STATE OF VERMONT
AGENCY OF TRANSPORTATION

INDEX OF SHEETS

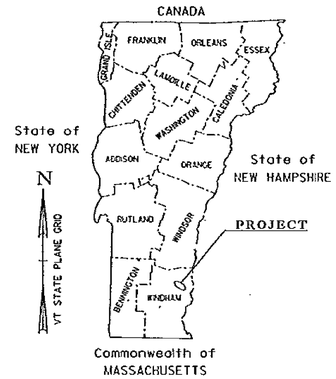
1. TITLE SHEET
2. QUANTITIES & NOTES
3. BORING INFORMATION SHEET
4. BORING LOGS
5. BORING LOGS
6. PLAN & ELEVATION
7. NORTH ABUTMENT BACKWALL
8. NORTH ABUTMENT RETAINING WALLS
9. BACKWALL LAYOUT PLAN

STANDARD SHEETS

10. TEMPORARY EROSION CONTROL DETAILS, STANDARD T-1
11. TEMPORARY EROSION CONTROL DETAILS, STANDARD T-2

CONTRACT PLANS

THESE PLANS DO NOT REFLECT CHANGES MADE ON THE PROJECT.



Engineers Construction, Inc.
Contractor

VP
Signature

Vice Pres.
Title

PROPOSED IMPROVEMENT
RAIL PROJECT

TOWN OF ROCKINGHAM
COUNTY OF WINDHAM

REHABILITATION OF BRIDGE 107 LOCATED ON THE GREEN MOUNTAIN RAILROAD

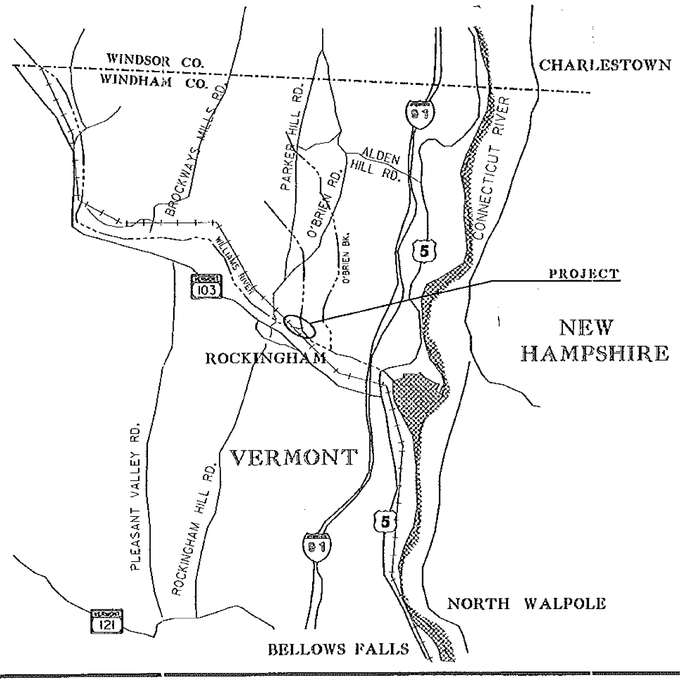
PROJECT LOCATION: GREEN MOUNTAIN RAILROAD CROSSING THE WILLIAMS RIVER

PROJECT DESCRIPTION: BRIDGE 107 NORTH ABUTMENT BACKWALL AND RETAINING WALL REPLACEMENT

DIRECTIONS TO LOCATION OF GREEN MOUNTAIN RAILROAD (GMRR) BRIDGE #107 IN ROCKINGHAM, VERMONT:

ROCKINGHAM, VERMONT IS LOCATED ON STATE ROUTE 103 IN EASTERN VERMONT. APPROACHERS FROM THE EAST MAY USE INTERSTATE 91 TO EXIT 6 AT ROCKINGHAM. TURN WEST ON VT 103 FOR ABOUT 2.5 MILES AND LOOK ON THE RIGHT (NORTH) FOR PARKER HILL ROAD. FOLLOW PARKER HILL ROAD TO THE RAILROAD OVERPASS. THIS IS GMRR BRIDGE #108 AT GMRR MILE POST B 5.294. BRIDGE #107 IS APPROXIMATELY ONE-QUARTER MILE EAST, CROSSING OVER THE WILLIAMS RIVER.

FOR APPROACHERS FROM THE WEST USE VT 103 EAST, WHICH BEGINS SEVERAL MILES SOUTH OF RUTLAND, VT. APPROXIMATELY SIX MILES EAST OF CHESTER, VT., LOOK FOR PARKER HILL ROAD ON THE LEFT (NORTH) AND FOLLOW TO THE RAILROAD OVERPASS. THIS IS GMRR BRIDGE #108 AT GMRR MILE POST B 5.294. BRIDGE #107 IS APPROXIMATELY ONE-QUARTER MILE EAST, CROSSING OVER THE WILLIAMS RIVER.



CONVENTIONAL SYMBOLS

COUNTY LINE
TOWN LINE
LIMITS OF ACCESS
POINT OF ACCESS
FENCE LINE
STONE WALL
TRAVELED WAY
GUARD RAIL
RAILROAD
SURVEY LINE
CULVERT
POWER POLE
TELEPHONE POLE
TREES
CONTROL OF ACCESS
PROPERTY LINE
R.O.W. TAKING LINE
SLOPE RIGHTS (SR SR SR)
TOP OF CUT
TOE OF SLOPE

SURVEYED BY : VERMONT SURVEY, INC.
SURVEYED DATE : AUGUST, 2001

DATUM
VERTICAL: NAVD 88 (FEET)
HORIZONTAL: ASSUMED COORDINATES

Director of Finance and Administration or Duly Authorized Agent

10-2-02
Date

STATE OF VERMONT
DARREN W. CONDOT
NO. 5447
REGISTERED PROFESSIONAL ENGINEER

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROJECT DEVELOPMENT.

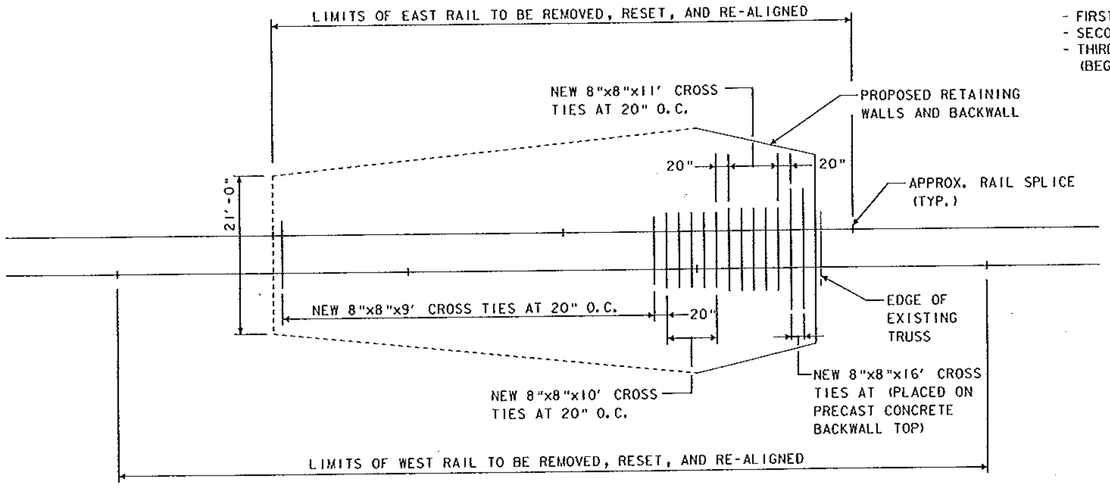
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

EDWARDS & KELCEY, INC.

DIRECTOR OF RAIL DIVISION
APPROVED DATE 7/18/02
PROJECT MANAGER :
PROJECT NAME : ROCKINGHAM
PROJECT NUMBER : RAIL-04-9044 C/7 PHASE II
SHEET 1 OF 11 SHEETS

QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANT.	UNIT
204.25	STRUCTURE EXCAVATION	475	CY
204.30	GRANULAR BACKFILL FOR STRUCTURES	360	CY
501.22	CONCRETE, CLASS A	4	CY
514.10	WATER REPELLENT	8	GAL
526.30	MECHANICALLY STABILIZED EARTH (MSE) WALL (MOD I) PRECAST CONCRETE MODULAR WALL (T-WALL)	95	SY
526.30	MECHANICALLY STABILIZED EARTH (MSE) WALL (MOD II) PRECAST CONCRETE BACKWALL TOP	8	SY
635.10	MOBILIZATION (MOD.)	1	LS
649.11	GEOTEXTILE FOR ROADBED SUBGRADE SEPARATOR	85	SY
649.51	GEOTEXTILE FOR SILT FENCE	60	SY
651.26	HAY BALES FOR EROSION CONTROL	45	EA
901.10	REMOVAL AND REPLACEMENT OF CROSS TIES (MOD I) 8'x8"x11' TIMBER CROSS TIES	5	EA
901.10	REMOVAL AND REPLACEMENT OF CROSS TIES (MOD II) 8'x8"x10' TIMBER CROSS TIES	5	EA
901.10	REMOVAL AND REPLACEMENT OF CROSS TIES (MOD III) 8'x8"x9' TIMBER CROSS TIES	35	EA
901.10	REMOVAL AND REPLACEMENT OF CROSS TIES (MOD IV) 8'x8"x16' TIMBER CROSS TIES	2	EA
904.15	REMOVAL AND REPLACEMENT OF INDIVIDUAL RAILS (MOD I) REMOVE, RESET, AND RE-ALIGN RAIL	351	LF
910.10	BALLAST	100	CY
960.10	MAINTENANCE OF RAIL TRAFFIC	1	LS



TIE, TRACK, & BALLAST DETAIL

SCALE: 1" = 10'

--------HORIZONTAL LIMITS OF BALLAST BEYOND VERTICAL LIMITS OF EXCAVATION

NOTES:

1. SEE SECTION A-A ON SHEET 8 FOR BALLAST SECTION WITHIN VERTICAL LIMITS OF EXCAVATION.

2. PROPOSED BALLAST BEYOND VERTICAL LIMIT OF EXCAVTION SHALL BE 2' IN THICKNESS. PLACEMENT SHALL MAINTAIN EXISTING EDGE OF SLOPE. BALLAST REMOVAL SHALL BE PAID FOR AS ITEM 204.25, "STRUCTURE EXCAVATION".

GENERAL NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001, AND ITS LATEST REVISIONS, AND AREMA (AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION).

2. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE APPROXIMATE UNLESS SHOWN OTHERWISE. THE CONTRACTOR IS RESPONSIBLE FOR FIELD CHECKING ANY AND ALL DIMENSIONS AND ELEVATIONS APPLICABLE TO THIS WORK.

3. SOME ELEMENTS OF WORK, AS OUTLINED ON SHEET 8, WILL BE ALLOWED PRIOR TO AND AFTER THE TRACK DOWN-TIME. PROPER NOTIFICATION AND PERMISSION SHALL BE OBTAINED FROM GREEN MOUNTAIN RAILROAD.

4. WHERE THE REQUIREMENTS OF AREMA, AASHTO, AND VTRANS SPECIFICATIONS DIFFER, AREMA SPECIFICATIONS SHALL GOVERN. THE EXCEPTION IS VTRANS SPECIFICATION DIVISION 100, GENERAL PROVISIONS, SHALL GOVERN.

5. THE UTILIZATION OF GREEN MOUNTAIN RAILWAY FOR TRANSPORTATION OF MATERIALS / SUPPLIES MAY BE AVAILABLE TO THE CONTRACTOR. A SEPARATE CONTRACT BETWEEN GREEN MOUNTAIN RAILROAD AND THE CONTRACTOR IS REQUIRED.

6. A REPRESENTATIVE FROM T-WALL WILL BE REQUIRED TO BE ON SITE DURING THE ERECTION OF THE BACKWALL AND RETAINING WALLS.

7. NO TIME EXTENSION FOR INCLEMENT WEATHER WILL BE GRANTED.

TRACK OUT-OF-SERVICE SPECIAL CONDITIONS:

1. THE CONTRACTOR WILL BE ALLOWED APPROXIMATELY 4 DAYS OF TRACK DOWN TIME. THE TRACK WILL BE TAKEN OUT OF SERVICE AT 7:00 A.M. ON THURSDAY AFTERNOON. THE TRACK WILL BE REQUIRED TO BE BACK IN SERVICE BY 7:00 A.M. ON MONDAY MORNING. 24 HOUR PER DAY WORK PERIODS MAY BE REQUIRED TO BRING THE TRACK BACK IN SERVICE WITHIN THE TIME ALLOCATED.

2. THE 5 DAY PERIOD FOR THE TRACK DOWN TIME WILL BE NO SOONER THAN OCTOBER 31, 2002 AND NO LATER THAN NOVEMBER 13, 2002. THE ACTUAL TRACK DOWN-TIME THAT THE CONTRACTOR CHOOSES WITHIN THIS PERIOD SHALL BE COORDINATED WITH GREEN MOUNTAIN RAILROAD.

3. INCREMENTAL LIQUIDATED DAMAGES WILL BE ASSESSED FOR EACH DAY BEYOND 7:00 A.M. ON MONDAY THAT THE TRACK IS NOT PUT BACK INTO SERVICE AS FOLLOWS:

- FIRST DAY - $10,000.00 (MONDAY AT 7:01 A.M. UNTIL TUESDAY AT 6:59 A.M.)
- SECOND DAY - $20,000.00 (TUESDAY AT 7:00 A.M. UNTIL WEDNESDAY AT 6:59 A.M.)
- THIRD AND EACH ADDITIONAL DAY (24 HOUR PERIOD) - $25,000.00 (BEGINNING ON WEDNESDAY AT 7:00 A.M.)

QUANTITIES

ITEM NO.	ITEM DESCRIPTION	QUANT.	UNIT
651.15	SEED	20	LB
651.17	SEED-WINTER RYE	2	LB
651.18	FERTILIZER	80	LB
651.20	AGRICULTURAL LIMESTONE	1	TON
651.25	HAY MULCH	1	TON
651.35	TOPSOIL	20	CY

DESIGN CRITERIA:

DESIGN LIVE LOAD: COOPER E-80
ALLOWABLE SOIL BEARING PRESSURE: 6000 PSF
REINFORCING STEEL: GRADE 60
CONCRETE CLASS A: f'c = 4000 PSI
PRECAST CONCRETE: f'c = 4000 PSI

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL TAKE SPECIAL CARE AND PRECAUTIONS THAT NO DEBRIS FALLS INTO THE WILLIAMS RIVER.

2. ALL WORK/FEES ASSOCIATED WITH THE SITE ACCESS WILL BE PAID FOR AS ITEM 635.10, 'MOBILIZATION'. ACCESS TO THE WORK SITE SHALL ONLY BE MADE FROM WITHIN THE RAILROAD RIGHT-OF-WAY. ACCESS TO THE SITE USING PRIVATE PROPERTY WILL BE ALLOWED WITH WRITTEN PERMISSION FROM THE PROPERTY OWNER.

3. ALL EQUIPMENT, PERSONNEL AND MATERIALS, INCLUDING SILT FENCE, REQUIRED FOR WATER CONTROL WILL BE PAID FOR AS ITEM 649.51, 'GEOTEXTILE FOR SILT FENCE'.

4. ALL FLAGGING EXPENSES, SCHEDULING OF TRACK OUTAGES AND MAINTENANCE OF RAIL TRAFFIC WILL BE PAID FOR AS ITEM 960.10, 'MAINTENANCE OF RAIL TRAFFIC'.

5. WATER REPELLENT SHALL BE APPLIED TO THE ENTIRE FACE OF THE PROPOSED T- WALL UNITS, LEVELING PAD AND PRECAST CONCRETE BACKWALL TOP.

6. CONCRETE FOR THE LEVELING PAD SHALL BE CONCRETE, CLASS A. ADDITIVES TO THE STANDARD CLASS A MIX SHALL ACCOMMODATE A 12 HOUR HIGH-EARLY STRENGTH OF 1000 PSI. THE MIX DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE CONTRACTOR WILL BE REQUIRED TO TEST THE MIX PER ASTM SPECIFICATIONS TO ASSURE THE 12 HOUR STRENGTH WILL BE ATTAINED.

7. REMOVAL OF THE STONE PORTION OF THE BACKWALL AND RETAINING WALLS, AS WELL AS THE THE BACKFILL BEHIND, WILL BE PAID FOR AS ITEM 204.25, 'STRUCTURE EXCAVATION'. CARE SHOULD BE TAKEN AS TO NOT ALLOW ANY IMPACT DAMAGE TO THE TRUSS AS A RESULT OF THE EXCAVATION PROCESS.

8. THE CONTRACTOR WILL BE REQUIRED TO FILL OUT THE INFORMATION REQUESTED ON THE 'ARCHAEOLOGICAL & NATURAL RESOURCE REVIEW OF WASTE, BORROW & STAGING AREAS'. ALL WORK/FEES ASSOCIATED WITH THE WASTE PERMIT WILL BE PAID FOR AS ITEM 204.25, 'STRUCTURE EXCAVATION'. SEE SPECIAL PROVISION.

9. INSTALLING THE TWO 8'x8'x16' TIMBER TIES ON THE PRECAST CONCRETE BACKWALL TOP WILL BE PAID FOR AS ITEM 901.10, 'REMOVAL AND REPLACEMENT OF CROSS TIES (MOD IIII) INSTALL 8'x8'x16' CROSS TIES'.

10. REMOVAL, RESETTING, AND RE-ALIGNMENT OF RAIL AND GUARDRAIL WILL BE PAID FOR AS ITEM 904.15, 'REMOVAL AND REPLACEMENT OF INDIVIDUAL RAILS (MOD I) REMOVE AND RESET RAIL'.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ROCKINGHAM	Bridge No. 107
Highway No. Green Mountain Railroad	Log Sta. / Surv. Sta.
BRIDGE OVER WILLIAMS RIVER	
QUANTITIES & NOTES	
Designed By J.Wilson	Drawn By S.Gunn
Checked By S.Halloran	Date 6/02
Design Supervisor	Date
PROJECT ROCKINGHAM	PROJECT NO. RAIL-04-9044 C/7 PHASE II
I.G.C. Info.	
Bridge Sheet No.	Sheet 2 of 11

STATE OF VERMONT · DARREN W. GONDO · NO. 6447 · REGISTERED PROFESSIONAL ENGINEER

EDWARDS & KELCEY, INC.

PLOTTED 07/16/02

SOIL CLASSIFICATION

	AASHTO
A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

ROCK QUALITY DESIGNATION

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN P.S.F.	CONSISTENCY
<250	Very Soft
250-500	Soft
500-1000	Med. Stiff
1000-2000	Stiff
2000-4000	Very Stiff
>4000	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

▼	Water Elevation
⊗	Standard Penetration Boring
⊕	Auger Boring
⊙	Rod Sounding
S	Sample
N	Standard Penetration Test Blow Count Per Foot For: 2" O.D. Sampler 1⅜" I.D. Sampler Hammer Weight Of 140 Lbs. Hammer Fall Of 30"
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 1⅛"
BX	Core Size 1⅝"
NX	Core Size 2⅛"
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	To Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
ROD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)

COLOR

blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

DEFINITIONS (AASHTO)

BEDROCK (LEDGE) - Rock in its native location of indefinite thickness.

BOULDER - A rock fragment with an average dimension > 12 inches.

COBBLE - Rock fragments with an average dimension between 3 and 12 inches.

GRAVEL - Rounded particles of rock < 3" and > 0.0787" (#10 sieve).

SAND - Particles of rock < 0.0787" (#10 sieve) and > 0.0029" (#200 sieve).

SILT - Soil < 0.0029" (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

VARVED - Alternate layers of silt and clay.

HARDPAN - Extremely dense soil, cemented layer, not softened when wet.

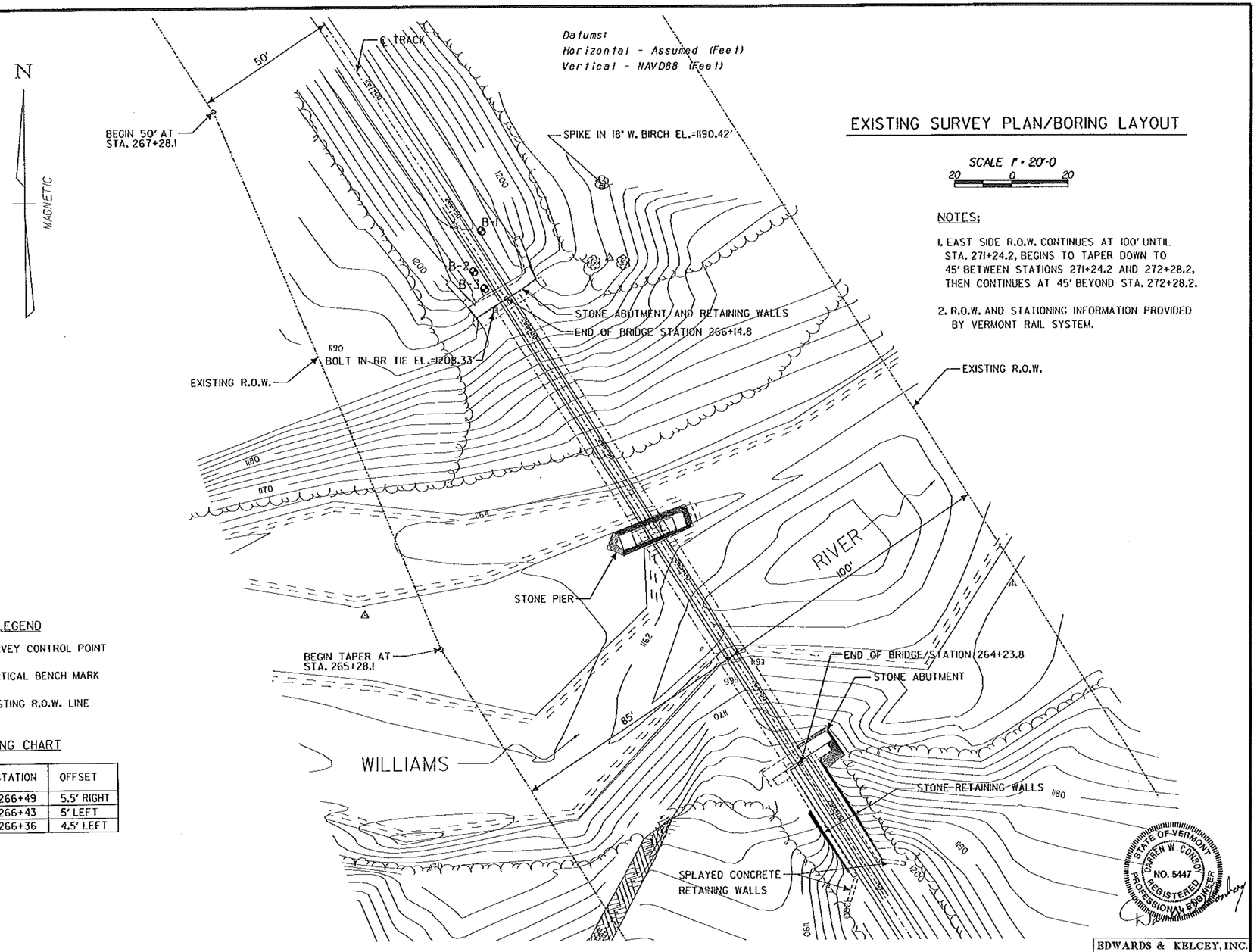
MUCK - Soft organic soil (containing > 10% organic material.

MOISTURE CONTENT - Weight of water divided by dry weight of soil.

FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.

STRIKE - Angle from magnetic north to line of intersection of bed with a horizontal plane.

DIP - Inclination of bed with a horizontal plane.



EXISTING SURVEY PLAN/BORING LAYOUT

SCALE 1" = 20'-0

20 0 20

NOTES;

1. EAST SIDE R.O.W. CONTINUES AT 100' UNTIL STA. 271+24.2, BEGINS TO TAPER DOWN TO 45' BETWEEN STATIONS 271+24.2 AND 272+28.2, THEN CONTINUES AT 45' BEYOND STA. 272+28.2.
2. R.O.W. AND STATIONING INFORMATION PROVIDED BY VERMONT RAIL SYSTEM.

LEGEND

- △ SURVEY CONTROL POINT
- □ VERTICAL BENCH MARK
- ..... EXISTING R.O.W. LINE

BORING CHART

BORING NO.	STATION	OFFSET
B1	266+49	5.5' RIGHT
B2	266+43	5' LEFT
B3	266+36	4.5' LEFT

GENERAL NOTES

1. The subsurface explorations shown herein were made on 8/23/99 by M & W Soils Engineering, Inc..
2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
3. Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.
4. Engineering judgement was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor 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 interpretation, independent analysis or judgement by the Contractor.
5. Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
6. Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.
7. A particle size analysis (without hydrometer) in accordance with ASTM D 422 was performed by Atlantic Testing Laboratories, Limited.
8. Interpretation and analysis of subsurface information to determine values for design was performed by Edwards & Kelcey, Inc.

STATE OF VERMONT
CARREN W. CONROY
NO. 5447
REGISTERED
PROFESSIONAL ENGINEER

EDWARDS & KELCEY, INC.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ROCKINGHAM	Bridge No. 107
	Log Sta.
Highway No. Green Mountain Railroad	Surv. Sta.
BRIDGE OVER WILLIAMS RIVER	
BORING INFORMATION SHEET	
Designed By J.Wilson	Drawn By S.Gunn
Checked By S.Holleran Date 6/02	Bridge Design Supervisor Date
PROJECT ROCKINGHAM	PROJECT NO. RAIL-04-9044 C/T PHASE II
I.G.C. Info.	
Bridge Sheet No.	Sheet 3 of 11

PLOTTED 07/16/02

BORING 1

M & W Soils Engineering Inc.
Main St. Charlestown, NH 03603

TO CLOUGH-HARBOUR & ASSOCIATES ADDRESS ALBANY, NY
PROJECT NAME ROCKINGHAM ROALROAD BRIDGE LOCATION ROCKINGHAM, VT
REPORT SENT TO CARSTEN FLOESS PROJ. NO.
SAMPLES RETAINED BY CLOUGH-HARBOUR OUR JOB NO. 7858-99

SHEET 1 OF 2
DATE 8/23/99
HOLE NO. B-1
LINE & STA.
OFFSET

GROUND WATER OBSERVATIONS
AT 43'9" AT 1/2 HOURS
AT ____ AT ____ HOURS

	CASING	SAMPLER	CORE BAR
Type	HSA	SS	
Size I. D.	3 1/4"	1 1/2"	
Hammer Wt.		140#	BIT
Hammer Fall		30"	

SURFACE ELEV.
DATE STARTED 8/23/99
DATE COMPL. 8/23/99
BORING FORMAN M.D. & C.G.
INSPECTOR C. FLOESS
SOILS ENGR.

LOCATION OF BORING 28' WEST OF BRIDGE OFF NORTH EDGE OF TIES - BRIDGE AT MP 5

Depth	SAMPLE DEPTHS FROM-TO	TYPE OF SAMPLE	Blows per 6" on sampler		MOISTURE DENSITY OR CONSIST.	STRATA CHANGE ELEV.	FIELD SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, cond., hardness, Drilling time, seams and ect.	SAMPLE NO.	PEN	REC
					MED. DENSE	2'	BALLAST			
5'	4' - 6'	SS	3	3	LOOSE		BROWN MEDIUM TO COARSE SAND - TRACE TO SOME FINE GRAVEL WITH AN OCCASIONAL COBBLE	1	24"	14"
			3	4						
10'	9' - 11'	SS	3	6	MED. DENSE		SAME MATERIAL	2	24"	16"
			7	9						
15'	14' - 16'	SS	2	4				3	24"	15"
			9	6						
	19' - 21'	SS	6	16			SAME MATERIAL	4	24"	15"
20'			22	32		20'+/-	OLD GROUND			
	24' - 26'	SS	53	28	DENSE		BROWN SANDY COARSE GRAVELS WITH COBBLES	5	24"	18"
25'			13	9		25'				
	29' - 31'	SS	4	6	MED. DENSE		BROWN MEDIUM SANDS	6	24"	20"
30'			9	11						
	34' - 36'	SS	7	11		33'		7	24"	21"
35'			13	16	MED. DENSE		LIGHT BROWN FINE SAND			
	39' - 41'	SS	9	15				8	24"	16"
			18	18		40'				

APPROX. BOTTOM OF EXCAVATION

GROUND SURFACE TO ____ USED ____ CASING THEN ____

Sample Type
D-Dry C-Cored W-Washed
UP-Unfinished Piston
TP-Test Pit A-Auger V-Vane Tes
UT-Undisturbed Thinwall

Proportions Used
trace 0 to 10%
little 10 to 20%
some 20 to 35%
and 35 to 50%

140 lb. wt. x 30"-fall on 2" O.D. Sampler
Cohesionless Density
0-10 Loose
10-30 Med. Dense
30-50 Dense
50+ Very Dense

Cohesive Consistancy
0-4 Soft 30 + Hard
4-8 M/Stiff
8-15 Stiff
15-30 V-Stiff

summary
EARTH BORING ____
ROCK CORING ____
SAMPLES ____
HOLE NO. B-1

M & W Soils Engineering Inc.
Main St. Charlestown, NH 03603

TO CLOUGH-HARBOUR & ASSOCIATES ADDRESS ALBANY, NY
PROJECT NAME ROCKINGHAM ROALROAD BRIDGE LOCATION ROCKINGHAM, VT
REPORT SENT TO CARSTEN FLOESS PROJ. NO.
SAMPLES RETAINED BY CLOUGH-HARBOUR OUR JOB NO. 7858-99

SHEET 2 OF 2
DATE 8/23/99
HOLE NO. B-1
LINE & STA.
OFFSET

GROUND WATER OBSERVATIONS
AT 43'9" AT 1/2 HOURS
AT ____ AT ____ HOURS

	CASING	SAMPLER	CORE BAR
Type	HSA	SS	
Size I. D.	3 1/4"	1 1/2"	
Hammer Wt.		140#	BIT
Hammer Fall		30"	

SURFACE ELEV.
DATE STARTED 8/23/99
DATE COMPL. 8/23/99
BORING FORMAN M.D. & C.G.
INSPECTOR C. FLOESS
SOILS ENGR.

LOCATION OF BORING 28' WEST OF BRIDGE OFF NORTH EDGE OF TIES - BRIDGE AT MP 5

Depth	SAMPLE DEPTHS FROM-TO	TYPE OF SAMPLE	Blows per 6" on sampler		MOISTURE DENSITY OR CONSIST.	STRATA CHANGE ELEV.	FIELD SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, cond., hardness, Drilling time, seams and ect.	SAMPLE NO.	PEN	REC
45'	44' - 45'	SS	9	12	DENSE - WET		LIGHT BROWN FINE SAND	9	24"	20"
			19	19						
50'	49' - 51'	SS	11	12				10	24"	22"
			15	14		51'				
55'							NO BEDROCK TO DEPTH MIXED BENTONITE CHIPS WITH NATIVE BACKFILL MATERIALS USED: 150# OF BENTONITE CHIPS			

GROUND SURFACE TO 51' USED HSA CASING THEN DROVE SS 24"

Sample Type
D-Dry C-Cored W-Washed
UP-Unfinished Piston
TP-Test Pit A-Auger V-Vane Tes
UT-Undisturbed Thinwall

Proportions Used
trace 0 to 10%
little 10 to 20%
some 20 to 35%
and 35 to 50%

140 lb. wt. x 30"-fall on 2" O.D. Sampler
Cohesionless Density
0-10 Loose
10-30 Med. Dense
30-50 Dense
50+ Very Dense

Cohesive Consistancy
0-4 Soft 30 + Hard
4-8 M/Stiff
8-15 Stiff
15-30 V-Stiff

summary
EARTH BORING 51'
ROCK CORING ____
SAMPLES 10
HOLE NO. B-1

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ROCKINGHAM	Bridge No. 107
Highway No. Green Mountain Railroad	Log Sta. / Surv. Sta.
BRIDGE OVER WILLIAMS RIVER	
BORING LOGS	
Designed By J.Wilson	Drawn By S.Gunn
Checked By S.Halloran	Date 6/02
Bridge Design Supervisor	Date
PROJECT ROCKINGHAM	PROJECT NO. RAIL-04-9044 C/T PHASE II
I.C.C. Info.	
EDWARDS & KELCEY, INC.	Bridge Sheet No. Sheet 4 of 11

STATE OF VERMONT · DARREN W. GONSER · NO. 5447 · REGISTERED PROFESSIONAL ENGINEER

PLOTTED 07/16/02

BORING 2

M & W Soils Engineering Inc.
Main St. Charlestown, NH 03603

TO CLOUGH-HARBOUR & ASSOCIATES ADDRESS ALBANY, NY
PROJECT NAME ROCKINGHAM ROAD/ROAD BRIDGE LOCATION ROCKINGHAM, VT
REPORT SENT TO CARSTEN FLOESS PROJ. NO.
SAMPLES RETAINED BY CLOUGH-HARBOUR OUR JOB NO. 7858-99

SHEET 1 OF 2
DATE 8/23/99
HOLE NO. B-2
LINE & STA.
OFFSET

GROUND WATER OBSERVATIONS
AT 43'11" AT 1/2 HOURS
AT ____ AT ____ HOURS

	CASING	SAMPLER	CORE BAR
Type	HSA	SS	
Size I. D.	3 1/4"	1 1/2"	
Hammer Wt.		140#	BIT
Hammer Fall		30"	

SURFACE ELEV.
DATE STARTED 8/23/99
DATE COMPL. 8/23/99
BORING FORMAN M.D. & O.C.
INSPECTOR C. FLOESS
SOILS ENGR.

LOCATION OF BORING 15' WEST OF WEST END OF TRESSLE - OFF SOUTH EDGE OF TIES

Depth	SAMPLE DEPTHS FROM-TO	TYPE OF SAMPLE	Blows per 6" on sampler		MOISTURE DENSITY OR CONSIST.	STRATA CHANGE ELEV.	FIELD SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, cond., hardness, Drilling time, seams and ect.	SAMPLE NO.	PEN.	REC.
					LOOSE	1'6"	BALLAST			
					MED. DENSE	3'	CINDERS			
	4' - 6'	SS	3	4				1	24"	17"
5'			4	4	LOOSE		BROWN MEDIUM TO COARSE SANDS - TRACE OF FINE GRAVEL			
	9' - 11'	SS	3	2				2	24"	18"
10'			3	2						
	14' - 16'	SS	3	5		14'	SAME MATERIAL	3	24"	16"
15'			4	3	MED. DENSE		SAME MATERIAL AS ABOVE WITH SOME COARSE GRAVEL			
						18'				
	19' - 21'	SS	9	19				4	24"	18"
20'			27	38						
					DENSE TO VERY DENSE		BROWN COARSE GRAVEL WITH COBBLES AND A FEW BOULDERS (ON A COBBLE AT 24')			
25'						26'6"				
	29' - 31'	SS	5	5				5	24"	21"
30'			7	7	MED. DENSE		BROWN FINE SAND			
35'										
	39' - 41'	SS	8	9			SAME MATERIAL	6	24"	19"
			11	14						

APPROX. BOTTOM OF EXCAV.

GROUND SURFACE TO ____ USED ____ CASING THEN ____

Sample Type
D-Dry C-Cored W-Washed
UP-Unfolshed Piston
TP-Test Pit A-Auger V-Vane Tes
UT-Undisturbed Thinwall

Proportions Used
trace 0 to 10%
little 10 to 20%
some 20 to 35%
and 35 to 50%

140 lb. wt. x 30"-fall on 2" O.D. Sampler
Cohesionless Density
0-10 Loose
10-30 Med. Dense
30-50 Dense
50+ Very Dense

Cohesive Consistancy
0-4 Soft 30 + Hard
4-8 M/Stiff
8-15 Stiff
15-30 V-Stiff

summary
EARTH BORING ____
ROCK CORING ____
SAMPLES ____
HOLE NO. B-2

BORING 2 (continued)

M & W Soils Engineering Inc.
Main St. Charlestown, NH 03603

TO CLOUGH-HARBOUR & ASSOCIATES ADDRESS ALBANY, NY
PROJECT NAME ROCKINGHAM ROAD/ROAD BRIDGE LOCATION ROCKINGHAM, VT
REPORT SENT TO CARSTEN FLOESS PROJ. NO.
SAMPLES RETAINED BY CLOUGH-HARBOUR OUR JOB NO. 7858-99

SHEET 2 OF 2
DATE 8/23/99
HOLE NO. B-2
LINE & STA.
OFFSET

GROUND WATER OBSERVATIONS
AT 43'11" AT 1/2 HOURS
AT ____ AT ____ HOURS

	CASING	SAMPLER	CORE BAR
Type	HSA	SS	
Size I. D.	3 1/4"	1 1/2"	
Hammer Wt.		140#	BIT
Hammer Fall		30"	

SURFACE ELEV.
DATE STARTED 8/23/99
DATE COMPL. 8/23/99
BORING FORMAN M.D. & O.C.
INSPECTOR C. FLOESS
SOILS ENGR.

LOCATION OF BORING 15' WEST OF WEST END OF TRESSLE - OFF SOUTH EDGE OF TIES

Depth	SAMPLE DEPTHS FROM-TO	TYPE OF SAMPLE	Blows per 6" on sampler		MOISTURE DENSITY OR CONSIST.	STRATA CHANGE ELEV.	FIELD SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, cond., hardness, Drilling time, seams and ect.	SAMPLE NO.	PEN.	REC.
					WET		SAME MATERIAL			
45'						48'	SAME MATERIAL			
	49' - 51'	SS	5	5				7	24"	21"
50'			9	18						
					MED. DENSE		BROWN FINE SAND - TRACE OF FINE GRAVEL			
55'						57'				
	59' - 61'	SS	9	10				8	24"	16"
60'			25	28						
					DENSE TO VERY DENSE		GREY GRAVELLY SILTS AND SANDS WITH COBBLES			
	64' - 65'6"	SS	51	53		65'6"		9	18"	18"
65'			97							
							NO BEDROCK TO DEPTH			
70'							BACKFILLED HOLE WITH MIXTURE OF BENTONITE CHIPS AND SAND			
							MATERIALS USED: 200# OF BENTONITE CHIPS			

GROUND SURFACE TO 65'6" USED HSA CASING THEN DROVE SS 18"

Sample Type
D-Dry C-Cored W-Washed
UP-Unfolshed Piston
TP-Test Pit A-Auger V-Vane Tes
UT-Undisturbed Thinwall

Proportions Used
trace 0 to 10%
little 10 to 20%
some 20 to 35%
and 35 to 50%

140 lb. wt. x 30"-fall on 2" O.D. Sampler
Cohesionless Density
0-10 Loose
10-30 Med. Dense
30-50 Dense
50+ Very Dense

Cohesive Consistancy
0-4 Soft 30 + Hard
4-8 M/Stiff
8-15 Stiff
15-30 V-Stiff

summary
EARTH BORING 65'6"
ROCK CORING ____
SAMPLES 9
HOLE NO. B-2

BORING 3

M & W Soils Engineering Inc.
Main St. Charlestown, NH 03603

TO CLOUGH-HARBOUR & ASSOCIATES ADDRESS ALBANY, NY
PROJECT NAME ROCKINGHAM ROAD/ROAD BRIDGE LOCATION ROCKINGHAM, VT
REPORT SENT TO CARSTEN FLOESS PROJ. NO.
SAMPLES NONE TAKEN OUR JOB NO. 7858-99

SHEET 1 OF 1
DATE 8/23/99
HOLE NO. B-3
LINE & STA.
OFFSET

GROUND WATER OBSERVATIONS
AT DRY AT IMMEDIATELY HOURS
AT ____ AT ____ HOURS

	CASING	SAMPLER	CORE BAR
Type	FA		
Size I. D.	4"		
Hammer Wt.			BIT
Hammer Fall			

SURFACE ELEV.
DATE STARTED 8/23/99
DATE COMPL. 8/23/99
BORING FORMAN M.D. & O.C.
INSPECTOR C. FLOESS
SOILS ENGR.

LOCATION OF BORING 8' OFF WEST END OF TRESSLE

Depth	SAMPLE DEPTHS FROM-TO	TYPE OF SAMPLE	Blows per 6" on sampler		MOISTURE DENSITY OR CONSIST.	STRATA CHANGE ELEV.	FIELD SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, cond., hardness, Drilling time, seams and ect.	SAMPLE NO.	PEN.	REC.
					LOOSE	2'	BALLAST			
					MED. DENSE	4'	BLACK CINDERS			
5'										
					MED. DENSE		BROWN FINE TO MEDIUM SAND (FILL)			
10'										
15'						15'3"	SAME MATERIAL			
						15'4"	ROCK			
							REFUSAL TO AUGER - POSSIBLE ABUTMENT FOOTING OR STRUCTURE			
20'										

APPROX. BOTTOM OF EXCAVATION

GROUND SURFACE TO 15'4" USED 4" FA CASING THEN ____

Sample Type
D-Dry C-Cored W-Washed
UP-Unfolshed Piston
TP-Test Pit A-Auger V-Vane Tes
UT-Undisturbed Thinwall

Proportions Used
trace 0 to 10%
little 10 to 20%
some 20 to 35%
and 35 to 50%

140 lb. wt. x 30"-fall on 2" O.D. Sampler
Cohesionless Density
0-10 Loose
10-30 Med. Dense
30-50 Dense
50+ Very Dense

Cohesive Consistancy
0-4 Soft 30 + Hard
4-8 M/Stiff
8-15 Stiff
15-30 V-Stiff

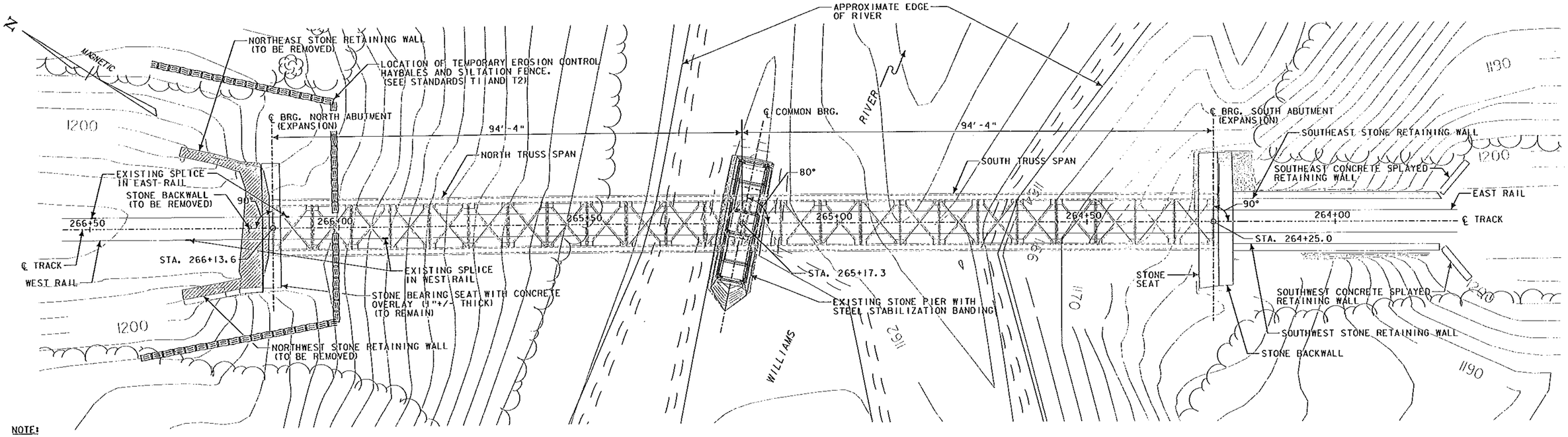
summary
EARTH BORING 15'4"
ROCK CORING ____
SAMPLES 0
HOLE NO. B-3

EDWARDS & KELCEY, INC.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

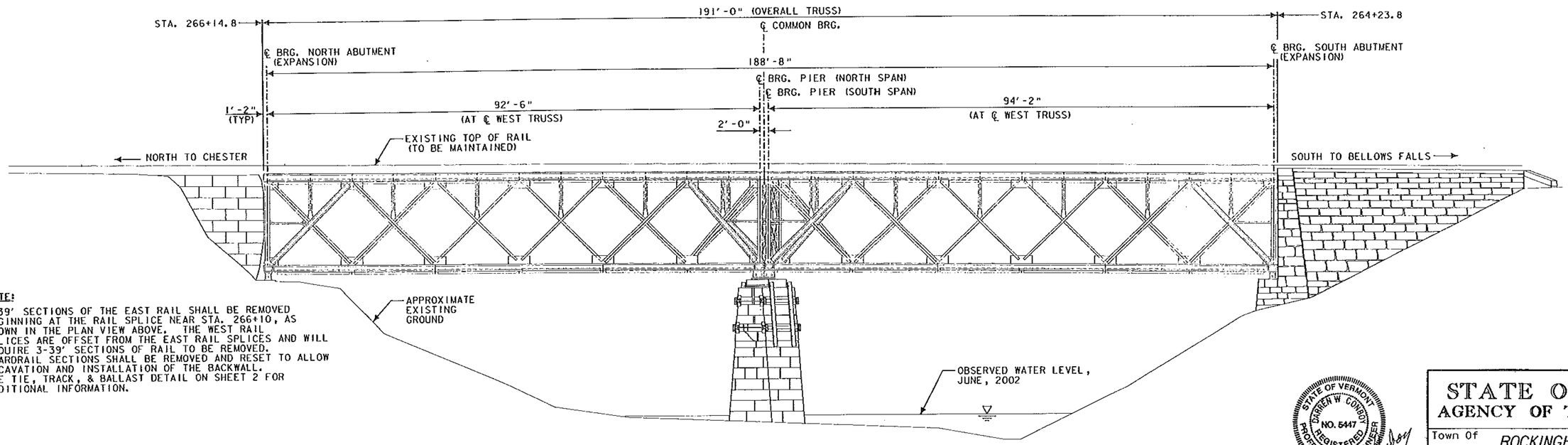
Town Of ROCKINGHAM	Bridge No. 107
	Log Sta.
Highway No. Green Mountain Railroad	Surv. Sta.
BRIDGE OVER WILLIAMS RIVER	
BORING LOGS	
Designed By J.Wilson	Drawn By S.Gunn
Checked By S.Halloran	Date 6/02
	Bridge Design Supervisor Date
PROJECT ROCKINGHAM	PROJECT NO. RAIL-04-9044 C/7 PHASE II
I.G.C. Info.	
Bridge Sheet No.	Sheet 5 of 11

PLOTTED 07/16/02



NOTE:
SEE SHEETS 7, 8, & 9 FOR PROPOSED NORTH ABUTMENT BACKWALL AND RETAINING WALL REPLACEMENT.

EXISTING PLAN VIEW



NOTE:
2-39' SECTIONS OF THE EAST RAIL SHALL BE REMOVED BEGINNING AT THE RAIL SPLICE NEAR STA. 266+10, AS SHOWN IN THE PLAN VIEW ABOVE. THE WEST RAIL SPLICES ARE OFFSET FROM THE EAST RAIL SPLICES AND WILL REQUIRE 3-39' SECTIONS OF RAIL TO BE REMOVED. GUARDRAIL SECTIONS SHALL BE REMOVED AND RESET TO ALLOW EXCAVATION AND INSTALLATION OF THE BACKWALL. SEE TIE, TRACK, & BALLAST DETAIL ON SHEET 2 FOR ADDITIONAL INFORMATION.

EXISTING ELEVATION VIEW

SCALE 1" = 10'-0
10 0 10

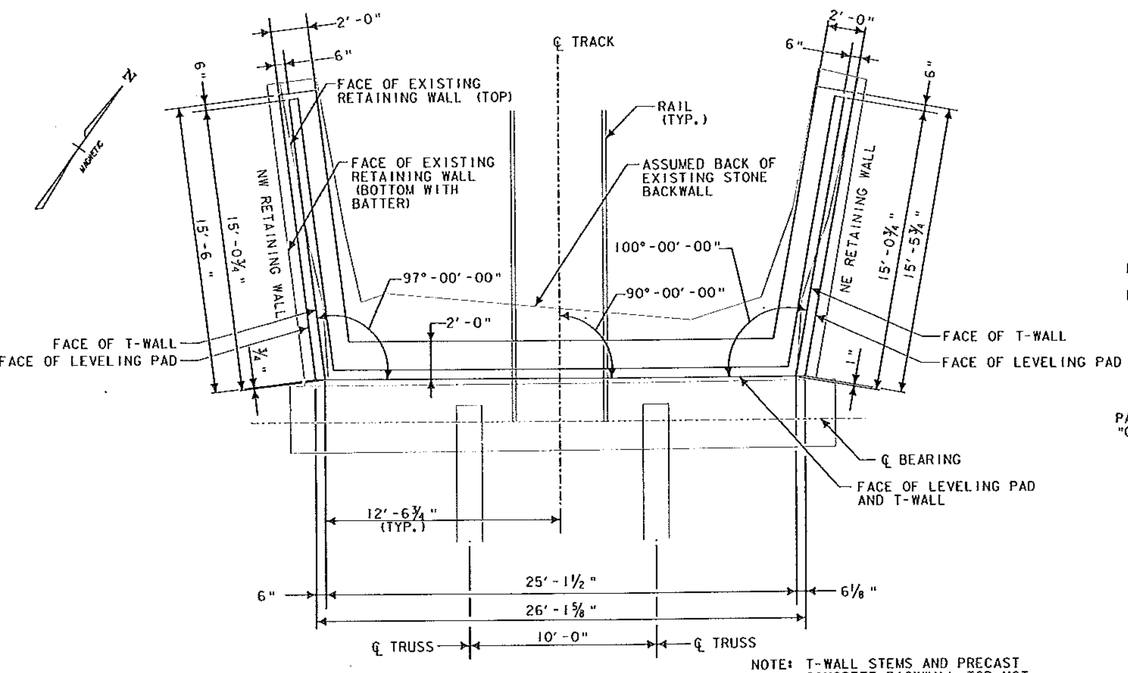
NOTE:
EACH TRUSS SPAN IS A SEPARATE SINGLE SPAN SHARING A COMMON BEARING AT THE PIER. THE COMMON BEARING IS A FIXED BEARING TYPE, BUT IS NOT FIXED TO THE TOP OF THE PIER.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ROCKINGHAM	Bridge No. 107
	Log Sta.
Highway No. Green Mountain Railroad	Surv. Sta.
BRIDGE OVER WILLIAMS RIVER	
PLAN & ELEVATION	
Designed By J.Wilson	Drawn By S.Gunn
Checked By S.Halloran	Date 6/02
Bridge Design Supervisor	Date
PROJECT ROCKINGHAM	PROJECT NO. RAIL-04-9044 C/7 PHASE II
I.G.C. Info.	
Bridge Sheet No.	Sheet 6 of 11

EDWARDS & KELCEY, INC.

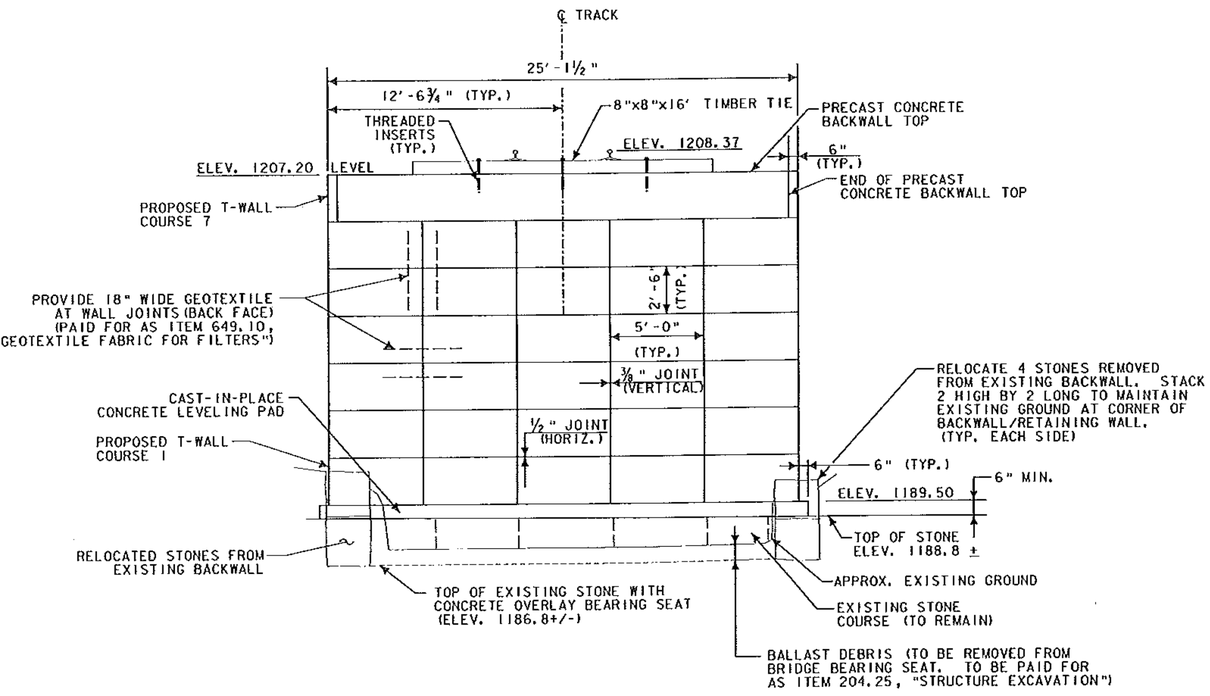
PLOTTED 07/16/02



NOTE: T-WALL STEMS AND PRECAST CONCRETE BACKWALL TOP NOT SHOWN FOR CLARITY.

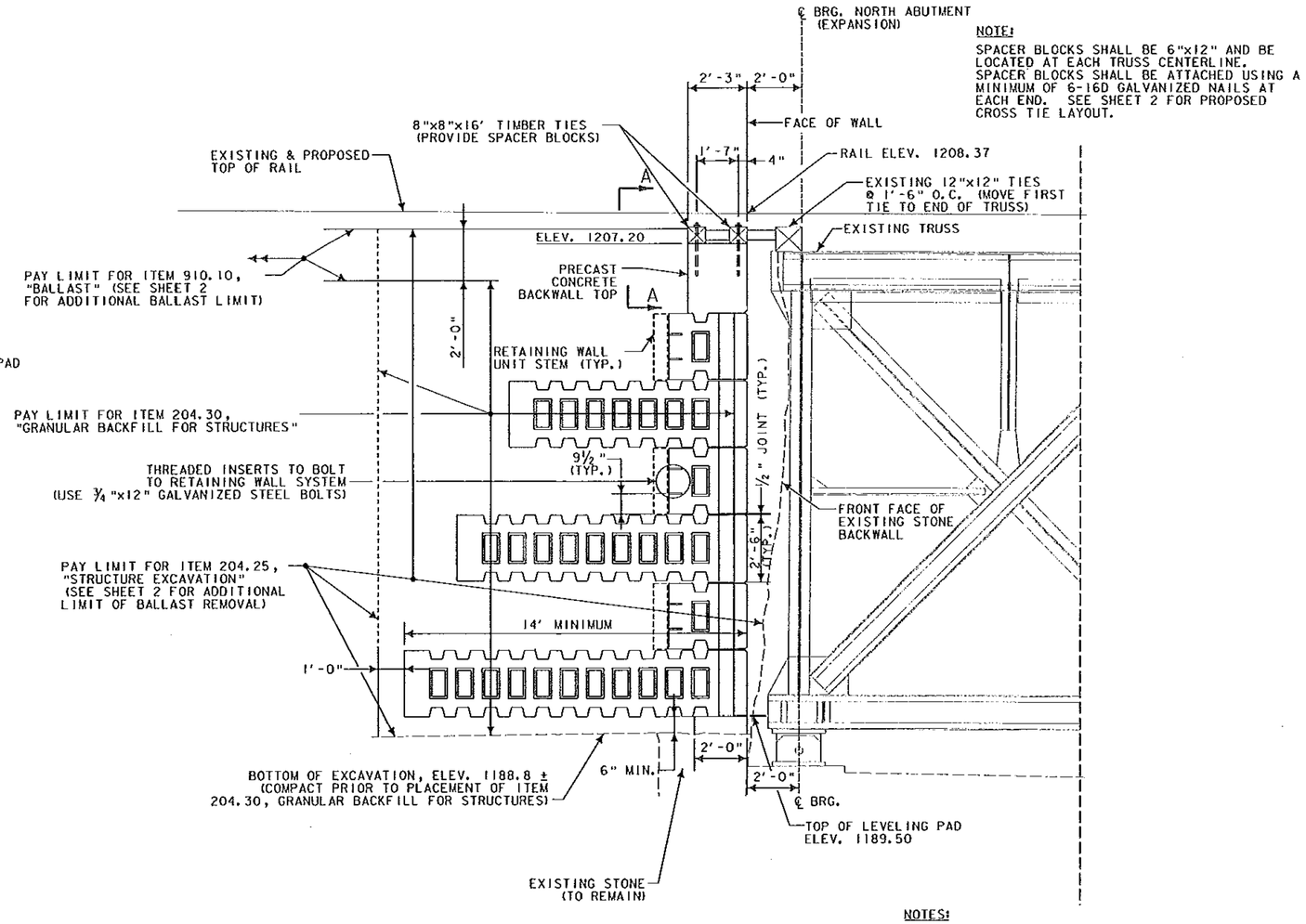
NORTH ABUTMENT PLAN

SCALE: ¼" = 1'-0"



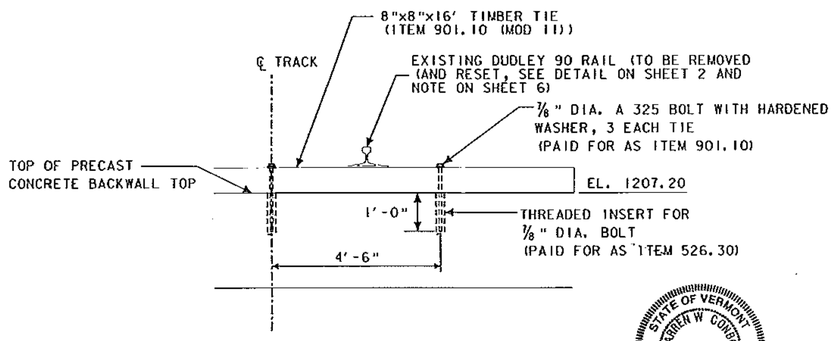
PROPOSED BACKWALL ELEVATION

SCALE: ¼" = 1'-0"



T-WALL BACKWALL SECTION

SCALE: ⅜=1'-0"



SECTION A-A

SCALE: ½" = 1'-0"

NOTES:

1. SEE SHEET 8 FOR ADDITIONAL NOTES AND SUGGESTED CONSTRUCTION SEQUENCE.
2. SEE SHEET 9 FOR BACKWALL LAYOUT PLAN.
3. A 325 BOLTS AND WASHERS FOR INSTALLATION OF 8"x8"x16' TIMBER TIES SHALL BE GALVANIZED.
4. THE HEIGHT OF THE 8"x8"x16' TIMBER TIES MAY HAVE TO BE CUT TO FIT. CREOSOTE TREATMENT SHALL BE APPLIED TO CUT SURFACES IN THE FIELD.

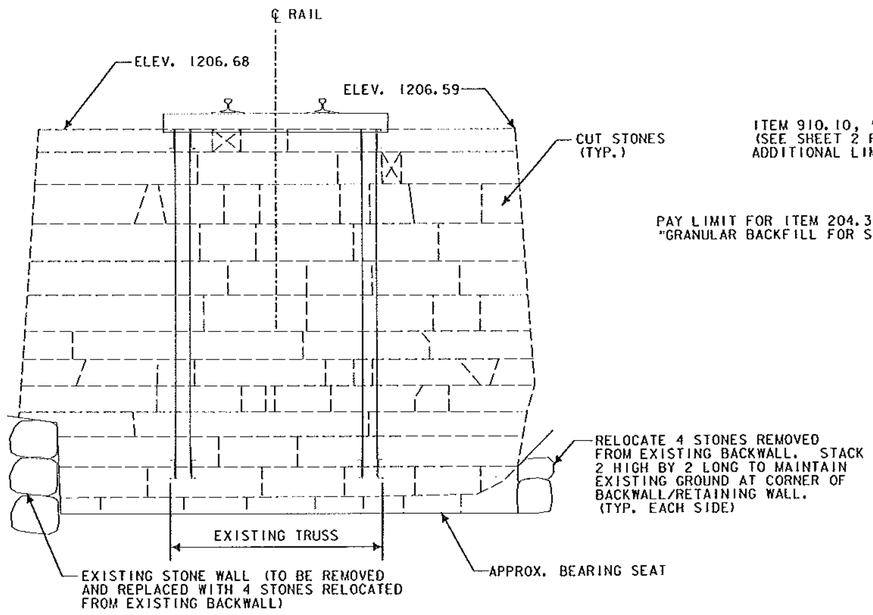
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ROCKINGHAM	Bridge No. 107
Highway No. Green Mountain Railroad	Log Sta. / Surv. Sta.
BRIDGE OVER WILLIAMS RIVER	
NORTH ABUTMENT BACKWALL	
Designed By J.Wilson	Drawn By S.Gunn
Checked By S.Halloran	Date 6/02
	Bridge Design Supervisor / Date
PROJECT ROCKINGHAM	PROJECT NO. RAIL-04-9044 C/7 PHASE II
I.G.C. Info.	
Bridge Sheet No.	Sheet 7 of 11

STATE OF VERMONT DARREN W. CONLEY NO. 6447 REGISTERED PROFESSIONAL ENGINEER

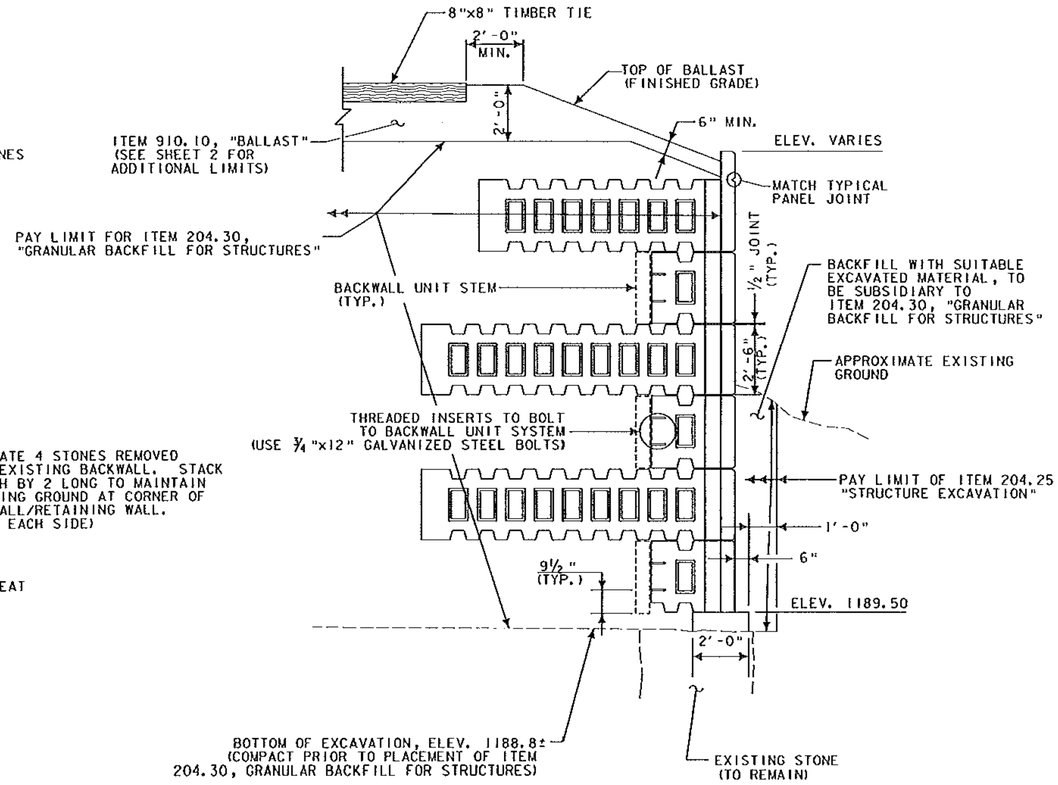
EDWARDS & KELCEY, INC.

PLOTTED 07/16/02



EXISTING BACKWALL ELEVATION

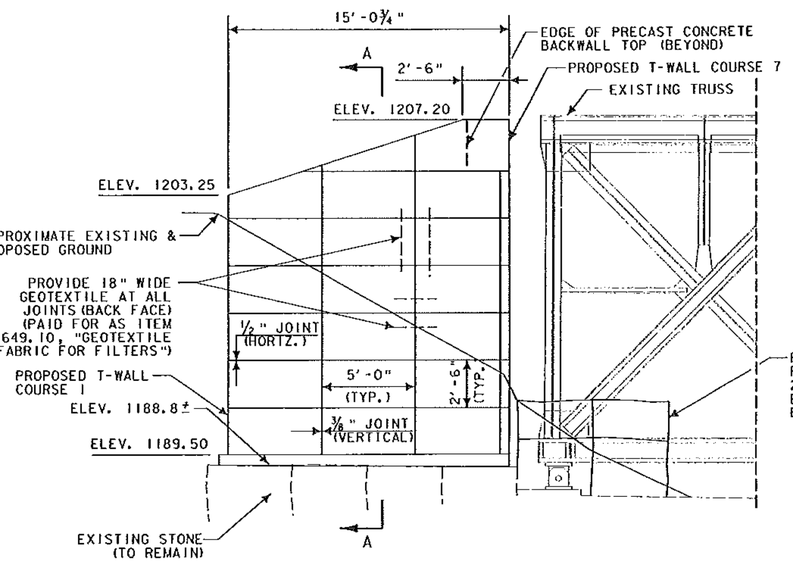
SCALE: 1/4" = 1'-0"



PRECAST CONCRETE NOTES:

1. PRECAST ELEMENTS SHALL BE DESIGNED BY THE MANUFACTURER AND WILL BE SUBJECT TO THE APPROVAL OF THE ENGINEER. DRAWINGS AND CALCULATIONS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF VERMONT. THE PRECAST ELEMENTS SHALL BE FABRICATED AND DESIGNED IN ACCORDANCE WITH THE LATEST REVISIONS OF BOTH AASHTO AND AREMA SPECIFICATIONS. DESIGN LIVE LOAD SHALL BE COOPER E-80.
2. THE CONTRACTOR SHALL PREPARE THE DESIGN, SHOP DETAILS, ERECTION AND ANY OTHER WORKING DRAWINGS IN ACCORDANCE WITH REQUIREMENTS OF THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS. SUBSTITUTIONS OF SECTIONS, MATERIALS OR DETAILS DIFFERING FROM THOSE SHOWN ON THE CONTRACT PLANS SHALL BE MADE ONLY WHEN APPROVED BY THE ENGINEER. ALL CHANGES AND REVISIONS TO THE WORKING DRAWINGS SHALL BE SUBJECT TO FURTHER APPROVAL BY THE ENGINEER.
3. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED ½", UNLESS OTHERWISE NOTED.
4. PRECAST CONCRETE T-WALL UNITS SHALL BE PAID FOR AS ITEM 526.30, "MECHANICALLY STABILIZED EARTH (MSE) WALL (MOD I) PRECAST CONCRETE MODULAR WALL (T-WALL)".
5. PRECAST CONCRETE BACKWALL TOP SHALL BE PAID FOR AS ITEM 526.30, "MECHANICALLY STABILIZED EARTH (MSE) WALL (MOD II) PRECAST CONCRETE BACKWALL TOP". SHOP DRAWINGS SHALL INCLUDE THE PRECAST CONCRETE BACKWALL TOP, COMPLETE WITH ALL REINFORCEMENT INCLUDING LIFTING MECHANISMS.
6. PRECAST CONCRETE MODULAR WALL (T-WALL) AND BACKWALL TOP SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
7. WATER/CEMENT RATIO IS TO BE A MAXIMUM OF 0.40.
8. CONCRETE SHALL HAVE A MAXIMUM SLUMP OF 2 INCHES BEFORE THE SUPERPLASTICIZER IS ADDED, AND 6 INCHES AFTER THE SUPERPLASTICIZER IS ADDED.
9. AIR CONTENT IS TO BE 6% +/- 1%.
10. COARSE AGGREGATE SHALL HAVE A MAXIMUM NOMINAL SIZE OF 1 INCH.
11. BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M 31 (ASTM A 615-S1). ALL BARS SHALL BE GRADE 60, UNLESS OTHERWISE DESIGNATED.
12. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE, SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".
13. THE CONTRACTOR SHALL SUBMIT THE CONCRETE MIX DESIGN TO THE ENGINEER FOR APPROVAL.

NOTE: NORTHWEST RETAINING WALL SHOWN, NORTHEAST RETAINING WALL SIMILAR.



RETAINING WALL ELEVATION

SCALE: 1/4" = 1'-0"

SECTION A-A

SCALE: ⅜" = 1'-0"

SUGGESTED CONSTRUCTION SEQUENCE

(FOR INFORMATIONAL PURPOSES ONLY)

THE TRACK WILL BE IN SERVICE

1. PARTIALLY MOBILIZE EQUIPMENT AND SUPPLIES, AS PRACTICABLE.
2. INSTALL TEMPORARY EROSION CONTROL MEASURES.

THE TRACK WILL BE TAKEN OUT OF SERVICE (THURSDAY AT 2:00 P.M.)

3. COMPLETE MOBILIZATION.
4. REMOVE NECESSARY RAIL AND TIES, STOCKPILE RAIL FOR LATER INSTALLATION.
5. EXCAVATE AND REMOVE STONE BACKWALL AND RETAINING WALLS.
6. CONSTRUCT CONCRETE LEVELING PAD.
7. PREPARE SUBGRADE FOR FIRST COURSE OF T-WALL UNITS.
8. CONSTRUCT FIRST COURSE OF T-WALL UNITS.
9. COMPLETE PLACEMENT OF T-WALL COURSES WHILE COMPACTING BACKFILL FOR EACH COURSE OF T-WALL PRIOR TO PLACING THE NEXT COURSE.
10. PLACE PRECAST CONCRETE BACKWALL TOP.
11. INSTALL REQUIRED BALLAST, TIMBER TIES AND RAIL.
12. DE-MOBILIZE THE SITE ADEQUATELY TO RESUME RAIL TRAFFIC.

THE TRACK WILL BE PUT IN SERVICE (MONDAY AT 7:00 A.M.)

13. APPLY WATER REPELLENT TO CONCRETE SURFACES.
14. PLACE STONES IN CORNERS OF BACKWALL AND BACKFILL FACE OF RETAINING WALLS.
15. REMOVE TEMPORARY EROSION CONTROL MEASURES AND CLEAN SITE OF ALL CONSTRUCTION RELATED DEBRIS.

NOTE:

SEE SHEET 9 FOR BACKWALL LAYOUT PLAN.

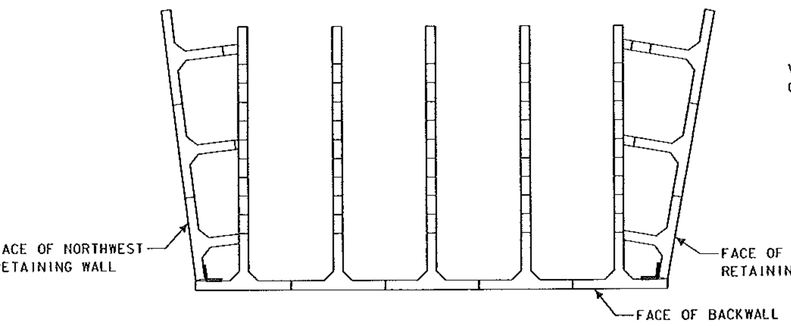
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ROCKINGHAM	Bridge No. 107
	Log Sta.
Highway No. Green Mountain Railroad	Surv. Sta.
BRIDGE OVER WILLIAMS RIVER	
NORTH ABUTMENT RETAINING WALLS	
Designed By J.Wilson	Drawn By S.Gunn
Checked By S.Halloran Date 6/02	Bridge Design Supervisor Date
PROJECT ROCKINGHAM	PROJECT NO. RAIL-04-9044 C/7 PHASE II
I.G.C. Info.	
Bridge Sheet No.	Sheet 8 of 11

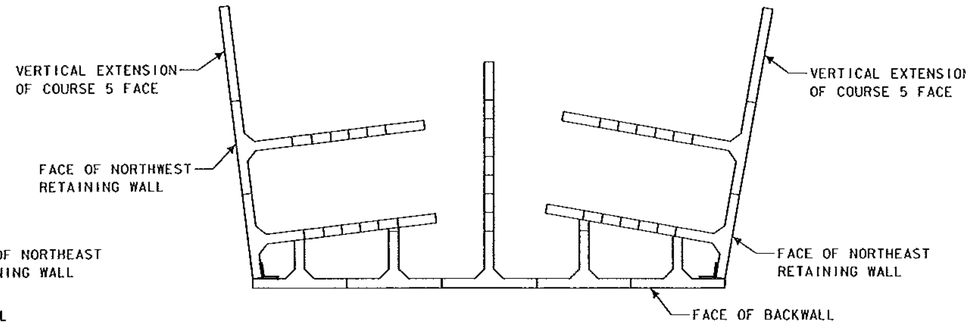
STATE OF VERMONT · DARREN W. CONDOT · NO. 5447 · REGISTERED PROFESSIONAL ENGINEER

EDWARDS & KELCEY, INC.

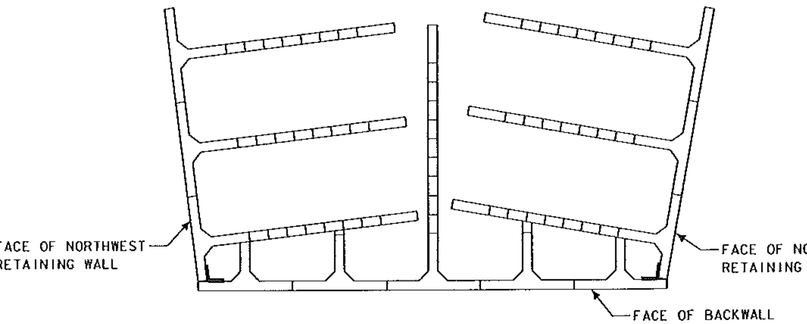
PLOTTED 07/16/02



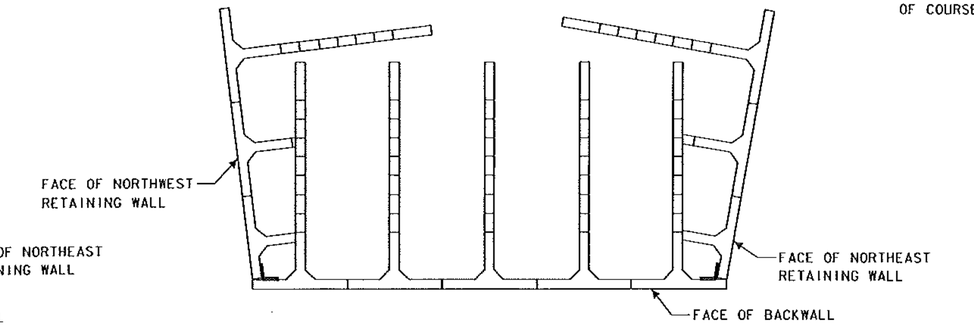
PROPOSED T-WALL
COURSE 3
SCALE: 1/4" = 1'-0"



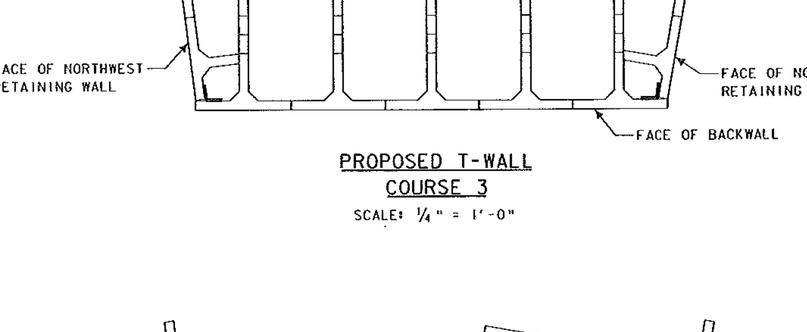
PROPOSED T-WALL
COURSE 6
SCALE: 1/4" = 1'-0"



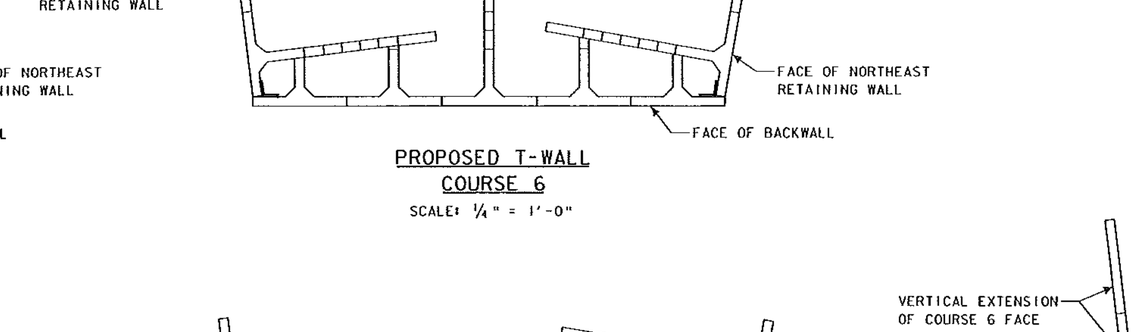
PROPOSED T-WALL
COURSE 2
SCALE: 1/4" = 1'-0"



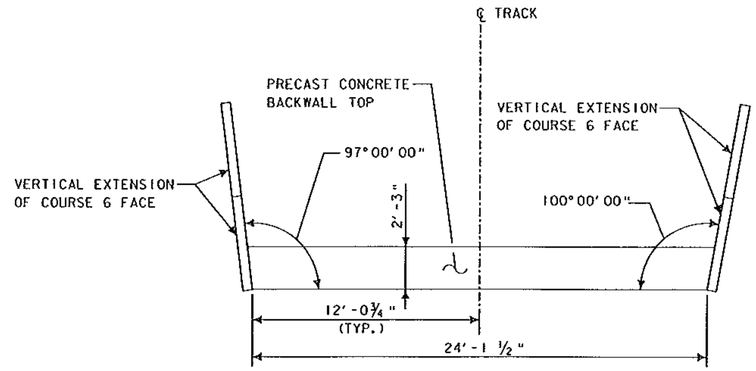
PROPOSED T-WALL
COURSE 5
SCALE: 1/4" = 1'-0"



PROPOSED T-WALL
COURSE 1
SCALE: 1/4" = 1'-0"



PROPOSED T-WALL
COURSE 4
SCALE: 1/4" = 1'-0"



PROPOSED T-WALL
COURSE 7
SCALE: 1/4" = 1'-0"

FOR CONCEPTUAL PURPOSES ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ROCKINGHAM	Bridge No. 107
Highway No. Green Mountain Railroad	Log Sta. / Surv. Sta.
BRIDGE OVER WILLIAMS RIVER	
BACKWALL LAYOUT PLAN	
Designed By J.Wilson	Drawn By S.Gunn
Checked By S.Halloran	Date 6/02
Bridge Design Supervisor	Date
PROJECT ROCKINGHAM	PROJECT NO. RAIL-04-9044 C/T PHASE II
I.G.C. Info.	
Bridge Sheet No.	Sheet 9 of 11

STATE OF VERMONT
DARREN W. CONDIT
NO. 5447
REGISTERED
PROFESSIONAL ENGINEER

EDWARDS & KELCEY, INC.

PLOTTED 01/16/02