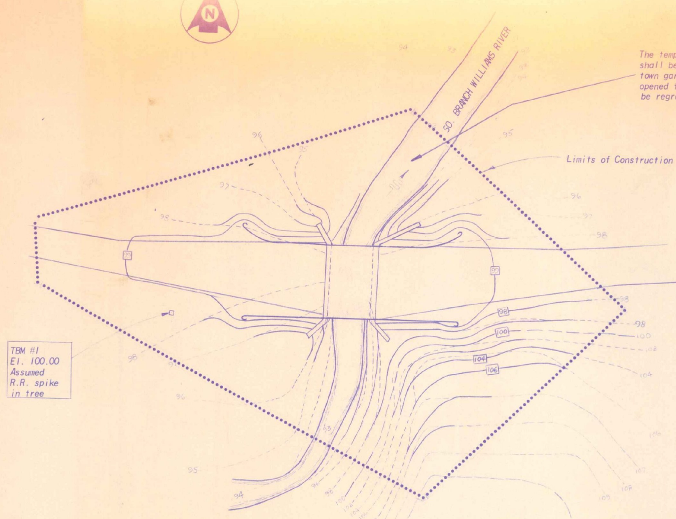
BRIDGE 24 ON T.H. NO. 3
(DSR ITEM NO. 28-1A SEPTEMBER 15, 1976)

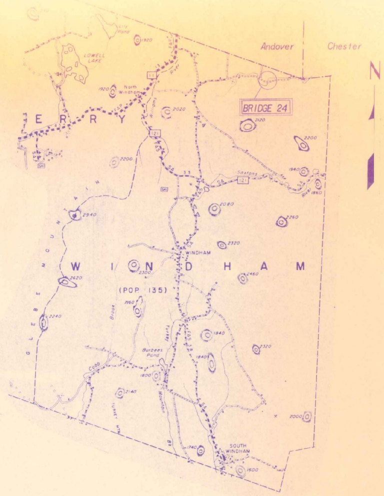
TOWN OF WINDHAM
WINDHAM, VERMONT
OCTOBER 1976



Survey by Dufresne- Henry Engineering Corporation

SITE PLAN
SCALE 1"=20'

LEGEND
- - - - Existing Contours
——— New Contours
•••••• Limits of Construction



PROJECT LOCATION PLAN
SCALE 1"=2000' APPROX.

HYDRAULIC DESIGN DATA

Q10 = 410 cfs
Q25 = 510 cfs
Q50 = 600 cfs
Water Elev. @ Q10 = 95.0
Water Elev. @ Q25 = 95.5
Water Elev. @ Q50 = 95.8
Backwater Elev. @ Q25 = 97.3
Backwater Elev. @ Q50 = 97.9
Drainage Area = 1.75 sq. mi.
Velocity @ Q25 = 10.1 ft./sec.

GENERAL NOTES

All material and construction shall conform to Vermont Standard Specification for Highway and Bridge Construction, March 1976 and AASHO Standard Specifications for Highway Bridges, 1973 Design live load is H20-44 with impact.

FOUNDATIONS

F1 No concrete shall be placed on frozen ground, or in water unless approved by the Engineer.

F2 Footings shall bear on undisturbed soil having a minimum bearing capacity of 2 tons per square foot.

CONCRETE

C1 Concrete shall attain the following minimum compressive strengths at 28 days

Bridge Deck	3,500 psi	Class B
Abutments and Wingwalls	3,500 psi	Class B

C2 All exposed edges of concrete shall have 1" x 1" chamfers, except as shown otherwise.

C3 Concrete surfaces shall have the following finishes:

Bridge Deck	Broomed finish Vt. Spec. 501.14(b)
Abutment face	Dressed finish Vt. Spec. 501.14(a)1

C4 Slump shall be within a range of 2 to 3 inches.

C5 The Contractor will notify the Engineer 24 hours in advance of any concrete placement.

C6 A minimum of three cylinders will be taken for each placement.

C7 An air content test will be performed when placing the deck slab.

REINFORCING

R1 All steel reinforcement shall conform to ASTM A615 Grade 40 (FY=40000psi) Vt. Spec. 713.01.

R2 Provide all necessary accessories to hold reinforcing securely in position.

R3 Provide 2" concrete protective covering for all main reinforcement except 3" in footing bottom and 1-1/2" in bottom of slab.

R4 Unless shown otherwise, all bars shall be continous and shall run continuously around corners and lapped 30 bar diameters min. at necessary splices or hooked at discontinous ends.

R5 Bar reinforcement shall be fabricated within the tolerance and shipped in standard bundles tagged and marked in accordance with the Manual of Standard Practice for Reinforced Concrete Construction as published by the Concrete Reinforcing Steel Institute.

R6 Submit to the Engineer for approval Shop drawings for all reinforcement-(6 prints ea.).

MISCELLANEOUS

M1 Preformed joint filler cork shall conform to AASHO M153 Type II (Vt. Spec. 707.21).

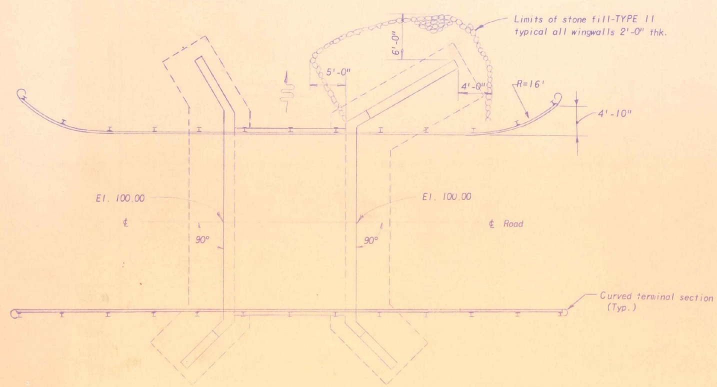
M2 Stone fill shall conform to Vt. Spec. 706.05 Type II.

M3 Granular backfill for structures shall conform to Vt. Spec. 704.11.

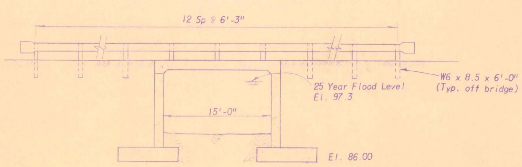
M4 New guard rails and posts shall be galvanized according to AASHO M111.

M5 Standard steel beam guard rail shall conform to AASHO M180, Class B, Vt. Spec. 728.03(d).

NOTE: The above notes are a brief summary of the requirements for this project. For Detailed requirements, refer to the Contract Specifications.



BRIDGE PLAN
SCALE 1/8"=1'-0"



BRIDGE ELEVATION
SCALE 1/8"=1'-0"

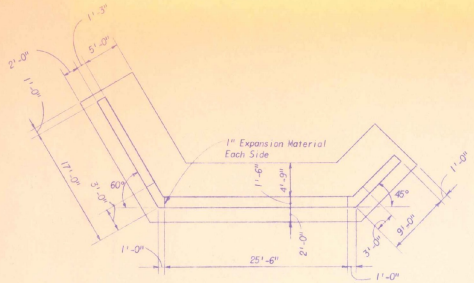
NOV 12 1976

RECEIVED
CK'D BY ______ OK'D BY ______
RESUBMIT ______ APPROVED ______
BY ______ DATE 11/12/76

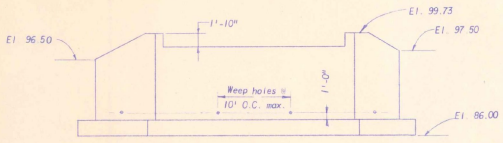
Francis J. Forcier
11/5/76

DUFRESNE-HENRY ENGINEERING CORPORATION • CONSULTING ENGINEERS AND PLANNERS • NORTH SPRINGFIELD, VERMONT

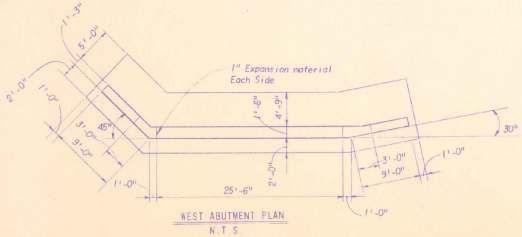
WINDHAM
Class 3, TH3, B24 over So. Branch



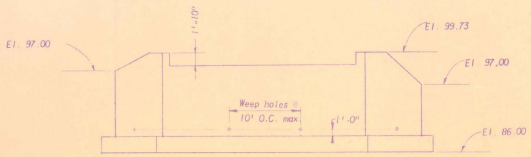
EAST ABUTMENT PLAN
1/8"=1'-0"



EAST ABUTMENT ELEVATION
1/8"=1'-0"



WEST ABUTMENT PLAN
N.T.S.



WEST ABUTMENT ELEVATION
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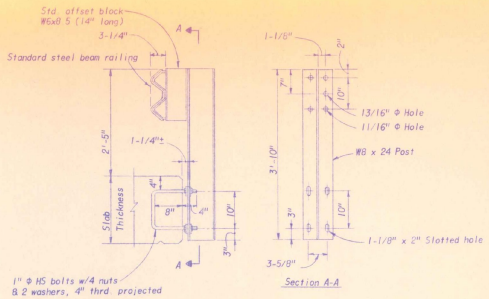
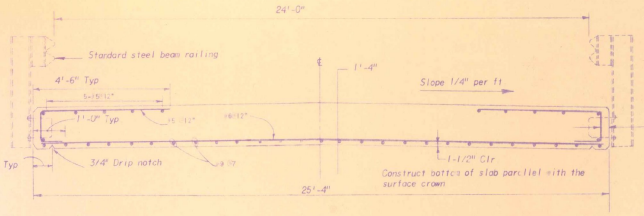


BRIDGE RAILING DETAIL
N.T.S.



TYPICAL ROADWAY SECTION
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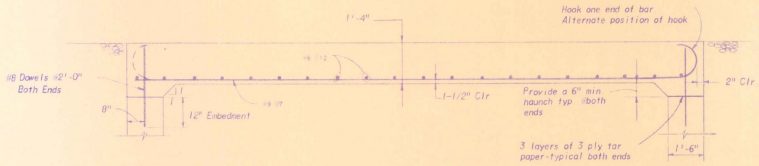

TYPICAL LONGITUDAL SECTION
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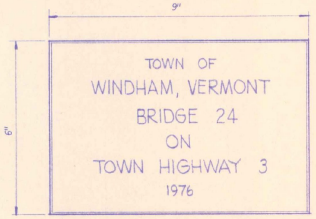
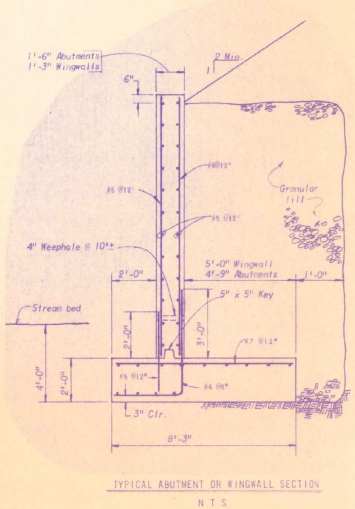
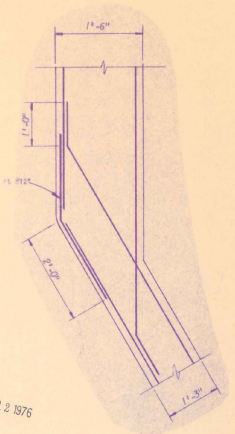




TYPICAL ABUTMENT OR WINGWALL SECTION
N.T.S.



ABUTMENT-WINGWALL REBAR DETAIL
N.T.S.

RECEIVED
NOV 12 1976
CK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

BRIDGE NO. 24
ON
T.H. NO. 3

WINDHAM VERMONT

DUFRESNE-HENRY
Engineering Corporation
CONSULTING ENGINEERS AND PLANNERS
NORTH SPRINGFIELD VERMONT

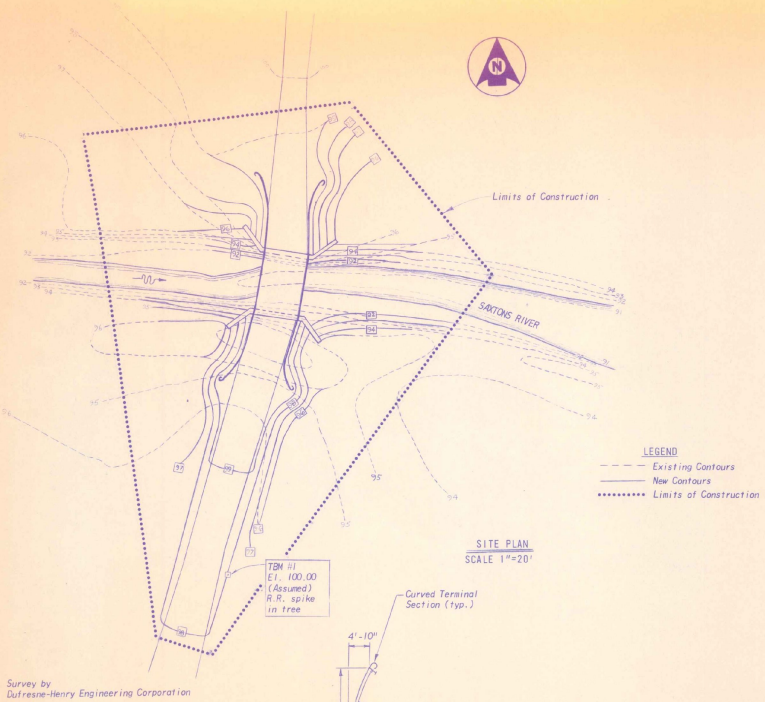
CLIENT NO. 05-0082	DESIGN ENGR. P.R. DUQUETTE		
PLOTTED BY	SCALE AS SHOWN		
DRAWN BY	DATE October 28,1976	SHEET 2 OF 2	
CHECKED BY	APPROVED	D 6278	

STATE OF VERMONT
FRANCIS T. FOSTER
No. 3433
REGISTERED
PROFESSIONAL ENGINEER

BRIDGE 29 ON T.H. NO. 10

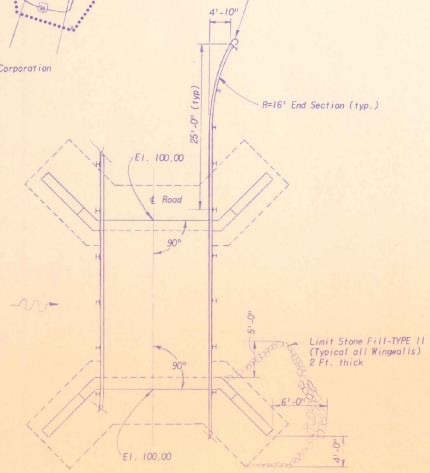
(DSR ITEM NO. 28-2 SEPTEMBER 15,1976)

TOWN OF WINDHAM
WINDHAM, VERMONT
OCTOBER 1976

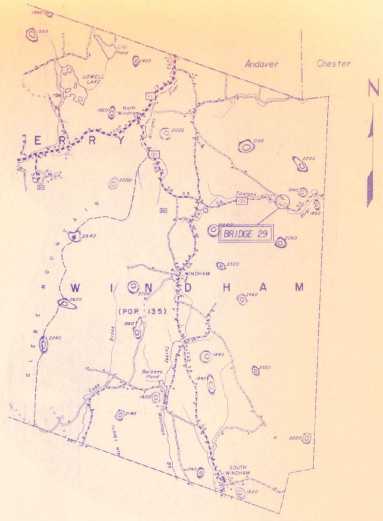


SITE PLAN
SCALE 1"=20'

Survey by
Dufresne-Henry Engineering Corporation



BRIDGE PLAN
SCALE 1/8"=1'-0"



PROJECT LOCATION MAP
SCALE 1"=2000' APPROX.

HYDRAULIC DESIGN DATA

Q10 = 675 cfs
Q25 = 850 cfs
Q50 = 1000 cfs
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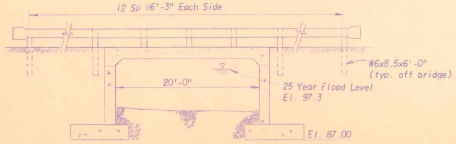
Water Elev. @Q25 = 95.1
Water Elev. @Q50 = 95.6
Backwater Elev. @Q25 = 97.3
Backwater Elev. @Q50 = 97.8
Drainage Area = 2.95 sq. mi.
Velocity @Q25 = 11.1 ft./sec.



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NOTE: The above notes are a brief summary of the requirements for this project. For Detailed requirements, refer to the Contract Specifications.

NOV 12 1976

RECEIVED
CK'D BY _____ OK'D BY _____
RESUBMIT _____ APPROVED _____
BY DATE

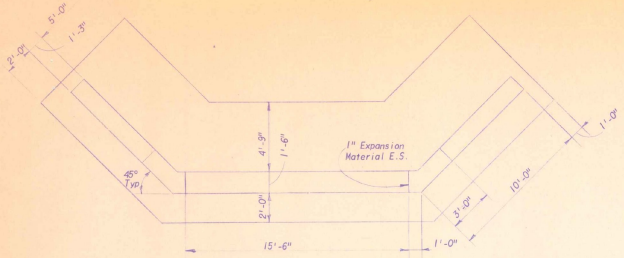
No. 3432 REGISTERED PROFESSIONAL ENGINEER STATE OF VERMONT

Francis J. Fricier
11/5/76

DUFRESNE-HENRY ENGINEERING CORPORATION • CONSULTING ENGINEERS AND PLANNERS • NORTH SPRINGFIELD, VERMONT

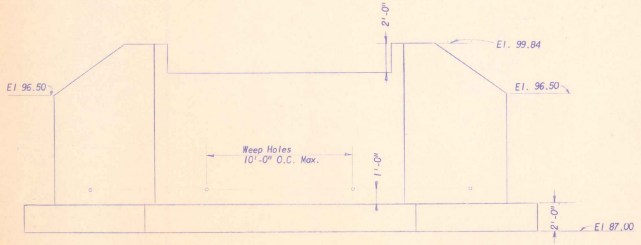
WINDHAM
Class 3, TH 10, BR 9 over Saxtons River

CLIENT NO. 105 0084
D 6271



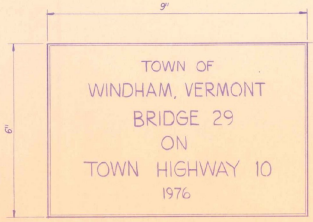
ABUTMENT-WINGWALL PLAN

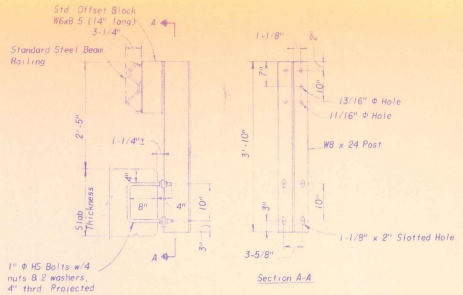
SCALE 1/4"=1'-0"



ABUTMENT-WINGWALL ELEVATION

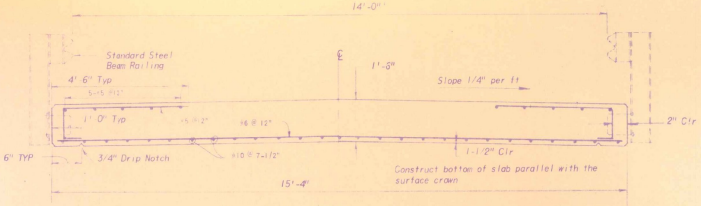
SCALE 1/4"=1'-0"





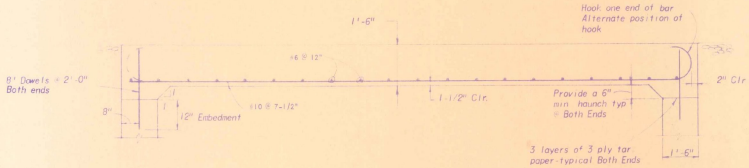
BRIDGE RAILING DETAIL

N T S



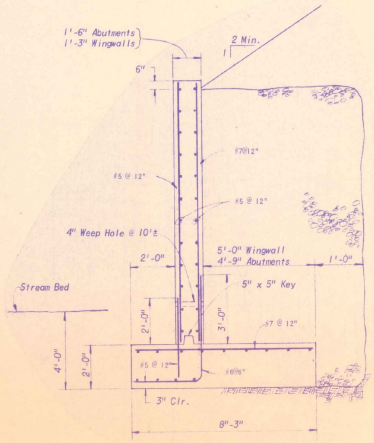
TYPICAL ROADWAY SECTION

N T S



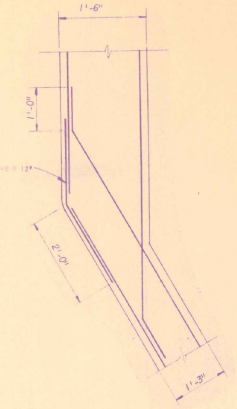
TYPICAL LONGITUDAL SECTION

N T S



TYPICAL ABUTMENT OR WINGWALL SECTION

N.T.S.



ABUTMENT-WINGWALL REBAR DETAIL

N.T.S.

NOV 12 1976

RECEIVED
CK'D BY ____ OK'D BY ____
RESUBMIT ____ APPROVED ____
BY ____ DATE ____

BRIDGE NO. 29
ON
T.H. NO. 10

WINDHAM VERMONT

DUFRESNE-HENRY Engineering Corporation
CONSULTING ENGINEERS AND PLANNERS
NORTH SPRINGFIELD VERMONT

CLIENT NO.	05-0084	DESIGN ENGR. P.R. DUQUETTE	
PLOTTED BY		SCALE AS SHOWN	SHEET 2 OF 2
DRAWN BY	RRE 10/15/76	DATE October 15, 1976	
CHECKED BY	PJD 10/15/76	APPROVED	D 6212

STATE OF VERMONT
PAUL J. DUQUETTE
No. 3635
REGISTERED
PROFESSIONAL ENGINEER

FLOOD PROJECT

WINDHAM

DSR 28-1A 1976

1976