DESIGN

DESIGN SPECIFICATIONS

"AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" XX EDITION AND (MONTH)(YEAR) ITD BRIDGE DESIGN LRFD MANUAL.

DESIGN PROCEDURES

RAILING IN ACCORDANCE WITH MASH TL - x. DESIGN SPEED IS __ mph. PROPRIETARY COMPUTER SOFTWARE PROGRAMS USED TO FACILITATE THE DESIGN:

NAME	VERSION	RELEASE DATE	NAME	VERSION	RELEASE DATE

DESIGN LOADS

DIGIN FOUNDS			
PERMANENT	LOADS		
DC	UNIT WEIGHT OF REINFORCED CONCRETE	0.150	kcf
DW	FUTURE WEARING SURFACE	x.xx	ksf
EV	UNIT WEIGHT OF SOIL	XXX	ksf
	FILL DEPTH	x.xx	: ft
EH	ACTIVE PRESSURE	XXX	kcf
	AT REST PRESSURE	XXX	kcf
	SOIL-STRUCTURE INTERACTION FACTOR (F OR Ft)	x.xx	
ES	EARTH LOAD SURCHARGE	x.xx	: ft
TRANSIENT L	LOADS		
LL	HL-93		
IM	DYNAMIC ALLOWANCE APPLIED TO TRUCK & TANDEM		
LS	LIVE LOAD SURCHARGE AT ABUTMENT	x.xx	: ft
	LIVE LOAD SURCHARGE AT WINGWALL	x.xx	: ft
	DC DW EV EH ES TRANSIENT L LL IM	PERMANENT LOADS DC UNIT WEIGHT OF REINFORCED CONCRETE DW FUTURE WEARING SURFACE EV UNIT WEIGHT OF SOIL FILL DEPTH EH ACTIVE PRESSURE AT REST PRESSURE SOIL-STRUCTURE INTERACTION FACTOR (Fe OR Ft) ES EARTH LOAD SURCHARGE TRANSIENT LOADS LL HL-93 IM DYNAMIC ALLOWANCE APPLIED TO TRUCK & TANDEM LS LIVE LOAD SURCHARGE AT ABUTMENT	PERMANENT LOADS DC UNIT WEIGHT OF REINFORCED CONCRETE 0.150 DW FUTURE WEARING SURFACE x.xx EV UNIT WEIGHT OF SOIL xxx FILL DEPTH x.xx EH ACTIVE PRESSURE xxx AT REST PRESSURE xxx SOIL-STRUCTURE INTERACTION FACTOR (Fe OR Ft) x.xx TRANSIENT LOADS LL HL-93 IM DYNAMIC ALLOWANCE APPLIED TO TRUCK & TANDEM LS LIVE LOAD SURCHARGE AT ABUTMENT x.xx

FOOTING DESIGN LOADS STRENGTH LIMIT STATE - BEARING NOMINAL BEARING RESISTANCE $q_n = X$ ksf EFFECTIVE FOOTING WIDTH B' = xx ft EFFECTIVE FOOTING LENGTH L' = xx ft RESISTANCE FACTOR $\Phi_b = X$ FACTORED BEARING RESISTANCE $q_R = q_n \Phi_b = xx$ ksf FACTORED APPLIED LOAD $\Upsilon Q/(B'L') = xx$ ksf

SERVICE LIMIT STATE PRESUMPTIVE BEARING CAPACITY $q_p = x \text{ ksf}$ BASED UPON FOOTING SETTLEMENT = X inches OR LESS EFFECTIVE FOOTING WIDTH B' = xx ft EFFECTIVE FOOTING LENGTH L' = xx ft RESISTANCE FACTOR $\Phi = 1.0$ FACTORED PRESUMPTIVE BEARING RESISTANCE $\Phi q_p = xx \text{ ksf}$

FACTORED APPLIED LOAD $\Upsilon Q/B'L') = xx ksf$

GENERAL NOTES

MATERIALS, CONSTRUCTION AND WORKMANSHIP IN ACCORDANCE WITH THE STATE OF IDAHO TRANSPORTATION DEPARTMENT, "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", 2023 EDITION, THE PROJECT PLANS, AND SPECIAL PROVISIONS.

MATERIAL

C	ONCRETE:	DECK SL	AB AND	EDGE E	BEAM - (CLASS 40A.	 	f'c =	4.00 ksi
								f'c =	
Μ	ETAL REINFOR	CEMENT:	AASHT	O M31,	GRADE	60 TYPE S.	 	fy =	60.00 ksi
AND	IMENICIONIC AL	VID ELEVA	TIONE						

PLAN DIMENSIONS AND ELEVATIONS

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.

DIMENSIONS TO REINFORCING STEEL ARE TO CENTERLINE OF BAR UNLESS NOTED OTHERWISE. PROVIDE 2" CONCRETE COVER MEASURING FROM THE FACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING BAR, UNLESS SHOWN OTHERWISE ON THE DRAWINGS.

PROVIDE REINFORCING STEEL SPLICE LENGTHS IN ACCORDANCE WITH AASHTO SPECIFICATIONS.

CONSTRUCTION

PROVIDE CONSTRUCTION JOINTS AT THE LOCATIONS SHOWN ON THE PLANS OR AS APPROVED. APPLY CONCRETE WATERPROOF SYSTEM TYPE D TO THE TOP SLAB.

DO NOT EXCEED A DIFFERENCE OF 2 FEET IN ELEVATION OF THE BACKFILL MATERIAL ON BOTH SIDES OF THE STRUCTURE DURING BACKFILL OPERATIONS.

SET THE ROLLER IN THE STATIC MODE FOR COMPACTING THE ASPHALT WEARING SURFACE OVER THE CULVERT WHEN THE DEPTH OF FILL IS LESS THAN 3'. ELEVATIONS BASED ON NAVD 88 DATUM.

INCIDENTAL ITEMS

WORK NECESSARY TO FULFILL THE CONTRACT THAT IS NOT MEASURED OR PAID FOR SEPARATELY.

			REVISIONS	DESIGNED	SCALES SHOWN
NO \	DATE	BY	DESCRIPTION	DESIGN CHECKED	ARE FOR 11" X 17" PRINTS ONLY
\bowtie				DETAILED	CADD FILE NAME
Ā				DWG. CHECKED	Standards/Bridge Standard Drawings/ B17_2A.DGN
Ķ				CORRECTIONS	DRAWING DATE:
\mathbb{Z}					OCT 2023



APPROVED BY:
BRIDGE ENGINEER MICHAEL T. JOHNSON DATE:

ENGLISH PROJECT NO.

BOX CULVERT/STIFFLEG BRIDGE (CAST-IN-PLACE) BRIDGE LRFD DESIGN MANUAL, B17.2A

DESIGN AND GENERAL NOTES

BRIDGE PLANS					
BRIDGE KEY NO.					
COUNTY	KEY NO.				
BRIDGE DWG. NO.	SHEET OF				