PUB. RD. DIV. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO	TOTAL SHEETS
I	VT		19		

STD. PENETRATION BORINGS			
BORING NO.	SURVEY STA.	OFFSET	SURFACE EL.
B-146	296+28	37' LT.	785.7
B-147	296+66	38' RT.	782.0

MARSHFIELD - FEGC-F028-3(28)

BORING NO. B - 146

ELEV. 785.7'

ELEV. 778.8 (PROPOSED)
(C.G.M.P.P.A. INVERT)
ELEV. 775.8 (PROPOSED)
(BOTTOM CRADLE HEADWALL)

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						▼
		2				No Recovery, Stones on Top of Clay
10		--		M	gr	A-4 Clayey Silt with fine Sand Layers w=49.5%
		13		M	gr	A-4 Silt with fine Sand Layers w=41.2%
				M	gr	A-4 Silt w=26.3%
20		27		M	gr	A-4 Sandy Silt w=25.9%
		29		M	brn	A-4 Silty Sand w=23.2%
30		20		MTW	brn	A-4 Silty Sand w=23.7%
		R		MTW	brn	A-2-4 Silty Sand w=20.4%
40		43		M	brn	A-2-4 SiSaGr w=13.8% Top of Becrock @ 42.0'
				Run 1		BXMDC 42.0-47.0' Rec4.5'
				Run 2		BXMDC 47.0-52.0' Rec5.0'
				SEE GEOLOGIST'S REPORT		
50						
				Hole Stopped @ 52.0' in Bedrock		
				Groundwater Elevation = 782.7' on 7/19/89		
				GEOLOGIST'S REPORT		
60						
70						
80						

GEOLOGIST'S REPORT

Run #	Core Interval	% Rec
1	42.0-47.0	90
2	47.0-52.0	100

Core consists of a quarts-biotite-garnet schist. The rock is moderately hard, slightly weathered on widely spaced fracture planes and competent overall.

MARSHFIELD - FEGC-F028-3(28)

BORING NO. B - 147

ELEV. 782.0'

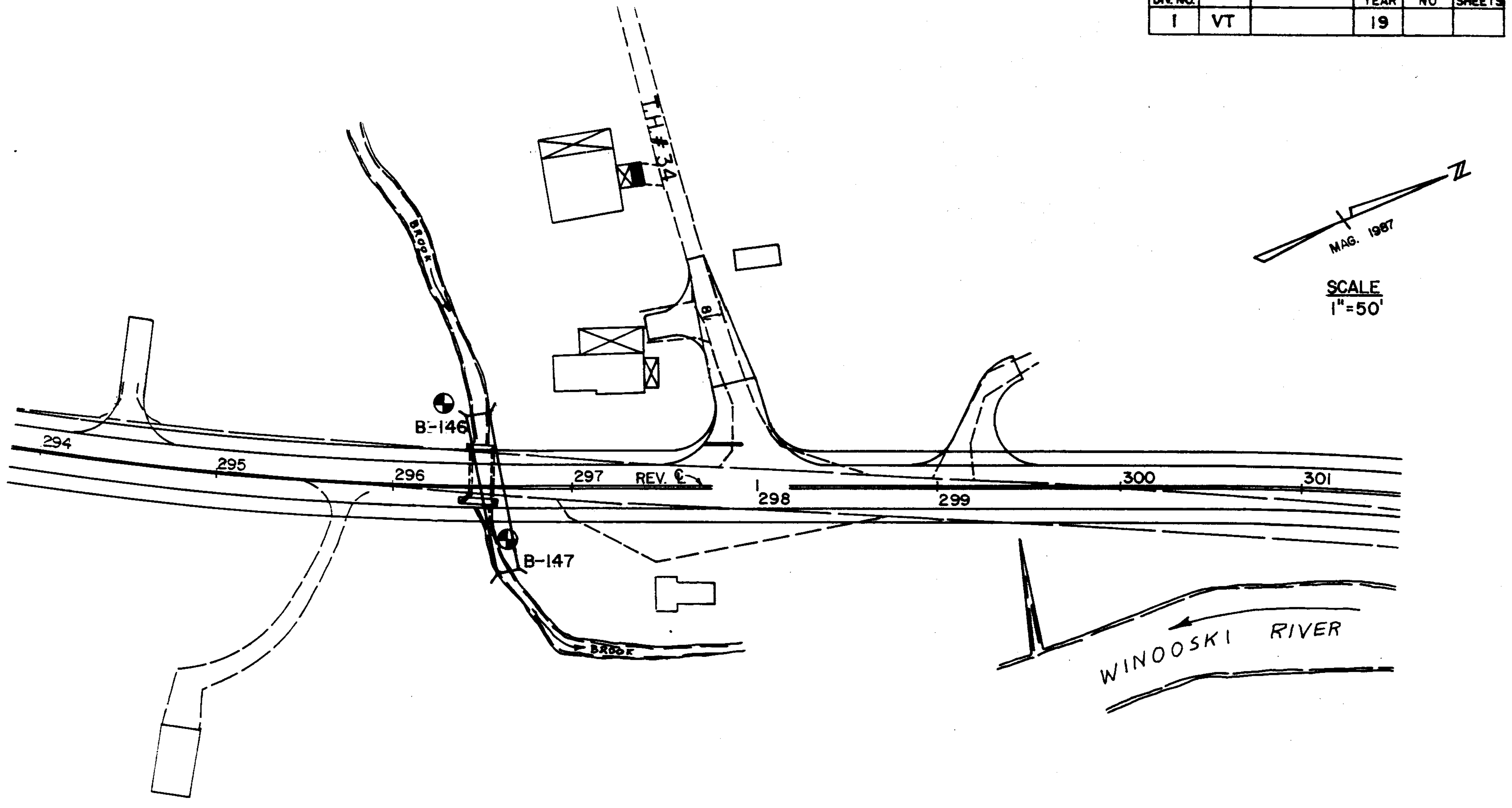
ELEV. 777.0 (PROPOSED)
(C.G.M.P.P.A. INVERT)
ELEV. 774.0 (PROPOSED)
(BOTTOM CRADLE HEADWALL)

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						Sandy Gravel ▼
		5		W	gr	A-7-6 Clay with Fine Sand Layers w=55.4%
10		5		W	gr	A-7-6 Clay w-44.7%
		2		W	gr	A-6 Silty Clay w=42.9%
20		3		W	gr	A-6 Silty Clay w=40.1%
		9		W	gr	A-4 Clayey Silt with Sand Layers w=41.2%
30		17		W	gr	A-4 Silt with Sand & Silt Layers w=34.8%
		25		W	brn	A-4 Silt w=30.8%
40		R				No Sample
				Top of		Bedrock @ 43.0'
				Reamed		Casing 1.0' in Bedrock
				Run 1		AXMDC 44.0-46.8 Rec-2.7'
				Run 2		AXMDC 46.8-49.0 Rec-0.9'
				Rock from		Run 2 probably ground up.
				Run 3		AXMDC 49.0-54.0 Rec-2.6'
				Rock from		Run 3 probably ground up.
50				SEE GEOLOGIST'S REPORT		
				Hole Stopped @ 54.0' in Bedrock		
				Groundwater Elevation on 7/18/89 779.5'		
60				GEOLOGITS'S REPORT		
70						
80						

GEOLOGITS'S REPORT

Run #	Core Interval	% Rec
1	44.0-46.8	96
2	46.8-49.0	41
3	49.0-54.0	52

Core consists of quarts-biotite-garnet viens. The rock is moderately hard to hard and very competent.



SYMBOLS USED FOR SOIL SUBSURFACE IDENTIFICATION

Symbol	Description	Symbol	Description
MTW	Moist to Wet	HP	Hard Pan
Sat	Saturated	Le	Ledge
Blk	Black	NLTD	No Ledge to Depth
Brn	Brown	CNPF	Could Not Penetrate Further
Lt	Light	TLOB	To Ledge or Boulder
Dark	Dark	OC	Organic Content, %
Ⓢ	Sample Taken	W	Moisture Content, %
Bo	Boulder		Standard Penetration Borings Sampler outside diameter-2" Sampler inside diameter-1 3/8" Weight of Hammer-140 lbs.
NGW	No Ground Water		
TGW	To Ground Water		
GR	Gravel		Auger Borings
Sa	Sand		Rod Soundings
Si	Silt	UP	Undisturbed Piston Sample
Cl	Clay	VS	Field Vane Shear Sample

SOIL CLASSIFICATION

A1	Gravel & Sand	GW/GP	Clean Gravels (Few Fines)
A3	Fine Sand	GM/GC	Gravels (Appreciable Fines)
A2	Silty or Clayey Gravel & Sand	SW/SP	Clean Sands (Few Fines)
A4	Silty Soil-Low Compressibility	SM/SC	Sand (Appreciable Fines)
A5	Silty Soil-Highly Compressible	ML/CL	Low Plastic Silts & Clays
A6	Clayey Soil-Low Compressibility	OL	Low Plastic Organic Silt
A7	Clayey Soil-Highly Compressible	MH/CH	High Plastic Silts & Clays
A8	Muck, Peat, Organic	OH	High Plastioc Organic Silt
		Pt	Highly Organic Soils

GENERAL NOTES

THE SUBSURFACE EXPLORATIONS SHOWN HEREON WERE MADE JULY 1989 BY THE VERMONT AGENCY OF TRANSPORTATION.

1. SOIL AND ROCK (WHERE ENCOUNTERED) CLASSIFICATION, PROPERTIES AND DESCRIPTIONS ARE BASED ON ENGINEERING INTERPRETATION OF AVAILABLE SUBSURFACE INFORMATION BY THE VERMONT AGENCY OF TRANSPORTATION AND MAY NOT NECESSARILY REFLECT ACTUAL VARIATIONS IN SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED BETWEEN INDIVIDUAL BORING OR SAMPLE LOCATIONS.
2. OBSERVED WATER LEVELS AND/OR WATER CONDITIONS INDICATED ARE AS RECORDED AT THE TIME OF EXPLORATION AND MAY VARY ACCORDING TO THE PREVAILING RAINFALL, METHODS OF EXPLORATION AND OTHER FACTORS.
3. SOUND ENGINEERING JUDGEMENT WAS EXERCISED IN PREPARING THE SUBSURFACE INFORMATION PRESENTED HEREON. ANALYSIS AND INTERPRETATION OF SUBSURFACE DATA WAS PERFORMED AND INTENDED FOR AGENCY DESIGN AND ESTIMATE PURPOSES ONLY. PRESENTATION OF THE INFORMATION ON THE PLANS AND ELSEWHERE IS FOR THE PURPOSE OF PROVIDING INTENDED USERS WITH ACCESS TO THE SAME DATA AVAILABLE TO THE AGENCY. THE SUBSURFACE INFORMATION IS PRESENTED IN GOOD FAITH AND IS NOT INTENDED AS A SUBSTITUTE FOR PERSONAL INVESTIGATION, INDEPENDENT INTERPRETATIONS, INDEPENDENT ANALYSIS OR JUDGEMENT OF THE CONTRACTOR.
4. PICTORIAL STRUCTURE DETAILS SHOWN HEREON ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT BE INDICATIVE OF THE FINAL DESIGN CONDITIONS SHOWN IN THE CONTRACT PLANS.

BR-130
UNNAMED BROOK

SURVEYED BY VT. SURVEY CONSULTANTS DATE 3/87
DRAWN BY BRYANT ASSOC. DATE 6/87
TRACED BY ______ DATE ______

U.S. ROUTE 2 - MARSHFIELD

PROJ. NO. FEGC F028 - 3(28)

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