

# PRELIMINARY INFORMATION SHEET

INDEX OF SHEETS

1	TITLE SHEET
2	PRELIMINARY INFORMATION SHEET
3 - 4	TYPICAL SECTIONS
5 - 6A	QUANTITY SHEETS
6B - 6C	BRIDGE QUANTITY SHEETS
7	TIE SHEET
8	PLAN SHEET
9	PROFILE SHEET
10	RESOURCE LAYOUT SHEET
11	EPSC NARRATIVE
12	EPSC EXISTING CONDITIONS SITE PLAN
13	EPSC CONSTRUCTION SITE PLAN
14	EPSC FINAL CONDITIONS SITE PLAN
15 - 16	EPSC DETAILS SHEETS
17 - 18	TRAFFIC CONTROL SHEETS
19	BORING INFORMATION SHEET
20 - 21	BORING LOGS
22	PLAN AND ELEVATION
23 - 24	PROJECT NOTES SHEET
25 - 28	TRUSS/ARCH ELEVATIONS
29	FLOOR FRAMING PLAN
30	CEILING FRAMING PLAN
31	ROOF FRAMING PLAN
32	SIDING AND PORTAL DETAILS
33 - 43	BRIDGE DETAILS
44 - 45	ARCH DETAILS
46	COVERED BRIDGE BEARING DETAILS
47	EXISTING ABUTMENT NO. 1
48	PROPOSED ABUTMENT NO. 1
49 - 52	PROPOSED ABUTMENT NO. 1 DETAILS
53	ABUTMENT NO. 2
54	PIER
55	PIER DETAILS
56	LUMBER DETAILS AND NOTES
57	GUARDRAIL AND PAVEMENT LAYOUT
58	STEEL-BACKED TIMBER GUARDRAIL TYPE A & TYPE B (FHWA STD. 617.60)
59	STEEL-BACKED TIMBER GUARDRAIL TERMINAL SECTION TYPE SBT-FAT (FHWA STD. 617.61)
60	STEEL-BACKED TIMBER GUARDRAIL AROUND CIRCULAR CURVES (1 OF 2) (FHWA STD. 617.63)
61	STEEL-BACKED TIMBER GUARDRAIL AROUND CIRCULAR CURVES (2 OF 2) (FHWA STD. 617.63)
62	SIGN SUMMARY AND LIGHTING DETAILS
63	REINFORCING STEEL SUMMARY
64 - 65	ROADWAY CROSS SECTIONS
66 - 68	CHANNEL CROSS SECTIONS

INDEX OF STANDARDS

D-3	TREATED GUTTERS	6/1/94
E-100	CONSTRUCTION APPROACH SIGNS	1/2/04
E-100A	SIDE ROAD CONSTRUCTION - APPROACH SIGNS	1/2/04
E-101	CONSTRUCTION SIGN DETAILS	5/30/03
E-102	CONSTRUCTION SIGN DETAILS	6/30/03
E-102A	CONSTRUCTION SIGN DETAILS	5/1/04
E-107	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS	6/30/03
E-107A	BREAKAWAY BARRICADE DETAILS	6/8/09
E-120	STANDARD SIGN PLACEMENT - EXPRESSWAY & FREEWAY	8/8/95
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	8/8/95
E-141	REGULATORY SIGN DETAILS	9/20/95
E-155	WARNING SIGN DETAILS	5/1/04
E-164	SQUARE STEEL SIGN POST	6/8/09

FINAL HYDRAULIC REPORT

**HYDROLOGIC DATA** Date: October 2010  
 DRAINAGE AREA: 191.6 sq mi  
 CHARACTER OF TERRAIN: HILLY TO MOUNTAINOUS  
 STREAM CHARACTERISTICS: STRAIGHT WITH LARGE RADIUS BENDS  
 NATURE OF STREAMBED: VERY COARSE GRAVEL WITH BOULDERS

**PEAK FLOW DATA**  
 Q 2.33 = 8,400 cfs Q 50 = 24,290 cfs  
 Q 10 = 13,235 cfs Q 100 = 30,790 cfs  
 Q 25 = 18,700 cfs Q 500 = 50,375 cfs

DATE OF FLOOD OF RECORD: 1927  
 ESTIMATED DISCHARGE: 30,400 cfs AT NORTH HARTLAND DAM  
 WATER SURFACE ELEV.: UNKNOWN  
 NATURAL STREAM VELOCITY: @ Q25 = 9.2 fps  
 ICE CONDITIONS: MODERATE  
 DEBRIS: MODERATE  
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? YES  
 IS ORDINARY RISE RAPID? YES  
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? YES  
 IF YES, DESCRIBE: DAM JUST UPSTREAM OF THE STRUCTURE AND NUMEROUS OTHER DAMS ON SMALLER TRIBUTARIES IN WATERSHED

WATERSHED STORAGE: >1% HEADWATERS: UNIFORM: X  
 IMMEDIATELY ABOVE SITE:

**EXISTING STRUCTURE INFORMATION**  
 STRUCTURE TYPE: TWO SPAN TIMBER COVERED BRIDGE  
 YEAR BUILT: 1836  
 CLEAR SPAN(NORMAL TO STREAM): 165'  
 VERTICAL CLEARANCE ABOVE STREAMBED: 26'  
 WATERWAY OF FULL OPENING: 3540 sq ft  
 DISPOSITION OF STRUCTURE: SUPERSTRUCTURE REHABILITATION  
 TYPE OF MATERIAL UNDER SUBSTRUCTURE: UNKNOWN

**WATER SURFACE ELEVATIONS AT:**  
 Q2.33 = 622.4' VELOCITY = 10.8 fps  
 Q10 = 625.7' " 14.3 fps  
 Q25 = 630.4' " 10.5 fps  
 Q50 = 632.7' " 11.5 fps  
 Q100 = 635.3' " 12.4 fps

LONG TERM STREAMBED CHANGES:

IS THE ROADWAY OVERTOPPED BELOW Q100: NO  
 FREQUENCY: N/A  
 RELIEF ELEVATION: 644.5'  
 DISCHARGE OVER ROAD @Q100: 0

**UPSTREAM STRUCTURE**  
 TOWN: WOODSTOCK DISTANCE: 20,000'  
 HIGHWAY #: VT112 STRUCTURE #: BR15  
 CLEAR SPAN: 105' CLEAR HEIGHT: 25'  
 YEAR BUILT: 1980 FULL WATERWAY: 1790 sq. ft.  
 STRUCTURE TYPE: STEEL TRUSS

**DOWNSTREAM STRUCTURE**  
 TOWN: HARTFORD DISTANCE: 24,000'  
 HIGHWAY #: TH8 STRUCTURE #: CB6  
 CLEAR SPAN: 67' CLEAR HEIGHT:  
 YEAR BUILT: 1956 FULL WATERWAY:  
 STRUCTURE TYPE: ROLLED BEAM COVERED BRIDGE

**ASD LOAD RATING (TONS)**

LOADING LEVELS	TRUCK						
	H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY	8	--	--	--	--	--	--
POSTED	10	--	--	--	--	--	--
OPERATING	--	--	--	--	--	--	--

**TRAFFIC DATA**

YEAR	ADT	DHV	% D	ADTT
2008	1000		3	35

20 year ESAL for flexible pavement from to : NO PAVEMENT DESIGN  
 40 year ESAL for flexible pavement from to : NO PAVEMENT DESIGN  
 Design Speed : 25 mph

**PROPOSED STRUCTURE**  
 STRUCTURE TYPE: TWO SPAN TIMBER COVERED BRIDGE

CLEAR SPAN(NORMAL TO STREAM): 165'  
 VERTICAL CLEARANCE ABOVE STREAMBED: 26'  
 WATERWAY OF FULL OPENING: 3540'

**WATER SURFACE ELEVATIONS AT:**  
 Q2.33 = 622.4' VELOCITY = 10.8 fps  
 Q10 = 625.7' " 14.3 fps  
 Q25 = 630.4' " 10.5 fps  
 Q50 = 632.7' " 11.5 fps  
 Q100 = 635.3' " 12.4 fps

IS THE ROADWAY OVERTOPPED BELOW Q100: NO  
 FREQUENCY: N/A  
 RELIEF ELEVATION: 644.5'  
 DISCHARGE OVER ROAD @Q100: 0

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 642.2'  
 VERTICAL CLEARANCE: @ Q25 = 11.8'

SCOUR: NOT CALCULATED  
 REQUIRED CHANNEL PROTECTION: N/A

**PERMIT INFORMATION**  
 AVERAGE DAILY FLOW: 398 cfs DEPTH OR ELEVATION:  
 ORDINARY LOW WATER: 175 cfs ELEVATION = 617.0'  
 ORDINARY HIGH WATER: 2750 cfs ELEVATION = 620.5'

**TEMPORARY BRIDGE REQUIREMENTS**  
 STRUCTURE TYPE: NOT REQUIRED  
 CLEAR SPAN (NORMAL TO STREAM):  
 VERTICAL CLEARANCE ABOVE STREAMBED:  
 WATERWAY AREA OF FULL OPENING:

**ADDITIONAL INFORMATION**

- DESIGN CRITERIA**
- DESIGN LIVE LOAD AASHTO H-10 (POSTED LEVEL)
  - DESIGN SPAN 100' & 88'
  - ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL N/A  
ON LEDGE 10 ksf
  - ALLOWABLE LOAD FOR PILING N/A  
TYPE N/A  
ESTIMATED LENGTH N/A
  - STRUCTURAL STEEL VARIES
  - REINFORCING STEEL GRADE 60
  - CONCRETE, HIGH PERFORMANCE CLASS A f<sub>c</sub>: NOT USED  
CONCRETE, HIGH PERFORMANCE CLASS B f<sub>c</sub>: 3500 psi  
CONCRETE, CLASS AA f<sub>c</sub>: 4000 psi  
CONCRETE, CLASS C f<sub>c</sub>: 3000 psi
  - DESIGN SOIL UNIT WEIGHT 140 pcf
  - DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL N/A

- TRAFFIC MAINTENANCE**
- IS TRAFFIC TO BE MAINTAINED? SEE NOTE 4  
IF YES, ON EXISTING STRUCTURE?  
OR ON TEMPORARY BRIDGE?  
ONE OR TWO-WAY TRAVEL?
  - TRAFFIC CONTROL SIGNALS REQUIRED? NO
  - ARE SIDEWALKS REQUIRED? NO  
IF SO, ON WHAT SIDE?
  - BRIDGE TO BE CLOSED DURING CONSTRUCTION WITH TRAFFIC DETOURED AROUND BRIDGE SITE.

PROJECT NAME: WOODSTOCK WOODSTOCK  
 PROJECT NUMBER: BH0 1444(52) ST 1444(58)

FILE NAME: z96j262engpi.xls PLOT DATE: 2/17/2012  
 PROJECT LEADER: M. Sargent DRAWN BY: P. Dustin  
 DESIGNED BY: VTrans/P. Dustin CHECKED BY: R. Joy  
 PRELIMINARY INFORMATION SHEET SHEET 2 OF 68

