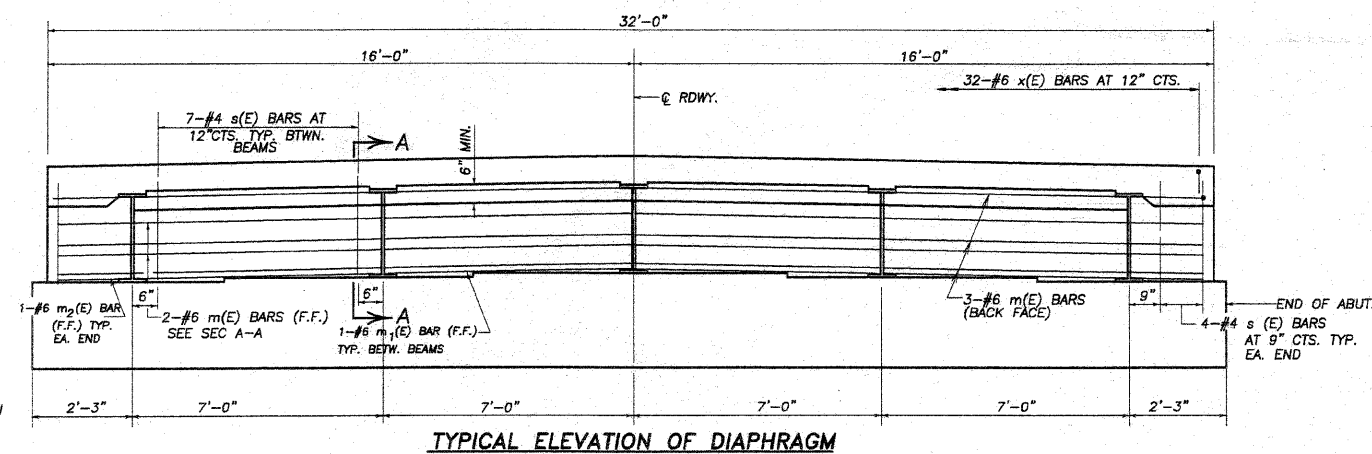


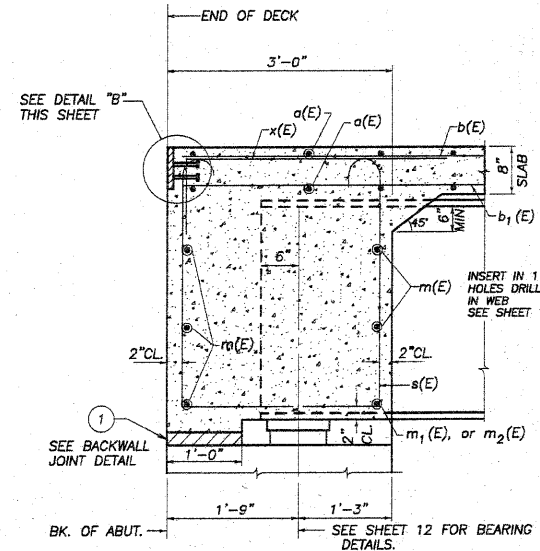
**BILL OF MATERIAL - SUPERSTRUCTURE**

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	158	#5	31'-8"	
a <sub>1</sub> (E)	92	#6	7'-6"	
m(E)	10	#6	31'-8"	
m <sub>1</sub> (E)	8	#6	6'-2"	
m <sub>2</sub> (E)	4	#6	1'-9"	
b(E)	96	#5	20'-0"	
b <sub>1</sub> (E)	68	#5	28'-9"	
s(E)	72	#4	9'-2"	
x(E)	64	#6	6'-0"	
CONCRETE SUPERSTRUCTURE			CU. YD.	61.3
REINFORCEMENT BARS, EPOXY COATED			LBS.	11874
PROTECTIVE COAT			SQ. YD.	189
BRIDGE DECK GROOVING			SQ. YD.	174
FURNISHING AND ERECTING STRUCTURAL STEEL			L SUM.	1
STUD SHEAR CONNECTORS			EACH	840

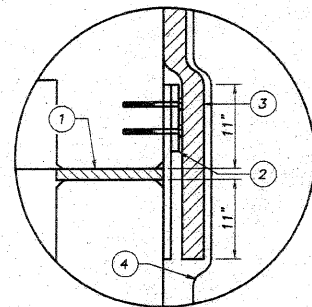


\*\*BONDED CONSTRUCTION JOINT IN ACCORDANCE WITH ARTICLE 503.09 OF STD. SPEC'S.

**TYPICAL ELEVATION OF DIAPHRAGM**



**SECTION A-A**



**BACKWALL JOINT DETAIL**

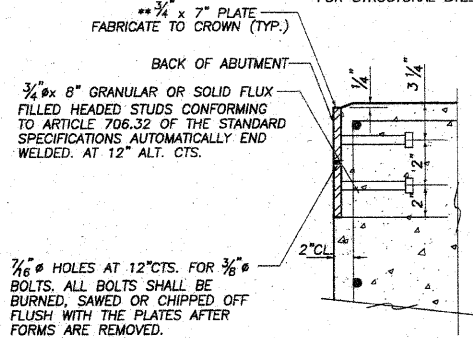
- 2" PREFORMED JOINT FILLER (ARTICLE 1051) BONDED TO ABUTMENT CAP WITH APPROVED ADHESIVE (FULL WIDTH OF CAP)
  - 1/8" THICK REINFORCED ELASTOMERIC NEOPRENE MAT
  - 1/2" STUDS WITH NUTS & WASHERS AT 12 INCH CENTERS (MINIMUM EMBEDMENT=4") HOT ROLLED BARS: 3/8" x 5" x 32'-0"
  - 2" PREFORMED JOINT FILLER (ARTICLE 1051) BONDED TO SUPERSTRUCTURE (FULL WIDTH OF CAP; 3'-0" WIDE)
  - GEOCOMPOSITE WALL DRAIN (FULL WIDTH OF CAP PLUS EXTEND 3" MINIMUM ONTO WINGWALLS; 4'-0" WIDE)
- ITEMS ①, ②, ③, & ④ SHALL BE INCLUDED IN THE COST OF CONCRETE SUPERSTRUCTURE.

**BEAM MOMENT TABLE**

	0.5 SPAN 1
I <sub>s</sub> (in <sup>4</sup> )	4470
I <sub>c</sub> (in <sup>4</sup> )(n)	11570
I <sub>c</sub> (in <sup>4</sup> )(3n)	8068
S <sub>s</sub> (in <sup>3</sup> )	299
S <sub>c</sub> (in <sup>3</sup> )(n)	452
S <sub>c</sub> (in <sup>3</sup> )(3n)	396
DC1 (k/ft.)	0.88
MDC1 (ft.-k)	229
DC2 (k/ft.)	0.02
MDC2 (ft.-k)	5.2
DW (k/ft.)	0.35
MDW (ft.-k)	91
MLL+IM (ft.-k)	585
MU (Str. I)(ft.-k)	1484
# <sub>f</sub> M <sub>n</sub> (ft.-k)	2777
f <sub>s</sub> DC1 (ksi)	9.4
f <sub>s</sub> DC2 (ksi)	0.8
f <sub>s</sub> DW (ksi)	2.8
f <sub>s</sub> 1.3(LL+IM)(ksi)	20.1
f <sub>s</sub> (Service II)(ksi)	33.1
VF (k)	24.0

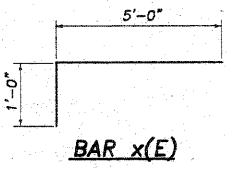
REINFORCEMENT BARS INDICATED (E) SHALL BE EPOXY COATED.

\*\* FURNISH IN TWO LENGTHS. MAXIMUM SPACE BETWEEN INSTALLED SEGMENTS SHALL BE 3/16". SEAL SPACE WITH SILICONE SEALANT SUITABLE FOR STRUCTURAL STEEL.

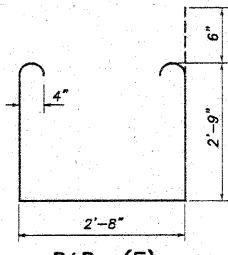


**DETAIL "B"**

NOTE: AFTER FABRICATION ALL SURFACES OF THE STEEL PLATES SHALL BE GIVEN ONE SHOP COAT OF PAINT SPECIFIED FOR STRUCTURAL STEEL. NO FIELD PAINTING REQUIRED.



**BAR x(E)**



**BAR s(E)**

**BEAM REACTION TABLE**

	ABUTMENTS
R <sub>DC1</sub> (k)	20.1
R <sub>DC2</sub> (k)	0.5
R <sub>DW</sub> (k)	8.0
R <sub>LL+IM</sub> (k)	67.0
R <sub>TOTAL</sub> (k)	95.6

**SUPERSTRUCTURE DETAILS  
 SECTION 05-00213-00-BR  
 SHABONA ROAD  
 DEKALB COUNTY  
 SN 019-3066**

SCALE: 1"=

REVISIONS

REVISION NO. DATE

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**SUPERSTRUCTURE DETAILS  
 OF  
 SHABONA ROAD BRIDGE REPLACEMENT  
 FOR  
 DEKALB COUNTY HIGHWAY**

SHEET TITLE

JOB NUMBER  
2080381

DATE  
5/11/2009

SHEET NO.  
10 of 17