

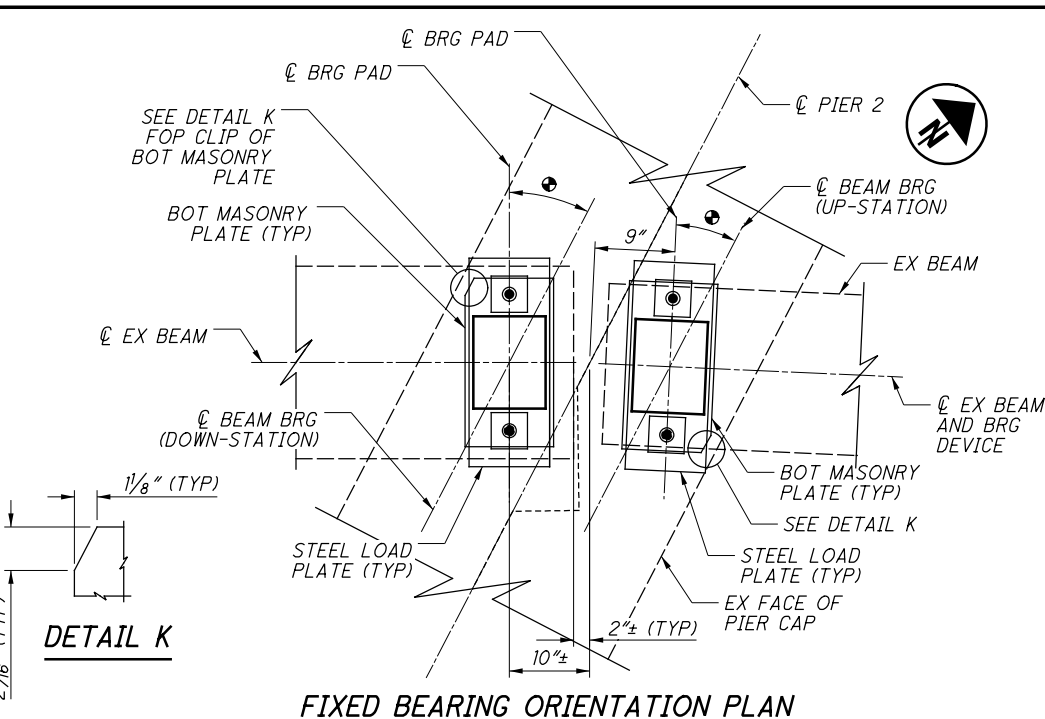
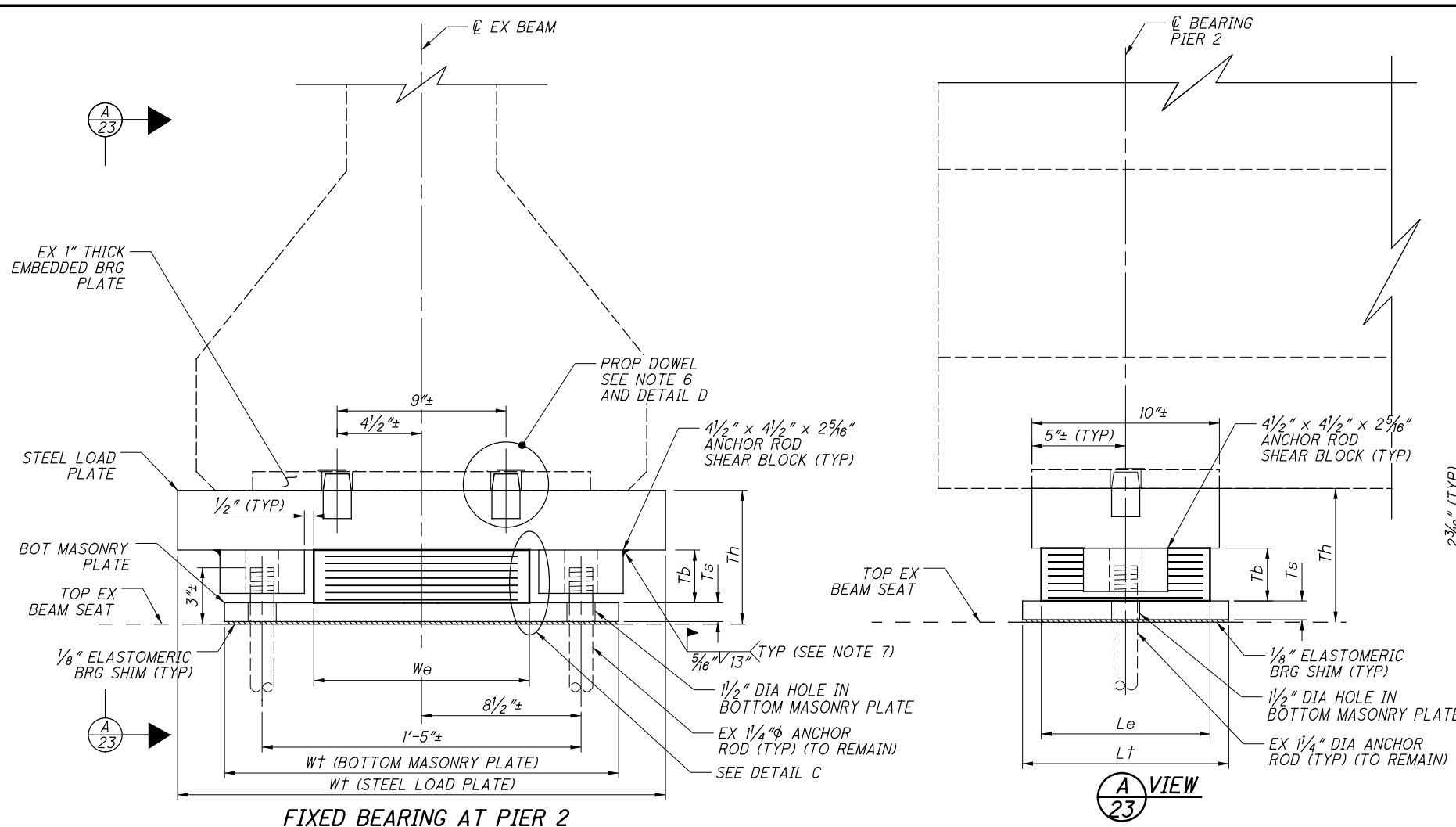
J:\20190025\DOT\NIF BEL-7-IL52-IL87-12.79 (PID 10324)\BEL\10324\Roadway\Sheets\10324_GG001.dgn 2/18/2021 12:46:53 PM bmillar

SHEET NUM.												PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
9	72	73	75	76	89	93						01/NHS/BR	EXT	TOTAL				
ROADWAY																		
LS												LS	201	11000	LS	CLEARING AND GRUBBING		
	446												446	202	23000	446 SY	PAVEMENT REMOVED	
	1,685												1,685	202	30700	1,685 FT	CONCRETE BARRIER REMOVED	
	1,528												1,528	202	38000	1,528 FT	GUARDRAIL REMOVED	
	64												64	202	75000	64 FT	FENCE REMOVED	
					29								29	203	10000	29 CY	EXCAVATION	
					144								144	203	20000	144 CY	EMBANKMENT	
			1,342										1,342	204	10000	1,342 SY	SUBGRADE COMPACTION	
			2										2	204	45000	2 HOUR	PROOF ROLLING	
		1,212.5											1,212.5	606	15050	1,212.5 FT	GUARDRAIL, TYPE MGS	
		100											100	606	15250	100 FT	GUARDRAIL, TYPE MGS QUARTER POST SPACING	
		2											2	606	26150	2 EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
		6											6	606	35002	6 EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
		3											3	606	35102	3 EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
		64											64	607	23000	64 FT	FENCE, TYPE CLT	
		64											64	607	70000	64 FT	FENCELINE SEEDING AND MULCHING	
		1,381											1,381	622	10100	1,381 FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B1	
		7											7	622	10100	7 EACH	BARRIER TRANSITION	
		9											9	622	25006	9 EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1	
		1											1	622	25007	1 EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE B1, AS PER PLAN	
		1											1	622	25020	1 EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED	
EROSION CONTROL																		
				4									4	601	21050	4 SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
	2												2	659	00100	2 EACH	SOIL ANALYSIS TEST	
	867												867	659	00300	867 CY	TOPSOIL	
	7,807												7,807	659	10000	7,807 SY	SEEDING AND MULCHING	
	390												390	659	14000	390 SY	REPAIR SEEDING AND MULCHING	
	1.05												1.05	659	20000	1.05 TON	COMMERCIAL FERTILIZER	
	1.61												1.61	659	31000	1.61 ACRE	LIME	
	42												42	659	35000	42 MGAL	WATER	
													22,766	832	30000	22,766 EACH	EROSION CONTROL	
DRAINAGE																		
				0.3									0.3	602	20000	0.3 CY	CONCRETE MASONRY	
				72									72	605	11110	72 FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
				126									126	605	14020	126 FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
				235									235	611	00510	235 FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
				13									13	611	06100	13 FT	15" CONDUIT, TYPE C	
				127									127	611	06700	127 FT	15" CONDUIT, TYPE F	
				1									1	611	98180	1 EACH	CATCH BASIN, NO. 3A	
				2									2	611	99710	2 EACH	PRECAST REINFORCED CONCRETE OUTLET	
				1									1	611	99900	1 EACH	DRAINAGE STRUCTURE, MISC.: INLET, NO. 4 FOR SINGLE SLOPE BARRIER, TYPE B1, AS PER PLAN	
PAVEMENT																		
			157										157	302	46000	157 CY	ASPHALT CONCRETE BASE, PG64-22	
			261										261	304	20000	261 CY	AGGREGATE BASE	
			2,439										2,439	407	10000	2,439 GAL	TACK COAT	
			1,214										1,214	442	20001	1,214 CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN (PG70-22M)	
			185										185	442	20200	185 CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)	
		249											249	609	24510	249 FT	CURB, TYPE 4-C	
					3.22								3.22	618	40600	3.22 MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	

GENERAL SUMMARY

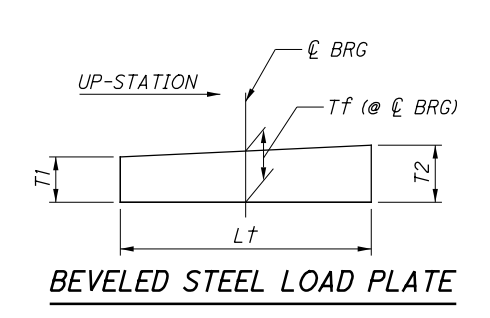
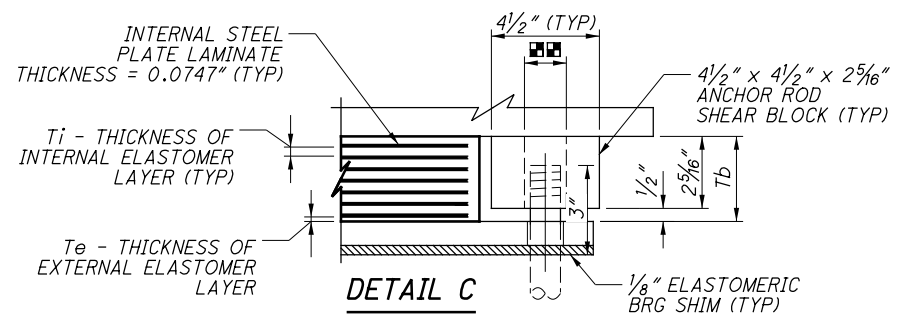
BEL-7-11.48

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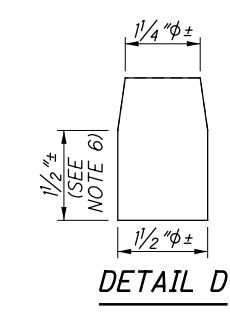
NOTES

- ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION 1, SECTION 14.6.5 (METHOD B) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION AND THE 2020 ODOT BRIDGE DESIGN MANUAL (BDM).
- LOAD PLATES AND MASONRY PLATES: ALL BEARINGS SHALL BE MARKED PRIOR TO SHIPPING. THE MARKS SHALL INCLUDE THE BEARING LOCATION ON THE BRIDGE (REAR ABUTMENT, PIER, OR FORWARD ABUTMENT), AND A DIRECTION ARROW THAT POINTS UP-STATION. ALL MARKS SHALL BE PERMANENT AND BE VISIBLE AFTER THE BEARING IS INSTALLED. THE STEEL FOR THE STEEL LOAD PLATES, MASONRY PLATES AND SHEAR BLOCKS SHALL BE ASTM A709 GRADE 50.
- THE STEEL LOAD PLATES AND STEEL MASONRY PLATE (IF APPLICABLE) SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.
- THE PROPOSED STEEL LOAD PLATE, SHEAR BLOCKS AND MASONRY PLATES SHALL HAVE A THREE-COAT PAINTED SYSTEM PER ITEM 514. SHALL BE INCLUDED WITH THE RESPECTIVE BEARING ITEM FOR PAYMENT.
- THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS. PAYMENT WILL BE MADE AT THE CONTRACT PRICE FOR ITEM 516, EACH ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE). MASONRY PLATES, STEEL LOAD PLATES, SHEAR BLOCKS, PAINTING AND ELASTOMER BEARING SHIMS SHALL BE INCLUDED WITH THE BEARINGS FOR PAYMENT.
- PRESS FIT NEW DOWEL INTO STEEL LOAD PLATE. THE DOWEL SHALL BE ASTM A36 GRADE 36 STEEL.
- TOTAL 5/16" WELD LENGTH FOR THE ANCHOR ROD SHEAR BLOCK TO THE STEEL LOAD PLATE SHALL BE A MINIMUM OF 13". THE SIDE OF THE SHEAR BLOCK ADJACENT TO THE ELASTOMERIC BEARING SHALL NOT BE WELDED.



SKEW, Ⓢ		
PIER 2 - LEFT BRIDGE		
BEAM	UP-STATION	DOWN-STATION
1 - 12	24° 50' 55" RF	27° 25' 32" RF

SKEW, Ⓢ		
PIER 2 - RIGHT BRIDGE		
BEAM	UP-STATION	DOWN-STATION
1 - 12	25° 55' 37" RF	28° 01' 19" RF



ELASTOMERIC BEARING DATA															STEEL LOAD PLATES	TOTAL HEIGHT
LOCATION	BEAM(S)	TYPE	NUMBER REQ'D	UNFACTORED DL (KIPS)	UNFACTORED LL (KIPS) WITHOUT IMPACT	UNFACTORED FUTURE WEARING SURFACE (KIPS)	MAXIMUM DESIGN LOAD (KIPS)	L _e (IN)	W _{e1} (IN)	t _i (IN)	t _e (IN)	NUMBER OF t _i 's	NUMBER OF STEEL LAMINATES	T _b (IN)	TOTAL THICKNESS AT CL BRG (IN)	TOTAL THICKNESS AT CL BRG T _h (IN)
PIER 2 - DOWN-STATION (SPAN 2)	1 - 12	FIXED	12	80.53	70.42	14.93	165.88	9	11.5	0.3125	0.1250	7	7	2.84	4.00	6.84
PIER 2 - UP-STATION (SPAN 3)	1 - 12	FIXED	12	53.94	63.91	12.73	130.58	9	11.5	0.3125	0.1250	7	7	2.84	4.00	6.84

LOCATION	BEAMS	STEEL LOAD PLATE DATA										TOTAL THICKNESS AT CL BRG (IN)
		BOTTOM MASONRY PLATE			STEEL LOAD PLATE							
		L _t (IN)	W _t (IN)	T _s (IN)	BEVEL (YES/NO)	L _t (IN)	W _t (IN)	T _f (IN)	T ₁ (IN)	T ₂ (IN)		
PIER 2 - DOWNSTATION (SPAN 2)	1 - 12	11.00	21.00	1.00	NO	10.00	26.00	3.00	-	-	4.00	
PIER 2 - UPSTATION (SPAN 3)	1 - 12	11.00	21.00	1.00	YES	10.00	26.00	3.00	2.88	3.12	4.00	

- LEGEND**
- Ⓢ - SKEW BETWEEN CL PIER BEARINGS AND CL BEARING PAD
 - - 1 3/4" DIA HOLE THROUGH SHEAR BLOCK

DESIGN AGENCY: **EMHT**
 REVIEWED DATE: 10/30/20
 DRAWN: MJR
 CHECKED: TDA
 STRUCTURE FILE NUMBER: 0700223
 BRIDGE NO.: BEL-7-1152C
 SR 7 OVER CO RD 7 & WEGEE CREEK
BEL-7-11.48
 PID No. 110324
 23/48
 127
 213