

SPECIFICATIONS:

VERMONT AGENCY OF TRANSPORTATION (VTRANS) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2014 EDITION, AND SUPPLEMENTS THERETO.

DESIGN CRITERIA:

DEAD LOAD (PLATFORM): 3 PSF
 DEAD LOAD (SCAFFOLD): 220 LBS. (32"x28" MAX. 500 LBS. RATED)
 LIVE LOAD (UNIFORM PLATFORM): 12 PSF (WEIGHT OF 1/2" STEEL SHOT)
 LIVE LOAD (UNIFORM SCAFFOLD): 6 PSF (WEIGHT OF 1/4" STEEL SHOT)
 LIVE LOAD (CONCENTRATED): 500 LBS. (TWO WORKERS MAX.)

MATERIAL PROPERTIES:

STRUCTURAL SHAPES, PLATES & BARS: ASTM A36, Fy = 36,000 PSI
 STRUCTURAL TUBING: ASTM A500, GRADE B, Fy = 46,000 PSI
 STRUCTURAL BOLTS: ASTM A325
 TIMBER: SOUTHERN PINE NO. 2 (OR BETTER)
 CABLES: 6x19 IWRC EIP
 CHAIN LINK: 9-GAUGE GALVANIZED
 METAL DECKING: ASTM A611 OR A653, Fy = 33,000 PSI

ALL BOLTS SHALL BE ANCHOR BOLTS: RED HEAD TRUBOLT WEDGE TYPE ANCHORS OR EQUIVALENT.

OPTION #	PLATFORM CABLE	PLATFORM CABLE SPACING
1	1/2" Ø	3'-9" (MAX.)
2	3/8" Ø	5'-3" (MAX.)

USE 1/2" Ø MIN. SCAFFOLD CABLE WITH 3/8" Ø MIN. SUPPORT HANGERS SPACED AT 25'-0" MAXIMUM.

NO MORE THAN 2 WORKERS SHALL BE ALLOWED PER PLATFORM CABLE OR SCAFFOLD CABLE. LIMIT 500 LB TOTAL WEIGHT OF WORKERS AND ABRASIVE BLASTING ON 500 LB RATED SCAFFOLD.

STRUCTURAL IMPACT:

THE PLATFORM CONTAINMENT STRUCTURE HAS BEEN ANALYZED FOR AN AVERAGE LIVE LOAD ALLOWANCE OF 16 PSF (APPROXIMATELY 1/2" AVERAGE DEPTH OF STEEL SHOT, 1.5" MINERAL SLAG ABRASIVE OR 1.5" SAND ABRASIVE, PLUS THE UNIFORM WORKER LOADING) WITH MAXIMUM OF 1" DEPTH OF STEEL SHOT (3" MINERAL SLAG ABRASIVE OR 3" SAND ABRASIVE) FOR THE CHAIN LINK, WHEN THE DEPTH OF SPENT ABRASIVES NEARS THE DEPTHS SPECIFIED, THE CONTRACTOR WILL CEASE ABRASIVE BLASTING OPERATIONS AND VACUUM THE SPENT ABRASIVES.

DEAD, LIVE AND WIND LOADS IMPOSED ON THE BRIDGE DUE TO INSTALLATION OF THE PROPOSED PLATFORM & CONTAINMENT SYSTEMS WILL HAVE NO ADVERSE EFFECT ON THE BRIDGE STRUCTURE, AS DEFINED IN (A) AASHTO STANDARDS SPECIFICATIONS FOR HIGHWAY BRIDGES (SIXTEENTH EDITION), FIGURE 3.7.6B AND (B) AASHTO MANUAL FOR CONDITION EVALUATION OF BRIDGES (SECOND EDITION), CHAPTER 6.6. THE BRIDGE HAS NOT BEEN ANALYZED FOR LOADS IMPOSED BY THE GRIT RECYCLING MACHINE (IF APPLICABLE). AS A RESULT, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE OWNER FOR PLACEMENT OF ALL EQUIPMENT ALONG THE BRIDGE.

THE CONTAINMENT STRUCTURE HAS BEEN ANALYZED FOR A MAXIMUM WIND VELOCITY OF 40 MPH. IF WINDS NEARING OR EXCEEDING 40 MPH (OR A LESSER WIND IS SPECIFIED IN THE CONTRACT SPECIFICATIONS) ARE

PREDICTED, BLASTING AND PAINTING OPERATIONS SHALL CEASE, THE CONTRACTOR SHALL THOROUGHLY COLLECT AND REMOVE ALL SPENT ABRASIVE MATERIAL AND DEBRIS GENERATED FROM THE BLASTING AND PAINTING ACTIVITIES USING A VACUUM TRUCK AND/OR PUMP, AND THE PAINT CONTAINMENT TARPULINS SHALL BE ROLLED AND SECURED IN PLACE.

BASED ON THE MAXIMUM WIND VELOCITY OF 40 MPH (8 PSF WIND LOAD PER AASHTO), THE RESULTING LOAD TRANSFERRED TO A BRIDGE STRUCTURE IS 175 PLF, BASED ON A CONTAINMENT HEIGHT OF 50'-0". SINCE AASHTO SPECIFIES A LATERAL LOADING OF 300 PLF FOR DESIGN OF GIRDER BRIDGES, THE MAXIMUM ANTICIPATED WIND LOAD OF 175 PLF IS ACCEPTABLE. WIND LOADING ON GIRDER BRIDGES DOES NOT GOVERN.

FOR PROJECTS INVOLVING THE INSTALLATION OF SUSPENDED PLATFORM, AASHTO ALLOWS A 36% INCREASE IN STRESS FOR TEMPORARY LOADS (18 KSI INVENTORY RATING VERSUS 24.5 KSI OPERATING RATING). THE UNIFORM DESIGN FOR LOAD GIRDERS BRIDGES IS 64 PSF, AND THUS, THE ANTICIPATED WEIGHT OF THE PLATFORM CONTAINMENT (APPROX. 19 PSF) ADDED TO THIS ORIGINAL DESIGN LOADING RESULTS IN A MAXIMUM D+L LOADING OF 83 PSF ON THE GIRDERS (19 PSF + 64 PSF EQUIVALENT LIVE LOADING). TEMPORARY LOADING APPLIED TO THE BRIDGE MEMBERS RESULT IN A MAXIMUM 30% INCREASE, WHICH IS BELOW THE 36% INCREASE ALLOWED BY AASHTO. SINCE THE METHOD ASSUMES THAT THE EXISTING BRIDGE MEMBERS ARE 100% STRESSED PRIOR TO LOADING, THIS GENERAL COMPARISON IS CONSIDERED VERY CONSERVATIVE.

GENERAL:

THESE DRAWINGS DEPICT THE PAINT CONTAINMENT DESIGNS TO BE UTILIZED BY MONOKO, LLC., FOR BENNINGTON AND RUTLAND COUNTIES, VERMONT FOR THE FOLLOWING BRIDGES:

- BRIDGE NO. 11 (BENNINGTON COUNTY) US ROUTE 7 OVER ROARING BRANCH
- BRIDGE NO. D15 (BENNINGTON COUNTY) TH NO. 14 OVER US ROUTE 7
- BRIDGE NO. 16N (BENNINGTON COUNTY) US ROUTE 7 OVER BENN SH N
- BRIDGE NO. 16S (BENNINGTON COUNTY) US ROUTE 7 OVER BENN SH N
- BRIDGE NO. 56C (RUTLAND COUNTY) US ROUTE 7 OVER MILL BROOK

THE CONTRACTOR SHALL PROVIDE A MULTI-STAGE DECONTAMINATION TRAILER AND WATER WASH FACILITY FOR THE DURATION OF THE PROJECT, LOCATED AT AN APPROPRIATE SITE DETERMINED BY THE CONTRACTOR.

WORKERS WILL ACCESS THE BELOW-DECK CONTAINMENTS AT THE ABUTMENTS, FROM THE BRIDGE DECK ABOVE USING LADDERS THE LADDERS WILL BE SECURED TO THE BRIDGE RAILINGS AND/OR TRUSS STEEL AT THE TOP AND TO THE PLATFORM SYSTEMS AT THE BOTTOM.

FOR WORK PERFORMED FROM 500 LBS RATED ALUMINUM SCAFFOLDS SUPPORTED BY 1/2" Ø CABLES RIGGED ALONG THE ENTIRE LENGTH OF THE BRIDGE, WORKER SAFETY TIE-OFF CABLES AND WORKER HARNESSSES WILL BE UTILIZED DURING ALL WORK, INCLUDING INSTALLATION & REMOVAL OF THE PLATFORM SYSTEMS & DURING TRAVEL UP & DOWN THE LADDERS, IN ACCORDANCE WITH OSHA GUIDELINES.

THE ABRASIVE BLASTING CONTAINMENT AND/OR SUSPENDED PLATFORM DESIGNS, DETAILS AND INSTALLATION SPECIFICATIONS INCLUDED IN THIS PACKAGE WERE PREPARED UNDER THE DIRECTION OF THE CONTRACTOR. BY ACCEPTING THESE PLANS FOR SUBMITTAL, THE CONTRACTOR CONFIRMS THAT THE PLANS HAVE BEEN REVIEWED FOR CORRECTNESS, AND THAT THE SYSTEMS WILL BE INSTALLED IN ACCORDANCE WITH THE PLANS.

THE CONTRACTOR FULLY UNDERSTANDS & AGREES THAT A2B ENGINEERING, LLC AND THEIR CERTIFYING ENGINEER(S) ARE NOT RESPONSIBLE FOR THE ULTIMATE TECHNIQUES AND/OR METHODS OF CONSTRUCTION USED ON THIS PROJECT, OR THE SAFETY PRECAUTIONS & PROGRAMS INCIDENT THERETO, OR FOR ANY LOSS OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH LAWS AND REGULATIONS (PRIMARILY OSHA) APPLICABLE TO THE FURNISHING,

INSTALLING AND/OR PERFORMANCE OF WORK.

THE CONTRACTOR FULLY UNDERSTANDS & AGREES THAT A2B ENGINEERING, LLC HAS PREPARED THESE SUBMITTALS WITH THE UNDERSTANDING THAT THE CONTRACTOR AND THEIR EMPLOYEES HAVE THE KNOWLEDGE & EXPERTISE IN THE PROPER RIGGING OF THE CATENARY CONTAINMENT & WORKER ACCESS SYSTEMS PRESENTED ON THESE DRAWINGS, INCLUDING ALL OSHA REQUIREMENTS, AND IS NOT IN NEED OF DETAILED INSTALLATION AND/OR DISMANTLING PROCEDURES FOR SUCH INSTALLATIONS.

THE CONTRACTOR FULLY UNDERSTANDS & AGREES THAT BY ACCEPTING THESE DRAWINGS FOR SUBMITTAL, THEY ARE FULLY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE & LOCAL CODES & REGULATIONS (PRIMARILY OSHA) AND HERE-BY HOLDS A2B ENGINEERING, LLC AND THEIR CERTIFYING ENGINEER(S) HARMLESS, AND INDEMNIFIES THEM FOR ANY LOSS OR DAMAGES RESULTING FROM THE CONTRACTOR'S FAILURE TO COMPLY WITH ANY/ALL APPLICABLE CODES, REGULATIONS AND/OR ANY MANUFACTURER'S INSTALLATION REQUIREMENTS, REGARDLESS OF WHETHER SAID INFORMATION IS OR IS NOT INCLUDED AS PART OF THESE SUBMITTALS.

THESE DRAWINGS & CALCULATIONS (IF APPLICABLE) HAVE BEEN PREPARED FOR THIS PROJECT ONLY A2B ENGINEERING, LLC AND THEIR CERTIFYING ENGINEER(S) HAVE NO LIABILITY SHOULD ANY PORTIONS OF THESE DRAWINGS AND/OR CALCULATIONS BE USED FOR DIFFERENT PROJECT.

THESE PLANS WERE PREPARED WITHOUT THE BENEFIT OF AS-BUILT BRIDGE PLANS. DUE TO UNCERTAINTIES OF THE EXISTING STRUCTURE, THE CONTRACTOR MAY MAKE MINOR MODIFICATIONS TO THE PAINT CONTAINMENT STRUCTURE DETAILED IN THESE PLANS. A2B ENGINEERING, LLC SHALL BE NOTIFIED OF ANY MODIFICATIONS TO ENSURE THAT THE STRUCTURAL INTEGRITY OF THE PAINT CONTAINMENT STRUCTURE IS NOT COMPROMISED.

SUBMITTAL REVIEW

Review is only for general conformity to the contract drawings and specifications and shall not relieve the contractor of his entire responsibility under the contract, including among other things, dimensions to be confirmed and correlated at the job site, and information that pertains to the fabrication processes or techniques of construction.

- NO EXCEPTIONS TAKEN
- MAKE CORRECTIONS NOTED
- RESUBMITTAL NOT REQUIRED
- AMEND AND RESUBMIT
- REJECTED - SEE REMARKS

BY: PA AMERICAS, INC.

DATE: 5/9/16

Vermont Agency of Transportation

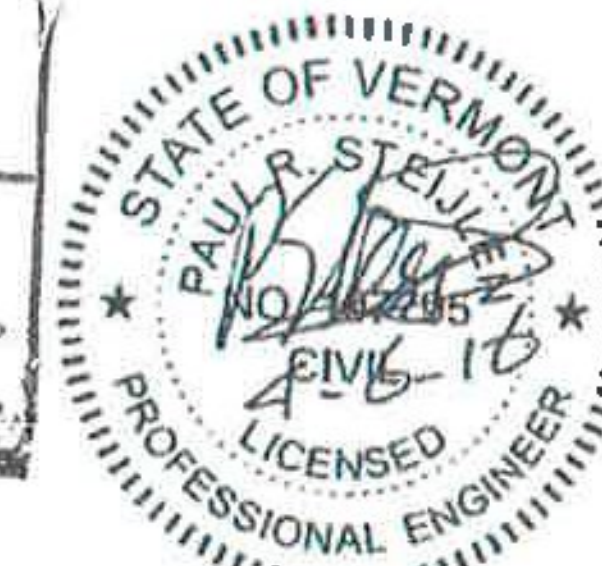
RECEIVED

ON: **May 10, 2016**

and Checked for

CONFORMANCE

BY: Mark Sargent DATE: 05/13/2016



Bridge Nos. All

GENERAL NOTES (1 OF 2)

FIVE BRIDGES ON OR OVER US ROUTE 7

REVISIONS		DESCRIPTION	DATE	BY	DRAWN BY	CHECKED BY	DESIGNED BY	EFFECTED BY	VERMONT AGENCY OF TRANSPORTATION			PROJECT ID	SHEET NO
NO.	DATE								NO.	DATE	NO.		
02	09	REVISED			BDN 11/15				040110				
01	09	REVISED			PDR 11/15								
					MAT 11/15								
					PRS 11/15								

PAUL STEJLEN P.E.
 P.E. LICENSE NUMBER 107795
 A2B ENGINEERING, LLC.
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 TAMPA, FL 33634

MONOKO, LLC.
 1037 PENINSULA AVENUE
 TARPON SPRINGS, FL 34689
 PHONE (727) 940-3244
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DRAWN BY
BDN 11/15
CHECKED BY
PDR 11/15
DESIGNED BY
MAT 11/15
EFFECTED BY
PRS 11/15

VERMONT AGENCY OF TRANSPORTATION
 040110
 COUNTY
BENNINGTON
 PROJECT ID
BF 8PWT (16)
 RUTLAND

REF ENG LOG

SHEET NO

C-2