

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS:
REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:
AS-1-15, REVISED 7/17/15
AS-2-15, REVISED 1/19/18
DS-1-92, REVISED 7/18/03
PSBD-2-07, REVISED 7/20/18
TST-1-99, REVISED 7/20/18

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION:
800, DATED 1/17/20

DESIGN SPECIFICATIONS:
THIS STRUCTURE CONFORMS TO THE 8TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2017, AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

OPERATIONAL IMPORTANCE:
A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2019.

DESIGN LOADING:
HL-93
FUTURE WEARING SURFACE (FWS) OF 0.060 KSF

DESIGN DATA:
CLASS QC2 CONCRETE - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)
CLASS QC1 CONCRETE - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)
REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 7.0 KSI
COMPRESSIVE STRENGTH (RELEASE) - 5.0 KSI

PRESTRESSING STRAND: 0.5" DIAMETER
AREA = 0.167 SQ. IN.
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

DECK PROTECTION METHOD:
EPOXY COATED REINFORCING STEEL
2 1/2" CONCRETE COVER
STEEL DRIP STRIP
SEALING OF CONCRETE SURFACES
SEALING OF PHASE CONSTRUCTION JOINT

MONOLITHIC WEARING SURFACE:
MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

REINFORCING STEEL LIST:
SEE SHEET 10 OF 10.

SURVEY DISK ON STRUCTURE:
THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST ONE (1) WEEK IN ADVANCE OF POURING THE CONCRETE FOR COMPLETION OF THE ABUTMENT. THE ENGINEER WILL PROVIDE THE CONTRACTOR ONE (1) SURVEY DISK (OBTAINED FROM THE DISTRICT SURVEYOR) WHICH THE CONTRACTOR SHALL PLACE IN THE SURFACE OF THE FRESH CONCRETE. THE LOCATION OF THE DISK SHALL BE ON THE ABUTMENT AND ON A FLAT, HORIZONTAL SURFACE BEYOND THE EDGE OF DECK AND GUARDRAIL. THE BENCHMARK SHALL BE ACCESSIBLE TO A SURVEYOR'S ROD WITHOUT ANY OBSTRUCTIONS. COST OF THIS WORK IS CONSIDERED INCIDENTAL TO THE ABUTMENT CONCRETE BID ITEM.

ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN:
DESCRIPTION: THIS ITEM SHALL INCLUDE THE ELEMENTS INDICATED IN THE PLANS AND GENERAL NOTES AND THAT ARE NOT SEPARATELY LISTED FOR PAYMENT. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER.

THIS WORK SHALL CONSIST OF THE PHASED REMOVAL OF CONCRETE DECK SLAB, ABUTMENTS, AND PIERS. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK AND SUBSTRUCTURE REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND USED FOR MAINTENANCE OF TRAFFIC. THE USE OF EXPLOSIVES OR HEADACHE BALLS IS PROHIBITED. IN ADDITION, THE USE OF HOE RAM TYPE EQUIPMENT IS PROHIBITED UNLESS ALL OF THE FOLLOWING EXCEPTIONS ARE MET:

- PORTION OF THE STRUCTURE WILL NOT BE REUSED OR SALVAGED
- PORTION OF THE STRUCTURE IS COMPLETELY SEPARATE FROM ANY OTHER PORTIONS OF THE STRUCTURE THAT ARE BEING USED OR WILL BE USED FOR ANY CONSTRUCTION PHASE OR BEING SALVAGED IN THE PROPOSED WORK
- DEMOLITION WILL NOT IMPACT THE INTEGRITY OF ANY IN USE, SALVAGED OR NEW PORTIONS OF THE STRUCTURE

SUBMIT CONSTRUCTION PLANS ACCORDING TO CMS 501.05.

REMOVAL METHODS: CONCRETE MAY BE REMOVED BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNT CHISEL TYPE TOOLS. FOR REMOVALS OF DECK SLABS AND SUBSTRUCTURES, A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS MAY BE USED AT THE APPROVAL OF THE ENGINEER.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE.

PRE-1951 ABUTMENT REMNANTS: EXISTING REAR ABUTMENT REMNANTS WERE FIELD VERIFIED DURING THE TOPOGRAPHIC SURVEY. THERE ARE NO EXISTING ABUTMENT REMNANTS THAT COULD BE VERIFIED AT THE FORWARD ABUTMENT. THE EXISTING FORWARD ABUTMENT REMNANTS SHOWN REPRESENT THE POSSIBLE LOCATION OF ADDITIONAL BURIED CONCRETE BASED ON THE EXISTING REAR ABUTMENT AND PREVIOUS CONSTRUCTION PLANS FOR ASD-42-8.40.

PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS, INCLUDING THOSE ASSOCIATED WITH THE PRE-1951 ABUTMENT REMNANTS, ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AND REMOVALS AT THE CONTRACT PRICE FOR ITEM 202, STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE):
THE ULTIMATE BEARING VALUE IS 243.309 KIPS PER PILE FOR THE ABUTMENT PILES.

REAR ABUTMENT PILES:
12 INCH DIAMETER PILES 45 FEET LONG, ORDER LENGTH

FORWARD ABUTMENT PILES:
12 INCH DIAMETER PILES 55 FEET LONG, ORDER LENGTH

1 DYNAMIC LOAD TESTING ITEM

ITEM 503, COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN:
EXCAVATION BRACING SHALL BE IN ACCORDANCE WITH THE LATEST AASHTO GUIDE DESIGN SPECIFICATIONS FOR BRIDGE TEMPORARY WORKS AND THE LATEST EDITION OF EITHER THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS OR THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. THE DESIGN MAY BE IN ACCORDANCE WITH EITHER LOAD AND RESISTANCE FACTOR DESIGN OR ALLOWABLE STRESS DESIGN.

TEMPORARY SHEETING SHALL BE USED TO ACCOMPLISH THE PROPOSED CONSTRUCTION IN STAGES. TEMPORARY SHEETING SHALL HAVE A MINIMUM SECTION MODULUS OF 10.0 CU. IN./FT. PLACE TEMPORARY SHEETING AT THE PLAN LIMITS SHOWN ON THE GENERAL PLAN, SHEET 2 OF 10, WITH AN APPROXIMATE TOP OF SHEETING EL. 982.82 AND A MINIMUM APPROXIMATE BOTTOM OF SHEETING EL. 952.33. TEMPORARY SHEET PILING SHOULD BE DRIVEN BEFORE THE PARTIAL EXISTING STRUCTURE REMOVAL AND EXCAVATION REQUIRED FOR NEW CONSTRUCTION DURING PHASE 2.

THE CONTRACTOR MAY PREPARE AND CONSTRUCT AN ALTERNATE DESIGN TO SUPPORT THE SIDES OF EXCAVATIONS. IF CONSTRUCTING AN ALTERNATE DESIGN FOR TEMPORARY SUPPORT OF EXCAVATION, PREPARE AND PROVIDE PLANS IN ACCORDANCE WITH CMS 501.05. THE DEPARTMENT WILL PAY FOR THE TEMPORARY SUPPORT OF EXCAVATION AT THE CONTRACT LUMP SUM PRICE FOR COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROVIDING AN ALTERNATE DESIGN.

PHASE CONSTRUCTION & SEQUENCE OF CONSTRUCTION NOTES:
REFER TO SHEETS 5 AND 6 OF 33 FOR MAINTENANCE OF TRAFFIC DETAILS AND NOTES FOR PHASE 2 AND PHASE 3 CONSTRUCTION.

ITEM 511, CLASS QC2 CONCRETE, AS PER PLAN:
FURNISH MATERIAL MEETING THE REQUIREMENTS OF SPONGE RUBBER, ASTM D1752, TYPE 1 OR POLYSTYRENE, ASTM C578 TYPE IV. NEATLY CUT MATERIAL AS NECESSARY TO ALLOW FOR PROPER INSTALLATION. ALLOWABLE TOLERANCES FOR THE TOTAL THICKNESS OF THE MATERIAL SHALL BE -0", +1/2". SEAL ALL REMAINING GAPS BETWEEN BEAMS WITH CAULKING BEFORE PLACING CONCRETE AT THE BEAM ENDS.

ABBREVIATIONS:
BR. = BRIDGE
BRG. = BEARING
CL = CENTERLINE
C.A.S.P. = CRUSHED AGGREGATE SLOPE PROTECTION
C.I.P.R.C.P. = CAST-IN-PLACE REINFORCED CONCRETE PILE
CONSTR. = CONSTRUCTION
DWG. = DRAWING
EA. = EACH
FA = FORWARD ABUTMENT
FF = FRONT FACE
INC = INCREMENT
INT = INTEGRAL
JT. = JOINT
LT. = LEFT
MAX. = MAXIMUM
MIN. = MINIMUM
N.P.C.P.P. = NON-PERFORATED CORRUGATED PLASTIC PIPE
OPT. = OPTIONAL
P.C.P.P. = PERFORATED CORRUGATED PLASTIC PIPE
P.E.J.F. = PREFORMED EXPANSION JOINT FILLER
RA = REAR ABUTMENT
R.C.P. = ROCK CHANNEL PROTECTION, TYPE B WITH GEOTEXTILE FABRIC, 2'-6" THICK
RT. = RIGHT
STD. = STANDARD
STR. = STRAIGHT
TYP. = TYPICAL

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DATE	9/11/19
REVIEWED	KA
DRAWN	CJS
DESIGNED	CJS
CHECKED	JSK
STRUCTURE FILE NUMBER	0301330

BRIDGE GENERAL NOTES
BRIDGE NO. ASD-42-0943
U.S.R. 42 OVER JEROME FORK

ASD-42-9.43
PID No. 94431

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