP-5300D
 COUNTY: EDGEcombe
 STATION: _____
 BRIDGE NO. 104

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 TYPICAL SECTION
 BRIDGE OVER TAR
 RIVER ON US 64 BETWEEN
 US 258/NC 44 & NC 33

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

S2
TOTAL SHEETS

DRAWN BY: MW/RW DATE: 1/11
 CHECKED BY: AGA DATE: 1/11



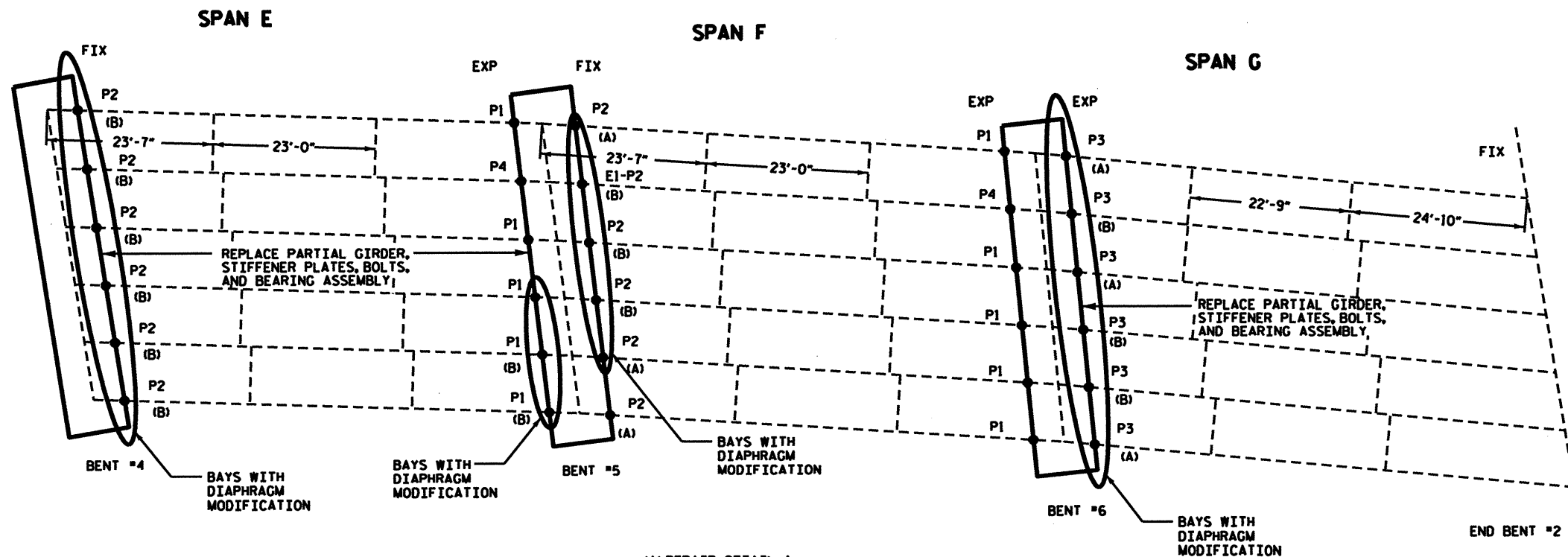
REPAIR DETAIL A (MATERIALS FOR 1 REPAIR, 12 REPAIRS REQUIRED) * NO BEARING STIFFENERS ARE REQUIRED ON OUTSIDE OF EXTERIOR BEAMS *		
REMOVAL	REMOVE BEARING STIFFENERS CUT ANCHOR BOLTS REMOVE BEARING PLATES	INCIDENTAL
REPLACE BEARING PLATES WITH ELASTOMERIC BEARING PAD & SOLE PLATE, REPLACE ANCHOR BOLTS	2-1 1/4" X 25" ANCHOR BOLTS 1-ELASTOMERIC BEARING PAD	38 LBS. 1 EA.
REPLACE BEARING STIFFENERS, PLATE OVER DETERIORATED SECTIONS, REPLACE DIAPHRAGM BOLTS AND NUTS.	1 OR 2-BEARING STIFFENERS 2-L4X4X 3/8" ANGLE 2- 3/8" WEB PLATES CUT TO FIT 4- 7/8" H.S. BOLT w/NUT	20 OR 40 LBS. 70 LBS.(AVG.) 54 LBS.(AVG.) 4 LBS.

REPAIR DETAIL B (MATERIALS FOR 1 REPAIR, 37 REPAIRS REQUIRED) * NO BEARING STIFFENERS ARE REQUIRED ON OUTSIDE OF EXTERIOR BEAMS *		
REMOVAL	REMOVE BENT DIAPHRAGMS CUT BEARING STIFFENERS REMOVE ANCHOR BOLTS REMOVE BEARING PLATES	INCIDENTAL
REPLACE BEARING PLATES WITH ELASTOMERIC BEARING PAD & SOLE PLATE, REPLACE ANCHOR BOLTS.	2-1 1/2" X 25" ANCHOR BOLTS 1-ELASTOMERIC BEARING PAD	38 LBS. 1 EA.
REPLACE BEARING STIFFENERS, CUT OUT DETERIORATED SECTIONS AND REPLACE STEEL SECTION, REPLACE DIAPHRAGM BOLTS AND NUTS.	2-BEARING STIFFENERS 1 STEEL SECTION 14- 7/8" H.S. BOLT w/NUT	40 LBS. 244 LBS.(AVG.) 14 LBS.

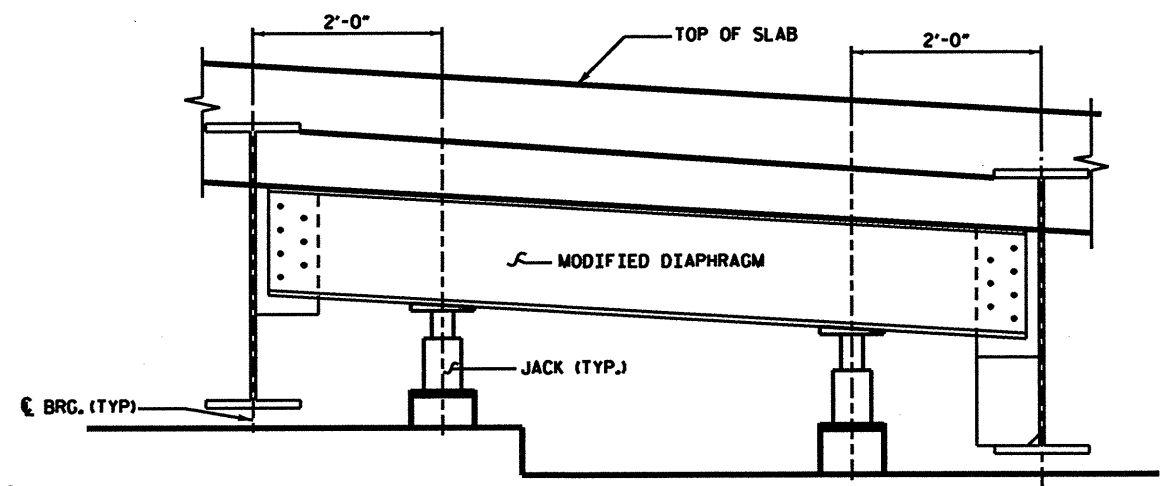
PROJECT NO. BP-5300D
 COUNTY: EDGECOMBE
 STATION: _____
 BRIDGE NO. 104

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION					
Raleigh					
FRAMING PLAN FOR OVER TAR RIVER ON US 64 BETWEEN US 258/NC 44 & NC 33					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
2			4		
					S3

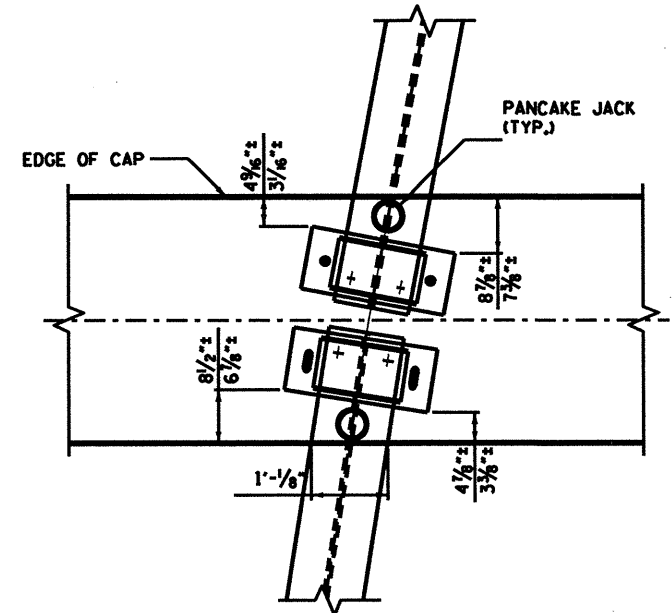
DRAWN BY: MW DATE: 1/11
 CHECKED BY: AGA DATE: 1/11



(A) REPAIR DETAIL A
 (B) REPAIR DETAIL B



TYPICAL DIAPHRAGM JACKING DETAIL
 (BEARING NOT SHOWN FOR CLARITY)



TYPICAL BEAM JACKING DETAIL
 (FOR BAYS WITHOUT REPAIR DETAIL B)

PROJECT NO. BP-5300D
 COUNTY: EDGECOMBE
 STATION: _____
 BRIDGE NO. 104

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
 FOR
 OVER TAR RIVER ON
 US 64 BETWEEN
 US 258/NC 44 & NC 33

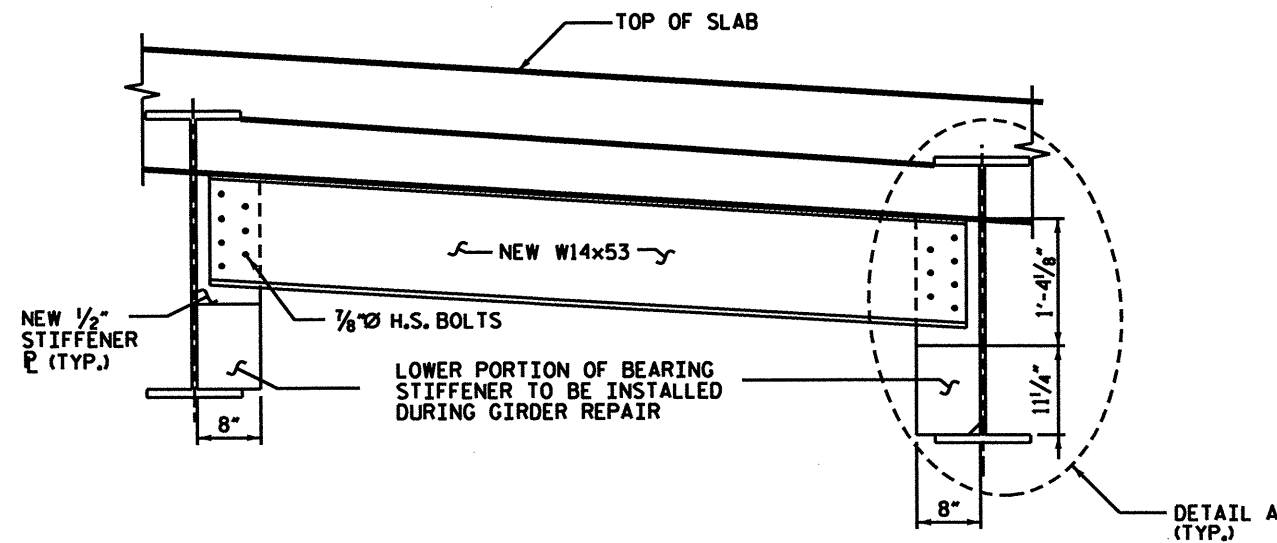
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S4

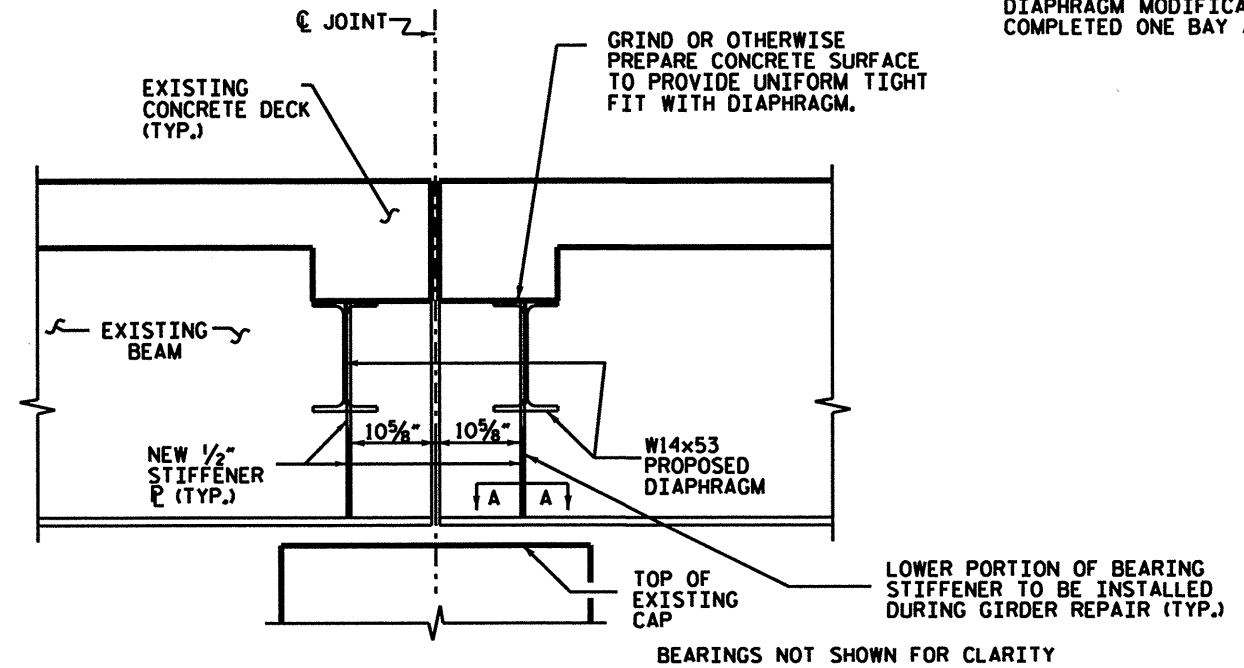
DRAWN BY: MW DATE: 1/11
 CHECKED BY: AGA DATE: 1/11

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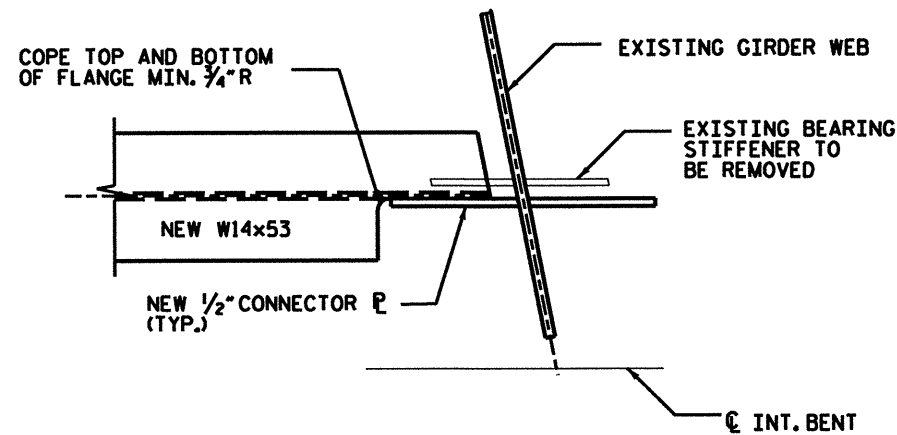
DIAPHRAGM STEEL SHALL BE GRADE 50
 DIAPHRAGM MODIFICATION TO BE COMPLETED ONE BAY AT A TIME



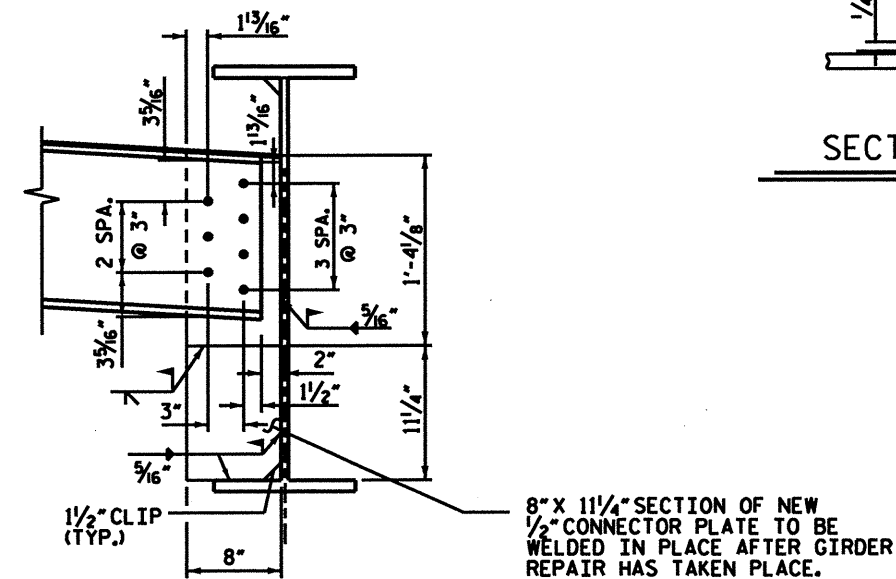
PROPOSED DIAPHRAGM REPLACEMENT
 ON BAYS WITH REPAIR DETAIL B



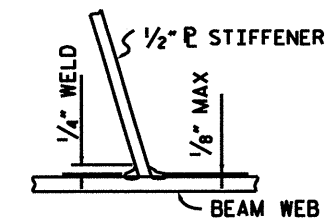
SECTION THRU DIAPHRAGM



COPING DETAIL
 FOR NEW W14x53 DIAPHRAGM



DETAIL A



SECTION A A

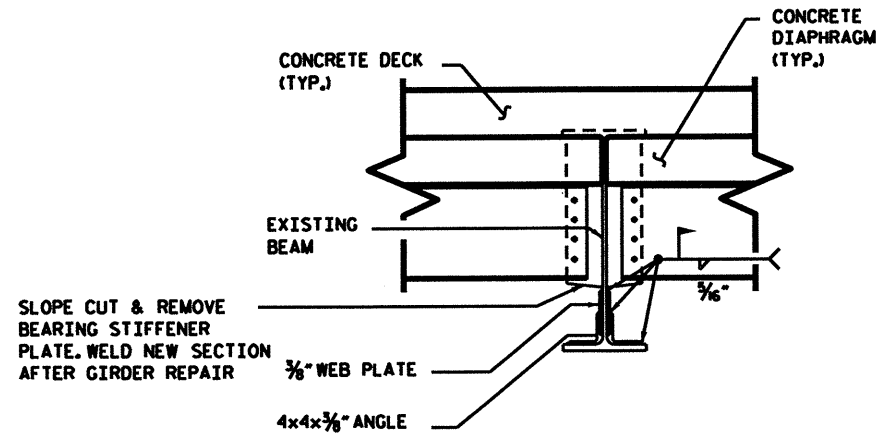
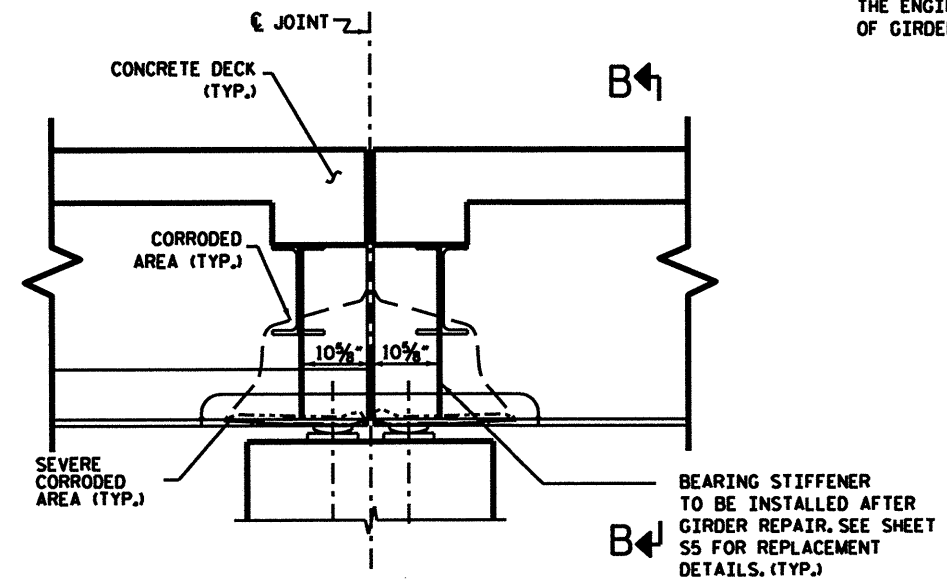
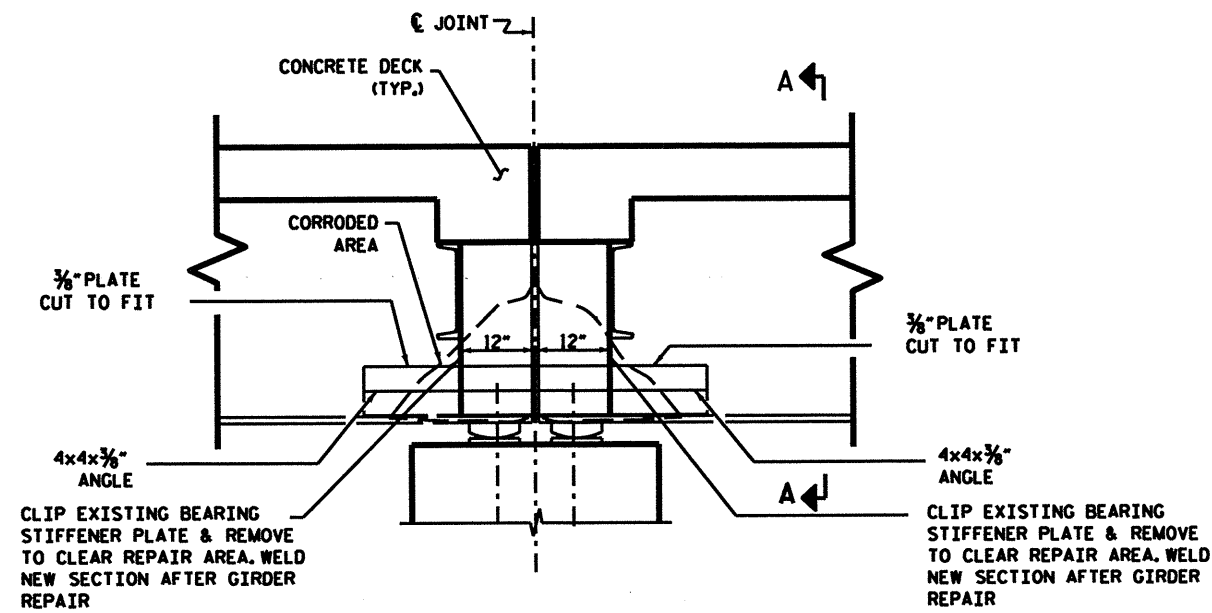
PROJECT NO. BP-5300D
 COUNTY: EDGECOMBE
 STATION: _____
 BRIDGE NO. 104

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RAILROAD
**DIAPHRAGM
 MODIFICATION
 & STIFFENER
 REPLACEMENT
 DETAILS**

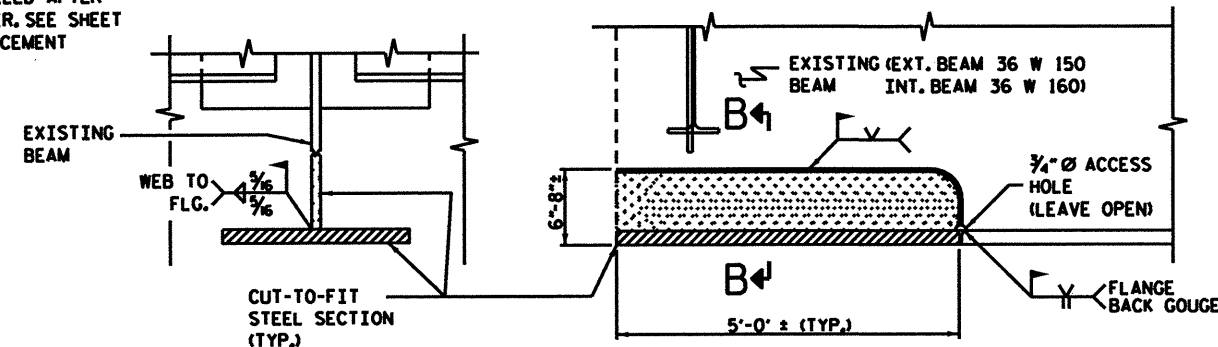
REVISIONS						DATE
NO.	BY	DATE	NO.	BY	DATE	
1			3			
2			4			

DRAWN BY: AGA DATE: 02/18/11
 CHECKED BY: MJW DATE: 02/24/11

NOTES
 THE ENGINEER SHALL DETERMINE THE EXTENT OF GIRDER REPAIR.



BEARING STIFFENER TO BE INSTALLED AFTER GIRDER REPAIR. SEE SHEET S5 FOR REPLACEMENT DETAILS.



NOTE: LOWER PART OF BEARING STIFFENER TO BE INSTALLED AFTER GIRDER REPAIR. SEE SHEET S5 FOR REPLACEMENT DETAILS.

REPAIR SEQUENCE

- 1) CUT & REMOVE EXISTING DIAPHRAGM CONNECTOR PLATE. ANGLE THE CUT TO THE EXTENT POSSIBLE.
- 2) MECHANICALLY CLEAN RUST & SCALE & EXISTING PAINT TO AT LEAST 4" BEYOND THE REPAIR AREA LIMITS.
- 3) DETERMINE WEB PLATE SIZE & LENGTH OF FLANGE REPAIR ANGLES NEEDED TO REPAIR SECTION LOSS.
- 4) INSTALL WEB PLATES & FULLY WELD ALONG TOP & SIDES OF PLATE.
- 5) INSTALL ANGLES 7 FULLY WELD ALONG EDGES.

REPAIR SEQUENCE

- 1) REPLACE EXISTING DIAPHRAGM AND DIAPHRAGM CONNECTOR PLATE AS SHOWN IN THE DIAPHRAGM MODIFICATION DETAIL SHEET.
- 2) MECHANICALLY CLEAN RUST & SCALE & EXISTING PAINT TO AT LEAST 4" BEYOND THE REPAIR AREA LIMITS.
- 3) CUT OUT SECTION TO BE REPAIRED.
- 4) REPLACE STEEL SECTION WITH A WEB AND FLANGE PLATE
- 5) INSTALL CUT-TO-FIT SECTION & FULLY WELD ALONG TOP & SIDES OF PLATE.
- 6) LOWER SPAN TO BEAR. CHECK FOR DISTRESS.
- 7) REMOVE JACKING EQUIPMENT AND OTHER TEMPORARY SUPPORTS.

REPAIR DETAIL A
 (MODERATE SECTION LOSS)

REPAIR DETAIL B
 (SEVERE SECTION LOSS)

PROJECT NO. BP-5300D
 COUNTY: EDGEcombe
 STATION: _____
 BRIDGE NO. 104

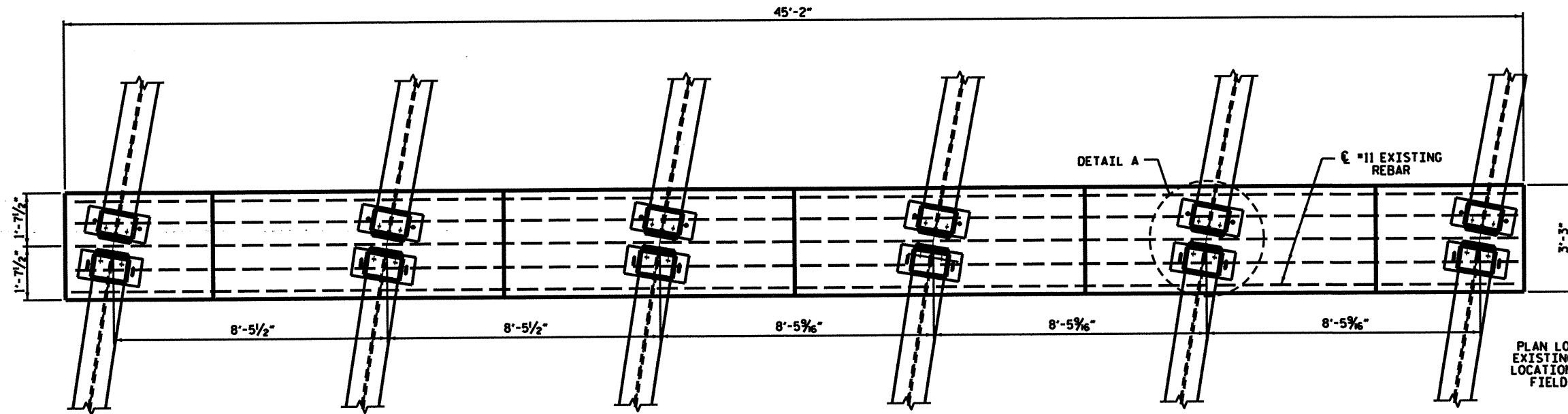
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALPH

GIRDER REPAIR DETAILS

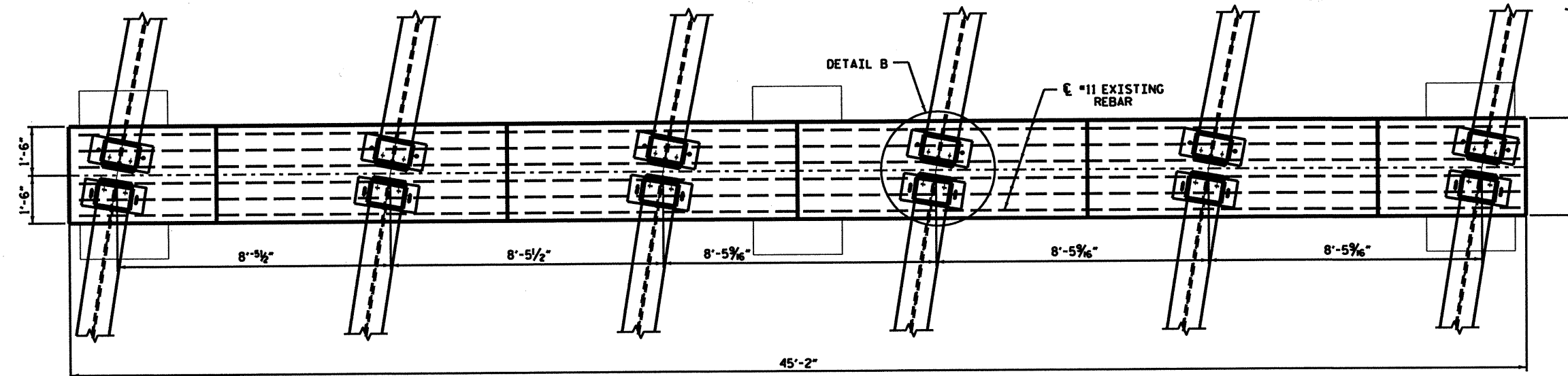
REVISIONS						DATE
NO.	BY	DATE	NO.	BY	DATE	
1			3			
2			4			

S6

DRAWN BY: MW/RW DATE: 11/10
 CHECKED BY: AGA DATE: 11/10



PLAN OF BENTS: 1,5,&6



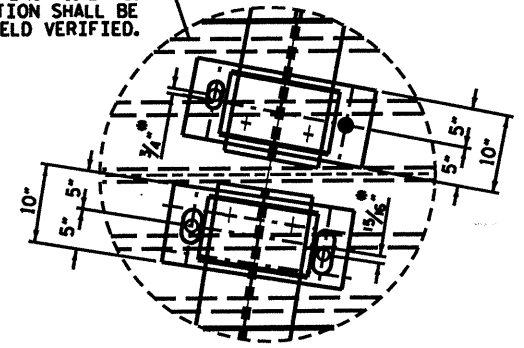
PLAN OF BENTS: 2,3,&4

NOTES:

FIXED BEARINGS:

1. WELD 2nd PLATE THAT HAS HOLE 1/8" LARGER ON TOP OF SLOTTED FIXED SOLE PLATE
2. ANCHOR BOLT MAYBE OFFSET FROM Ø TO CLEAR REINFORCEMENT, APPROXIMATE LOCATIONS ARE SHOWN. CONTRACTOR SHALL FIELD VERIFY LOCATIONS USING A PACHOMETER.

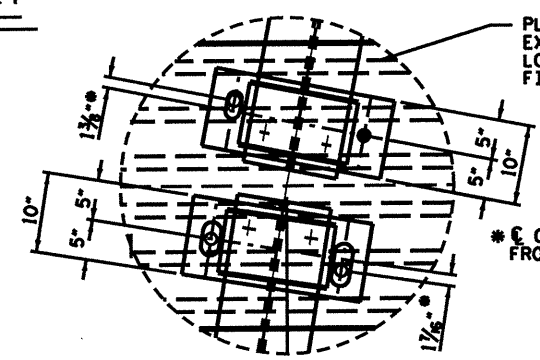
PLAN LOCATION OF EXISTING #11 BARS. LOCATION SHALL BE FIELD VERIFIED.



DETAIL A

* Ø OF BOLT OFFSET FROM Ø BEARING

PLAN LOCATION OF EXISTING #11 BARS. LOCATION SHALL BE FIELD VERIFIED.



* Ø OF BOLT OFFSET FROM Ø BEARING

DETAIL B

PROJECT NO. BP-5300D
 COUNTY: EDGECOMBE
 STATION: _____
 BRIDGE NO. 104

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
BEARING REPLACEMENT FOR INTERIOR BENTS					
SHEET NO. S7					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			2		
2			3		

DRAWN BY: MW DATE: 1/11
 CHECKED BY: AGA DATE: 1/11

NOTES

AT ALL FIXED POINTS OF SUPPORT, NUTS FOR ANCHOR BOLTS ARE TO BE TIGHTENED FINGER TIGHT AND THEN BACKED OFF 1 TURN. THE THREAD OF THE NUT AND BOLT SHALL THEN BE BURRED WITH A SHARP POINTED TOOL.

THE 1 3/4" Ø PIPE SLEEVE SHALL BE CUT FROM SCHEDULE 40 PVC PLASTIC PIPE. THE PVC PLASTIC PIPE SHALL MEET THE REQUIREMENTS OF ASTM D1785.

ANCHOR BOLT LENGTHS HAVE BEEN ASSUMED ON THE BASIS OF A 18" MINIMUM EMBEDMENT IN EXISTING CONCRETE CAPS. THIS EMBEDMENT REQUIREMENT MAY BE REDUCED TO BE IN COMPLIANCE WITH MINIMUM EMBEDMENT SPECIFIED BY THE MANUFACTURER OF THE EPOXY ADHESIVE BONDING SYSTEM.

SOLE PLATES, ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF ASTM A449. NUTS SHALL MEET THE REQUIREMENTS OF AASHTO M291-DH OR AASHTO M292-2H. WASHERS SHALL MEET THE REQUIREMENTS OF AASHTO M293. SHOP DRAWINGS ARE NOT REQUIRED FOR ANCHOR BOLTS, NUTS AND WASHERS. SHOP INSPECTION IS REQUIRED.

WHEN FIELD WELDING THE SOLE PLATE TO THE GIRDER FLANGE, USE TEMPERATURE INDICATING WAX PENS, OR OTHER SUITABLE MEANS, TO ENSURE THAT THE TEMPERATURE OF THE SOLE PLATE DOES NOT EXCEED 300°F. TEMPERATURES ABOVE THIS MAY DAMAGE THE ELASTOMER.

ALL SURFACES OF BEARING PLATES SHALL BE SMOOTH AND STRAIGHT.

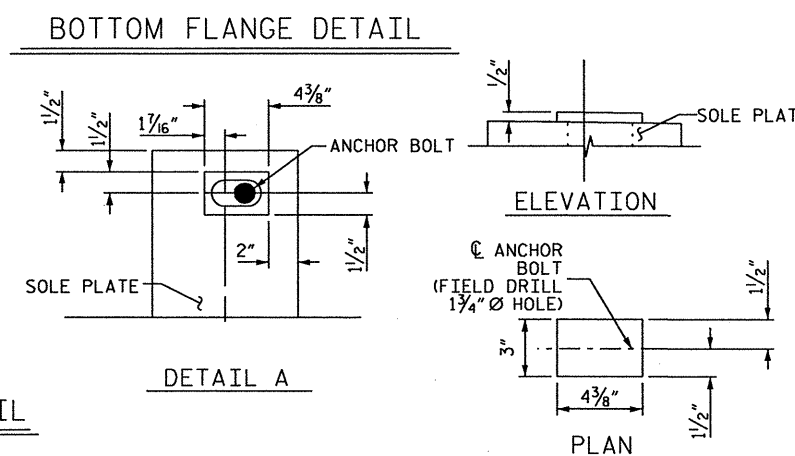
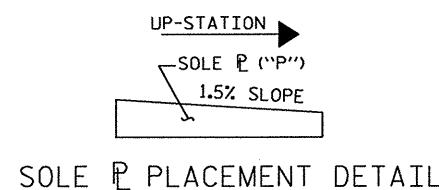
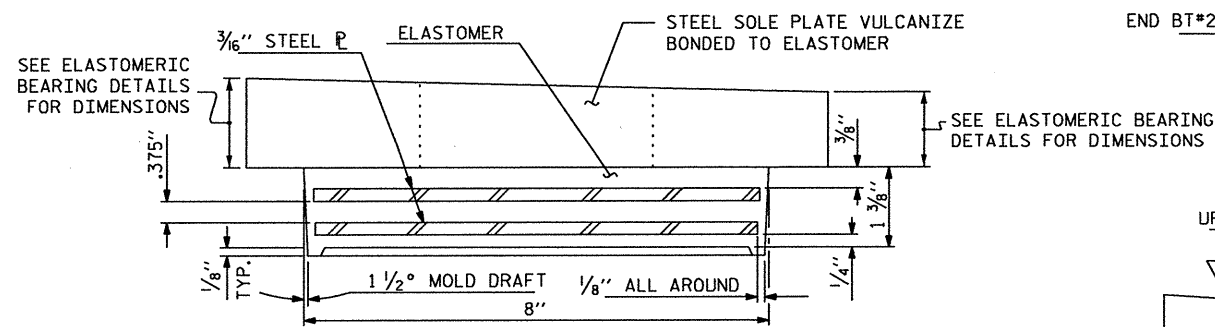
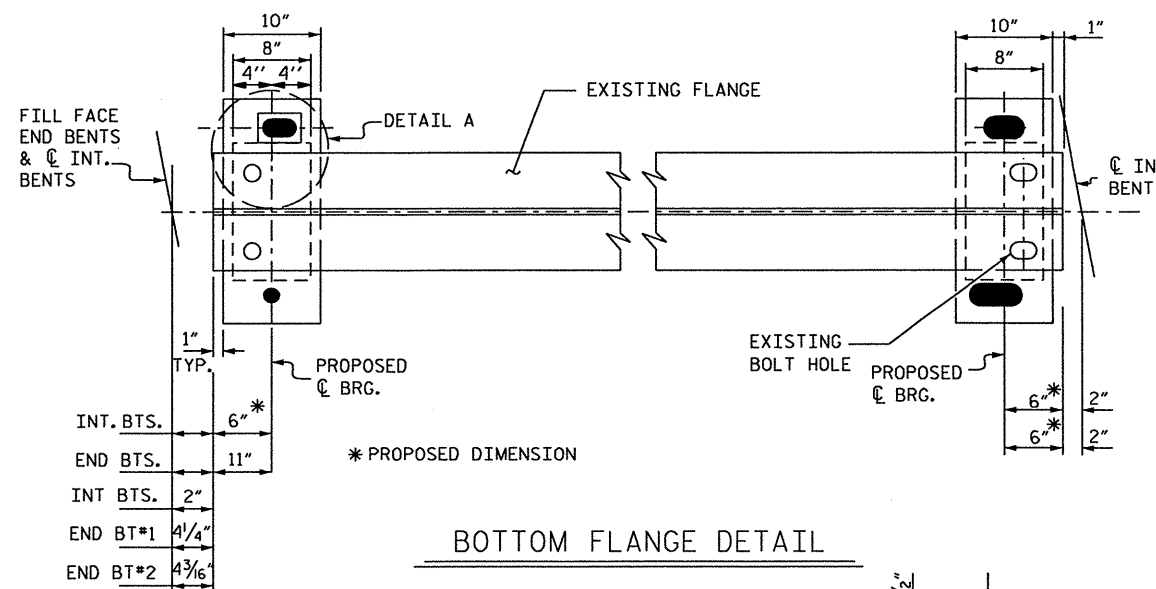
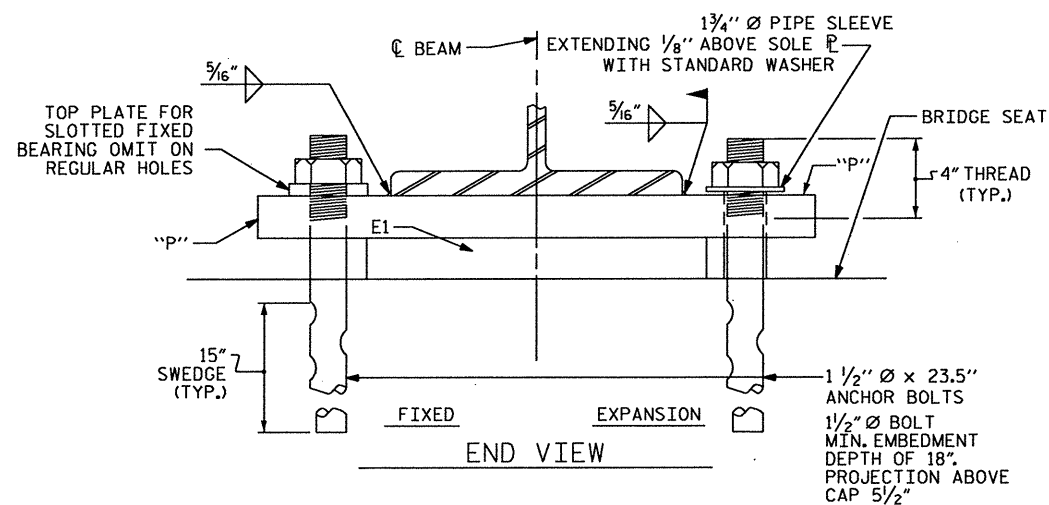
ELASTOMER IN ALL BEARINGS SHALL BE 60 DUROMETER HARDNESS.

FIXED BEARINGS:

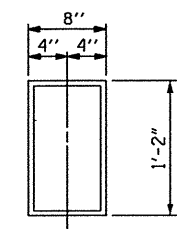
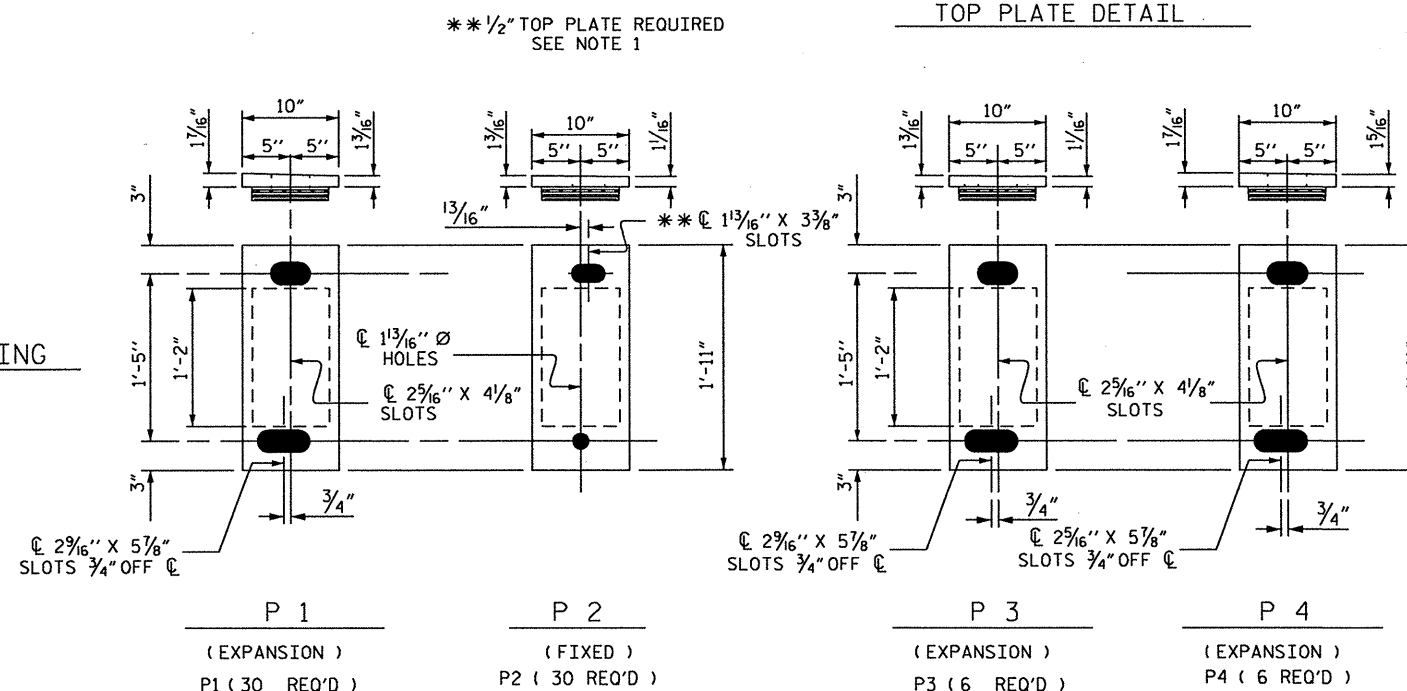
1. SLOT PLATE THEN WELD 1/2" PLATE WITH 1 3/4" Ø HOLE ON TOP. SEE DETAIL A.
2. ANCHOR BOLT MAY BE OFFSET FROM C TO CLEAR REINFORCEMENT.

EXPANSION BEARINGS:

1. LONGER SLOTS ARE USED TO ALLOW OFFSETTING ANCHOR BOLT FROM C.



TOP PLATE DETAIL



PLAN VIEW OF ELASTOMERIC BEARING TO BE VULCANIZED TO SOLE PLATE

LOAD RATINGS	
TYPE	MAX.D.L.+L.L.
TYPE I	94 K

ELASTOMETRIC BEARING DETAILS (\"/>

PROJECT NO. BP-5300D
 COUNTY: EDGEcombe
 STATION: _____
 BRIDGE NO: 104

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
ELASTOMETRIC BEARING DETAILS (STEEL SUPERSTRUCTURE)					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					S8

WBS 45438.1.1

PROJECT: BP-5300D

3/17/2011
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gcarageorge

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
TRAFFIC CONTROL

EDGECOMBE, FRANKLIN, NASH COUNTIES

LOCATION: EDGECOMBE CO. BRIDGE NO. 104., FRANKLIN CO. BRIDGE NO. 11
AND NASH CO. BRIDGE NO.S 154 & 169

TYPE OF WORK: TRAFFIC CONTROL FOR BRIDGE PAINTING

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

LEGEND

- GENERAL**
- DIRECTION OF TRAFFIC FLOW
 - NORTH ARROW
 - WORK AREA

TRAFFIC CONTROL DEVICES

- TYPE III BARRICADE
- CONE
- DRUM SKINNY DRUM
- FLASHING ARROW PANEL (TYPE C)
- STATIONARY SIGN
- PORTABLE SIGN
- STATIONARY OR PORTABLE SIGN
- PORTABLE CONCRETE BARRIER
- TEMPORARY CRASH CUSHION
- CHANGEABLE MESSAGE SIGN
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- LAW ENFORCEMENT
- FLAGGER

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARD DRAWINGS 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:

STD. NO.	TITLE
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW PANELS
1130.01	DRUMS
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	TRUCK MOUNTED IMPACT ATTENUATOR

INDEX OF SHEETS

SHEET NO.	TITLE
TCP-1	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, & INDEX OF SHEETS
TCP-2	GENERAL NOTES
TCP-3	TRAFFIC CONTROL PHASING
TCP-4	NASH CO. BRIDGE #169 - US 64 WEST ROAD CLOSURE-TRAFFIC DETOURED VIA COLLECTOR
TCP-5	NASH CO. BRIDGE #169 - US 64 WEST CLOSURE OF COLLECTOR & DETOUR ROUTE
TCP-5A	NASH CO. BRIDGE #169 - US 64 WEST COLLECTOR OPTION 2-TRAFFIC ROUTED ACROSS DEPRESSED PAVED MEDIAN
TCP-6, 6A, 6B	NASH CO. BRIDGE #169 - US 64 EAST ROAD CLOSURE-TRAFFIC DETOURED VIA COLLECTOR
TCP-7	NASH CO. BRIDGE #169 - US 64 EAST CLOSURE OF COLLECTOR
TCP-7A	NASH CO. BRIDGE #169 - US 64 EAST DETOUR ROUTE FOR CLOSURE OF COLLECTOR
TCP-7B	NASH CO. BRIDGE #169 - US 64 EAST COLLECTOR OPTION 2-TRAFFIC ROUTED ACROSS DEPRESSED PAVED MEDIAN
TCP-8	SINGLE LANE CLOSURES
TCP-9	LEFT LANE CLOSURE WITH SHIFT

APPROVED: DATE: 3/17/11

PLAN PREPARED BY: STANTEC

BETSY L. WATSON, PE TRAFFIC CONTROL ENGINEER

GEORGE KARAGEORGE TRAFFIC CONTROL DESIGNER

Stantec Consulting Services Inc.
Suite 300, 801 Jones Franklin Road
Raleigh, NC
27606
Tel. 919.851.6886
Fax. 919.851.7024
www.stantec.com



GENERAL NOTES

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

LANE CLOSURE TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
US 64 AT NASH CO. BRIDGE #154 & NASH CO. BRIDGE #169	6:00 A.M.-7:00 P.M. MONDAY THRU SUNDAY(EVERY DAY)
US 64 AT EDGEcombe CO. BRIDGE #104 & FRANKLIN CO. BRIDGE #11	6:00 A.M.-9:00 A.M. MONDAY THRU FRIDAY 4:00 P.M.-7:00 P.M. MONDAY THRU FRIDAY

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

ROAD NAME
US 64

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.
- 9) FOR ANY SPECIAL EVENTS SUCH AS SPORTING EVENTS, FESTIVALS, ETC., AS DIRECTED BY THE ENGINEER. ALL LANE CLOSURES AND LANE CLOSURE TIME SCHEDULES MUST BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTING.

C) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
US 64 & COLLECTORS	6:00 A.M.-7:00 P.M. MONDAY-SUNDAY

LANE AND SHOULDER CLOSURE REQUIREMENTS

- D) 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.
- E) INSTALL ALL LANE CLOSURES ACCORDING TO THE TRAFFIC CONTROL PLAN, ROADWAY STANDARD DRAWINGS (1101.02), OR AS DIRECTED BY THE ENGINEER.
- 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) 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.
- H) 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.
- I) 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.
- J) 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.


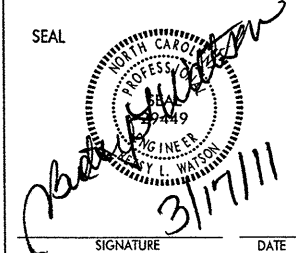

ROAD CLOSURES

- K) PROVIDE SIGNING AND DEVICES FOR ROAD CLOSURES ACCORDING TO THE TRAFFIC CONTROL PLAN. COVER OR REMOVE ALL SIGNS AND DEVICES FOR ROAD CLOSURES WHEN NOT IN EFFECT.
- L) PROVIDE OFFSITE DETOUR ROUTE SIGNING AS SHOWN IN THE TRAFFIC CONTROL PLANS. COVER OR REMOVE OFFSITE DETOUR SIGNING WHEN THE DETOUR IS NOT IN OPERATION.
- M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- N) WHEN CLOSING A ROADWAY OR DRIVEWAY PLACE TYPE III BARRICADES COMPLETELY ACROSS THE ROADWAY OR FROM CURB TO CURB. ATTACH BARRICADE MOUNTED "ROAD CLOSED" SIGN R11-2 AT ALL CLOSURE LOCATIONS.
- O) INSTALL SIGNS BEFORE BARRICADES WHEN CLOSING A ROADWAY TO TRAFFIC. REMOVE BARRICADES BEFORE SIGNS WHEN OPENING A ROADWAY TO TRAFFIC. INSTALL/REMOVE ROAD CLOSURE SIGNS AND BARRICADES IN A CONTINUOUS OPERATION AND WITHIN THE SAME CALENDAR DAY.

MISCELLANEOUS

- P) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AS DIRECTED BY THE ENGINEER. LOCATIONS SHOWN IN THE PLANS ARE APPROXIMATE AND MAY BE REVISED AS THE OFFICER OR THE ENGINEER DEEM NECESSARY.
- Q) ALL DIMENSIONS AND STATIONS IN THE TRAFFIC CONTROL PLAN AND PHASING ARE APPROXIMATE (+/-); FIELD ADJUST AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
- R) ENSURE THE OVERSIZE/OVERWEIGHT PERMIT UNIT (919) 733-4740 HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.
- S) DO NOT CONDUCT WORK OPERATIONS FROM THE TOP OF ANY STRUCTURE EXCEPT WHEN ALLOWED BY THE PLAN AND AT THE DISCRETION OF THE ENGINEER.

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 Stantec <small>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</small>	SEAL  SIGNATURE: <i>Gregory L. Watson</i> DATE: 3/17/11	<h2 style="margin: 0;">GENERAL NOTES</h2> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">SCALE: NONE</td> <td style="width: 40%;"></td> <td style="width: 30%; text-align: center;">REVISIONS</td> </tr> <tr> <td>DATE: MAR. 2011</td> <td></td> <td></td> </tr> <tr> <td>DWG. BY: GK</td> <td></td> <td></td> </tr> <tr> <td>DESIGN BY: GK</td> <td></td> <td></td> </tr> <tr> <td>REVIEWED BY: BLW</td> <td></td> <td></td> </tr> </table> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;">  <table border="1" style="width: 50%; border-collapse: collapse;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table> </div>	SCALE: NONE		REVISIONS	DATE: MAR. 2011			DWG. BY: GK			DESIGN BY: GK			REVIEWED BY: BLW						
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PROJECT REFERENCE NO.	SHEET NO.
BP-5300D	TCP-3

TRAFFIC CONTROL PHASING

PERFORM ALL BRIDGE PAINTING WORK USING LANE CLOSURES OR ROAD CLOSURES AS OUTLINED BELOW AND AS DIRECTED BY THE ENGINEER.

EDGEcombe CO. BRIDGE #104

ON US 64, USE ONLY LEFT LANE CLOSURES FOR EQUIPMENT SETUP AND STAGING ONLY, PER SHEET TCP-8. ALL PAINTING OPERATIONS TO BE PERFORMED FROM UNDER BRIDGE.

FRANKLIN CO. BRIDGE #11

ON US 64, USE LEFT LANE CLOSURES WITH SHIFTS AS SHOWN ON SHEET TCP-9.

NASH CO. BRIDGE #154 & #169

DO NOT WORK ON NASH CO. BRIDGE #154 AND #169 AT THE SAME TIME.

NASH CO. BRIDGE 154

ON US 64, USE LEFT LANE CLOSURES WITH SHIFTS AS SHOWN ON SHEET TCP-9.

NASH CO. BRIDGE 169

US 64 WEST
WHEN PAINTING OVER US 64 WESTBOUND THRU LANES CLOSE US 64 WEST AND DETOUR TRAFFIC VIA THE COLLECTOR RAMP AS SHOWN ON SHEET TCP-4.

US 64 WEST COLLECTOR
WHEN PAINTING OVER US 64 WESTBOUND COLLECTOR RAMP CLOSE THE RAMP AND DETOUR TRAFFIC VIA THE NEXT INTERCHANGE AT OLD CARRIAGE RD. AS SHOWN ON SHEET TCP-5. DO NOT CLOSE THE EASTBOUND AND WESTBOUND COLLECTORS AT THE SAME TIME.




US 64 WEST COLLECTOR OPTION 2
US 64 EAST COLLECTOR TRAFFIC MAY BE ROUTED ACROSS THE DEPRESSED PAVED MEDIAN AS SHOWN ON SHEET TCP-5A. THIS METHOD MAY ONLY BE IMPLEMENTED IF APPROVED BY THE ENGINEER UPON ASSESSMENT OF THE PAVEMENT CONDITION.

US 64 EAST
WHEN PAINTING OVER US 64 EASTBOUND THRU LANES CLOSE US 64 EAST AND DETOUR TRAFFIC VIA THE COLLECTOR RAMP AS SHOWN ON SHEET TCP-6, 6A, 6B.

US 64 EAST COLLECTOR
WHEN PAINTING OVER US 64 EASTBOUND COLLECTOR RAMP CLOSE THE RAMP FROM I-95 NB AND FROM I-95 SB AND DETOUR TRAFFIC VIA THE NEXT INTERCHANGE AT OLD CARRIAGE RD. AS SHOWN ON SHEETS TCP-7 & 7A. DO NOT CLOSE THE EASTBOUND AND WESTBOUND COLLECTORS AT THE SAME TIME.

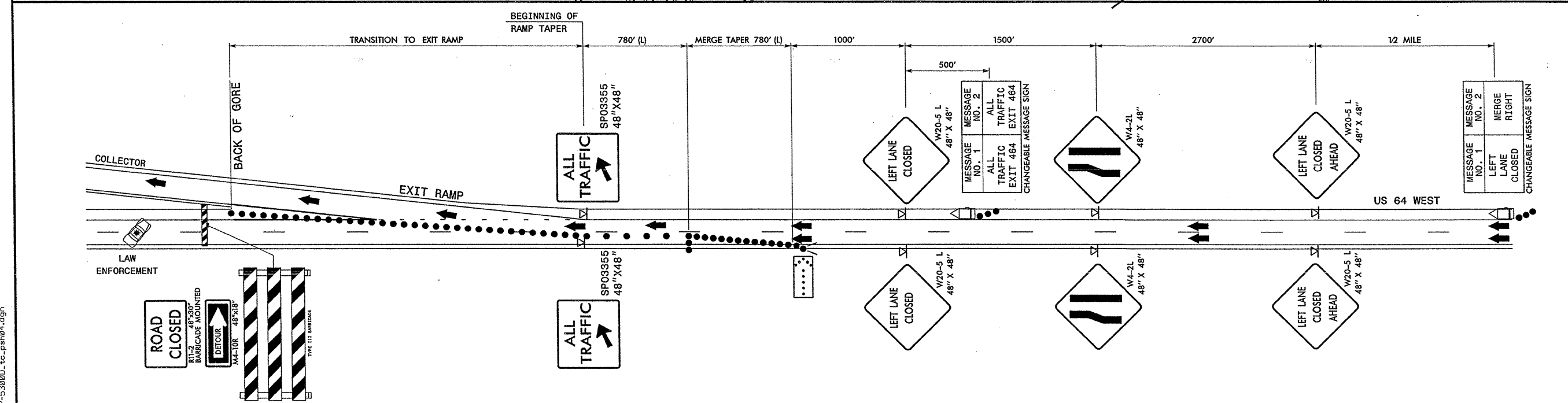
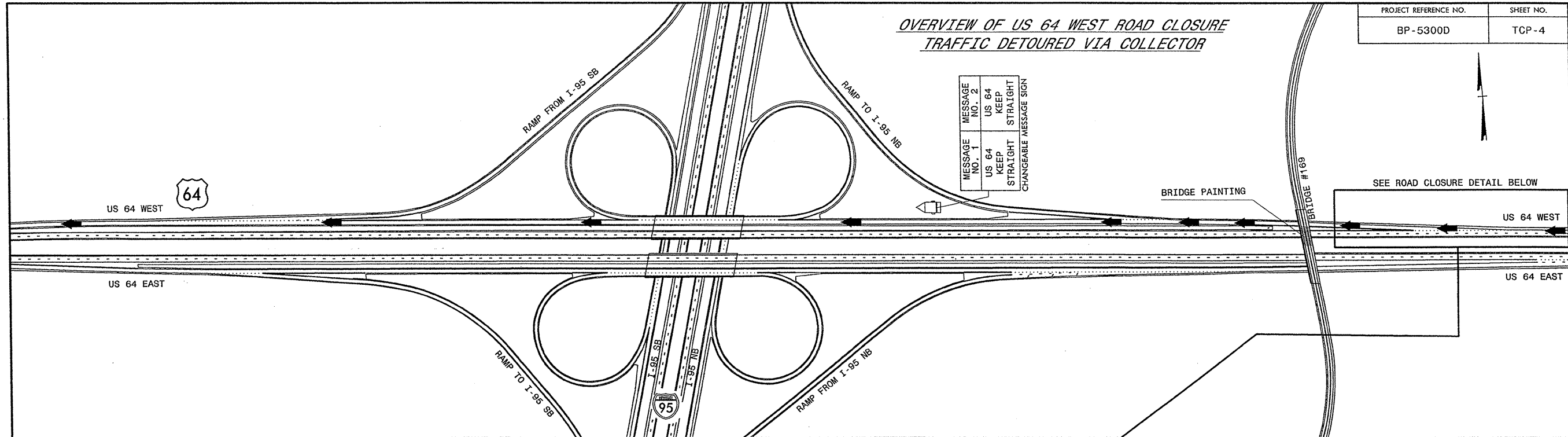
US 64 EAST COLLECTOR OPTION 2
US 64 EAST COLLECTOR TRAFFIC MAY BE ROUTED ACROSS THE DEPRESSED PAVED MEDIAN AS SHOWN ON SHEET TCP-7B. THIS METHOD MAY ONLY BE IMPLEMENTED IF APPROVED BY THE ENGINEER UPON ASSESSMENT OF THE PAVEMENT CONDITION.

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gkars@stantec.com

 Stantec Stantec Consulting Services Inc. 801 Jones Franklin Road Suite 300 Raleigh, NC 27606 Tel. (919) 851-8866 Fax. (919) 851-7024 www.stantec.com License No. F-0672	SEAL  <i>Gregory L. Watson</i> 3/17/11 SIGNATURE	TRAFFIC CONTROL PHASING SCALE: NONE DATE: MAR. 2011 DWG. BY: GK DESIGN BY: GK REVIEWED BY: BLW	REVISIONS <table border="1"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>								
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OVERVIEW OF US 64 WEST ROAD CLOSURE
TRAFFIC DETOURED VIA COLLECTOR

PROJECT REFERENCE NO.	SHEET NO.
BP-5300D	TCP-4



NOTES

- 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.
- 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.
- PLACE ARROW PANELS ON THE ROADWAY SHOULDER. IF SHOULDERS DO NOT EXIST, PLACE ARROW PANELS WITHIN THE MERGE TAPER BEHIND THE CHANNELIZING DEVICES OF THE LANE CLOSURE. IF NEEDED, EXTEND LANE CLOSURES TO PROVIDE STOPPING SIGHT DISTANCE TO THE ARROW PANEL (REFER TO ROADWAY STANDARD DRAWING 1101.11 SHEET 2).
- PLACE LANE CLOSURE DRUMS IN TAPERS AT A MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT (MPH). ALONG BUFFER SPACES AND WORK AREAS SPACE DRUMS AT A MAXIMUM SPACING EQUAL IN FEET TO TWICE THE POSTED SPEED LIMIT (MPH). IN ALL CASES, CHANNELIZING DEVICES ARE TO BE SPACED IN SUCH A MANNER AS TO POSITIVELY ACHIEVE THE INTENDED VISUAL CHANNELIZATION. CHANNELIZING DEVICES SHOULD BE LATERALLY OFFSET 3 FT INSIDE THE CLOSED LANE AS ROOM PERMITS.
- CHANGEABLE MESSAGE SIGN MESSAGES SHOWN ARE EXAMPLES. OTHER MESSAGES MAY BE USED AS CONDITIONS WARRANT. ALL MESSAGES AND LOCATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO INCORPORATING.

3/17/2011
 Edgecombe Frankl.m Nash\TCP\Plan_Sheets\BP-5300D\to_psh04.dgn
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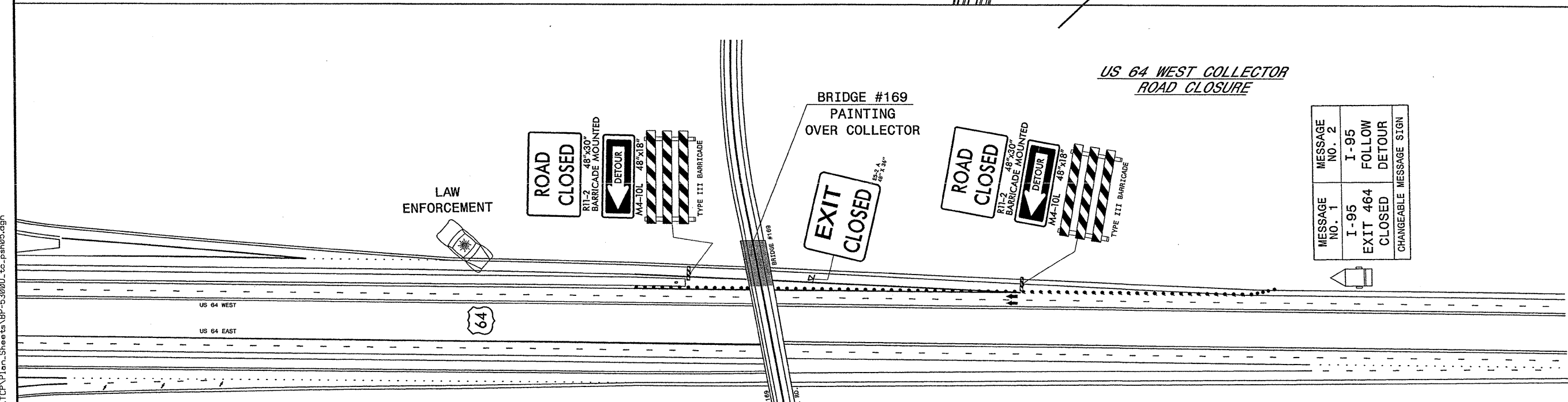
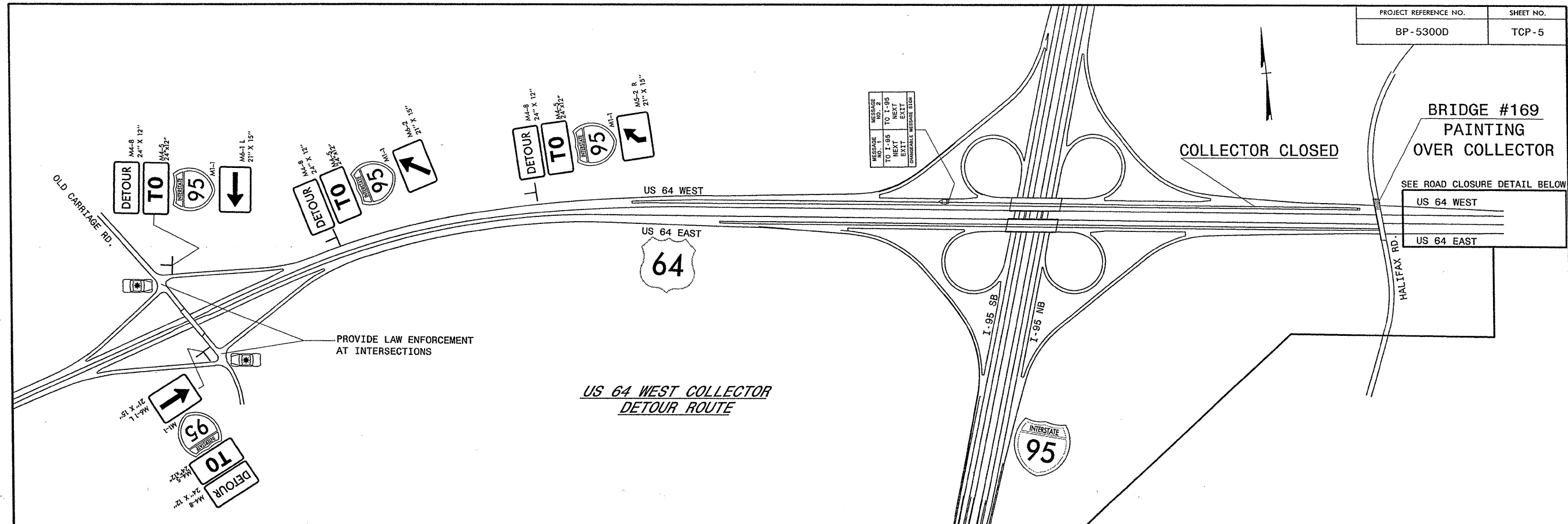
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Betty L. Watson
3/17/11

NASH CO. BRIDGE #169
US 64 WEST ROAD CLOSURE
TRAFFIC DETOURED VIA COLLECTOR

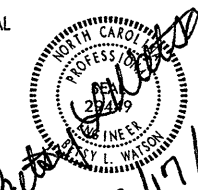
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DWG. BY:	GK
DESIGN BY:	GK
REVIEWED BY:	BLW

REVISIONS




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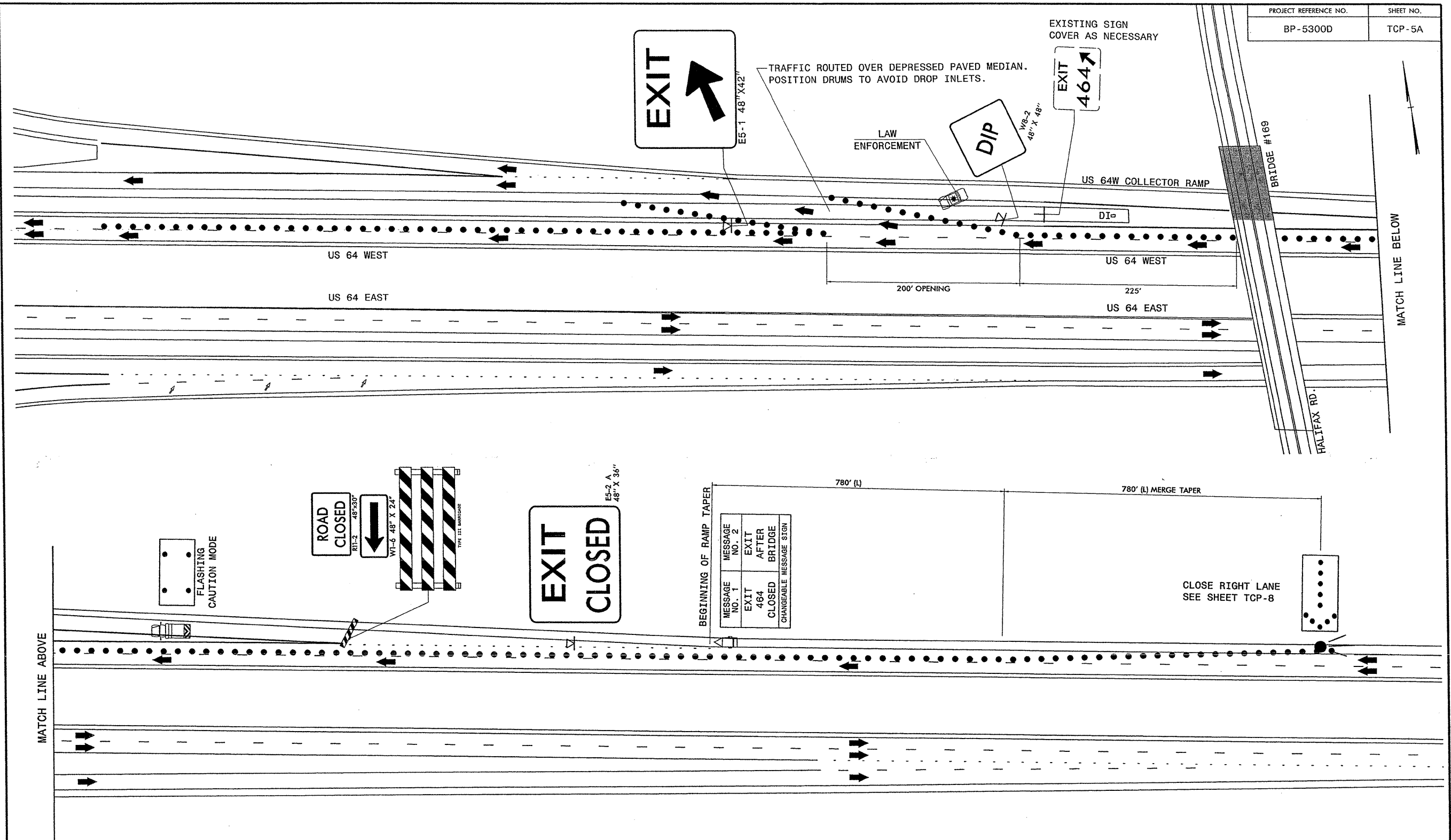

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 SIGNATURE: *[Signature]*
 DATE: 3/17/11

NASH CO. BRIDGE #169
 US 64 WEST
 CLOSURE OF COLLECTOR
 & DETOUR ROUTE

SCALE: NONE	REVISIONS
DATE: MAR. 2011	
DWG. BY: GK	
DESIGN BY: GK	
REVIEWED BY: BLW	





NOTE:
THIS TRAFFIC CONTROL METHOD TO BE USED ONLY IF APPROVED BY THE ENGINEER. CONDITION OF DEPRESSED PAVED MEDIAN MUST BE EVALUATED PRIOR TO IMPLEMENTING THIS METHOD.

3/17/2011
 Franklyn Nash\TCP\Plan_Sheets\BP-5300D_to_pah05A.dgn
 gkbrsgeorge

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SEAL

Robert L. Watson
 3/17/11

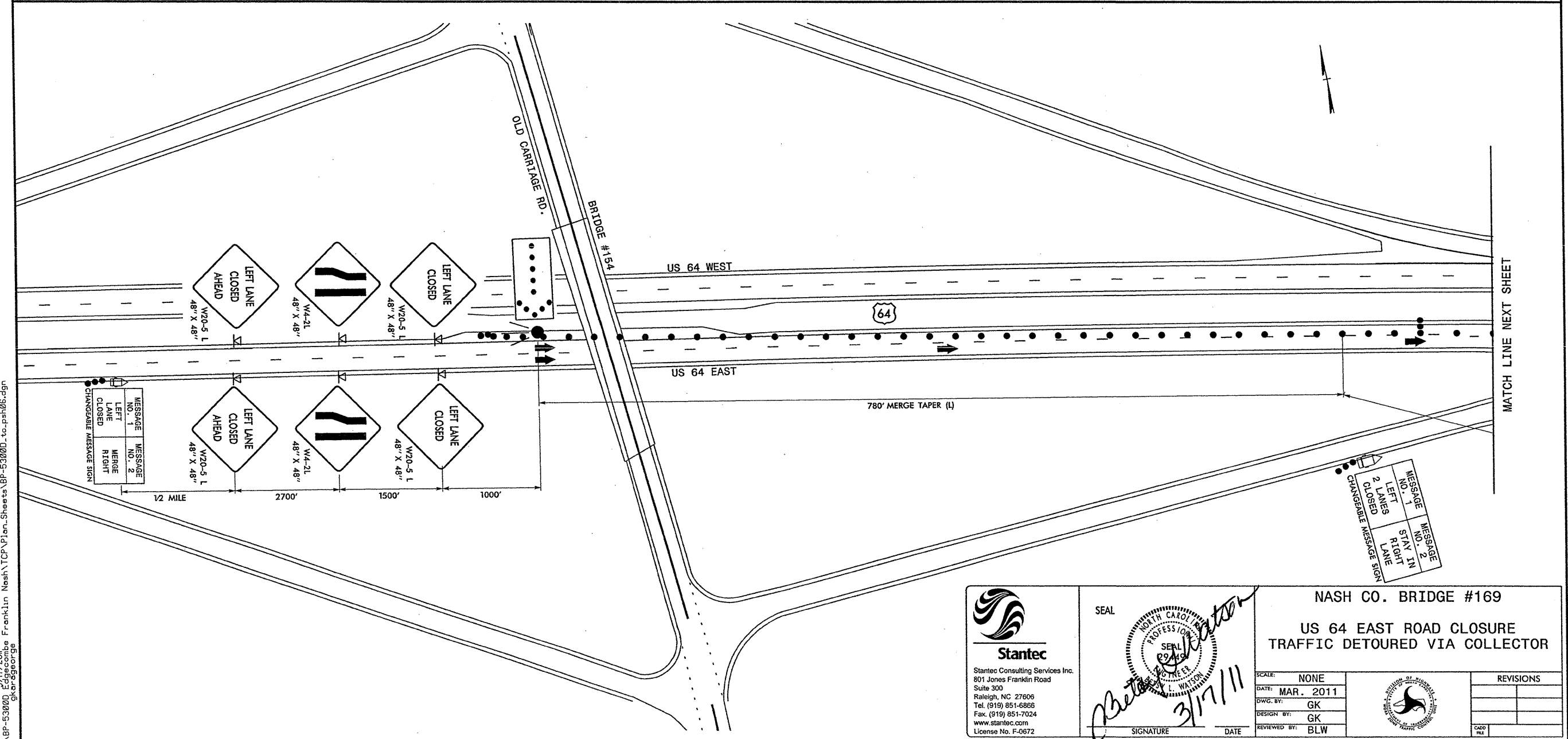
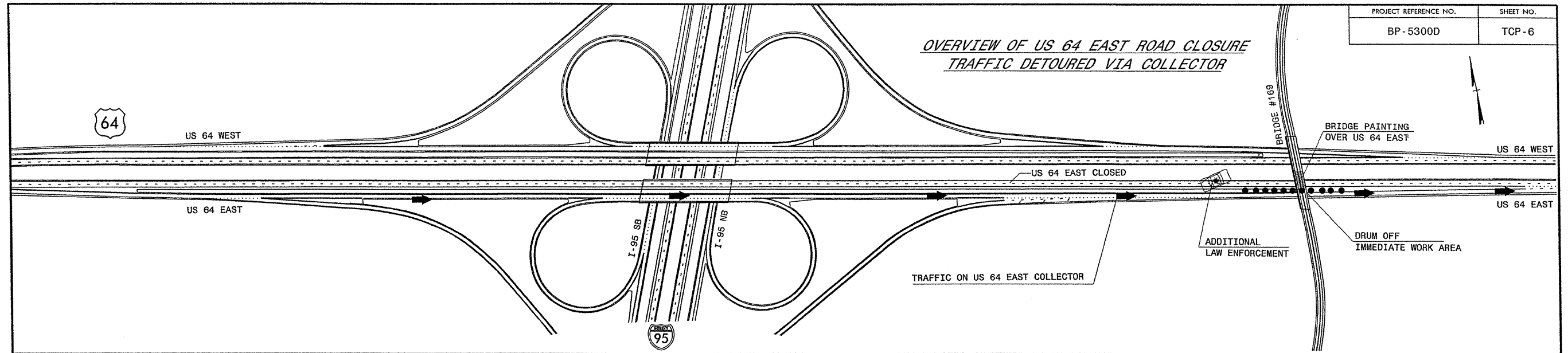
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**NASH CO. BRIDGE #169
 OPTION 2
 US 64 WEST COLLECTOR
 TRAFFIC ROUTED
 ACROSS DEPRESSED PAVED MEDIAN**

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DATE: MAR. 2011		
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DESIGN BY: GK		
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OVERVIEW OF US 64 EAST ROAD CLOSURE
TRAFFIC DETOURED VIA COLLECTOR



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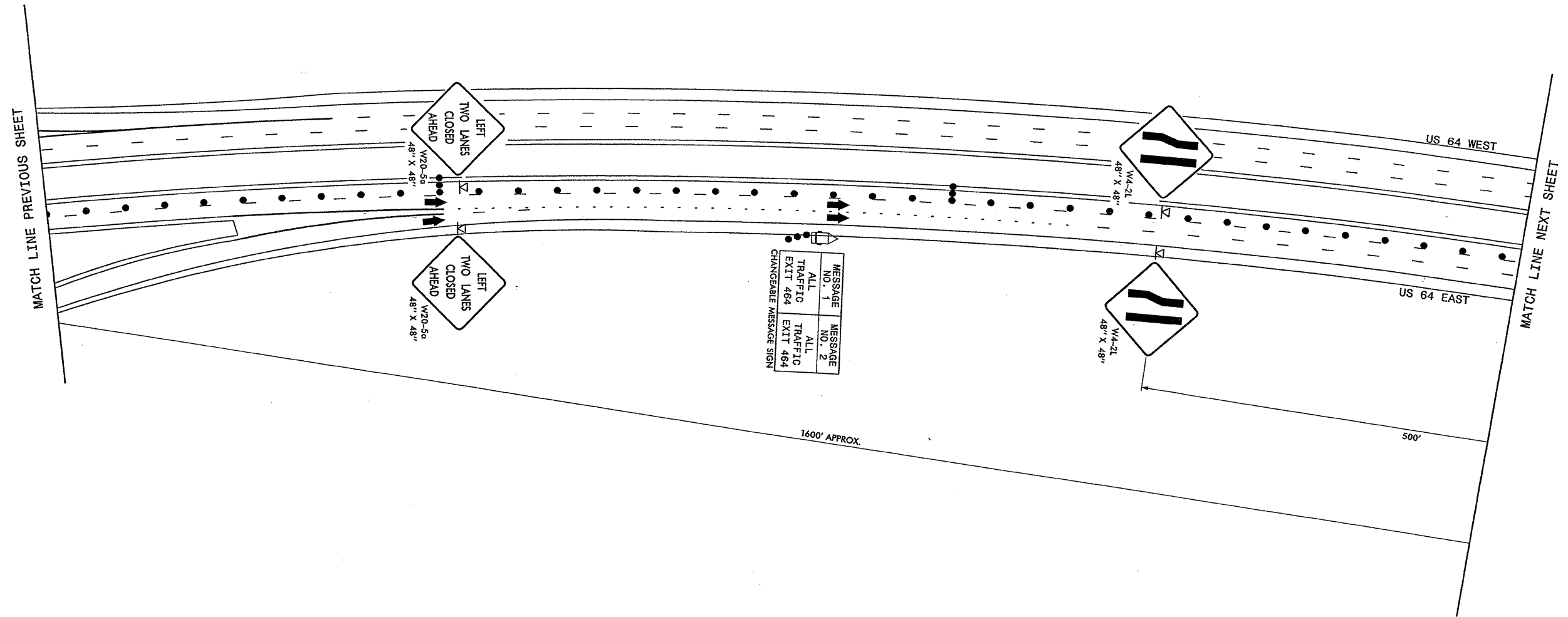
SIGNATURE: *Peter Watson*
 DATE: 3/17/11

NASH CO. BRIDGE #169

US 64 EAST ROAD CLOSURE
TRAFFIC DETOURED VIA COLLECTOR

SCALE:	NONE
DATE:	MAR. 2011
DESIGN BY:	GK
REVIEWED BY:	BLW

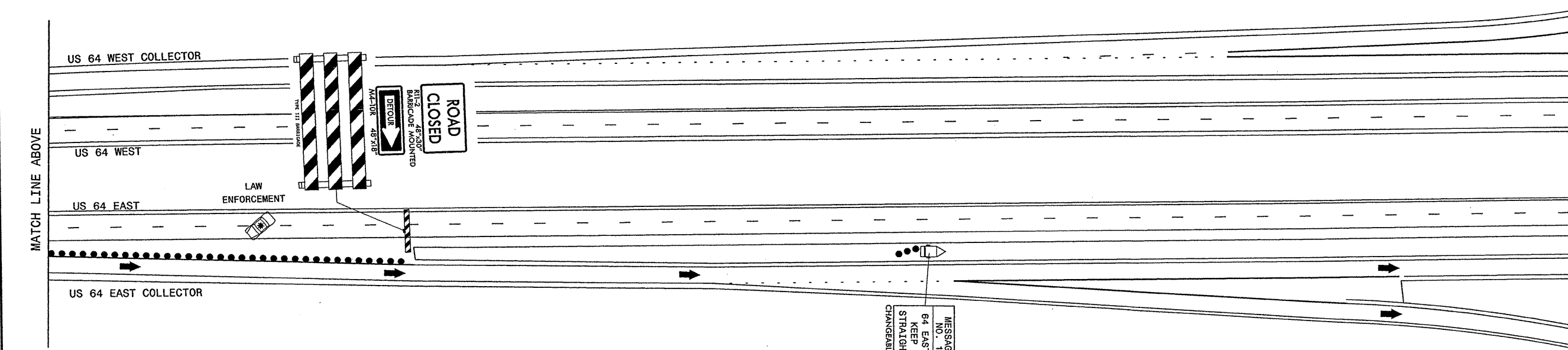
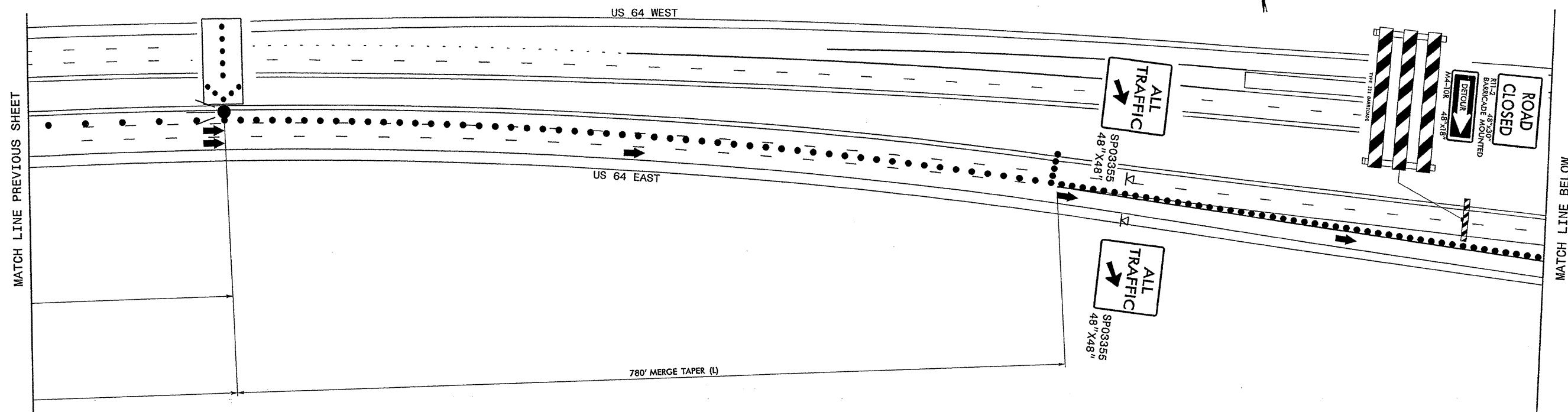
REVISIONS



MESSAGE NO. 1	ALL TRAFFIC EXIT 464	CHANGEABLE MESSAGE SIGN
MESSAGE NO. 2	ALL TRAFFIC EXIT 464	CHANGEABLE MESSAGE SIGN

7/17/2011
 Franklyn Nash\TCP\Plan_Sheets\BP-5300D_tcp_06A.dgn
 gk\gk\George

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	SIGNATURE: <i>Gregory L. Watson</i> DATE: 3/17/11	SCALE: NONE DATE: MAR. 2011 DWG. BY: GK DESIGN BY: GK REVIEWED BY: BLW		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
64 EAST	64 EAST
KEEP STRAIGHT	KEEP STRAIGHT
CHANGEABLE MESSAGE SIGN	

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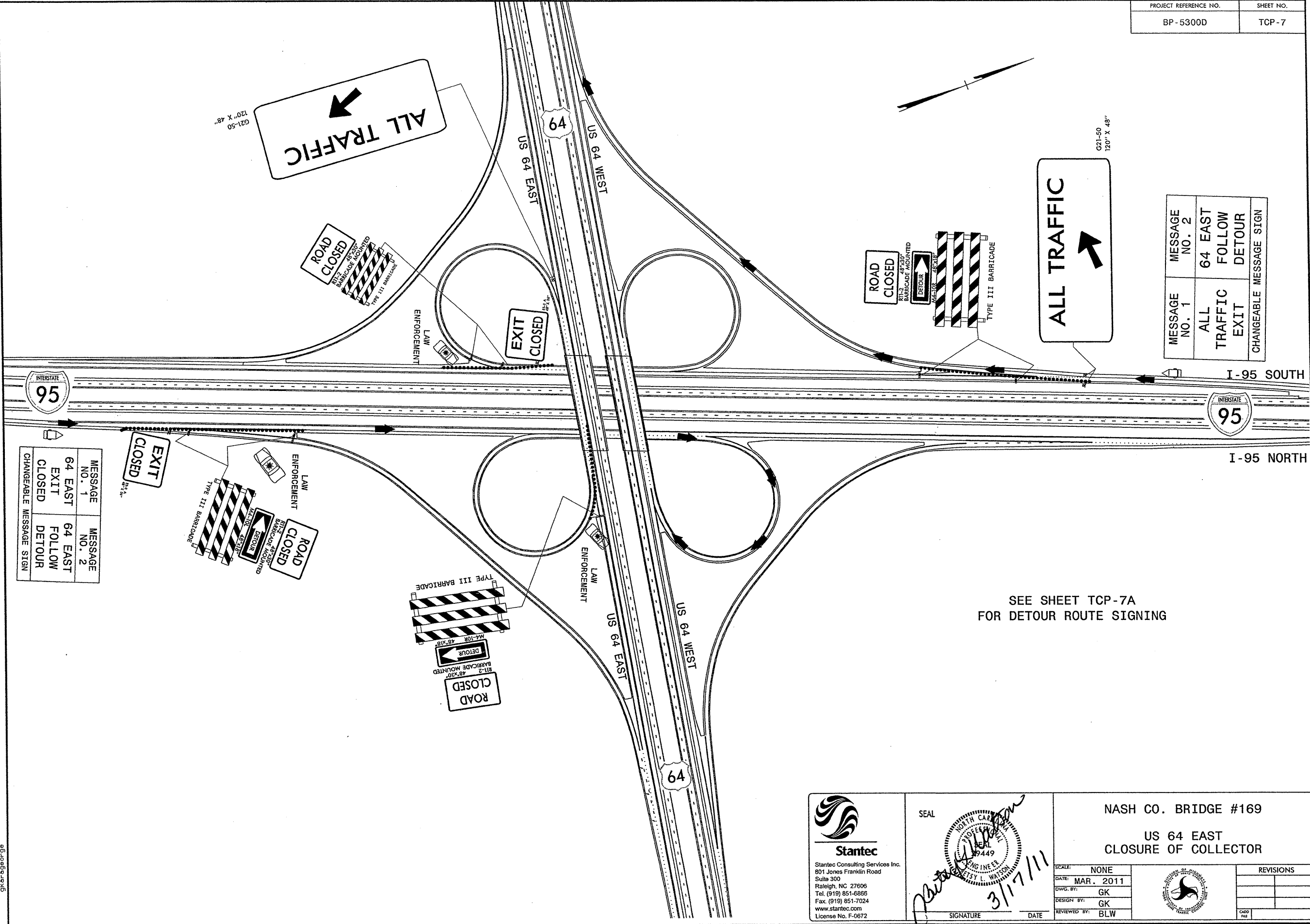
SEAL

Matthew L. Watson
3/17/11
SIGNATURE DATE

NASH CO. BRIDGE #169
US 64 EAST ROAD CLOSURE
TRAFFIC DETOURED VIA COLLECTOR

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 gk 3/17/11



MESSAGE NO. 1	64 EAST EXIT CLOSED	MESSAGE NO. 2	64 EAST FOLLOW DETOUR
CHANGEABLE MESSAGE SIGN			

MESSAGE NO. 1	ALL TRAFFIC EXIT	MESSAGE NO. 2	64 EAST FOLLOW DETOUR
CHANGEABLE MESSAGE SIGN			

SEE SHEET TCP-7A
FOR DETOUR ROUTE SIGNING

3/17/2011 Edgecombe Franklin Nash\TCP\Plan_Sheets\BP-5300D_LC_psh07.dgn
 gikr5george

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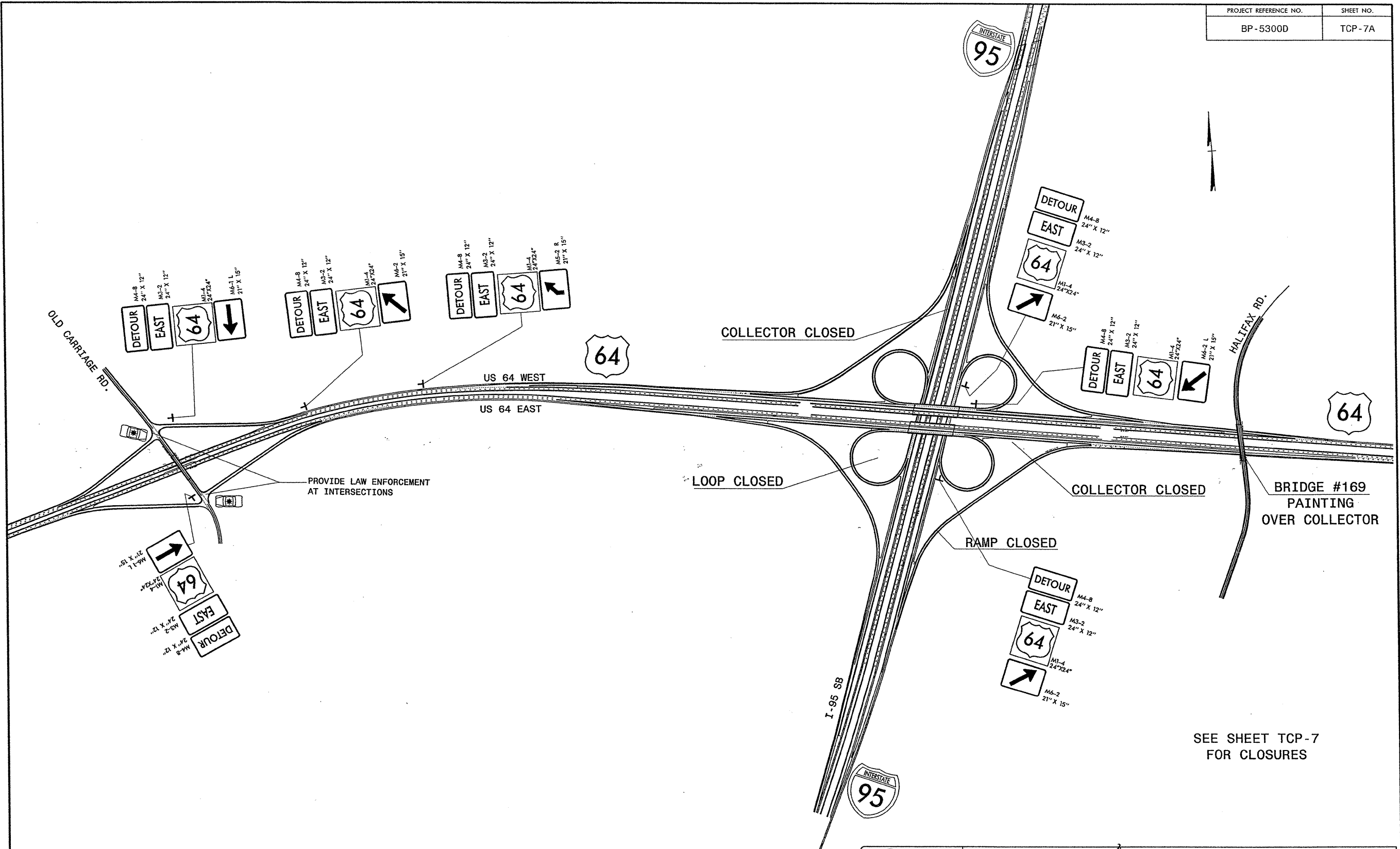
SEAL

M. J. Watson
 3/17/11
 SIGNATURE DATE

NASH CO. BRIDGE #169
 US 64 EAST
 CLOSURE OF COLLECTOR

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DATE:	MAR. 2011										
DESIGN BY:	GK										
REVIEWED BY:	BLW										

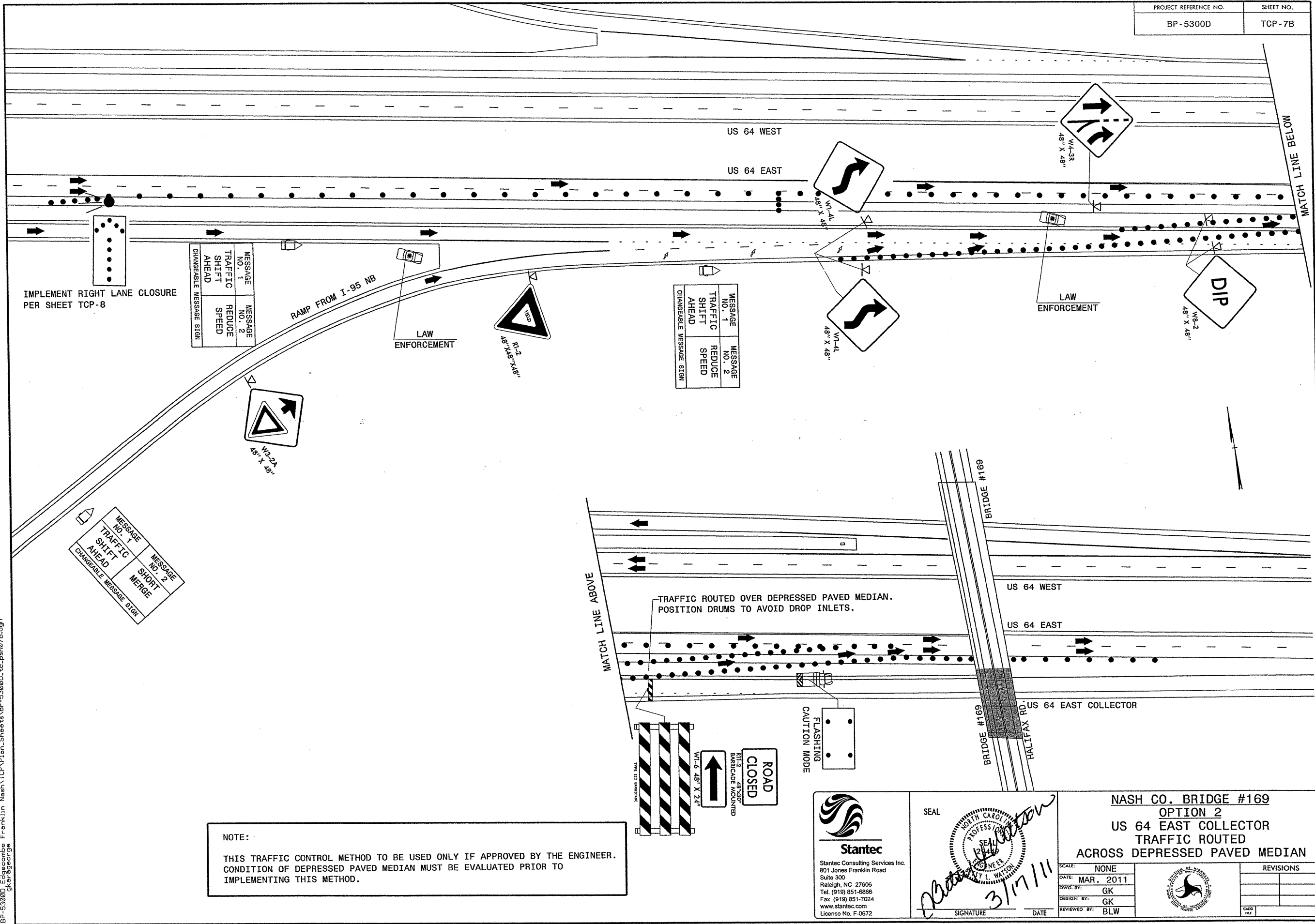
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 gkars@stantec.com

SEE SHEET TCP-7 FOR CLOSURES

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	<p>SCALE: NONE</p> <p>DATE: MAR. 2011</p> <p>DESIGN BY: GK</p> <p>DESIGN BY: GK</p> <p>REVIEWED BY: BLW</p>	<p>REVISIONS</p> <table border="1"> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>			



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 Date: 3/17/11
 User: George

NOTE:
 THIS TRAFFIC CONTROL METHOD TO BE USED ONLY IF APPROVED BY THE ENGINEER.
 CONDITION OF DEPRESSED PAVED MEDIAN MUST BE EVALUATED PRIOR TO
 IMPLEMENTING THIS METHOD.

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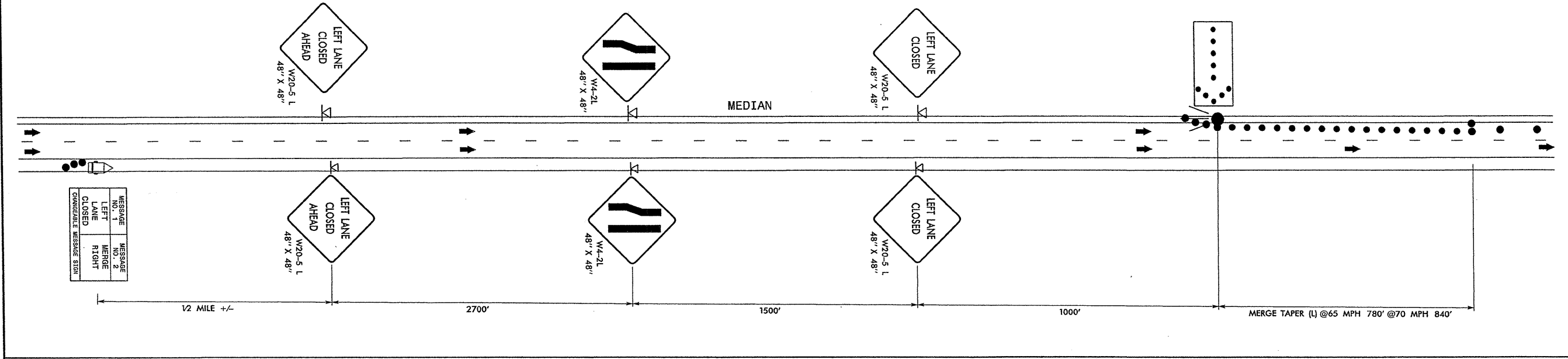
Kelly L. Watson
 3/17/11
 SIGNATURE DATE

**NASH CO. BRIDGE #169
 OPTION 2
 US 64 EAST COLLECTOR
 TRAFFIC ROUTED
 ACROSS DEPRESSED PAVED MEDIAN**

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DESIGN BY: GK	
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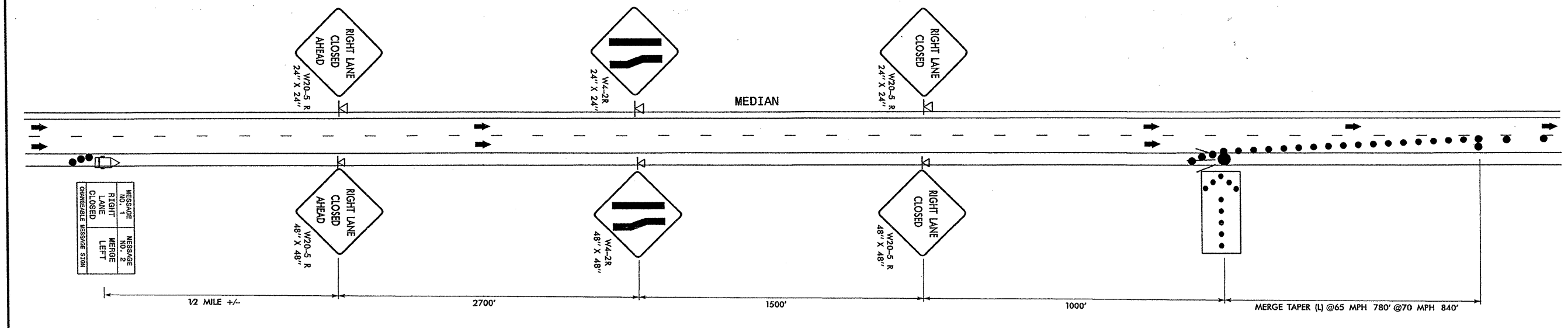
CAD FILE

LEFT LANE CLOSURE



MESSAGE NO. 1	MESSAGE NO. 2
LEFT LANE CLOSED	MERGE RIGHT
CHANGEABLE MESSAGE SIGN	

RIGHT LANE CLOSURE



MESSAGE NO. 1	MESSAGE NO. 2
RIGHT LANE CLOSED	MERGE LEFT
CHANGEABLE MESSAGE SIGN	

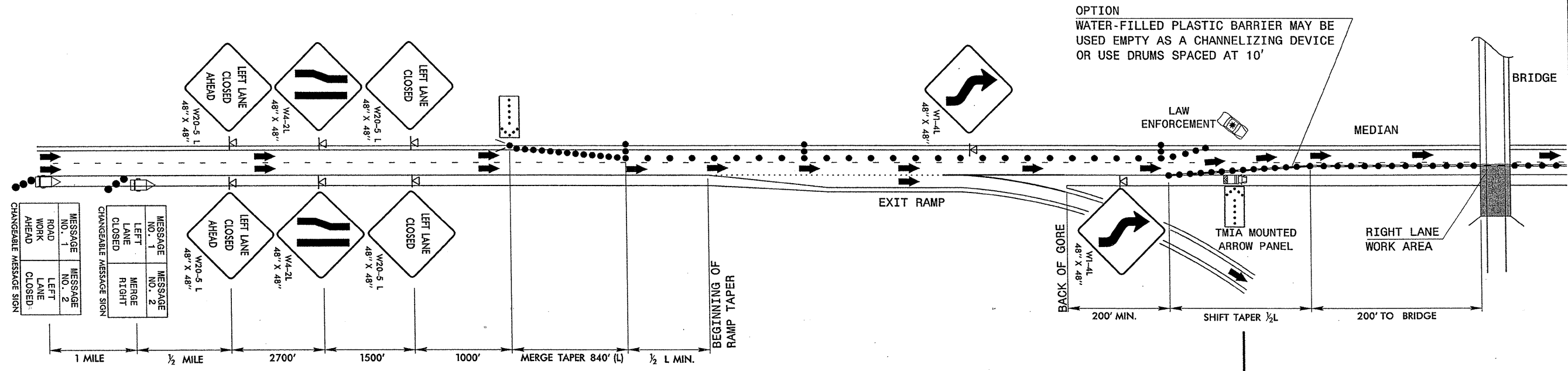
NOTES

- 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.
- 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.
- PLACE ARROW PANELS ON THE ROADWAY SHOULDER. IF SHOULDERS DO NOT EXIST, PLACE ARROW PANELS WITHIN THE MERGE TAPER BEHIND THE CHANNELIZING DEVICES OF THE LANE CLOSURE. IF NEEDED, EXTEND LANE CLOSURES TO PROVIDE STOPPING SIGHT DISTANCE TO THE ARROW PANEL (REFER TO ROADWAY STANDARD DRAWING 1101.11 SHEET 2).
- PLACE LANE CLOSURE DRUMS IN TAPERS AT A MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT (MPH). ALONG BUFFER SPACES AND WORK AREAS SPACE DRUMS AT A MAXIMUM SPACING EQUAL IN FEET TO TWICE THE POSTED SPEED LIMIT (MPH). IN ALL CASES, CHANNELIZING DEVICES ARE TO BE SPACED IN SUCH A MANNER AS TO POSITIVELY ACHIEVE THE INTENDED VISUAL CHANNELIZATION. CHANNELIZING DEVICES SHOULD BE LATERALLY OFFSET 3 FT INSIDE THE CLOSED LANE AS ROOM PERMITS.
- CHANGEABLE MESSAGE SIGN MESSAGES SHOWN ARE EXAMPLES. OTHER MESSAGES MAY BE USED AS CONDITIONS WARRANT. ALL MESSAGES AND LOCATIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO INCORPORATING.

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	<p>SCALE: NONE</p> <p>DATE: MAR. 2011</p> <p>DWG. BY: GK</p> <p>DESIGN BY: GK</p> <p>REVIEWED BY: BLW</p>		<table border="1"> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	REVISIONS						
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LEFT LANE CLOSURE WITH SHIFT FOR RIGHT LANE WORK AREA



CHANGEABLE MESSAGE SIGN	MESSAGE NO. 1	MESSAGE NO. 2
ROAD WORK AHEAD	LEFT LANE CLOSED	LEFT LANE CLOSED
CHANGEABLE MESSAGE SIGN	MESSAGE NO. 1	MESSAGE NO. 2
LEFT LANE CLOSED	LEFT MERGE	RIGHT MERGE

FOR LEFT LANE WORK AREA
REMOVE SHIFT TAPER, W1-4L SIGNS AND TMIA.
REPOSITION DRUMS AND KEEP TRAFFIC IN RIGHT LANE.

NOTES

1. THIS DRAWING SHOULD ONLY BE USED WHEN THERE IS ENOUGH DISTANCE BETWEEN THE BRIDGE AND RAMP GORE TO INCORPORATE A TRAFFIC SHIFT AND PROVIDE ENOUGH BUFFER SPACE TO EQUIPMENT. IT IS INTENDED FOR OPERATIONS THAT WILL REQUIRE BOTH LEFT AND RIGHT LANE WORK AREAS DURING THE SAME WORK PERIOD. A LEFT LANE CLOSURE IS ALWAYS USED. WHEN THE WORK AREA IS IN THE RIGHT LANE, USE PACE VEHICLE(S) TO STOP TRAFFIC FOR NO LONGER THAN 5 MINUTES AND INSTALL A SHIFT TAPER AND W1-4L SIGNS DIRECTING TRAFFIC TO THE LEFT LANE AS SHOWN.
2. 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. 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.
3. PLACE ARROW PANELS ON THE ROADWAY SHOULDER. IF SHOULDERS DO NOT EXIST, PLACE ARROW PANELS WITHIN THE MERGE TAPER BEHIND THE CHANNELIZING DEVICES OF THE LANE CLOSURE. IF NEEDED, EXTEND LANE CLOSURES TO PROVIDE STOPPING SIGHT DISTANCE TO THE ARROW PANEL (REFER TO ROADWAY STANDARD DRAWING 1101.11 SHEET 2).
4. PLACE LANE CLOSURE DRUMS IN TAPERS AT A MAXIMUM SPACING EQUAL IN FEET TO THE POSTED SPEED LIMIT (MPH). ALONG BUFFER SPACES AND WORK AREAS SPACE DRUMS AT A MAXIMUM SPACING EQUAL IN FEET TO TWICE THE POSTED SPEED LIMIT (MPH). IN ALL CASES, CHANNELIZING DEVICES ARE TO BE SPACED IN SUCH A MANNER AS TO POSITIVELY ACHIEVE THE INTENDED VISUAL CHANNELIZATION. CHANNELIZING DEVICES SHOULD BE LATERALLY OFFSET 3 FT INSIDE THE CLOSED LANE AS ROOM PERMITS.
5. PLACE CHANGEABLE MESSAGE SIGN (CMS) ON THE OUTSIDE OF THE TRAVELWAY AS DIRECTED BY THE ENGINEER. PLACE CMS APPROXIMATELY 1/2 MILE IN ADVANCE OF THE W20-5 SIGNS. IF TRAFFIC BACKS UP TO WHERE THE CMS IS INITIALLY PLACED, RELOCATE CMS 1/2 MILE FROM ANTICIPATED BACKUP. CONTINUE TO MONITOR TRAFFIC AND MOVE CMS APPROXIMATELY 1/2 MILE IN CONJUNCTION WITH ANTICIPATED BACKUP.

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 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	SEAL 	LEFT LANE CLOSURE WITH SHIFT							
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