

# PRELIMINARY INFORMATION SHEET

FINAL HYDRAULIC REPORT

LIST OF STANDARDS

1.	TITLE SHEET
2.	PRELIMINARY INFORMATION SHEET
3.	QUANTITY SHEET 1
4.	QUANTITY SHEET 2
5.	PROJECT TYPICAL SECTIONS
6.	ITEM DETAIL SHEET
7.	EPSC NARRATIVE
8.	EPSC DETAIL SHEET 1
9.	EPSC DETAIL SHEET 2
10.	EXISTING CONDITIONS PLAN
11.	EPSC PLAN 1
12.	EPSC PLAN 2
13.	PROJECT NOTES
14.	BORING INFORMATION
15.	BORING LOGS
16.	PLAN AND ELEVATION
17.	DECK PLAN AND DETAILS
18.	TRUSS REHABILITATION
19.	FRAMING PLAN AND DETAILS
20.	ABUTMENT 1 PLAN AND ELEVATION
21.	ABUTMENT 2 PLAN AND ELEVATION
22.	ABUTMENT PILE LAYOUT & FOOTING REINFORCEMENT PLAN
23.	ABUTMENT 1 & 2 REINFORCEMENT SECTIONS
24.	BRIDGE RAILING DETAILS
25.	RAIL LAYOUT PLAN AND DETAILS
26.	REINFORCING STEEL SCHEDULE
1.	INDEX OF SHEETS
2.	PRELIMINARY INFORMATION SHEET
3.	QUANTITY SHEET 1
4.	QUANTITY SHEET 2
5.	PROJECT TYPICAL SECTIONS
6.	ITEM DETAIL SHEET
7.	EPSC NARRATIVE
8.	EPSC DETAIL SHEET 1
9.	EPSC DETAIL SHEET 2
10.	EXISTING CONDITIONS PLAN
11.	EPSC PLAN 1
12.	EPSC PLAN 2
13.	PROJECT NOTES
14.	BORING INFORMATION
15.	BORING LOGS
16.	PLAN AND ELEVATION
17.	DECK PLAN AND DETAILS
18.	TRUSS REHABILITATION
19.	FRAMING PLAN AND DETAILS
20.	ABUTMENT 1 PLAN AND ELEVATION
21.	ABUTMENT 2 PLAN AND ELEVATION
22.	ABUTMENT PILE LAYOUT & FOOTING REINFORCEMENT PLAN
23.	ABUTMENT 1 & 2 REINFORCEMENT SECTIONS
24.	BRIDGE RAILING DETAILS
25.	RAIL LAYOUT PLAN AND DETAILS
26.	REINFORCING STEEL SCHEDULE
1.	TITLE SHEET
2.	PRELIMINARY INFORMATION SHEET
3.	QUANTITY SHEET 1
4.	QUANTITY SHEET 2
5.	PROJECT TYPICAL SECTIONS
6.	ITEM DETAIL SHEET
7.	EPSC NARRATIVE
8.	EPSC DETAIL SHEET 1
9.	EPSC DETAIL SHEET 2
10.	EXISTING CONDITIONS PLAN
11.	EPSC PLAN 1
12.	EPSC PLAN 2
13.	PROJECT NOTES
14.	BORING INFORMATION
15.	BORING LOGS
16.	PLAN AND ELEVATION
17.	DECK PLAN AND DETAILS
18.	TRUSS REHABILITATION
19.	FRAMING PLAN AND DETAILS
20.	ABUTMENT 1 PLAN AND ELEVATION
21.	ABUTMENT 2 PLAN AND ELEVATION
22.	ABUTMENT PILE LAYOUT & FOOTING REINFORCEMENT PLAN
23.	ABUTMENT 1 & 2 REINFORCEMENT SECTIONS
24.	BRIDGE RAILING DETAILS
25.	RAIL LAYOUT PLAN AND DETAILS
26.	REINFORCING STEEL SCHEDULE

**SCOPE OF WORK**

- REHABILITATION OF EXISTING TRUSSES, STORED IN A VAOT MAINTENANCE FACILITY IN CLARENDON, VT, OFF OF VT. ROUTE 78.
- REPLACEMENT OF ALL INBOARD GUSSET PLATES, LATERAL BRACING CONNECTION PLATES, PARTIAL REHABILITATION INCLUDES COMPLETE REPLACEMENT OF INBOARD ANGLE ON TRUSS LOW CHORD, IN KIND
- REPLACEMENT OF CORRODED RIVETS WITH HIGH STRENGTH BOLTS THROUGHOUT THE TRUSSES.
- REPLACEMENT OF EXISTING TRUSS MEMBERS, COMPLETE REPLACEMENT OF SELECT DIAGONALS AND STRINGERS, FLOORBEAMS AND CONNECTIONS.
- INSTALLATION OF NEW TRUSS FLOOR SYSTEM, INCLUDING NEW TIMBER PLANK DECK.
- RELATED APPROACH WORK INCLUDING CONSTRUCTION OF EARTHEN APPROACH RAMP AND NEW APPROACH RAILING.

BLAST CLEANING AND PAINTING OF ALL REMAINING EXISTING STEEL.

CONSTRUCTION OF NEW CAST-IN-PLACE CONCRETE SUBSTRUCTURES ON PILE FOUNDATIONS.



**HYDROLOGIC DATA**  
Date: \_\_\_\_\_

DRAINAGE AREA: 94.9 sq-mi

CHARACTER OF TERRAIN: Generally forested, ranging from mountainous to valley floor.

STREAM CHARACTERISTICS: Sinuous plattom, perennial subcritical flow.

NATURE OF STREAMBED: Gravel bed with sand and cobbles present.

PEAK FLOW DATA

Q 2.33 =	2600 cfs
Q 10 =	5260 cfs
Q 25 =	N/A
Q 50 =	7980 cfs
Q 100 =	9210 cfs
Q 500 =	12400 cfs

DATE OF FLOOD OF RECORD: 1927

ESTIMATED DISCHARGE: Unknown

WATER SURFACE ELEV.: Unknown

NATURAL STREAM VELOCITY: 2.3 ft/sec

ICE CONDITIONS: Moderate

DEBRIS: Moderate

DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY? No

IS ORDINARY RISE RAPID? No

IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? Yes

IF YES, DESCRIBE: Minor backwater from Vermont Route 140 bridge approximately 800 ft downstream.

WATERSHED STORAGE: Minimal

HEADWATERS: IMMEDIATELY ABOVE SITE: X

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: There is presently no bridge at this site.

YEAR BUILT: \_\_\_\_\_

CLEAR SPAN(NORMAL TO STREAM): \_\_\_\_\_

VERTICAL CLEARANCE ABOVE STREAMBED: \_\_\_\_\_

WATERWAY OF FULL OPENING: \_\_\_\_\_

DISPOSITION OF STRUCTURE: \_\_\_\_\_

TYPE OF MATERIAL UNDER SUBSTRUCTURE: \_\_\_\_\_

WATER SURFACE ELEVATIONS AT: \_\_\_\_\_

VELOCITY = 5.4 fps

Q 2.33 =	566.7 ft
Q 10 =	369.3 ft
Q 25 =	N/A
Q 50 =	6.7 fps
Q 100 =	6.9 fps
Q 500 =	7.0 fps

LONG TERM STREAMBED CHANGES: \_\_\_\_\_

IS THE ROADWAY OVERTOPPED BELOW Q100: \_\_\_\_\_

RELIEF ELEVATION: \_\_\_\_\_

DISCHARGE OVER ROAD @Q100: \_\_\_\_\_

**UPSTREAM STRUCTURE**

TOWN: Wallingford

HIGHWAY #: US Route 7

STRUCTURE #: 79

DISTANCE: 3700 ft

YEAR BUILT: 1996

STRUCTURE TYPE: 2 span continuous welded plate girder

YEAR BUILT: 1996

STRUCTURE TYPE: Steel Truss

TOWN: Wallingford

HIGHWAY #: Vermont Route 140

STRUCTURE #: 54

DISTANCE: 800 ft

YEAR BUILT: 22

STRUCTURE TYPE: Unknown

YEAR BUILT: 1587 sq-ft

STRUCTURE TYPE: Full Waterway: 1587 sq-ft

**DOWNSTREAM STRUCTURE**

TOWN: Wallingford

HIGHWAY #: Vermont Route 140

STRUCTURE #: 54

DISTANCE: 800 ft

YEAR BUILT: 22

STRUCTURE TYPE: Unknown

YEAR BUILT: 1587 sq-ft

STRUCTURE TYPE: Full Waterway: 1587 sq-ft

**LOAD FACTOR LOAD RATING (TNS)**

TRUCK	41
LOADING LEVELS	23
INVENTORY	
POSTED	
OPERATING	
COMMENTS:	

**TRAFFIC DATA**

YEAR	ADT	DHV	% D	% T	ADTT
2027	N/A	N/A	N/A	N/A	N/A
2027	N/A	N/A	N/A	N/A	N/A

40 year ESAL for flexible pavement from N/A to N/A : N/A

20 year ESAL for flexible pavement from N/A to N/A : N/A

Design Speed : N/A mph

**DESIGN CRITERIA**

- DESIGN LIVE LOAD ASHTO Pedestrian LL (trusses), H-10 (floorbeams & stringers)
- DESIGN SPAN 117'-0"
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL N/A
- ON LEDGE N/A
- ALLOWABLE LOAD FOR PILING 54 kips
- CONCRETE FILLED 12.75" O.D. x 3/8" steel pipe piling, ASTM A-252 Grade 2 (Fy = 35 ksi) TYPE
- ESTIMATED LENGTH 51' (Abutment 2) 50' Painted
- STRUCTURAL STEEL ASHTO M270/M270 GRADE
- REINFORCING STEEL GRADE 60
- CONCRETE HIGH PERFORMANCE CLASS A Fc: 3.50ksi (substructures, pipe piling)
- CONCRETE HIGH PERFORMANCE CLASS B Fc: 3.50ksi (abutment 2)
- DESIGN SOIL UNIT WEIGHT 140 pcf and metal hand rail foundations)
- DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL N/A

**TRAFFIC MAINTENANCE**

- IS TRAFFIC TO BE MAINTAINED? Yes, on Waldo Lane
- OR ON TEMPORARY BRIDGE? No
- IF YES, ON EXISTING STRUCTURE? No
- ONE OR TWO-WAY TRAVEL? N/A
- TRAFFIC CONTROL SIGNALS REQUIRED? No
- ARE SIDEWALKS REQUIRED? No
- IF SO, ON WHAT SIDE? N/A

**DESIGN CRITERIA**

- DESIGN LIVE LOAD ASHTO Pedestrian LL (trusses), H-10 (floorbeams & stringers)
- DESIGN SPAN 117'-0"
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL N/A
- ON LEDGE N/A
- ALLOWABLE LOAD FOR PILING 54 kips
- CONCRETE FILLED 12.75" O.D. x 3/8" steel pipe piling, ASTM A-252 Grade 2 (Fy = 35 ksi) TYPE
- ESTIMATED LENGTH 51' (Abutment 2) 50' Painted
- STRUCTURAL STEEL ASHTO M270/M270 GRADE
- REINFORCING STEEL GRADE 60
- CONCRETE HIGH PERFORMANCE CLASS A Fc: 3.50ksi (substructures, pipe piling)
- CONCRETE HIGH PERFORMANCE CLASS B Fc: 3.50ksi (abutment 2)
- DESIGN SOIL UNIT WEIGHT 140 pcf and metal hand rail foundations)
- DESIGN LOAD FOR SPREAD FOOTINGS ON SOIL N/A

**TRAFFIC MAINTENANCE**

- IS TRAFFIC TO BE MAINTAINED? Yes, on Waldo Lane
- OR ON TEMPORARY BRIDGE? No
- IF YES, ON EXISTING STRUCTURE? No
- ONE OR TWO-WAY TRAVEL? N/A
- TRAFFIC CONTROL SIGNALS REQUIRED? No
- ARE SIDEWALKS REQUIRED? No
- IF SO, ON WHAT SIDE? N/A

**PROPOSED STRUCTURE**

STRUCTURE TYPE: Warren Pony Truss - Adaptive Reuse of Historic Bridge

CLEAR SPAN(NORMAL TO STREAM): 117.0 ft

VERTICAL CLEARANCE ABOVE STREAMBED: 16.2 ft

WATERWAY OF FULL OPENING: 1240 sq-ft

WATER SURFACE ELEVATIONS AT:

Q 2.33 =	5.2 fps
Q 10 =	6.6 fps
Q 25 =	N/A
Q 50 =	6.9 fps
Q 100 =	7.0 fps

VELOCITY = 5.2 fps

AVERAGE DAILY FLOW: 162 cfs

ORDINARY LOW WATER: Elev. 562.5 ft

ORDINARY HIGH WATER: Elev. 564.5 ft

DEPTH OR ELEVATION: \_\_\_\_\_

**PERMIT INFORMATION**

REQUIRED CHANNEL PROTECTION: Stone Fill Type III

SCOUR: 1.0 ft of contraction scour during Q100. Larger flood events exceed main channel banks and bypass the bridge in the right overbank

**TEMPORARY BRIDGE REQUIREMENTS**

CLEAR SPAN (NORMAL TO STREAM): \_\_\_\_\_

VERTICAL CLEARANCE ABOVE STREAMBED: \_\_\_\_\_

WATERWAY AREA OF FULL OPENING: \_\_\_\_\_

DISPOSITION OF STRUCTURE: \_\_\_\_\_

TYPE OF MATERIAL UNDER SUBSTRUCTURE: \_\_\_\_\_

WATER SURFACE ELEVATIONS AT: \_\_\_\_\_

VELOCITY = 5.4 fps

**ADDITIONAL INFORMATION**

All elevations are referenced to NAVD83.

Flow overtops main channel banks in the right approach between the 10 and 50-year flood events.

**PROJECT NAME:** WALLINGFORD STP ST WALK(14)

**PROJECT NUMBER:** \_\_\_\_\_

**FILE NAME:** 202F136PRELIM.XLS

**DESIGNED BY:** D. DAMATO

**CHECKED BY:** P. HALSTEAD

**DRAWN BY:** D. DAMATO

**PLLOT DATE:** 08/07/2008

**SHEET 2 OF 26**

**PRELIMINARY INFORMATION SHEET**

**PROJECT NAME:** WALLINGFORD STP ST WALK(14)

**PROJECT NUMBER:** \_\_\_\_\_

**FILE NAME:** 202F136PRELIM.XLS

**DESIGNED BY:** D. DAMATO

**CHECKED BY:** P. HALSTEAD

**DRAWN BY:** D. DAMATO

**PLLOT DATE:** 08/07/2008

**SHEET 2 OF 26**