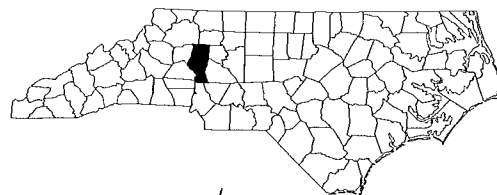


PROJECT: BP-5500W

CONTRACT: DL00066

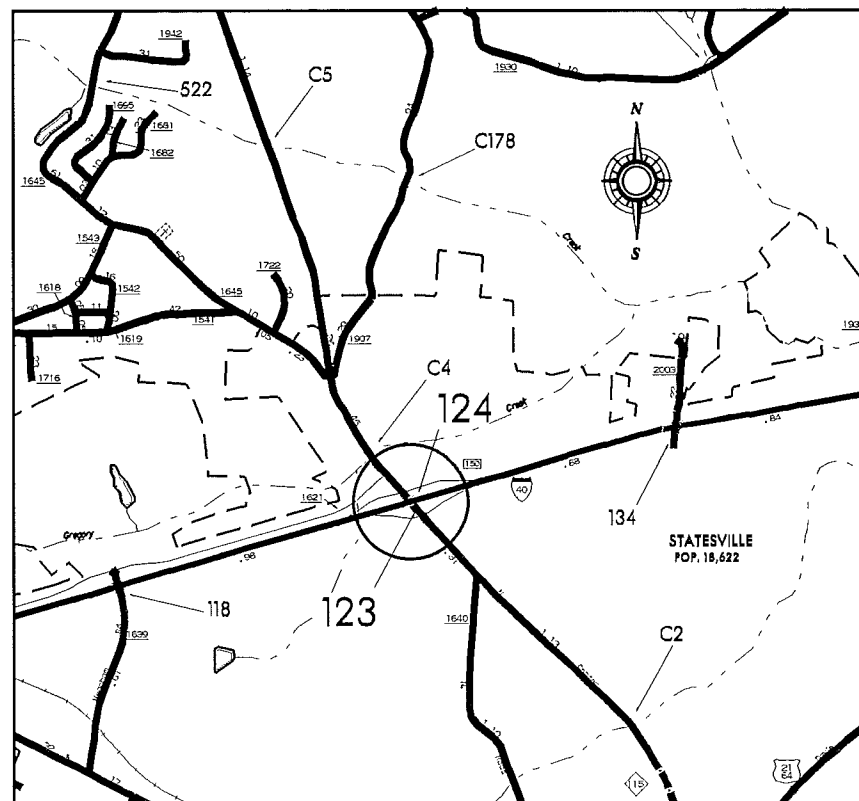
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

IREDELL COUNTY

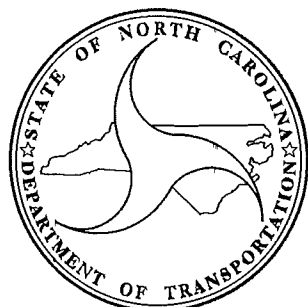


LOCATION: IREDELL COUNTY:
BRIDGE #123 ON INTERSTATE 40 EAST OVER N.C. HWY 115
BRIDGE #124 ON INTERSTATE 40 WEST OVER N.C. HWY 115

TYPE OF WORK: BRIDGE PRESERVATION – BRIDGE PRESERVATION WITH LATEX
MODIFIED CONCRETE, JOINT REPLACEMENT, SUBSTRUCTURE
REPAIRS, AND PAINTING OF STRUCTURAL STEEL.



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP-5500W	1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
50070.1.1		P.E.	
50070.3.F523	NHPP-040-2(168)150	CONST.	



DESIGN DATA

IREDELL
#123 ADT 2010 = 24,250
#124 ADT 2010 = 24,250

PROJECT LENGTH

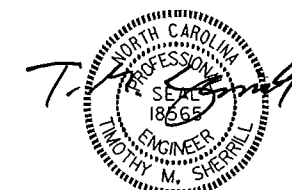
BRIDGE #123 = .0254 MILE
BRIDGE #124 = .0251 MILE

Prepared In the Office of:
**DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**
STRUCTURES MANAGEMENT UNIT - PRESERVATION & REPAIR GROUP
1090 BIRCH RIDGE DR. RALEIGH, N.C. 27610

RICK NELSON, P.E.
PROJECT ENGINEER

2012 STANDARD SPECIFICATIONS

LETTING DATE:
SEPTEMBER 23, 2014



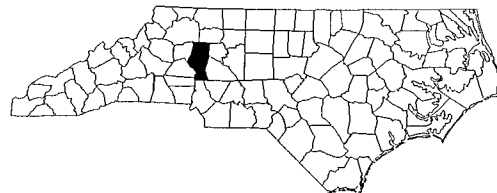
08/20/14
TIMOTHY M. SHERRILL, P.E.
PROJECT DESIGN ENGINEER

PROJECT: BP-5500W

CONTRACT: DL00066

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

IREDELL COUNTY



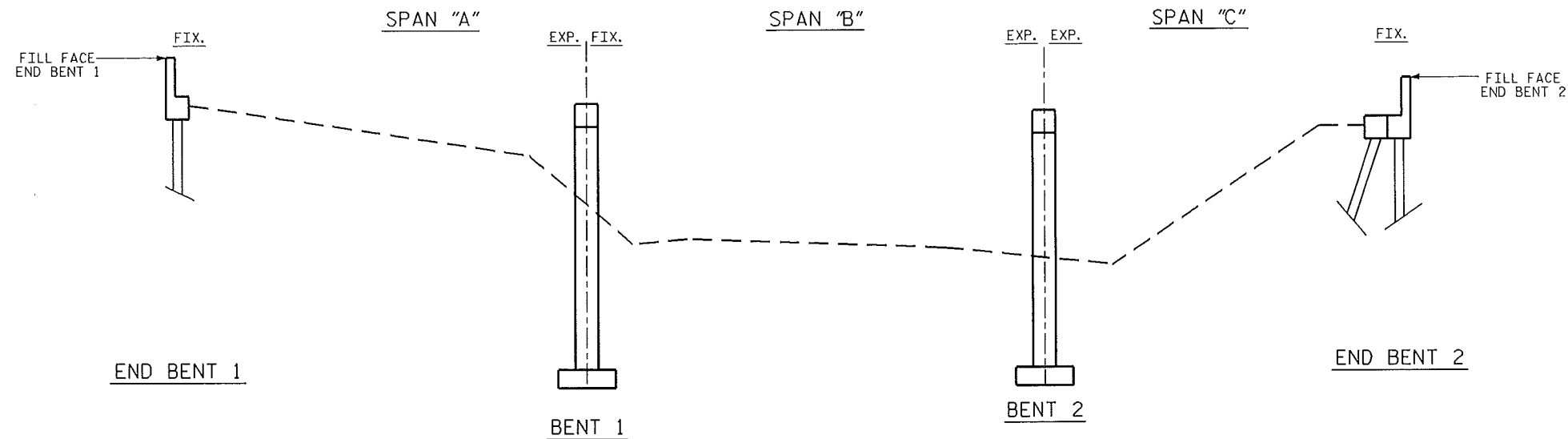
LOCATION: IREDELL COUNTY:
BRIDGE #123 ON INTERSTATE 40 EAST OVER N.C. HWY 115
BRIDGE #124 ON INTERSTATE 40 WEST OVER N.C. HWY 115

TYPE OF WORK: BRIDGE PRESERVATION – BRIDGE PRESERVATION WITH LATEX
MODIFIED CONCRETE, JOINT REPLACEMENT, SUBSTRUCTURE
REPAIRS, AND PAINTING OF STRUCTURAL STEEL.

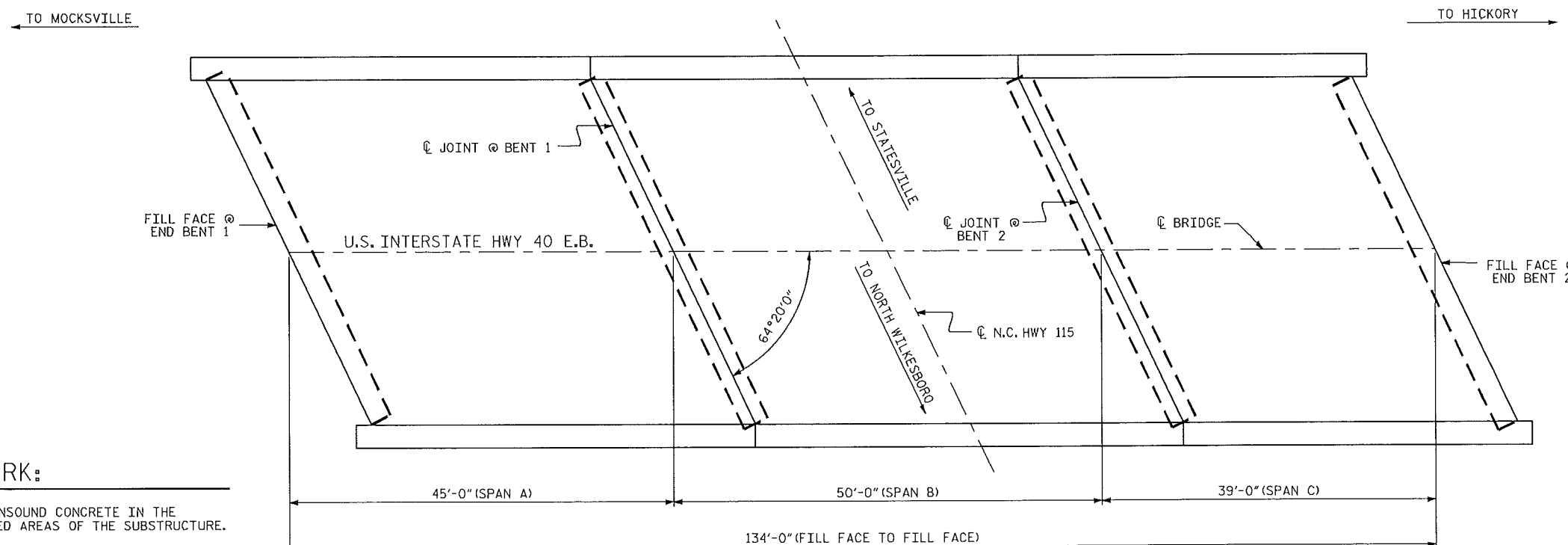
INDEX OF SHEETS

<i>I</i>	<i>TITLE SHEET</i>
<i>IA</i>	<i>INDEX OF SHEETS</i>
<i>S-1 THROUGH S-13</i>	<i>BRIDGE 123</i>
<i>S-14 THROUGH S-28</i>	<i>BRIDGE 124</i>
<i>SN</i>	<i>STRUCTURE STANDARD NOTES</i>
<i>TMP-1 THROUGH TMP-4</i>	<i>TRAFFIC MANAGEMENT PLANS</i>
<i>PMP-1</i>	<i>PAVEMENT MARKING PLANS</i>

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	BP-5500W	1A	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50070.1.1		P.E.	
50070.3.FS23	NHPP-040-2(168)150	CONST.	



NOTE:
THE PROFILE INFORMATION IS TAKEN
FROM THE ORIGINAL PLANS, AND THE
ROUTINE INSPECTION REPORT
DATED: 04/12/2012



SCOPE OF WORK:

- SAWCUT AND CHIP OUT UNSOUND CONCRETE IN THE SPALLED AND DELAMINATED AREAS OF THE SUBSTRUCTURE.
- APPLY SHOTCRETE IN PREPARED AREAS OF SUBSTRUCTURE.
- EPOXY INJECT CRACKS IN SUBSTRUCTURE.
- PREPARE AND PAINT STRUCTURAL STEEL.
- PARTIALLY REMOVE BRIDGE DECK CONCRETE USING SCARIFICATION AND HYDRO-DEMOLITION METHODS.
- OVERLAY PREPARED BRIDGE DECK SURFACE WITH LATEX MODIFIED CONCRETE - VERY EARLY STRENGTH.
- DEMOLISH EXISTING BRIDGE DECK JOINTS.
- RECONSTRUCT BRIDGE DECK JOINTS AND INSTALL NEW SYNTHETIC RUBBER EXPANSION JOINT SEALS.
- GROOVE CONCRETE BRIDGE DECK.

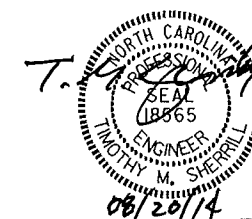
PLAN

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 123

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

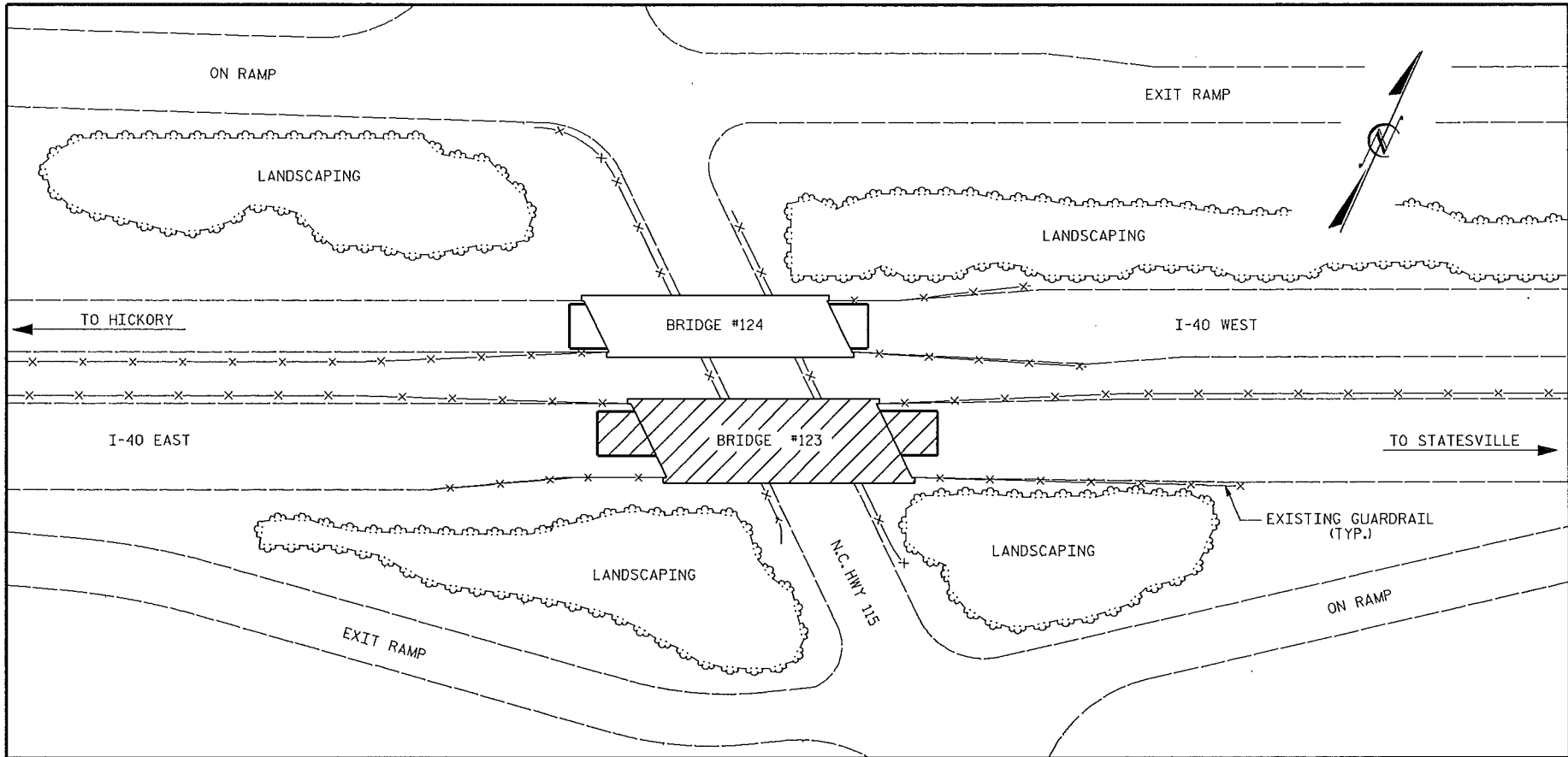
GENERAL DRAWING
BRIDGE 123 ON I-40 EB
OVER N.C. HWY 115



DRAWN BY : R. PUTEK DATE : 02/14
CHECKED BY : T. SHERRILL DATE : 02/14
DESIGN ENGINEER OF RECORD: _____ DATE : _____

20-AUG-2014 09:21
S:\PRG\POC\Squad C\Preservation Projects\BP-5500W\IREDELL 123\BP5500W_SD_Iredell_123.fina.dgn
rputek

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-1
2			4			TOTAL SHEETS 28



LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION, ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING THE BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

TOTAL BILL OF MATERIAL

GROOVING BRIDGE FLOOR	POLLUTION CONTROL	SHOTCRETE REPAIRS	EPOXY RESIN INJECTION	FOAM JOINT SEALS	PAINTING EXISTING STRUCTURE	UNDER STRUCTURE WORK PLATFORM	LATEX MODIFIED CONCRETE OVERLAY -VERY EARLY STRENGTH	BRIDGE JOINT DEMOLITION	HYDRO-DEMOLITION OF BRIDGE DECK	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY- VERY EARLY STRENGTH	SCARIFYING BRIDGE DECK
SQ. FT.	LUMP SUM	CU. FT.	LIN. FT.	LUMP SUM	LUMP SUM	LUMP SUM	CU. YDS.	SQ. FT.	SQ. YDS.	SQ. YDS.	SQ. YDS.
5900	LUMP SUM	23.3	68.2	LUMP SUM	LUMP SUM	LUMP SUM	37	89	733	733	733

NOTES

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.

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

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

THE CONTRACTOR SHALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH OF THE DECK.

FOR SCARIFYING BRIDGE DECK, HYDRO-DEMOLITION OF BRIDGE DECK, AND CLASS II SURFACE PREPARATION, SEE OVERLAY SURFACE PREPARATION SPECIAL PROVISION.

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR OF BRIDGE DECKS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

FOR UNDER STRUCTURE WORK PLATFORM, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

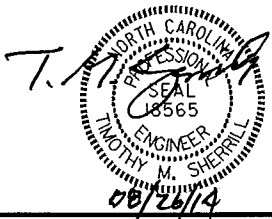
FOR PAINTING EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 123

SHEET 2 OF 2

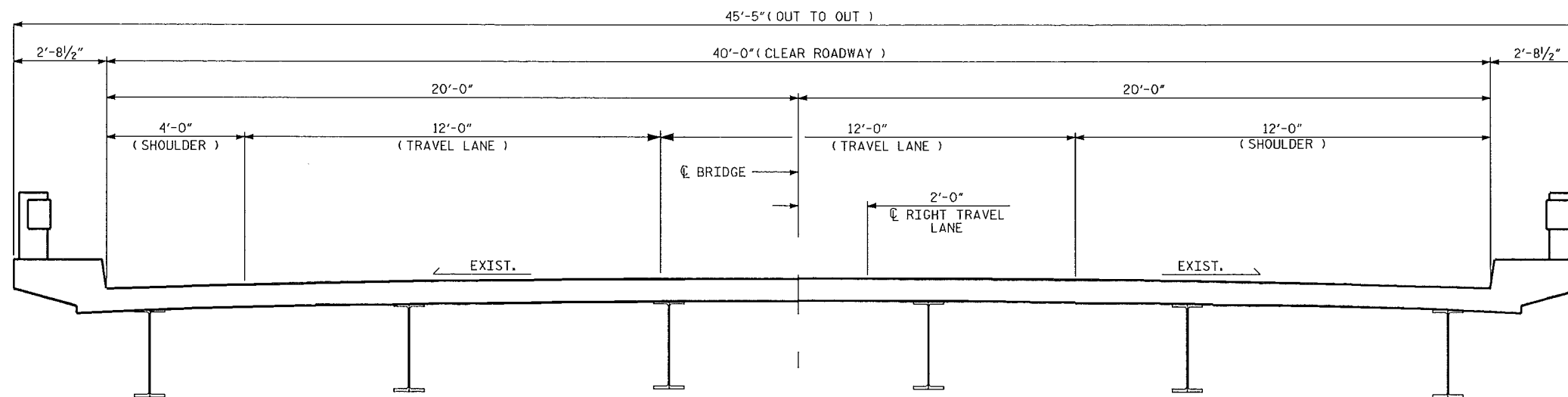
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
BRIDGE #123 ON I-40E
OVER NC 115

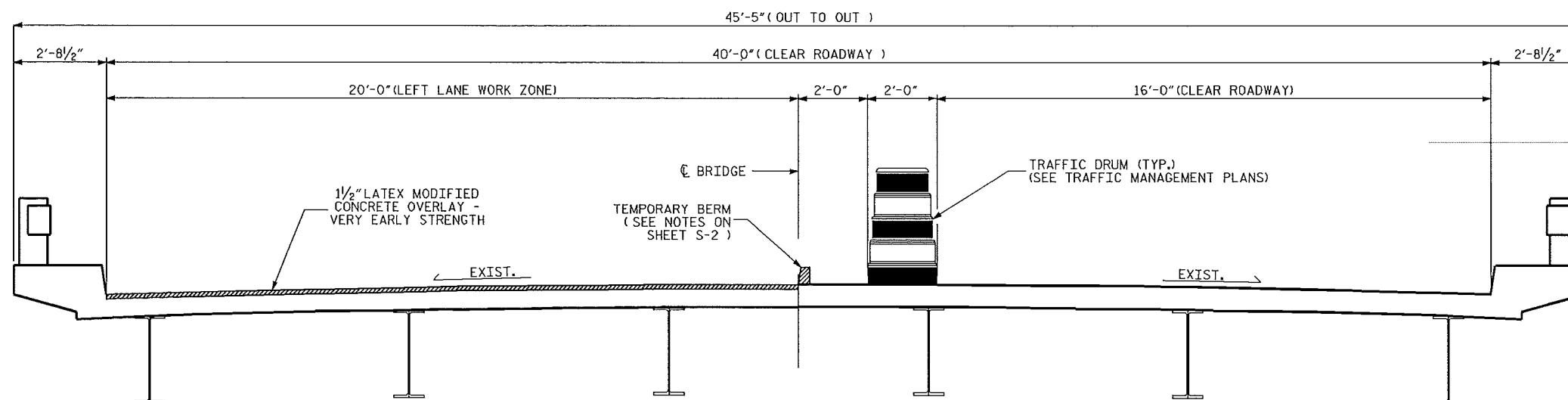


DRAWN BY : R. PUTK DATE : 06/14
CHECKED BY : T. SHERRILL DATE : 07/14
DESIGN ENGINEER OF RECORD: - DATE : -

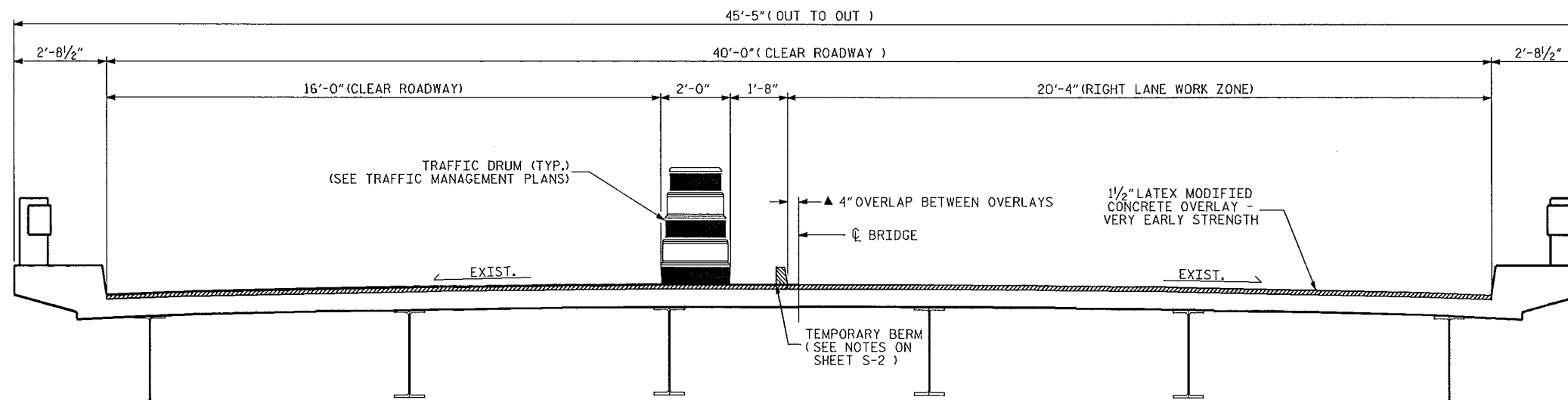
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-2 TOTAL SHEETS 28
2			4			



TYPICAL SECTION
(EXISTING - LOOKING EAST)



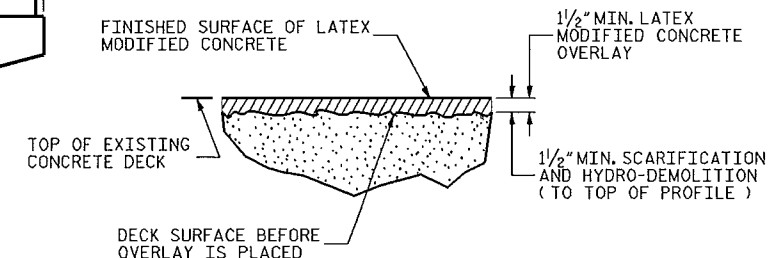
TYPICAL SECTION
(LEFT LANE WORK ZONE - LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE - LOOKING EAST)

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE LEFT LANE LMC - VES WORK IS PERFORMED FIRST, FOLLOWED BY THE RIGHT LANE LMC - VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC WORK IS BEING PERFORMED.



DETAIL FOR LATEX
MODIFIED CONCRETE OVERLAY

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO.: 123

SHEET 1 OF 1

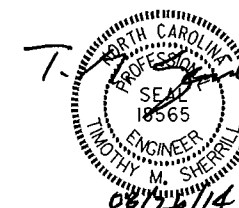
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TYPICAL SECTION

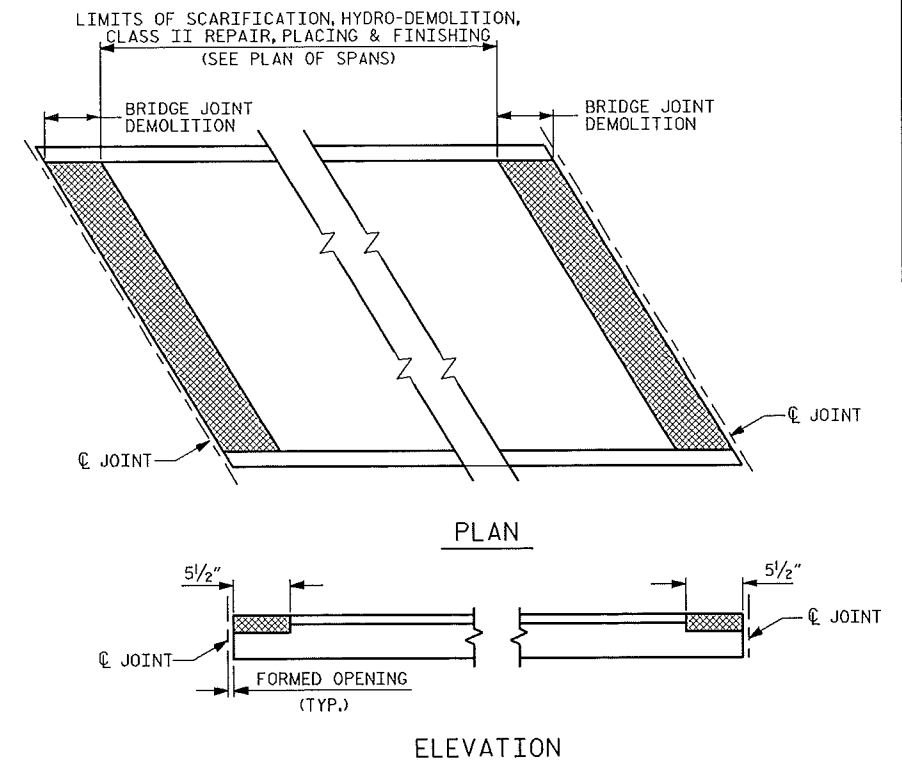
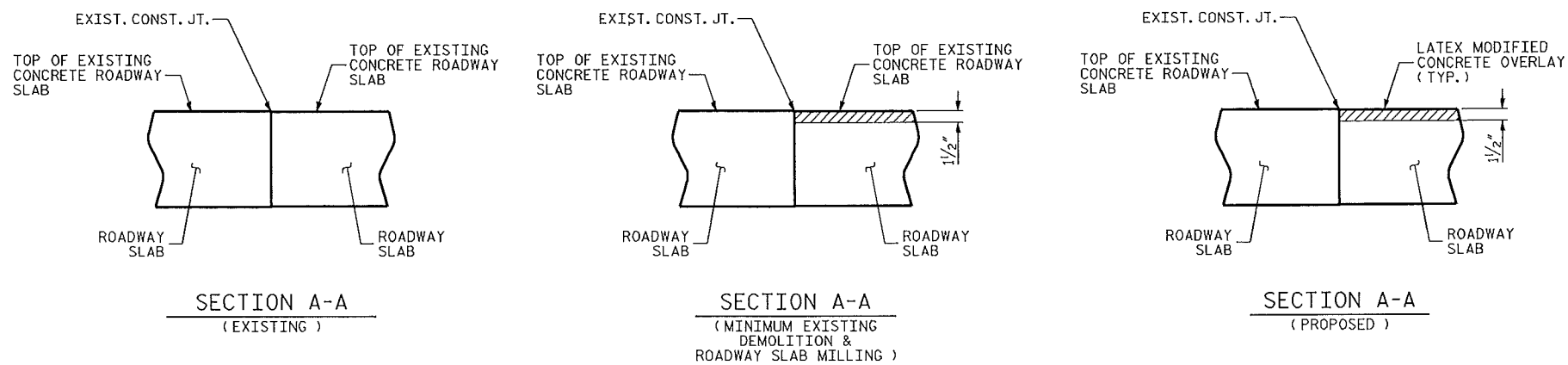
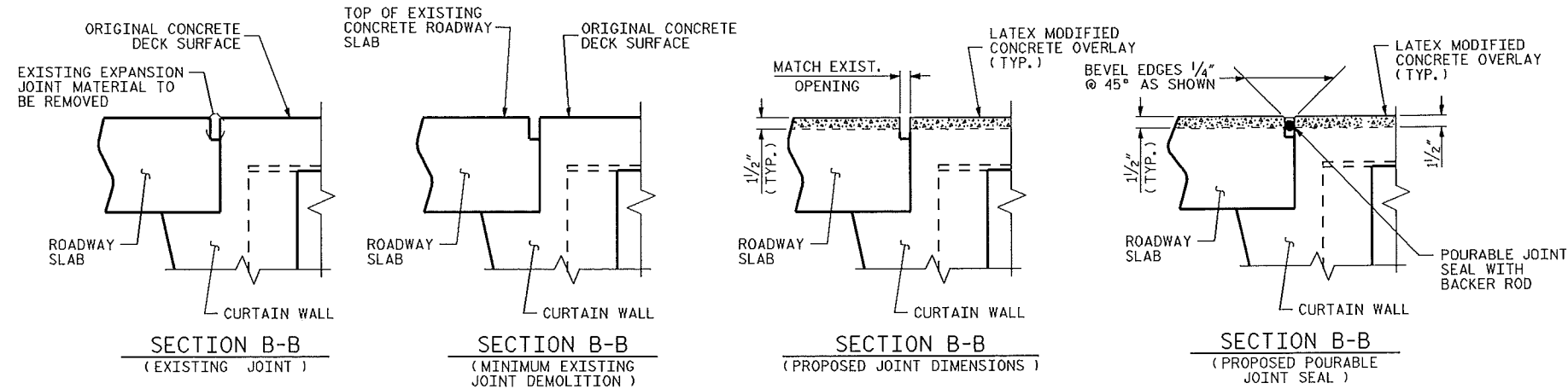
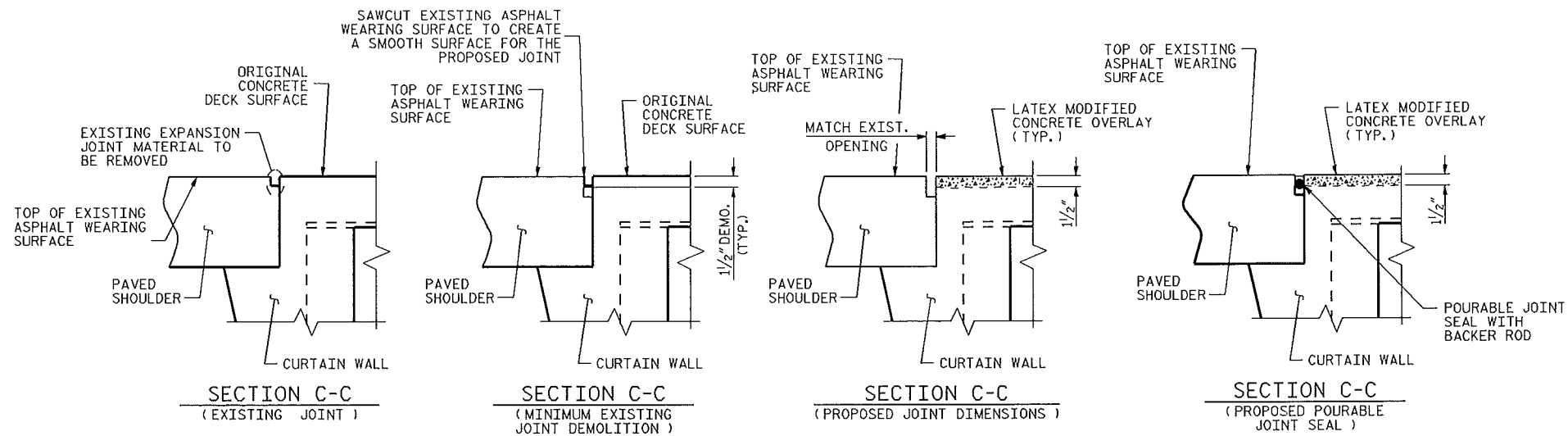
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▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC TO BE
HYDRO-DEMOLITIONED AND RECAST WITH LMC



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-3
2			4			TOTAL SHEETS 28



LIMITS OF BRIDGE JOINT DEMOLITION AND
OVERLAY PREPARATION AND PLACEMENT

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 123

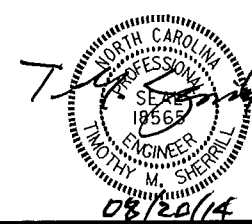
SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

JOINT DETAILS

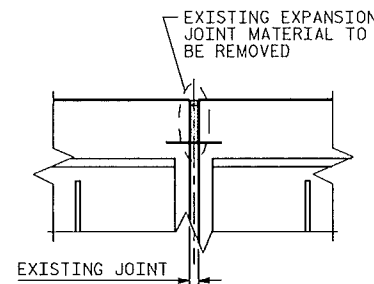
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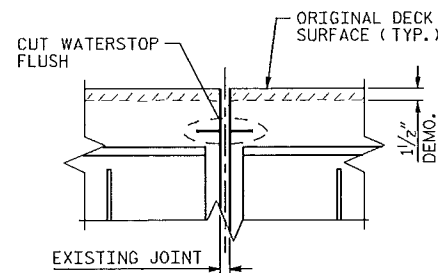


REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			S-4
2			4			TOTAL SHEETS 28

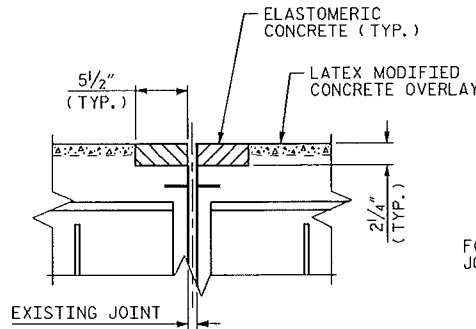
IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED



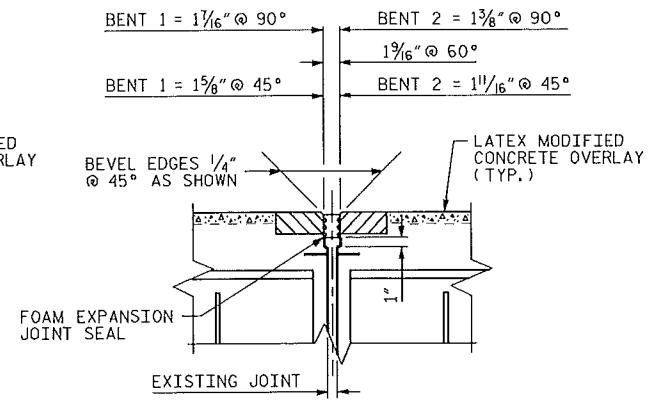
SECTION D-D
(EXISTING)



SECTION D-D
(MINIMUM EXISTING JOINT DEMOLITION)



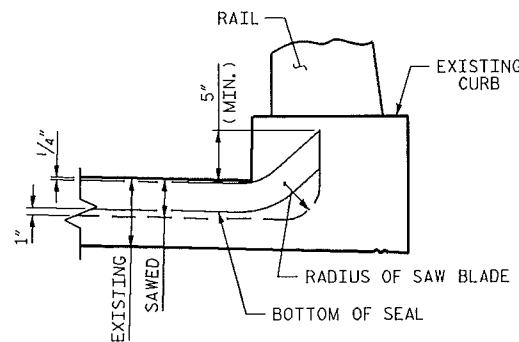
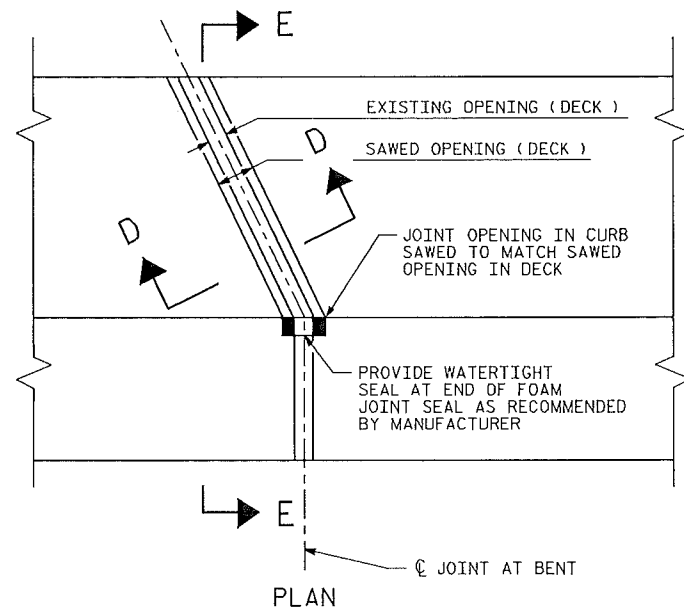
SECTION D-D
(PROPOSED JOINT PRE-SAWED DIMENSIONS)



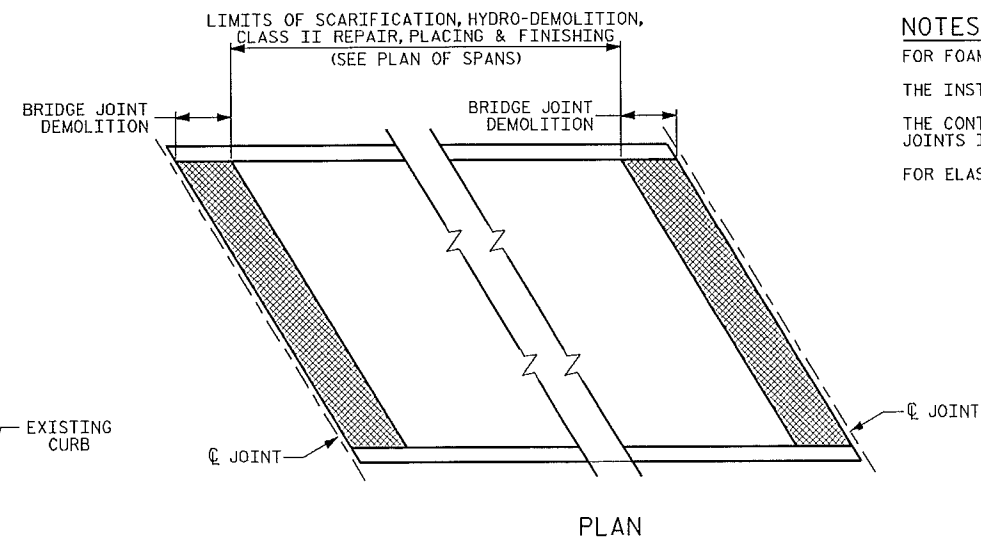
SECTION D-D
(PROPOSED FOAM EXPANSION JOINT SEAL)

HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT, TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF ELASTOMERIC OR REPAIR CONCRETE. DEMOLISH BRIDGE JOINT TO THE NECESSARY DEPTH, SUCH THAT ELASTOMERIC CONCRETE SHALL BE FOUNDED ON CONCRETE OR REPAIR CONCRETE SUBSTRATE, NOT LATEX MODIFIED CONCRETE.

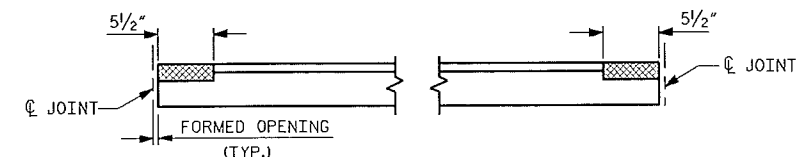
ELASTOMERIC CONCRETE	
	CU. FT.
BENT 1	7.63
BENT 2	7.63
TOTAL	15.26



SECTION E-E



PLAN



ELEVATION

NOTES:

FOR FOAM JOINT SEAL SEE SPECIAL PROVISIONS.
THE INSTALLED FOAM JOINT SEAL SHALL BE WATER TIGHT.
THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.
FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

LIMITS OF BRIDGE JOINT DEMOLITION AND OVERLAY PREPARATION AND PLACEMENT

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 123

SHEET 2 OF 2

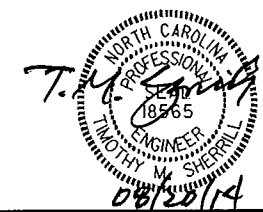
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

JOINT DETAILS
AT BENTS

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



DRAWN BY: R. PUTK DATE: 06/14
CHECKED BY: T. SHERRILL DATE: 07/14
DESIGN ENGINEER OF RECORD: DATE: -

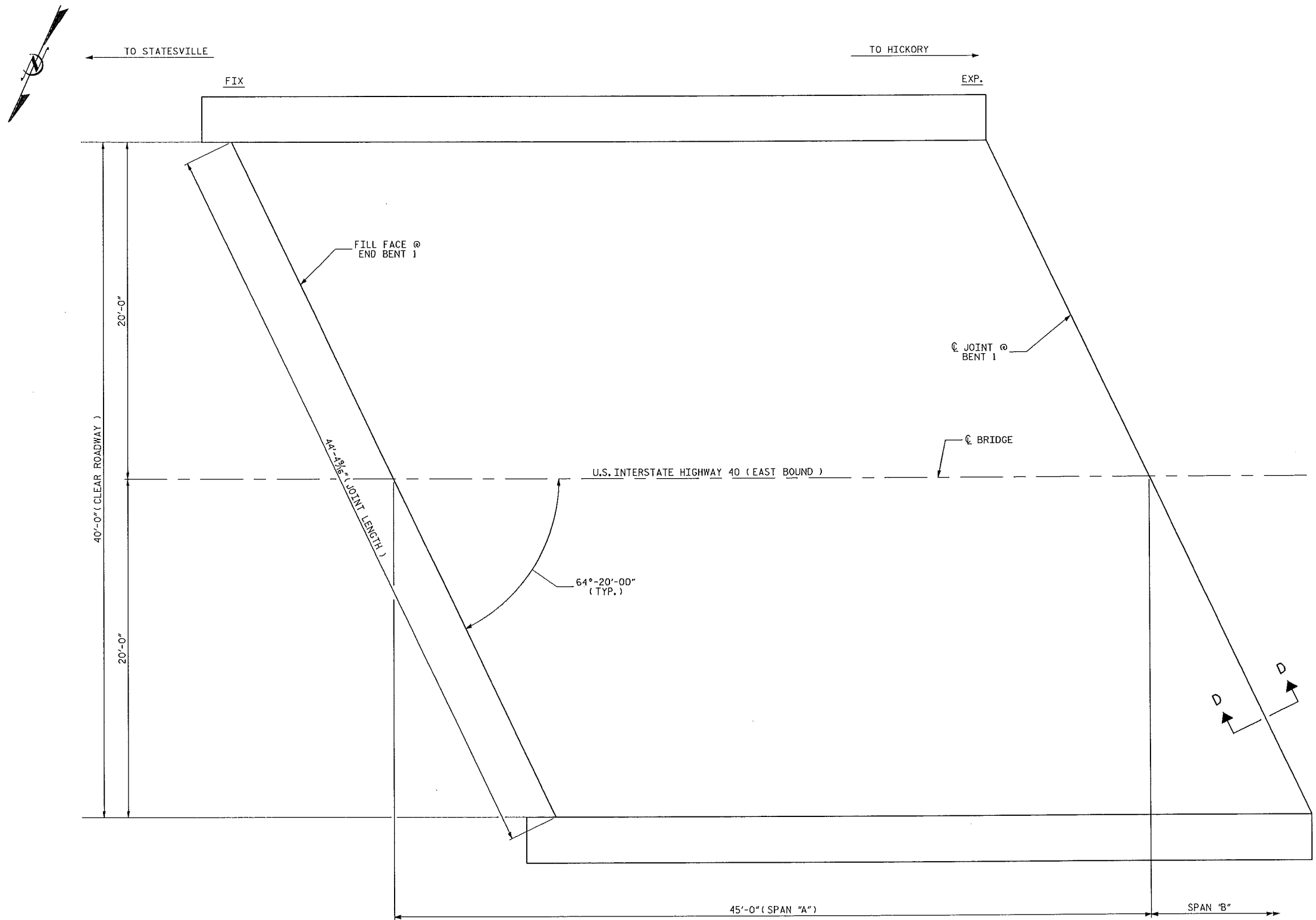
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rputk



SPAN "A" QUANTITIES		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0 SQ. YDS.	
CLASS III SURFACE PREPARATION	0 SQ. YDS.	
SCARIFYING BRIDGE DECK	200 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	200 SQ. YDS.	

PAYMENT FOR CLASS II & CLASS III SURFACE PREPARATION IS BASED ON THE SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE SPECIAL PROVISIONS.

	CLASS II SURFACE PREPARATION
	SCARIFICATION & HYDRO-DEMOLITION



PLAN OF SPAN "A"
(FOR SECTION VIEWS, SEE "JOINT DETAIL SHEET")

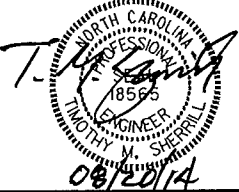
PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 123

SHEET 1 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SURFACE PREPARATION SPAN "A"					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					28



DRAWN BY: RPUTEK DATE: 05/14
CHECKED BY: T. SHERRILL DATE: 07/14
DESIGN ENGINEER OF RECORD: - DATE: -

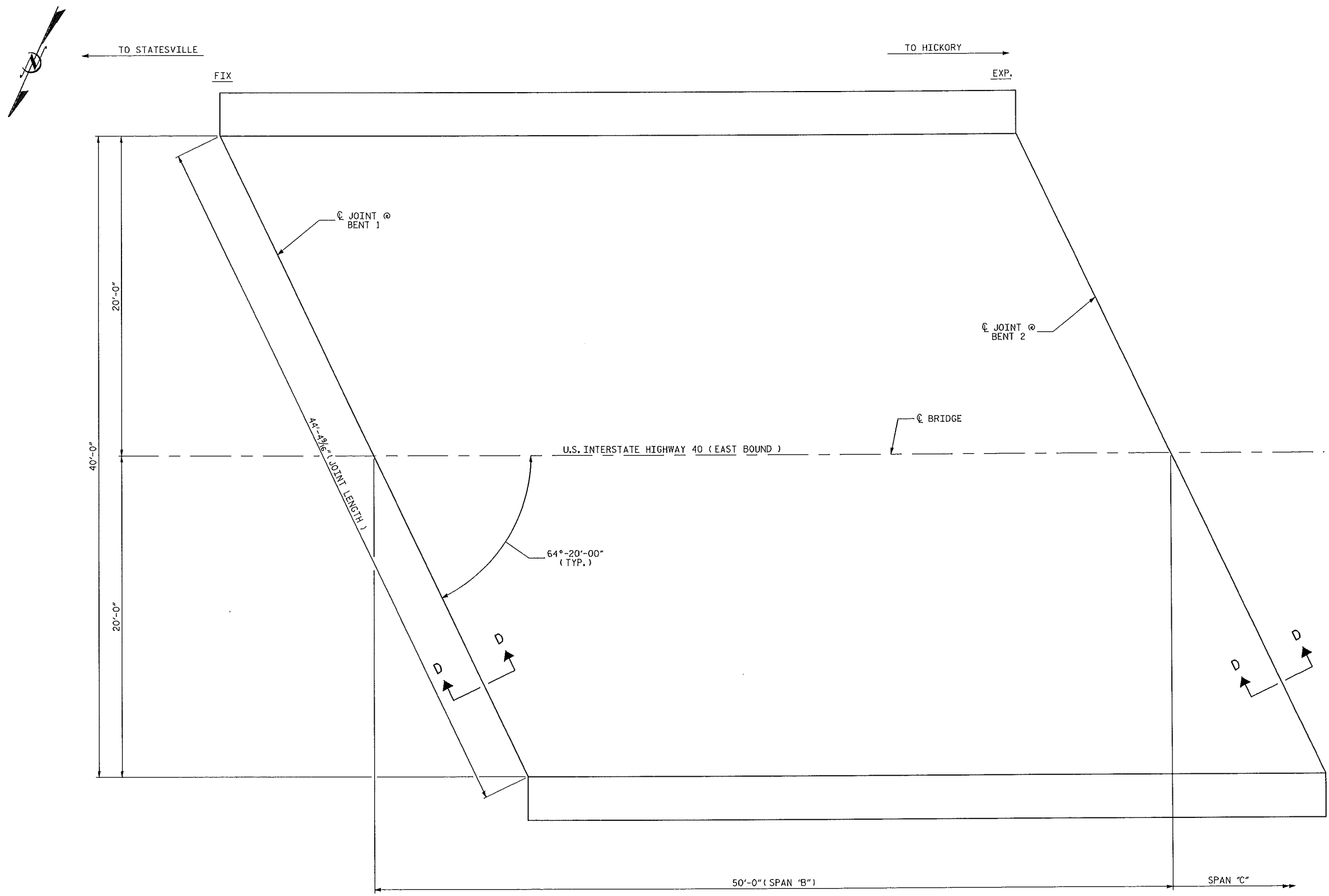
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rputek



SPAN "B" QUANTITIES		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0 SQ. YDS.	
CLASS III SURFACE PREPARATION	0 SQ. YDS.	
SCARIFYING BRIDGE DECK	222 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	222 SQ. YDS.	

PAYMENT FOR CLASS II & CLASS III SURFACE PREPARATION IS BASED ON THE SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE SPECIAL PROVISIONS.

-  CLASS II SURFACE PREPARATION
-  SCARIFICATION & HYDRO-DEMOLITION



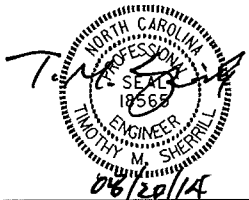
PLAN OF SPAN "B"
(FOR SECTION VIEWS, SEE "JOINT DETAIL SHEET")

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 123

SHEET 2 OF 3



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SURFACE PREPARATION SPAN "B"					
REVISIONS					SHEET NO.
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		
					TOTAL SHEETS
					28

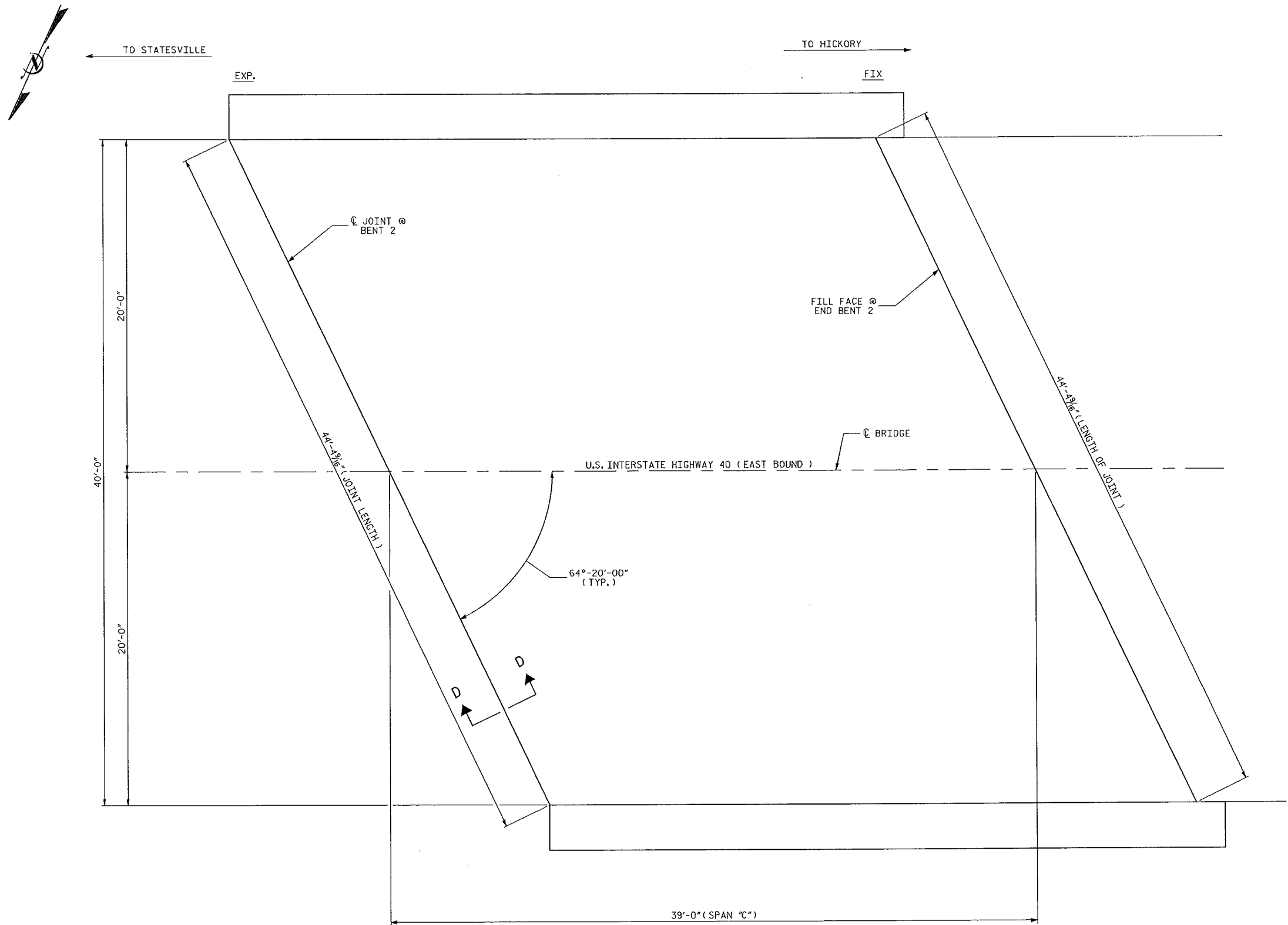
DRAWN BY : R.PUTEK DATE : 05/14
CHECKED BY : T.SHERILL DATE : 07/14
DESIGN ENGINEER OF RECORD: - DATE : -



SPAN "C" QUANTITIES		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0 SQ. YDS.	
CLASS III SURFACE PREPARATION	0 SQ. YDS.	
SCARIFYING BRIDGE DECK	173 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	173 SQ. YDS.	

PAYMENT FOR CLASS II & CLASS III SURFACE PREPARATION IS BASED ON THE SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE SPECIAL PROVISIONS.

	CLASS II SURFACE PREPARATION
	SCARIFICATION & HYDRO-DEMOLITION



PLAN OF SPAN "C"
(FOR SECTION VIEWS, SEE "JOINT DETAIL SHEET")

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO.: 123




SHEET 3 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
SURFACE PREPARATION SPAN "C"					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					28

DRAWN BY : R. PUTK DATE : 05/14
CHECKED BY : T. SHERRILL DATE : 07/14
DESIGN ENGINEER OF RECORD: DATE :

ROADWAY SLAB @ END BENT 1		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0 SQ. YDS.	
CLASS III SURFACE PREPARATION	0 SQ. YDS.	
SCARIFYING BRIDGE DECK	69 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	69 SQ. YDS.	
ROADWAY SLAB @ END BENT 2		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0 SQ. YDS.	
CLASS III SURFACE PREPARATION	0 SQ. YDS.	
SCARIFYING BRIDGE DECK	69 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	69 SQ. YDS.	

PAYMENT FOR CLASS II & CLASS III SURFACE PREPARATION IS BASED ON THE SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE SPECIAL PROVISIONS.

-  CLASS II SURFACE PREPARATION
-  SCARIFICATION & HYDRO-DEMOLITION
-  EXISTING TO REMAIN

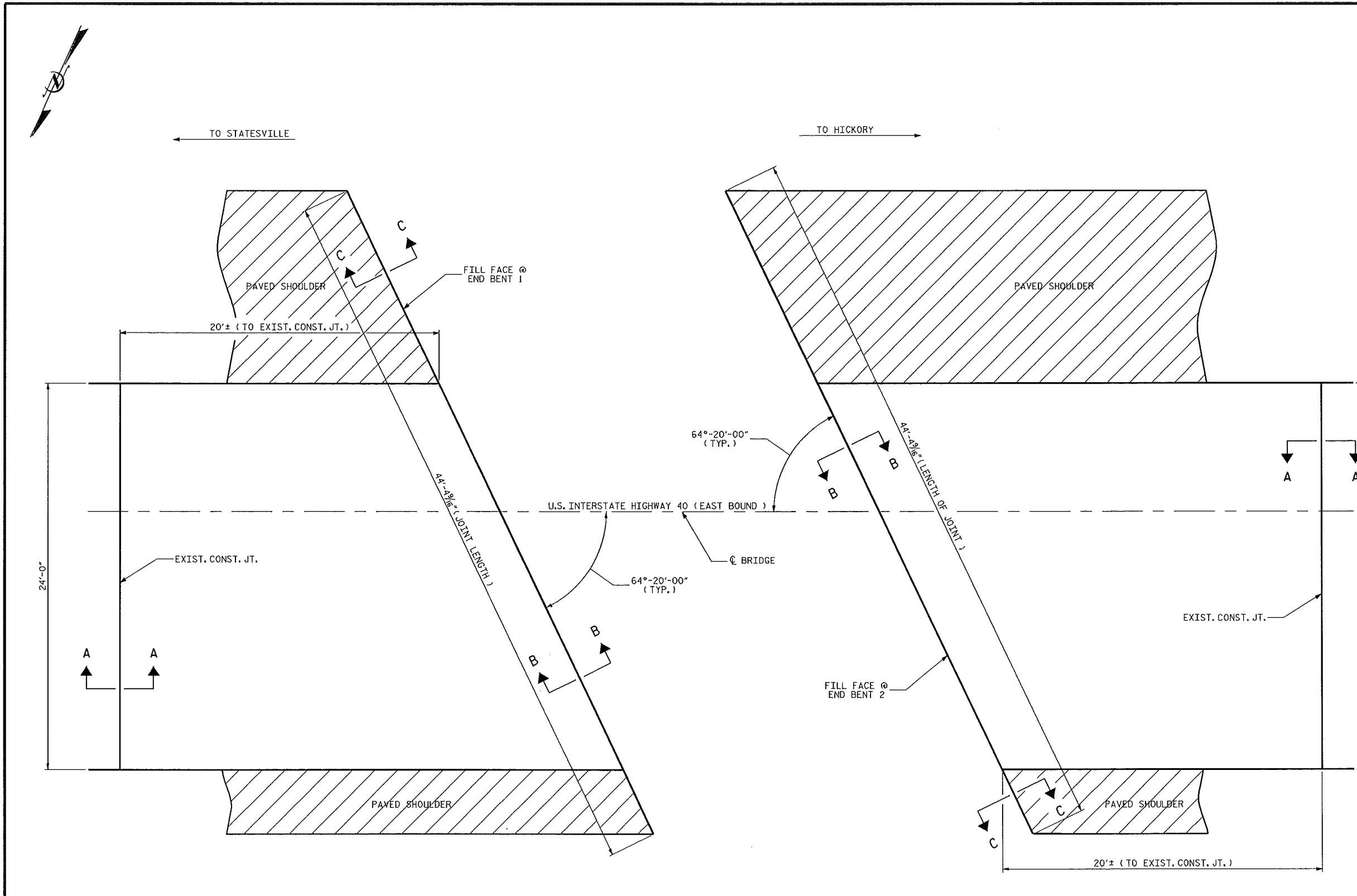
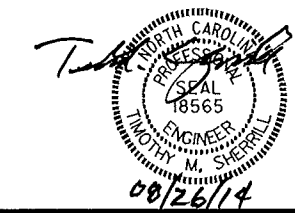
PROJECT NO. BP-5500W
IREDELL COUNTY
 BRIDGE NO. 123

SHEET 1 OF 1

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 ROADWAY SLABS

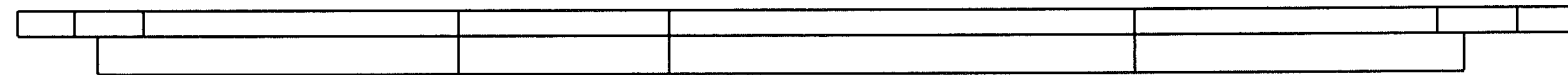
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			28



ROADWAY SLAB @ END BENT 1
 (FOR SECTION VIEWS, SEE "JOINT DETAILS" SHEET.)

ROADWAY SLAB @ END BENT 2
 (FOR SECTION VIEWS, SEE "JOINT DETAILS" SHEET.)

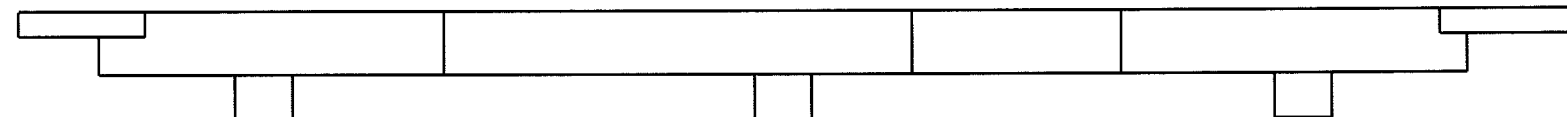
DRAWN BY : R. PUTK DATE : 05/14
 CHECKED BY : T. SHERRILL DATE : 07/14
 DESIGN ENGINEER OF RECORD: - DATE : -



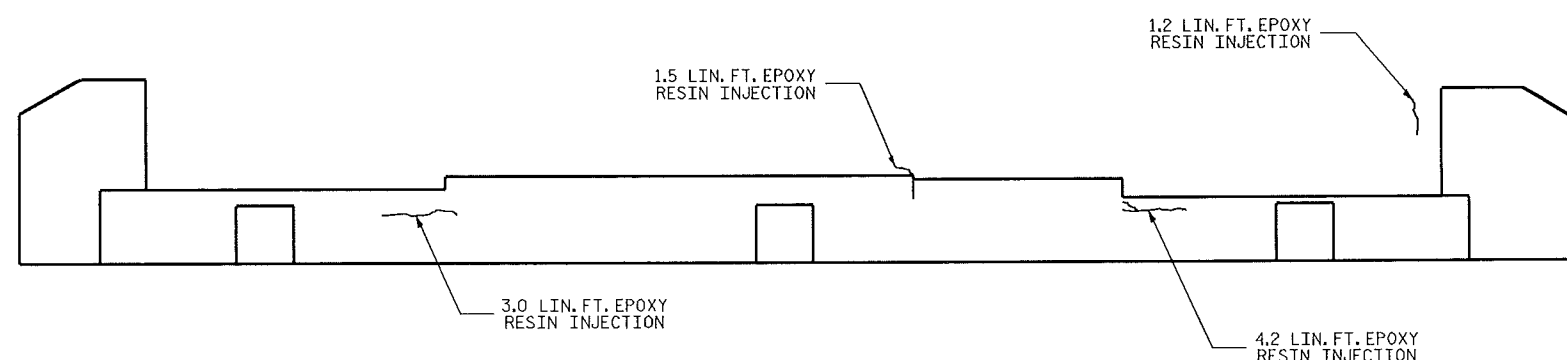
END BENT 1 - TOP



END BENT 1 - SPAN "A" FACE



END BENT 2 - TOP



END BENT 2 - SPAN "C" FACE

REPAIR QUANTITY TABLE

REPAIRS END BENT 1	QUANTITIES				
	ESTIMATE		ACTUAL		
	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
SHOTCRETE REPAIRS					
CAP (VERTICAL FACE)	0	0			
CAP (HORIZONTAL, CORNER)	0	0			
EPOXY RESIN INJECTION					
CAP		1.5			
REPAIRS END BENT 2	QUANTITIES				
	ESTIMATE		ACTUAL		
	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
SHOTCRETE REPAIRS					
CAP (VERTICAL FACE)	0	0			
CAP (HORIZONTAL, CORNER)	0	0			
EPOXY RESIN INJECTION					
CAP		9.9			

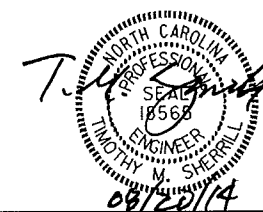
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE: 123

SHEET 1 OF 1

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

END BENT 1 & 2
REPAIRS



DRAWN BY: R. PUTK DATE: 04/14
CHECKED BY: T. SHERRILL DATE: 07/14
DESIGN ENGINEER OF RECORD: DATE: -

20-AUG-2014 09:23
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REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			S-10 TOTAL SHEETS 28
2			4			

NOTES

REPAIR LOCATIONS AND ESTIMATES OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE.

IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE INSPECTOR OR ENGINEER, THE CONTRACTOR SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS, AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

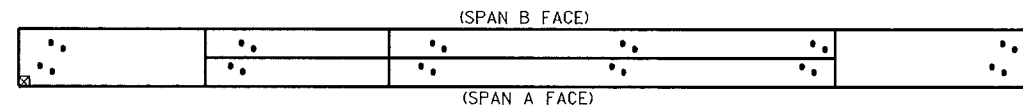
ALL EXISTING REPAIR PATCHES ARE TO BE INSPECTED, AND REPAIRED, AS DEEMED NECESSARY BY THE INSPECTOR, OR ENGINEER.

FOR ADDITIONAL NOTES AND TYPICAL SUBSTRUCTURE REPAIR DETAILS, SEE "DETAILS" SHEET.

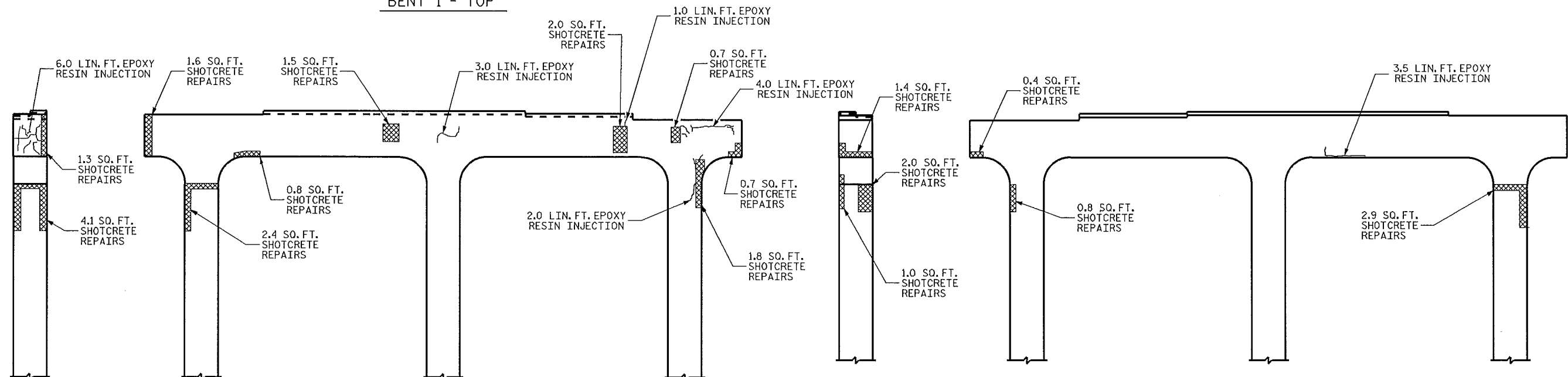
REPAIR QUANTITY TABLE

REPAIRS BENT 1	QUANTITIES				
	ESTIMATE		ACTUAL		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
CAP (VERTICAL FACE)	7.1	3.0			
CAP (HORIZONTAL, CORNER)	7.2	3.0			
COLUMN	15.0	6.3			
EPOXY RESIN INJECTION		LN. FT			LN. FT
CAP		32.5			
COLUMN		2.0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.



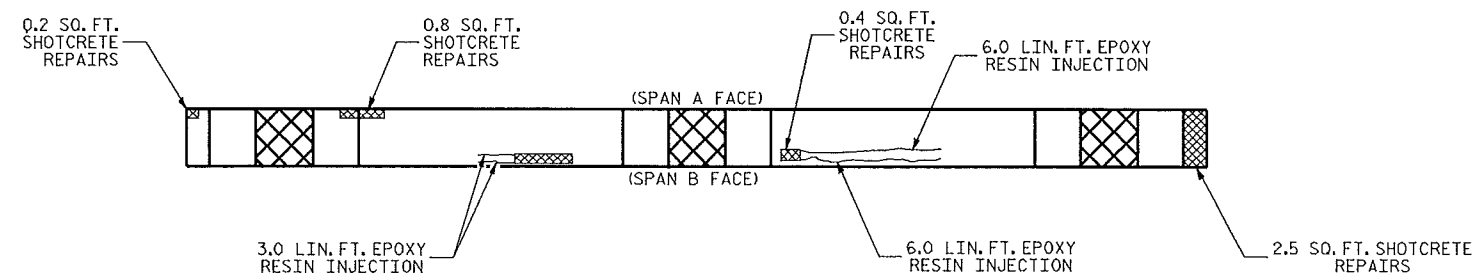
BENT 1 - TOP



BENT 1 - SOUTH END

BENT 1 - NORTH END

BENT 1 - SPAN "A" FACE



BENT 1 - UNDERSIDE

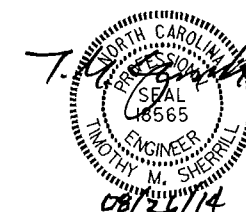
BENT 1 - SPAN "B" FACE

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 123

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 1 REPAIRS



DRAWN BY : B. PUTK DATE : 06/14
CHECKED BY : T. SHERRILL DATE : 07/14
DESIGN ENGINEER OF RECORD : DATE :

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-11 TOTAL SHEETS 28
2			4			

NOTES

REPAIR LOCATIONS AND ESTIMATES OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE.

IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE INSPECTOR OR ENGINEER, THE CONTRACTOR SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS, AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

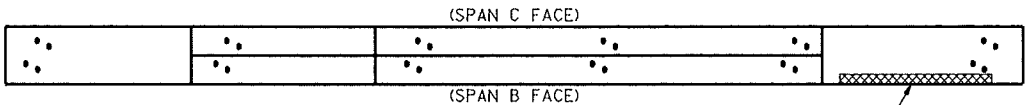
ALL EXISTING REPAIR PATCHES ARE TO BE INSPECTED, AND REPAIRED, AS DEEMED NECESSARY BY THE INSPECTOR, OR ENGINEER.

FOR ADDITIONAL NOTES AND TYPICAL SUBSTRUCTURE REPAIR DETAILS, SEE "DETAILS" SHEET.

REPAIR QUANTITY TABLE

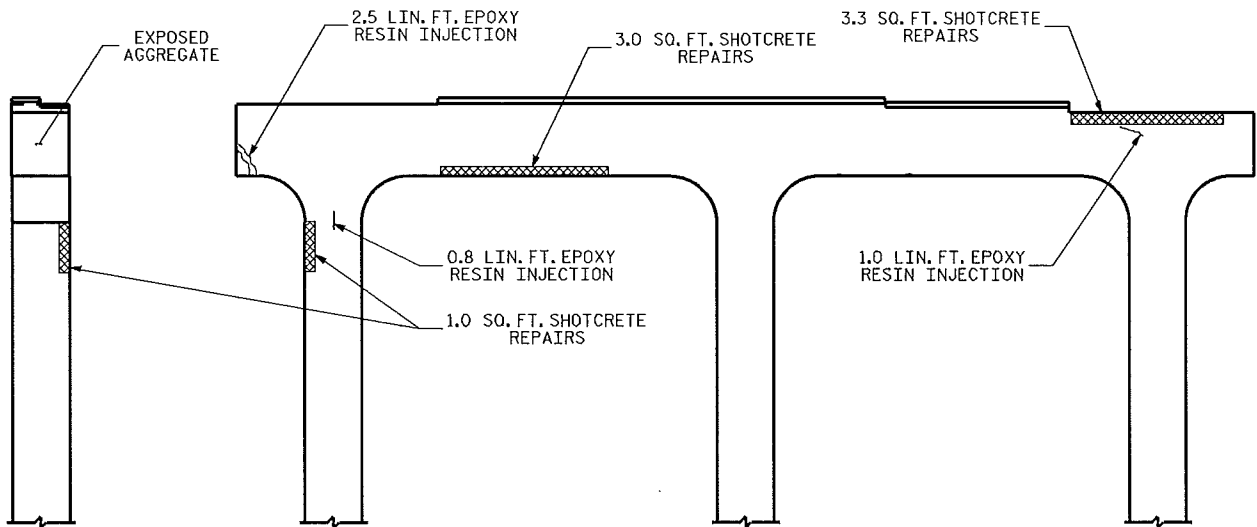
REPAIRS BENT 2	QUANTITIES				
	ESTIMATE		ACTUAL		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
CAP (VERTICAL FACE)	3.0	1.3			
CAP (HORIZONTAL, CORNER)	18.9	7.9			
COLUMN	4.4	1.8			
EPOXY RESIN INJECTION		LN. FT			LN. FT
CAP		21.5			
COLUMN		0.8			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

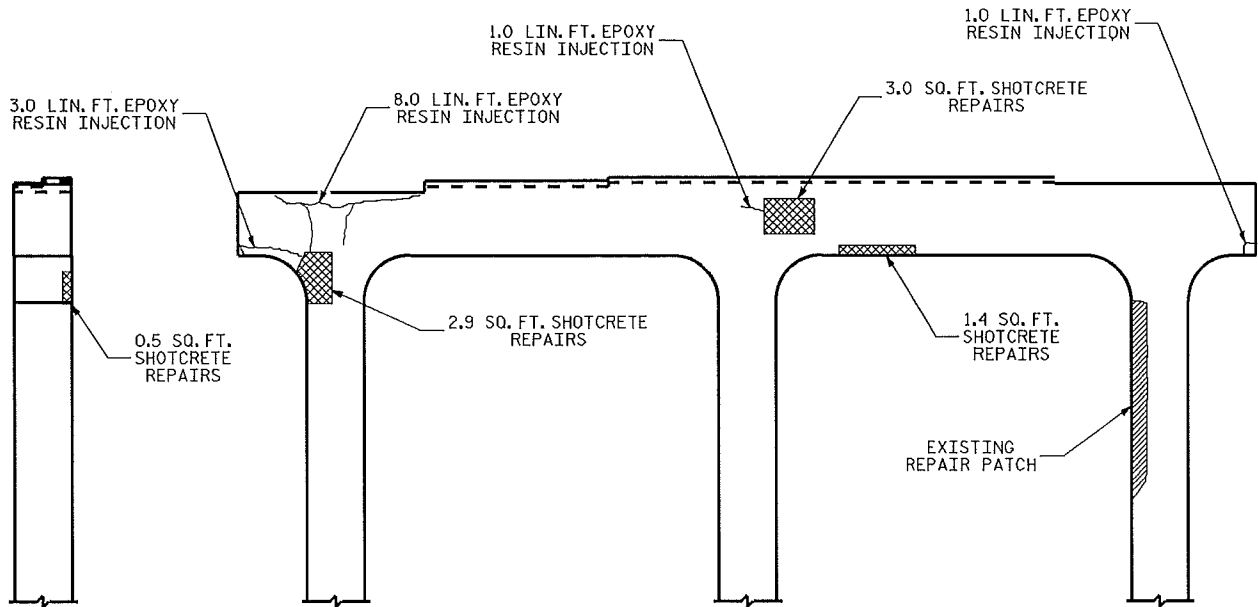


2.8 SQ. FT. SHOTCRETE REPAIRS

BENT 2 - TOP

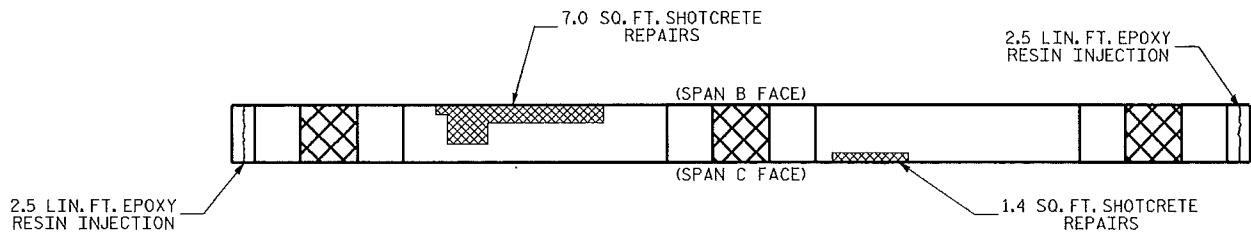


BENT 2 - SOUTH END



BENT 2 - NORTH END

BENT 2 - SPAN "B" FACE



BENT 2 - UNDERSIDE

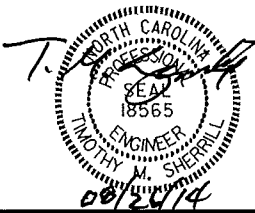
BENT 2 - SPAN "C" FACE

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 123

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 2 REPAIRS



DRAWN BY : R. PUTEK DATE : 06/14
CHECKED BY : T. SHERRILL DATE : 07/14
DESIGN ENGINEER OF RECORD : DATE : -

26-AUG-2014 14:46
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-12
2			4			TOTAL SHEETS 28

NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE INSPECTOR OR ENGINEER, THE CONTRACTOR SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED.

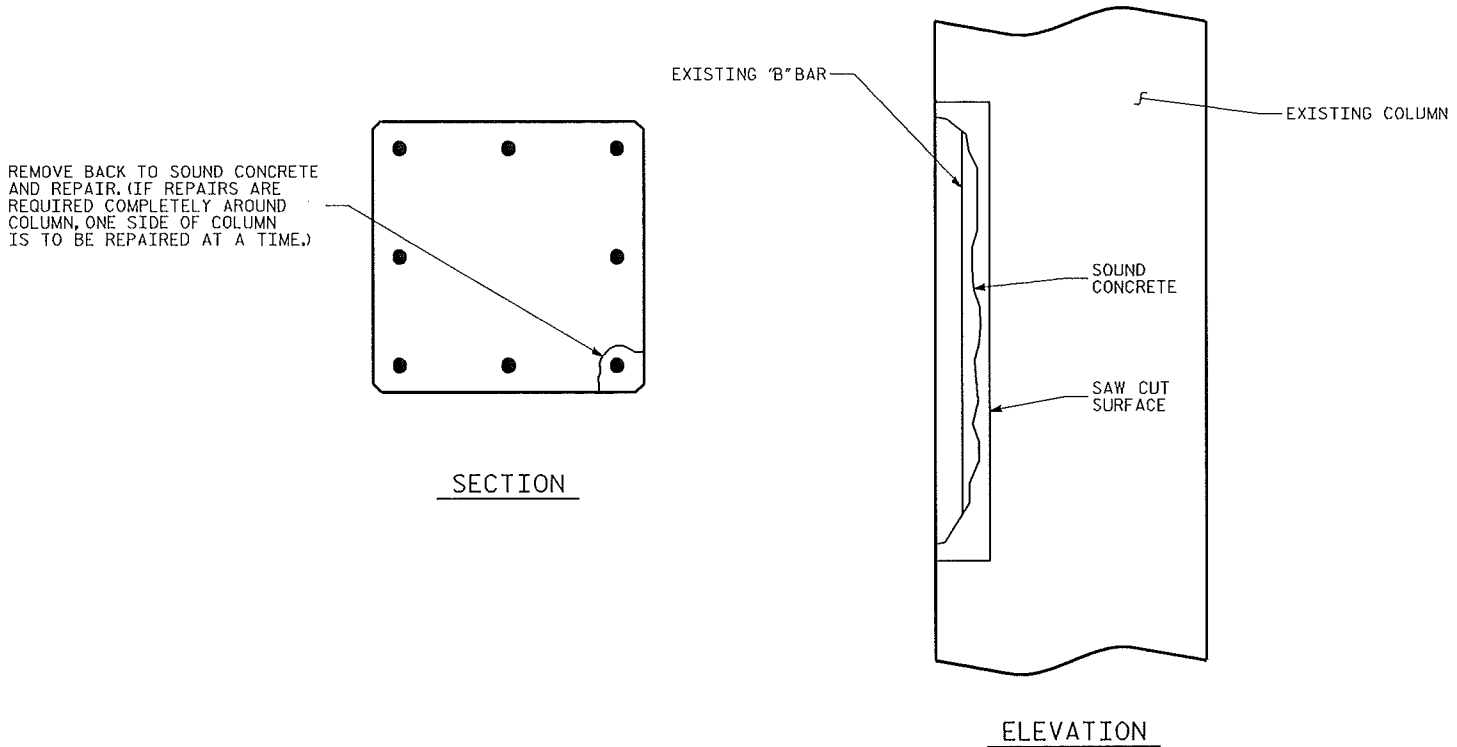
CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

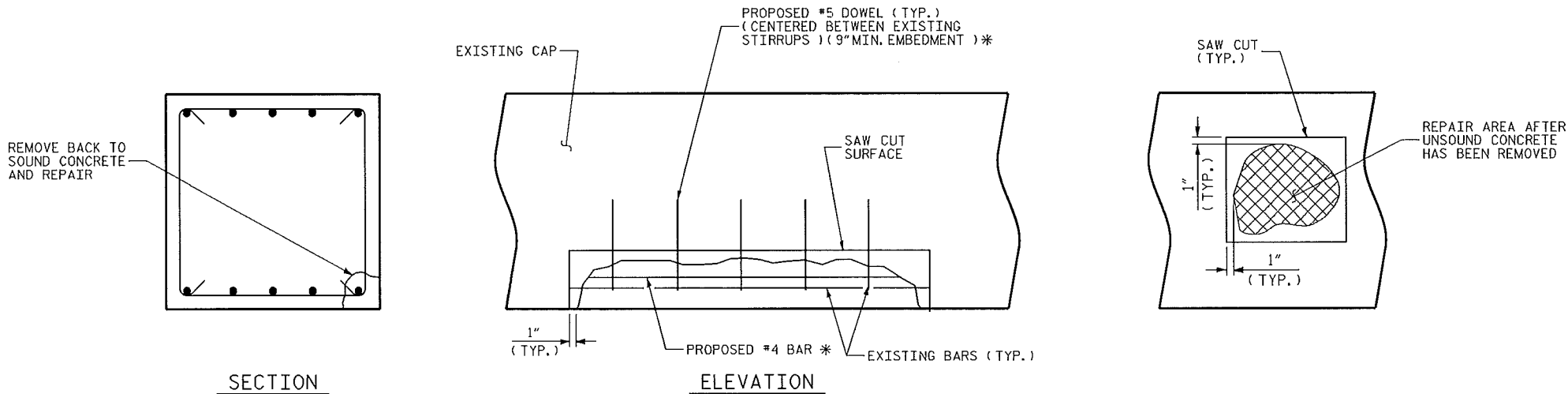
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

* THESE DOWELS AND BARS WILL BE REQUIRED AT THE LOCATIONS DESIGNATED BY THE ENGINEER.



COLUMN CORNER REPAIR



CAP CORNER REPAIR

FACE REPAIR

TYPICAL SUBSTRUCTURE REPAIR DETAIL

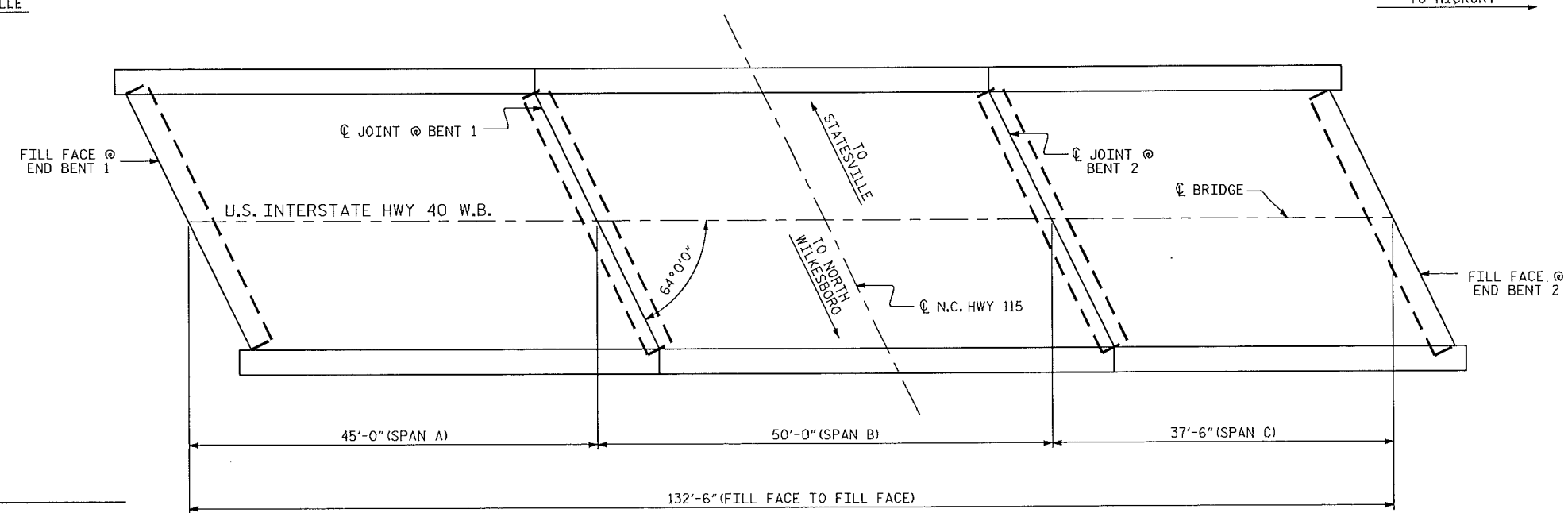
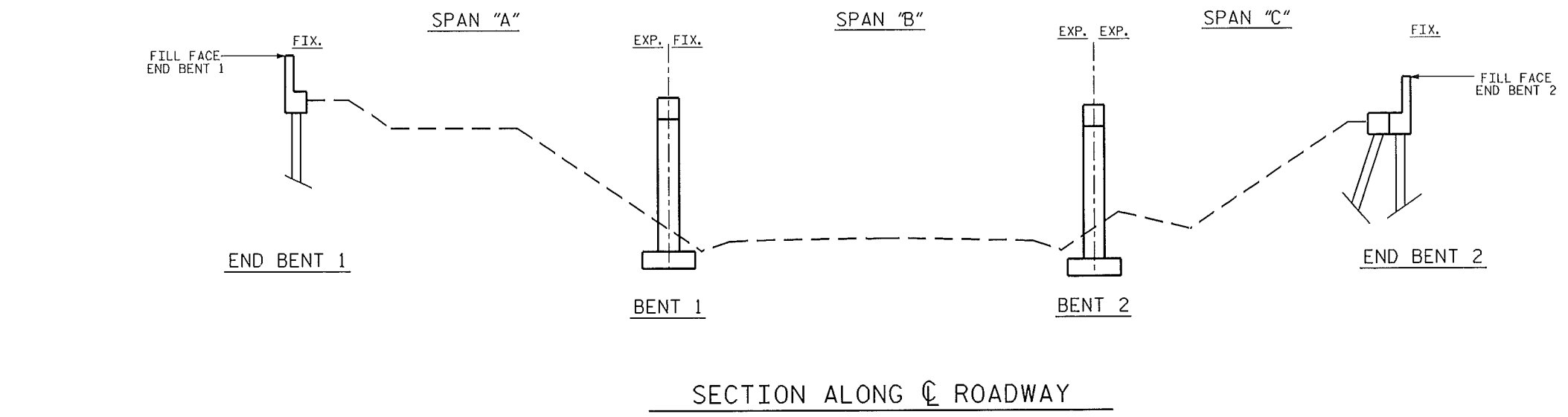
PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO.: 123

SHEET 1 OF 1

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
DETAILS					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		
SHEET NO.					S-13
TOTAL SHEETS					28

DRAWN BY : R. PUTK DATE : 04/14
CHECKED BY : T. SHERRILL DATE : 07/14
DESIGN ENGINEER OF RECORD: - DATE : -

NOTE:
THE PROFILE INFORMATION IS TAKEN
FROM THE ORIGINAL PLANS, AND THE
ROUTINE INSPECTION REPORT
DATED: 04/12/2012



SCOPE OF WORK:

- SAWCUT AND CHIP OUT UNSOUND CONCRETE IN THE SPALLED AND DELAMINATED AREAS OF THE SUBSTRUCTURE.
- APPLY SHOTCRETE IN PREPARED AREAS OF SUBSTRUCTURE.
- EPOXY INJECT CRACKS IN SUBSTRUCTURE.
- PREPARE AND PAINT STRUCTURAL STEEL.
- PARTIALLY REMOVE BRIDGE DECK CONCRETE USING SCARIFICATION AND HYDRO-DEMOLITION METHODS.
- OVERLAY PREPARED BRIDGE DECK SURFACE WITH LATEX MODIFIED CONCRETE - VERY EARLY STRENGTH.
- DEMOLISH EXISTING BRIDGE DECK JOINTS.
- RECONSTRUCT BRIDGE DECK JOINTS AND INSTALL NEW SYNTHETIC RUBBER EXPANSION JOINT SEALS.
- GROOVE CONCRETE BRIDGE DECK.

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 124

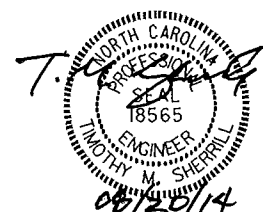
SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

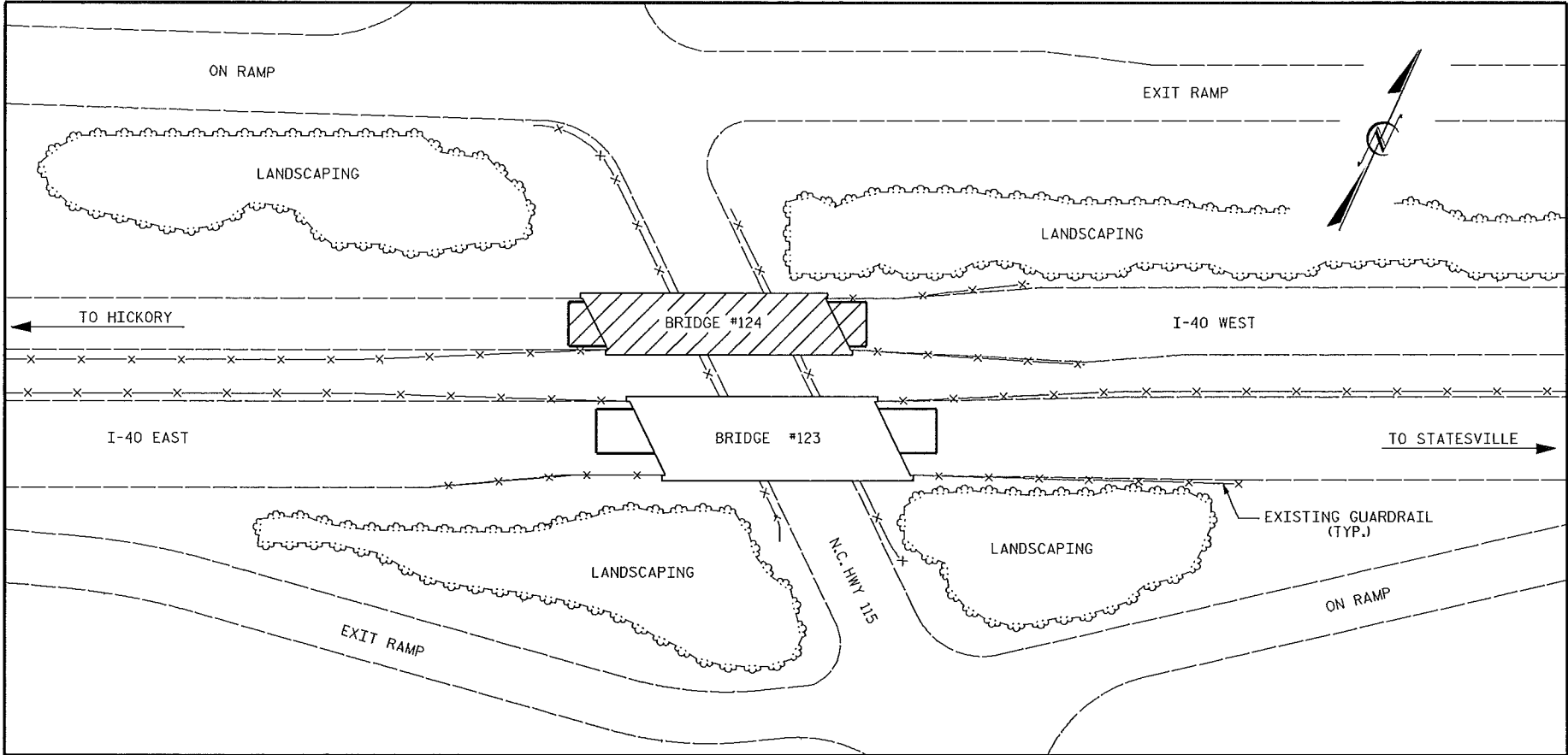
GENERAL DRAWING
BRIDGE 124 ON I-40 WB
OVER N.C. HWY 115

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

SHEET NO. S-14
TOTAL SHEETS 28



DRAWN BY : R. PUTK DATE : 02/14
CHECKED BY : T. SHERRILL DATE : 02/14
DESIGN ENGINEER OF RECORD: DATE :



LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION, ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING THE BRIDGES, ROADWAYS, UTILITIES, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

NOTES

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.

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

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

THE CONTRACTOR SHALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH OF THE DECK.

FOR SCARIFYING BRIDGE DECK, HYDRO-DEMOLITION OF BRIDGE DECK, AND CLASS II SURFACE PREPARATION, SEE OVERLAY SURFACE PREPARATION SPECIAL PROVISION.

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING REPAIR OF BRIDGE DECKS.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT FLOW OR MIGRATE INTO ACTIVE TRAVEL LANES.

FOR UNDER STRUCTURE WORK PLATFORM, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS, SEE SPECIAL PROVISIONS.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR PAINTING EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

TOTAL BILL OF MATERIAL

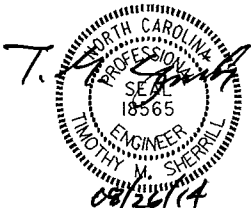
GROOVING BRIDGE FLOOR	POLLUTION CONTROL	SHOTCRETE REPAIRS	FOAM JOINT SEALS	UNDER STRUCTURE WORK PLATFORM	LATEX MODIFIED CONCRETE OVERLAY -VERY EARLY STRENGTH	BRIDGE JOINT DEMOLITION	HYDRO-DEMOLITION OF BRIDGE DECK	PLACING & FINISHING LATEX MODIFIED CONCRETE OVERLAY- VERY EARLY STRENGTH	SCARIFYING BRIDGE DECK
SO. FT.	LUMP SUM	CU. FT.	LUMP SUM	LUMP SUM	CU. YDS.	SO. FT.	SO. YDS.	SO. YDS.	SO. YDS.
3830	LUMP SUM	31.4	LUMP SUM	LUMP SUM	20	68	493	493	493

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 124

SHEET 2 OF 2

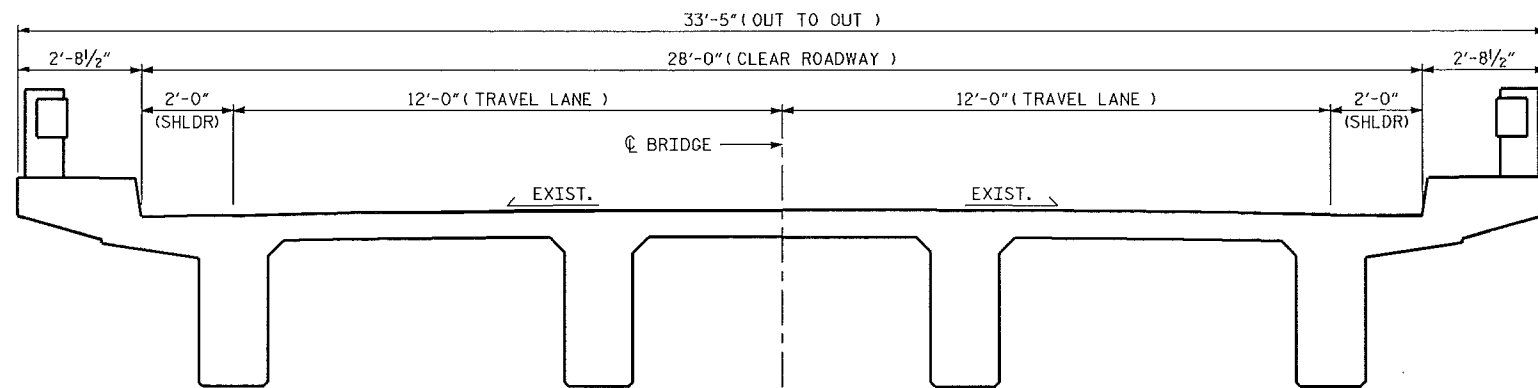
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
BRIDGE #124 ON I-40W
OVER NC 115

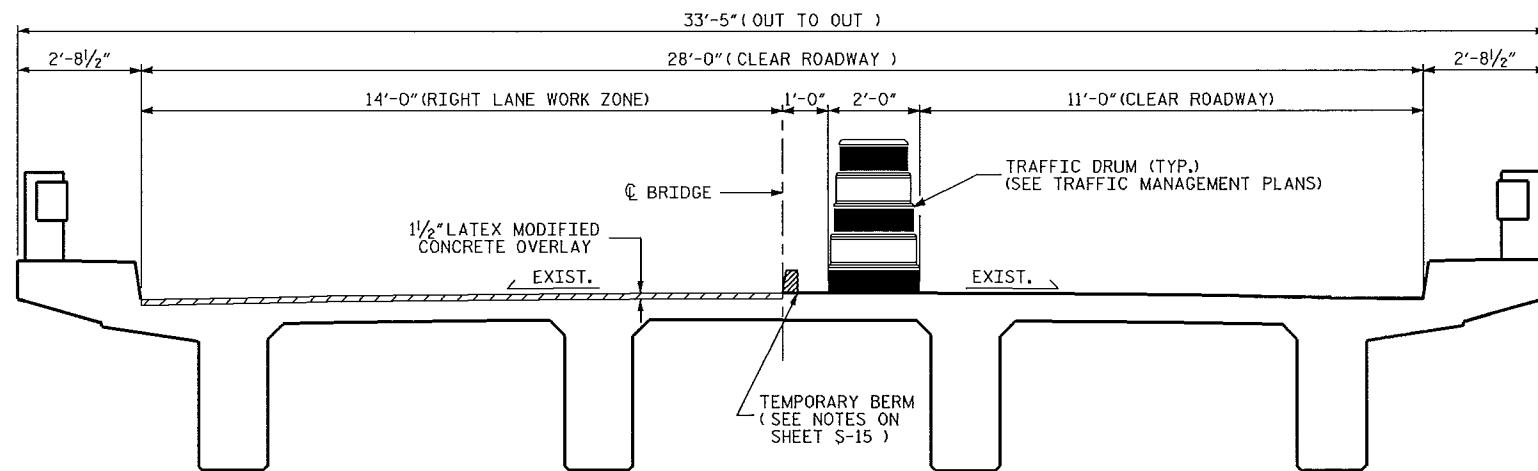


DRAWN BY : R. PUTK DATE : 06/14
CHECKED BY : T. SHERILL DATE : 06/14
DESIGN ENGINEER OF RECORD: DATE : -

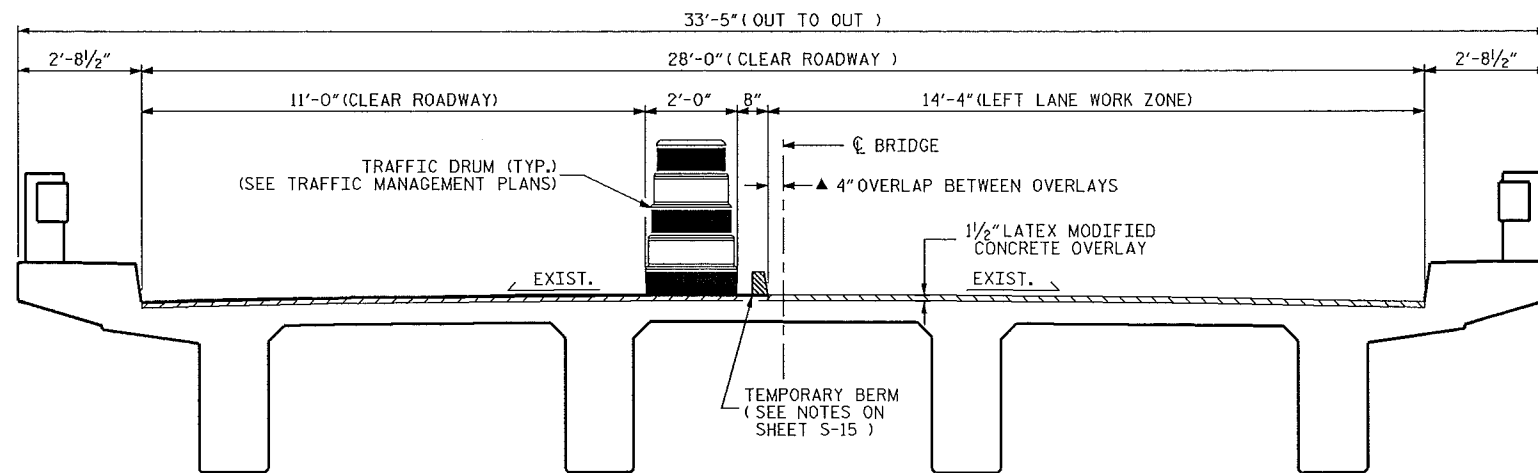
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-15
1			3			TOTAL SHEETS
2			4			28



TYPICAL SECTION
(EXISTING - LOOKING EAST)



TYPICAL SECTION
(RIGHT LANE WORK ZONE - LOOKING EAST)

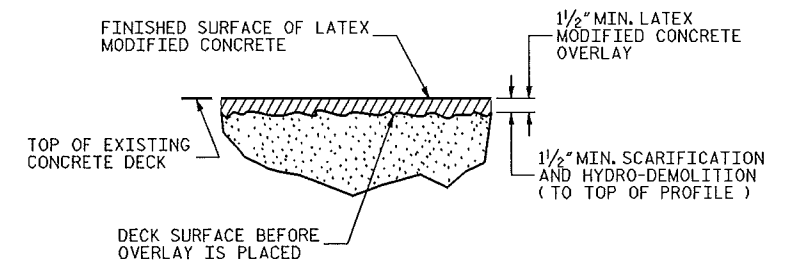


TYPICAL SECTION
(LEFT LANE WORK ZONE - LOOKING EAST)

▲ 4" OVERLAP BETWEEN OVERLAYS
PREVIOUSLY POURED LMC TO BE
HYDRO-DEMOLITIONED AND RECAST WITH LMC

NOTES:

THE WORK STAGING ON THIS PLAN SHEET INDICATES THAT THE RIGHT LANE LMC - VES WORK IS PERFORMED FIRST, FOLLOWED BY THE LEFT LANE LMC - VES WORK. THE CONTRACTOR MAY ELECT TO SEQUENCE THE WORK DIFFERENTLY, BUT THE DIMENSIONS OF THE WORK ZONE, CLEAR ROADWAY AREAS, AND THE LOCATIONS OF THE DRUM SHALL MATCH THAT INDICATED ON THIS PLAN SHEET, RESPECTIVE TO THE LANE WHERE THE LMC WORK IS BEING PERFORMED.



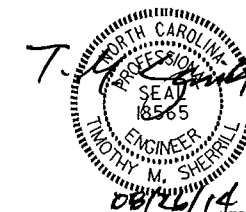
DETAIL FOR LATEX
MODIFIED CONCRETE OVERLAY

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 124

SHEET 2 OF 2

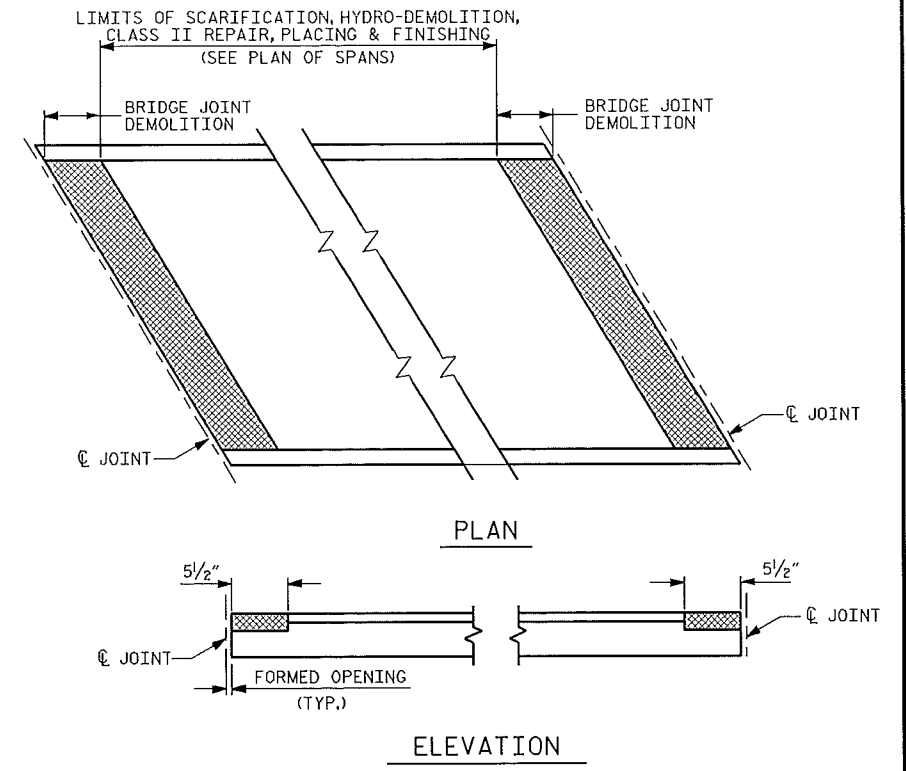
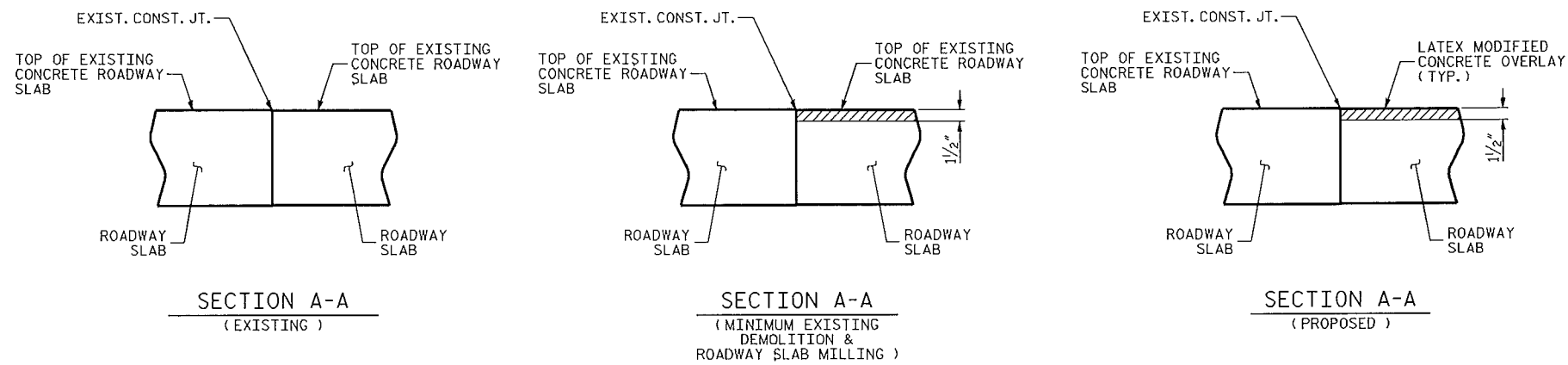
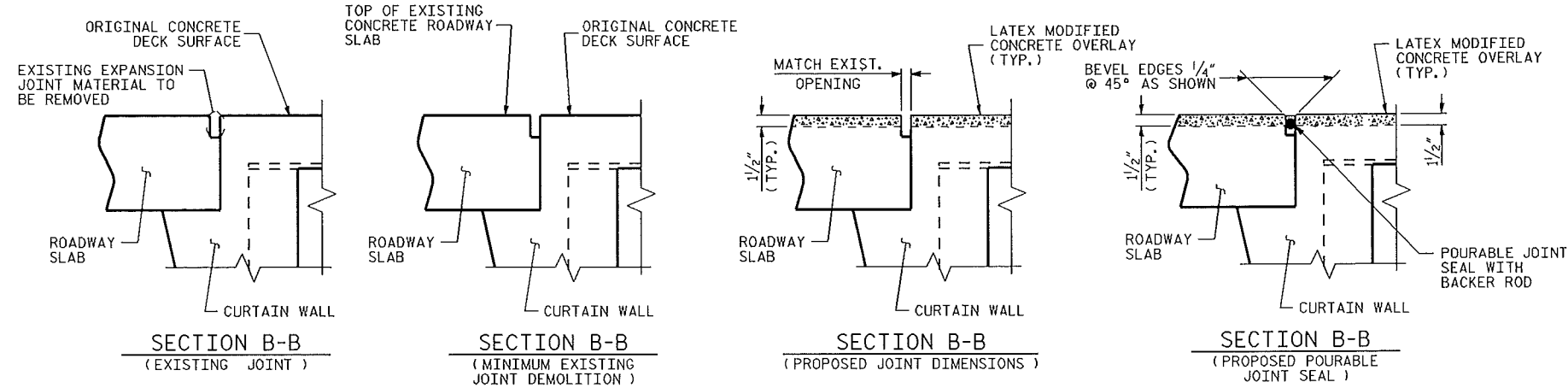
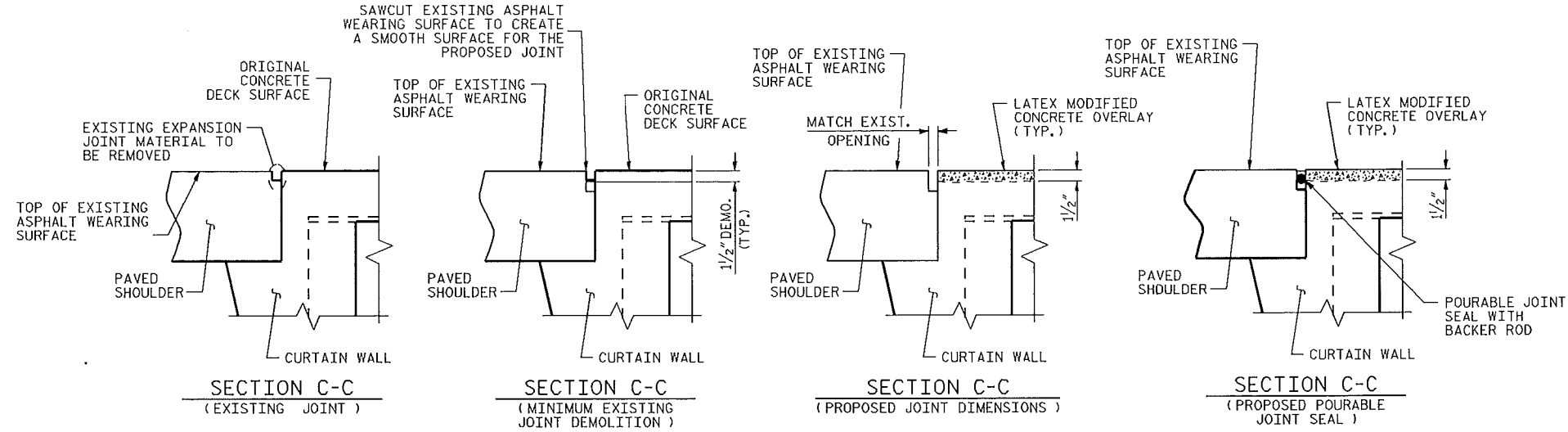
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

TYPICAL SECTION



DRAWN BY: R. PUTK DATE: 07/14
CHECKED BY: T. SHERRILL DATE: 07/14
DESIGN ENGINEER OF RECORD: DATE:

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-16
2			4			
						TOTAL SHEETS
						28

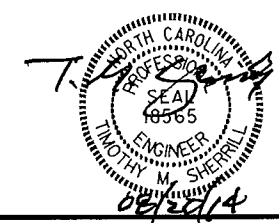


LIMITS OF BRIDGE JOINT DEMOLITION AND OVERLAY PREPARATION AND PLACEMENT

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 124

SHEET 1 OF 2

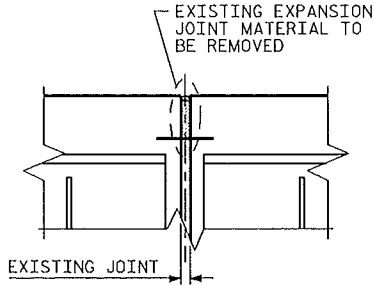
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-17
2			4			TOTAL SHEETS 28



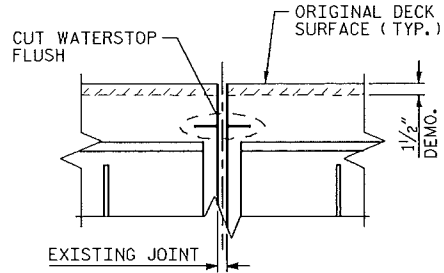
DRAWN BY : R. PUTK
CHECKED BY : T. SHERRILL
DESIGN ENGINEER OF RECORD :
DATE : 06/14
DATE : 06/14
DATE :

HYDRO-DEMOLITION OR EXCAVATION OF CONCRETE AT THE EXISTING JOINT SHALL RESULT IN THE BOTTOM OF THE EXCAVATION BEING REASONABLY FLAT TO PROVIDE SUFFICIENT SUBSTRATE FOR PLACEMENT AND SUPPORT OF ELASTOMERIC OR REPAIR CONCRETE. DEMOLISH BRIDGE JOINT TO THE NECESSARY DEPTH, SUCH THAT ELASTOMERIC CONCRETE SHALL BE FOUNDED ON CONCRETE OR REPAIR CONCRETE SUBSTRATE, NOT LATEX MODIFIED CONCRETE.

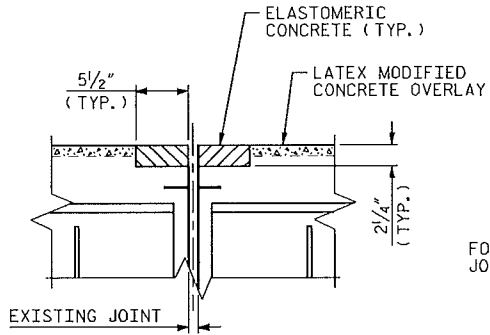
IF THE EMBEDDED PORTION OF THE EXISTING PLASTIC WATERSTOP IS EXPOSED DURING REMOVAL OF UNSOUND CONCRETE OR IF UNSOUND CONCRETE IS REMOVED WITHIN 2" OF THE WATERSTOP, THE ENTIRE WATERSTOP SHALL BE REMOVED



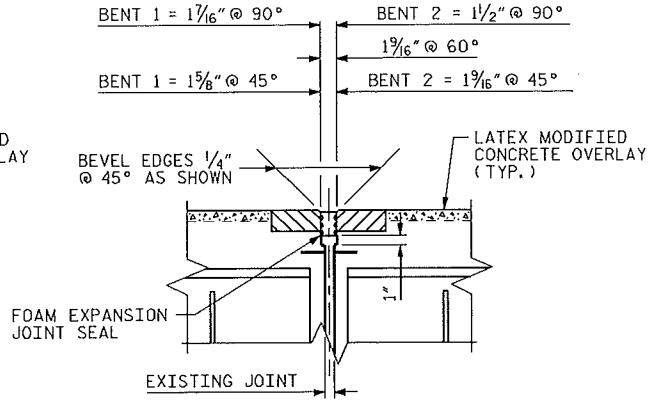
SECTION D-D
(EXISTING)



SECTION D-D
(MINIMUM EXISTING
JOINT DEMOLITION)



SECTION D-D
(PROPOSED JOINT
PRE-SAWED DIMENSIONS)



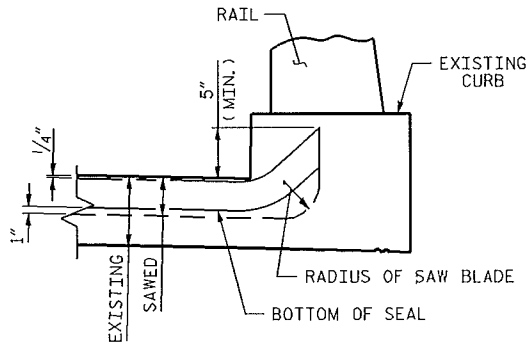
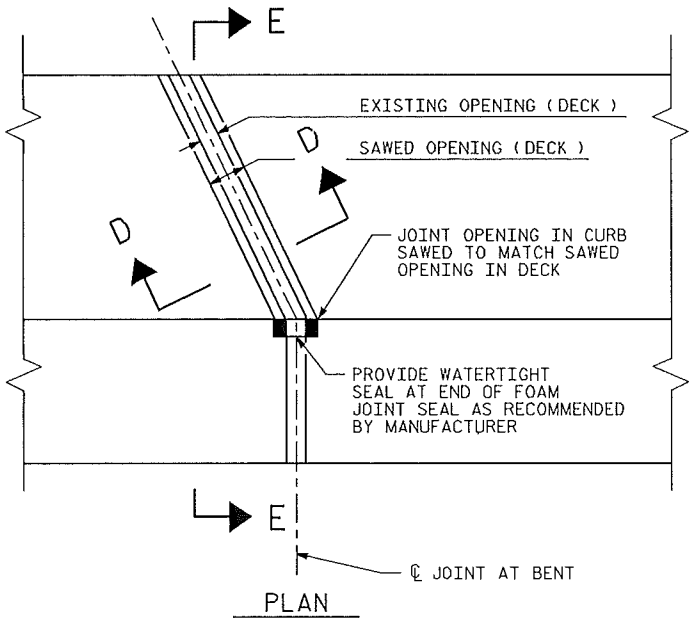
SECTION D-D
(PROPOSED FOAM
EXPANSION JOINT SEAL)

ELASTOMERIC CONCRETE

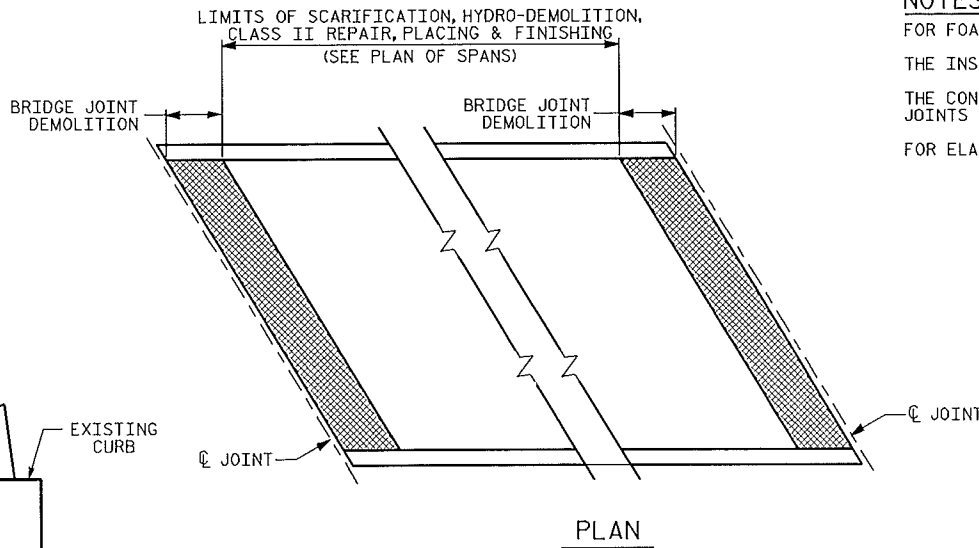
	CU. FT.
BENT 1	5.35
BENT 2	5.35
TOTAL	10.70

NOTES:

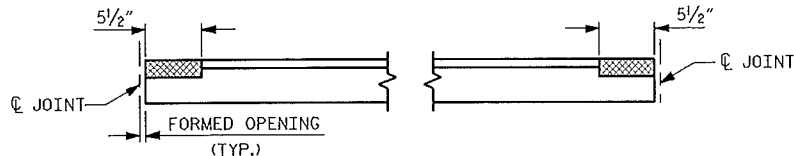
- FOR FOAM JOINT SEAL SEE SPECIAL PROVISIONS.
THE INSTALLED FOAM JOINT SEAL SHALL BE WATER TIGHT.
THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.
FOR ELASTOMERIC CONCRETE, SEE SPECIAL PROVISIONS.



SECTION E-E



PLAN



ELEVATION

LIMITS OF BRIDGE JOINT DEMOLITION AND
OVERLAY PREPARATION AND PLACEMENT

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 124

SHEET 2 OF 2

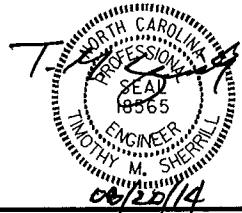
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

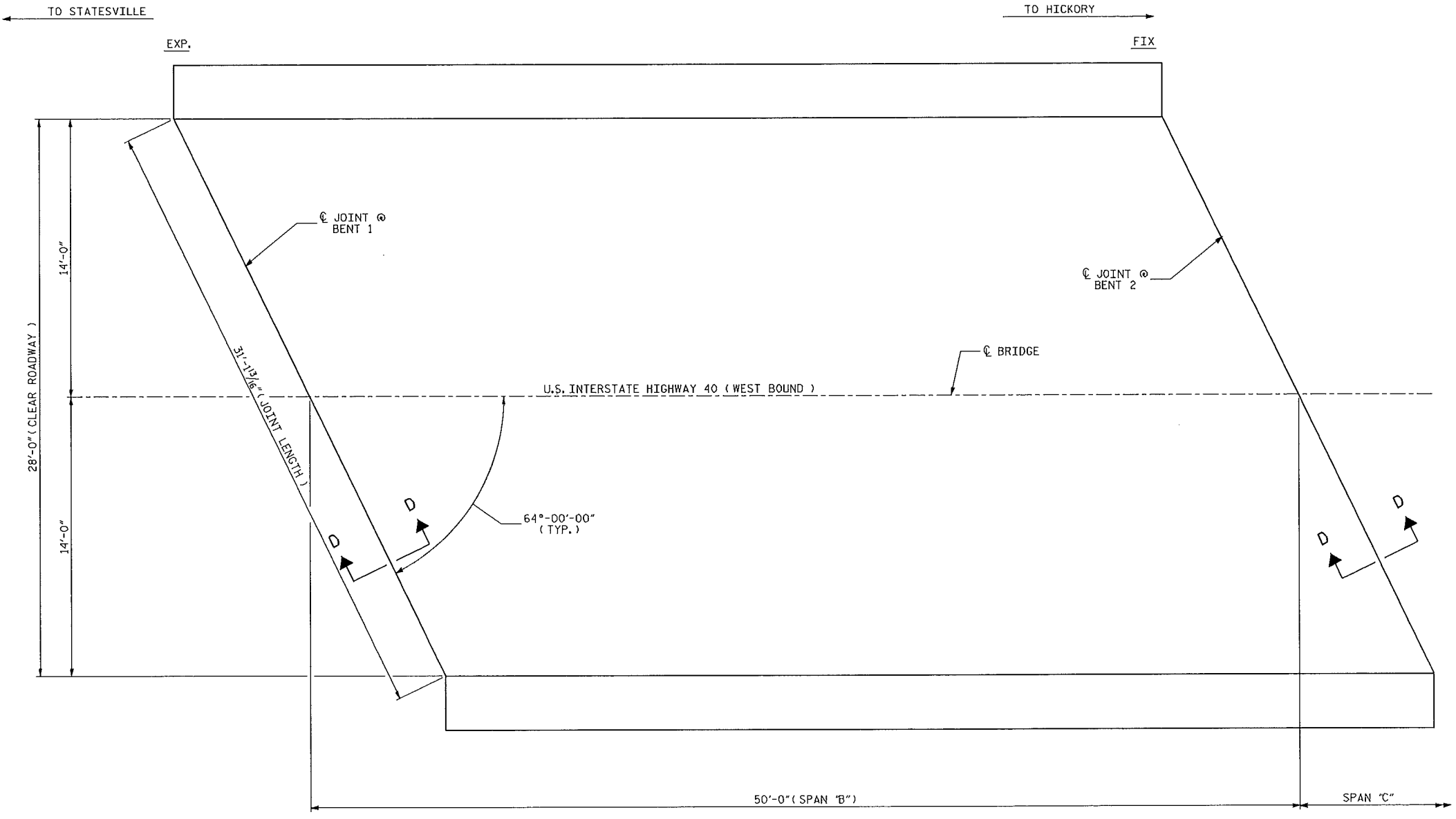
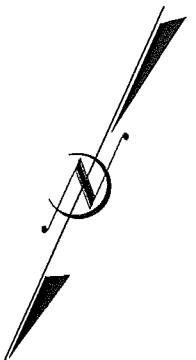
JOINT DETAILS
AT BENTS

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			S-18
2			4			TOTAL SHEETS 28

DRAWN BY : R. PUTK DATE : 06/14
CHECKED BY : T. SHERRILL DATE : 06/14
DESIGN ENGINEER OF RECORD: DATE :

20-AUG-2014 09:27
S:\PR5\POC\Squad C\Preservation\Projects\BP-5500\W\IREDELL 124\BP5500W_SD.Iredell.124.final.dgn
rputk







PLAN OF SPAN "B"
(FOR SECTION VIEWS, SEE "JOINT DETAIL SHEET")

SPAN "B" QUANTITIES		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0 SQ. YDS.	
CLASS III SURFACE PREPARATION	0 SQ. YDS.	
SCARIFYING BRIDGE DECK	156 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	156 SQ. YDS.	

PAYMENT FOR CLASS II & CLASS III SURFACE PREPARATION IS BASED ON THE SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE SPECIAL PROVISIONS.

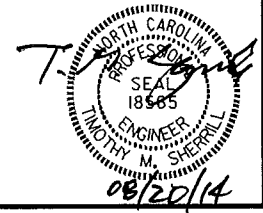
-  CLASS II SURFACE PREPARATION
-  SCARIFICATION & HYDRO-DEMOLITION

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO.: 124

SHEET 2 OF 3

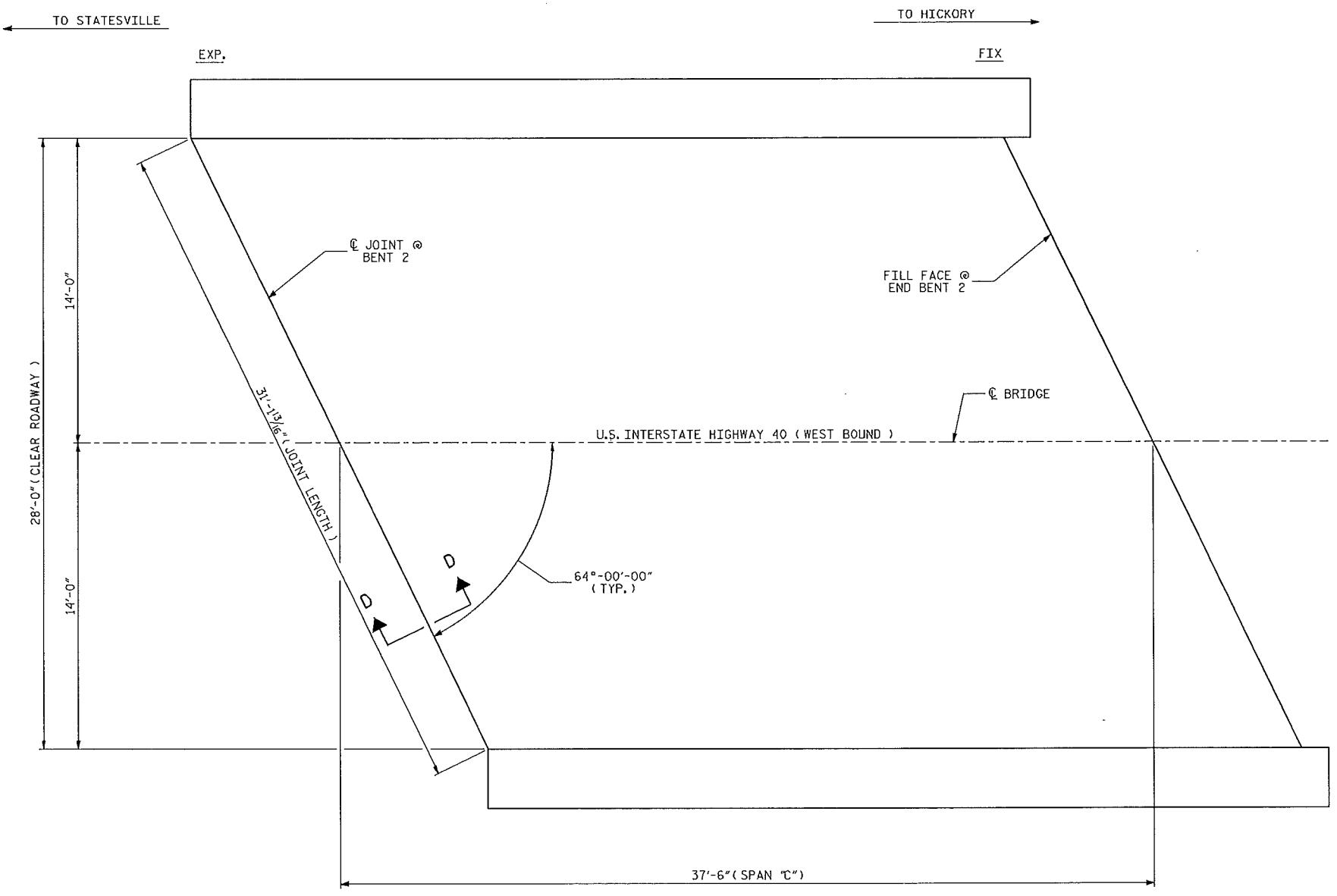
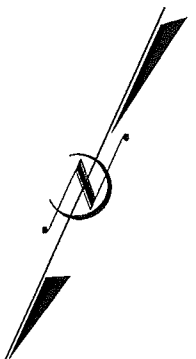
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SURFACE PREPARATION
SPAN "B"



REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	S-20
1			3			TOTAL SHEETS
2			4			28



DRAWN BY : R. PUTK DATE : 05/14
CHECKED BY : T. SHERRILL DATE : 06/14
DESIGN ENGINEER OF RECORD: - DATE : -



PLAN OF SPAN "C"
(FOR SECTION VIEWS, SEE "JOINT DETAIL SHEET")

SPAN "C" QUANTITIES		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0 SQ. YDS.	
CLASS III SURFACE PREPARATION	0 SQ. YDS.	
SCARIFYING BRIDGE DECK	117 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	117 SQ. YDS.	

PAYMENT FOR CLASS II & CLASS III SURFACE PREPARATION IS BASED ON THE SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE SPECIAL PROVISIONS.

-  CLASS II SURFACE PREPARATION
-  SCARIFICATION & HYDRO-DEMOLITION

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO.: 124

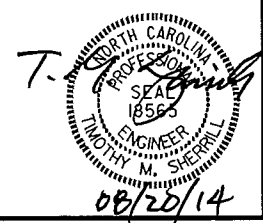
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SURFACE PREPARATION
SPAN "C"

REVISIONS

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




SHEET NO.
S-21
TOTAL SHEETS
28

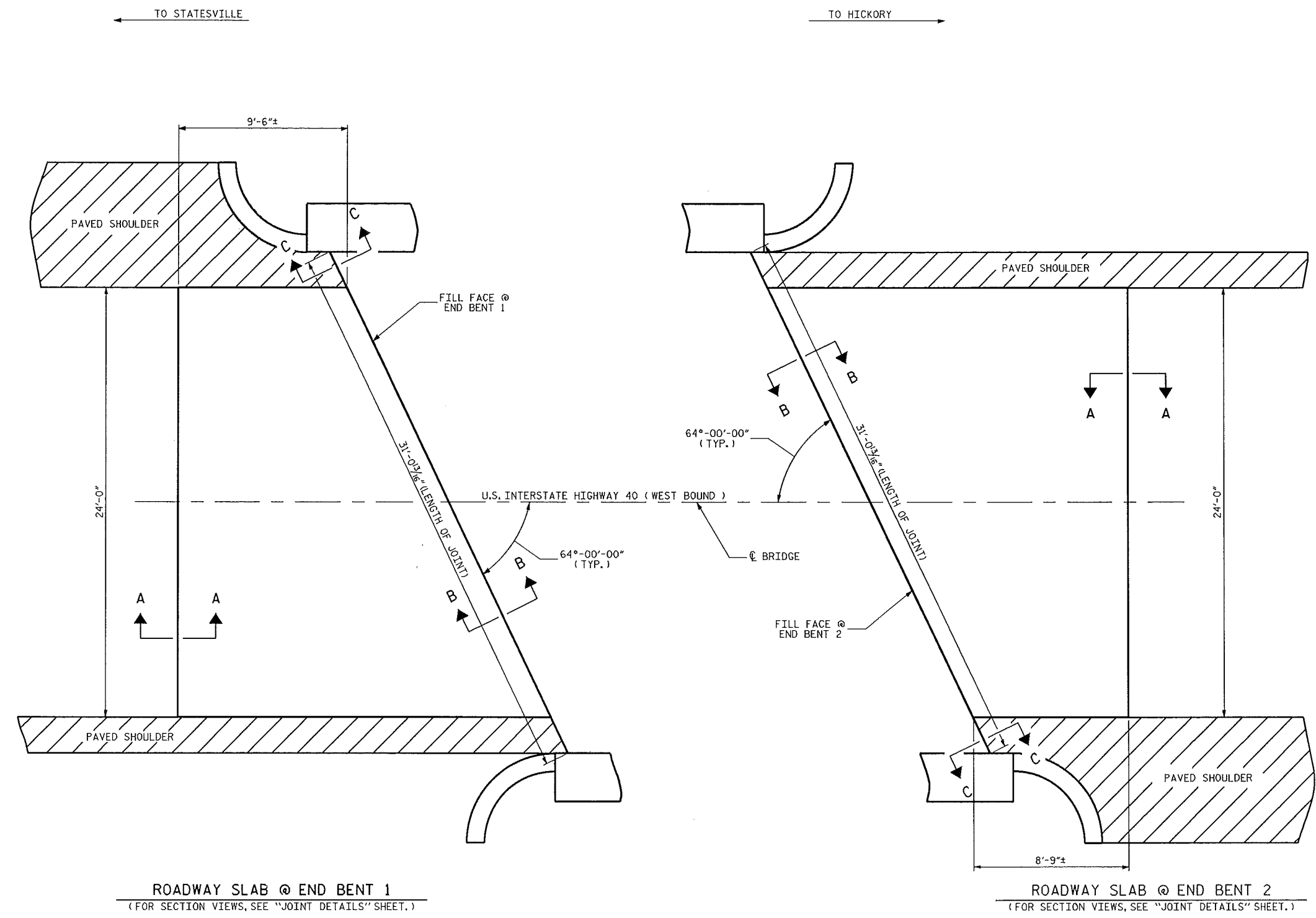


DRAWN BY : R. PUTK DATE : 05/14
CHECKED BY : T. SHERRILL DATE : 06/14
DESIGN ENGINEER OF RECORD: - DATE : -

ROADWAY SLAB @ END BENT 1		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0 SQ. YDS.	
CLASS III SURFACE PREPARATION	0 SQ. YDS.	
SCARIFYING BRIDGE DECK	41 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	41 SQ. YDS.	
ROADWAY SLAB @ END BENT 2		
	ESTIMATE	ACTUAL
CLASS II SURFACE PREPARATION	0 SQ. YDS.	
CLASS III SURFACE PREPARATION	0 SQ. YDS.	
SCARIFYING BRIDGE DECK	39 SQ. YDS.	
HYDRO-DEMOLITION OF BRIDGE DECK	39 SQ. YDS.	

PAYMENT FOR CLASS II & CLASS III SURFACE PREPARATION IS BASED ON THE SQUARE FEET OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE SPECIAL PROVISIONS.

-  CLASS II SURFACE PREPARATION
-  SCARIFICATION & HYDRO-DEMOLITION
-  EXISTING TO REMAIN



ROADWAY SLAB @ END BENT 1
(FOR SECTION VIEWS, SEE "JOINT DETAILS" SHEET.)

ROADWAY SLAB @ END BENT 2
(FOR SECTION VIEWS, SEE "JOINT DETAILS" SHEET.)

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 124

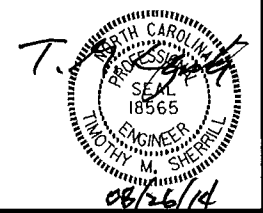
SHEET 1 OF 1

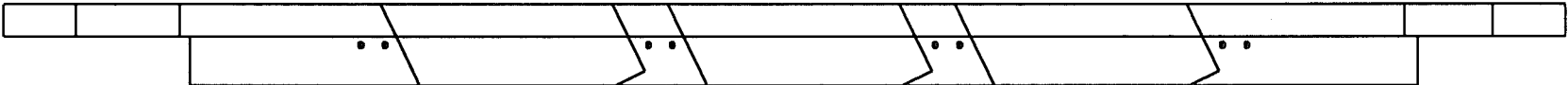
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SURFACE PREPARATION
ROADWAY SLABS

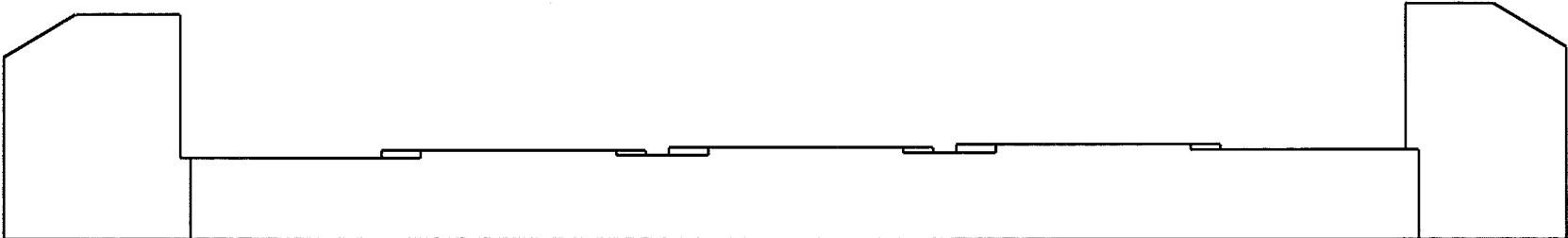
REVISIONS						SHEET NO.	
NO.	BY	DATE	NO.	BY	DATE		
1			3			S-22	
2			4			TOTAL SHEETS 28	

DRAWN BY : R. PUTK DATE : 05/14
CHECKED BY : T. SHERRILL DATE : 06/14
DESIGN ENGINEER OF RECORD : DATE : -

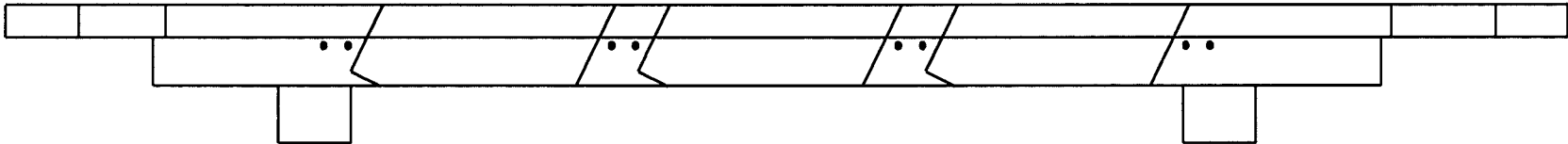




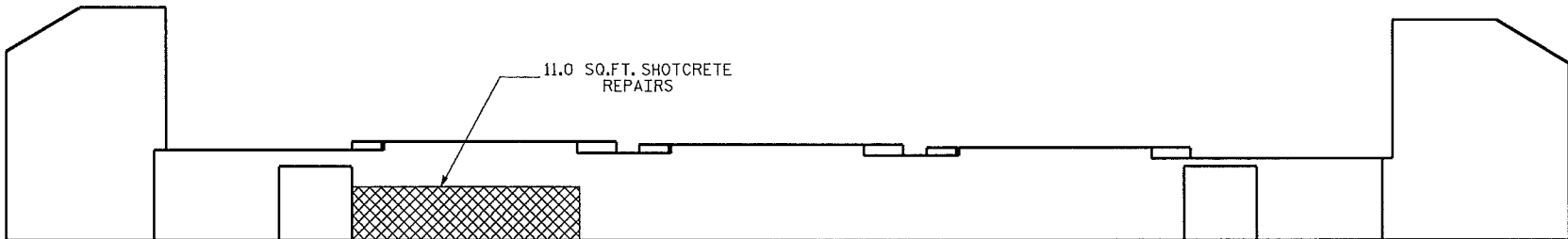
END BENT 1 - TOP



END BENT 1 - SPAN "A"FACE



END BENT 2 - TOP



END BENT 2 - SPAN "C"FACE

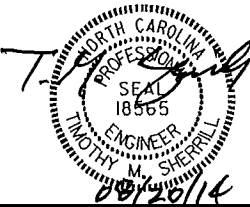
REPAIR QUANTITY TABLE					
REPAIRS END BENT 1	QUANTITIES				
	ESTIMATE		ACTUAL		
	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
SHOTCRETE REPAIRS					
CAP (VERTICAL FACE)	0	0			
CAP (HORIZONTAL, CORNER)	0	0			
EPOXY RESIN INJECTION		LN. FT			LN. FT
CAP		0			
REPAIRS END BENT 2	QUANTITIES				
	ESTIMATE		ACTUAL		
	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
SHOTCRETE REPAIRS					
CAP (VERTICAL FACE)	11	4.6			
CAP (HORIZONTAL, CORNER)	0	0			
EPOXY RESIN INJECTION		LN. FT			LN. FT
CAP		0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1"BEHIND REBAR AND MIN. 1"CL TO SAWCUT. SEE REPAIR DETAILS.

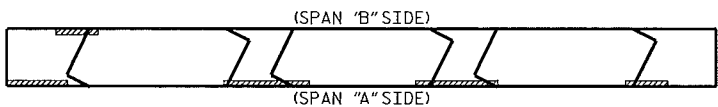
PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE: 124

SHEET 1 OF 1

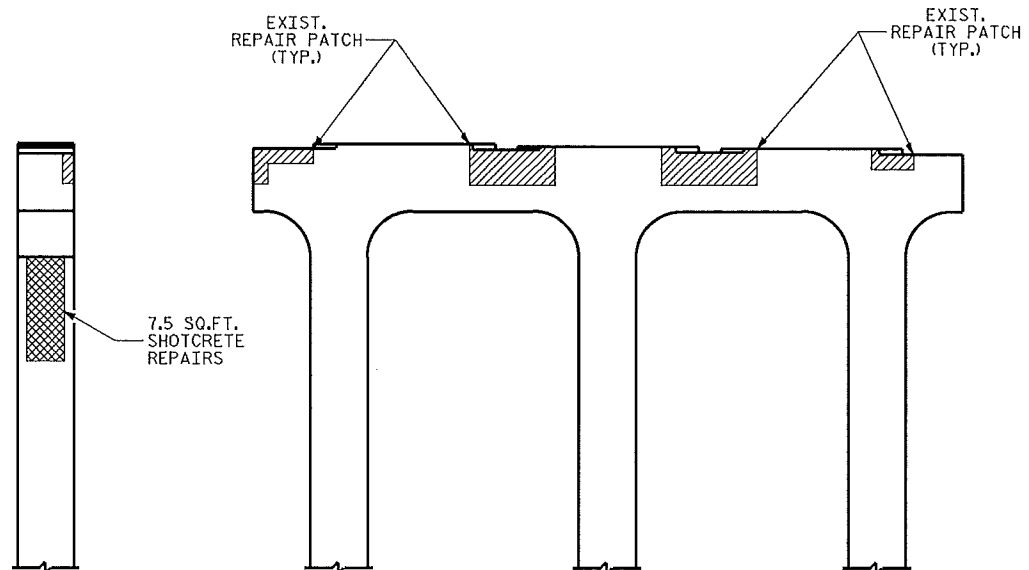
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
END BENT 1 & 2 REPAIRS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS					28



DRAWN BY : R. PUTK DATE : 04/14
CHECKED BY : T. SHERRILL DATE : 06/14
DESIGN ENGINEER OF RECORD: DATE :



BENT 1 - TOP

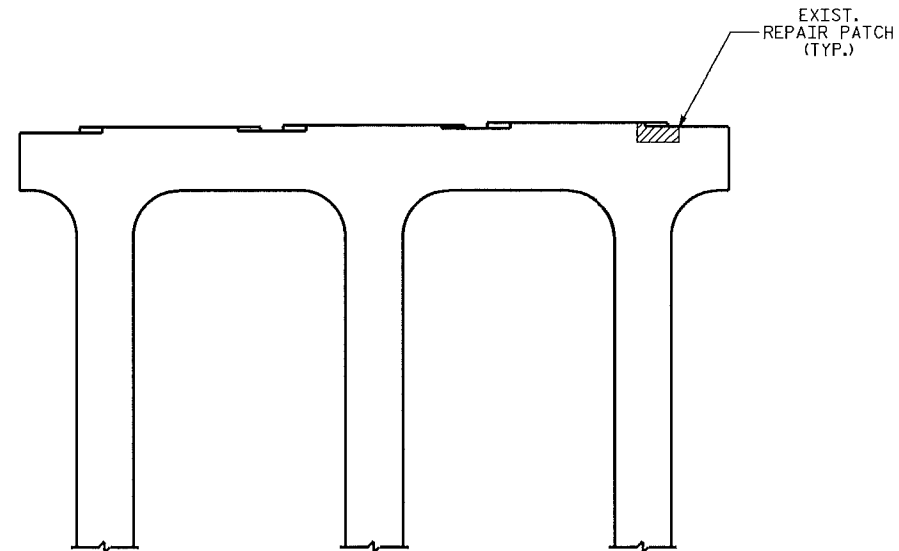


BENT 1 - SOUTH END

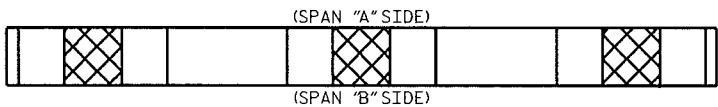
BENT 1 - SPAN "A" SIDE



BENT 1 - NORTH END



BENT 1 - SPAN "B" SIDE



BENT 1 - UNDERSIDE

NOTES

REPAIR LOCATIONS AND ESTIMATES OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE.

IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE INSPECTOR OR ENGINEER, THE CONTRACTOR SHALL NOTE ON THE DRAWINGS, THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS, AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

ALL EXISTING REPAIR PATCHES ARE TO BE INSPECTED AND REPAIRED, AS DEEMED NECESSARY BY THE INSPECTOR OR ENGINEER.

FOR ADDITIONAL NOTES AND TYPICAL SUBSTRUCTURE REPAIR DETAILS, SEE "DETAILS" SHEET.

REPAIR QUANTITY TABLE					
REPAIRS BENT 1	QUANTITIES				
	ESTIMATE		ACTUAL		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0			
CAP (HORIZONTAL, CORNER)	0.0	0.0			
COLUMN	7.5	3.2			
EPOXY RESIN INJECTION		LN. FT			LN. FT
CAP		0.0			
COLUMN		0.0			

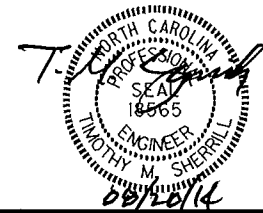
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO.: 124

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

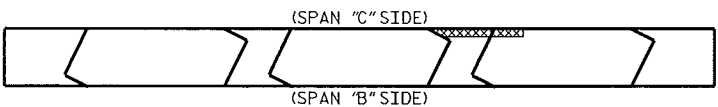
BENT 1 REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-24 TOTAL SHEETS 28
2			4			



DRAWN BY : R. PUTK
CHECKED BY : T. SHERRILL
DESIGN ENGINEER OF RECORD: -

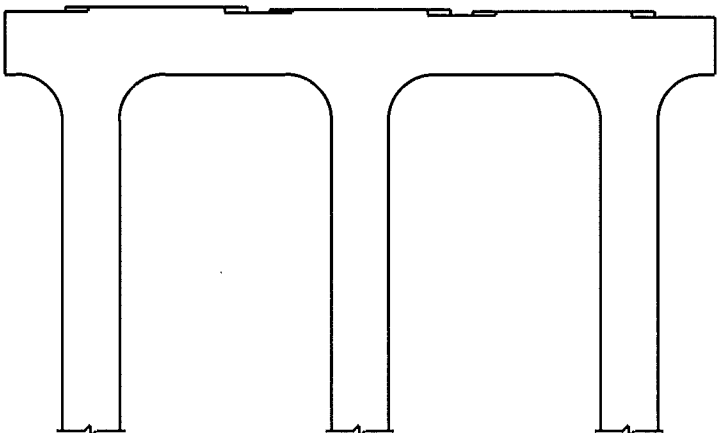
DATE : 06/14
DATE : 06/14
DATE : -



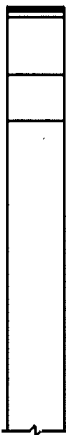
BENT 2 - TOP



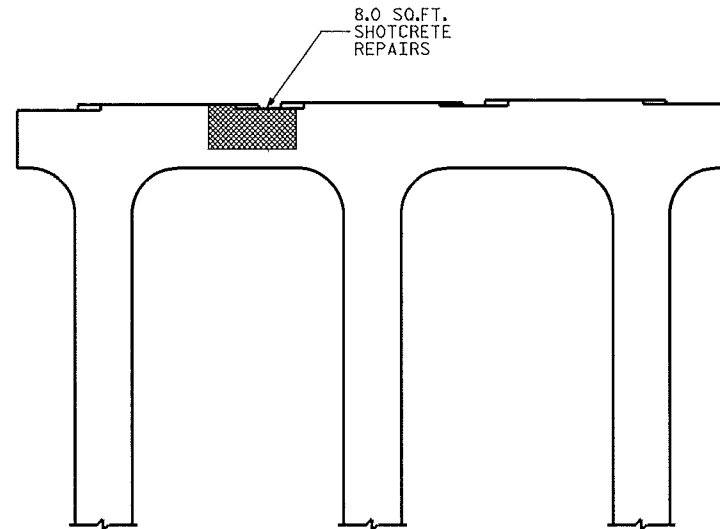
BENT 2 - SOUTH END



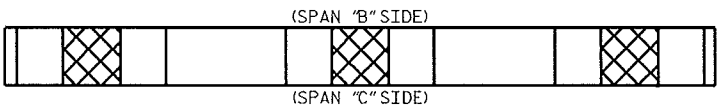
BENT 2 - SPAN "B" SIDE



BENT 2 - NORTH END



BENT 2 - SPAN "C" SIDE



BENT 2 - UNDERSIDE

NOTES

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REPAIR QUANTITY TABLE					
REPAIRS BENT 2	QUANTITIES				
	ESTIMATE		ACTUAL		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
CAP (VERTICAL FACE)	8.0	3.4			
CAP (HORIZONTAL, CORNER)	0.0	0.0			
COLUMN	0.0	0.0			
EPOXY RESIN INJECTION		LN. FT			LN. FT
CAP		0.0			
COLUMN		0.0			

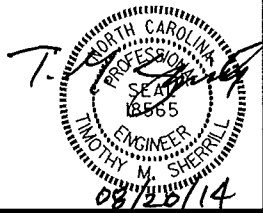
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 124

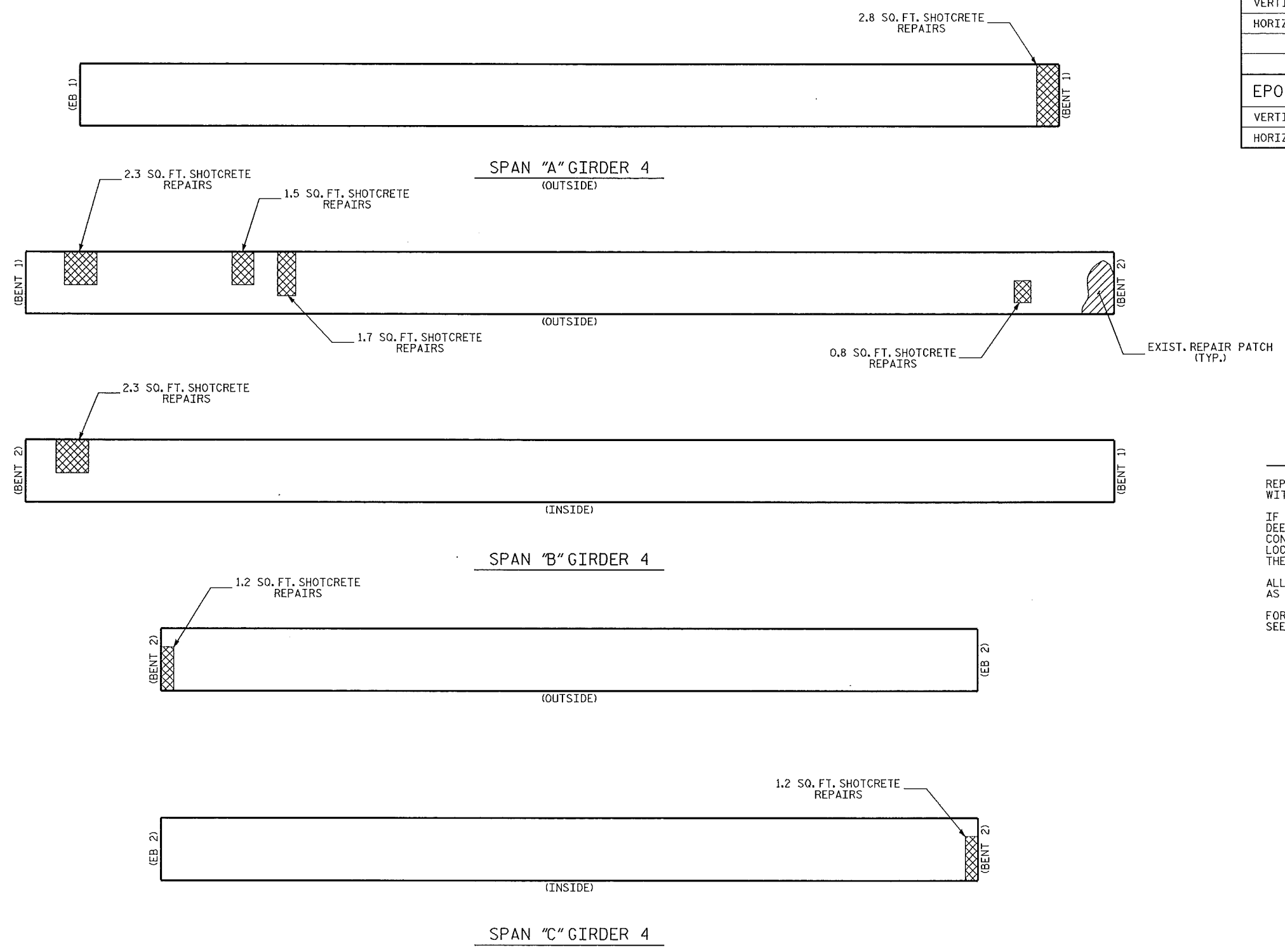
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 2 REPAIRS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-25 TOTAL SHEETS 28
2			4			



DRAWN BY : RPUTEK DATE : 06/14
CHECKED BY : T.SHERRILL DATE : 06/14
DESIGN ENGINEER OF RECORD: DATE : -



REPAIR QUANTITY TABLE					
CONCRETE GIRDER REPAIRS	QUANTITIES				
	ESTIMATE		ACTUAL		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
VERTICAL FACE	13.8	5.8			
HORIZONTAL, CORNER	0.0	0.0			
EPOXY RESIN INJECTION		LN. FT			LN. FT
VERTICAL FACE		0			
HORIZONTAL, CORNER		0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT, SEE REPAIR DETAILS.

NOTES

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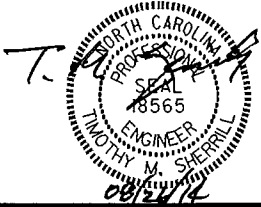
ALL EXISTING REPAIR PATCHES ARE TO BE INSPECTED AND REPAIRED, AS DEEMED NECESSARY BY THE INSPECTOR OR ENGINEER.

FOR ADDITIONAL NOTES AND TYPICAL CONCRETE GIRDER REPAIR DETAILS, SEE "DETAILS" SHEET.

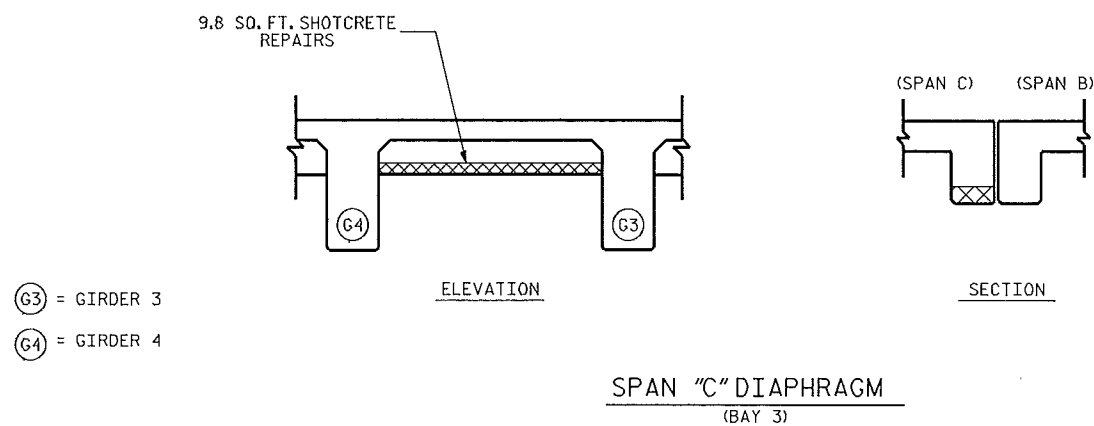
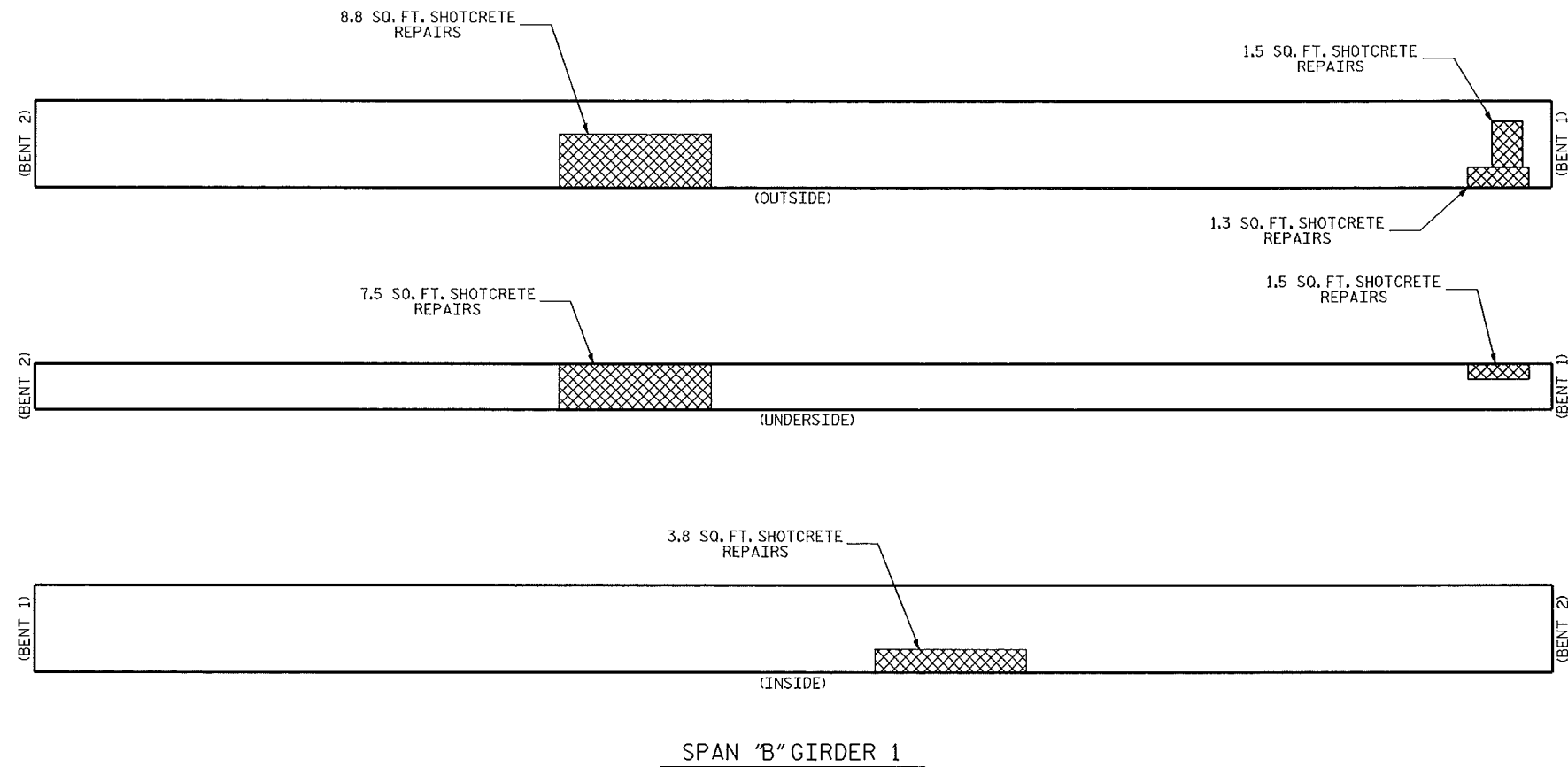
PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 124

SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
CONCRETE GIRDER REPAIRS					
REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					28



DRAWN BY : R. PUTK DATE : 04/14
CHECKED BY : T. SHERRILL DATE : 06/14
DESIGN ENGINEER OF RECORD: DATE : -



(G3) = GIRDER 3
(G4) = GIRDER 4

DRAWN BY : R. PUTK DATE : 04/14
CHECKED BY : T. SHERRILL DATE : 06/14
DESIGN ENGINEER OF RECORD: DATE : -

26-AUG-2014 14:47
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REPAIR QUANTITY TABLE					
CONCRETE GIRDER REPAIRS	QUANTITIES				
	ESTIMATE		ACTUAL		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF
VERTICAL FACE	15.4	6.5			
HORIZONTAL, CORNER	18.8	7.9			
EPOXY RESIN INJECTION		LN. FT			LN. FT
VERTICAL FACE		0			
HORIZONTAL, CORNER		0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

NOTES

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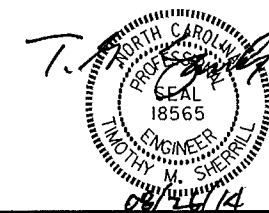
FOR ADDITIONAL NOTES AND TYPICAL CONCRETE GIRDER REPAIR DETAILS, SEE 'DETAILS' SHEET.

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO.: 124

SHEET 2 OF 2

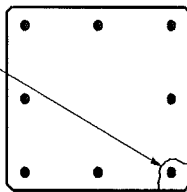
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

CONCRETE GIRDER REPAIRS



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-27
1			3			TOTAL SHEETS
2			4			28

REMOVE BACK TO SOUND CONCRETE AND REPAIR. (IF REPAIRS ARE REQUIRED COMPLETELY AROUND COLUMN, ONE SIDE OF COLUMN IS TO BE REPAIRED AT A TIME.)



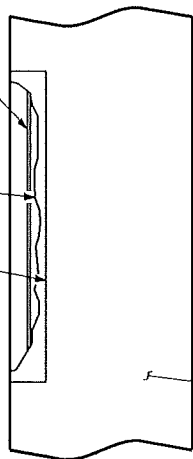
SECTION

COLUMN CORNER REPAIR

EXISTING "B" BAR

SOUND CONCRETE

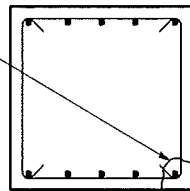
SAW CUT (TYP.)



ELEVATION

EXISTING COLUMN

REMOVE BACK TO SOUND CONCRETE AND REPAIR.



SECTION

CAP CORNER REPAIR

EXISTING CAP

SOUND CONCRETE

1" (TYP.)

PROPOSED #4 DOWEL (TYP.) (CENTERED BETWEEN EXISTING STIRRUPS) (9" MIN. EMBEDMENT) *

SAW CUT (TYP.)

PROPOSED #5 BAR *

EXISTING BARS (TYP.)

SAW CUT (TYP.)

1" (TYP.)

1" (TYP.)

REPAIR AREA AFTER UNSOUND CONCRETE HAS BEEN REMOVED

ELEVATION

FACE REPAIR

TYPICAL SUBSTRUCTURE REPAIR DETAIL

NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE INSPECTOR OR ENGINEER THE CONTRACTOR SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED.

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

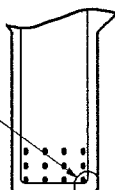
SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

* THESE DOWELS AND BARS WILL BE REQUIRED AT THE LOCATIONS DESIGNATED BY THE ENGINEER.

REMOVE BACK TO SOUND CONCRETE AND REPAIR.



SECTION

GIRDER CORNER REPAIR

EXISTING GIRDER

SOUND CONCRETE

1" (TYP.)

PROPOSED #4 DOWEL (TYP.) (CENTERED BETWEEN EXISTING STIRRUPS) (9" MIN. EMBEDMENT) *

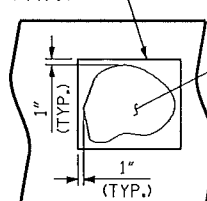
SAW CUT (TYP.)

PROPOSED #5 BAR *

EXISTING BARS (TYP.)

ELEVATION

SAW CUT (TYP.)



REPAIR AREA AFTER UNSOUND CONCRETE HAS BEEN REMOVED

FACE REPAIR

TYPICAL CONCRETE GIRDER REPAIR DETAIL

PROJECT NO. BP-5500W
IREDELL COUNTY
BRIDGE NO. 124

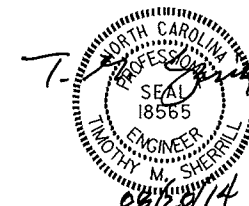
SHEET 1 OF 1

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DETAILS

DRAWN BY : B. PUTEK DATE : 06/14
CHECKED BY : T. SHERRILL DATE : 06/14
DESIGN ENGINEER OF RECORD: DATE : -

20-AUG-2014 09:28
S:\PDS\POC\Squad C\Preservation\Projects\BP-5500W\IREDELL 124\BP5500W_SD_Iredell.124.dgn
rputek



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-28
2			4			TOTAL SHEETS 28

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS	-----	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	-----	SEE PLANS
IMPACT ALLOWANCE	-----	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF		
STRUCTURAL STEEL - AASHTO M270 GRADE 36	-	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	-	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	-	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION		
GRADE 60	--	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	-----	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	-----	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR		
UNTREATED - EXTREME FIBER STRESS	-----	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	-----	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	-----	30 LBS. PER CU. FT.
		(MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2012 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED 3/4" WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO 1-1/2" RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A 1/4" FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A 1/4" RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE. ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER. DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS. WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE 7/8" Ø SHEAR STUDS FOR THE 3/4" Ø STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF 7/8" Ø STUDS ALONG THE BEAM AS SHOWN FOR 3/4" Ø STUDS BASED ON THE RATIO OF 3 - 7/8" Ø STUDS FOR 4 - 3/4" Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0". EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST 5/16" IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED. WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY 1/16 INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB. METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINIS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

ENGLISH

JANUARY, 1990

STD. NO. SN

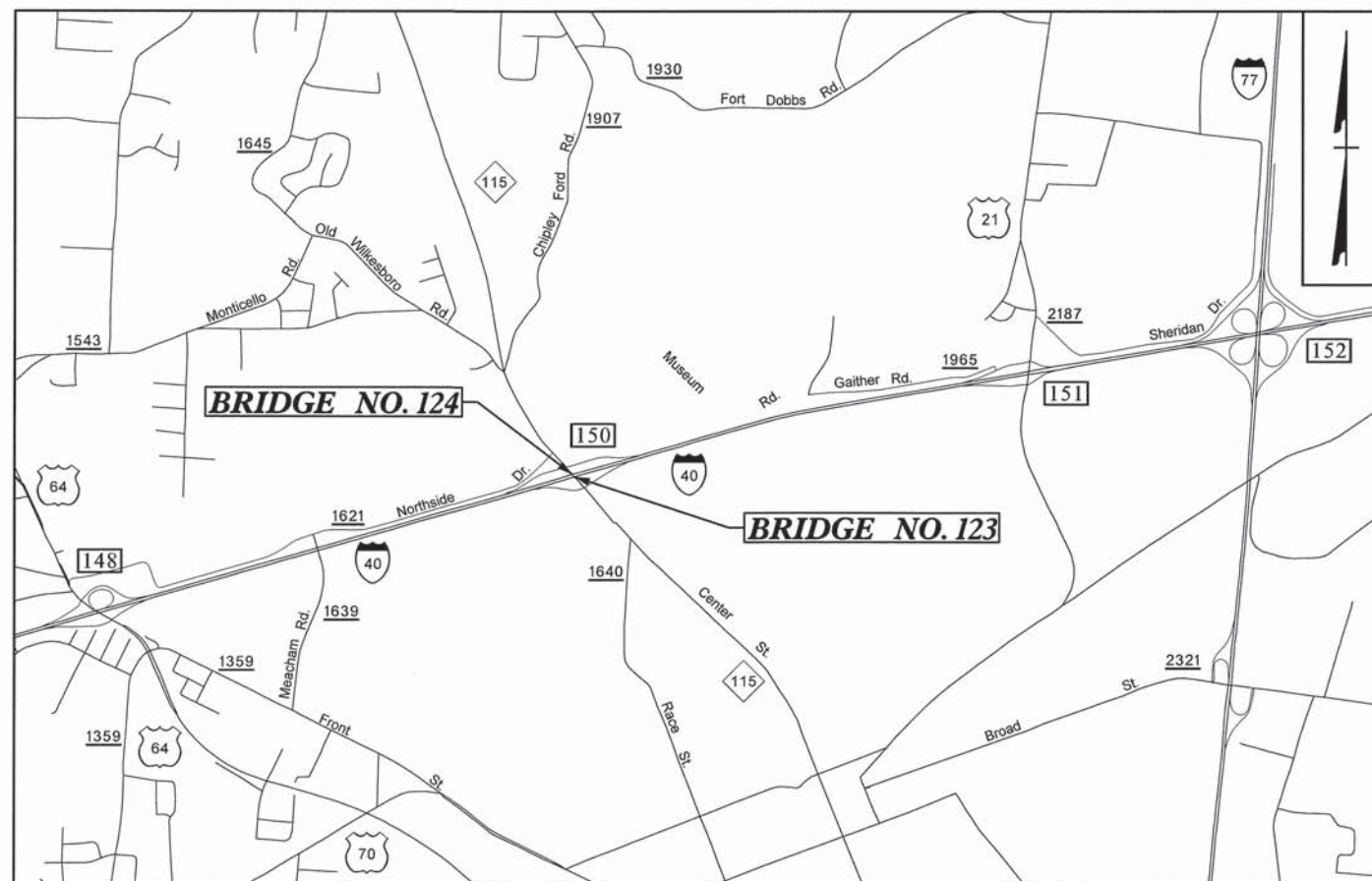
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

IREDELL COUNTY



LOCATIONS: BRIDGE NO.123 ON I-40 EASTBOUND OVER NC 115 (N. CENTER STREET)
BRIDGE NO.124 ON I-40 WESTBOUND OVER NC 115 (N. CENTER STREET)



SHEET NO.	TITLE
TMP-1	TITLE SHEET & INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS & LEGEND
TMP-2	TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES)
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4	DETOUR ROUTE - NC 115 SOUTHBOUND

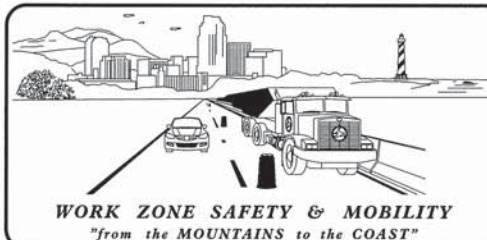
PLAN PREPARED BY:



HDR Engineering, Inc. of the Carolinas
3733 National Drive, Suite 207 Raleigh, N.C. 27612
N.C.B.E.L.S. License Number: F-0116

MICHELLE WARD, P.E. TRAFFIC CONTROL PROJECT ENGINEER

AMY FAULKNER, E.I. TRAFFIC CONTROL DESIGN ENGINEER



N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
JAY WOOLARD, P.E. TRAFFIC CONTROL PROJECT ENGINEER
TRAFFIC CONTROL PROJECT DESIGN ENGINEER
TRAFFIC CONTROL DESIGN ENGINEER



SHEET NO.
TMP-1

BP-5500W

TIP PROJECT:

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USER: pward
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DATE: 8/26/2014

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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:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD 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 BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)

WORK AREA

REMOVAL

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

ROADWAY STANDARD
DRAWINGS & LEGEND

PLOT DRIVER: NCDOT_color_eng_50.plt
USER: pward
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GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
BP-5500W	TMP-2
HDR Engineering, Inc. of the Carolinas 3733 National Drive, Suite 207 Raleigh, N.C. 27612 N.C.B.E.L.S. License Number: F-0116	

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, 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.

TIME RESTRICTIONS

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

ROAD NAME	DAY AND TIME RESTRICTIONS
I-40 AND NC 115 (N. CENTER STREET)	MON-FRI: 6:00 A.M. TO 8:00 P.M. SAT-SUN: 8:00 A.M. TO 9:00 P.M.

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

ROAD NAME
I-40 AND NC 115 (N. CENTER STREET)

HOLIDAY

- FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
- FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31ST AND 8:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 8:00 P.M. THE FOLLOWING TUESDAY.
- FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 8:00 P.M. MONDAY.
- FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 8:00 P.M. TUESDAY.
- FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 8:00 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 8:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.
- FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 8:00 P.M. TUESDAY.
- FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY AND 8:00 P.M. MONDAY.
- FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 8:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS DAY.
- FOR NASCAR RACES IN CHARLOTTE, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE THE NASCAR RACES AND 8:00 P.M. THE DAY AFTER THE END OF THE NASCAR RACES IN CHARLOTTE.

C) DO NOT CLOSE ROAD AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
I-40 & NC 115 SOUTHBOUND (N. CENTER STREET)	MON-SUN: 5:00 A.M. TO 12:00 MIDNIGHT

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

LANE AND SHOULDER CLOSURE REQUIREMENTS

- 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.
- 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 USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.
- H) 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.
- I) 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.

PAVEMENT EDGE DROP OFF REQUIREMENTS

- J) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 500 FT. IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

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

SIGNING

- L) INSTALL ADVANCE WORK ZONE SIGNS WHEN WORK IS WITHIN 40 FT. FROM THE EDGE OF TRAVEL LANE AND NO MORE THAT THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.
- M) 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.
- N) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE OR LANE CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.
- O) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.
- P) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 1000 FT. IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

- Q) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.
- R) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.
- S) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT. CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

- T) TIE PROPOSED MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- U) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.
- V) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS AS FOLLOWS:

ROAD NAME	MARKING	MARKER
I-40	PAINT	TEMPORARY RAISED

MISCELLANEOUS

- W) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.
- X) DO NOT ALLOW WATER AND CONCRETE SLURRY FROM HYDRO-DEMOLITION TO DRAIN ACROSS TRAVEL LANES.
- Y) COMPLETE PROPOSED CONSTRUCTION IN SUCH A MANNER THAT PONDING OF WATER WILL NOT OCCUR IN THE TRAVEL LANES.
- Z) ENSURE THAT THE OVERSIZE/OVERWEIGHT PERMIT UNIT (919-733-4740) HAS BEEN ADVISED OF THE ONGOING TRAFFIC OPERATIONS THROUGH THE DIVISION OFFICE.

SEAL

DIVISION OF HIGHWAYS

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

WORK ZONE TRAFFIC CONTROL

TRANSPORTATION OPERATIONS
PLAN: (GENERAL NOTES)

PLOT DRIVER: NCDOT...eng_50.plt
PENTABLE: NCDOT...top.tbl
USER: pward
DATE: 8/26/2014
TIME: 3:38:59 PM
FILE: pwa\pwa\PTPA01\SouthEast_Tampa\Documents\000166\CON0079759\000000000226003\06.00_Project_Design\BP-5500BW.W.X.Y\Traffic\TrafficControl\TCP\BP-5500W_I-Edell\BP-5500W_TMP-TMP-3.dgn

NOTES:

INSTALL ADVANCE WORK ZONE WARNING SIGNS AS SHOWN ON RSD 1101.01, SHEETS 1 AND 3 OF 3, PRIOR TO BEGINNING WORK.

INSTALL ADDITIONAL CMS ON I-40 EB AND WB, AS DIRECTED BY THE ENGINEER, TO NOTIFY TRAFFIC (INCLUDING OVERSIZE VEHICLES) OF CURRENT TRAFFIC PATTERNS.

COORDINATE ALL SIGNING AND CONSTRUCTION RELATED ACTIVITIES WITH PROJECT I-3819A, AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR MAY CONDUCT WORK AT BOTH BRIDGES SIMULTANEOUSLY, HOWEVER, THE CONTRACTOR SHALL NOT CONDUCT WORK UTILIZING A ROAD CLOSURE ON I-40 EASTBOUND AND I-40 WESTBOUND SIMULTANEOUSLY.

RECORD ALL EXISTING MARKINGS ON BRIDGE AND APPROACHES IN ORDER TO REPLACE MARKINGS AT THE END OF EACH WORKDAY.

MAINTAIN ACCESS TO ALL DRIVEWAYS THROUGHOUT THE LIFE OF THE PROJECT.

AT THE END OF EACH WORKDAY, REPLACE PAVEMENT MARKINGS, REMOVE ALL TRAFFIC CONTROL DEVICES, COVER OR REMOVE ALL SIGNS FOR THE LANE CLOSURES AND ROAD CLOSURES AND RETURN TRAFFIC TO ITS EXISTING PATTERN.

PROJ. REFERENCE NO.	SHEET NO.
BP - 5500W	TMP - 3
HDR Engineering, Inc. of the Carolinas 3733 Noland Drive, Suite 307 Raleigh, NC 27612 N.C.B.E.L.S. License Number: F-0116	

PHASING – BRIDGE NO. 123

STEP 1:

USING LANE CLOSURES (RSD 1101.02, SHEET 4 OF 15) AND/OR ROAD CLOSURES (RSD 1101.03, SHEET 7 OF 9) ON I-40 EASTBOUND, COMPLETE BRIDGE WORK ON I-40 EASTBOUND.

NOTE: WHEN I-40 EASTBOUND IS CLOSED, USE THE OFF/ON-RAMPS TO NC 115 AS THE ON-SITE DETOUR WITH LAW ENFORCEMENT AND/OR FLAGGERS TO CONTROL TRAFFIC THROUGH THE SIGNALIZED INTERSECTION. PLACE THE SIGNAL ON FLASH, AS DIRECTED BY THE ENGINEER. INSTALL "BE PREPARED TO STOP" (W3-4) SIGN, AS WELL AS "FLAGGER" (W20-7a) OR "TRAFFIC OFFICER AHEAD" (W6-9) SIGN ALONG BOTH SIDES OF THE OFF-RAMP, AS DIRECTED BY THE ENGINEER.

USING THE FOLLOWING TRAFFIC CONTROL, COMPLETE SUBSTRUCTURE WORK:

SOUTHBOUND NC 115 (N. CENTER STREET) - LANE CLOSURES (RSD 1101.02, SHEET 1 OR 2 OF 15) AND/OR ROAD CLOSURE (RSD 1101.03, SHEET 2 OF 9, AND SHEET TMP-4), AS DIRECTED BY THE ENGINEER
NORTHBOUND NC 115 (N. CENTER STREET) - LANE CLOSURES (RSD 1101.02, SHEET 1 OR 2 OF 15)

NOTE: ONE LANE IN THE NB DIRECTION ON NC 115 SHALL BE OPEN AT ALL TIMES. PLACE SIGNAL ON FLASH, AS DIRECTED BY THE ENGINEER, DURING LANE CLOSURE/ROAD CLOSURE ON NC 115.

USING RSD 1101.02, SHEET 4 OF 15, COMPLETE ALL ROADWAY APPROACH WORK AS SHOWN IN THE STRUCTURE PLANS.

STEP 2:

USING RSD 1101.02, SHEET 4 OF 15, PLACE FINAL PAVEMENT MARKINGS AND MARKERS AS SHOWN IN THE PAVEMENT MARKING PLAN.

STEP 3:

ONCE ALL CONSTRUCTION IS COMPLETE, REMOVE ALL REMAINING SIGNS AND TRAFFIC CONTROL DEVICES AND OPEN I-40 AND NC 115 (N. CENTER STREET) TO THE EXISTING TRAFFIC PATTERN.

PHASING – BRIDGE NO. 124

STEP 1:

USING LANE CLOSURES (RSD 1101.02, SHEET 4 OF 15) AND/OR ROAD CLOSURES (RSD 1101.03, SHEET 7 OF 9) ON I-40 WESTBOUND, COMPLETE BRIDGE WORK ON I-40 WESTBOUND.

NOTE: WHEN I-40 WESTBOUND IS CLOSED, USE THE OFF/ON-RAMPS TO NC 115 AS THE ON-SITE DETOUR WITH LAW ENFORCEMENT AND/OR FLAGGERS TO CONTROL TRAFFIC THROUGH THE SIGNALIZED INTERSECTION. PLACE THE SIGNAL ON FLASH, AS DIRECTED BY THE ENGINEER. INSTALL "BE PREPARED TO STOP" (W3-4) SIGN, AS WELL AS "FLAGGER" (W20-7a) OR "TRAFFIC OFFICER AHEAD" (W6-9) SIGN ALONG BOTH SIDES OF THE OFF-RAMP, AS DIRECTED BY THE ENGINEER.

USING THE FOLLOWING TRAFFIC CONTROL, COMPLETE SUBSTRUCTURE WORK:

SOUTHBOUND NC 115 (N. CENTER STREET) - LANE CLOSURES (RSD 1101.02, SHEET 1 OR 2 OF 15) AND/OR ROAD CLOSURE (RSD 1101.03, SHEET 2 OF 9, AND SHEET TMP-4), AS DIRECTED BY THE ENGINEER
NORTHBOUND NC 115 (N. CENTER STREET) - LANE CLOSURES (RSD 1101.02, SHEET 1 OR 2 OF 15)

NOTE: ONE LANE IN THE NB DIRECTION ON NC 115 SHALL BE OPEN AT ALL TIMES. PLACE SIGNAL ON FLASH, AS DIRECTED BY THE ENGINEER, DURING LANE CLOSURE/ROAD CLOSURE ON NC 115.



USING RSD 1101.02, SHEET 4 OF 15, COMPLETE ALL ROADWAY APPROACH WORK AS SHOWN IN THE STRUCTURE PLANS.

STEP 2:

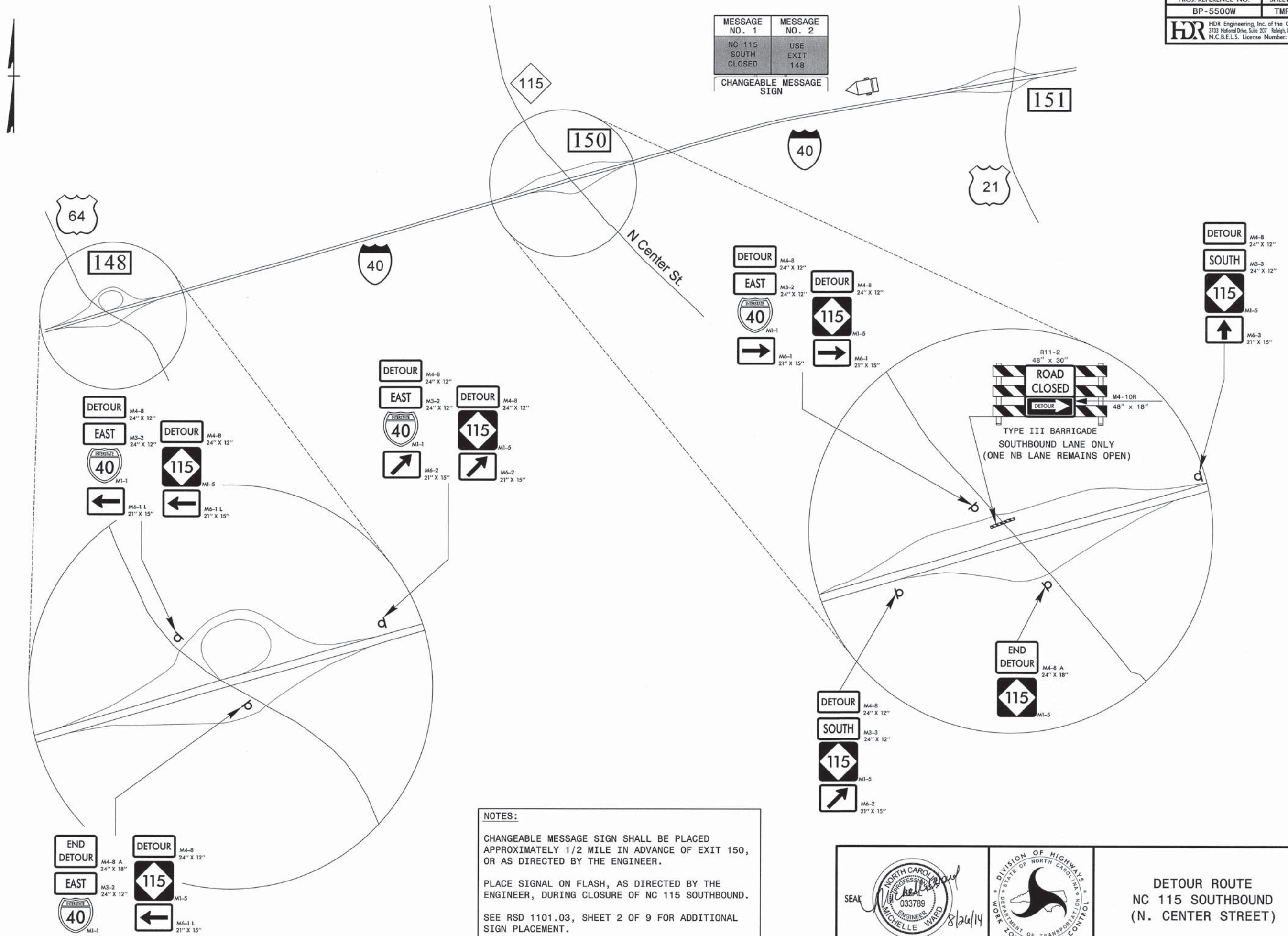
USING RSD 1101.02, SHEET 4 OF 15, PLACE FINAL PAVEMENT MARKINGS AND MARKERS AS SHOWN IN THE PAVEMENT MARKING PLAN.

STEP 3:

ONCE ALL CONSTRUCTION IS COMPLETE, REMOVE ALL REMAINING SIGNS AND TRAFFIC CONTROL DEVICES AND OPEN I-40 AND NC 115 (N. CENTER STREET) TO THE EXISTING TRAFFIC PATTERN.



TEMPORARY TRAFFIC CONTROL PHASING

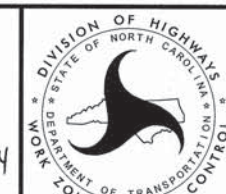


NOTES:

CHANGEABLE MESSAGE SIGN SHALL BE PLACED
APPROXIMATELY 1/2 MILE IN ADVANCE OF EXIT 150,
OR AS DIRECTED BY THE ENGINEER.

PLACE SIGNAL ON FLASH, AS DIRECTED BY THE
ENGINEER, DURING CLOSURE OF NC 115 SOUTHBOUND.

SEE RSD 1101.03, SHEET 2 OF 9 FOR ADDITIONAL
SIGN PLACEMENT.



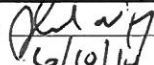
DETOUR ROUTE
NC 115 SOUTHBOUND
(N. CENTER STREET)

T.I.P.: BP-5500W

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
IREDELL COUNTY

LOCATION: BRIDGE No. 123 ON I-40 EASTBOUND OVER NC 115 (N. CENTER STREET)
BRIDGE No. 124 ON I-40 WESTBOUND OVER NC 115 (N. CENTER STREET)

TIP NO.	SHEET NO.
BP-5500W	PMP-1
APPROVED: 	
DATE: 6/10/12	
SEAL	
	

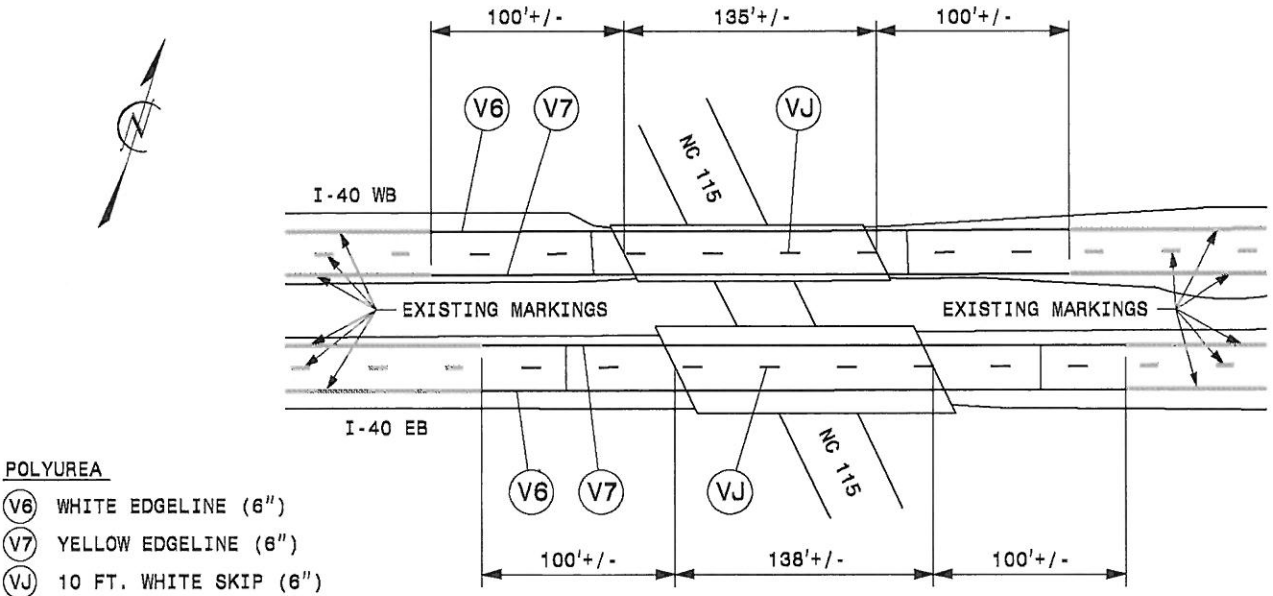
ROADWAY STANDARD DRAWING

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
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - PERMANENT AND TEMPORARY
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

GENERAL NOTES

- 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.
- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:
- | ROAD NAME | MARKING | MARKER |
|---------------------|--|---------------|
| I-40 & BRIDGE DECKS | POLYUREA W/ HIGHLY REFLECTIVE ELEMENTS | SNOW PLOWABLE |
- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
- D) REMOVE ALL RESIDUE AND SURFACE LAITANCE BY ACCEPTABLE METHODS ON CONCRETE BRIDGE DECKS PRIOR TO PLACING POLYUREA WITH HIGHLY REFLECTIVE ELEMENTS PAVEMENT MARKING MATERIAL.



PAVEMENT MARKING
SCHEDULE

SYMB	DESCRIPTION
FINAL PAVEMENT MARKINGS	
POLYUREA (6") Highly Reflective Elements	
V6	WHITE EDGELINE
V7	YELLOW EDGELINE
VJ	10 FT. WHITE SKIP
MARKERS	
SNOWPLOWABLE RAISED PAVEMENT MARKERS	
MF	CRYSTAL & RED

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE SHEET, PAVEMENT MARKING SCHEDULE AND PAVEMENT MARKING DETAIL

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

KELVIN JORDAN SIGNING & DELINEATION REGIONAL ENGINEER
DERRICK BEARD SIGNING & DELINEATION PROJECT DESIGN ENGINEER

