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4/21/2022 I5915B_SMU_SBR00_480123.dgn daguirre

LEGEND	
CONCRETE REPAIR AREA (CR)	
SHOTCRETE REPAIR AREA (SCR)	S
EPOXY RESIN INJECTION (ERI)	

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AS-BUILT REPAIF	R QUA	NTITY	y tab	LE
		QUANT	ITIES	
	ESTI	MATE	ACT	UAL
HOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
CAP/BACKWALL	-	-		
COLUMN/PILE	_	_		
ONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	_	_		
POXY RESIN INJECTION	LIN.	, FT.	LIN.	FT.
CAP/BACKWALL	-	-		
COLUMN/PILE		-		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE.MINIMUM OF 1"BEHIND REBAR AND MINIMUM 2"CLEARANCE TO SAWCUT.FOR REPAIR DETAILS, SEE "CONCRETE RESTORATION DETAILS" SHEETS.

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KI:	SINGER CAMPO		REVIS	SIONS		SHEET NO.
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AS-BUILT REPAIF	r qua	NTITY	y tab	LE
		QUANT	ITIES	
	ESTI	MATE	ACT	UAL
HOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
CAP/BACKWALL	1.8	0.6		
COLUMN/PILE	_	_		
ONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.
САР	27.2	17.2		
POXY RESIN INJECTION	LIN.	, FT.	LIN.	, FT.
CAP/BACKWALL	-	-		
COLUMN/PILE		-		

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	PROJECT NO. <u>I-5915B</u> <u>IREDELL</u> COUNTY BRIDGE NO. <u>480123</u>
	SHEET Z UF 3
DocuSigned by: Dicao & Aguerre Other A729720223D4FB BICO A AGUINT	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUBSTRUCTURE REPAIRS
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KISINGER CAMPO	REVISIONS SHEET NO.
ASSOCIATES	NO. BY: DATE: NO. BY: DATE: S17-7
SS ALLRALEIGH, NC 27601 (919) 882-7839OMPLETEDNC FIRM LICENSE: C-1506	1 3 TOTAL SHEETS 2 4 8



	LEGEND	
	CONCRETE REPAIR AREA (CR)	
	SHOTCRETE REPAIR AREA (SCR)	SHC
	EPOXY RESIN INJECTION (ERI)	



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AS-BUILT REPAIR QUANTITY TABLE QUANTITIES ESTIMATE ACTUAL AREA SQ.FT VOLUME CU.FT. OTCRETE REPAIRS AREA SQ.FT VOLUME CU.FT. 21.3 7.3 CAP/BACKWALL COLUMN/PILE _ _ AREA SQ.F⁻ VOLUME CU.FT. VOLUME AREA SQ.FT. CONCRETE REPAIRS LU.F CAP 2.0 1.0 EPOXY RESIN INJECTION LIN.FT. LIN.FT. CAP/BACKWALL — COLUMN/PILE _

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	PROJECT NO. <u>I-5915B</u> <u>IREDELL</u> COUNTY BRIDGE NO. <u>480123</u>
DocuSigned by: Dicas & Aguerre O48223 47595/2022304FB HONOR A AGUERT	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUBSTRUCTURE REPAIRS
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	REVISIONS SHEET NO.
CONSIDERED301 FAYETTEVILLE ST., SUITE 1500SS ALLRALEIGH, NC 27601 (919) 882-7839OMPLETEDNC FIRM LICENSE: C-1506	NO. BT: DATE: NO. BY: DATE: ST7-8 1 3 3 TOTAL SHEETS SHEETS 8

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	SPAN 1					(
	ESTI	IMATE	ACT	UAL	ESTIMATE	
CLASS II SURFACE PREPARATION	SY				SY	
	AREA	VOLUME	AREA	VOLUME	AREA	VOLU
SHOTCRETE REPAIR AREA (SCR)	SF	CF			3.8 SF	1.3



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END BENT 2

DEMOLITION							
LOCATION	ESTIMATED (SQ.FT.)	ACTUAL (SQ.FT.)					
END BENTS	62.2						
BENT 1	31.1						
BENT 2	31.1						

FOR P	RESERVATI	ON
LOCATION	ESTIMATED (CU.FT.)	ACTL (CU.F
END BENTS	15.6	
BENT 1	7.8	
BENT 2	7.8	

DRAWN BY :	DIEGO A.AGUIRRE	DATE : <u>01/2022</u>
CHECKED BY :	JACOB H.DUKE	DATE : <u>01/2022</u>
DESIGN ENGINEER	OF RECORD:A.AGUIRRE	DATE : <u>01/2022</u>

4/21/2022 I5915B_SMU_JT01_480124.dgn daguirre

NOTES:

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL OPENING VARIES FROM THE OPENING INDICATED IN THE DETAIL BY MORE THAN $\frac{1}{4}$, notify the ENGINEER.REVISION OF THE JOINT SEAL SIZE MIGHT BE NECESSARY.

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL FOR THE SIZE OF THE OPENING ON THE PLANS AND ACCOMODATE THE MINIMUM EXPANSION SHOWN ON THE PLANS.

FOAM JOINTS SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REPAIR OPERATIONS NOT TO DROP ANY MATERIAL THAT FALLS BELOW THE BRIDGE, WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRDIGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRATCTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

THE INSTALLED FOAM JOINT SEAL SHALL BE WATER TIGHT.

QUANTITIES SHOWN IN THE ELASTOMERIC CONCRETE FOR PRESERVATION TABLE BASED ON THE MINIMUM JOINT DEMOLITION SHOWN.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DECK DEMOLITION. CONCRETE FOR DECK REPAIRS SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ELASTOMERIC CONCRETE FOR PRESERVATION HEADERS SHOWN.

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 CONCRETE DEPTH TO THE WATERSTOPS SHALL BE REMOVED. IF SUCH EXCAVATION EXTENDS MORE THAN 2"BELOW THE BOTTOM OF THE PLANNED ELASTOMERIC CONCRETE HEADER. AS SHOWN, APPROVED REPAIR CONCRETE SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT THE BOTTOM OF THE ELASTOMERIC CONCRETE.

DEMOLISH BRIDGE JOINT AREA SUCH THAT THE BOTTOM OF THE EXCAVATION SHALL BE REASONABLY FLAT AND LEVEL AND TO THE NECESSARY DEPTH. SUCH THAT ELASTOMERIC CONCRETE SHALL BE FOUNDED ON CONCRETE OR REPAIR CONCRETE SUBSTRATE.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

	project no. <u>I-5915e</u> <u>IREDELL</u> cou bridge no. <u>480124</u>	3 JNTY			
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KCA					
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	AREA	VOLUME A	AREA VOLUME	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME		
CONCRETE REPAIR AREA (CR)	29.2 SF	10.6 CF		23.4 SF	8.5 CF			9.6 SF	3.3 CF			ERI	EPOXY RES
SHOTCRETE REPAIR AREA (SCR)	SF	CF		SF	CF			SF	CF			FF	FAST FACE
	ESTI	IMATE	ACTUAL	EST	IMATE	AC	TUAL	EST	IMATE	AC	TUAL		LASITACL
EPOXY RESIN INJECTION (ERI)		- LF		7.() LF			6.) LF			WF	WEST FACE
37'-6" SPAN 1					50'-C SPAN)″ 2							45'-0"
	3.4 SF CR — GIRDER END				(X2) 3.8 S	1.9 SF CR SF TOTAL	¥	0.7 SF CF	(BOTTOM)		2.4 SF	CR	
 	2.0 SF CR	(WF)					\ \ \	7.0 LF	ERI (BOT	TOM)			· · · · · · · · · · · · · · · · · · ·
\', \ GIRDER 2 \', \ \', \	6.3	1.6 SF CR — SF CR (WF) — 1.8 SF CI	, , , , , , , , , , , , , , , , , , ,	CR					2.0	SF CR (WF		4.4 SF CR	(EF)
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GIRDE	ER 4		4.7 SF CR		.8 SF CR 5 SF CR	4.5 SF BOTTC	 CR M	3.0 SF C	R —				

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AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE TABLE ABOVE.

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DRAWN BY :	ALLEN J. MCSWAIN	DATE :01/2022
CHECKED BY :	JACOB H.DUKE	DATE : <u>01/2022</u>
DESIGN ENGINEER	OF RECORD: DIEGO A. AGUIRRE	<u> </u> date : <u>01/2022</u>

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LEGEND	
CONCRETE REPAIR AREA (CR)	
SHOTCRETE REPAIR AREA (SCR)	5
EPOXY RESIN INJECTION (ERI)	

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AS-BUILT REPAIR QUANTITY TABLE							
	QUANTITIES						
	ESTI	MATE	ACT	UAL			
SHOTCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
CAP/BACKWALL	4.5	1.5					
COLUMN/PILE	_	_					
CONCRETE REPAIRS	AREA SQ.FT.	VOLUME CU.FT.	AREA SQ.FT.	VOLUME CU.FT.			
САР	_	_					
POXY RESIN INJECTION	LIN.FT. LIN.		FT.				
CAP/BACKWALL	-						
COLUMN/PILE		-					

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	PROJECT NO. <u>I-5915B</u> <u>IREDELL</u> COUNTY BRIDGE NO. <u>480124</u> Sheet 1 of 3
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KISINGER CAMPO	REVISIONS SHEET NO.
CONSIDERED301 FAYETTEVILLE ST., SUITE 1500SSALLRALEIGH, NC 27601 (919) 882-7839OMPLETEDNC FIRM LICENSE: C-1506	1 3 TOTAL SHEETS 2 4 8

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	LEGEND	
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	SHOTCRETE REPAIR AREA (SCR)	S
	EPOXY RESIN INJECTION (ERI)	
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2.2 SF SCR		E
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AS-BUILT REPAIR QUANTITY TABLE QUANTITIES ACTUAL ESTIMATE AREA SQ.FT. VOLUME CU.FT. AREA SQ.FT VOLUME CU.FT. SHOTCRETE REPAIRS 8.6 CAP/BACKWALL 3.0 COLUMN/PILE _ _ AREA SQ.FT, AREA SQ.FT VOLUME VOLUME CU.FT. CONCRETE REPAIRS CU. F CAP 0.8 2.4 EPOXY RESIN INJECTION LIN.FT. LIN.FT. CAP/BACKWALL 15.0 COLUMN/PILE 3.0

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	project no. <u>I-5915B</u> <u>IREDELL</u> county bridge no. <u>480124</u> sheet 2 of 3
DocuSigned by: Dicao & Manary Correction 472974308303304FB Correction Corr	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUBSTRUCTURE REPAIRS
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CONSIDERED301 FAYETTEVILLE ST., SUITE 1500SSALLRALEIGH, NC 27601 (919) 882-7839OMPLETEDNC FIRM LICENSE: C-1506	NO. DATE: NO. DT: DATE: STOTAL SHEETS 2 4 8 8

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			(EAST FACE)
DRAWN BY :	ALLEN J.MCSWAIN	DATE :01/2022	
CHECKED BY :	FIDEL L.FLORES	DATE : <u>01/2022</u>	
DESIGN ENGINEER	OF RECORD: DIEGO A. AGUIRR	<u>E</u> date : <u>01/2022</u>	

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A A 4	CONCRETE REPAIR AREA (CR)	
	SHOTCRETE REPAIR AREA (SCR)	SH
	EPOXY RESIN INJECTION (ERI)	



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AS-BUILT REPAIR QUANTITY TABLE QUANTITIES ACTUAL ESTIMATE AREA SQ.FT. VOLUME CU.FT. HOTCRETE REPAIRS AREA SQ.FT VOLUME CU.FT. CAP/BACKWALL 2.8 1.0 2.2 0.8 COLUMN/PILE AREA SQ.FT, VOLUME CU.FT. CONCRETE REPAIRS AREA SQ.FT VOLUME CU. F 3.2 CAP 9.4 EPOXY RESIN INJECTION LIN.FT. LIN.FT. CAP/BACKWALL — COLUMN/PILE _

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	PROJECT NO. <u>I-5915B</u> <u>IREDELL</u> COUNTY BRIDGE NO. <u>480124</u> Sheet 3 of 3
DocuSigned by: Dicao & Aguerre SEAL Dicao & Aguerre 048223 47297/2022304FB Dicao A Aguerre 048223	STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH SUBSTRUCTURE REPAIRS
KCA	BENT 2
KISINGER CAMPO	REVISIONS SHEET NO.
CONSIDERED 301 FAYETTEVILLE ST., SUITE 1500	NO. BY: DATE: NO. BY: DATE: S18-8 1 2 TOTAL
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SCOPE LEGEND:

- CLEAR SHOULDERS OF DEBRIS AND VEGETATION
- CONCRETE DECK REPAIRS
- JOINT REPAIRS/REPLACEMENT
- SUPERSTRUCTURE CONCRETE REPAIRS
- SUBSTRUCTURE CONCRETE REPAIRS
- SUBSTRUCTURE EPOXY RESIN INJECTION (6)



I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED THEREIN.

RESIDENT ENGINEER

DATE

PROJECT NO	I-5915B
IREDELL	COUNTY
BRIDGE NO	48Ø124





FOR BRIDGE ON I-40 WB OVER NC 115

REVISIONS					SHEET NO.	
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DRAWN BY :	DIEGO A.AGUIRRE	DATE :	01/2022
CHECKED BY :	FIDEL L.FLORES	DATE :	01/2022
DESIGN ENGINEER	OF RECORD:A.AGUIRRE	DATE :	01/2022

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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 2018 ``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 $\frac{3}{4}$ " with the following exceptions: TOP CORNERS OF CURBS MAY BE ROUNDED TO 11/2" 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 $\frac{1}{4}$ 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.

STANDARD NOTES

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 FÁLSEWORK, 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 $\frac{7}{8}$ " \varnothing shear studs for the $\frac{3}{4}$ " Ø studs specified on the plans. This substitution shall be made at THE RATE OF 3 - $\frac{7}{8}$ " Ø STUDS FOR 4 - $\frac{3}{4}$ " Ø STUDS, AND STUD SPACING CHANGES. SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF $\frac{7}{8}$ " Ø STUDS ALONG THE BEAM AS SHOWN FOR $\frac{3}{4}$ " Ø studs based on the ratio of 3 - $\frac{7}{8}$ " Ø STUDS FOR 4 - $\frac{3}{4}$ " Ø STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-O".

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 5/6" 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 V_{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. FINS 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.

