STATE OF VERMONT
AGENCY OF TRANSPORTATION

INDEX OF SHEETS

SEE SHEETS SC2 & SS2 FOR INDEX OF STRUCTURAL DETAIL SHEETS

CIVIL DRAWINGS - INDEX

C-1	COVER SHEET
C-2	DELETED
C-3	HORIZONTAL CONTROL/BASELINE LAYOUT
C-4	HORIZONTAL GEOMETRY RECREATION ACCESS RD.
C-5	TYPICAL SECTION
C-6	TYPICAL SECTION
C-7	QUANTITY SHEET
C-8	DRAINAGE AND ITEM QUANTITY SHEET
C-9	EARTHWORK SHEET
C-10	EARTHWORK SHEET
C-11	PLAN AND PROFILE - STA. 28+00 TO 41+00
C-12	PLAN AND PROFILE - STA. 41+00 TO 54+00
C-13	PLAN AND PROFILE - STA. 54+00 TO 66+00
C-14	PLAN AND PROFILE - STA. 66+00 TO 79+00
C-15	PLAN AND PROFILE - STA. 79+00 TO 92+00
C-16	PLAN AND PROFILE - STA. 92+00 TO 101+00
*C-17	GRADING AND DRAINAGE PLAN AT RECREATION ACCESS RD.
C-18	PORTLAND CEMENT CONCRETE PAVEMENT DETAILS
C-19	PAVEMENT DETAILS AT WEST APPROACH
C-20	CONCRETE BARRIER WALL DETAILS
C-21	BOX BEAM GUARD RAIL CONNECTION TO BRIDGE
C-22 TO C-38	ROUTE 2 CROSS SECTIONS
C-39 TO C-44	REMOVE EXIST. EAST CAUSEWAY CROSS SECTIONS
C-45	CONSTRUCTION SEQUENCE WEST APPROACH
C-46	CONSTRUCTION SEQUENCE EAST APPROACH
C-47	TEMPORARY TRAFFIC SIGNAL NOTES
C-48	PAVEMENT MARKING & SIGNS
C-49	PAVEMENT MARKING & SIGNS
C-50	PAVEMENT MARKING & SIGNS

*SEE SHEET C-17 FOR RECOMMENDED SEQUENCE OF EMBANKMENT PLACEMENT

VERMONT STD SHEETS

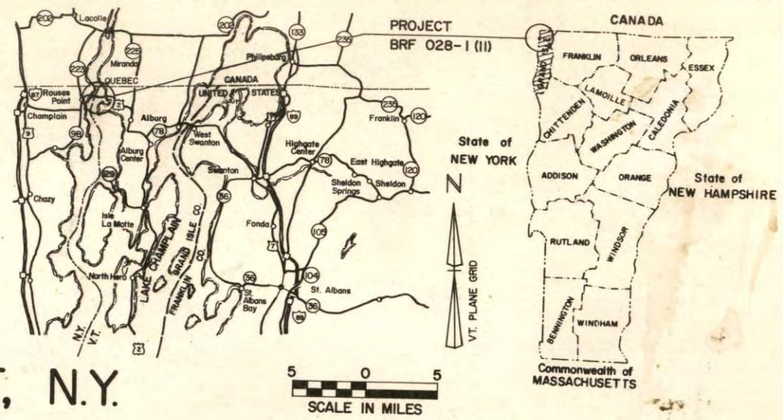
C-1	EDGING AND CURB	16 DEC 80R
C-2B	PORTLAND CEMENT CONCRETE SIDEWALK	14 DEC 71
D-3	TREATED GUTTERS	27 APR 73R
D-6	REINFORCED CONCRETE DROP INLET WITH GRATE (IN DITCHES)	4 APR 73R
D-8	REINFORCED CONCRETE DROP INLET WITH GRATE (BOTTOM SECTION)	6 DEC 71
D-9	REINFORCED CONCRETE DROP INLET TOP	6 DEC 71
D-11	CAST IRON GRATE TYPE A	24 AUG 81R
D-15	CAST IRON GRATE WITH FRAME, TYPE E	6 OCT 78R
D-16	REINFORCED CONCRETE PIPE END SECTION	14 NOV 72R
D-22	SANITARY SEWER SYSTEMS	1 OCT 76
E-2	ROAD CONSTRUCTION APPROACH SIGNS	4 MAR 81R
E-6	ON-PROJECT CONSTRUCTION SIGNS	1 APR 80R
E-7	DELINEATION AND BARRICADES FOR CONSTRUCTION AREAS	2 FEB 83R
E-7A	TYPE III BARRICADE - BREAKAWAY	13 JUN 84R
E-12	U.S. ROUTE MARKERS AND UTILITY MARKERS	3 DEC 82R
E-13	STATE ROUTE MARKERS AND AUXILIARY MARKERS	2 DEC 82R
E-15B	REGULATORY SIGNS	28 SEP 84R
E-15C	REGULATORY SIGNS	18 JUL 84R
E-19A	WARNING SIGNS	3 OCT 84
E-19B	WARNING SIGNS	3 OCT 84
E-23	GUIDE SIGNS	10 FEB 83R
E-24A	YIELDING TYPE FLANGED CHANNEL STEEL SIGN SUPPORTS	8 JAN 81R
E-29	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	25 AUG 81R
F-2	CHAIN LINK FENCE (TYPE 1)	29 DEC 71
G-1B	GUARD RAIL, BOX BEAM WITH STEEL POSTS	1 FEB 79R
G-4	GUARD RAIL, PLANK WITH WOOD POSTS AND GUIDE AND MARKER POSTS	17 JUN 84R
J-1	BOUNDARY MARKERS	25 MAY 82R
L-1	SETTLEMENT PLATFORM	27 JUN 80
L-3	PIEZOMETER	9 FEB 77R
		18 JAN 72

PROPOSED IMPROVEMENT

TOWNS OF ALBURG, VT. & ROUSES POINT, N.Y.

COUNTIES OF GRAND ISLE, VT. & CLINTON, N.Y.

U.S. ROUTE NO. 2 (F.A.P.)



BEGINNING AT A POINT .384 MILES WESTERLY FROM THE NY - VT STATE LINE AND EXTENDING EASTERLY 1.297 MILES

LENGTH OF ROADWAY	3244	FEET = 0.614	MILES
LENGTH OF BRIDGE	4056	FEET = 0.768	MILES
LENGTH OF PROJECT	6850	FEET = 1.297	MILES

PROJECT DESCRIPTION

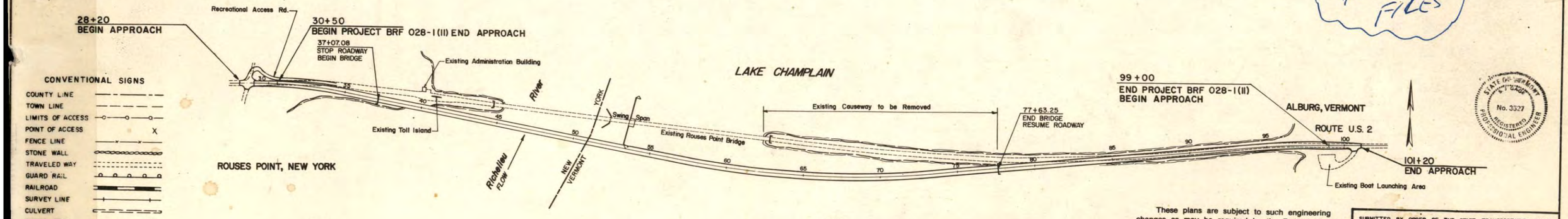
WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES REMOVAL OF EXISTING SWING SPAN BRIDGE AND A PORTION OF THE EAST APPROACH CAUSEWAY AND CONSTRUCTION OF A NEW FIXED SPAN HIGH LEVEL BRIDGE AND APPROACHES. APPROACH WORK CONSISTS OF CONSTRUCTION OF NEW CAUSEWAYS AND WIDENING OF PORTIONS OF EXISTING CAUSEWAYS, GRADING, DRAINAGE, SUBBASE, PAVEMENT AND GUARDRAIL

TRAFFIC DATA		
1985	ADT	2350
1985	DHV	330
2005	ADT	3190
2005	DHV	445
	T	11%
	D	57 % (E.B.)
	V	50 MPH

SCALE
2 1 0 1 2 INCHES

Note: The original plans are drawn based on the above unit scale, and all scale designations correspond thereto. As plans are reduced in size, scale designations must be adjusted accordingly.

BRIDGE INSPECTION FILES



CONVENTIONAL SIGNS

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
TOP OF CUT
TOE OF SLOPE

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

FEET
0 300 600 900
SCALE 1" = 300'

STATE OF VERMONT CARL J. MELLEN No. 828 REGISTERED PROFESSIONAL ENGINEER

Carl J. Mellen 12.10.84
ENGINEER'S SIGNATURE DATE

These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Director of Engineering and Construction.

Construction is to be carried on in accordance with these plans and the Standard Specifications for Highway and Bridge Construction dated March, 1976, as approved by the Federal Highway Administration on October 27, 1976 for use on this project, including all subsequent revisions and such revised specifications and special provisions as are incorporated in these plans.

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

SUBMITTED BY ORDER OF THE STATE TRANSPORTATION BOARD

APPROVED S.J. Gage P.E. DATE 11-28-84
DIRECTOR OF ENGINEERING AND CONSTRUCTION

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED Keith L. Sather DATE 1-7-85
DIVISION ADMINISTRATOR

ALBURG - ROUSES POINT
PROJECT BRF Nº 028-1 (11)
SHEET C-1 OF 50 SHEETS

D-10 S.R.S. 12/17/70

TEMPORARY TRAFFIC SIGNAL NOTES

1. THE CONTRACTOR SHALL SUBMIT THE POLE LAYOUT AND DETOUR DESIGN FOR REVIEW PRIOR TO CONSTRUCTION. THE SUBMITTAL SHALL INCLUDE SIGNAL TIMING SEQUENCES AND PHASING. ALLOW ONE WEEK FOR REVIEW.

2. THE CONTRACTOR SHALL INSURE THAT THE SIGNAL INSTALLATION CONFORMS TO THE MANUAL OF TRAFFIC CONTROL DEVICES WITH THE SUPPORTING STRUCTURES AS PER AASHTO'S STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGN, LUMINAIRES AND TRAFFIC SIGNALS.

3. SIGNAL TIMING/TIMING ADJUSTMENTS REQUESTED BY THE RESIDENT ENGINEER SHALL BE ACCOMPLISHED WITHIN A 48 HOUR PERIOD AND PAYMENT SHALL BE SUBSIDIARY TO THE TRAFFIC SIGNAL ITEM. THE ALL-RED CLEARANCE INTERVAL IS BASED ON AN ASSUMED SPEED OF 25-*30* MPH. THE RESIDENT ENGINEER SHALL MAKE SEVERAL TRIAL RUNS TO DETERMINE THE PROPER ALL-RED CLEARANCE INTERVAL.

4. SIGNAL FACES SHALL CONSIST OF 12" LENSES. (RED, YELLOW AND GREEN)

5. THE BOTTOM OF THE HOUSING OF A SIGNAL FACE SUSPENDED OVER A ROADWAY SHALL BE NOT LESS THAN 16 1/2 FEET NOR MORE THAN 19 FEET ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY. THE BOTTOM OF A SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL NOT BE LESS THAN 8 FEET NOR MORE THAN 15 FEET ABOVE THE SIDEWALK OR, IF NONE, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY. CAUTION SHOULD BE USED TO INSURE COMPLIANCE WITH THE HEIGHT REQUIREMENTS IN THE EVENT THE NEW APPROACH GRADES DIFFER SIGNIFICANTLY FROM THE OLD ROAD GRADE.

6. SIGNAL FACES FOR ANY ONE APPROACH SHALL BE NOT LESS THAN 8 FEET APART MEASURED HORIZONTALLY BETWEEN CENTER OF FACES.

7. A "SIGNAL AHEAD" SIGN SHALL BE PLACED AT LEAST 750' FROM THE SIGNAL OR AT A POSITION TO BE DETERMINED BY THE ENGINEER. ALL POST, SIGNS, AND PAVEMENT MARKINGS SHALL BE CONSIDERED AS SUBSIDIARY TO THE TRAFFIC SIGNAL ITEM.

8. SIGNAL HEADS MAY BE HUNG ON A SPAN WIRE OR ON A CANTILEVER MAST ARM. AT LEAST ONE SIGNAL HEAD SHALL BE UNMISTAKABLY IN LINE WITH THE CENTER OF APPROACHING TRAFFIC AT ALL TIMES. THE SECOND SIGNAL HEAD MAY BE POST MOUNTED LOCATED AT A DISTANCE NO GREATER THAN 14 1/2' FROM THE CENTER OF THE APPROACH LANE WHEN THE STOP BAR IS 40' FROM THE SIGNAL HEAD. CONSULT THE MUTCD FOR ADDITIONAL INFORMATION CONCERNING SIGNAL PLACEMENT.

9. A 400 WATT LUMINAIRE AND MAST ARM SHALL BE PROVIDED ON A POLE ON EACH APPROACH AT A MOUNTING HEIGHT OF 30' ABOVE ROADWAY CENTERLINE. THE INTENT IS TO LIGHT UP THE AREA AROUND THE SIGNAL HEADS AND STOP BAR FOR INCREASED VISIBILITY. THE RESIDENT ENGINEER SHALL DETERMINE THE ADEQUACY OF THE LIGHTING AND DIRECT CHANGES IF THE LIGHTING IS INSUFFICIENT.

10. POLES SUPPORTING SPAN WIRES AND/OR MAST ARMS SHALL BE ADEQUATELY BRACED OR GUYED AND SHALL NOT BE PLACED SO AS TO CREATE A HAZARD TO THE TRAVELING PUBLIC.

11. PAVEMENT MARKINGS AND SIGNING AS SUBSIDIARY TO THE ITEM 678.15, TRAFFIC CONTROL SIGNALS (STOP BARS, "STOP HERE ON RED", "SIGNAL AHEAD").

12. SIGNAL HEAD PLACEMENT SHOWN IS CRITICAL. HEADS SHALL BE ADJUSTED TO REFLECT LANE LOCATION CHANGES.

13. STOP BARS SHALL BE LOCATED A MINIMUM OF 40' AND A MAXIMUM OF 120' FROM THE NEAREST SIGNAL HEAD.

14. SEE STANDARD SHEET E-15 FOR "STOP HERE ON RED" SIGN DETAILS AND E-20 FOR "SIGNAL AHEAD" SYMBOL SIGN. THE "SIGNAL AHEAD" SIGN SHALL HAVE AN ORANGE BACKGROUND (REFLECTORIZED). SEE STANDARD E-29 FOR SIGN PLACEMENT. SEE STANDARD E-34 AND E-36 FOR ADDITIONAL INFORMATION ON SIGNALS AND DETECTORS.

15. THE SIGNAL SYSTEM SHALL CONSIST OF POLES, SIGNS AND POSTS, PAVEMENT MARKINGS AND SIGNAL EQUIPMENT TO PROVIDE FOR AN ADEQUATE DESIGN.

16. THE CONTRACTOR SHALL PROVIDE AN ACTUATED CONTROLLER. *ONE* APPROACH SHALL HAVE A TEMPORARY VEHICLE DETECTOR. THE TYPE OF DETECTION, SONIC, INDUCTANCE ETC. IS TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE RESIDENT ENGINEER. IF *A LONG* LOOP *IS* USED FOR DETECTION, *IT* SHALL OPERATE IN THE NON-LOCKING MODE (PRESENCE DETECTION). WITH SMALL DETECTION AREAS, LOCKING DETECTION SHALL BE USED. THE CONTROLLER, VEHICLE DETECTORS AND ALL OTHER SIGNAL EQUIPMENT SHALL MEET OR EXCEED ALL NEMA STANDARDS. *THE ACTUATED APPROACH SHALL BE AT THE SAME END AS THE CONTROLLER CABINET LOCATION.*

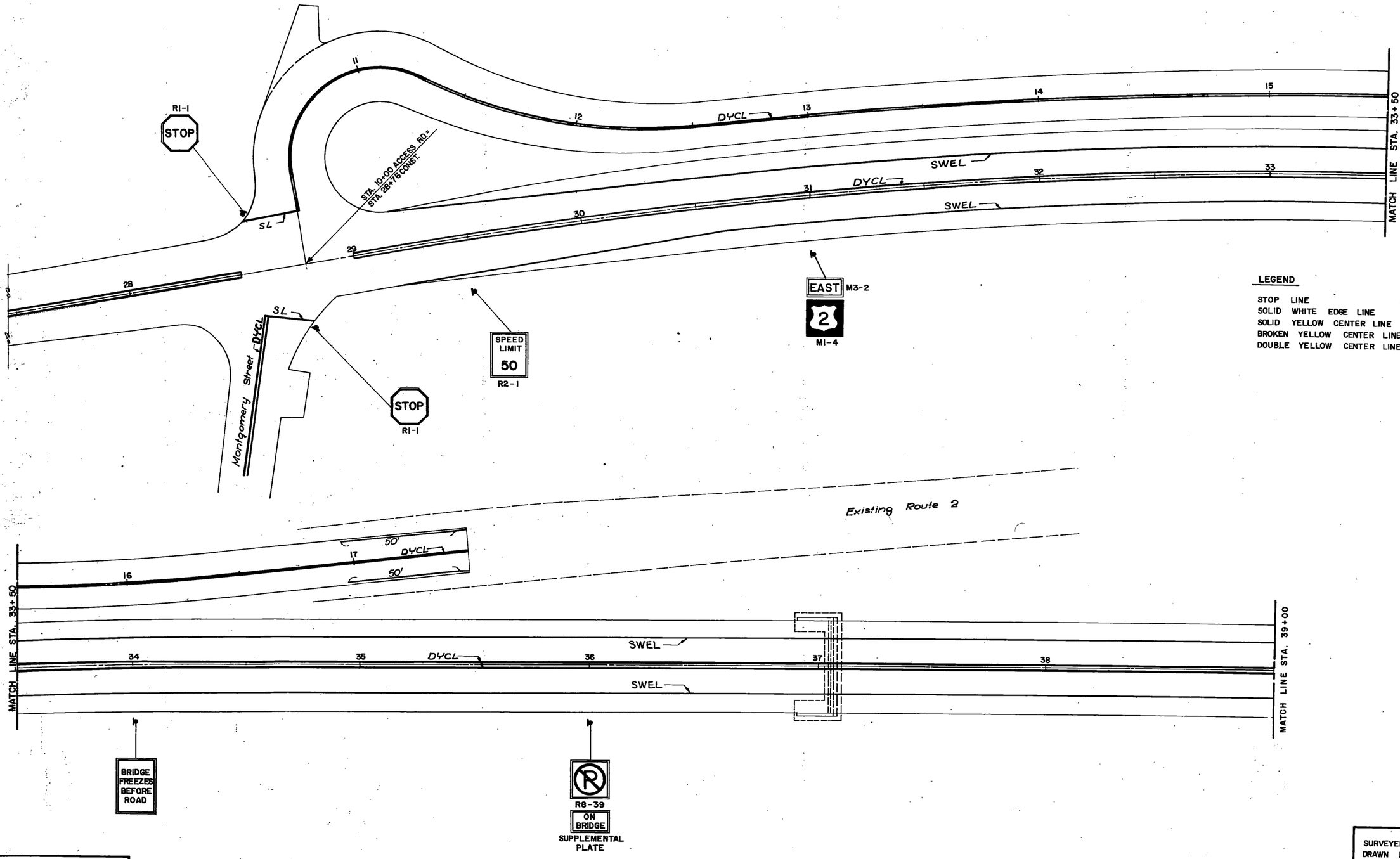
17. THE NEAR PORTION OF THE VEHICLE DETECTOR SHALL BE LOCATED ABOUT 5' BEHIND THE STOP BAR.

18. TWO-WAY TRAFFIC SHALL BE MAINTAINED ON THE DETOUR WHENEVER POSSIBLE. DURING TWO-WAY TRAFFIC, THE SIGNALS SHALL BE SET ON FLASHING.

19. APPROACH WIDTHS SHALL BE AS DETAILED IN SECTION 638.04(3) TO MINIMIZE VEHICLE DELAY. SIGNAL POLES SHALL BE PLACED SO AS TO USE AS MUCH OF THE AVAILABLE APPROACH AS POSSIBLE.

TEMPORARY TRAFFIC
SIGNAL NOTES

SURVEYED BY _____ DATE _____
DRAWN BY B.J.B. DATE 10-84
TRACED BY A.B.M. DATE 11-84
ROUTE U.S. 2
ROUSES POINT, N.Y. - ALBURG, VT.
PROJ. BRF NO. 028-1 (11)
SHEET C-47 OF 50



N

VT. STATE PLANE GRID.

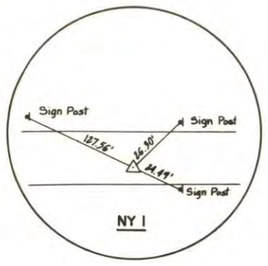
LEGEND

STOP LINE	SL
SOLID WHITE EDGE LINE	SWEL
SOLID YELLOW CENTER LINE	SYCL
BROKEN YELLOW CENTER LINE	BYCL
DOUBLE YELLOW CENTER LINE	DYCL

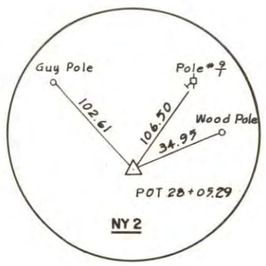
DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

SURVEYED BY _____ DATE _____
DRAWN BY B.J.B. DATE 10-84
TRACED BY L.J.S. DATE 10-84

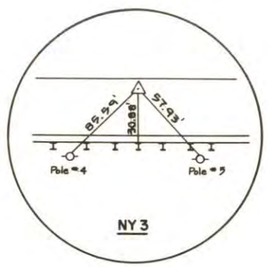
ROUTE U. S. 2
ROUSES POINT, N.Y.-ALBURG, VT.
PROJ. BRF NO. 028-1 (11)
SHEET C-48 OF 50



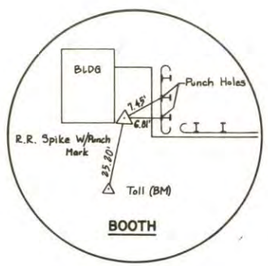
NY 1



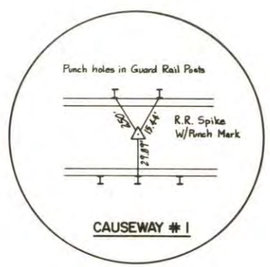
NY 2



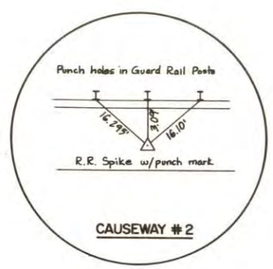
NY 3



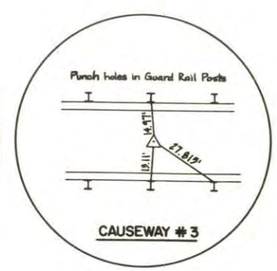
BOOTH



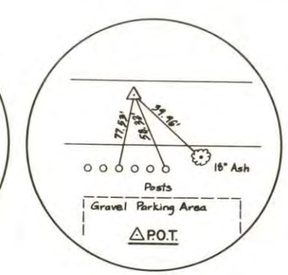
CAUSEWAY # 1

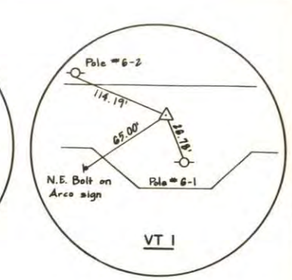


CAUSEWAY # 2



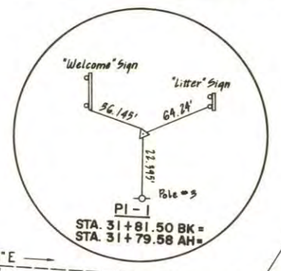
CAUSEWAY # 3





VT 1

SURVEY BASELINE TIES



PI - 1
STA. 31+81.50 BK =
STA. 31+79.58 AH =

NY1 - SCHOENFELD 9+99.84
N 912,285.728
E 275,951.788

N 88°-39'-27.0"E
1805.45'

NY2 - SCHOENFELD 28+05.29
N 912,328.028
E 277,756.742

RECREATIONAL ACCESS RD. ℄ (SEE DETAIL NEXT SHEET)

N 88°-39'-27.0"E
580.71'

211.00'

NY3 - SCHOENFELD 33+86.00
N 912,341.693
E 278,337.300

POT 40+06.95
Survey

BOOTH
N 912,285.714
E 278,986.462
STA. 40+37.57

S 85°-04'-36"E
651.57'

SURVEY ℄

S 83°-19'-19"E
2738.81'

CAUSEWAY #1
N 911,967.214
E 281,706.693
STA. 67+76.38

S 89°-06'-15"E
1861.19'

CAUSEWAY #2
N 911,938.117
E 283,567.659
STA. 86+37.57

CAUSEWAY #3
N 912,017.745
E 284,688.420
STA. 97+61.16 = CONST. ℄ P.O.S.T. 98+02.68

N 85°-56'-10"E
1123.59'

△ POT. - SCHOENFELD 98+88.70
STA. 99+30.22 CONST. ℄
N 912,019.876
E 284,815.947

VT 1 - SCHOENFELD 104+44.76
STA. 104+86.87 Const. ℄
N 912,029.182
E 285,371.927

N 89°-02'-33.6"E
127.54'

N 89°-02'-27.9"E
556.04'

CURVE #3

STA. 28+78.66 Const. ℄ =
STA. 10+00.00 Rec. Access Rd. ℄
N 912,329.595
E 277,823.595

PC STA. 29+18.52 Const. ℄ =
STA. 29+12.02 Survey ℄
N 912,330.528
E 277,863.445

PT STA. 34+42.56
N 912,288.008
E 278,384.798

S 79°-19'-56.3"E
3344.34'

CURVE #2

N 84°-30'-59.1"E
3109.21'

PT STA. 98+48.55 CONST. ℄ = STA. 98+07.03 SURVEY ℄
N 912,018.511
E 284,734.284

PI-1 STA. 31+75 Survey ℄ =
Const. ℄ Sta. 31+81.50 BK = 31+79.58 AH
N 912,336.690
E 278,126.358

CONSTRUCTION ℄

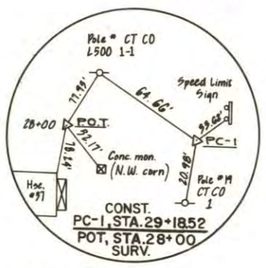
PC STA. 57+10.97
N 911,868.098
E 280,613.996

PT STA. 73+26.10
N 911,795.296
E 282,222.194

PI-2 STA. 65+23.98 BK =
STA. 65+13.15 AH
N 911,717.610
E 281,412.900

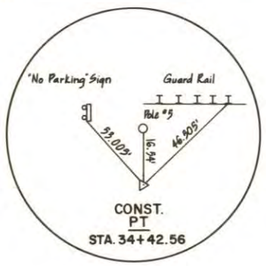
CONST. ℄
PI-3 STA. 96+22.36 BK =
STA. 96+22.12 AH
N 912,014.728
E 284,507.886

PC STA. 93+95.93
N 911,993.090
E 284,282.493

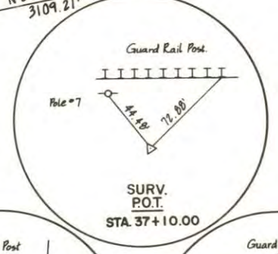


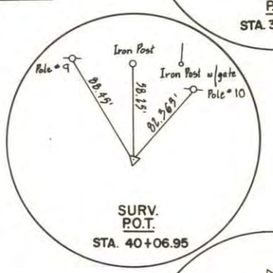
CURVE DATA - CURVE R1
△ = 124°-44'-54.9" RT.
D = 145°-03'-09.4"
R = 39.5'
T = 75.474'
L = 86.003'
E = 45.686'

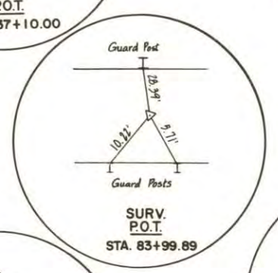
CURVE DATA - CURVE 1
△ = 12°-00'-36.7" RT.
D = 2°-17'-30.6"
R = 2500'
T = 262.985'
L = 524.043'
E = 13.794'

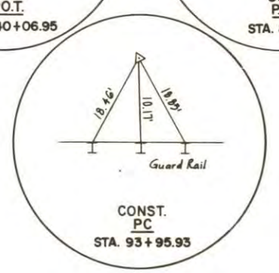


CURVE DATA - CURVE 2
△ = 16°-09-04.6" LT.
D = 1°-00'-00"
R = 5729.578'
T = 812.954'
L = 1615.128'
E = 57.387'

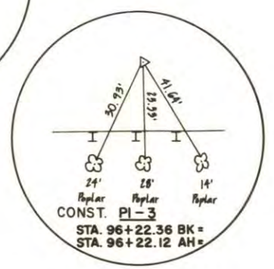


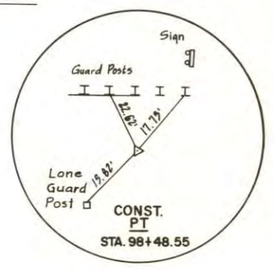


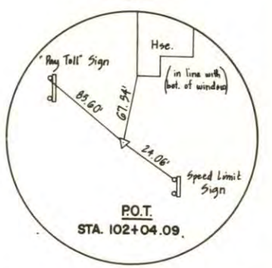




CURVE DATA - CURVE 3
△ = 4°-31'-34.5" RT.
D = 1°-00'-00"
R = 5729.578'
T = 226.430'
L = 452.625'
E = 4.472'







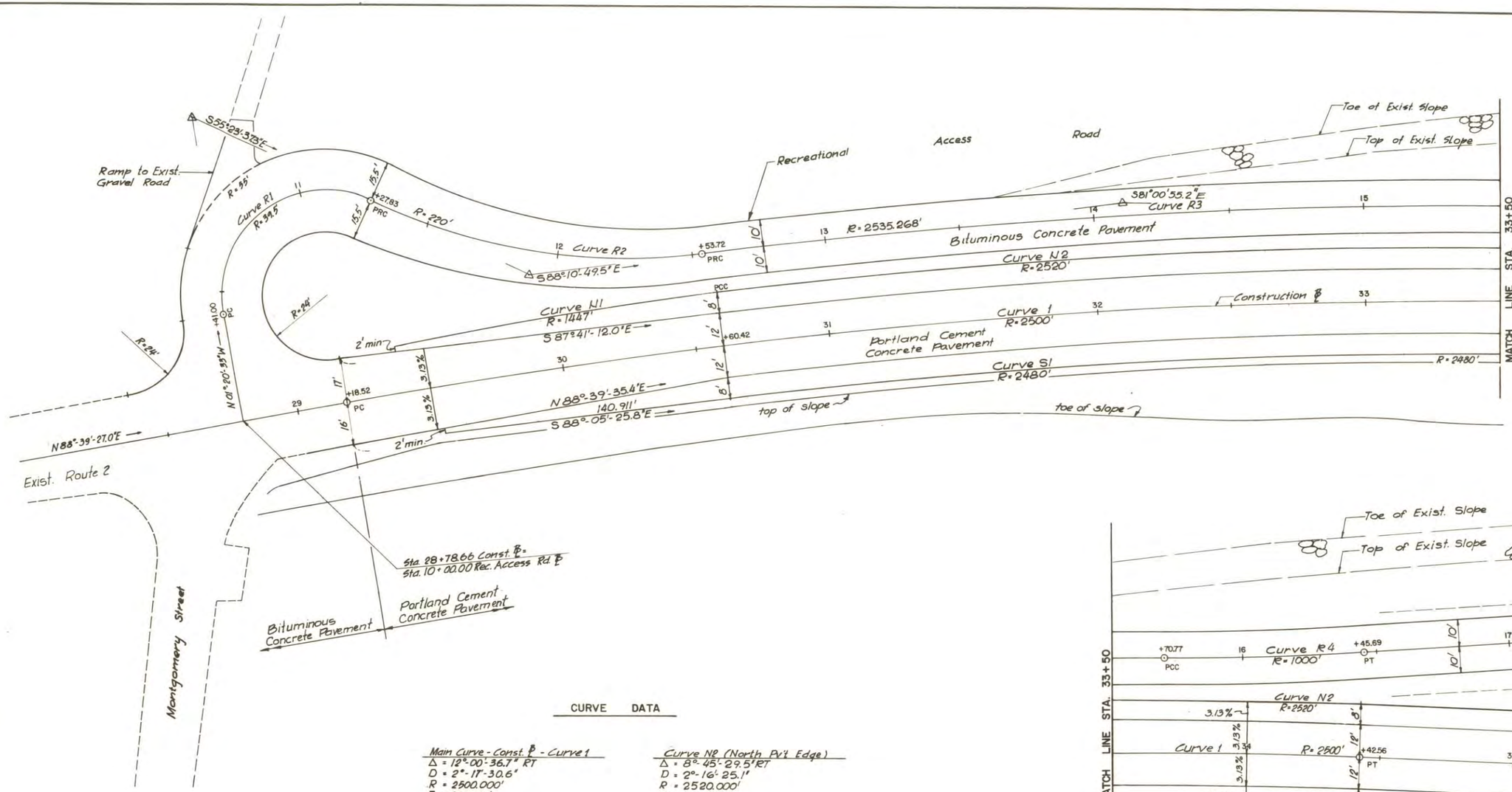
HORIZONTAL CONTROL / BASELINE LAYOUT
NO SCALE

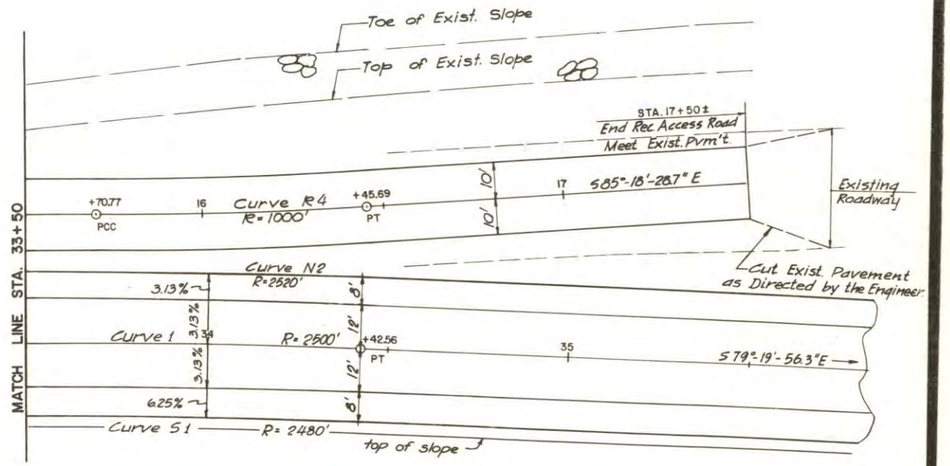
ALL BEARINGS SHOWN ARE GRID BEARINGS BASED ON VERMONT STATE PLANE COORDINATE GRID SYSTEM

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

SURVEYED BY DuBois & King DATE 5-82
DRAWN BY R. Mazzeo DATE 9-22-83
TRACED BY P. Cole DATE 9-23-83

ROUTE U.S. 2
ROUSES POINT, N.Y. - ALBURG
PROJ. BRF NO. 028-1(11)
SHEET C-3 OF 50





CURVE DATA

Main Curve - Const. ℄ - Curve 1
- Δ = 12°-00'-36.7" RT
- D = 2°-17'-30.6"
- R = 2500.000'
- T = 262.985'
- L = 524.043'
- E = 13.794'

Curve N1 (North Pvt Edge)
- Δ = 5°-38'-15.3" RT
- D = 3°-57'-34.7"
- R = 1447.000'
- T = 71.246'
- L = 142.377'
- E = 1.753'

Curve S1 (South Pvt Edge)
- Δ = 8°-45'-29.5" RT
- D = 2°-18'-37.1"
- R = 2480.000'
- T = 189.916'
- L = 379.091'
- E = 7.261'

Curve R1
- Δ = 125°-56'-55.7" RT
- D = 145°-08'-09.4"
- R = 39.500'
- T = 77.438'
- L = 86.830'
- E = 47.430'

Curve N2 (North Pvt Edge)
- Δ = 8°-45'-29.5" RT
- D = 2°-16'-25.1"
- R = 2520.000'
- T = 192.979'
- L = 385.206'
- E = 7.378'

Curve R2
- Δ = 32°-47'-12.2" LT
- D = 26°-08'-36.7"
- R = 220.000'
- T = 64.722'
- L = 125.892'
- E = 9.323'

Curve R3
- Δ = 7°-09'-54.3" RT
- D = 2°-15'-35.8"
- R = 2535.268'
- T = 158.730'
- L = 317.046'
- E = 4.964'

Curve R4
- Δ = 4°-17'-33.5" LT
- D = 5°-43'-46.5"
- R = 1000.000'
- T = 37.478'
- L = 74.921'
- E = 0.702'

Notes
1. For Additional Baseline Data, see Sheet C-3
2. For Grading & Drainage, see Sheet C-17
3. For PCC Pavement Details & Joint Pattern, see Sheets C-18 & C-19

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

HORIZONTAL GEOMETRY
RECREATIONAL ACCESS ROAD AREA

SCALE: 1"=20'

SURVEYED BY _____ DATE _____
DRAWN BY B.J.B DATE 10-84
TRACED BY S. Zaks DATE 10-84

ROUTE U.S. 2
ROUSES POINT, N.Y. – ALBURG
PROJ. BRF NO. 028-1(11)
SHEET C-4 OF 50

TYPICAL SECTION

SHOULDERS

9" PORTLAND CEMENT REINFORCED CONCRETE PAVEMENT, ITEM 408.15
15" SUBBASE OF DENSE GRADED CRUSHED STONE, ITEM 301.35 (±1")
FULL DEPTH PCC PAVEMENT
24" ROCK BORROW, 8" MAXIMUM SIZE, ITEM 203.331 (±1")
OVER ROCK BORROW, ITEM 203.33

SEEDING FORMULA, ITEM 651.10

RURAL AREAS

% WT.	LBS/A.	NAME	PUR. %	GERM %
3.33	2	CROWN VETCH	97	75
50.00	30	CREEPING RED FESCUE	98	85
8.33	5	TIMOTHY	99	85
16.67	10	PERENNIAL RYE GRASS (VAR. PENNFINE)	95	85
8.34	5	ALFALFA (VAR. SARANAC)	99	85
8.33	5	BIRDSFOOT TREFOIL (VAR. EMPIRE)	98	85
5.00	3	HIGHLAND BENT GRASS	92	85
100.00	60			

THE SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE FROM ALL NOXIOUS WEED SEED.

HAY MULCH, ITEM 651.25, TO BE PLACED ON ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE.

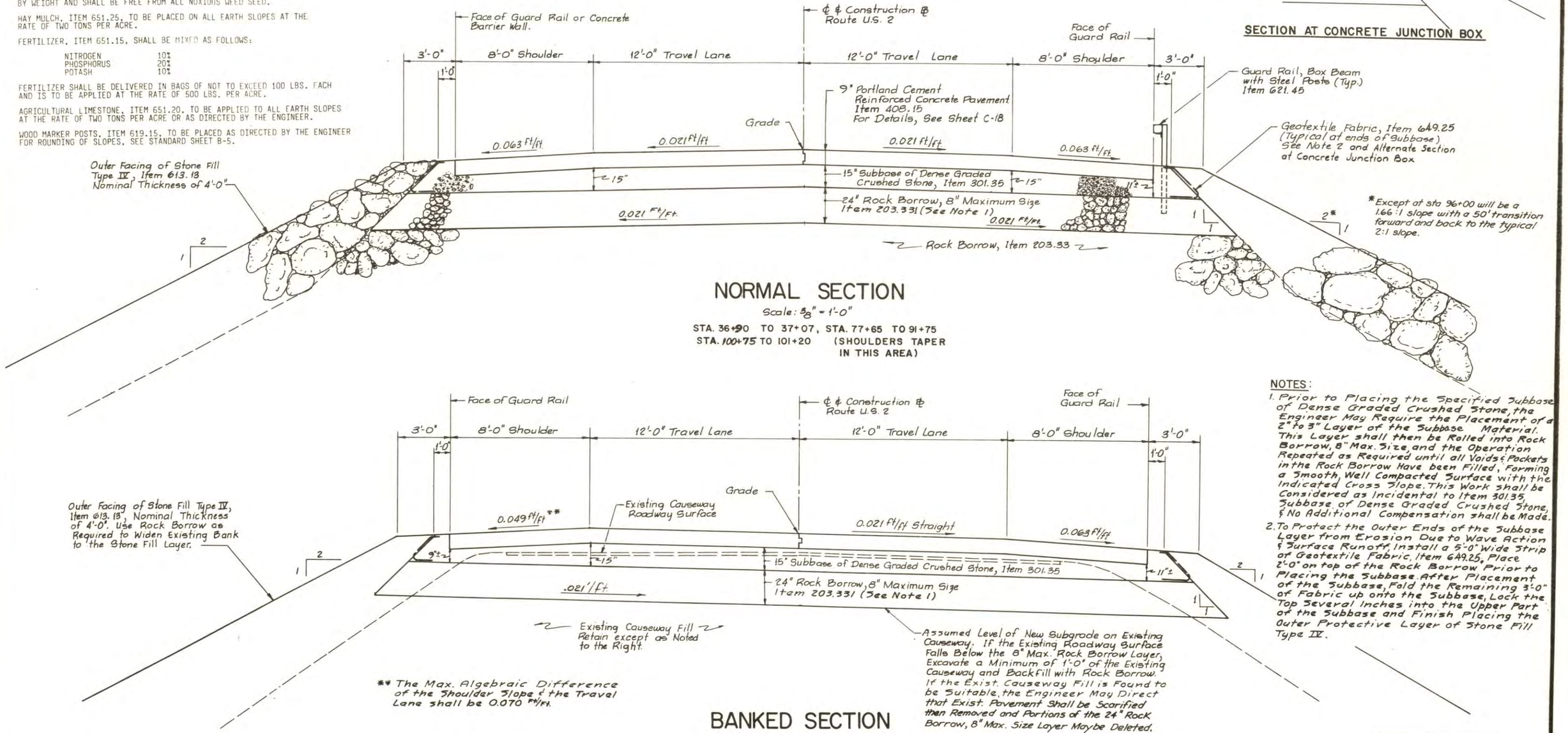
FERTILIZER, ITEM 651.15, SHALL BE MIXED AS FOLLOWS:

NITROGEN	10%
PHOSPHORUS	20%
POTASH	10%

FERTILIZER SHALL BE DELIVERED IN BAGS OF NOT TO EXCEED 100 LBS. EACH AND IS TO BE APPLIED AT THE RATE OF 500 LBS. PER ACRE.

AGRICULTURAL LIMESTONE, ITEM 651.20, TO BE APPLIED TO ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE OR AS DIRECTED BY THE ENGINEER.

WOOD MARKER POSTS, ITEM 619.15, TO BE PLACED AS DIRECTED BY THE ENGINEER FOR ROUNDING OF SLOPES. SEE STANDARD SHEET B-5.



NORMAL SECTION

Scale: 3/8" = 1'-0"

STA. 36+90 TO 37+07, STA. 77+65 TO 91+75
STA. 100+75 TO 101+20 (SHOULDERS TAPER IN THIS AREA)

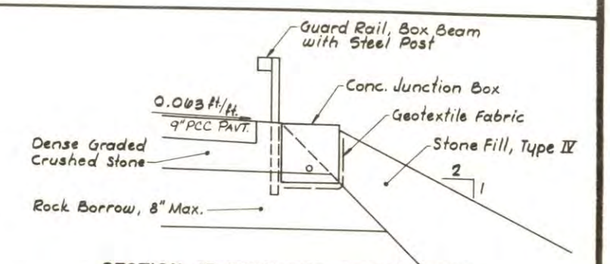
** The Max. Algebraic Difference of the Shoulder Slope & the Travel Lane shall be 0.070 ft/ft.

BANKED SECTION

SHOWN ON EXISTING CAUSEWAY

Scale: 3/8" = 1'-0"

STA. 94+50 TO 98+00



SECTION AT CONCRETE JUNCTION BOX

NOTES:

1. Prior to Placing the Specified Subbase of Dense Graded Crushed Stone, the Engineer May Require the Placement of a 2" to 3" Layer of the Subbase Material. This Layer shall then be Rolled into Rock Borrow, 8" Max. Size, and the Operation Repeated as Required until all Voids & Pockets in the Rock Borrow Have been Filled, Forming a Smooth, Well Compacted Surface with the Indicated Cross Slope. This Work shall be Considered as Incidental to Item 301.35 Subbase of Dense Graded Crushed Stone, & No Additional Compensation shall be Made.
2. To Protect the Outer Ends of the Subbase Layer from Erosion Due to Wave Action & Surface Runoff, Install a 5'-0" Wide Strip of Geotextile Fabric, Item 649.25, Place 2'-0" on top of the Rock Borrow Prior to Placing the Subbase. After Placement of the Subbase, Fold the Remaining 3'-0" of Fabric up onto the Subbase, Lock the Top Several Inches into the Upper Part of the Subbase and Finish Placing the Outer Protective Layer of Stone Fill Type IV.

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

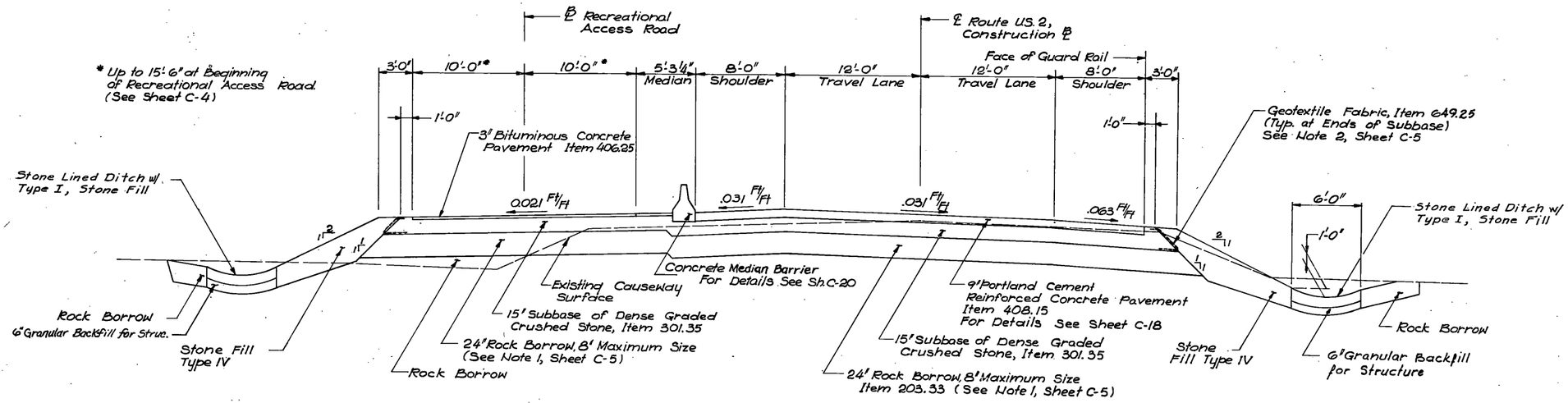
SURVEYED BY DATE
DRAWN BY R. Mazzeo DATE APR. 84
TRACED BY R. Mazzeo DATE APR. 84

ROUTE U.S. 2
ROUSES POINT, N.Y. - ALBURG
PROJ. BRF NO. 028-1 (11)
SHEET C-5 OF 50

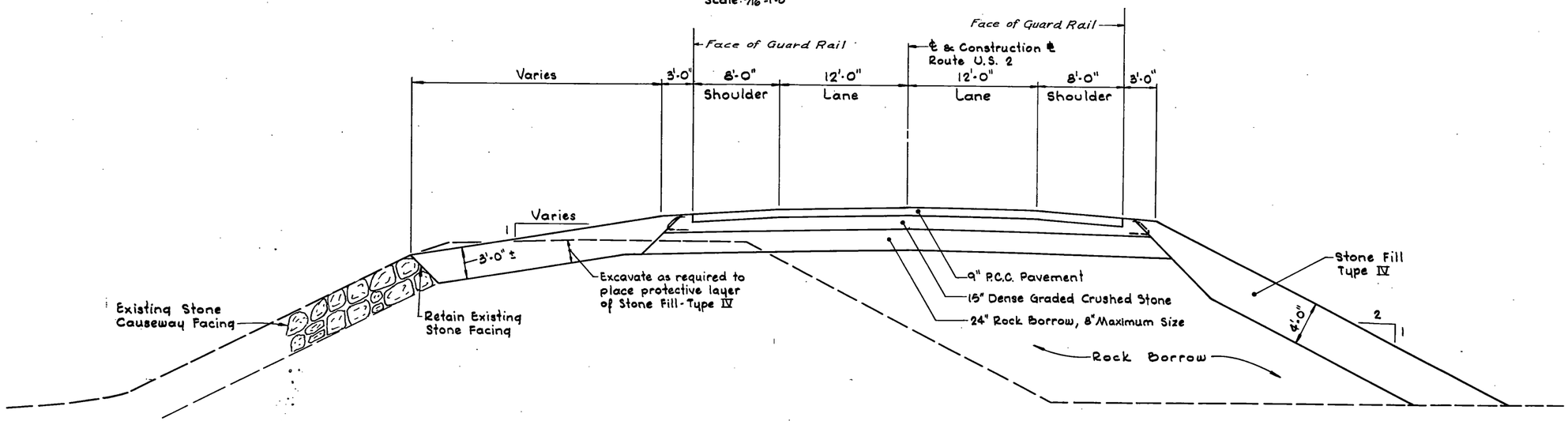
TYPICAL SECTION
RECREATIONAL ACCESS ROAD

SHOULDERS

3" BITUMINOUS CONCRETE PAVEMENT, ITEM 406.25--PLACE IN TWO COURSES
15" SUBBASE OF DENSE GRADED CRUSHED STONE, ITEM 301.35 (±1")
NONE, EXCEPT 3'-0" MINIMUM STRIP BETWEEN EDGE OF TRAVELED WAY AND CONCRETE BARRIER WALL, TO HAVE SAME SECTION AS TRAVEL LANES.
24" ROCK BORROW, 8" MAXIMUM SIZE OVER ROCK BORROW. ITEM 203.33
(MAIN LINE SECTION AS SHOWN ON SHEET C-5)



SECTION WEST OF PROPOSED BRIDGE
(STA. 29+50± TO 33+90±)
Scale: 3/16" = 1'-0"



SECTION EAST OF PROPOSED BRIDGE
(STA. 78+00± TO 85+00±)
Scale: 3/16" = 1'-0"

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

SURVEYED BY
DRAWN BY R. Mazzeo DATE APR. 84
TRACED BY R. Mazzeo DATE APR. 84
ROUTE U.S. 2
ROUSES POINT, N.Y.-ALBURG
PROJ. BRF NO. 028-1 (11)
SHEET C-6 OF 50

STEEL ALTERNATE

QUANTITY SHEET

STATE OF VERMONT DEPARTMENT OF HIGHWAYS

ROUSES POINT NY., ALBURG VT. PROJECT NO. BRF 028-1(11)

SUMMARY SHEET NO. ____ OF ____ 19____

APPROXIMATE SUMMARY OF QUANTITIES

EROSION CONTROL	DEMOLITION	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.
			1	1	L.S.	Clearing and Grubbing	201.10
	1			1	Each	Demolition and Disposal of Building Administration Building	202.10
	1			1	Each	Demolition and Disposal of Building Toll Plaza Facility	202.10
	174		500	674	C.Y.	Excavation and Removal of Road Surfaces and Pavements	202.15
	1			1	L.S.	Removal of Structure (Exist. Bridge)	202.25
	8700			8700	L.F.	Removal and Disposal of Exist Guard Rail	202.40
			16,200	16,200	C.Y.	Common Excavation	203.15
			100	100	C.Y.	Solid Rock Excavation (Estimated)	203.16
	62,400			62,400	C.Y.	Unclassified Excavation	203.17
			200	200	C.Y.	Unclassified Channel Excavation	203.29
			100	100	C.Y.	Granular Borrow (Estimated)	203.32
			23,400	23,400	C.Y.	Rock Borrow	203.33
			16,600	16,600	C.Y.	Rock Borrow 8" Maximum Size	203.331
			16,400	16,400	S.Y.	Fine Grading - Subgrade	203.40
50			175	225	C.Y.	Trench Excavation of Earth	204.01
			25	25	C.Y.	Trench Excavation of Rock (Estimated)	204.01
		700		700	C.Y.	Structure Excavation at Abutments	204.25
		20		20	C.Y.	Structure Excavation at Piers	204.25
		240	1180	1420	C.Y.	Granular Backfill For Structures	204.30
			610	610	C.Y.	Subbase of Gravel	301.15
			7700	7700	C.Y.	Subbase of Dense Graded Crushed Stone	301.35
			240	240	Ton	Plant Mixed Base Course	303.25
		2536	1235	3771	Ton	Bituminous Concrete Pavement	406.25
			13,100	13,100	S.Y.	9" Reinforced One-Course Cement Conc. Pavement	408.15
		5,073		5,073	C.Y.	Concrete Class A	501.20
		8,029	16	8,045	C.Y.	Concrete Class B	501.25
		1		1	L.S.	Furnishing Equipment for Driving Piling	504.10
		19,290		19,290	L.F.	Steel Piling (HP 12 x 74)	505.16
		2,762		2,762	S.F.	Permanent Steel Sheet Piling	505.35
		2		2	Each	Pile Loading Test	505.40
		7,051,300		7,051,300	Lb.	Structural Steel (Plate Girder)	506.31
		175		175	Each	Bearing Device Aeeembly	506.99
		1,659,038	1362	1,660,400	Lb.	Reinforcing Steel	507.15
		1,724,543		1,724,543	Lb.	Epoxy Coated Reinforcing Steel	507.17
		1		1	L.S.	Shear Connectors (36770 - 7/8" ø x 7 3/4")	508.15
		1194		1194	Gal.	Water Repellent	514.10
		84		84	L.F.	Elastomeric Expansion Joint (Single Seal)	516.21
		86		86	L.F.	Elastomeric Expansion Joint (Three Seal)	516.23
		120		120	L.F.	Elastomeric Expansion Joint (Four Seal)	516.25
		17,791		17,791	S.Y.	Sheet Membrane Waterproofing	519.20
		1		1	L.S.	Type I - Cofferdams	530.11
		1		1	L.S.	Type II - Cofferdams	530.12
		1		1	L.S.	Type III - Cofferdams	530.13
		1		1	L.S.	Type IV Cofferdams	530.14
			218	218	L.F.	18" R.C.P. (Class III)	601.1823
			128	128	L.F.	30" R.C.P. (Class III)	601.1835
			4	4	Each	18" Reinforced Concrete Pipe End Sections (Class III)	601.6613
			1	1	Each	30" Reinforced Concrete Pipe End Sections (Class III)	601.6635
			5	5	Each	Cast Iron Grate w/Frame Type E	604.52
			100	100	Hr.	Roadway Patrol Maintenance	607.10
			10	10	Hr.	Bulldozer Rental Type I	608.10
			10	10	Hr.	Bulldozer Rental Type II	608.11
			10	10	Hr.	All Purpose Excavator Rental Type I	608.25
			10	10	Hr.	All Purpose Excavator Rental Type II	608.26
			10	10	Hr.	Power Broom Rental	608.30
			10	10	Hr.	Truck Rental	608.37
			10	10	Hr.	Loader Rental, Type I	608.40
			500	500	M Gal.	Dust Control with Water	609.10
			3	3	Ton	Dust and Ice Control w/ Calcium Chloride	609.15
		6		6	MBF	Treated Lumber and Timber	611.25
			125	125	C.Y.	Stone Fill Type I	613.10
			20,513	20,513	C.Y.	Stone Fill Type IV	613.13
		8147		8147	L.F.	Concrete Bridge Barrier Curb	616.19

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ROADWAY ITEMS
		Demolition & Disposal of Existing Buildings
1	Each	Sta. 40+00 - 110' Lt: Exist. Administ Bldg.
1	Each	Sta. 40+80 - 90' Lt. (Exist. Toll Booth & Island)
2	Each	Total
		Removal & Disposal of Existing Guard Rail
1185	L.F.	South Side of West Causeway
445	L.F.	North Side of West Causeway
3570	L.F.	South Side of East Causeway
3500	L.F.	North Side of East Causeway
8700	L.F.	Total
		Fine Grading-Subgrade
3355	S.Y.	Main Line West of Bridge
10,820	S.Y.	Main Line East of Bridge
2150	S.Y.	Recreational Access Road
75	S.Y.	Rounding
16,400	S.Y.	Total
		Subbase of Dense Graded Crushed Stone
1750	C.Y.	Main Line West of Bridge
4910	C.Y.	Main Line East of Bridge
902	C.Y.	Recreational Access Road
43	C.Y.	Drive to F. & G. Access Road
35	C.Y.	Rounding
7,700	C.Y.	Total
		Plant Mixed Base Course
164	Tons	Montgomery Street Intersection
76	Tons	East End of Project
240	Tons	Total

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ROADWAY ITEMS
		Bituminous Concrete Pavement
95	Tons	Montgomery Street Intersection
328	Tons	Recreational Access Road
52	Tons	East End of Project
10	Tons	Drive to F & G Access
750	Tons	Temporary Pavement for Detours
1235	Tons	Total
		Reinforced One Course Cement Concrete Pavement - 9"
2591	S.Y.	Main Line West of Bridge
10,180	S.Y.	Main Line East of Bridge
42	S.Y.	Rounding
13,100	S.Y.	Total
		Granular Backfill for Structures
75	C.Y.	Stone Lined Ditch
930	C.Y.	East Abutment (Surcharge)
155	C.Y.	Drainage Pipes and Structures
1180	C.Y.	Total
		TEMPORARY EROSION CONTROL (To be used as designated by Engineer)
50	C.Y.	Trench Excavation of Earth
30	Lb.	Seed - Winter Rye
0.5	Ton	Hay Mulch
200	S.Y.	Erosion Matting
25	L.F.	Silt Fence
8000	S.Y.	Turbidity Screens

TYPE OF CONSTRUCTION

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS			EQUATIONS +	EQUATIONS −
TOTALS						

LENGTH OF PROJECT

STATIONS	FEET	MILES	REMARKS
TOTALS			

No. Filed

Sheet C-7 of 50 Sheets

D-10

DRAINAGE AND ITEM QUANTITY SHEET

PROJECT NO.

EROSION CONTROL | DEMOLITION | BRIDGE

APPROXIMATE SUMMARY OF QUANTITIES

		ROADWAY	GRAND TOTAL	UNIT	ITEM	ITEM NO.
	8158		8158	L.F.	Bridge Railing-Galv. Box Beam	G17.30
		10	10	Each	Boundary Markers	G19.10
		10	10	Each	Steel Marker Posts	G19.16
		5330	5330	L.F.	Guard Rail-Box Beam with Steel Posts	G21.45
		7000	7000	L.F.	Temporary Barrier Rail	G21.56
		846	846	L.F.	Concrete Median Barrier	G21.58
		3	3	Each	Box Beam Guard Rail Transition to Bridge	G21.95
		7	7	Each	Settlement Platform Type I	G23.21
		3	3	Each	Piezometer Type IV (Pneumatic)	G23.34
		2G50	2G50	Hr.	Uniformed Traffic Officers	G30.10
		5600	5600	Hr.	Flag Persons	G30.15
		1	1	L.S.	Field Office-Engineers	G31.10
		1	1	L.S.	Field Office-Soils & Materials	G31.11
		10,400	10,400	Hr.	Employee Traineeship	G34.10
	1		1	L.S.	Mobilization	G35.10
		1	1	Each	Transportation	G36.10
	1		1	Each	Transportation Boat	G36.10
	8488	6488	14,600	L.F.	Temp 4" Reflectorized White Lines	G46.36
		1500	1500	L.F.	Temp 4" Reflectorized Yellow Lines	G46.36
	9160	4375	9535	L.F.	Durable 4" Reflectorized Yellow Lines	G46.61
		40	40	L.F.	Durable 24" Stop Bar	G46.64
8000			8,000	S.Y.	Turbidity Screens	G48.20
		3G00	3G00	S.Y.	Geotextile Fabric	G48.25
50			50	Lb.	Seed	G51.10
80			80	Lb.	Seed-Winter Rye	G51.18
250			250	Lb.	Fertilizer	G51.15
1			1	Ton	Agriculture Limestone	G51.20
1.5			1.5	Ton	Hay Mulch	G51.25
100			100	S.Y.	Sodding	G52.10
280			280	C.Y.	Top Soil	G53.10
200			200	S.Y.	Erosion Matting	G54.20
25			25	L.F.	Silt Fence	G54.30
	19	61	80	S.F.	Traffic Signs, Type A	G75.20
		365	365	Lb.	Traffic Sign Posts, Type A	G75.35
	1		1	L.S.	Removing Signs	G75.50
		1	1	Each	Traffic Control Signals (Modified)	G78.15
		1	1	L.S.	Navigational Lighting System	G86.10

DETAILED SUMMARY OF QUANTITIES

QUANTITY	UNIT	ITEM

DRAINAGE STRUCTURES

STA.	STA	POSITION	TYPE IN.	TYPE OUT.	A.C.G.M.P. D	A.C.G.M.P. L	R.C.P. D	R.C.P. L	S	T	C.R.M.	CONC. B	REINF. STEEL	D.I. GRATE	DEPTH D.I.	TRENCH EARTH	EXCAV. ROCK	RELAY PIPE	ASKEW LT.	ASKEW RT.	RCP END SECTION			DITCHES IN.	DITCHES OUT.	REMARKS
28+54	28+62	35' LT.					30"	68'								30										
28+24	28+56	89' LT.	RCDI/ES				30"	60'				3.4	294	E	4'-6"	39					30"					5'x5' R.C.D.I.
30+65		19' LT.	RCDI/ES				18"	40'				2.6	231	E	5'-0"	17					18"					
32+50		19' LT.	RCDI/ES				18"	44'				2.3	200	E	4'-6"	24					18"					
34+25		19' LT.	RCDI/ES				18"	54'				3.9	347	E	8'-0"	31					18"					
35+35		19' LT.	RCDI/ES				18"	80'				3.9	347	E	8'-0"	34					18"					

PLANIMETERED SUB-BASE OF GRAVEL

STA.	STA.	DEPTH	EQUATIONS +	EQUATIONS −

GUIDE POSTS

STA.	LT.	RT.

STA	LT.	RT.

GUARD RAIL - BOX BEAM WITH STEEL POSTS

STA-STA	POS.	LENGTH
28+85 - 36+87	RT.	803'
77+70 to 100+31	RT.	2261'
77+70 to 100+31	LT.	2261'
	SUB TOTAL	
	ROUNDING	5'
	TOTAL	5330

REMOVAL AND DISPOSAL OF EXISTING GUARDRAIL

STA-STA	POS	LENGTH
32+22 to 44+80	LT.	1125'
40+08 to 40+40 & 44+35	LT.	445'
62+65 to 98+38	LT.-RT.	3560'
62+66 to 98+36	LT.	3570'
		8700'

TYPE OF CONSTRUCTION:

STATIONS FROM	STATIONS TO	PAVEMENT WIDTHS Variable	PAVEMENT WIDTHS 40'	EQUATIONS +	EQUATIONS −	REMARKS
28+20	30+60	240.00'				WEST APPR.
30+60	36+87		627'			ROADWAY
37+07	77+63		4056.00'			BRIDGE
77+63	99+00		2137.00			ROADWAY
99+00	101+20	210.00'				EAST APPR.
	TOTALS	450.00'	6820.00'			

LENGTH OF PROJECT

STA.	STA.	FEET	MILES	REMARKS
28+50	37+07	857'	0.162'	ROADWAY
37+07	77+63	4056'	0.768'	BRIDGE
77+63	101+20	2357'	0.447	ROADWAY
	TOTAL	7270	1.377	

PROJECT NO.

SHEET C-8 OF 50

D 15

NOTE: EXISTING EAST CAUSEWAY TO BE REMOVED DOWN TO ELEV. 90.0, AFTER COMPLETION OF PROPOSED PROJECT.

EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

FED. ROAD DIVISION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	VT.		POST WAR		

REMOVAL OF EXISTING EAST CAUSEWAY

GRADES V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V CURVES	CORR V.C.	DIST.	UNCLASSIFIED EXCAVATION AREA	UNCLASSIFIED EXCAVATION CU. YDS.	BASE AREA	BASE CU. YDS.
		11					0			
						14		136		
		+ 14					524			
						17		463		
		+ 31					949			
						7		296		
		+ 38					1335			
						12		591		
		+ 50					1326			
						50		1228		
		12					1372			
								2088		
		+ 50					1581			
								2571		
		13					1246			
								2300		
		+ 50					1258			
								2296		
		14					1242			
								2260		
		+ 50					1199			
								2556		
		15					1545			
								2596		
		+ 50					1459			
								2812		
		16					1362			
								2549		
		+ 50					1390			
								2539		
		17					1352			
								2424		
		+ 50					1266			
								2327		
		18					1247			
								2271		
		+ 50					1205			
								2243		
		19					1217			
								2206		
		+ 50					1290			
								2222		
		20					1170			
								2067		
		+ 50					1062			
								1886		
		21					975			
								1790		
		+ 50					958			
								1742		
		22					924			
								1750		
		+ 50					906			
								1772		
		23					948			
								1789		
		+ 50					962			
								1793		
		24					974			
								1799		
		+ 50					908			
								1804		
		25					981			
						50		1908		
		+ 50					1080			
						40		1081		
		+ 90					380			
						10				
		26					352			
						10				
		+ 10					0			
CARRIED FORWARD										
COLUMN FOOTINGS								62,395		

GRADES V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V CURVES	CORR V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	EMBANKMENT-STONE FILL ROCK BORROW AREA	ROCK BORROW CU.YDS.	TYPE IV AREA	TYPE IV CU.YDS.	BASE AREA	BASE CU. YDS.
		28	105.30				0							
						50		109						
		+ 50	105.30				118							
								262						
	0.00%	29	105.30				165				0			
								319				41		
		+ 50	105.30				185				44			
								356				87		
X		30	105.30	105.30	0.00		200				50			
X	100' VC.	+ 50	105.30	105.38	+0.08		200	370	16			97		
X		31	105.63	105.63	+0.00		152	326	24	37	55	104		
		+ 50	105.95				145	275	43	62	57	106		
		32	106.28				110	236	109	150	58	130		
		+ 50	106.60				130	222	149	239	82	155		
		33	106.93				52	169	247	367	85	182		
		+ 50	107.25				20	67	313	519	112	183		
	+ 6.500%	34	107.58				10	28	356	619	86	158		
X		+ 50	107.90	107.90	0.00				426	724	85	177		
		35	108.23	108.31	+0.08				500	857	106	190		
		+ 50	108.55	108.88	+0.33				614	1031	99	201		
		36	108.88	109.61	+0.73				BACK 251	801	118	234		
		+ 50	109.20	110.50	+1.30				AHEAD 112		135	277		
						50				104	164	351		
		37	109.52	111.55	+2.03						BACK 135 / AHEAD 177	0 / 76		
		+ 07				07					15	80		
			END ROADWAY, BEGIN BRIDGE			43								
X	600' VC.	+ 50	109.85	112.78	+2.93	50								
		38	112.13	114.16	+2.03									
		+ 50	114.40	115.70	+1.30									
		39	116.68	117.41	+0.73									
		+ 50	118.95	119.28	+0.33									
		40	121.23	121.31	+0.08									
X	+ 4.5502%	+ 50	123.50	123.50	0.00									
		41	125.78											
		+ 50	128.05											
		42	130.33											
		+ 50	132.60											
		43	134.88											
		+ 50	137.15											
		44	139.43											
		+ 50	141.70											
		45	143.98											
						50								
		+ 50	146.25											
X		+ 75	147.39	147.39	0.00	25								
		46	148.53	148.51	-0.02	25								
		+ 50	150.80	150.64	-0.16	50								
		47	153.08	152.62	-0.46									
		+ 50	155.35	154.45	-0.90									
	+ 4.5502%	48	157.63	156.15	-1.48									
		+ 50	159.90	157.68	-2.22									
		49	162.18	159.09	-3.09									
CARRIED FORWARD														
COLUMN FOOTINGS								2739		5510		2809		

GRADES V.C.	% GRADE	STATION	ELEVATION ON TANGENT	ELEVATION ON V. CURVES	CORR V.C.	DIST.	TOTAL EXCAVATION EARTH AND ROCK AREA	TOTAL EXCAVATION EARTH AND ROCK CU. YDS.	EMBANKMENT-STONE FILL TYPE I AREA	TYPE I CU.YDS.	TYPE II AREA	TYPE II CU.YDS.	TYPE IV AREA	TYPE IV CU.YDS.	BASE AREA	BASE CU. YDS.
		+ 50	164.45	160.33	-4.12											
						50										
		50	166.73	161.44	-5.29											
		+ 50	169.00	162.39	-6.61											
		51	171.28	163.20	-8.08											
		+ 50	173.55	163.86	-9.69											
		52	175.83	164.38	-11.45											
						50										
		+ 50	178.10	164.75	-13.35											
						25										
X		+ 75	179.24	164.88	-14.36											
						25										
		53	178.33	164.98	-13.35											
						50										
		+ 50	176.50	165.05	-11.45											
		54	174.68	164.99	-9.69											
		+ 50	172.85	164.77	-8.08											
		55	171.02	164.41	-6.61											
		+ 50	169.20	163.91	-5.29											
		56	167.37	163.25	-4.12											
		+ 50	165.54	162.45	-3.09											
		57	163.71	161.49	-2.22											
		+ 50	161.89	160.40	-1.48											
		58	160.06	159.16	-0.90											
		+ 50	158.23	157.77	-0.46											
		59	156.40	156.24	-0.16											
						50										
		+ 50	154.58	154.56	-0.02											
						25										
		+ 75	153.66	153.66	0.00											
		60	152.75			25										
						50										
		+ 50	150.93													
		61	149.10													
		+ 50	147.27													
		62	145.44													
		+ 50	143.62													
		63	141.79													
		+ 50	139.96													
	- 3.6542%	64	138.13													
						50										
		+ 50	136.31													
						23										
		+ 73	135.47	135.47	0.00											
						27										
		65	134.48	134.49	+0.01											
						50										
		+ 50	132.66	132.78	+0.12											
		66	130.83	131.16	+0.33											
		+ 50	129.00	129.64	+0.64											
		67	127.17	128.22	+1.05											
						50										
		+ 50	125.34	126.91	+1.57											
						23										
X	600' VC.	+ 73	124.50	126.34	+1.84											
						27										
		68	124.18	125.70	+1.52											
						50										
	- 1.2000%	+ 50	123.58	124.60	+1.02											
CARRIED FORWARD																
COLUMN FOOTINGS																

PROJECT ROUSES POINT, NEW YORK - ALBURG, VT.

PROJECT BRF NO. 028-1(11)
SHEET C-9 OF 50 SHEETS

D-5

EARTHWORK

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	ON V. CURVES	CORR. V.C.	DIST.	COMM. EXCAVATION EARTH AND ROCK AREA	CU. YDS.	EMBANKMENT – STONE FILL ROCK BORROW AREA	CU.YDS.	AREA	CU.YDS.	TYPE IV AREA	CU.YDS.	BASE AREA	CU. YDS.
		68 + 50	123.58	124.60	+1.02	50										
		69	122.98	123.59	+0.61											
		+ 50	122.38	122.69	+0.31											
		70	121.78	121.89	+0.11											
						50										
		+ 50	121.18	121.19	+0.01											
		+ 73	120.90	120.90	0.00	23										
						27										
		71	120.58													
						50										
		+ 50	119.98													
		72	119.38													
		+50	118.78													
		73	118.18													
		+ 50	117.58													
		74	116.98													
		+ 50	116.38													
		75	115.78													
		+ 50	115.18													
		76	114.58													
		+ 50	113.98													
		77	113.38						0				0			
		+ 33				50'				187				187		
		+ 50	112.78			17			593	234			593	234		
		+ 60				10			672	61			672	61		
		+6325 END BRIDGE, BEGIN ROADWAY				3			420	110			420	110		
		+ 70 BACK				0			430	0			430	0		
		+ 70 AHEAD				0			440	1050			440	822		
		78	112.18			50			1450	1574			1951	1770		
		+ 50	111.58			50			1254				319			
										1244				581		
		79	110.98						1090				309			
										1677				561		
		+ 50	110.38						937				297			
										1585				516		
		80	109.78						775				260			
										1331				476		
		+ 50	109.18	109.18	0.00				662				284			
										1140				455		
		81	108.58	108.61	0.03				570				255			
										935				435		
		+ 50	107.98	108.08	0.10		80		440				235			
								146		721				421		
		82	107.38	107.61	0.23		78		339				220			
								147		626				398		
		+ 50	106.78	107.18	0.40		81		337				210			
								173		526				379		
		83	106.18	106.81	0.63		106		233				199			
								188		354				352		
		+ 50	105.58	106.48	0.90		94		149				181			
								184		221				328		
		84		106.21	0.63		105		90				173			
								196		125				300		
		+ 50		105.98	0.40		107		45				151			
								198		95				306		
		85		105.81	0.23		107		60				180			
								231		88				355		
		+ 50		105.68	0.10		142		55				180			
								213		32				351		
		86		105.61	0.03		130		0				177			
								224		0				496		
		+ 50	105.58	105.58	0.00		112		0				179			
		87						192		6				356		
		+ 50					95		6				184			
								185		10				315		
		88					105		5				190			
		+ 50					100		23				108			
								185		26				248		
							100		28				108			
										47				200		
														196		
								196		31						
		89					112		5							
						50				27			104	250		
		CARRIED FORWARD														
		COLUMN FOOTINGS								14,263				11399		

EARTHWORK

V.C.	% GRADE	STATION	GRADES ELEVATION ON TANGENT	ON V. CURVES	CORR. V.C.	DIST.	COMM. EXCAVATION EARTH AND ROCK AREA	CU. YDS.	EMBANKMENT – STONE FILL ROCK BORROW AREA	CU.YDS.	AREA	CU.YDS.	TYPE IV AREA	CU.YDS.	BASE AREA	CU. YDS.
								207								
		89 + 50	105.58				112		24				166			
						50		229		47				248		
		90					135		27				102			
						50		238		52				196		
		+ 50					122		8				110			
						25								206		
						25		256		26						
		91					156		20				113			
						50		255		27				206		
		+ 50					120		9				110			
								236		27				185		
		92					135		20				94			
						50		250		39				186		
		+ 50					135		22				110			
						25								841		
		+ 75														
						25		222		33						
		93					105		14				150			
						50		109		18				285		
		+ 50					118		5				158			
								220		5				265		
		94					120		0				132			
								222		3				247		
		+ 50					120		3				135			
								236		4				255		
		95					135		1				117			
								238		31				219		
		+ 50					122		32				119			
								247		32				159		
		96					145		3				53			
								264		7				101		
		+ 50					140		5				56			
								241		9				122		
		97					120		5				76			
								222		9				138		
		+ 50					120		5				73			
								222		5				118		
		98					120		0				54			
								222		2				96		
		+ 50					120		2				50			
								222		0				86		
		99	105.58	105.58	0.00		120		0				43			
								250		0				94		
		+ 50	105.58	105.47	-0.11		150		0				58			
								273		0				120		
		100	105.14	105.14	0.00		148		0				72			
						50		255		0				85		
		+ 50	104.70	104.81	+0.11		150		0				18			
						23								17		
										0						
		+73	(DRIVE TO F.B.G. ACCESS)			27		213	0	0			0			
		101	104.70	104.70	0.00		100		0					386		
						20		144		0						
		+20	104.70				55									
			MEET EXISTING @ 101+20± ELEV. 104.70±													
			RECREATIONAL ACCESS ROAD													
		10+50	104.30	104.30	0.00											
		11	103.30	103.64	+.34											
		+50	103.65	103.65	0.00											
		12	104.00													
		+50	104.35													
		13	104.70													
		+50	105.05													
		14	105.40													
		+50	105.75													
		15	106.10													
		+50	106.45	106.45	0.00											
		16	106.80	106.46	-0.34											
		+50	105.80	105.80	0.00											
		17+00	104.80	104.80	0.00											
		+25	104.30	104.42	+0.125											
		17+50	104.30	104.30	0.00											
		CARRIED FORWARD														
		COLUMN FOOTINGS						5,693		356				3862		

EARTHWORK SUMMARY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

SUMMARY OF BALANCES

STATION TO STATION	TOTAL EXCAV. EARTH & ROCK CUBIC YARDS	ROCK EXCAV. CUBIC YARDS	EMBANKMENT CUBIC YARDS	EXCESSES CUT	EXCESSES FILL	ACCUMULATIVE EXCESSES CUT	ACCUMULATIVE EXCESSES FILL	BASE CUBIC YARDS

SHEET NO.	COL. NO.	SUMMARY BY COLUMNS	EXCAVATION TOTAL CU. YDS.	EXCAVATION ROCK CU. YDS.	EMBANKMENT CUBIC YARDS		BASE CUBIC YARDS

REMARKS

EARTH AND ROCK EXCAVATION
SOLID ROCK EXCAVATION
EARTH EXCAVATION

PLANIMETERED FILL
LESS FACTORED SOLID ROCK
LESS DISPLACEMENT OF ANY LARGE STRUCTURES
NET PLANIMETERED FILL
FACTOR
PLANIMETERED FILL INCLUDING FACTOR

MATERIALS AVAILABLE FOR FILLS
EARTH EXCAVATION
CHANNEL EXCAVATION
UNDERDRAIN EXCAVATION
STRUCTURE EXCAVATION

TOTAL MATERIAL AVAILABLE FOR FILL

TOTAL FILL INCLUDING FACTOR
TOTAL MATERIAL FOR FILL
BORROW

PROJECT ROUSES POINT, NEW YORK – ALBURG, VT.

PROJECT BRF _____ NO 028-1(11)
SHEET C-10 OF 50 SHEETS

D-2

Survey ℄ Point "NY2"
Sta. 28+05.28 Survey ℄ =
Sta. 28+~~38.95~~ Const. ℄
11.77

Sta. 28+20 Begin Approach and Limit of Work

Sta. 28+78.66 Const ℄ =
Sta. 10+00.00 Rec. Access Rd.

Recreational Access Road
For Alignment and Additional Details, see Sheets C-3, C-4 & C-6

Lake Champlain Bridge Commission

Ft. Montgomery Estates, Inc.

Survey ℄ Point "NY3"
Sta. 33+86.00 Survey ℄

Note:
Retain 20' of Existing Pavement to meet Proposed Recreational Access Road, Saw-Cut, Scarify and Remove Excess Pavement.

TBM Toll Booth
Metal Disc in Pavement
Elev. 105.16

RICHELIEU RIVER

VT. PLANE GRID

Survey ℄ Point "Booth"
Sta. 40+37.57

Sta. 17+50
End of Full Depth Construction

ROUTE U.S. 2

Curve #1

Pole #1971

Pole #2

Pole #4

Pole #5

Pole #6

Pole #7

Pole #8

Pole #9

Pole #10

Pole #11

Inv. 100.1

Inv. 99.1

Inv. 99.0

18" CGMP

10" CGMP

30" R.C.P.

2" Galv.

24" Maple

30" Ash

Rose Bushes

Conc. Bound

House

Lawn

Bath House

Parking Area

Beach

MONTGOMERY ST.

DRIVE

DIRT

Field

Brush

Light Woods

Conc. Bd.

Gravel

Stone Fill

2" Loam and Seed

3 Cable Guard Rail w/ R.R. Rail Post

Post Prop. Bit. Conc. Pvmt.

50'x40' Vehicle Turning Area

Admin. Bldg.

Flag Poles

Island

Toll Booth

24" Split Willow

4-12" Willows

8" Pop

36" Pop

6" Poplar

Manhole
Rim 103.3
Inv. 6" CI in. 98.7
Bottom 94.2

P.C. 1 Sta. 29+18.52

Sta. 30+50 Begin Project
BRF 028-1 (11)
End Approach

P.T. 1 Sta. 34+42.56

Sta. 30+95±Rt.
Remove existing 10" C.G.M.P. (65'±)

TBM NY1
Chiseled sq. on N. Side of 6' D. Conc. Base for Pole
Elev. 101.44

Surcharged Embankment Area
Sta. 32+50 Thru 37+25

Sta. 37+07.08
Stop Roadway
Begin Bridge

Existing Administration Building, Toll Booth and Island to be removed - Item 202.10

Curve #1 Data
Δ = 12°-00'-36.7" Rt.
D = 2°-17'-30.6"
R = 2500.000'
T = 262.985'
L = 524.043'
E = 13.794'
Bank = 0.031 Ft/Ft

P.C.C. Pvmt. — Bit. Conc. Pvmt. 36+87±

For Joint Detail, See Bridge Sheet 54

LAKE CHAMPLAIN

Bituminous Concrete Pavement — Portland Cement Concrete Pavement

SIGN LOCATIONS (To Be Removed)	
STA.	OFFSET
28+80	39' RT
29+46	21' LT
31+26	29' LT
32+40	35' LT
32+91	3' RT
34+19	16' LT
35+58	30' LT
39+75	53' LT
40+75	63' LT
40+92	109' LT
41+39	70' LT

SETTLEMENT PLATFORMS			
NO.	STA.	OFFSET	ELEV.
SP1	34+0	20' RT.	102.0
SP2	35+25	20' RT.	102.0
SP3	36+50	20' RT.	102.0
SP4	36+50	10' LT.	102.0

Notes:
1. For Additional Alignment Data in the Recreational Access Road Area, See Sheet C-4.
2. For Grading and Drainage in the Recreational Access Road Area, see Sheet C-17.

PROFILE - ROUTE 2

Sta. 28+20 Begin Approach — Bituminous Concrete Pavement — Portland Cement Concrete Pavement

Sta. 30+50 Begin Project
BRF 028-1 (11)
End Approach

Sta. 37+07.08 Const. ℄
Stop Roadway
Begin Bridge

0.0000%
+0.6500%
+4.5502%
-2.000%
+0.700%
-2.000%
0.000%

P.V.C. Sta. 30+00 Elev. 105.80
P.V.T. Sta. 31+00 Elev. 105.63
P.V.I. Sta 30+50 Elev. 105.30 K=100' E=0.081'
P.V.C. Sta. 34+50 Elev. 107.90
P.V.I. Sta. 37+50 Elev. 109.85 L=600' K=154 E=2.925'
P.V.T. Sta. 40+50 Elev. 123.50
P.V.C. Sta. 10+50 Elev. 104.80
P.V.T. Sta. 11+50 Elev. 103.65
P.V.I. Sta. 11+00 Elev. 105.30 L=100' K=97 E=0.9375'
P.V.I. Sta. 16+00 Elev. 106.80 L=100' K=97 E=0.9375'
P.V.C. Sta. 15+50 Elev. 100.45
P.V.T. Sta. 16+50 Elev. 105.80
P.V.C. Sta. 17+00 Elev. 104.80
P.V.T. Sta. 17+50 Elev. 104.30
P.V.I. Sta. 17+25 Elev. 104.50 L=50' K=25 E=0.125'

Existing Ground at ℄

M.H.W. 98.00

PROFILE RECREATIONAL ACCESS ROAD

SCALE IN FEET

28+00 — 41+00
ROUSES POINT, N.Y. - ALBURG
BRF 028-1 (11)

SURVEY BY	DuBois & King	5-82
DRAWN BY	R. Mazzeo	10-83
TRACED BY	L. Smith	5-84

SHEET C-11 OF 50 SHEETS

PLAN: SURVEYED, PLOTTED, NOTE BOOK, CROSS SECTIONS CHECKED, R.O.W. OR INSTRUMENTATION CHECKED, DATE, BY, No.

PROFILE: SURVEYED, PLOTTED, NOTE BOOK, CROSS SECTIONS CHECKED, R.O.W. OR INSTRUMENTATION CHECKED, DATE, BY, No.

K•E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO. 48 7024 Made in U.S.A.

Survey @ Point "Booth"
Sta. 40+37.57

Note:
Portions of the 20' Travel Way without existing Pavement shall be Repaved as Directed by Engineer

Note: All undesirable vegitation shall be removed from the West causeway as part of Clearing and Grubbing Item.

LAKE CHAMPLAIN

8" Pop
Manhole
Rim 103.3
Inv 6" C.I. In. 98.7
Bottom 94.2
Admin. Bldg.
2" Galv.
Flag Poles
Sign
Toll Booth
Island
Pole # 10
Sign
2" Galv. Drain
Sign
Pole # 11
Pole # 12
Stone Fill
Pole # 13
20' Concrete Median Barrier
℄
BM P 437 X, NGS
Disc on Abutment
Elev. 108.33
Stone Fill

Note:
Power to the Existing Bridge shall be maintained by the Contractor till the Demolition of the Bridge.

Existing Bridge to be removed
BRIDGE
Swing Span
NEW YORK
VERMONT
RICHELIEU RIVER
N
VT. PLANE GRID

41 42 43 44 45 46 47 48 49 50 51 52 53 54

S 79°-19'-56.3" E

Approx. Location
14" C.I. Pipe Sewer Outfall

Proposed Bridge
See Bridge Plans

-3.6542 %

+4.5502 %

P.V.C. Sta. 43+75
Elev. 147.59

P.V.I. Sta. 52+75
Elev. = 179.24
L = 1400'
K = 170.69
E = 14.357'
SSD = 488'

Approx. Location of 14" C.I. Pipe Sewer Outfall - Village of Rouses Point

M.H.W. 98.00

Existing Lake Bottom at ℄

170 160 150 140 130 120 110 100 90 80

SCALE IN FEET
0 50 100
20 10 0

41+00 — 54+00
ROUSES POINT, N.Y.-ALBURG
BRF 028-1 (11)
SURVEY BY DuBois & King 5-82
DRAWN BY R. Mazzeo 0-83
TRACED BY L. Smith 5-84
SHEET C-12 OF 50 SHEETS

PLAN
SURVEYED
PLOTTED
NOTE BOOK
No.
ALIGNMENT CHECKED
ST. OF WAY CHECKED
DATE
BY

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
R. M.'s NOTED
No.
SPECIFICATIONS CHECKED
DATE
BY

K+E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
48 7024 Made in U.S.A.

Swing Span

Existing Bridge to be removed

BRIDGE

Approximate Location of Turbidity Screen

Existing Causeway to be removed down to Elevation 90.0

Sign

Stone Fill

Sign

Stone Fill

Approximate Location of Turbidity Screen

N

VT. PLANE GRID

BM A 48 , NGS Disc on Abutment Elev. 108.86

P.C. 2 57+10.97

S 79°-19'-56.3" E

Proposed Bridge See Bridge Plans

54 55 56 57 58 59 60 61 62 63 64 Curve #2 65 66

N 84°-30'-59.1" E

LAKE CHAMPLAIN

Curve #2 Data
Δ = 16°-09'-04.6" Lt.
D = 1°-00'-00"
R = 5729.578'
T = 812.964'
L = 1615.128'
E = 57.987'
Bank = 0.021 Ft./Ft.

-3.6542 %

-3.6542 %

P.V.T. Sta. 59+75
Elev. 159.66

P.V.C. Sta. 64+75
Elev. 135.47

M.H.W. 98.00

Existing Lake Bottom at ℄

170 160 150 140 130 120 110 100 90 80

54 55 56 57 58 59 60 61 62 63 64 65 66

0 50 100
SCALE IN FEET

20 10 0

54+00 66+00

ROUSES POINT, NY. - ALBURG
BRF 028-1 (11)

SURVEY	BY	DuBois & King	5-82
DRAWN	BY	R. Muzzeo	10-83
TRACED	BY	L. Smith	5-84

SHEET 2-13 OF 30 SHEETS

PLAN
SURVEYED
PLOTTED
NOTE BOOK ALIGNMENT CHECKED
No. BY DATE

PROFILE
SURVEYED
PLOTTED
NOTE BOOK GRADES CHECKED
No. STRUCT. EL. NOTATIONS CHECKED
BY DATE

K•E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
48 7024 Made in U.S.A.

Survey ℄ Point
Causeway # 1

LAKE CHAMPLAIN

Existing Causeway to be removed
down to Elevation 90.0

Sign

Stone Fill

Sign

Sign

Stone Fill

Approximate Location
of Turbidity Screen

Remove Existing Causeway
Down to Elevation 90.0
See Cross Sections

Existing Causeway
To Remain

Existing East Causeway ℄. See Cross
Sections along this ℄ for removal of
the Causeway to the West.

Approximate Location
of Turbidity Screen

N

VT. PLANE GRID

2.4

2.5

77.35

S-R-2

P.R.2

S-R-1

P.R.1

Proposed Bridge
See Bridge Plans

66 67 68 69 70 Curve #2 71 72 73 74 75 76 77 78 79

Placement of Embankment,
see Typical Longiludinal
Section C-17.

N 84°-30'-59.1" E

Sta. 76+30 Route 2 Const. ℄ 25+00
Existing East Causeway ℄, 77.35' Lt.

Sta. 77+63.25 Const. ℄
Stop Bridge, Begin Roadway

P.T. 2 73+26.10

TBM Causeway # 1
Top S.E. Corner of Steel I Beam
of Guard Rail 1100 Feet East of
End of Bridge
Elev. 106.26

Bit Conc Pvm't. P.C.C. Pvm't.
77+83±

For Joint Detail,
See Bridge Sheets

LAKE CHAMPLAIN

Curve #2 Data
Δ=16°-09'-04.6" Lt.
D=1°-00'-00"
R=5729.578'
T=812.954'
L=1615.128'
E=57.387'
Bank=0.021 Ft./Ft.

PLAN
SURVEYED
PLOTTED
NOTE BOOK
No.
BY
DATE
ALIGNMENT CHECKED
PLAN QUANTITIES CHECKED

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
NOTE BOOK
No.
BY
DATE
STRUCTURE QUANTITIES CHECKED

150 140 130 120 110 100 90 80

-3.6542 %

-1.2000 %

-1.2000 %

P.V.I. Sta. 67+78
Elev. = 124.50
L = 600'
K = 244.50
E = 1.8405

M.H.W. 98.00

P.V.T. Sta. 70+78
Elev. 120.90

Existing Lake Bottom at ℄

Sta. 77+63.25 Const. ℄
Stop Bridge, Resume Roadway

66 67 68 69 70 71 72 73 74 75 76 77 78 79

0 50 100
SCALE IN FEET

20 10 0

66+00 — 79+00

ROUSES POINT, NY. - ALBURG
BRF 028-1 (11)

SURVEY	BY DuBois & King	5-82
DRAWN	BY R. Mazzeo	10-83
TRACED	BY L. Smith	5-84

SHEET 6-14 OF 50 SHEETS

K+E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
48 7024 Made in U.S.A.

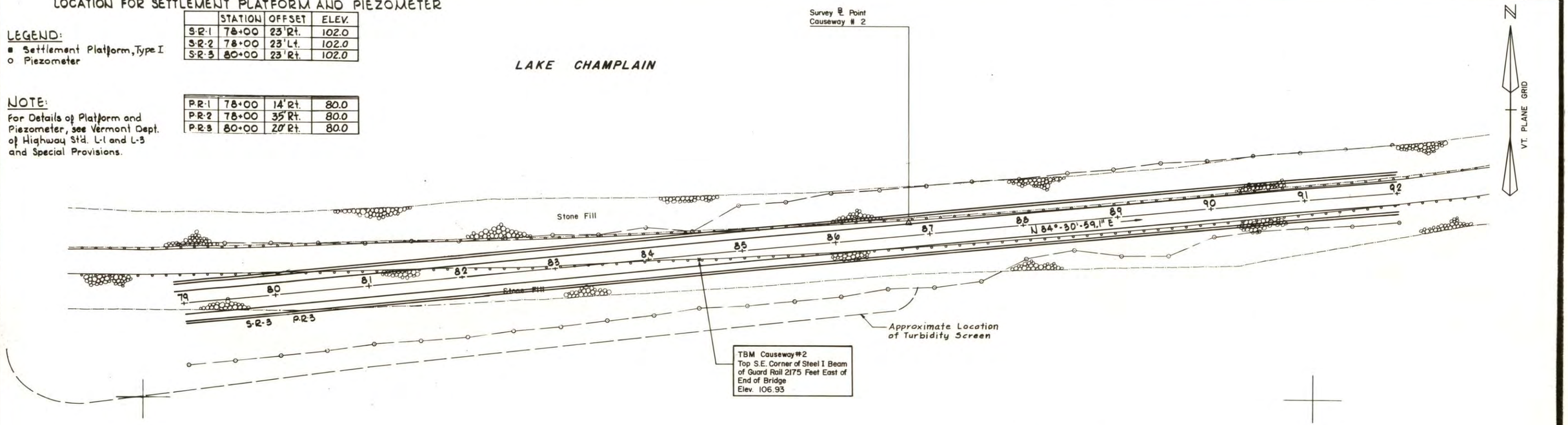
LOCATION FOR SETTLEMENT PLATFORM AND PIEZOMETER

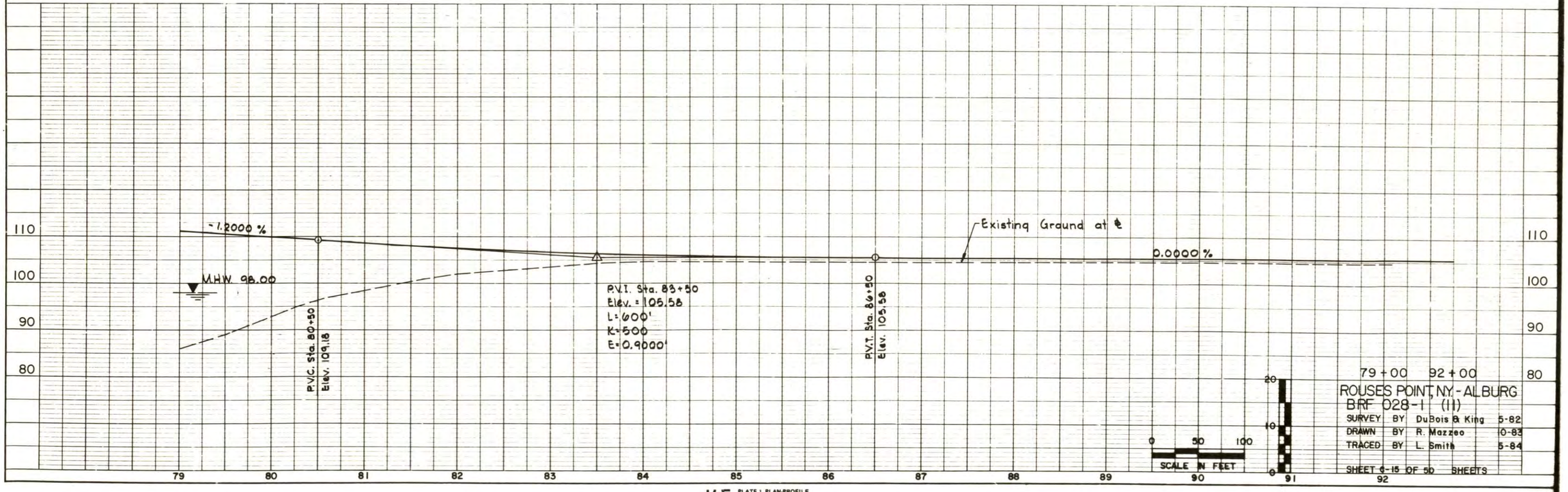
	STATION	OFFSET	ELEV.
S·R·1	78+00	23' Rt.	102.0
S·R·2	78+00	23' Lt.	102.0
S·R·3	80+00	23' Rt.	102.0

LEGEND:
- ■ Settlement Platform, Type I
- o Piezometer

P·R·1	78+00	14' Rt.	80.0
P·R·2	78+00	35' Rt.	80.0
P·R·3	80+00	20' Rt.	80.0

NOTE:
For Details of Platform and Piezometer, see Vermont Dept. of Highway Std. L-1 and L-3 and Special Provisions.





79 + 00 92 + 00

ROUSES POINT, NY. - ALBURG
BRF 028-1 (11)

SURVEY	BY	DuBois & King	5-82
DRAWN	BY	R. Mazzeo	10-83
TRACED	BY	L. Smith	5-84

SHEET 6-15 OF 50 SHEETS

PLATE 1, PLAN-PROFILE
K+E KEUFFEL & ESSER CO.
46 7024 Made in U.S.A.

Carl & Anita Hunter

Sta. 99+00 End Project BRF 028-1 (11)
Begin Approach

Portland Cement Concrete Pavement End Full Depth Pavement Section

Bituminous Concrete Pavement

LAKE CHAMPLAIN

Survey ℄ Point
Causeway #3

Sta. 99+00 Begin 25:1 Taper at Shoulders

Survey ℄ Point
VTI

Blanche V. Curtis

Alburg Truck Stop Co

Sta. 101+20± End Approach and Limit of Work

Field

Survey ℄ Point
△ P.O.T.

Lake Champlain Bridge Commission

Woods

Brush

24" Elm

P.C.C. Sta. 98+48.55
R.C. Sta. 98+95.98

Conc Pier

Stone Fill

Curve #3

N 89°-02'-33.6" E

N 84°-50'-59.1" E

Sign

MMF

HOUSE

Gr. Drive

W/UT Box 45/6

#6-2

Fill Pipes & Vents

BUILDING

Asphalt

Sign & Pump

Road

Gravel

ROUTE U.S. 2

13'±

12'±

6" Pop.

#6-1

UT Box #45/7

6" Pop.

Asphalt

Brush

Royal W. Jarvis

TRAILER

SHED

HOUSE

100 +25

+75

101

14" Pop.

18" Pop

24" Pop

30" Pop

18" Pop

10" Pop

24" Pop

N 89°-02'-38.0" E

P.I.C.

State of Vermont

Lake Champlain Bridge Commission

Conc. Slab

Ramp

Low Water

R=25'

2.40'

Construct Bituminous Concrete Apron at Fish and Game Access. See Cross Sections

△ Pt. Sta. 99+30.22 Const. ℄ 00°-00'-04.6" Rt.

State of Vermont
Fish and Game Service

Curve #3 Data
Δ = 4°-31'-34.5" Rt.
D = 1°-00'-00"
R = 5729.578'
T = 226.430'
L = 452.625'
E = 4.472'
Bank = 0.021 Ft./Ft.

SIGN LOCATIONS (To Be Removed)	
STA.	OFFSET
98+36	17' RT
98+49	14' LT.
100+91	24' RT.
101+20	24' LT.

TBM # 3
Top S.E. Corner of Steel I Beam of Guard Rail 3230' East of End of Bridge, 100' West of Route 2 East Sign
Elev. 107.13

BM B-48
NGS Disc
South Side of Parking Area 150'± South of Route 2 ℄ 75' East of Edge of Lake
Elev. 102.24

LAKE CHAMPLAIN

N

VT. PLANE GRID

PLAN — SURVEYED, PLOTTED, DRAWN CHECKED, ALIGNMENT CHECKED, NOTE BOOK, No., AS-BUILT NOTATIONS CHECKED, DATE, BY

PROFILE — SURVEYED, PLOTTED, DRAWN CHECKED, NOTE BOOK, No., STRUCTURE NOTATIONS CHECKED, DATE, BY

Existing Ground at ℄

0.0000%

-0.88%

0.0000%

P.V.C. Sta. 99+00
Elev. = 105.58

P.V.C. Sta. 100+00
Elev. 105.4

P.V.T. Sta. 101+00
Elev. 104.70

Sta. 101+20±
End Approach and Limit of Work

P.V.I. Sta. 99+50
Elev. = 105.58
L = 100'
K = 113.6
E = 0.110'

P.V.I. Sta. 100+50
Elev. = 104.70
L = 100'
K = 113.6
E = 0.110'

110
100
90
80

92 93 94 95 96 97 98 99 100 101

0 50 100
SCALE IN FEET

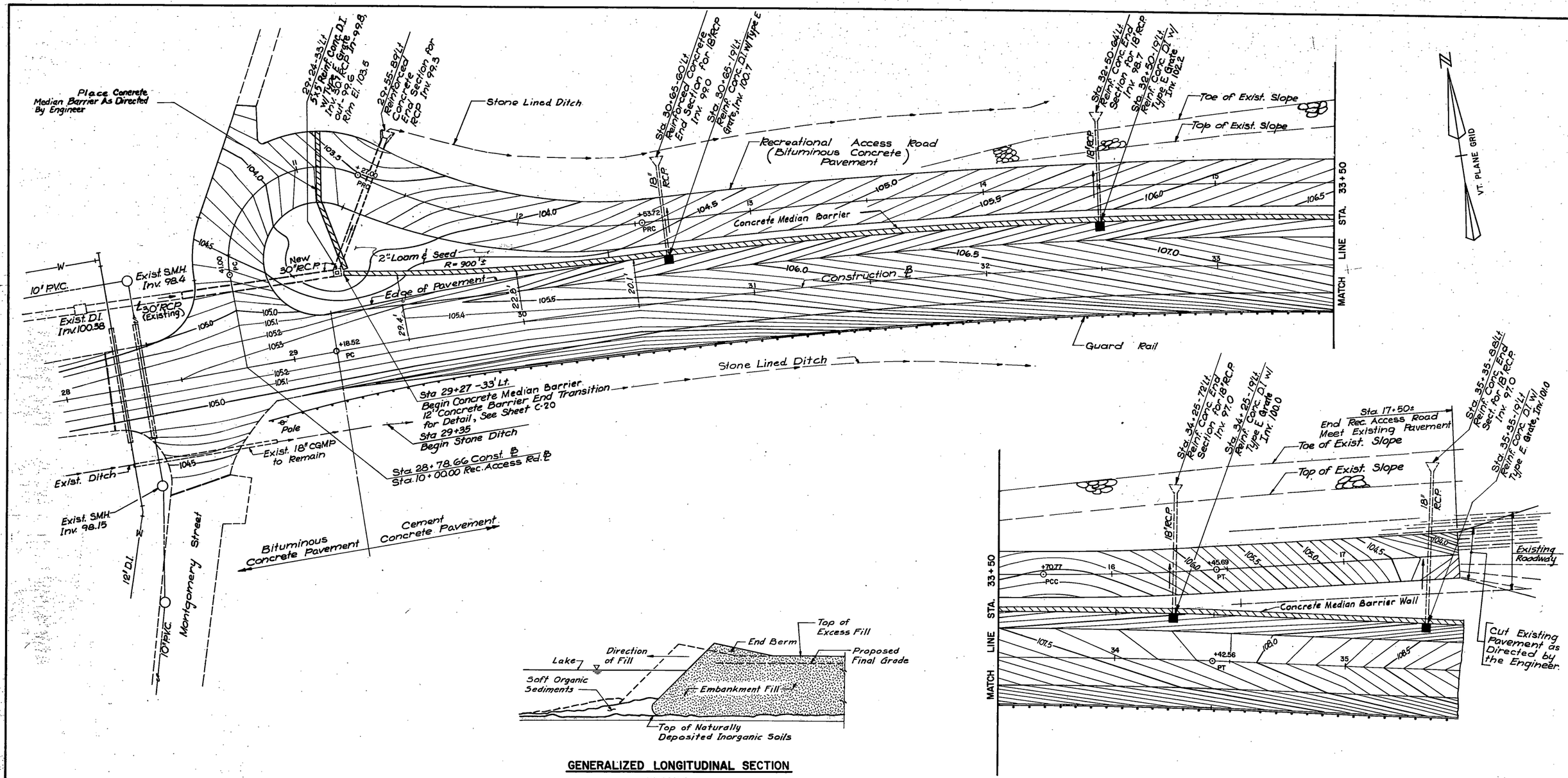
20
10
0

92 + 00 — 101 + 00
ROUSES POINT, NY - ALBURG
BRF 028-1 (11)

SURVEY	BY DuBois & King	5-82
DRAWN	BY R. Mazzeo	0-83
TRACED	BY L. Smith	5-84

SHEET C-16 OF 30 SHEETS

K•E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
46 7024 Made in U.S.A.



GENERALIZED LONGITUDINAL SECTION

NO SCALE

NOTES:

1. End Berm To Be Nominal 2 To 4 Feet Above Top of Excess Fill Level Across Full Width of Embankment and Carried Forward as The Embankment Progresses In Longitudinal Direction.
2. Remove Excess Accumulation of Soft Organic Sediments At Toe of Longitudinal Section As Required By Engineer.
3. Or as Directed By Engineer

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

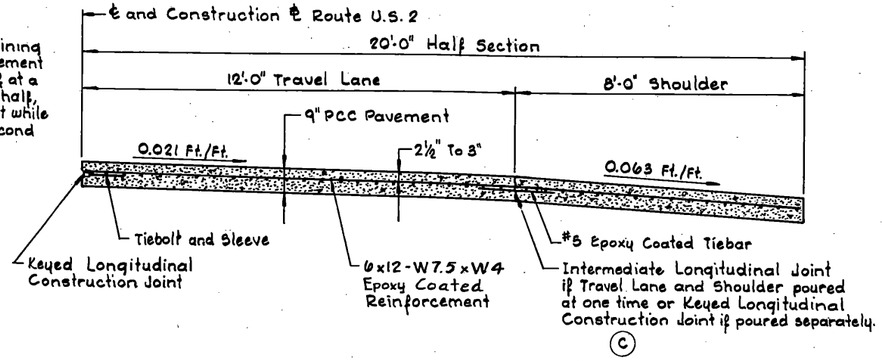
GRADING & DRAINAGE PLAN AT RECREATIONAL ACCESS ROAD AREA

1"=20'

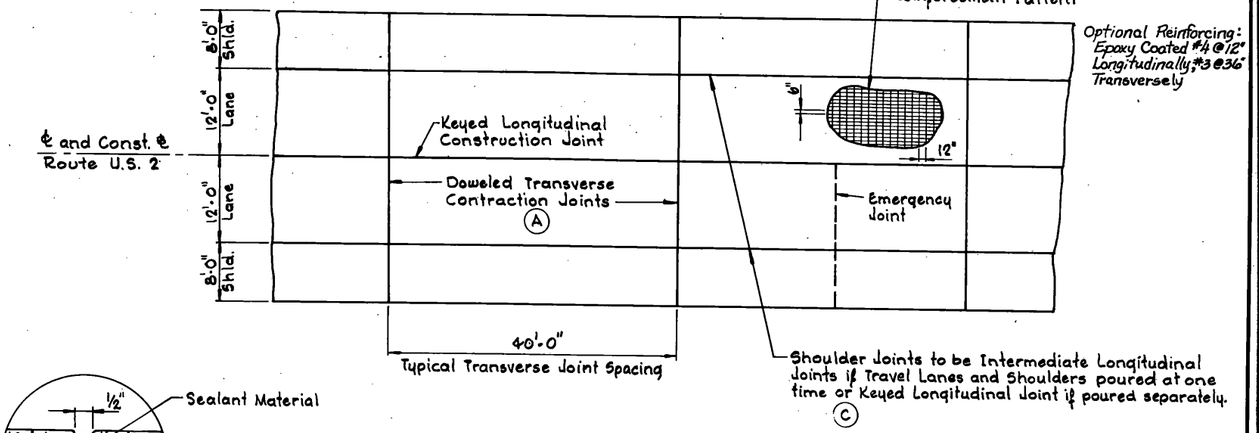
SURVEYED BY _____ DATE _____
DRAWN BY B. Barry DATE 9-6-84
TRACED BY S. Zaks DATE 9- -84

ROUTE U.S. 2
ROUSES POINT, N.Y. - ALBURG
PROJ. BRF NO. 028-1(11)
SHEET C-17 OF 50

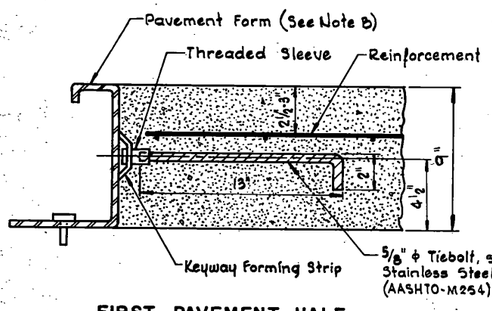
Note A:
Due to the requirement of maintaining traffic during Construction the pavement section shall be constructed one half at a time. After Construction of the first half, two way traffic shall be diverted on to it while widening and Construction of the second half of the causeway is completed.



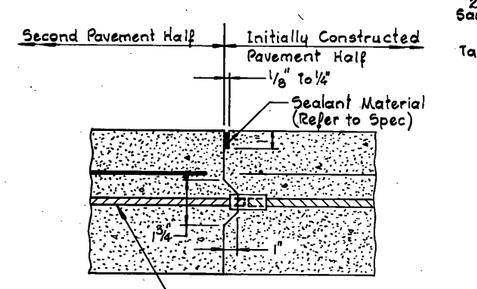
TYPICAL PAVEMENT HALF SECTION
Scale: ½"=1'-0"



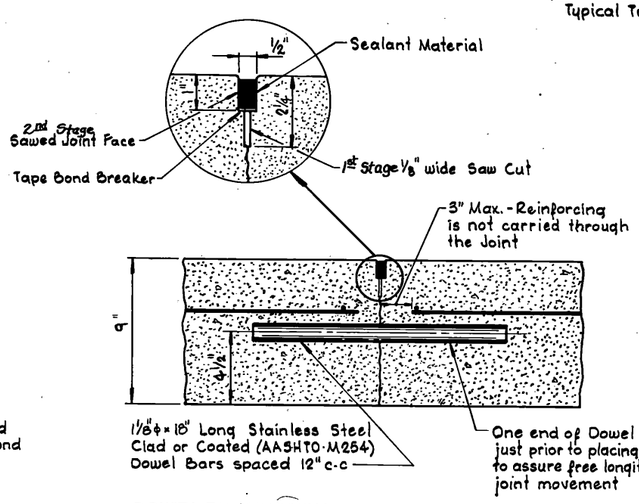
PLAN - TYPICAL JOINT PATTERN
Scale: 1"=10'-0"



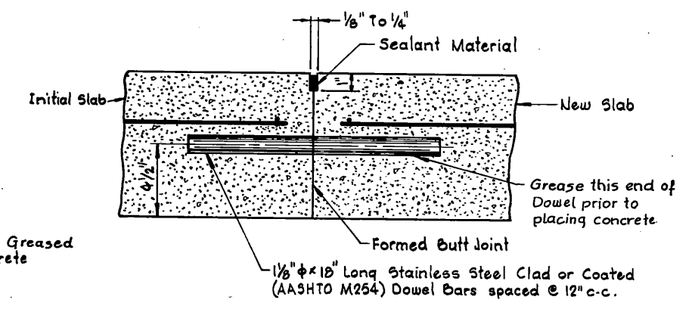
FIRST PAVEMENT HALF
KEYED LONGITUDINAL CONSTRUCTION JOINT
Scale: 3"=1'-0"



SECOND PAVEMENT HALF

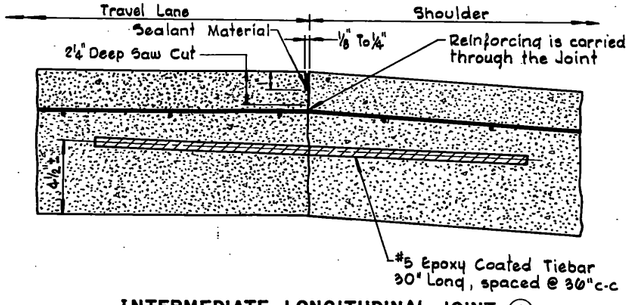


DOWELED TRANSVERSE CONTRACTION JOINT (A)
Scale: 3"=1'-0"

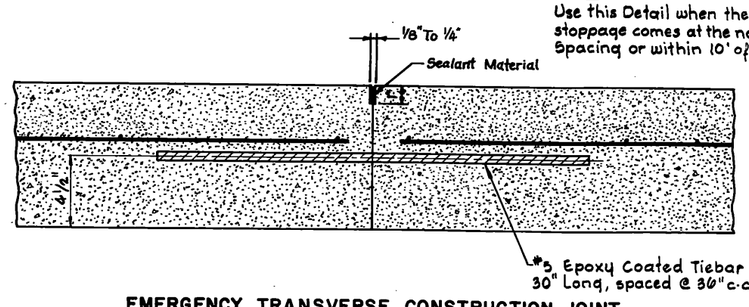


PLANNED TRANSVERSE CONSTRUCTION JOINT
Scale: 3"=1'-0"

Note:
Use this Detail when the work stoppage comes at the normal 40' Joint Spacing or within 10' of it.



INTERMEDIATE LONGITUDINAL JOINT (C)
Scale: 3"=1'-0"



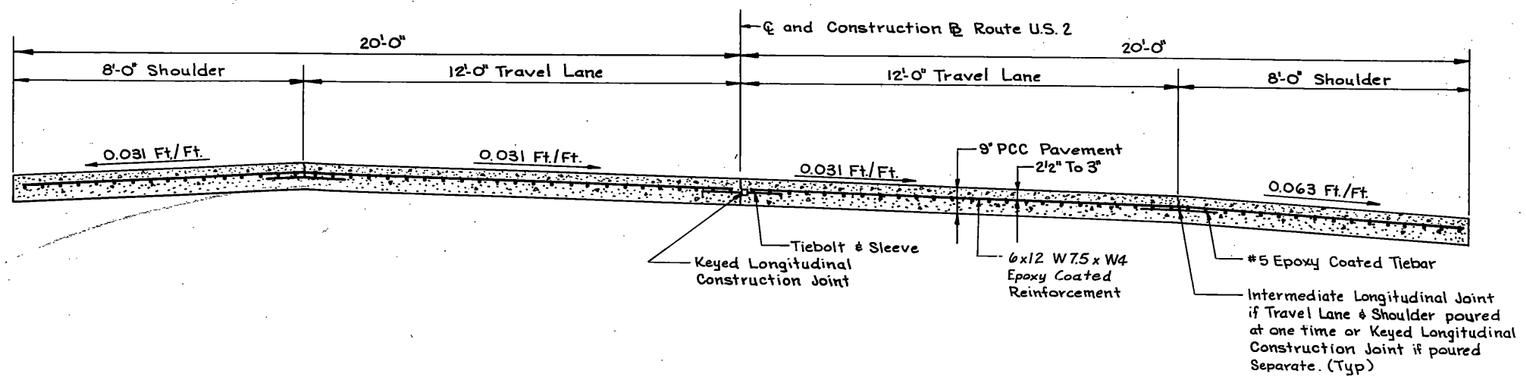
EMERGENCY TRANSVERSE CONSTRUCTION JOINT
Scale: 3"=1'-0"

Note:
Use this Detail when the work stoppage comes in the middle third of the normal 40' Joint Interval.

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

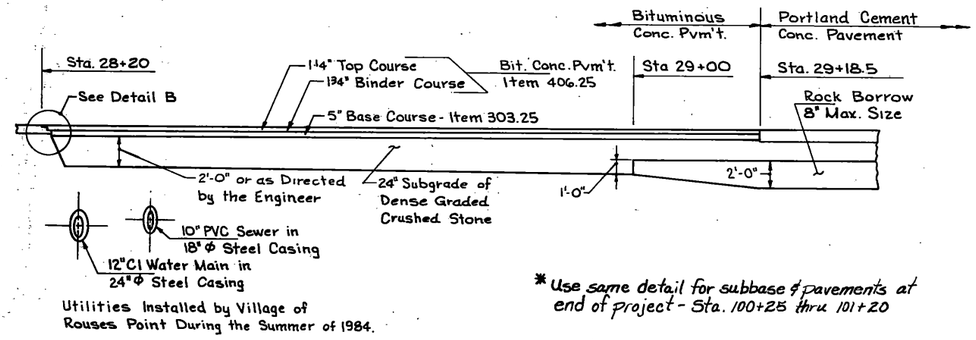
PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

SURVEYED BY _____ DATE _____
DRAWN BY R. Mazzeo DATE 5-84
TRACED BY L. Smith DATE 5-84
ROUTE U.S. 2
ROUSES POINT, N.Y. - ALBURG
PROJ. BRF NO. 028-1(11)
SHEET C-18 OF 50



TYPICAL PAVEMENT SECTION AT WEST APPROACH

Scale: 12" = 1'-0"

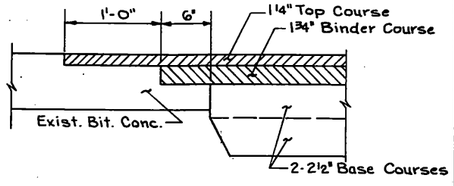


Utilities Installed by Village of Rouses Point During the Summer of 1984.

* Use same detail for subbase & pavements at end of project - Sta. 100+25 thru 101+20

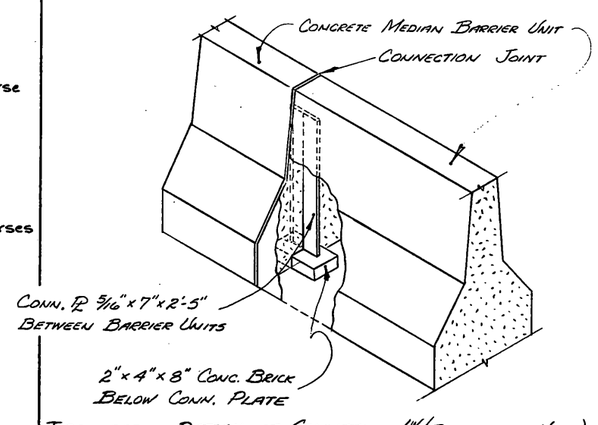
LONGITUDINAL SECTION AT MONTGOMERY STREET INTERSECTION*

No Scale



DETAIL B

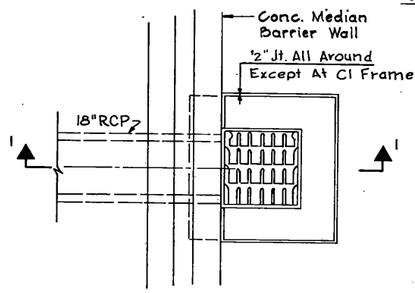
No Scale



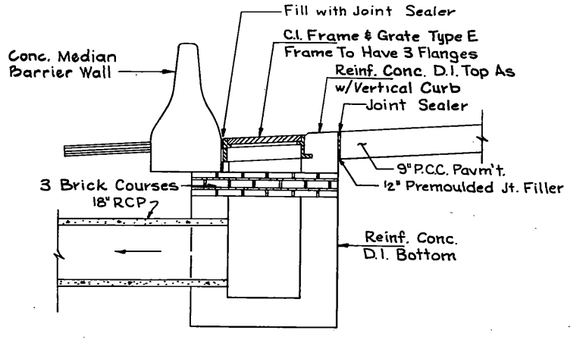
ISOMETRIC DETAIL OF CONNECTION (W/BREAKAWAY VIEW)

Scale: ¾" = 1'-0"

FOR CURB DETAILS SEE SHEET C-20 OF 50



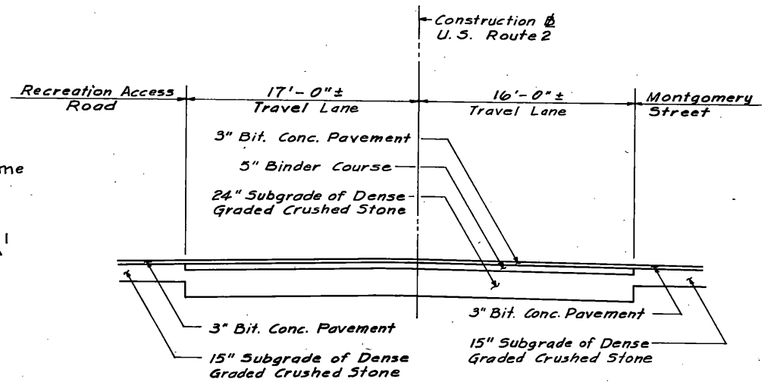
PLAN



SECTION I-I

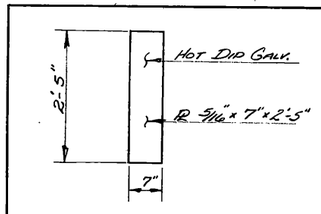
INLET AT CONCRETE MEDIAN BARRIER WALL

Scale: 12" = 1'-0"



STATION 28+65

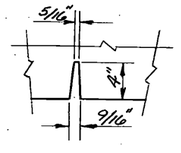
Scale: 3/16" = 1'-0"



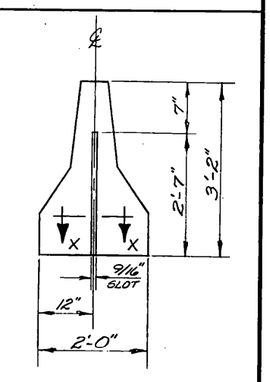
TYPICAL CONN. PLATE

SCALE: ¾" = 1'-0"

(ONE REQUIRED PER CONNECTION)



SECTION X-X



TYPICAL END VIEW

SCALE: ¾" = 1'-0"

FOR CURB DETAILS SEE SHEET C-20 OF 50

PAVEMENT DETAILS AT WEST APPROACH

DATUM	
VERTICAL	NGVD 1929
HORIZONTAL	NAD 1927

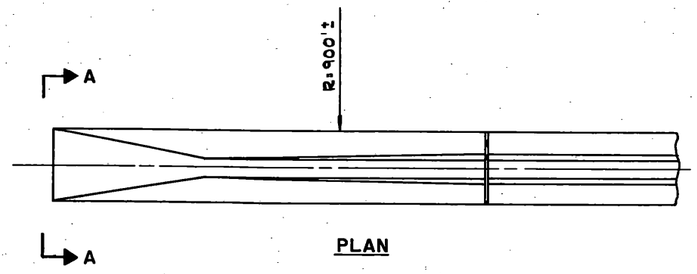
SURVEYED BY		DATE
DRAWN BY	B.J.B.	DATE 5-84
TRACED BY	R.C.S.	DATE 5-84

ROUTE U.S. 2

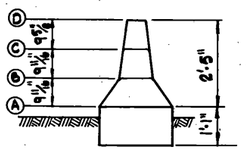
ROUSES POINT, N.Y. - ALBURG, VT.

PROJ. BRF NO. 028-1(11)

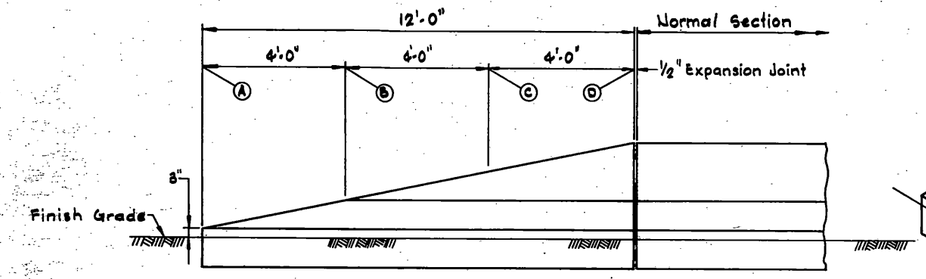
SHEET C-19 OF 50



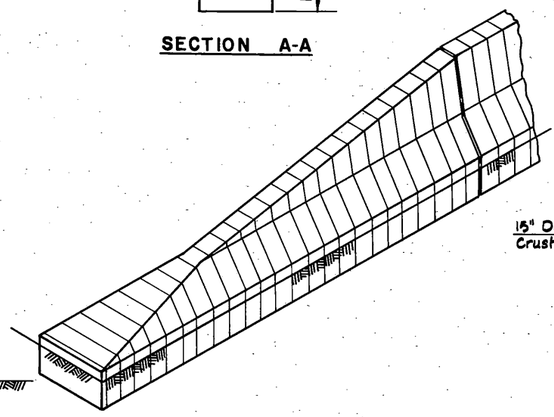
PLAN



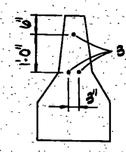
SECTION A-A



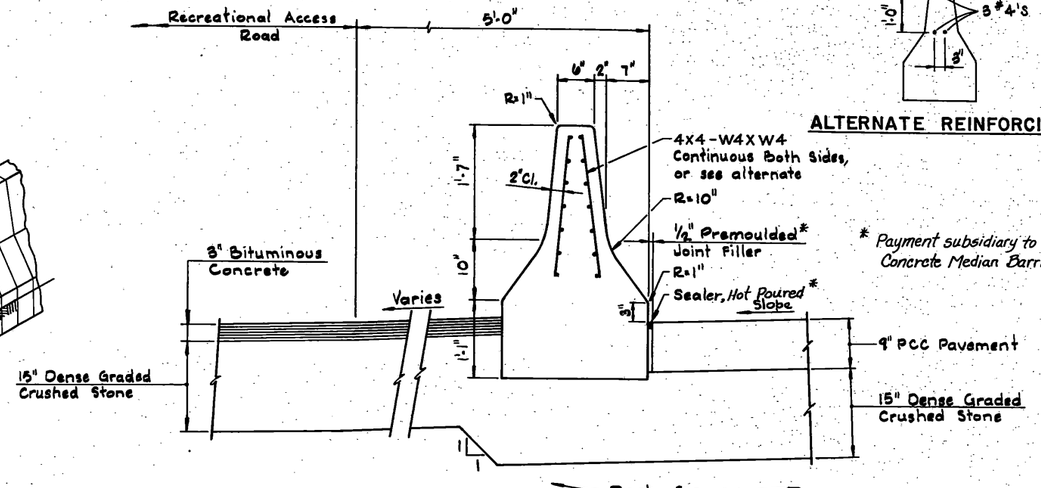
ELEVATION



ISOMETRIC VIEW



ALTERNATE REINFORCING

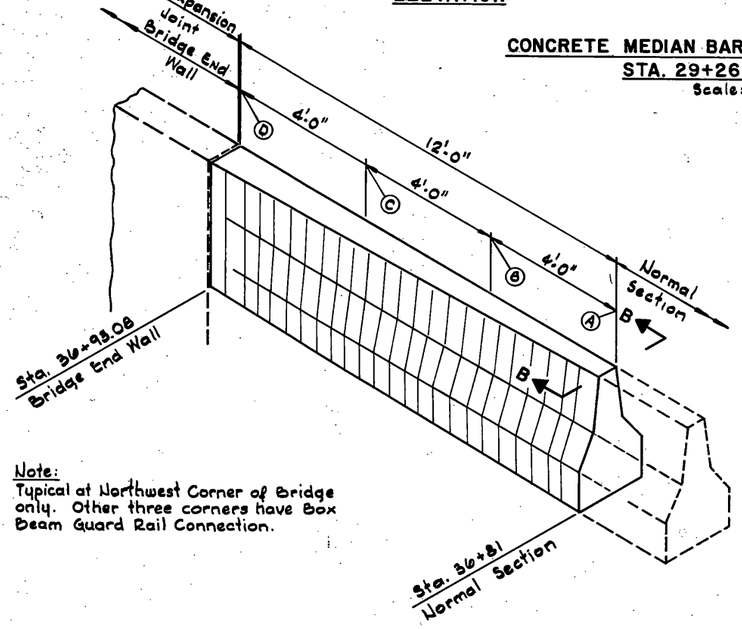


* Payment subsidiary to Concrete Median Barrier

NORMAL CONCRETE MEDIAN BARRIER SECTION
TYPICAL SECTION – STA. 29+38 TO 34+50
Scale: 1"=1'-0"

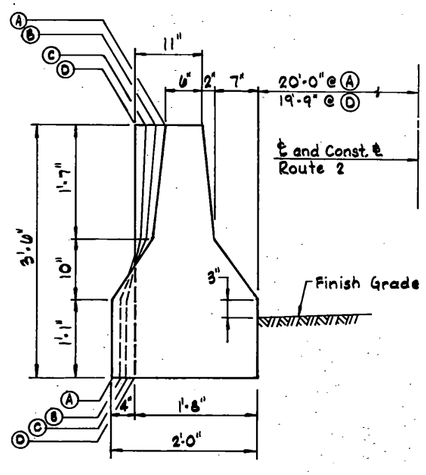
Note:
Loam and Seed instead of Pavement, Sta. 29+38 to 30+20±

CONCRETE MEDIAN BARRIER END TRANSITION
STA. 29+26 TO 29+38
Scale: ½"=1'-0"



Note:
Typical at Northwest Corner of Bridge only. Other three corners have Box Beam Guard Rail Connection.

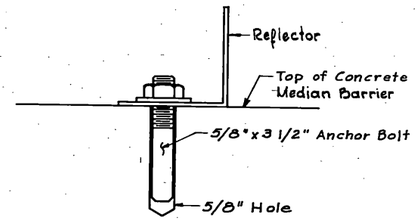
ISOMETRIC VIEW
No Scale



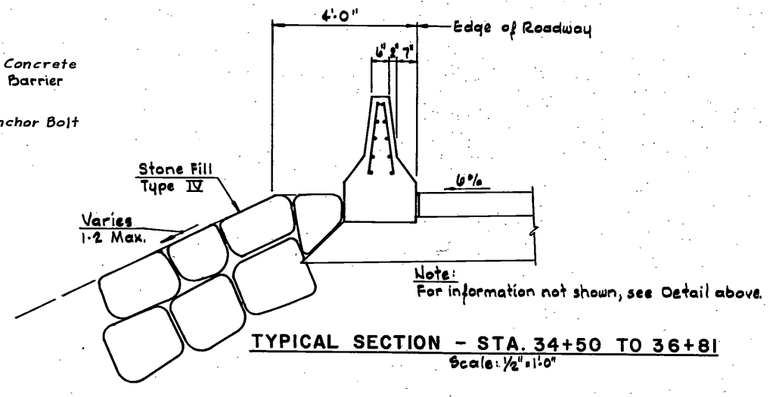
SECTION B-B
Scale: 1"=1'-0"

CONCRETE MEDIAN BARRIER TRANSITION - NORMAL SECTION TO BRIDGE END WALL

NOTE: FOR MEDIAN BARRIER UNIT CONNECTION DETAIL SEE SHEET C-19 OF 50.

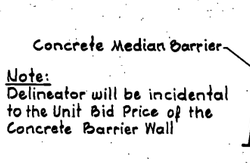


DELINEATOR INSTALLATION



Note:
For information not shown, see Detail above.

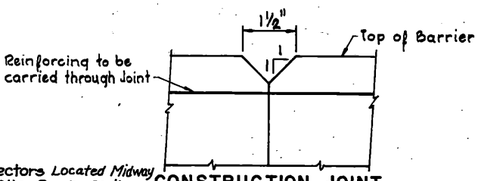
TYPICAL SECTION – STA. 34+50 TO 36+81
Scale: ½"=1'-0"



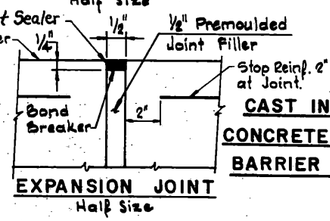
Note:
Delineator will be incidental to the Unit Bid Price of the Concrete Barrier Wall

ELEVATION

MOUNTING DETAILS FOR DELINEATORS
Scale: 1½"=1'-0"



CONSTRUCTION JOINT
Half Size



EXPANSION JOINT
Half Size

Joint Schedule			
Construction Option	Std. Spacing (20 ft.)	500 Ft. Intervals	Exist. Fixed Objects
Precast			
Cast-in-place	C	E	E

E-½" Expansion Joint
C-Construction Joint

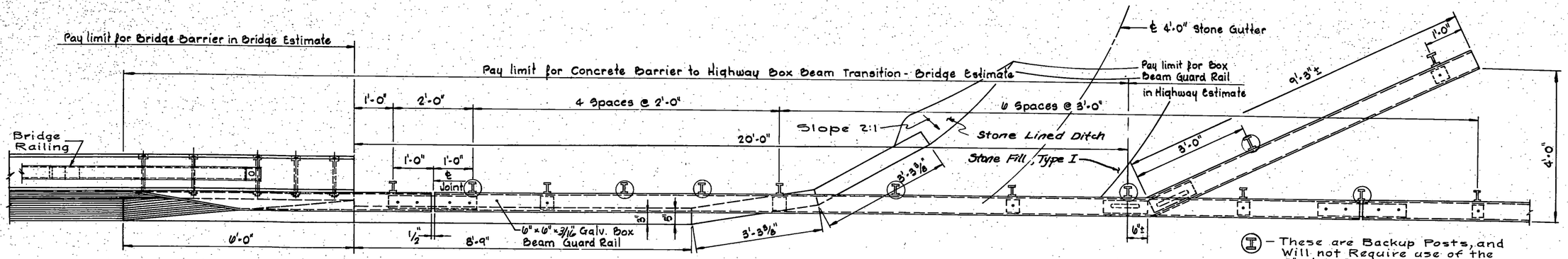
CAST IN PLACE CONCRETE MEDIAN BARRIER DETAILS

SURVEYED BY _____ DATE _____
DRAWN BY R. Mazzeo DATE 5-84
TRACED BY L. Smith DATE 5-84

ROUTE U.S. 2
ROUSES POINT, N.Y. - ALBURG
PROJ. BRF NO. 028-1 (11)

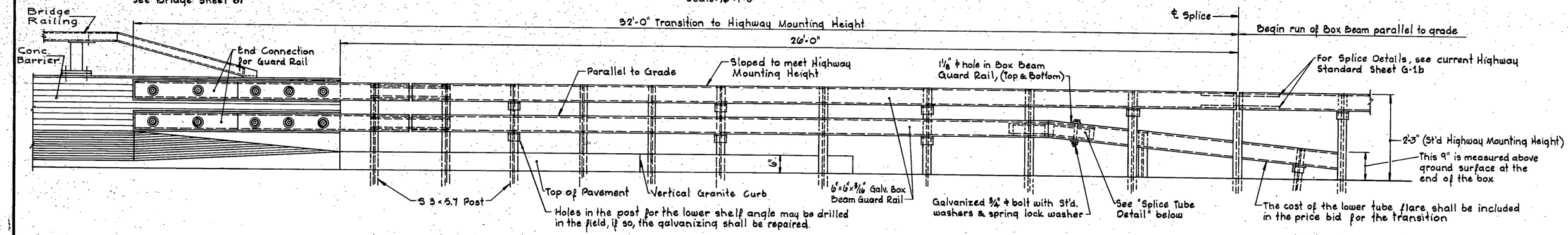
SHEET C-20 OF 50

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

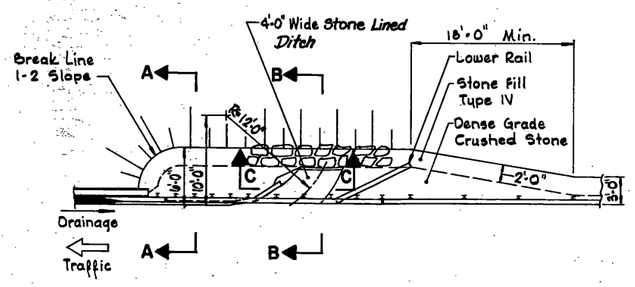


Note:
For connection at Bridge, see Bridge Sheet 81

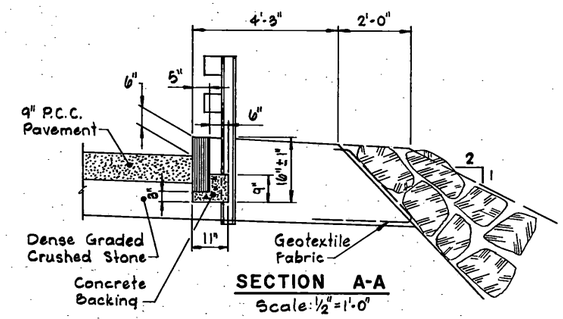
PLAN - BOX BEAM TRANSITION TO CONCRETE BARRIER
Scale: 3/4" = 1'-0"



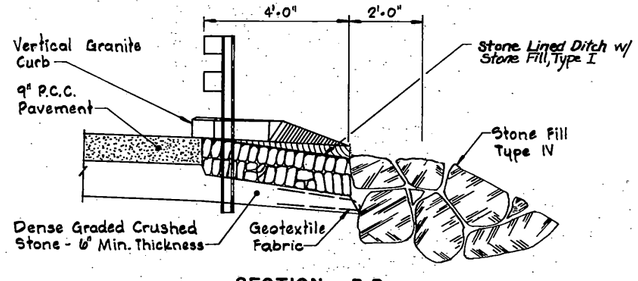
ELEVATION
Scale: 3/4" = 1'-0"



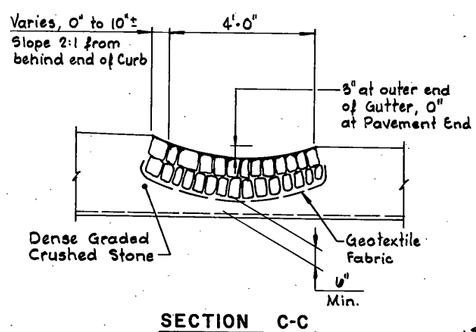
SHOULDER TREATMENT AT TRANSITION
Scale: 1/8" = 1'-0"



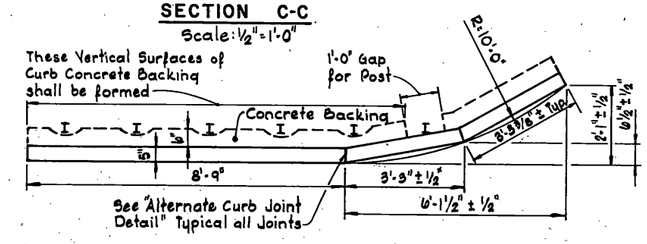
SECTION A-A
Scale: 1/2" = 1'-0"



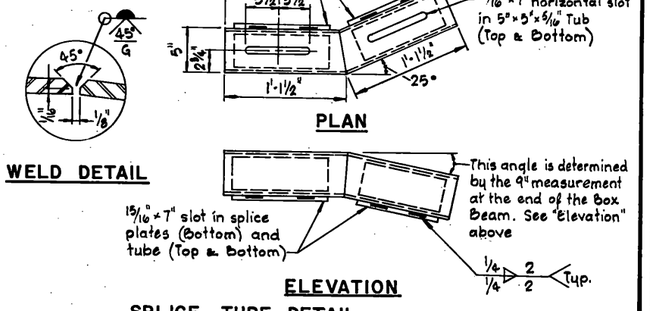
SECTION B-B
Scale: 1/2" = 1'-0"



SECTION C-C
Scale: 1/2" = 1'-0"



CURB LAYOUT AND CONCRETE BACKING
Scale: 1/2" = 1'-0"



ELEVATION
SPLICE TUBE DETAIL
Scale: 1 1/2" = 1'-0"

Note:
These details apply to all corners of the bridge except the NW Corner.

DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

SURVEYED BY _____ DATE _____
DRAWN BY R. Mazzeo DATE 5-84
TRACED BY L. Smith DATE 5-84

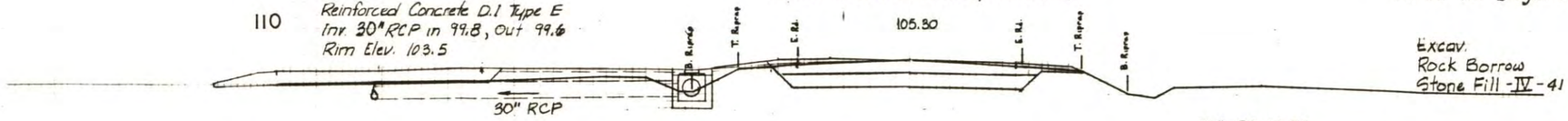
BOX BEAM GUARD RAIL TRANSITION TO BRIDGE

ROUTE U.S. 2
ROUSES POINT, N.Y. - ALBURG
PROJ. BRF NO. 028-1 (11)
SHEET C-21 OF 50

29+24 - 33' Lt.
Reinforced Concrete D.I Type E
Inv. 30" RCP in 99.8, Out 99.6
Rim Elev. 103.5

29+27 - 33' Lt. Begin Concrete Median Barrier Wall (See Details, Sheet C-20)

29+35 Rt. Begin Stone Lined Ditch



Excav.
Rock Borrow
Stone Fill - IV - 41

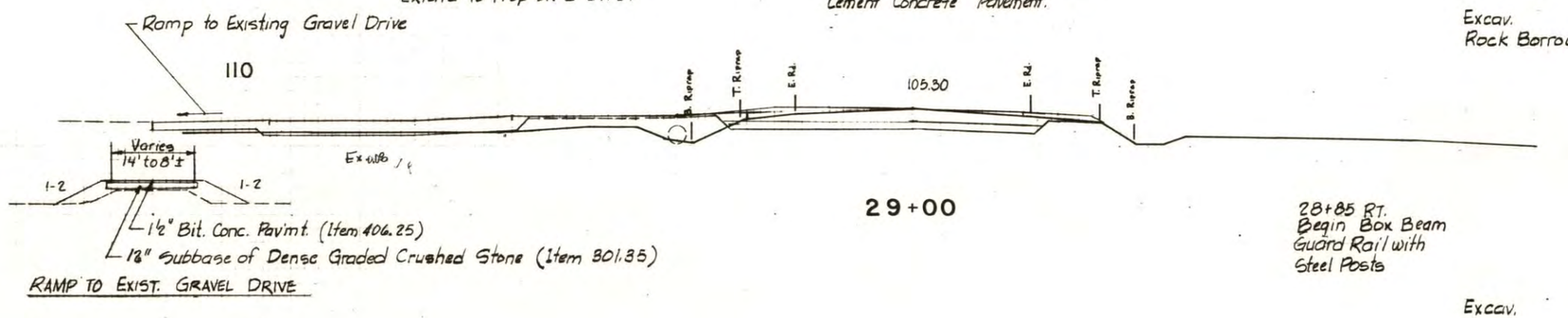
P.C. 29+18.52
D = 2°-17'-30.6" RT.

29+18

STA. 29+18, End Bituminous Concrete Pavement and Begin 9" Portland Cement Concrete Pavement.

29+05 - 33.5' Lt.±
End Exist. 30" RCP
Inv. 100.0±
Extend to Prop D.I @ 29+24

Ramp to Existing Gravel Drive

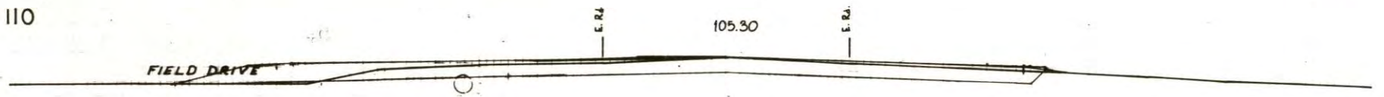


RAMP TO EXIST. GRAVEL DRIVE

29+00

Excav.
Rock Borrow

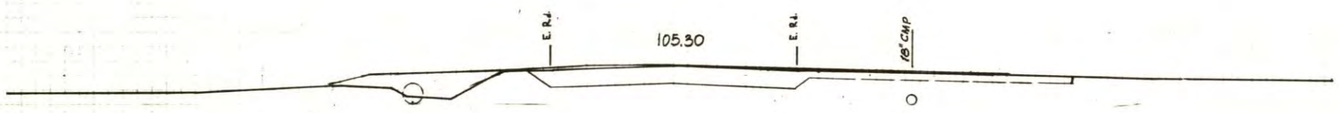
28+85 RT.
Begin Box Beam Guard Rail with Steel Posts



28+65

FIELD DRIVE LT.
MONTGOMERY ST. RT.

Excav.

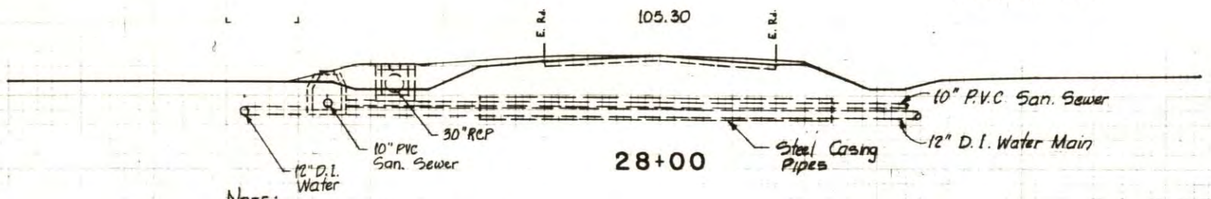


28+50

~~Bgn. 28+20 : Meet Exist. Pavement~~

Excav.

For Pavement Details in this Area, See Sheet C-19

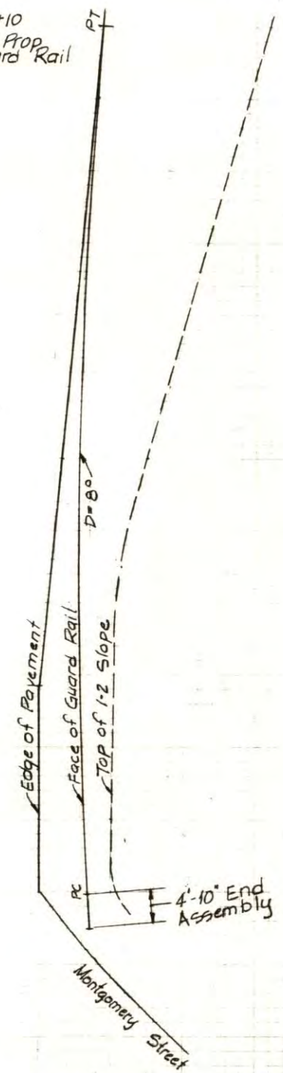


28+00

NOTE:
The Utilities in this area were installed by the Village of Rouses Point in the Summer of 1984. The Contractor shall be responsible to locate them in the field and Construct a new Full Depth Pavement Section over them.

℄ SCALE: HORZ. & VERT. 1"=10'

30+10
P.T. Prop. Guard Rail



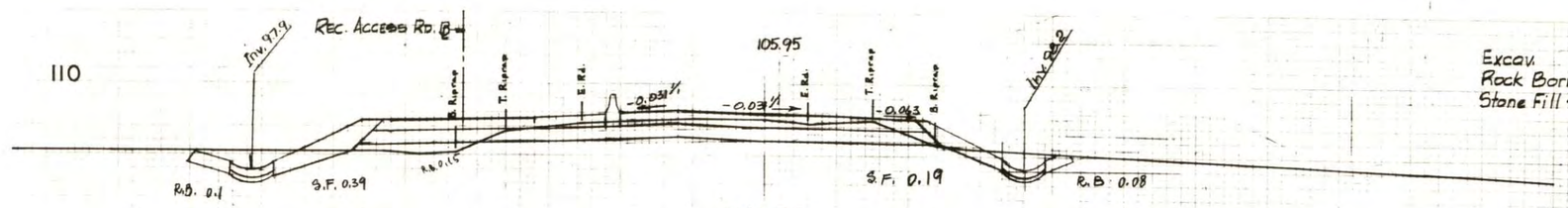
29+18.5
A Point in Prop. Edge of Pavement

28+85
Begin G.R.

GUARDRAIL DETAIL
Scale: 1" = 10'

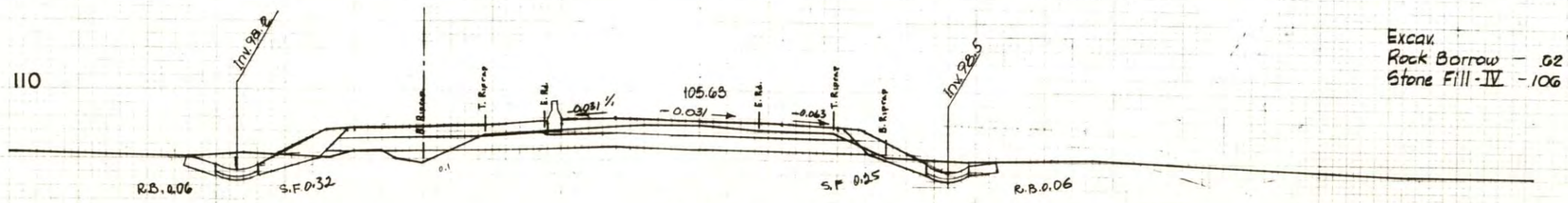
FROM STA. 28+00 TO 29+18
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET 022 OF 50

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION



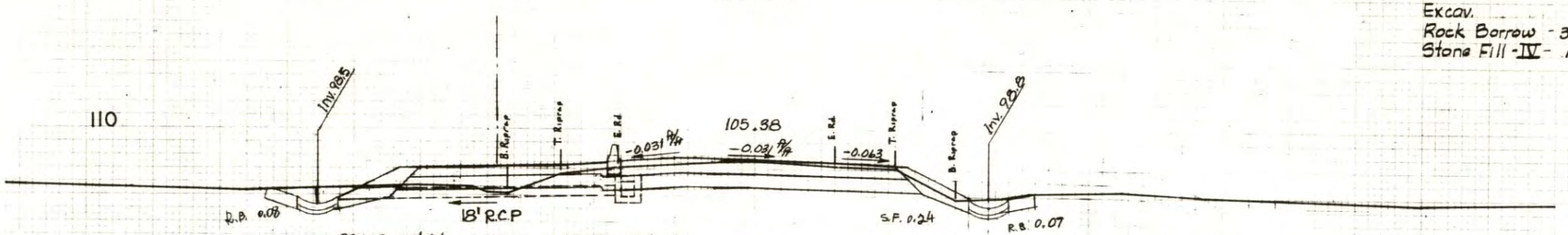
31+50

Excav.
Rock Borrow - 150 C.Y.
Stone Fill - IV - 130 C.Y.



31+00

Excav.
Rock Borrow - 62 C.Y.
Stone Fill - IV - 106 C.Y.

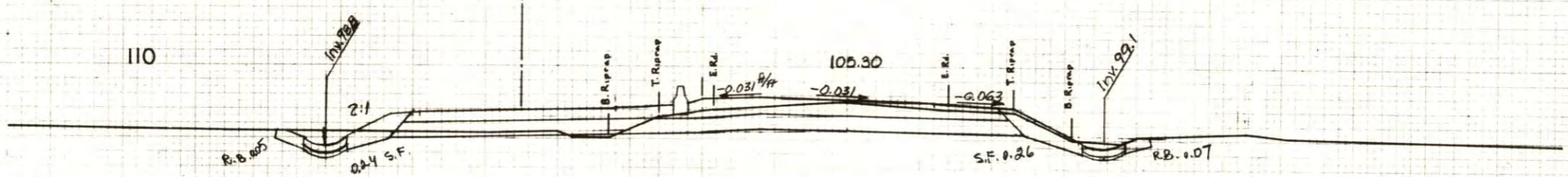


30+65 - 60' Lt.
Reinf. Conc. End
Section for 18" RCP
Inv. 99.0

30+65 - 19.0' Lt.
Reinforced Conc.
D. I. Type E
Inv. 100.7

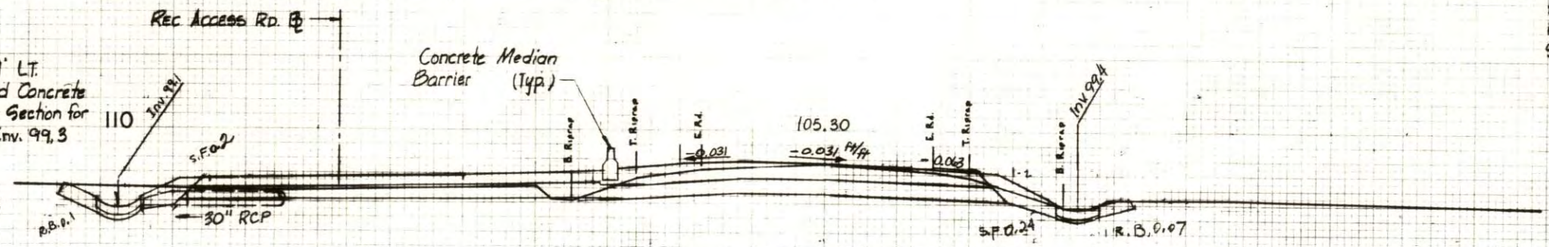
30+50

Excav.
Rock Borrow - 0.12
Stone Fill - IV - 97 C.Y.



30+00

Excav.
Rock Borrow - 0.17
Stone Fill - IV - 87 C.Y.

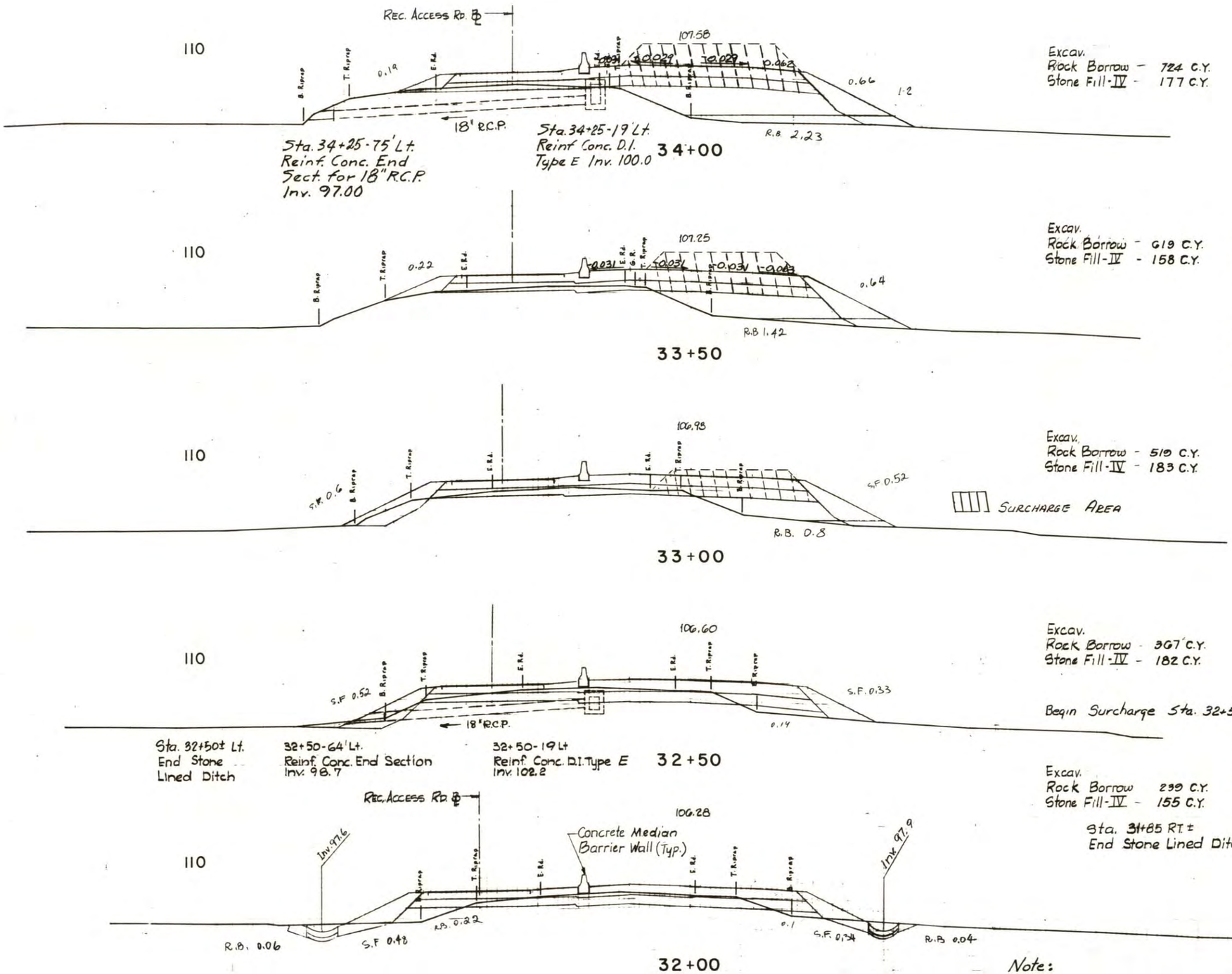


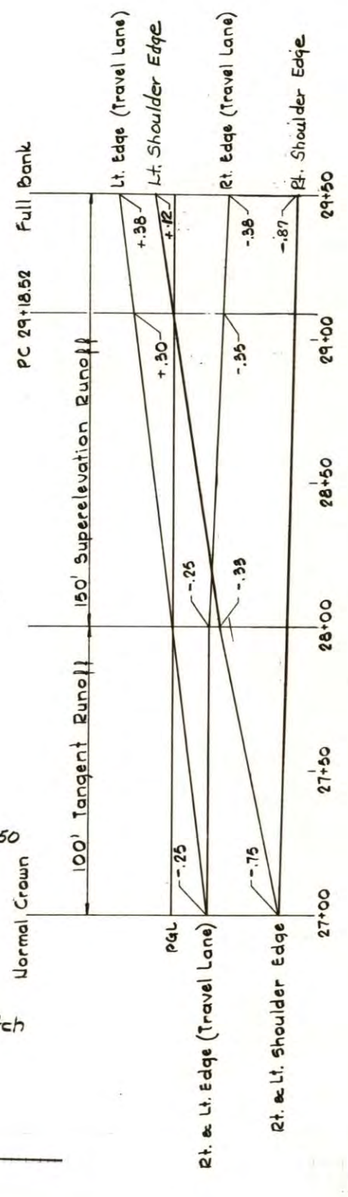
29+50

℄ SCALE: HORZ. & VERT.
1" = 10'

FROM STA. 29+50 TO 31+50
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1((11)
SURVEYED BY DUBOIS & KING
SHEET C-25 OF 50

PLATE 3 CROSS SECTION D. P. R. & R. E. STANDARD
NETZGEN CORPORATION

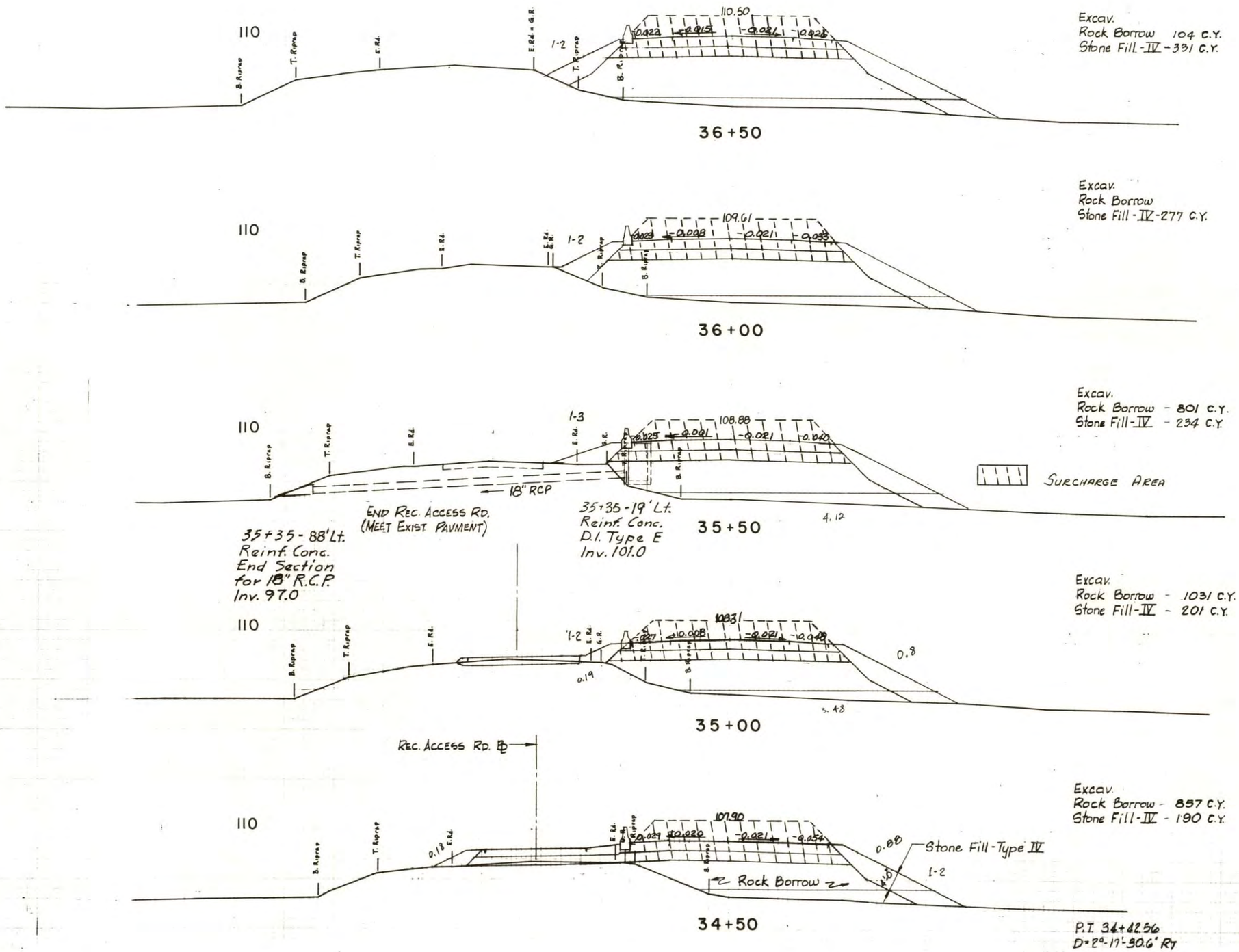


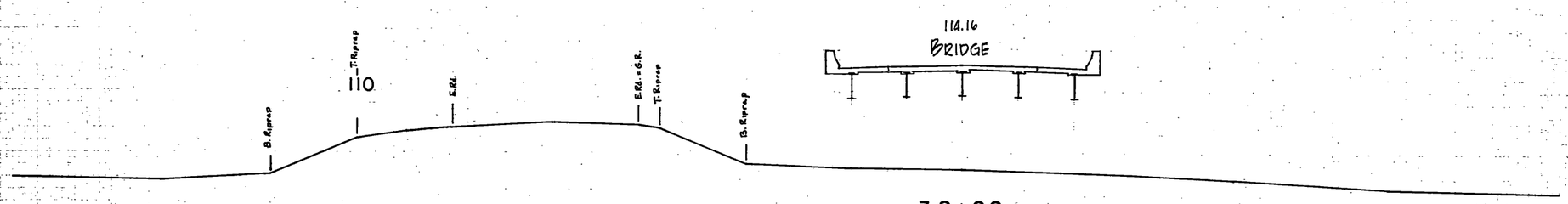


BANKING DIAGRAM
Scale: Horiz. 1"=25'
Vert. 1"=0.50'

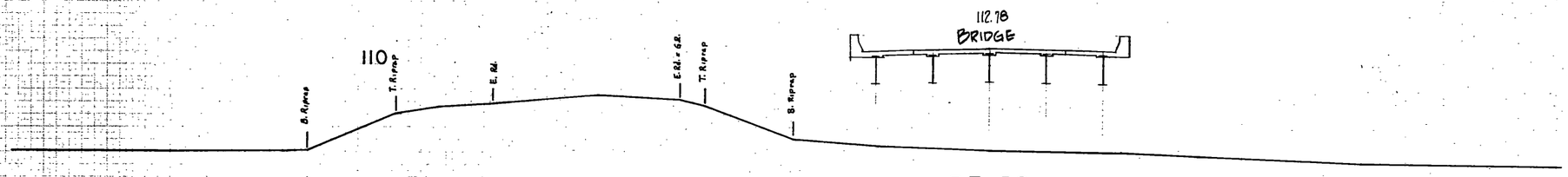
FROM STA. 32+00 TO 34+00
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY: DUBOIS & KING
SHEET C-24 OF 50

PLATE 1 CROSS SECTION [illegible] STANDARD
OREGON CORPORATION

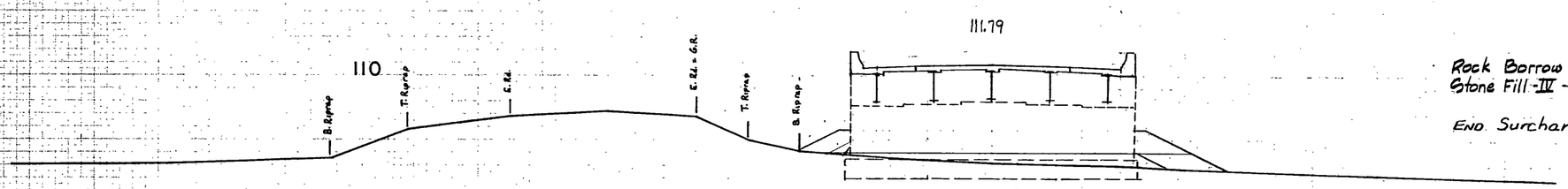

110
B. Riprap
T. Riprap
E. Rd.
E. Rd. = G. R.
1-2
110.50
0.023
0.015
0.021
0.025
36+50
Excav.
Rock Borrow 104 C.Y.
Stone Fill-IV-331 C.Y.
110
B. Riprap
T. Riprap
E. Rd.
E. Rd. G. R.
1-2
109.61
0.023
0.028
0.021
0.033
36+00
Excav.
Rock Borrow
Stone Fill-IV-277 C.Y.
110
B. Riprap
T. Riprap
E. Rd.
E. Rd.
G. R.
1-3
108.88
0.025
0.021
0.021
0.040
18" RCP
END REC. ACCESS RD.
(MEET EXIST PAVMENT)
35+35-88' Lt.
Reinf. Conc.
End Section
for 18" R.C.P.
Inv. 97.0
35+35-19' Lt.
Reinf. Conc.
D.I. Type E
Inv. 101.0
35+50
4.12
SURCHARGE AREA
Excav.
Rock Borrow - 801 C.Y.
Stone Fill-IV - 234 C.Y.
110
B. Riprap
T. Riprap
E. Rd.
E. Rd.
G. R.
1-2
109.31
0.027
0.008
0.021
0.048
0.8
0.19
3.48
35+00
Excav.
Rock Borrow - 1031 C.Y.
Stone Fill-IV - 201 C.Y.
REC. ACCESS RD. ℄
110
B. Riprap
T. Riprap
E. Rd.
E. Rd.
107.90
0.029
0.020
0.021
0.054
0.18
0.80
Stone Fill-Type IV
1-2
Rock Borrow
34+50
Excav.
Rock Borrow - 857 C.Y.
Stone Fill-IV - 190 C.Y.
P.I. 36+42.56
D=2°-17'-30.6" Rt
℄
SCALE: HORZ. & VERT.
1" = 10'
150' Tangent Runout
150' Superelevation Runoff
Full Bank PT 34+42.56
RGL
Rt & Lt. Pavement
Rt & Lt Shoulder
-.25'
-0.34'
-.41'
-0.16'
-0.25'
-0.55
-0.47
-0.62'
-0.07'
+0.02'
-0.70'
-0.78'
+.25'
+.04'
-.025'
-.07'
+.40
-.38'
-.12'
-.38'
-.87'
36+90
36+50
36+00
35+50
35+00
34+90
34+50
34+00
33+90
Lt. Edge (Travel Lane)
Lt Shoulder Edge
PGL
Rt. Edge (Travel Lane)
Rt. Shoulder Edge
BANKING DIAGRAM
Scale: Horiz. 1"=25'
Vert. 1"=0.50'
FROM STA. 34+50 TO 36+50
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY: DUBOIS & KING
SHEET C-26 OF 50



38+00

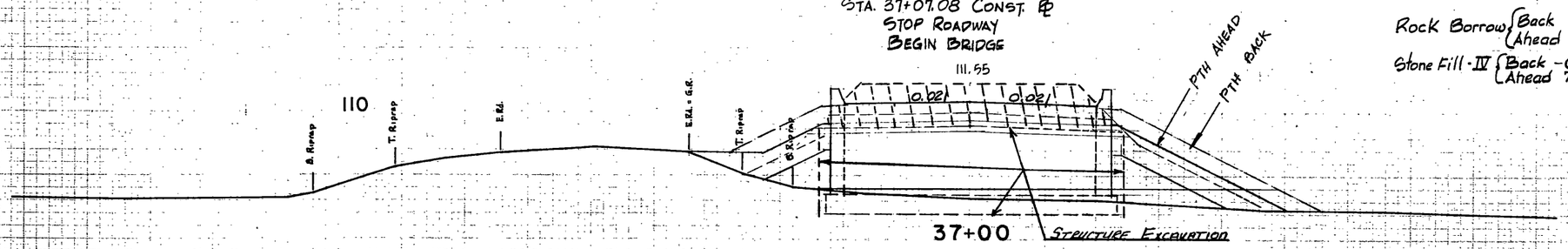


37+50



37+10

STA. 37+07.08 CONST. ℄
STOP ROADWAY
BEGIN BRIDGE



37+00 STRUCTURE EXCAVATION

Rock Borrow
Stone Fill-III - 80

END Surcharge Sta. 37+25

Rock Borrow { Back / Ahead
Stone Fill-III { Back - 0 / Ahead 76

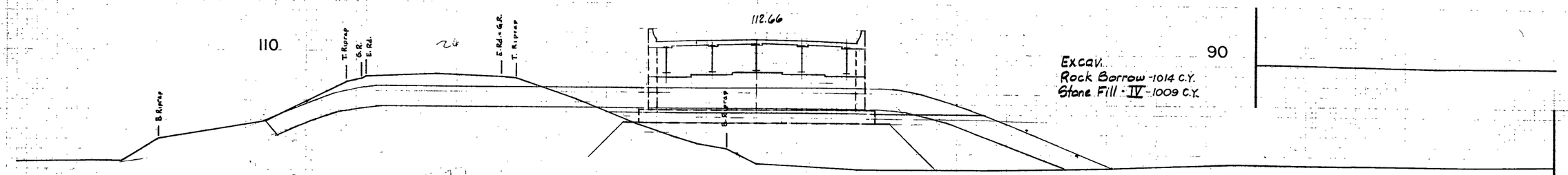
℄ SCALE: HORZ. & VERT. 1"=10'

FROM STA. 37+00 TO 38+00
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-26 OF 50

PLATE 3 CROSS SECTION O F N A R E STANDARD
DRIZZEN CORPORATION

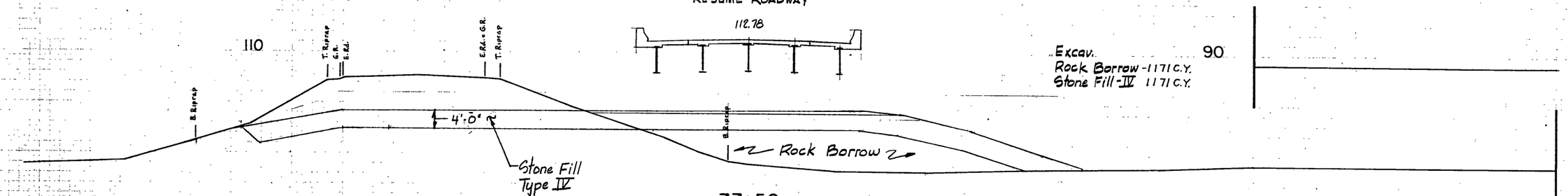
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ORIGINAL SURVEY — NOTE BOOK — NO. — DATE — SURVEYED — PLOTTED — CHECKED — AREA'S CHECKED

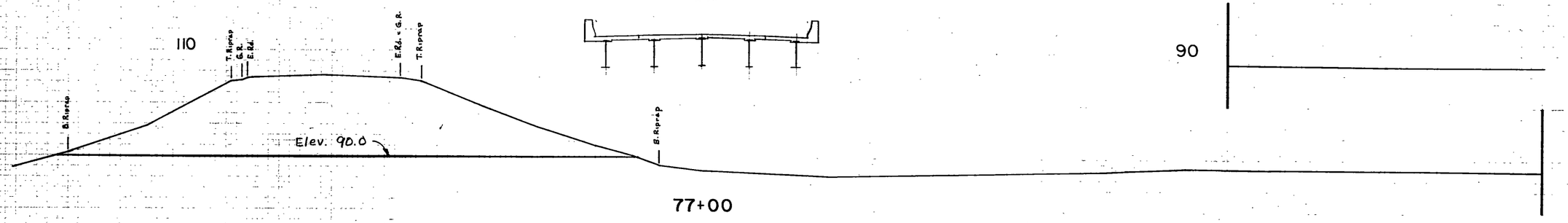


77+60

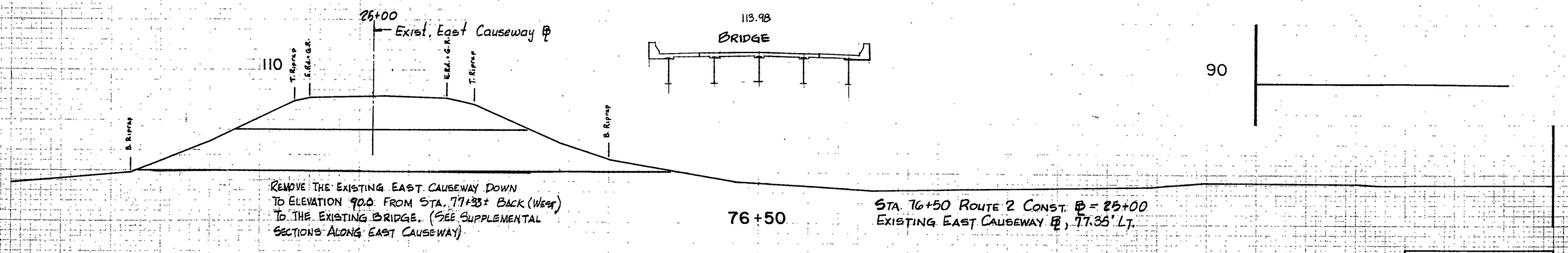
STA. 77+63.25 CONST. ℄
END BRIDGE
RESUME ROADWAY



77+50



77+00



REMOVE THE EXISTING EAST CAUSEWAY DOWN TO ELEVATION 90.0 FROM STA. 77+33± BACK (WEST) TO THE EXISTING BRIDGE. (SEE SUPPLEMENTAL SECTIONS ALONG EAST CAUSEWAY)

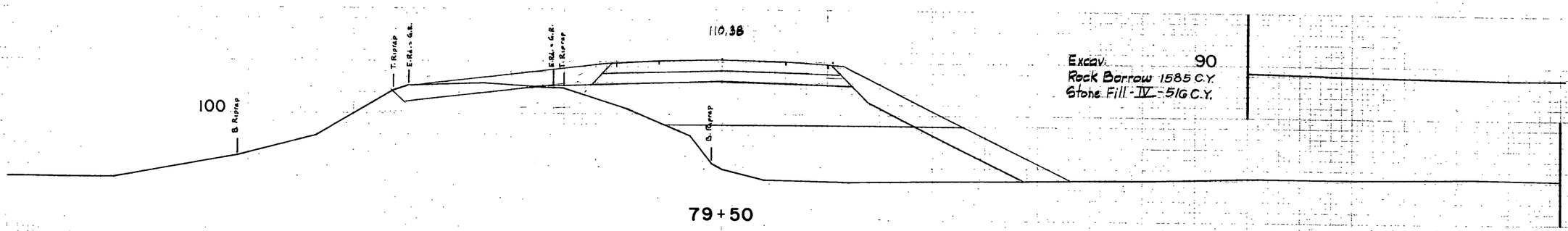
76+50

STA. 76+50 ROUTE 2 CONST. ℄ = 25+00
EXISTING EAST CAUSEWAY ℄, 77.35' LT.

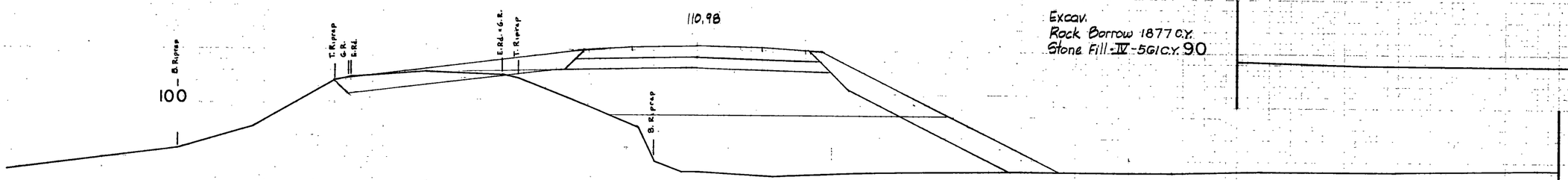
℄ SCALE: HORZ. & VERT.
1" = 10'

FROM STA. 76+50 TO 77+60
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-27 OF 50

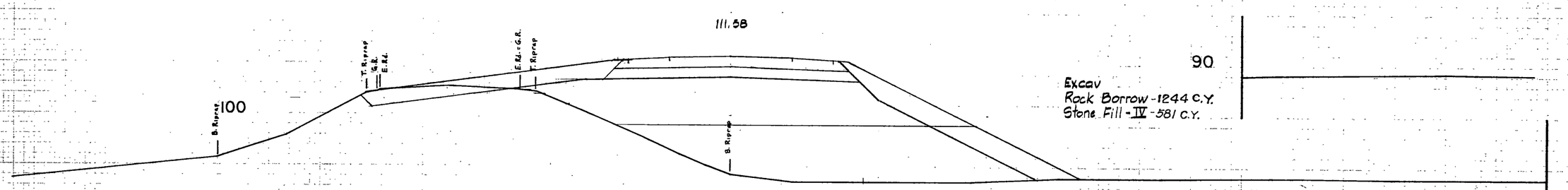
PLATE 3 CROSS SECTION G. F. & P. E. STANDARD
OF HOGEN CORPORATION



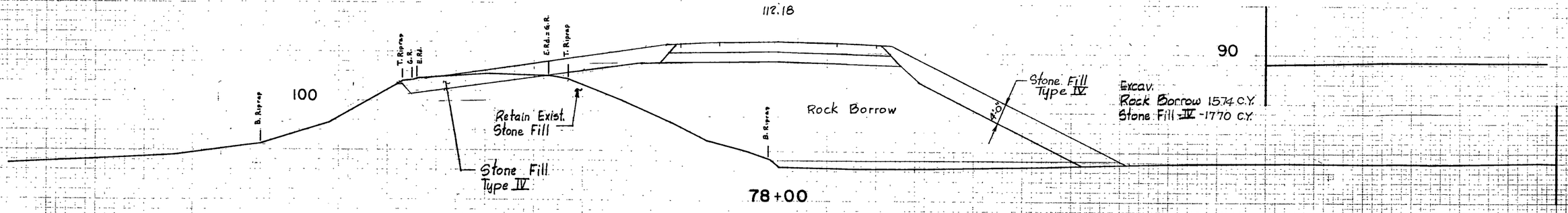
79+50



79+00



78+50



78+00

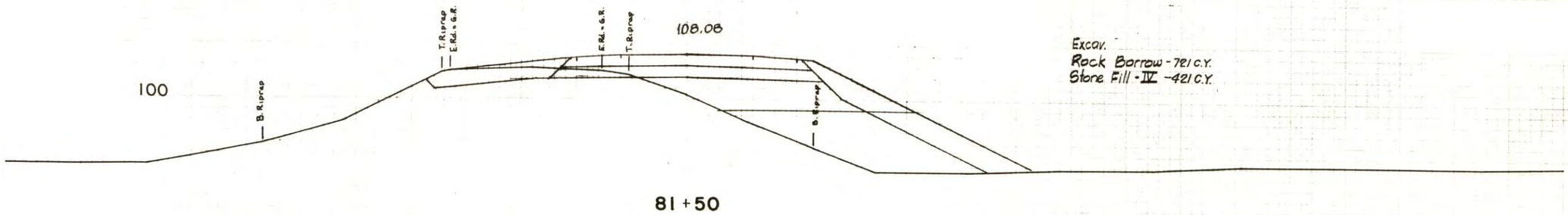
℄ SCALE: HORZ. & VERT. 1"=10'

FROM STA. 78+00 TO 79+50
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-28 OF 50

PLATE 3 CROSS SECTION G. P. & R. E STANDARD
DIETGEN CORPORATION

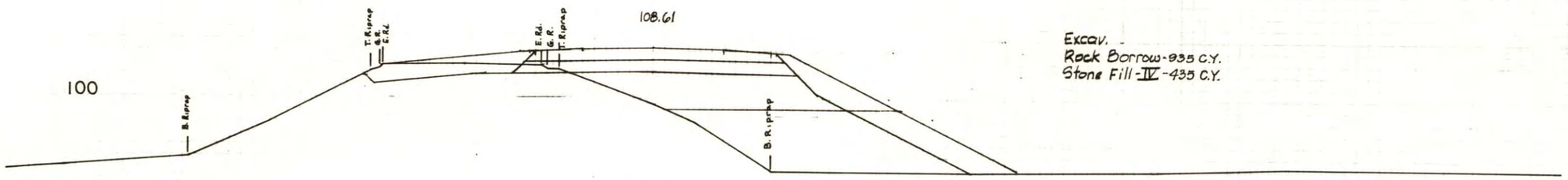
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FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TRACED — AREAS CHECKED — DATE — BY



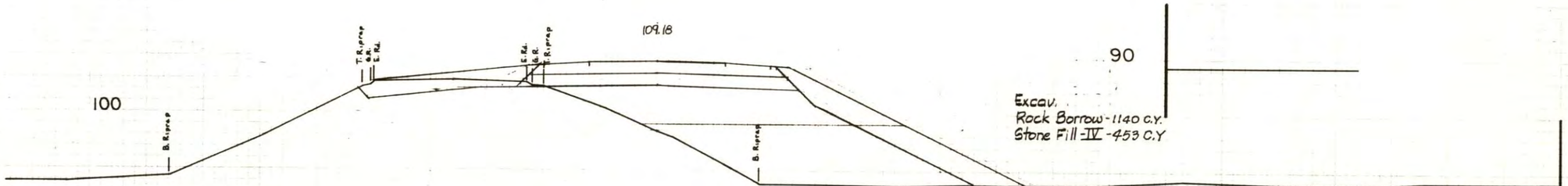
Excav.
Rock Borrow - 721 C.Y.
Stone Fill - IV - 421 C.Y.

81 + 50



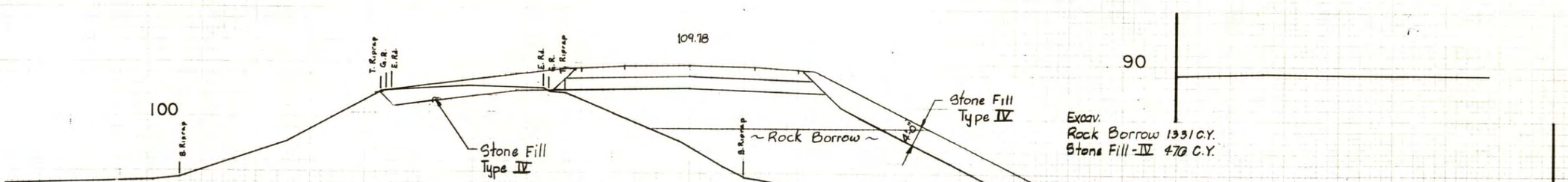
Excav.
Rock Borrow - 935 C.Y.
Stone Fill - IV - 435 C.Y.

81+00



Excav.
Rock Borrow - 1140 C.Y.
Stone Fill - IV - 453 C.Y.

80+50



Excav.
Rock Borrow 1331 C.Y.
Stone Fill - IV 470 C.Y.

80+00

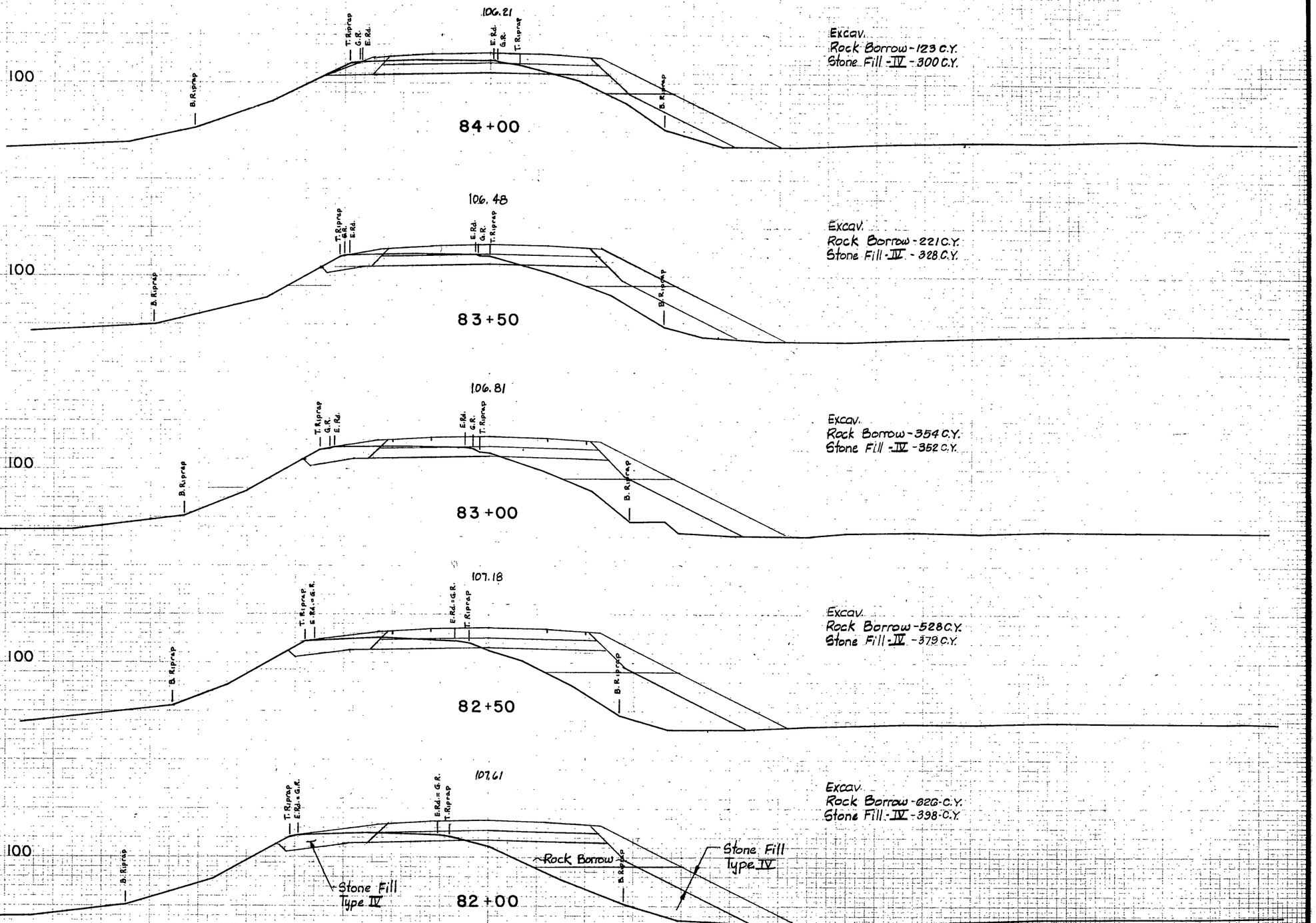
℄ SCALE: HORZ. & VERT.
1" = 10'

FROM STA. 80+00 TO 81+50
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY: DUBOIS & KING
SHEET C-29 OF 50

FINAL SURVEY
NOTE BOOK
NO.

ORIGINAL SURVEY
NOTE BOOK
NO.

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DEITZLER CORPORATION

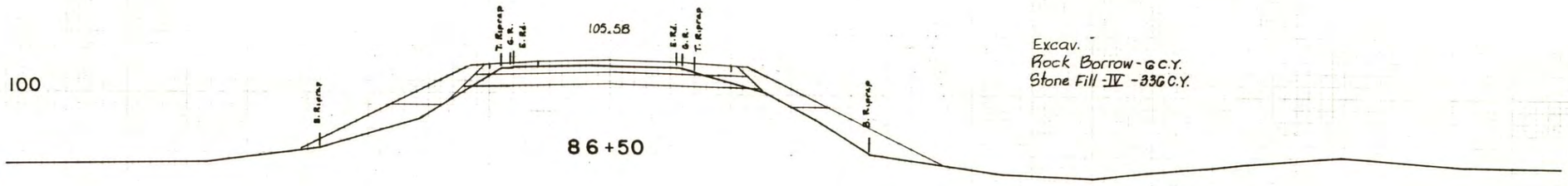


FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
COMPUTED
TRACED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

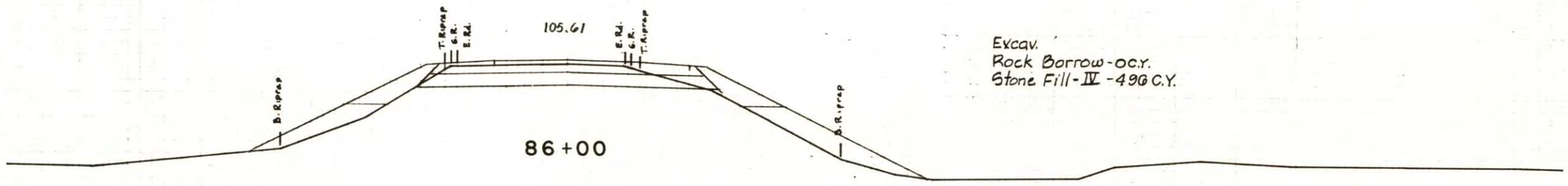
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
COMPUTED
TRACED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

FROM STA. 82+00 TO 84+00
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-30 OF 50

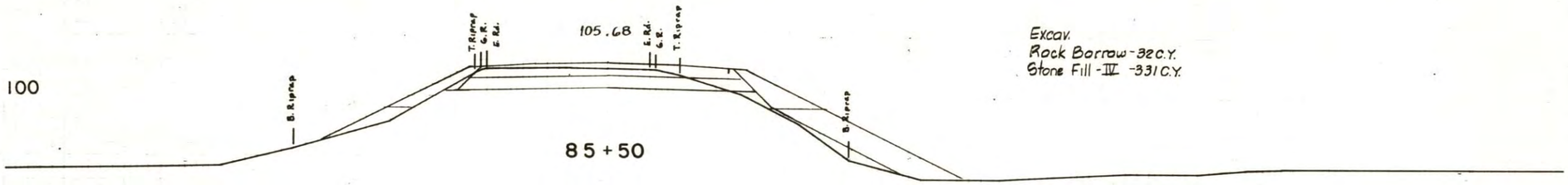
PLATE 3 CROSS SECTION C. P. R. & R. E. STANDARD
DIETZGEN CORPORATION



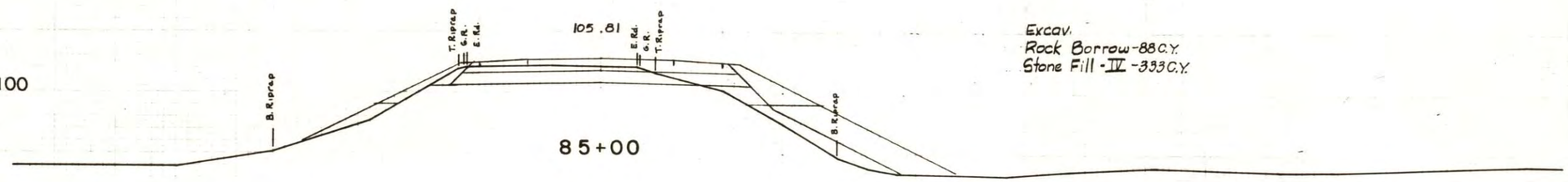
Excav.
Rock Borrow - 0 C.Y.
Stone Fill - IV - 336 C.Y.



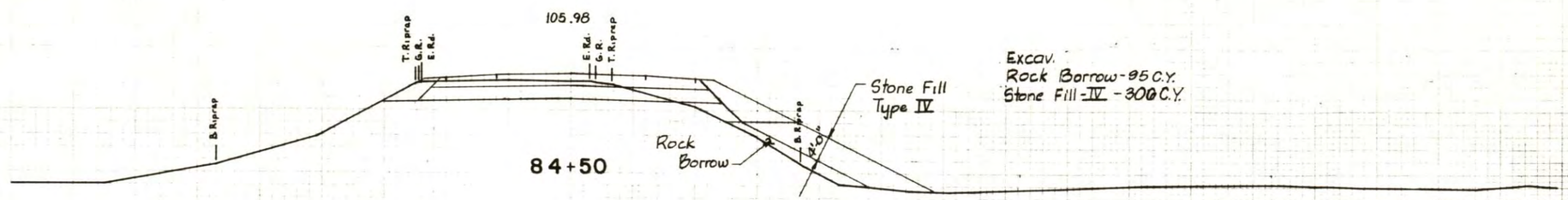
Excav.
Rock Borrow - 0 C.Y.
Stone Fill - IV - 496 C.Y.



Excav.
Rock Borrow - 32 C.Y.
Stone Fill - IV - 331 C.Y.



Excav.
Rock Borrow - 88 C.Y.
Stone Fill - IV - 333 C.Y.



Excav.
Rock Borrow - 95 C.Y.
Stone Fill - IV - 300 C.Y.

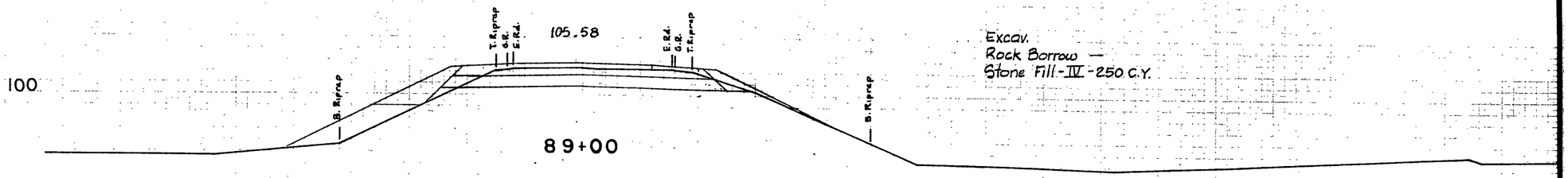
℄ SCALE: HORZ. & VERT.
1" = 10'

FROM STA. 84+50 TO 86+50
ROUTE US 2
ROUSES POINT, NY - ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-31 OF 50

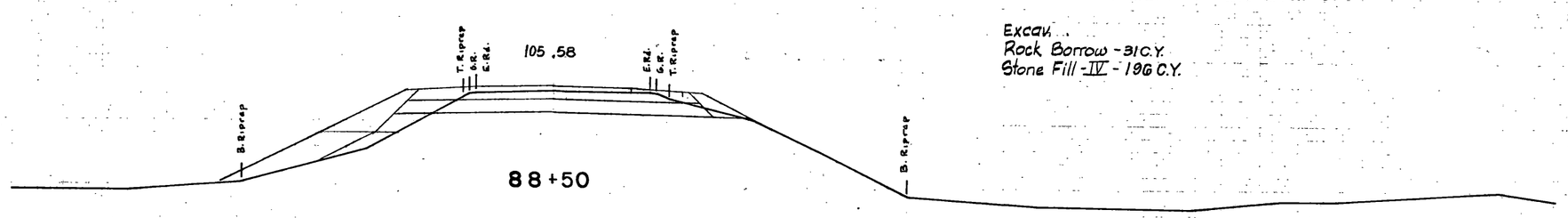
FINAL SURVEY
NOTE BOOK
NO.

ORIGINAL SURVEY
NOTE BOOK
NO.

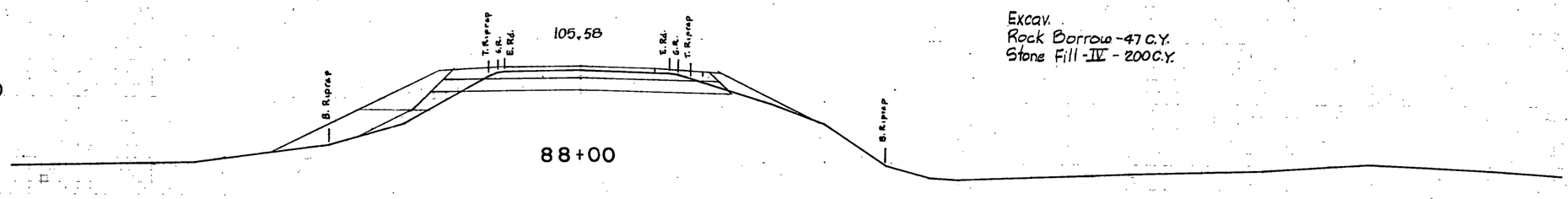
PLATE 5 CROSS SECTION U.V.P.S.A.R.E. STANDARD
METZGEN CORPORATION



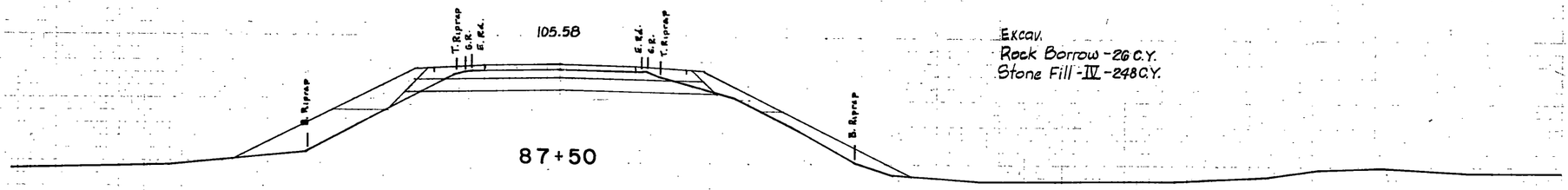
Excav.
Rock Borrow —
Stone Fill - IV - 250 C.Y.



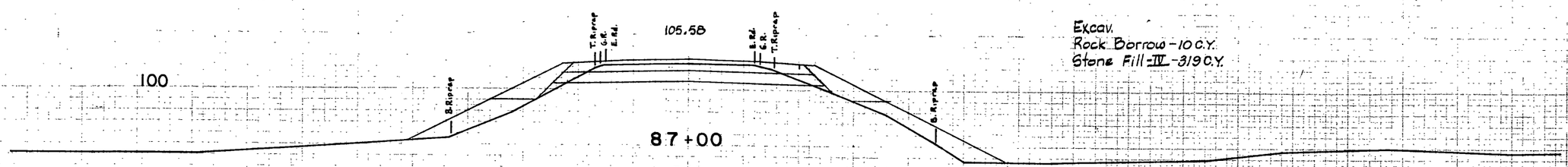
Excav.
Rock Borrow - 31 C.Y.
Stone Fill - IV - 196 C.Y.



Excav.
Rock Borrow - 47 C.Y.
Stone Fill - IV - 200 C.Y.



Excav.
Rock Borrow - 26 C.Y.
Stone Fill - IV - 248 C.Y.



Excav.
Rock Borrow - 10 C.Y.
Stone Fill - IV - 319 C.Y.

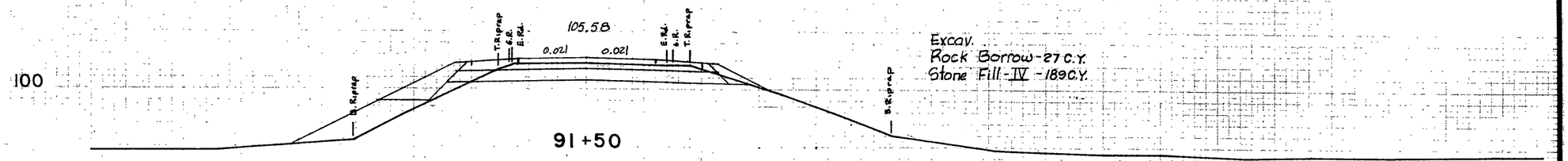
℄ SCALE: HORZ. & VERT.
1" = 10'

FROM STA. 87+00 TO 89+00
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-32 OF 50

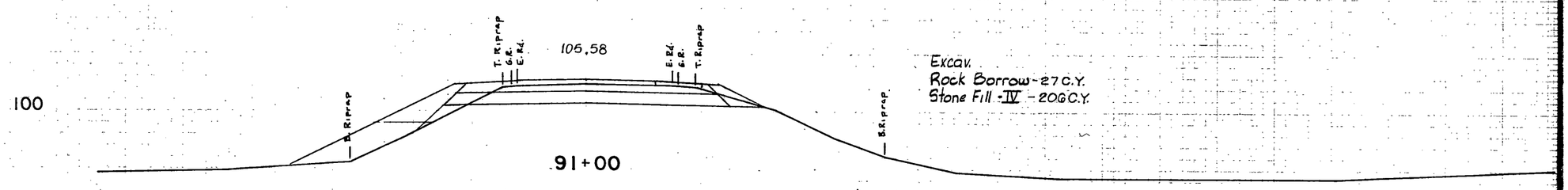
PLATE 3 CROSS SECTION O P R R E STANDARD
PETERSEN CORPORATION

FINAL SURVEY
NOTE BOOK
NO.
DRAWN
PLOTTED
TRACED
CHECKED
DATE

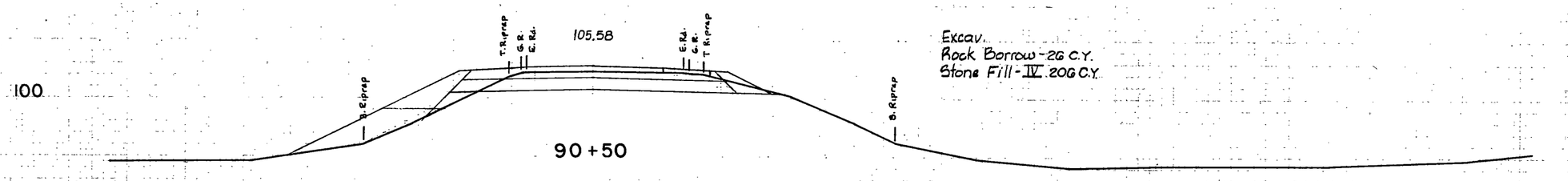
ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
CHECKED
DATE



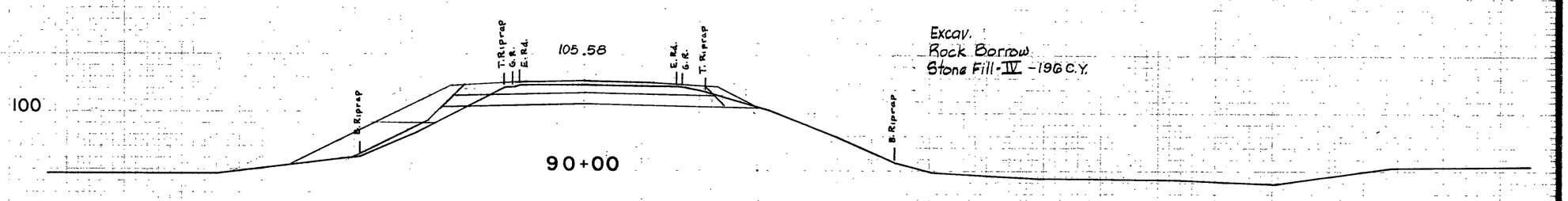
Excav.
Rock Borrow - 27 C.Y.
Stone Fill - IV - 189 C.Y.



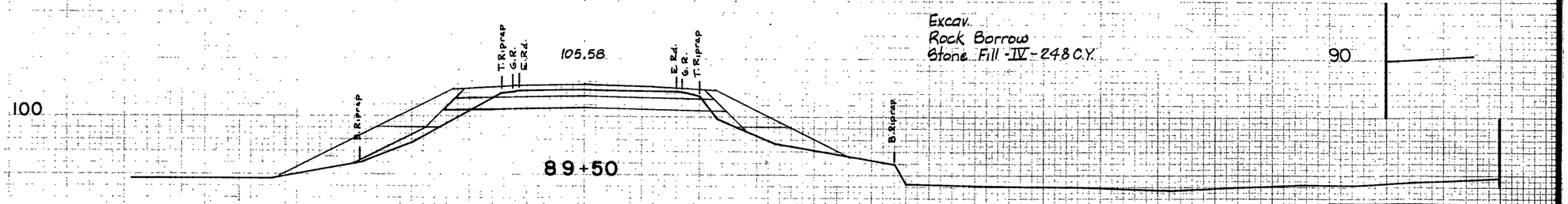
Excav.
Rock Borrow - 27 C.Y.
Stone Fill - IV - 206 C.Y.



Excav.
Rock Borrow - 26 C.Y.
Stone Fill - IV - 206 C.Y.



Excav.
Rock Borrow
Stone Fill - IV - 196 C.Y.



Excav.
Rock Borrow
Stone Fill - IV - 248 C.Y.

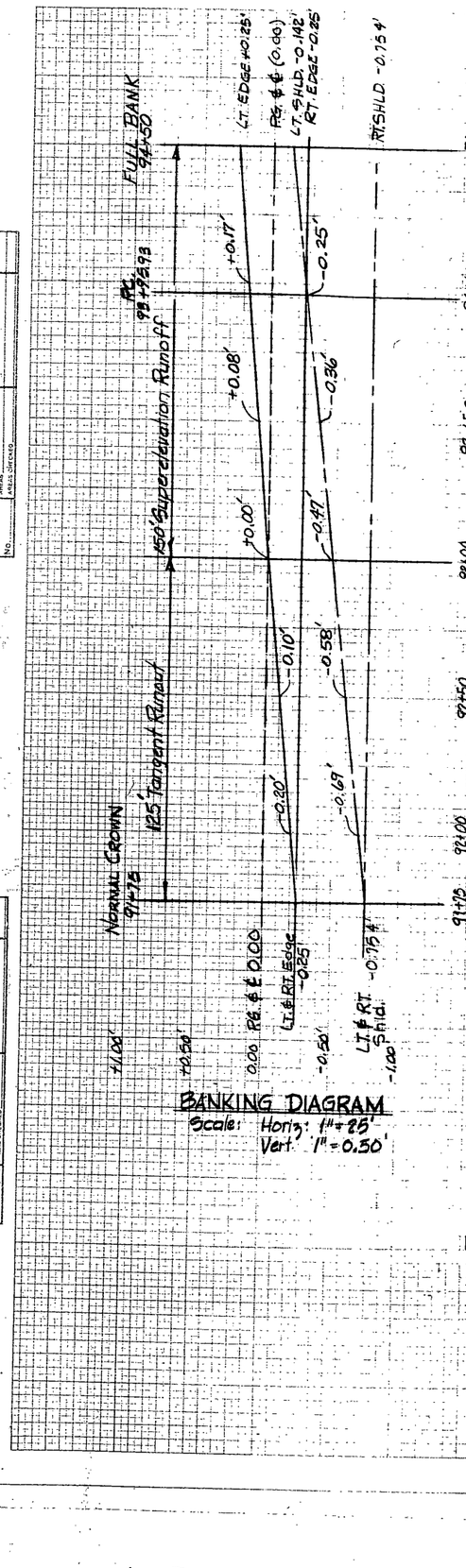
℄ SCALE: HORZ. & VERT.
1" = 10'

FROM STA. 89+50 TO 91+50
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-33 OF 50

PLATE 3 CROSS SECTION © P. R. & R. C. STANDARD
DETZGEN CORPORATION

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TRACED
CHECKED
DATE

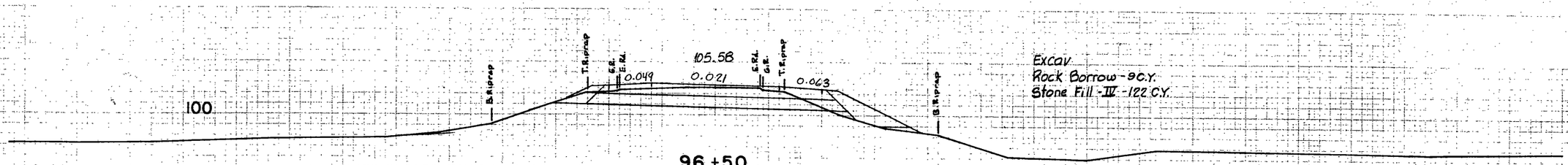
ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TRACED
CHECKED
DATE
BY



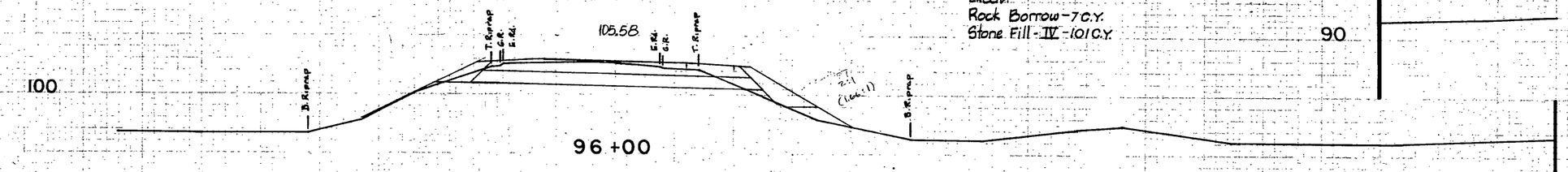
FINAL SURVEY — NOTE BOOK — NO. — DATE — BY — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO. — DATE — BY — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

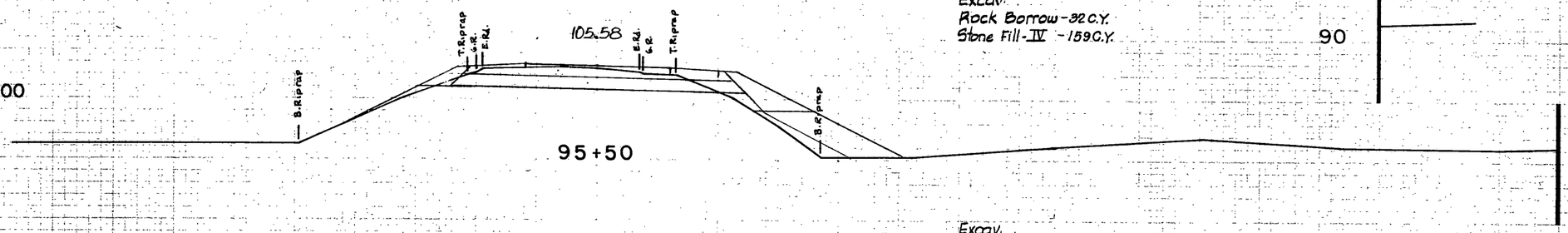
PLATE 3 CROSS SECTION 0 P R & R. E. STANDARD
IMPTZGEN CORPORATION



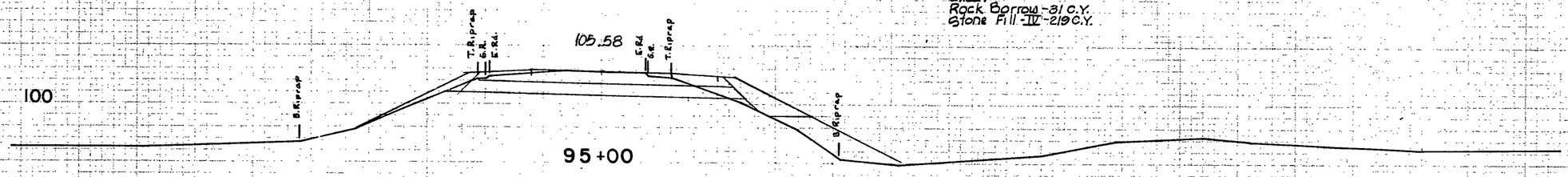
Excav.
Rock Borrow - 9 C.Y.
Stone Fill - IV - 122 C.Y.



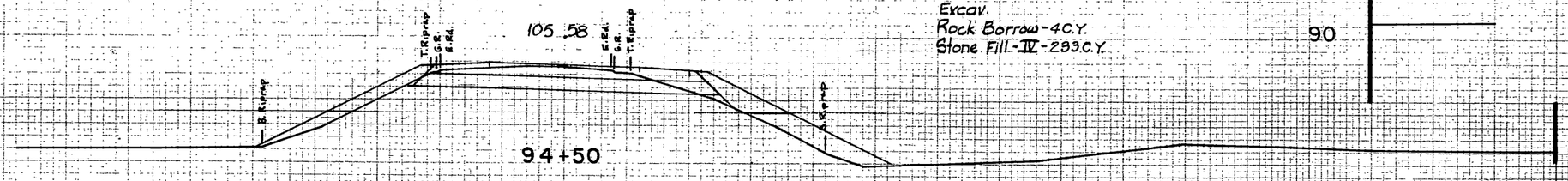
Excav.
Rock Borrow - 7 C.Y.
Stone Fill - IV - 101 C.Y.



Excav.
Rock Borrow - 32 C.Y.
Stone Fill - IV - 159 C.Y.



Excav.
Rock Borrow - 31 C.Y.
Stone Fill - IV - 219 C.Y.



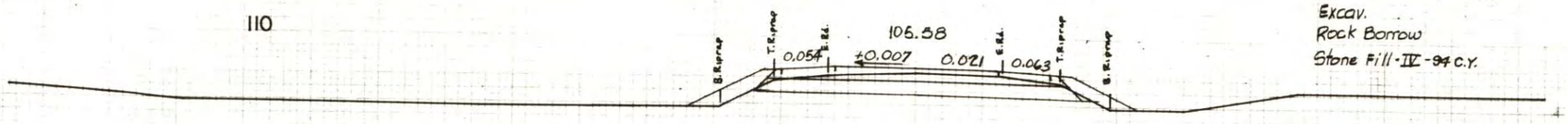
Excav.
Rock Borrow - 4 C.Y.
Stone Fill - IV - 233 C.Y.

℄ SCALE: HORZ. & VERT.
1" = 10'

FROM STA. 94+50 TO 96+50
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-35 OF 50

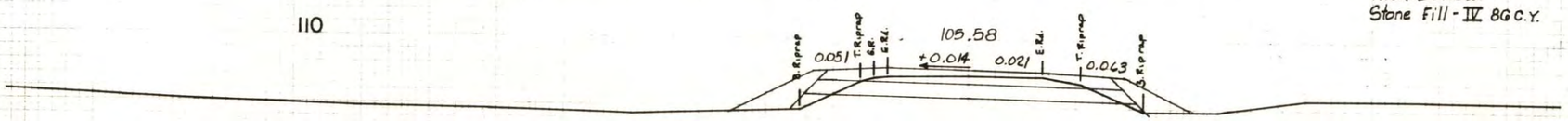
FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE



99+00

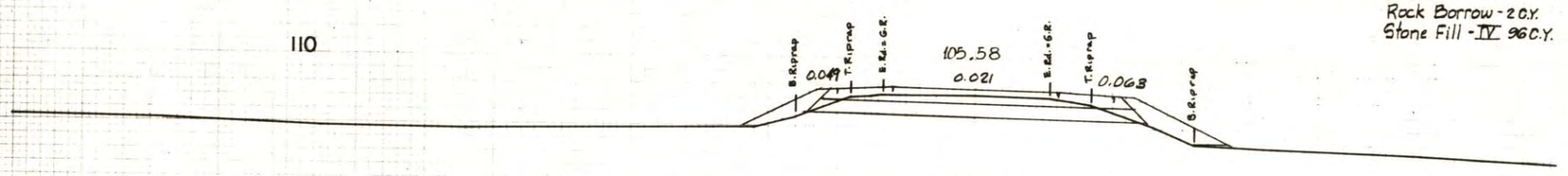
Excav.
Rock Borrow
Stone Fill - IV - 94 C.Y.



98+50

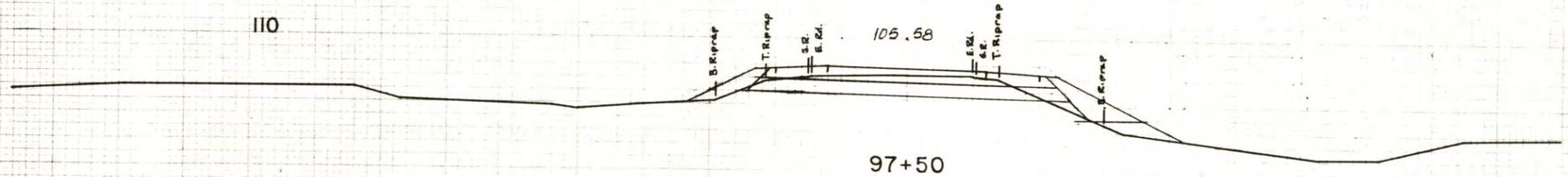
Excav.
Rock Borrow
Stone Fill - IV 86 C.Y.

P.T. 98+48.55
D = 1°-00'-00" R.T.
Bank = 0.21 Ft/Ft



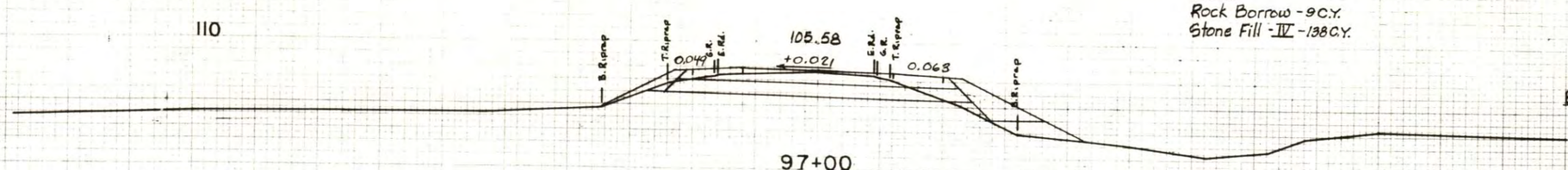
98+00

Excav.
Rock Borrow - 2 C.Y.
Stone Fill - IV 96 C.Y.



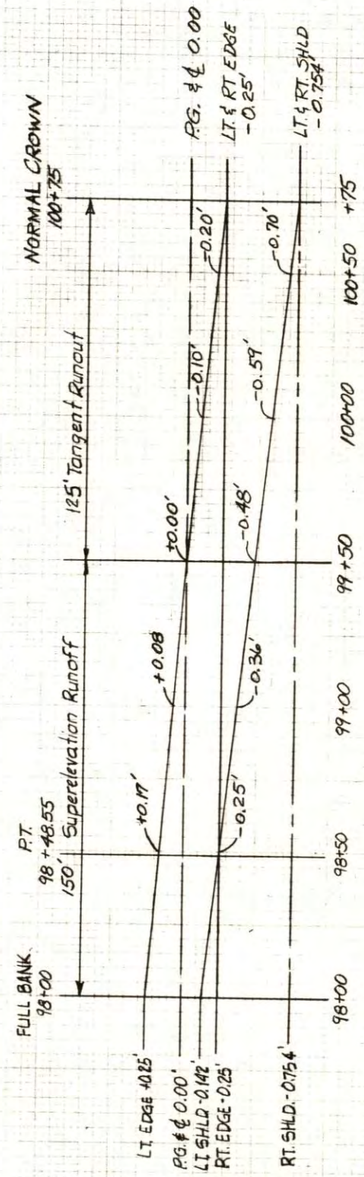
97+50

Excav.
Rock Borrow - 5 C.Y.
Stone Fill - IV - 118 C.Y.



97+00

Excav.
Rock Borrow - 9 C.Y.
Stone Fill - IV - 138 C.Y.



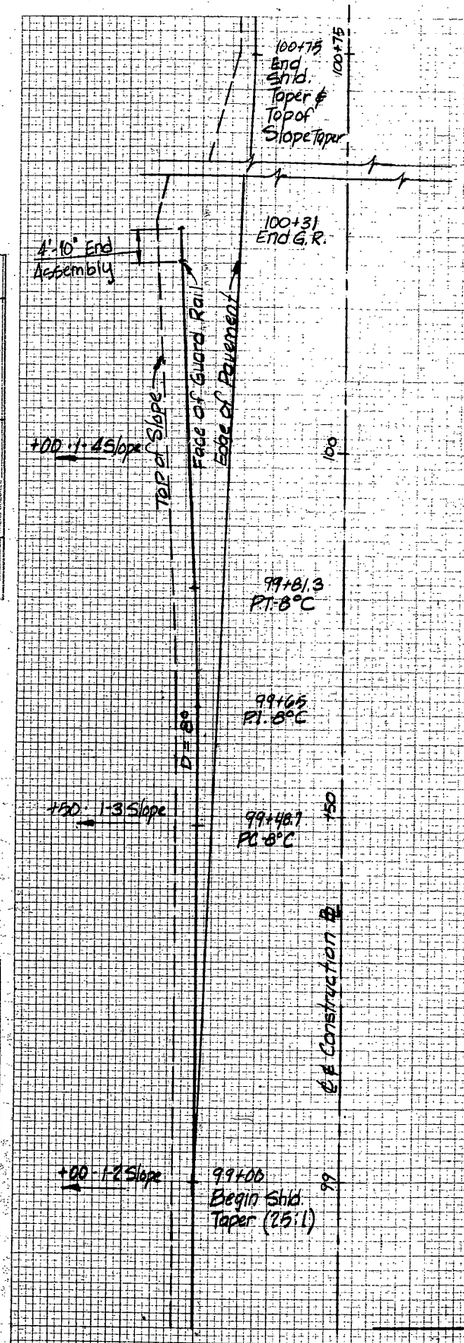
BANKING DIAGRAM
Scale: Horiz. 1"=25'
Vert. 1"=0.50'

℄ SCALE: HORZ. & VERT.
1" = 10'

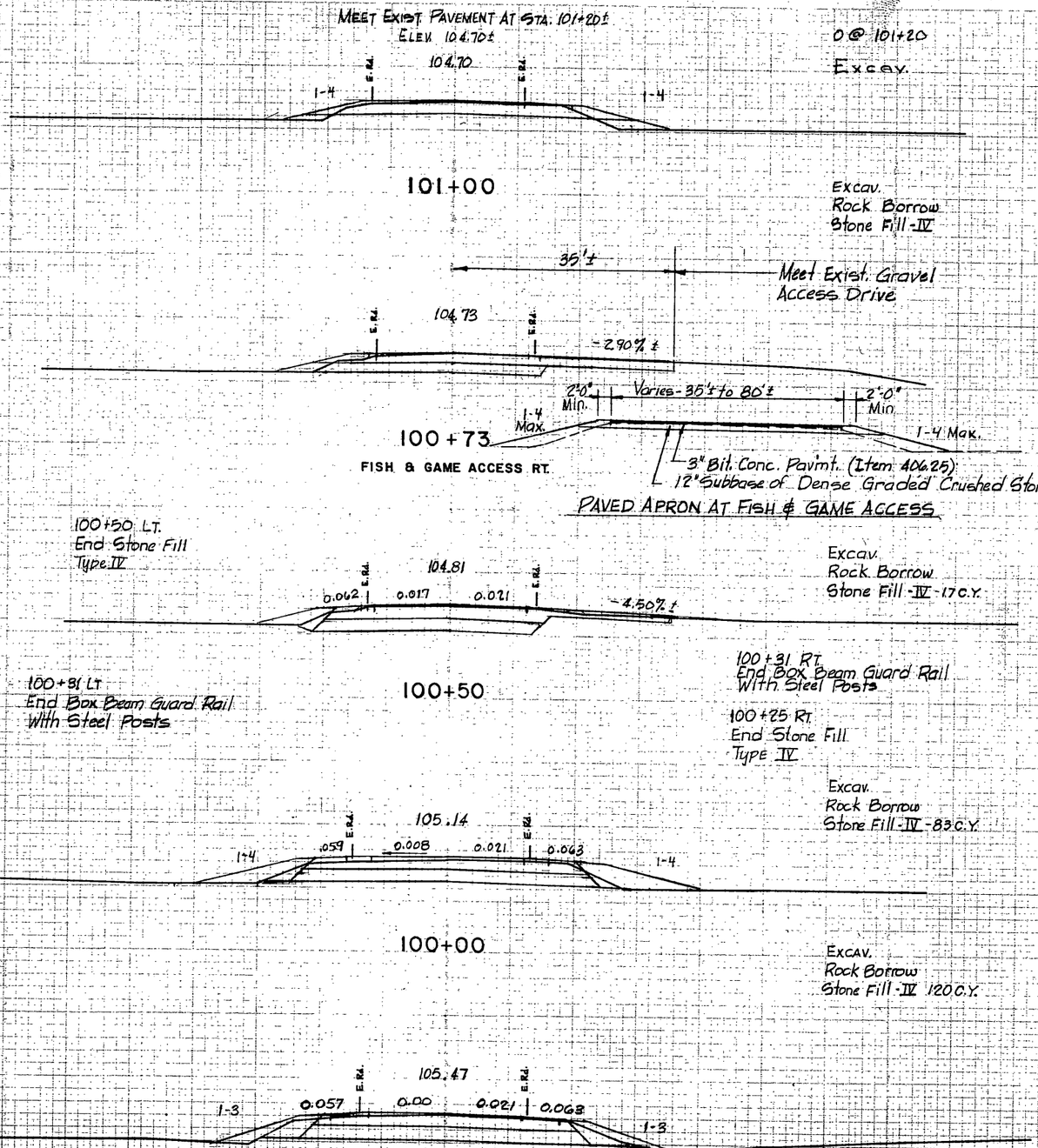
FROM STA. 97+00 TO 99+00
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-36 OF 50

FINAL SURVEY
NOTE BOOK
NO.
DATE
BY
SURVEYED
PLOTTED
TRACED
TEMPLATE
AREAS
CROSS SECTIONED
CHECKED

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TRACED
TEMPLATE
AREAS
CROSS SECTIONED
CHECKED



GUARDRAIL DETAIL
Scale: 1"=10'



PAVED APRON AT FISH & GAME ACCESS

Excav.
Rock Borrow
Stone Fill-IV
Meet Exist. Gravel Access Drive
35'±

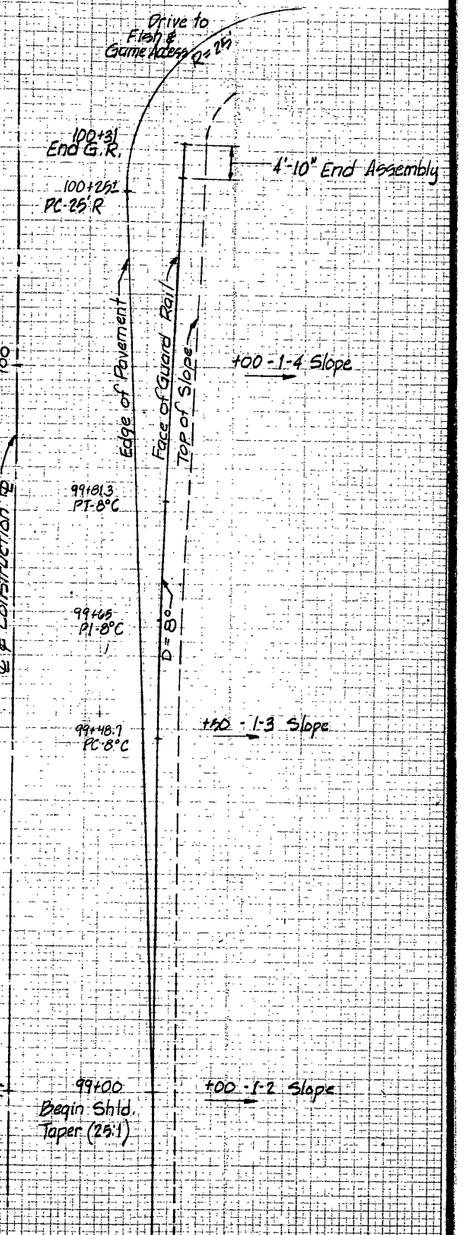
Excav.
Rock Borrow
Stone Fill-IV - 17 C.Y.

100+31 RT.
End Box Beam Guard Rail
With Steel Posts

100+25 RT.
End Stone Fill
Type IV

Excav.
Rock Borrow
Stone Fill-IV - 83 C.Y.

Excav.
Rock Borrow
Stone Fill-IV 120 C.Y.



GUARDRAIL DETAIL
Scale: 1"=10'

℄ SCALE: HORZ. & VERT. 1"=10'

FROM STA. 99+50 TO 101+00
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(8)
SURVEYED BY DUBOIS & KING
SHEET C-37 OF 50

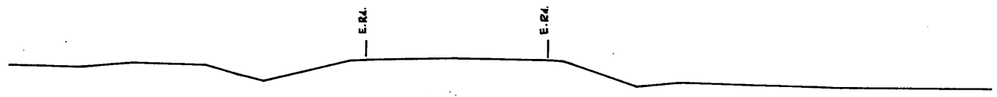
FINAL SURVEY — SURVEYED, PLOTTED, TRACED, NOTE BOOK, No., AREAS, AREAS CHECKED, DATE, BY

ORIGINAL SURVEY — SURVEYED, PLOTTED, TRACED, NOTE BOOK, No., AREAS, AREAS CHECKED, DATE, BY

FINAL SURVEY
NOTE BOOK No.
SURVEYED
PLOTTED
TRACED
CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK No.
SURVEYED
PLOTTED
TRACED
CHECKED
BY
DATE

100



102 +00

100



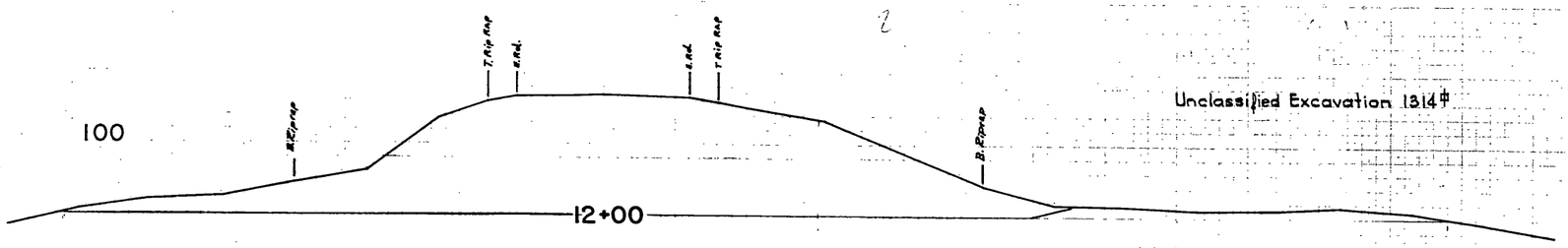
101 + 50

℄

SCALE : HORZ. & VERT.
1"= 10'

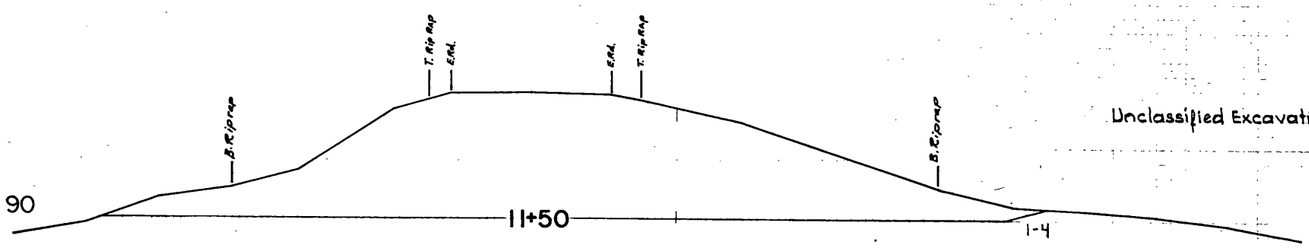
FROM STA. 101+50 TO 102+00
ROUTE US 2
ROUSES POINT, NY-ALBURG
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-38 OF 50

PLATE 3 - SIGN SECTION 9 P.R.&R.'S STANDARDS
MICHIGAN STRUCTURAL

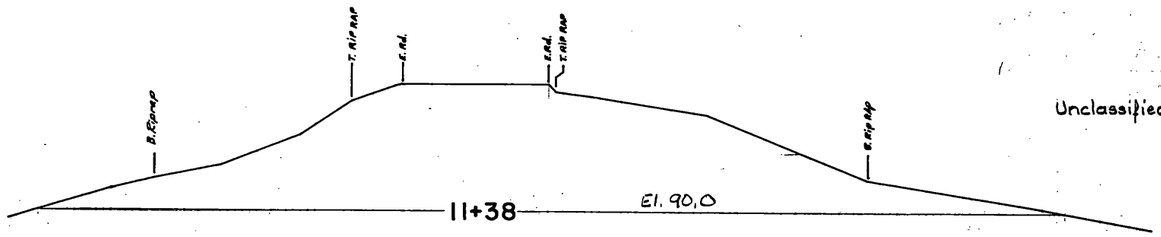


Unclassified Excavation 1314 #

11.96

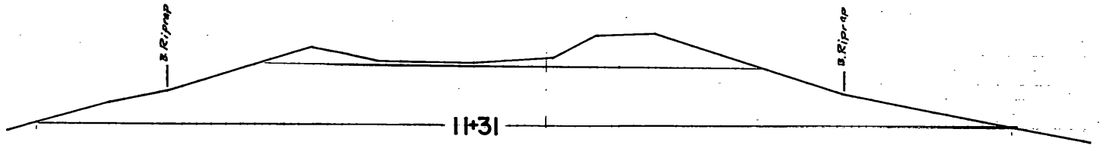


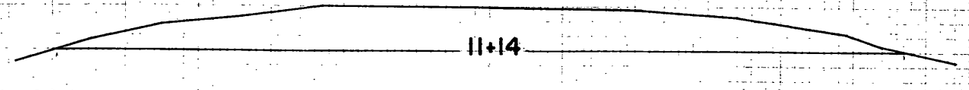
Unclassified Excavation 1312 #



Unclassified Excavation 1300 #

Unclassified Excavation 943 #





Unclassified Excavation 532 #

℄ EXISTING EAST CAUSEWAY

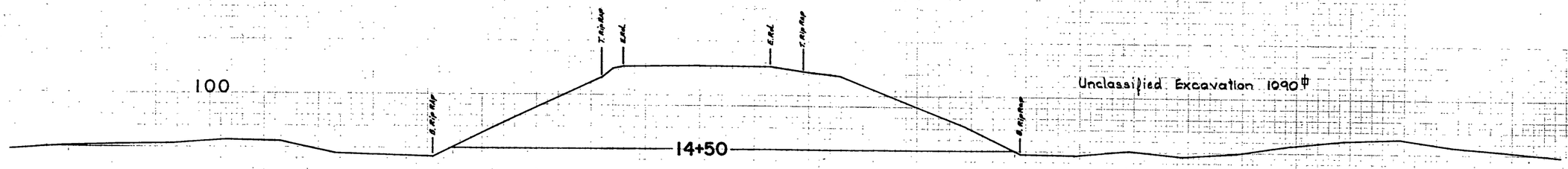
SCALE: HORZ. & VERT.
1"=10'

Assume 0 + 00 @ 11+00

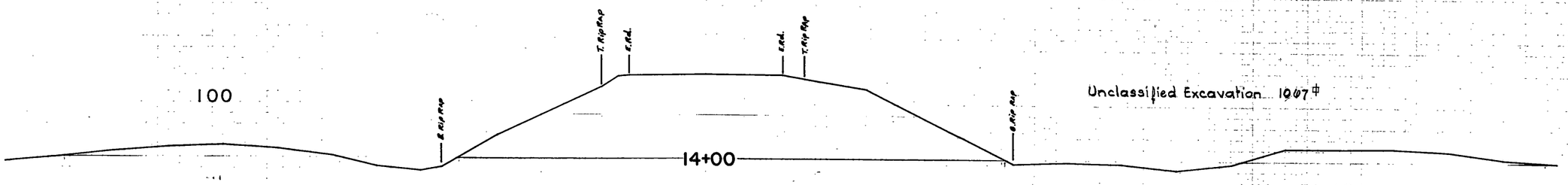
FROM STA. 11+14 TO 12+00
REMOVE EXIST. E. CAUSEWAY
ROUSES POINT, NY-ALBURG, VT.
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-39 OF 50

0.95

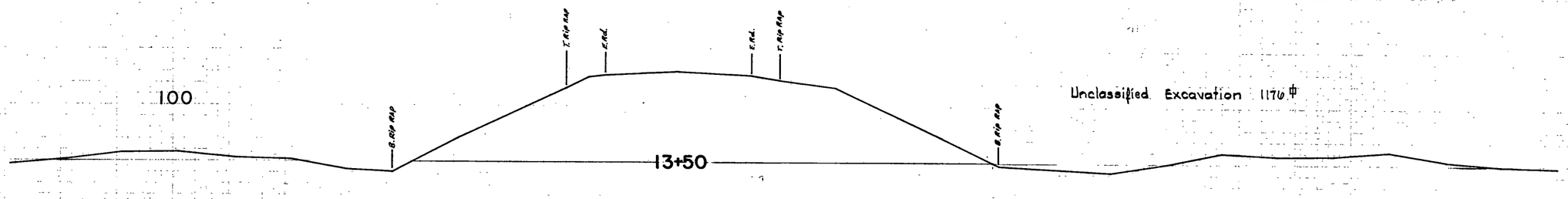
PLATE 3 CROSS SECTION S P R A R E STANDARD
DEYZGEN CORPORATION



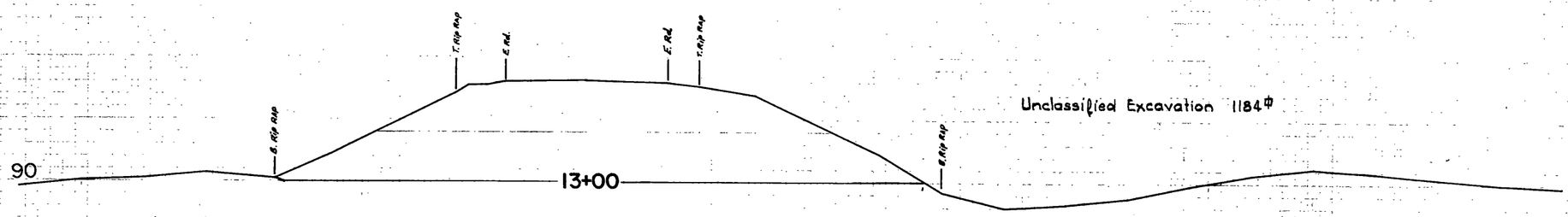
Unclassified Excavation 1090 ℄



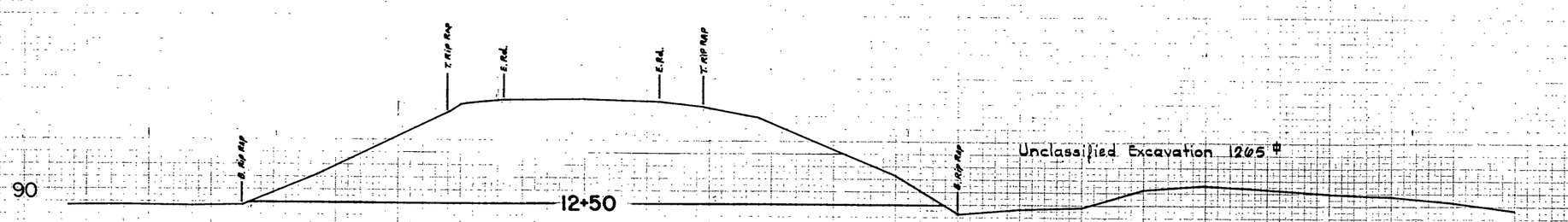
Unclassified Excavation 1007 ℄



Unclassified Excavation 1176 ℄



Unclassified Excavation 1184 ℄



Unclassified Excavation 1205 ℄

℄ SCALE: HORZ. & VERT. 1"=10'

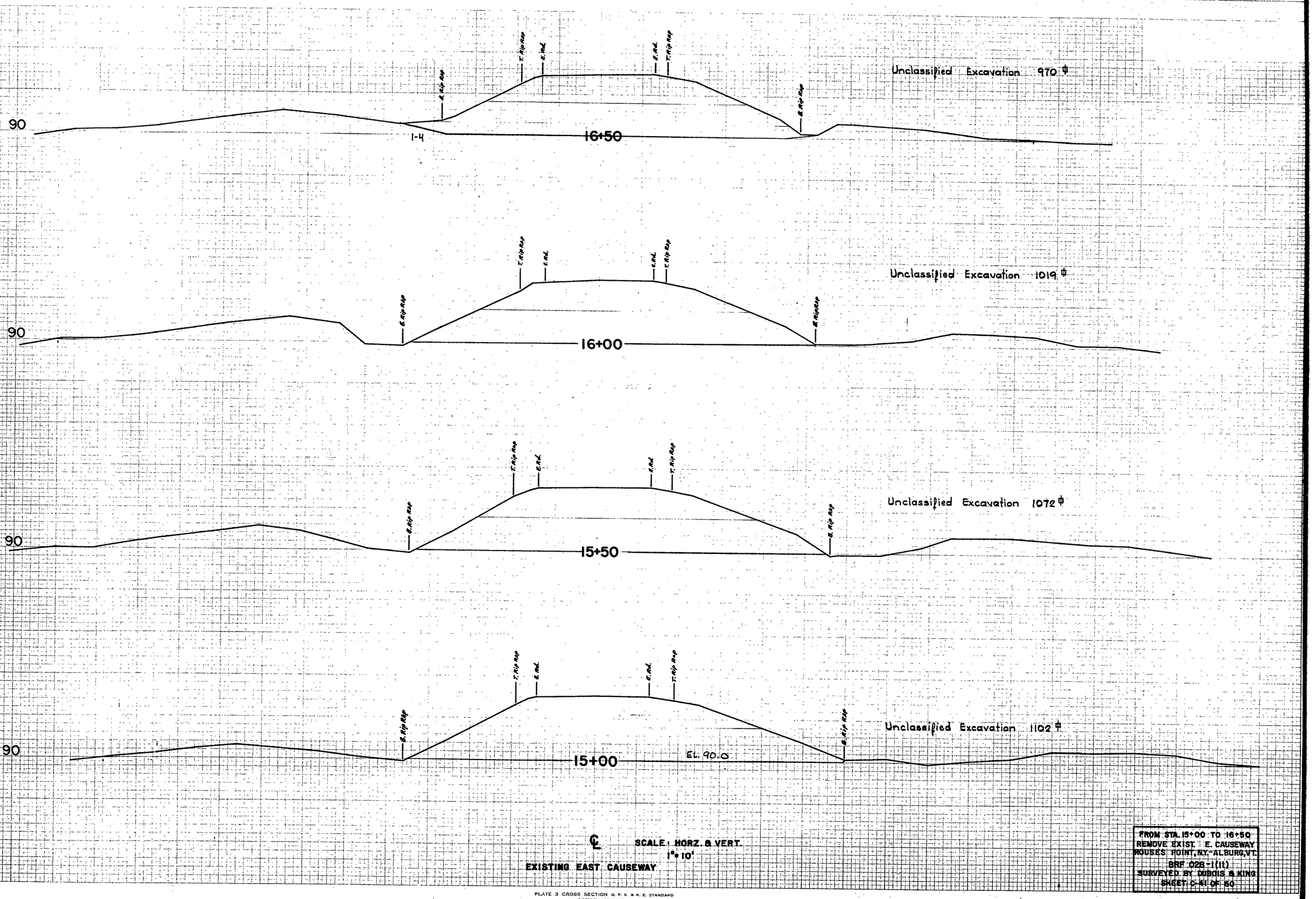
EXISTING EAST CAUSEWAY

FROM STA. 12-50 TO 14-50
REMOVE EXIST. E. CAUSEWAY
ROUSES POINT, N.Y.-ALBURG, VT.
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-40 OF 50

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DE LEUW, CATHER & COMPANY

FINAL SURVEY — DRAWN/TRACED, PLOTTED, CHECKED, AREAS CHECKED, NOTE BOOK, NO., DATE, BY

ORIGINAL SURVEY — SURVEYED, PLOTTED, TRACED, AREAS CHECKED, NOTE BOOK, NO., DATE, BY



℄ EXISTING EAST CAUSEWAY

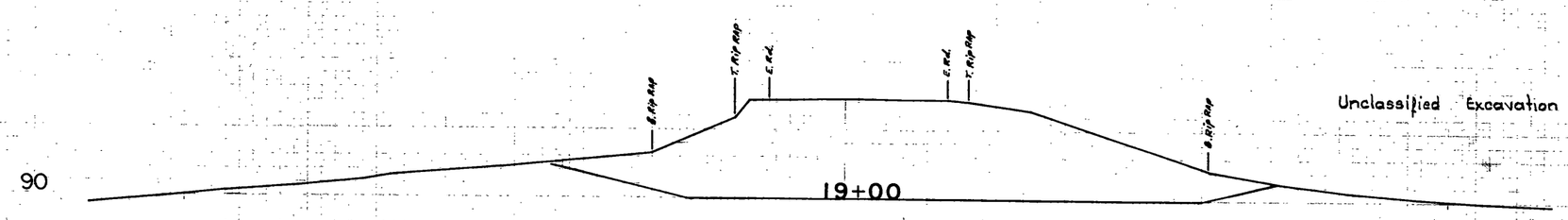
SCALE: HORZ. & VERT.
1" = 10'

FROM STA. 15+00 TO 16+50
REMOVE EXIST. E. CAUSEWAY
ROUSES POINT, NY.-ALBURG, VT.
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET 5-41 OF 50

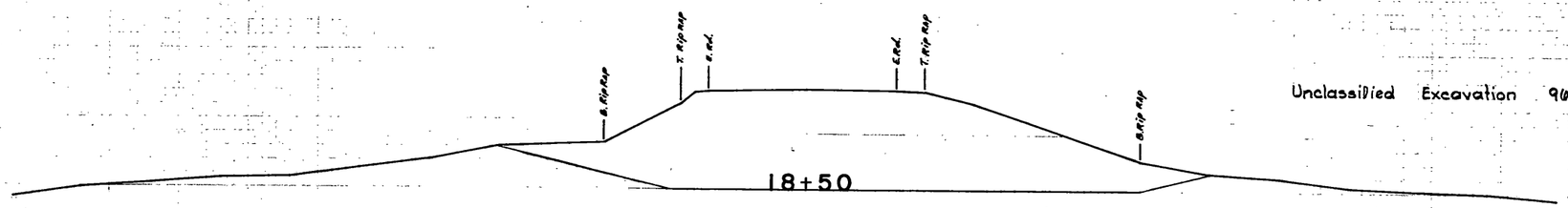
FINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

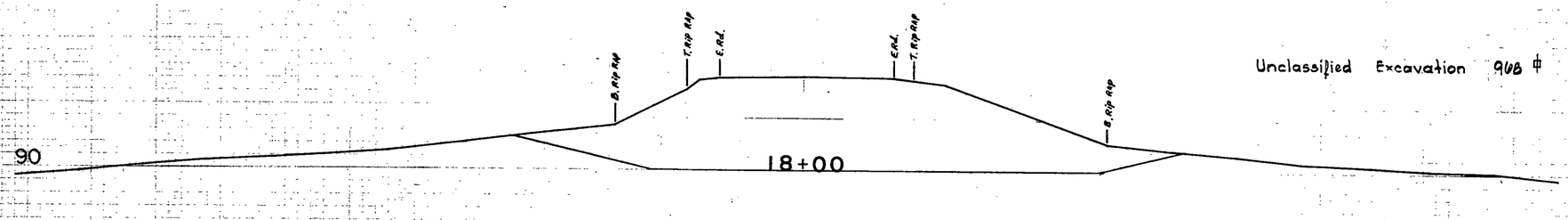
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION



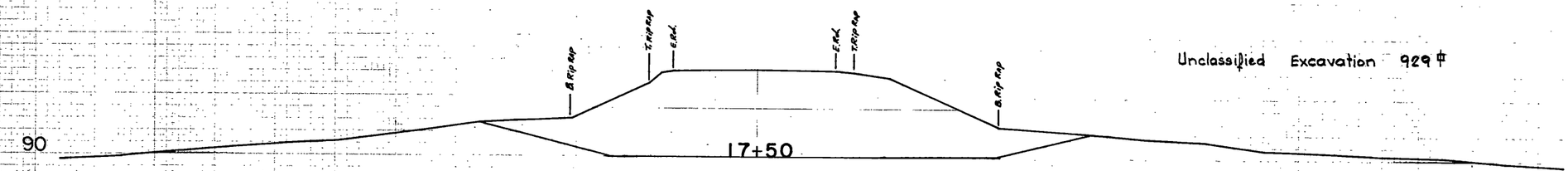
Unclassified Excavation 1015 ♯



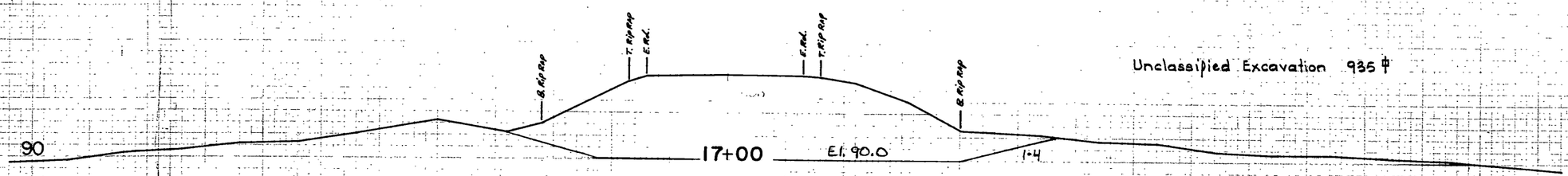
Unclassified Excavation 903 ♯



Unclassified Excavation 908 ♯



Unclassified Excavation 929 ♯



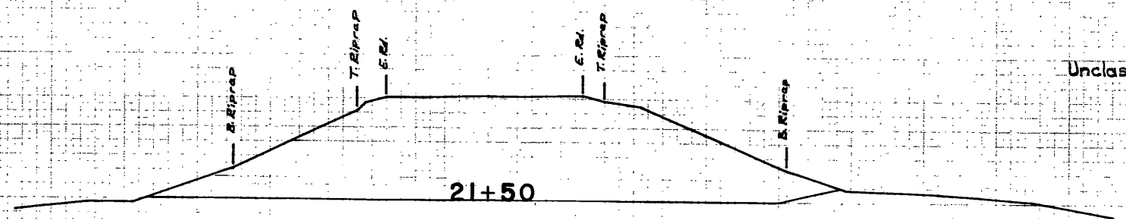
Unclassified Excavation 935 ♯

℄ SCALE : HORZ. & VERT.
1"=10'

EXISTING EAST CAUSEWAY

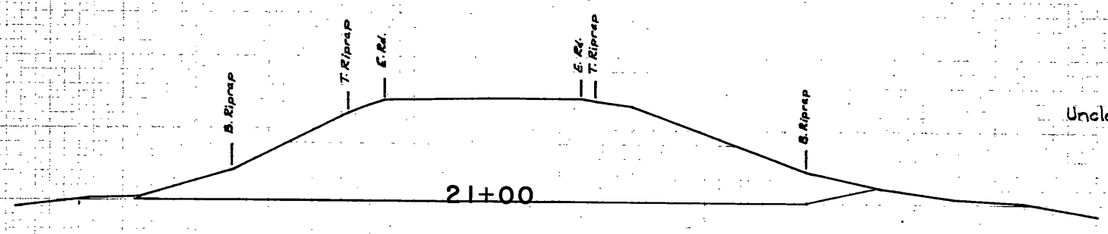
FROM STA. 17+00 TO 19+00
REMOVE EXIST. E. CAUSEWAY
ROUSES POINT, NY.-ALBURG, VT.
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-12 OF 50

PLATE 3 CROSS SECTION U. S. B. R. & B. F. STANDARD
RECTIFIED COMMUNICATION



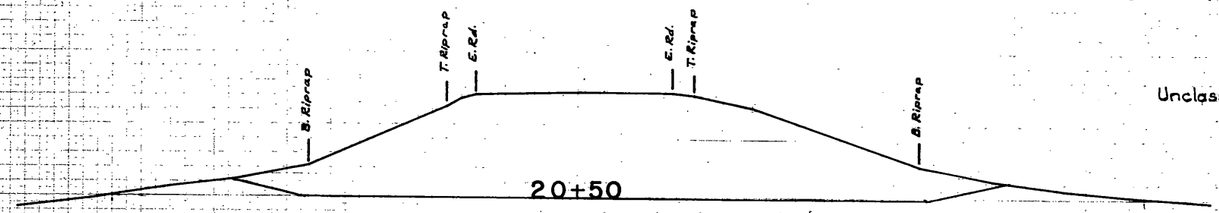
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Unclassified Excavation 925 #



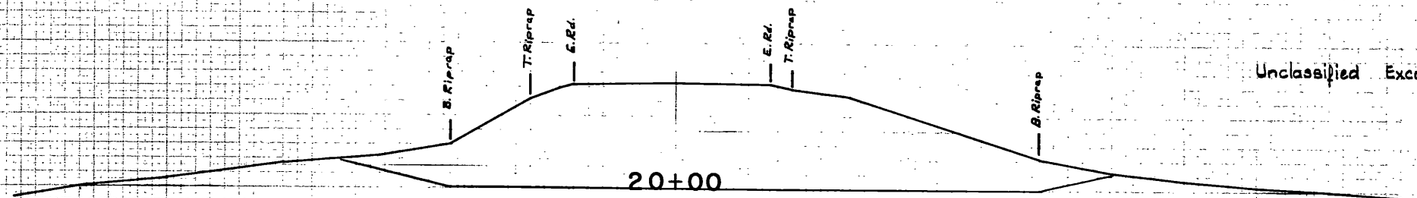
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Unclassified Excavation 934 #



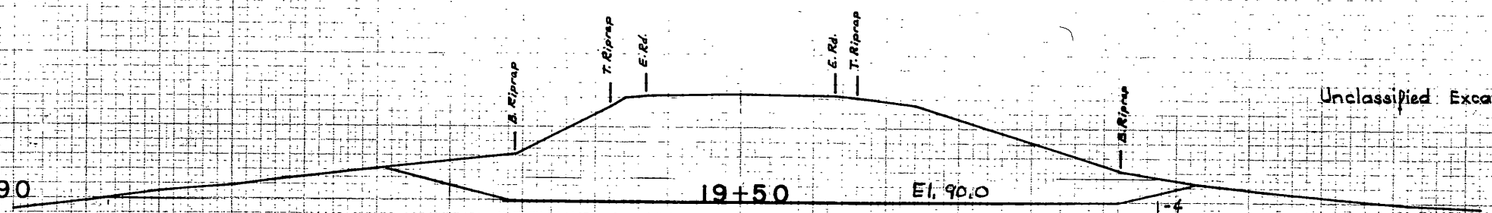
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Unclassified Excavation 1019 #



90

Unclassified Excavation 1019 #



90

Unclassified Excavation 1064 #

℄ EXISTING EAST CAUSEWAY

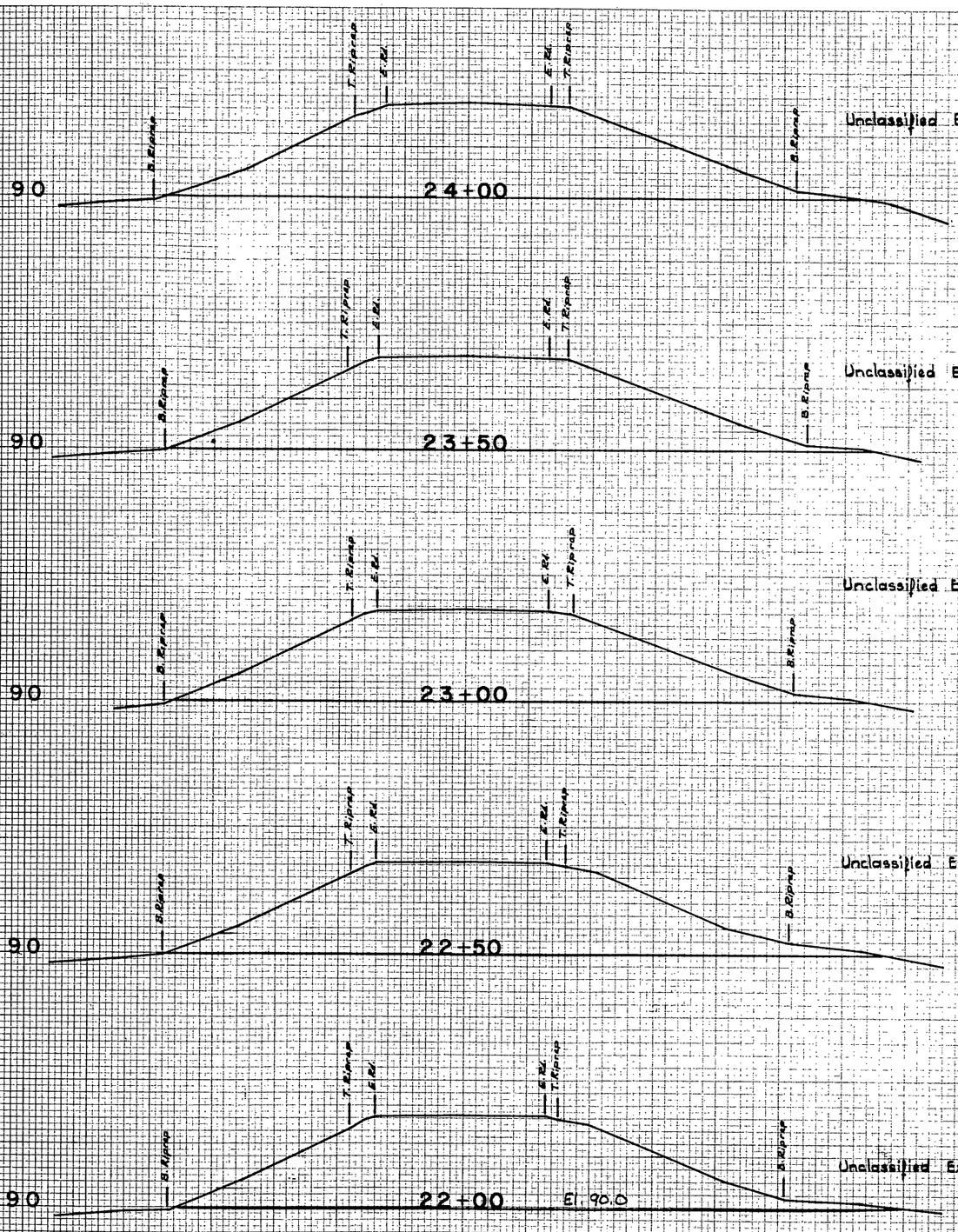
SCALE: HORZ. & VERT.
1" = 10'

FROM STA. 19+50 TO 21+50
REMOVE EXIST. E. CAUSEWAY
ROUSES POINT, N.Y.-ALBURG, VT.
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-43 OF 50

PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DIETZGEN CORPORATION

FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
DATE
BY



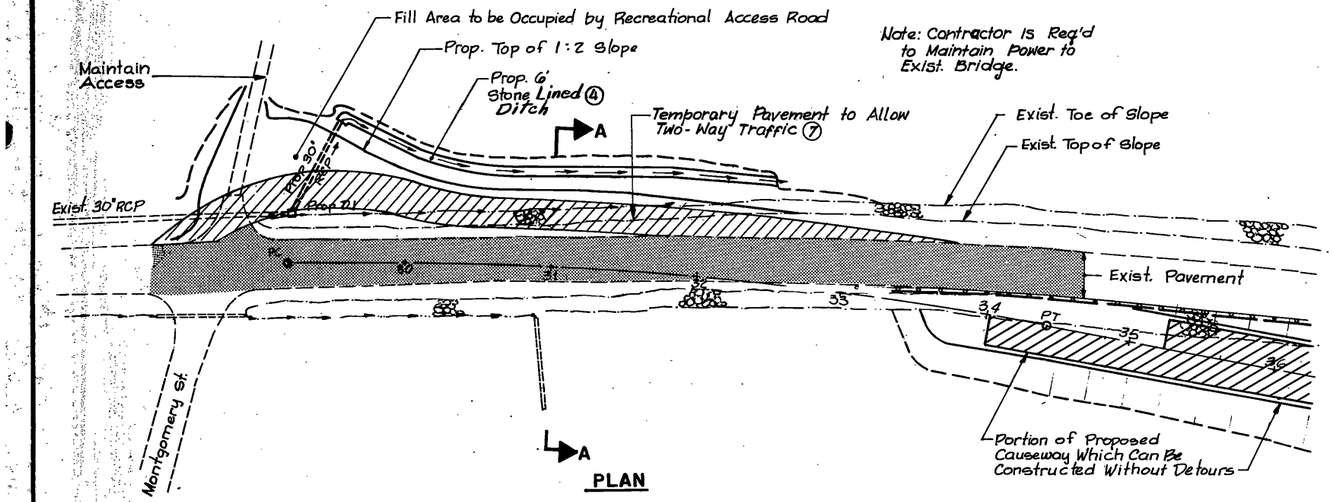
EXISTING EAST CAUSEWAY

FROM STA. 22+00 TO 24+50
REMOVE EXIST. E. CAUSEWAY
ROUSES POINT, NY-ALBURG, VT.
BRF 028-1(11)
SURVEYED BY DUBOIS & KING
SHEET C-48 OF 50

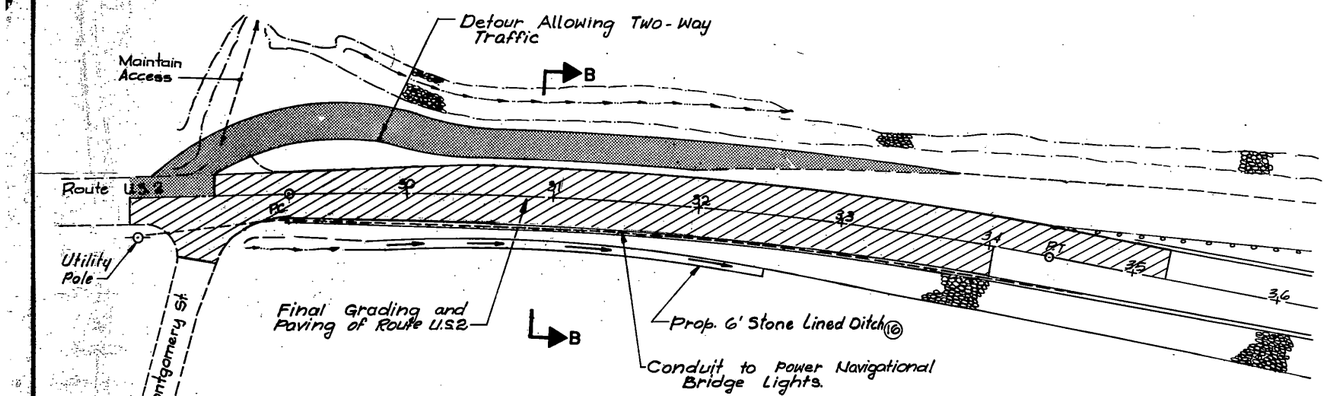
PLATE 3 CROSS SECTION O. P. R. & R. E. STANDARD
DITTZGEN CORPORATION

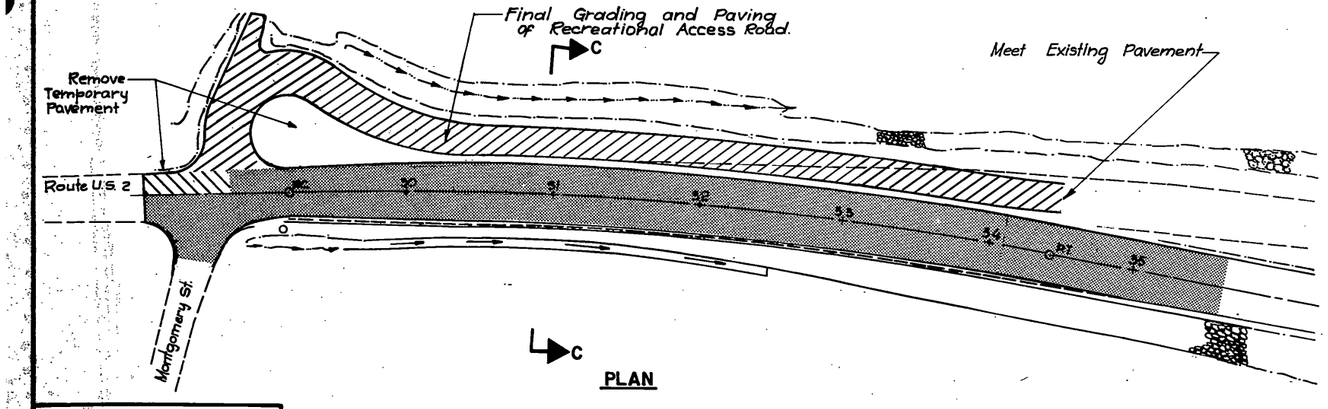
FINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTE BOOK
No.
SURVEYED
PLOTTED
TRACED
AREAS
AREAS CHECKED
BY
DATE



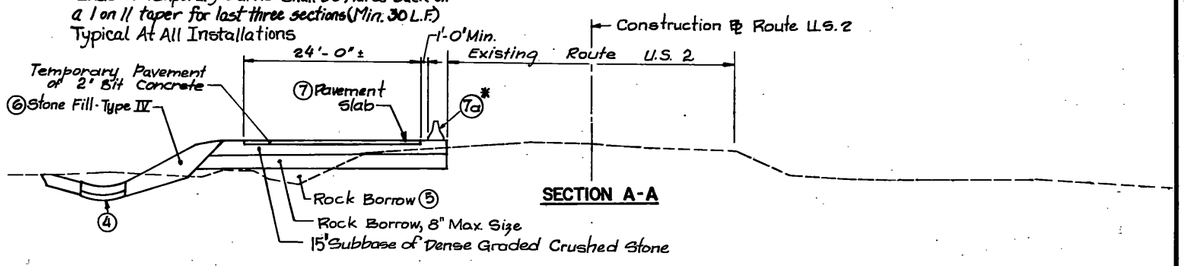
Note: Contractor is Req'd to Maintain Power to Exist. Bridge.





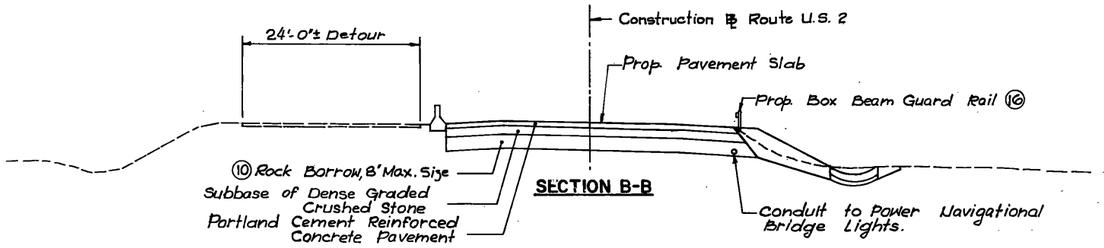
DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

* Ends of Temporary Barrier shall be flared back on a 1 on 11 taper for last three sections (Min. 30 L.F.) Typical At All Installations



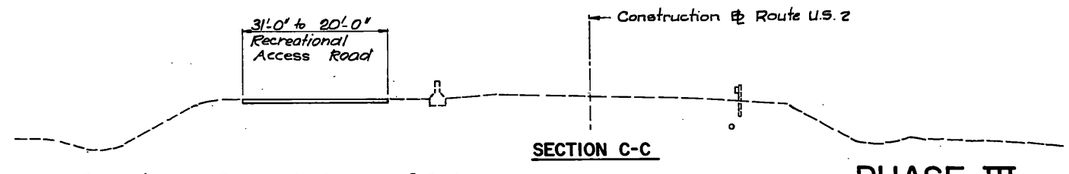
1. Strip & Stockpile any Suitable Topsoil in the Work Area.
2. Excavate as Required, Construct Drainage 30" Pipe and Drop Inlet Structure.
3. Cover All Exposed Pipes With 18" Minimum of Granular Backfill for Structures, Item 204.30
4. Excavate as Required and Construct the Stone Lined Ditch.
4a. Excavate as Required, Construct Drainage Pipe and Structures where it will not interfere with the Traffic.
5. Excavate Existing Causeway as Required on North Side of Existing Pavement, Place Rock Borrow, Rock Borrow 8" Maximum Size and Subgrade as Required.
6. Place Stone Fill Type IV on North Side of Causeway.
7. Place 2" Temporary Bit. Conc. North of Existing Pavement to Provide a Two-Way Detour.
7a. Place Temporary Barrier Between Detour and Construction Area.

PHASE I



8. Excavate as Required, Construct Drainage Pipe and Structures Where It Will Not Interfere With Traffic.
9. Install Conduit for Navigational Bridge Lighting.
10. Excavate the Balance of the South Side of the Existing Causeway as Required, Place Rock Borrow, Rock Borrow 8" Maximum Size and Subgrade as Required.
11. Excavate as Required and Construct the Stone Lined Ditch.
12. Regrade and Repave South Side of U.S. Route 2, West of Montgomery Street.
13. Set Concrete Median Barrier Wall.
14. Place Stone Fill Type IV on South Side of Causeway.
15. Place Bit. Concrete and Cement Concrete Pavement on Route U.S. 2.
16. Install Guard Rail on South Side of Route U.S 2.

PHASE II



17. Regrade and Repave North Side of Route U.S. 2, West of Montgomery Street.
18. Remove Temporary Pavement From Step 7.
19. Finish Excavating and Placing Drainage Pipe and Structures.
20. Finish Placing Subgrade and Fine Grade the Recreational Access Road.
21. Pave the Recreational Access Road.

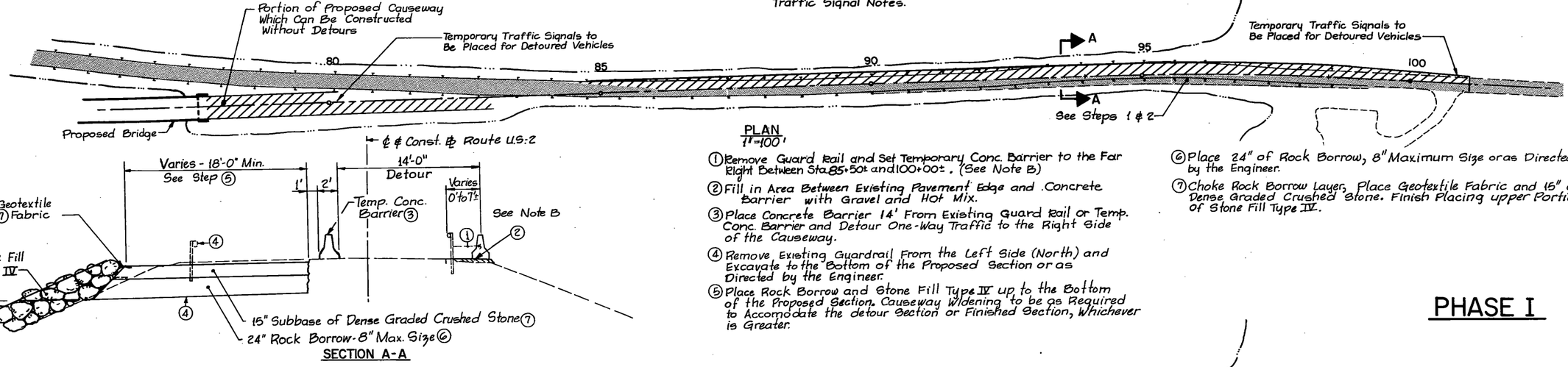
PHASE III

LEGEND
- Area Open to Traffic
- Work Area

CONSTRUCTION SEQUENCE
WEST APPROACH CAUSEWAY
NO SCALE

SURVEYED BY _____ DATE _____
DRAWN BY B.J.B. DATE 9-84
TRACED BY S.Zaks. DATE 9-84

ROUTE U.S. 2
ROUSES POINT, N.Y.- ALBURG
PROJ. BRF NO. 028-1(11)
SHEET C-45 OF 50



• See Sheet C-47 for Temporary Traffic Signal Notes.

PLAN
1"=100'

(1) Remove Guard Rail and Set Temporary Conc. Barrier to the Far Right Between Sta. 85+50± and 100+00±. (See Note B)

(2) Fill in Area Between Existing Pavement Edge and Concrete Barrier with Gravel and Hot Mix.

(3) Place Concrete Barrier 14' From Existing Guard Rail or Temp. Conc. Barrier and Detour One-Way Traffic to the Right Side of the Causeway.

(4) Remove Existing Guardrail From the Left Side (North) and Excavate to the Bottom of the Proposed Section or as Directed by the Engineer.

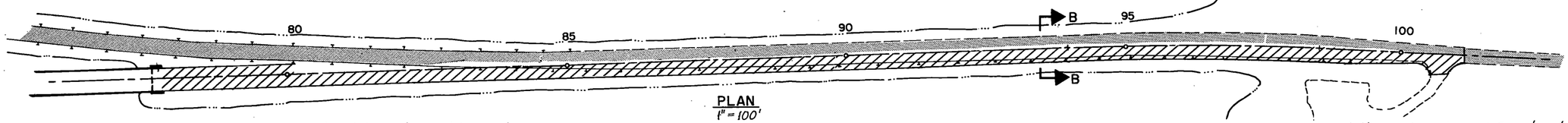
(5) Place Rock Borrow and Stone Fill Type IV up to the Bottom of the Proposed Section. Causeway Widening to be as Required to Accomodate the detour Section or Finished Section, Whichever is Greater.

(6) Place 24" of Rock Borrow, 8" Maximum Size or as Directed by the Engineer.

(7) Choke Rock Borrow Layer, Place Geotextile Fabric and 15" of Dense Graded Crushed Stone. Finish Placing upper Portion of Stone Fill Type IV.

SECTION A-A

PHASE I



PLAN
1"=100'

(8) Place Gravel Subbase upon Dense Graded Stone and place 2" Temporary Bituminous Conc., Detour One-Way Traffic to the Left Side of the Causeway.

(9) Remove Existing Guard Rail From the Right Side (South) and Excavate to the Bottom of the Proposed Section or as Directed by the Engineer.

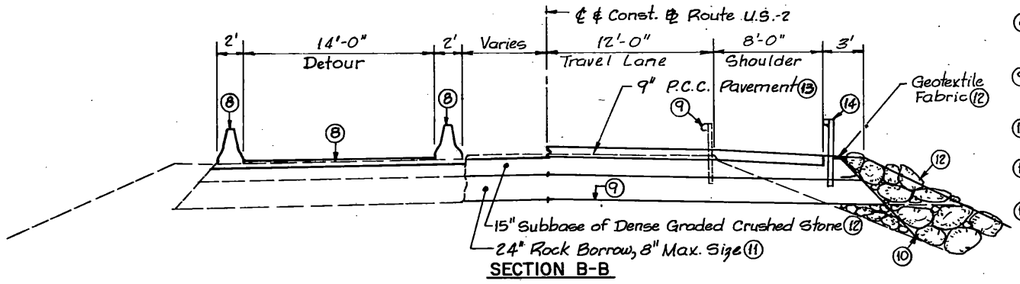
(10) Place Rock Borrow and Stone Fill Type IV up to Bottom of the Proposed Section.

(11) Place 24" of Rock Borrow, 8" Maximum Size or as Directed by the Engineer.

(12) Choke Rock Borrow Layer, Place Geotextile Fabric and 15" of Dense Graded Crushed Stone. Finish Placing Upper Portion of Stone Fill Type IV.

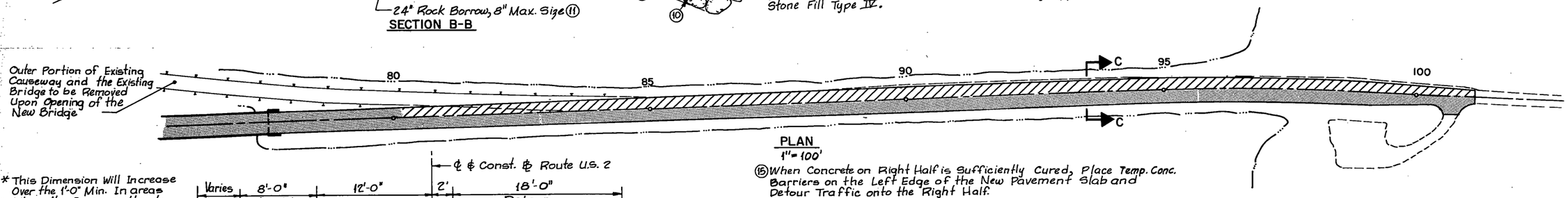
(13) Fine Grade and Compact the Subgrade and Construct the 9" Portland Cement Concrete Pavement Half Section (20' Wide).

(14) Install Proposed Box Beam Guard Rail.



SECTION B-B

PHASE II



PLAN
1"=100'

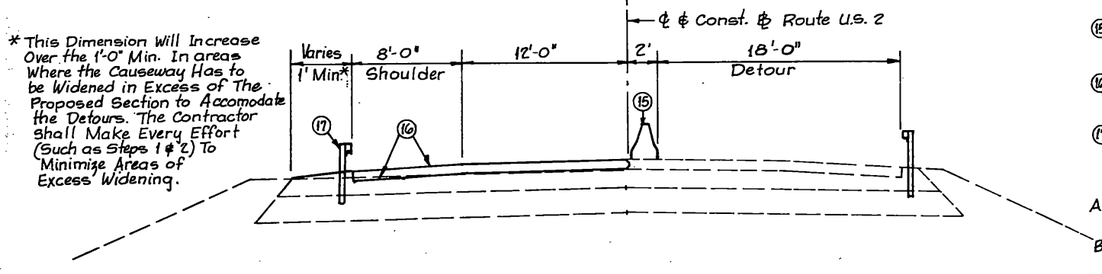
(15) When Concrete on Right Half is Sufficiently Cured, Place Temp. Conc. Barriers on the Left Edge of the New Pavement Slab and Detour Traffic onto the Right Half.

(16) Repair, Fine Grade and Compact the Subgrade on the Left Side and Construct the Balance of the 9" Portland Cement Concrete Pavement.

(17) Install Proposed Box Beam Guard Rail.

LEGEND
- Area Open to Traffic
- Work Area

PHASE III



SECTION C-C

* This Dimension Will Increase Over the 1'-0" Min. In areas Where the Causeway Has to be Widened in Excess of The Proposed Section to Accomodate the Detours. The Contractor Shall Make Every Effort (Such as Steps 1 & 2) To Minimize Areas of Excess Widening.

NOTES

A. The Minimum Clear Width for One-Way Detours Shall Be 14'-0". Traffic to be Maintained Throughout Construction.

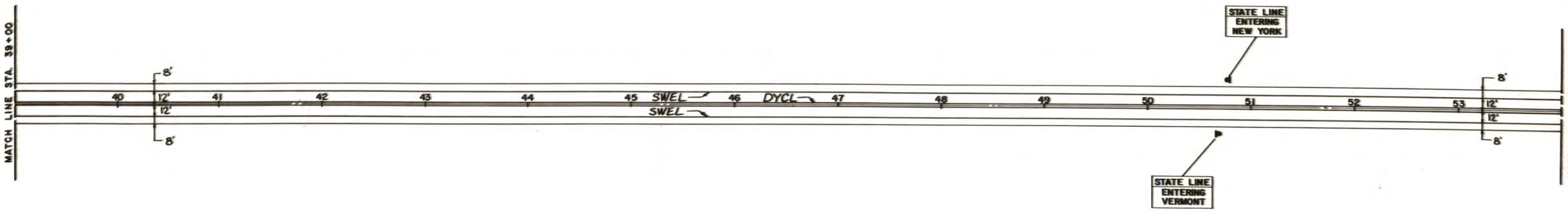
B. Moving the Existing Guard Rail and Extending the Pavement in Steps 1 & 2 Onto a Shelf Which Exists, Is Necessary to Prevent Over Widening on the North Side of the Causeway Within the Indicated Limits.

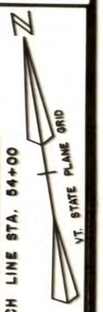
C. This Construction Sequence is Intended Only as a Possible Method. If the Contractor Wishes to Alter or Change the Sequence and/or Operations, The Altered Method Must be Submitted to the Engineer in Writing for Approval.

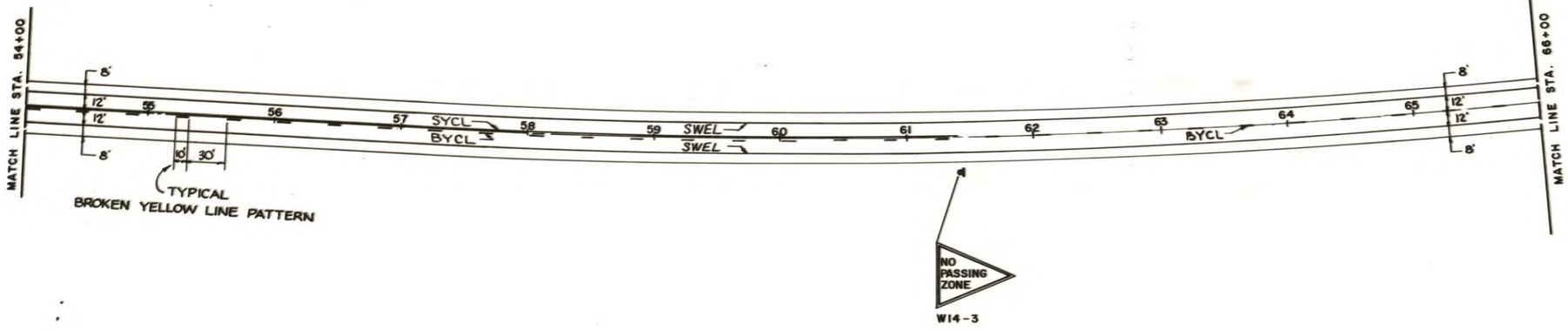
DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

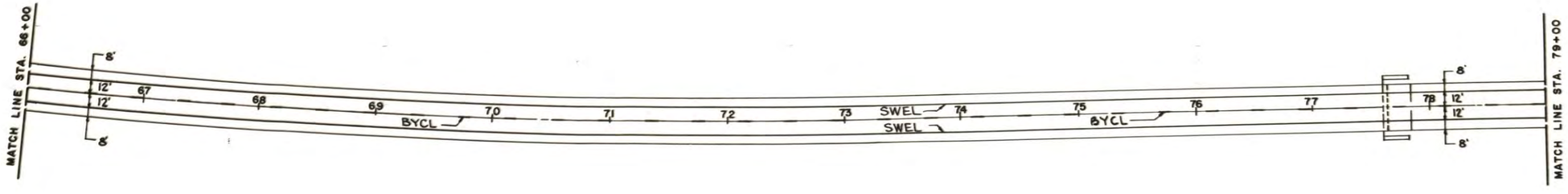
CONSTRUCTION SEQUENCE
EAST APPROACH CAUSEWAY
NO SCALE

SURVEYED BY _____ DATE _____
DRAWN BY R. Mazzeo DATE 5-84
TRACED BY L. Smith DATE 5-84
ROUTE U.S. 2
ROUSES POINT, N.Y. - ALBURG
PROJ. BRF NO. 028-1(11)
SHEET C-46 OF 50





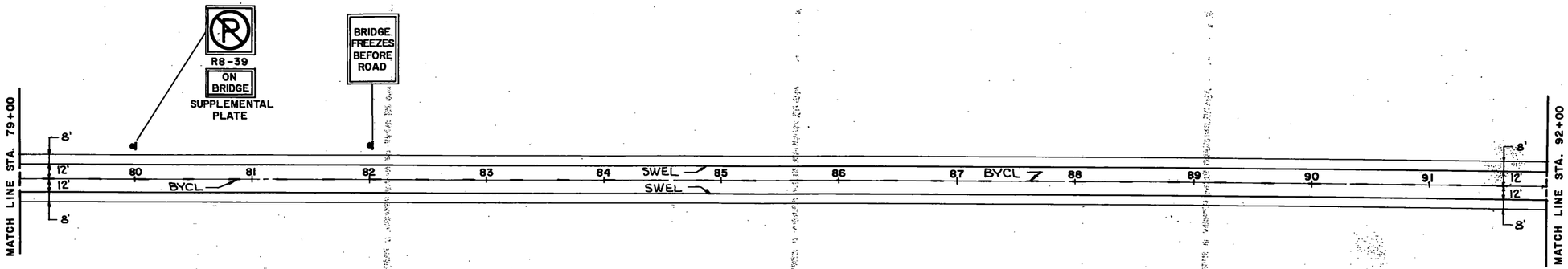


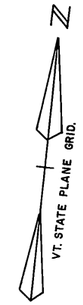


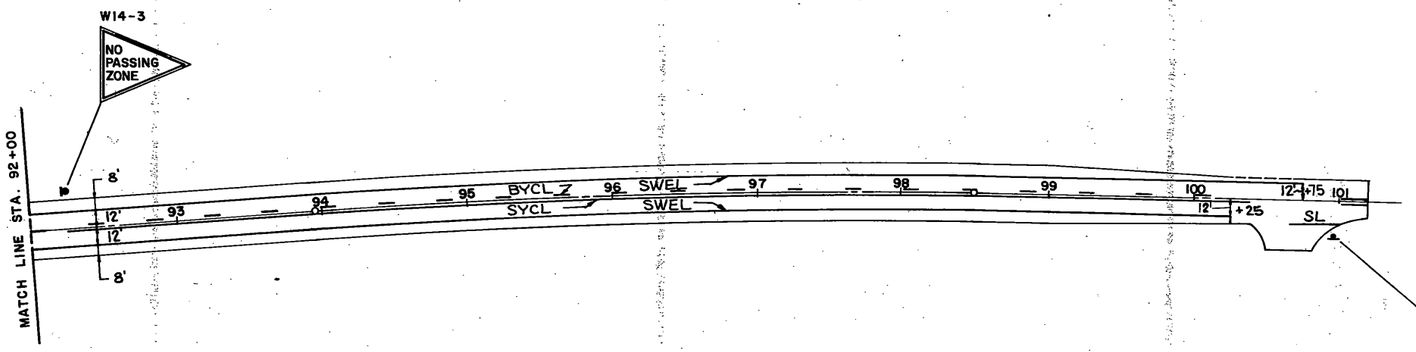
DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

SURVEYED BY _____ DATE _____
DRAWN BY B.J.B. DATE 10-84
TRACED BY L.J.S. DATE 10-84

ROUTE U.S. 2
ROUSES POINT, N.Y.-ALBURG, VT.
PROJ. BRF NO. 028-1(11)
SHEET C-49 OF 50





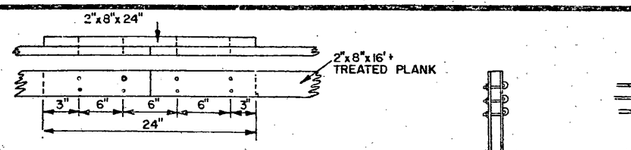


IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS LETTER HEIGHT	TEXT DIMENSIONS VERTICAL SPACING	TEXT DIMENSIONS ARROW	NUMBER OF SIGNS REQUIRED	COLOR BACKGROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	AREA IN SQUARE FEET
R8-3a	24" 24"	24" 18"	R ON BRIDGE	SEE STANDARD DETAILS M.U.T.C.D.			2	SEE STANDARD DETAILS M.U.T.C.D.				14
R1-1	24" OCTOGONAL		STOP				3					9.9
M3-2 M1-4	24" 24"	12" 24"	EAST 2				1					7.0
W14-3	48"	36"	NO PASSING ZONE				2					11.1
R2-1	24"	30"	SPEED LIMIT 50				2					12

IDENTFICATION NUMBER	SIZE OF SIGN WIDTH	SIZE OF SIGN HEIGHT	TEXT	TEXT DIMENSIONS LETTER HEIGHT	TEXT DIMENSIONS VERTICAL SPACING	TEXT DIMENSIONS ARROW	NUMBER OF SIGNS REQUIRED	COLOR BACKGROUND	COLOR LEGEND	COLOR BORDER	POST SIZE AND NUMBER REQUIRED	AREA IN SQUARE FEET
	40"	24"	STATE LINE ENTERING VERMONT	5C 3C 4D			1	GREEN	WHITE	WHITE		6.7
	24"	36"	BRIDGE FREEZES BEFORE ROAD	4.6"	2 1/4"		2	YELLOW	BLACK	BLACK		12
	40"	24"	STATE LINE ENTERING NEW YORK	5C 3C 4D			1	GREEN	WHITE	WHITE		6.7

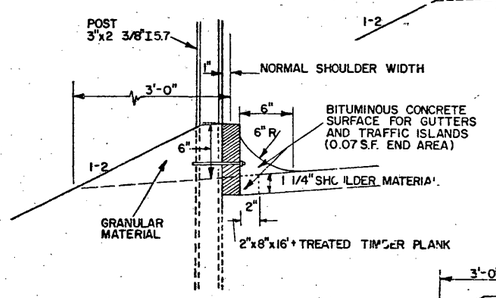
DATUM
VERTICAL NGVD 1929
HORIZONTAL NAD 1927

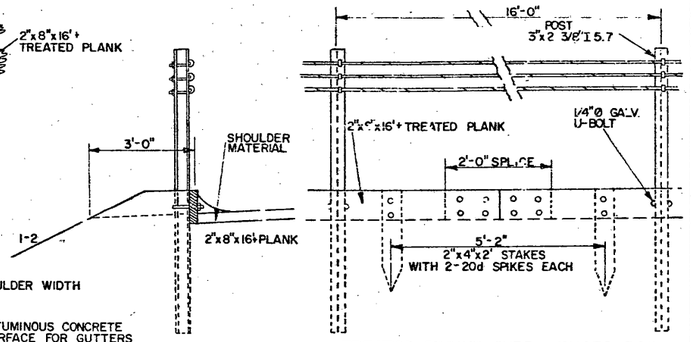
SURVEYED BY _____ DATE _____
DRAWN BY B.J.B. DATE 10-84
TRACED BY L.J.S. DATE 10-84
ROUTE U.S. 2
ROUSES POINT, N.Y.-ALBURG, VT.
PROJ. BRF NO. 028-1(11)
SHEET C-50 OF 50



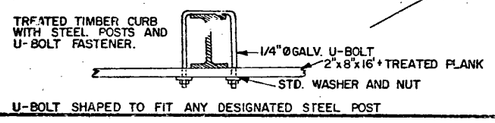
SPLICE DETAIL

4-20d SPIKES
STAKE SPACING 5'-2"



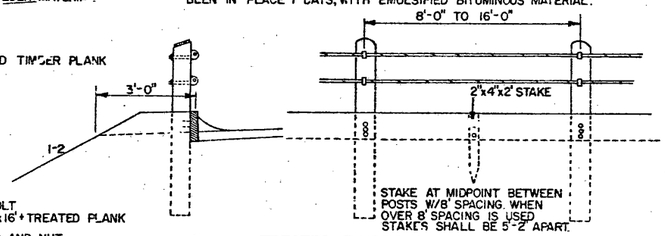


TREATED TIMBER CURB w/GUARD RAIL, THREE CABLE w/ LIGHT STEEL POSTS

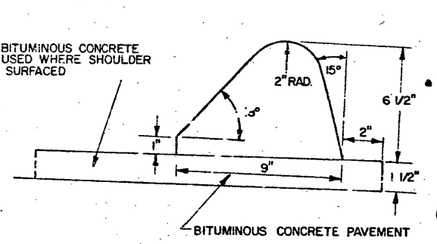


U-BOLT SHAPED TO FIT ANY DESIGNATED STEEL POST

CURB SURFACE TO BE TREATED (TWO COATS), AFTER CURB HAS BEEN IN PLACE 7 DAYS, WITH EMULSIFIED BITUMINOUS MATERIAL.



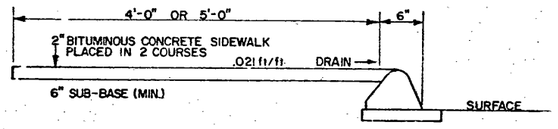
TREATED TIMBER CURB w/GUARD RAIL, TWO CABLE w/ WOOD POSTS



CURB SURFACE TO BE TREATED (TWO COATS) AFTER CURB HAS BEEN IN PLACE 7 DAYS WITH EMULSIFIED BITUMINOUS MATERIAL.

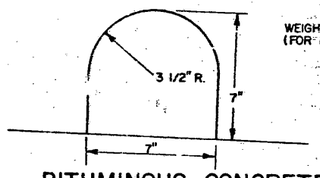
WEIGHT OF CURB = 40.4 LBS./LF. (FOR ESTIMATING TONNAGE)

BITUMINOUS CONCRETE CURB, TYPE A



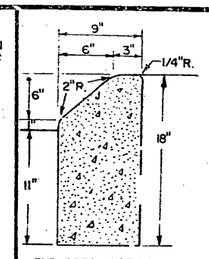
BITUMINOUS CONCRETE SIDEWALK

CURB SURFACE TO BE TREATED (TWO COATS), AFTER CURB HAS BEEN IN PLACE 7 DAYS, WITH EMULSIFIED BITUMINOUS MATERIAL.



WEIGHT OF CURB = 45.0 LBS./LF. (FOR ESTIMATING TONNAGE)

BITUMINOUS CONCRETE CURB, TYPE B

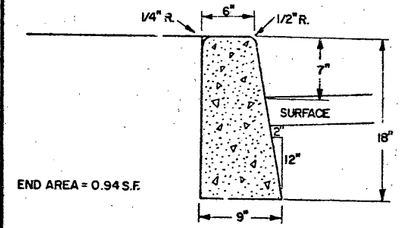


END AREA = 1.00 S.F.

WHEN CONCRETE CURB IS CONSTRUCTED ADJACENT TO CONCRETE SIDEWALK, ASPHALT TREATED FELT SHALL BE PLACED BETWEEN THE SIDEWALK AND CURB.

SEE SPECIFICATIONS FOR DETAILS ON EXPANSION AND CONSTRUCTION JOINTS.

CAST IN PLACE CEMENT CONCRETE CURB, TYPE A

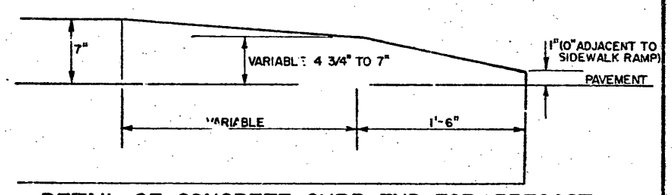


END AREA = 0.94 S.F.

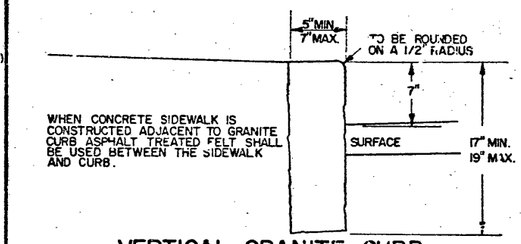
WHEN CONCRETE CURB IS CONSTRUCTED ADJACENT TO CONCRETE SIDEWALK, ASPHALT TREATED FELT SHALL BE PLACED BETWEEN THE SIDEWALK AND CURB.

SEE SPECIFICATIONS FOR DETAILS ON EXPANSION AND CONSTRUCTION JOINTS.

CAST IN PLACE CEMENT CONCRETE CURB, TYPE B

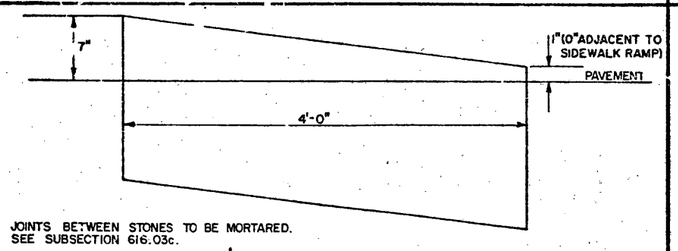


DETAIL OF CONCRETE CURB END FOR PRECAST REINFORCED CEMENT CONCRETE CURB OR CAST IN PLACE CEMENT CONCRETE CURB



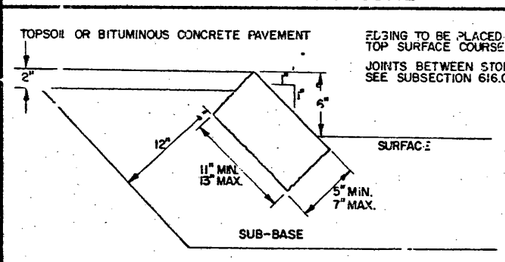
WHEN CONCRETE SIDEWALK IS CONSTRUCTED ADJACENT TO GRANITE CURB ASPHALT TREATED FELT SHALL BE USED BETWEEN THE SIDEWALK AND CURB.

VERTICAL GRANITE CURB



JOINTS BETWEEN STONES TO BE MORTARED. SEE SUBSECTION 616.03c.

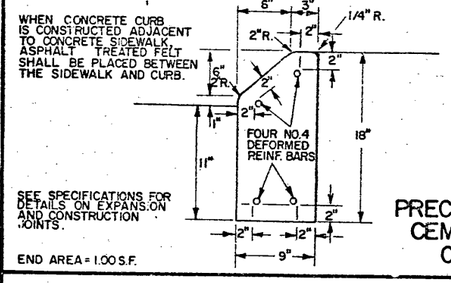
DETAIL OF GRANITE CURB END FOR VERTICAL GRANITE CURB



EDGING TO BE PLACED PRIOR TO PLACING TOP SURFACE COURSE.

JOINTS BETWEEN STONES TO BE MORTARED. SEE SUBSECTION 616.03c.

GRANITE SLOPE EDGING

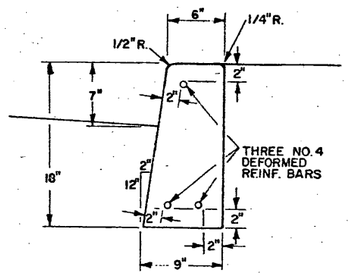


WHEN CONCRETE CURB IS CONSTRUCTED ADJACENT TO CONCRETE SIDEWALK ASPHALT TREATED FELT SHALL BE PLACED BETWEEN THE SIDEWALK AND CURB.

SEE SPECIFICATIONS FOR DETAILS ON EXPANSION AND CONSTRUCTION JOINTS.

END AREA = 1.00 S.F.

PRECAST REINFORCED CEMENT CONCRETE CURB, TYPE A



WHEN CONCRETE CURB IS CONSTRUCTED ADJACENT TO CONCRETE SIDEWALK, ASPHALT TREATED FELT SHALL BE PLACED BETWEEN THE SIDEWALK AND CURB.

SEE SPECIFICATIONS FOR DETAILS ON EXPANSION AND CONSTRUCTION JOINTS.

END AREA = 0.94 S.F.

PRECAST REINFORCED CEMENT CONCRETE CURB, TYPE B

REVISIONS AND CORRECTIONS

AUG. 30, 1973 - TREATED TIMBER PLANK INCREASED TO 8" SIZE.
MAY 7, 1976 - TREATED TIMBER CURB HEIGHT INCREASED FROM 4 1/2" TO 6"
DEC. 16, 1980 - INCREASED SHOULDER WIDENING FOR GUARD RAIL.

APPROVED:

DATE: Dec. 8, 1971

R. H. Arnold
CHIEF ENGINEER

E. H. Stickney
ASST. CHIEF ENGINEER

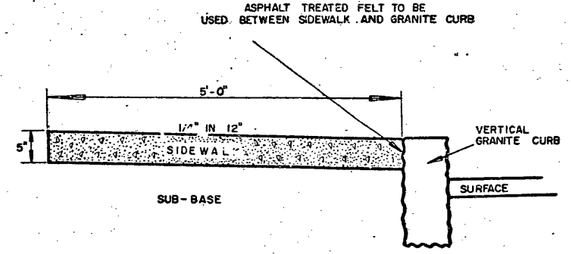
G. M. Lane
V. HIGHWAY ENGINEER

GRANITE SLOPE EDGING
VERTICAL GRANITE CURB
PRECAST REINFORCED CEMENT CONCRETE CURB
CAST IN PLACE CEMENT CONCRETE CURB
BITUMINOUS CONCRETE CURB
TREATED TIMBER CURB

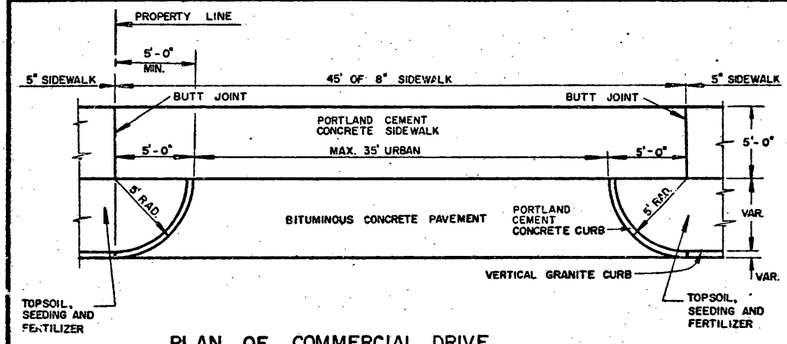
VERMONT AGENCY OF TRANSPORTATION

STANDARD

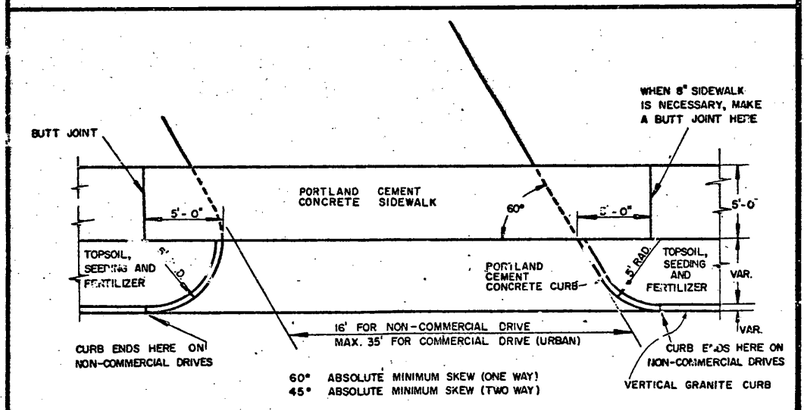
C-1



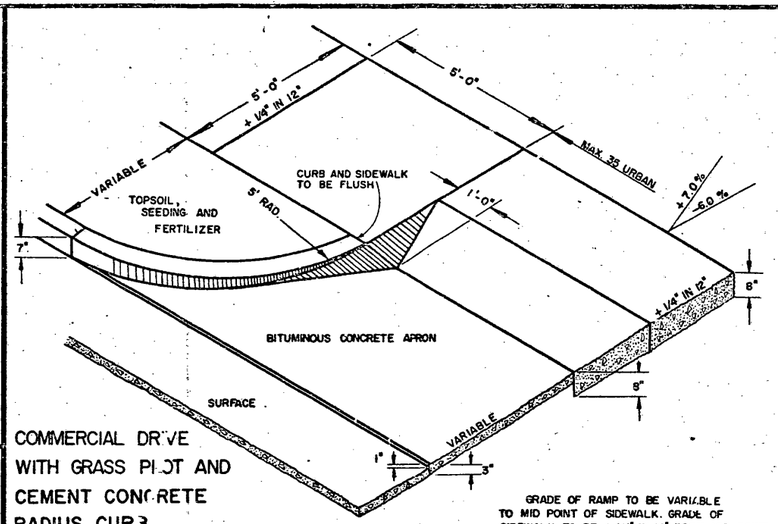
PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
(WITH VERTICAL GRANITE CURB)



PLAN OF COMMERCIAL DRIVE

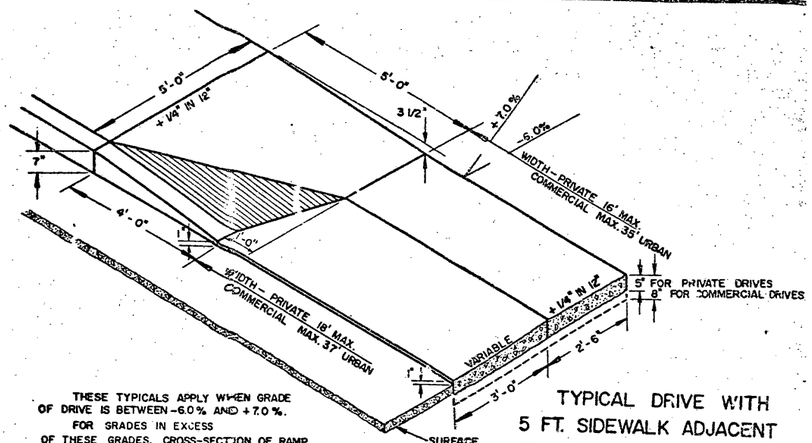


PLAN OF SKEW DRIVE



COMMERCIAL DRIVE
WITH GRASS PLOT AND
CEMENT CONCRETE
RADIUS CURB

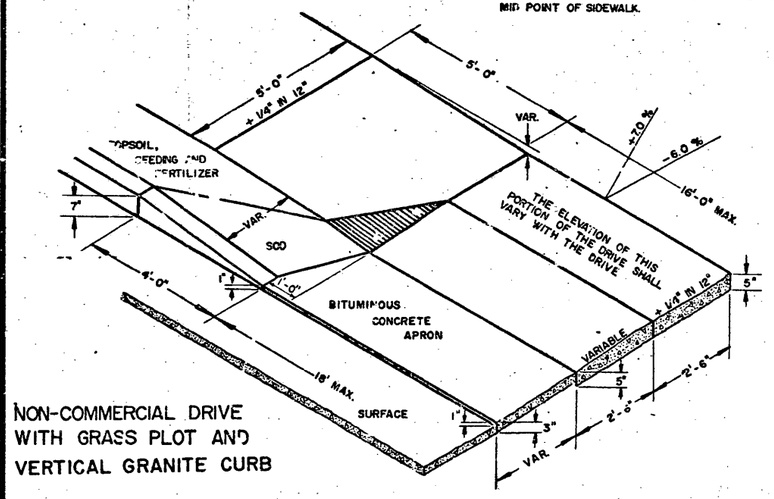
GRADE OF RAMP TO BE VARIABLE TO MID POINT OF SIDEWALK. GRADE OF SIDEWALK TO BE + 1/4" IN 12" FROM MID POINT TO BACK. CONSTRUCTION JOINT TO BE MADE AT MID POINT OF SIDEWALK.



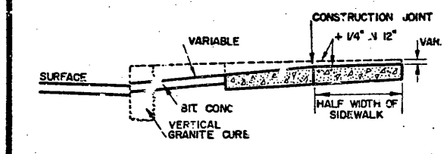
THESE TYPICALS APPLY WHEN GRADE OF DRIVE IS BETWEEN -6.0% AND +7.0%. FOR GRADES IN EXCESS OF THESE GRADES, CROSS-SECTION OF RAMP AND SIDEWALK TO BE CHANGED BY THE ENGINEER.

APPROPRIATE VARIATIONS IN SIDEWALK AND RAMP CONSTRUCTION TO PROVIDE REASONABLE ACCESS MAY BE AUTHORIZED BY THE ENGINEER.

TYPICAL DRIVE WITH
5 FT. SIDEWALK ADJACENT
TO VERTICAL GRANITE CURB



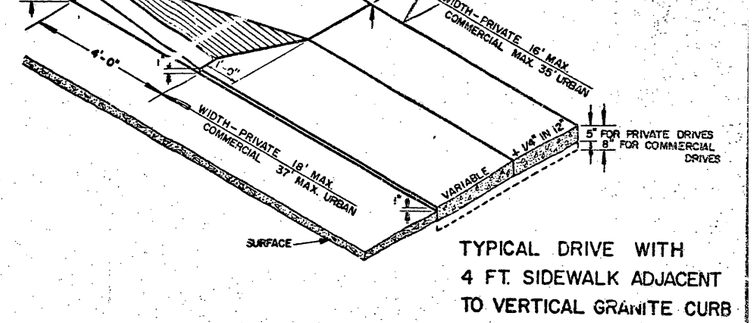
NON-COMMERCIAL DRIVE
WITH GRASS PLOT AND
VERTICAL GRANITE CURB



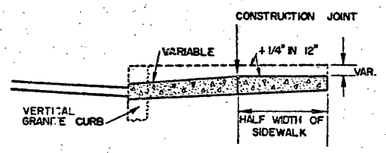
DISTANCE BETWEEN DOUBLE DRIVEWAYS
10 FEET MINIMUM (URBAN)

RAMPS TO BE PAID FOR AS PORTLAND CEMENT CONCRETE SIDEWALK

CEMENT CONCRETE RADIUS CURB TO BE CONSTRUCTED WITH EITHER PRECAST REINFORCED CEMENT CONCRETE CURB OR CAST-IN-PLACE CEMENT CONCRETE CURB



TYPICAL DRIVE WITH
4 FT. SIDEWALK ADJACENT
TO VERTICAL GRANITE CURB



REVISIONS AND CORRECTIONS

APPROVED

DATE December 18, 1971

R.H. Arnold
CHIEF ENGINEER

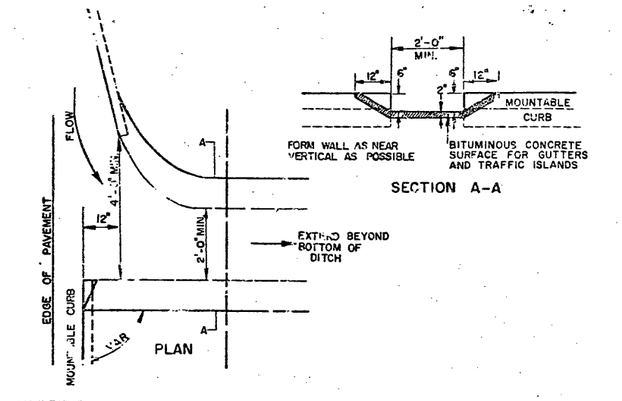
E.H. Hackney
ASST. CHIEF ENGINEER

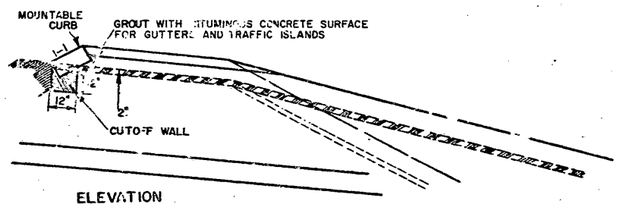
G.M. Lane
HIGHWAY ENGINEER

PORTLAND CEMENT CONCRETE SIDEWALK
DRIVE ENTRANCES WITH VERTICAL GRANITE CURB

VERMONT
DEPARTMENT
OF HIGHWAYS
STANDARD

C-2b





DETAIL OF CURB DRAINS

NOT TO BE USED ON ROADWAY GRADES EXCEEDING 2%

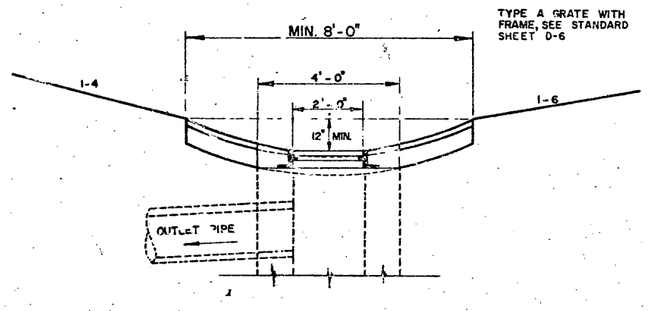
A 6" DEPTH OF COARSE SAND OR GRAVEL SHALL BE USED TO REPLACE UNSUITABLE MATERIAL ENCOUNTERED BELOW SUBGRADE AT THE DIRECTION OF THE ENGINEER.

GENERAL NOTES

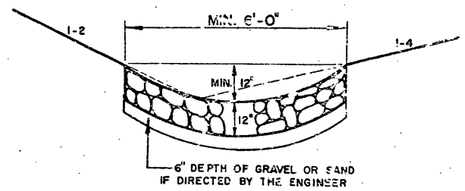
CHANGES IN ALIGNMENT AND GRADE FOR GUTTERS SHOULD BE AS GRADUAL AS THE WIDTH OF RIGHT-OF-WAY AND TERRAIN WILL PERMIT

CURVED PORTIONS OF TREATED GUTTERS MAY REQUIRE ADDITIONAL PROTECTION ALONG THE OUTSIDE EDGE OF THE GUTTER TO AID IN REDIRECTING THE WATER AND HELP PREVENT EROSION

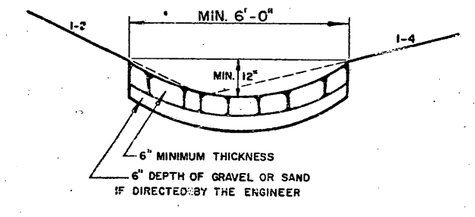
THE USE OF SOD STRIPS ALONG BOTH EDGES OF GUTTERS SHOULD BE CONSIDERED AS A MEANS OF PREVENTING EROSION AND UNDERMINING OF THE GUTTER.



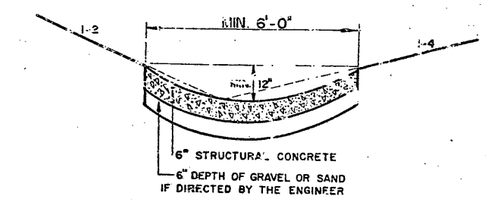
DROP INLET WITH GRATE IN TREATED GUTTER



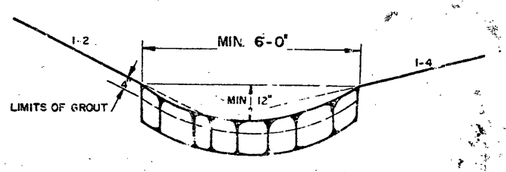
BITUMINOUS GROUTED STONE GUTTER



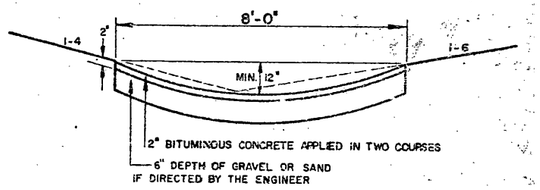
RIPRAP, LIGHT TYPE



PLAIN CEMENT CONCRETE GUTTER

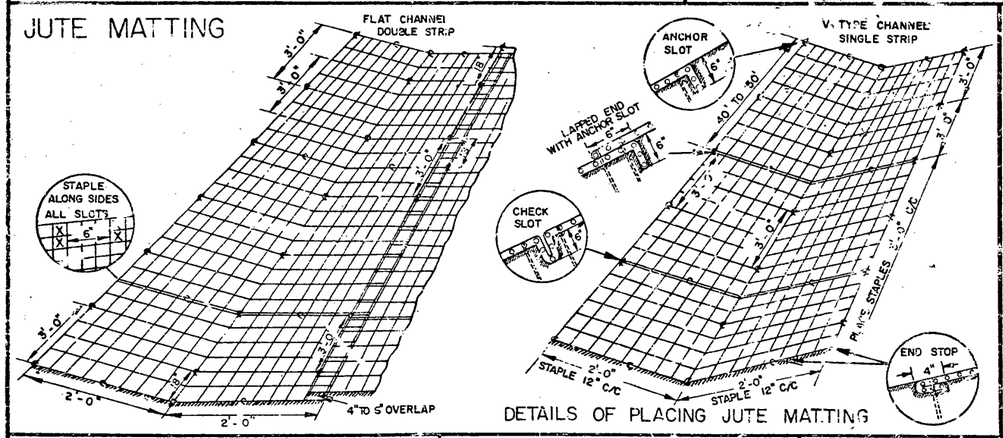


PLAIN RUBBLE PAVING
GROUTED RUBBLE PAVING

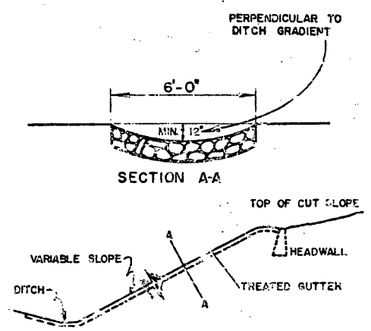


BITUMINOUS CONCRETE SURFACE FOR GUTTERS AND TRAFFIC ISLANDS

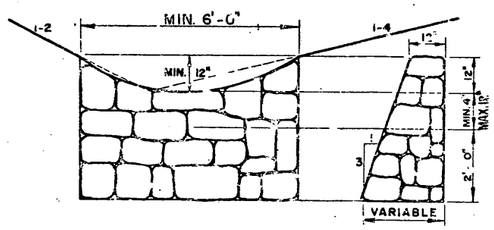
JUTE MATTING



DETAILS OF PLACING JUTE MATTING



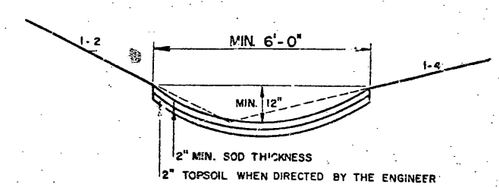
DETAIL OF TREATED GUTTER ON CUT SLOPE



HEADWALL TO BE CONSTRUCTED AT TOP OF SLOPE AND MAY BE USED WITH ALL TYPES OF GUTTERS.

CONCRETE ALTERNATE, SEE SUB-SECTION 602.11

CEMENT RUBBLE MASONRY GUTTER HEADWALL



SOD JOINTS TO BE STAGGERED

SODDING

REVISIONS & CORRECTIONS

APRIL 27, 1973 - GENERAL NOTES ADDED

APPROVED DATE: Dec. 6, 1971

P. N. Arnold
CHIEF ENGINEER

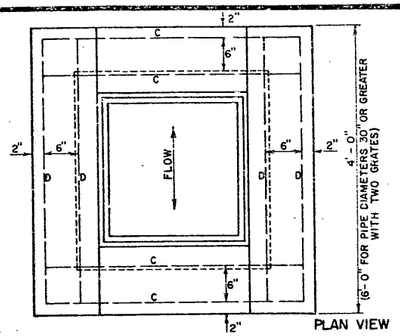
E. H. Stickney
ASST. CHIEF ENGINEER

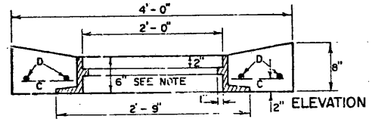
G. M. Lane
HIGHWAY ENGINEER

TREATED GUTTERS

VERMONT DEPARTMENT OF HIGHWAYS STANDARD

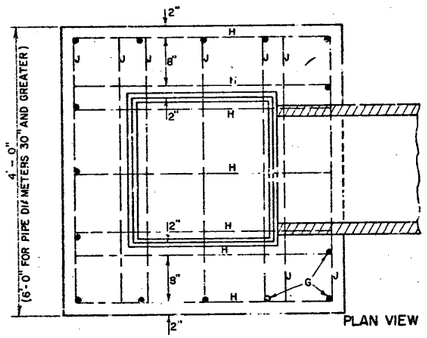
D-3



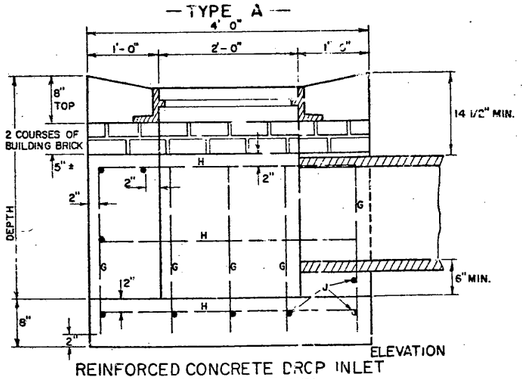


NOTE—FRAME SHOWN IS FOR TYPE 'A' GRATE, SEE SHEET D-11. FOR TYPE 'B' GRATE AND FRAME, SEE SHEET D-16 (EXCEPT THE FRAME DEPTH DIMENSION SHALL BE 6").

TOP FOR REINFORCED CONCRETE DROP INLET WITH GRATE FOR USE IN DITCHES



—TYPE A—



REINFORCED CONCRETE DROP INLET FOR USE IN DITCHES

STEEL SCHEDULE

4'x4' DROP INLET TYPE A 12", 15", 18", 24"							4'x6' DROP INLET WITH TWO GRATES TYPE B 30", 36"										TYPE C 4'x6' DROP INLET WITH ONE GRATE WITH 4'x6' TOP 30", 36"									
DEPTH	G	LENGTH	H, J	LENGTH	C, D	LENGTH	G	LENGTH	H	LENGTH	J	LENGTH	C	LENGTH	D	LENGTH	DEPTH	G	LENGTH	H	LENGTH	J	LENGTH	C	LENGTH	D	LENGTH	DEPTH
3'-0"	15	2'-3"	22	3'-8"	8	3'-8"											3'-0"											
3'-6"	15	2'-9"	22	3'-8"	8	3'-8"											3'-6"											
4'-0"	15	3'-3"	29	3'-8"	8	3'-8"	17	3'-3"	19	3'-8"	10	5'-8"	4	3'-8"	4	5'-8"	4'-0"	17	3'-8"	19	3'-8"	10	5'-8"	6	3'-8"	4	5'-8"	4'-0"
4'-6"	15	3'-9"	29	3'-8"	8	3'-8"	17	3'-9"	19	3'-8"	10	5'-8"	4	3'-8"	4	5'-8"	4'-6"	17	4'-2"	19	3'-8"	10	5'-8"	6	3'-8"	4	5'-8"	4'-6"
5'-0"	15	4'-3"	35	3'-8"	8	3'-8"	17	4'-3"	23	3'-8"	13	5'-8"	4	3'-8"	4	5'-8"	5'-0"	17	4'-8"	23	3'-8"	13	5'-8"	6	3'-8"	4	5'-8"	5'-0"
5'-6"	15	4'-9"	35	3'-8"	8	3'-8"	17	4'-9"	23	3'-8"	13	5'-8"	4	3'-8"	4	5'-8"	5'-6"	17	5'-2"	23	3'-8"	13	5'-8"	6	3'-8"	4	5'-8"	5'-6"
6'-0"	15	5'-3"	41	3'-8"	8	3'-8"	17	5'-3"	27	3'-8"	15	5'-8"	4	3'-8"	4	5'-8"	6'-0"	17	5'-8"	27	3'-8"	15	5'-8"	6	3'-8"	4	5'-8"	6'-0"
6'-6"	15	5'-9"	41	3'-8"	8	3'-8"	17	5'-9"	31	3'-8"	15	5'-8"	4	3'-8"	4	5'-8"	6'-6"	17	6'-2"	31	3'-8"	15	5'-8"	6	3'-8"	4	5'-8"	6'-6"
7'-0"	15	6'-3"	47	3'-8"	8	3'-8"	17	6'-3"	35	3'-8"	17	5'-8"	4	3'-8"	4	5'-8"	7'-0"	17	6'-8"	35	3'-8"	17	5'-8"	6	3'-8"	4	5'-8"	7'-0"
7'-6"	15	6'-9"	47	3'-8"	8	3'-8"	17	6'-9"	35	3'-8"	17	5'-8"	4	3'-8"	4	5'-8"	7'-6"	17	7'-2"	35	3'-8"	17	5'-8"	6	3'-8"	4	5'-8"	7'-6"
8'-0"	15	7'-3"	53	3'-8"	8	3'-8"	17	7'-3"	39	3'-8"	19	5'-8"	4	3'-8"	4	5'-8"	8'-0"	17	7'-8"	39	3'-8"	19	5'-8"	6	3'-8"	4	5'-8"	8'-0"

STEEL AND CONCRETE QUANTITIES

4'x4' DROP INLET			4'x6' DROP INLET WITH TWO GRATES					4'x6' DROP INLET WITH ONE GRATE WITH 4'x6' TOP				
	12"-15"-18"-24" TYPE A		30" TYPE B		36" TYPE B			30" TYPE C		36" TYPE C		
DEPTH	CONCRETE C.Y.	STEEL LBS.	CONCRETE C.Y.	STEEL LBS.	CONCRETE C.Y.	STEEL LBS.	DEPTH	CONCRETE C.Y.	STEEL LBS.	CONCRETE C.Y.	STEEL LBS.	DEPTH
3'-0"	1.7	150					3'-0"					
3'-6"	1.9	158					3'-6"					
4'-0"	2.1	193	[illegible]7	228			4'-0"	2.8	244			
4'-6"	2.3	200	3.0	237	2.9	237	4'-6"	3.1	252	3.0	252	4'-6"
5'-0"	[illegible]	231	3.3	279	3.2	279	5'-0"	3.4	284	3.3	294	5'-0"
5'-6"	2.8	239	3.6	288	3.5	288	5'-6"	3.7	303	3.6	303	5'-6"
6'-0"	3.0	270	3.9	324	3.8	324	6'-0"	4.0	339	3.9	339	6'-0"
6'-6"	3.2	278	4.2	348	4.1	348	6'-6"	4.3	363	4.2	363	6'-6"
7'-0"	3.5	308	4.5	384	4.4	384	7'-0"	4.6	399	4.5	399	7'-0"
7'-6"	3.7	316	4.8	393	4.7	393	7'-6"	4.9	408	4.8	408	7'-6"
8'-0"	3.9	347	5.1	429	5.0	429	8'-0"	5.2	444	5.1	444	8'-0"

FOR 2nd 30" PIPE DEDUCT 0.18 C.Y.
FOR 2nd 36" PIPE DEDUCT 0.26 C.Y.
FOR 2nd 42" PIPE DEDUCT 0.36 C.Y., OR 0.18 FOR 1 PIPE
FOR 2nd 48" PIPE DEDUCT 0.47 C.Y., OR 0.24 FOR 1 PIPE

STEEL SCHEDULE TYPE D

4'x6' DROP INLET WITH ONE GRATE WITH 4'x4' TOP 30", 36"										
G	LENGTH	H	LENGTH	J	LENGTH	C	LENGTH	D	LENGTH	DEPTH
17	3'-7"	23	3'-8"	13	5'-8"	12	3'-8"	4 4	5'-8" 3'-8"	5'-0"
17	4'-1"	23	3'-8"	13	5'-8"	12	3'-8"	4 4	5'-8" 3'-8"	5'-6"
17	4'-7"	27	3'-8"	15	5'-8"	12	3'-8"	4 4	5'-8" 3'-8"	6'-0"
17	5'-1"	31	3'-8"	15	5'-8"	12	3'-8"	4 4	5'-8" 3'-8"	6'-6"
17	5'-7"	35	3'-8"	17	5'-8"	12	3'-8"	4 4	5'-8" 3'-8"	7'-0"
17	6'-1"	35	3'-8"	17	5'-8"	12	3'-8"	4 4	5'-8" 3'-8"	7'-6"
17	6'-7"	39	3'-8"	19	5'-8"	12	3'-8"	4 4	5'-8" 3'-8"	8'-0"

ALL REINFORCING STEEL TO BE NO. 5 DEFORMED BARS, EVENLY SPACED WITH A MAXIMUM SPACING OF 12" C/C.

ALL STEEL TO HAVE 2 INCH MIN. COVER.

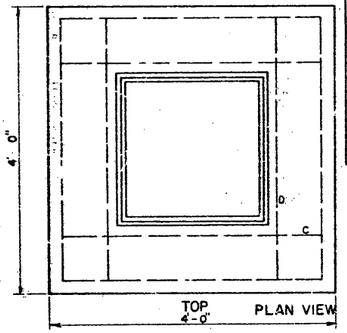
DROP INLET TO BE CONSTRUCTED IN ACCORDANCE WITH STRUCTURAL CONCRETE, SECTION 501.

GRATES TO CONFORM TO DROP INLETS, CATCH BASINS, AND MANHOLES, SECTION 604.

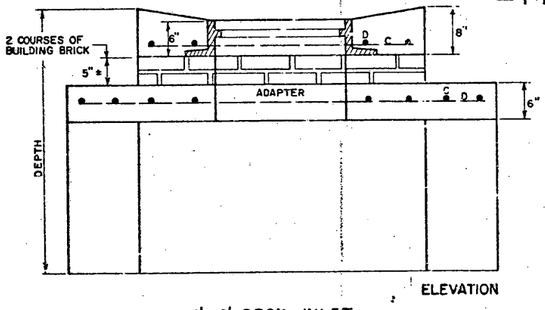
FURNISHING AND LAYING OF BRICKS FOR ADJUSTING ELEVATION OF GRATE SHALL BE INCLUDED IN UNIT BID PRICE FOR CONCRETE, CLASS B, PAY ITEM 501.25, AND THEIR VOLUME TO BE INCLUDED IN THE FINAL QUANTITIES.

MORTAR, TYPE II, TO BE USED AS JOINT FILLER AND LAYING OF BRICK.

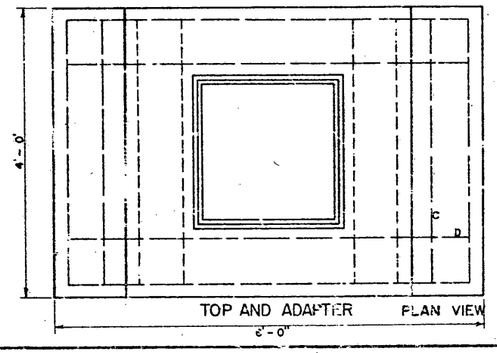
FOR PIPES OF 30" OR MORE IN DIAMETER, ALLOWANCE SHALL BE MADE FOR THE OPENING IN COMPUTING CONCRETE VOLUMES. THIS DEDUCTION WILL BE BASED ON THE RATED DIAMETER OF THE PIPE USED, WITH THE SAME DEDUCTION FOR CONCRETE AND METAL PIPE. ABOVE TABLES INDICATE DEDUCTION FOR ONE PIPE.



—TYPE D—



4'x6' DROP INLET WITH 4'x4' TOP TOP WITH ONE CAST IRON GRATE

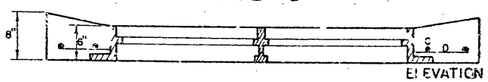


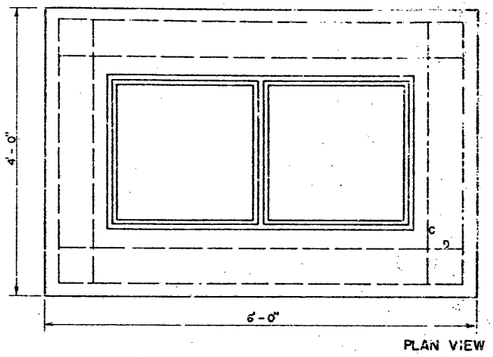
STEEL AND CONCRETE QUANTITIES

4'x6' DROP INLET WITH ONE GRATE WITH 4'x4' TOP TYPE D

DEPTH	30" CONCRETE C.Y.	30" STEEL LBS	36" CONCRETE C.Y.	36" STEEL LBS
5'-0"	3.2	313	3.1	313
5'-6"	3.5	322	3.4	322
6'-0"	3.8	358	3.7	358
6'-6"	4.1	382	4.0	382
7'-0"	4.4	413	4.3	418
7'-6"	4.7	427	4.6	427
8'-0"	5.0	463	4.9	463

—TYPE B—

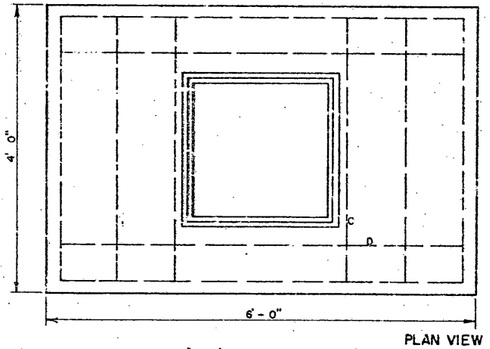




4'x6' DROP INLET TOP WITH TWO CAST IRON GRATES

—TYPE C—





4'x6' DROP INLET TOP WITH ONE CAST IRON GRATE

REVISIONS AND CORRECTIONS
APR. 2, 1973—ORIGINAL D-6 REDRAWN.

APPROVED April 4, 1973 DATE

R. H. Arnold es CHIEF ENGINEER

E. H. Stickney by L. P. ASST. CHIEF ENGINEER

J. M. Lowe q HIGHWAY ENGINEER

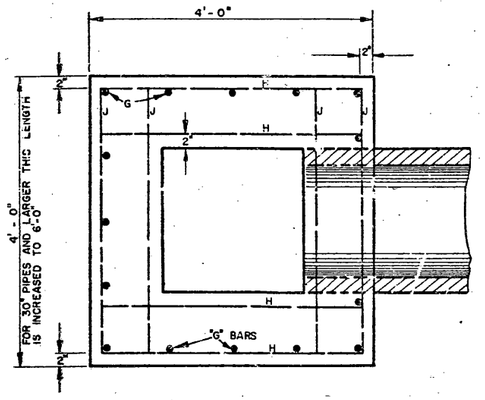
REINFORCED CONCRETE DROP INLET WITH GRATE FOR USE IN DITCHES

VERMONT DEPARTMENT OF HIGHWAYS STANDARD

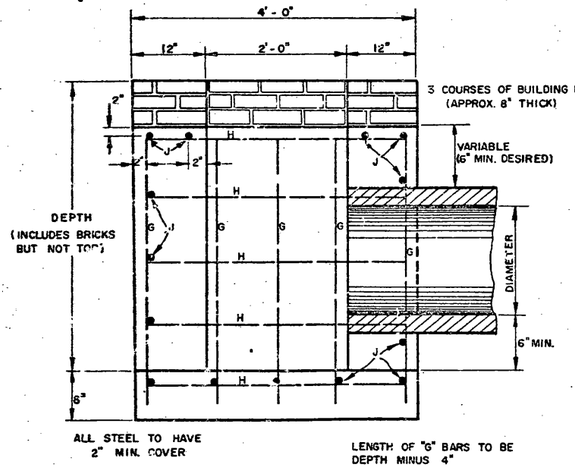
D-6

REINFORCED CONCRETE DROP INLET WITH GRATE (BOTTOM SECTION)

SEE SHEETS D-9, D-10, D-11 AND D-16 FOR TOP SECTION



TOP VIEW



SIDE VIEW

STEEL SCHEDULE FOR DROP INLET (BOTTOM SECTION ONLY)

DEPTH	12" TO 24" DIAMETER 4'X4' D.I.						30" DIAMETER 4'X6' D.I.					
	NO. J	LENGTH	NO. H	LENGTH	NO. G	LENGTH	NO. J	LENGTH	NO. H	LENGTH	NO. G	LENGTH
3'-0"	12	3'-8"	13	3'-8"	15	2'-8"						
3'-6"	12	3'-8"	15	3'-8"	15	3'-2"						
4'-0"	14	3'-8"	15	3'-8"	15	3'-6"						
4'-6"	14	3'-8"	15	3'-8"	15	4'-2"	12	5'-8"	17	3'-8"	17	4'-8"
5'-0"	16	3'-8"	17	3'-8"	15	4'-8"	14	5'-8"	19	3'-8"	17	4'-8"
5'-6"	16	3'-8"	17	3'-8"	15	5'-2"	14	5'-8"	19	3'-8"	17	5'-2"
6'-0"	18	3'-8"	19	3'-8"	15	5'-8"	16	5'-8"	21	3'-8"	17	5'-8"

MINIMUM DEPTH FOR
15" 3'-6"
18" 3'-6"
24" 4'-0"

DEPTH	36" DIAMETER 4'X6' D.I.					
	NO. J	LENGTH	NO. H	LENGTH	NO. G	LENGTH
5'-0"	14	5'-8"	19	3'-8"	17	4'-8"
5'-6"	14	5'-8"	19	3'-8"	17	5'-2"
6'-0"	16	5'-8"	21	3'-8"	17	5'-8"

BRICKS ARE INCLUDED IN CONCRETE QUANTITIES IN CHART

CONCRETE AND STEEL QUANTITIES FOR DROP INLETS (BOTTOM SECTION ONLY)

DEPTH	12"-24" DIA.		30" DIA.		36" DIA.	
	CONC. B C.Y.	STEEL	CONC. B C.Y.	STEEL	CONC. B C.Y.	STEEL
3'-0"	1.73	138				
3'-6"	1.95	145				
4'-0"	2.17	168				
4'-6"	2.40	176	3.08	210		
5'-0"	2.62	199	3.37	238	3.29	238
5'-6"	2.84	207	3.67	247	3.59	247
6'-0"	3.06	230	3.97	276	3.89	276

TO FIND VOLUME OF CONCRETE FOR THE ENTIRE STRUCTURE, ADD THE VOLUME FOR THE TOP USED, TO THE VOLUME IN THIS TABLE. FOR VOLUME IN TOP, SEE SHEETS D-9, D-10

ALL REINFORCING STEEL TO BE NO.5 Ø DEFORMED BARS, EVENLY SPACED, WITH A MAXIMUM SPACING OF 12" CENTER TO CENTER.

DROP INLET TO BE CONSTRUCTED IN ACCORDANCE WITH STRUCTURAL CONCRETE, SECTION 501.

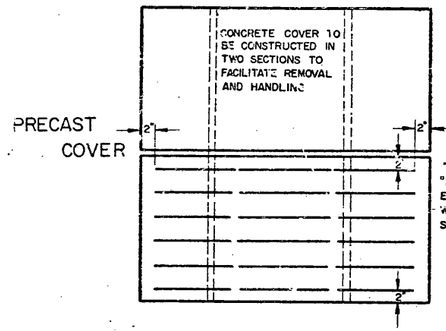
FURNISHING AND LAYING OF BRICKS FOR ADJUSTING ELEVATION OF GRATE, SHALL BE INCLUDED IN UNIT BID PRICE FOR CONCRETE, CLASS B, PAY ITEM 501.25, AND THEIR VOLUME TO BE INCLUDED IN THE FINAL QUANTITIES.

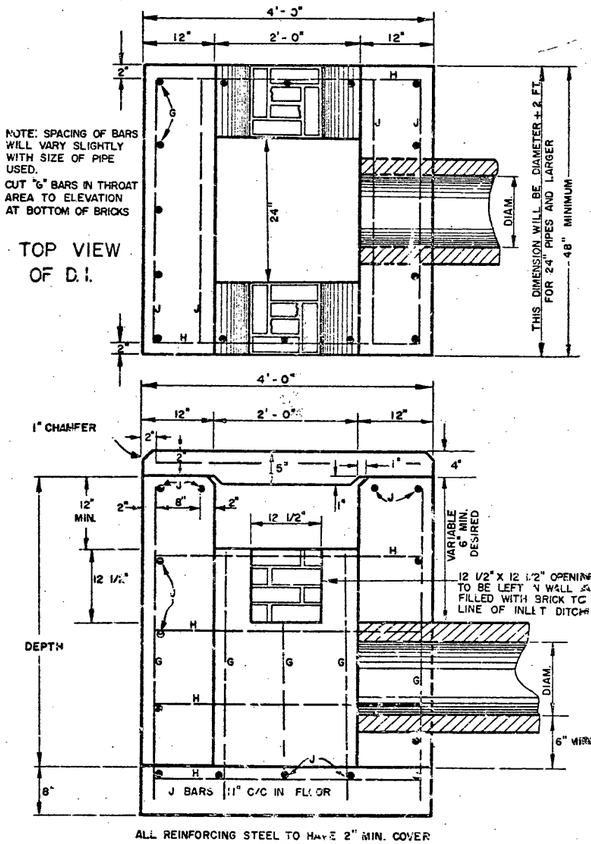
MORTAR, TYPE II, TO BE USED FOR JOINT FILLER AND LAYING OF BRICK.

FOR PIPES OF 30" OR MORE IN DIAMETER, ALLOWANCE SHALL BE MADE FOR THE OPENING IN COMPUTING CONCRETE VOLUMES. THIS DEDUCTION WILL BE BASED ON THE RATED DIAMETER OF THE PIPE USED, WITH THE SAME DEDUCTION FOR CONCRETE AND METAL PIPE.

REINFORCED CONCRETE DROP INLET WITH PRECAST COVER

DROP INLET AND COVER TO BE CONSTRUCTED IN ACCORDANCE WITH STRUCTURAL CONCRETE, SECTION 501





ALL REINFORCING STEEL TO HAVE 2" MIN. COVER EXCEPT IN COVER

SIDE VIEW OF D.I.

STEEL SCHEDULE FOR DROP INLETS WITH PRECAST COVERS

DEPTH	12" TO 24" DIAMETER				30" DIAMETER					
	G	LENGTH	H-J	LENGTH	G	LENGTH	J	LENGTH	H	LENGTH
2'-0"	15	2'-4"	31	3'-8"						
2'-6"	15	2'-10"	33	3'-8"						
3'-0"	15	3'-4"	36	3'-8"						
3'-6"	15	3'-10"	36	3'-8"	16	3'-10"	12	4'-2"	22	3'-8"
4'-0"	15	4'-4"	39	3'-8"	16	4'-4"	14	4'-2"	25	3'-8"
4'-6"	15	4'-10"	39	3'-8"	16	4'-10"	14	4'-2"	28	3'-8"
5'-0"	15	5'-4"	42	3'-8"	16	5'-4"	16	4'-2"	25	3'-8"
5'-6"	15	5'-10"	42	3'-8"	16	5'-10"	16	4'-2"	27	3'-8"
6'-0"	15	6'-4"	45	3'-8"	16	6'-4"	18	4'-2"	27	3'-8"

DEPTH	36" DIAMETER				
	G	LENGTH	J	LENGTH	H	LENGTH
4'-0"	16	4'-4"	14	4'-8"	28	3'-8"
4'-6"	16	4'-10"	14	4'-8"	28	3'-8"
5'-0"	15	5'-4"	16	4'-8"	30	3'-8"
5'-6"	16	5'-10"	16	4'-8"	30	3'-8"
6'-0"	16	6'-4"	18	4'-8"	32	3'-8"

CONCRETE AND STEEL QUANTITIES FOR DROP INLETS OF VARIOUS DEPTHS

DROP INLETS WITH PRECAST COVERS

DEPTH	12" 15" 18"		24"		30"		36"	
	CONC B C.Y.	STEEL LBS	CONC B C.Y.	STEEL LBS.	CONC B C.Y.	STEEL LBS.	CONC B C.Y.	STEEL LBS.
2'-0"	1.4	155						
2'-6"	1.6	171	1.6	171				
3'-0"	1.8	190	1.8	190				
3'-6"	2.0	198	2.3	198	2.1	204		
4'-0"	2.3	217	2.3	217	2.3	221	2.5	218
4'-6"	2.5	226	2.5	226	2.6	237	2.7	256
5'-0"	2.7	244	2.7	244	2.8	254	3.0	282
5'-6"	2.9	252	2.9	252	3.0	270	3.2	290
6'-0"	3.2	271	3.2	271	3.3	287	3.5	316

ALL REINFORCING BARS SHALL BE NO.5 Ø DEFORMED BARS, EVENLY SPACED, WITH A MAXIMUM SPACING OF 12" CENTER TO CENTER, EXCEPT IN THE COVER, WHERE THE MAXIMUM SPACING IS 4" CENTER TO CENTER.

FOR PIPES OF 30" OR MORE IN DIAMETER, ALLOWANCE SHALL BE MADE FOR THE OPENING IN COMPUTING CONCRETE VOLUMES. THIS DEDUCTION WILL BE BASED ON THE RATED DIAMETER OF THE PIPE USED, WITH THE SAME DEDUCTION FOR CONCRETE AND METAL PIPE.

FURNISHING AND LAYING OF BRICKS, SHALL BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE, CLASS B, PAY ITEM 501.25, AND THEIR VOLUME TO BE INCLUDED IN THE FINAL QUANTITIES. ONLY SUFFICIENT MORTAR TO BE USED TO PROVIDE A VERY LIGHT BOND TO ALLOW WITH EASE, FUTURE REMOVAL, FOR CORRECTION OF ELEVATION OF FLOW LINE.

MORTAR, TYPE II, TO BE USED FOR JOINT FILLER AND LAYING OF BRICK.

REVISIONS AND CORRECTIONS

APPROVED: DATE Dec. 6, 1971

R.N. Arnold
CHIEF ENGINEER

E.H. Dickney
ASST. CHIEF ENGINEER

G.M. Lane
HIGHWAY ENGINEER

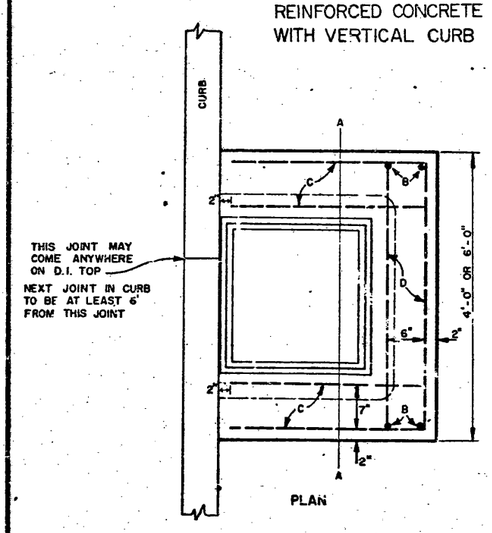
DRAWN: R.N.
TRACED: AJA

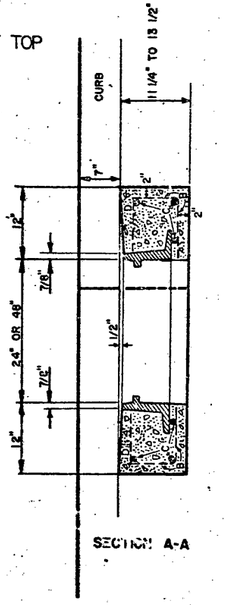
REINFORCED CONCRETE DROP INLET WITH PRECAST COVER
REINFORCED CONCRETE DROP INLET WITH GRATE (BOTTOM SECTION)
(SEE SHEETS D-9, D-10 & D-11 FOR TOP SECTION)

VERMONT DEPARTMENT OF HIGHWAYS STANDARD

D-8

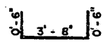
REINFORCED CONCRETE DROP INLET TOP WITH VERTICAL CURB





STEEL SCHEDULE FOR 4'-0" X 4'-0" D.I.

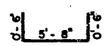
BAR	NO.	LENGTH	
B	2	4'-8"	STRAIGHT
C	6	2'-9"	STRAIGHT
D	2	3'-8"	STRAIGHT



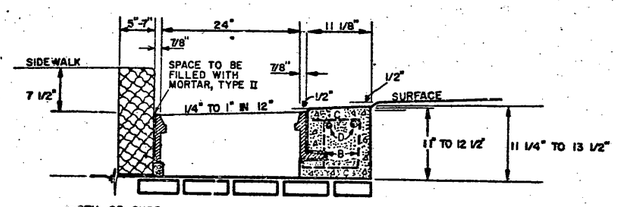
CONCRETE CLASS B 0.28 C.Y.
REINFORCING STEEL 35 LBS.

STEEL SCHEDULE FOR 4'-0" X 6'-0" D.I.

BAR	NO.	LENGTH	
B	2	6'-8"	STRAIGHT
C	6	2'-9"	STRAIGHT
D	2	5'-8"	STRAIGHT



CONCRETE CLASS B 0.34 C.Y.
REINFORCING STEEL 43 LBS.



ELEVATION OF REINFORCED CONCRETE DROP INLET TOP WITH VERTICAL CURB

GENERAL NOTES:

CONCRETE TO CONFORM TO STRUCTURAL CONCRETE, SECTION 501

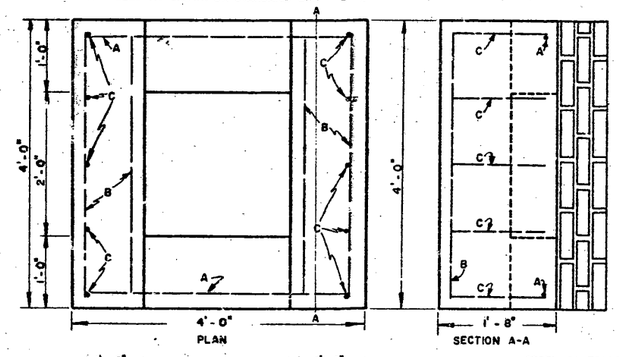
ALL REINFORCING STEEL TO BE NO. 5 DEFORMED BARS

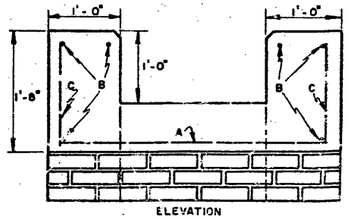
THESE TOPS TO BE USED WITH BOTTOM SECTIONS SHOWN ON STANDARD SHEETS D-5, D-8 AND D-13.

ALL REINFORCING STEEL TO HAVE A 2" MINIMUM COVER

CAST IRON GRATE AND FRAME IN ACCORDANCE AND PAID FOR UNDER SECTION 604

PRECAST COVER TO BE CONSTRUCTED AND INSTALLED AS SHOWN ON STANDARD SHEET D-12





STEEL SCHEDULE

BAR	NO	LENGTH	TYPE
A	2	3'-8"	STRAIGHT
B	6	5'-8"	STRAIGHT
C	10	1'-4"	STRAIGHT

CONCRETE CLASS B (NOT INCLUDING COVER) 0.59 C.Y.
REINFORCING STEEL 43 LBS.

ALL REINFORCING STEEL TO BE No. 5 DEFORMED BARS

CONCRETE TO CONFORM TO STRUCTURAL CONCRETE SECTION 501

CONCRETE THROAT ADAPTER

REVISIONS AND CORRECTIONS

APPROVED DATE Dec. 6, 1971

R. H. Arnold
CHIEF ENGINEER

Edd Aitchney
ASST. CHIEF ENGINEER

G. M. Lane
HIGHWAY ENGINEER

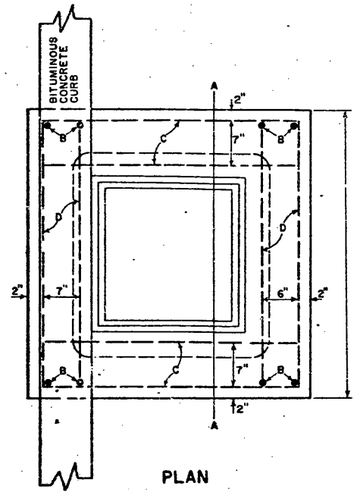
DRAWN: R. F.
TRACED: A.J.A.

REINFORCED CONCRETE DROP INLET TOP WITH VERTICAL CURB

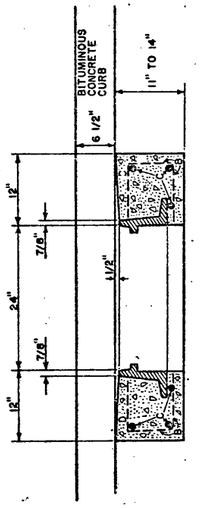
REINFORCED CONCRETE DROP INLET THROAT ADAPTER

VERMONT DEPARTMENT OF HIGHWAYS STANDARD

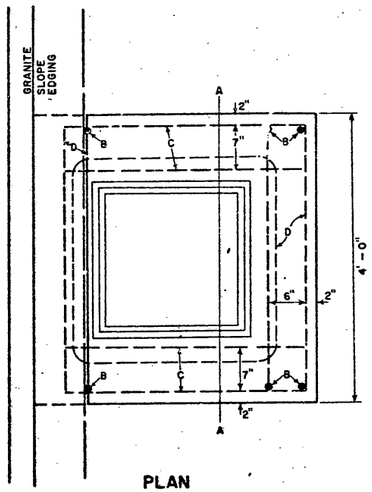
D-9



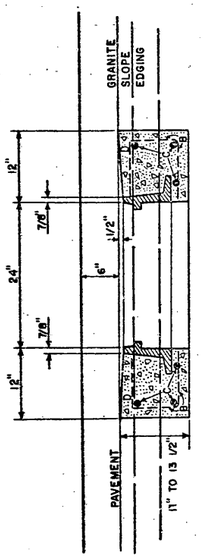
PLAN



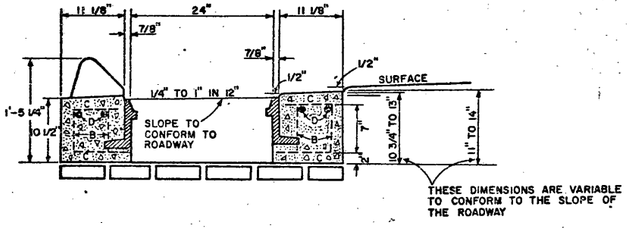
SECTION A-A



PLAN



SECTION A-A



ELEVATION

TOP FOR A REINFORCED CONCRETE
DROP INLET WITH BITUMINOUS
CONCRETE CURB

4'-0" x 4'-0"
STEEL SCHEDULE

BAR	NO.	LENGTH
B	4	4'-8"
C	6	3'-6"
D	4	3'-8"



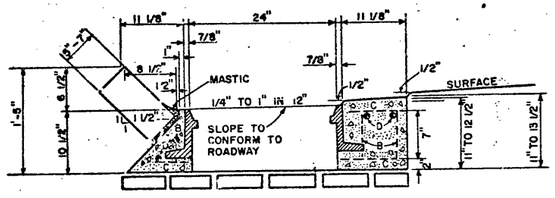
B STRAIGHT

D STRAIGHT

CONCRETE CLASS B = 0.41 C.Y.
REINFORCING STEEL = 58 LBS.

4'-0" x 6'-0"
CONCRETE CLASS B = 0.54 C.Y.
REINFORCING STEEL = 74 LBS

ALL REINFORCING STEEL TO BE No. 5 DEFORMED BARS
FOR CAST IRON GRATE AND FRAME DETAIL, SEE STANDARD
SHEET D-11 OR D-16.

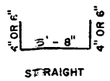


ELEVATION

TOP FOR A REINFORCED CONCRETE
DROP INLET WITH GRANITE SLOPE EDGING

4'-0" x 4'-0"
STEEL SCHEDULE

BAR	NO.	LENGTH
B	2 1	4'-8" 4'-4"
C	4 2	3'-4" 2'-10"
D	4	3'-8"



B STRAIGHT

D STRAIGHT

CONCRETE CLASS B = 0.33 C.Y.
REINFORCING STEEL = 48 LBS.

4'-0" x 6'-0"
CONCRETE CLASS B = 0.42 C.Y.
REINFORCING STEEL = 63 LBS.

REVISIONS AND CORRECTIONS

APPROVED:

Dec. 6, 1971
DATE

P.W. Arnold
CHIEF ENGINEER

E.H. Stickney
ASST. CHIEF ENGINEER

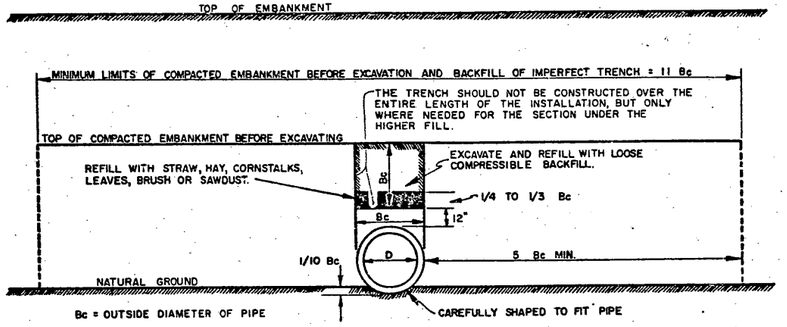
G.M. Lane
HIGHWAY ENGINEER

TOP FOR A DROP INLET WITH BITUMINOUS CONCRETE CURB

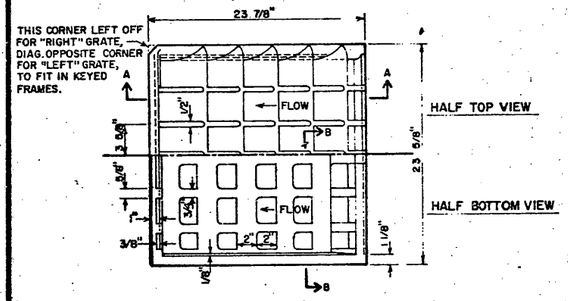
TOP FOR A DROP INLET WITH GRANITE SLOPE EDGING

VERMONT DEPARTMENT OF HIGHWAYS STANDARD

D-10



IMPERFECT TRENCH METHOD OF CULVERT INSTALLATION

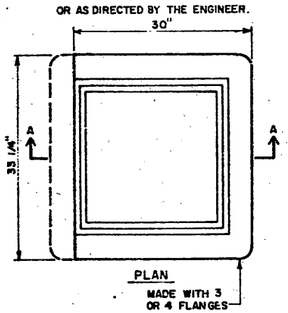


CAST IRON GRATE TYPE E

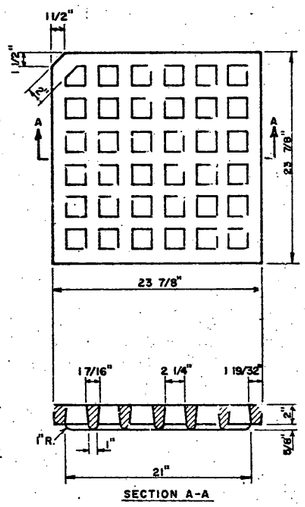
NOTE: THIS FRAME TO BE PLACED IN DROP INLET TOP BEFORE CONCRETE IS POURED.

4 FLANGES UNLESS OTHERWISE INDICATED.

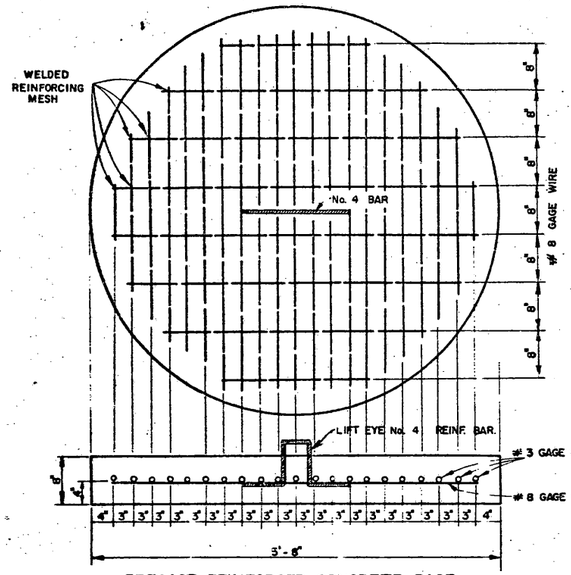
FRAMES TO BE FURNISHED WITH 3 FLANGES WHEN USED IN CONJUNCTION WITH CURB OR AS DIRECTED BY THE ENGINEER.



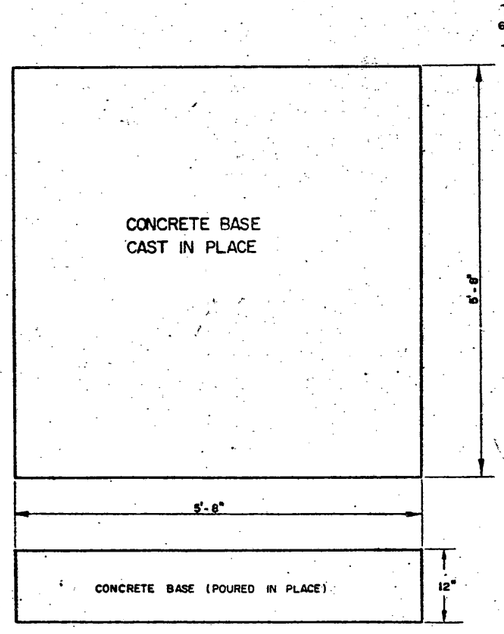
FRAME FOR TYPE D OR TYPE E GRATE

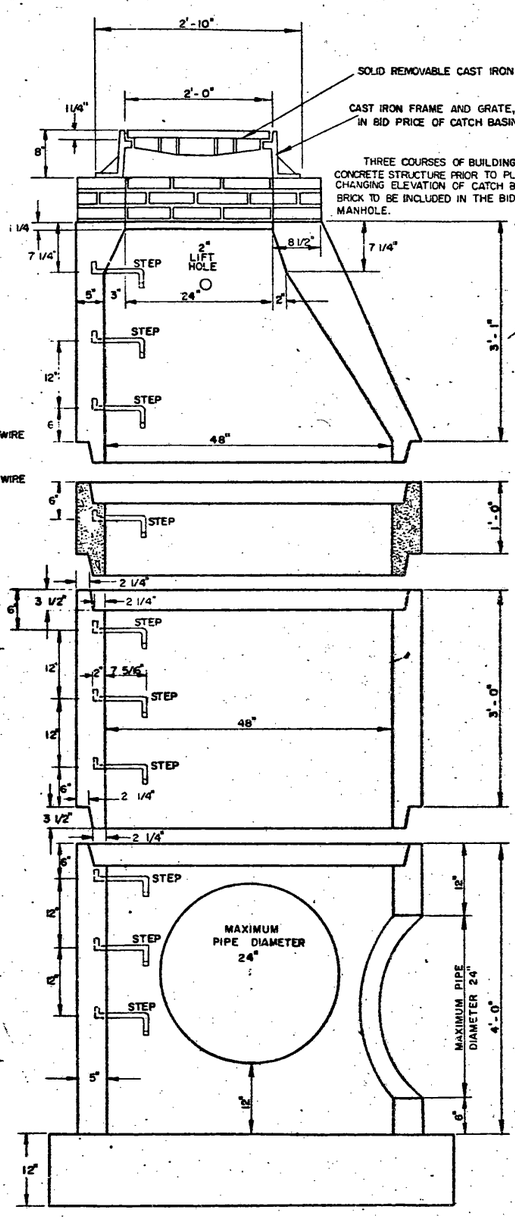


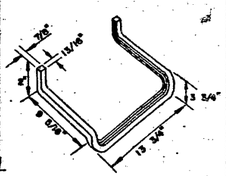
CAST IRON GRATE TYPE D



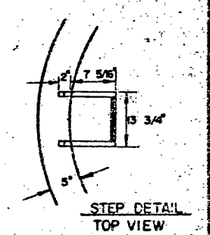
PRECAST REINFORCED CONCRETE BASE







ALUMINUM STEP (DROP FRONT)



STEP DETAIL TOP VIEW

REVISIONS AND CORRECTIONS

OCT. 22, 1976 - CAST IRON GRATE WITH FRAME, TYPE E ADDED.
OCT. 6, 1978 - TYPE D GRATE ADDED.

APPROVED

DATE Dec. 6, 1971

R. N. Arnold
CHIEF ENGINEER

E. H. Bickney
ASST. CHIEF ENGINEER

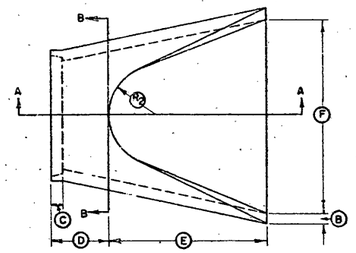
G. M. Lane
HIGHWAY ENGINEER

DRAWN: AJA
TRACED: AJA

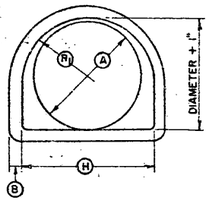
PRECAST REINFORCED CONCRETE CATCH BASIN W/ CAST IRON GRATE
PRECAST REINFORCED CONCRETE MANHOLE W/ CAST IRON COVER
IMPERFECT TRENCH METHOD OF CULVERT INSTALLATION
CAST IRON GRATE WITH FRAME, TYPE D
CAST IRON GRATE WITH FRAME, TYPE E

VERMONT DEPARTMENT OF HIGHWAYS STANDARD

D - 15

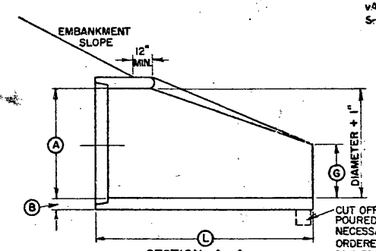


PLAN

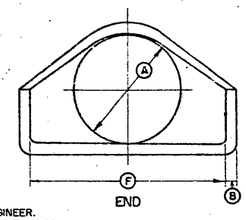


SECTION B-B

THE USE OF REINFORCED CONCRETE END SECTIONS MAY NOT VARIATIONS IN BASIC DIMENSIONS FROM THOSE SHOWN ON THIS SHEET SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER



SECTION A-A



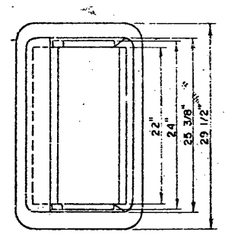
END

BASIC DIMENSIONS													
A	B	C	D	E	F	G	H	DIAM. + 1"	SLOPE	R1	R2	RATIO A-2 / A-1 *	L
12"	2"	SEE NOTE	48 3/8"	24"	24"	4"	19 15/16"	13"	2.7 : 1	10 1/8"	9"	1.92	6'-0 3/8"
18"	2 1/2"		46"	27"	36"	9"	29"	19"	2.7 : 1	15 1/2"	12"	1.68	6'-1"
24"	3"		30"	43 1/2"	48"	9 1/2"	33 3/16"	25"	2.8 : 1	18 13/16"	14"	1.58	6'-1 1/2"
30"	3 1/2"		19 3/4"	54"	60"	12"	37"	31"	2.8 : 1	18 1/2"	15"	1.41	6'-1 3/4"
36"	4"		34 3/4"	63"	72"	15"	47 13/16"	37"	2.9 : 1	24 5/16"	20"	1.50	8'-1 3/4"
42"	4 1/2"		35"	63"	78"	21"	53 7/8"	43"	2.9 : 1	27 1/2"	22"	1.46	8'-2"
48"	5"		26"	72"	87"	24"	59 1/2"	49"	2.9 : 1	30"	22"	1.40	8'-2"

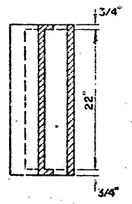
* AREA-1 = AREA OF NOMINAL DIAMETER
AREA-2 = AREA THRU SECTION B-B

NOTE: JOINTS SHALL BE TONGUE AND GROOVE OR BELL AND SPIGOT AS REQUIRED AND DIMENSIONS SHALL CONFORM TO STANDARD REINFORCED CONCRETE PIPE SPECIFICATIONS.

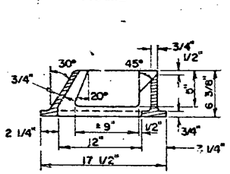
REINFORCED CONCRETE PIPE END SECTION

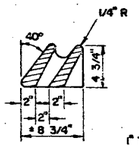


FRAME



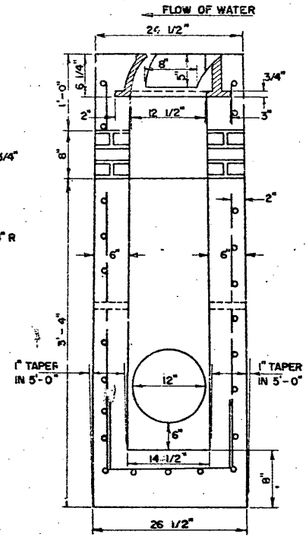
GRATE



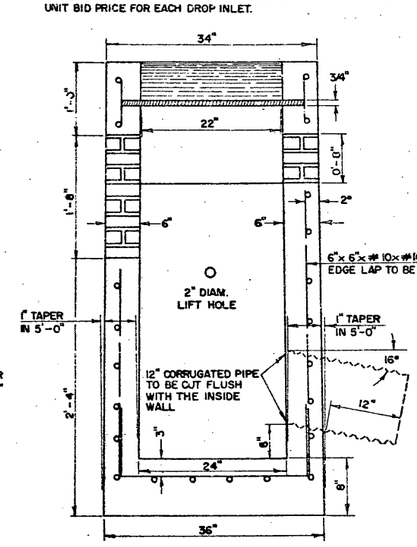


ALTERNATE GRATE AND FRAME

FURNISHING AND LAYING OF BRICKS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR EACH DROP INLET.



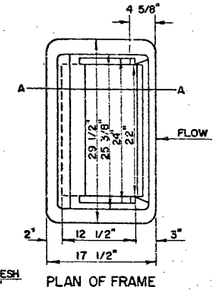
END ELEVATION



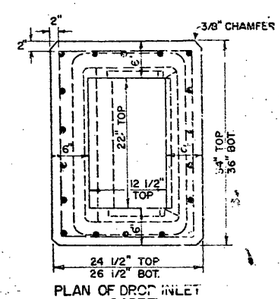
SIDE ELEVATION

ALLOW FOR 1'-8" OF BRICKS ON SIDE OPPOSITE OUTLET PIPE
0'-8" BRICKS ON OTHER 3 SIDES.

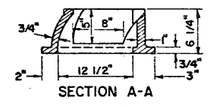
PRECAST REINFORCED CONCRETE CURB DROP INLET WITH CAST IRON GRATE



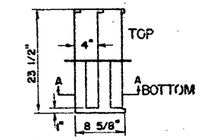
PLAN OF FRAME



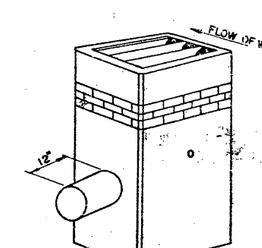
PLAN OF DROP INLET BARREL



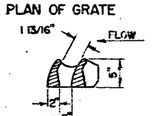
SECTION A-A



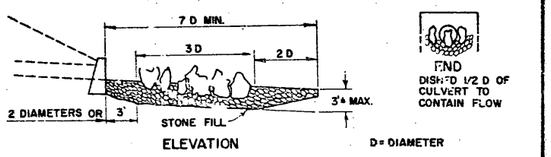
PLAN OF GRATE



ISOMETRIC



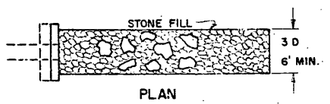
SECTION A-A
GRATE



ELEVATION

END
DISHED 1/2 D OF CULVERT TO CONTAIN FLOW

D = DIAMETER



PLAN

FOR USE ONLY AT LOCATIONS OF VERY HIGH DISCHARGE AND ERODABLE SOIL CONDITIONS

IRREGULAR COBBLES APPROXIMATING THE MAXIMUM SIZE FOR TYPE OF SPECIFIED STONE FILL TO BE PLACED IN GENERAL PATTERN AS SHOWN. NO STONE TO BE CLOSER THAN 2D TO OUTLET OF PIPE. STONES SHOULD NOT BE PLACED TO DAM FLOW, BUT TO INDUCE TURBULENCE AND REDUCE VELOCITY. PLAN MAY BE ADAPTED TO FIELD CONDITIONS PREVAILING AT OUTLET. WHERE FLOW IS TO ULTIMATELY FOLLOW TOE OF SLOPE, DESIGN MAY BE SHORTENED OR WIDENED TO ACT AS A STILLING BASIN, AND DIRECT FLOW INTO DITCH.

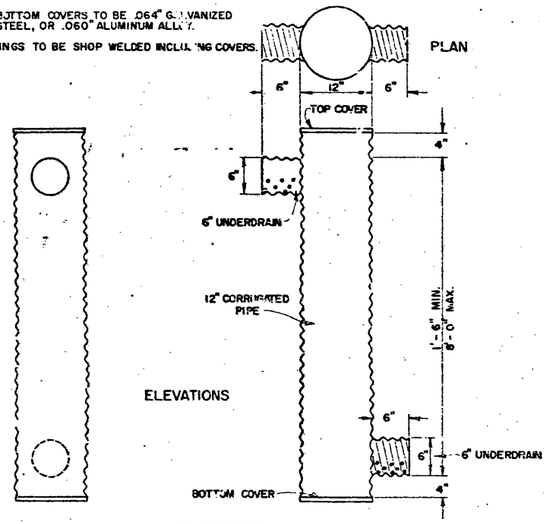
STONES FORMING BREAK SHOULD PROJECT ABOVE AND BELOW SURFACE OF STONE FILL APPROXIMATELY 3/4 THE DIAMETER OF THE PIPE.

STONE FILL TYPE TO BE SPECIFIED ON PLANS.

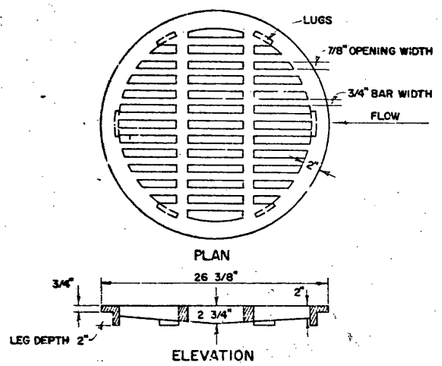
ENERGY DISSIPATOR FOR CULVERTS

TOP AND BOTTOM COVERS TO BE .064" GALVANIZED IRON OR STEEL, OR .060" ALUMINUM ALLOY.

ALL FITTINGS TO BE SHOP WELDED INCLUDING COVERS.

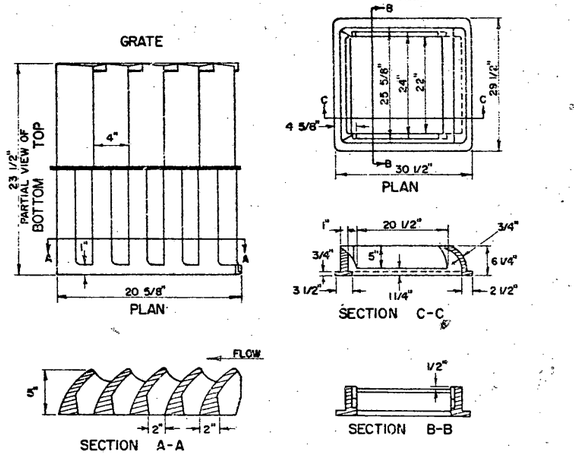


UNDERDRAIN RISER



ELEVATION

CAST IRON GRATE, TYPE C
TO BE USED IN CONJUNCTION WITH 24" CORRUGATED GALVANIZED METAL PIPE



CAST IRON GRATE WITH FRAME, TYPE B

REVISIONS & CORRECTIONS

NOV 14, 1972 - PCP END SECTION DIMENSION VARIANCE NOTE ADDED

APPROVED

DATE Dec 8, 1971

R. H. Arnold
CHIEF ENGINEER

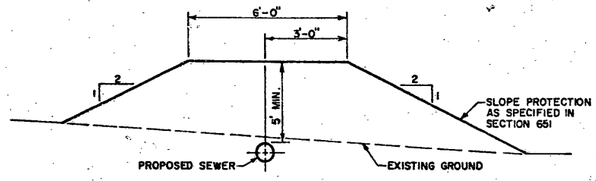
E. H. Stickney
ASST. CHIEF ENGINEER

L. M. Lane
HIGHWAY ENGINEER

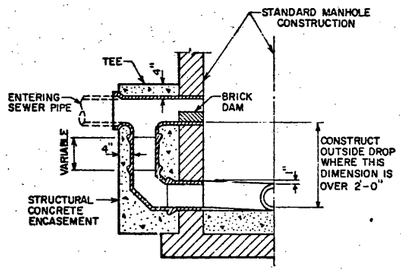
PRECAST REINFORCED CONCRETE CURB DROP INLET WITH CAST IRON GRATE
CAST IRON GRATE, TYPE B
CAST IRON GRATE, TYPE C
UNDERDRAIN RISER
REINFORCED CONCRETE PIPE END SECTION
ENERGY DISSIPATOR FOR CULVERT

VERMONT DEPARTMENT OF HIGHWAYS STANDARD

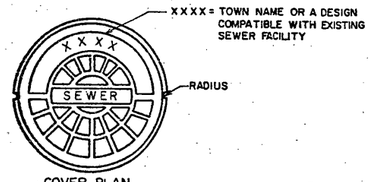
D-16



TYPICAL FILL SECTION OVER SEWER PIPE
FOR PIPES WITH LESS THAN 5' OF COVER



OUTSIDE MANHOLE DROP DETAIL



MANHOLE FRAME AND COVER DETAIL

NOTES:

TRENCH EXCAVATION AND BACKFILLING OF SEWER PIPE SHALL BE AS SPECIFIED UNDER SECTION 628.

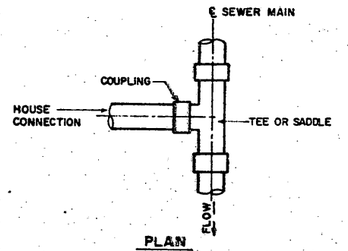
NO ADDITIONAL PAYMENT SHALL BE MADE FOR ABANDONING AND PLUGGING EXISTING PIPES WHEN DIRECTED BY THE ENGINEER.

CONCRETE ENCASEMENT OF SEWER LINES WILL BE REQUIRED WHERE THEY CROSS STORM DRAINS, WATER PIPES, OR OTHER STRUCTURES IN SUCH A MANNER AS TO IMPOSE UNUSUAL LOADING ON THE SEWER PIPE.

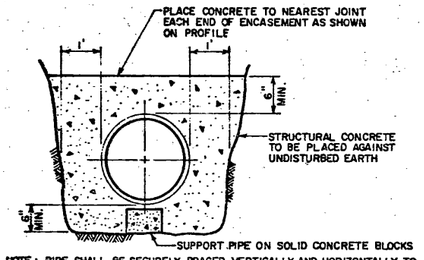
EMBANKMENTS SHALL BE COMPLETED AND COMPACTED TO AN ELEVATION AT LEAST 12 INCHES ABOVE THE TOP OF THE SEWER PIPE PRIOR TO EXCAVATING A TRENCH IN IT.

CHIMNEY DETAIL FOR HOUSE SEWER CONNECTION SHALL BE USED ONLY AS SHOWN ON THE PLANS OR WHEN DIRECTED BY THE ENGINEER.

HOUSE CONNECTIONS TO BE TEE, WYE OR SADDLE AS APPROVED BY THE ENGINEER, AND COMPATIBLE WITH EXISTING FACILITIES.

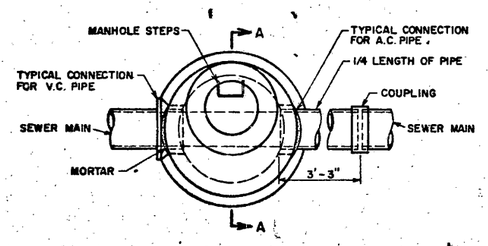


PLAN

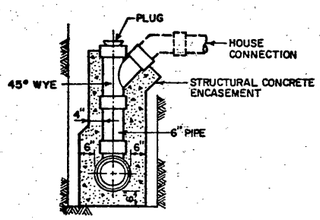


NOTE: PIPE SHALL BE SECURELY BRACED VERTICALLY AND HORIZONTALLY TO PREVENT FLOTATION DURING CONCRETE PLACEMENT.

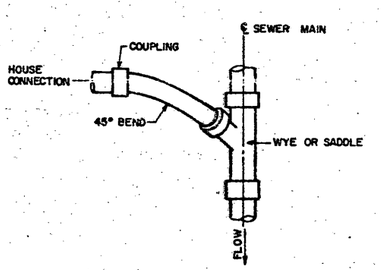
TYPICAL CONCRETE ENCASEMENT



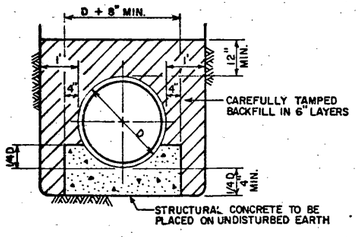
PLAN



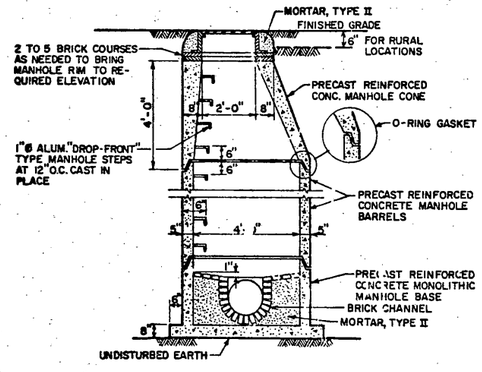
SECTION



PLAN

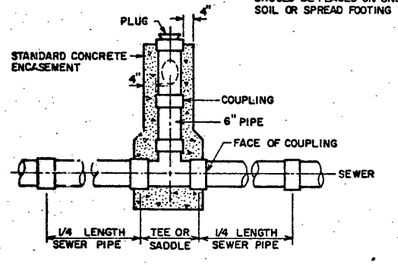


TYPICAL CONCRETE CRADLE



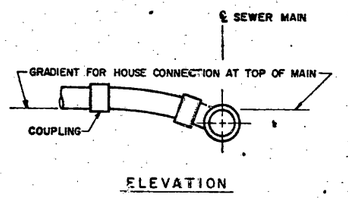
SECTION A-A

PRECAST REINFORCED CONCRETE SANITARY SEWER MANHOLE



ELEVATION

CHIMNEY DETAILS FOR HOUSE SEWER CONNECTION



ELEVATION

TYPICAL HOUSE SEWER CONNECTION

REVISIONS AND CORRECTIONS

APPROVED: 10-1-71 DATE

E. H. Cleveney
CHIEF ENGINEER

R O Munn
ASST. CHIEF ENGINEER

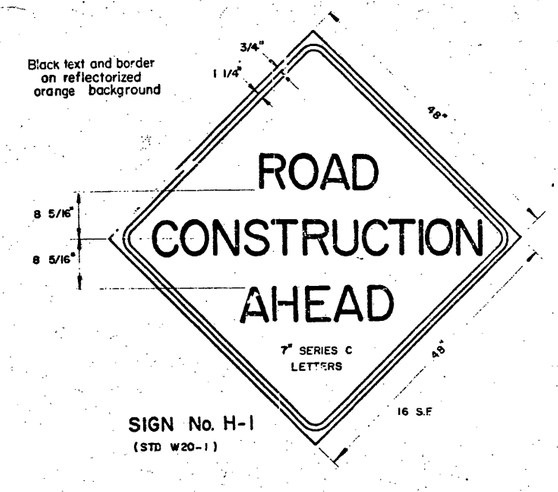
L D Jones
HIGHWAY ENGINEER

SANITARY SEWER SYSTEMS

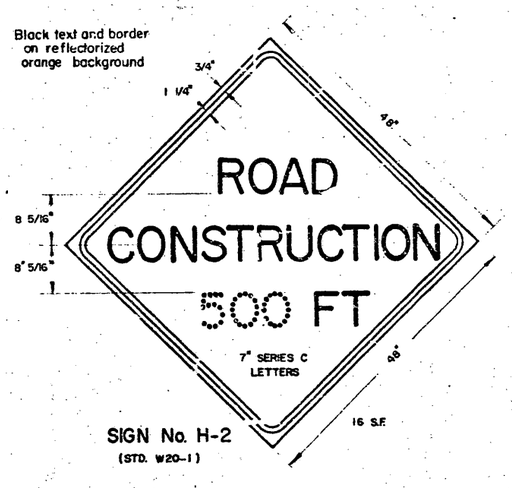
VERMONT DEPARTMENT OF HIGHWAYS STANDARD D-22

SIGN H-3 IS TO BE USED WHEN PROJECT LENGTH EXCEEDS 2 MILES, OR AS REQUESTED BY THE RESIDENT ENGINEER. THE TEXT MAY BE AS SHOWN OR MAY READ AS FOLLOWS "CONSTRUCTION AREA NEXT ___ MILES"

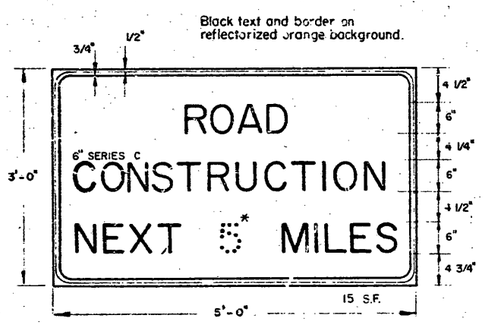
* Show mileage to nearest 1/4 mile



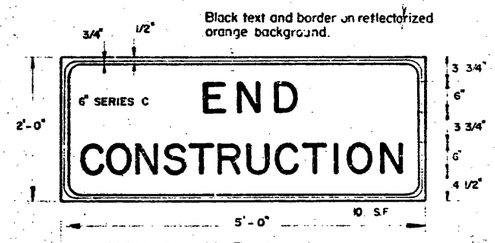
SIGN No. H-1
(STD W20-1)



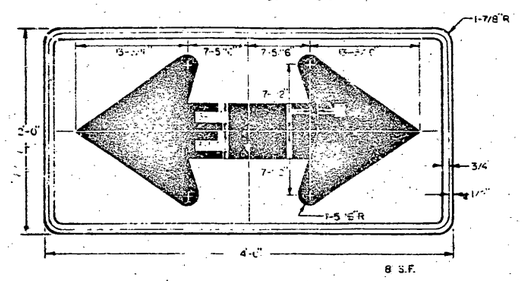
SIGN No. H-2
(STD. W20-1)



SIGN No. H-3 (STD. G20-1)

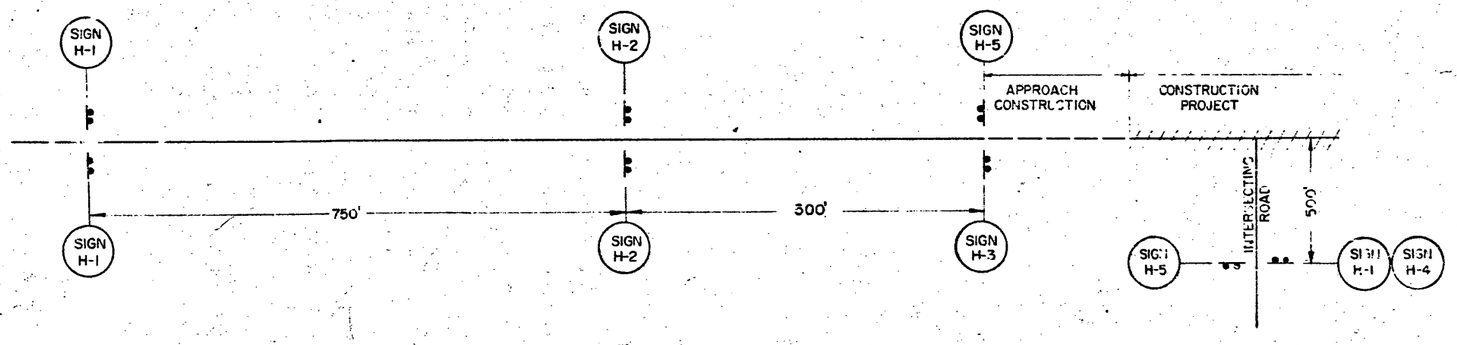


SIGN No. H-5 (STD. G20-2)



SIGN No. H-4 (STD. [illegible])

The road construction approach signs shown on this sheet are intended for use in providing advance warning and information on construction projects over which traffic will be maintained. When additional approach signs or other types of advance signing or control are necessary, the Plans and/or the Specifications for that project will give the details of the signs and devices required.



NOTES

LOCATION

Construction approach signs shall be located as detailed on this sheet or otherwise shown on the Plans. They shall appear at each end of the highway under construction, and on all intersecting public highways. The exact placement of any sign will depend upon the alignment of the highway and the character of the roadsides. The location measurements on this sheet are intended to indicate the sequence to be followed, and the minimum spacing to be observed by the Engineer in determining exact locations.

DESIGN

The designs of the signs shall conform with the details shown on this sheet and with the standards prescribed in the Manual on Uniform Traffic Control Devices prepared by National Joint Committee on Uniform Traffic Control Devices.

MATERIALS

The signs shall be of metal, wood, plywood, hardboard or any other material satisfactory to the Engineer. No material will be approved that will deteriorate by exposure to the weather during the required life of the sign.

REFLECTORIZATION

All reflectorized material shall consist of encapsulated lens reflective sheeting.

INSTALLATION

The signs shall be in place at the time the project officially commences. Each sign shall be erected in a neat and workmanlike manner on wood or metal posts set securely in the ground. The bottom of a sign shall be at least 5 feet above road level, and the nearest edge of a sign shall be at least 6 feet outside the shoulder point or 2 feet outside guard rail, curbing or sidewalk. Posts and signs shall be braced or reinforced in back as necessary. The installation of signs shall be subject to approval of the Engineer. In urban areas, the bottom of the sign shall be at least 7' above the sidewalk.

MAINTENANCE

Signs shall be maintained in a clean and legible condition satisfactory to the Engineer. They shall be completely visible to approaching traffic at all times. They shall be kept plumb and level, and always present a neat appearance. Damaged, defaced or dirty signs shall be repaired, cleaned or replaced as ordered by the Engineer.

GENERAL

The cost of furnishing, erecting, maintaining and removing all construction approach signs will be considered subsidiary work pertaining to the project as a whole and shall be included in the contract unit price bid for various items involved in the contract. In all phases of construction of approach signing, the requirements set forth in the Manual on Uniform Traffic Control Devices shall be met (See Standard Specifications, Section 107, Article 107.09 Barricades, Warning and Detour Signs).

When project is closed down for temporary periods the signs shall be covered in a workmanlike manner.

REVISIONS AND CORRECTIONS

SEPT. 11, 1973 – REVISED PER ORDER OF FHWA, SEPT. 11, 1973
OCT. 19, 1973 – SIGN H-4 REMOVED.
MAY 14, 1974 – REFLECTIVE MATERIAL CHANGE
JUNE 7, 1977 – REFLECTIVE MATERIAL NOTE CHANGED.
DEC. 15, 1978 – ILLUMINATION DELETED.
DEC. 17, 1979 – SIGN H-1 REVISED, SIGN H-4 ADDED
MAR. 4, 1981 – SIGN H-3 TEXT CHANGED, NOTE ADDED.

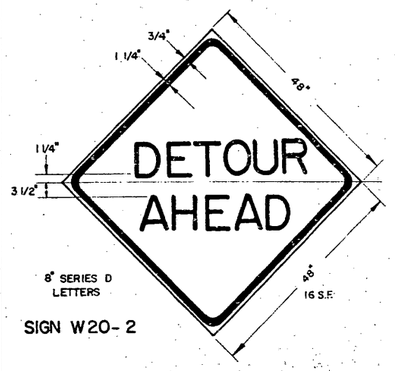
APPROVED
Dec. 14, 1971 DATE
R. H. Connolly CHIEF ENGINEER
E. W. Stuckney ASST. CHIEF ENGINEER
G. M. Lane HIGHWAY ENGINEER

TRAFFIC SIGNS

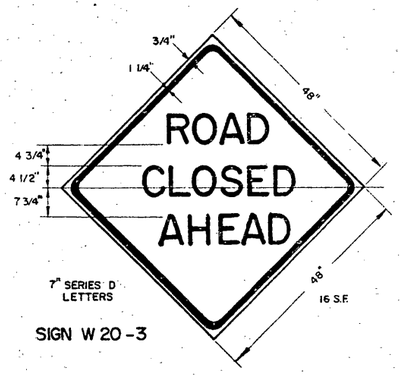
ROAD CONSTRUCTION APPROACH SIGNS

VERMONT AGENCY OF TRANSPORTATION

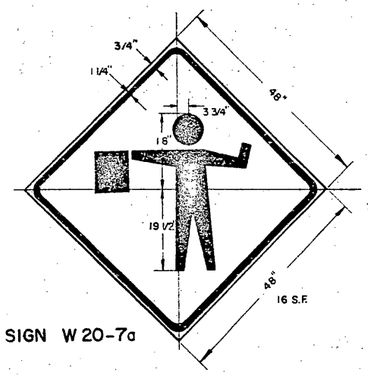
STANDARD
E-2



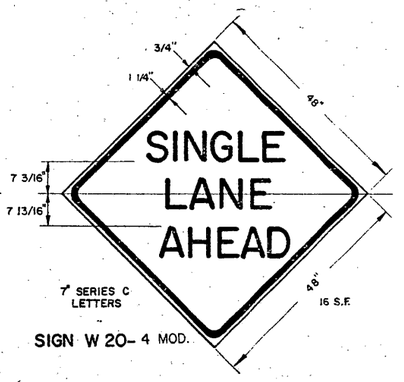
SIGN W20-2



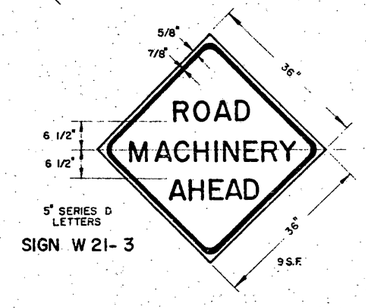
SIGN W 20-3



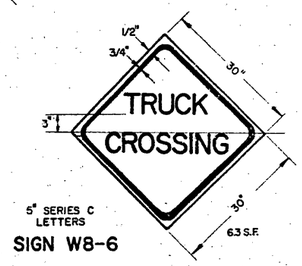
SIGN W 20-7a



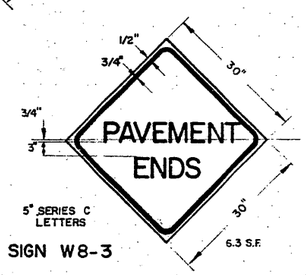
SIGN W 20-4 MOD.



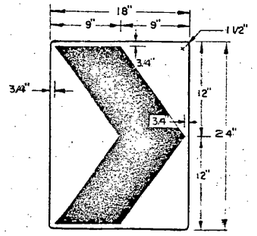
SIGN W 21-3



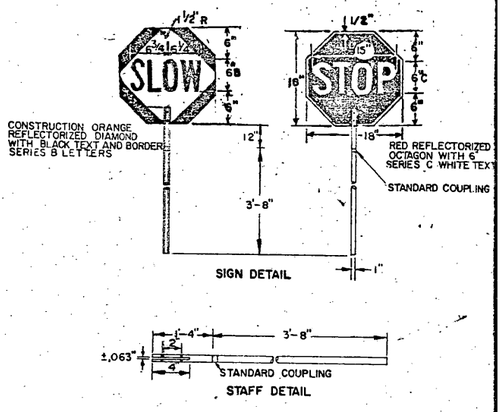
SIGN W8-6



SIGN W8-3



SIGN W1-8



MATERIALS

The sign materials shall be 0.063 aluminum with colors as indicated on details.

The staff shall be 1" ridged aluminum conduit or tubing with a wall thickness of 1/8 inch.

COLORS

The colors shall conform with the standard colors adopted by the American Association Of State Highway and Transportation Officials and approved by the U.S. Department Of Transportation, Federal Highway Administration.

MOUNTING

The staff shall be mounted with either 2-1/4" aluminum bolts or 2-1/4" aluminum rivets.

SIGN PADDLE FOR FLAGPERSON

NOTES

APPLICATION OF STANDARDS

Since it is not possible to prescribe detailed standards of application for all of the situations that may conceivably arise on a construction project, reference must be made to the Manual on Uniform Traffic Control Devices for the principles, procedures and and standards that will be required in connection with on-project construction signs and barricades The signs here shown represent a sample of those that probably will be most used.

DESIGN

The designs of the signs and barricades shall conform with the details shown on this sheet and with the standards prescribed in the Manual. Deviations will not be permitted.

MATERIALS

The signs shall be of metal, wood, plywood, hardwood or any other material satisfactory to the Engineer. No material will be approved that will deteriorate by exposure to the weather during the required life of the sign.

REFLECTORIZATION AND COLORS

All signs except sign R11-2 and the sign paddle shall have black texts and borders on an encapsolated lens reflective orange background. Sign R11-2 shall have black text and border on an encapsolated lens reflective white background.

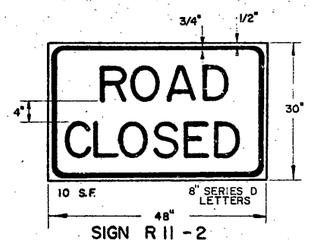
INSTALLATION

Signs and barricades shall be in place prior to the start of the construction operation to which they apply, and shall be removed promptly when the need no longer exists. Each sign shall be erected in a neat and workmanlike manner on wood or metal posts set securely in the ground, or on portable supports for temporary use, or on barricades when appropriate. As a general rule, roadside signs shall be 5 feet above road level with the nearest edge at least 6 feet outside the shoulder point. The installation of all signs and barricades shall be subject to the approval of the Engineer.

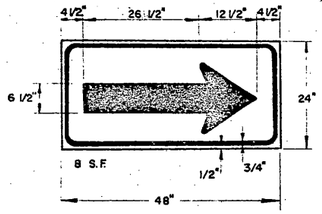
MAINTENANCE

Signs shall be kept in a clean and legible condition at all times with the reflective quality completely unimpaired. Sinns, sign supports, and barricades shall be repaired, cleaned, repainted or replaced whenever necessary.

Weeds, shrubbery, construction materials, equipment, and snow shall not be allowed to obscure any sign or barricade. The maintenance of all traffic control devices shall be subject to the orders of the Engineer.

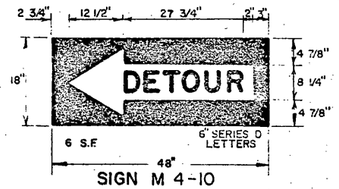


SIGN R 11 - 2



SIGN W1-6

ARROW RIGHT OR LEFT AS REQUIRED



SIGN M 4-10

ARROW LEFT OR RIGHT AS REQUIRED.

The on-project construction signs covered by this sheet are intended to be used as the situations apply within normal two-lane highway construction areas, for the protection of the public and workmen and for the guidance of traffic through or around construction operations. When messages other than those shown here are needed, the signs and their applications shall conform with the standards set forth in the Manual on Uniform Traffic Control Devices.

The cost of furnishing, erecting, maintaining and removing all construction approach signs shall be considered as subsidiary work pertaining to the project as a whole and shall be included in the contract unit price bid for various items involved in the contract.

REVISIONS AND CORRECTIONS

DEC. 14, 1973 — BEADS ON PAINT FOR BACKGROUND MATERIAL REMOVED.
MAY 14, 1974 — REFLECTIVE MATERIAL CHANGE.
JUNE 7, 1977 - REFLECTIVE MATERIAL NOTE CHANGED.
JUNE 7, 1977 - SIGNS REFERENCED TO NUMBERS IN M.U.T.C.D.
APR. 20, 1978 - FLAGPERSON SIGN CHANGED TO SYMBOL.
DEC. 15, 1978 - ILLUMINATION DELETED.
FEB. 27, 1980 - SIGN W1-8 AND SIGN PADDLE ADDED. SIGN DETAILS REVISED.
APR. 1, 1980 - SIGN PADDLE SIGN REVISED.

APPROVED

Dec. 14, 1971
DATE

R. H. Arnold
CHIEF ENGINEER

E. W. Stickney
ASST. CHIEF ENGINEER

G. M. Lane
HIGHWAY ENGINEER

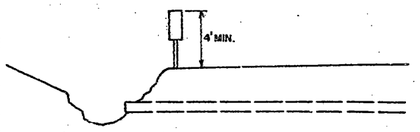
TRAFFIC SIGNS

ON-PROJECT CONSTRUCTION SIGNS

VERMONT AGENCY OF TRANSPORTATION

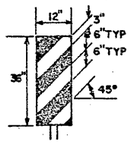
STANDARD
E-6

DELINEATOR AND HAZARD MARKER DETAILS FOR CONSTRUCTION AREAS WHERE TRAFFIC IS MAINTAINED



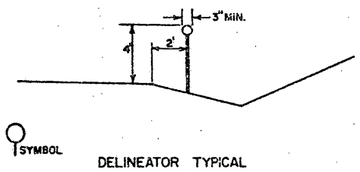
HAZARD MARKER TYPICAL

OBJECTS ADJACENT TO THE ROADWAY SHALL REQUIRE A HAZARD MARKER TO MARK THE OBSTRUCTION. IN SOME CASES THERE MAY NOT BE A PHYSICAL OBJECT INVOLVED BUT OTHER ROADSIDE CONDITONS SUCH AS NARROW SHOULDER DROP-OFFS, GORES, D.I. EXCAVATIONS OR ABRUPT CHANGE IN THE ROADWAY ALIGNMENT MAY MAKE IT UNDESIRABLE FOR A DRIVER TO LEAVE THE ROADWAY. THE INSIDE EDGE OF THE HAZARD MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION, WHENEVER POSSIBLE.



VERTICAL PANEL

VERTICAL PANELS SHALL HAVE ALTERNATING ORANGE AND WHITE REFLECTORIZED STRIPS (SLOPING DOWNWARD IN THE DIRECTION TRAFFIC IS TO PASS). THESE DEVICES MAY BE USED FOR TRAFFIC SEPARATION OR SHOULDER BARRICADING WHERE SPACE IS AT A MINIMUM.

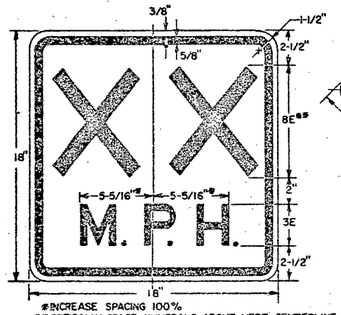


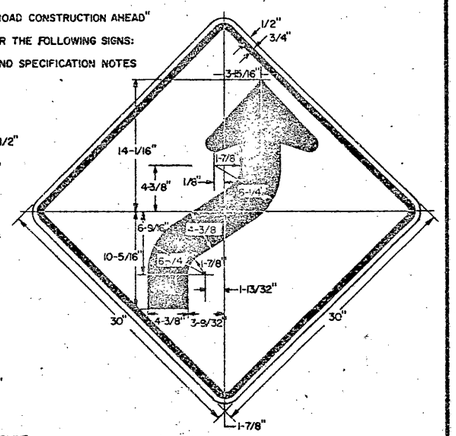
DELINEATOR TYPICAL

DELINEATORS SHALL BE OF A REFLECTORIZED WHITE COLOR. THEY SHALL HAVE A MINIMUM OF 7 SQUARE INCHES. THEY MAY BE ROUND, SQUARE, OR OBLONG. THEY SHALL BE OF THE FOLLOWING:

1- REFLECTORIZED TAPE WITH METAL BACKING.
2- REFLECTORIZED TAPE APPLIED DIRECTLY TO POSTS.
3- REFLECTORIZED PAINT APPLIED DIRECTLY TO POSTS WHEN PAINT OR TAPE IS APPLIED DIRECTLY TO POST, A SURFACE OF 3' MINIMUM WIDTH FACING TRAFFIC IS REQUIRED.

SEE STANDARD SHEET E-2 FOR SIGN DETAILS FOR "ROAD CONSTRUCTION AHEAD" AND "END CONSTRUCTION" SIGNS.
SEE STANDARD SHEET E-6 FOR SIGN DETAILS FOR THE FOLLOWING SIGNS: "DETOUR AHEAD", "ROAD CLOSED", "DETOUR" ARROW.
SEE STANDARD SHEET E-6 FOR SIGN MATERIAL AND SPECIFICATION NOTES FOR ALL SIGNS DETAILED ON THIS SHEET.



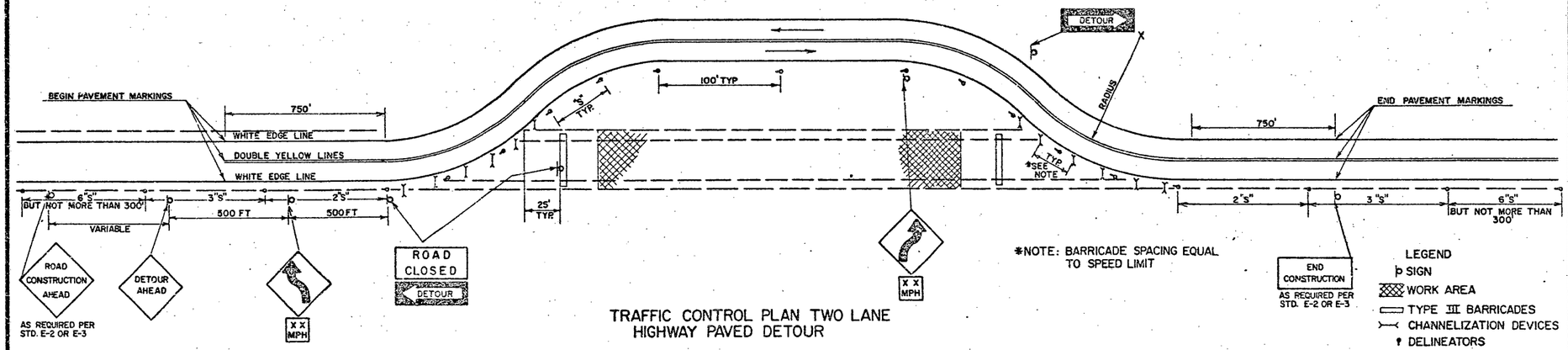


DELINEATOR SPACING

DESIGN SPEED MPH	REQUIRED RADIUS FT	SPACING - "S" FT
25	150	30
30	250	40
40	460	60
50	760	75

NOTES

1. SIGNS & DELINEATION SHOWN FOR ONE DIRECTION OF TRAVEL ONLY.
2. CHANNELIZING DEVICES SHALL CONSIST OF TYPE II BARRICADES WITH STEADY BURN LIGHTS EXCEPT ON THE FIRST AND LAST BARRICADES WHICH SHALL HAVE A FLASHING LIGHT.
3. FLASHING WARNING LIGHTS MAY BE USED TO CALL ATTENTION TO THE EARLY WARNING SIGNS.
4. CONTRACTOR IS RESPONSIBLE FOR PAVEMENT MARKING AND SHALL REMOVE ANY CONFLICTING OR CONFUSING EXISTING MARKINGS.
5. ADDITIONAL SIGNING MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER.
6. UNPAVED DETOURS REQUIRE PAVEMENT MARKINGS FOR TRANSITIONS ON EXISTING PAVEMENT.



TRAFFIC CONTROL PLAN TWO LANE HIGHWAY PAVED DETOUR

*NOTE: BARRICADE SPACING EQUAL TO SPEED LIMIT

BARRICADES

APPLICATION NOTES

TYPE I BARRICADES ARE TO BE USED ON CONVENTIONAL ROADS OR URBAN STREET AND ARTERIALS TO MARK A SPECIFIC HAZARD TO CHANNELIZE TRAFFIC.

TYPE II BARRICADES ARE TO BE USED ON EXPRESSWAYS AND FREEWAYS, SERVING THE SAME FUNCTIONS AS THE TYPE I BARRICADES.

TYPE III (SEE STANDARD E-7A) SHALL ONLY BE USED WHEN A ROAD SECTION IS CLOSED TO TRAFFIC TO BE ERECTED AT THE POINT OF CLOSURE.

MATERIALS

THE BARRICADES SHOWN ON THIS SHEET NORMALLY WILL BE OF LIGHTWEIGHT MATERIAL. IF WOOD IS USED THE FOLLOWING CONDITIONS SHALL APPLY.

1. WOODEN BARRICADES (TYPES I AND II)
   A. SHALL NOT BE USED TO CHANNELIZE OR DELINEATE WORK AREAS WITHIN THE CLEAR ZONE OF ANY HIGHWAY WHERE OPERATING SPEEDS IN EXCESS OF 20 MILES PER HOUR ARE EXPECTED UNLESS INSTALLED FOR PEDESTRIAN CONTROL BEHIND APPROVED POSITIVE BARRIERS.
   B. MAY BE USED IF OPERATING SPEEDS OF 20 M.P.H. OR LESS ARE EXPECTED.
2. TYPE III WOODEN BARRICADES SHALL NOT BE USED WITHIN THE CLEAR ZONE OF ANY HIGHWAY REGARDLESS OF THE TRAFFIC OPERATING SPEED.

DESIGN

THE DESIGN OF THE BARRICADES SHALL CONFORM WITH THE DETAILS SHOWN ON THIS SHEET AND THE MARKINGS ON THE BARRICADES SHALL BE ALTERNATE ORANGE AND WHITE STRIPES (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION TRAFFIC IS TO PASS.

COLORS

THE BARRICADES PANELS SHOWN ON THIS SHEET SHALL HAVE ALTERNATING REFLECTORIZED WHITE AND ORANGE STRIPES. THE ORANGE SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS AND APPROVED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION. THE BARRICADE COMPONENTS SHALL BE WHITE EXCEPT THAT UNPAINTED METAL OR ALUMINUM MAY BE USED.

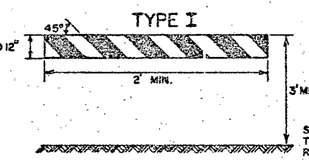
REFLECTORIZATION

THE BARRICADES SHALL BE REFLECTORIZED WITH REFLECTIVE SHEETING.

LOCATION

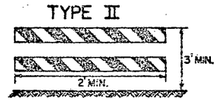
THE BARRICADES SHOWN ON THIS SHEET WILL BE LOCATED BY THE ENGINEER IN THE FIELD OR AS SHOWN ON THE PLANS. THE LOCATION OF THE BARRICADES SHALL FOLLOW THE PROCEDURES SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, OR AS OTHERWISE NOTED.

TYPE I

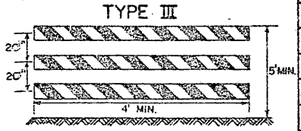


STRIPPING IS SHOWN WITH TRAFFIC PASSING TO THE RIGHT.

TYPE II



TYPE III



BARRICADE	CHARACTERISTICS	
	I	II
WIDTH OF RAIL	8" MIN. 12" MAX.	8" MIN. 12" MAX.
LENGTH OF RAIL	2' MIN.	2' MIN.
WIDTH OF STRIPS@	6"	6"
HEIGHT	3' MIN.	3' MIN.
TYPE OF FRAME	DEMOUNTABLE OR "A" FRAME	LIGHT "A" FRAME NO STAY BRACE
FLEXIBILITY	ESSENTIALLY MOVEABLE	PORTABLE
ANGLE OF STRIPE	45°	45°
COLOR OF STRIPS	ORANGE AND WHITE	ORANGE AND WHITE

@ FOR RAILS LESS THAN 3 FEET LONG, 4" WIDE STRIPS SHALL BE USED.

MAINTENANCE

BARRICADES SHALL BE MAINTAINED IN A CLEAN AND LEGIBLE CONDITION SATISFACTORY TO THE ENGINEER. THEY SHALL BE COMPLETELY VISIBLE TO APPROACHING TRAFFIC AT ALL TIMES. DAMAGED, DEFACED, OR DIRTY BARRICADES SHALL BE REPAIRED, CLEANED, OR REPLACED AS ORDERED BY THE ENGINEER.

LIGHTING

FOR NIGHTTIME USE ADD FLASHING WARNING LIGHTS WHEN BARRICADES ARE USED SINGLY AND STEADY BURN LIGHTS WHEN BARRICADES ARE USED IN A SERIES FOR CHANNELIZATION. THE LIGHTING DEVICES SHALL CONFORM TO THOSE SPECIFIED IN THE MUTCD.

REVISIONS AND CORRECTIONS

FEB. 12, 1982 MATERIALS NOTE CLARIFIED, SIGN ADDITIONS.
FEB. 2, 1983 NOTE # 6 RE: UNPAVED DETOURS ADDED.

APPROVED:

SEPT. 22, 1981
DATE

DIRECTOR OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

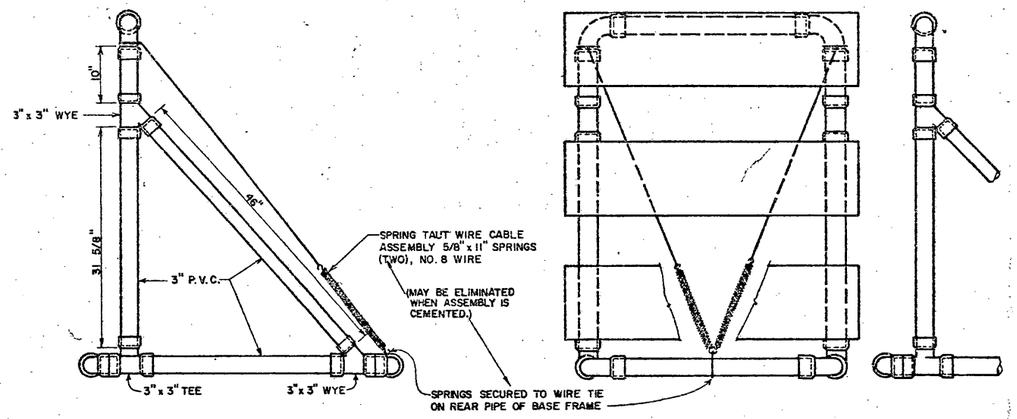
TRANSPORTATION DESIGN ENGINEER

DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS

VERMONT AGENCY OF TRANSPORTATION

STANDARD

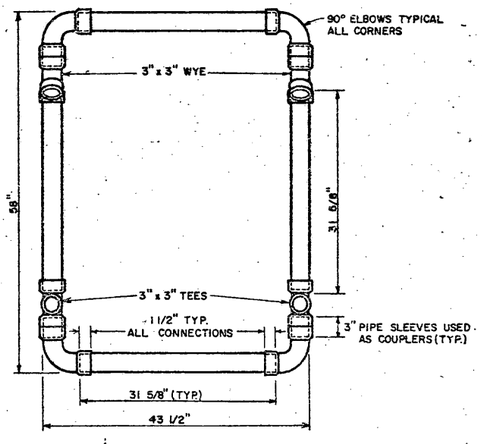
E-7



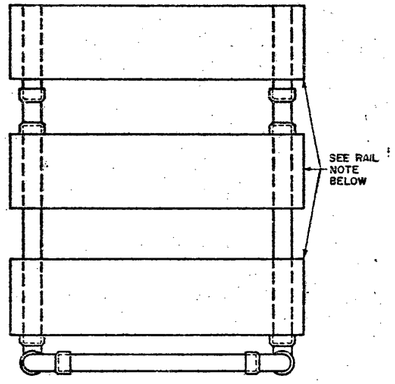
SIDE VIEW

BARRICADES SHALL BE STABILIZED WITH SAND BAGS OF MINIMUM WEIGHT WHICH WILL NOT CONSTITUTE A HAZARD WHEN BARRICADE IS HIT. THEY SHALL BE PLACED ONLY ON THE BASE FRAME OF THE BARRICADE. STABILIZERS SHALL BE SO PLACED AS NOT TO BE A HAZARD TO VEHICLES PASSING ON EITHER SIDE.

IF BARRICADE REPLACEMENT COSTS CAN BE CONSIDERED NEGLIGIBLE, GLUED JOINTS MAY PROVIDE ADDITIONAL STABILITY TO THE INSTALLATION.

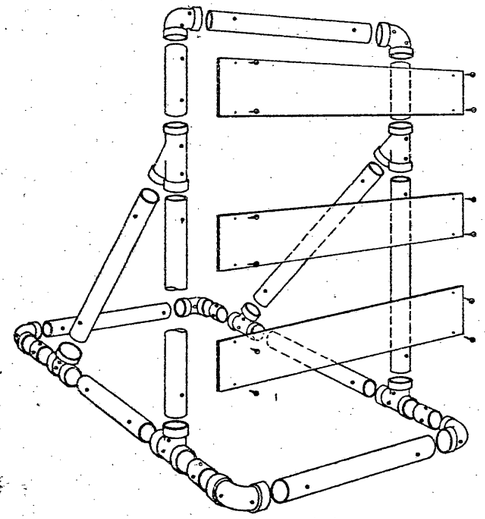


TOP VIEW OF BASE



SEE STANDARD E-7 FOR RAIL DETAILS.
RAILS ATTACHED WITH 1" NO. 14 PAN HEAD METAL SCREW.

FRONT VIEW



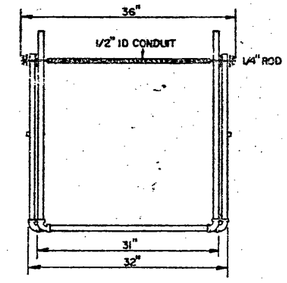
BARRICADE ASSEMBLY

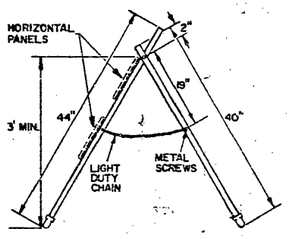
MATERIALS LIST
FOR ONE BARRICADE

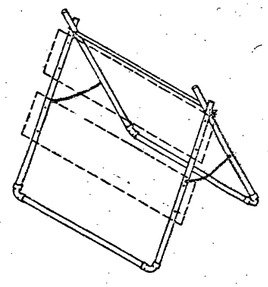
3" Diameter Pipe	30 LF
3" 1/8 Bend Elbow	8 EA
3" Tees	2 EA
3" Wyes	4 EA
8" x 48" x .025 Barricade Panels	3 EA
5/8" x 11" No. 8 Spring	2 EA
1" No. 14 Pan Head Metal Screws	12 EA
No. 14 Black Annealed Tie Wire	15 LF

WARNING LIGHTS

WARNING LIGHTS, IF REQUIRED BY THE PLANS OR RESIDENT ENGINEER, SHALL BE AFFIXED TO THE TOP OF THESE BREAKAWAY BARRICADES WITH A MINIMUM MOUNTING HEIGHT OF 36 INCHES TO THE BOTTOM OF THE LENS. A FLASHING WARNING LIGHT SHOULD BE PLACED ON BARRICADES USED SINGLY AND STEADY BURN WARNING LIGHTS SHOULD BE PLACED ON BARRICADES USED IN A SERIES FOR TRAFFIC CHANNELIZATION. THE WARNING LIGHTS SHALL CONFORM TO THE REQUIREMENTS FOUND IN THE M.U.T.C.D. WHEN THE INTEGRAL WARNING LIGHT UNIT IS USED, THE BATTERY PACK SHALL CONTAIN A LIGHT WEIGHT DRY CELL BATTERY AND THE UNIT SHALL BE RESTRAINED, WITH A TETHER CABLE OR WIRE (12" LENGTH) SECURELY FASTENED TO THE BARRICADES SO AS TO AVOID HAVING THE UNIT BECOME A DANGEROUS FLYING OBJECT IF THE BARRICADE IS HIT.







TYPE I & II BARRICADE DETAILS

MATERIALS

The pipe, wyes, tees and elbows used to construct the Barricades shall conform to the requirements of ASTM designation D 2241 for P.V.C. 1120 or 1220 SDR-21, pressure rating 200 p.s.i. The Wyes, tees and elbows shall conform to the requirements of ASTM Designation D 2466, Type II, Grade 1. All joints shall be slip-fit and may be lightly cemented.

The 8' x 48" barricade rails shall be fabricated from 0.025" anodized aluminum and shall have reflectorized alternating, orange, and white stripes (sloping downward at an angle of 45 degrees in the direction traffic is to pass).

COLORS

The barricades shown on the sheet shall have reflectorized orange and white stripes.
The orange shall conform with the standard color adopted by by the American Association of State Highway And Transportation Officials and approved by the U.S. Department of Transportation, Federal Highway Administration.

LOCATION

The barricades shown on this sheet will be located by the Engineer in the field or as shown on the plans. The locations of the barricades shall follow the procedures set forth in the Manual on Uniform Traffic Control Devices.

MAINTENANCE

Barricades shall be maintained in clean and legible conditions satisfactory to the Engineer.
They shall be completely visible to approaching traffic at all times. Damages, defaced, or dirty barricades shall be repaired cleaned or replaced as ordered by the Engineer.

The P.V.C. Pipe and fittings shall be white in color If the fittings are not available, other colors may be substituded.
At least two (2) holes shall be drilled (3/16" to 1/4") in each section of pipe and fittings if the assembly is not cemented.

MATERIALS FOR TYPE I & II BARRICADES

20'-1" PVC
4-1" PVC 90° ELBOWS
30'-1/2" ID THINWALL CONDUIT
36"-1/4" STEEL ROD
4-1" WASHERS
24'-LIGHT DUTY CHAIN
4-METAL SCREWS
2-3/4" COTTER PINS

TYPE I BARRICADES SHALL CONSIST OF ONE HORIZONTAL PANEL.

TYPE II BARRICADES SHALL CONSIST OF AN ADDITIONAL HORIZONTAL PANEL MOUNTED BELOW THE OTHER.

SEE STD E-7 FOR USE REQUIREMENTS.

REVISIONS & CORRECTIONS

JAN. 11, 1977 - REVISED ACCORDING TO FHWA REQUIREMENTS.
JUNE 8, 1977 - MATERIALS LIST ADDED.
APR. 8, 1982 - CEMENTING NOTE AND BARRICADES TYPE I & II ADDED.
JUNE 13, 1984 - RAILS CHANGED FROM 9" TO 8".
JAN. 3, 1985 - SAND AND WARNING LIGHT NOTE ADDED.

APPROVED

Dec 30, 1976
DATE

E.H. Dickney
CHIEF ENGINEER

R.O. Mann
ASST. CHIEF ENGINEER

Loren O. Jones
HIGHWAY ENGINEER

TRAFFIC SIGNS

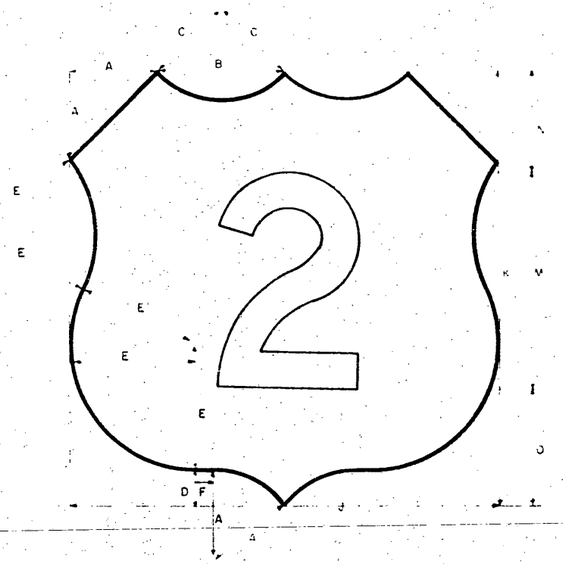
BREAKAWAY BARRICADE DETAILS

VERMONT AGENCY OF TRANSPORTATION

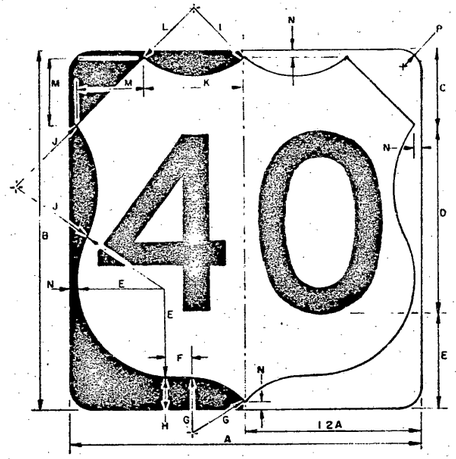
STANDARD

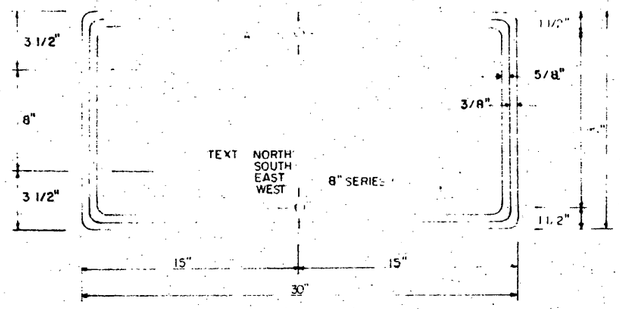
E-7A

U.S ROUTE MARKER
FOR USE ON INTERSTATE GUIDE SIGNS



U.S ROUTE MARKER
FOR INDEPENDENT USE WITH MARKER ASSEMBLIES



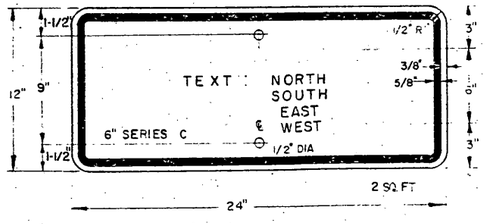


SHIELD SIZE NO. DIGITS	A	B	C	D	E	F	J	K	M	N	O
24 x 24 1,2	5	7	5	2	7		24	24	12D	5 1/2	6 1/2
30 x 24 3	5	10	9	2	7	4	30	24	12D	5 1/2	6 1/2
36 x 36 1,2	7 1/2	10 1/2	7 1/2	3	10 1/2	1 1/2	36	36	18D	8 1/4	9 3/4
45 x 36 3	7 1/2	15	13 1/2	3	10 1/2	5 1/2	45	36	18D	8 1/4	9 3/4
48 x 48 1,2	10	14	10	4	14	2	48	48	24D	11	13
60 x 48 3	10	20	18	4	14	8	60	48	24D	11	13

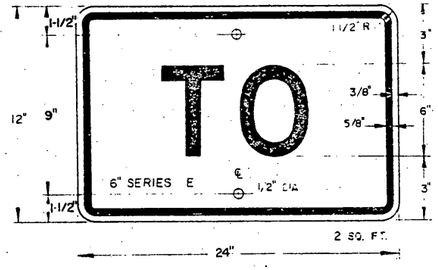
DIGITS	SHIELD SZ. A	SHIELD SZ. B	C	D	E	F	G	H	J	K	L	M	N	P
1,2	24	24	5-1/2	12D	6-1/2	1	5-1/2	2-1/2	7-1/2	7	5-1/2	4-1/2	1/2	1-1/2
3	30	24	5-1/2	12D	6-1/2	4	5-1/2	2-1/2	7-1/2	10	9-1/2	4-1/2	1/2	1-1/2

NOTE: DIMENSIONS IN INCHES

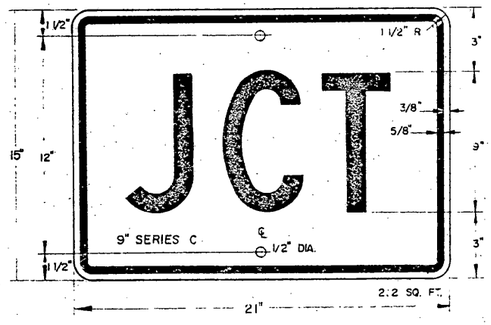
CARDINAL DIRECTION MARKER



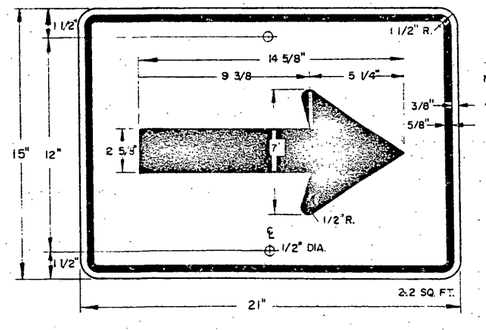
TRAILBLAZER



JUNCTION MARKER



DIRECTION ARROW OR
ADVANCE TURN ARROW
(SEE STANDARD E-11 FOR ARROW DESIGN DETAILS)



NOTE.
FOR ADDITIONAL ADVANCE TURN ARROWS SEE STANDARD SHEET E-13

MATERIALS

The sign base material may be any of the following, of the minimum thickness noted:

FLAT SHEET ALUMINUM
- Less than 24" x 24" — 0.060"
- 24" x 24", 30" x 24" — 0.080"

HIGH DENSITY OVERLAID PLYWOOD
- Less than 24" x 24" — 3/8"
- 24" x 24", 30" x 24" — 1/2"

GALVANIZED FLAT SHEET STEEL
- Less than 24" x 24" — 18 gage
- 24" x 24", 30" x 24" — 16 gage

Route markers to be mounted on large guide signs, shall be of a thickness as for signs less than 24" x 24"

The reflective material shall be white or silver reflective sheeting, applied to the entire background. The texts may be lettering film, silk screened, or hand painted.

COLORS

State route markers and auxiliary markers shall have black texts on reflectorized white or silver backgrounds.

LETTERING

Letters and digits shall conform with the standard alphabets for highway signs approved by the National Advisory Committee on Uniform Traffic Control Devices.

SPECIFICATIONS

State route markers and auxiliary route markers shall meet the standard state specifications for "Traffic Signs", DESIGNS.

The designs of U.S. Route Markers and auxiliary markers conform with the requirements set forth in the Manual on Uniform Traffic Control Devices prepared by the National Advisory Committee on Uniform Traffic Control Devices.

REVISIONS AND CORRECTIONS

MAY 3, 1982 - ADDED NOTE, CHANGED BORDER DIMENSION ON GUIDE SIGNS.
DEC. 3, 1982 - REVISED DIMENSIONING BOTH U. S. RTE. MARKERS

APPROVED
Dec 17/1971

R H Arnold
CHIEF ENGINEER

E H Stickney
ASST. CHIEF ENGINEER

J M Lane
HIGHWAY ENGINEER

DRAWN A.W.C.
TRACED A.J.A.

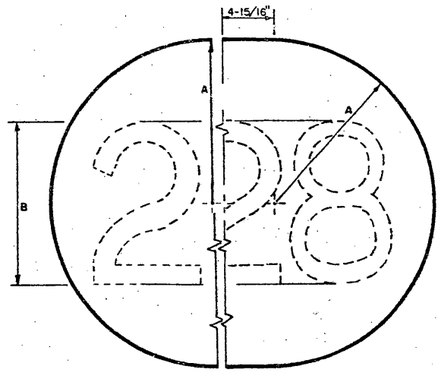
TRAFFIC SIGNS (GUIDE SIGNS)
U.S. ROUTE MARKERS AND AUXILIARY MARKERS

VERMONT AGENCY OF TRANSPORTATION

STANDARD
E-12

K-E

STATE ROUTE MARKER FOR USE ON INTERSTATE GUIDE SIGNS

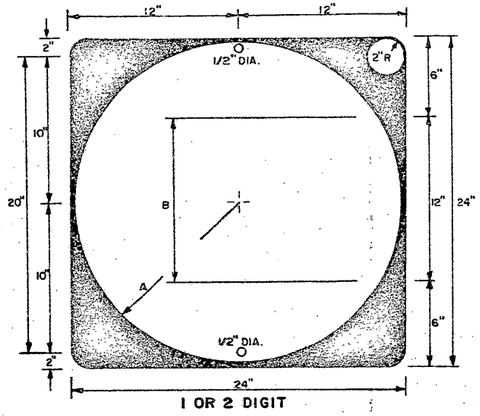


1 OR 2 DIGIT (HALF SIGN)

3 DIGIT (HALF SIGN)

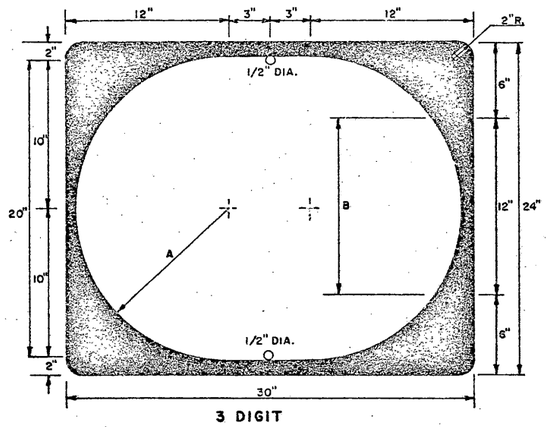
ROUTE NUMBER	A	B	SERIES
1 DIGIT	18"	18"	D
2 DIGITS	18"	18"	D
3 DIGITS	18"	18"	B

STATE ROUTE MARKER FOR INDEPENDANT USE WITH MARKER ASSEMBLIES

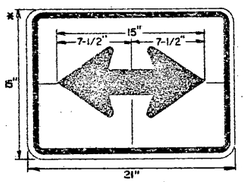


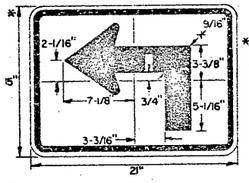
1 OR 2 DIGIT

ROUTE NUMBER	A	B	SERIES
1 DIGIT	11"	12"	D
2 DIGITS	11"	12"	D
3 DIGITS	11"	12"	D

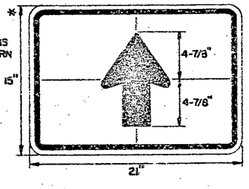


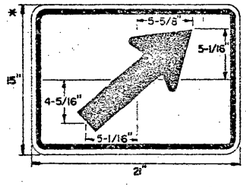
3 DIGIT
SEE CHART AT LEFT





* OTHER DIMENSIONS SEE ADVANCE TURN ARROW.





DESIGNS

The designs of state route markers and auxiliary markers shall conform with the requirements set forth in the Manual on Uniform Traffic Control Devices prepared by the National Joint Committee on Traffic Control Devices

MATERIALS

The sign base material may be any of the following, of the minimum thickness noted:

FLAT SHEET ALUMINUM
- Less than 24" x 24" – 0.060"
- 24" x 24", 24" x 30" – 0.080"

HIGH DENSITY OVERLAID PLYWOOD
- Less than 24" x 24" – 3/8"
- 24" x 24", 24" x 30" – 1/2"

GALVANIZED FLAT SHEET STEEL
- Less than 24" x 24" – 18 gage
- 24" x 24", 24" x 30" – 16 gage

Route markers to be mounted on interstate guide signs, shall be of a thickness as for signs less than 24" x 24"

The reflective material shall be white or silver reflective sheeting, applied to the entire background. The texts may be lettering film, silk screened, or hand painted.

COLORS

State route markers and auxiliary markers shall have black texts on reflectorized white or silver backgrounds.

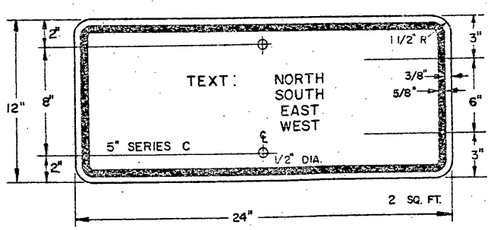
LETTERING

Letters and digits shall conform with the standard alphabets for highway signs approved by the National Joint Committee on Uniform Traffic Control Devices.

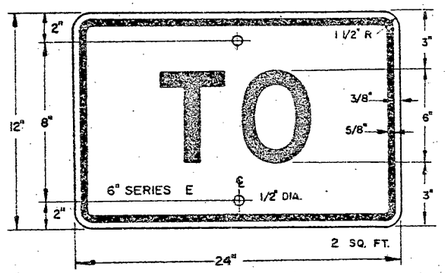
SPECIFICATIONS

State route markers and auxiliary route markers shall meet the standard state specifications for "Traffic Signs".

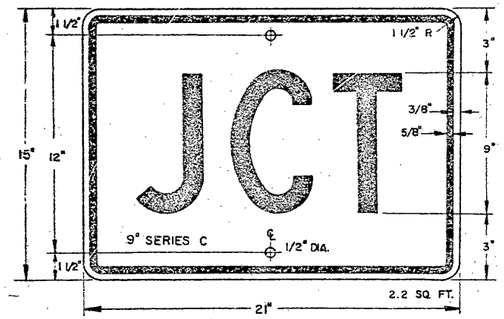
CARDINAL DIRECTION MARKER



TRAILBLAZER

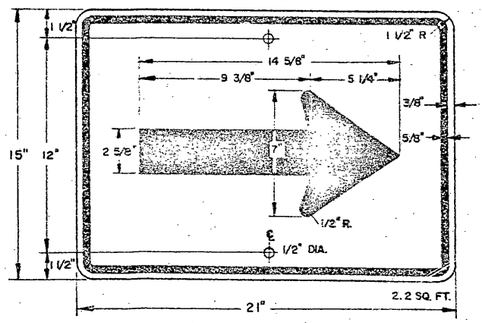


JUNCTION MARKER



DIRECTION ARROW OR ADVANCE TURN ARROW

(SEE STANDARD E-11 FOR ARROW DESIGN DETAIL)



REVISIONS AND CORRECTIONS

MAY 3, 1982 - ADDITIONAL ADVANCE TURN ARROWS ADDED, BORDER DIMENSION CHANGED ON GUIDE SIGNS.

12/2/82 - ADDED THREE DIGIT DETAILS

APPROVED: DATE Dec. 29, 1971

R. H. Crandall
CHIEF ENGINEER

E. W. Stickney
ASST. CHIEF ENGINEER

G. M. Lane
HIGHWAY ENGINEER

DRAWN A.W.C.
TRACED A.J.A.

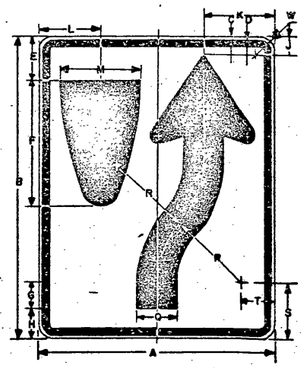
TRAFFIC SIGNS (GUIDE SIGNS)

STATE ROUTE MARKERS AND AUXILIARY MARKERS

VERMONT AGENCY OF TRANSPORTATION

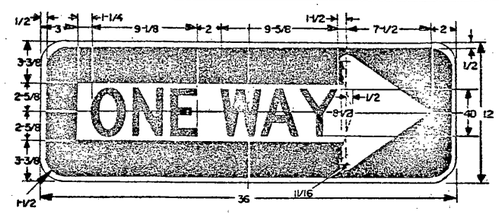
STANDARD E-13

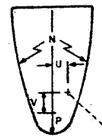
K-E

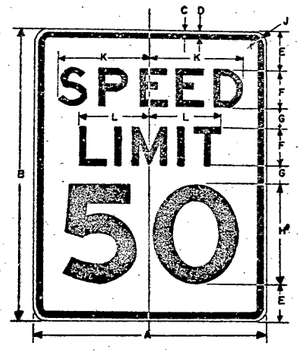


SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	
MIN.	18	24	3/8	5/8	3-3/8	9-3/8	1-7/8	2-1/4	1-3/8	5-1/2	
STD.	24	30	3/8	5/8	4-1/2	12-1/2	2-1/2	3	1-7/8	7-3/8	
EXPWY.	36	48	5/8	7/8	6-3/4	18-3/4	3-3/4	4-1/2	2-13/16	11-1/8	
FWY.	48	60	3/4	1-1/4	9	25	5	6	3-3/4	14-13/16	

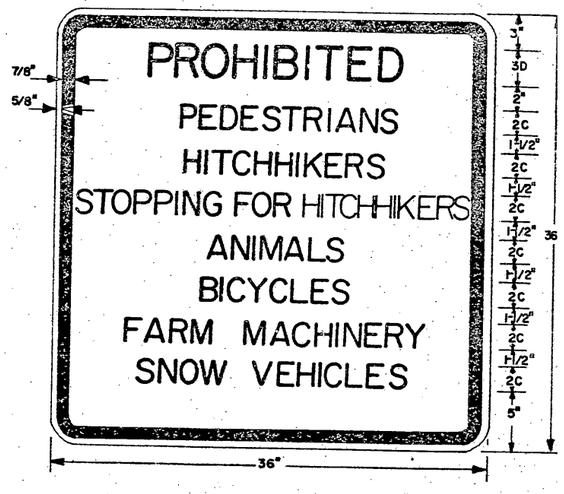
SIGN	DIMENSIONS (INCHES)										
	L	M	N	P	Q	R	S	T	U	V	W
MIN.	4-11/16	6	22-1/2	1-1/2	3	6-3/4	4-1/8	2-1/4	1-1/16	7/16	1-1/2
STD.	6-1/4	8	30	2	4	9	5-1/2	3	1-3/8	2-13/16	1-1/2
EXPWY.	9-3/8	12	45	3	6	13-1/2	8-1/4	4-1/2	2	2-3/4	2-1/4
FWY.	12-1/2	16	60	4	8	18	11	6	2-11/16	5	3

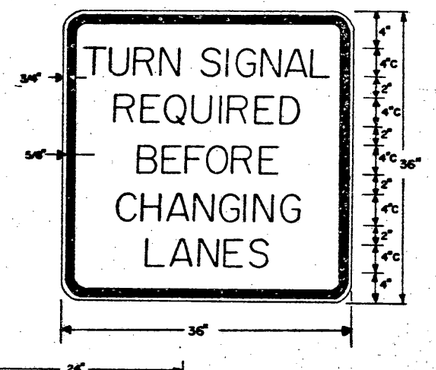










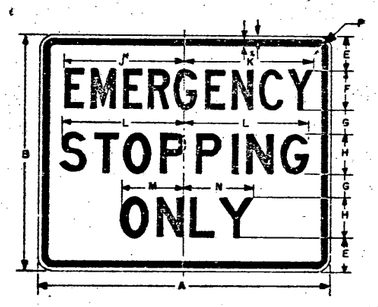


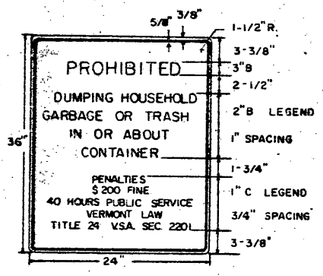
SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	
MIN	18	24	3/8	5/8	3	3E	2	8E	1-1/2	7-3/16	5-1/2	
STD	24	30	3/8	5/8	4	4E	2	10E	1-1/2	9-9/16	7-5/16	
EXPWY	36	48	5/8	7/8	6	6E	5	14E	2-1/4	14-3/8	11	
FWY.	48	60	3/4	1-1/4	8	8E	4	20E	3	19-1/8	14-5/8	

* OPTICALLY SPACE NUMERALS ABOUT VERTICAL CENTERLINE.

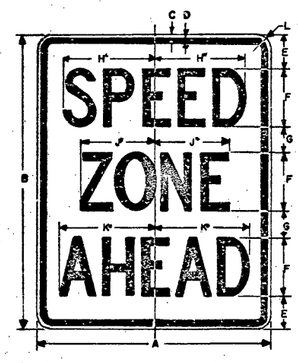
SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
STD.& MIN.	24	30	3/8	5/8	4	4C	2	10D	1-1/2	9-3/16	6-13/16
EXPWY.	36	48	5/8	7/8	6	6C	5	14D	2-1/4	13-3/4	10-3/16
FWY.	48	60	3/4	1-1/4	8	8C	6	16D	3	18-3/8	13-5/8

* OPTICALLY SPACE NUMERALS ABOUT VERTICAL CENTERLINE.





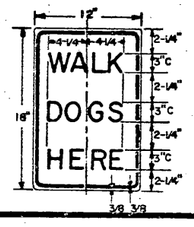


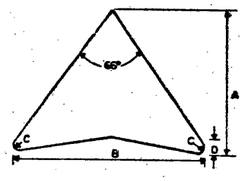




SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
STD.	24	30	3/8	5/8	3-1/2	4C	2-1/2	6-13/16	5-1/2	7	1-1/2
EXPWY.	36	48	5/8	7/8	7	8C	5	13-5/8	11-1/16	14	2-1/4
FWY.	48	60	3/4	1-1/4	9	10C	6	17	13-13/16	17-1/2	3

* FOR STD SIZE, REDUCE SPACING 40%.

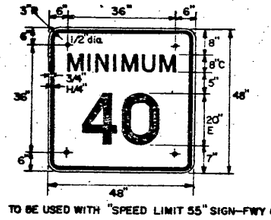




ARROW HEAD	DIMENSIONS (INCHES)				
	SIZE	A	B	C	D
MINIMUM	18X24	7-1/8	8-1/2	5/8	1-1/8
STANDARD	24X30	9-1/2	11-3/8	1	1-1/2
EXPRESSWAY	36X48	14-1/4	17	1-3/8	2-1/4
FREEWAY	48X60	19	22-5/8	1-7/8	3

SIGN	DIMENSIONS (INCHES)														
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	
EXPWY	30	24	3/8	5/8	3 1/2	4C	2-1/2	40	12-1/2	13	12-3/4	6-7/16	7	1-1/2	
FWY.	48	36	5/8	7/8	5	6D	4	6D	20-7/16	21-1/8	19-1/8	10-1/16	10-9/16	2-1/4	

* FOR FWY SIZE, REDUCE SPACING 50%



TO BE USED WITH "SPEED LIMIT 55" SIGN—FWY ONLY.

COLORS:

THE REGULATORY SIGNS SHOWN ON THIS SHEET SHALL HAVE BLACK TEXT ON REFLECTORIZED WHITE BACKGROUND. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS:

THE SIGN BASE MATERIALS USED FOR THE REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

	12"X18" 18"X24"	24"X24" 24"X30" 30"X24" 30"X30"	36"X12" 36"X36" 36"X48" 48"X36" 48"X60"
FLAT SHEET ALUMINUM	0.060"	0.080"	0.100"
HIGH DENSITY OVERLAID PLYWOOD	1/2"	1/2"	5/8"
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE

THE REFLECTIVE MATERIAL FOR GROUND MOUNTED SIGNS SHALL BE FLAT TOP WHITE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

THE TEXT OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.

SPECIFICATIONS:

REGULATORY SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

TEXT DESIGN:

LETTERS, DIGITS, ARROWS, SPACINGS, AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE NATIONAL JOINT COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES.

REVISIONS AND CORRECTIONS

SEPT. 28, 1984 – ADDED "MINIMUM 40" SIGN – CHANGED "SPEED LIMIT 50" (FWY. – G & H)
– CHANGED "PROHIBITED DUMPING HOUSEHOLD GARBAGE" SIGN

DEC. 27, 1984 – CLARIFIED KEEP RIGHT SYMBOL

APPROVED

DATE JULY 18, 1984

DIRECTOR OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

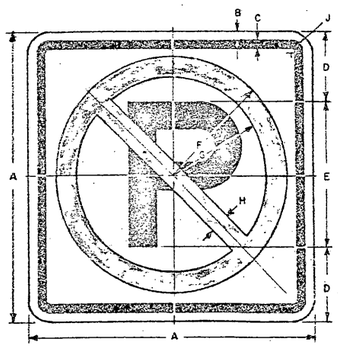
SURVEY AND PLANS ENGINEER

REGULATORY SIGNS

VERMONT AGENCY OF TRANSPORTATION

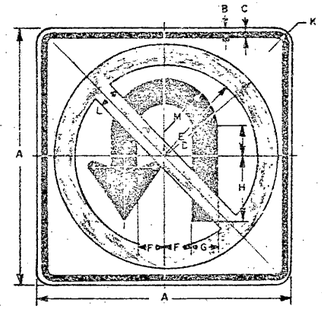
STANDARD

E-15B



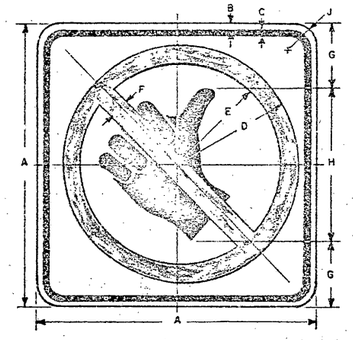
COLORS
CIRCLE AND DIAGONAL — RED (REFL-RURAL)
SYMBOL AND BORDER — BLACK (NON-REFL)
BACKGROUND — WHITE (REFL-RURAL)

SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H	J
URBAN MIN & STD	12	3/8	3/8	3	6E(M)	4-7/8	3-7/8	1	1-1/2
RURAL MIN & STD	24	3/8	5/8	6	12E(M)	10-1/2	8-1/2	2	1-1/2
EXPWY.	36	5/8	7/8	9	18E(M)	15-3/4	12-3/4	3	2-1/4
FWY.	48	3/4	1-1/4	12	24E(M)	21	17	4	3



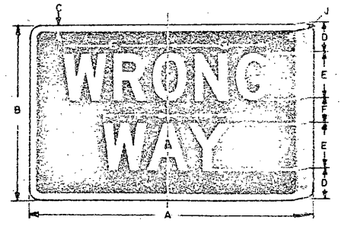
COLORS
CIRCLE AND DIAGONAL — RED (REFL)
ARROW AND BORDER — BLACK (NON-REFL)
BACKGROUND — WHITE (REFL)

SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	M
STD. & MIN.	24	3/8	5/8	10-1/2	8-1/2	2-1/2	2-1/2	6	2-1/4	1-1/2	2	5
SPECIAL	30	1/2	3/4	13-1/8	10-5/8	3-1/8	3-1/8	7-1/2	2-13/16	1-7/8	2-1/2	6-1/4
EXPWY.	36	5/8	7/8	15-3/4	12-3/4	3-3/4	3-3/4	9	3-3/8	2-1/4	3	7-1/2
SPECIAL	48	3/4	1-1/4	21	17	5	5	12	4-1/2	3	4	10



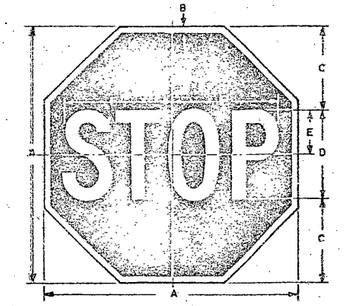
COLORS
CIRCLE AND DIAGONAL — RED (REFL)
SYMBOL AND BORDER — BLACK (NON-REFL)
BACKGROUND — WHITE (REFL)

SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
MIN.	18	3/8	5/8	7-7/8	6-3/8	1-1/2	3-3/4	10-1/2	1-1/2
STD.	24	3/8	5/8	10-1/2	8-1/2	2	5	14	1-1/2



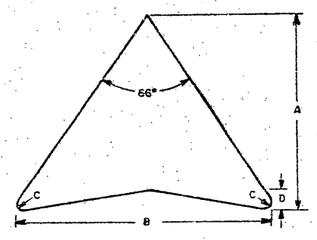
COLORS
LEGEND — WHITE (REFL)
BACKGROUND — RED (REFL)

SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
MIN.	30	18	5/8	3	50	2	11-1/16	6-11/16	1-1/2
STD.	36	24	3/4	4-1/2	60	3	13-5/16	8-1/16	1-1/2
SPECIAL	42	30	7/8	5	80	4	17-3/4	10-3/4	1-7/8

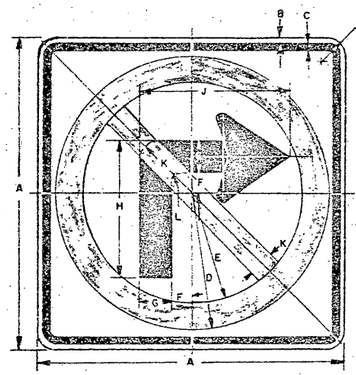


COLORS
LEGEND — WHITE (REFL)
BACKGROUND — RED. (REFL)

SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
BIKE	18	3/8	6	6C	3	7-3/4
MIN.	24	5/8	8	8C	4	10
STD.	30	3/4	10	10C	5	12-1/2
EXPWY.	36	7/8	12	12C	6	15
SPECIAL	48	1-1/4	16	16C	8	20

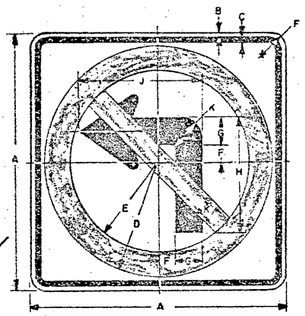


ARROW HEAD	DIMENSIONS (INCHES)				
	SIZE	A	B	C	D
MIN & STD.	24"X24"	6	7-1/8	5/8	1
SPECIAL	30"X30"	7-1/2	8-7/8	3/4	1-1/8
EXPWY.	36"X36"	8-7/8	10-5/8	7/8	1-3/8
SPECIAL	48"X48"	11-7/8	14-1/8	1-1/8	1-7/8

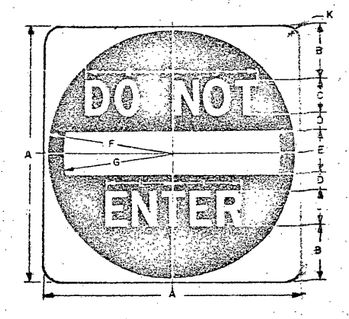


COLORS
CIRCLE & DIAGONAL — RED (REFL)
ARROW & BORDER — BLACK (NON-REFL)
BACKGROUND — WHITE (REFL)

COLORS & DIMENSIONS APPLY TO BOTH SIGNS

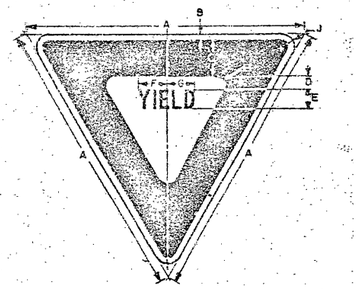


SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L
STD. & MIN.	24	3/8	5/8	10-1/2	8-1/2	1-1/2	2-1/2	10-1/2	11-1/2	2	1/2
SPECIAL	30	1/2	3/4	13-1/8	10-5/8	1-7/8	3-1/8	13-1/8	14-1/2	2-1/2	5/8
EXPWY.	36	5/8	7/8	15-3/4	12-3/4	2-1/4	3-3/4	15-3/4	17-1/4	3	3/4
SPECIAL	48	3/4	1-1/4	21	17	3	5	21	23	4	1



COLORS
SYMBOL — RED (REFL)
LEGEND & BACKGROUND — WHITE (REFL)

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
STD. & MIN.	30	6-1/2	4D	2	5	14-1/2	12-1/2	9-3/4	10	1-7/8	7-7/8
EXPWY.	36	7-1/2	5D	2-1/2	6	17-1/2	15	12	12 3/8	2-1/4	9-13/16
SPECIAL	48	11	6D	3	8	23-1/2	20	14-1/2	15	3	11-3/4



COLORS
LEGEND & BORDER — RED (REFL)
BACKGROUND — WHITE (REFL)

SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
BIKE	24	3/8	3	1-3/8	2C	3-1/4	3	7/8	1-1/2
MIN.	30	5/8	4	1-3/4	2-1/2C	3-15/16	3-5/8	7/8	1-1/2
STD.	36	3/4	5	2	3C	4-11/16	4-3/8	1-1/4	2
EXPWY.	48	1	6	2-3/4	4C	6-1/4	5-1/8	2	3
FWY.	60	1-1/2	8	3-1/2	5C	7-7/8	7-1/4	2-1/2	4

MATERIALS:

THE SIGN BASE MATERIALS USED FOR THE REGULATORY SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING OF THE MINIMUM THICKNESS NOTED.

	12" X 12" 18" X 18"	24" ▽ 24" X 24" 30" X 18" 30" X 30"	36" ▽ 36" X 24" 36" X 36"	48" ▽ 48" X 48" 60" ▽
FLAT SHEET ALUMINUM	0.060"	0.080"	0.100"	0.125"
HIGH DENSITY OVERLAID PLYWOOD	1/2"	1/2"	5/8"	5/8"
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE	12 GAGE

THE REFLECTIVE MATERIAL SHALL BE ENCAPSULATED LENS WHITE OR SILVER REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

THE BLACK PORTIONS OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.

COLORS:

THE REGULATORY SIGNS SHOWN ON THIS SHEET SHALL BE AS DETAILED FOR EACH SIGN. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

SPECIFICATIONS:

REGULATORY SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

TEXT DESIGN:

LETTERS, DIGITS, ARROW, SPACINGS AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE NATIONAL JOINT COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES.

REVISIONS AND CORRECTIONS

APPROVED

DATE JULY 18, 1984

S J Gage
DIRECTOR OF ENGINEERING AND CONSTRUCTION

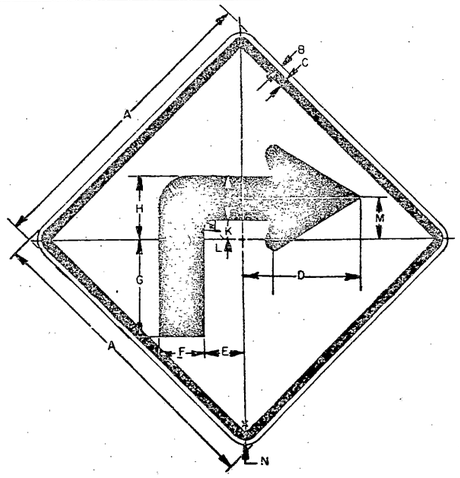
Arthur Goss
CHIEF OF DESIGN

Gil Gunn
SURVEY AND PLANS ENGINEER

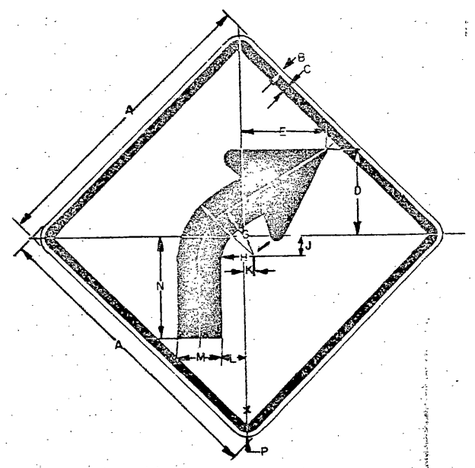
REGULATORY SIGNS

VERMONT AGENCY OF TRANSPORTATION

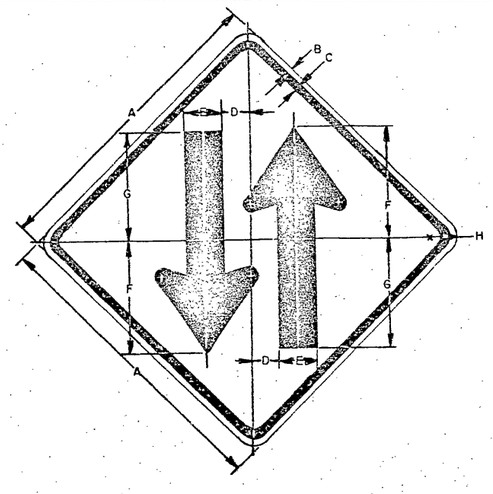
STANDARD
E-15C



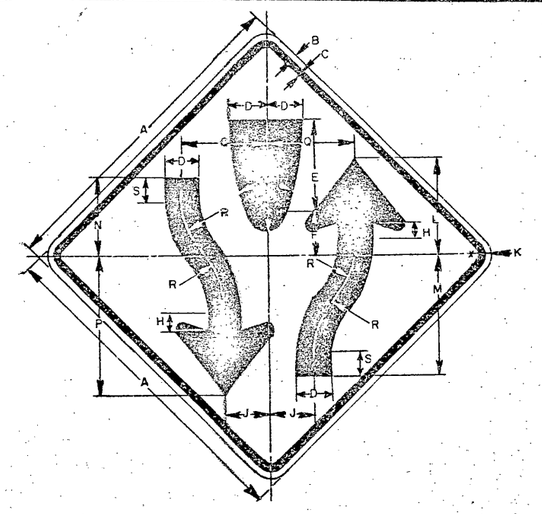
SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
BIKE	18	3/8	5/8	7-1/4	2-1/4	2-5/8	5-7/8	3-3/4	1-7/8	1	5/8	2-1/2	1-1/2
MIN.	24	3/8	5/8	9-5/8	3	3-1/2	7-3/4	5	2-1/2	1-1/2	13/16	3-1/4	1-1/2
STD.	30	1/2	3/4	12	3-3/4	4-3/8	9-11/16	6-1/4	3	1-7/8	1	4-1/16	1-7/8
EXPWY.	36	5/8	7/8	14-3/8	4-1/2	5-1/4	11-5/8	7-1/2	3-5/8	2-1/4	1-1/4	4-7/8	2-1/4
SPECIAL	48	3/4	1-1/4	19-3/16	6	7	15-1/2	10	4-7/8	3	1-5/8	6-1/2	3



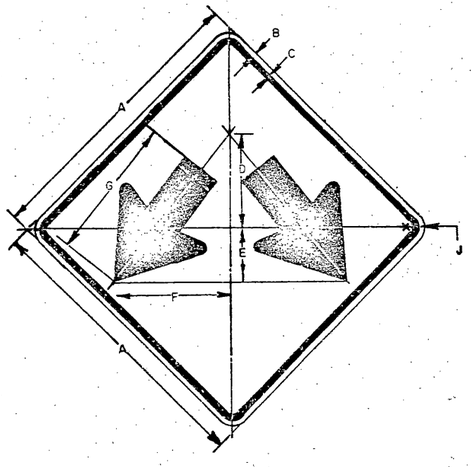
SIGN	DIMENSIONS (INCHES)													
	A	B	C	D	E	F	G	H	J	K	L	M	N	P
BIKE	18	3/8	5/8	5-3/8	5-1/2	6	4-3/4	3-3/8	1-3/4	1-1/4	2	2-5/8	6-1/4	1-1/2
MIN.	24	3/8	5/8	7-1/8	7-1/4	8	6-1/4	4-1/2	2-11/32	1-3/4	2-3/4	3-1/2	8-1/4	1-1/2
STD.	30	1/2	3/4	8-7/8	9-1/16	10	7-13/16	5-5/8	2-5/16	2-3/16	3-7/16	4-3/8	10-5/16	1-7/8
EXPWY.	36	5/8	7/8	10-5/8	10-7/8	12	9-3/8	6-3/4	3-1/2	2-5/8	4-1/8	5-1/4	12-3/8	2-1/4
FWY.	48	3/4	1-1/4	14-3/16	14-1/2	16	12-1/2	9	4-11/16	3-1/2	5-1/2	7	16-1/2	3



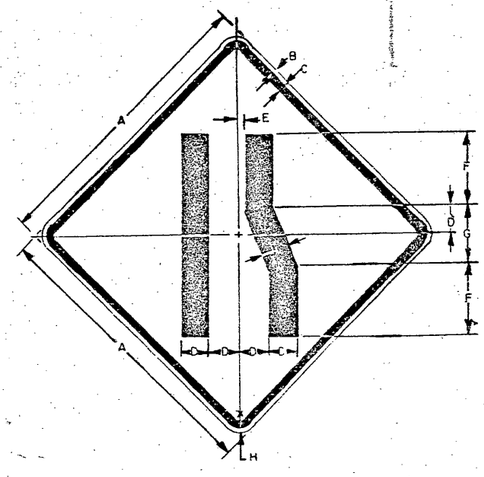
SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
MIN	24	3/8	5/8	2	3	9	8-1/2	1-1/2
STD	30	1/2	3/4	2-7/16	3-3/4	11-1/4	10-5/8	1-7/8
EXPWY.	36	5/8	7/8	2-15/16	4-1/2	13-1/2	12-3/4	2-1/4
SPECIAL	48	3/4	1-1/4	3-7/8	6	18	17	3



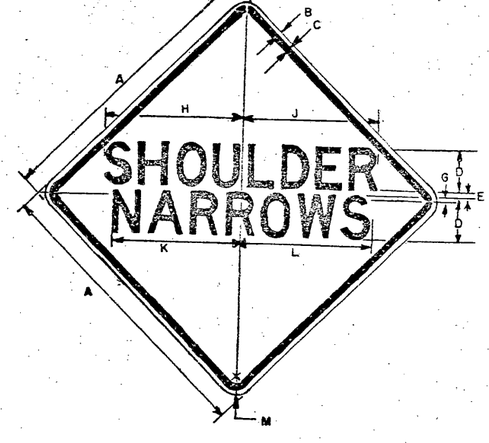
SIGN	DIMENSIONS (INCHES)															
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S
MIN.	30	1/2	3/4	3-5/16	8-5/16	4-1/8	25	1-11/16	4-1/8	1-7/8	10	11-5/8	7-15/16	13-11/16	7-7/8	8-5/16	2-1/16
STD. & EXPWY.	36	5/8	7/8	4	10	5	30	2	5	2-1/4	12	14	9-1/2	16-1/2	9-1/2	10	2-1/2
SPECIAL	48	3/4	1-1/4	5-1/4	13-1/8	6-9/16	39-5/16	2-5/8	6-9/16	3	16	18-11/16	12-11/16	22	12-7/16	13-1/8	35/16



SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
STD. & MIN.	24	3/8	5/8	8	4-1/8	9-3/4	11-5/8	3-1/8	1-1/2
SPECIAL	30	1/2	3/4	10	5-1/4	12-3/8	14-11/16	4	1-7/8
SPECIAL	36	5/8	7/8	12	6-1/8	14-5/8	17-1/2	4-3/4	2-1/4



SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
MIN.	30	1/2	3/4	3-3/8	13/16	8-7/16	6-3/4	1-7/8
STD. & EXPWY.	36	5/8	7/8	4	1	10	8	2-1/4
FWY.	48	3/4	1-1/4	5-5/16	1-3/8	13-5/16	10-5/8	3



SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	M
MIN & STD.	36	5/8	7/8	5C	3	6D	1	13-11/16	13-1/16	17-5/8	18-1/4	2-1/4
EXPWY.	48	3/4	1-1/4	7D	3-1/2	7D	1	23-13/16	23-7/8	21-1/2	21-9/16	3

COLORS

SYMBOLS ON REFLECTORIZED YELLOW BACKGROUND. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS

THE SIGN BASE MATERIALS USED FOR THE WARNING SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING, OF THE MINIMUM THICKNESS NOTED.

	18"X18"	24"X24" 30"X30"	36"X36"	48"X48"
FLAT SHEET ALUMINUM	0.060"	0.080"	0.100"	0.125"
HIGH DENSITY OVERLAID PLYWOOD	1/2"	1/2"	5/8"	5/8"
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE	12 GAGE

THE REFLECTIVE MATERIAL SHALL BE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

THE TEXT OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.

TEXT DESIGN

LETTERS, ARROWS, SPACINGS, AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE NATIONAL JOINT COMMITTE ON UNIFORM TRAFFIC CONTROL DEVICES.

SPECIFICATIONS

WARNING SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

REVISIONS AND CORRECTIONS

APPROVED

DATE OCT. 3, 1984

DIRECTOR OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

SURVEY AND PLANS ENGINEER

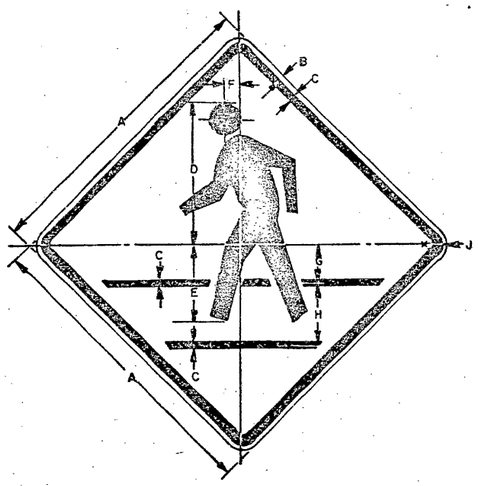
WARNING SIGNS

VERMONT AGENCY OF TRANSPORTATION

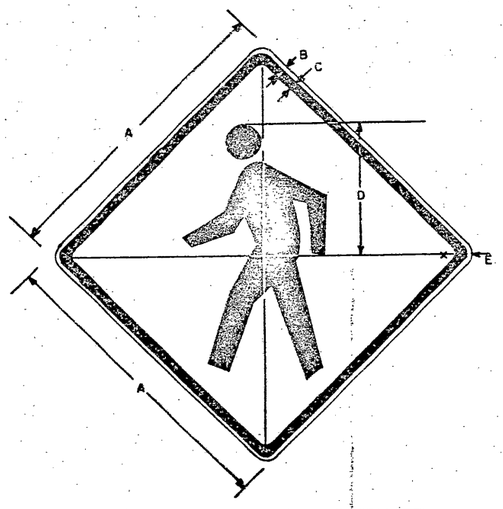
STANDARD

E-19A

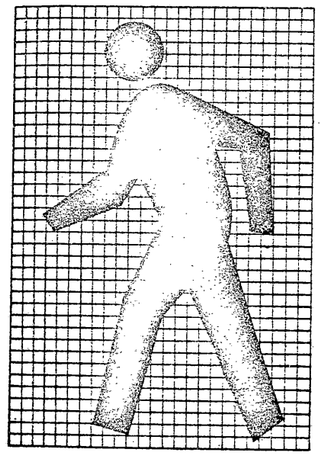
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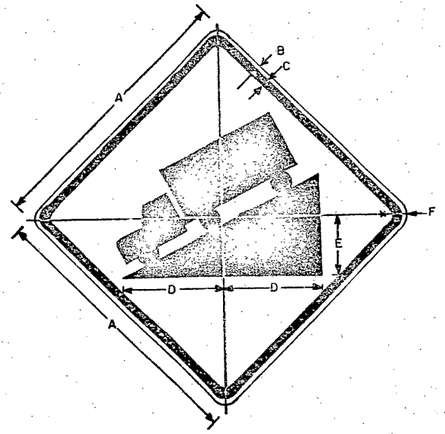


SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
BIKE	18	3/8	5/8	8-3/8	4-3/4	3/4	2-3/8	3-5/8	1-1/2
MIN.	24	3/8	5/8	11	6-3/8	1-3/16	3-1/8	4-3/4	1-1/2
STD.	30	1/2	3/4	14	8	1-1/2	4	6	1-7/8
EXPWY.	36	5/8	7/8	16-3/4	9-5/8	1-13/16	4-3/4	7-1/4	2-1/4
SPECIAL	48	3/4	1-1/4	22	12-3/4	2-3/8	6-1/4	9-1/2	3

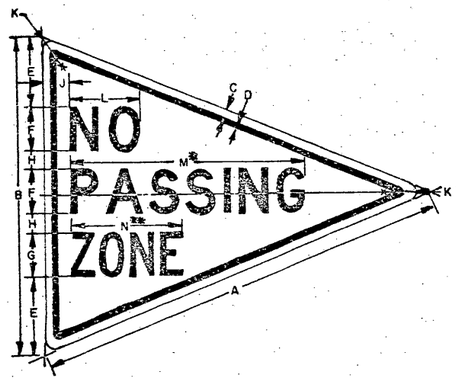


SIGN	DIMENSIONS (INCHES)				
	A	B	C	D	E
MIN.	24	3/8	5/8	11	1-1/2
STD.	30	1/2	3/4	13-1/2	1-7/8
EXPWY.	36	5/8	7/8	16	2-1/4
SPECIAL	48	3/4	1-1/4	22	3





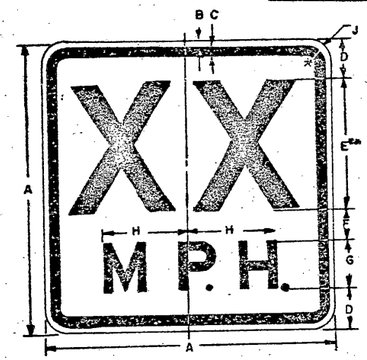
SIGN	DIMENSIONS (INCHES)					
	A	B	C	D	E	F
MIN.	24	3/8	5/8	8-3/4	6	1-1/2
STD.	30	1/2	3/4	11	7-1/2	1-7/8
EXPWY.	36	5/8	7/8	13-1/4	9	2-1/4
FWY.	48	3/4	1-1/4	17-1/2	12	3



SIGN	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	M	N
MIN.	40	30	1/2	3/4	7-1/4	40	4C	1-3/4	2-1/2	1-7/8	6-1/2	22-9/16	11-1/16
STD.	48	36	5/8	7/8	8-1/2	5C	5C	2	3	2-1/4	8	29-13/16	12-3/4
SPECIAL	64	48	3/4	1-1/4	12	6D	6C	3	4	3	10-3/4	33-11/16	16-9/16

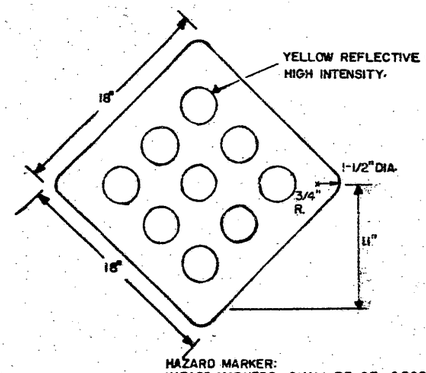
* FOR STD. SIZE REDUCE SPACING 20%

** FOR STD. SIZE REDUCE SPACING 35%

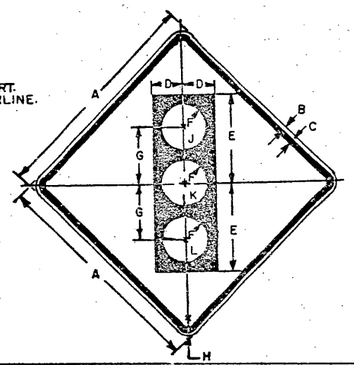


** OPTICALLY SPACE NUMERALS ABOUT VERT. CENTERLINE.

SIGN	DIMENSIONS (INCHES)								
	A	B	C	D	E	F	G	H	J
STD.	18	3/8	5/8	2-1/2	8E	2	3E	5-5/16	1-1/2
SPECIAL	24	3/8	5/8	3-5/8	10E	2-3/4	4E	7-1/16	1-1/2



HAZARD MARKER:
HAZARD MARKERS SHALL BE OF 0.060 FLAT SHEET ALUMINUM OR 18 GAGE GALVANIZED FLAT SHEET STEEL, WITH A NON-REFLECTIVE YELLOW BACKGROUND AND NINE 3" DIA. CIRCLES EVENLY SPACED WITH MATERIALS AS NOTED ABOVE.



SIGN	DIMENSIONS (INCHES)							
	A	B	C	D	E	F	G	H
BIKE	18	3/8	5/8	3	8	2-1/4	5	1-1/2
MIN.	30	1/2	3/4	5	13-3/4	3-3/4	8-3/4	1-7/8
STD. & MIN.	36	5/8	7/8	5-3/4	15-3/4	4-1/4	10	2-1/4
SPECIAL	48	3/4	1-1/4	7-1/2	20	5	12-1/2	3

ADDITIONAL COLORS: J - REFL. RED
K - REFL. YELLOW
L - REFL. GREEN

COLORS

THE WARNING SIGNS SHOWN ON THIS SHEET SHALL HAVE BLACK TEXT AND SYMBOLS ON REFLECTORIZED YELLOW BACKGROUND. THE COLORS SHALL CONFORM WITH THE COLORS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AND APPROVED BY THE DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

MATERIALS

THE SIGN BASE MATERIALS USED FOR THE WARNING SIGNS SHOWN ON THIS SHEET MAY BE ANY OF THE FOLLOWING, OF THE MINIMUM THICKNESS NOTED.

	18"X18"	24"X24" 30"X30"	36"X36"	48"X48"
FLAT SHEET ALUMINUM	0.050"	0.080"	0.100"	0.125"
HIGH DENSITY OVERLAID PLYWOOD	1/2"	1/2"	5/8"	5/8"
GALVANIZED FLAT SHEET STEEL	18 GAGE	16 GAGE	14 GAGE	12 GAGE

THE REFLECTIVE MATERIAL SHALL BE REFLECTIVE SHEETING APPLIED TO THE ENTIRE BACKGROUND OF THE SIGN.

THE TEXT OF THE SIGNS MAY BE LETTERING FILM, SILK SCREENED OR HAND PAINTED. WHEN HAND PAINTED, POOR WORKMANSHIP SHALL BE CAUSE FOR REJECTION.

TEXT DESIGN

LETTERS, DIGITS, SYMBOLS, SPACINGS, AND TEXT DIMENSIONS SHALL CONFORM WITH THE STANDARD ALPHABETS AND DESIGNS PRESCRIBED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE NATIONAL JOINT COMMITTEE ON UNIFORM TRAFFIC CONTROL DEVICES.

SPECIFICATIONS

WARNING SIGNS SHALL MEET THE STANDARD STATE SPECIFICATIONS FOR TRAFFIC SIGNS.

REVISIONS AND CORRECTIONS

FEB. 19, 1985 - COLORS ADDED TO "SIGNAL AHEAD" SYMBOL
- OTHER MINOR REVISIONS

APPROVED

DATE OCT. 3, 1984

DIRECTOR OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

SURVEY AND PLANS ENGINEER

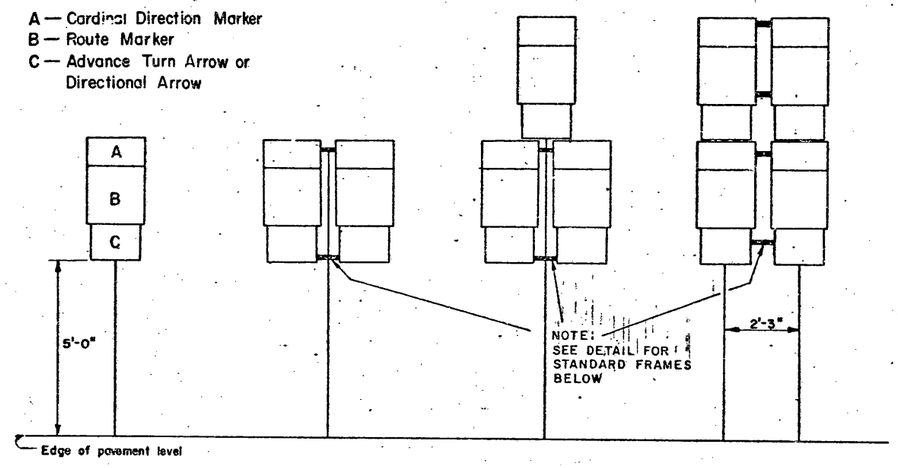
WARNING SIGNS

VERMONT AGENCY OF TRANSPORTATION

STANDARD
E-19B

STANDARD ARRANGEMENT OF ROUTE TURN AND DIRECTIONAL ASSEMBLIES

A — Cardinal Direction Marker
B — Route Marker
C — Advance Turn Arrow or Directional Arrow



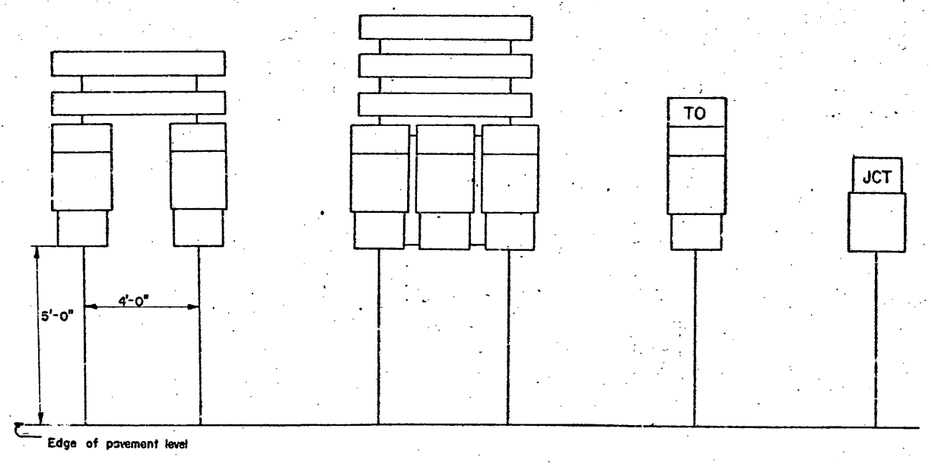
In business and residential districts, or where parking is likely to occur, the height shall be 7 ft.

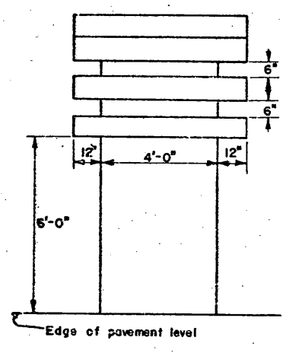
COMBINATION DIRECTIONAL AND DESTINATION ASSEMBLIES

TRAILBLAZER ASSEMBLY

JUNCTION ASSEMBLY

DESTINATION ASSEMBLY





In business and residential districts, or where parking is likely to occur, the height shall be 7 ft.

GENERAL NOTES:

MATERIALS;

The sign base material for standard destination signs shall be high density overlaid plywood 5/8 inch thick or flat sheet aluminum 0.125 inch thick.

The reflective material shall be green reflective sheeting applied to the entire backround of the sign. The text shall be cut-out reflectorized white or silver letters.

COLORS;

Destination signs shall have a reflectorized white or silver text on a reflectorized green backround.

LETTERING;

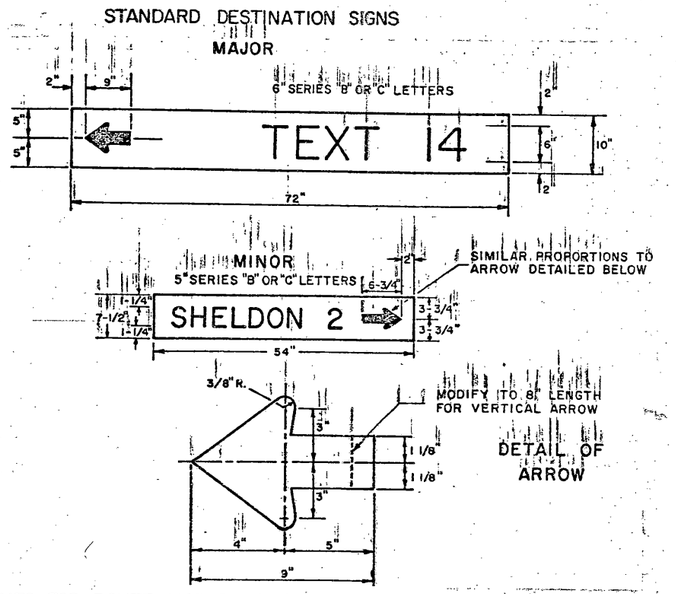
Letters and digits shall conform with the standard alphabets for highway signs approved by the National Joint Committee on Uniform Traffic Control Devices.

SPECIFICATIONS;

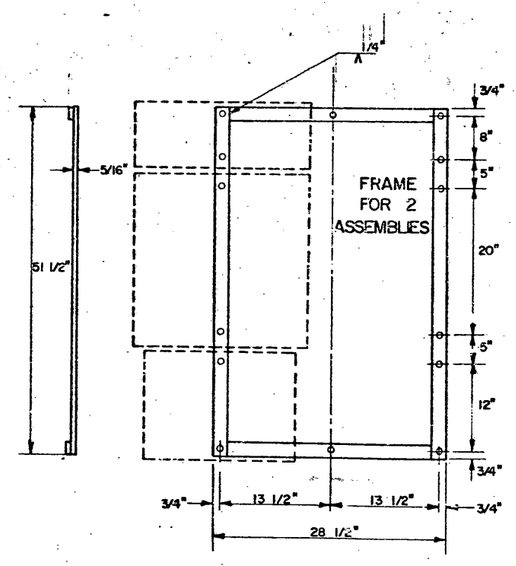
Destination signs shall meet the state specifications for "Traffic Signs."

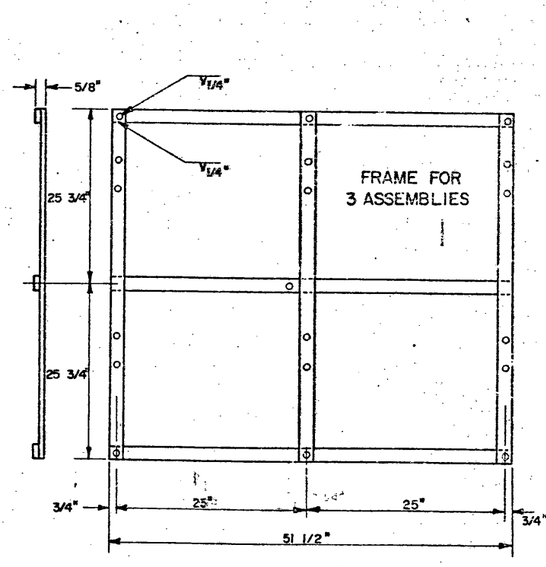
For designs of Route Markers and auxiliary markers, see Standard Sheets E-11, E-12, and E-13.

STANDARD DESTINATION SIGNS



STANDARD FRAMES FOR ROUTE MARKER ASSEMBLIES





Standard frames shall be 5/16"x1 1/2" wrought iron welded. All holes shall be 7/16" diameter. For other sign combinations than above, the frame dimensions and hole spacing shall be modified as necessary. The frame shall be painted with one coat of primer and a second coat of good grade black paint.

REVISIONS AND CORRECTIONS

12/1/82
ADDED 2 FRAME ASSEMBLY TO 2 POST ASSEMBLY
ADDED MINOR DESTINATION SIGN, MOUNTING HEIGHT REVISED
8/10/83
SIGN HEIGHT CHANGED TO 7 FT

APPROVED:

DATE: Dec. 29, 1971

R.H. Crandall
CHIEF ENGINEER

E.H. Stickney
ASST. CHIEF ENGINEER

G.M. Lane
HIGHWAY ENGINEER

GUIDE SIGNS

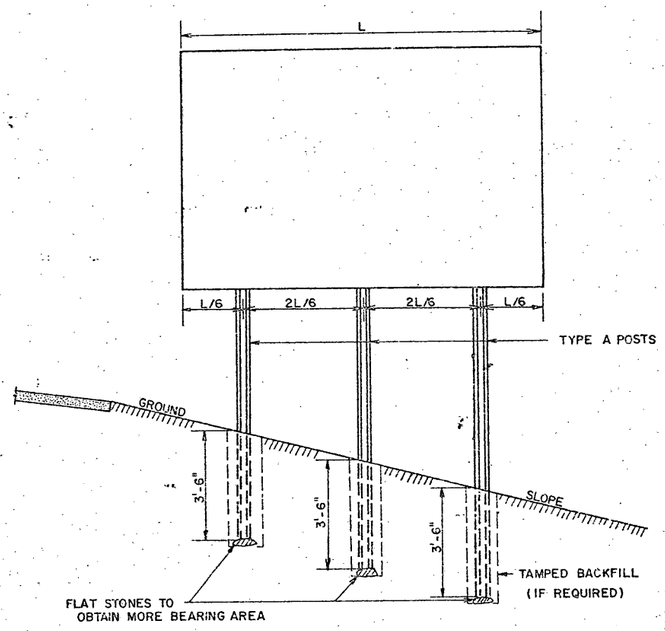
VERMONT AGENCY OF TRANSPORTATION

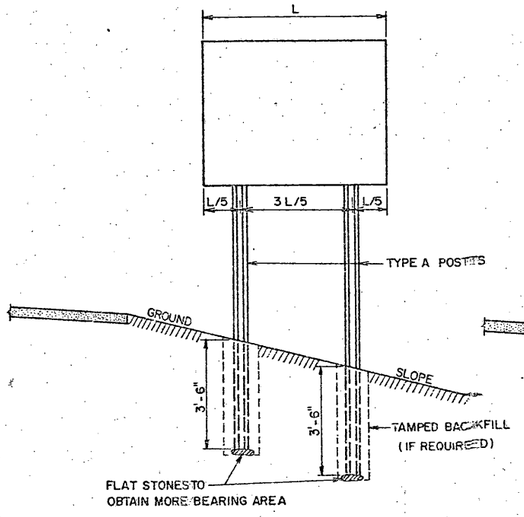
STANDARD
E-23

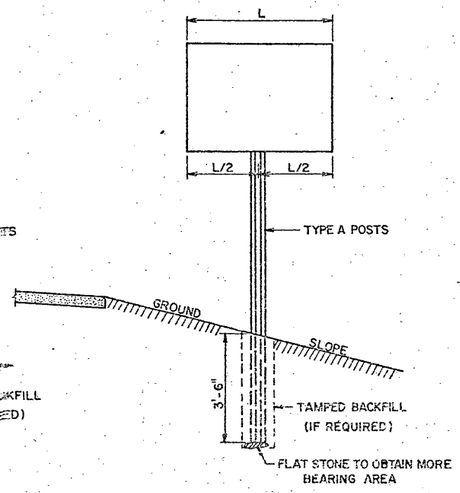
GENERAL NOTES

ALL MATERIAL SHALL BE AS SPECIFIED UNDER SECTION 675 - 675 - TRAFFIC SIGNS

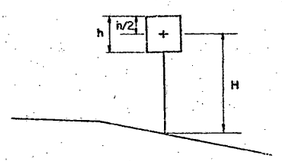
CONSTRUCTION METHODS - POSTS MAY BE DRIVEN OR SET IN A DUG HOLE AND BACKFILLED. IF DRIVEN, A DRIVING CAP SHALL BE USED. IF SET IN A DUG HOLE, THE EXCAVATION AND BACKFILL WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS BEING INCLUDED IN UNIT PRICES FOR OTHER ITEMS IN THE CONTRACT. THE DUG HOLE INSTALLATION SHALL BE USED IN AREAS OF POOR SOIL CONDITIONS OR AS DIRECTED BY THE ENGINEER.







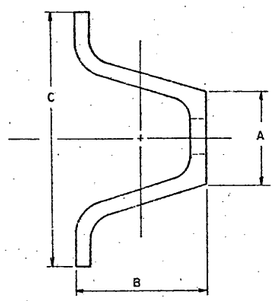
IN AREAS WHERE LEDGE ROCK IS ENCOUNTERED STEEL POSTS WILL BE SET AND GROUTED 12" DEEP IN THE LEDGE.

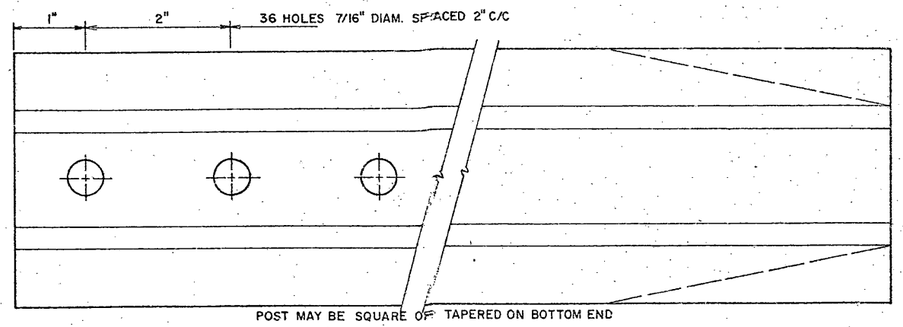


POST SELECTION CHART		
SIGN AREA $(FT^2) \times H(FT) \leq Sv$ (SELECTION VALUE)		
POST SIZE	Sv	DESIGN CRITERIA
2 LB/FT. 2 1/2 LB/FT. 3 LB/FT.	62 77 107	WIND SPEED = 60 MPH (10-YEAR MEAN RECURRENCE INTERVAL) WIND PRESSURE = 12 PSF STEEL MIN YIELD Fy=50,000 PSI ALLOWABLE STRESS=(1.4)0.55Fy

POST SIZE POUNDS PER LINEAR FOOT	DIMENSIONS			PLASTIC SECTION MODULUS, Z
	A	B	C	
2	1 9/32"	1 31/64"	3 1/16"	0.26 $IN.^3$
2 1/2	1 9/32"	1 35/64"	3 1/16"	0.40 $IN.^3$
3	1 5/16"	1 7/8"	3 1/2"	0.53 $IN.^3$

SIMILAR DIMENSIONS ARE ACCEPTABLE, HOWEVER PLASTIC SECTION MODULUS VALUES MUST NOT BE EXCEEDED.





REVISIONS AND CORRECTIONS
FEB. 8, 1978 — HEIGHT OF SIGNS ADDED.
DEC. 15, 1978 — RAIL STEEL DELETED
JAN. 8, 1981 — ADDED POST SIZE & SELECTION CHARTS; REVISED NOTES & DIMENSIONS

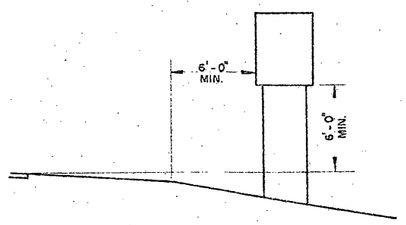
APPROVED
Nov 24, 1976 DATE
E. H. Stickney CHIEF ENGINEER
R O Munn ASST. CHIEF ENGINEER
Leon C Jones HIGHWAY ENGINEER

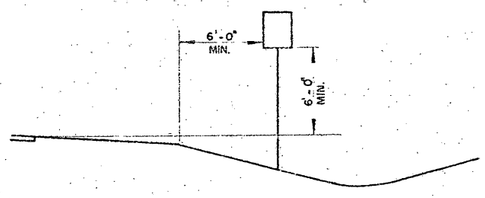
YIELDING TYPE FLANGED CHANNEL STEEL SIGN SUPPORTS

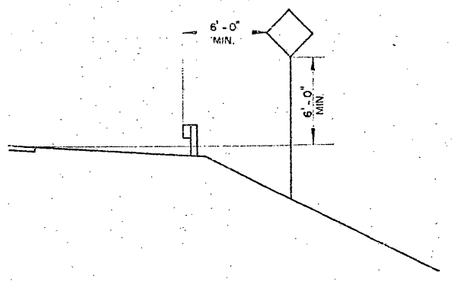
VERMONT AGENCY OF TRANSPORTATION

STANDARD
E 24 - A

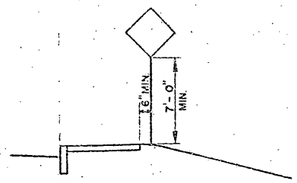
RURAL

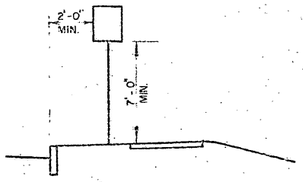


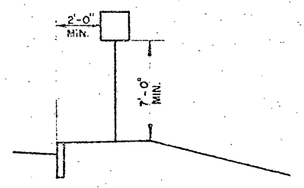




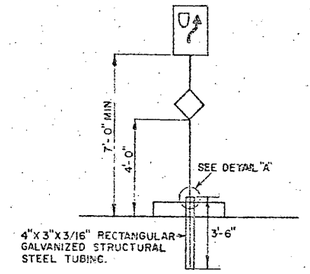
URBAN

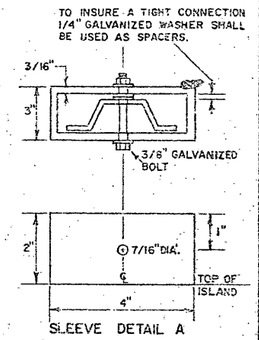




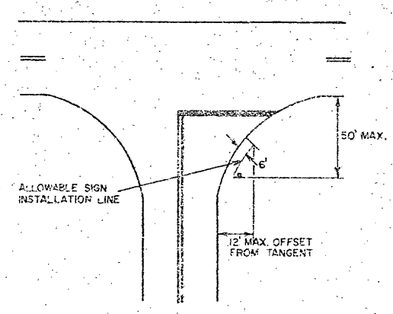


WARNING SIGNS
ON ISLAND IN THE LINE OF TRAFFIC





STOP OR YIELD SIGNS
AT WIDE THROAT INTERSECTIONS



NOTES 1) IN BOTH RURAL AND URBAN LOCATIONS, IF A SECONDARY SIGN IS MOUNTED BELOW ANOTHER SIGN, THE MINIMUM CLEARANCE MAY BE REDUCED BY ONE FOOT.

2.) IN RURAL AREAS WITH NO SHOULDER, THE MINIMUM LATERAL CLEARANCE SHOULD BE 12' FROM EDGE OF THE TRAVELED WAY.

REVISIONS AND CORRECTIONS

JAN. 23, 1978 – DIMENSION FROM SHOULDER TO SIGN CHANGED PER FHWA.

AUG. 25, 1981 – ADDED STOP AND ISLAND DETAILS, REVISED CURB OFFSET

APPROVED Dec. 29, 1971

R.H. Crockett — CHIEF ENGINEER

E.H. Dickney — ASST. CHIEF ENGINEER

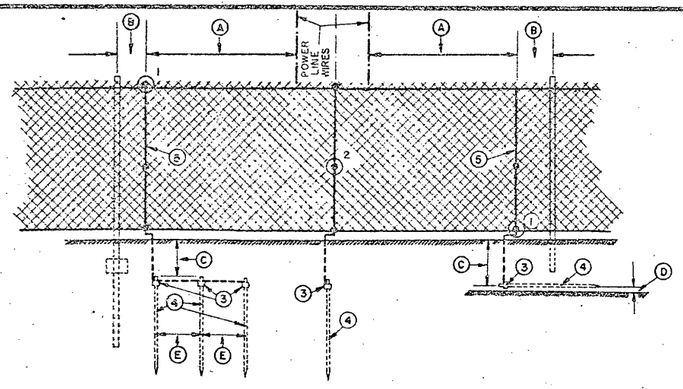
G.M. Lane — HIGHWAY ENGINEER

STANDARD SIGN PLACEMENT
CONVENTIONAL ROAD

VERMONT AGENCY OF TRANSPORTATION

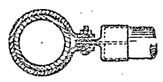
STANDARD

E-29

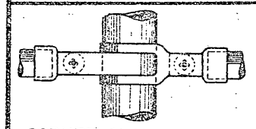


(A) 25'-0" OR TO 1.0' ± 0.5" FROM NEAREST FENCE POST (AT RIGHT ANGLE TO POWER LINE)
(B) MAXIMUM DISTANCE 1.0' (± 0.5")
(C) MINIMUM DISTANCE 1.0' (± 1.0")
(D) 2.0" (± 0.5")
(E) MINIMUM DISTANCE 6.0
(1) CONNECTOR, (2) CONNECTOR, } SUITABLE FOR WIRE GAUGES UTILIZED AND FOR DISSIMILAR METALS
(3) GROUND ROD CLAMP,
(4) COPPER CLAD STEEL CORE GROUND ROD 5/8" x 8'-0"
(E) CONDUCTOR NO 6 AWG COPPER SOFT DRAWN OR NO 4 AWG ALUMINUM

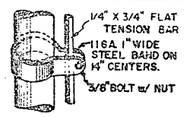
INSTALLATION METHOD OF PROTECTIVE GROUNDING AT POWER LINE CROSSINGS



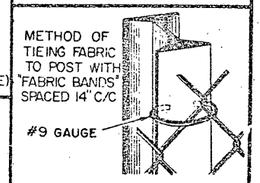
END CLAMP

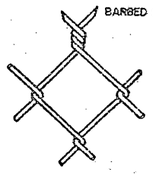


CORNER CLAMP (ADJUSTABLE)



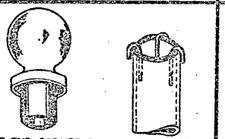
TENSION BAR BAND





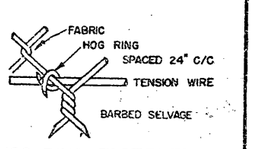
CHAIN LINK FABRIC

9 GAUGE STEEL WIRE
2" MESH

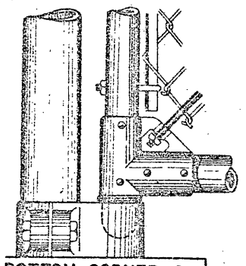


FOR END, CORNER, PULL AND GATE POSTS

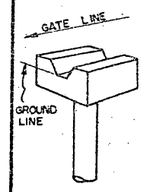
BALL TOP



HOG RING FASTENER



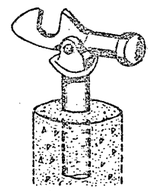
BOTTOM CORNER & HINGE FOR DRIVE GATE



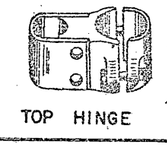
CENTER STOP FOR TWO PANEL GATES



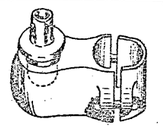
FORK LATCH



HOLDBACK TO HOLD A DRIVE GATE OPEN



TOP HINGE



WALK GATE BOTTOM HINGE

GENERAL NOTES

(ZINC-COATED STEEL FABRIC / ALUMINUM-COATED STEEL FABRIC / VINYL COATED FABRIC)

HEIGHT.— AS NOTED ON PLANS.

FABRIC.— CHAIN LINK, # 9 GAUGE WIRE, WOVEN IN A 2" MESH. TOP AND BOTTOM SELVAGES TO BE BARBED. THE BOTTOM SELVAGE TO BE 2" ABOVE THE GROUND LINE, THE TOP SELVAGE TO BE 1" ABOVE THE TENSION WIRE. WHERE FENCE IS 4 FT THE TOP EDGE SHALL BE KNUCKLED.

LINE POSTS.— 2" X 2 1/4" "H" COLUMN, WEIGHT 4.1 LBS. PER FOOT OR 2 3/8" O.D. PIPE, WEIGHT 3.65 LBS. PER FOOT OR APPROVED EQUAL FOR FENCE 6'-0" AND OVER IN HEIGHT. FOR FENCE LESS THAN 6'-0" IN HEIGHT, "H" COLUMNS WEIGHING 2.70 LBS PER FOOT SHALL BE USED.

TERMINAL POSTS.— END, CORNER AND PULL POSTS, SHALL BE 2 7/8" OD. PIPE, WEIGHING 5.79 LBS. PER FOOT FOR FENCE 6'-0" AND OVER IN HEIGHT. FOR FENCE LESS THAN 6'-0" IN HEIGHT, 2 3/8" OD. PIPE, WEIGHING 3.65 LBS. PER FOOT, SHALL BE USED.

POST SPACING.— POSTS SHALL BE SPACED EQUIDISTANT ON A MAXIMUM OF 10 FEET CENTER TO CENTER EXCEPT GATE POSTS, WHICH SHALL BE SPACED ACCORDING TO THE REQUIRED GATE OPENING.

POST FOOTINGS.— ALL POSTS SHALL BE SET TO A DEPTH OF 2 FEET 10 INCHES IN A 10" DIAMETER CYLINDRICAL SHAPED HOLE 3'-6" DEEP, FILLED WITH CONCRETE.

ALL FITTINGS AND HARDWARE SHALL BE AS SHOWN ON THIS SHEET OR EQUAL.

THE EXPOSED SURFACE OF ALL TOPS OF FOOTINGS TO BE SLOPED TO SHED WATER AND PROVIDE A NEAT APPEARANCE WHEN COMPLETED.

FABRIC TIES.— FABRIC TO BE FASTENED TO POSTS AND GATE FRAMES WITH #9 GAUGE WIRE.

TRUSS RODS.— SHALL BE 3/8" DIAMETER DIAGONAL BARS WITH TURNBUCKLE.

BRACE RODS.— SHALL BE 1 5/8" O.D. PIPE.

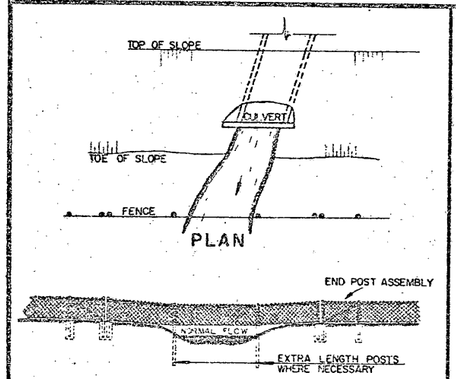
TENSION BARS.— SHALL BE FLAT 1/4" X 3/4" BARS WITH SQUARE EDGES.

TENSION WIRE.— SHALL BE #9 GAUGE WIRE ATTACHED 1" BELOW TOP SELVAGE AND 2" ABOVE BOTTOM SELVAGE OF FABRIC BY MEANS OF HOG RINGS ON 24" CENTERS.

GATES.— GATE FRAMES SHALL BE 1.90" O.D. PIPE ASSEMBLED BY WELDING, RIVETING OR BOLTING AND TO BE FURNISHED WITH ALL THE NECESSARY FITTINGS OVER 6'-0"
GATE FRAMES SHALL BE 1.66" O.D. PIPE ASSEMBLED BY WELDING, RIVETING OR BOLTING AND TO BE FURNISED WITH ALL THE NECESSARY FITTINGS 6'-0" AND LESS.

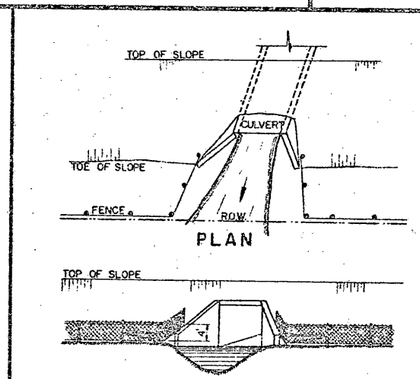
END SECTION ASSEMBLY.— TO BE ERECTED ON A MAXIMUM OF 200 FEET CENTER TO CENTER

THE WEIGHT TOLERANCE IS 5 PER CENT ABOVE AND 5 PER CENT BELOW. THE TUBULAR SIZES ARE NOMINAL.



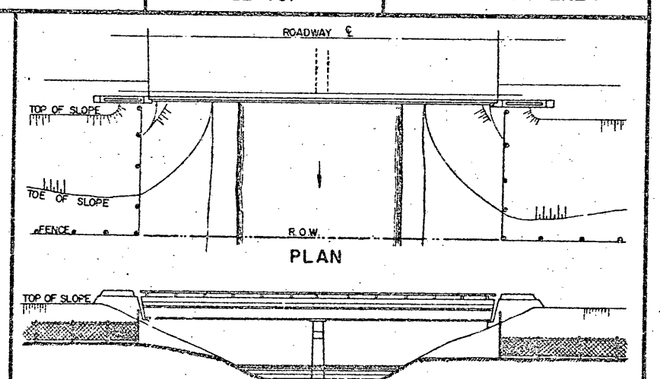
PLAN

CROSSING AT STREAMS



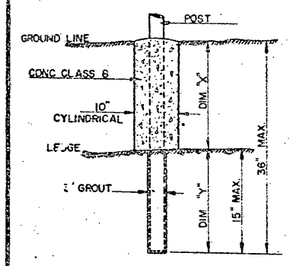
PLAN

ELEVATION AT CULVERT

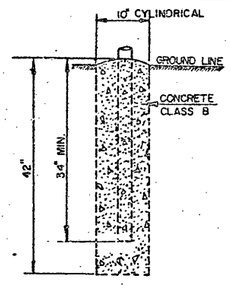


PLAN

ELEVATION AT BRIDGE WITH PARAPET WALLS



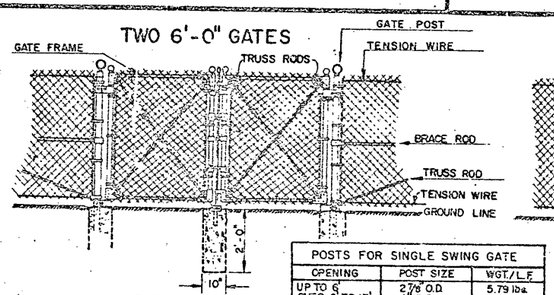
DIM "Y" = 15" WHEN DIM. "X" VARIES BETWEEN 0" AND 24". WHEN DIM. "X" EXCEEDS 24", DIM. "Y" DECREASES ACCORDINGLY.



POST FOOTING

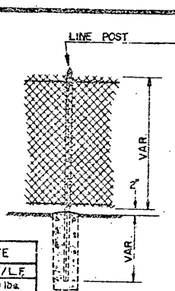


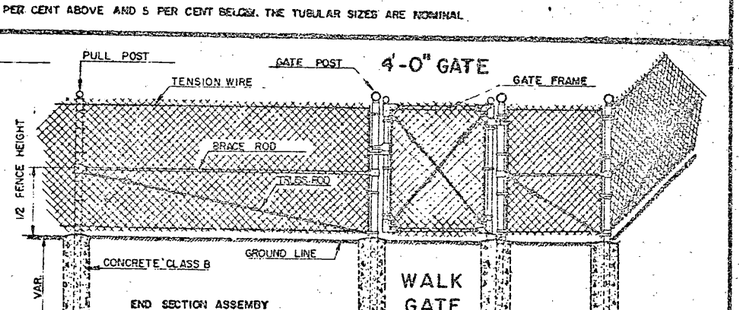
WHERE FENCE LINE HAS A CHANGE IN DIRECTION OF 15 DEGREES OR MORE, CORNER POSTS WITH BRACING SHALL BE ERECTED.
WHERE ANGLE IN FENCE LINE IS LESS THAN 15 DEGREES AND EXISTING CONDITIONS REQUIRE TERMINAL POSTS, THEY SHALL BE ERECTED AS DIRECTED BY THE ENGINEER.



DRIVE GATE

POSTS FOR SINGLE SWING GATE		
OPENING	POST SIZE	WGT./L.F.
UP TO 6'	2 7/8" O.D.	5.79 lbs.
OVER 6' TO 13'	4" O.D.	9.11 lbs.
OVER 13' TO 18'	6 5/8" O.D.	18.97 lbs.
OVER 18'	8 5/8" O.D.	24.70 lbs.





END SECTION ASSEMBLY

WALK GATE

REVISIONS AND CORRECTIONS
JULY 28, 1975 - VINYL COATED FABRIC ADDED.
FEBRUARY 1, 1979 - CHANGE TOP RAIL TO TENSION WIRE.

APPROVED DATE Dec. 6, 1971

R.N. Arnold
CHIEF ENGINEER

E.H. Ritchney
ASST. CHIEF ENGINEER

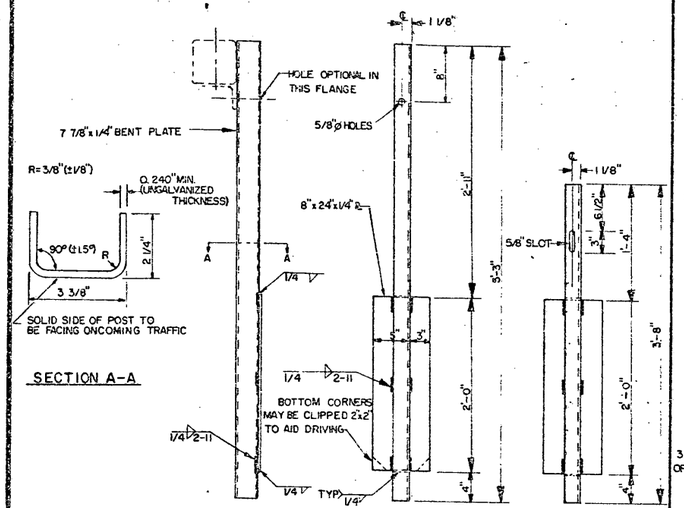
G.M. Lane
HIGHWAY ENGINEER

DRAWN BY AJA
TRACED BY AJA

CHAIN-LINK FENCE (TYPE I)
DRIVE GATE FOR CHAIN-LINK FENCE (TYPE I)
WALK GATE FOR CHAIN-LINK FENCE (TYPE I)

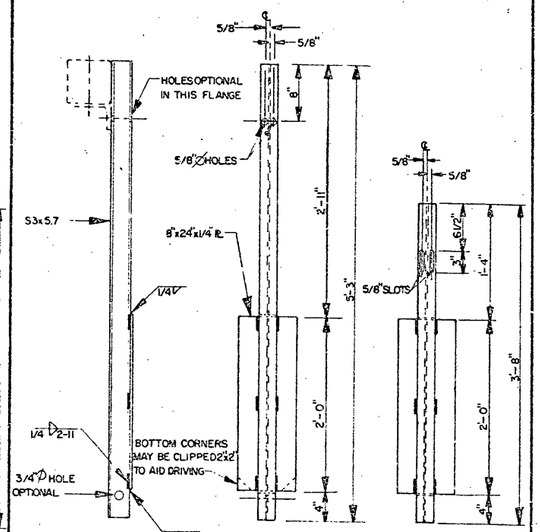
VERMONT AGENCY OF TRANSPORTATION

STANDARD
F-2



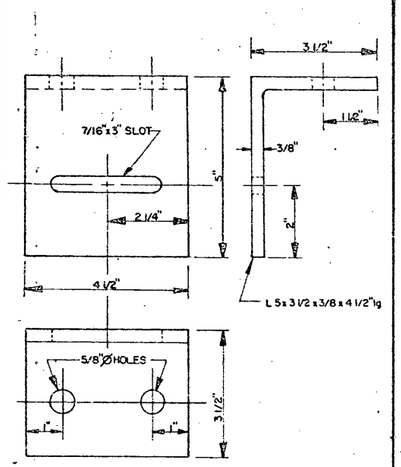
ALTERNATE POST (BENT PLATE)
(STD. HM-TF-13 P-49-76)

END POST DETAIL

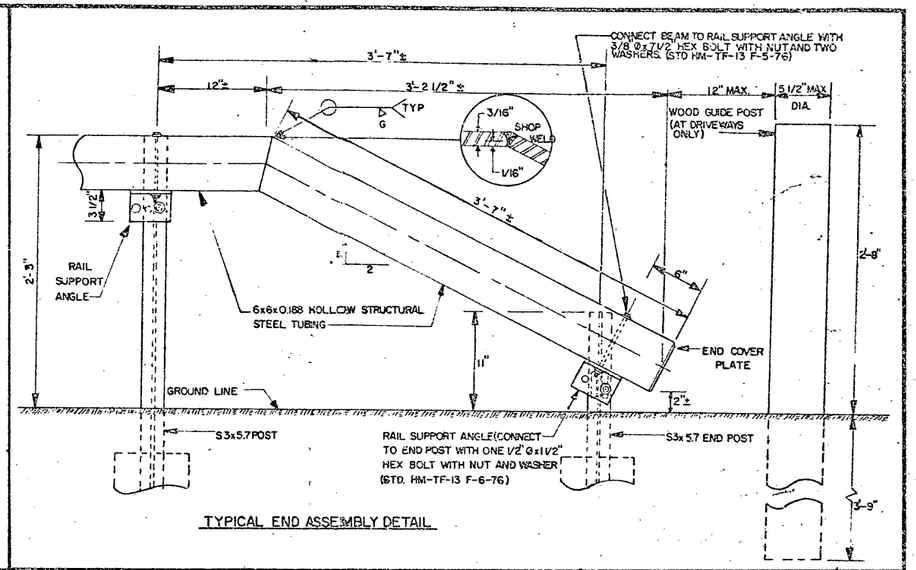


S3X5.7 POST
(STD. HM-TF-13 P-4-76)

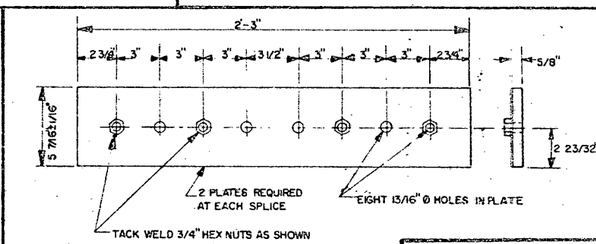
END POST DETAIL



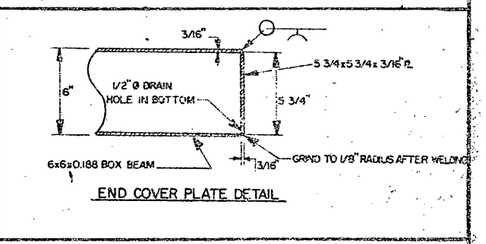
RAIL SUPPORT ANGLE
(STD. HM-TF-13 P-5-76)



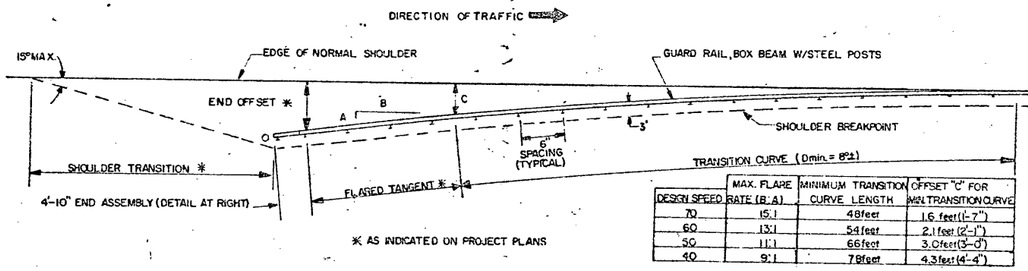
TYPICAL END ASSEMBLY DETAIL



SPLICE PLATE DETAIL
(STD. HM-TF-13 RE-11-73)



END COVER PLATE DETAIL

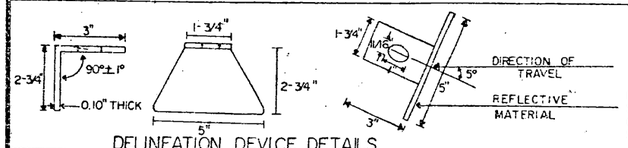


DESIGN SPEED	MAX. FLARE RATE (B:A)	MINIMUM TRANSITION CURVE LENGTH	OFFSET "C" FOR MIN. TRANSITION CURVE
70	15:1	48 feet	1.6 feet (1'-7")
60	13:1	54 feet	2.1 feet (2'-1")
50	11:1	66 feet	3.0 feet (3'-0")
40	9:1	78 feet	4.3 feet (4'-4")

PLAN OF FLARED APPROACH

GENERAL NOTES:

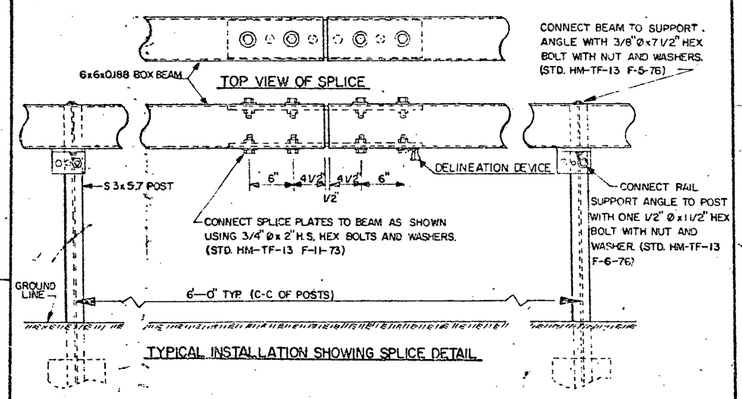
1) THE DESIRED APPROACH END OFFSET SHOULD BE AT LEAST 8 FEET FROM THE EDGE OF NORMAL SHOULDER WHERE SPACE PERMITS; IN SPECIAL CASES, THE END OFFSET MAY BE REDUCED. IN NO CASE, HOWEVER, WILL THE END OFFSET BE LESS THAN 4 FEET.
2) POST SPACING WILL BE 6'-0" C-C, EXCEPT IN THE VICINITY OF THE JUNCTION OF BOX BEAM GUARD RAIL AND BRIDGE RAILING, AND AT OTHER LOCATIONS INDICATED ON THE PLANS. AT BRIDGE APPROACHES, THE 50 FOOT SECTION ADJACENT TO THE BRIDGE RAILING WILL HAVE A POST SPACING OF 4'-0" C-C.
3) FOR MATERIAL REQUIREMENTS AND CONSTRUCTION DETAILS SEE SPECIFICATIONS FOR GUARD RAIL, BOX BEAM WITH STEEL POSTS.
4) RAIL ALIGNMENT TO BE STRAIGHT AT SPLICES. NO LATERAL BENDS PERMITTED WITHIN THE SPLICE. THIS DOES NOT PRECLUDE THE SHOP FABRICATION OF BENT SPLICES.
5) THE LINE OF BOX BEAM GUARD RAIL WHEN COMPLETED SHALL PRESENT A SMOOTH AND PLEASING GRADE LINE IN BOTH HORIZONTAL AND VERTICAL PLANES.
6) ALL POSTS IN A GIVEN RUN TO BE OF THE SAME TYPE.



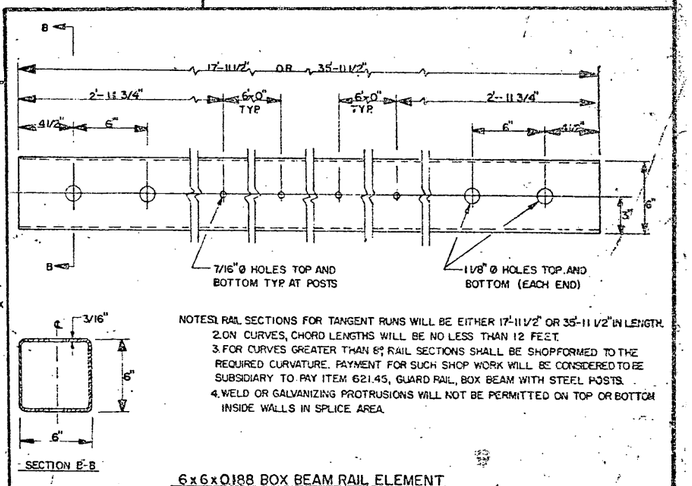
DELINEATION DEVICE DETAILS

THIS REFLECTORIZED ALUMINUM DELINEATION DEVICE IS TO BE ERECTED EVERY 36 FEET, AT SPLICES. DELINEATOR SHALL MEET SPECIFICATION REQUIREMENTS FOR ASTM B209 ALLOY 5052-H32

REFLECTIVE MATERIAL SHALL MEET THE REQUIREMENTS OF SUBSECTION 750.09 AND SHALL BE OF ENCAPSULATED LENS SILVER OR AMBER. AMBER IS TO BE INSTALLED ON THE LEFT OR MEDIAN SIDE OF INTERSTATE ROADWAYS OR RAMPS.



TYPICAL INSTALLATION SHOWING SPLICE DETAIL



NOTES: 1. RAIL SECTIONS FOR TANGENT RUNS WILL BE EITHER 17'-11 1/2" OR 35'-11 1/2" IN LENGTH.
2. ON CURVES, CHORD LENGTHS WILL BE NO LESS THAN 12 FEET.
3. FOR CURVES GREATER THAN 8°, RAIL SECTIONS SHALL BE SHOP FORMED TO THE REQUIRED CURVATURE. PAYMENT FOR SUCH SHOP WORK WILL BE CONSIDERED TO BE SUBSIDIARY TO PAY ITEM 621.45, GUARD RAIL, BOX BEAM WITH STEEL POSTS.
4. WELD OR GALVANIZING PROTRUSIONS WILL NOT BE PERMITTED ON TOP OR BOTTOM INSIDE WALLS IN SPLICE AREA.

6x6x0.188 BOX BEAM RAIL ELEMENT
(STD. HM-TF-13 RE-10-76)

REVISIONS AND CORRECTIONS

JULY 23, 1980	CHANGED DIAMETER OF GUIDE POST
DEC. 16, 1980	INCREASED SHOULDER WIDENING FOR GUARD RAIL.
JUNE 17, 1984	DELINEATOR DEVICE ADDED.
DEC. 21, 1984	HEIGHT OF RAIL LOWERED FROM 2'-6" TO 2'-3"

APPROVED: DATE: Oct 12, 1979

DIRECTOR OF ENGINEERING AND CONSTRUCTION

CHIEF OF DESIGN

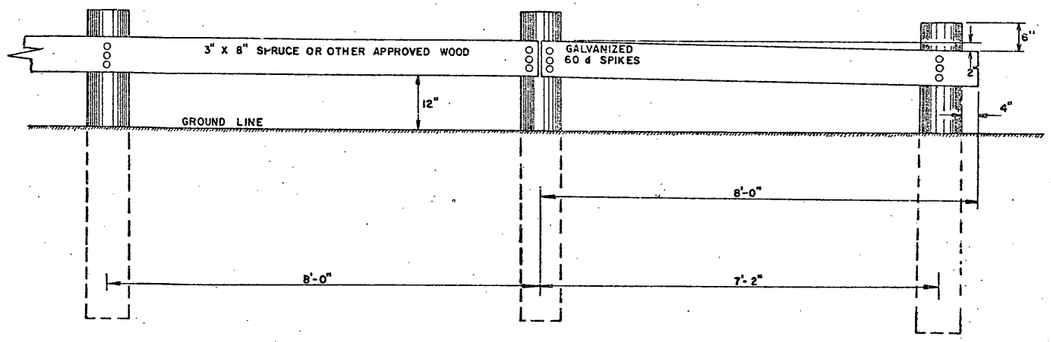
DESIGN ENGINEER

GUARD RAIL, BOX BEAM WITH STEEL POSTS

VERMONT AGENCY OF TRANSPORTATION

STANDARD

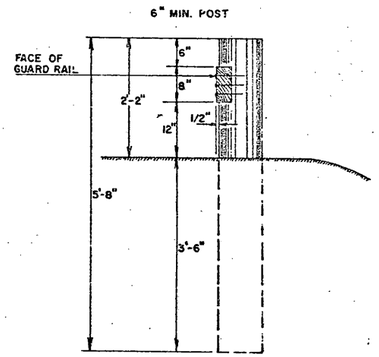
G-1b



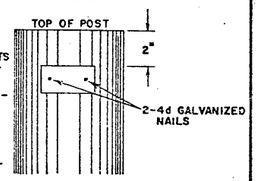
PLANK SIXTEEN FEET IN LENGTH TO BE USED WHEREVER POSSIBLE.
POSTS SIX (6) INCHES SQUARE MAY BE USED IN PLACE OF ROUND POSTS.
FIRST AND LAST POSTS OF EACH SECTION TO BE SET BACK TWELVE INCHES FROM THE GENERAL LINE OF POSTS, WHEN FOUR OR MORE POSTS ARE REQUIRED.
REFLECTIVE MATERIAL TO BE PLACED AS DIRECTED BY THE ENGINEER.
ALL WOOD MEMBERS SHALL BE GIVEN A PRESERVATIVE TREATMENT.

GUARD RAIL, PLANK WITH WOOD POSTS
TO BE USED AS A BARRICADE OFF THE HIGHWAY

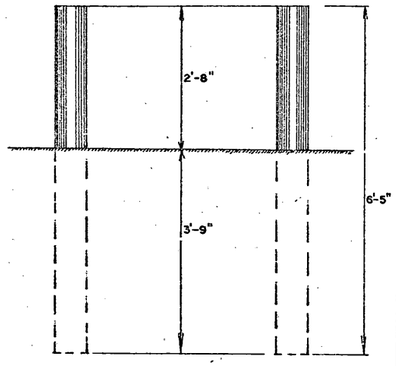
NOTCH TO BE TREATED WITH PRESERVATIVE BEFORE ERECTING PLANK.



3" X 1 1/2" REFLECTIVE ALUMINUM STRIP TO BE PLACED ON EVERY OTHER WOOD POST IN A LINE OF POSTS AND CLEARLY VISIBLE TO APPROACHING TRAFFIC.
STRIPS TO BE ATTACHED TO THE DESIGNATED GUARD RAIL POSTS ON BOTH SIDES OF THE ROAD AND VISIBLE TO TRAFFIC IN BOTH DIRECTIONS.
REFLECTIVE MATERIAL SHALL MEET THE REQUIREMENTS OF SUBSECTION 750.09 AND SHALL BE OF ENCAPSULATED LENS SILVER OR AMBER.



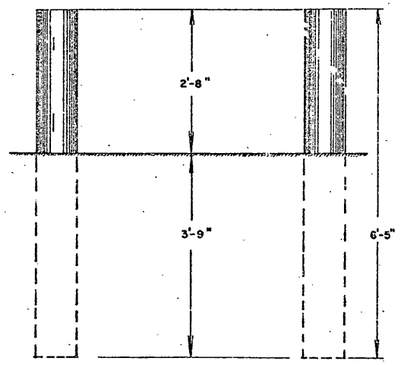
DELINEATION OF WOOD GUARD RAIL AND GUIDE POSTS



MARKER POSTS ARE TO BE 4" TO 5 1/2" IN DIAMETER AND ARE TO BE PLACED AS DIRECTED BY THE ENGINEER.

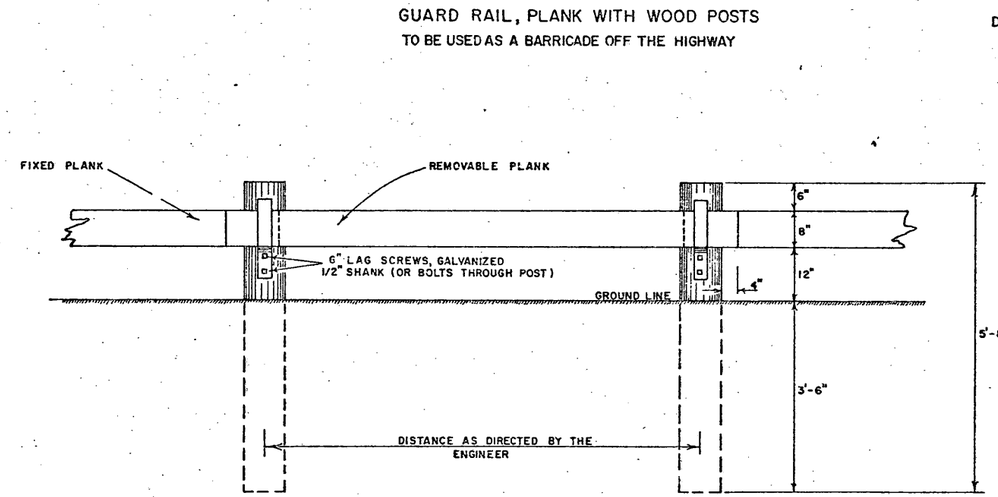
POSTS SHALL BE GIVEN A PRESERVATIVE TREATMENT.

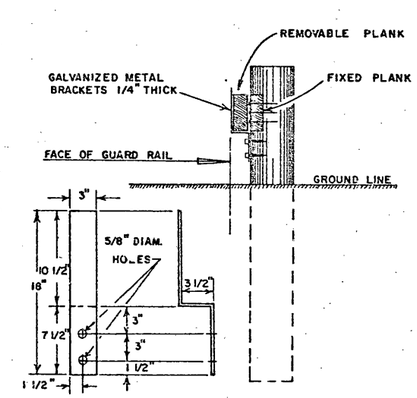
WOOD MARKER POSTS



REFLECTIVE MATERIAL TO BE PLACED AS DIRECTED BY THE ENGINEER.
POSTS ARE TO BE 4" TO 5 1/2" IN DIAMETER AND ARE TO BE PLACED AS DIRECTED BY THE ENGINEER.
POSTS SHALL BE GIVEN A PRESERVATIVE TREATMENT.

WOOD GUIDE POSTS

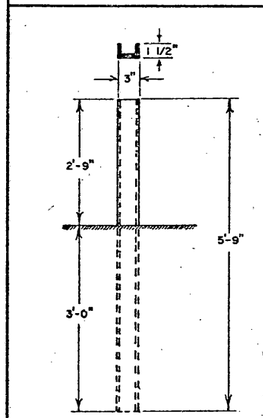




BRACKET DETAIL

GALVANIZED METAL BRACKETS ARE TO BE INCLUDED IN THE UNIT BID PRICE FOR GUARD RAIL, PLANK WITH WOOD POSTS.

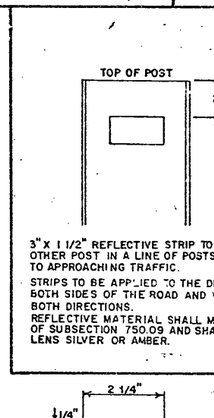
ENTRANCE THROUGH GUARD RAIL, PLANK WITH WOOD POSTS



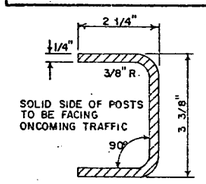
ALL STEEL MARKER POSTS TO BE GALVANIZED.
STEEL MARKER POSTS TO BE PLACED AS DIRECTED BY THE ENGINEER.

POSTS ARE TO BE AMERICAN STANDARD CHANNEL 5'-9" X 3" (14.1 LBS PER FT.)

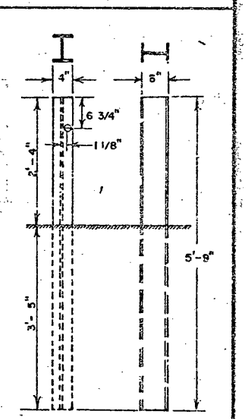
STEEL MARKER POSTS



3" X 1 1/2" REFLECTIVE STRIP TO BE APPLIED TO EVERY OTHER POST IN A LINE OF POSTS AND CLEARLY VISIBLE TO APPROACHING TRAFFIC.
STRIPS TO BE APPLIED TO THE DESIGNATED POSTS ON BOTH SIDES OF THE ROAD AND VISIBLE TO TRAFFIC IN BOTH DIRECTIONS.
REFLECTIVE MATERIAL SHALL MEET THE REQUIREMENTS OF SUBSECTION 750.09 AND SHALL BE OF ENCAPSULATED LENS SILVER OR AMBER.



ALTERNATE POST



ALL STEEL GUIDE POSTS TO BE GALVANIZED.
REFLECTIVE MATERIAL TO BE PLACED AS DIRECTED BY THE ENGINEER.
POSTS ARE TO BE 5'-9" x 6" x 4" (8.5 LBS PER FT.)

ALL POSTS IN A GIVEN RUN OF BARRIER TO BE UNIFORM.

STEEL GUIDE POSTS

REVISIONS AND CORRECTIONS

MAY 23, 1974	ALTERNATE POST ADDED
MAY 29, 1979	NOTE ON REFLECTIVE MATERIAL CHANGED
JULY 23, 1980	CHANGED DIAMETER OF WOOD MARKER POST AND WOOD GUIDE POST
MAY 25, 1982	REMOVED ALTERNATE POST DETAIL.

APPROVED DATE Dec. 8, 1971

R. H. Arnold
CHIEF ENGINEER

E. H. Hutchinson
ASST. CHIEF ENGINEER

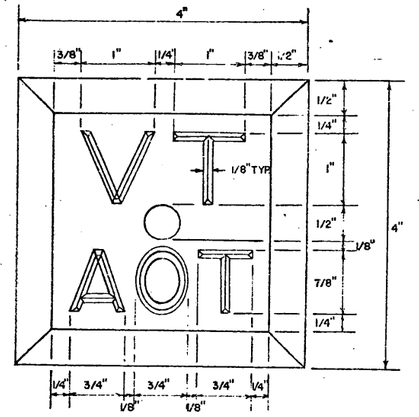
G. M. Lane
HIGHWAY ENGINEER

GUARD RAIL, PLANK WITH WOOD POSTS
WOOD GUIDE POSTS
STEEL GUIDE POSTS
WOOD MARKER POSTS
STEEL MARKER POSTS

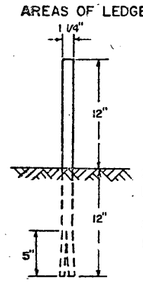
VERMONT AGENCY OF TRANSPORTATION

STANDARD
G-4

BRUNING 44-131 40552



LETTERING DETAIL
(ALL LETTERS TO BE COUNTERSUNK 1/8")
SCALE: FULL SIZE



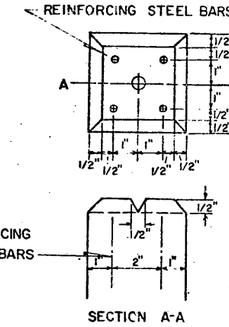
1 1/4" STEEL ROD 2'-0" LONG TO BE USED IN AREAS OF LEDGE.

2" HOLE TO BE DRILLED IN LEDGE.

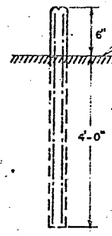
SPACE AROUND HOLE TO BE FILLED WITH MORTAR, TYPE I



ROD TO BE SPLIT WITH IRON WEDGE.



SECTION A-A



BOUNDARY MARKERS TO BE CONSTRUCTED OF CONCRETE CLASS A.
4 REINFORCING STEEL BARS ARE No. 3 DEFORMED BARS 4'-4" LONG.
BOUNDS ARE TO BE SET WITH 6" ABOVE GROUND, OR AS DIRECTED BY THE ENGINEER.
IN AREAS WHERE MOWING OPERATIONS ARE REQUIRED, BOUNDS SHALL BE SET FLUSH WITH THE GROUND.

BOUNDARY MARKERS

REVISIONS AND CORRECTIONS

APPROVED: _____ DATE

_____
DIR. OF ENGINEERING AND CONSTRUCTION

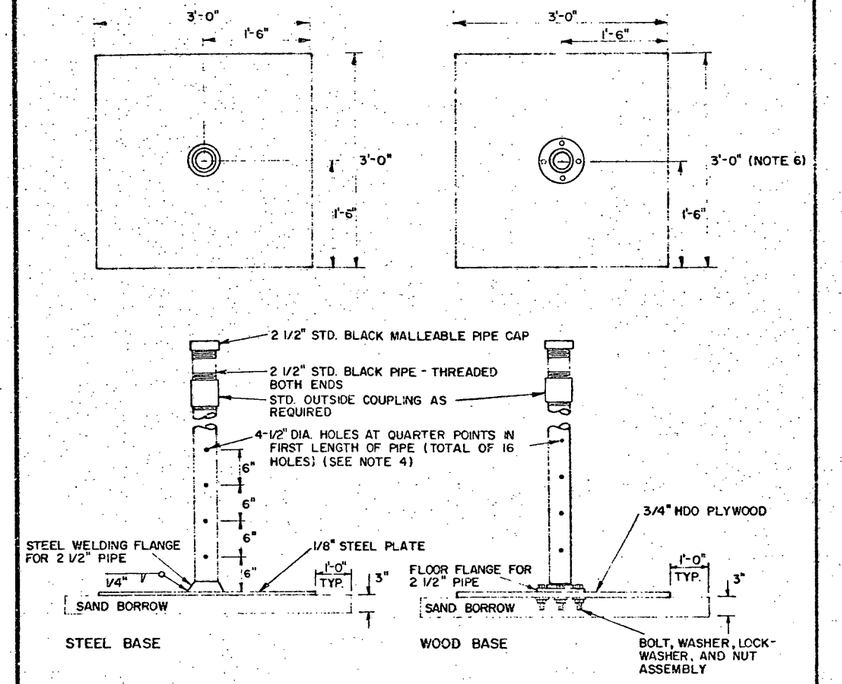
_____
CHIEF OF DESIGN

_____
TRANSPORTATION DESIGN ENGINEER

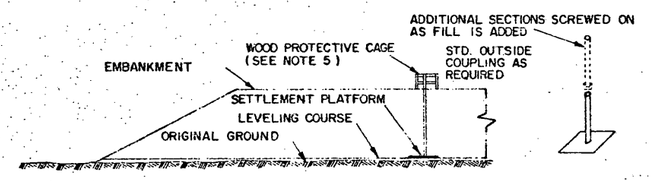
BOUNDARY MARKERS

VERMONT AGENCY OF TRANSPORTATION

STANDARD
J-1



TYPE I SETTLEMENT PLATFORM (STAND PIPE TYPE)



TYPICAL SECTION

NOTES

1. THE USE OF EITHER THE WOOD OR STEEL PLATFORMS SHALL BE THE CONTRACTOR'S OPTION.
2. CONTRACTOR TO FURNISH MATERIAL AND LABOR TO EXTEND PIPE UP THROUGH FILL.
3. ALL VERTICAL PIPES OF SETTLEMENT PLATFORMS SHALL BE ACCURATELY AND CONSECUTIVELY NUMBERED IN ONE FOOT INTERVALS. THE NUMBERING AND GRADUATIONS SHALL BE SCRIBED ON THE VERTICAL PIPE AND CLEARLY LABLED WITH DURABLE YELLOW PAINT BY THE CONTRACTOR IMMEDIATELY AFTER EACH SECTION OF PIPE IS ADDED.
4. HOLES TO BE OMITTED IN FIRST SECTION OF PIPE WHEN SPECIFIED BY THE ENGINEER.
5. THE SETTLEMENT PLATFORM ASSEMBLY SHALL BE INSTALLED, PROTECTED, AND SAFEGUARDED AGAINST DAMAGE. VERTICAL PIPE ABOVE FILL SHALL BE PROTECTED BY A WOODEN CAGE PAINTED OR FLAGGED TO BE READILY VISIBLE.
6. WOOD BASE PLATFORM MAY BE 4'x4' AT CONTRACTOR'S OPTION.
7. A LEVELING COURSE SHALL BE PROVIDED IF DIRECTED BY THE ENGINEER.
8. THE BASE SHALL BE SET ON 3 INCHES OF SAND BORROW GRADED TO A SMOOTH LEVEL SURFACE.
9. THE RISER PIPE MAY BE IN RANDOM LENGTHS.
10. SOUND LUMBER MUST BE USED FOR PLATFORM. ALL WOOD SHALL BE TREATED WITH 2 COATS OF CREOSOTE TIMBER PRESERVATIVE.

REVISIONS AND CORRECTIONS

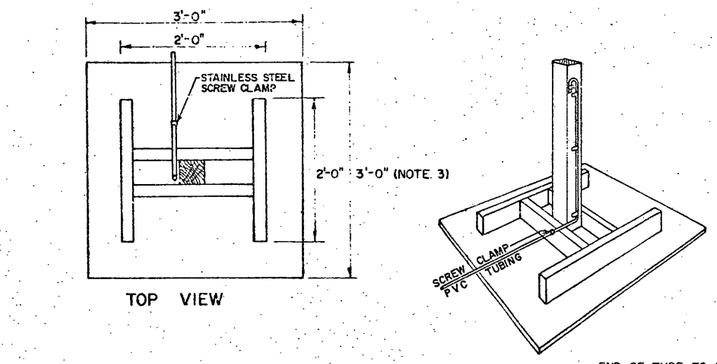
OCT. 7, 1975 SHEET REDRAWN
FEB 9, 1977 CHANGED TUBE DETAIL AT PLATFORM.

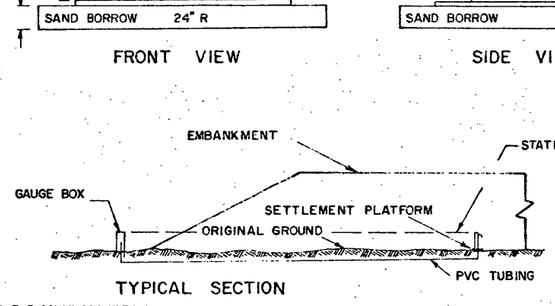
APPROVED
DATE 10/7/75

E. H. Dickey
CHIEF ENGINEER

R O Munn
ASST. CHIEF ENGINEER

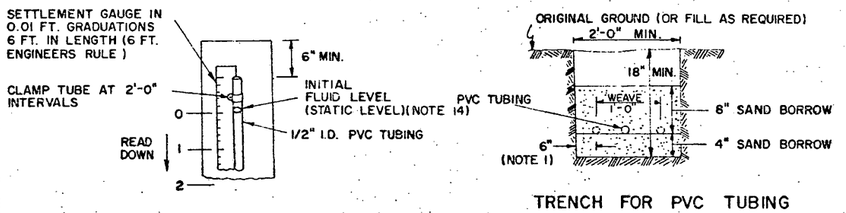
Leon L Jones
HIGHWAY ENGINEER





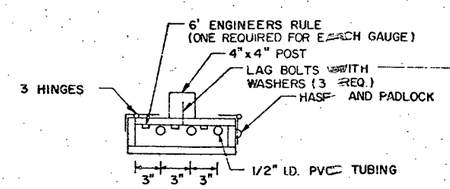
TYPICAL SECTION

DELINIATE THE GAUGE BOX WITH A PROTECTIVE FENCE (2"x4" CONSTRUCTION) PAINTED HIGHWAY ORANGE AND SUITABLY FLAGGED.

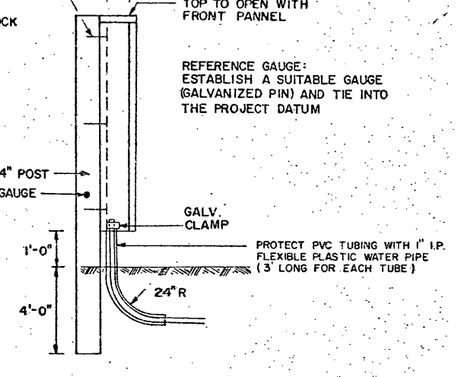


TRENCH FOR PVC TUBING

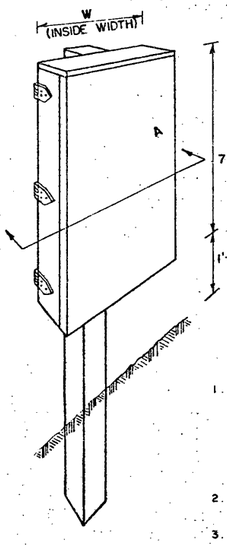
TYPE II SETTLEMENT PLATFORM (REMOTE READING TYPE)



SECTION A-A



ELEVATION VIEW GAUGE BOX



17. TUBING ATTACHED TO THE PLATFORM TO BE 1/2" COPPER CORNERS FORMED WITH 90° ELBOWS WITH SWEATED JOINTS (3 REQUIRED EACH PLATFORM). SECURE 1/2" PVC TUBING TO 1/2" COPPER TUBING WITH STAINLESS STEEL SCREW CLAMP.

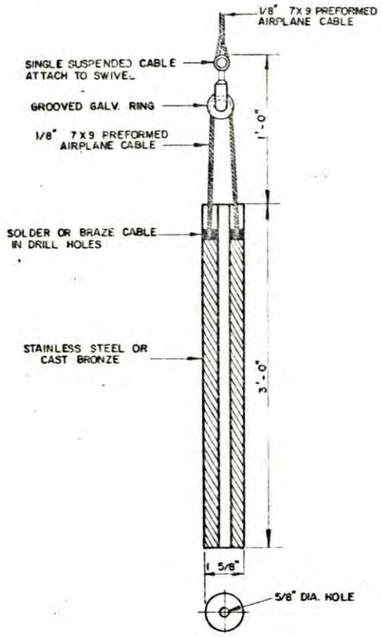
NOTES

1. THE 1/2" I.D., 13/16" O.D., TUBING SHALL BE FLEXIBLE TRANSPARENT TUBING OF A POLYVINYL CHLORIDE FORMULATION. THE TUBING IS AVAILABLE IN 500 FOOT LENGTHS AND MAY ONLY BE SPLICED WHEN AUTHORIZED BY THE ENGINEER. SPLICES SHALL BE STAINLESS STEEL NIPPLES, (3" IN LENGTH AND 1/2" I.D.) CLAMPED ON EACH SIDE OF SPLICE. TUBING SHALL BE LAID IN A WAVY PATTERN IN THE TRENCH, ENDS ATTACHED TO SETTLEMENT PLATFORM AND GAUGE BOX AT THE SAME LEVEL.
2. THE SETTLEMENT PLATFORM ASSEMBLY SHALL BE INSTALLED, PROTECTED, AND SAFEGUARDED AGAINST DAMAGE. GAUGE BOX TO BE PAINTED HIGHWAY ORANGE.
3. WOOD BASE MAY BE 4'x4' AT CONTRACTOR'S OPTION.
4. SOUND LUMBER MUST BE USED FOR PLATFORM AND GAUGE BOX.
5. ALL HARDWARE AND NAILS SHALL BE GALVANIZED (AASHTO M111).
6. THE 4"x4" POSTS, 2"x4" FRAMING, AND 3/4" PLYWOOD SHALL BE TREATED WITH 2 COATS OF CREOSOTE TIMBER PRESERVATIVE.
7. PLACE GRAVEL AROUND PROTECTIVE COVER TO PROVIDE POSITIVE DRAINAGE.
8. MASTER LOCKS OR EQUIVALENT SHALL BE PROVIDED AS PART OF THE ITEM. ALL LOCKS SUPPLIED FOR THE SAME PROJECT SHALL BE COMMONLY KEYED.
9. ONE POLYETHYLENE FUNNEL SHALL BE SUPPLIED FOR EACH GAUGE BOX TO FACILITATE ADDING FLUID.
10. THE WIDTH "W" REQUIRED SHALL BE A MINIMUM OF SIX INCHES WITH 3 INCHES (INSIDE) PROVIDED FOR EACH GAUGE FOR MULTIPLE INSTALLATIONS.
11. THE BASE SHALL BE SET ON 3" OF SAND BORROW GRADED TO A SMOOTH LEVEL SURFACE.
12. THE ETHYLENE GLYCOL USED FOR FILLING THE PVC TUBING SHALL BE NEW ANTIFREEZE WITH COLOR ADDED FOR EASY READING.
13. THE PVC TUBING SHALL BE PROTECTED AT THE BASE OF THE GAUGE BOX BY SLEEVING A 1" I.D. FLEXIBLE PLASTIC WATER PIPE, 3' IN LENGTH, OVER THE TUBING WHERE IT ENTERS THE GROUND.
14. THE SETTLEMENT GAUGE (6' ENGINEERS RULE) SHALL BE ADJUSTED TO READ ZERO AT THE INITIAL STATIC LEVEL FOR EACH SETTLEMENT PLATFORM.
15. THE GAUGE BOX HEIGHT MAY BE INCREASED FOR MULTIPLE INSTALLATIONS WHEN DIRECTED BY THE ENGINEER.
16. AT THE TIME OF INSTALLATION A REFERENCE ELEVATION SHALL BE RECORDED ON THE GAUGE BOX, WITH INTERMITTENT READINGS RECORDED AT A MINIMUM OF ONE WEEK INTERVALS. ANY CHANGE IN ELEVATION NOTED SHALL BE APPLIED AS AN ADJUSTMENT TO THE SETTLEMENT RECORDS.

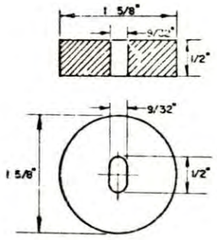
SETTLEMENT PLATFORM, TYPE I (STANDPIPE TYPE)

SETTLEMENT PLATFORM, TYPE II (REMOTE READING TYPE)

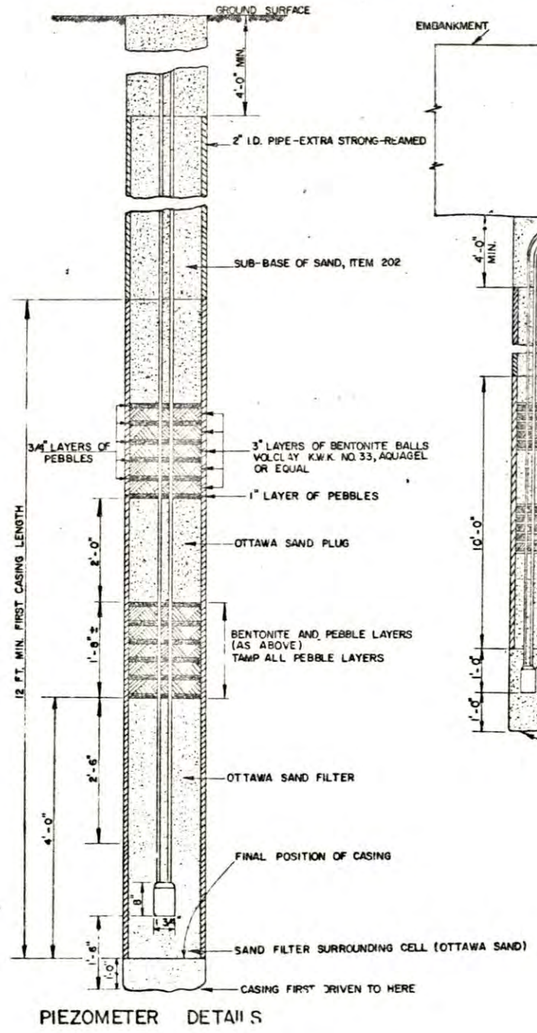
VERMONT DEPARTMENT OF HIGHWAYS STANDARD L-1



TAMPING HAMMER
(FOR INSTALLATION)

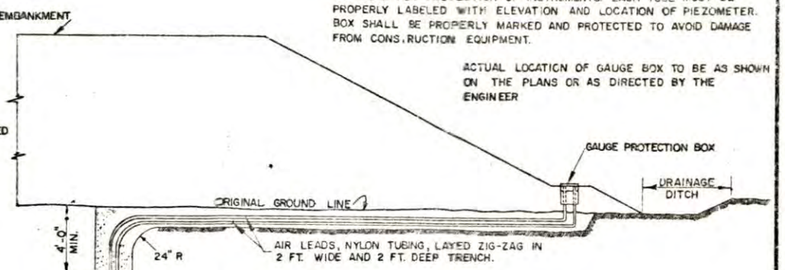


SPECIAL DISK TO BE SUPPLIED WITH TAMPING HAMMER WHICH CAN BE FIRMLY ATTACHED TO BOTTOM.

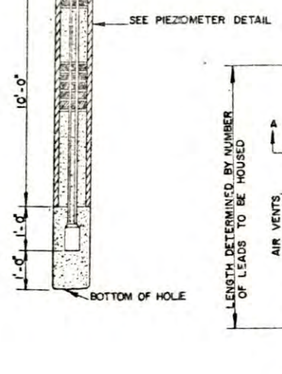


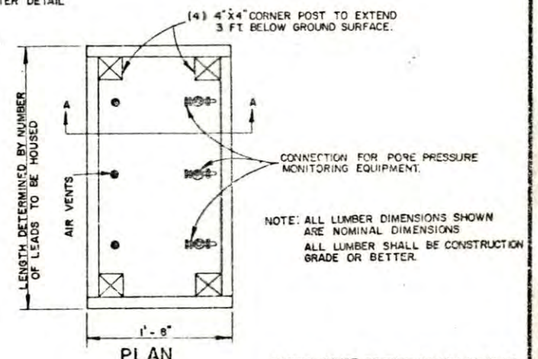
PIEZOMETER DETAILS

GAUGE PROTECTION BOX TO BE PROVIDED WITH SUITABLE HINGED COVER AND LOCK FOR PROTECTION OF INSTRUMENTS. EACH TUBE MUST BE PROPERLY LABELED WITH ELEVATION AND LOCATION OF PIEZOMETER. BOX SHALL BE PROPERLY MARKED AND PROTECTED TO AVOID DAMAGE FROM CONSTRUCTION EQUIPMENT.



PIEZOMETER INSTALLATION

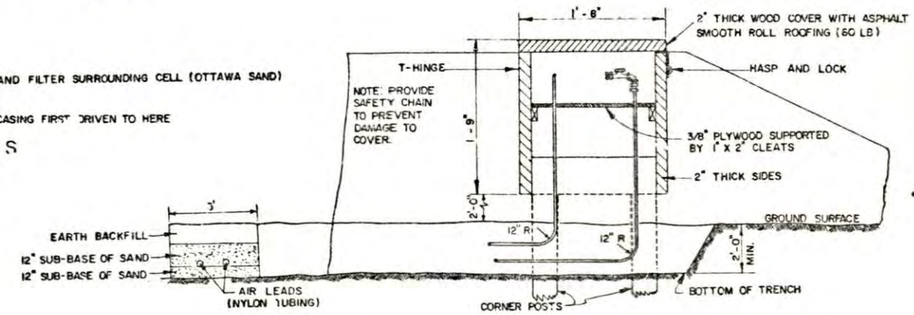




PLAN

NOTE: ALL LUMBER DIMENSIONS SHOWN ARE NOMINAL DIMENSIONS
ALL LUMBER SHALL BE CONSTRUCTION GRADE OR BETTER.

NOTE: IF GAUGE PROTECTION BOX IS TO BE ABOVE [illegible] ROLL ROOFING SHOULD BE USED TO WEATHERPROOF THE SIDE WALLS.



GAUGE PROTECTION BOX DETAILS (SECTION A-A)

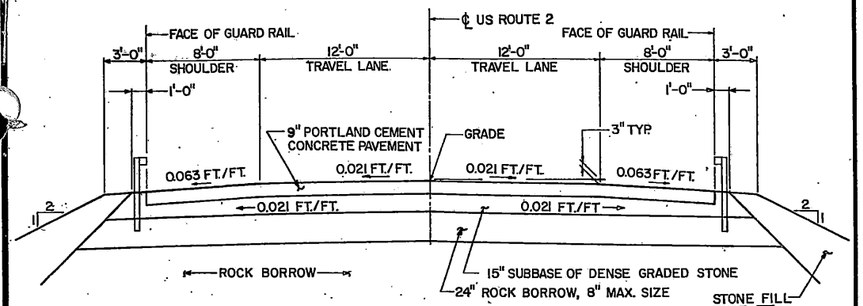
REVISIONS AND CORRECTIONS

APPROVED
Jan. 18, 1972
DATE
R H Gould
CHIEF ENGINEER
E W Blakeney
ASST. CHIEF ENGINEER
G. M. Lane
HIGHWAY ENGINEER

PIEZOMETER TYPE III (AIR ACTUATED)

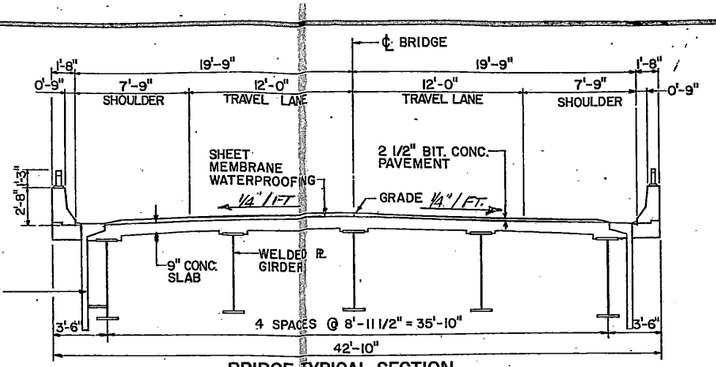
VERMONT
DEPARTMENT
OF HIGHWAYS
STANDARD

L-3



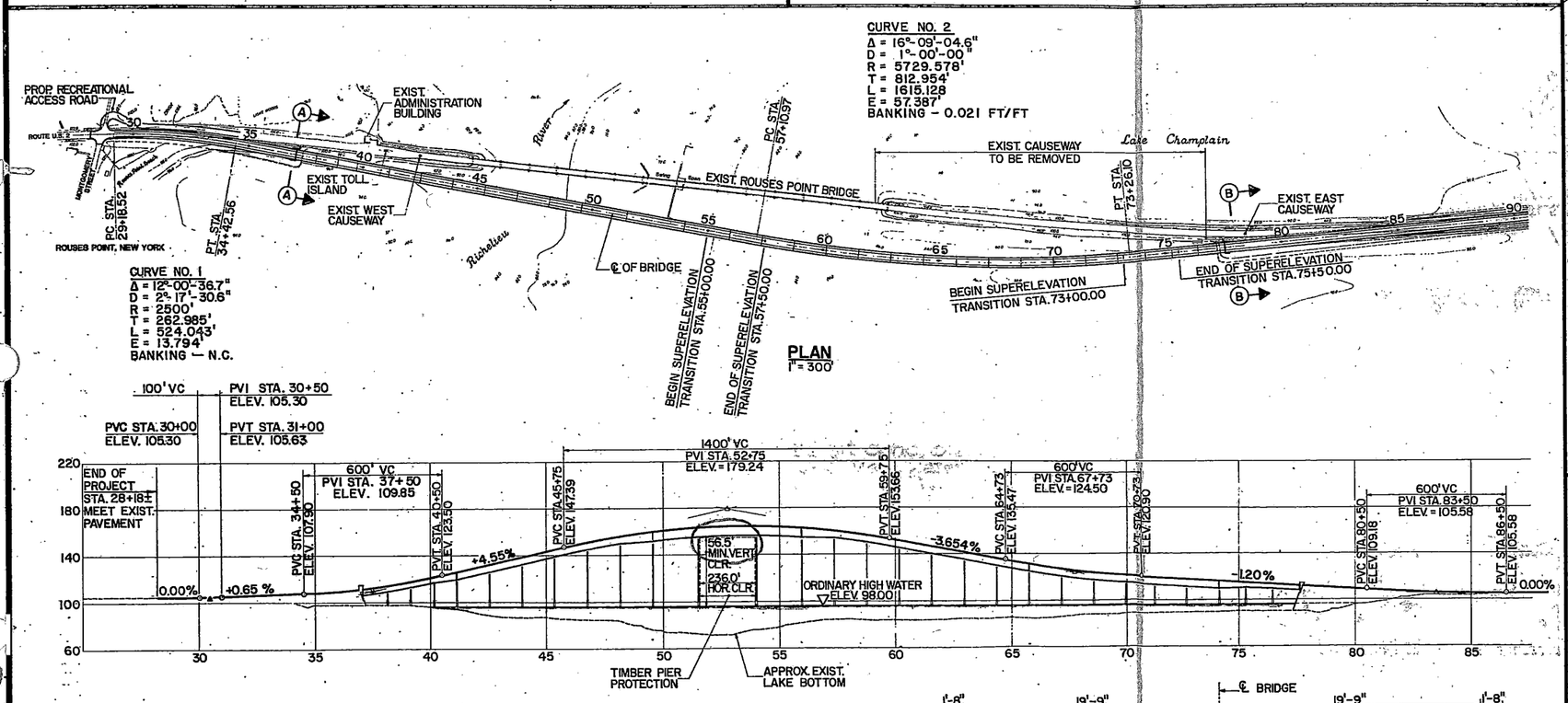
NEW HIGHWAY SECTION — BRIDGE APPROACHES

3/16" = 1'-0"



BRIDGE TYPICAL SECTION

(STA. 31+09.33 TO STA.77+61.00)



CURVE NO. 1
Δ = 12°-00'-36.7"
D = 2°-17'-30.6"
R = 2500'
T = 262.985'
L = 524.043'
E = 13.794'
BANKING — N.C.

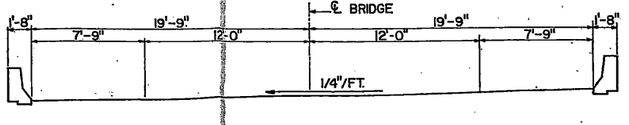
CURVE NO. 2
Δ = 16°-09'-04.6"
D = 1°-00'-00"
R = 5729.578'
T = 812.954'
L = 1615.128
E = 57.387'
BANKING — 0.021 FT/FT

PLAN

1" = 300'

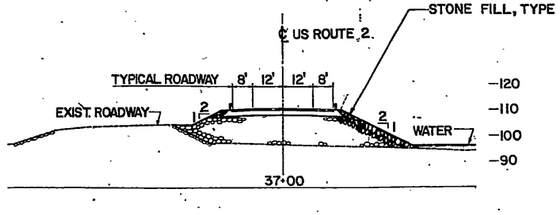
PROFILE

HORIZ. 1" = 300'
VERT 1" = 60'



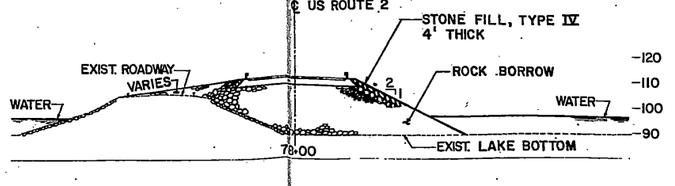
BRIDGE SUPERELEVATED SECTION

3/16" = 1'-0"
STA 57+50 to STA.73+00.00



SECTION A-A

1" = 30'



SECTION B-B

1" = 30'

STATE OF VERMONT CARL J. MELLOR No. 828 REGISTERED PROFESSIONAL ENGINEER

Carl J. Mellor 12-10-84
ENGINEER'S SIGNATURE DATE

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

EXISTING STRUCTURE

1. STRUCTURE TYPE Semi-through & Through Steel Trusses OVERALL LENGTH 1,795'-0" INVENTORY RATING Unknown
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 2 Spans @ 158'-8" And 12 Spans @ 120'-0"
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 2 Channel Spans @ 126'-8", 10 Spans @ 115'-0", And 2 Spans @ ± 50'-0"
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) Swing Span VERTICAL CLEARANCE ABOVE STREAMBED ——
5. WATER SURFACE ELEVATION @ Q 233 100.0 WATER SURFACE ELEVATION @ Q 100 102.0
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD 101.8 YEAR 1903 ESTIMATED DISCHARGE 44,800 Cfs Est.
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? Yes IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? ——
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF ——
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL Silt & Clay
9. DISPOSITION OF STRUCTURE Remove

NEW STRUCTURE

STRUCTURE GEOMETRY:

1. STRUCTURE TYPE Continuous, Composite Steel Plate Girders OVERALL LENGTH 4051'-8"
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 3-Spans (193., 290. & 196.); 19 Spans @ 140; 3 Spans @ 115.0 & 4 Spans @
3. VERTICAL CLEARANCE ABOVE STREAMBED 98.0± @Channel 96.5 Clearance @ Channel For Water El. 98.00
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 230'-0" (Channel)
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 13,664.0 S.F.
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? No

HYDRAULIC DATA:

1. Q 233	34,000 C.F.S.	WATER ELEVATION	100.0	VELOCITY	.6 Ft/Sec.
Q 10	41,000 C.F.S.	WATER ELEVATION	101.2	VELOCITY	
Q 25	44,000 C.F.S.	WATER ELEVATION	101.6	VELOCITY	
Q 50	45,000 C.F.S.	WATER ELEVATION	101.9	VELOCITY	
Q 100	45,900 C.F.S.	WATER ELEVATION	102.0	VELOCITY	.8 Ft /Sec.

2. DRAINAGE AREA 8,290 Sq. Miles CHARACTER OF TERRAIN Rolling To Hilly
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM? No
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? No IS ORDINARY RISE RAPID? No
5. NATURE OF NATURAL STREAMBED Silty
6. ESTIMATED SCOUR DEPTH Negligible COMMENT ON: DRIFT None/Slight ICE Mod.*
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? Yes IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? ——
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF ——
8. VERTICAL CLEARANCE ABOVE Q 100 52.5
9. ALLOWABLE WATER SURFACE ELEVATION 102.0 LIMITED BY Controls Low Girder Elevation
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? IF YES, DESCRIBE ——
11. AVERAGE DAILY LOW FLOW DEPTH AVERAGE DAILY HIGH FLOW DEPTH
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED Slopes Of Roadway Approaches Require Protection.
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE SPAN WATERWAY AREA OF FULL OPENING
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 5 Miles SPAN 2 Span WATERWAY AREA OF FULL OPENING ——

ALLOWABLE STRESSES:

1. DESIGN LIVE LOAD AASHTO H S25-44
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL — ON LEDGE 10 K&F
3. ALLOWABLE LOAD FOR PILING 98 Ton TYPE HP 12 x 74 ESTIMATED LENGTH 21 Ft. To 59 Ft.
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588 TENSION 27.0 Ksi
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24.0 Ksi COMPRESSION
6. ALLOWABLE STRESS FOR CONCRETE CLASS A f'_c 3.5 Ksi f_c 1.4 Ksi
   CLASS B f'_c 3.0 Ksi f_c 1.4 Ksi

TRAFFIC MAINTENANCE:

1. IS TRAFFIC TO BE MAINTAINED? Yes IF YES, ON EXISTING STRUCTURE Yes OR ON TEMPORARY BRIDGE ——
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY N/A TRAFFIC CONTROL SIGNALS REQUIRED N/A
   MINIMUM CLEAR SPAN N/A MINIMUM CLEAR HEIGHT N/A MINIMUM WATERWAY AREA N/A
   ARE SIDEWALKS REQUIRED? N/A IF SO, ON WHAT SIDE? N/A

ADDITIONAL DESIGN CONSIDERATIONS

* Design Ice Force — Ice Strength 200 Psi, And Ice Contact Thickness 18 Inches

TRAFFIC DATA

1985 ADT 2350
1985 DHV 330
2005 ADT 3190
2005 DHV 445
Design Speed 50 MPH
D 57 %
T 11 %

76 TONS

LOAD RATING (TONS)

STRESS LEVELS	TRUCK H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY 0.55 Fy =	51	45					
POSTED 0.67 Fy =	73		96		76	78	88
OPERATING 0.75 Fy =			114	129			

RECOMMENDED FOR APPROVAL Warren B. Truss STRUCTURES ENGINEER 12/13/84 DATE
RECOMMENDED FOR APPROVAL Arthur Voss CHIEF OF DESIGN 12/13/84 DATE
APPROVED BY S. Page P.E. DIRECTOR OF ENGINEERING & CONSTRUCTION 11-16-84 DATE

REVISIONS

NO:	DESCRIPTION	BY & DATE

STATE OF VERMO
AGENCY OF TRANSPORTA

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. I
HIGHWAY NO. ROUTE 2	Log Sta. 0+ / Surv. Sta.
PRELIMINARY INFORMATION (STEEL ALTERNATE)	
Designed by S.M.	Drawn by A.B.M.
Checked by B.B.C. date 2-17-84	Bridge Design Supervisor C.J.M./S.M.
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028
Bridge Sheet No. SS1	Sheet of

INDEX

SS1 PRELIMINARY INFORMATION
SS2 INDEX AND BRIDGE QUANTITY SHEET
SS3 BORING PLAN AND LOGS 1.0
SS4 BORING LOGS 1.1
SS5 BORING LOGS 1.2
SS6 BORING LOGS 1.3
SS7 BORING PLAN AND LOGS 2.0
SS8 BORING LOGS 2.1
SS9 BORING LOGS 2.2
SS10 BORING LOGS 2.3
SS11 BORING LOGS 2.4
SS12 BORING LOGS 2.5
SS13 BORING PLAN AND LOGS 3.0
SS14 BORING LOGS 3.1
SS15 BORING LOGS 3.2
SS16 BORING LOGS 3.3
SS17 BORING LOGS 3.4
SS18 BORING LOGS 3.5
SS19 BORING LOGS 3.6
SS20 BORING PLAN AND LOGS 4.0
SS21 BORING LOGS 4.1
SS22 BORING LOGS 4.2
SS23 BORING LOGS 4.3
SS24 BORING PLAN AND LOGS 5.0
SS25 BRIDGE PLAN AND ELEVATION (1)
SS26 BRIDGE PLAN AND ELEVATION (2)
SS27 BRIDGE PLAN AND ELEVATION (3)
SS28 FOUNDATION PLAN. W. ABUT., PIER 11W-4W
SS29 FOUNDATION PLAN. PIER 3W-6E
SS30 FOUNDATION PLAN. PIER 5E-15E
SS31 FOUNDATION PLAN. PIER 16E-17E, E. ABUT.
SS32 COFFERDAM DETAILS
SS33 PIER 11W-9W, 16E-17E
SS34 PIER 10E-14E
SS35 PIER 8W, 9E & 15E
SS36 PIER 7W-6W, 7E-8E
SS37 PIER 5W-4W, 5E-6E
SS38 PIER 3W, 3E-4E
SS39 PIER 2W & 2E
SS40 PIER 1W & 1E
SS41 PIER 11W-9W, 16E-17E, REINFORCING STEEL
SS42 PIER 10E-14E, REINFORCING STEEL
SS43 PIER 8W, 9E & 15E, REINFORCING STEEL
SS44 PIER 7W-6W, 7E-8E, REINFORCING STEEL
SS45 PIER 5W-4W, 5E-6E, REINFORCING STEEL
SS46 PIER 3W, 3E-4E, REINFORCING STEEL
SS47 PIER 2W & 2E, REINFORCING STEEL
SS48 PIER 1W & 1E, REINFORCING STEEL
SS49 PIER CAP, REINF. STEEL
SS50 PIER CAP, REINF. STEEL
SS51 WEST ABUTMENT
SS52 WEST ABUTMENT, REINFORCING STEEL
SS53 EAST ABUTMENT
SS54 EAST ABUTMENT, REINFORCING STEEL
SS55 FRAMING PLAN - UNIT 1 AND CROSS FRAMES
SS56 GIRDER ELEVATION - UNIT 1
SS57 FRAMING PLAN - UNIT 2
SS58 GIRDER ELEVATION - UNIT 2
SS59 FRAMING PLAN - UNIT 3
SS60 GIRDER ELEVATION - UNIT 3
SS61 CROSS FRAME DETAILS - UNIT 3
SS62 FRAMING PLAN - UNIT 4
SS63 GIRDER ELEVATION - UNIT 4
SS64 FRAMING PLAN - UNIT 5
SS65 GIRDER ELEVATION - UNIT 5
SS66 CAMBER AND DEFLECTION - UNITS 4 & 5
SS67 FRAMING PLAN AND GDR. ELEVATION - UNIT 6
SS68 SPLICE DETAILS
SS69 FIXED BEARING DEVICES
SS70 NON-GUIDED EXPANSION BEARING DEVICES
SS71 GUIDED EXPANSION BEARING DEVICES
SS72 BEARING DEVICES - UNIT 3
SS73 BEARING SETTING DETAILS
SS74 BOTTOM DECK SLAB ELEVATION, UNIT 1 & 2
SS75 BOTTOM DECK SLAB ELEVATION, UNIT 3
SS76 BOTTOM DECK SLAB ELEVATION, UNIT 4, 5 & 6
SS77 DECK PLAN - UNIT 1
SS78 DECK PLAN - UNIT 2
SS79 DECK PLAN - UNIT 3
SS80 DECK PLAN - UNIT 4
SS81 DECK PLAN - UNIT 5
SS82 DECK PLAN - UNIT 6
SS83 BRIDGE RAILING
SS84 ROADWAY EXPANSION DEVICES
SS85 ROADWAY EXPANSION DEVICE DETAILS
SS86 ROADWAY ARMORED JOINT - PLAN & SECTIONS ALT."A"
SS87 ROADWAY ARMORED JOINT - DETAILS ALT."A"
SS88 SCUPPER DETAILS
SS89 PROTECTIVE FENDER - PIER 1W & 1E
SS90 ROADWAY ARMORED JOINT - PLAN & SECTIONS ALT."B"
SS91 ROADWAY ARMORED JOINT - DETAILS ALT."B"
SS92 NAVIGATIONAL LIGHTS
SS93 REINFORCING STEEL SCHEDULE
SS94 REINFORCING STEEL SCHEDULE
SS95 REINFORCING STEEL SCHEDULE
SS96 REINFORCING STEEL SCHEDULE
SS97 REINFORCING STEEL SCHEDULE
SS98 REINFORCING STEEL SCHEDULE
SS99 REINFORCING STEEL SCHEDULE
SS100 REINFORCING STEEL SCHEDULE
SS101 REINFORCING STEEL SCHEDULE
SS102 REINFORCING STEEL SCHEDULE
SS103 REINFORCING STEEL SCHEDULE
SS104 REINFORCING STEEL SCHEDULE
SS105 REINFORCING STEEL SCHEDULE
SS106 REINFORCING STEEL SCHEDULE
SS107 REINFORCING STEEL SCHEDULE
SS108 REINFORCING STEEL SCHEDULE

STANDARD DRAWINGS

SCB-D1-75	SEP. 14, 1981R
SCB-D4-76	OCT. 12, 1983R
SCB-D6-73	JAN. 3, 1979R
SCB-D7-71	DEC. 15, 1976R
SCB-D9-71	JAN. 27, 1975R
SB-R4A-82	SEP. 7, 1983R

SUBSTRUCTURE QUANTITY BREAKDOWN

ABUT / PIER	CONCRETE (CLASS B) CY	REINF. STEEL LB	STEEL PILES (HP12x74) LF
WEST ABUT.	120	11,273	594
PIER 11W	137	29,096	511
10W	98	22,894	382
9W	106	24,611	340
8W	189	32,733	476
7W	202	39,866	570
6W	219	43,102	509
5W	346	78,296	657
4W	336	77,769	0
3W	306	73,209	0
2W	409	98,966	634
1W	518	116,853	0
1E	522	115,760	0
2E	428	101,029	0
3E	383	90,306	858
4E	306	71,930	693
5E	410	101,519	1222
6E	390	97,730	1497
7E	266	63,874	1076
8E	239	51,576	1100
9E	264	60,300	900
10E	211	39,698	1202
11E	253	62,032	1163
12E	227	60,628	1016
13E	177	33,932	896
14E	174	32,163	896
15E	146	31,926	610
16E	104	21,803	413
PIER 17E	187	42,803	0
EAST ABUT.	131	11,085	764
WEST APPR SLAB	40	8,087	0
EAST APPR SLAB	40	8,087	0
TOTAL	8029	1659.039	19,290

SUPERSTRUCTURE QUANTITY BREAKDOWN

UNIT	STRUCT. STEEL LB	CONCRETE (CLASS A) CY	REINF. STEEL LB
1	591,300	503	171,585
2	3,711,900	1655	399,623
3	1,581,000	803	208,587
4	1,689,400	1231	419,456
5	1,451,300	1065	359,353
6	460,400	426	145,939
TOTAL	7051,300	5073	1724.543

STEEL ALTERNATE

BRIDGE QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION
STRUCTURES DIVISION

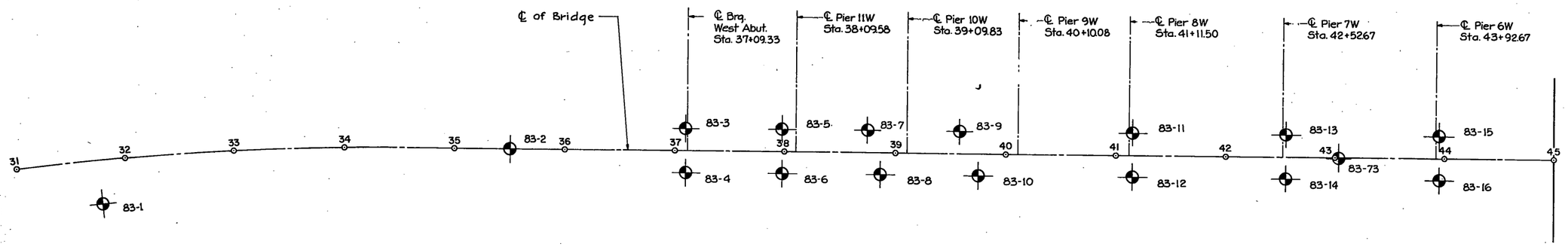
NO.	ITEM	UNIT	QUANTITY BREAKDOWN: SUPERSTRUCTURE	SUBSTRUCTURE	CHANNEL	TOTAL	FINAL
204.25	STRUCTURE EXCAVATION - PIERS	CY		20		20	
204.25	STRUCTURE EXCAVATION - ABUTMENTS	CY		700		700	
204.30	GRANULAR BACKFILL FOR STRUCTURES	CY		240		240	
406.25	BIT. CONCRETE PAVEMENT	TON	2536			2536	
501.20	CONCRETE CLASS A	CY	5073			5073	
501.25	CONCRETE CLASS B	CY		8.029		8.029	
504.10	FURNISHING EQUIPMENT FOR DRIVING PILING	LS		1		1	
505.16	STEEL PILING (HP12x74)	LF		19,290		19,290	
505.35	PERMANENT STEEL SHEET PILING	SF		2762		2762	
509.40	PILE LOADING TESTS	EA		2		2	
506.91	STRUCTURAL STEEL (PL GIRDER)	LB	7051,300			7,051,300	
506.99	BEARING DEVICE ASSEMBLY	EA	175			175	
507.15	REINFORCING STEEL	LB		1659.038		1659.038	
507.17	EPOXY COATED REINFORCING STEEL	LB	1724.543			1,724.543	
508.15	SHEAR CONNECTORS (36,770-7/8"x7.5"LONG)	LS	1			1	
514.10	WATER REPELLENT	GAL	715	479		1.194	
516.21	ELASTOMERIC EXP JOINT (SINGLE SEAL)	LF	84			84	
516.23	ELASTOMERIC EXP. JOINT (THREE SEAL)	LF	86			86	
516.24	ELASTOMERIC EXP JOINT (FOUR SEAL)	LF	129			129	
519.20	SHEET MEMBRANE WATERPROOFING	SY	17,791			17,791	
630.11	TYPE I COFFERDAMS	LS		1		1	
630.12	TYPE II COFFERDAMS	LS		1		1	
630.13	TYPE III COFFERDAMS	LS		1		1	
630.14	TYPE IV COFFERDAMS	LS		1		1	
611.25	TREATED LUMBER & TIMBER	MBF		6		6	
616.19	CONC. BRIDGE BARRIER CURB	LF	8,147			8147	
617.30	BRIDGE RAILING - GALV. BOX BEAM	LF	8,158			8158	
635.10	MOBILIZATION	LS	1			1	
636.10	TRANSPORTATION - BOAT	EA			1	1	
646.35	TEMPORARY 4" REFLECTORIZED WHITE LINES	LF	8112			8112	
646.61	DURABLE 4" REFLECTORIZED YELLOW LINES	LF	5160			5160	

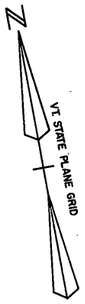
BRIDGE (S) AT STATION (S) BR. NO. 1 STA. 37+07.08 Thru 77+63.25
LOCATION (S) U.S. RTE. 2 OVER LAKE CHAMPLAIN

Prepared by: KBW | Checked by: RMC
SUPERVISOR: GJM

ROUSES POINT, NY - ALBURG VT. PROJECT NO. BRF-028-1(11)
BR 332 OF _____ SHEET NO. _____ OF _____

BRUNING 44-131-40151





83-1

GROUND ELEV. 100.5

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .4' / SAMPLER .33	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
3	1	0.0	2.0	ss	1-3-3-4	2.5'	Brown mf SAND; trace GRAVEL (moist, non-plastic)
5							
10	2	2.0	4.0	ss	3-8-8-7		Brown SILT; trace CLAY; little fine SAND (moist, non-plastic)
13							
7	3	4.0	6.0	ss	4-5-5-3	6.5'	Similar Soils
11	4	6.0	8.0	ss	3-7-10-10		Brown SILT; trace CLAY (moist, slightly plastic)
7							
17	5	8.0	10.0	ss	7-10-12-14		Brown SILT; little fine SAND; trace CLAY (moist, non-plastic)
17							
28	6	10.0	12.0	ss	11-7-8-10		Brown fine SAND; some SILT; trace fine GRAVEL (saturated, non-plastic)
20						12.0'	
26	7	12.0	14.0	ss	9-7-8-11		Brown fine SAND; little SILT (saturated, non-plastic)
15							
21	8	14.0	16.0	ss	7-4-9-8	17.0'	Similar Soils
7							
10	9	16.0	18.0	ss	7-8-8-7		Grey SILT; trace CLAY
8						18.5'	(saturated, slightly plastic)
9	10	18.0	20.0	ss	7-3-3-2		Grey f+ SAND; little SILT; (saturated, non-plastic)
7							
11							
-	11	20.5	22.0	ss	8-3-3	22.5'	Grey fine SAND; some SILT
12	12	22.0	24.0	ss	12-18-17-13		Grey f+ SAND; some SILT; little mf GRAVEL (Shale fragments); trace CLAY (saturated, slightly plastic) Till
14							
40							Similar Soils containing higher proportion of cmf Shale Fragments
44	13	25.0	26.5	ss	9-10-12	27.0'	NOTE: Washed ahead of casing 25'-30'.
8							
12							
56							
75							
96	14	30.0	30.5	ss	100/5"		Grey f+ SAND; some SILT; little fine GRAVEL (shale fragements); trace CLAY - very compact in texture (moist, non-plastic) Till
	15	35.0	36.0	ss	76-110		Similar Soils containing some cmf GRAVEL (shale fragments)
	16	40.0	40.9	ss	22-108/5"		Similar Soils
	17	41.0	45.0	A-Rod Probe			Grey f+ SAND; some SILT; little mf GRAVEL; little CLAY (moist, slightly plastic) Till
	18	50.0	51.0	ss	45-86		Similar Soils
	19	55.0	56.0	ss	54-93		Similar Soils with some mf GRAVEL
		59.5	59.5		100/3" A-Rod w/300# Hammer		Refusal encountered at 59.5'
							Boring Terminated at 59.5'
							NOTE: Ran tricone bit to clean out casing 30.0' to 35.0' and 50.0' to 55.0'; cleaned casing by washing for most of boring.

100 90 80 70 60 50 40 30

B 82-6

83-2

GROUND ELEV. 96.7

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .4' / SAMPLER .33	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
4	1	0.0	2.0	ss	2-2-2-3		Dark Brown f+ SAND; some SILT little ORGANIC MATERIAL (moist)
4						2.5'	
3							
2	2	2.0	4.0	ss	2-1-1-1		Brown SILT ; some ORGANIC MATERIAL; trace fine SAND (wet, plastic)
3						5.5'	
4							
2		4.0	7.0	ss	WOR		No Recovery
4						9.0'	Brown PEAT; trace fine SAND
4	3	7.0	10.0	ss	WOR-WOR-1-2-4		
8						10.0'	Grey CLAY; some fine SAND (wet, plastic)
6	4	10.0	12.0	ss	7-4-6-10		Grey fine SAND; some SILT (saturated, non-plastic)
5						11.5'	
20	5	12.0	13.5	ss	14-27-48		Grey fine SAND; some SILT; little GRAVEL, c-m SAND (silty sand matrix is slightly plastic; wet) Till
51						15.0'	
46							Grey cmf SAND; some mf GRAVEL, Glacial
11	6	15.0	16.5	ss	10-23-14	18.0'	trace SILT (saturated, non-plastic) Till
26							Grey mf- SAND; trace SILTy GRAVEL
31	7	18.0	19.5	ss	7-9-9		(saturated, non-plastic)
21							Similar soils with trace fine GRAVEL
16	8	19.5	21.0	ss	11-19-24		Similar Soils
10	9	21.0	22.5	ss	26-32-40	23.5'	
19							
55							Change is not well defined cmf SAND and cmf GRAVEL (possible washings) Glacial Till
106/2"	10	25.0	25.2	ss	75/2"		
							Boring Terminated at 26.6'

West Abutment
Bott. Of Footing

Approx. Tip Of Pile

B 82-7

83-3

GROUND ELEV. 97.4

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .4' / SAMPLER .33	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
8	1 A	0.0	0.3	ss	1/3"	0.3'	3" TOPOSIL (Sandy Loam)
7	1 B	0.3	1.5	ss	1/3"-3-6		Brown mf SAND; trace ORGANIC MATERIAL; trace SILT (moist, non-plastic)
8						3.0'	
7							Black PEAT with SILT; trace fine SAND (wet, slightly plastic)
6	2A	5.0	5.5	ss	2	5.5'	
16							Light Greenish-Grey SILT and CLAY (saturated, plastic)
16	2B	5.5	6.5	ss	2-3		
14							
16						8.0'	
20	3	10.0	11.5	ss	4-3-3		Grey fine SAND; trace SILT (saturated, non-plastic)
15							
18							
16							
15							
18	4	15.0	16.5	ss	1-3-4		Grey fine SAND; trace SILT (saturated, non-plastic)
14							
13							
25						18.0'	
42							
26	5	20.0	21.5	ss	16-13-8		Dark Grey mf GRAVEL and c+mf-SAND; trace SILT (saturated, non-plastic) Glacial Till
29							
16							
58							
110							
75	6	25.0	25.3	ss	35/3"-100/0"		Dark Grey coarse SAND and mf GRAVEL (saturated, non-plastic)
22						26±	
45							
100							
28							
35	7	30.0	30.3	ss	50/3"		Dark Grey f+ SAND; some SILT; little GRAVEL (saturated, very slightly plastic) Glacial Till
56							
33							
47							
36							
70							
33	8	35.0	36.0	ss	45-62		Similar Soils (Glacial Till)
26							
18							
30							
65	9	40.0	40.5	ss	55		Similar Soils
39							
41							
43							
36							
68	10	45.0	45.5	ss	62		Similar Soils
						49.8'	
	C-1	49.8	54.8	NXB	CORE		CALCAREOUS SHALE 56" Recovery 6 pieces Drill Time = 10 min.
							50" Recovery 5 pieces
	C-2	54.8	59.8	NXM	Core		
							Boring Terminated 59.8'
							NOTE: Washed ahead of casing 25.0' to 45.0'.

100 90 80 70 60 50 40

BORING NO.	STATION	OFFSET
83-1	31 + 75.0	40.0' RT
83-2	35 + 50.0	0.0'
83-3	37 + 10.0	20.0' LT
83-4	37 + 10.0	20.0' RT
83-5	37 + 98.0	20.0' LT
83-6	37 + 98.0	20.0' RT
83-7	38 + 75.0	20.0' LT
83-8	38 + 87.0	20.0' RT
83-9	39 + 58.0	20.0' LT
83-10	39 + 75.0	20.0' RT
83-11	41 + 15.5	20.0' LT
83-12	41 + 16.3	20.2' RT
83-13	42 + 56.0	18.0' LT
83-14	42 + 57.0	21.0' RT
83-73	43 + 03.3	0.2' RT
83-15	43 + 97.0	20.0' LT
83-16	43 + 93.0	18.0' RT
82-6	36 + 82.5	158.5' RT
82-7	44 + 75.0	186.0' RT

Legend

⊕ 82-6 — Designation & Approximate Location of Test Borings Conducted by Guild Drilling Co., Inc., During July 1982.

Plan

◈ 83-1 — Designation & Approximate Location of Test Borings Conducted by Atlantic Testing Laboratories Limited, During September - December 1983.

Profile (Boring Logs)

SS — Split Spoon Sample
U-1 — Undisturbed Sample
V-1 — Field Vane Shear Test

Notes

1. Borings are Taken for Purpose of Design, and Show Conditions at Boring Points only, But do not Necessarily Show the Nature of the Materials to be Encountered During Construction.
2. Mean Sea Level Datum (NGVD 1929) is Used Throughout.
3. For General Notes, see Sheet SS4

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

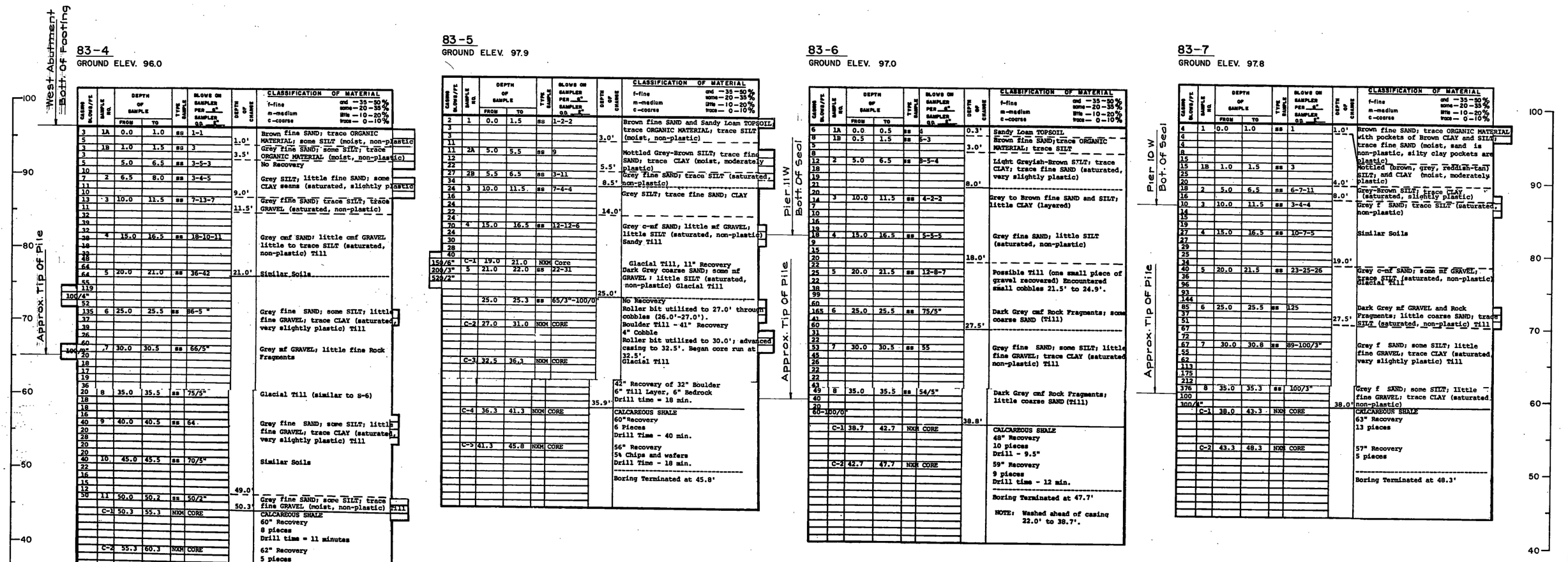
BORING PLAN AND LOGS 1.0

(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS3	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

SR-6



83-4

GROUND ELEV. 96.0

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50%; some — 20–35%; m-medium little — 10–20%; c-coarse trace — 0–10%
3	1A	0.0	1.0	ss	1-1		Brown fine SAND; trace ORGANIC MATERIAL; some SILT (moist, non-plastic
5						1.0'	
3	1B	1.0	1.5	ss	3		Grey fine SAND; some SILT; trace ORGANIC MATERIAL (moist, non-plastic)
3						3.5'	
5		5.0	6.5	ss	3-5-3		No Recovery
10							
7	2	6.5	8.0	ss	3-4-5		Grey SILT; little fine SAND; some CLAY seams (saturated, slightly plastic
11							
10						9.0'	
13	3	10.0	11.5	ss	7-13-7		Grey fine SAND; trace SILT; trace
11						11.5'	GRAVEL (saturated, non-plastic)
32							
39							
32							
38	4	15.0	16.5	ss	18-10-11		Grey cmf SAND; little cmf GRAVEL little to trace SILT (saturated,
18							non-plastic) Till
28							
64							
64	5	20.0	21.0	ss	36-42	21.0'	Similar Soils
55							
119							
100/4"							
52							
135	6	25.0	25.5	ss	86-5"		Grey fine SAND; some SILT; little fine GRAVEL; trace CLAY (saturated,
17							very slightly plastic) Till
39							
60							
100/0"	7	30.0	30.5	ss	66/5"		Grey mf GRAVEL; little fine Rock Fragments
20							
18							
17							
19							
36							
20	8	35.0	35.5	ss	75/5"		Glacial Till (similar to S-6)
18							
18							
16							
40	9	40.0	40.5	ss	64		Grey fine SAND; some SILT; little fine GRAVEL; trace CLAY (saturated,
28							very slightly plastic) Till
20							
20							
40	10	45.0	45.5	ss	70/5"		Similar Soils
22							
16							
15							
12						49.0'	
30	11	50.0	50.2	ss	50/2"		Grey fine SAND; some SILT; trace
						50.3'	fine GRAVEL (moist, non-plastic) Till
	C-1	50.3	55.3	NXM	CORE		CALCAREOUS SHALE
							60" Recovery
							8 pieces
							Drill time = 11 minutes
	C-2	55.3	60.3	NXM	CORE		62" Recovery
							5 pieces
							Drill time = 13.5 min.
							Boring Terminated at 60.3'
							NOTE: Washed ahead of casing 23.0' to 50.0'.

83-5

GROUND ELEV. 97.9

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50%; some — 20–35%; m-medium little — 10–20%; c-coarse trace — 0–10%
2	1	0.0	1.5	ss	1-2-2		Brown fine SAND and Sandy Loam TOPSOIL; trace ORGANIC MATERIAL; trace SILT
3							
3						3.0'	(moist, non-plastic)
11							
11	2A	5.0	5.5	ss	9		Mottled Grey-Brown SILT; trace fine
12							SAND; trace CLAY (moist, moderately
22						5.5'	plastic)
27	2B	5.5	6.5	ss	3-11		Grey fine SAND; trace SILT (saturated,
34						8.5'	non-plastic)
24	3	10.0	11.5	ss	7-4-4		Grey SILT; trace fine SAND; CLAY
16							
24							
22							
24						14.0'	
70	4	15.0	16.5	ss	12-12-6		Grey c-mf SAND; little mf GRAVEL;
24							little SILT (saturated, non-plastic)
30							Sandy Till
28							
40							
150/6"	C-1	19.0	21.0	NXM	Core		Glacial Till, 11" Recovery
200/3"	5	21.0	22.0	ss	22-31		Dark Grey coarse SAND; some mf
520/2"							GRAVEL ; little SILT (saturated,
						25.0'	non-plastic) Glacial Till
		25.0	25.3	ss	65/3"-100/0"		No Recovery
							Roller bit utilized to 27.0' through
	C-2	27.0	31.0	NXM	CORE		cobbles (26.0'-27.0').
							Boulder Till - 41" Recovery
							4" Cobble
							Roller bit utilized to 30.0'; advanced
	C-3	32.5	36.3	NXM	CORE		casing to 32.5'. Began core run at
							32.5'.
							Glacial Till
							42" Recovery of 32" Boulder
							6" Till Layer, 6" Bedrock
						35.9'	Drill time = 18 min.
	C-4	36.3	41.3	NXM	CORE		CALCAREOUS SHALE
							60"Recovery
							6 Pieces
							Drill Time - 40 min.
	C-5	41.3	45.8	NXM	CORE		56" Recovery
							5% Chips and wafers
							Drill Time - 18 min.
							Boring Terminated at 45.8'

83-6

GROUND ELEV. 97.0

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50%; some — 20–35%; m-medium little — 10–20%; c-coarse trace — 0–10%
6	1A	0.0	0.5	ss	4	0.3'	Sandy Loam TOPSOIL
8	1B	0.5	1.5	ss	5-3		Brown fine SAND; trace ORGANIC
9						3.0'	MATERIAL; trace SILT
12	2	5.0	6.5	ss	8-5-4		Light Greyish-Brown SILT; trace
18							CLAY; trace fine SAND (saturated,
19							very slightly plastic)
21						8.0'	
20							
14	3	10.0	11.5	ss	4-2-2		Grey to Brown fine SAND and SILT;
7							little CLAY (layered)
10							
16							
19							
18	4	15.0	16.5	ss	5-5-5		Grey fine SAND; little SILT
9							(saturated, non-plastic)
15							
20							
22						18.0'	
25	5	20.0	21.5	ss	12-8-7		Possible Till (one small piece of
22							gravel recovered) Encountered
38							small cobbles 21.5' to 24.9'.
99							
60							
165	6	25.0	25.5	ss	75/5"		Dark Grey cmf Rock Fragments; some
41							coarse SAND (Till)
60						27.5'	
31							
22							Grey fine SAND; some SILT; little
53	7	30.0	30.5	ss	55		fine GRAVEL; trace CLAY (saturated
45							non-plastic) Till
26							
22							
22							
43							
49	8	35.0	35.5	ss	54/5"		Dark Grey cmf Rock Fragments;
40							little coarse SAND (Till)
20							
60-100/0"						38.8'	
	C-1	38.7	42.7	NXM	CORE		CALCAREOUS SHALE
							48" Recovery
							10 pieces
							Drill - 9.5"
	C-2	42.7	47.7	NXM	CORE		59" Recovery
							9 pieces
							Drill time - 12 min.
							Boring Terminated at 47.7'
							NOTE: Washed ahead of casing 22.0' to 38.7'.

83-7

GROUND ELEV. 97.8

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50%; some — 20–35%; m-medium little — 10–20%; c-coarse trace — 0–10%
4	1	0.0	1.0	ss	1		Brown fine SAND; trace ORGANIC MATERIAL
4						1.0'	with pockets of Brown CLAY and SILT;
4							trace fine SAND (moist, sand is
8							non-plastic, silty clay pockets are
15							plastic)
15	1B	1.0	1.5	ss	3		Mottled (brown, grey, reddish-tan)
25							SILT; and CLAY (moist, moderately
20						4.0'	plastic)
18	2	5.0	6.5	ss	6-7-11		Grey-Brown SILT; trace CLAY
16						8.0'	(saturated, slightly plastic)
10	3	10.0	11.5	ss	3-4-4		Grey f SAND; trace SILT (saturated,
14							non-plastic)
15							
27	4	15.0	16.5	ss	10-7-5		Similar Soils
27							
29							
25							
24						19.0'	
40	5	20.0	21.5	ss	23-25-26		Grey c-mf SAND; some mf GRAVEL;
36							trace SILT (saturated, non-plastic)
96							Glacial Till
93							
144							
85	6	25.0	25.5	ss	125		Dark Grey mf GRAVEL and Rock
37							Fragments; little coarse SAND; trace
51						27.5'	SILT (saturated, non-plastic) Till
67							
72							
67	7	30.0	30.8	ss	89-100/3"		Grey f SAND; some SILT; little
55							fine GRAVEL; trace CLAY (saturated,
62							very slightly plastic) Till
113							
175							
212							
376	8	35.0	35.3	ss	100/3"		Grey f SAND; some SILT; little
100							fine GRAVEL; trace CLAY (saturated,
300/4"						38.0'	non-plastic)
	C-1	38.0	43.3	NXM	CORE		CALCAREOUS SHALE
							63" Recovery
							13 pieces
	C-2	43.3	48.3	NXM	CORE		57" Recovery
							5 pieces
							Boring Terminated at 48.3'

GENERAL NOTES

THE SUBSURFACE EXPLORATIONS SHOWN HEREON WERE MADE BETWEEN JUL., 82 AND NOV.,83 FOR 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 OR 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.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
BORING LOGS I.I	
(STEEL ALTERNATE)	
Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS4	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-5

83-8

GROUND ELEV. 95.0

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .4' / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35—50% some—20—35% m-medium little —10—20% c-coarse trace— 0—10%
4	1	0.0	1.5	ss	1-1-6		SILT and CLAY; trace ORGANIC MATERIAL (sample lost in field)
7						1.0'	
8						3.0'	Brown SILT and fine SAND
10							
10	2	5.0	6.5	ss	3-6-6		Gray SILT; trace fine SAND; little CLAY (saturated, slightly plastic)
23							
33							
38						8.5'	
39							
25	3	10.0	11.5	ss	14-9-15		Grey fine SAND; little SILT (sample lost in field)
6							
15							
19							
25							
26	4	15.0	16.5	ss	5-5-8		Similar Soils
18							
38							
59							
58	5	20.0	21.5	ss	WOH-8-15		Grey fine SAND; little SILT (saturated, non-plastic)
27							
44							
50						24.0'	
49							
172	6	25.0	25.3	ss	100/4"		Grey fine. SAND; some SILT; little fine GRAVEL; trace CLAY (saturated, very slightly plastic) Glacial Till
123							
86							Similar Soils
50							
95	7	30.0	30.5	ss	150		
111							
32							
15							
78							
150/0"		35.0	35.0	ss	60/0"		No Recovery - Bedrock at 36.0'
	C-1	36.0	41.2	NXD	CORE		CALCAREOUS SHALE BEDROCK 62" Recovery 4 pieces
							53" Recovery. 3 pieces
	C-2	41.2	46.2	NXD	CORE		Boring Terminated at 46.2'
							NOTE: Washed ahead of casing 25.0' to 36.0'.

Pier 10W Bott. Of Seal

Approx. Tip Of Pile

83-9

GROUND ELEV. 96.9

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .4' / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35—50% some—20—35% m-medium little —10—20% c-coarse trace— 0—10%
2	1	0.0	1.5	ss	1/12"-1		Brown fine SAND; some SILT; trace ORGANIC MATERIAL; (saturated, non-plastic)
7						2.0'	
16							
22							Greyish-Brown cmf SAND; little SILT; little fine GRAVEL (saturated, non-plastic) Fill
30	2	5.0	6.5	ss	23-28-54		
8						8.0'	
33							
33							
35							Grey mf GRAVEL and Rock Fragments; trace coarse SAND; trace SILT (possible casing washings) (saturated, non-plastic) Possible Glacial Till
34	3	10.0	11.5	ss	20-18-20		
20						13.5'	
41							Grey fine SAND; trace mf GRAVEL; trace SILT (saturated, non-plastic)
38							
23						18.0'	(change to coarser material, till)
20	4	15.0	16.5	ss	14-5-2		
19							Grey mf Rock Fragments, some mf GRAVEL; trace cmf SAND; trace SILT (saturated, non-plastic) Glacial Till
9							
14							
36'							
55	5	20.0	21.5	ss	27-50-46		
44							
48							
78							
260							Grey mf+ GRAVEL and fine Rock Fragments; some c-mf- SAND; trace SILT (saturated, non-plastic) and piece trace pinkish mf GRAVEL Fragments - Glacial Till
360	6	25.0	26.5	ss	49-30-62		
46							
72							
160							
126							
111	7	30.0	31.5	ss	34-36-29		Similar Soils (no pink material noted) (Glacial Till)
170	C-1	32.3	37.3	NXD	Core	32.3'	GLACIAL TILL - Grey SILT and fine SAND; little GRAVEL; trace CLAY 55" Recovery 2 pieces and some fragments
115							
450							
57							
57							
133							
139							
189							
35						40.8'	
36	C-2	40.8	46.0	NXWD-4			CALCAREOUS SHALE 62.5" Recovery 8 pieces
42							
250							
							45" Recovery 4 pieces
	C-3	46.0	50.7	NXWD-4			Boring Terminated at 50.7'
							Note: Washed ahead of casing 25.0' to 41.0'.

Pier 9W Bott. Of Seal

Approx. Tip Of Pile

83-10

GROUND ELEV. 96.5

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .4' / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35—50% some—20—35% m-medium little —10—20% c-coarse trace— 0—10%
5	1	0.0	1.5	ss	4-4-4		Brown fine SAND; trace fine GRAVE some SILT; trace ORGANIC MATERIAL (moist, non-plastic)
7						2.0'	
21							
17							
16	2	5.0	6.5	ss	13-12-11		Brown cmf+ SAND; little cmf GRAVEL, some SILT; (saturated) Fill
6							
15							
27							
21						9.0'	
44	3	10.0	11.5	ss	23-18-18		Dark Grey c-mf SAND and fine GRAVEL; trace. SILT (saturated) Glacial Till
13							
20							
24							
56							
40	4	15.0	16.5	ss	30-15-20		Grey fine SAND; little mf GRAVEL trace SILT (saturated, non-plastic) Glacial Till
24							
43							
39							
56	5	20.0	20.5	ss	30		Grey mf SAND; trace SILT, GRAVEL (saturated, non-plastic)
15						20.5'	
35	SA	20.5	21.5	ss	38-50		Grey c-mf SAND; trace fine GRAVEL; littleSILT (saturated, non-plastic)
150/6"						22.0'	Till
78	C-1	25.0	30.0	NXM	CORE		Boulder Till (very hard) 41" Recovery Drill time = 50 min.
150							
84	C-2	32.5	36.5	NXM	CORE		Boulder Till 38" Recovery, including 1.5' of Boulder. Drill time = 60 min.
53							
69							
64							
48							
60							
150/6"							
						39.0'	
	C-3	39.0	44.0	NXM	CORE		CALCAREOUS SHALE 32" Recovery
							60" Recovery - includes 28" of recovered previous core run
		44.0	46.7	NXM	CORE		Boring Terminated at 46.7'
							NOTES: (1) Roller bitted 21.0' to 25.0'. (2) Spun-in casing 33.0' to 39.0'. (3) Washed ahead of casing 15' to 32'

Pier 8W Bott. Of Seal

Approx. Tip Of Pile

83-11

WATER DEPTH 2.0'

MUD LINE ELEV. 93.8

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .4' / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35—50% some—20—35% m-medium little —10—20% c-coarse trace— 0—10%
4	1	0.0	1.5	ss	1-1-1		Brown fine SAND; some SILT; trace fine GRAVEL; some ORGANIC MATERIAL (saturated, slightly plastic)
11						2.0'	
43							
33							Grey fine SAND; trace fine GRAVEL; trace SILT (saturated, non-plastic)
30	2	5.0	6.5	ss	104-11-12		
26							
28							
36						8.5'	
33							
17	3	10.0	11.5	ss	20-10-8		Grey fine GRAVEL; some coarse SAND; trace mf SAND; trace SILT (saturated, non-plastic) Glacial Till
25							
21							
20							
26							
19	4	15.0	16.5	ss	10-10-6		Grey cmf SAND; trace SILT trace GRAVEL(saturated,non-plastic Glacial Till
7							
15							
15						18+	
13							Change is not well defined.
8	5	20.0	21.5	ss	12-15-11		Grey mf- SAND; trace fine GRAVEL; trace c SAND (saturated, non-plastic) Glacial Till
14							
22							
20							
28							
24	6	25.0	26.5	ss	17-15-9		Grey medium SAND; trace cf SAND; trace SILT (saturated, non-plastic) Glacial Till
19							
20							
22							
19							
27	7	30.0	31.5	ss	11-13-10		Grey mf GRAVEL; some c-mf SAND; trace SILT (saturated, non-plastic) Glacial Till
43							
43							
117							
354	8	34.5	34.6	ss	85/1"	34.7	Similar Soils (to S-7)
	C-1	34.7	39.7	NXWD-4	CORE		Bedrock CALCAREOUS SHALE 45.5" Recovery (initial) 13.5" recovered in second run Total recovered=59"
	C-2	39.7	43.7	NXWD-4	CORE		13.5" recovery - 1 piece (initial) -from previous core run Lost 4.0' of second run; re-entered hole in attempt to recover this 4.0'; recovered 34" Total recovered for this run = 34"
							Boring Terminated at 43.7'

100 90 80 70 60 50 40

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
BORING LOGS 1.2	
(STEEL ALTERNATE)	
Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M. / S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS5	Sheet of

BR-6

83-12

WATER DEPTH 3.0'
MUD LINE ELEV. 92.9

Pier BW
Bott. Of Seal
Approx. Tip Of Pile

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER _6"_ SAMPLER O.D. _2"_	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% some — 20–35% m-medium little — 10–20% c-coarse trace — 0–10%
3	1	0.0	1.5	ss	3-6-7		Brownish-Grey fine SAND; little mf
17						2.0'	GRAVEL; some SILT (saturated,
18							non-plastic)
23							
27	2	5.0	6.5	ss	14-14-11		Brownish-Grey cmf SAND; some SILT;
11							little GRAVEL
19						8.0'	Fill
20							
15	3	10.0	11.5	ss	28-13-7		Brownish-Grey cmf SAND; some SILT;
17							little GRAVEL Glacial Till
21						13.5'	
27							
14							
10	4	15.5	17.0	ss	23-9-3		Grey mf GRAVEL (Rock Fragments);
14							little c-mf- SAND; trace SILT
10						19.0'	(saturated, non-plastic)Glacial Till
14							
17	5	20.5	22.0	ss	8-5-7		Grey mf- SAND; trace fine GRAVEL;
12							(saturated, non-plastic)
17							
29						24.0'	
27							
36	6	25.5	27.0	ss	14-13-10		Dark Grey mf-GRAVEL; little cmf
30							SAND; (saturated,non-plastic) Glacial Till
40							
55							
160						28.5'	
211		30.2	30.3	ss	100/1"		No Recovery
50	C-1	30.2	35.2	NXWD-4	Core	32.0'	50' (22" till, 28" bedrock)
50							
							Bedrock at 32.0', 4 pieces, several
							wafers and fragments
							(Calcareous Shale)
	C-2	35.2	40.2	NX	WD-4		41" Recovery
							2 pieces, 2 wafers
							Drill time = 65 min.
	C-3	40.2'	43.8	NXWD-4			43" or 9 pieces, several chips
							Drill Time = 30 min.
							Boring Terminated at 43.8'

83-13

WATER DEPTH 5.5'
MUD LINE ELEV. 89.5

Approx. Tip Of Pile

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER _6"_ SAMPLER O.D. _2"_	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% some — 20–35% m-medium little — 10–20% c-coarse trace — 0–10%
0	1	0.0	1.5	ss	WOH		Dark Brown SILT; little fine SAND;
2							trace ORGANIC MATERIAL (saturated
3						3.5'	non-plastic)
7	2	5.0	6.5	ss	14-10-8		Grey-Brown fine SAND; and SILT
10							(saturated, non-plastic)
17						8.5'	
19							
15							
18	3	10.5	12.0	ss	4-5-4		Grey-Brown fine SAND; trace fine
24							GRAVEL; SILT
26							
35							
27							
30	4	15.0	16.5	ss	4-5-4		Grey fine SAND; trace SILT (wet,
42							non-plastic)
65							
49							
62	5	20.0	21.5	ss			Similar Soils
61							NOTE: Sample 5 driven inside casing;
72							blow count not representative.
62							
56	6	25.0	26.5	ss	3-3-5		Similar Soils
56							
50						28.5'	
56						31.0'	
59							Dark Grey-Brown c-mf SAND and mf
61	7	30.0	31.0	ss	17-18-bounce		Rock Fragments; little SILT
71							(saturated, non-plastic)Glacial Till
							Refusal at 31.0'
	RUN 1	31.0	36.0	NX	CORE		Dark Grey Calcareous SHALE
					WD-4 Split Barrel		22" Recovery, 4 pieces
	RUN 2	36.0	38.0	NX	Core		Drilling time = 35 minutes
					WD-4 Split Barrel		Recovered 38" from Run I
							Boring Terminated at 38.0'
							NOTE: 2.0' unrecovered core on bottom.

83-14

WATER DEPTH 6.5'
MUD LINE ELEV. 88.3

Pier TW
Bott. Of Seal

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER _6"_ SAMPLER O.D. _2"_	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% some — 20–35% m-medium little — 10–20% c-coarse trace — 0–10%
1	1	0.0	1.5	ss	WOH		Grey-Brown fine SAND and SILT; trace
3						2.0'	ORGANIC MATERIAL (saturated, non-
9							plastic)
10							
14	2	5.0	6.5	ss	5-6-6		Grey fine SAND; little SILT
0							(saturated, non-plastic)
9							
13							
14							
14	3	10.0	11.5	ss	3-7-12		Grey fine SAND and SILT (saturated
8							non-plastic)
22							
28							
27						14.0'	
27	4	15.0	16.5	ss	5-12-15		Grey fine- SAND; trace SILT, cm-
7							SAND (saturated, non-plastic)
27							
47							
72	5	20.0	21.5	ss	14-14-11		Similar Soils with trace fine
39							GRAVEL
46							
35							
42	6	25.0	26.0	ss	5-35		Grey fine- SAND; trace SILT
26						27.0'	(saturated, non-plastic)
74	NR	27.5	27.5	ss	50-bounce	28.5'	No Recovery, sampler driving on rock
110/0.5	RUN 1	28.5	33.0	NX	CORE		or Bedrock
					WD-4 Split Barrel		Dark Grey Calcareous SHALE
							48" Recovered, 7 pieces
	RUN 2	33.0	34.0	NX	CORE		
					WD-4 Split Barrel		12" Recovered, 3 pieces
	RUN 3	34.0	37.5	NX	CORE		
					WD-4 Split Barrel		Bottom Foot of Core left in hole
							42" Recovered
							Boring Terminated at 38.5'

83-73

WATER DEPTH 7.5'
MUD LINE ELEV. 88.7

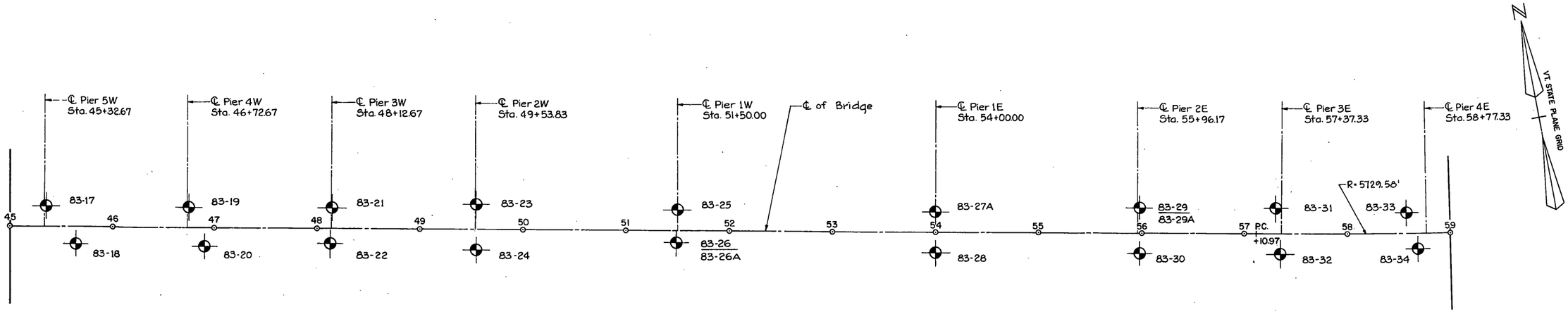
CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER _6"_ SAMPLER O.D. _2"_	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% some — 20–35% m-medium little — 10–20% c-coarse trace — 0–10%
PUSH	1	0.0	2.0	ss	WOR		Brown ORGANIC SILT; trace fine SAND
							(saturated, mon-plastic)
	2	2.0	4.0	ss	WOH	4.0'	No Recovery
5	3	4.0	6.0	ss	7-7-8-11		Grey fine SAND; some SILT
18							(saturated, non-plastic)
1	4	6.0	8.0	ss	6-6-5-5		Grey fine SAND; little SILT
11							(saturated, non-plastic)
6	5	8.0	10.0	ss	10-8-5-4		Grey fine SAND; trace SILT
11							(saturated, non-plastic)
PUSH	6	10.0	12.0	ss	8-5-3-4		Similar Soils (slightly coarser)
	7	12.0	14.0	ss	6-4-3-4		Similar Soils
6							
10	8	14.0	16.0	ss	4-5-3-3		Grey mf SAND; trace SILT (saturated,
8							non-plastic)
18	9	16.0	18.0	ss	WOH-5-10-11		Similar Soils
27							
41	10	18.0	20.0	ss	33-16-15-12		Grey fine SAND; trace SILT
28							(saturated, non-plastic)
38							
36	11	21.0	23.0	ss	5-7-7-13-		Similar Soils (containing trace mf
49							GRAVEL)
70	12	23.0	25.0	ss	10-8-9-9		Grey fine SAND;trace SILT(saturated,
67							non-plastic)
84						26.5'	
71	13	26.0	28.0	ss	3-45-28-39		Grey fine SAND,little SILT,trace
61							cm SAND, fine GRAVEL; Glacial Till
79							
250							Boring Terminated at 30.5'
							NOTE: Penetration resistance of 100 blows/1" encountered at 30.5'. (300# hammer)

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO. ROUTE 2	Surv. Sta.
BORING LOGS 1.3	
(STEEL ALTERNATE)	
Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS6	Sheet of

BR-6



82-8

BORING NO.	STATION	OFFSET
83-17	45+39.0	21.0' LT
83-18	45+64.0	17.0' RT
83-19	46+77.0	22.0' LT
83-20	46+91.0	18.0' RT
83-21	48+18.0	19.0' LT
83-22	48+13.0	14.5' RT
83-23	49+54.5	24.0' LT
83-24	49+58.0	21.0' RT
83-25	51+48.0	19.1' LT
83-26	51+50.0	20.0' RT
83-26A	51+49.0	11.7' RT
83-27A	54+05.3	20.4' LT
83-28	53+98.0	17.7' RT
83-29 83-29A	55+98.0	24.5' LT
83-30	55+98.0	20.1' RT
83-31	57+30.5	25.0' LT
83-32	57+34.0	17.0' RT
83-33	58+58.0	20.0' LT
83-34	58+69.0	15.2' RT
82-8	52+86.5	137.0' RT

83-15

WATER DEPTH 8.0'
MUD LINE ELEV. 86.8

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
0	1	0.0	1.5	ss	WOR		Grey-Brown SILT; trace cm SAND; some ORGANIC MATERIAL (saturated, non-plastic
WOH						2.0'	
5							
10							
14	2	5.0	6.5	ss	4-7-6		Grey-Brown SILT (saturated, very slightly plastic)
WOC							
WOC							
WOC							
14							
16	3	10.0	11.5	ss	11-7-6		Grey-Brown SILT; trace fine SAND (saturated, non-plastic)
11							
18							
24							
14							
13	4	15.0	16.5	ss	7-5-3		Similar Soils (grey in color)
6							
23							
26							
21							
20	5	20.0	21.5	ss	4-6-3		Similar Soils
26						22.0'	
26							
54							
65							
64	6	25.0	25.8	ss	75-100/0.3		Dark Grey cmf- Rock Fragments; little c-mf SAND; trace SILT (saturated, non-plastic) Weathered, Decomposed Rock and Glacial Till
200						26.0'	
RUN	1	26.0	27.0	NX CORE			Dark Grey Calcareous SHALE
				WD-4 Split Barrel			10" Recovered, 7 pieces
							Drilling time = 40 minutes
RUN	2	27.5	32.5	NX CORE			53" Recovered, 10 pieces
RUN	3	32.5	37.5	NX CORE			61" Recovery, 5 pieces
				WD-4 Split Barrel			Lost drill water at 34'; time=25 min.
							Boring Terminated at 37.5'

83-16

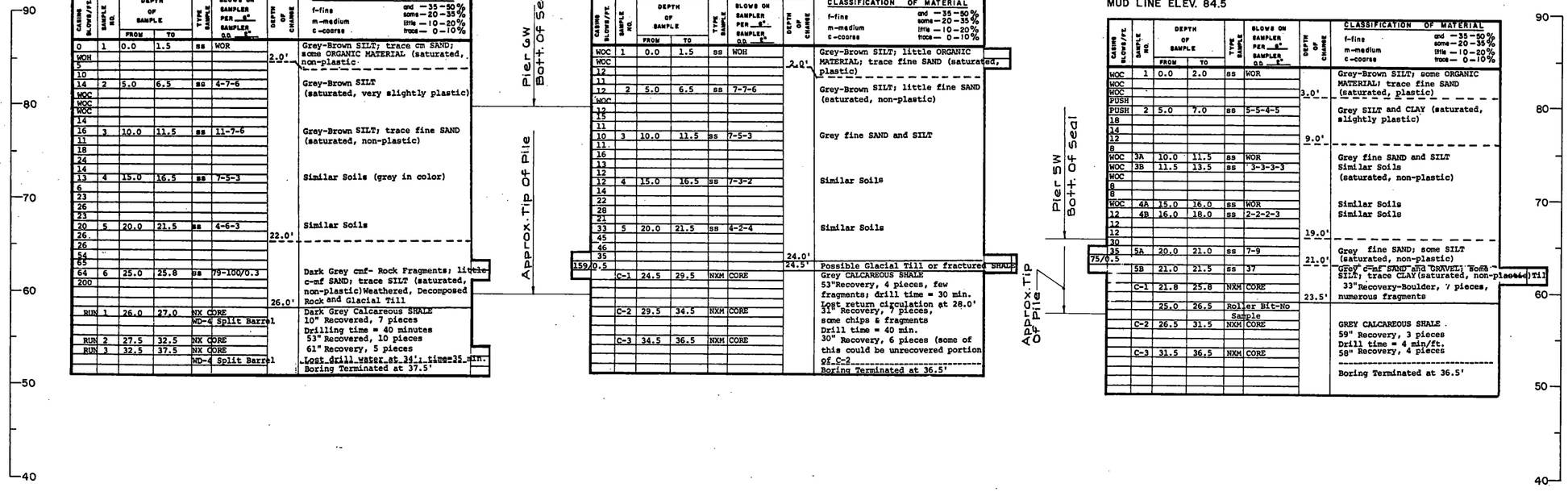
WATER DEPTH 8.5'
MUD LINE ELEV. 86.3

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
WOC	1	0.0	1.5	ss	WOH		Grey-Brown SILT; little ORGANIC
WOC						2.0'	MATERIAL; trace fine SAND (saturated, plastic)
12							
11							
12	2	5.0	6.5	ss	7-7-6		Grey-Brown SILT; little fine SAND (saturated, non-plastic)
WOC							
12							
11							
10	3	10.0	11.5	ss	7-5-3		Grey fine SAND and SILT
11							
16							
13							
12							
12	4	15.0	16.5	ss	7-7-2		Similar Soils
14							
22							
28							
21							
33	5	20.0	21.5	ss	4-2-4		Similar Soils
45							
46							
35						24.0'	
159/0.5						24.5'	Possible Glacial Till or fractured SHALE
	C-1	24.5	29.5	NXM	CORE		Grey CALCAREOUS SHALE
							53"Recovery, 4 pieces, few fragments; drill time = 30 min.
							Lost return circulation at 28.0'
	C-2	29.5	34.5	NXM	CORE		31" Recovery, 7 pieces, some chips & fragments
							Drill time = 40 min.
	C-3	34.5	36.5	NXM	CORE		30" Recovery, 6 pieces (some of this could be unrecovered portion of C-2
							Boring Terminated at 36.5'

83-17

WATER DEPTH 10.3'
MUD LINE ELEV. 84.5

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
WOC	1	0.0	2.0	ss	WOR		Grey-Brown SILT; some ORGANIC
WOC						3.0'	MATERIAL; trace fine SAND (saturated, plastic)
WOC							
PUSH							
PUSH	2	5.0	7.0	ss	5-5-4-5		Grey SILT and CLAY (saturated, slightly plastic)
18							
14						9.0'	
8							
WOC	3A	10.0	11.5	ss	WOR		Grey fine SAND and SILT
WOC	3B	11.5	13.5	ss	3-3-3-3		Similar Soils
WOC							(saturated, non-plastic)
8							
8							
WOC	4A	15.0	16.0	ss	WOR		Similar Soils
12	4B	16.0	18.0	ss	2-2-2-3		Similar Soils
12							
12						19.0'	
30							
35	5A	20.0	21.0	ss	7-9		Grey fine SAND; some SILT
75/0.5						21.0'	(saturated, non-plastic)
	5B	21.0	21.5	ss	37		Grey c-mf SAND and GRAVEL; some SILT; trace CLAY (saturated, non-plastic) Till
	C-1	21.8	25.8	NXM	CORE		33"Recovery-Boulder, 7 pieces,
						23.5'	numerous fragments
	25.0	26.5	Roller Bit-No Sample				
	C-2	26.5	31.5	NXM	CORE		GREY CALCAREOUS SHALE
							59" Recovery, 3 pieces
							Drill time = 4 min/ft.
	C-3	31.5	36.5	NXM	CORE		58" Recovery, 4 pieces
							Boring Terminated at 36.5'



STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING PLAN AND LOGS 2.0

(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS7	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6

83-18

WATER DEPTH 10.3'
MUD LINE ELEV. 84.5

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
PUSH	1	0.0	2.0	ss	WOR		Grey SILT; some ORGANIC MATERIAL; trace CLAY (saturated, plastic)
	2	2.0	4.0	ss	1-2-3-3	2.0'	Grey SILT; and CLAY (saturated, slightly plastic)
	3	4.0	6.0	ss	4-3-2-4		Similar Soils with trace c-f SAND
↓	4	6.0	8.0	ss	3-4-5-5		Grey SILT and CLAY (saturated, slightly plastic)
14						8.0'	Grey-Brown SILT; little fine SAND;
WOC	5	8.0	10.0	ss	WOR-3-3-3	10.0'	trace coarse SAND, CLAY
WOC	6	10.0	12.0	ss	3-3-3-3		Grey-Brown SILT and fine SAND
14							
WOC	7	12.0	14.0	ss	WOR/1'-3-3		Grey fine SAND and SILT (saturated, non-plastic)
WOC/8/5"							Similar Soils
8	8	14.0	16.0	ss	2-3-2-3		
11							Similar Soils
WOC	9	16.0	18.0	ss	WOR/1'-WOH/1'		
WOC							Grey fine SAND; some SILT; trace CLAY (saturated, very slightly plastic)
18	10	18.0	20.0	ss	3-4-3-4		
13							
14	11	20.0	22.0	ss	4-4-4-4		Similar Soils
18						22.0'	
28						24.7'	Probable Glacial Till
44							Glacial Till or possible weathered
90/0.7		24.7		ss	100/0"	27.0'	Rock; Advanced boring to 27.0' with roller bit.
86/0.8							
17/0.5							CALCAREOUS SHALE
83	C-1	27.0	32.0	NXM	CORE		43" Recovery
							7 pieces, 12 fragments, several chips
							Drilling Rate = 3 min/ft.
							Partial circulation loss at 29.0'
	C-2	32.0	37.0	NXM	CORE		59" Recovery
							3 pieces
							Boring Terminated at 37.0'

83-19

WATER DEPTH 10.6'
MUD LINE ELEV. 83.9

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
WOC	1	0.0	1.5	ss	WOR		Brown SILT; some ORGANIC MATERIAL; trace CLAY (saturated, slightly plastic)
↓	2	3.0	4.5	ss	WOH		Brown SILT; some ORGANIC MATERIAL (saturated, slightly plastic)
WOH						5.0'	
9							Grey SILT; trace CLAY (saturated, slightly plastic)
9							
12	3	8.0	9.5	ss	5-7-6		
WOH							
9							
11						12.0'	
10							Grey fine SAND and SILT (saturated non-plastic)
15	4	13.0	14.5	ss	2-3-2		
6							
14							
10							Grey fine SAND; little SILT (saturated, non-plastic)
16							
8	5	18.0	19.5	ss	3-5-4		
WOH							
22						20.0'	
33						23.0'	Possible Glacial Till
50							
75	C-1	23.0	28.0	NX	(WD-4) Core		CALCAREOUS SHALE 60" Recovery
							3 pieces, chips & fragments
							Drill rate=6 min/ft.; lost return circulation at 25.5'
	C-2	28.0	33.0	NX	(WD-4) Core		60" Recovery
							4 pieces, 1 wafer; Drill rate=8 min/ft.
							Boring Terminated at 33.0'

83-20

WATER DEPTH 10.5'
MUD LINE ELEV. 84.0

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
WOC	1	0.0	1.5	ss	WOR		Brown SILT; some ORGANIC MATERIAL (saturated, moderately plastic)
	2	3.5	5.0	ss	WOR	6.0'	Grey-brown SILT; some ORGANIC MATERIAL (saturated, moderately plastic)
↓	3	8.5	10.0	ss	WOH-3-4	11.0'	Grey SILT; little CLAY (saturated, moderately plastic)
6							
9							
9							Grey fine SAND; little SILT (saturated, non-plastic)
WOC	4	13.5	15.0	ss	4-3-1		
9							
11							
10						18.5'	
20							Grey cmf GRAVEL; some c-mf SAND; little SILT (saturated, non-plastic) Till
44	5	18.5	20.5	ss	27-11-10-10		
39							
44						22.9'	
56							CALCAREOUS SHALE 57" Recovery
100/0.3	C-1	22.9	27.9	NX	(WD-4) Core		14 pieces, several chips & fragments Drill time= 65 min.
							62" Recovery
	C-2	27.9	32.9	NX	(WD-4) Core		previous core run) 4 pieces
							Drill rate=13 min for 1st 20" of run
							Drill rate=8 min for 2nd 20" of run
							Boring Terminated at 32.9'

83-21

WATER DEPTH 13.7'
MUD LINE ELEV. 81.1

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
WOC	1	0.0	2.0	ss	WOR		Grey-Brown Organic SILT and CLAY (saturated, plastic)
WOC							
WOC	2	4.0	6.0	ss	WOR		Similar Soils
WOC						7.0'	
WOC							
WOH							
6							
7							Grey SILT; trace fine SAND, CLAY (saturated, very slightly plastic
10	3	10.0	12.0	ss	WOR		
WOC							
WOC							Similar Soils
8							
6							
4	4	15.0	17.0	ss	WOR-1-2		
WOH							
WOH							
14						19.0'	
76	5	20.0	21.5	ss	46-12-14		Dark Grey-Brown w/ rock fragments; some c-mf SAND; trace SILT (saturated, non-plastic) Weathered Rock
33						22.2'	
88							Dark Grey Calcareous SHALE
100/2"	RUN 1	22.2	27.2	NX	CORE		55" Recovered, Occasional broken and fractured zones throughout run. Lost drill water in soft zone, 25.2' to 25.7'
							57.5" Recovered, SHALE more massive and competent; thin mud seam at 28.2'
RUN	2	27.2	32.2	NX	CORE		Boring Terminated at 32.2'

Pier 5W Bott. Of Seal

Approx. Tip of Pile

Pier 4W Bott. Of Seal

Pier 3W Bott. Of Seal

100
90
80
70
60
50
40

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING LOGS 2.1
(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS8	Sheet of

BRUNING 44-131-40151

BR-6

100
90
80
70
60
50
40

Pier 3W Bott. of Seal

83-22

WATER DEPTH 13.7'
MUD LINE ELEV. 81.1

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
WOC	1	0.0	2.0	ss	WOR		Grey-Brown SILT; some ORGANIC MATERIAL; little CLAY (saturated, plastic)
WOC							
WOC							
WOC							
WOC	2	5.0	7.0	ss	WOH		Similar Soils
1							
2							
4							
6						8.5'	
10	3	10.0	12.0	ss	10-8-7-4		Light Grey-Brown SILT; trace fine SAND (saturated, very slightly plastic)
WOC							
14							
20							
18							
11							
WOC	4	16.0	18.5	ss	1-0-2		Similar Soils (this sample may not be representative due to casing dropping to 16.5' during cleanout prior to sampling then pulled back up to 15.0')
WOC					WOR/12"-		
7							
19						19.4'	
32	5	20.0	21.5	ss	27-22-12		mf Rock Fragments (little sample recovery) Possible Glacial Till
	RUN 1	22.7	27.7	NX	CORE	22.7'	Dark Grey Calcareous SHALE 54" Recovered (partial water loss at 23.5' and 26.4'; total water loss by the end of Run #1)
	RUN 2	27.7	32.7	NX	CORE		60" Recovered
							Boring Terminated at 32.7'

83-23

WATER DEPTH 20.0'
MUD LINE ELEV. 74.9

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
WOC	1	0.0	2.0	ss	WOR		Grey SILT; some CLAY, ORGANIC MATERIAL (plastic, saturated)
WOC							
WOC							
WOC							
WOC	2	5.0	7.0	ss	WOR		Similar Soils
WOC							
WOC						7.0'	
23							
25							
18	3	10.0	12.0	ss	6-6-13-17		Grey SILT; little fine SAND (saturated)
23							
22							
28							
19						15.0'	
11	4	15.0	17.0	ss	9-10-12-10		Grey cmf GRAVEL; some cmf SAND; little SILT; Glacial Till (non-plastic, saturated)
21							
22							
15							
21							
48	5	20.0	21.5	ss	38-44-48		Similar Soils
63						22.3'	
54/0.3	RUN 1	22.3	27.3	NX	CORE		Dark Grey Calcareous SHALE with zones of breakage and high angle fractures - 47" Recovered
	RUN 2	27.3	32.3	NX	CORE		Shale more massive and competent 56" Recovered (Run 2)
							Boring Terminated at 32.3'

Pier 2W Bott. of Seal

Approx. Tip Of Pile

83-24

WATER DEPTH 20.5'
MUD LINE ELEV. 74.3

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
WOC	1	0.0	2.0	ss	WOR		Grey SILT; and CLAY with some ORGANIC MATERIAL (plastic, saturated)
WOC							
WOC							
WOC							
WOC	2	5.0	7.0	ss	WOR		Similar Soils
WOC							
WOC						7.0'	
16							
14							
23	3	10.0	12.0	ss	8-8-6-5		Grey SILT; and fine SAND (slightly plastic, saturated)
9							
13							
10							
12							
14	4	16.5	18.5	ss	8-9-7-6		Similar Soils
WOC							
12							
18						18.5'	
24							Grey Glacial Till (non-plastic, saturated) Dark Grey Calcareous SHALE, broken zones and high angle fractures 42" Recovered NOTE: Partial drilling Water loss occurred at 22.2'.
60/0.5'	RUN 1	19.5	24.5	NX	CORE	19.5'	
	RUN 2	24.5	29.5	NX	CORE		Shale more massive without broken zones, 60" Recovered
							Boring Terminated at 29.5'

Pier 1W Bott. of Seal

83-25

WATER DEPTH 23.1'
MUD LINE ELEV. 71.6

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
WOC	S-1	0.0	1.5	ss	WOR		Brown ORGANIC SILT with Seashells (saturated, plastic)
	V-1	1.5	3			1.5'	Ran Vane Shear Test, data recorded by Haley & Aldrich
		4.5	6.5	Undisturbed		4.5'	No Recovery (similar soils to S-2 below)
	U-1	6.5	8.5	U	Tube 11" Recovery		Light Grey SILT; trace CLAY (saturated, moderately plastic)
	S-2	8.5	10.0	ss	WOR	11.2'	Similar Soils
	V-2	10.0	11.2				
20	S-3	11.5	13.0	ss	13-10-6		Grey cmf+ SAND; little mf GRAVEL; little SILT; trace CLAY (saturated, non-plastic) Till
47						14.5'	CALCAREOUS SHALE
55		14.5	14.5	ss	50/0"		58" Recovery
	C-1	14.5	19.5	NXH	CORE		5 pieces
							Drill time = 31 min.
							Lost return circulation at 15.5'
							58" Recovery
	C-2	19.5	24.5	NXH	CORE		5 pieces, several fragments, 1 wafer
							Drill time = 28 min.
							Return circulation restored at 23.5' depth.
							Boring Terminated at 24.5'

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING LOGS 2.2
(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS9	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-131 40151
BR-5

83-26A

WATER DEPTH 23.0'
MUD LINE ELEV. 71.6

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
WOC							SILT with ORGANIC MATERIAL
WOC							
WOC	V-1	2.0	4.0	VANE	SHEAR TEST	5.5'	Data recorded by Haley & Aldrich
PUSH							
PUSH		4.5	6.5	U			No Sample Recovered
PUSH	1	6.5	8.0	ss	WOR		Grey-Brown fine SAND and SILT (saturated, non-plastic)
WOC							Similar Soils
10	2	8.0	9.5	ss	WOH-7-6		
12							Similar Soils
14	3	10.0	11.5	ss	4-12-14		
15							
19						12.5'	
24							Dark Gray mf Rock Fragments and coarse SAND; trace SILT (saturated, non-plastic) glacial Till
	4	13.0	14.5	ss	17-7-12		BOULDER 14.5' to 15.5'
		14.5	16.0	NXM	Core		12" Recovery - Lost overboard
	C-1	16.0	21.0	NXM	Core	16.0'	CALCAREOUS SHALE
	C-2	21.0	26.0	NXM	CORE		60" or 100% Recovery
							59" or 98% Recovery
							Boring Terminated at 26'

Pier 1W Bot. Of Seal

83-27A

WATER DEPTH 21.0'
MUD LINE ELEV. 73.8

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
PUSH	1	0.0	1.5	ss	WOR		Dark Brown Organic Silt and CLAY (saturated, plastic)
	U-1	1.5	3.5	u		1.5'	Silty Clay (sample retained by Haley & Aldrich) Vane Shear test 4.0' to 5.5'
						5.0'	Grey CLAY and SILT (saturated, slightly plastic)
	2	5.0	7.0	ss	12-8-11-12		
						7.5'	
	3	7.5	9.5	u	Recovery 11"		Grey SILT; trace fine SAND; CLAY
	4	9.5	11.5	ss	14-10-3-6		Grey SILT, trace fine SAND; trace CLAY (saturated, slightly plastic)
14/0.5						11.5'	
43							Grey cm SAND; little fine GRAVEL; trace fine SAND; trace SILT; trace fine Rock Fragments (saturated, non-plastic) Till
23	5	13.0	14.5	ss	50-30-21		
37							
63							
50							
117/10"						18.9'	Similar Soils
	6	18.0	18.8	ss	46-50/3"		CALCAREOUS SHALE
	C-1	18.8	23.8	NXM	CORE 50/0		58" Recovery
							7 pieces, 10% chips & fragments Avg. Drill Rate = 6 min/ft.
	C-2	23.8	28.8	NXM	CORE		59" Recovery
							3 pieces
							Avg. Drill Rate = 6 min/ft
							Boring Terminated at 28.8'
							NOTE: Lost bottom 5.5' of casing on 83-27, relocated to 83-27A, redrilled with NW casing, unsuccessful field vane at 5.0'.

Pier 1E Bot. of Seal

83-28

WATER DEPTH 21.0'
MUD LINE ELEV. 73.8

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
PUSH	1	0.0	2.0	ss	WOR		Grey-Green-Brown ORGANIC SILT; trace fine SAND; little CLAY (saturated, plastic)
						3.0'	
	2	5.0	7.0	ss	12-8-11-13		Grey CLAY and SILT
						6.0'	
	2A	7.0	8.0	ss	WOH		Grey SILT; trace CLAY (saturated, slightly plastic)
						8.0'	
	2B	8.0	9.0	ss	11-7		Grey-Brown SILT; little fine SAND (saturated, non-plastic)
						10.0'	
32							
47							
72	3	13.0	15.0	ss	23-18-10-8		Grey cmf SAND; some mf Rock Fragments; little-to-trace SILT (saturated, non-plastic) Till
29							
36							
27							
56		17.0	17.0	ss	50/0"	17.0'	Refusal on bedrock
	C-1	17.0	22.0	NXM	CORE		CALCAREOUS SHALE
							58" Recovery
							7 pieces, 2% chips & fragments Avg. Drill Rate=4.5 min/ft
							59" Recovery
	C-2	22.0	27.0	NXM	CORE		6 pieces, 1 chip Avg. Drill Rate=5.9 min/ft
							Boring Terminated at 27.0'

Pier 2E Bot. Of Seal

83-29
83-29A

WATER DEPTH 15.4'
MUD LINE ELEV. 79.4

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
WOC	1	0.0	1.5	ss	WOR		Grey SILT and CLAY (plastic, saturated]
WOC							
WOC							
1							
1	2	5.0	6.5	ss	WOR		Similar Soils
2						9.0'	
1							
3							
9	3	10.0	11.5	ss	3-6-4		Grey SILT; and CLAY (plastic, saturated]
10							
10							
13							
10						15.5'	Similar Soils
10	4	15.0	15.5	ss	10	16.0'	Grey SILT; trace CLAY, fine SAND
15	4A	15.5	16.0	ss	5		Grey cmf SAND; little SILT; trace fine GRAVEL
17	4B	16.0	16.5	ss	11		
24							
24							Grey fine SAND; little fine GRAVEL; trace cm SAND; and SILT (non-plastic; saturated) Glacial Till
16	5	20.0	21.5	ss	16-9-20		
20						21.5'	
							Dark Grey Calcareous SHALE, broken zones, 42" 13 pieces
RUN 1		22.0	27.0	NX	CORE		
							SHALE more massive and competent 47" Recovered, 6 pieces
RUN 2		27.0	32.0	NX	CORE		Original Run 1 in 83-29 from 21.6' to 26.6' - 19" recovery.
							Boring Terminated at 32.0'

83-26

WATER DEPTH 23.1
MUD LINE ELEV. 71.6

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
	1	0.0	1.5	ss	WOR		Dark Greenish-Grey Organic SILT (saturated, plastic) and CLAY retained by Haley & Aldrich
	U-1	1.5	3.5	U		4.0'	Recovery 22"
	V-1	4.0	5.5				Vane Shear Test (data retained by Haley & Aldrich)
							Light Grey SILT; little fine SAND; trace CLAY (saturated, moderately plastic)
	2	5.5	7.0	ss	4-3-2		
							Boring Terminated at 7.0'
							NOTE: Boring terminated due to rough water conditions.

Pier 1W Bot. Of Seal

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
BORING LOGS 2.3	
(STEEL ALTERNATE)	
Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS10	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-131-40151
BR-6

83-30

WATER DEPTH 14.5'
MUD LINE ELEV. 80.4

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50%; m-medium some — 20–35%; c-coarse little — 10–20%; trace — 0–10%
WOC	1	0.0	1.5	ss	WOR		Grey CLAY and SILT; trace mf SAND (saturated, plastic)
WOC							
WOC							
WOC	2	5.0	6.5	ss	WOR		Grey CLAY; some SILT; trace fine SAND (saturated, plastic)
WOC							
WOC							
WOC							
WOC	3	10.0	11.5	ss	1/18"		Grey SILT; some CLAY; trace Sea Shells (saturated, moderately plastic)
WOC							
WOC							
8							
11							
9	No	Sample					Similar Soils - No Sample at 15' due to casing advancing past sampling depth by being dragged down in advancing tricone bit. Strata change inferred by noting change in casing blow count.
25							
40						15.0'	
27							Dark Grey c-mf- SAND; some SHALE Fragments; trace SILT (saturated, non-plastic)
20							Probable Glacial Till
23	4	20.0	21.5	ss	9-24-27		
						22.0'	
RUN	1	23.5	28.5	NX	CORE		Dark Grey Calcareous SHALE 34" Recovered, 8 pieces
RUN	2	28.5	33.0	NX	CORE		54" Recovered, 10 pieces
RUN	3	33.0	38.0	NX	CORE		47" Recovered, 11 pieces
							Boring Terminated at 38.0'

Pier 2E
Bot. Of Seal

83-31

WATER DEPTH 12.5'
MUD LINE ELEV. 82.3

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50%; m-medium some — 20–35%; c-coarse little — 10–20%; trace — 0–10%
WOC		0.0	2.0	ss	WOR		SILT with some ORGANIC MATERIAL (no recovery)
						2.5'	
	1	5.0	7.0	ss	1-WOH/1.5		Grey fine SAND; little-to-trace SILT (saturated, non-plastic)
						8.0'	
	2	10.0	12.0	ss	WOR		Grey-Brown CLAY and SILT (saturated, plastic)
	3	15.0	17.0	ss	WOH/1.0'-2-2		Grey CLAY; little SILT; trace fine SAND (saturated, plastic)
16						17.0'	
11							
14							Grey and Red-Grey SILT; trace CLAY Lenses
WOC/1.5'4		20.0	22.0	ss	7-3-3-3		
10/0.5'							
16							
12							
11							
SPUN TN	5A	25.0	26.0	ss	4-4	26.0'	Similar Soils
	5B	26.0	27.0	ss	3-4		Grey c-m-f SAND; little SILT; some fine GRAVEL (saturated, non-plastic) Glacial Till
	6	31.0	32.3	ss	46-10-19/0.3'-100/0"		Grey c-m-f SAND and cmf Rock Fragments; little SILT (saturated, non-plastic)
						32.3'	Advanced roller bit through possible weathered rock to 33.7'; began NXM coring at 33.7'
						33.7'	
	C-1	33.7	38.7	NXM	CORE		CALCAREOUS SHALE 56" Recovery 5 pieces
	C-2	38.7	43.7	NXM	CORE		61" Recovery 9 pieces
							Boring Terminated at 43.7'

Pier 3E
Bot. Of Seal

Approx. Tip of Pile

83-32

WATER DEPTH 12.5'
MUD LINE ELEV. 82.25

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50%; m-medium some — 20–35%; c-coarse little — 10–20%; trace — 0–10%
WOC		0.0	4.5	ss	WOR		Grey-Brown SILT with ORGANIC MATERIAL (no recovery)
						4.0'	
	1	5.0	7.0	ss	WOR		Brownish-Grey fine SAND and SILT; trace ORGANIC MATERIAL (saturated, non-plastic)
						8.0'	
	2	10.0	12.0	ss	WOR		Grey CLAY; some SILT (saturated, plastic)
WOH							
WOH							
WOH	3	15.0	17.0	ss	WOH/1.5-2	17.0'	Similar Soils
WOH							
18							
10							
14	4	20.0	22.0	ss	4-4-4-5		Grey SILT; trace CLAY lenses (saturated, very slightly plastic)
WOC							
WOC							
18							
13						24.0'	
27	5	25.0	27.0	ss	7-3-3-3		Grey c-m-f SAND; little SILT (saturated, non-plastic) Possible Glacial Till
SPUN TN							
						29.7'	
	6	29.6	29.7	ss	50/0.1"		Grey SHALE Fragment (weathered rock or till)
						32.8'	
		33.0	33.2				Advanced roller bit to 33.2' through weathered shale bedrock; began coring at 33.2'.
	C-1	33.2	38.2	NXM	CORE		Grey CALCAREOUS SHALE 58" Recovery 10 pieces, several chips & fragments
	C-2	38.2	43.2	NXM	CORE		57" Recovery 4 pieces, several large, vertically split fragments
							Boring Terminated at 43.2'

Pier 4E
Bot. Of Seal

Approx. Tip of Pile

83-33

WATER DEPTH 11.1'
MUD LINE ELEV. 83.6

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50%; m-medium some — 20–35%; c-coarse little — 10–20%; trace — 0–10%
WOC		0.0	3.5	ss	WOR		Dark Grey-Brown ORGANIC SILT (no recovery)
	1	5.5	7.5	ss	WOR		Grey ORGANIC SILT and CLAY
WOH						10.0'	
	2	11.0	13.0	ss	WOH		Brownish-Grey CLAY; little SILT (saturated, plastic)
						16.5'	
7	3	16.5	18.5	ss	WOH		Light Grey-Brown SILT and CLAY (saturated, plastic)
7						19.5'	
WOC							
9	4	21.5	23.5	ss	3-3-3-4		Light Grey-Brown SILT; trace fine SAND; trace CLAY (saturated, slightly plastic)
13							
18							
18							
WOC							
22	5A	26.5	28.0	ss	3-3-4	28.0'	Similar Soil
14	5B	28.0	28.5	ss	6		Grey cmf SAND, some SILT; little GRAVEL (saturated, non-plastic)
14							
17							
SPUN TN to 37.5'	6	31.5	33.5	ss	9-10-4-7		Grey c-m-f SAND; some mf Rock Fragments; trace SILT (saturated, non-plastic) Glacial Till
	7	34.9	35.7		Roller Bit	34.9'	Multicolored roller bit rock cuttings (Shale and Boulders)
SPUN TN	8	35.7	36.0		Roller Bit	35.7'	Grey SHALE Cuttings
	C-1	36.0	41.0	NXM	CORE		CALCAREOUS SHALE 60" Recovery 9 pieces, 2% fragments & chips
	C-2	41.0	46.0	NXM	CORE		58" Recovery 11 pieces, 6 fragments Encountered vertical seams and splits.
							Boring Terminated at 46.0'
							NOTE: Partial return circulation loss at 37.0'. No return circulation on Core Run 2 (41.0' - 46.0').

Approx. Tip of Pile

90
80
70
60
50
40
30

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING LOGS 2.4
(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1 (11)
Bridge Sheet No. SSII	Sheet of

BR-6

82-6

WATER DEPTH 2.5'
MUD LINE ELEV. 93.3

Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler From/To 0-6 / 6-12 / 12-18	Moisture Density or Consist.	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc.	SAMPLE No	Pen	Rec
	0'-2'	D	1 2 1			Loose gray Brown fine SAND trace of silt	1	24"	13"
	2'-4'	D	2 2 3		2'	Med.stiff gray clayey SILT (layered)	2	24"	16"
	4'-6'	D	3 4 5			- DO - gray, brown	3	24"	20"
	6'-8'	D	3 5 7		6'	Stiff gray SILT, little fine sand, tr. clay	4	24"	22"
	8'-10'	D	7 9 7		10'	Very stiff fine sandy SILT	5	24"	21"
	10'-12'	D	5 7 7		12'	Med. dense silty fine SAND	6	24"	19"
	12'-14'	D	2 6 5			Med. dense, gray fine SAND, little silt	7	24"	19"
	14'-16'	D	5 5 6			- DO -	8	24"	19"
	16'-18'	D	7 4 7			- DO -	9	24"	19"
	18'-20'	D	5 7 6			- DO -	10	24"	23"
	20'-22'	D	6 6 7			- DO -	11	24"	20"
	22'-24'	D	3 3 9		22'	Loose gray silty fine SAND	12	24"	18"
	24'-26'	D	9 4 7			- DO -	13	24"	22"
	26'-28'	D	1 25 3		26.5'	- DO -	14	6"	6"
			25 26				14A	12"	5"
					28.5	Very dense gravelly SILT, litt. C-F sand-Upper Till			
						B.O.E. w/refusal on Roller bit @ 28.5'			

82-7

WATER DEPTH 12.9'
MUD LINE ELEV. 83.1

Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler From/To 0-6 / 6-12 / 12-18	Moisture Density or Consist.	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE No	Pen	Rec
	0'-2.5'	D	W O R			Very soft sl. organic SILT lit.fine sand tr. of clay	1	30"	24"
	2'-5.0'	D	WOR WOR 1 1		3'	Loose gray silty fine SAND. (slightly organic odor)	2	24"	12"
	8'-10'	D	WOR WOR 3 4			Loose gray silty fine SAND	3	24"	15"
	13'-15'	D	WOR WOR 3 2		13'	Loose Gray fine SAND, little silt	4	24"	15"
	18'-20'	D	WOR 2 3 1			- DO -	5	24"	14"
	23' 25'	D	11 10 12 14		23'	Gray fine sandy SILT, some coarse to fine gravel tr.C-M, sand, tock frgs., Upper Till	6	24"	12"
	25.5'-30.5'	C			25.5'	Very hard dark gray to black CALCAREOUS SHALE, joint spac. close, joints horizontal, parallel w/bedding joint surfaces plannor and smooth	R1	60"	60"
							RQD		54"
	30.5'-34.7	C					R1	50"	50"
							RQD		50"
					34.7'	B.O.E. @ 34.7' Note: Adjusted RQD and recovery			

82-8

WATER DEPTH 23.5'
MUD LINE ELEV. 72.3

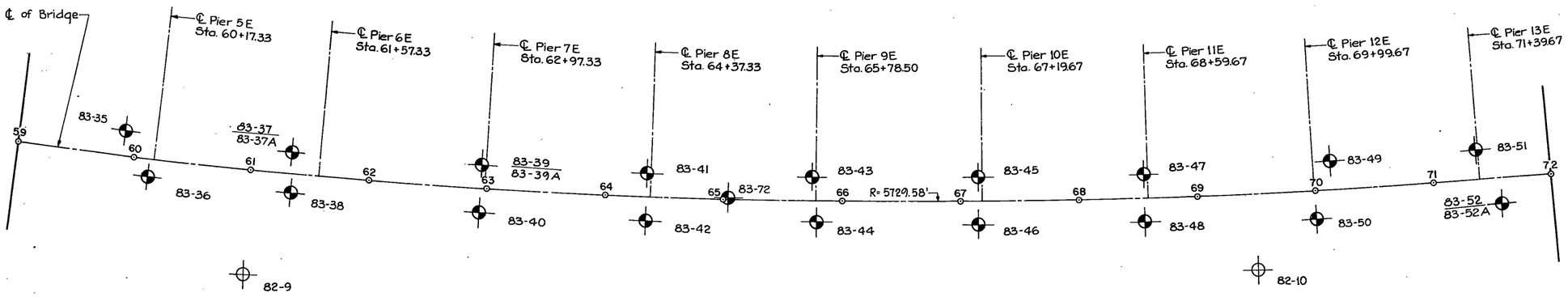
Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler From/To 0-6 / 6-12 / 12-18	Moisture Density or Consist.	Strata Change Elev.	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE No	Pen	Rec
	0'-2'	D	W O R			Very soft Dk.Gr. silty CLAY (sample appears disturbed-possibly dredged)	1	24"	18"
	5'-7'	D	W O H		5'	Very soft gray SILT, little clay (seams)	2	24"	19"
	10'-12'	D	7 6 15 13		10'	Medium dense dark gray coarse to fine gravelly coarse to fine SAND, little silt	3	24"	18"
	14.5'	D			13.5' 14.5'	Upper Till			
						Note: Roller bitted 13.5 to 14.5 - Rock cuttings noted in wash	NR		
						B.O.E. @ 14.5' with refusal of 100/1", 140#			

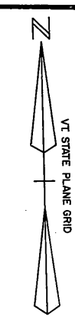
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
BORING LOGS 2.5 (STEEL ALTERNATE)	
Designed by	Drawn by SZ.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS12	Sheet of

BR-6





83-34

WATER DEPTH 11.1'
MUD LINE ELEV. 83.6

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
WOC		0.0	2.0	ss	WOR		ORGANIC SILT (no recovery)
						4.0'	
	1	5.5	7.5	ss	WOH		Grey SILT; and CLAY; little ORGANIC MATERIAL (saturated, plastic)
						10.0'	
		11.0	13.0	ss	WOR		Brownish-Grey CLAY; little SILT (saturated, plastc) No Recovery
		13.0	15.0	ss	WOR		Similar Soils - No Recovery
	2	15.0	17.0	ss	WOH		Similar Soils
						18.0'	
6 11 WOC 8 13	3	20.0	22.0	ss	3-4-3-4		Grey SILT; little-to-trace fine SAND (saturated, very slightly plastic)
						25.0'	
14 21 SPLIT IN	4	25.0	27.0	ss	30-27-7-6		Grey cmf SAND; trace SILT; little-fine GRAVEL (saturated, non-plastic) Glacial Till
	5	30.0	30.2	ss	75/0.2"		Grey cmf SAND and mf Rock Fragments; some SILT (saturated, non-plastic) Encountered cobbles 30.0' to 34.6' Glacial Till
		34.6	34.6	ss	100/0"	34.6'	Cobbles and loose slabs of SHALE (no recovery in spoon).
	C-1	35.1	38.2	NXW	CORE		Boulders and Rock Slabs in Glacial Till below 37.3' 28" Recovery 4 pieces, 40% fragments (35.1'-37.3') 1 piece, 10" long below 37.3'.
						37.4'	
	C-2	38.2	42.9	NXW	CORE		CALCAREOUS SHALE 54" Recovery 5 pieces Drill rate = 3 min/ft
	C-3	42.9	47.9	NXW	CORE		60" Recovery 8 pieces, 5% fragments
							Boring Terminated 47.9'

83-35

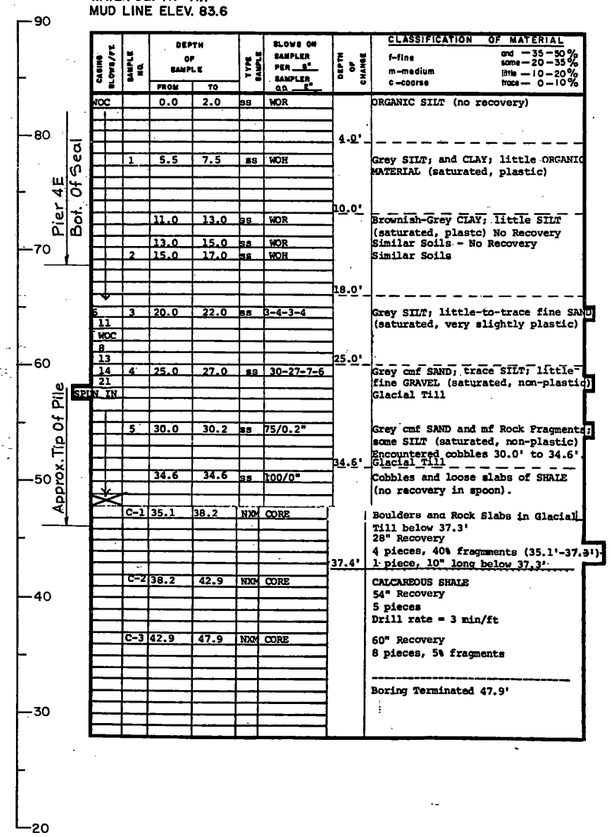
WATER DEPTH 12.1'
MUD LINE ELEV. 82.4

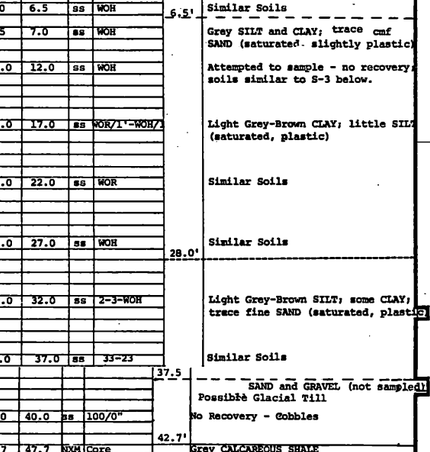
CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
WOC	1	0.0	2.0	ss	WOR		Dark Grey SILT; some Organic MATERIAL; some CLAY (saturated, plastic)
WOH						6.5'	
	2A	5.0	6.5	ss	WOH		Similar Soils
WOC	2B	6.5	7.0	ss	WOH		Grey SILT and CLAY; trace cmf SAND (saturated slightly plastic)
		10.0	12.0	ss	WOH		Attempted to sample - no recovery; soils similar to S-3 below.
	3	15.0	17.0	ss	WOR/1"-WOH/2"		Light Grey-Brown CLAY; little SILT (saturated, plastic)
WOC							
	4	20.0	22.0	ss	WOR		Similar Soils
	5	25.0	27.0	ss	WOH	28.0'	Similar Soils
6 7 WOH	6	30.0	32.0	ss	2-3-WOH		Light Grey-Brown SILT; some CLAY; trace fine SAND (saturated, plastic)
	7	35.0	37.0	ss	33-23		Similar Soils
7 16 30/6" SPLIT IN						37.5	SAND and GRAVEL (not sampled) Possible Glacial Till
		40.0	40.0	ss	100/0"		No Recovery - Cobbles
	C-1	42.7	47.7	NXW	Core	42.7'	Grey CALCAREOUS SHALE 48" Recovery Total loss of return circulation at 43.2' Drill rate = 3 min/ft
	C-2	47.7	52.7	NXW	Core		58" Recovery Drill Rate=4 min/ft
							Boring Terminated at 52.7'

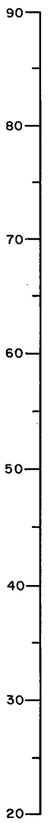
83-36

WATER DEPTH 12.1'
MUD LINE ELEV. 82.4

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and —35–50%, some—20–35%, little—10–20%, trace—0–10%)
WOC	1	0.0	2.0	ss	WOR		Dark Grey-Brown SILT; little mf SAND; little ORGANIC MATERIAL (saturated, plastic)
WOC	2	5.0	7.0	ss	WOH	4.0'	Dark Grey-Brown mf SAND; some SILT; little ORGANIC MATERIAL (saturated, very slightly plastic
WOC						7.0'	
	3	10.0	12.0	ss	WOR		Grey SILT and CLAY (saturated, plastic)
	4	15.0	17.0	ss	WOR		Similar Soils
WOC WOC WOH	5	20.0	22.0	ss	WOH	22.0'	Similar Soils
6 8 WOH 7 10	6	25.0	27.0	ss	2-3-2-3		Grey CLAY; some SILT;
WOC 7 10 11 13	7	30.0	32.0	ss	4-4-4-4	30.0'	Grey CLAY and SILT
WOC WOC 18 SPLIT IN	8	35.0	37.0	ss	6-6-7-7	37.0'	Similar Soils
	9A	40.5	42.0	ss	19-11-7	42.0'	Grey mf SAND; some SILT (saturated, non-plastic) Glacial Till
	9B	42.0	42.3	ss	12/0.3'-100/0"	42.2'	Coarse SHALE Fragments
		42.3	43.0		Roller Bit		Advanced roller bit through shale to 43.0 to begin first core run
	C-1	43.0	48.0	NXW	Core		CALCAREOUS SHALE Recovery 60" Partial lack of return circulation Drill Rate=4 min/ft
	C-2	48.0	53.0	NXW	Core		60" Recovery Complete lack of return circulation Drill Rate=4 min/ft
							Boring Terminated at 53.0'







BORING NO.	STATION	OFFSET
83 - 35	59+90.5	21.5' LT
83 - 36	60+13.5	15.2' RT
83 - 37 83 - 37A	61+33.5	18.2' LT
83 - 38	61+35.3	16.4' RT
83 - 39 83 - 39A	62+97.1	22.2' LT
83 - 40	62+94.4	19.8' RT
83 - 41	64+33.3	17.6' LT
83 - 42	64+33.0	15.6' RT
83 - 72	65+04.8	1.6' LT
83 - 43	65+73.6	21.1' LT
83 - 44	65+79.4	18.1' RT
83 - 45	67+16.0	18.4' LT
83 - 46	67+17.9	20.1' RT
83 - 47	68+56.8	20.3' LT
83 - 48	68+53.5	19.8' RT
83 - 49	70+13.6	24.5' LT
83 - 50	69+99.4	23.8' RT
83 - 51	71+37.5	25.0' LT
83 - 52 (83 - 52A)	71+56.2	22.3' RT
82 - 9	61+02	89.0' RT
82 - 10	69+49	64.0' RT

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING PLAN AND LOGS 3.0
(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS13	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6

83-37

83-37A

WATER DEPTH 12.0'
MUD LINE 82.6

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" OR 6"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% some — 20–35% m-medium little — 10–20% c-coarse trace — 0–10%
WOC	1	0.0	1.5	ss	WOR		Light Grey-Brown SILT, some CLAY little organic matter (saturated, plastic
	V-1	1.5	3.0	VANE SHEAR			
	U-1	3.0	5.0	U	24" Recovery	4.5'	
	2	5.0	6.5	ss	WOR		Grey CLAY, some SILT (saturated, plastic)
	V-2	6.5	8.0	VANE SHEAR TEST			
	U-2	8.0	10.0	U	24" Recovery		
	3	10.0	11.5	ss	WOR		Similar Soils with trace of fine SAND
	V-3	14.0	15.5	VANE SHEAR TEST			
	4	22.0	23.5	ss	WOR		Light Grey-Brown CLAY, some SILT (saturated, plastic)
	5	27.0	28.5	ss	WOR		Similar Soils
	6	32.0	33.5	ss	WOR-3	33.0	Grey SILT, (saturated, moderately plastic)
		37.0	38.5	ss	WOR		No Recovery
WOH	7	38.5	39.5	ss	16-12	38.5	Light Greyish- rod SILT, trace CLAY (saturated, slightly plastic)
	8	42.0	43.5	ss	WOH		Grey SILT, trace CLAY (saturated, slightly plastic)
						44.5	
30	9	47.0	48.5	ss	19-7-6		Grey cmf SAND, some SILT, little mf GRAVEL (saturated, slightly plastic) Glacial Till
						50.5	
52	C-1	51.0	56.0	NXX	CORE		Calcareous Shale 56" Recovery
120/6"							58" Recovery
	C-2	56.0	61.0	NXX	CORE		Boring Terminated at 61.0'

On November 30, and December 1, 1983, Obtained tubes and performed field vane shear tests in 83-37A (location 2+sta. 61 + 39.8,19.4 Lt):

U-3 taken from 15' to 17'
24" Recovery

U-4 taken from 20' to 22'
23" Recovery

U-5 taken from 25' to 27'
23" Recovery

U-6 taken from 30' to 32'
21 Recovery

FV-4 17.0' to 18.5'
FV-5 22.0' to 23.5'
FV-6 27.5' to 29.0'
FV-7 32.5' to 34.0'

Pier 6E
Bot. Of Seal

Approx. Tip Of Pile

83-38

WATER DEPTH 12.1'
MUD LINE 82.5

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" OR 6"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% some — 20–35% m-medium little — 10–20% c-coarse trace — 0–10%
WOC	1	0.0	2.0	ss	WOR		Dark Grey-Brown SILT; some ORGANIC MATERIAL (saturated, plastic)
WOC	2	5.0	7.0	ss	WOH		Similar Soils
	3	10.0	12.0	ss	WOH	10.0'	Grey SILT and CLAY; trace fine SAND (saturated, plastic)
	4	15.0	17.0	ss	WOR	15.0'	Grey CLAY; some SILT (saturated, plastic)
	5	20.0	22.0	ss	WOR		Similar Soils
	6	25.0	27.0	ss	WOH	28.0'	Similar Soils
6	7	30.0	32.0	ss	WOH-1/1'		Grey SILT ; some CLAY (saturated, moderately plastic)
25	8	35.0	37.0	ss	1-2-2-2	38.0'	Similar Soils Alternating layers of CLAY and SILT, 35.0' to 38.0'
25	9	40.0	42.0	ss	4-6-4-6	44.0'	Grey SILT, little CLAY, trace fine SAND; (saturated, moderately plastic)
30/6	10	45.0	47.0	ss	19-11-7-4		Grey c-mf SAND; little fine GRAVEL and SILT (saturated, non-plastic Glacial Till
6PUN IN						51.2'	
	11	50.0	51.2	ss	10-16-12/0	2-100/0"	Grey cmf SAND and GRAVEL, trace SILT Glacial Till
	C-1	51.2	56.2	NXX	Core		CALCAREOUS SHALE 54" Recovery 3 pieces
	C-2	56.2	61.2	NXX	Core		63" Recovery (includes 3" of previous run) 2 pieces Rock had very sound appearance.
							Boring Terminated at 61.2'

Pier 7E
Bot. Of Seal

Approx. Tip Of Pile

83-39

83-39A

WATER DEPTH 12.0'
MUD LINE 82.55

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" OR 6"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% some — 20–35% m-medium little — 10–20% c-coarse trace — 0–10%
WOC	1	0.0	1.5	ss	WOR		Brown SILT; some PEAT; little CLAY; trace fine SAND (saturated, moderately plastic)
						3.0'	
WOH	2	6.0	7.5	ss	WOR		Grey CLAY and SILT; (saturated, plastic)
WOH	3	11.0	12.5	ss	WOR		Grey SILT and CLAY; (saturated, plastic)
WOH	4	16.0	17.5	ss	WOR		Similar Soils
WOH	5	21.0	22.5	ss	WOR		Similar Soils (light brownish-grey in color)
4	6	26.0	27.5	ss	WOH		Similar Soils
5	7	31.0	32.5	ss	WOH-2-2		Brown CLAY; some SILT; (saturated, plastic)
						34.0'	
7	8	36.0	37.5	ss	2-2-3		Light Brownish-Grey SILT; little fine SAND; little CLAY (saturated, moderately plastic)
14	9A	41.0	42.0	ss	20-14		Light Brownish-Grey SILT trace f sand; trace CLAY (saturated, non-plastic)
						42.0'	
37	9B	42.0	42.5	ss	13		Light-Brownish Grey SILT; some mf GRAVEL trace CLAY; trace fine SAND; (saturated, non-plastic) Till
27	10	46.0	47.5	ss	26-27-37		Dark grey mf GRAVEL; some c-mf SAND; little SILT (saturated, non-plastic) Till
198	C-1	48.5	53.5	NXX	D-4	48.0'	Core through Till - recovered 31" -including 13" of boulder Drill Time = 8 min/ft
201	11	58.5	58.6	ss	114/1"		Grey coarse SAND and fine GRAVEL; trace SILT (saturated, non-plastic) Glacial Till
	12	63.5	64.0	ss	97		Grey c-mf+ SAND and SILT; little GRAVEL (saturated, non-plastic) Till
						67.0'	
		67.0	72.1	NXX	CORE		CALCAREOUS SHALE 60" Recovery Drill Time = 20 min.
		72.1	77.2	NXX	Core		62" Recovery Drill Time = 20 min.
							Boring Terminated at 77.2'

NOTE: Boring redrilled at 39A STA.62+84.5,10.2 LT due to casing loss during boulder blasting.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING LOGS 3.1
(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS14	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6

83-40

WATER DEPTH 14.5'
MUD LINE ELEV. 82.7

Pier 7E
Bot. Of Seal

Approx. Tip Of Pile

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 9.0	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
WOC	1	0.0	2.0	ss	WOR		Brown SILT; some PEAT; little CLAY (saturated, plastic)
WOC							
WOC	2	4.0	6.0	ss	WOR		Brown SILT; some CLAY; little ORGANIC MATERIAL (saturated,plastic)
2							
2							
2						7.5'	
2	3	9.0	11.0	ss	WOR		Grey CLAY; some SILT; (saturated, plastic)
2							
3							
3							
2	4	14.0	16.0	ss	WOR		Similar Soils
2							
2							
1							
WOH							
WOH	5	19.0	21.0	ss	WOR		Similar Soils
4							
4							
WOH							
WOH							
WOR	6	24.0	26.0	ss	WOR		Similar Soils (reddish-brown tinted grey color)
5							
4							
3							
4							
4	7	29.0	31.0	ss	WOR-WOH/6"		Similar Soils
8							
7						34.0'	
7							
8	8	34.0	36.0	ss	WOR-WOH		Brownish-Grey SILT; trace fine SAND; trace CLAY (saturated,slightly plastic)
24							
23-							
16							
15							
16	9	39.0	41.0	ss	WOR/ 6" WOH/18"		Similar Soils
19							
15						43.0'	
24						45.0'	Boulders
19							
SPUN IN		45.0	45.1	ss	50/1"		No Recovery (Glacial Till)
						47.0'	
	10	48.5	49.8	ss	20-90-69/3"		Dark Grey fine SAND; some SILT; little fineGRAVEL (saturated, non-plastic) Till
	11	54.0	54.5	ss	117		Similar Soils
	12	59.0	60.5	ss	5-26-100		Similar Soils (slightly higher amounts of mf GRAVEL)
						62.5'	
	C-1	63.0	68.0	NXM	CORE		CALCAREOUS SHALE 60" Recovery 9 pieces (two 1" pieces have vertical split) Drill Time = 24 min
							Boring Terminated at 68.0'

83-41

WATER DEPTH 9.0'
MUD LINE ELEV. 85.5

Pier 8E
Bot. Of Seal

Approx. Tip Of Pile

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 9.0	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
PUSH	1	0.0	1.5	ss	WOR		Grey-brown SILT & PEAT,trace CLAY (saturated,slightly plastic)
		5.0	6.5	ss	WOR		Similar Soils
WOH	2	6.5	7.5	ss	WOR		
WOH	2A	7.5	8.0	ss	WOR		Similar Soils except little mf SAND
3							
4						10.0'	
4	3	10.0	11.5	ss	WOR		Silty CLAY (sample lost after recovery)
11							
8							
6							Similar Soils
5	4	15.0	20.0	ss	WOR		
WOH							
WOH							
7							
5							
6	5	20	25.0	ss	WOR		Grey CLAY, some SILT (saturated,plastic)
18							
16							
18							Similar Soils light brownish-grey)
17	6	25.0	26.5	ss	WOR		
15							
13							
11							
11							Similar Soils (sample lost after recovery)
14	7	30.0	34.5'	ss	WOR		
15							
14							
12							Similar Soils (to S-6) with slightly more SILT
11							
17	8	35.0	36.5	ss	WOR		
11						39.0	
22	9	40.0	41.5	ss	WOR		Grey SILT, trace CLAY (satruated,moderately plastic)
18							
12							Grey SILT,little fine SAND; (saturated,moderately plastic)
17	10	45.0	46.5	ss	WOR		
9							
16							
14							
21	11	50.0	51.5	ss	WOR		Grey SILT,trace CLAY; (saturated,slightly plastic)
14							
25						52.5'	
15							Grey SILT and GRAVEL,little cmf SAND (saturated, slightly plastic) Glacial Till
14							
13	12	55.0	56.5	ss	17-27-35		
17							Glacial Till recovered 35"
25							
28/6	C-1	59.5	64.5	NXM	CORE		
	13	69.0	69.5	Drop rods to sample			Grey SILT;trace c- fine SAND,fine GRAVEL (slightly,plastic) TILL
	14	75.0	75.3	ss	145/4"		Grey c-mf SAND,some SILT,little GRAVEL (saturated, slightly plastic) TILL
						77.5'	
	C-2	77.5	82.6	NXM	CORE		Calcareous Shale 61" Recovery 3 pieces
	C-3	82.5	87.6	NXM	CORE		60" 4 pieces
							Boring terminated at 87.6'

NOTES:

1. Cored boulder till from 59.5' to 64.5' NXM CORE
2. Roller bitted 56.5' to 57.0
   64.5' to 77.5'
3. Spun in casing below 52.5'

83-42

WATER DEPTH 12.4'
MUD LINE ELEV. 83.5

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 9.0	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
WOR	1	0.0	1.5	ss	WOR		Brown SILT & PEAT,trace CLAY,trace fine SAND,(saturated,moderately plastic)
V	2	5.0	6.5	ss	WOR		Grey-brown SILT,little PEAT,little CLAY,trace fine SAND(saturated,plastic)
WOH							
WOH							
3						9.0'	
3							
4	3	10.0	11.5	ss	WOR		Grey CLAY,some SILT (saturated, plastic)
3							
3							
3							
2							Similar Soils
3	4	15.0	16.5	ss	WOR		
3							
3							
2							
2							
1	5	20.0	21.5	ss	WOR		Similar Soils
5							
6							
3							
3							Similar Soils (light brownish-grey)
2	6	25.0	26.5	ss	WOR		
9							
7							
7							
6							Similar Soils
6	7	30.0	34.0	ss	WOR		
10							
10						33.5'	
9							
10							
11							Grey SILT,little CLAY (saturated,slightly plastic)
13	8	35.0	36.5	ss	WOR		
13							
8							
9							
8	9	40.0	41.5	ss	WOR		Grey SILT, trace CLAY, (saturated very slightly plastic)
8							
11							
10							
11							Grey SILT, trace CLAY (saturated,slightly plastic)
12	10	45.0	46.5	ss	WOR		
13							
12							
13							
15							
17	11	50.0	51.5	ss	WOR-13-10		Similar Soils - except little fine GRAVEL
						52.5'	
							Grey fine SAND; some SILT; little GRAVEL (saturated slightly plastic) TILL
	12	55.0	55.7	ss	40-100/2"		
	13	60.0	60.3	ss	110/3"		Similar Soils with a slightly greater proporation of mf GRAVEL
	14	65.0	65.3	ss	120/4"		Similar Soils
	15	70.0	71.5	ss	75-89-92		Grey SILT; some cmf SAND,little GRAVEL (saturated,non-plastic) Till
	16	74.0	75.6	ss	60-67-70		Grey fine SAND,some SILT,little cm SAND GRAVEL,trace CLAY Till
						77.0'	
	C-1	77.5	82.5	NXM	CORE		Calcareous Shale, 55" Recovery 3 pieces
	C-2	82.5	87.3	NXM	CORE		55 1/2" Recovery, 3 Pieces
							Boring terminated at 87.3'

NOTE: Spun in casing below 50'

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING LOGS 3.2

(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS15	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

83-72

WATER DEPTH 11.5'
MUD LINE ELEV. 85.5

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER Ø2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35–50% m-medium some—20–35% c-coarse little—10–20% trace— 0–10%
PUSH	1	0.0	1.5	ss	WOR		Brown SILT; some PEAT; little CLAY (saturated, plastic)
	2	5.0	6.5	ss	WOR		Greyish-Brown SILT; little CLAY; trace fibrous ORGANIC MATERIAL (saturated, plastic)
WOH							
WOH							
5							
8						10.0	
6	3	10.0	11.5	ss	WOR		Grey CLAY and SILT; (saturated, plastic)
3							
5							
7							
5							
6	4	15.0	16.5	ss	WOR		Grey CLAY; some SILT; (saturated, plastic)
3							
4							
4							
3	5	20.0	21.5	ss	WOR		Similar Soils
7							
6							
6							
7	6	25.0	26.5	ss	WOR		Similar Soils with a Reddish-Brown Tint (very little sample recovered)
5							
5							
4							
10	7	30.0	31.5	ss	WOR		Reddish-Brown tinted Grey CLAY; some SILT (saturated, plastic)
9							
9							
10							
11						35.0'	
11							
	8	35.0	36.5	ss	WOR		Light Brownish-Grey SILT; trace CLAY; (saturated, moderately plastic)
10							
11							
9	9	40.0	41.5	ss	WOR		Similar Soils
10							
11							
12							
12	10	45.0	46.5	ss	WOR		Similar Soils
11							
24							
22							
17						49.0'	
30	11	50.0	51.5	ss	12-18-17		Grey fine SAND; trace mf GRAVEL; some SILT (saturated, slightly plastic)
65							
SPUN IN							
						53.5'	
	12	55.0	56.5	ss	108-66-32		Grey fine SAND and SILT, little cm SAND, fine GRAVEL; Till COBBLES and BOULDERS
	13	60.5	60.8	ss	100/3"		Similar Soils
	14	65.0	65.4	ss	100/5"		Similar Soils (with slightly less GRAVEL) Glacial Till
	15	70.0	70.4	ss	125/5"		Similar Soils (very hard Till)
	16	76.0	77.0	ss	73-81		Grey SILT; trace cmf SAND, GRAVEL Somewhat less hard than preceding sample. Glacial Till
						77.5	
	C-1	78.0	83.0	NXM	CORE		CALCAREOUS SHALE 57" Recovery 4 pieces Drill time = 20 min.
	C-2	83.0	88.0	NXM	CORE		60" Recovery 4 pieces Drill time = 10 min.
							Boring Terminated at 88.0'

NOTES:
1) Began use of spun-in casing at 50.0'; roller bitting in advance of casing.
2) Roller bitted 77.0' to 78.0' prior to first core run.

83-43

WATER DEPTH 5.5'
MUD LINE ELEV. 89.0

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER Ø2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35–50% m-medium some—20–35% c-coarse little—10–20% trace— 0–10%
WOC	1	0.0	1.5	ss	WOR		Dark Grey-Brown ORGANIC SILT (saturated, plastic)
						3.0'	
	2	4.5	6.0	ss	3-2-3		Dark Grey-Brown SILT; some mf SAND; trace ORGANIC MATERIAL, CLAY (saturated, plastic)
						12.5'	
	3	9.5	11.0	ss	4-3-3		Dark Grey mf SAND; some SILT (saturated, non-plastic)
							Pier 9E Bot. Of Seal
	4	14.5	16.0	ss	WOR		Grey CLAY; little SILT (saturated, plastic)
9							
5							
3							
2							
3	5	19.5	21.0	ss	WOR		Similar Soils
4							
3							
2							
WOH							
WOC-1	6	24.5	26.0	ss	WOR		Similar Soils with slight light Brownish tint
4							
3							
3							
3	7	29.5	31.0	ss	WOR		Similar Soils
7							
6							
5							
5	8	34.5	36.0	ss	1-1-5		Light Brown-Grey CLAY; some SILT; trace fine SAND(saturated, plastic)
						35.5	
11							
11							
12							
11	9	39.5	41.0	ss	WOR		Light Brown-Grey SILT; some CLAY (saturated, moderately plastic)
14							
12							
						43.0'	
10							
12	10	44.5	46.0	ss	3-5-7		Light Grey-Brown fine SAND and SILT; trace CLAY; GRAVEL (saturated, very slightly plastic) Glacial Till
26							
39						49.0'	
20							
25		49.5	49.5	ss	100/0"		Attempted split spoon sample at 49.5' - encountered refusal. GRANITE BOULDER in matrix of Till
78							
97		49.5	50.5	NXM	Core		cored 12" - recovered 6"
205							
160	11	53.0	53.5	ss	150-100/0"		Grey fine SAND; some mf SHALE Fragments; some SILT; trace CLAY (saturated, slightly plastic) Glacial Till
210							
280							
23	C-1	54.5	59.5	NXM	Core		Glacial Till
42							
40							
94							
123							
35							
21							
16							
16	12	64.5	65.0	ss	95-100/0"		Grey fine SAND; some SILT; little fine GRAVEL; trace CLAY (saturated, very slightly plastic) Glacial Till
20							
20							
12							
11							
27	13	69.5	70.5	ss	70-125-100/0"		Similar Soils
27							
20							
19							
18							
	14	74.5	75.5	ss	56-92-100/0"	75.5	Similar Soils, except some CLAY, little fine SAND
	C-2	76.0	81.0	NXM	Core		CALCAREOUS SHALE 60" Recovery
	C-3	81.0	86.0	NXM	Core		60" Recovery
							Boring Terminated at 86.0 Washed ahead of rasing below 55'

Approx. Tip of Pile

83-44

WATER DEPTH 10.7'
MUD LINE ELEV. 83.9

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER Ø2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35–50% m-medium some—20–35% c-coarse little—10–20% trace— 0–10%
PUSH	1	0.0	1.5	ss	WOR		Greenish-Brown SILT; some ORGANIC MATERIAL; trace CLAY (saturated, plastic)
	V-1	1.5	3.0	VANE SHEAR TEST			Data recorded by Haley & Aldrich
	D-1	3.0	5.0	U	23" Recovery		Sample retained by Haley & Aldrich
	2	5.0	6.5	ss	WOH		Similar Soils to S-1
	V-2	6.5	8.0	VANE SHEAR TEST		8.0'	Data recorded by Haley & Aldrich
	D-2	8.0	10.0	U	23" Recovery	9.0'	Sample retained by Haley & Aldrich
							Grey ORGANIC SILT, some fine SAND
	3	10.0	11.5	ss	WOR		Grey CLAY and SILT; trace fine SAND (saturated, plastic)
	V-3	11.5	14.0	VANE SHEAR TEST			Data recorded by Haley & Aldrich
	U-3	14.0	16.0	U	22" Recovery		Sample retained by Haley & Aldrich
	4	16.0	17.5	ss	WOR		Grey SILT and some CLAY; trace of fine SAND (saturated, plastic)
	V-4	17.5	19.0	VANE SHEAR TEST			Data recorded by Haley & Aldrich
	U-4	19.0	21.0	U	23" Recovery		Sample retained by Haley & Aldrich
	5	21.0	22.5	ss	WOR		Similar Soils to S-4
	V-5	22.5	24.0	VANE SHEAR TEST			Data recorded by Haley & Aldrich
	U-5	24.0	26.0	U	23" Recovery		Sample retained by Haley & Aldrich
	6	26.0	27.5	ss	WOH		Similar Soils to S-5
	V-6	27.5	29.0	VANE SHEAR TEST			Data recorded by Haley & Aldrich
	NR	29.0	31.0	U			No recovery of sample
	U-6	31.0	33.0	U			Sample retained by Haley & Aldrich
						32.0	
	7	33.0	34.5	ss	WOR		Grey SILT; some CLAY; trace fine SAND (saturatad, plastic)
PUSH	8	34.5	36.0	ss	4-2-2		Grey SILT; some CLAY; (saturated, moderately plastic)
	9	37.5	39.0	ss	WOR		Grey SILT ; some CLAY (saturated, slightly plastic)
20							
20						41.0'	
21							
31	10	42.0	43.5	ss	32-14-13		Grey SILT andcmf SAND; trace GRAVEL (saturated, very slightly plastic) Glacial Till
36							
43							
42							
35							
36	11	47.0	48.0	ss	56-39		Grey coarse SAND and fine GRAVEL; trace SILT (saturated, non-plastic) Glacial Till
38							
43	WASHED AHEAD						
41							
105							
227	12	52.0	52.3	ss	100/3"		No Sample Recovery - Till
SPUN IN							
						50.0'	
	13	59.0	59.5	ss	105-100/0"		Grey fine SAND, and SILT; little coarse GRAVEL; little CLAY (saturated, slightly plastic) Till
	14	64.0	64.5	ss	90-100/0"		Similar Soils (saturated, slightly plastic) Till
						69.5'	
	C-1	69.5	74.5	NXM	Core		CALCAREOUS SHALE 54" Recovery
	C-2	74.5	79.5	NXM	CORE		60" Recovery
							Boring Terminated at 79.5'

Approx. Tip Of Pile

83-45

WATER DEPTH 10.5'
MUD LINE ELEV. 85.3

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER Ø2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35–50% m-medium some—20–35% c-coarse little—10–20% trace— 0–10%
PUSH	1	0.0	2.0	ss	WOR		Brown ORGANIC SILT; trace mf SAND trace CLAY(saturated,moderately plastic)
	2	5.0	7.0	ss	WOR		Similar Soils
3							
3							
5							
5						10.0'	
4	3	10.0	12.0	ss	WOR		Grey SILT & CLAY, (saturated,plastic)
6							
5							
4							
3							
4	4	15.0	17.0	ss	WOR		Similar Soils
7							
6							
4							
4							
5	5	20.0	22.0	ss	WOR		Similar Soils
13							
10							
7							
7							
7	6	25.0	27.0	ss	WOR		Similar Soils(light-brownish-grey in color and with trace fine GRAVEL)
8							
9							
8							
10	7	30.0	32.0	ss	WOR		Light Brownish-Grey CLAY,some SILT (saturated,plastic)
15							
16							
14							
12						36.0'	
19	8	35.0	37.0	ss	1-2-4-6		Grey SILT;little CLAY; (saturated, very slightly plastic)
22							
22							
22							
23	9	40.0	42.0	ss	WOR/WOH-7-7		Similar Soils (brownish-grey)
28						43.0'	
34							
37							
47							
50	10	45.0	47.0	ss	46-30-15-17		Dark Grey mf GRAVEL,some c+mf SAND little SILT(saturated,non-plastic) (Till)
86							
75							
78							
82							
73	11	50.0	52.0	ss	40-29-33-42		Similar Soils
34							
21						53.0	
38							
110							
261		55.0	55.5	ss	150-100/0"		No Recovery
90							
100							
160							
95							
150	12	60.0	61.5	ss	41-62-72		Grey cmf SAND,little mf GRAVEL, trace SILT(saturated,non-plastic) (Till)
62							
70							
84							
103	13	65.0	65.5	ss	44-		Similar Soils
62							
90	13A	65.5	66.5	ss	48 -93		Grey fine SAND; some SILT; little fine GRAVEL(saturated,slightly plastic) (Till)
235							
355							
424	14	70.0	71.0	ss	61-102		Similar Soils,containing trace of CLAY
						76.0'	
	C-1	76.0	81.0	NXM	CORE		Calcareous Shale 52" Recovery Drilling time = 32 min.
							59" Recovery Drilling Time = 33 min
	C-2	81.0	86.0	NXM	CORE		Boring terminated at 86.0'

NOTE: Washing ahead of casing below 45'

Pier 10E Bot. Of Seal

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING LOGS 3.3
(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84

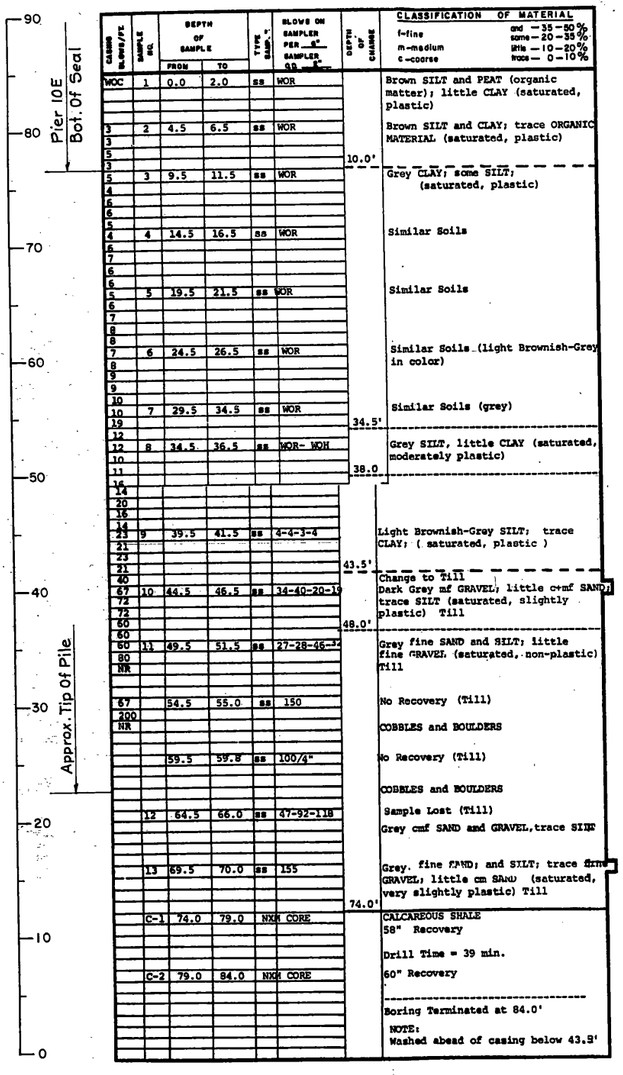
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS16	Sheet of

BR-6

83-46

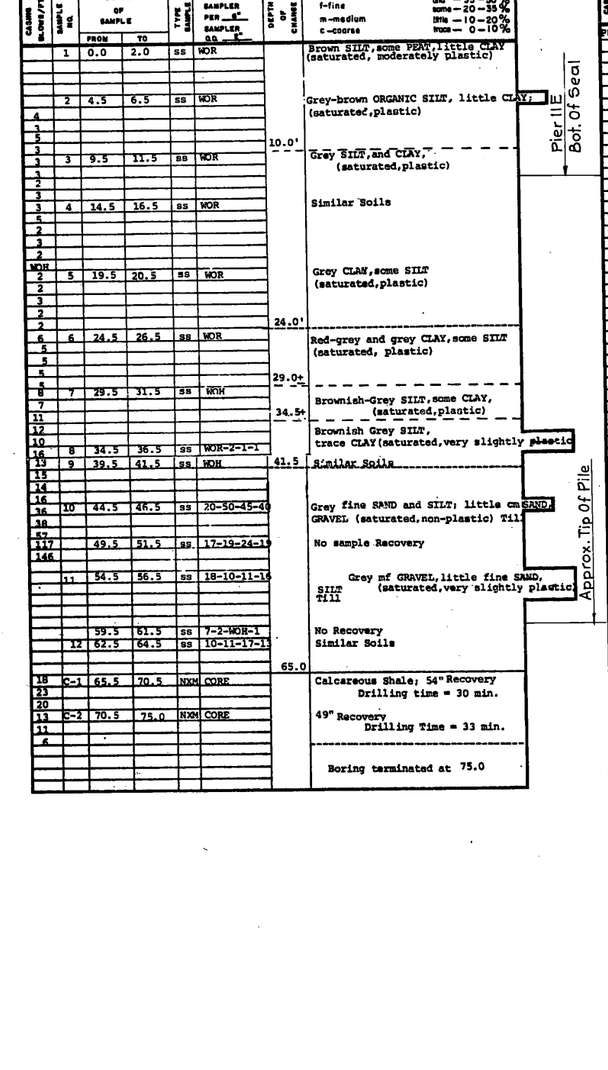
WATER DEPTH 11.0'
MUD LINE ELEV. 84.9



CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 0.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
WOC	1	0.0	2.0	ss	WOR		Brown SILT and PEAT (organic matter); little CLAY (saturated, plastic)
3	2	4.5	6.5	ss	WOR		Brown SILT and CLAY; trace ORGANIC MATERIAL (saturated, plastic)
3						10.0'	
5	3	9.5	11.5	ss	WOR		Grey CLAY; some SILT; (saturated, plastic)
4	4	14.5	16.5	ss	WOR		Similar Soils
6	5	19.5	21.5	ss	WOR		Similar Soils
7	6	24.5	26.5	ss	WOR		Similar Soils (light Brownish-Grey in color)
10	7	29.5	34.5	ss	WOR	34.5'	Similar Soils (grey)
12	8	34.5	36.5	ss	WOR- WOH		Grey SILT, little CLAY (saturated, moderately plastic)
						38.0	
23	9	39.5	41.5	ss	4-4-3-4		Light Brownish-Grey SILT; trace CLAY; (saturated, plastic)
						43.5'	
67	10	44.5	46.5	ss	34-40-20-19		Change to Till Dark Grey mf GRAVEL, little c-mf SAND; trace SILT (saturated, slightly plastic) Till
						48.0'	
50	11	49.5	51.5	ss	27-28-46-3"		Grey fine SAND and SILT; little fine GRAVEL (saturated, non-plastic) Till
NR							No Recovery (Till)
67		54.5	55.0	ss	150		COBBLES and BOULDERS
NR		59.5	59.8	ss	100/4"		No Recovery (Till)
							COBBLES and BOULDERS
	12	64.5	66.0	ss	47-92-118		Sample Lost (Till) Grey cmf SAND and GRAVEL, trace SILT
	13	69.5	70.0	ss	155		Grey, fine SAND; and SILT; trace firm GRAVEL; little cm SAND (saturated, very slightly plastic) Till
						74.0'	
	C-1	74.0	79.0	NXM	CORE		CALCAREOUS SHALE 58" Recovery Drill Time = 39 min.
	C-2	79.0	84.0	NXM	CORE		60" Recovery Boring Terminated at 84.0' NOTE: Washed ahead of casing below 43.5'

83-47

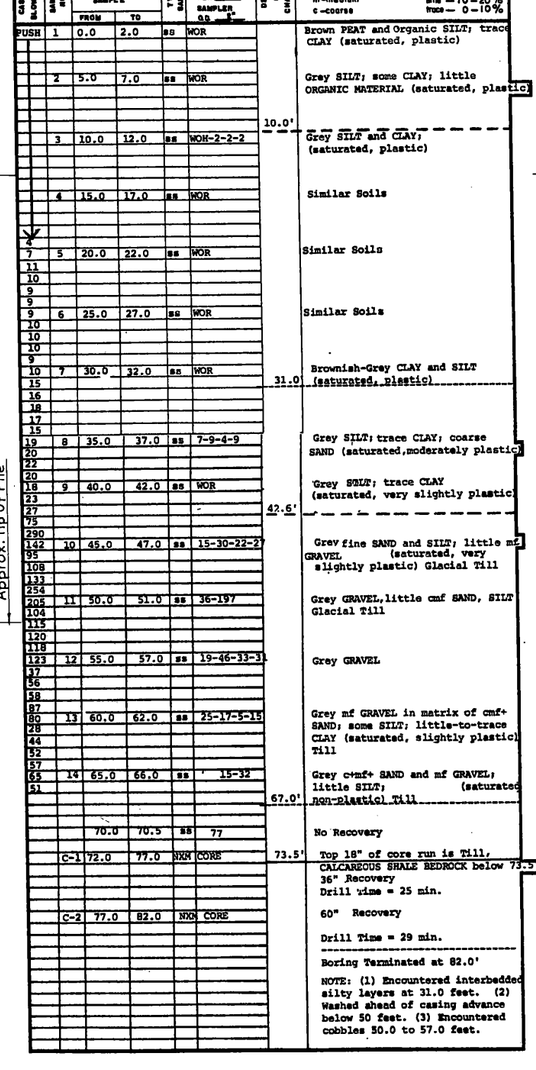
WATER DEPTH 9.2'
MUD LINE ELEV. 86.5



CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 0.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
	1	0.0	2.0	ss	WOR		Brown SILT, some PEAT, little CLAY (saturated, moderately plastic)
	2	4.5	6.5	ss	WOR		Grey-brown ORGANIC SILT, little CLAY (saturated, plastic)
						10.0'	
3	3	9.5	11.5	ss	WOR		Grey SILT and CLAY, (saturated, plastic)
3	4	14.5	16.5	ss	WOR		Similar Soils
WOH	5	19.5	20.5	ss	WOR		Grey CLAY, some SILT (saturated, plastic)
						24.0'	
6	6	24.5	26.5	ss	WOR		Red-grey and grey CLAY, some SILT (saturated, plastic)
5						29.0+	
8	7	29.5	31.5	ss	WOH		Brownish-Grey SILT, some CLAY, (saturated, plastic)
						34.5+	
10	8	34.5	36.5	ss	WOR-2-1-1		Brownish Grey SILT, trace CLAY (saturated, very slightly plastic
16	9	39.5	41.5	ss	WOH	41.5	Similar Soils
16	10	44.5	46.5	ss	20-50-45-40		Grey fine SAND and SILT; little cm SAND; GRAVEL (saturated, non-plastic) Till
117		49.5	51.5	ss	17-19-24-19		No sample Recovery
	11	54.5	56.5	ss	18-10-11-16		Grey mf GRAVEL, little fine SAND, (saturated, very slightly plastic) SILT Till
		59.5	61.5	ss	7-2-WOR-1		No Recovery Similar Soils
	12	62.5	64.5	ss	10-11-17-13	65.0	
18	C-1	65.5	70.5	NXM	CORE		Calcareous Shale; 54" Recovery Drilling time = 30 min.
13	C-2	70.5	75.0	NXM	CORE		49" Recovery Drilling Time = 33 min. Boring terminated at 75.0

83-48

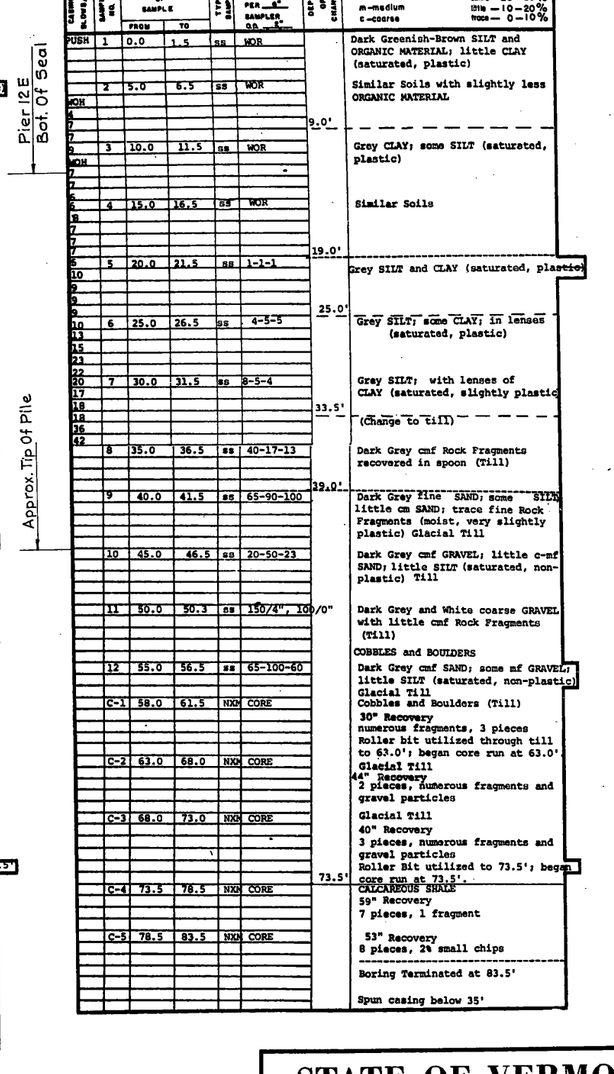
WATER DEPTH 7.2'
MUD LINE ELEV. 87.7



CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 0.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
PUSH	1	0.0	2.0	ss	WOR		Brown PEAT and Organic SILT; trace CLAY (saturated, plastic)
	2	5.0	7.0	ss	WOR		Grey SILT; some CLAY; little ORGANIC MATERIAL (saturated, plastic)
						10.0'	
	3	10.0	12.0	ss	WOH-2-2-2		Grey SILT and CLAY; (saturated, plastic)
	4	15.0	17.0	ss	WOR		Similar Soils
7	5	20.0	22.0	ss	WOR		Similar Soils
9	6	25.0	27.0	ss	WOR		Similar Soils
10	7	30.0	32.0	ss	WOR	31.0	Brownish-Grey CLAY and SILT (saturated, plastic)
19	8	35.0	37.0	ss	7-9-4-9		Grey SILT; trace CLAY; coarse SAND (saturated, moderately plastic)
18	9	40.0	42.0	ss	WOR		Grey SILT; trace CLAY (saturated, very slightly plastic)
						42.6'	
142	10	45.0	47.0	ss	15-30-22-27		Grey fine SAND and SILT; little mf GRAVEL (saturated, very slightly plastic) Glacial Till
205	11	50.0	51.0	ss	36-197		Grey GRAVEL, little cmf SAND, SILT Glacial Till
123	12	55.0	57.0	ss	19-46-33-31		Grey GRAVEL
80	13	60.0	62.0	ss	25-17-5-15		Grey mf GRAVEL in matrix of cmf+ SAND; some SILT; little-to-trace CLAY (saturated, slightly plastic) Till
65	14	65.0	66.0	ss	15-32		Grey c+mf+ SAND and mf GRAVEL; little SILT; (saturated non-plastic) Till
						67.0'	
		70.0	70.5	ss	77		No Recovery
	C-1	72.0	77.0	NXM	CORE	73.5'	Top 18" of core run is Till, CALCAREOUS SHALE BEDROCK below 73.5' 36" Recovery Drill time = 25 min.
	C-2	77.0	82.0	NXM	CORE		60" Recovery Drill Time = 29 min. Boring Terminated at 82.0' NOTE: (1) Encountered interbedded silty layers at 31.0 feet. (2) Washed ahead of casing advance below 50 feet. (3) Encountered cobbles 50.0 to 57.0 feet.

83-49

WATER DEPTH 8.0'
MUD LINE ELEV. 86.5



CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 0.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
PUSH	1	0.0	1.5	ss	WOR		Dark Greenish-Brown SILT and ORGANIC MATERIAL; little CLAY (saturated, plastic)
WOH	2	5.0	6.5	ss	WOR	9.0'	Similar Soils with slightly less ORGANIC MATERIAL
9	3	10.0	11.5	ss	WOR		Grey CLAY; some SILT (saturated, plastic)
8	4	15.0	16.5	ss	WOR	19.0'	Similar Soils
6	5	20.0	21.5	ss	1-1-1		Grey SILT and CLAY (saturated, plastic)
10	6	25.0	26.5	ss	4-5-5	25.0'	Grey SILT; some CLAY; in lenses (saturated, plastic)
20	7	30.0	31.5	ss	8-5-4		Gray SILT; with lenses of CLAY (saturated, slightly plastic
18						33.5'	(Change to till)
42	8	35.0	36.5	ss	40-17-13		Dark Grey cmf Rock Fragments recovered in spoon (Till)
	9	40.0	41.5	ss	65-90-100	39.0'	Dark Grey Fine SAND; some SILT; little cm SAND; trace fine Rock Fragments (moist, very slightly plastic) Glacial Till
	10	45.0	46.5	ss	20-50-23		Dark Grey cmf GRAVEL; little c-mf SAND; little SILT (saturated, non-plastic) Till
	11	50.0	50.3	ss	150/4", 100/0"		Dark Grey and White coarse GRAVEL with little cmf Rock Fragments (Till)
							COBBLES and BOULDERS
	12	55.0	56.5	ss	65-100-60		Dark Grey cmf SAND; some mf GRAVEL; little SILT (saturated, non-plastic) Glacial Till
	C-1	58.0	61.5	NXM	CORE		Cobbles and Boulders (Till) 30" Recovery numerous fragments, 3 pieces Roller bit utilized through till to 63.0'; began core run at 63.0'
	C-2	63.0	68.0	NXM	CORE		Glacial Till 44" Recovery 2 pieces, numerous fragments and gravel particles
	C-3	68.0	73.0	NXM	CORE		Glacial Till 40" Recovery 3 pieces, numerous fragments and gravel particles Roller Bit utilized to 73.5'; began core run at 73.5'.
						73.5'	
	C-4	73.5	78.5	NXM	CORE		CALCAREOUS SHALE 59" Recovery 7 pieces, 1 fragment
	C-5	78.5	83.5	NXM	CORE		53" Recovery 8 pieces, 24 small chips Boring Terminated at 83.5' Spun casing below 35'

STATE OF VERMONT
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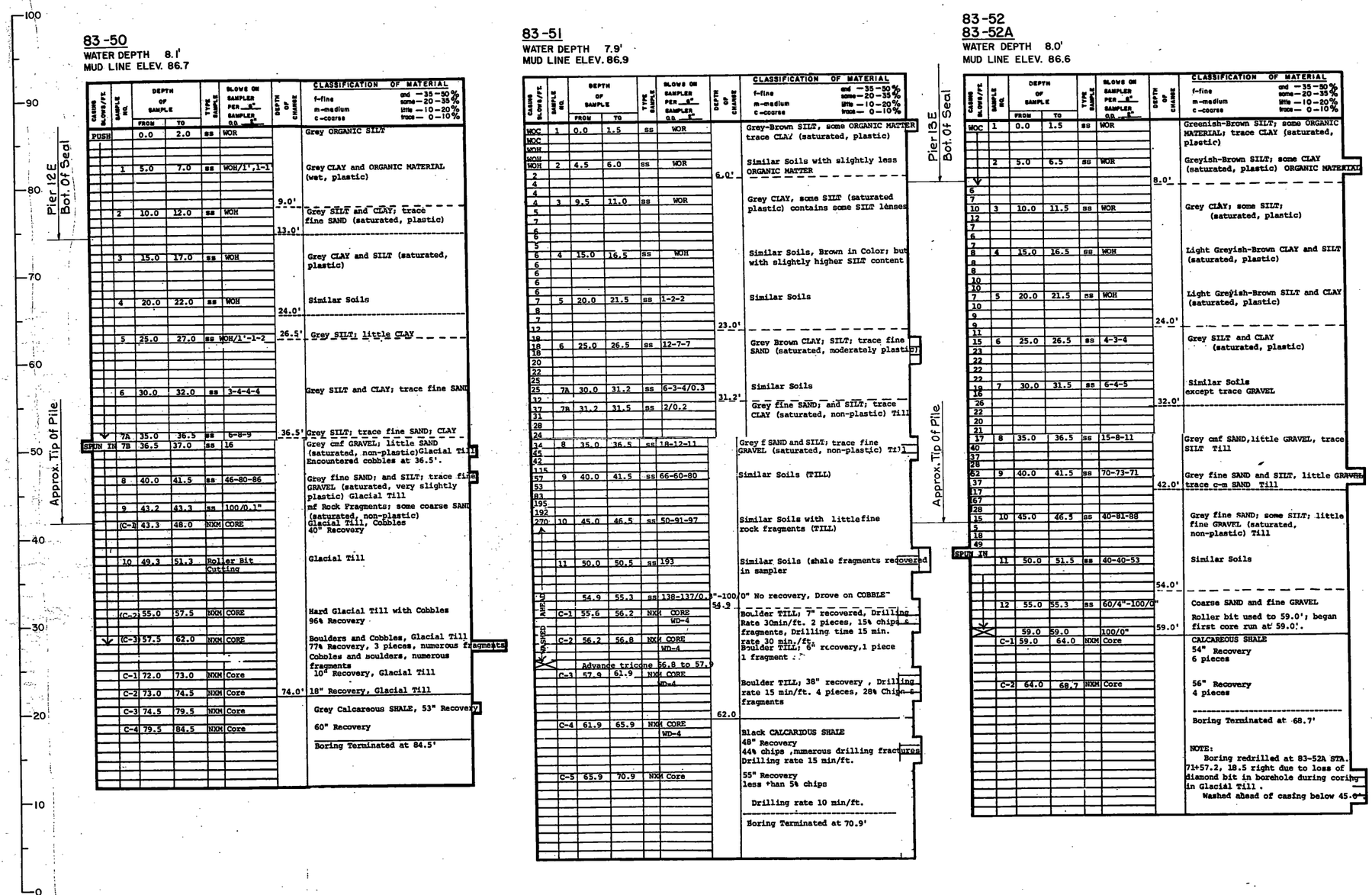
TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING LOGS 3.4
(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.Z. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS17	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6



83-50

WATER DEPTH 8.1'
MUD LINE ELEV. 86.7

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and — 35–50%, some — 20–35%, little — 10–20%, trace — 0–10%)
PUSH		0.0	2.0	ss	WOR		Grey ORGANIC SILT
	1	5.0	7.0	ss	WOH/1',1-1		Grey CLAY and ORGANIC MATERIAL (wet, plastic)
						9.0'	
	2	10.0	12.0	ss	WOH		Grey SILT and CLAY; trace fine SAND (saturated, plastic)
						13.0'	
	3	15.0	17.0	ss	WOH		Grey CLAY and SILT (saturated, plastic)
	4	20.0	22.0	ss	WOH		Similar Soils
						24.0'	
	5	25.0	27.0	ss	WOH/1'-1-2	26.5'	Grey SILT; little CLAY
	6	30.0	32.0	ss	3-4-4-4		Grey SILT and CLAY; trace fine SAND
SPUN IN	7A	35.0	36.5	ss	6-8-9	36.5'	Grey SILT; trace fine SAND; CLAY
	7B	36.5	37.0	ss	16		Grey cmf GRAVEL; little SAND (saturated, non-plastic)Glacial Till Encountered cobbles at 36.5'.
	8	40.0	41.5	ss	46-80-86		Grey fine SAND; and SILT; trace fine GRAVEL (saturated, very slightly plastic) Glacial Till
	9	43.2	43.3	ss	100/0.1"		mf Rock Fragments; some coarse SAND (saturated, non-plastic) Glacial Till, Cobbles
	(C-1)	43.3	48.0	NXM	CORE		40" Recovery
	10	49.3	51.3		Roller Bit Cutting		Glacial Till
	(C-2)	55.0	57.5	NXM	CORE		Hard Glacial Till with Cobbles 96% Recovery
	(C-3)	57.5	62.0	NXM	CORE		Boulders and Cobbles, Glacial Till 77% Recovery, 3 pieces, numerous fragments Cobbles and boulders, numerous fragments
	C-1	72.0	73.0	NXM	Core		10" Recovery, Glacial Till
	C-2	73.0	74.5	NXM	Core	74.0'	18" Recovery, Glacial Till
	C-3	74.5	79.5	NXM	Core		Grey Calcareous SHALE, 53" Recovery
	C-4	79.5	84.5	NXM	Core		60" Recovery
							Boring Terminated at 84.5'

83-51

WATER DEPTH 7.9'
MUD LINE ELEV. 86.9

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and — 35–50%, some — 20–35%, little — 10–20%, trace — 0–10%)
WOC	1	0.0	1.5	ss	WOR		Grey-Brown SILT, some ORGANIC MATTER trace CLAY (saturated, plastic)
WOC							
WOH							
WOH	2	4.5	6.0	ss	WOR		Similar Soils with slightly less ORGANIC MATTER
2						6.0'	
4	3	9.5	11.0	ss	WOR		Grey CLAY, some SILT (saturated plastic) contains some SILT lenses
5	4	15.0	16.5	ss	WOH		Similar Soils, Brown in Color; but with slightly higher SILT content
6	5	20.0	21.5	ss	1-2-2		Similar Soils
7						23.0'	
18	6	25.0	26.5	ss	12-7-7		Grey Brown CLAY; SILT; trace fine SAND (saturated, moderately plastic) TILL
25	7A	30.0	31.2	ss	6-3-4/0.3		Similar Soils
12						31.2'	
17	7B	31.2	31.5	ss	2/0.2		Grey fine SAND; and SILT; trace CLAY (saturated, non-plastic) Till
14	8	35.0	36.5	ss	18-12-11		Grey f SAND and SILT; trace fine GRAVEL (saturated, non-plastic) TILL
57	9	40.0	41.5	ss	66-60-80		Similar Soils (TILL)
270	10	45.0	46.5	ss	50-91-97		Similar Soils with little fine rock fragments (TILL)
	11	50.0	50.5	ss	193		Similar Soils (shale fragments recovered in sampler
		54.9	55.3	ss	138-137/0.3"-100/0" No recovery, Drove on COBBLE	54.9	
CASED WASHED	C-1	55.6	56.2	NXM	CORE WD-4		Boulder TILL; 7" recovered, Drilling Rate 30min/ft. 2 pieces, 15% chips & fragments, Drilling time 15 min.
	C-2	56.2	56.8	NXM	CORE WD-4		rate 30 min./ft. Boulder TILL; 6" recovery,1 piece 1 fragment
		Advance tricone 56.8 to 57.9					
	C-3	57.9	61.9	NXM	CORE WD-4		Boulder TILL; 38" recovery , Drilling rate 15 min/ft. 4 pieces, 28% Chips & fragments
						62.0	
	C-4	61.9	65.9	NXM	CORE WD-4		Black CALCARIOUS SHALE 48" Recovery 44% chips ,numerous drilling fractures Drilling rate 15 min/ft.
	C-5	65.9	70.9	NXM	Core		55" Recovery less than 5% chips Drilling rate 10 min/ft.
							Boring Terminated at 70.9'

83-52
83-52A

WATER DEPTH 8.0'
MUD LINE ELEV. 86.6

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL (f-fine, m-medium, c-coarse; and — 35–50%, some — 20–35%, little — 10–20%, trace — 0–10%)
WOC	1	0.0	1.5	ss	WOR		Greenish-Brown SILT, some ORGANIC MATERIAL; trace CLAY (saturated, plastic)
	2	5.0	6.5	ss	WOR		Greyish-Brown SILT; some CLAY (saturated, plastic) ORGANIC MATERIAL
						8.0'	
10	3	10.0	11.5	ss	WOR		Grey CLAY; some SILT; (saturated, plastic)
8	4	15.0	16.5	ss	WOH		Light Greyish-Brown CLAY and SILT (saturated, plastic)
7	5	20.0	21.5	ss	WOH		Light Greyish-Brown SILT and CLAY (saturated, plastic)
						24.0'	
15	6	25.0	26.5	ss	4-3-4		Grey SILT and CLAY (saturated, plastic)
18	7	30.0	31.5	ss	6-4-5		Similar Soils except trace GRAVEL
						32.0'	
17	8	35.0	36.5	ss	15-8-11		Grey cmf SAND,little GRAVEL, trace SILT Till
62	9	40.0	41.5	ss	70-73-71		Grey fine SAND and SILT, little GRAVEL trace c-m SAND Till
						42.0'	
15	10	45.0	46.5	ss	40-81-88		Grey fine SAND; some SILT; little fine GRAVEL (saturated, non-plastic) Till
SPUN IN							
	11	50.0	51.5	ss	40-40-53		Similar Soils
						54.0'	
	12	55.0	55.3	ss	60/4"-100/0"		Coarse SAND and fine GRAVEL Roller bit used to 59.0'; began first core run at 59.0'.
		59.0	59.0		100/0"	59.0'	
	C-1	59.0	64.0	NXM	Core		CALCAREOUS SHALE 54" Recovery 6 pieces
	C-2	64.0	68.7	NXM	Core		56" Recovery 4 pieces
							Boring Terminated at 68.7'

NOTE:
Boring redrilled at 83-52A STA. 71+57.2, 18.5 right due to loss of diamond bit in borehole during coring in Glacial Till.
Washed ahead of casing below 45.0'

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING LOGS 3.5

(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date10-31-84	Bridge Design Supervisor C.J.M./S.M. date10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS18	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6

82-9

WATER DEPTH 13.0'
MUD LINE ELEV. 83.0

Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler From 0-6	6-12	To 12-18	Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE No	Pen	Rec
	0'-2'	D	W	O	R			Soft, gray slightly organic SILT, w/diatoms, tr. fine sand, fibers	1	24'	16"
	0'-2'	UT	Push						T1	24'	20"
							4.0				
	4.5'-6.5'	D	W	O	R		4.7	Fine SAND & Gvl. noted in wash	2	24'	19'
	7'-8.5'	Vane						Very soft gray clayey SILT, trace of fine sand Note: Field Vane Shear test 7'-8.5'	Fv	18"	
							8.5'				
	8.5'-10'	D	W	O	R			Very soft dark gray mottled black silty CLAY	3	18'	18"
	10'-12'	UT	Push						T2	24'	16"
								- DO -			
	15'-17'	D	W	O	R				4	24'	24"
							20'				
	21'-23'	D	W	O	R			Very soft gray silty CLAY, trace of fine gravel	5	24'	24"
								- DO -			
	26'-28'	D	W	O	R				6	24'	24"
								- DO -			
	31'-33'	D	W	O	R				7	24'	19"
							34'	Very soft gray SILT, trace of fine sand, clay			
	36'-38'	D	W	O	R				8	24'	17"
								Very soft gray SILT, trace of clay			
	41'-43'	D	W	O	H				9	24"	16"
							46'				
	46'-48'	D	14	17	38 16			Very dense dark gray silty coarse to fine SAND, little coarse to fine gravel Glacial Till	10	24'	13"
	51'-52'	D	61	121			53'				
	53'-58'	C			3.0 3.5			Very hard, fresh, dark gray to black CALCAREOUS SHALE, joint spacing close, joints dip at horizontal to shallow angles parallel w/fine bedding planes. Joint surfaces plannor & smooth 62.0-62.5 joint dipping at high angle, open, rough	R1	60'	59"
					3.8 4.0				ROP		51"
	58'-63'	C			4.0 4.0				R2	60'	56"
					4.0 4.0				ROP		49"
					4.0 4.0						
								B.O.E @ 63'			

82-10

WATER DEPTH 8.1'
MUD LINE ELEV. 87.9

Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler From 0-6	6-12	To 12-18	Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE No	Pen	Rec
P	0'-2'	D	W	O	R			Very soft gray slightly organic SILT, w/diatoms, clay, trace fiber, occasional fine sand	1	24"	9'
P											
P	2'-4'	D	W	O	H				2	24"	4'
P								Note: Boring advanced open hole - 6'-36'			
P	4'-6'	D	W	O	H				3	24"	20"
P											
P	6'-8'	D	W	O	H				4	24"	24"
1											
1/2'	8'-10'	D	W	O	H				5	24"	24"
1							10'				
1/3"	10'-12'	D	W	O	H			Very soft gray silty CLAY, tr of fine sand, coarse to fine gravel w/silt layers to 1" thickness	6	24"	24"
P	12'-14'	D	W	O	H		14'		7	24"	24"
P								V. soft dark gray mottled black silty CLAY, tr. fine sand, fine gravel			
P	14'-16'	D	W	O	H				8	24"	18"
P											
P	16'-18'	D	W	O	H				9	24"	24"
P											
P	18'-20'	D	W	O	H				10	24"	24"
P							20'				
P	20'-22'	D	W	O	H				11	24"	24"
P											
2	22'-24'	D	W	O	H				12	24"	24"
2							24'				
3	24'-26'	D	W	O	H				13	24"	24"
3								- DO - frequent silt layers			
2	26'-28'	D	W	O	H				14	24"	20"
2							28'				
2	28'-30'	D	WOH	WOH	2 3			Soft Grayclayey SILT	15	24"	24"
6	30'-32'	D	W	O	H 2			Soft Gray SILT, little clay	16	24"	17"
6											
7	32'-34'	D	W	O	H 2			Medium stiff gray SILT, trace of fine sand, fine gravel	17	24"	16"
8											
6	34'-36'	D	2	3	6				18	24"	15"
6							36'				
11	36'-38'	D	13	7	10 13		38'	Medium dense dark gray coarse to fine sandy coarse to fine gravel - Upper Till	19	24"	6"
12								Dense dark gray coarse to fine sandy SILT G.L. Till			
11	38'-40'	D	14	15	17 17				20	24"	12"
15								Very dense dark gray fine sandy SILT, little coarse to fine gravel	21	24"	5"
	42.5'-44.5	D	18	34	56 100						
									22	24"	20"
	47'-49'	D	27	29	45 40						
									23	24"	6"
	52'-54'	D	31	53	46 80						
							59'	B.O.E. @ 59.0' w/refusal - 100 blows 1400 hammer/1"			

82-11

WATER DEPTH 7.0'
MUD LINE ELEV. 89.4

Casing Blows per foot	Sample Depths From - To	Type of Sample	Blows per 6" on Sampler From 0-6	6-12	To 12-18	Moisture Density or Consist	Strata Change Elev	SOIL IDENTIFICATION Remarks include color, gradation, Type of soil etc. Rock-color, type, condition, hardness, Drilling time, seams and etc	SAMPLE No	Pen	Rec
2	0'-1.5'	D	WOR	1	1			Soft gray slightly organic SILT, little fine sand, clay, trace of fiber	1	18"	18"
7							2'				
12								Soft gray silty CLAY, trace of fine sand, fine gravel			
14											
13											
11	5'-6.5'	D	1	1	1				2	18"	16"
20											
24											
27											
31							10'				
18	10'-11.5'	D	11	10	11			Medium dense dark gray coarse to fine sandy SILT, little coarse to fine gravel Upper Glacial Till	3	18"	10"
43							12'				
50								Very dense dark gray fine sandy SILT, litt. coarse to fine gravel Glacial Till			
61											
45											
94	15'-16.5'	D	34	61	78				4	18"	15"
73											
90											
101											
120											
	20'-21.5'	D	61	58	121						
							21.5'	- DO - Glacial Till	-	18"	0
								Refusal @ 21.5' - 100 blows/9" 140# OEAR 0" pen			

90 80 70 60 50 40 30 20 10 0

90 80 70 60 50 40 30 20

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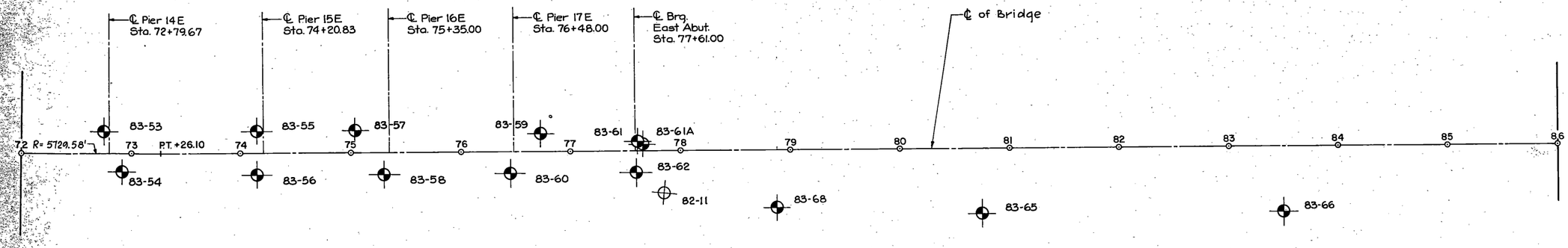
TOWN OF ROUSES POINT N.Y. — ALBURG VT	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING LOGS 3.6

(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS19	Sheet of

BR-6



BORING NO.	STATION	OFFSET
83-53	72+75.0	20.0' LT
83-54	72+91.7	16.8' RT
83-55	74+15.0	20.0' LT
83-56	74+14.0	18.0' RT
83-57	75+03.2	20.4' LT
83-58	75+29.8	22.4' RT
83-59	76+73.0	17.0' LT
83-60	76+46.0	18.0' RT
83-61	77+61.5	8.5' LT
83-61A	77+66.0	6.0' LT
83-62	77+60.0	19.5' RT
83-63	77+97.0	141.0' RT
83-68	78+87.9	53.2' RT
83-64	79+50.0	140.0' RT
83-65	80+76.0	57.0' RT
83-66	83+48.0	60.4' RT
82-11	77+85	39.0' RT

83-53

WATER DEPTH 7.3'
MUD LINE ELEV. 87.4

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% some — 20–35% m-medium little — 10–20% c-coarse trace — 0–10%
PUSH	1	0.0	1.5	ss	WOR		Grey-Brown SILT and CLAY; some ORGANIC MATERIAL (saturated, plastic)
	2	5.0	6.5	ss	WOR		Similar Soils
WOR							
						8.0'	
6							
6	3	10.0	11.5	ss	WOH		Grey CLAY; little SILT (saturated, plastic)
4							
5	4	15.0	16.5	ss	WOR		Light Grey-Brown CLAY; some SILT (saturated, plastic)
10							
11	5	20.0	21.5	ss	1-1-1		Similar Soils
20							
30	6	25.0	26.5	ss	6-7-4		Light Grey SILT; some CLAY; trace fine SAND (saturated, moderately plastic)
23							
20	7	30.0	31.5	ss	WOR		Similar Soils
30							
27						33.0'	
36							Glacial Till
35							Grey c-mf SAND, and SILT; trace coarse SAND; fine GRAVEL (saturated, non-plastic)
41	8	35.0	36.5	ss	19-10-4		
51							
41							
50	9	38.9	39.0	ss	150/2"		Grey cmf SAND and Rock Fragments; little SILT; (saturated, non-plastic)
333							
336						39.0'	Glacial Till
40	C-1	39.0	44.0	NXW	CORE		Boulder Till 14.0" Recovery 1 piece Drill Rate=12 min. Lost return circulation at 39.0'
30							
61							
41							
62							
102	C-2	44.0	47.0	NXW	CORE		10" Recovery Numerous fragments; till Grey SHALE Fragments
68							
55	10	49.0	49.2	ss	174/2"		Till 11" Recovery 4 large fragments, numerous small ones
	C-3	49.2	50.5	NXW	CORE	50.5'	CALCAREOUS SHALE 51" Recovery 11 pieces, 25% fragments Average Drill Rate = 10 min/ft
	C-4	50.5'	55.5	NXW	CORE		
							52" Recovery 3 pieces, 25% chips and fragments
	C-5	55.5	60.5	NXW	CORE		Boring Terminated at 60.5'

Pier 14E Bot. of Seal

Approx. Tip Of Pile

83-54

WATER DEPTH 7.8'
MUD LINE ELEV. 86.9

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% some — 20–35% m-medium little — 10–20% c-coarse trace — 0–10%
WOC	1	0.0	1.5	ss	WOR		Dark Brown Grey ORGANIC SILT (saturated, plastic)
	2	5.0	6.5	ss	2-1-2		Dark Grey SILT; little ORGANIC MATERIAL (saturated, plastic)
WOH						7.0'	
1							
7							
5							
4	3	10.0	11.5	ss	WOR		Grey CLAY; some SILT (saturated, plastic) trace shells
5							
5							
2							
5							
5	4	15.0	16.5	ss	WOR		Light Brown-Grey CLAY; some SILT (saturated, plastic)
7							
7							
6							
6							
7	5	20.0	21.5	ss	1-1-1		Similar Soils
6							
8							
8							
10						25.0'	
12	6	25.0	26.5	ss	WOH- 6		Grey SILT; some CLAY (saturated, plastic)
10							
10							
10							
10	7	30.0	31.5	ss	4-3-1		Grey SILT; some CLAY; little fine SAND (saturated, plastic)
14							
15							
17						34.0'	
20	8	34.0	35.5	ss	32-24-14		Grey fine SAND; some fine SHALE Fragments; some SILT (saturated, non-plastic)
60							
62							
53						37.5'	
39							
26	9	40.0	41.5	ss	14-3-3		Grey SILT; little mf SAND trace fine GRAVEL; (saturated, non-plastic)
						42.0	
							Similar Soils with trace SHALE Fragments (more dense)
10	10	45.0	46.5	ss	70-26-23		
60							
70						47.0'	
41							Probable Till or Weathered Rock Grey cmf SHALE fragments recovered in spoon
48							
70	11	50.0	51.5	ss	17-11-14		
57							
62							
		52.5	52.5	ss	100-0"	52.5'	
	C-1	52.5	57.5	NXW	Core		CALCAREOUS SHALE 60" Recovery 6 pieces Total drill time=25 min.
	C-2	57.5	62.5	NXW	Core		60" Recovery 6 Pieces Total drill time=50 min.
							Boring Terminated at 62.5'

Pier 15E Bot. of Seal

Approx. Tip Of Pile

83-55

WATER DEPTH 8.0'
MUD LINE ELEV. 86.8

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% some — 20–35% m-medium little — 10–20% c-coarse trace — 0–10%
PUSH	1	0.0	1.5	ss	WOR		Grey-Brown SILT; little ORGANIC MATERIAL; some CLAY (saturated, plastic)
						2.5'	
							Grey SILT; some CLAY; little fine SAND in thin layers; trace Seashell; trace coarse SAND (saturated, plastic)
	2	5.0	6.5	ss	2-2-2		
						8.5'	
PUSH	3	10.0	11.5	ss	WOH		Brownish-Grey CLAY and SILT (saturated, plastic)
7							
6							
6							
5							
7	4	15.0	16.5	ss	WOR		Light Brown SILT; some CLAY (saturated, plastic)
6							
6							
17						17.0'	
18							Grey SILT; some CLAY; little fine SAND; little mf GRAVEL (saturated, plastic)
18	5	20.0	21.5	ss	2-5-8	21.0'	
13							
60							
35							
33							
30	6	25.0	26.5	ss	35-12-10		Grey -cmf SAND; little fine GRAVEL; some SILT (saturated, non-plastic) Glacial Till
21							
27							
16							
12							
60	7	30.0	31.5	ss	41-18-12		Grey mf Rock Fragments; some mf SAND; Glacial Till
						35.0'	Advanced boring to 35.0' with roller bit. Bedrock at 35.0'.
	C-1	35.0	40.0	NXW	CORE		CALCAREOUS SHALE 52" Recovery 5 pieces, numerous fragments Drill time = 62 min. Lost return circulation at 36.5'.
	C-2	40.0	45.0	NXW	CORE		60.2" Recovery 5 pieces, several large fragments; few chips Drill time = 35 min.
							Boring Terminated at 45.0'

STATE OF VERMONT
AGENCY OF TRANSPORTATION

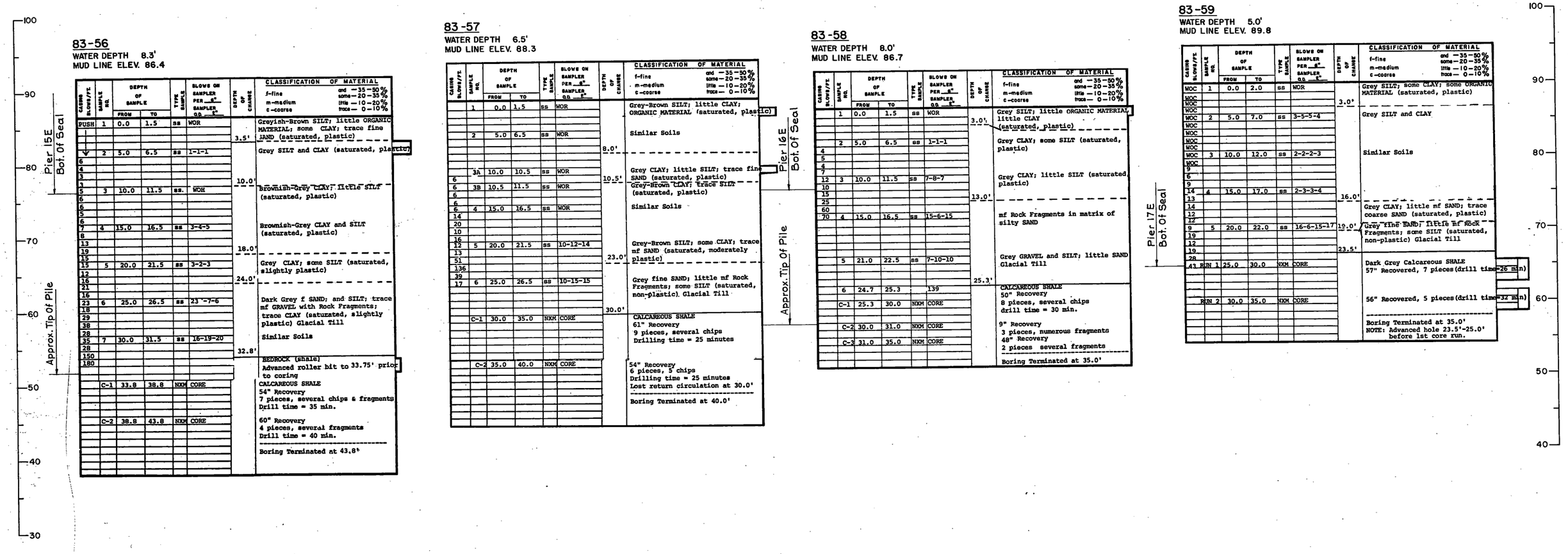
TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING PLAN AND LOGS 4.0
(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS20	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6



83-56

WATER DEPTH 8.3'
MUD LINE ELEV. 86.4

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 0.0 - 1.5'	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
PUSH	1	0.0	1.5	ss	WOR		Greyish-Brown SILT; little ORGANIC MATERIAL; some CLAY; trace fine SAND (saturated, plastic)
						3.5'	
✓	2	5.0	6.5	ss	1-1-1		Grey SILT and CLAY (saturated, plastic)
						10.0'	
	3	10.0	11.5	ss.	WOH		Brownish-Grey CLAY; little SILT (saturated, plastic)
	4	15.0	16.5	ss	3-4-5		Brownish-Grey CLAY and SILT (saturated, plastic)
						18.0'	
	5	20.0	21.5	ss	3-2-3		Grey CLAY; some SILT (saturated, slightly plastic)
						24.0'	
	6	25.0	26.5	ss	23-7-6		Dark Grey f SAND; and SILT; trace mf GRAVEL with Rock Fragments; trace CLAY (saturated, slightly plastic) Glacial Till
	7	30.0	31.5	ss	16-19-20		Similar Soils
						32.8'	
							BEDROCK (shale) Advanced roller bit to 33.75' prior to coring
	C-1	33.8	38.8	NXM	CORE		CALCAREOUS SHALE 54" Recovery 7 pieces, several chips & fragments Drill time = 35 min.
	C-2	38.8	43.8	NXM	CORE		60" Recovery 4 pieces, several fragments Drill time = 40 min. --- Boring Terminated at 43.8'

83-57

WATER DEPTH 6.5'
MUD LINE ELEV. 88.3

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 0.0 - 1.5'	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
	1	0.0	1.5	ss	WOR		Grey-Brown SILT; little CLAY; ORGANIC MATERIAL (saturated, plastic)
	2	5.0	6.5	ss	WOR		Similar Soils
						8.0'	
	3A	10.0	10.5	ss	WOR		Grey CLAY; little SILT; trace fine SAND (saturated, plastic)
						10.5'	
	3B	10.5	11.5	ss	WOR		Grey-Brown CLAY; trace SILT (saturated, plastic)
	4	15.0	16.5	ss	WOR		Similar Soils
	5	20.0	21.5	ss	10-12-14		Grey-Brown SILT; some CLAY; trace mf SAND (saturated, moderately plastic)
						23.0'	
	6	25.0	26.5	ss	10-15-15		Grey fine SAND; little mf Rock Fragments; some SILT (saturated, non-plastic) Glacial Till
						30.0'	
	C-1	30.0	35.0	NXM	CORE		CALCAREOUS SHALE 61" Recovery 9 pieces, several chips Drilling time = 25 minutes
	C-2	35.0	40.0	NXM	CORE		54" Recovery 6 pieces, 5 chips Drilling time = 25 minutes Lost return circulation at 30.0' --- Boring Terminated at 40.0'

83-58

WATER DEPTH 8.0'
MUD LINE ELEV. 86.7

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 0.0 - 1.5'	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
	1	0.0	1.5	ss	WOR		Grey SILT; little ORGANIC MATERIAL little CLAY (saturated, plastic)
						3.0'	
	2	5.0	6.5	ss	1-1-1		Grey CLAY; some SILT (saturated, plastic)
12	3	10.0	11.5	ss	7-8-7		Grey CLAY; little SILT (saturated plastic)
						13.0'	
70	4	15.0	16.5	ss	15-6-15		mf Rock Fragments in matrix of silty SAND
	5	21.0	22.5	ss	7-10-10		Grey GRAVEL and SILT; little SAND Glacial Till
						25.3'	
	6	24.7	25.3		139		CALCAREOUS SHALE 50" Recovery 8 pieces, several chips drill time = 30 min.
	C-1	25.3	30.0	NXM	CORE		9" Recovery 3 pieces, numerous fragments 48" Recovery 2 pieces several fragments
	C-2	30.0	31.0	NXM	CORE		---
	C-3	31.0	35.0	NXM	CORE		Boring Terminated at 35.0'

83-59

WATER DEPTH 5.0'
MUD LINE ELEV. 89.8

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER 0.0 - 1.5'	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
WOC	1	0.0	2.0	ss	WOR		Grey SILT; some CLAY; some ORGANIC MATERIAL (saturated, plastic)
WOC						3.0'	
WOC	2	5.0	7.0	ss	3-5-5-4		Grey SILT and CLAY
WOC	3	10.0	12.0	ss	2-2-2-3		Similar Soils
						16.0'	
14	4	15.0	17.0	ss	2-3-3-4		Grey CLAY; little mf SAND; trace coarse SAND (saturated, plastic)
9	5	20.0	22.0	ss	16-6-15-17	19.0'	Grey fine SAND; little mf Rock Fragments; some SILT (saturated, non-plastic) Glacial Till
						23.5'	
43	RUN 1	25.0	30.0	NXM	CORE		Dark Grey Calcareous SHALE 57" Recovered, 7 pieces (drill time = 26 min)
	RUN 2	30.0	35.0	NXM	CORE		56" Recovered, 5 pieces (drill time = 32 min)

							Boring Terminated at 35.0' NOTE: Advanced hole 23.5'-25.0' before 1st core run.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG V.T.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO.	Surv. Sta.

BORING LOGS 4.1
(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS21	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6

83-60

WATER DEPTH 7.7'
MUD LINE ELEV. 87.1

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
	1	0.0	1.5	ss	WOR	3.0'	Grey-Brown SILT; some CLAY; trace fine SAND; some ORGANIC MATERIAL (saturated, plastic)
	2	2.8	4.8	ss	3-4-4-3		Grey CLAY; some SILT (saturated, plastic)
	U-1	5.0	7.0	U	24" Recovery		Similar Soils - Undisturbed sample taken In-situ vane shear test run 8.5' Grey-Brown SILT and CLAY (wet, plastic)
	3	8.5	10.0	ss	6-6-8		Similar Soils-Undisturbed Sample taken and rejected. 10" Recovery
	4	10.0	12.0	U		12.0'	cmf SHALE Fragments; some c-mf SAND; little SILT; trace CLAY (saturated, slightly plastic)
	5	12.0	13.5	ss	69-62-63		Grey GRAVEL and SILT; little SAND, CLAY; Glacial Till
	6	13.5	15.0	ss	34-66-19	17.0'	
	7	17.0	18.5	ss	11-21-37	18.5'	Fine SHALE Fragments
	8	18.5	20.0	ss	20-25-20		Grey cmf SAND and mf SHALE Fragments; trace SILT (saturated, non-plastic)
	9	20.0	22.0	ss	36-27-15-12		cmf SHALE Fragments; trace SILT
	10	22.0	22.7	ss	23-102/.2	22.7'	(saturated, non-plastic) Till
RUN	1	22.7	27.5	NXM	CORE		Dark Grey Calcareous SHALE 46" Recovered
RUN	2	27.5	32.5	NXM	CORE		62" Recovered
							Boring Terminated at 32.5' NOTE: Vane shear test run from 7.0' to 8.5'.

Pier 17E
Bot. of Seal

83-61
83-61A

WATER DEPTH 5.0'
MUD LINE ELEV. 89.9

East Abutment
Bot. Footing

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
	1	0.0	2.0	ss	WOH	2.5'	Grey SILT; little CLAY; trace fine SAND (plastic, saturated) ORGANICS toward the surface
	2	5.0	7.0	ss	3-4-4-5		Red-Grey SILT and CLAY (plastic, saturated)
5							
4							
6							
5							
5	3	10.0	12.0	ss	4-4-5-4		Similar Soils
6							
7							
7							
8						15.0'	
8	4	15.0	17.0	ss	12-17-16-17		Grey cmf SAND; some SILT; trace mf Gravel (non-plastic, saturated)
8							
4							
4							
6							
8	5	20.0	22.0	ss	16-17-7-9		Similar Soils NOTE: Casing broke off at 25.0', relocated boring at 61A.
6							
4							
6							
17							
27	6	25.0	27.0	ss	16-11-8-9		Similar Soils - Poor Recovery
23							
100						29.0'	
399							
243/.5	RUN 1	29.0	34.0	NX			Dark Grey Calcareous SHALE, massive and competent, 57" Recovered, 9 pieces
	RUN 2	34.0	39.0	NX	CORE		60" Recovered, 3 pieces
					CORE		Boring Terminated at 39.0'

Approx. Tip Of Pile

83-62

WATER DEPTH 8.8'
MUD LINE ELEV. 86.0

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
	1	0.0	1.5	ss	WOR	2.5'	Brown SILT; little CLAY; some ORGANIC MATERIAL (saturated, plastic)
	U-1	1.5	3.5	U	Push 24" Recovery		
	2	5.0	6.5	ss	3-4-3		Light Grey-Brown CLAY and SILT (saturated, plastic) Similar Soils
	U-2	6.5	8.5	U	Push 24" Recovery		
	3	8.7	10.2	ss	3-2-2		Grey CLAY; some SILT (saturated, plastic)
	U-3	12.0	14.0	U	Push 20" Recovery		Similar Soils
	4	14.0	15.5	ss	6-5-3		Similar Soils
19	5	16.5	18.5	ss	26-31-18-14	16.3'	Similar Soils (slightly coarser in texture)
23							
36							
29	6	20.0	22.0	ss	33-75-10-11	23.0'	Grey fine SAND; and SILT; trace cmf SAND; GRAVEL (saturated, non-plastic) Till
26							
30	C-1	22.0	27.0	NXM	CORE		Dark Grey CALCAREOUS SHALE 40" Recovery 7 pieces; drill time = 50 min. Lost return circulation at 27.5'
35							
115							63" Recovery 5 pieces, some chips
	C-2	27.0	31.7	NXM	CORE		
							Boring Terminated at 32.0'
							NOTE: Vane shear tests run at 5.0 11.7' and attempted vane at 15.5' depth.

83-63

WATER DEPTH 6.6'
MUD LINE ELEV. 88.2

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" / SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
	1	0.0	1.5	ss	WOR	2.5'	Brown SILT; some ORGANIC MATERIAL some CLAY (saturated, plastic)
	U-1	1.5	3.5	U	Push 24" Recovery		SLity CLAY (undisturbed sample, retained by Haley & Aldrich) Ran Vane Shear Test in-situ at 5.0'
		3.5	5.0	FV			Finely laminated SILT and some CLAY (saturated, plastic)
	2	5.0	6.5	ss	3-2-1		Similar Soils (sample retained by Haley & Aldrich) In-situ Vane Shear Test
	U-2	6.5	8.5	U	Push 22" Recovery		Grey CLAY; some SILT (saturated, plastic)
	3	8.5	10.0	ss	3-5-5		Similar Soil (sample retained by Haley & Aldrich) In-situ Vane Shear Test
	U-3	11.5	13.5	U	Push 21" Recovery		
		13.5	15.5	FV			
	4	15.5	16.0	ss	WOR	16.0'	Similar Soils
	4A	16.0	17.0	ss	3-9		c-mf SAND; and SILT; little mf GRAVEL (saturated, non-plastic) Glacial Till
31							
21							
46	5	17.5	19.5	ss	8-8-7-7		Similar Soils with less gravel
56							
48	6	22.5	24.5	ss	22-39-60-48		Similar Soils
47							
74							
16							
7							
10							
17	7	27.5	29.5	ss	10-4-10-14		Similar Soils
29							
134							
							Boring Terminated at 30.6'
					100/0"		Refusal 100 blows with 300# hammer on A rod 1" penetration.

90
80
70
60
50
40

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO. ROUTE 2	Surv. Sta.
BORING LOGS 4.2	
(STEEL ALTERNATE)	
Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS22	Sheet of

BR-6

83-68

WATER DEPTH 7.0'
MUD LINE ELEV. 87.6

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .6' SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35–50% m-medium some—20–35% c-coarse little—10–20% trace—0–10%
WOC	1	0.0	2.0	ss	WOR-WOH		Grey SILT; some ORGANIC MATERIAL, little peat (saturated, plastic)
2	2	2.0	4.0	ss	1-2-3	0.2	Grey CLAY, some SILT; Similar Soils
4	3	4.0	6.0	ss	1-1-1-1		Grey CLAY; little SILT; (saturated, plastic)
3							
4	4	6.0	8.0	ss	1-2-5-6	7.0	Grey CLAY; some SILT; (saturated, plastic)
5							Grey SILT trace CLAY; (saturated, slightly plastic)
10	5	8.0	10.0	ss	5-8-8-9	10.0'	Grey SILT; trace CLAY (saturated, slightly plastic)
6						12.5	Grey SILT; little mf SAND; trace CLAY, (saturated, moderately plastic)
6	6	10.0	12.0	ss	4-4-3-3		
3							
5	7	12.0	14.0	ss	4-4-5-5		
6							
11							Grey SILT; trace GRAVEL(rock fragmental); trace cmf SAND (saturated, moderately plastic)
7	8	14.0	16.0	ss	1-2-3-2		
11							
10						16.0'	Grey SILT and fine SAND, little cm SAND; GRAVEL, Till
13	9	16.0	18.0	ss	50-31-45-100		Grey coarse SAND little mf GRAVEL, little SILT (saturated, slightly plastic)
58							Similar Soils
25	10	19.8	21.3	ss	30-22-23		
45							Grey fine SAND and SILT, little GRAVEL, cm SAND; Till
	11	22.3	23.3	ss	88-32		Grey SILT, little cmf SAND; GRAVEL, Glacial Till
	12	26.0	28.0	ss	43-42-33-27		
	13	30.0	30.6	ss	150-100/1"		Refusal at 32.0'
		32.0			100/0"		

NOTE: 100 blows with 300# hammer on open end rod, no penetration.

Performed 4 field vane shear tests in Boring 68A on October 27 & 28. 83-68A located a few feet from 83-68

83-64

WATER DEPTH 7.0'
MUD LINE ELEV. 87.7

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .6' SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35–50% m-medium some—20–35% c-coarse little—10–20% trace—0–10%
	1	0.0	1.5	ss	WOR		
						3.0'	Greyish-Brown SILT; little ORGANIC MATERIAL; trace CLAY (saturated, plastic)
	U-1	1.5	3.0	U	Push 13" Recovery		Sample retained by Haley & Aldrich
	2A	3.5	4.0	ss	9	4.0'	Grey fine SAND, little SILT (saturated, non-plastic)
							Grey SILT (saturated, very slightly plastic) Vane shear test at 5.6'
	2B	4.0	5.0	ss	5-8		Grey SILT; trace CLAY (saturated, slightly plastic)
		5.0	5.6	FV		8.5'	Sample rejected by Haley & Aldrich
	3	6.0	7.5	ss	12-8-8		fine SAND; some SILT; trace mc SAND; fine GRAVEL (saturated, non-plastic)
						10.5'	Fine SAND and SILT; some CLAY; little fine GRAVEL (saturated, slightly plastic) Till
	4	9.0	10.5	ss	13-7-3		fine SAND and SILT; little mf GRAVEL with Rock Fragments; trace CLAY; Glacial Till (saturated, slightly plastic)
		7.5	8.5	U	Push		
19	5	10.5	12.5	ss	2-2-6-12	15.8'	mf SAND and SILT; little CLAY; trace GRAVEL; Glacial Till
20							Similar Soils
47							No Recovery
140	6	12.5	14.5	ss	21-14-8-9		Refusal encountered at 22.0'; 100 blows with 300# hammer on OER, 0" penetration
210							
190							Boring Terminated at 22.0'
300							
390	7	17.5	17.9	ss	98		
	8	18.0	19.5	⊙	20-17-16		
	9	21.5		ss	155/0"		

83-65

WATER DEPTH 6.9'
MUD LINE ELEV. 87.8

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .6' SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35–50% m-medium some—20–35% c-coarse little—10–20% trace—0–10%
WOC	1A	0.0	1.5	ss	WOR		
3						1.5'	Dark Grey-Brown ORGANIC SILT (saturated, plastic)
3	1B	1.5	2.0	ss	2		Gray CLAY; little SILT; trace ORGANIC MATERIAL (saturated, plastic)
3							Similar Soils
5	2	2.0	4.0	ss	3-3-5-7		
6/15"							
3	3	4.0	6.0	ss	2-1-2-1	8.0'	Grey CLAY; some SILT (saturated, plastic) Similar Soils
8	4	6.5	8.5	ss	1-1-2-3		
12							
12	5	8.5	10.5	ss	3-3-5-6		Grey SILT; some CLAY (saturated, moderately plastic) Similar Soils
14	6	10.5	12.5	ss	5-5-4-5		
12							
14	7A	12.5	13.3	ss	2-2/3"	13.3'	Similar Soils (lens containing some mf GRAVEL encountered 13.0' to 13.3')
13							Grey SILT and CLAY (saturated, moderately plastic)
18	7B	13.3	14.5	ss	2/3"-5-6	15.0'	
18							Grey fine SAND and cmf SHALE Fragments; some SILT; trace CLAY (saturated, very slightly plastic) Till
13	8	14.5	16.5	ss	7-10-6-15	16.5'	Grey fine SAND and SILT; trace mf SHALE Fragments; trace CLAY (saturated, slightly plastic) Till
64							Refusal encountered at 21.2'; 100 blows with 300# hammer on OER, 0" penetration.
67							
106	9	16.5	18.5	ss	31-50-31-39		Boring Terminated at 21.2'
95							
269/8"							

83-66

WATER DEPTH 6.9'
MUD LINE ELEV. 87.8

CASING BLOWS/FT	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER .6' SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and —35–50% m-medium some—20–35% c-coarse little—10–20% trace—0–10%
WOC	1	0.0	2.0	ss	WOR		
						2.5'	Greenish-Grey-Brown ORGANIC SILT (saturated, plastic)
	2	2.5	4.5	ss	9-8-8-9	5.0'	Light Brownish-Grey SILT; trace CLAY (saturated, plastic)
10							Grey fine SAND; and SILT; little cm SAND; fine GRAVEL (saturated, slightly plastic) Till
15	3	4.5	6.5	ss	10-18-12-22	8.5'	Similar Soils
10							
29							
31	4	6.5	8.5	ss	21-15-18-26		
39							
119							
35							Grey c-mf SAND; some SILT, some cmf GRAVEL (Shale fragments) (saturated, slightly plastic) Till
45	5	11.5	13.5	ss	16-20-38-21		
35							
45							
39							
34							
40							
-	6	17.5	19.5	ss	13-11-14-12		Grey SILT; little fine SAND; trace GRAVEL; trace CLAY (saturated, moderately plastic) Till
27							
30							
55							
53	7	21.5	23.5	ss	8-6-5-5		Grey mf SAND and SILT; little CLAY (saturated, moderately plastic) Till
26							
21							
30							
31							
37	8	26.5	28.5	ss	26-12-5-21		Similar Soils
26							
31							
46		30.5	30.8	ss	35/3"		Refusal encountered at 30.5'.
57		30.8		0	100/0"		
95/0"							Boring Terminated at 30.8'

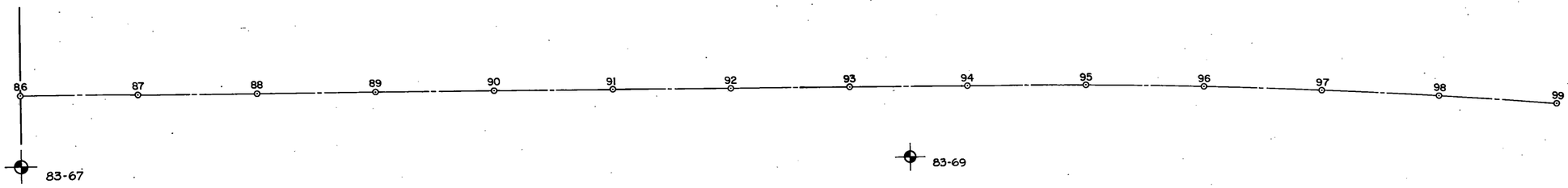
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BORING LOGS 4.3
(STEEL ALTERNATE)

Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS23	Sheet of





BORING NO.	STATION	OFFSET
83-67	86+01.5	61.0' RT
83-69	93+49.6	57.4' RT



83-67

WATER DEPTH 7.0'
MUD LINE 87.6

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
WOC	1	0.0	2.0	ss	WOR		Brown ORGANIC SILT; trace fine SAND; trace CLAY (saturated, plastic)
						2.5'	
V	2	2.0	4.0	ss	1-3-8-8		Grey SILT; (saturated, slightly plastic)
9							Grey SILT; trace CLAY; (saturated, moderately plastic)
2	3	4.0	6.0	ss	4-6-77-9		
20						6.0'	
10							Grey c-mf+ SAND and mf GRAVEL; some SILT; (saturated, moderately plastic) Till
10	4	6.0	8.0	ss	6-6-4-7		
13							Grey SILT, little fine SAND; trace mf GRAVEL (saturated, slightly plastic) Till
30							Grey cmf SAND; some mf GRAVEL; little SILT (saturated, non-plastic) Till
51	5	8.0	10.0	ss	13-15-19-23		
26						15.0'	
53	6	11.0	13.0	ss	40-29-30-35		Grey cmf SHALE Fragements; little c+mf SAND; trace SILT (saturated, non-plastic) Glacial Till
65							
219							Similar Soils
280	7	16.0	17.0	ss	165-148		
24							
42							
41							
32							
119	8	21.0	21.4	ss	112-		
		22.0	22.0	0	100/0" (300# hammer)		No sample recovered Refusal at 22.0' on open end rod
							Boring Terminated at 22.0'
							NOTE: Casing "washed ahead" below 17.0'; this accounts for lower casing blow counts below 17.0'.

83-69

WATER DEPTH 4.5'
MUD LINE 90.1

CASING BLOWS/FT.	SAMPLE NO.	DEPTH OF SAMPLE FROM	DEPTH OF SAMPLE TO	TYPE SAMPLE	BLOWS ON SAMPLER PER 6" SAMPLER O.D. 2"	DEPTH OF CHANGE	CLASSIFICATION OF MATERIAL
							f-fine and — 35–50% m-medium some — 20–35% c-coarse little — 10–20% trace — 0–10%
WOC	1'	0.0	2.0	ss	WOR		Greenish-Brown SILT; some ORGANIC MATERIAL (saturated, plastic)
						2.8	
V	2	2.0	4.0	ss	WOR-WOH-4-6		Brownish-Grey CLAY and SILT; little fine SAND, trace GRAVEL (saturated, moderately plastic)
14							
18						4.0	
38	3	4.0	6.0	ss	11-15-17-34		Brown SILT and fine SAND, little cm SAND, trace CLAY, fine GRAVEL; Till
70							
80							Similar Soils Grey in color
82	4	9.0	10.4	ss	47-32-144/5"		
							Grey cmf GRAVEL; some c+mf SAND; little SILT; (saturated, non-plastic) Till
	5	11.6	12.1	0	88 *		
							Grey c+mf- SAND; some mf GRAVEL; little SILT (saturated, non-plastic)
	6	13.9	14.3	0	54 *		
							*Driven with 300# hammer.
							Grey c+mf- SAND and cmf GRAVEL; some SILT (saturated, non-plastic) Till
	7	19.0	19.5	ss	175		
							Grey SILT; some fine SAND; little GRAVEL (saturated, slightly plastic) Encountered sand lenses. Till
	8	24.0	24.8	ss	33-140/4"		
						29.0'	
	9	29.0	29.5	ss	212		Dark Grey cmf SHALE Fragments; some mf GRAVEL; trace cmf SAND; trace SILT (saturated, non-plastic) Possible rotted shale bedrock. or Glacial Till
							Boring terminated at 29.5'



STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

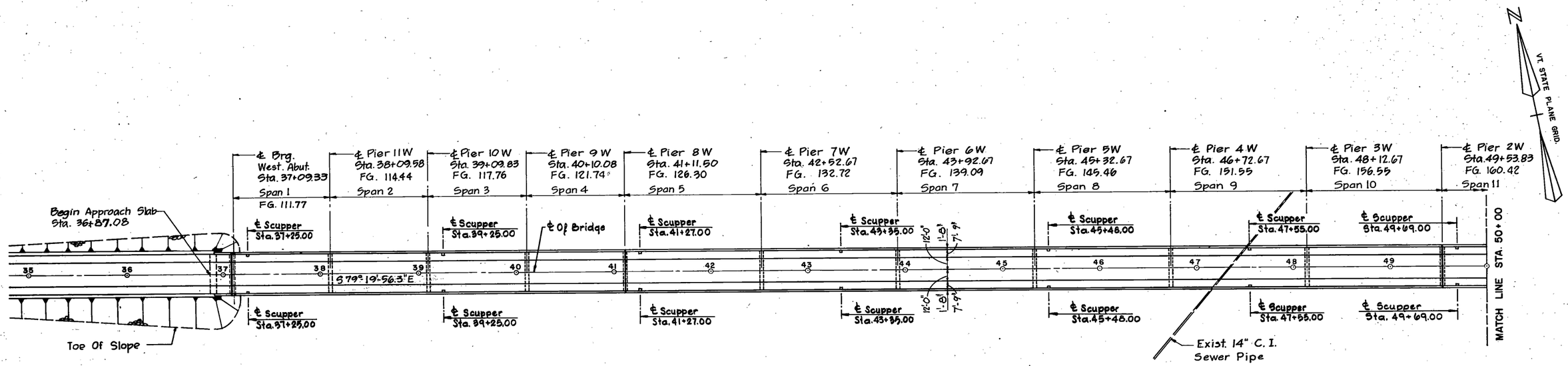
BORING PLAN AND LOGS 5.0

(STEEL ALTERNATE)

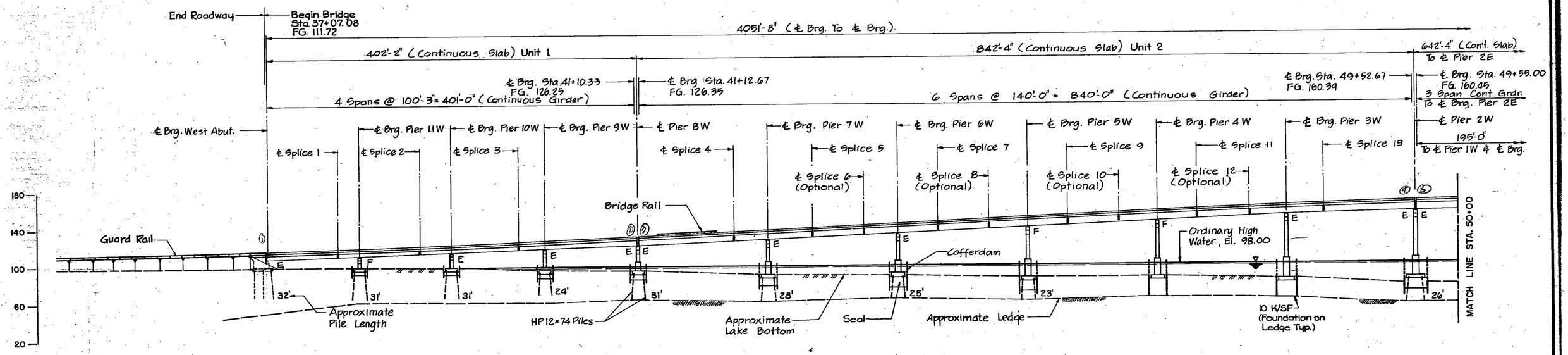
Designed by	Drawn by S.Z.
Checked by R.M.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS24	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6



PLAN
Scale: 1"= 50'



ELEVATION
Scale: 1"= 50'

NOTE:

1. F.G.-Elevation Are Located Along Profile Grade Line Which Is Called Out as 'Grade' in the Bridge Typical Section on The Preliminary Information Sheet SS1

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. – ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BRIDGE PLAN AND ELEVATION (1)

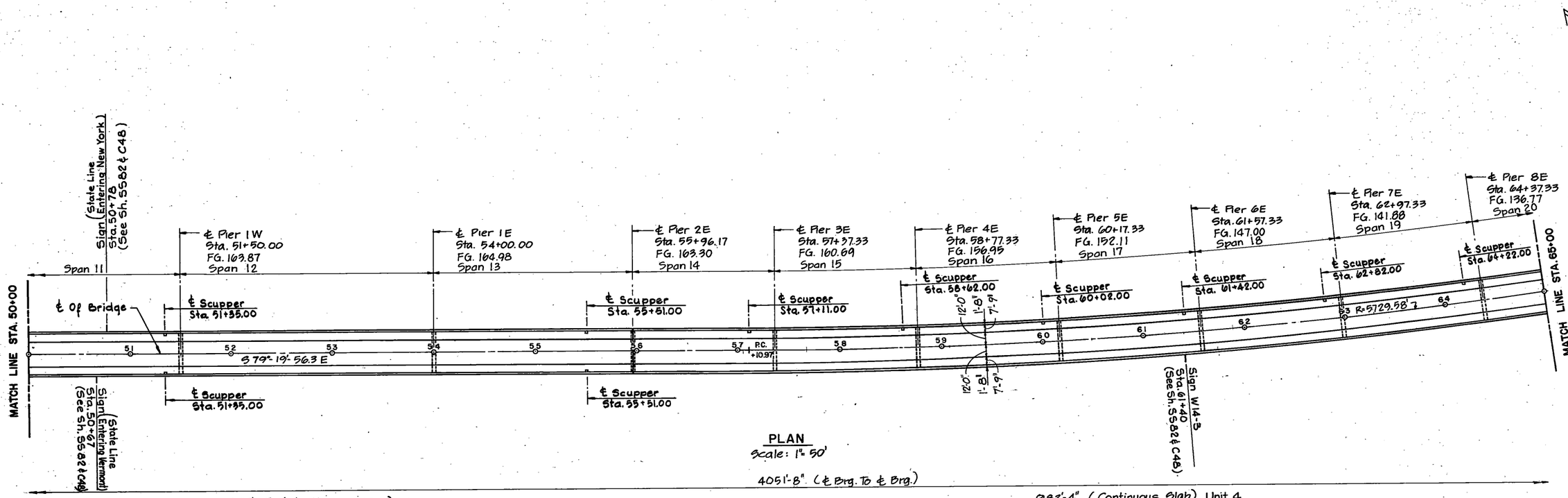
(STEEL ALTERNATE)

Designed by S.M.	Drawn by S.Z. & A.B.M.
Checked by S.H.R. date 2-17-84	Bridge Design Supervisor C.J.M./S.M. date 2-17-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS25	Sheet of

HOWARD NEEDLES TAMMEN & BERGENDOFF

BROWNING 44-131-40150

BR-6



PLAN
Scale: 1" = 50'

4051'-8" (℄ Brg. To ℄ Brg.)

642'-4" (Continuous Slab) Unit 3 — To ℄ Pier 2W

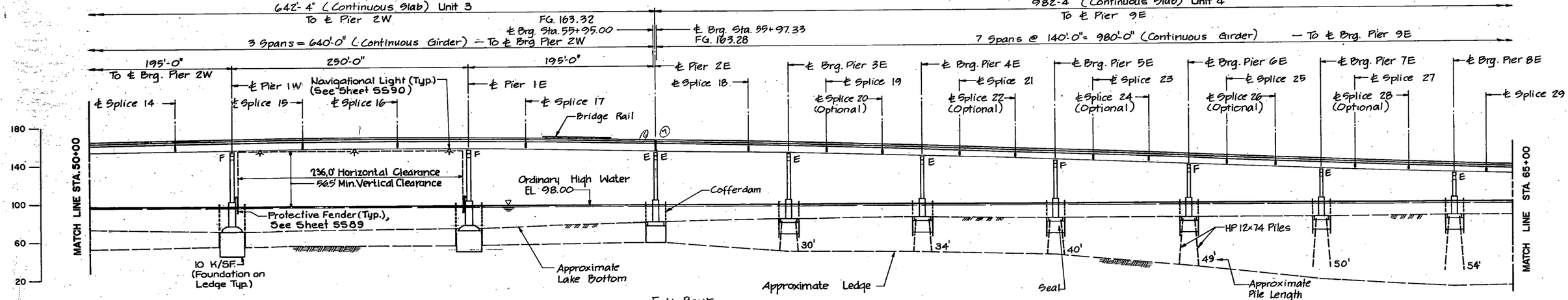
982'-4" (Continuous Slab) Unit 4 — To ℄ Pier 9E

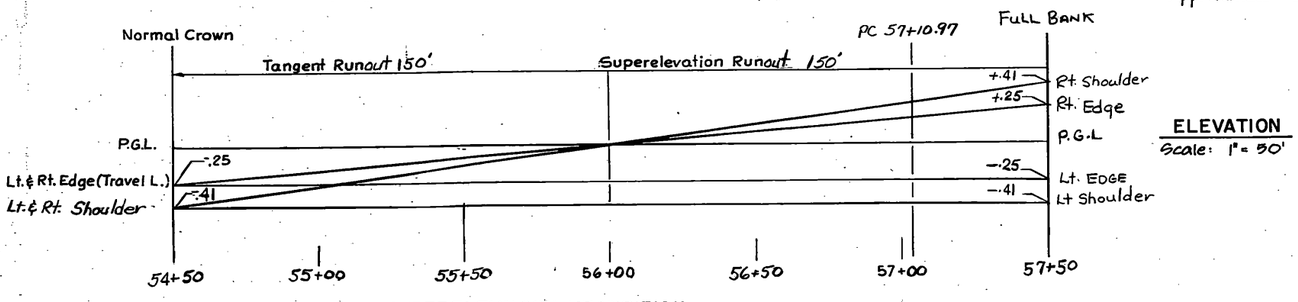
3 Spans = 640'-0" (Continuous Girder) — To ℄ Brg. Pier 2W

7 Spans @ 140'-0" = 980'-0" (Continuous Girder) — To ℄ Brg. Pier 9E

195'-0" To ℄ Brg. Pier 2W | 250'-0" | 195'-0"

FG. 163.32 ℄ Brg. Sta. 55+95.00 — ℄ Brg. Sta. 55+97.33 FG. 163.28





SUPERELEVATION TRANSITION

ELEVATION
Scale: 1" = 50'

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

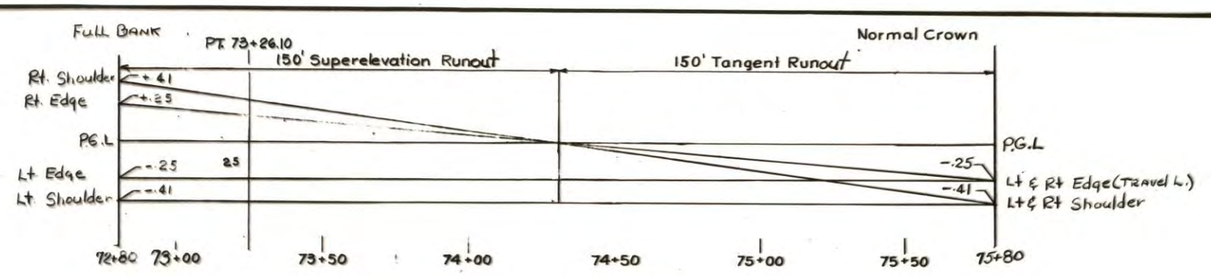
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

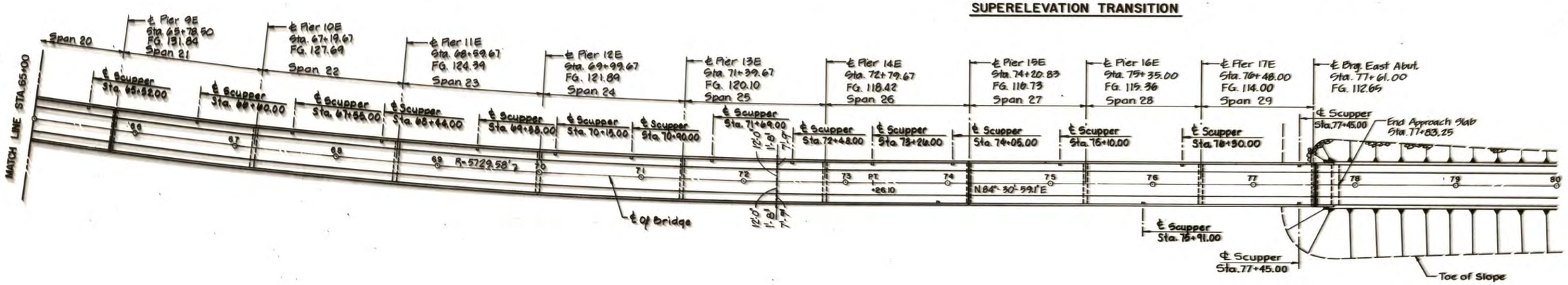
BRIDGE PLAN AND ELEVATION (2)
(STEEL ALTERNATE)

Designed by S. M.	Drawn by S. Z. & A. B. M.
Checked by S.H.R. date 2-17-84	Bridge Design Supervisor C.J.M./S.M. date 2-17-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS26	Sheet of

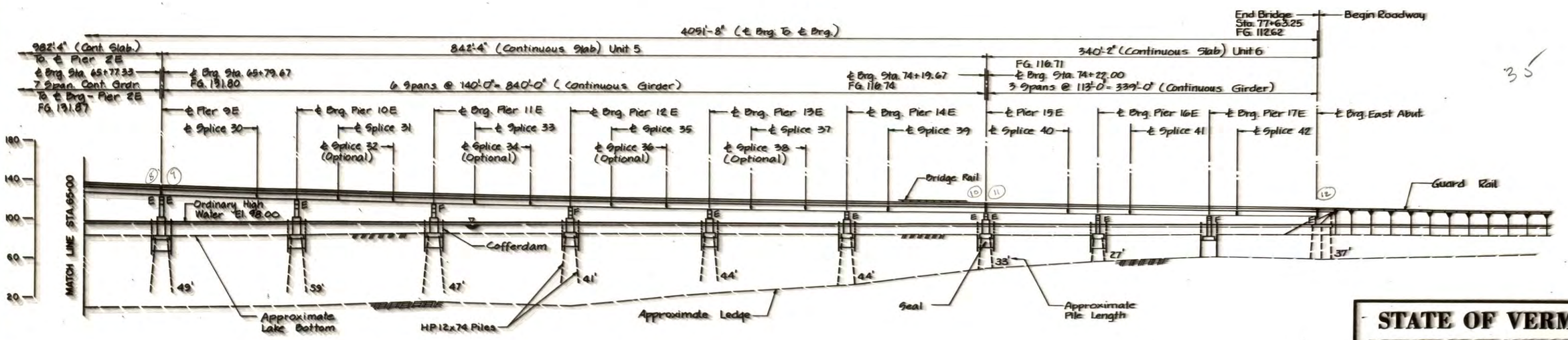
BRUNING 44-137 40151
SS-6



SUPERELEVATION TRANSITION



PLAN
Scale: 1"=50'



ELEVATION
Scale: 1"=50'

35

17
11
28

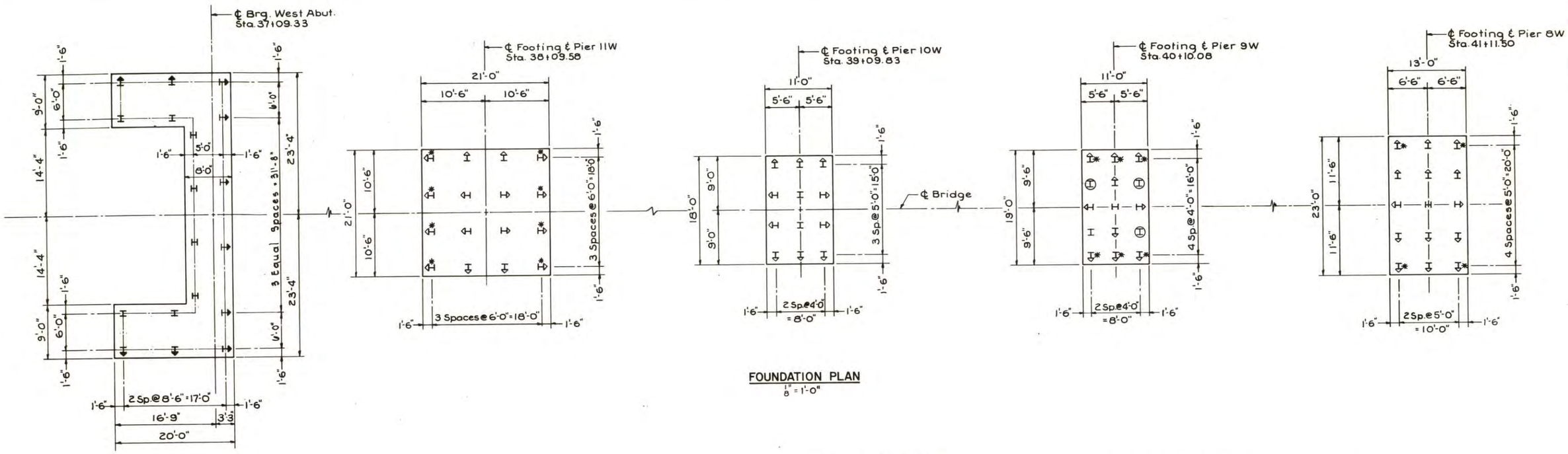
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

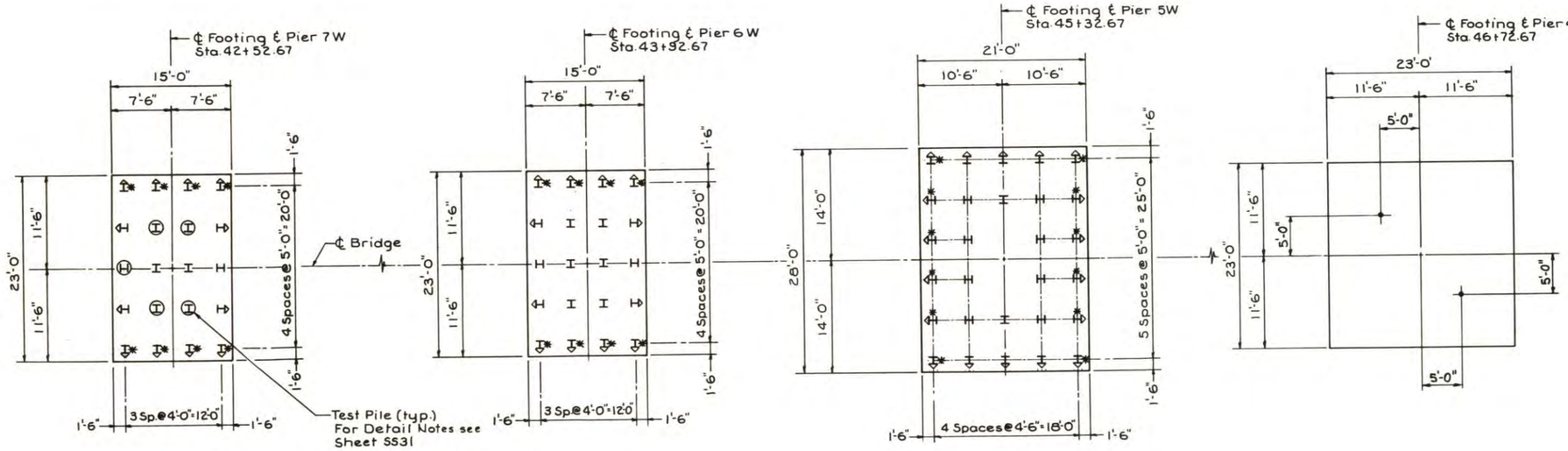
BRIDGE PLAN AND ELEVATION (3)
(STEEL ALTERNATE)

Designed by S.M.	Drawn by S.Z. & B.P.
Checked by S.H.R. date 2-17-84	Bridge Design Supervisor C.J.M./S.M. date 2-17-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS27	Sheet of

HNTB



FOUNDATION PLAN
1" = 1'-0"



FOUNDATION PLAN
1" = 1'-0"

NOTES:

1. *-Pile to be anchored; for Pile Anchorage Detail see Sheet SS31.
2. For Pile Notes, Pile Splice and Pile Tip Reinforcement see Sheet SS31.
3. •-Indicates 28"ϕ(NX) Concrete Seal Core (See Sheet SS29 & SS32)
4. Concrete Seal Core Locations May Be Adjusted In Field By The Engineer.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

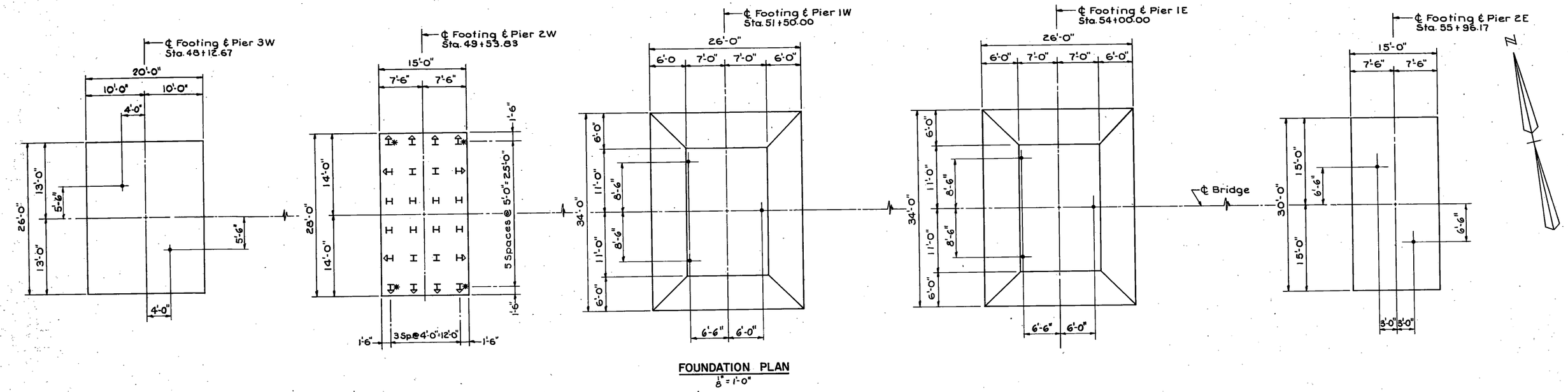
FOUNDATION PLAN, W. ABUT. & PIER 11W-4W

(STEEL ALTERNATE)

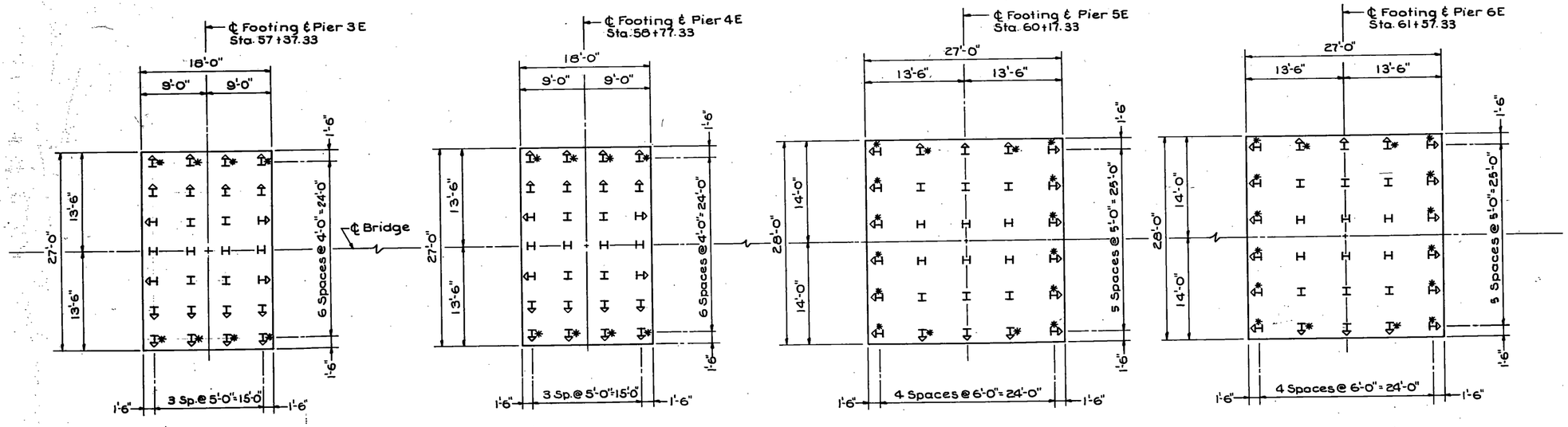
Designed by K.A.C/S.F.L.	Drawn by A.B.M.
Checked by S.M. date 10-4-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS28	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6



FOUNDATION PLAN
1" = 1'-0"



FOUNDATION PLAN
1" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

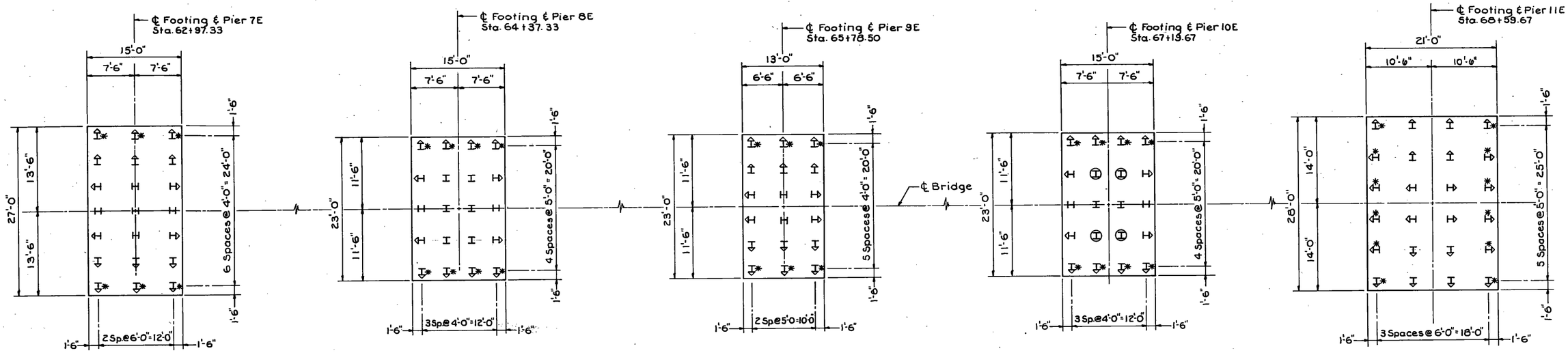
TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Leg Sta. 0+00
	Surv. Sta.

FOUNDATION PLAN, PIER 3W - 6E

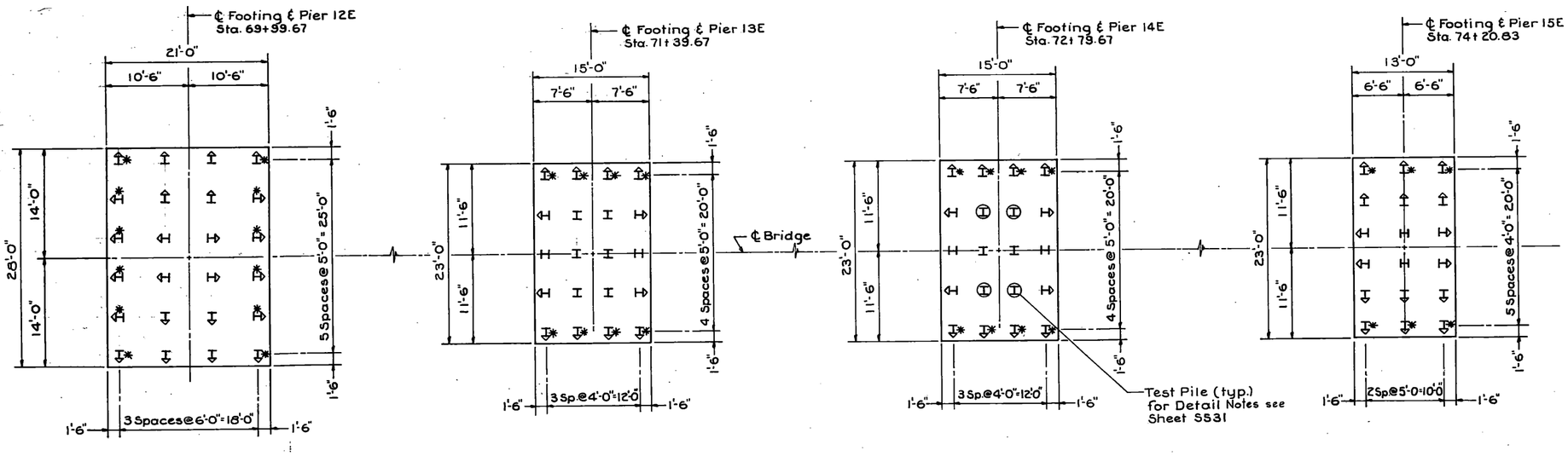
(STEEL ALTERNATE)

Designed by S.F.L.	Drawn by A.B.M.
Checked by K.A.C. date 10-4-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS 29	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF



FOUNDATION PLAN
1/8" = 1'-0"



FOUNDATION PLAN
1/8" = 1'-0"

NOTES:

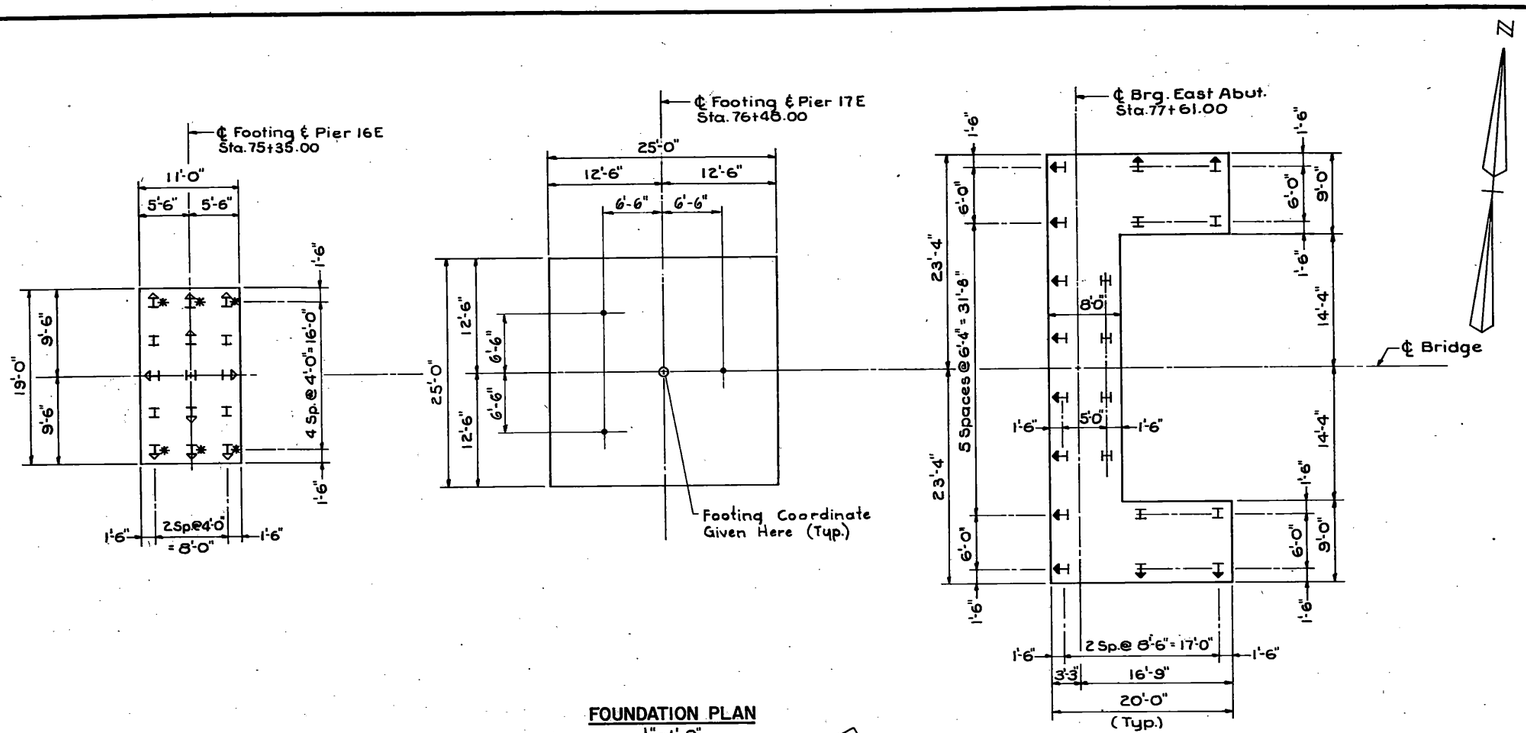
1. *- Pile to be anchored; for Pile Anchorage Detail see Sheet SS31.
2. For Pile Notes, Pile Splice and Pile Tip Reinforcement see Sheet SS31.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
FOUNDATION PLAN, PIER 7E-15E	
(STEEL ALTERNATE)	
Designed by S.F.L..	Drawn by A.B.M.
Checked by K.A.C. date 10-4-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS30	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6

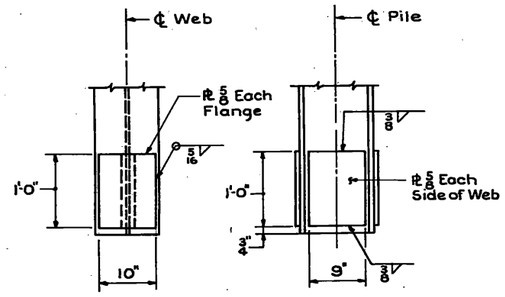


FOUNDATION PLAN
1/8" = 1'-0"

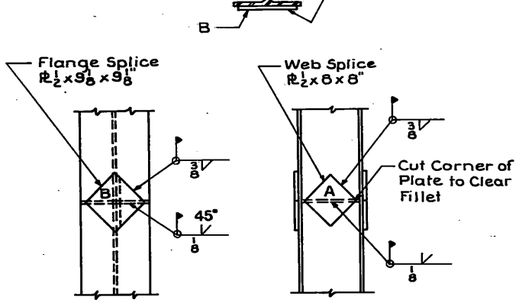
FOOTING CO-ORDINATES			
LOCATION	STATION	COORDINATES	
		NORTH	EAST
℄ Brg. W. Abut.	37+09.33	912238.625	278646.957
℄ Pier 11W	38+09.56	912220.068	278745.475
10W	39+09.83	912201.510	278843.992
9W	40+10.08	912182.953	278942.510
8W	41+11.50	912164.179	279042.177
7W	42+52.67	912138.046	279180.907
6W	43+92.67	912112.130	279318.488
5W	45+32.67	912086.215	279456.068
4W	46+72.67	912060.299	279593.648
3W	48+12.67	912034.383	279731.229
2W	49+53.83	912008.253	279869.949
1W	51+50.00	911971.939	280062.729
1E	54+00.00	911925.661	280308.408
2E	55+96.17	911889.347	280501.188
3E	57+37.33	911863.277	280639.919
4E	58+77.33	911839.679	280777.913
5E	60+17.33	911819.460	280916.442
6E	61+57.33	911802.632	281055.423
7E	62+97.33	911789.204	281194.774
8E	64+37.33	911779.185	281334412
9E	65+76.50	911772.540	281475.421
10E	67+19.67	911769.370	281616.552
11E	68+59.67	911769.662	281756.549
12E	69+99.67	911773.374	281896.496
13E	71+39.67	911780.504	282036.311
14E	72+79.67	911791.048	282175.910
15E	74+20.83	911804.349	282316.441
16E	75+35.00	911815.260	282430.089
17E	76+48.00	911826.058	282542.571
℄ Brg. E. Abut.	77+61.00	911836.856	282655.054

PILE NOTES:

1. Furnishing and driving of HP12x74 piles shall be in accordance with Section 505 of the Standard Specifications and Special Provisions.
2. Piles are designed for a maximum point bearing load of 9,000 p.s.i. or 98 tons.
   a. West Abutment and Piers, Design Allowable Load - 98 Tons.
   b. East Abutment, Design Allowable Load - 70 Tons, with 28 Tons allowance for the drag-down forces.
3. H Indicates vertical pile.
4. ◀H Indicates piles battered 4:12 in direction of arrow.
5. ◁H Indicates piles battered 3:12 in direction of arrow.
6. Pile splices if required, shall be full penetration butt welded splices.
7. All piles shall conform to A.S.T.M. Designation A36.
8. All piles shall have reinforcing tips. (See detail this sheet) The cost of the reinforced pile tips shall be included in the unit bid prices of the steel piling item.
9. The Contractor has the option of substituting a pre-manufactured pile tip. Type used shall be approved by the Engineer.
10. Pile spacing dimensions are set at bottom of footing.



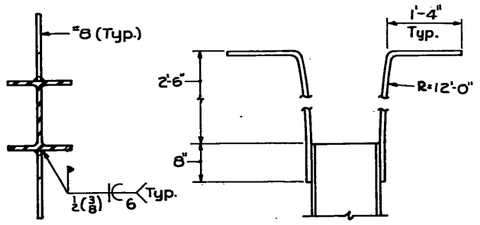
PILE TIP REINFORCEMENT DETAIL
No Scale



PILE SPLICE DETAIL
No Scale

PILE LOAD TEST NOTES:

1. Test piles will be installed using the equipment and methods specified under Section 504 and 505 of the Standard Specifications, and Special Provisions.
2. Two (2) of these test piles to be selected by the Engineer for the Pile Load Test. Additional pile load tests may be required by the Engineer.
   Ⓗ - Denotes Test Piles.



PLAN ELEVATION

PILE ANCHORAGE DETAIL
No Scale

STATE OF VERMONT
AGENCY OF TRANSPORTATION

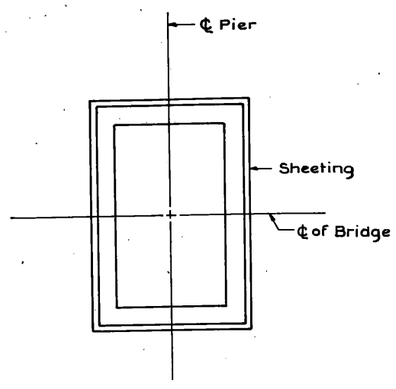
TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

FOUNDATION PLAN, PIER 16E & 17E & E. ABUT.
(STEEL ALTERNATE)

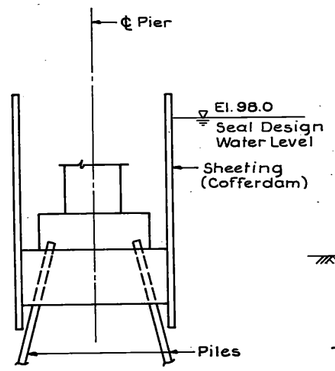
Designed by S.M.	Drawn by A.B.M.
Checked by S.F.L. date 10-4-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS31	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

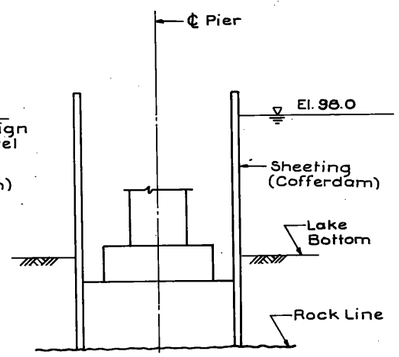
88-6



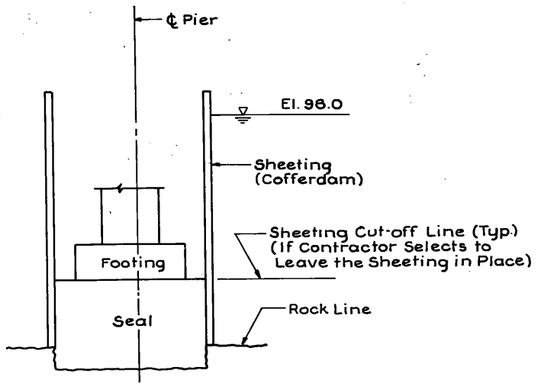
PLAN



SECTION-TYPE I COFFERDAM
Pier 1IW-5W, 3E & 15E-16E & 2W

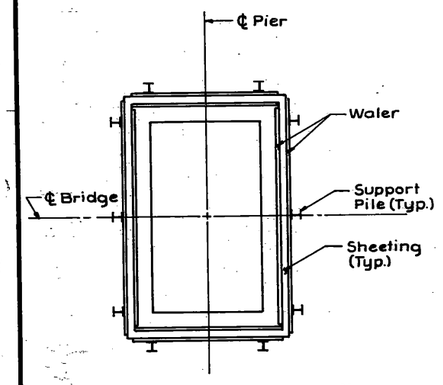


SECTION-TYPE II COFFERDAM
Pier 4W-3W, 2E & 17E

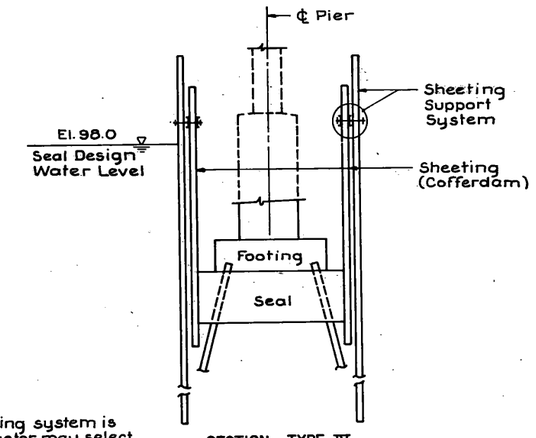


SECTION TYPE III COFFERDAM
Pier 1W & 1E

SCHEMATIC SELF-SUPPORTED COFFERDAMS
1" = 10'



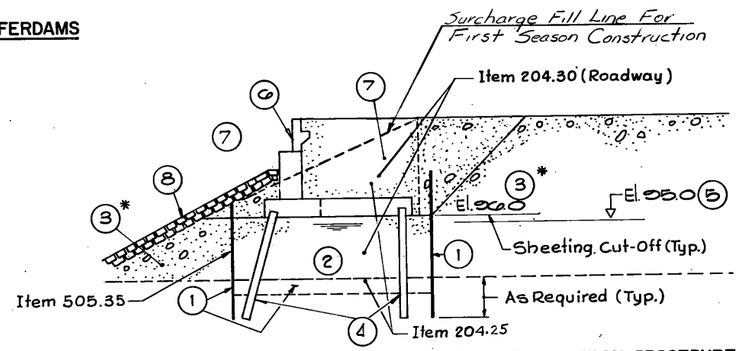
PLAN



SECTION — TYPE IV
Pier 4E-14E

* Piles supporting system is shown. Contractor may select other supporting system, approved by the Engineer

SCHEMATIC PILE-SUPPORTED COFFERDAM *
1" = 10'



EAST ABUTMENT PROPOSED CONSTRUCTION PROCEDURE
Scale: 1" = 10'

① Install Permanent Steel Sheeting, For Limits See Sheet S553, (Excavate All Organic Material With in the Sheeting). (Item 204.25)
②&③ Place Granular Backfill For Structure as a Foundation Material up to Surcharge Line, while Simultaneously Raising the Rock Borrow.
④ Excavate Material within Sheet Piling (Item 204.25) to Elev. 96.0 and Install Steel Piles
⑤ Lower Water Level to El. 950
⑥ Construct Abutment & WingWalls
⑦ Place Granular Backfill @ Abutment Walls, While Simultaneously Raising the Rock Borrow to Meet Granular Backfill
⑧ Place Stone Fill, Type III

* Rock Borrow.

CONSTRUCTION PROCEDURE

TYPE IV COFFERDAM

1. Install temporary steel piles and horizontal waler system as required to support the cofferdam.
2. Install steel sheeting and construct cofferdam.
3. Excavate all material within cofferdam to the required elevation, as outlined in spec. prov. and permits.
4. Install steel piles where needed.
5. Place concrete seal.
6. Dewater cofferdam. (After checking for ph and turbidity).
7. Construct piers in the dry.

TYPE I, II & III COFFERDAM

1. Install steel sheeting and construct cofferdam.
2. Excavate all material within cofferdam to the required elevation, as outlined in special provisions and permits.
3. Install steel piles where required.
4. Place concrete seal.
5. Dewater cofferdam (After checking for ph and turbidity)
6. Construct piers in the dry.

COFFERDAM NOTES:

1. In the event that the water rises outside the cofferdam above the elevation 98.0, the cofferdam should be flooded.
2. The cofferdam (sheeting, walers, struts and sheeting support system) to be designed by the Contractor. Details and design calculations of the cofferdam will be submitted to the Engineer in accordance with the provisions of Section 506.04 of the Standard Specifications.
3. The Contractor shall consider the possiblty that the bottom of excavation may be lowered by a maximum of two feet in his sheeting design.
4. Sketches shown on this sheet indicate type of the cofferdams which will be required for the construction of the piers.
5. The seal supporting soil at the Piers 4E-14E has low bearing capacity. Seal Depths Greater than (10) Feet Will be Placed in Two Stages
6. For concrete seal dimensions see Sheet S533-S540.
7. Pay Items:
   - 530.11 - Type I Cofferdams, Pier 1IW-5W, 2W, 3E and 15E-16E
   - 530.12 - Type II Cofferdams, Pier 4W-3W, 2E and 17E
   - 530.13 - Type III Cofferdams, Pier 1W & 1E
   - 530.14 - Type IV Cofferdams, Pier 4E-14E

   Shall be full compensation for placement and removal of construction materials, excavation of materials within the cofferdams, placement of a concrete seal, labor and equipment to do the necessary work.
8. Seals founded on Ledge shall be cored full depth, as indicated on foundation plans. ALL Cost of Coring shall be included IN Lump Sum price bid for Cofferdams Type III and Type IV.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

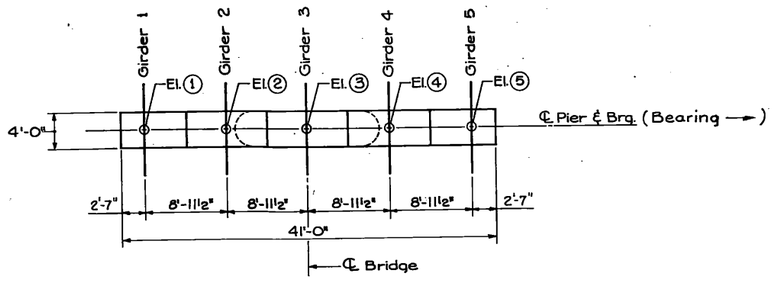
TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

COFFERDAM DETAILS
(STEEL ALTERNATE)

Designed by S.M.	Drawn by R.D.F.
Checked by K.E.W. date 10-17-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. S532	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-1316144
BR-6



PLAN-PIERS 11W, 10W, 9W, 16E & 17E
1⅛" = 1'-0"

PIER LAYOUT DATA

PIER		ELEVATIONS						FOOTING DIMENSIONS				BEARING
No	BEARING TYPE	EL①	EL②	EL③	EL④	EL⑤	EL⑥	W	L	T	S	
11W	FIXED	108.09	108.27	108.46	108.27	108.09	95.0	21'-0"	21'-0"	5'-0"	7'-6"	S10°-40'-03.7"W
10W	EXP.	111.47	111.66	111.84	111.66	111.47	95.0	11'-0"	18'-0"	4'-0"	4'-0"	S10°-40'-03.7"W
9W	EXP.	115.34	115.53	115.72	115.53	115.34	94.0	11'-0"	19'-0"	4'-0"	4'-0"	S10°-40'-03.7"W
16E	EXP.	108.76	108.95	109.14	109.01	108.88	88.0	11'-0"	19'-0"	4'-0"	8'-0"	S05°-29'-00.9"E
17E	FIXED	107.45	107.63	107.82	107.63	107.45	85.0	25'-0"	25'-0"	4'-0"	16'-0"	S05°-29'-00.9"E

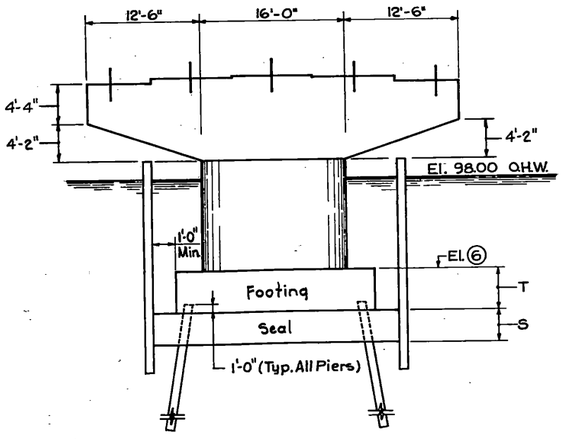
NOTES: (PIERS)

CONCRETE

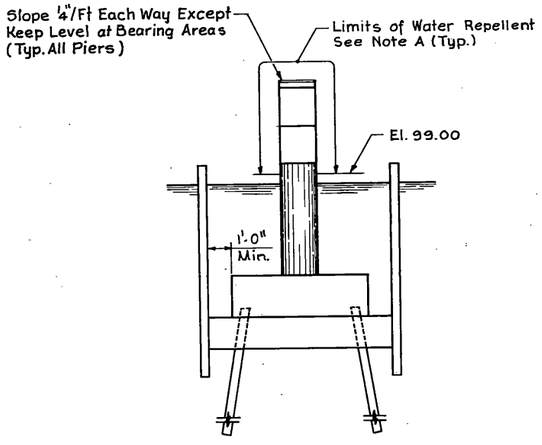
1. All Concrete For Pier Footing, Shaft And Cap Shall Be Class B, f'c = 3,500 psi. (Item 501.25)
2. All Concrete For Pier Seal Shall Be Class C, f'c = 3,000 psi.

REINFORCING STEEL

1. All Reinforcing Steel Shall Conform To A.S.T.M Designation A615, Grade 60.

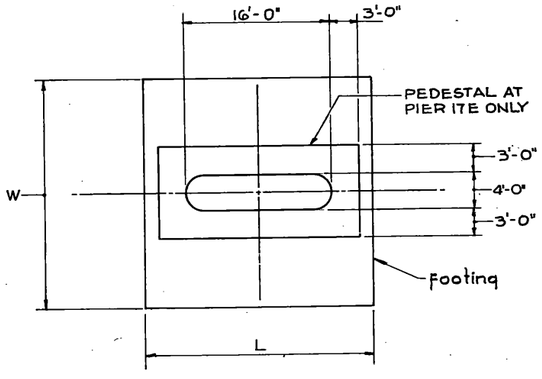


ELEVATION
1⅛" = 1'-0"



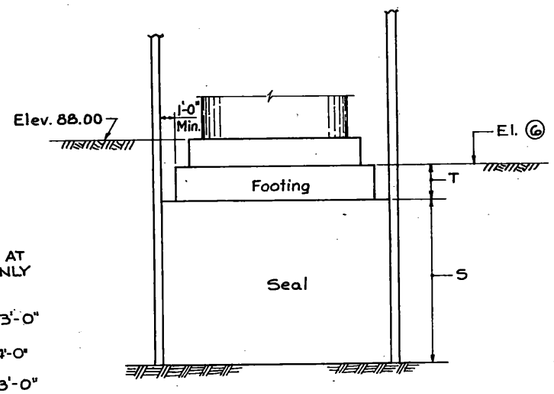
SIDE ELEVATION
1⅛" = 1'-0"

NOTE A:
The Contractor shall Excercise Care in Applying the Water Repellent such that no Material Drops into the Water.



FOOTING PLAN
1⅛" = 1'-0"

NOTES:
1. For Footing Location See Sheet SS28-SS31.
2. For Cofferdam Details See Sheet SS32.
3. For Re-Steel See Sheet SS41.
4. For Pile Details See Sheet SS31.



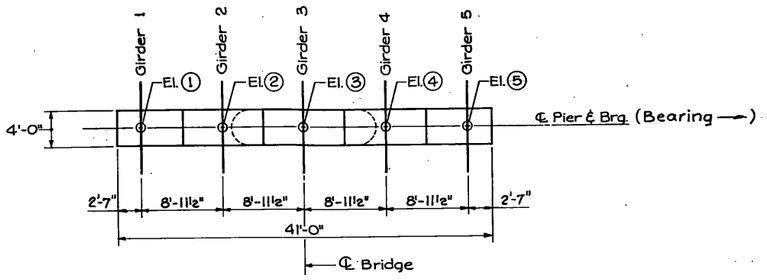
ELEVATION PIER 17E
1⅛" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER 11W - 9W & 16E-17E	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by A.B.M.
Checked by K.E.W. date 11-8-84	Bridge Design Supervisor C.J.M./S.M. date 11-8-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS33	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

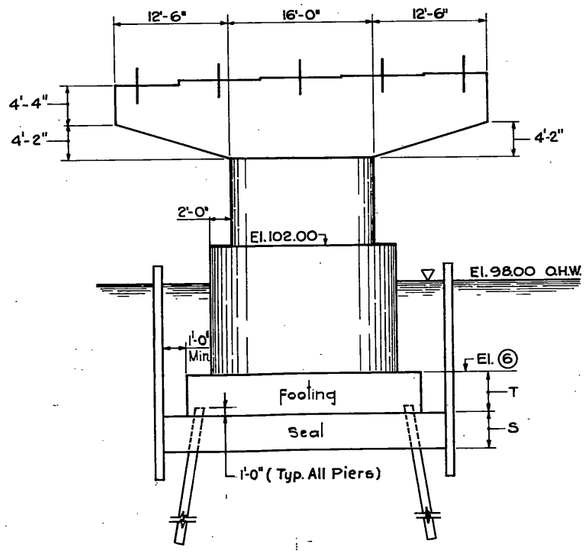
BR-6



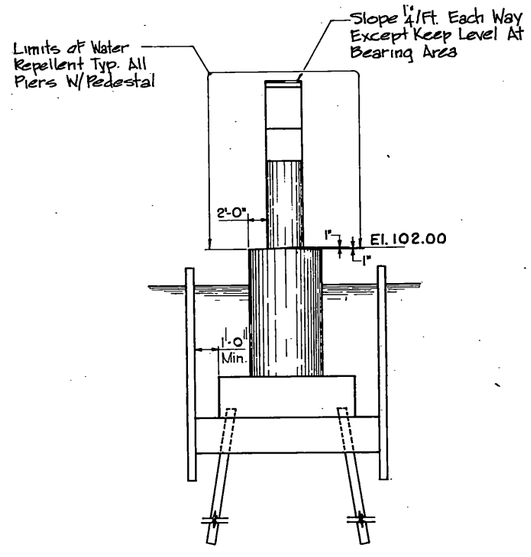
PLAN - PIERS 10E, 11E, 12E, 13E & 14 E
1⅛" = 1'-0"

PIER LAYOUT DATA

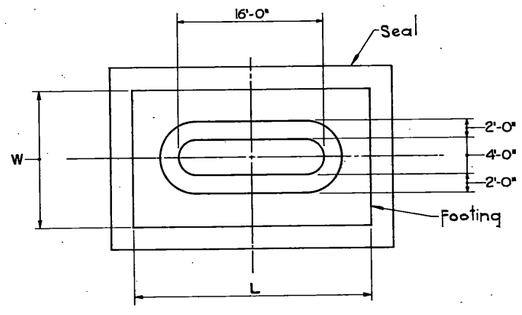
PIER		ELEVATIONS						FOOTING DIMENSIONS				BEARING
No.	BEARING TYPE	EL①	EL②	EL③	EL④	EL⑤	EL⑥	W	L	T	S	
10E	EXP.	119.84	120.03	120.21	120.40	120.59	84.9	15'-0	23'-0	4'-0	4'-0	S 0°-34'-50.2"W
11E	FIXED	116.62	116.80	116.99	117.18	117.36	86.5	21'-0	28'-0	5'-0	6'-6	S 0°-49'-09.8"E
12E	FIXED	114.15	114.33	114.52	114.71	114.89	86.5	21'-0	28'-0	5'-0	7'-0	S 02°-13'-09.8"E
13E	EXP.	112.35	112.53	112.72	112.91	113.09	88.0	15'-0	23'-0	4'-0	4'-0	S 03°-37'-09.8E
14E	EXP.	110.68	110.86	111.05	111.24	111.42	88.0	15'-0	23'-0	4'-0	4'-0	S 05°-01'-09.8E



ELEVATION
1⅛" = 1'-0"



SIDE ELEVATION
1⅛" = 1'-0"



FOOTING PLAN
1⅛" = 1'-0"

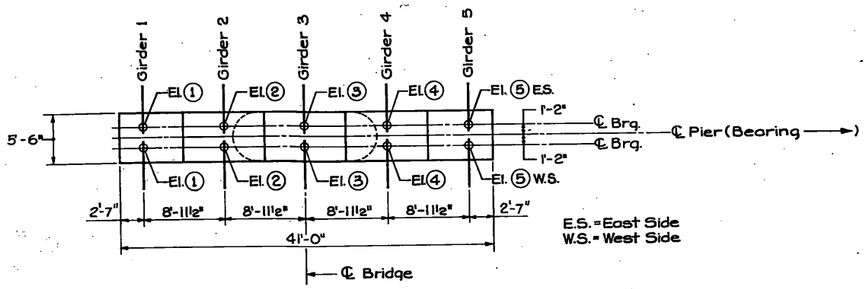
NOTES:
1. For Footing Location See Sh. SS28, SS31.
2. For Cofferdam Details See Sheet SS32.
3. For Rebar Steel See Sheet SS42.
4. For Pile Details See Sheet SS31.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER 10E - 14E	
(STEEL ALTERNATE)	
Designed by S.M.	Drawn by A.B.M.
Checked by K.E.W. date 11-8-84	Bridge Design Supervisor C.J.M./S.M. date 11-8-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS34	Sheet of

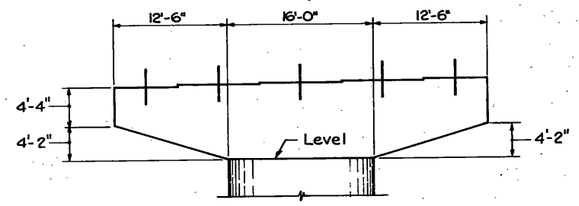
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6



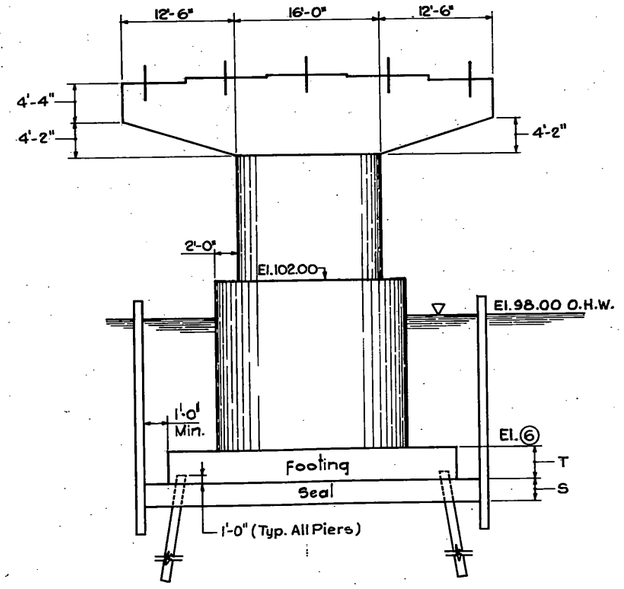
PLAN - PIERS 8W, 9E & 15E
1/8" = 1'-0"

PIER LAYOUT DATA													
PIER			ELEVATIONS						FOOTING DIMENSIONS				BEARING
No.	BEARING TYPE	BEARING LOCATION	EL①	EL②	EL③	EL④	EL⑤	EL⑥	W	L	T	S	
8W	EXP.	W. SIDE	118.80	118.98	119.17	118.98	118.80	92.9	13'-0"	23'-0"	4'-0"	4'-0"	S10°-40'-03.7"W
		E. SIDE	118.92	119.10	119.29	119.10	118.92						
9E	EXP.	W. SIDE	124.36	124.55	124.73	124.92	125.11	83.9	13'-0"	23'-0"	4'-0"	4'-0"	S1°-59'-32.3"W
		E. SIDE	124.28	124.46	124.65	124.83	125.02						
15E	EXP.	W. SIDE	109.32	109.50	109.69	109.70	109.72	88.0	13'-0"	23'-0"	4'-0"	7'-6"	S05°-29'-00.9"E
		E. SIDE	109.31	109.50	109.68	109.69	109.70						

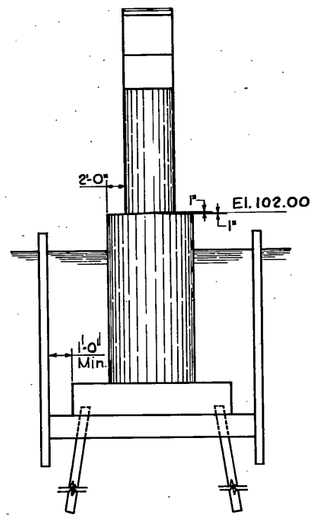


ELEVATION PIER 9E
1/8" = 1'-0"

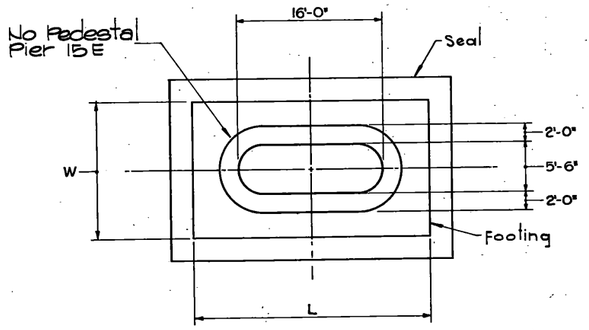
NOTES:
1. For Footing Location See Sh. SS28-SS31.
2. For Cofferdam details See Sheet SS32.
3. For Re-Steel See Sheet SS43.
4. For Pile Details See Sheet SS31.



ELEVATION
1/8" = 1'-0"



SIDE ELEVATION
1/8" = 1'-0"



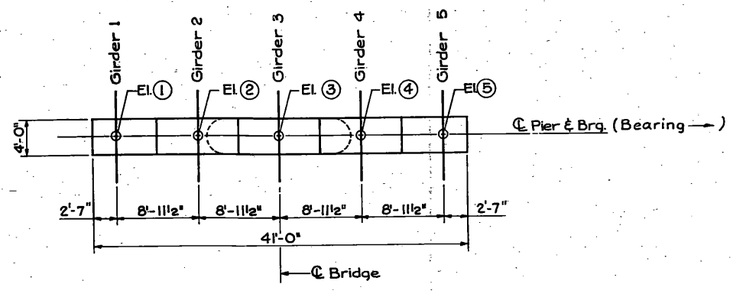
FOOTING PLAN
1/8" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO. ROUTE 2	Surv. Sta.
PIER 8W, 9E & 15E	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by A.B.M.
Checked by K.E.W. date 11-8-84	Bridge Design Supervisor C.J.M./S.M. date 11-8-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS35	Sheet of

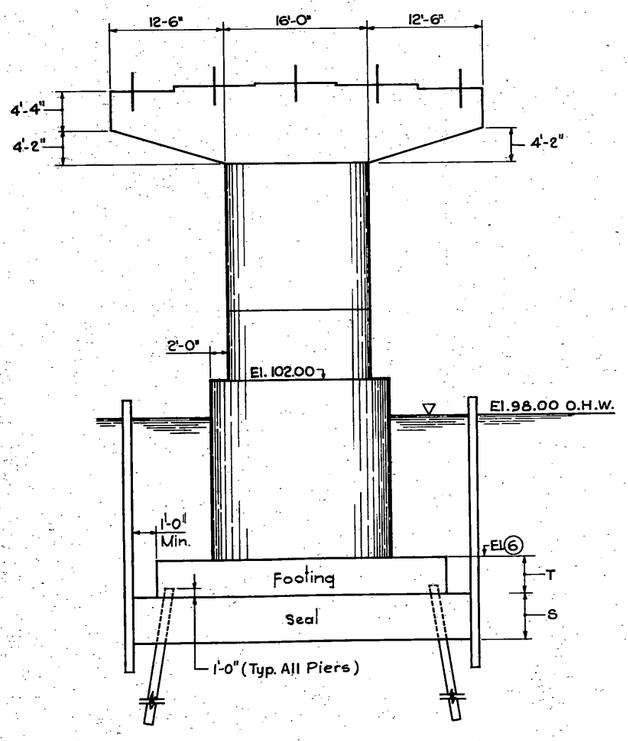
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6

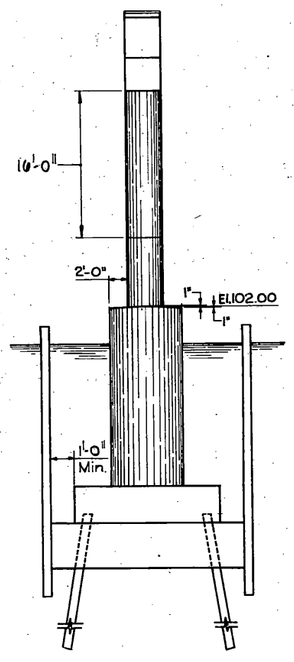


PLAN - PIERS 7W, 6W, 7E & 8E
1/8" = 1'-0"

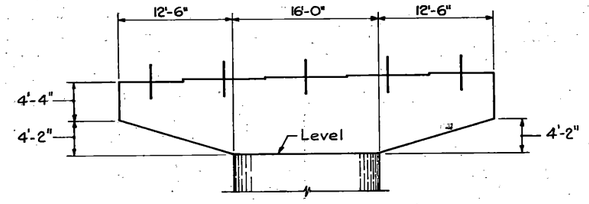
PIER LAYOUT DATA												
PIER		ELEVATIONS						FOOTING DIMENSIONS				BEARING
No.	BEARING TYPE	EL ①	EL ②	EL ③	EL ④	EL ⑤	EL ⑥	W	L	T	S	
7W	EXP.	125.02	125.20	125.39	125.20	125.02	88.5	15'-0"	23'-0"	4'-0"	4'-0"	S 10°-40'-03.7"W
6W	EXP.	131.43	131.61	131.80	131.61	131.43	88.0	15'-0"	23'-0"	4'-0"	4'-0"	S 10°-40'-03.7"W
7E	EXP.	134.20	134.39	134.57	134.76	134.94	82.4	15'-0"	27'-0"	4'-0"	6'-0"	S 4°-48'-14.4"W
8E	EXP.	128.92	129.11	129.30	129.48	129.67	83.5	15'-0"	23'-0"	4'-0"	4'-0"	S 3°-24'-14.4"W



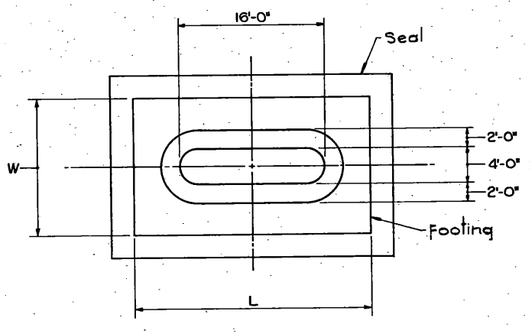
ELEVATION
1/8" = 1'-0"



SIDE ELEVATION
1/8" = 1'-0"



ELEVATION - PIERS 7E & 8E
1/8" = 1'-0"



FOOTING PLAN
1/8" = 1'-0"

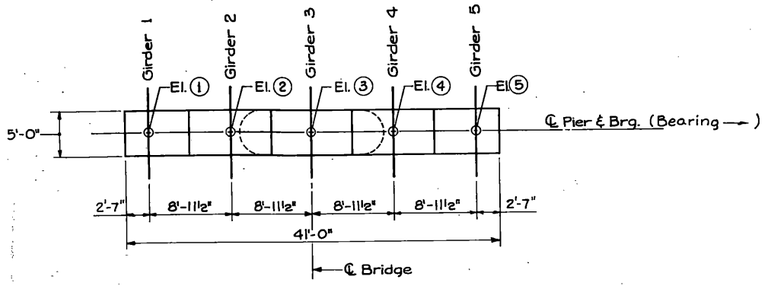
NOTES:
1. For Footing Location See Sh. SS28-SS31.
2. For Cofferdam Details See Sheet SS32.
3. For Re. Steel See Sheet SS44.
4. For Pile Details See Sheet SS31.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER 7W - 6W & 7E - 8E	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by A.B.M.
Checked by K.E.W. date 11-8-84	Bridge Design Supervisor C.J.M./S.M. date 11-8-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS36	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

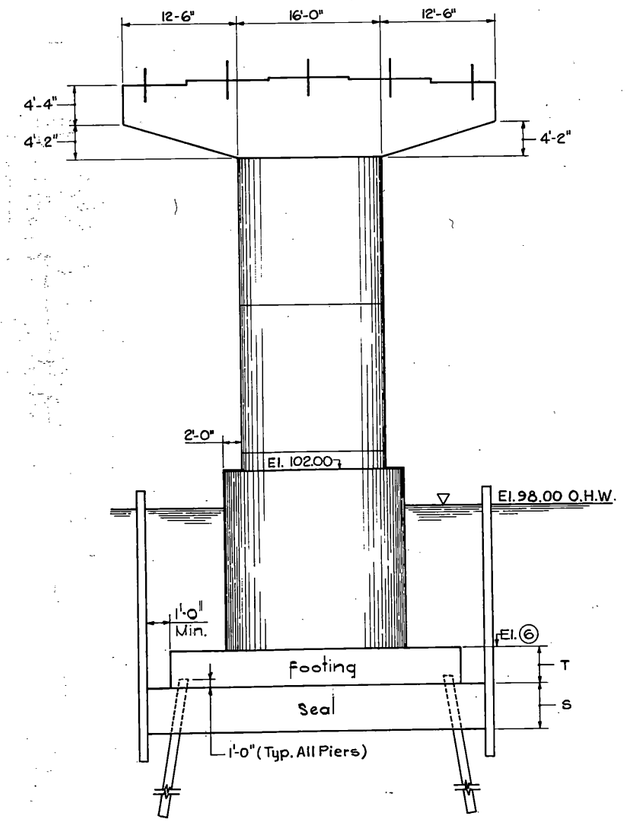
ER-6



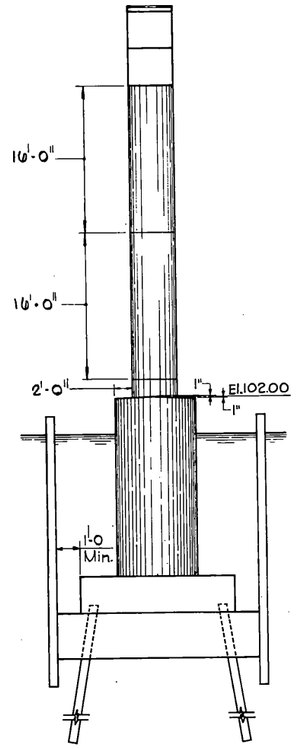
PLAN - PIERS 5W, 4W, 5E & 6E
⅛" = 1'-0"

PIER LAYOUT DATA												
PIER		ELEVATIONS						FOOTING DIMENSIONS				BEARING
No.	BEARING TYPE	EL①	EL②	EL③	EL④	EL⑤	EL⑥	W	L	T	S	
5W	FIXED	137.86	138.04	138.23	138.04	137.86	84.5	21'-0"	28'-0"	5'-0"	13'-6"	S 10°-40'-03.7"W
4W	FIXED	143.96	144.14	144.33	144.14	143.96	84.0	23'-0"	23'-0"	4'-0"	19'-0"	S 10°-40'-03.7"W
5E	FIXED	144.51	144.70	144.88	145.07	145.26	82.4	27'-0"	28'-0"	5'-0"	11'-6"	S 7°-36'-14.4"W
6E	FIXED	139.39	139.58	139.77	139.95	140.14	82.4	27'-0"	28'-0"	5'-0"	9'-6"	S 6°-12'-14.4"W

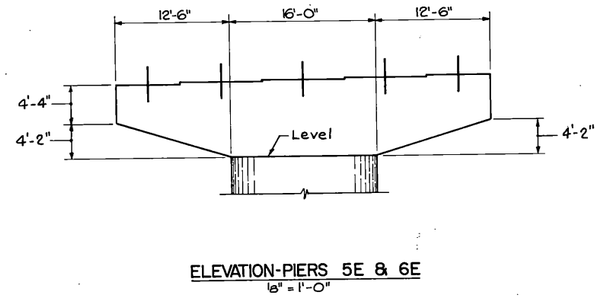
NOTES:
1. For Footing Location See Sh. SS28-SS31.
2. For Cofferdam Details See Sheet SS32.
3. For Re-Steel See Sheet SS45.
4. For Pile Details See Sheet SS31.



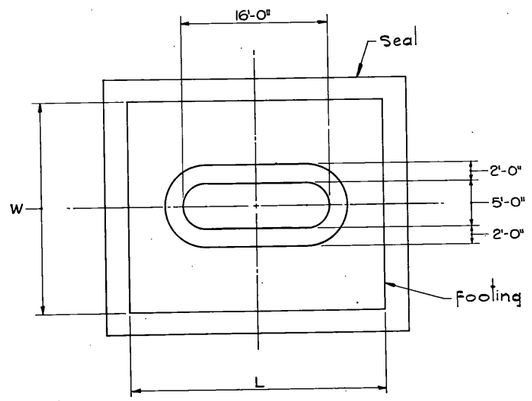
ELEVATION
⅛" = 1'-0"



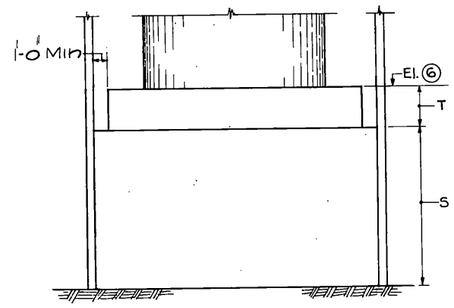
SIDE ELEVATION
⅛" = 1'-0"



ELEVATION-PIERS 5E & 6E
⅛" = 1'-0"



FOOTING PLAN
⅛" = 1'-0"



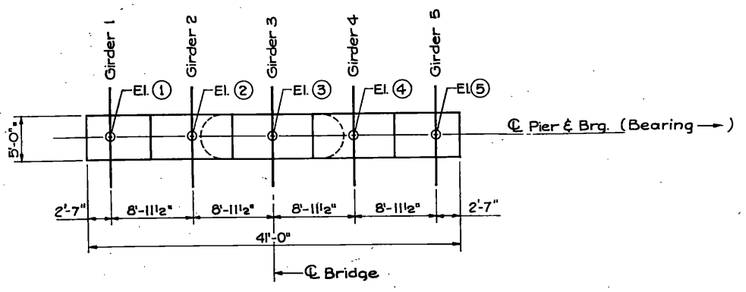
ELEVATION PIER 4W
⅛" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER 5W-4W & 5E-6E	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by A.B.M.
Checked by K.A.C. date 11-8-84	Bridge Design Supervisor C.J.M./S.M. date 11-8-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS37	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

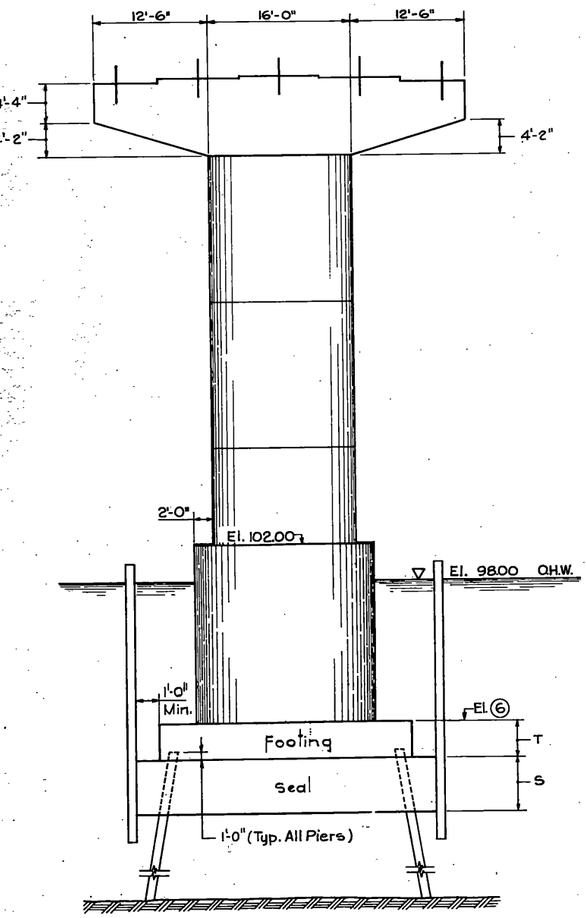
BR-6



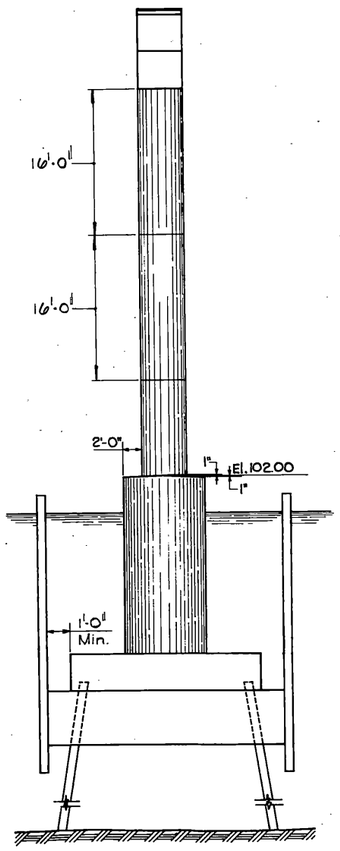
PLAN - PIERS 3W, 3E & 4E
1/8" = 1'-0"

PIER LAYOUT DATA												
PIER		ELEVATIONS						FOOTING DIMENSIONS				BEARING
No.	BEARING TYPE	EL①	EL②	EL③	EL④	EL⑤	EL⑥	W	L	T	S	
3W	EXP.	148.92	149.10	149.29	149.10	148.92	81.1	20'-0"	26'-0"	4'-0"	18'-6"	S10°-40'-03.7"W
3E	EXP.	153.01	153.20	153.38	153.55	153.72	82.4	18'-0"	27'-0"	5'-0"	11'-6"	S10°-24'-14.4"W
4E	EXP.	149.27	149.46	149.64	149.83	150.01	83.6	18'-0"	27'-0"	5'-0"	10'-0"	S9°-00'-14.4"W

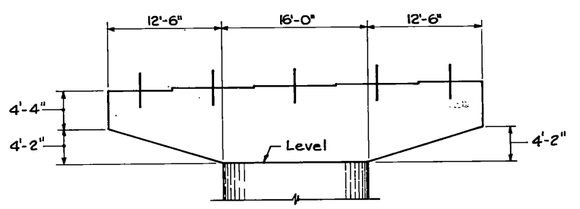
NOTES:
1. For Footing Locating See Sh. 5528-5531.
2. For Cofferdam Details See Sh. 5532.
3. For Re-Steel See Sheet 5546.
4. For Pile details See Sheet 5531.



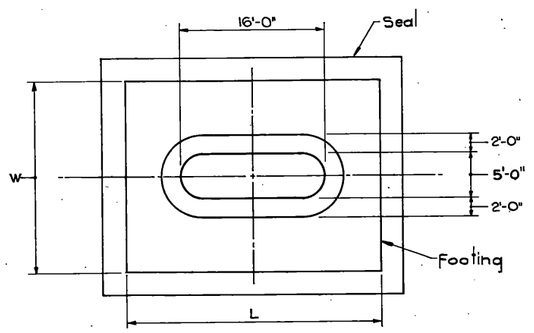
ELEVATION
1/8" = 1'-0"



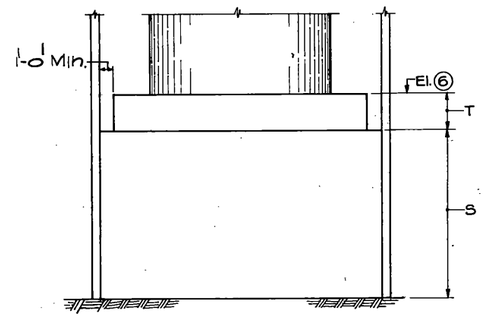
SIDE ELEVATION
1/8" = 1'-0"



ELEVATION - PIERS 3E & 4E
1/8" = 1'-0"



FOOTING PLAN
1/8" = 1'-0"

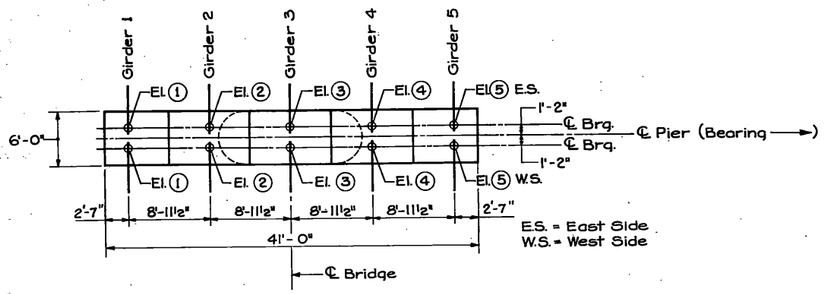


ELEVATION PIER 3W
1/8" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO. ROUTE 2	Surv. Sta.
PIER 3W & 3E - 4E	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by A.B.M.
Checked by K.E.W. date 11-8-84	Bridge Design Supervisor C.J.M./S.M. date 11-8-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1 (11)
Bridge Sheet No. SS38	Sheet of

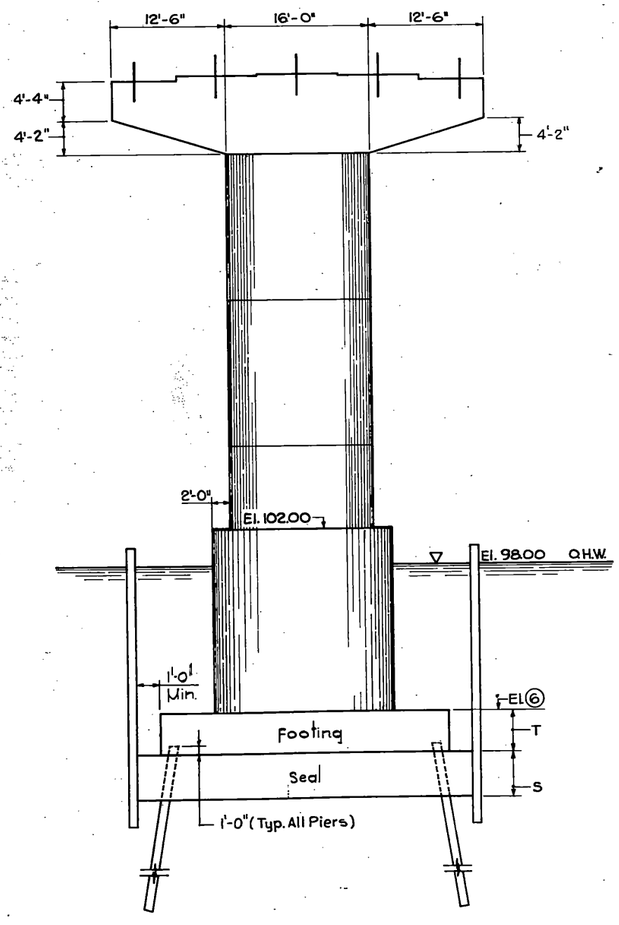
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF



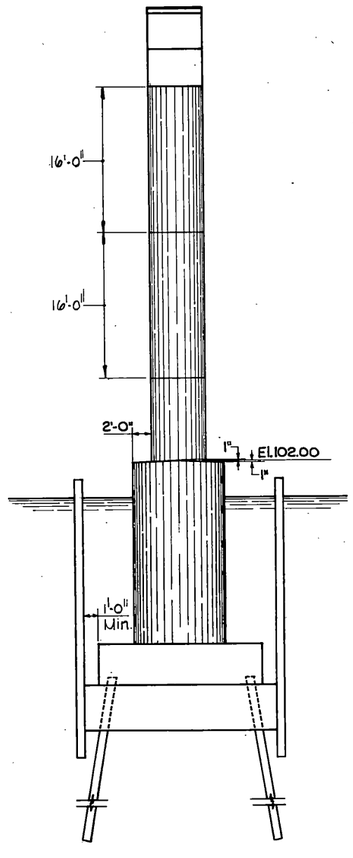
PLAN - PIERS 2W & 2E
1/8" = 1'-0"

PIER LAYOUT DATA													
PIER			ELEVATIONS						FOOTING DIMENSIONS				BEARING
No.	BEARING TYPE	BEARING LOCATION	EL①	EL②	EL③	EL④	EL⑤	EL⑥	W	L	T	S	
2W	EXP.	W. SIDE	151.35	151.53	151.72	151.53	151.35	82.4	15'-0"	28'-0"	5'-0"	12'-6"	S 10°-40'-03.7"W
		E. SIDE	151.34	151.52	151.71	151.52	151.34						
2E	EXP.	W. SIDE	154.20	154.39	154.58	154.57	154.57	79.4	15'-0"	30'-0"	4'-0"	17'-6"	S 10°-40'-03.7"W
		E. SIDE	154.24	154.43	154.61	154.61	154.60						

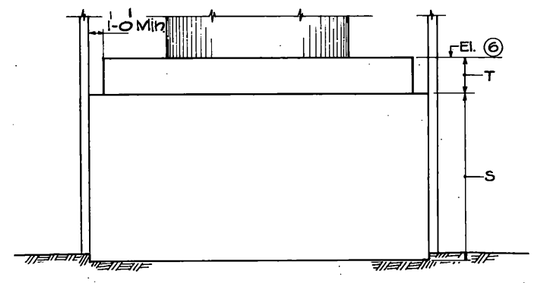
NOTES:
1. For Footing Location See Sh. SS29.
2. For Cofferdam Details See Sh. SS32.
3. For Re-Steel See Sheet SS47.
4. For Pile Details See Sheet SS31.



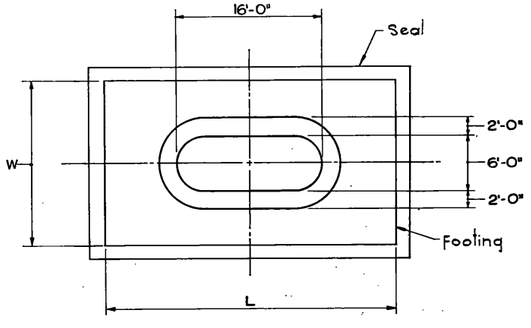
ELEVATION
1/8" = 1'-0"



SIDE ELEVATION
1/8" = 1'-0"



ELEVATION PIER 2E
1/8" = 1'-0"



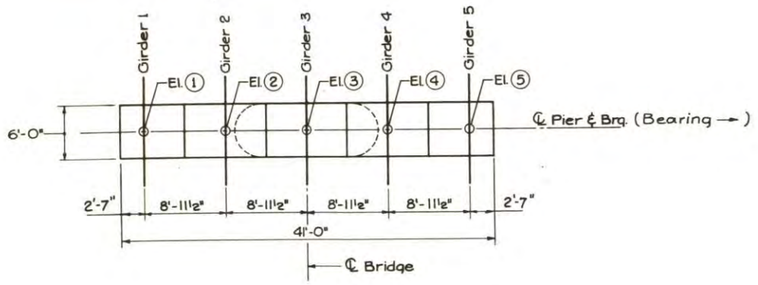
FOOTING PLAN
1/8" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER 2W & 2E	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by A.B.M.
Checked by K.A.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1 (11)
Bridge Sheet No. SS39	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

R-6

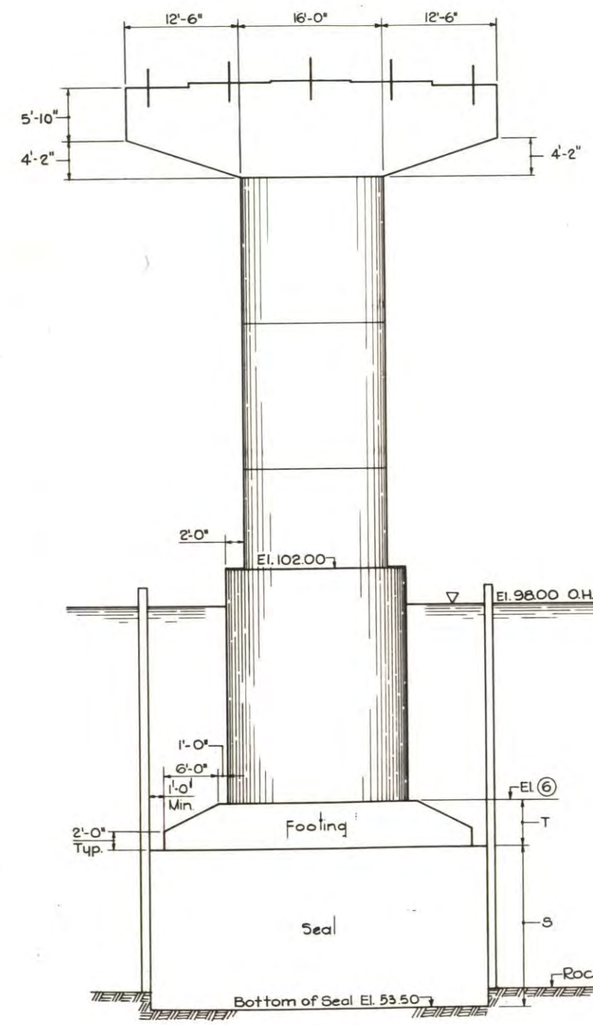


PLAN - PIERS IW & IE
1/8" = 1'-0"

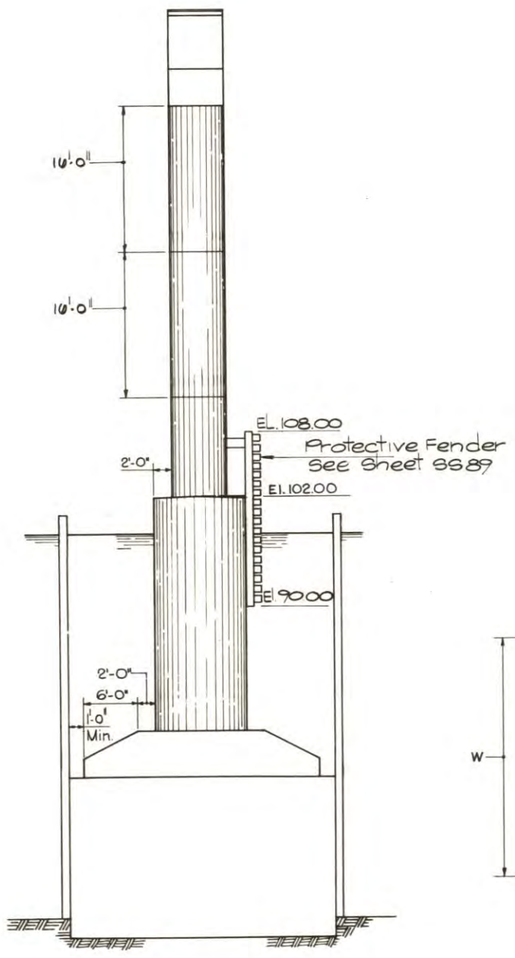
PIER LAYOUT DATA												
PIER		ELEVATIONS						FOOTING DIMENSIONS				BEARING
No.	BEARING TYPE	El. ①	El. ②	El. ③	El. ④	El. ⑤	El. ⑥	W	L	T	S	
IW	FIXED	154.44	154.63	154.82	154.63	154.44	76.5	26'-0"	34'-0"	5'-0"	18'-0"	S 10°-40'-03.7"W
IE	FIXED	155.54	155.73	155.92	155.73	155.54	76.5	26'-0"	34'-0"	5'-0"	18'-0"	S 10°-40'-03.7"W

NOTES:

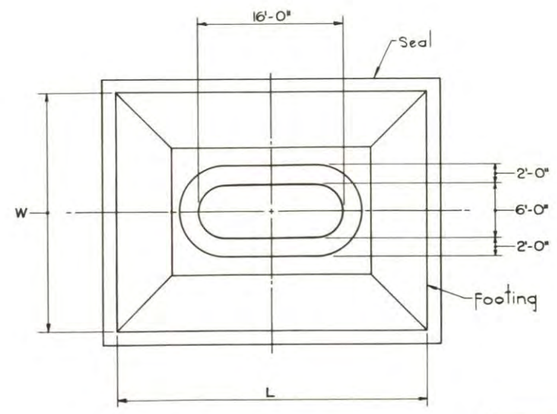
1. For Footing Location See Sheet SS29.
2. For Cofferdam Details, See Sheet SS32.
3. For Re-Steel, See Sheet SS48.



ELEVATION
1/8" = 1'-0"



SIDE ELEVATION
1/8" = 1'-0"

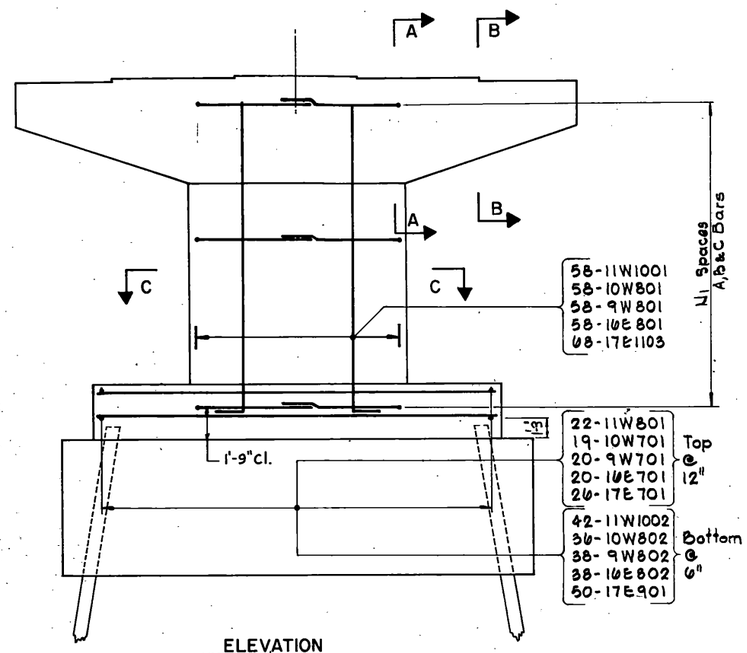


FOOTING PLAN
1/8" = 1'-0"

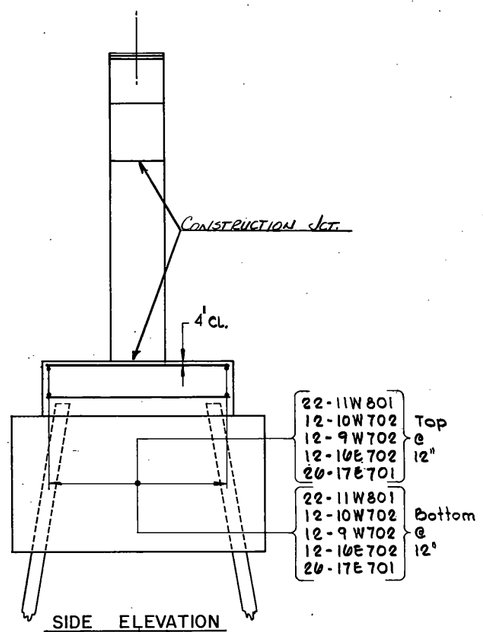
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER IW & IE	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by A.B.M.
Checked by K.A.C. date 10-31-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS40	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

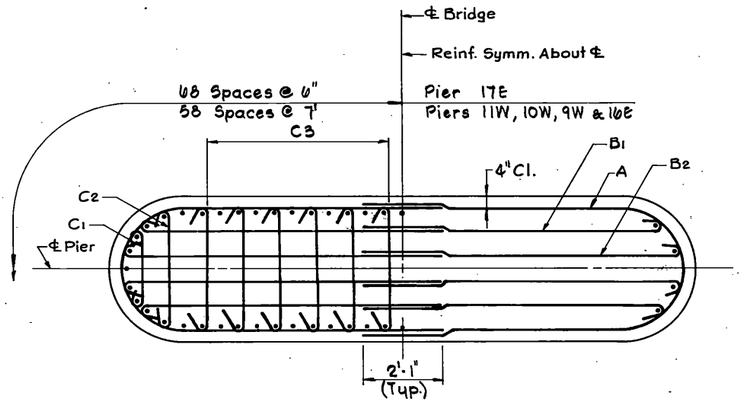


ELEVATION
3/16"=1'-0"

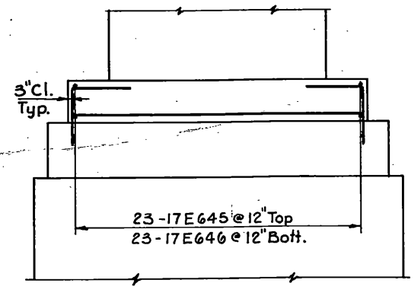


SIDE ELEVATION
3/16"=1'-0"

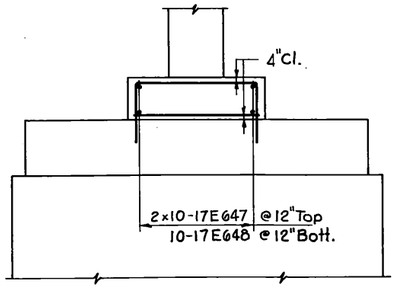
TABLE OF REINFORCEMENT – SHAFT HORIZONTAL TIES													
Pier	N1 Spaces	A		B1		B2		C1		C2		C3	
		No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
11W	31 Sp's. @ 6"	2×32	638	4×32	642	4×32	639	2×32	641	2×32	640	11×32	637
10W	36 Sp's. @ 6"	2×37	634	4×37	638	4×37	635	2×37	637	2×37	636	11×37	633
9W	46 Sp's. @ 6"	2×47	638	4×47	642	4×47	639	2×47	641	2×47	640	11×47	637
16E	45 Sp's. @ 6"	2×46	640	4×46	642	4×46	641	2×46	644	2×46	643	11×46	639
17E	50 Sp's. @ 6"	2×51	640	4×51	645	4×51	644	2×51	643	2×51	641	12×51	639



SECTION C-C
1/2"=1'-0"



ELEVATION
PIER 17E
3/16"=1'-0"



SIDE ELEVATION
PIER 17E
3/16"=1'-0"

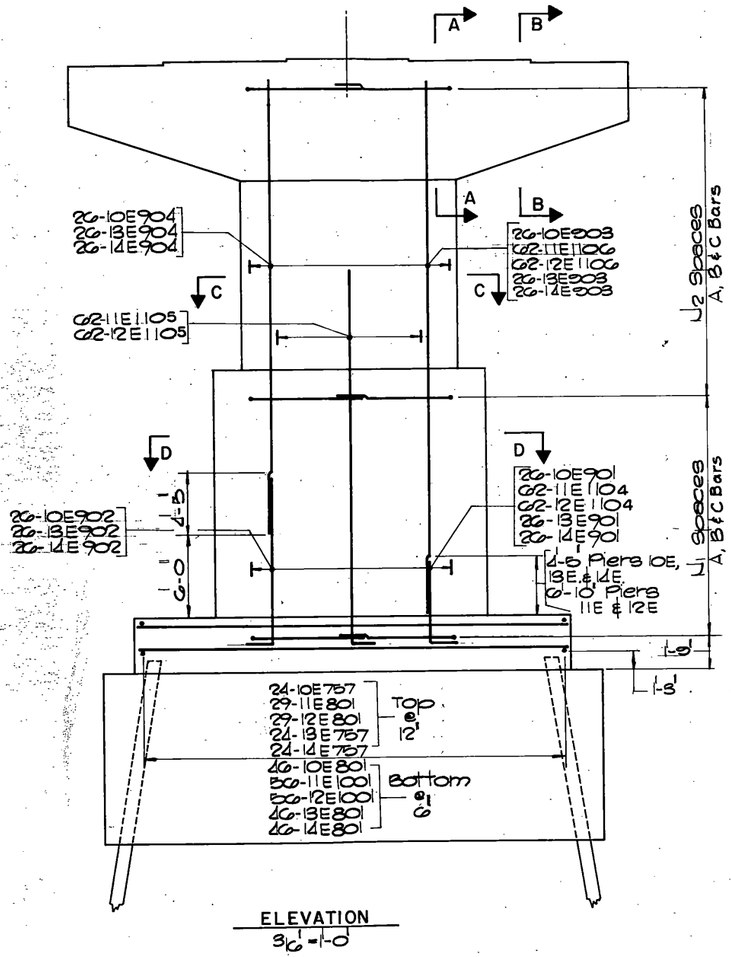
NOTES:

1. See sheets SS49 & SS50. For Section A-A, & Section B-B.
2. For Pier Cap Reinforcing Steel see sheets SS49 & SS50

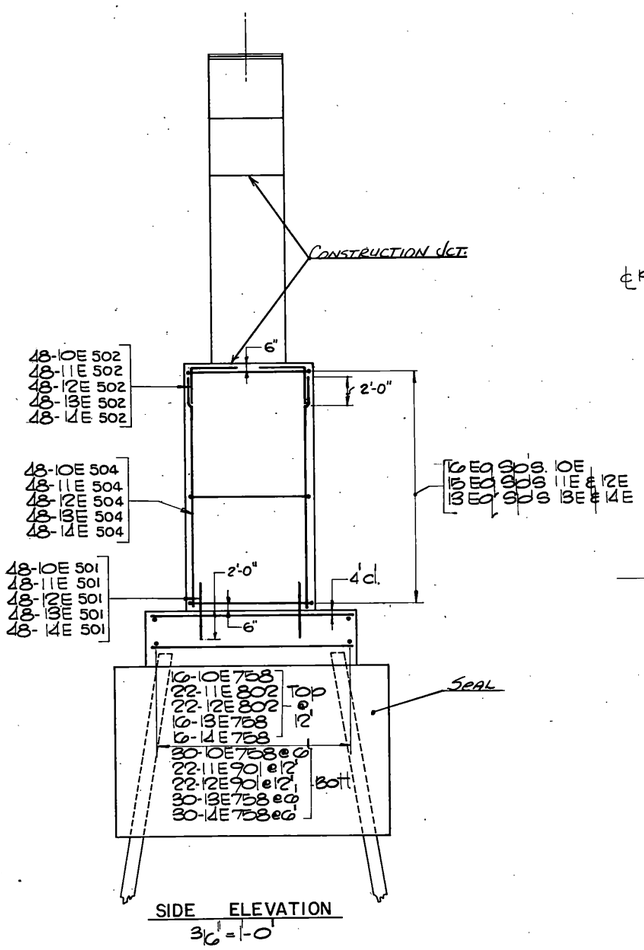
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y.—ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER 11W-9W & 16E-17E, REINFORCING STEEL	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by L.J.S.
Checked by R.M.C. date 10-29-84	Bridge Design Supervisor C.J.M./S.M. date 10-29-84
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF	PROJECT ROUSES POINT BRIDGE REPLACEMENT
	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS41	Sheet of

TABLE OF REINFORCEMENT — SHAFT HORIZONTAL TIES														
Pier	U_1 Spaces	U_2 Spaces	A		B_1		B_2		C		C_2		C_3	
			No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
10E	37 Sp's @ 6"	188 Sp's @ 12"	2-#6	C14	4-#6	C10	2-#6	C15	2-#6	C13	2-#6	C13	11-#6	C11
11E	64 Sp's @ 6"	——	2-#5	C15	4-#5	C14	4-#6	C13	2-#5	C12	13-#5	C11	——	——
12E	59 Sp's @ 6"	——	2-#6	C13	4-#6	C15	4-#6	C14	2-#6	C11	13-#6	C12	——	——
13E	37 Sp's @ 6"	7 Sp's @ 12"	2-#5	C14	4-#5	C10	2-#5	C15	2-#5	C13	2-#5	C12	11-#5	C11
14E	37 Sp's @ 6"	68 Sp's @ 12"	2-#4	C14	4-#4	C10	2-#4	C15	2-#4	C13	2-#4	C12	11-#4	C11



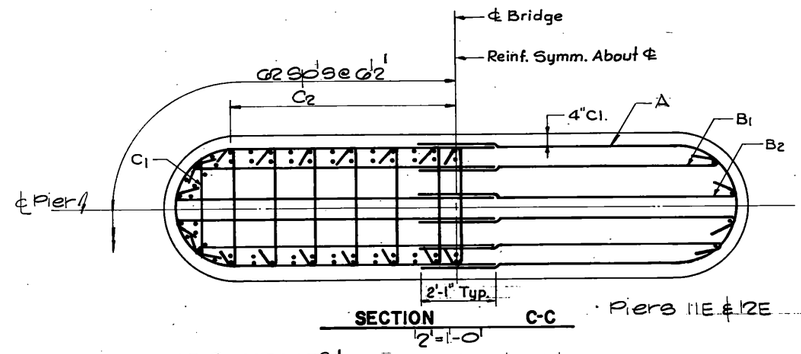
ELEVATION
3/16" = 1'-0"



SIDE ELEVATION
3/16" = 1'-0"

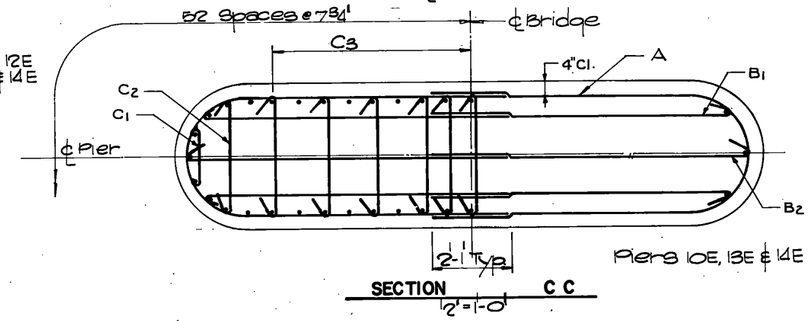
NOTES:

1. See Sheets SS49 & SS50 For Section A-A & Section B-B
2. For Pier Cap Reinforcing Steel See Sheets SS 49 & SS50



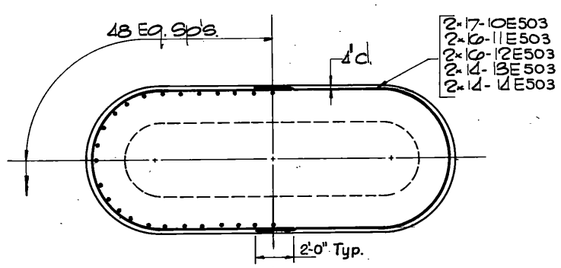
SECTION C-C
1/2" = 1'-0"

Piers 11E & 12E



Piers 10E, 13E & 14E

SECTION C C
1/2" = 1'-0"



SECTION D-D
1/2" = 1'-0"

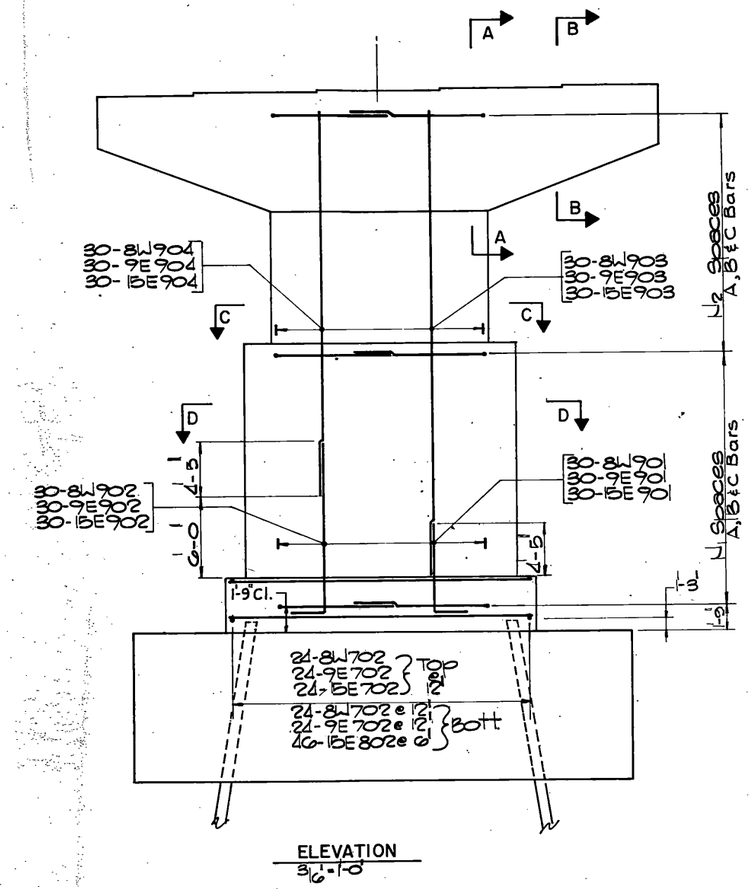
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER 10E-14E, REINFORCING STEEL	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by W.G.
Checked by R.M.C. date 10-29-84	Bridge Design Supervisor C.J.M./S.M. date 10-29-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS42	Sheet of

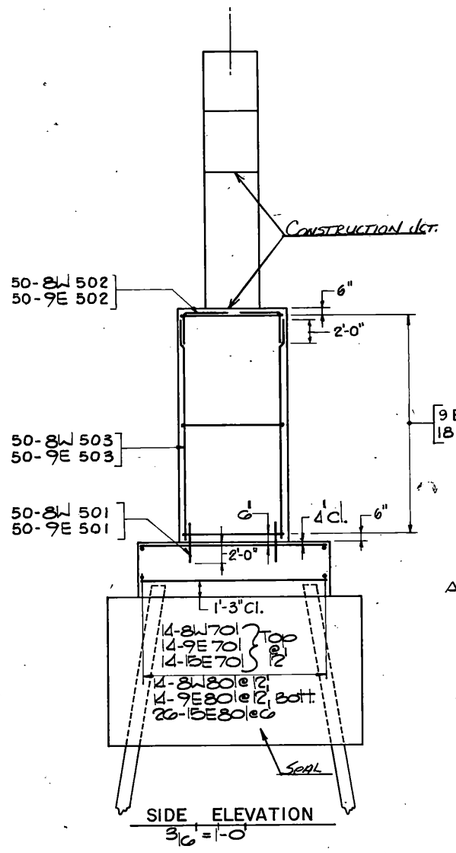
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

R-6

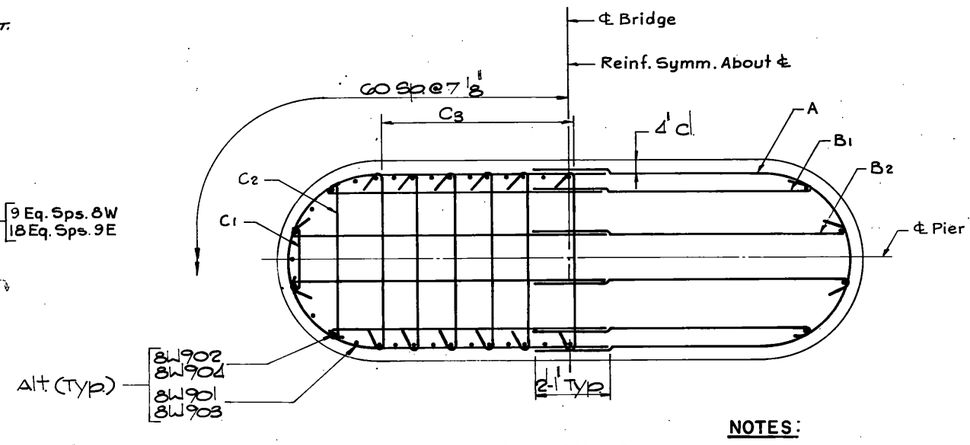
TABLE OF REINFORCEMENT – SHAFT HORIZONTAL TIES														
Pier	N_1 Spaces	N_2 Spaces	A		B_1		B_2		C_1		C_2		C_3	
			No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
8W	37 Sps @ 6"	60 Sps @ 18"	2-#4	G34	4-#4	G37	4-#4	G38	2-#4	G36	2-#4	G35	11-#4	G33
9E	37 Sps @ 6"	60 Sps @ 18"	2-#5	G58	4-#5	G560	4-#5	G57	2-#5	G55	2-#5	G54	11-#5	G52
15E	37 Sps @ 6"	3 Sps @ 18"	2-#11	G53	4-#11	G560	4-#11	G57	2-#11	G55	2-#11	G54	11-#11	G52



ELEVATION
3/16"=1'-0"



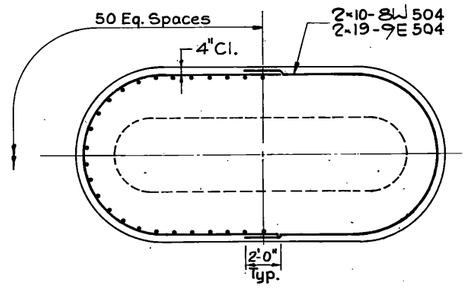
SIDE ELEVATION
3/16"=1'-0"



SECTION C-C
1/2"=1'-0"

NOTES:

1. See sheets SS-49 & SS50 For section A-A & Section B-B
2. For Pier cap Reinforcement steel see sheets SS 49 & SS50



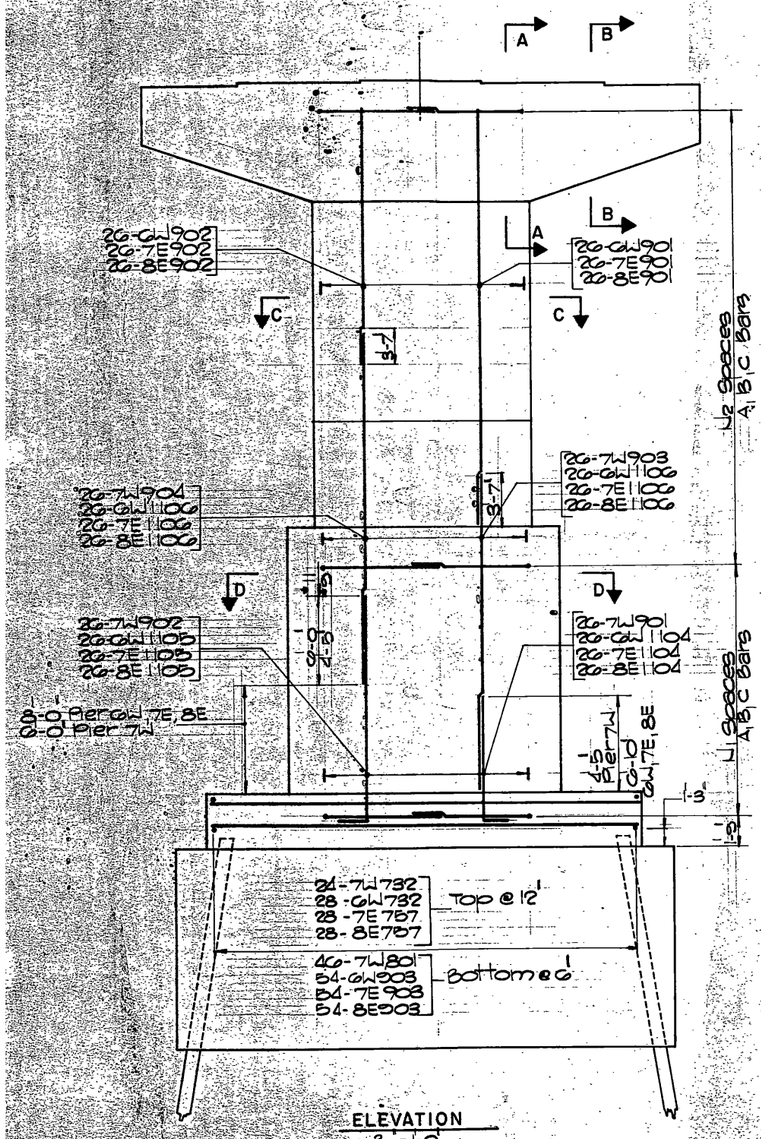
SECTION D-D
1/2"=1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

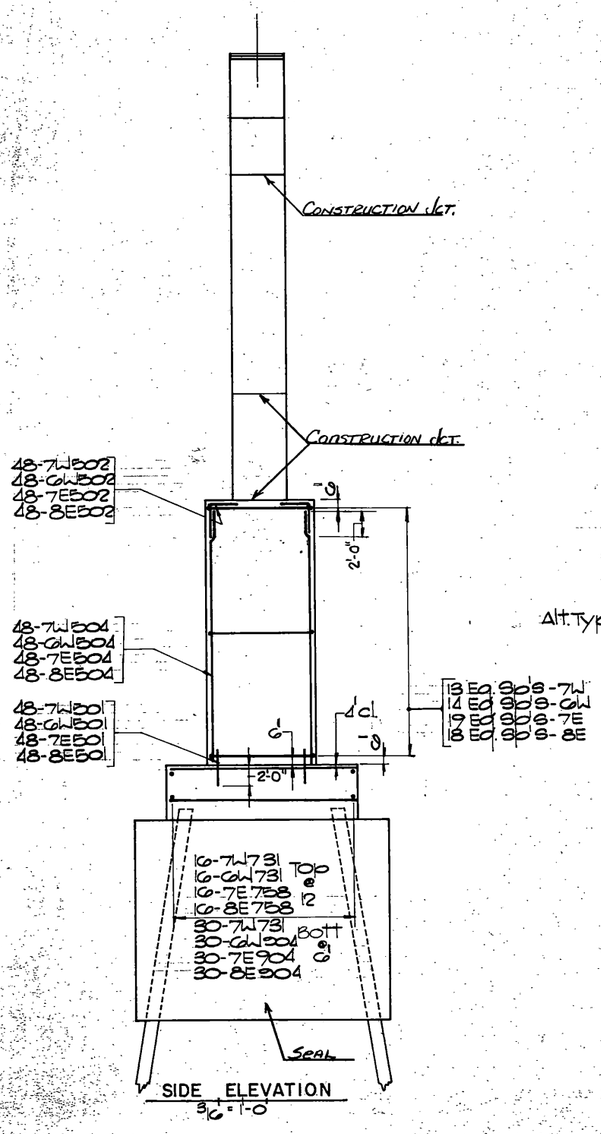
TOWN OF ROUSES POINT N.Y.– ALBURG VT.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO. ROUTE 2	Surv. Sta.
PIER 8W, 9E & 15E, REINFORCING STEEL	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by W.G.
Checked by R.M.C. date 10-29-84	Bridge Design Supervisor C.J.M./S.M. date 10-29-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS43	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

R-8



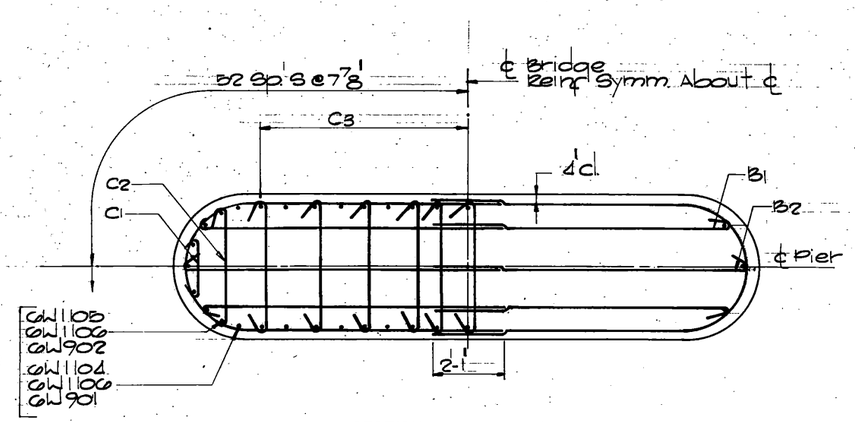
ELEVATION
3/16" = 1'-0"



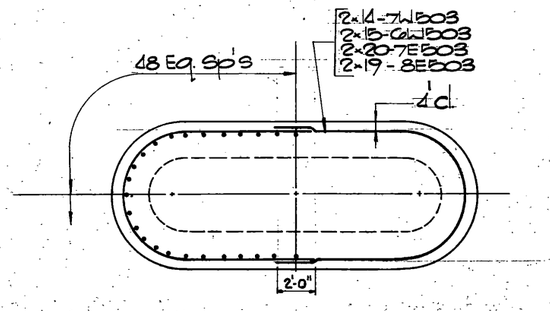
SIDE ELEVATION
3/16" = 1'-0"

Pier	J1 Spaces	J2 Spaces	A No.	A Mark	B1 No.	B1 Mark	B2 No.	B2 Mark	C1 No.	C1 Mark	C2 No.	C2 Mark	C3 No.	C3 Mark
7W	37 Spcs @ 6"	109 Spcs @ 12"	2-#7	C14	4-#7	C16	2-#7	C15	2-#7	C13	2-#7	C12	11-#7	C11
GW	37 Spcs @ 6"	26 Spcs @ 12"	2-#4	C11	4-#4	C16	2-#4	C15	2-#4	C14	2-#4	C13	11-#4	C12
7E	37 Spcs @ 6"	38 Spcs @ 12"	2-#3	C14	4-#3	C16	2-#3	C15	2-#3	C13	2-#3	C12	11-#3	C11
8E	37 Spcs @ 6"	28 Spcs @ 12"	2-#6	C14	4-#6	C16	2-#6	C15	2-#6	C13	2-#6	C12	11-#6	C11

TABLE OF REINFORCEMENT SHAFT HORIZONTAL TIES



SECTION C-C
1/2" = 1'-0"



SECTION D-D
1/4" = 1'-0"

NOTES:

1. See Sheets SS-43 & SS-50 For Section A-A & Section B-B
2. For Pier Cap Reinforcing Steel See Sheets SS-43 & SS-50

STATE OF VERMONT
AGENCY OF TRANSPORTATION

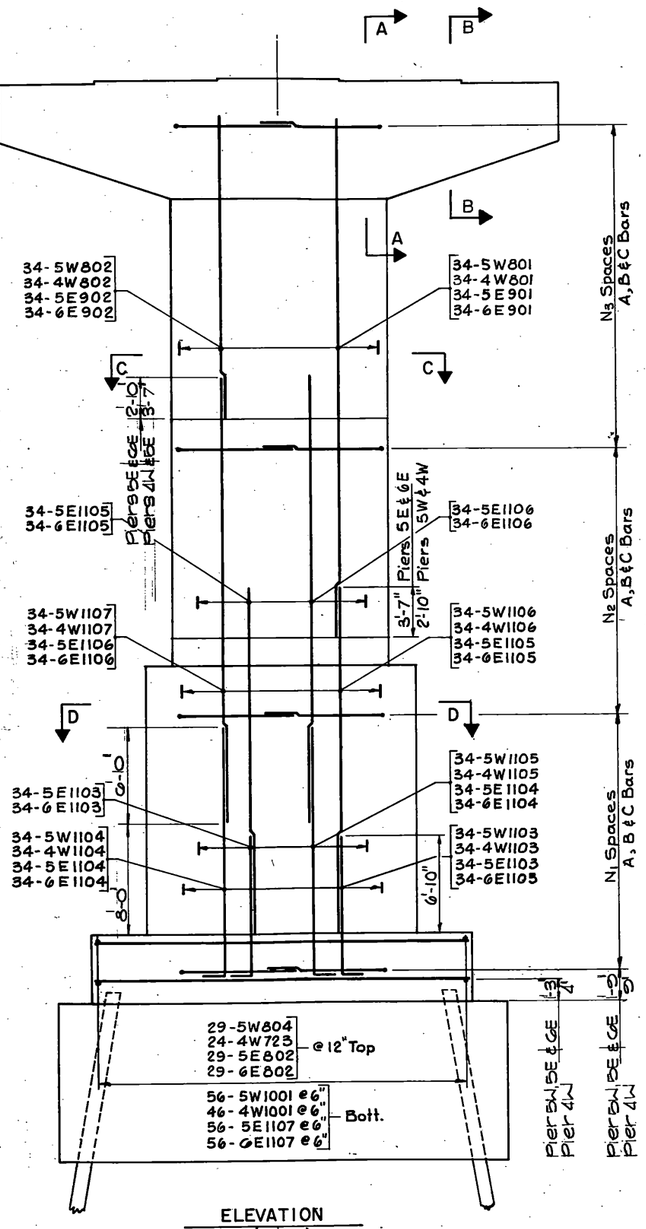
TOWN OF ROUSES POINT N.Y. – ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

PIER 7W-GW & 7E-8E, REINFORCING STEEL
(STEEL ALTERNATE)

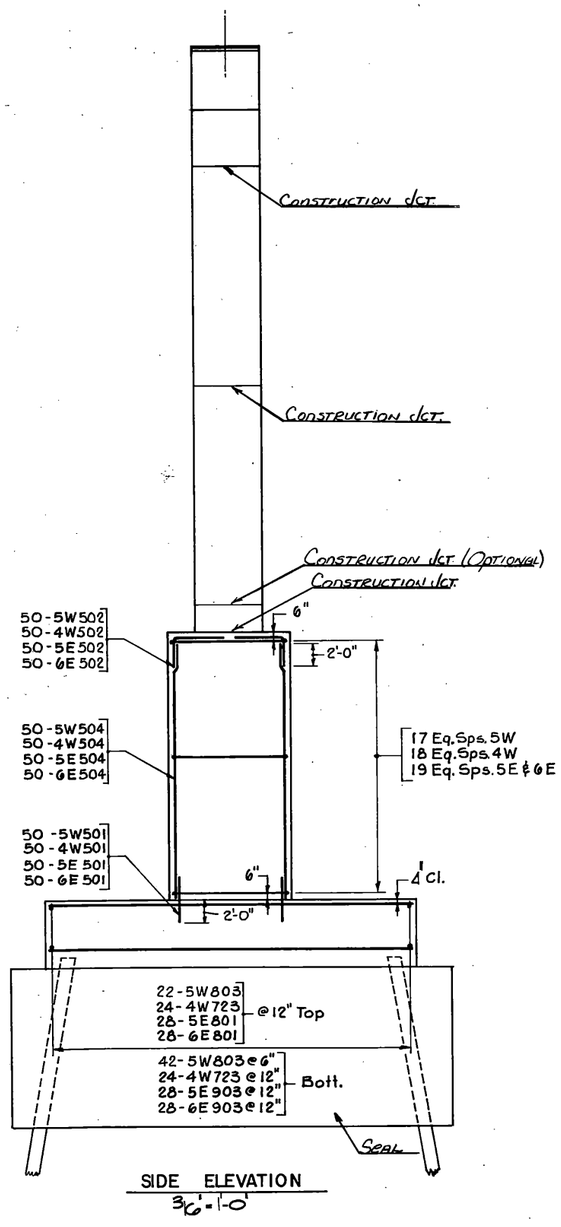
Designed by S.F.L.	Drawn by W.G.
Checked by R.M.C. date 10-29-84	Bridge Design Supervisor C.J.M./S.M. date 10-29-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS44	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

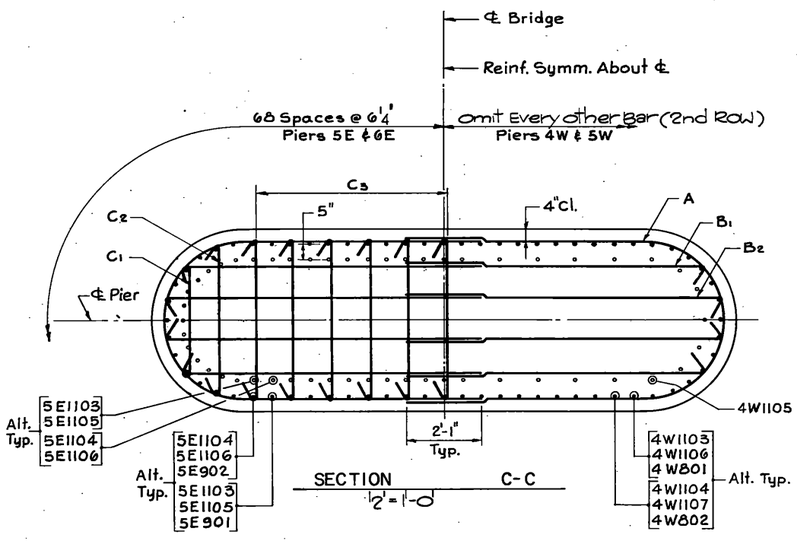
TABLE OF REINFORCEMENT – SHAFT HORIZONTAL TIES															
Pier	N_1 Spaces	N_2 Spaces	N_3 Spaces	A		B_1		B_2		C_1		C_2		C_3	
				No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
5W	39 Sp. @ 6"	13 Sp. @ 12"	47 Sp. @ 6"	2×100	611	4×100	616	4×100	615	2×100	614	2×100	613	11×100	612
4W	39 Sp. @ 6"	10 Sp. @ 12"	47 Sp. @ 6"	2×106	611	4×106	616	4×106	615	2×106	614	2×106	613	11×106	612
5E	39 Sp. @ 6"	22 Sp. @ 12"	47 Sp. @ 6"	2×103	612	4×103	617	4×103	616	2×103	615	2×103	614	11×103	613
6E	39 Sp. @ 6"	17 Sp. @ 12"	47 Sp. @ 6"	2×104	612	4×104	617	4×104	616	2×104	615	2×104	614	11×104	613



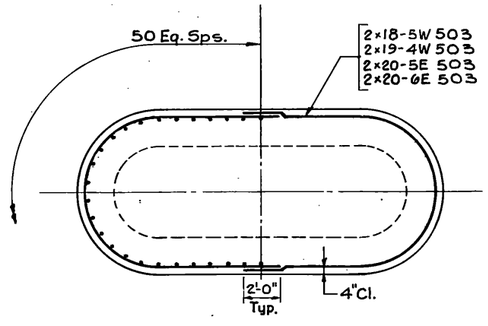
ELEVATION
3/16" = 1'-0"



SIDE ELEVATION
3/16" = 1'-0"



SECTION C-C
1/2" = 1'-0"



SECTION D-D
1/4" = 1'-0"

NOTES:

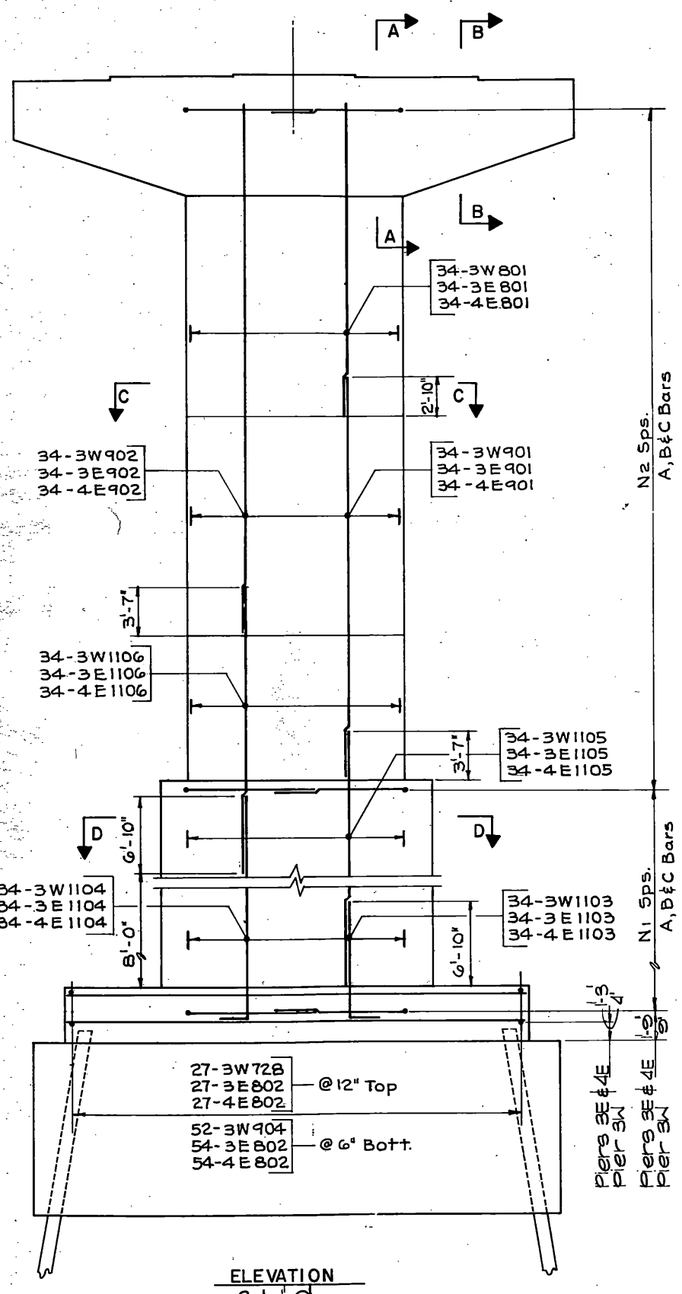
1. See sheets SS-45 & SS50 For Section A-A & Section B-B
2. For Pier Cap Reinforcing Steel see sheets SS-45 & SS50

STATE OF VERMONT
AGENCY OF TRANSPORTATION

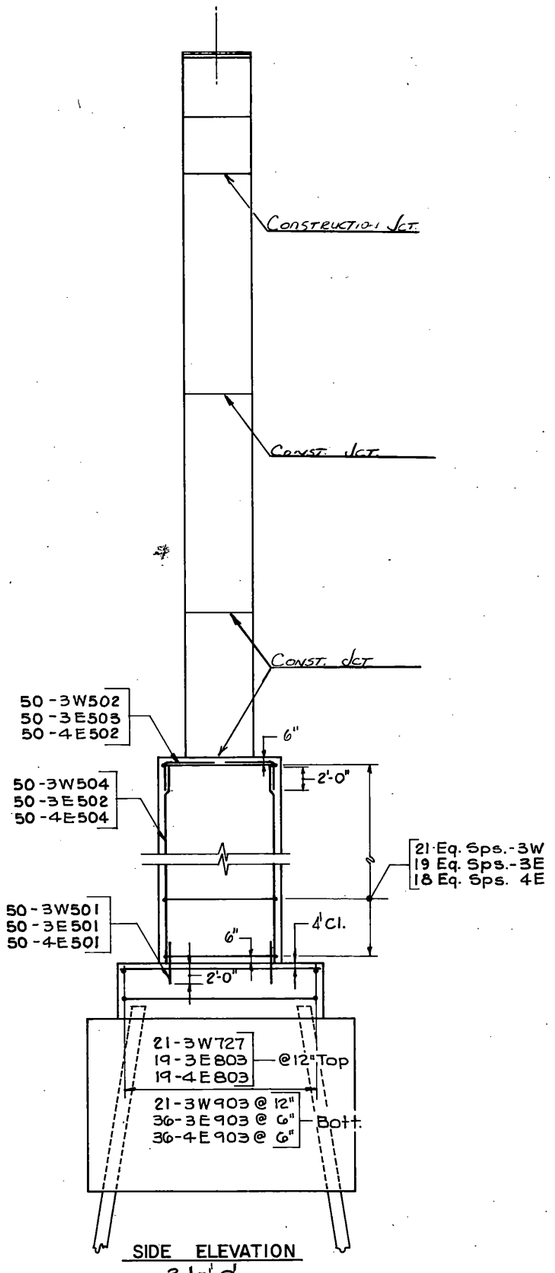
TOWN OF ROUSES POINT N.Y.– ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER 5W-4W & 5E-6E, REINFORCING STEEL	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by E.K.
Checked by R.M.C. date 10-29-84	Bridge Design Supervisor C.J.M./S.M. date 10-29-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS45	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

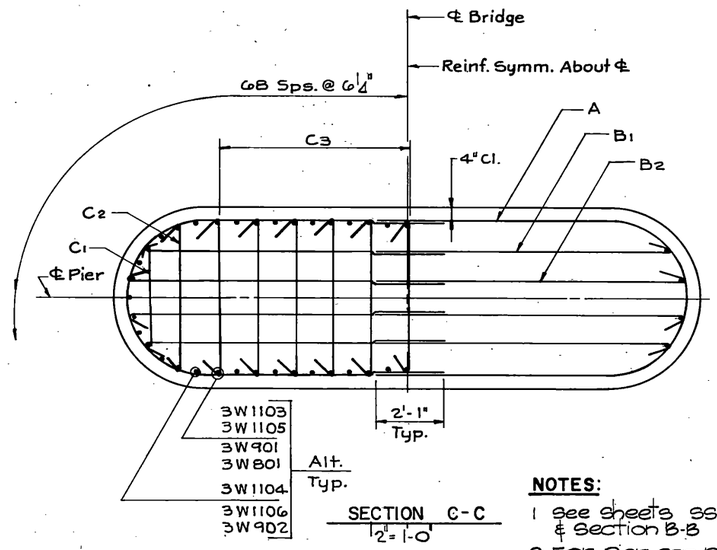
TABLE OF REINFORCEMENT SHAFT HORIZONTAL TIES														
Pier	N1 Spaces	N2 Spaces	A		B1		B2		C1		C2		C3	
			No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
3W	39 Sp. @ 6"	51 Sp. @ 12'	2×91	G11	4×91	G16	4×91	G15	2×91	G14	2×91	G13	11×91	G12
3E	39 Sp. @ 6"	54 Sp. @ 12'	2×94	G12	4×94	G17	4×94	G16	2×94	G15	2×94	G14	11×94	G13
4E	39 Sp. @ 6"	49 Sp. @ 12'	2×89	G12	4×89	G17	4×89	G16	2×89	G15	2×89	G14	11×89	G13



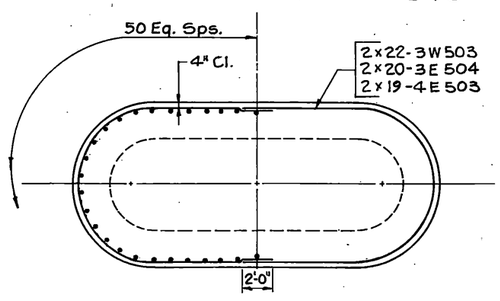
ELEVATION
3/16"=1'-0"



SIDE ELEVATION
3/16"=1'-0"



SECTION C-C
1/2"=1'-0"



SECTION D-D
1/4"=1'-0"

NOTES:

1 See sheets SS45 & SS50 For section A-A & Section B-B

2 For Pier Cap Reinforcing Steel see Sheets SS45 & SS50

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. – ALBURG VT.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO. ROUTE 2	Surv. Sta.

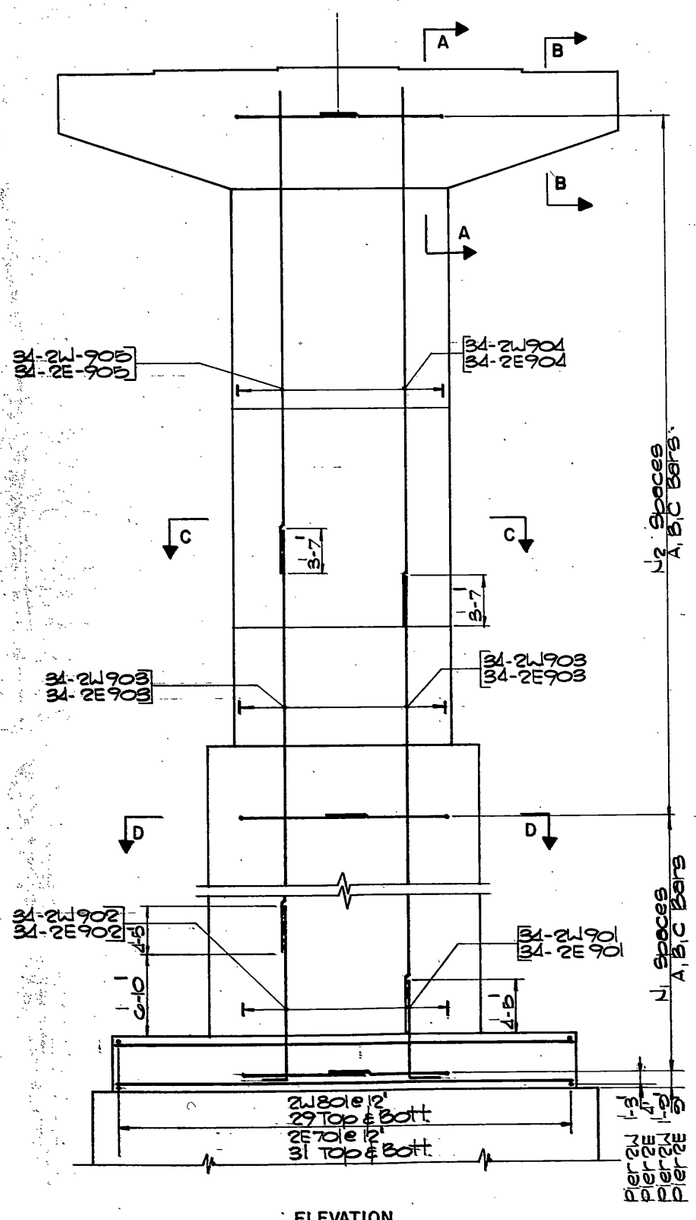
PIER 3W, 3E-4E, REINFORCING STEEL

(STEEL ALTERNATE)

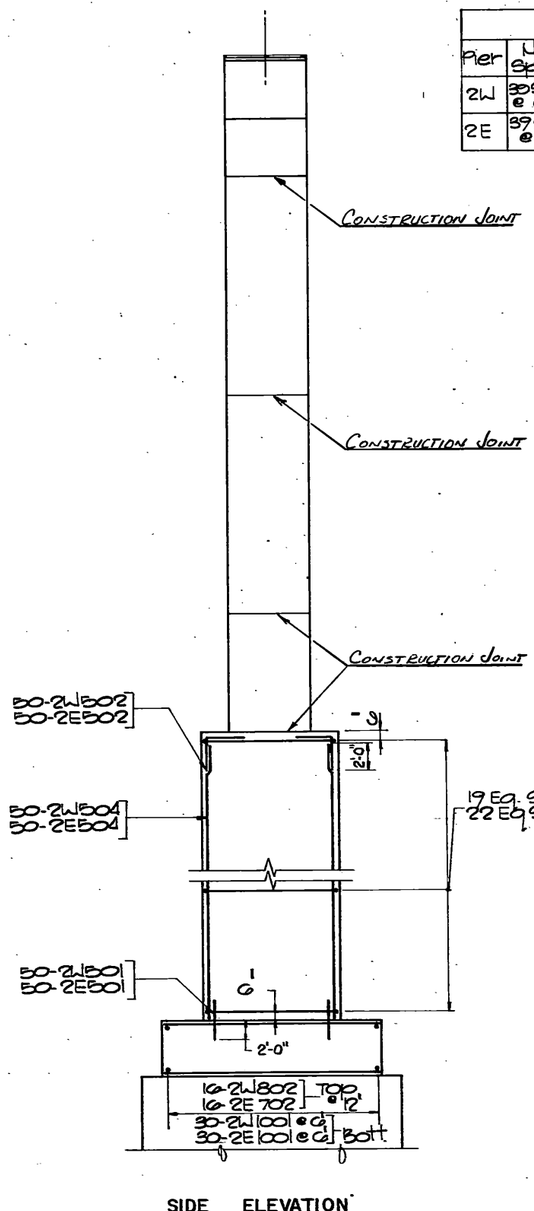
Designed by S.F.L.	Drawn by A.B.M.
Checked by R.M.C. date 10-29-84	Bridge Design Supervisor C.J.M./S.M. date 10-29-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS46	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

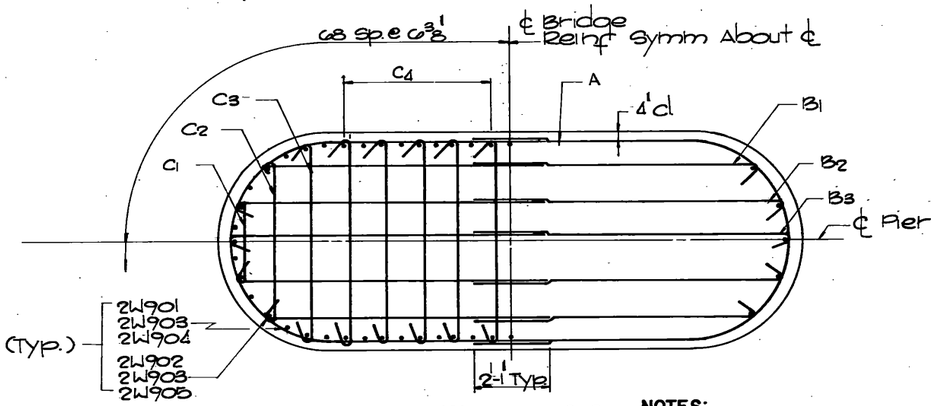
TABLE OF REINFORCEMENT— SHAFT HORIZONTAL TIES																			
Pier	N1 Spaces	N2 Spaces	A		B1		B2		B3		C1		C2		C3		C4	
			No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
2W	39 Sp's @ 6"	35 Sp's @ 18"	2-#5	G37	4-#5	G44	4-#5	G43	2-#5	G42	2-#5	G41	2-#5	G40	2-#5	G39	10-#5	G38
2E	39 Sp's @ 6"	39 Sp's @ 18"	2-#9	G37	4-#9	G44	4-#9	G43	2-#9	G42	2-#9	G41	2-#9	G40	2-#9	G39	10-#9	G38



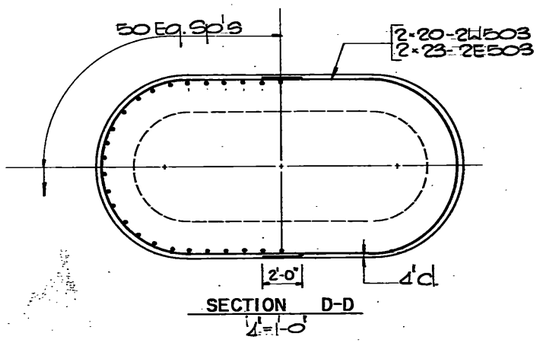
ELEVATION
3/16"=1'-0"



SIDE ELEVATION
3/16"=1'-0"



SECTION C-C
1/2"=1'-0"



SECTION D-D
1/4"=1'-0"

NOTES:

1. See sheets SS49 & SS50 For section A-A & Section B-B
2. For Pier cap Reinforcing steel See sheets SS48 & SS50

STATE OF VERMONT
AGENCY OF TRANSPORTATION

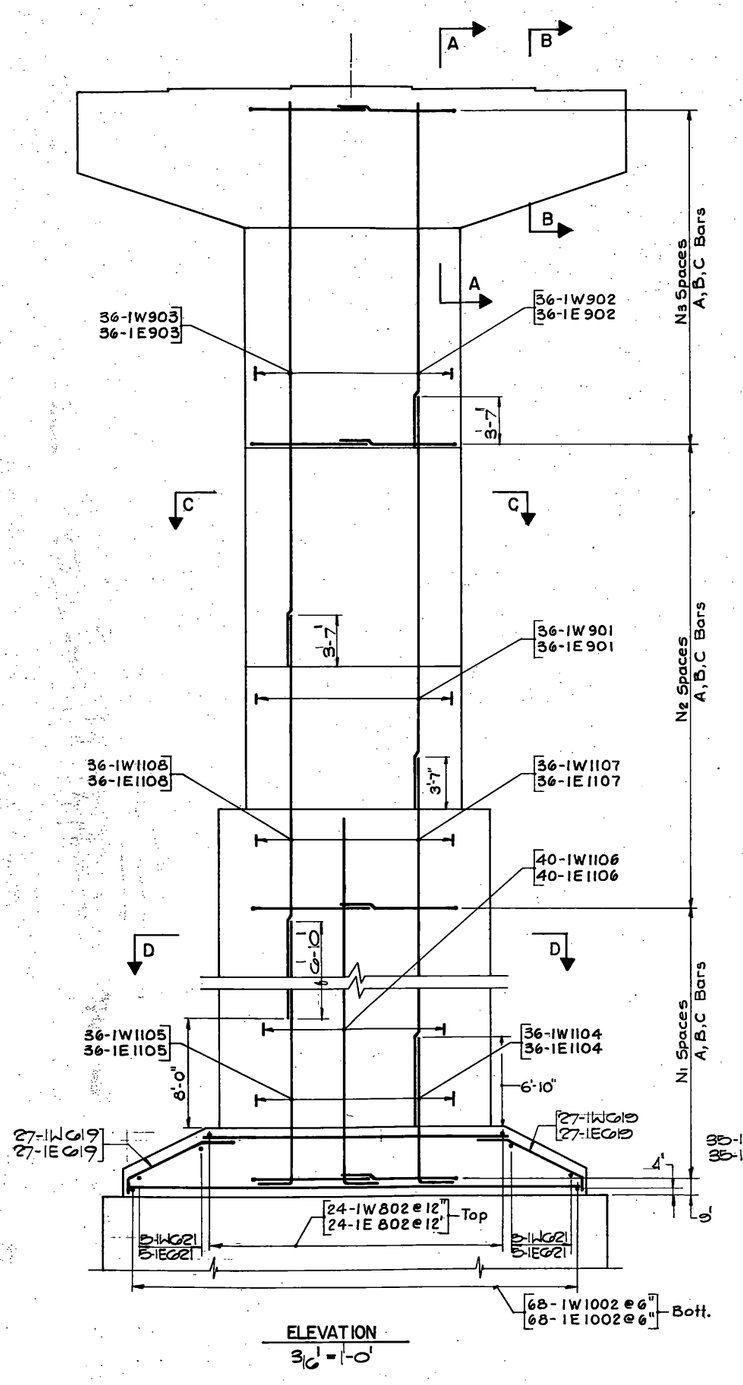
TOWN OF ROUSES POINT N.Y.—ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

PIER 2W & 2E, REINFORCING STEEL
(STEEL ALTERNATE)

Designed by S.F.L.	Drawn by A.B.M.
Checked by R.M.C. date 10-29-84	Bridge Design Supervisor C.J.M./S.M. date 10-29-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS47	Sheet of

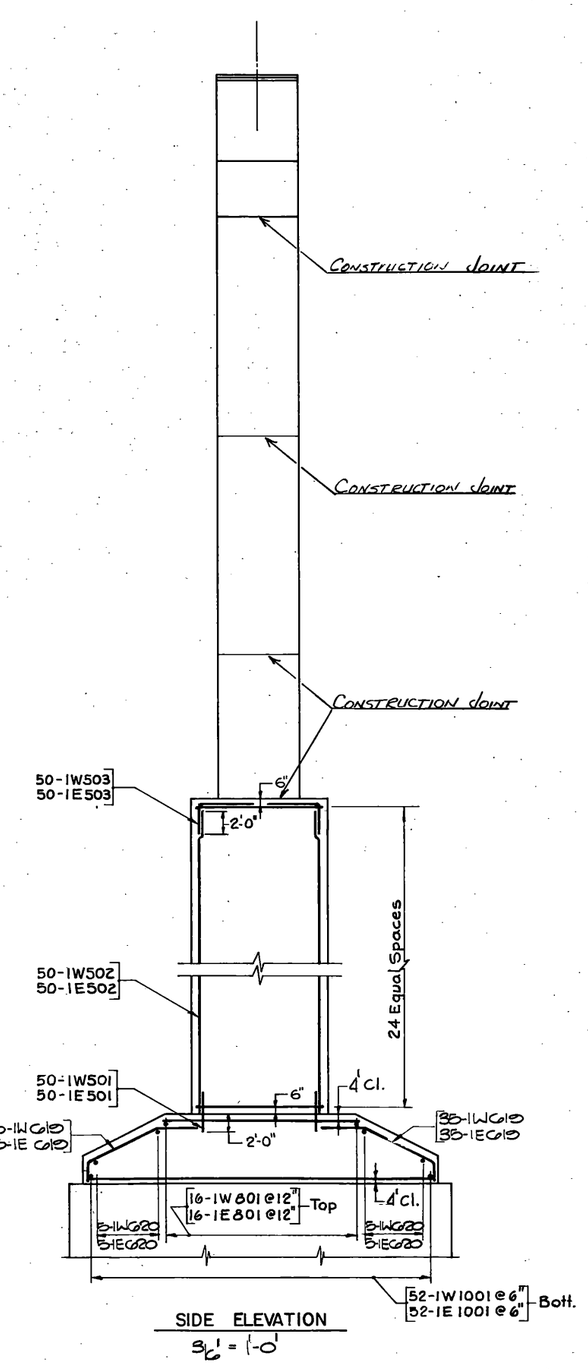
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

TABLE OF REINFORCEMENT – SHAFT HORIZONTAL TIES															
Pier	N1 Spaces	N2 Spaces	N3 Spaces	A		B1		B2		B3		C1		C2		C3	
				No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
1W	41 Sp. @ 6"	25 Sp. @ 18"	49 Sp. @ 6"	2×116	612	4×116	618	4×116	617	2×116	616	2×116	615	2×116	614	11×116	613
1E	41 Sp @ 6"	20 Sp. @ 18"	49 Sp. @ 6"	2×117	612	4×117	618	4×117	617	2×117	616	2×117	615	2×117	614	11×117	613



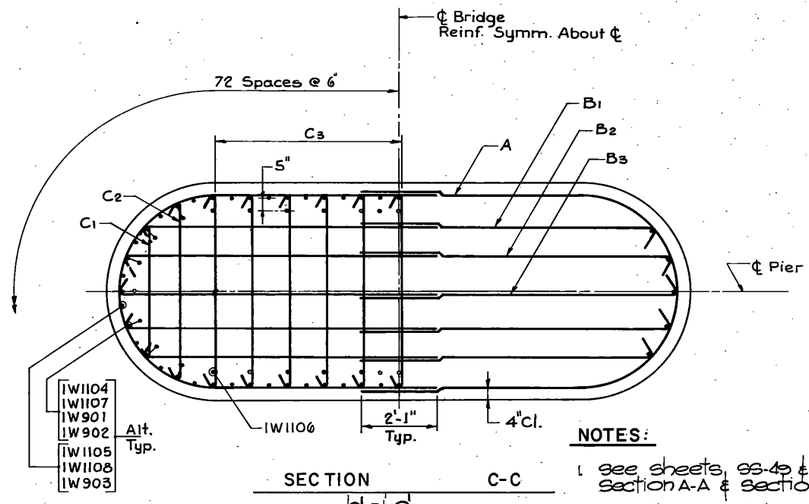
ELEVATION

3/16" = 1'-0"



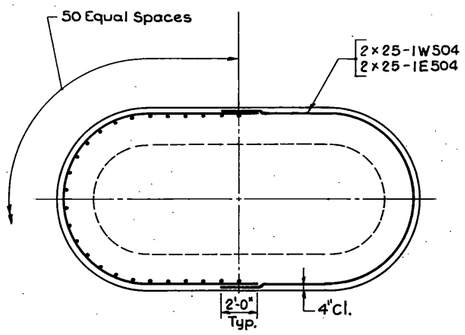
SIDE ELEVATION

3/16" = 1'-0"



SECTION C-C

1/2" = 1'-0"



SECTION D D

1/4" = 1'-0"

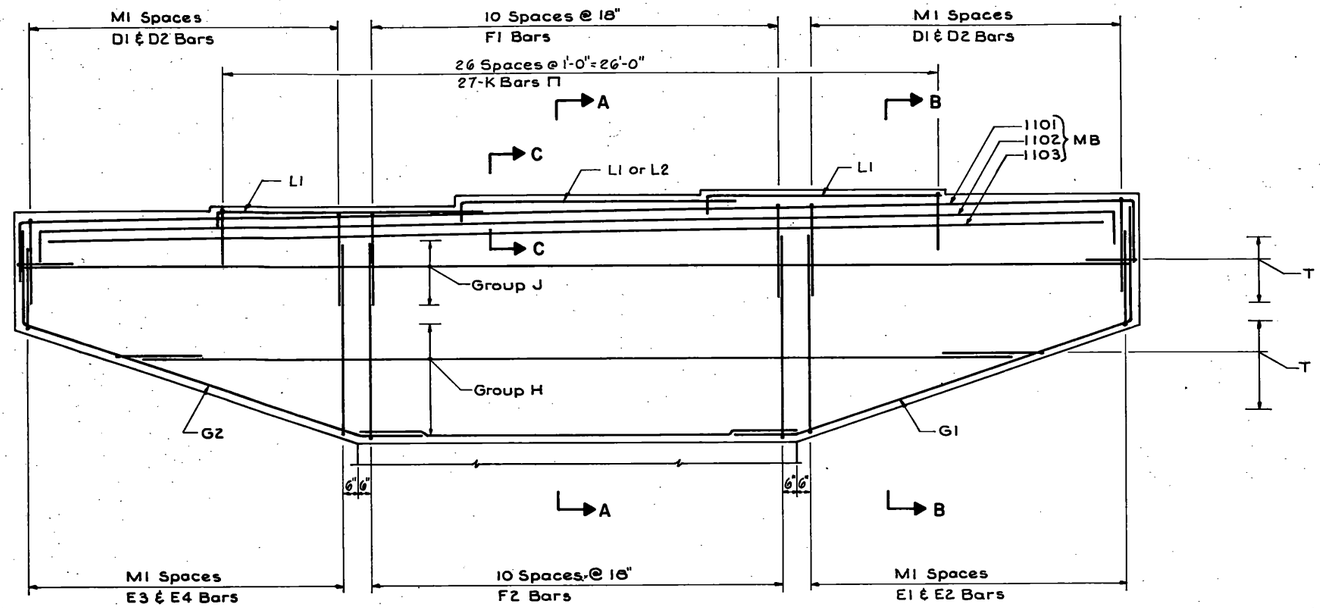
NOTES:

1. See sheets SS-49 & SS50 For Section A-A & Section B-B
2. For Pier cap Reinforcement Steel See sheets SS-49 & SS50

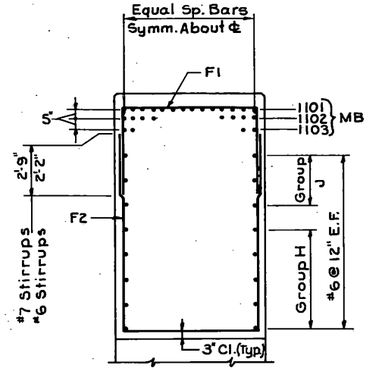
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y.– ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER 1W & 1E, REINFORCING STEEL	
(STEEL ALTERNATE)	
Designed by S.F.L.	Drawn by A.B.M.
Checked by R.M.C. date 10-29-84	Bridge Design Supervisor C.J.M./S.M. date 10-29-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS48	Sheet of

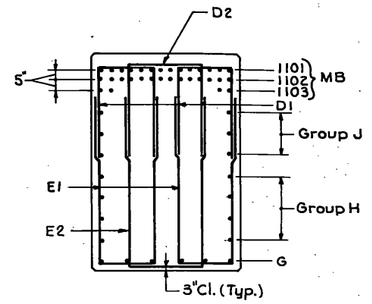
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF



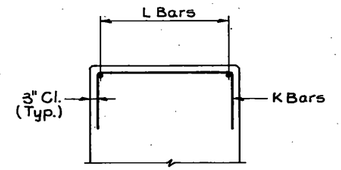
PIER CAP ELEVATION
3/8" = 1'-0"



SECTION A-A
3/8" = 1'-0"



SECTION B-B
3/8" = 1'-0"



SECTION C-C
3/8" = 1'-0"

TABLE OF REINFORCEMENT-PIER CAP (STIRRUPS)

PIER	M1 SPACES	F1		F2		D1		D2		E1		E2		E3		E4	
		No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
2E	10 Sp.@ 13¾"	11	601	11	602	4x11	603	2x11	604	4x11	605 To 615	2x11	616 To 626	—	—	—	—
3E	11 Sp.@ 12½"	11	701	11	702	4x12	703	2x12	704	2x12	705 To 716	12	729 To 740	2x12	717 To 728	12	741 To 752
4E	9 Sp.@ 15⅜"	11	701	11	702	4x10	703	2x10	704	2x10	705 To 714	10	725 To 734	2x10	715 To 724	10	735 To 744
5E & 6E	9 Sp.@ 15⅜"	11	701	11	702	4x10	703	2x10	704	2x10	705 To 714	10	725 To 734	2x10	715 To 724	10	735 To 744
7E, 11E & 13E	12 Sp.@ 11½"	11	701	11	702	4x13	703	2x13	704	2x13	705 To 717	13	731 To 743	2x13	718 To 730	13	744 To 756
8E, 10E & 14E	12 Sp.@ 11½"	11	701	11	702	4x13	703	2x13	704	2x13	705 To 717	13	731 To 743	2x13	718 To 730	13	744 To 756
9E & 15E	8 Sp.@ 17¼"	11	601	11	602	4x9	603	2x9	604	2x9	605 To 613	9	623 To 631	2x9	614 To 622	9	632 To 640
12E	12 Sp.@ 11½"	11	701	11	702	4x13	703	2x13	704	2x13	705 To 717	13	731 To 743	2x13	718 To 730	13	744 To 756
16E	11 Sp.@ 12½"	11	601	11	602	4x12	603	2x12	604	4x12	605 To 616	2x12	617 To 628	—	—	—	—

TABLE OF REINFORCEMENT-PIER CAP

PIER	MB		G1		G2		GROUP H		GROUP J		T	
	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
2E	14	1101	2x6	627	—	—	2x5	628 To 632	2x3	633 To 635	2x7	636
	8	1102										
3E	12	1101	6	601	6	602	2x5	603 To 607	2x3	608 To 610	2x7	611
	12	1102										
4E	12	1101	6	601	6	602	2x5	603 To 607	2x3	608 To 610	2x7	611
	8	1102										
5E & 6E	12	1101	6	601	6	602	2x5	603 To 607	2x3	608 To 610	2x7	611
	10	1102										
7E, 11E & 13E	9	1101	6	601	6	602	2x5	603 To 607	2x2	608 To 609	2x6	610
	9	1102										
	2	1103										
8E, 10E & 14E	3	1101	6	601	6	602	2x5	603 To 607	2x2	608 To 609	2x6	610
	9	1102										
	6	1103										
9E & 15E	13	1101	6	641	6	642	2x5	643 To 647	2x3	648 To 650	2x7	651
	5	1102										
12E	9	1101	6	601	6	602	2x5	603 To 607	2x2	608 To 609	2x6	610
	3	1102										
	4	1103										
16E	9	1101	2x6	629	—	—	2x5	630 To 634	2x3	635 To 637	2x7	638
	7	1102										

TABLE OF REINFORCEMENT-PIER CAP

PIER	L1		L2		K	
	No.	Mark	No.	Mark	No.	Mark
2E	2x6	645	6	646	27	505
3E, 4E, 5E & 6E	3x5	618	—	—	27	505
7E, 8E, 10E, 11E 12E, 13E & 14E	3x4	617	—	—	27	505
9E & 15E	3x6	658	—	—	27	505
10E	2x4	645	4	646	27	501

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. – ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

PIER CAP, REINFORCING STEEL (1)

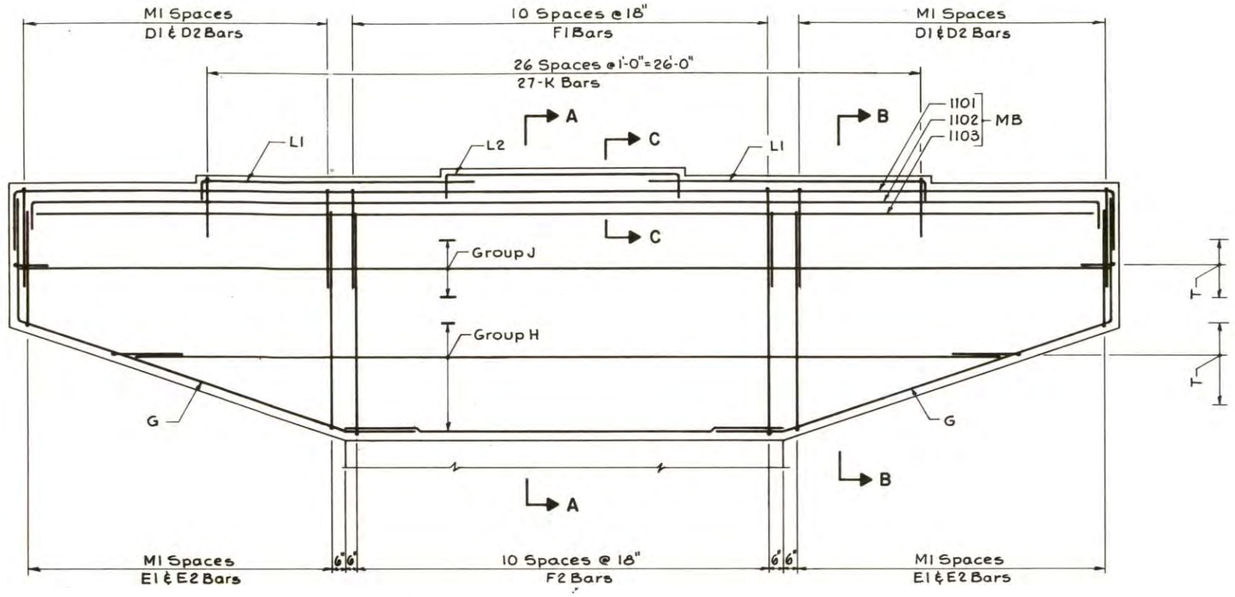
(STEEL ALTERNATE)

Designed by R.M.C.	Drawn by R.D.F.
Checked by J.S.J. date 11-6-84	Bridge Design Supervisor C.J.M./S.M. date 11-6-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS49	Sheet of

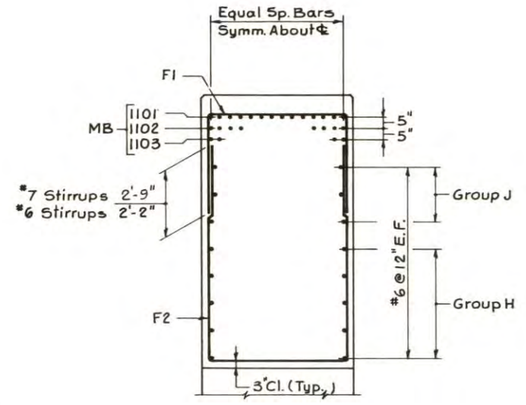
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-131 61144

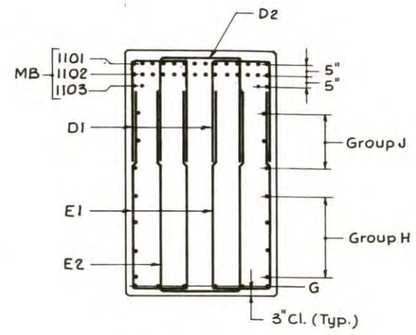
BR-6



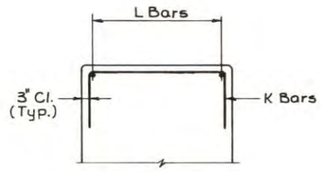
PIER CAP ELEVATION
Scale: $\frac{3}{8}$"=1'-0"



SECTION A-A
Scale: $\frac{3}{8}$"=1'-0"



SECTION B-B
Scale: $\frac{3}{8}$"=1'-0"



SECTION C-C
Scale: $\frac{3}{8}$"=1'-0"

TABLE OF REINFORCEMENT-PIER CAP (STIRRUPS)

PIER	MI SPACES	F1		F2		D1		D2		E1		E2	
		No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
1W & 1E	14 Sp. @ 9 7/8"	11	701	11	702	4×15	703	2×15	704	4×15	705 To 719	2×15	720 To 734
2W	10 Sp. @ 13 3/4"	11	601	11	602	4×11	603	2×11	604	4×11	605 To 615	2×11	616 To 626
3W	10 Sp. @ 13 3/4"	11	701	11	702	4×11	703	2×11	704	4×11	705 To 715	2×11	716 To 726
4W	8 Sp. @ 17 1/4"	11	701	11	702	4×9	703	2×9	704	4×9	705 To 713	2×9	714 To 722
5W	9 Sp. @ 15 5/8"	11	701	11	702	4×10	703	2×10	704	4×10	705 To 714	2×10	715 To 724
6W	12 Sp. @ 11 1/2"	11	701	11	702	4×13	703	2×13	704	4×13	705 To 717	2×13	718 To 730
7W	12 Sp. @ 11 1/2"	11	701	11	702	4×13	703	2×13	704	4×13	705 To 717	2×13	718 To 730
8W	8 Sp. @ 17 1/4"	11	601	11	602	4×9	603	2×9	604	4×9	605 To 613	2×9	614 To 622
9W & 11W	10 Sp. @ 13 3/4"	11	601	11	602	4×11	603	2×11	604	4×11	605 To 615	2×11	616 To 626
10W	8 Sp. @ 17 1/4"	11	601	11	602	4×9	603	2×9	604	4×9	605 To 613	2×9	614 To 622
17E	11 Sp. @ 12 1/2"	11	601	11	602	4×12	603	2×12	604	4×12	605 To 616	2×12	617 To 628

TABLE OF REINFORCEMENT-PIER CAP

PIER	MB		G		GROUP H		GROUP J		T	
	No.	Mark	No.	Mark	No.	Mark	No.	Mark	No.	Mark
1W & 1E	14	1101	2×6	601	2×5	602 To 606	2×4	607 To 610	2×8	611
	14	1102								
	4	1103								
2W	14	1101	2×6	627	2×5	628 To 632	2×3	633 To 635	2×7	636
	8	1102								
3W	12	1101	2×6	601	2×5	602 To 606	2×3	607 To 609	2×7	610
	12	1102								
4W	12	1101	2×6	601	2×5	602 To 606	2×3	607 To 609	2×7	610
	8	1102								
5W	12	1101	2×6	601	2×5	602 To 606	2×3	607 To 609	2×7	610
	10	1102								
6W	9	1101	2×6	601	2×5	602 To 606	2×2	607 To 608	2×6	610
	9	1102								
	2	1103								
7W	9	1101	2×6	601	2×5	602 To 606	2×2	607 To 608	2×6	610
	9	1102								
	6	1103								
8W	13	1101	2×6	623	2×5	624 To 628	2×3	629 To 631	2×7	632
	3	1102								
9W & 11W	9	1101	2×6	627	2×5	628 To 632	2×3	633 To 635	2×7	636
	7	1102								
10W	9	1101	2×6	623	2×5	624 To 628	2×3	629 To 631	2×7	632
	5	1102								
17E	9	1101	2×6	629	2×5	630 To 634	2×3	635 To 637	2×7	638
	9	1102								

TABLE OF REINFORCEMENT-PIER CAP

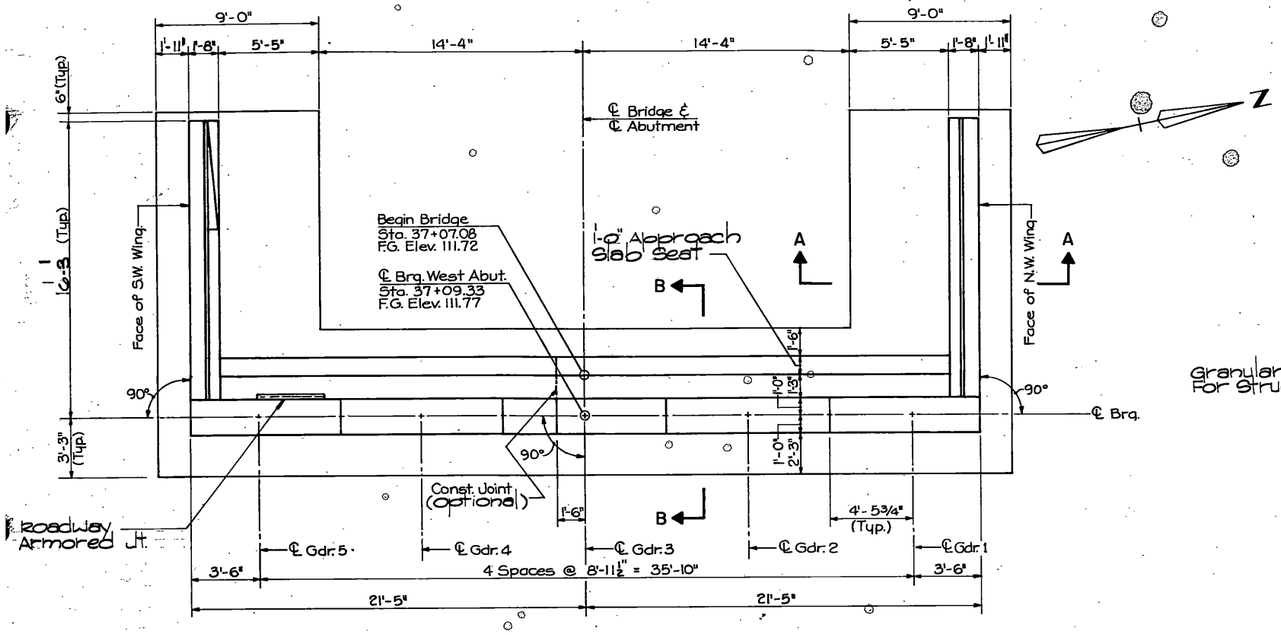
PIER	L1		L2		K	
	No.	Mark	No.	Mark	No.	Mark
1W & 1E	2×6	622	6	623	27	505
2W	2×6	645	6	646	27	505
3W, 4W & 5W	2×5	617	5	618	27	505
6W & 7W	2×4	617	4	618	27	505
8W	2×6	640	6	639	27	505
9W & 11W	2×4	643	4	644	27	501
10W	2×4	639	4	640	27	501
17E	2×4	649	4	650	27	501

STATE OF VERMONT
AGENCY OF TRANSPORTATION

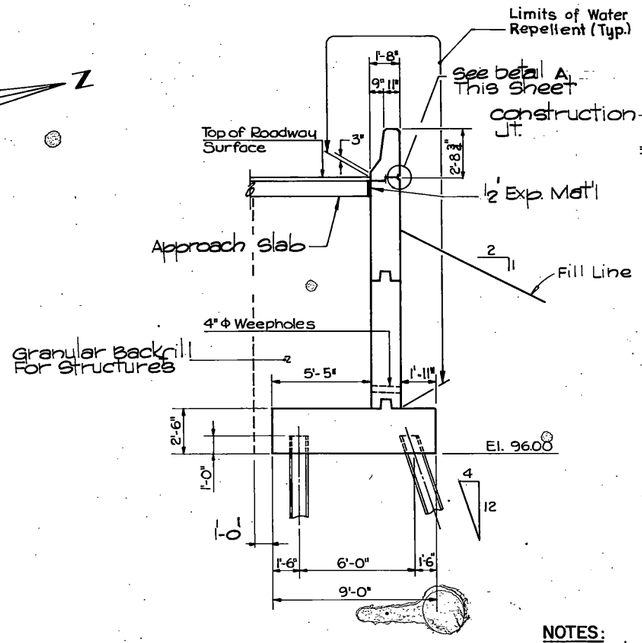
TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
PIER CAP REINFORCING STEEL (2)	
(STEEL ALTERNATE)	
Designed by R.M.C.	Drawn by E.K.
Checked by J.S.J. date 11-6-84	Bridge Design Supervisor C.J.M./S.M. date 11-6-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS50	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

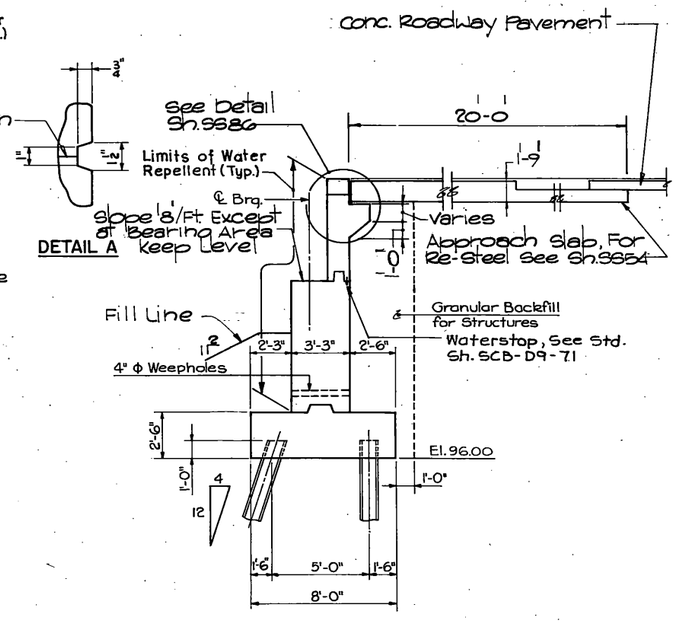
BR-6



PLAN – WEST ABUTMENT
Scale: 1/4"=1'-0"



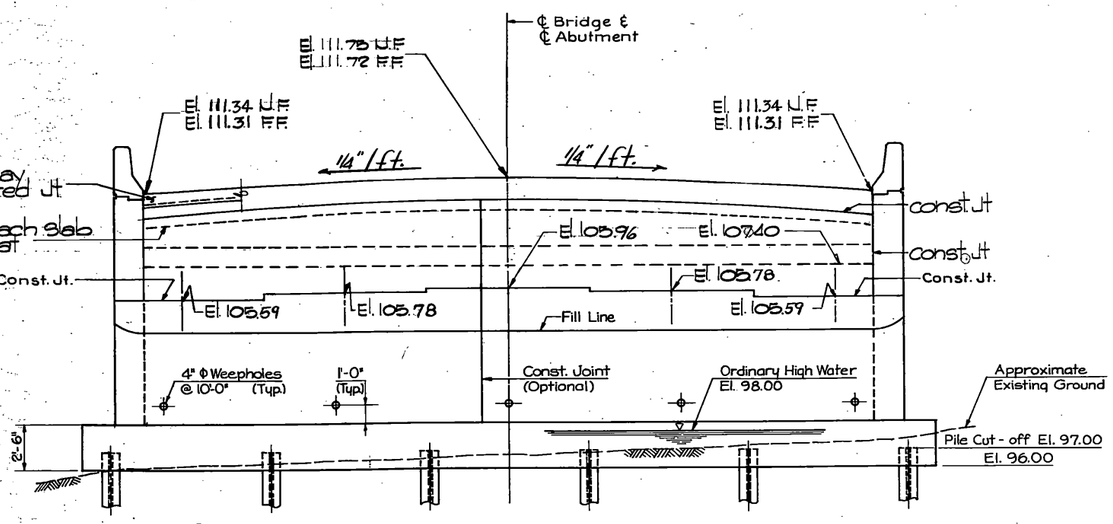
SECTION A-A
Scale: 1/4"= 1'-0"



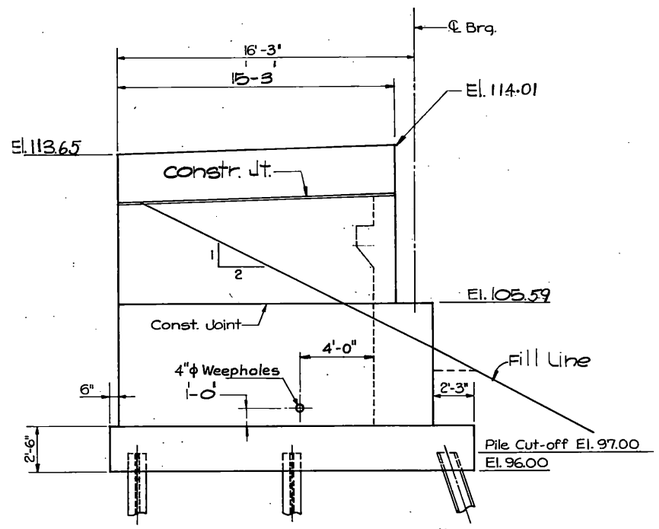
SECTION B-B
Scale: 1/4" = 1'-0"

NOTES:

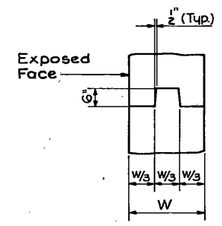
1. For Pile Details See Sh. SS28
2. For Reinforcing Details, See Sh. SS52
3. All Concrete In Abutments To Be Class B. fc = 3,500 psi (Item 501.25)
4. All Reinforcing Steel Shall Conform To ASTM Designation A615, Grade 60.



ELEVATION – WEST ABUTMENT
Scale: 1/4" = 1'-0"



ELEVATION – N.W. & S.W. WINGWALL
Scale: 1/4" = 1'-0"



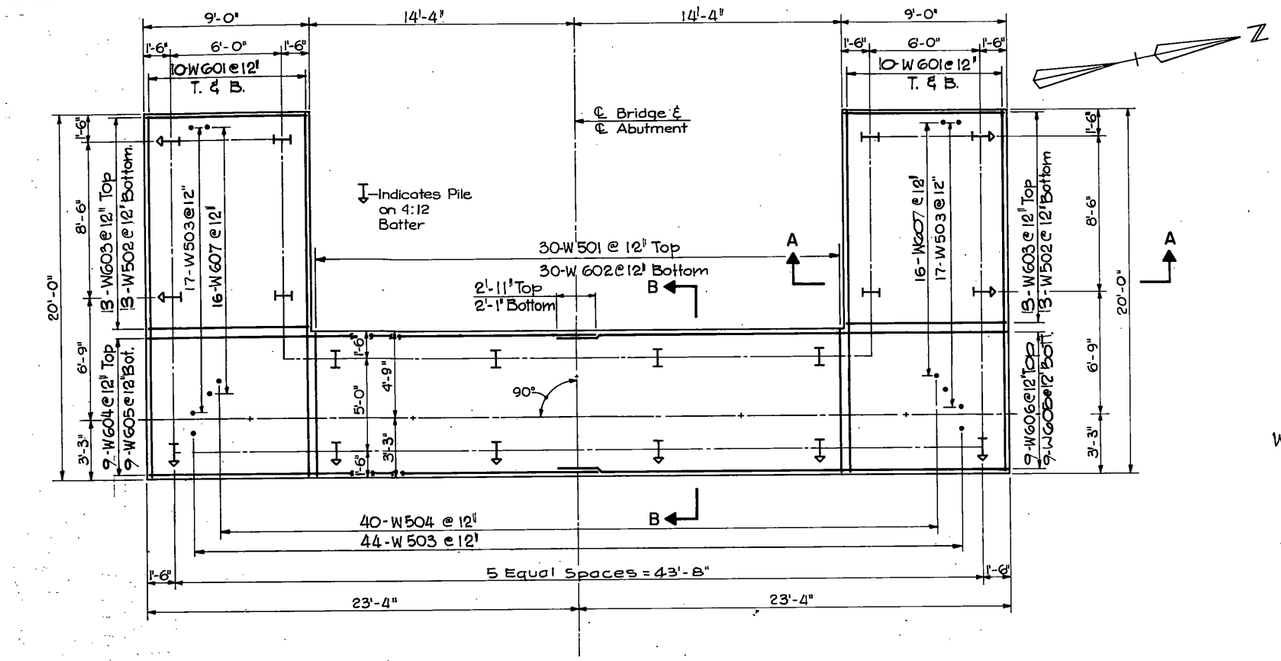
CONSTRUCTION JOINT DETAIL
Scale: 1/2" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

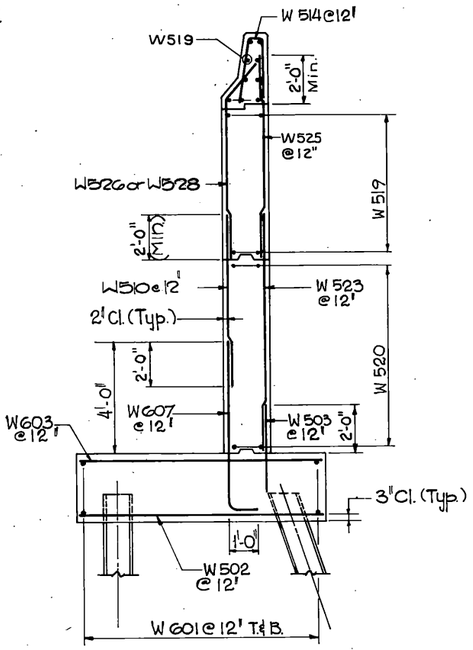
TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO. ROUTE 2	Surv. Sta.
WEST ABUTMENT	
(STEEL ALTERNATE)	
Designed by K.A.C.	Drawn by A.B.M.
Checked by J.S.J. date 10-26-84	Bridge Design Supervisor C.J.M./S.M. date 10-26-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS51	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

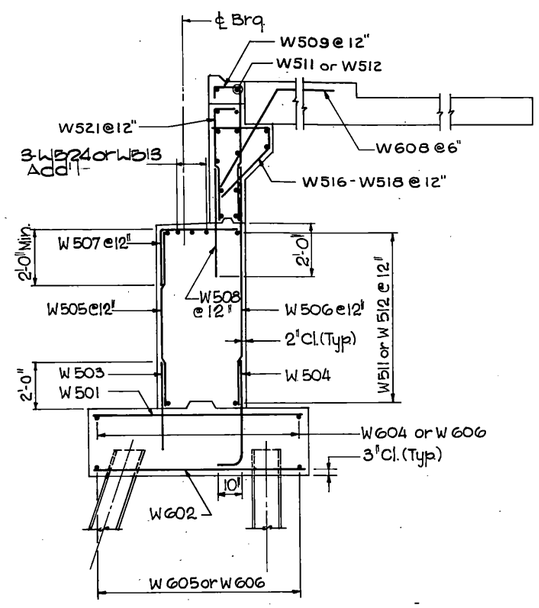
BR-5



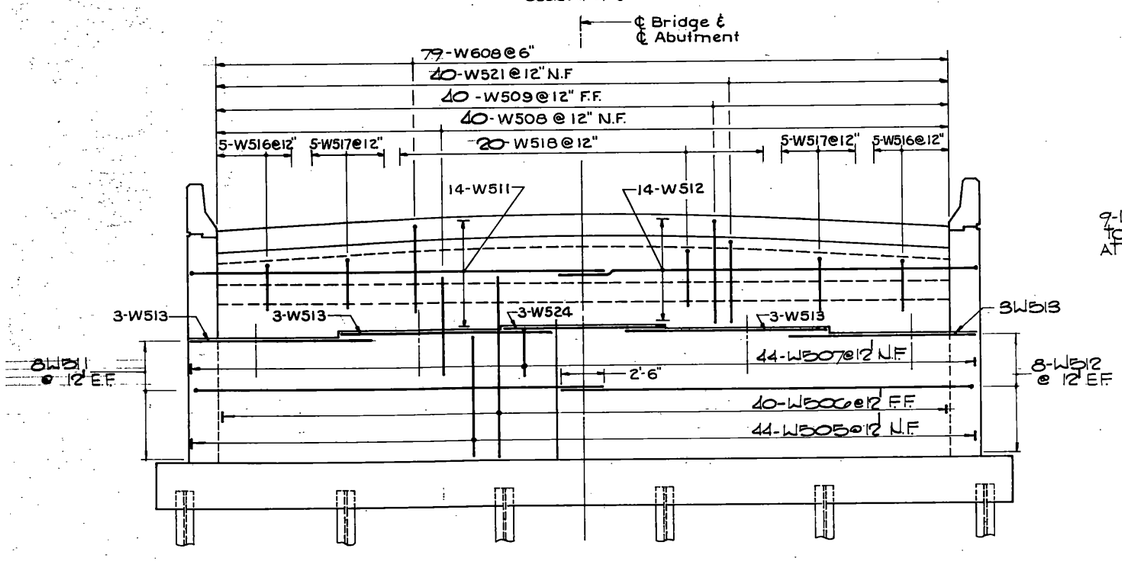
FOOTING PLAN - WEST ABUTMENT
Scale: 1/4" = 1'-0"



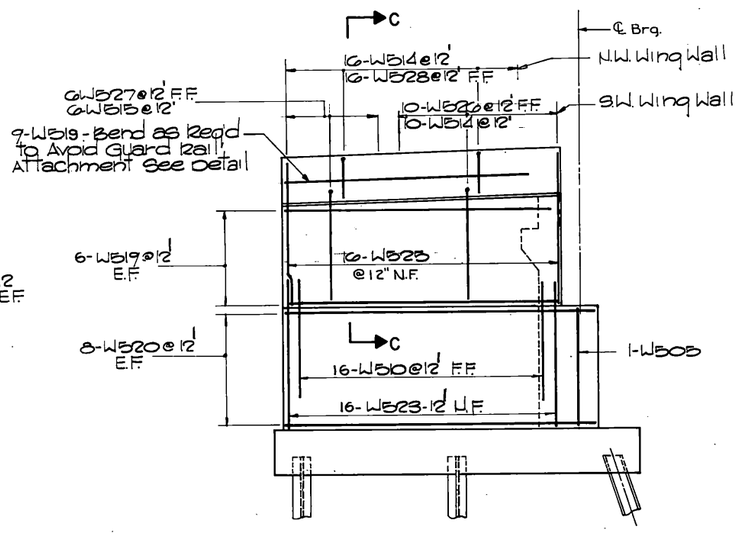
SECTION A-A
Scale: 3/8" = 1'-0"



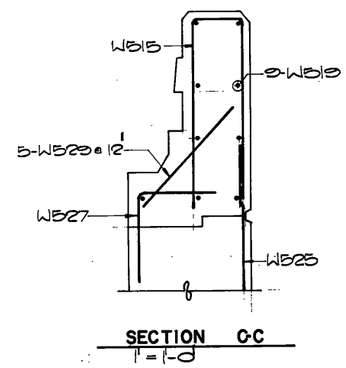
SECTION B-B
Scale: 3/8" = 1'-0"



ELEVATION - WEST ABUTMENT
Scale: 1/4" = 1'-0"



ELEVATION - N.W. & S.W. WINGWALL
Scale: 1/4" = 1'-0"



SECTION C-C
1" = 1'-0"

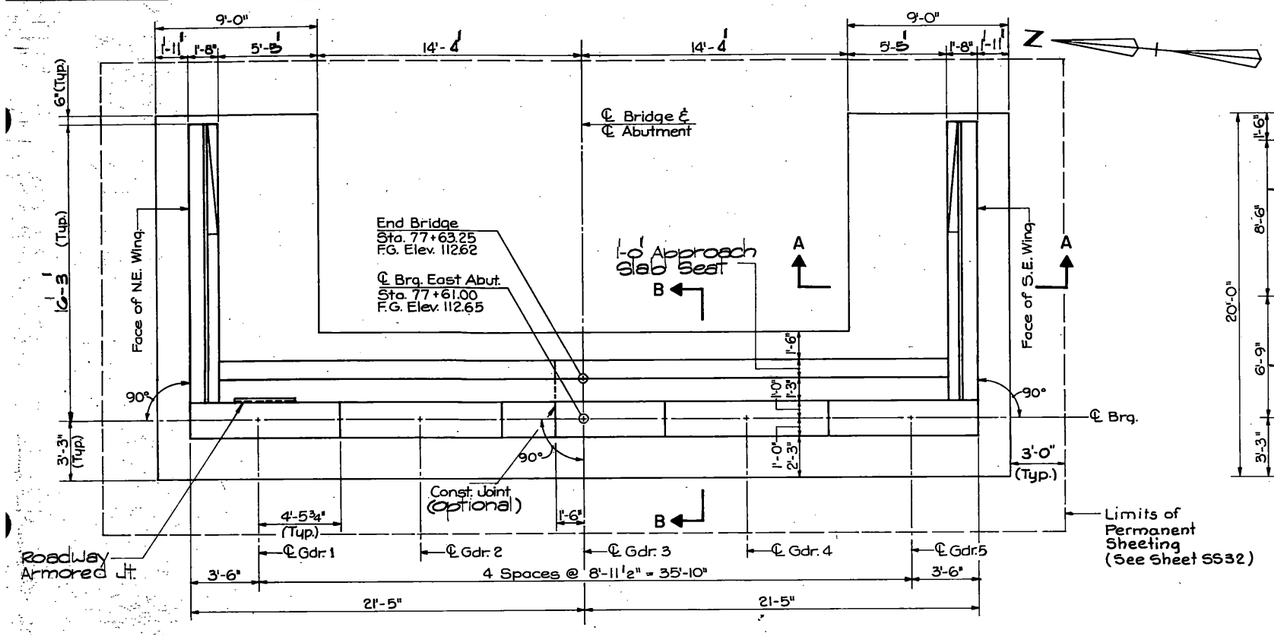
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta.
	Surv. Sta.

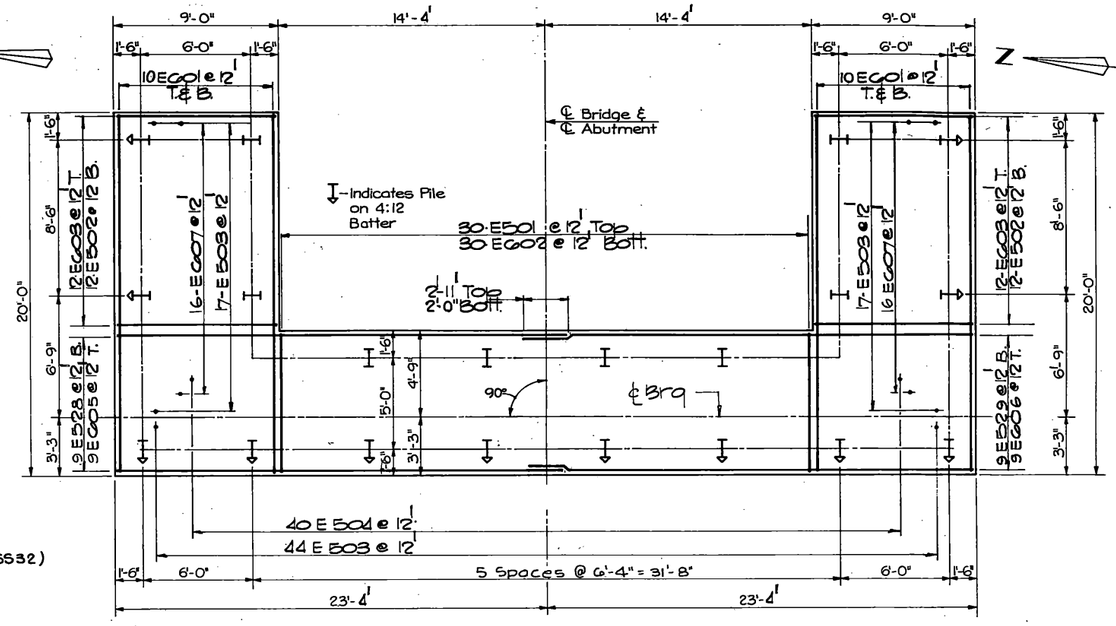
WEST ABUTMENT, REINFORCING STEEL
(STEEL ALTERNATE)

Designed by K.A.C.	Drawn by A.B.M.
Checked by R.M.C. date 10-26-84	Bridge Design Supervisor C.J.M./S.M. date 10-26-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS52	Sheet of

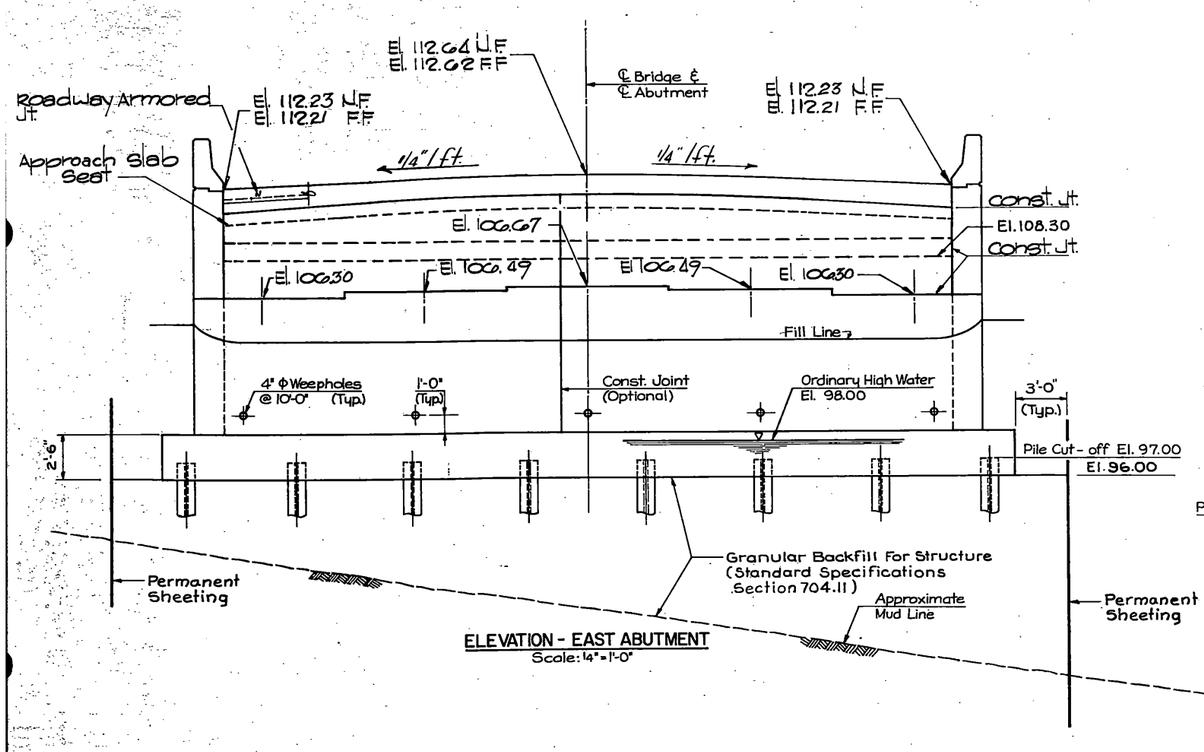
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF



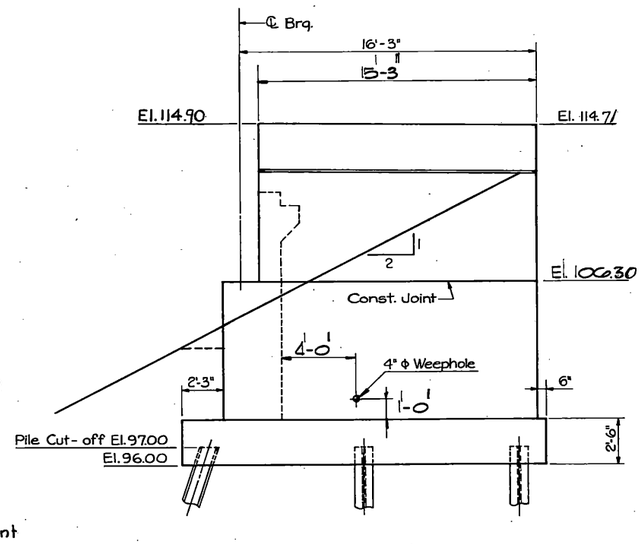
PLAN - EAST ABUTMENT
Scale: 4"=1'-0"



FOOTING PLAN – EAST ABUTMENT
Scale: 14"=1'-0"



ELEVATION - EAST ABUTMENT
Scale: 14"=1'-0"



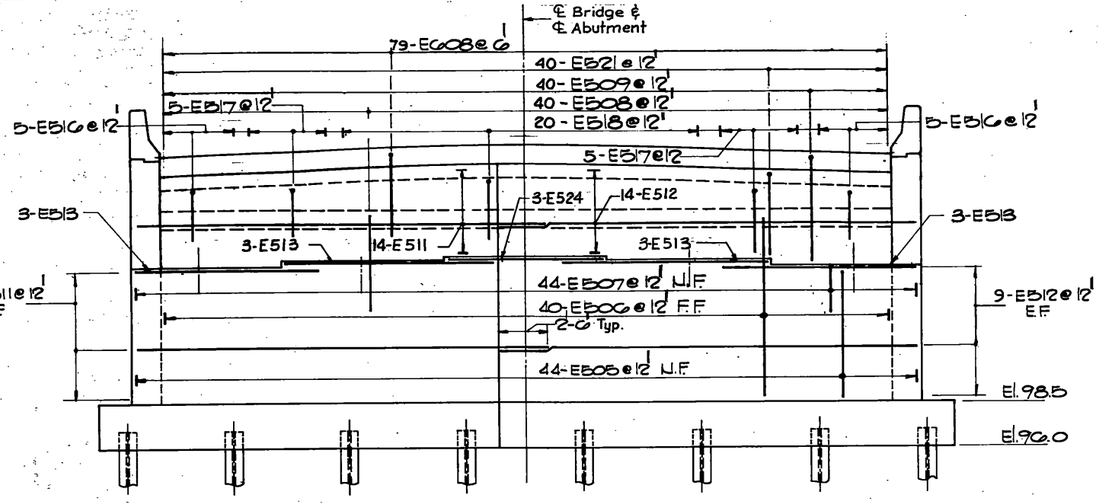
ELEVATION - N.E. & S.E. WINGWALL
Scale: 14" = 1'-0"

NOTES:
1. For Section A-A & B-B See Sh. SS 51

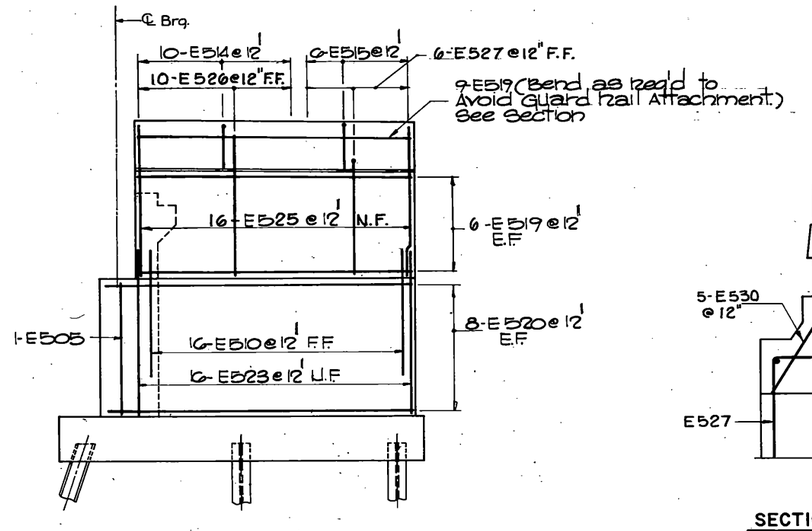
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
EAST ABUTMENT	
(STEEL ALTERNATE)	
Designed by K.A.C.	Drawn by A.B.M.
Checked by J.S.J./R.M.C. date 10-26-84	Bridge Design Supervisor C.J.M./S.M. date 10-26-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS 53	Sheet of

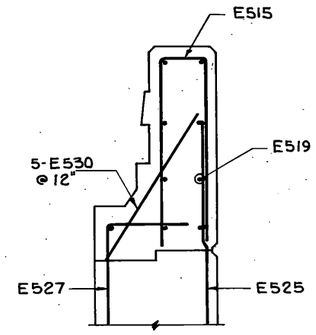
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF



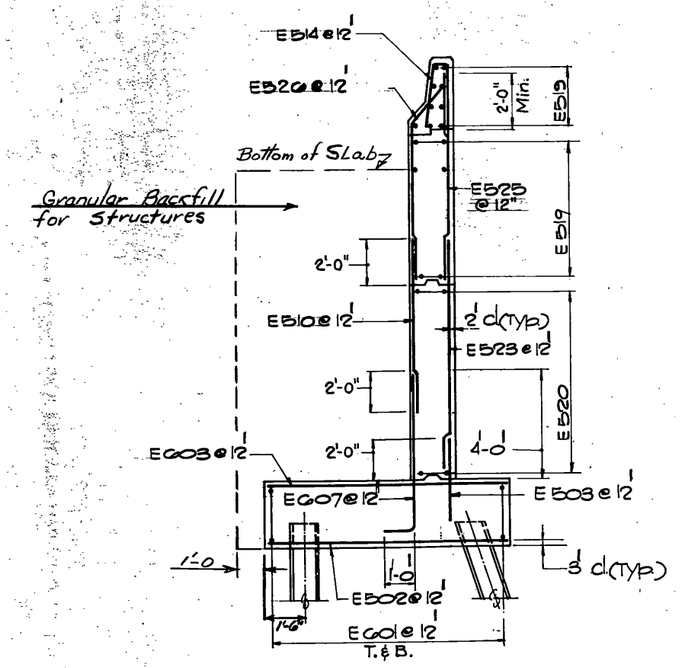
ELEVATION - EAST ABUTMENT
Scale: 1/4"=1'-0"



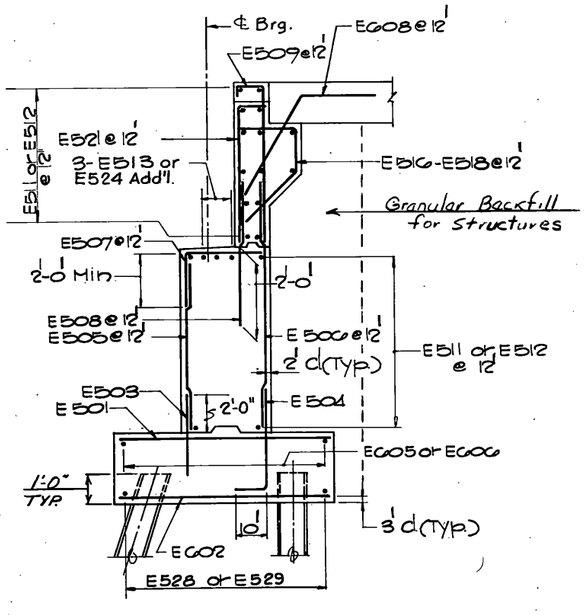
ELEVATION - N.E. & S.E. WINGWALL
Scale: 1/4" = 1'-0"



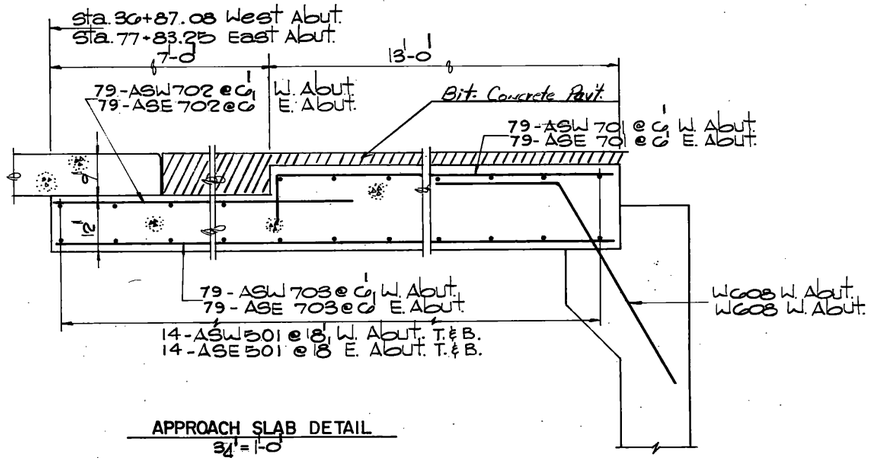
SECTION C-C
Scale: 1"=1'-0"



SECTION A-A
3/8"=1'-0"



SECTION B-B
3/8"=1'-0"



APPROACH SLAB DETAIL
3/4"=1'-0"

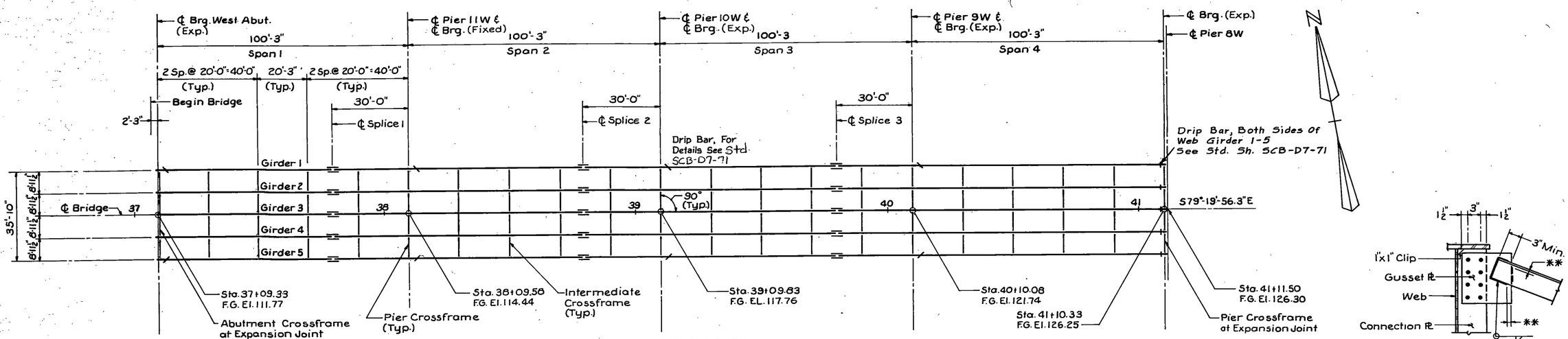
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

EAST ABUTMENT, REINFORCING STEEL
(STEEL ALTERNATE)

Designed by K.A.C.	Drawn by A.B.M.
Checked by J.S.J. date 10-26-84	Bridge Design Supervisor C.J.M./S.M. date 10-26-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS54	Sheet of

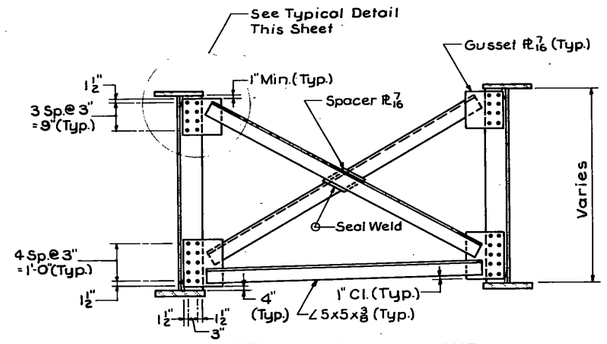
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF



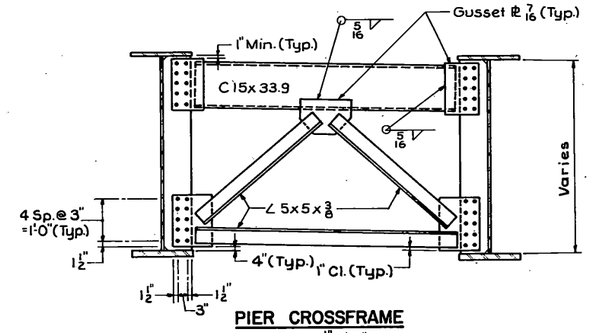
FRAMING PLAN - SPANS 1 THRU 4
UNIT 1
Scale: 1" = 20'

TYPICAL DETAIL
Scale: 1 1/2" = 1'-0"

** All around welds on Gusset Pl. connections to be terminated a min. of 1/4" ℄ a max. of 1/2" from edge of Gusset Pl.

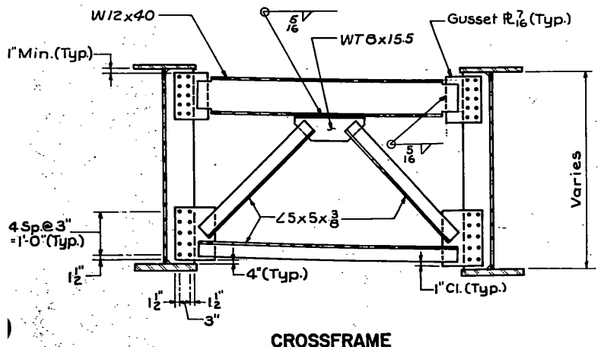


INTERMEDIATE CROSSFRAME
Scale: 1/2" = 1'-0"

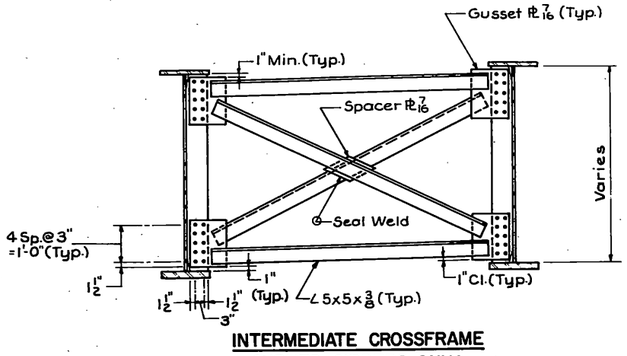


PIER CROSSFRAME
Scale: 1/2" = 1'-0"

NOTES:
1. Cross Frame Details on this Sheet are Applicable to Units 1, 2, 4, 5 & 6 Only. Cross Frame Details For Unit 3 are Detailed on Sh. SS61
2. Finished Grade (F.G.) Elevation Given at Top of Bituminous Concrete Pavement.
3. For Girder Elevation, see Sheet SC56.



CROSSFRAME AT EXPANSION JOINTS (PIERS & ABUTMENTS)
Scale: 1/2" = 1'-0"

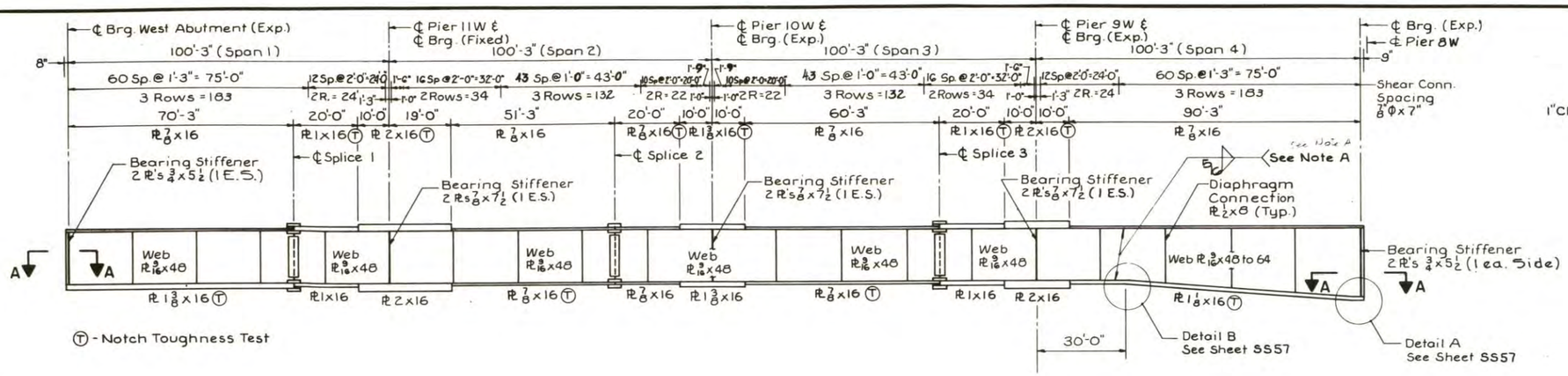


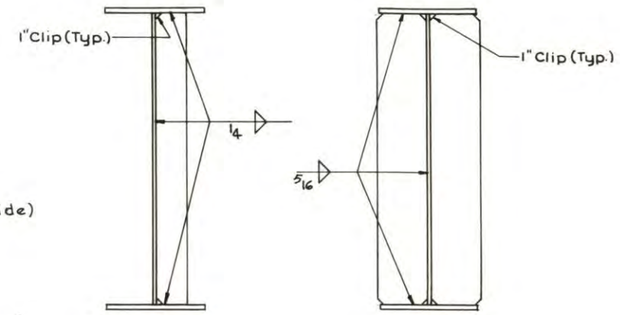
INTERMEDIATE CROSSFRAME CURVED GIRDERS ONLY
Scale: 1/2" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
FRAMING PLAN-UNIT 1 & CROSS FRAMES (STEEL ALTERNATE)	
Designed by B.B.C.	Drawn by R.D.F.
Checked by S.M. date 10-17-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS 55	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF





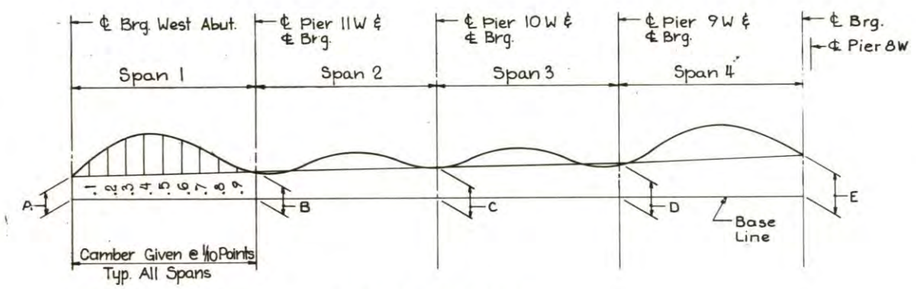
TRANSVERSE STIFFENER (UNIT 3 ONLY)

DIAPHRAGM CONNECTION PLATE

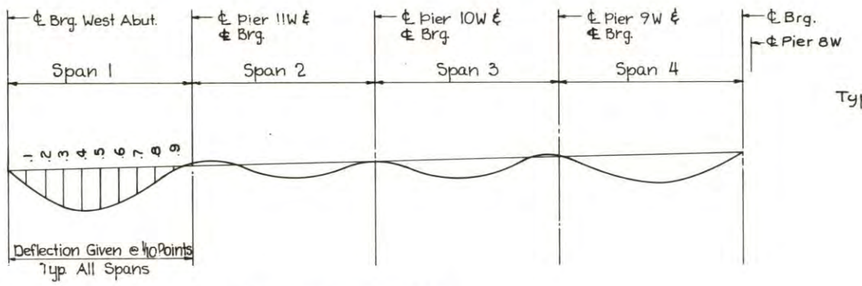
NOTE A:
Flange to Web Fillet Welds For All Flange Thicknesses Greater Than 1 1/2" Shall be 3/8" Welds.

GIRDER ELEVATION - SPANS 1 THRU 4 (UNIT 1)

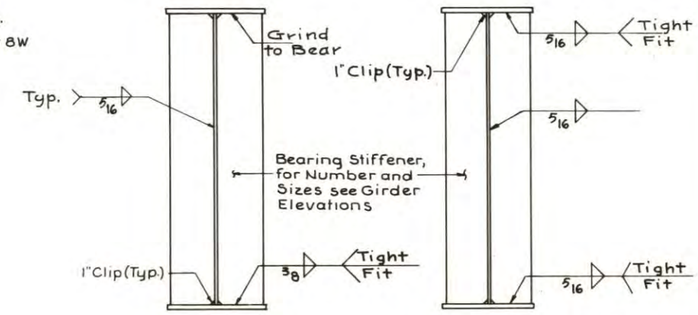
No Scale



CAMBER DIAGRAM
(Web Plate Layout)
No Scale



DEFLECTION DIAGRAM
No Scale



BEARING STIFFENER (INTERMEDIATE PIER)

BEARING STIFFENER (ABUTMENT & PIER AT EXP. JT.)

WEB STIFFENER PLATE DETAILS
Scale: 1" = 1'-0"

Welds On Stiffener Pl To Be Terminated A Min. 1/4" And A Max. Of 1/2" From Edge Of Stiffener Pl.

CAMBER * (Inches)

Span	Gdr.	℄ Brg.	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄ Brg.
1	1-5	0	13/16	1 1/2	2	2 1/4	2 1/4	1 15/16	1 7/16	13/16	5/16	0
2	1-5	0	0	3/16	7/16	3/4	7/8	7/8	11/16	3/8	1/8	0
3	1-5	0	1/8	7/16	3/4	1 5/16	1	3/4	1/2	3/16	0	0
4	1-5	0	5/16	13/16	1 3/8	1 13/16	2 1/8	2 1/16	1 3/4	1 5/16	11/16	0

1. * Ordinates For Web Plate Layout.
2. Minus Sign (-) Indicates a Downward Camber.

UNIT 1					
BEAM NO.	A	B	C	D	E
G1-G5	0.00	2.57	5.95	9.87	14.53

Dimensions A-E Measured in Feet

DEFLECTION (Inches)

Span	Defl.	℄ Brg.	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄ Brg.
1.	Steel Only	0	1/8	1/4	5/16	5/16	5/16	1/4	3/16	1/8	1/16	0
	Total	0	3/4	1 3/8	1 13/16	2	2	1 11/16	1 1/4	11/16	1/4	0
2.	Steel Only	0	0	0	1/16	1/16	1/8	1/8	1/16	1/16	0	0
	Total	0	-1/16	1/16	1/4	1/2	9/16	9/16	1/2	1/4	1/16	0
3.	Steel Only	0	0	1/16	1/16	1/8	1/8	1/16	1/16	0	0	0
	Total	0	1/16	5/16	1/2	11/16	11/16	1/2	5/16	1/16	1/16	0
4.	Steel Only	0	1/16	1/8	3/16	1/4	5/16	5/16	1/4	3/16	1/8	0
	Total	0	1/4	11/16	1 3/16	1 9/16	1 13/16	1 13/16	1 9/16	1 3/16	5/8	0

Deflection Values Are For Girders 1-5

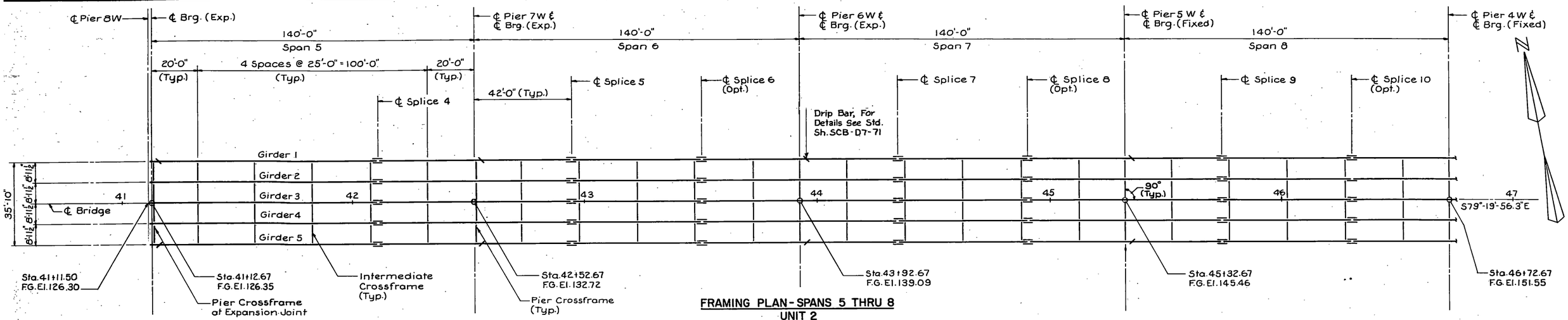
Minus Sign (-) Indicates an Upward Deflection.

NOTES:
1. For Framing Plan, see Sheet SS55.
2. For Section A-A, see Sheet SS61.

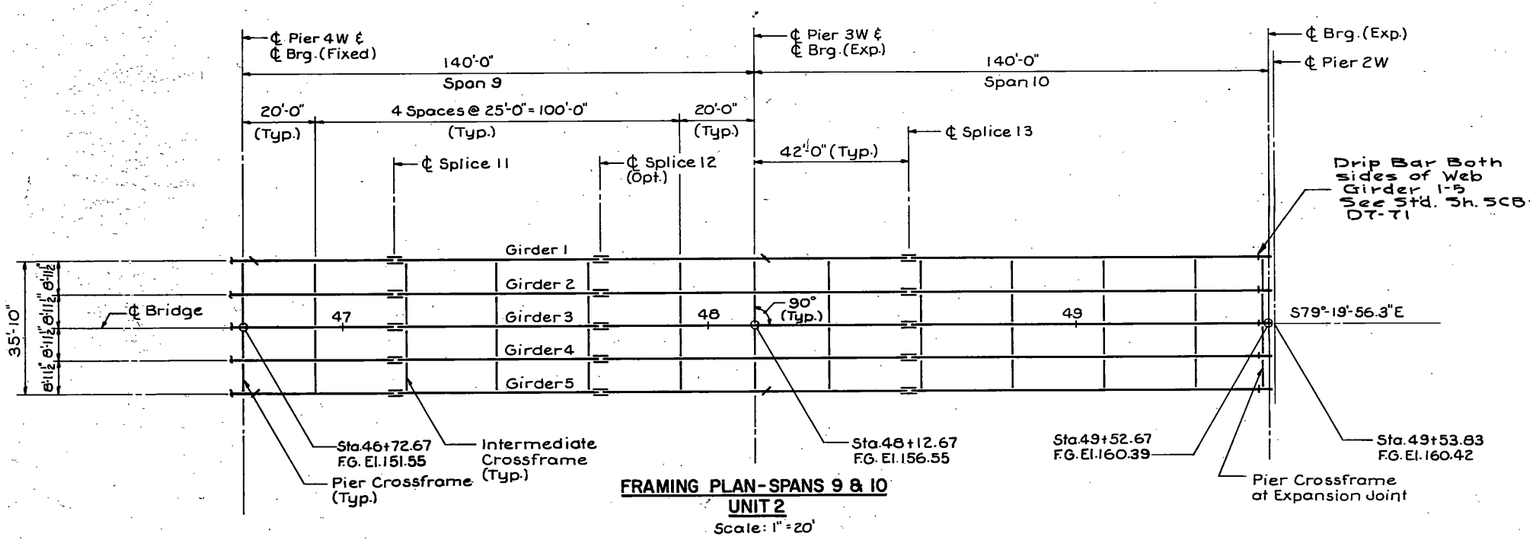
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y.- ALBURG VT.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO. ROUTE 2	Surv. Sta.
GIRDER ELEVATION - UNIT I	
(STEEL ALTERNATE)	
Designed by B.B.C.	Drawn by R.D.F. / S.Z.
Checked by K.A.C. date 9-25-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(1)
Bridge Sheet No. SS56	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF



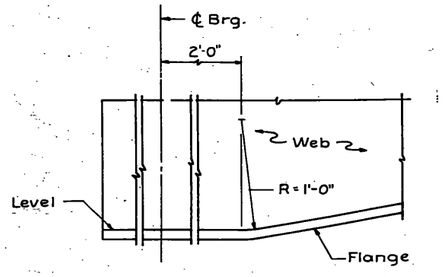
FRAMING PLAN - SPANS 5 THRU 8
UNIT 2
Scale: 1"=20'



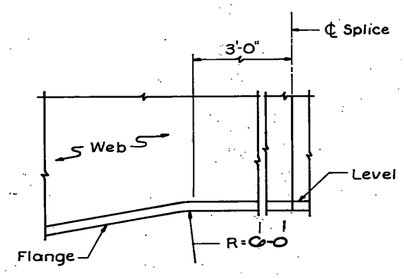
FRAMING PLAN - SPANS 9 & 10
UNIT 2
Scale: 1"=20'

STRUCTURAL STEEL NOTES:

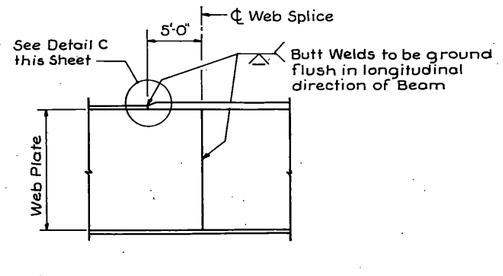
1. All Structural Steel to be ASTM A588 (unpainted), Except as Noted in Note 15 (Below).
2. All Field Connections shall be made with ⅞"ϕ High Strength Bolts ASTM A325 Type III.
3. All Holes for ⅞"ϕ Bolts to be $\frac{15}{16}$".
4. Preparation and Assembly of Material for Welding shall conform to the A.W.S. Structural Welding Code AWS D1.1-80 as Amended by the 1981 AASHTO Standard Specifications for Welding of Structural Steel Highway Bridges.
5. Any Welded Joint prequalified by the American Welding Society Specification for Welded Highway and Railway Bridges will be acceptable in the Fabrication of the Structural Steel.
6. Ends of Beams shall be Fabricated so that under Full Dead Load the End will be Plumb.
7. All Longitudinal Dimensions shown, are Horizontal (at 60°F).
8. Main Load Carrying Members: Longitudinal Plate Girders.
9. All Diaphragms shall be Sloped Parallel to Deck Slab.
10. The Chorpy V-Notch Toughness Requirements as Described in Section 714, of the Standard Specifications shall Apply to the Web and Tension Flanges of the Girders.
11. Erection. The Design as Detailed in the Contract Plans does not Consider any Erection Stresses. Contractor to Submit Erection Plans and Stress Calculations for his Proposed Method for Approval by the Engineer.
12. All Bearing Stiffeners are Vertical and all Intermediate Stiffeners are Normal to Top Flanges.
13. For Girder Elevation, see Sheet SS58.
14. Finish Grade Elevations Given at Top of Bituminous Concrete Pavement. (Along Grade Line)
15. Girders Shall be Painted as Follows:
    - Fascia Girders, Full Exposed Length. (Fascia Side of the Web and Flanges Including Bottom Face of the Bottom Flange).
    - All Girders Including Stiffeners and Crossframes, ten (10) Feet From the Expansion Joints Only.
16. Cost of Painting of the Structural Steel to be Included in Item 506.91, Structural Steel.
17. Drip plates shall be used at the High Side of all Piers on the outside of Fascia Girders and at the low side of expansion Piers on all interior Girders and the inside of all Fascia Girders



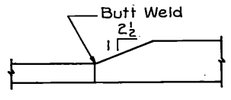
DETAIL A
Scale: 1½" = 1'-0"



DETAIL B
Scale: 1½" = 1'-0"



TYPICAL SHOP WEB SPLICE
No Scale

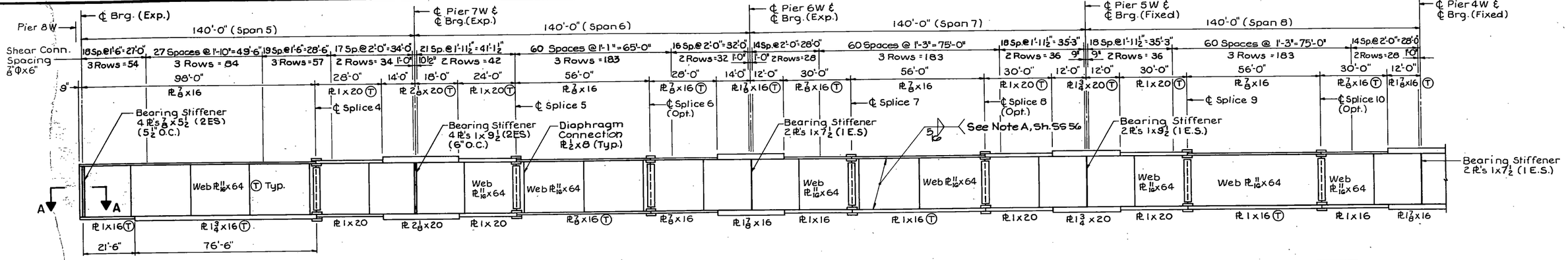


DETAIL C
No Scale

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. -ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
FRAMING PLAN - UNIT 2 (STEEL ALTERNATE)	
Designed by S.M.	Drawn by R.D.F.
Checked by K.A.C. date 9-25-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF028-1 (11)
Bridge Sheet No. SS57	Sheet of

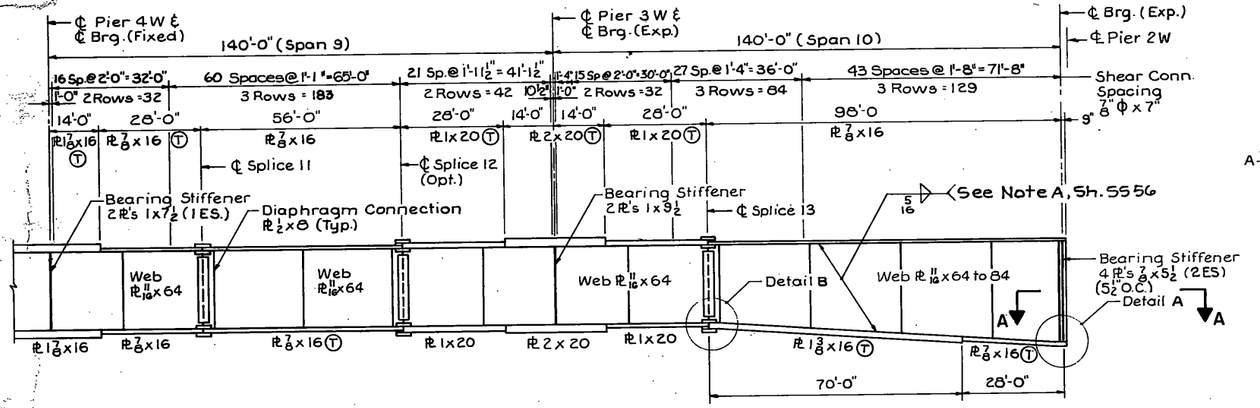
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF



Ⓣ-Notch Toughness Test

GIRDER ELEVATION-SPANS 5 THRU 10 (UNIT 2)

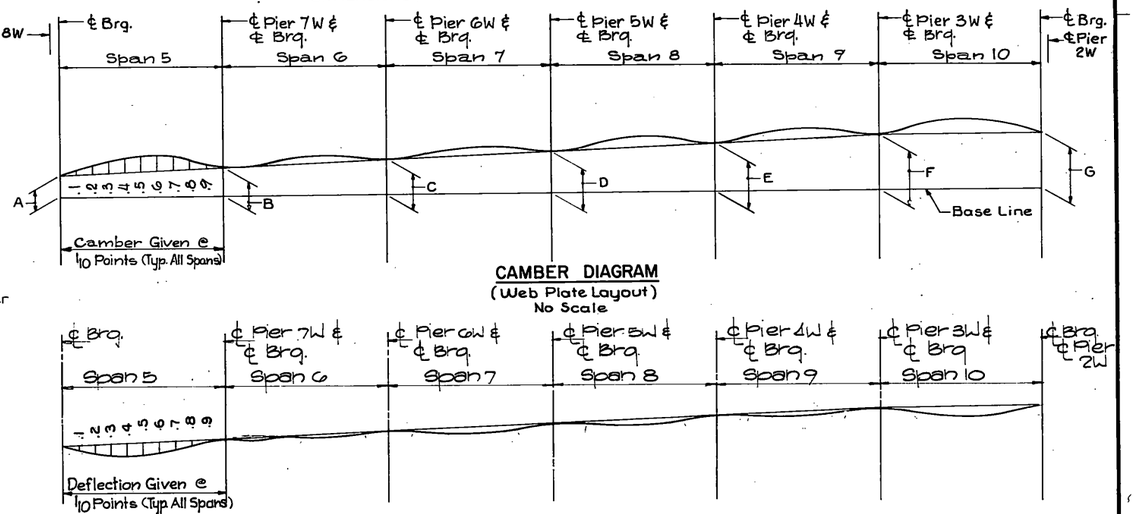
No Scale



* Ordinates For Web Plate Layout

UNIT 2							
BEAM NO.	A	B	C	D	E	F	G
G1-G5	0.00	6.26	12.66	19.03	25.16	30.13	34.08

Dimensions A-G Measured in Feet



CAMBER DIAGRAM
(Web Plate Layout)
No Scale

GIRDER ELEVATION (CONT'D)
No Scale

CAMBER * (Inches)													
Span	Gdr.	℄ Brg.	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄ Brg.
5	1-5	0	1 1/2	2 13/16	3 11/16	4 1/8	4 1/8	3 1/2	2 5/8	1 9/16	5/8	0
6	1-5	0	-1/16	3/16	5/8	1 1/16	1 5/16	1 1/4	15/16	1/2	1/8	0
7	1-5	0	3/8	1	1 5/8	2 1/8	2 5/16	2	1 1/2	13/16	1/4	0
8	1-5	0	1/2	1 5/16	2 1/8	2 7/8	3 3/16	3 1/16	2 9/16	1 11/16	13/16	0
9	1-5	0	11/16	1 7/16	2 3/16	2 5/8	2 11/16	2 3/8	1 13/16	1 1/16	7/16	0
10	1-5	0	1 3/16	2 1/2	3 11/16	4 5/8	5 1/8	5 1/16	4 7/16	3 5/16	1 13/16	0

DEFLECTION (Inches)												
Span	Defl.	℄ Brg.	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄ Brg.
5	Steel Only	0	5/16	1/2	11/16	3/4	3/4	5/8	7/16	1/4	1/8	0
	Total	0	1 7/16	2 5/8	3 7/16	3 13/16	3 11/16	3 3/16	2 3/8	1 3/8	1/2	0
6	Steel Only	0	-1/16	0	1/16	1/8	3/16	3/16	1/8	1/16	0	0
	Total	0	-3/16	0	3/8	11/16	7/8	7/8	5/8	5/16	0	0
7	Steel Only	0	1/16	3/16	1/4	3/8	3/8	5/16	1/4	1/8	1/16	0
	Total	0	1/4	13/16	1 3/8	1 3/4	1 7/8	1 11/16	1 1/4	11/16	3/16	0
8	Steel Only	0	0	1/8	1/4	5/16	3/8	5/16	1/4	1/8	1/16	0
	Total	0	1/8	5/8	1 1/8	1 9/16	1 3/4	1 11/16	1 1/4	3/4	1/4	0
9	Steel Only	0	0	1/16	1/8	3/16	3/16	1/8	1/16	0	-1/16	0
	Total	0	1/16	3/8	11/16	15/16	15/16	5/4	3/8	0	-3/16	0
10	Steel Only	0	1/8	5/16	7/16	5/8	11/16	11/16	5/8	7/16	1/4	0
	Total	0	9/16	1 3/8	2 1/4	3	3 3/8	3 3/8	3	2 1/4	1 3/16	0

Deflection Values Are For Girders 1-5

DEFLECTION DIAGRAM
No Scale.

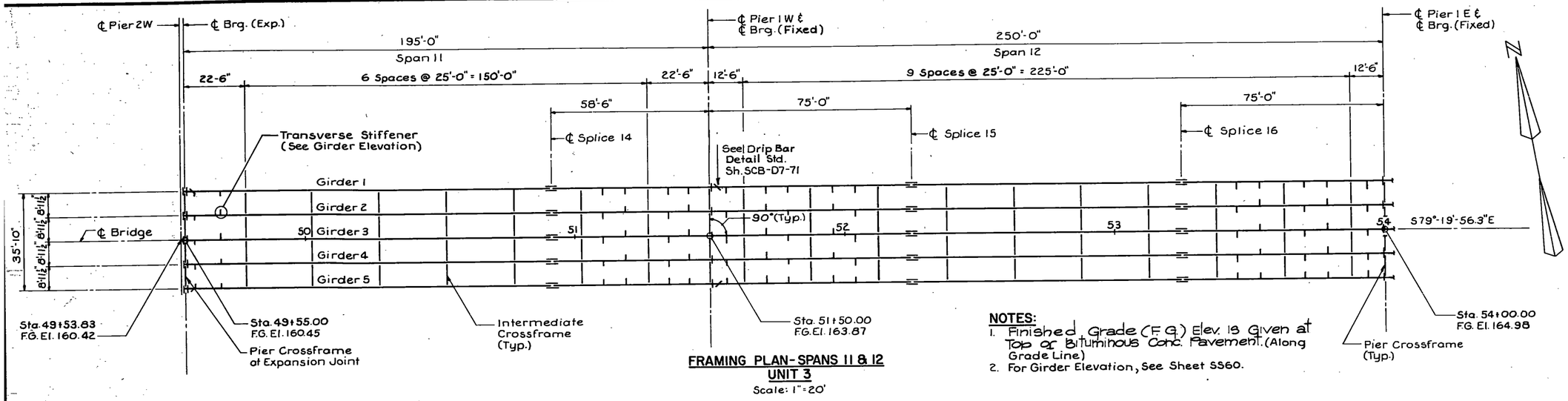
NOTES:
1. For Framing Plan, see Sheet SS57.
2. For Section A-A, see Sheet SS61.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
GIRDER ELEVATION - UNIT 2 (STEEL ALTERNATE)	
Designed by S.M.	Drawn by RDF/SZ
Checked by K.A.C. date 9-25-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS58	Sheet of

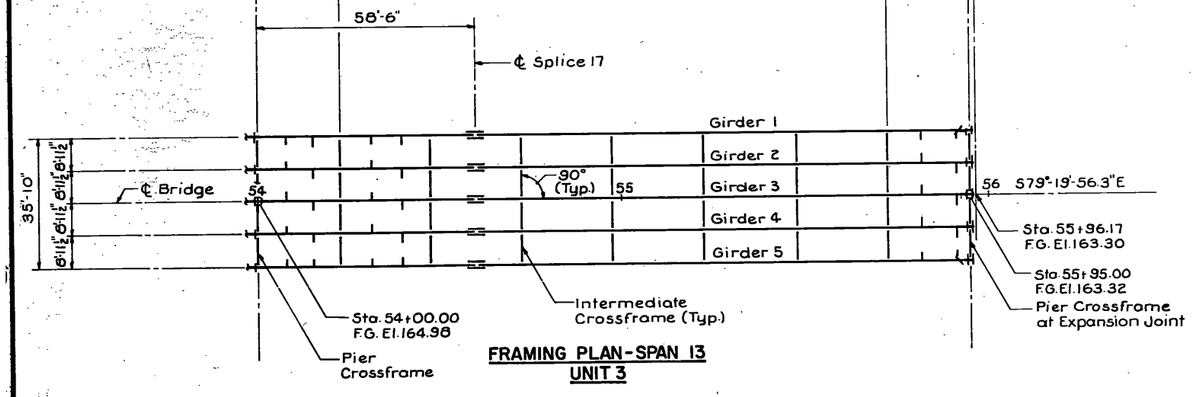
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6



FRAMING PLAN - SPANS 11 & 12
UNIT 3
Scale: 1" = 20'

NOTES:
1. Finished Grade (F.G.) Elev. 18 Given at Top of Bituminous Conc. Pavement. (Along Grade Line)
2. For Girder Elevation, See Sheet SS60.



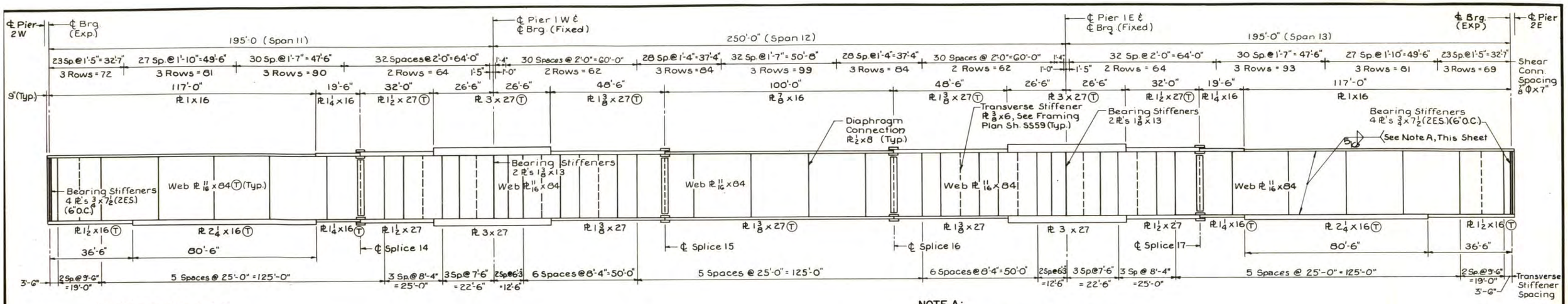
FRAMING PLAN - SPAN 13
UNIT 3

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y.- ALBURG VT.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO. ROUTE 2	Surv. Sta.
FRAMING PLAN – UNIT 3	
(STEEL ALTERNATE)	
Designed by S.M.	Drawn by R.D.F.
Checked by S.F.L. date 9-25-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRFO28-1 (11)
Bridge Sheet No. SS59	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

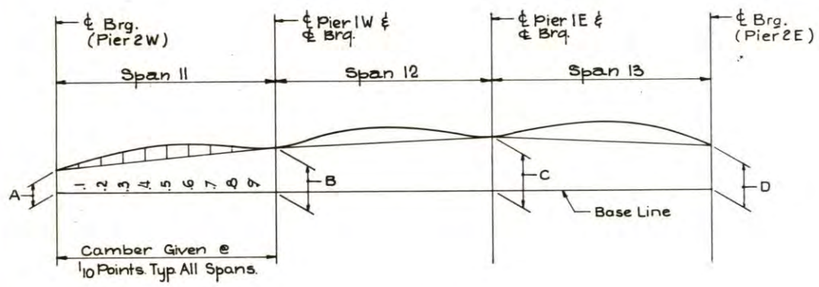
SS-6



Ⓣ - Notch Toughness Test

GIRDER ELEVATION
No Scale

NOTE A:
Flange to Web Fillet Welds for all Flange Thicknesses Greater than 1½" Shall be ⅜" Welds.



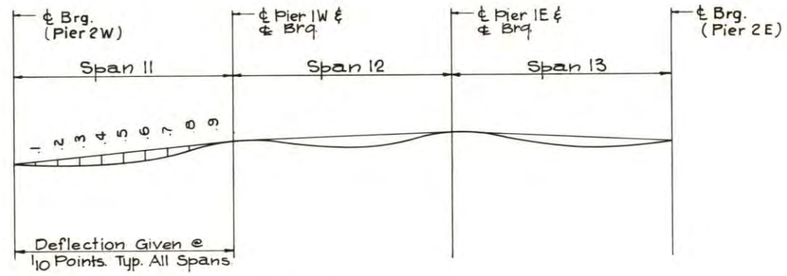
CAMBER DIAGRAM
(Web Plate Layout)
No Scale

CAMBER * (Inches)												
Span	Gdr.	℄Brg.	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄Brg.
11												
	1-5	0	3 3/16	5 15/16	7 11/16	8 7/16	8 3/16	7 1/8	5 7/16	3 1/2	1 5/8	0
12												
	1-5	0	2 3/8	5 1/8	7 13/16	9 11/16	10 3/8	9 11/16	7 13/16	5 1/8	2 3/8	0
13	1	0	1 5/8	3 7/16	5 3/8	7 1/16	8 1/8	8 5/16	7 5/8	5 7/8	3 1/4	0
	5	0	1 1/4	2 11/16	4 5/16	5 9/16	6 1/4	6 3/4	6 7/16	5 1/16	2 7/8	0
	2&3	0	1 5/8	3 1/2	5 7/16	7 1/8	8 3/16	8 7/16	7 11/16	5 15/16	3 5/16	0
	4	0	1 7/16	3 3/16	4 15/16	6 1/2	7 7/16	7 3/4	7 3/16	5 9/16	3 1/8	0

Minus Sign (-) Indicates a Downward Camber
* Ordinates For Web Plate Layout.

UNIT 3				
BEAM NO.	A	B	C	D
G1	0.00	3.23	4.35	2.87
G2	0.00	3.24	4.36	2.87
G3	0.00	3.25	4.37	2.86
G4	0.00	3.24	4.36	3.06
G5	0.00	3.23	4.35	3.23

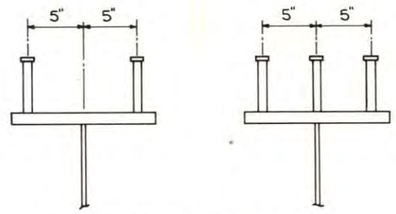
Dimensions A-D Measured in Feet



DEFLECTION DIAGRAM
No Scale.

DEFLECTION (Inches)												
Span	Defl.	℄Brg.	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄Brg.
11	Steel Only	0	7/16	13/16	1 1/16	1 1/8	1 1/16	13/16	1/2	1/4	1/16	0
	Total	0	2 1/8	3 13/16	4 7/8	5 3/16	4 7/8	3 15/16	2 5/8	1 5/16	7/16	0
12	Steel Only	0	1/8	7/16	7/8	1 3/16	1 5/16	1 3/16	7/8	7/16	1/8	0
	Total	0	3/8	1 5/8	3 3/16	4 7/16	4 7/8	4 7/16	3 3/16	1 5/8	3/8	0
13	Steel Only	0	1/16	1/4	1/2	13/16	1 1/16	1 1/8	1 1/16	13/16	7/16	0
	Total	0	7/16	1 5/16	2 5/8	3 15/16	4 7/8	5 3/16	4 7/8	3 13/16	2 1/8	0

Minus Sign (-) Indicates an Upward Deflection.
Deflection Values are for Girders 1-5.



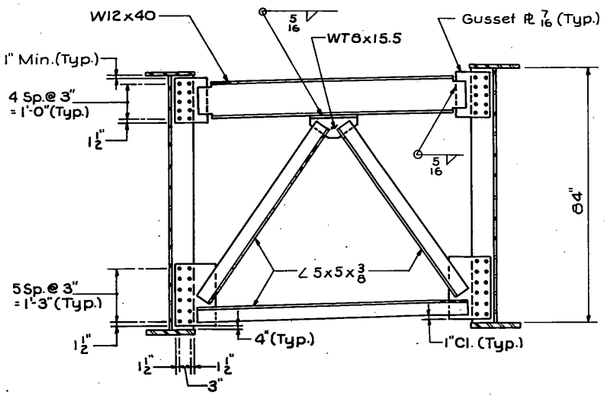
SHEAR STUD DETAIL
(See Std. Sh. SCB-D7-71)
No Scale

STATE OF VERMONT
AGENCY OF TRANSPORTATION

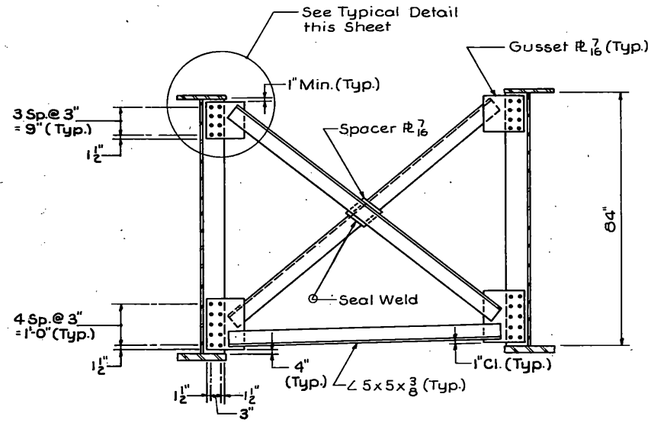
TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta..
GIRDER ELEVATION - UNIT 3 (STEEL ALTERNATE)	
Designed by S.M.	Drawn by R.D.F.
Checked by K.A.C. date 9-25-84	Bridge Design Supervisor C.J.M./S.M. date
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS60	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

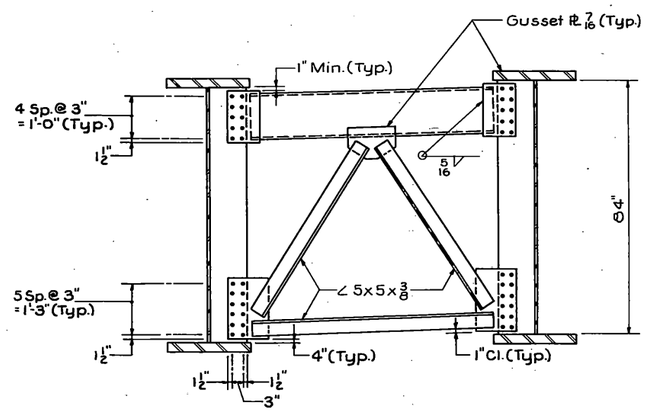
BR-6



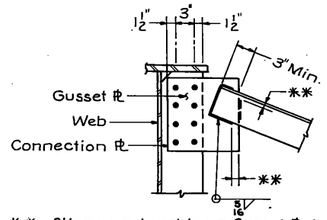
PIER CROSSFRAME AT EXPANSION JOINTS
Scale: ½"=1'-0"



INTERMEDIATE CROSSFRAME
Scale: ½"=1'-0"

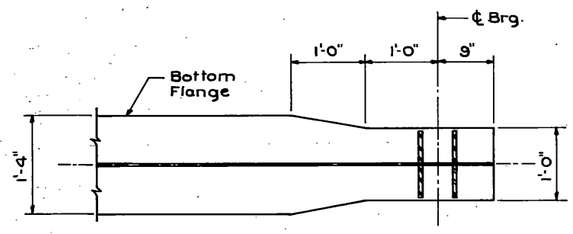


PIER CROSSFRAME
Scale: ½"=1'-0"



** All around welds on Gusset Pl. connections to be terminated a min. of ¼" ℄ a max. of ½" from edge of Gusset Pl.

TYPICAL DETAIL
Scale: 1½"=1'-0"



SECTION A-A
(Taper Detail at Abutments & Piers With Deck Expansion Joints)
Scale: 1"=1'-0"

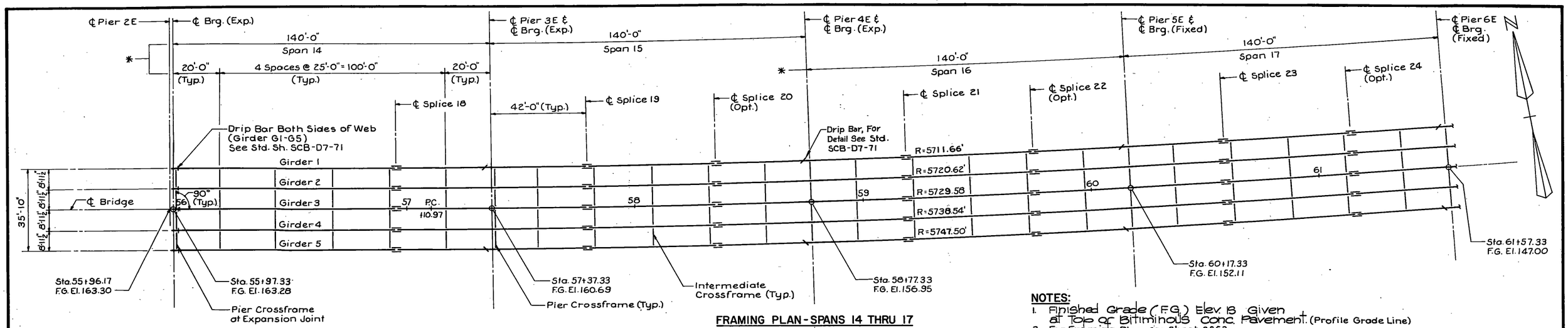
NOTE:
For Section A-A Locations, see Girder Elevation Unit 1,2,4,5 & 6.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y.- ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
CROSS FRAME DETAILS - UNIT 3	
(STEEL ALTERNATE)	
Designed by S.M.	Drawn by R.D.F.
Checked by K.A.C. date 9-25-84	Bridge Design Supervisor C.J.M./S.M. date
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF028-1(11)
Bridge Sheet No. SS61	Sheet of

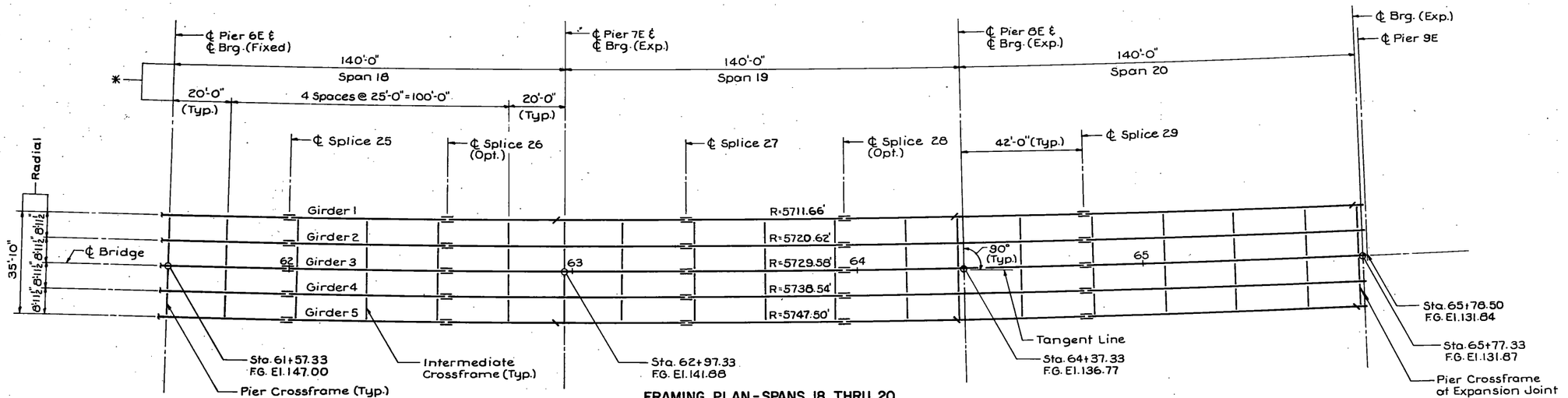
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6



FRAMING PLAN - SPANS 14 THRU 17
UNIT 4
Scale: 1"=20'

NOTES:
1. Finished Grade (F.G.) Elev. is Given at Top of Bitiminous Conc. Pavement. (Profile Grade Line)
2. For Framing Plan, see Sheet SS63.



FRAMING PLAN - SPANS 18 THRU 20
UNIT 4
Scale: 1"=20'

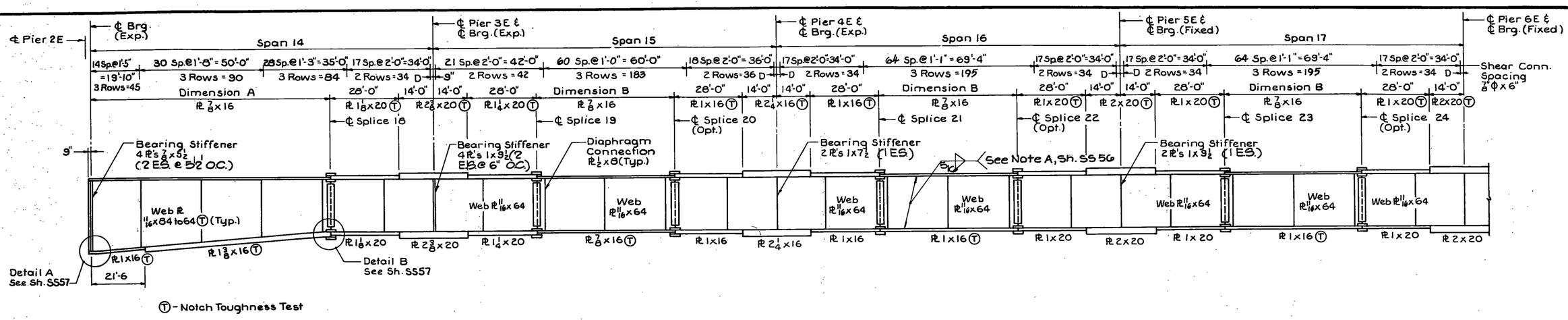
NOTES:
1. * Measured along ℄ Bridge.
2. All Beams (Spans 14-20) shall be horizontally curved to radii shown.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

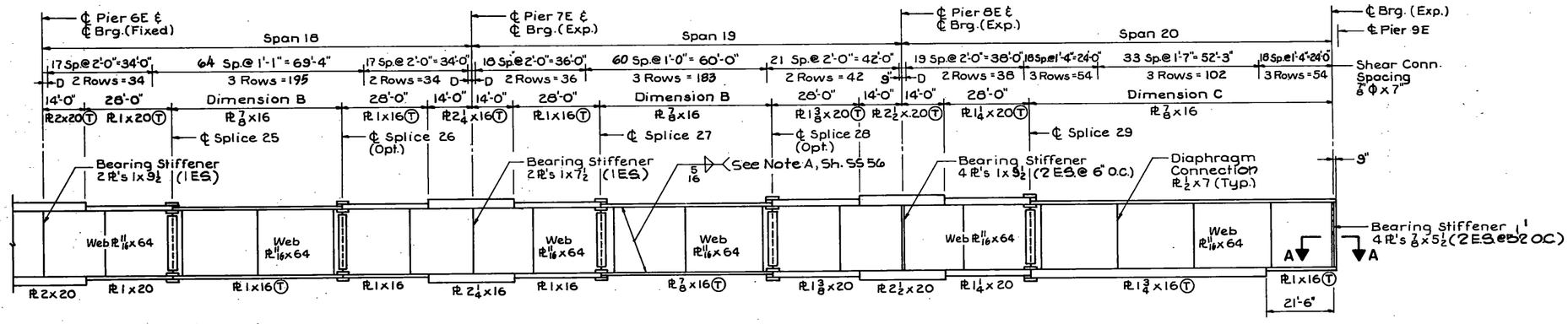
TOWN OF ROUSES POINT NY ALBURG VT	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
FRAMING PLAN UNIT 4	
(STEEL ALTERNATE)	
Designed by S.M.	Drawn by R.D.F.
Checked by K.A.C. date 11-1-84	Bridge Design Supervisor C.J.M./S.M. date 11-1-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF028-1(11)
Bridge Sheet No. SS62	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

SR-6



GIRDER ELEVATION
No Scale



GIRDER ELEVATION
No Scale

Girder	A	B	C
G1	97'-11"	55'-6 3/4"	97'-6 3/4"
G2	97'-11 1/2"	55'-9 3/8"	97'-9 3/8"
G3	98'-0"	56'-0"	98'-0"
G4	98'-0 1/2"	56'-2 5/8"	98'-2 5/8"
G5	98'-1"	56'-5 1/4"	98'-5 1/4"

Girder	Span 14	Span 15-20
G1	139'-11"	139'-6 3/4"
G2	139'-11 1/2"	139'-9 3/8"
G3	140'-0"	140'-0"
G4	140'-0 1/2"	140'-2 5/8"
G5	140'-1"	140'-5 1/4"

DIMENSION D				
Girder	Span 14	Spans 15 & 19	Spans 16, 17 & 18	Span 20
G1	1'-1"	9 3/4"	1'-1 3/16"	1'-3 3/4"
G2	1'-1 1/2"	1'-0 3/8"	1'-2 11/16"	1'-6 3/8"
G3	1'-2"	1'-3"	1'-4"	1'-9"
G4	1'-2 1/2"	1'-5 5/8"	1'-5 5/16"	1'-11 5/8"
G5	1'-3"	1'-8 1/4"	1'-6 5/8"	2'-2 1/4"

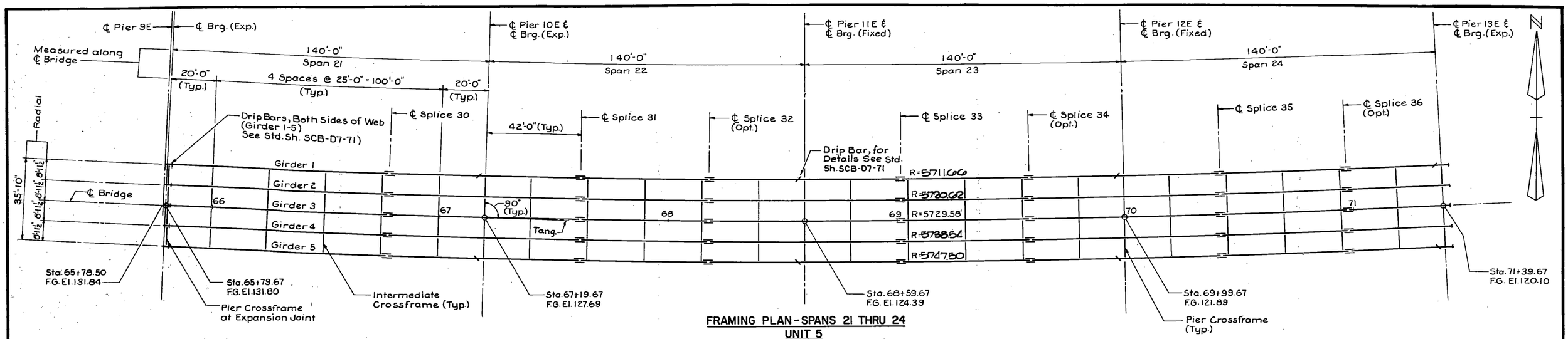
NOTES:
1. For Framing Plan, see Sheet SS62.
2. For Section A-A, see Sheet SS61.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

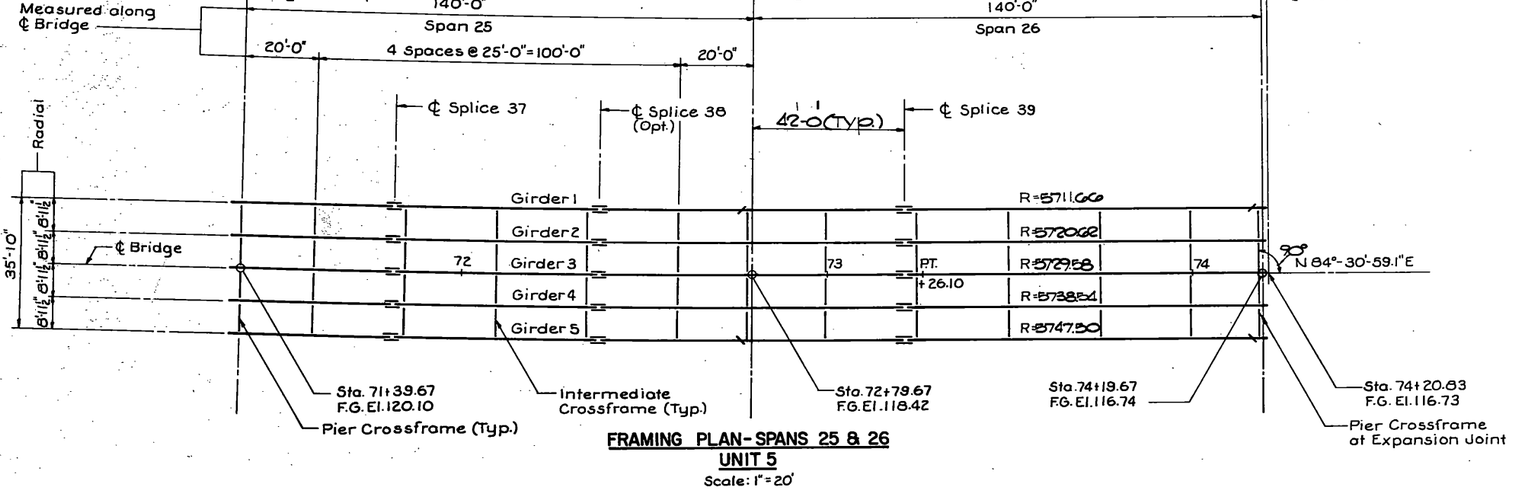
TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
GIRDER ELEVATION - UNIT 4	
(STEEL ALTERNATE)	
Designed by S.M.	Drawn by R.D.F.
Checked by K.A.C. date 10-19-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF028-1(11)
Bridge Sheet No. SS63	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-1311 61144
BR-6



FRAMING PLAN - SPANS 21 THRU 24
UNIT 5
Scale: 1" = 20'



FRAMING PLAN - SPANS 25 & 26
UNIT 5
Scale: 1" = 20'

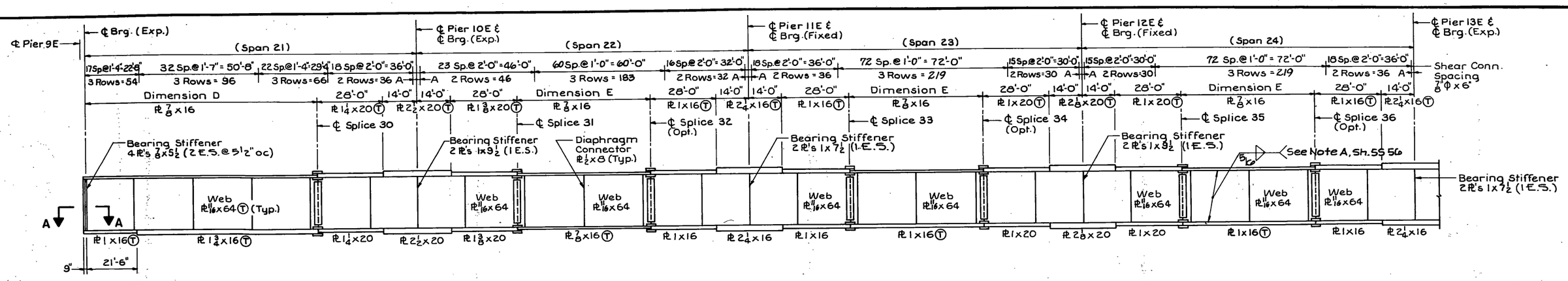
NOTES:

1. All Beams (Spans 21-26) shall be horizontally curved to radii shown.
2. Finished Grade (F.G.) Elev. is Given at Top of Bituminous Conc. Pavement. (Profile Grade Line)
3. For Girder Elevation, see Sheet SS65.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
FRAMING PLAN - UNIT 5	
(STEEL ALTERNATE)	
Designed by S.M.	Drawn by R.D.F.
Checked by K.A.C. date	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
HNTB HOWARD NEEDLES TAMMEN & BERGENDOFF	PROJECT ROUSES POINT BRIDGE REPLACEMENT
	PROJECT NO. BRF 028-1 (11)
Bridge Sheet No. SS64	Sheet of

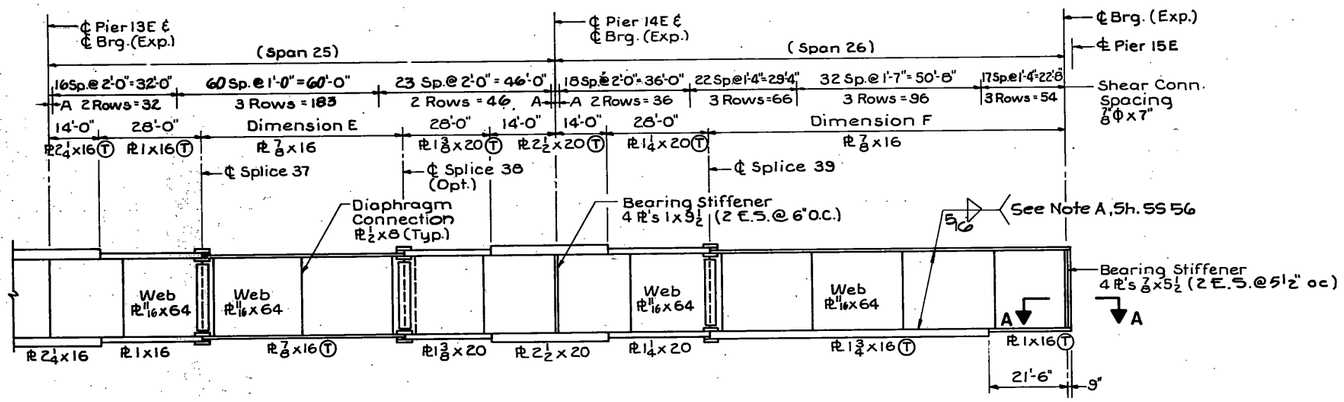
BR-6



T - Notch Toughness Test

GIRDER ELEVATION - SPANS 21 THRU 24 (UNIT 5)

No Scale



GIRDER ELEVATION - SPANS 25 AND 26 (UNIT 5)

No Scale

DIMENSION A			
Girder	Span 21	Spans 22 Thru 25	Span 26
G1	10 3/8"	9 3/8"	1'-2 1/4"
G2	1'-1 9/8"	10 11/16"	1'-3 1/8"
G3	1'-4"	1'-0"	1'-4"
G4	1'-6 3/8"	1'-1 5/16"	1'-4 7/8"
G5	1'-9 1/4"	1'-2 5/8"	1'-5 3/4"

Girder	D	E	F
G1	97'-6 3/4"	55'-6 3/4"	97'-10 1/4"
G2	97'-9 3/8"	55'-9 3/8"	97'-11 1/8"
G3	98'-0"	56'-0"	98'-0"
G4	98'-2 5/8"	56'-2 5/8"	98'-0 7/8"
G5	98'-5 1/4"	56'-5 1/4"	98'-1 3/4"

Girder	Span 21-25	Span 26
G1	139'-6 3/4"	139'-10 1/4"
G2	139'-9 3/8"	139'-11 1/8"
G3	140'-0"	140'-0"
G4	140'-2 5/8"	140'-0 7/8"
G5	140'-5 1/4"	140'-1 3/4"

NOTES:

1. For Framing Plan, see Sheet SS64.
2. For Section A-A, see Sheet SS61.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT, N.Y. - ALBURG, VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
GIRDER ELEVATION - UNIT 5	
(STEEL ALTERNATE)	
Designed by S.M.	Drawn by R.D.F.
Checked by K.A.C. date 9-25-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS65	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-131 61144

BR-6

CAMBER SCHEDULE * (Inches)

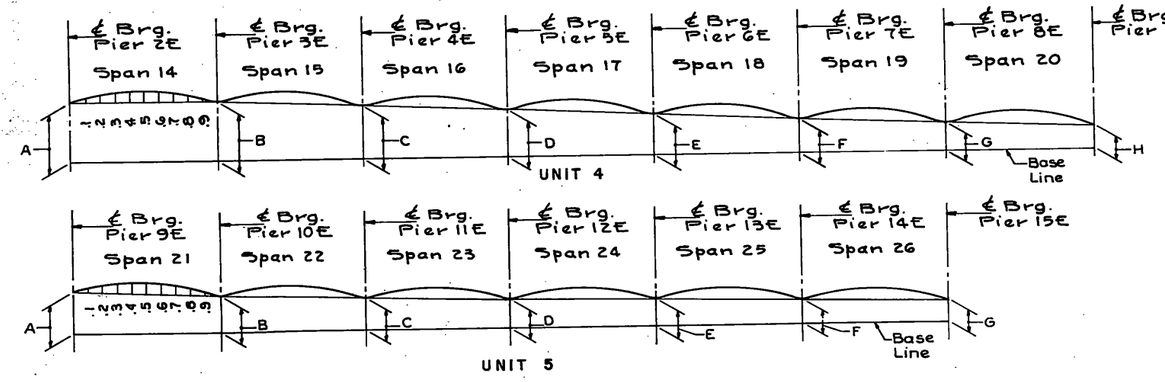
UNIT	SPAN	GIRDER	℄ BRG.	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄ BRG.
4	14	1,2 & 3	0	1 13/16	3 1/4	4 3/8	4 15/16	.5	4 1/2	3 9/16	2 3/8	1 1/16	0
	14	4	0	1 3/4	3 3/16	4 3/8	5	5 1/16	4 9/16	3 3/8	2 3/8	1 1/16	0
	14	5	0	1 13/16	3 3/16	4 3/8	4 13/16	5	4 1/2	3 3/8	2 3/8	1 1/16	0
	15	1,2 & 3	0	1/2	1 1/8	1 3/4	2 5/16	2 9/16	2 7/16	2	1 3/16	3/8	0
	15	4	0	3/8	1 1/4	1 15/16	2 1/2	2 11/16	2 5/8	2 1/8	1 7/16	5/8	0
	15	5	0	13/16	1 7/16	2 1/8	2 5/8	2 13/16	2 11/16	2 3/16	1 1/2	11/16	0
	16	1	0	7/8	1 3/4	2 9/16	3 1/8	3 3/16	2 7/8	2 1/4	1 3/8	9/16	0
	16	2 & 3	0	7/8	1 15/16	2 5/8	3 3/16	3 1/4	2 15/16	2 1/4	1 3/8	9/16	0
	16	4 & 5	0	13/16	1 13/16	2 11/16	3 3/16	3 3/16	3	2 5/16	1 3/8	9/16	0
	17	1	0	3/16	5/8	1 1/8	1 1/2	1 3/4	1 1/2	1 1/8	5/8	3/16	0
	17	2 & 3	0	3/16	5/8	1 1/8	1 9/16	1 3/4	1 9/16	1 1/8	9/16	1/8	0
	17	4 & 5	0	3/16	5/8	1 3/16	1 5/8	1 13/16	1 5/8	1 3/16	5/8	3/16	0
	18	1	0	5/16	7/8	1 1/2	2	2 1/4	2 1/16	1 5/8	1	3/8	0
	18	2 & 3	0	3/8	15/16	1 9/16	2 1/16	2 5/16	2 1/8	1 5/8	1	3/8	0
	18	4 & 5	0	3/16	15/16	1 9/16	2 1/8	2 3/8	2 3/16	1 11/16	1 1/16	3/8	0
	19	1	0	1/16	3/8	3/4	1	1 1/8	13/16	7/16	1/8	-1/8	0
	19	2 & 3	0	1/8	7/16	3/4	1 1/16	1 1/8	13/16	7/16	1/16	-1/8	0
	19	4 & 5	0	1/16	7/16	15/16	1 1/8	1 1/4	15/16	1/2	1/8	-1/8	0
	20	1	0	5/8	1 9/16	2 1/2	3 3/8	4	4	3 9/16	2 11/16	1 7/16	0
	20	2,3 & 4	0	11/16	1 3/8	2 5/8	3 9/16	4 3/16	4 3/16	3 3/4	2 13/16	1 9/16	0
	20	5	0	5/8	1 9/16	2 5/8	3 1/2	4 1/8	4 1/8	3 11/16	2 3/4	1 1/2	0
5	21	1	0	17/16	2 11/16	3 9/16	3 15/16	3 15/16	3 3/8	2 1/2	1 1/2	5/8	0
	21	2,3,4 & 5	0	1 1/2	2 3/4	3 5/8	4 1/16	4 1/16	3 7/16	2 9/16	1 1/2	9/16	0
	22	1	0	-1/16	1/8	1/2	7/8	1 1/8	1 1/16	13/16	7/16	1/8	0
	22	2,3,4 & 5	0	-1/16	3/16	9/16	1	1 1/4	1 1/8	7/8	7/16	1/16	0
	23	1	0	3/8	13/16	1 1/2	1 15/16	2 1/8	1 7/8	1 3/8	3/4	1/4	0
	23	2,3,4 & 5	0	3/8	1	1 5/8	2 1/16	2 1/4	1 15/16	1 7/16	13/16	1/4	0
	24	1	0	1/4	3/4	1 3/8	1 7/8	2 1/8	1 15/16	1 1/2	15/16	3/8	0
	24	2,3,4 & 5	0	1/4	13/16	1 7/16	1 15/16	2 1/4	2 1/16	1 9/16	15/16	3/8	0
	25	1	0	1/8	7/16	3/4	1 1/16	1 1/8	7/8	1/2	1/8	-1/16	0
	25	2,3,4 & 5	0	1/16	7/16	7/8	1 3/16	1 1/4	1	9/16	1/8	-1/8	0
	26	1	0	5/8	1 9/16	2 1/2	3 7/16	4	4	3 9/16	2 11/16	1 7/16	0
	26	5	0	15/16	1 15/16	2 13/16	3 9/16	4 1/16	4 1/16	3 5/8	2 3/4	1 1/2	0
	26	2,3 & 4	0	11/16	1 3/8	2 3/8	3 1/2	4 1/8	4 1/8	3 11/16	2 13/16	1 1/2	0

* Ordinates For Web Plate Layout.

DEFLECTION SCHEDULE (Inches)

UNIT	SPAN	DEFL.	℄ BRG.	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄ BRG.
4	14	Stl. Only	0	1/4	7/16	5/8	11/16	11/16	5/8	7/16	1/4	1/8	0
	14	Total	0	1 3/16	2 3/16	2 15/16	3 5/16	3 3/16	2 7/8	2 3/16	1 5/16	1/2	0
	15	Stl. Only	0	0	0	1/16	1/8	1/8	1/8	1/8	1/8	0	0
	15	Total	0	-3/16	0	3/8	11/16	7/8	7/8	3/8	1/4	0	0
	16	Stl. Only	0	1/16	3/16	1/4	3/8	3/8	5/16	1/4	1/8	1/16	0
	16	Total	0	5/16	13/16	1 3/8	1 3/4	1 7/8	1 11/16	1 1/4	3/4	3/16	0
	17	Stl. Only	0	0	1/16	3/16	1/4	1/4	1/4	3/16	1/16	0	0
	17	Total	0	1/8	7/16	15/16	1 1/4	1 3/8	1 1/4	15/16	7/16	1/16	0
	18	Stl. Only	0	1/16	1/8	1/4	3/8	3/8	3/8	5/16	3/16	1/16	0
	18	Total	0	1/4	3/4	1 5/16	1 3/4	1 15/16	1 3/4	1 3/8	1/8	3/16	0
	19	Stl. Only	0	0	1/16	1/16	1/8	1/8	1/16	0	-1/16	-1/16	0
	19	Total	0	0	1/4	9/16	13/16	13/16	5/8	1/4	-1/8	-1/4	0
	20	Stl. Only	0	1/8	5/16	1/2	11/16	3/4	13/16	3/4	3/16	5/16	0
	20	Total	0	5/8	1 7/16	2 3/8	3 3/16	3 3/4	3 15/16	3 1/2	2 3/8	1 7/16	0
5	21	Stl. Only	0	5/16	9/16	11/16	3/4	3/4	5/8	1/2	1/4	1/8	0
	21	Total	0	1 7/16	2 9/16	3 3/8	3 3/4	3 3/8	3 1/8	2 1/4	1 5/16	1/2	0
	22	Stl. Only	0	-1/16	0	1/16	1/8	1/8	1/8	1/8	1/16	0	0
	22	Total	0	-1/8	0	3/16	5/8	13/16	13/16	9/16	1/4	0	0
	23	Stl. Only	0	1/16	3/16	1/4	5/16	3/8	5/16	1/4	1/8	0	0
	23	Total	0	1/4	13/16	1 5/16	1 11/16	1 15/16	1 3/8	1 3/16	3/8	3/16	0
	24	Stl. Only	0	1/16	1/8	1/4	5/16	3/8	5/16	1/4	1/8	1/16	0
	24	Total	0	3/16	5/8	1 1/8	1 5/8	1 13/16	1 11/16	15/16	3/4	1/4	0
	25	Stl. Only	0	0	1/16	1/8	1/8	1/8	1/16	0	-1/16	-1/16	0
	25	Total	0	0	1/4	5/8	15/16	1 3/16	5/8	5/16	-1/16	-3/16	0
	26	Stl. Only	0	1/8	5/16	1/2	5/8	3/4	3/4	11/16	3/8	5/16	0
	26	Total	0	1/2	1 3/8	2 5/16	3 1/8	3 5/8	3 3/4	3 3/8	2 9/16	1 7/16	0

Deflection Values Are For Girder 1-5



CAMBER DIAGRAMS
(Web Plate Layout)

UNIT 4

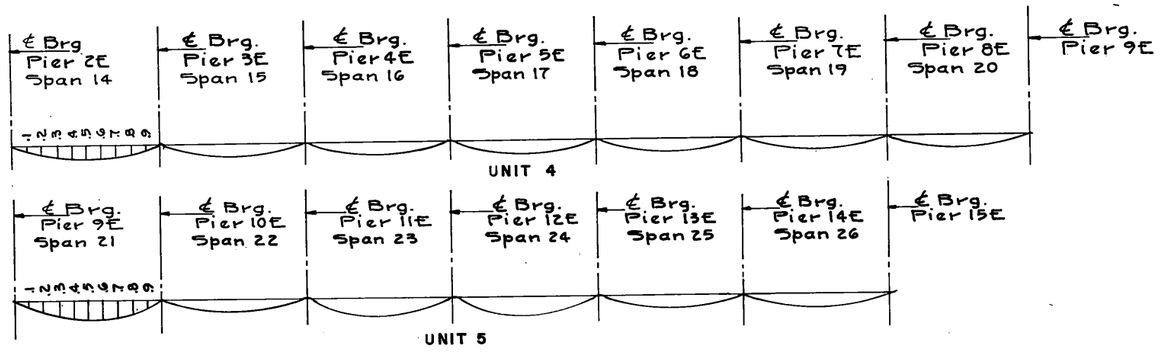
BEAM NO.	A	B	C	D	E	F	G	H
G1	31.54	28.80	25.10	20.27	15.15	10.03	4.74	0.00
G2	31.58	28.82	25.10	20.29	15.16	10.04	4.75	0.00
G3	31.54	28.82	25.10	20.29	15.17	10.03	4.76	0.00
G4	31.36	28.80	25.10	20.28	15.17	10.03	4.75	0.00
G5	31.15	28.76	25.09	20.26	15.14	10.03	4.74	0.00

Dimensions A-H Measured in Feet

UNIT 5

BEAM NO.	A	B	C	D	E	F	G
G1	14.95	10.70	7.44	4.94	3.20	1.53	0.00
G2	14.93	10.69	7.42	4.93	3.17	1.53	0.00
G3	14.96	10.71	7.44	4.95	3.19	1.53	0.00
G4	15.10	10.85	7.58	5.09	3.34	1.68	0.00
G5	15.29	11.04	7.78	5.27	3.54	1.87	0.00

Dimensions A-G Measured in Feet



DEFLECTION DIAGRAMS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG, VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

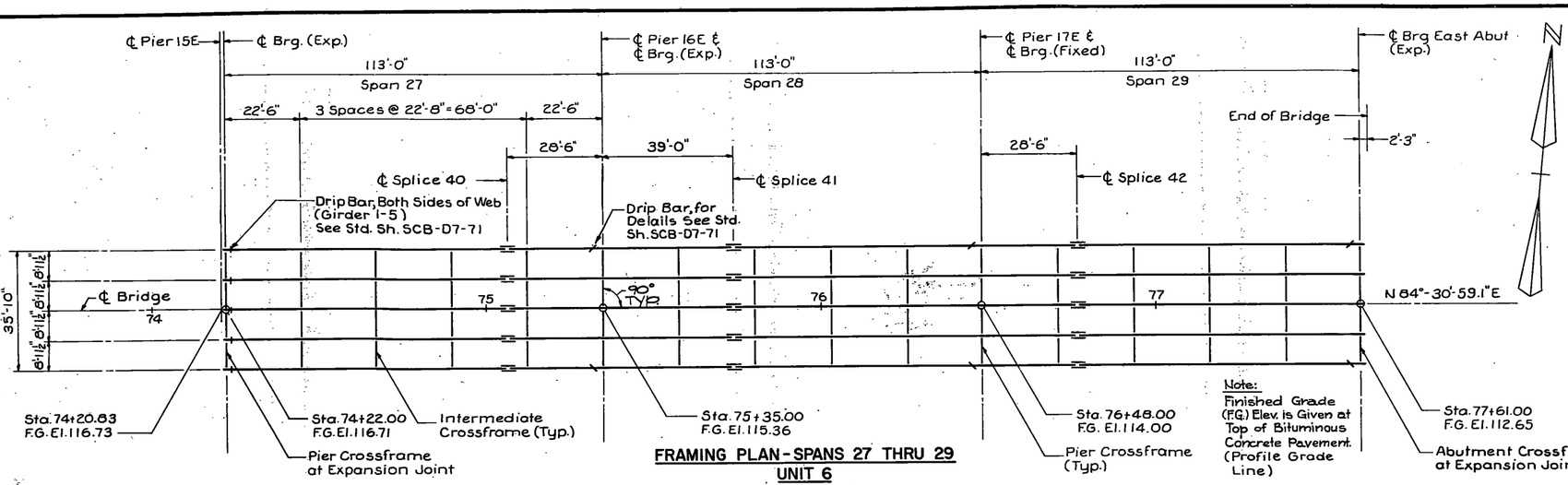
CAMBER AND DEFLECTION - UNITS 4 & 5
(STEEL ALTERNATE)

Designed by B.J.B.	Drawn by E.B.
Checked by K.E.W. date 10-19-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS66	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-1315144

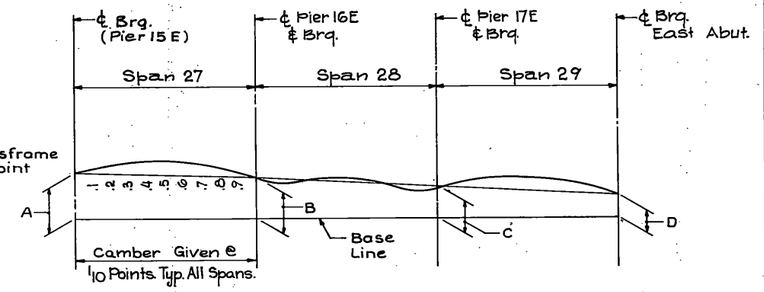
BR-6



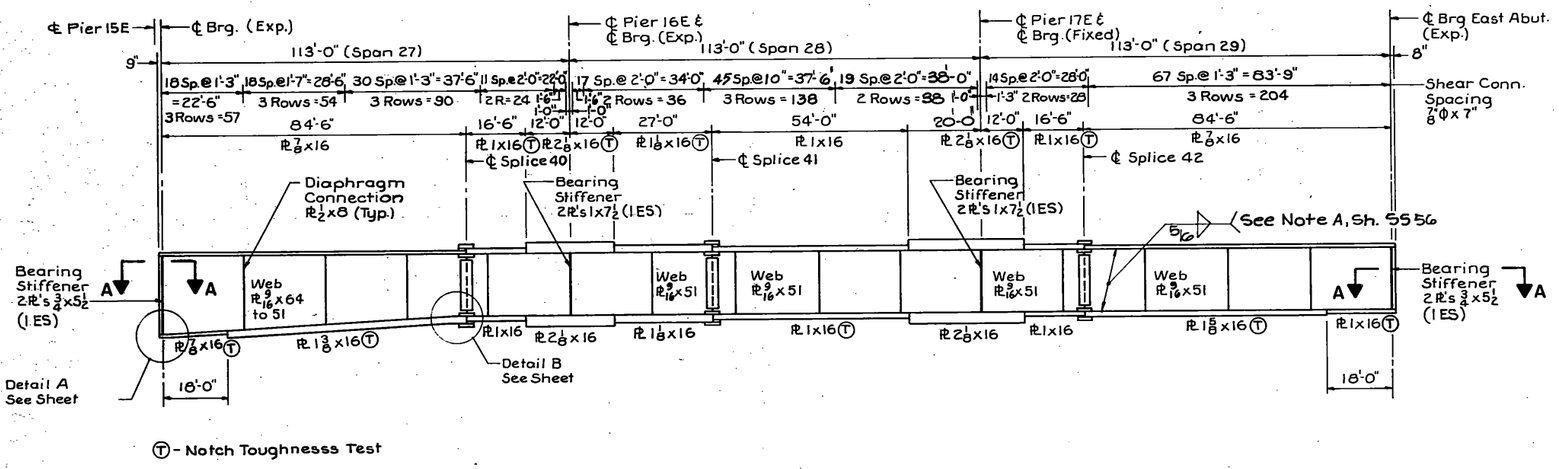
FRAMING PLAN - SPANS 27 THRU 29
UNIT 6
Scale: 1" = 20'

UNIT 6				
BEAM NO.	A	B	C	D
G1 & G2	4.07	2.61	1.26	0.00
G3	4.06	2.60	1.25	0.00
G4	4.26	2.63	1.25	0.00
G5	4.47	2.66	1.26	0.00

Dimensions A-D Measured in Feet

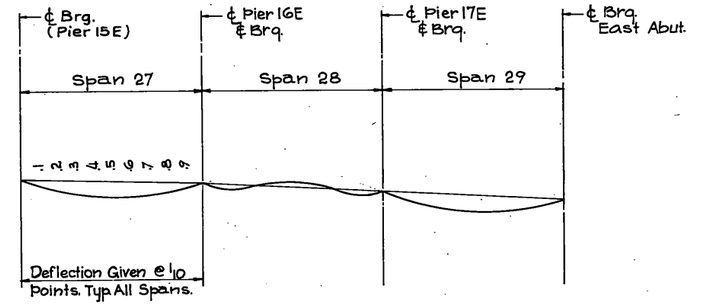


CAMBER DIAGRAM
(Web Plate Layout)
No Scale



Ⓣ - Notch Toughnesss Test

GIRDER ELEVATION
No Scale



DEFLECTION DIAGRAM
No Scale

NOTE:
For Section A-A, see Sheet SS61.

CAMBER * (Inches)												
Span	Gdr.	℄ Brg.	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄ Brg.
27	1-5	0	1	1 7/8	2 9/16	2 15/16	3	2 5/8	2 1/16	1 5/16	9/16	0
28	1-5	0	-3/16	-1/8	1/16	3/16	5/16	3/16	0	-1/8	-3/16	0
29	1-5	0	9/16	1 3/8	2 3/16	2 7/8	3 5/16	3 1/4	2 7/8	2 3/16	1 3/16	0

* Ordinates For Web Plate Layout

DEFLECTION (Inches)												
Span	Defl.	℄ Brg.	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄ Brg.
27	Steel Only	0	3/16	5/16	7/16	1/2	1/2	7/16	5/16	3/16	1/16	0
	Total	0	15/16	1 3/4	2 5/16	2 11/16	2 11/16	2 3/8	1 13/16	1 1/8	1/2	0
28	Steel Only	0	-1/16	-1/16	-1/16	0	0	0	-1/16	-1/16	-1/16	0
	Total	0	-1/4	-5/16	-9/16	-1/16	0	-1/16	-3/16	-5/16	-1/4	0
29	Steel Only	0	1/16	3/16	3/8	7/16	1/2	9/16	1/2	3/8	3/16	0
	Total	0	1/2	1 3/16	1 15/16	2 9/16	2 15/16	3	2 11/16	2	1 1/8	0

Minus Sign (-) Indicates an Upward Deflection.
Deflection Values are for Girder 1-5.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
FRAMING PLAN & GIRDER ELEVATION - UNIT 6	
(STEEL ALTERNATE)	
Designed by S.M.	Drawn by R.D.F.
Checked by S.F.L. date 9-25-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS67	Sheet of

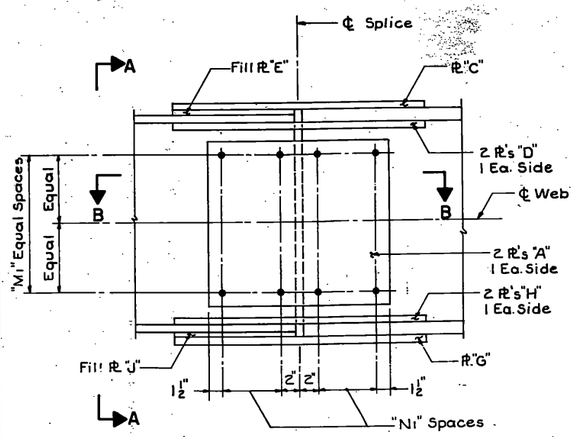
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

203

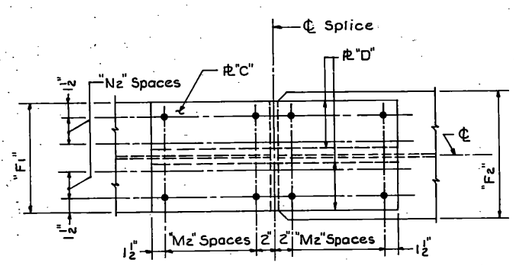
UNIT	SPLICE NUMBER	TOP FLANGE SPLICE							WEB SPLICE			BOTTOM FLANGE SPLICE						
		SPLICE PLATES			BOLT SPACING		FLANGE WIDTH		SPLICE PLATES	BOLT SPACING		SPLICE PLATES			BOLT SPACING		FLANGE WIDTH	
		"C"	"D"	"E" (Fill Pl.)	"Mz" (Spaces)	"Nz"	"Fi"	"Fz"	"A"	"Mi" (Spaces)	"Ni"	"G"	"H"	"J" (Fill Pl.)	"Ms" (Spaces)	"Ns"	"Ki"	"Kz"
1	1	$\frac{9}{16}$ x 16 x 2'-7"	$\frac{5}{8}$ x 7 x 2'-7"	$\frac{1}{8}$ x 16 x 1'-3½"	4 @ 3" = 1'-0"	3"	16"	16"	$\frac{7}{16}$ x 19 x 3'-9"	14 Eq. Sp. = 3'-6"	2 @ 3" = 6"	$\frac{9}{16}$ x 16 x 3'-1"	$\frac{5}{8}$ x 7 x 3'-1"	$\frac{3}{8}$ x 16 x 1'-6½"	5 @ 3" = 1'-3"	3"	16"	16"
	2	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	—	3 @ 3" = 9"	3"	16"	16"	$\frac{7}{16}$ x 19 x 3'-9"	14 Eq. Sp. = 3'-6"	2 @ 3" = 6"	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	—	3 @ 3" = 9"	3"	16"	16"
	3	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	16"	16"	$\frac{7}{16}$ x 19 x 3'-9"	14 Eq. Sp. = 3'-6"	2 @ 3" = 6"	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	16"	16"
2	4	$\frac{5}{8}$ x 16 x 3'-1"	$\frac{3}{4}$ x 7 x 3'-1"	$\frac{1}{8}$ x 16 x 1'-6½"	5 @ 3" = 1'-3"	3"	16"	20"	$\frac{7}{16}$ x 25 x 5'-1"	15 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{5}{8}$ x 16 x 4'-1"	$\frac{11}{16}$ x 7 x 4'-1"	$\frac{3}{4}$ x 16 x 2'-0½"	7 @ 3" = 1'-9"	3"	16"	20"
	5 & 12	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	20"	16"	$\frac{1}{2}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	20"	16"
	6 & 11	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	—	3 @ 3" = 9"	3"	16"	16"	$\frac{7}{16}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	—	3 @ 3" = 9"	3"	16"	16"
	7 & 10	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	—	3 @ 3" = 9"	3"	16"	16"	$\frac{7}{16}$ x 25 x 5'-1"	15 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{1}{2}$ x 16 x 2'-7"	$\frac{9}{16}$ x 7 x 2'-7"	—	4 @ 3" = 1'-0"	3"	16"	16"
	8 & 9	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	16"	20"	$\frac{7}{16}$ x 25 x 5'-1"	15 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{1}{2}$ x 16 x 2'-7"	$\frac{9}{16}$ x 7 x 2'-7"	—	4 @ 3" = 1'-0"	3"	16"	20"
	13	$\frac{5}{8}$ x 16 x 3'-1"	$\frac{3}{4}$ x 7 x 3'-1"	$\frac{1}{8}$ x 16 x 1'-6½"	5 @ 3" = 1'-3"	3"	20"	16"	$\frac{7}{16}$ x 25 x 5'-1"	16 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{5}{8}$ x 16 x 3'-7"	$\frac{11}{16}$ x 7 x 3'-7"	$\frac{3}{8}$ x 16 x 1'-9½"	6 @ 3" = 1'-6"	3"	20"	16"
3	14 & 17	$\frac{11}{16}$ x 16 x 3'-7"	$\frac{3}{4}$ x 7 x 3'-7"	$\frac{1}{4}$ x 16 x 1'-9½"	6 @ 3" = 1'-6"	3"	16"	16"	$\frac{7}{16}$ x 25 x 6'-9"	21 Eq. Sp. = 6'-6"	3 @ 3" = 9"	$\frac{11}{16}$ x 16 x 3'-7"	$\frac{3}{4}$ x 7 x 3'-7"	$\frac{1}{4}$ x 16 x 1'-9½"	6 @ 3" = 1'-6"	3"	16"	27"
	15 & 16	$\frac{1}{2}$ x 16 x 3'-1"	$\frac{1}{2}$ x 7 x 3'-1"	$\frac{1}{2}$ x 16 x 1'-6½"	5 @ 3" = 1'-3"	3"	27"	16"	$\frac{7}{16}$ x 19 x 6'-9"	26 Eq. Sp. = 6'-6"	2 @ 3" = 6"	$\frac{5}{8}$ x 27 x 2'-7"	$\frac{5}{8}$ x 12½ x 2'-7"	—	4 @ 3" = 1'-0"	3 @ 3'-9"	27"	27"
4	18	$\frac{1}{2}$ x 16 x 2'-7"	$\frac{1}{2}$ x 7 x 2'-7"	$\frac{1}{4}$ x 16 x 1'-3½"	4 @ 3" = 1'-0"	3"	16"	20"	$\frac{7}{16}$ x 25 x 5'-1"	16 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{11}{16}$ x 16 x 3'-7"	$\frac{3}{4}$ x 7 x 3'-7"	$\frac{1}{4}$ x 16 x 1'-9½"	6 @ 3" = 1'-6"	3"	16"	20"
	19	$\frac{1}{2}$ x 16 x 2'-7"	$\frac{1}{2}$ x 7 x 2'-7"	$\frac{3}{8}$ x 16 x 1'-3½"	4 @ 3" = 1'-0"	3"	20"	16"	$\frac{1}{2}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{11}{16}$ x 16 x 3'-7"	$\frac{3}{4}$ x 7 x 3'-7"	$\frac{3}{8}$ x 16 x 1'-9½"	6 @ 3" = 1'-6"	3"	20"	16"
	20 & 27	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	16"	16"	$\frac{1}{2}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	16"	16"
	21 & 26	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	16"	16"	$\frac{1}{2}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{9}{16}$ x 16 x 2'-7"	$\frac{5}{8}$ x 7 x 2'-7"	—	4 @ 3" = 1'-0"	3"	16"	16"
	22 & 25	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	16"	20"	$\frac{1}{2}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{1}{2}$ x 16 x 2'-7"	$\frac{5}{8}$ x 7 x 2'-7"	—	4 @ 3" = 1'-0"	3"	16"	20"
	28	$\frac{1}{2}$ x 16 x 3'-1"	$\frac{1}{2}$ x 7 x 3'-1"	$\frac{1}{2}$ x 16 x 1'-6½"	5 @ 3" = 1'-3"	3"	16"	20"	$\frac{1}{2}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{1}{2}$ x 16 x 3'-1"	$\frac{1}{2}$ x 7 x 3'-1"	$\frac{1}{2}$ x 16 x 1'-6½"	5 @ 3" = 1'-3"	3"	16"	20"
	29	$\frac{1}{2}$ x 16 x 2'-7"	$\frac{1}{2}$ x 7 x 2'-7"	$\frac{3}{8}$ x 16 x 1'-3½"	4 @ 3" = 1'-0"	3"	20"	16"	$\frac{7}{16}$ x 25 x 5'-1"	16 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{13}{16}$ x 16 x 4'-1"	$\frac{7}{8}$ x 7 x 4'-1"	$\frac{1}{2}$ x 16 x 2'-0½"	7 @ 3" = 1'-9"	3"	20"	16"
5	30 & 39	$\frac{1}{2}$ x 16 x 2'-7"	$\frac{1}{2}$ x 7 x 2'-7"	$\frac{3}{8}$ x 16 x 1'-3½"	4 @ 3" = 1'-0"	3"	16"	20"	$\frac{7}{16}$ x 25 x 5'-1"	16 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{13}{16}$ x 16 x 4'-1"	$\frac{7}{8}$ x 7 x 4'-1"	$\frac{1}{2}$ x 16 x 2'-0½"	7 @ 3" = 1'-9"	3"	16"	20"
	31 & 38	$\frac{1}{2}$ x 16 x 3'-1"	$\frac{1}{2}$ x 7 x 3'-1"	$\frac{1}{2}$ x 16 x 1'-6½"	5 @ 3" = 1'-3"	3"	20"	16"	$\frac{1}{2}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{1}{2}$ x 16 x 3'-1"	$\frac{1}{2}$ x 7 x 3'-1"	$\frac{1}{2}$ x 16 x 1'-6½"	5 @ 3" = 1'-3"	3"	20"	16"
	32 & 37	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	16"	16"	$\frac{1}{2}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3	16	16
	33 & 36	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	16"	16"	$\frac{1}{2}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{9}{16}$ x 16 x 2'-7"	$\frac{5}{8}$ x 7 x 2'-7"		4 @ 3" = 1'-0"	3"	16"	16"
	34 & 35	$\frac{1}{2}$ x 16 x 2'-1"	$\frac{1}{2}$ x 7 x 2'-1"	$\frac{1}{8}$ x 16 x 1'-0½"	3 @ 3" = 9"	3"	16"	20"	$\frac{1}{2}$ x 25 x 5'-1"	17 Eq. Sp. = 4'-10"	3 @ 3" = 9"	$\frac{9}{16}$ x 16 x 2'-7"	$\frac{5}{8}$ x 7 x 2'-7"	—	4 @ 3" = 1'-0"	3"	16"	20"
6	40	$\frac{9}{16}$ x 16 x 2'-7"	$\frac{5}{8}$ x 7 x 2'-7"	$\frac{1}{8}$ x 16 x 1'-3½"	4 @ 3" = 1'-0"	3"	16"	16"	$\frac{7}{16}$ x 19 x 4'-0"	14 Eq. Sp. = 3'-9"	2 @ 3" = 6"	$\frac{9}{16}$ x 16 x 3'-1"	$\frac{5}{8}$ x 7 x 3'-1"	$\frac{3}{8}$ x 16 x 1'-6½"	5 @ 3" = 1'-3"	3"	16"	16"
	41	$\frac{9}{16}$ x 16 x 2'-7"	$\frac{5}{8}$ x 7 x 2'-7	$\frac{1}{8}$ x 16 x 1'-3½"	4 @ 3" = 1'-0"	3"	16"	16"	$\frac{7}{16}$ x 19 x 4'-0"	14 Eq. Sp. = 3'-9"	2 @ 3" = 6"	$\frac{9}{16}$ x 16 x 2'-7"	$\frac{5}{8}$ x 7 x 2'-7"	$\frac{1}{8}$ x 16 x 1'-3½"	4 @ 3" = 1'-0"	3"	16"	16"
	42	$\frac{9}{16}$ x 16 x 2'-7"	$\frac{5}{8}$ x 7 x 2'-7"	$\frac{1}{8}$ x 16 x 1'-3½"	4 @ 3" = 1'-0"	3"	16"	16"	$\frac{7}{16}$ x 19 x 4'-0"	14 Eq. Sp. = 3'-9"	2 @ 3" = 6"	$\frac{9}{16}$ x 16 x 3'-1"	$\frac{5}{8}$ x 7 x 3'-1"	$\frac{5}{8}$ x 16 x 1'-6½"	5 @ 3" = 1'-3"	3"	16"	16"

NOTES:

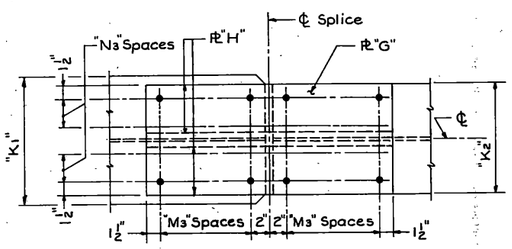
1. All Splice Plates to be ASTM A588.
2. All Field Connections are to be made with $\frac{7}{8}$"Φ High Strength Bolts, ASTM A325. (Friction Type III)
3. All Holes for $\frac{7}{8}$"Φ Bolts to be $\frac{15}{16}$"Φ.
4. Nuts to be on inside face of Web Splice at Fascia Girders.
5. Nuts to be up on all Flange Splices.



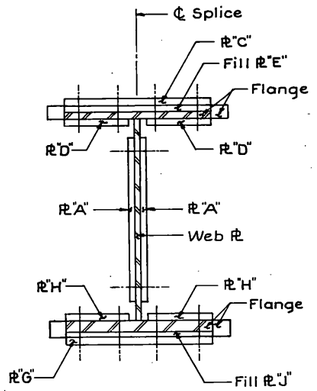
ELEVATION



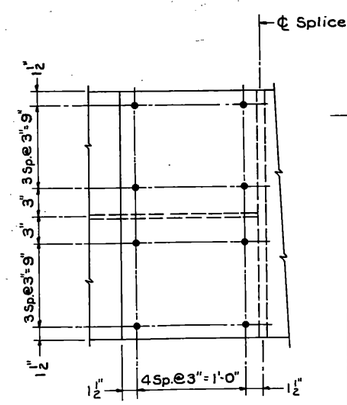
PLAN – TOP FLANGE



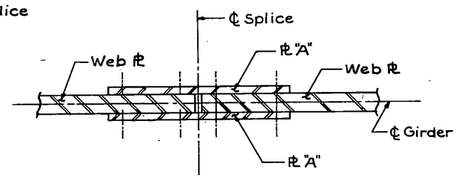
PLAN – BOTTOM FLANGE
No Scale (Typ.)



SECTION A-A



PLAN – BOTTOM FLANGE
(SPLICE 15 ONLY)



SECTION B-B

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. – ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

SPLICE DETAILS
(STEEL ALTERNATE)

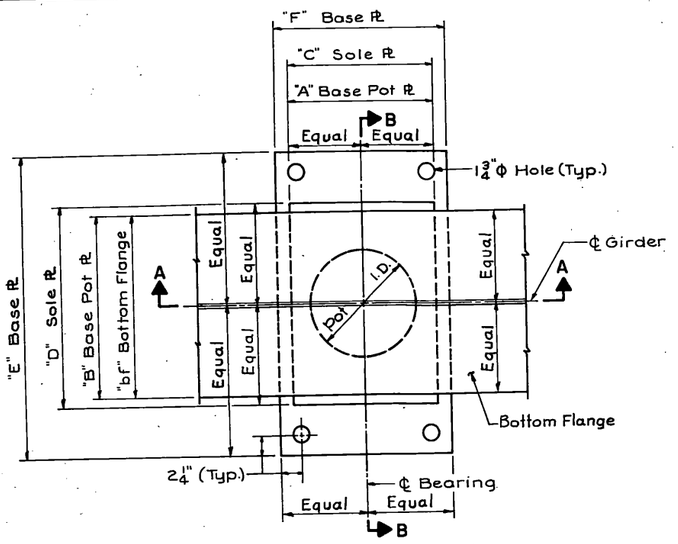
Designed by S.M.	Drawn by R.D.F.
Checked by K.A.C. date 10-17-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS68	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

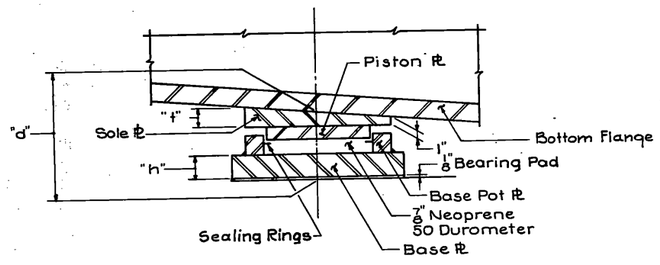
Type III

BRUNING 44-131 61144

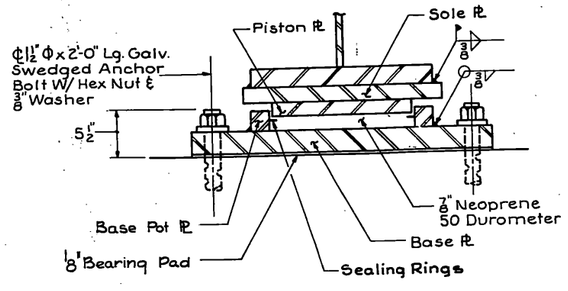
ER-6



PLAN-FIXED BEARING DEVICE
Scale: 1½"=1'-0"



SECTION A-A
Scale: 1½"=1'-0"



SECTION B-B
Scale: 1½"=1'-0"

FIXED BEARINGS														
PIER	POT I.D.	BASE POT Pl.		SOLE Pl.			BASE Pl.			"d"	"bf"	DESIGN LOADS Per GIRDER(kips)		
		"A"	"B"	"C"	"D"	"t"	"E"	"F"	"h"			Brg.	Long.	Tran.
11W	11¼"	14"	16"	14"	18"	1 7/16"	29"	17"	2 3/8"	5 9/16"	16"	344	20.0	1.6
5W	13½"	16"	20"	16"	22"	1¾"	33"	19"	2½"	5 7/8"	20"	431	22.1	1.8
4W	12¾"	15"	16"	15"	18"	1⅝"	29"	18"	2 5/8"	5 15/16"	16"	406	18.1	1.6
5E & 6E	13½"	16"	20"	16"	22"	1 9/16"	33"	19"	2½"	5 13/16"	20"	439	21.1	2.8
11E	12¾"	15"	16"	15"	18"	1 5/16"	29"	18"	2 5/8"	5¾"	16"	434	31.7	2.8
12E	13½"	16"	20"	16"	22"	1¼"	33"	19"	2½"	5 5/8"	20"	465	35.8	2.8
17E	12"	14"	16"	14"	18"	1 3/16"	29"	17"	2½"	5 9/16"	16"	370	18.7	1.3

BEARING DEVICE NOTES:

1. Unless Otherwise Noted All Steel In the Bearing Device Assemblies Shall Be A-36 Galvanized or Thermal Sprayed With Pure Zinc Coating as Per Section 731.06.
2. The Weld Between the Sole Plate and Bottom Flange and Galvanized Areas Damaged in the Welding Process Shall Be Painted With a Zinc Rich Paint.
3. Anchor Bolts, Nuts and Washers Shall Conform With the Requirements of Section 711.16. Anchor Bolts Paid For Under Item 506.99 "Bearing Device Assembly.
4. Bearing Device Design, Manufacture, and Material Specifications Shall Conform to the General Special Provisions, Section 731.11.
5. Concrete Surfaces Under Bearings Shall Be Level.
6. The Manufacturer of the Bearing Device Assembly, Item 506.99, Shall in Addition to the Type D Certification Required in Section 731.05, Certify That the Units Supplied Are Designed to Meet the Loading Requirements as Indicated For Each of the Substructure Units.
7. Bearing Devices Shall Be Paid at the Unit Bid Price For Item 506.99, "Bearing Device Assembly".
8. For Unit 3 Bearing Device Assemblies See Sheet SS72.
9. The Contractor May Provide Alternate Pot Bearing Details Subject to Review and Approval by the Engineer, in Which Case the Bridge Seat Elevations Will Have to be Adjusted Accordingly.

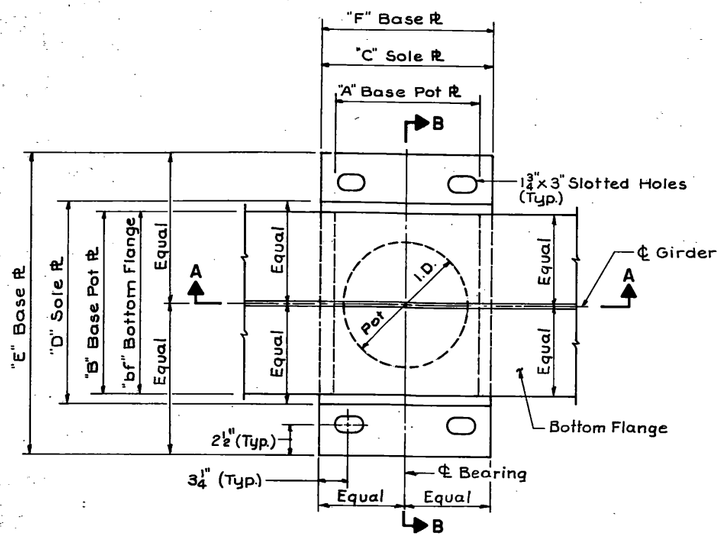
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y.– ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
FIXED BEARING DEVICE (STEEL ALTERNATE)	
Designed by K.A.C.	Drawn by R.D.F.
Checked by K.E.W. date 11-14-84	Bridge Design Supervisor C.J.M./S.M. date 11-14-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS69	Sheet of

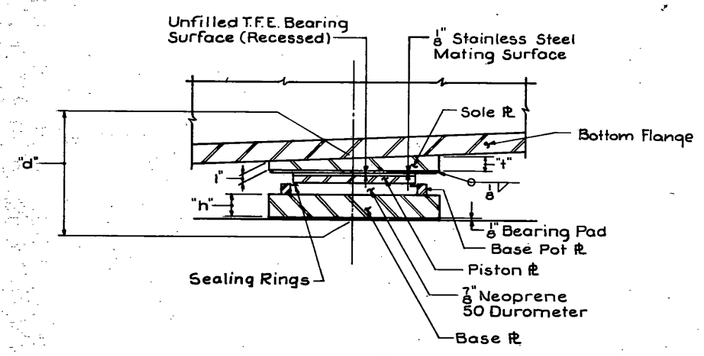
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-131-61144

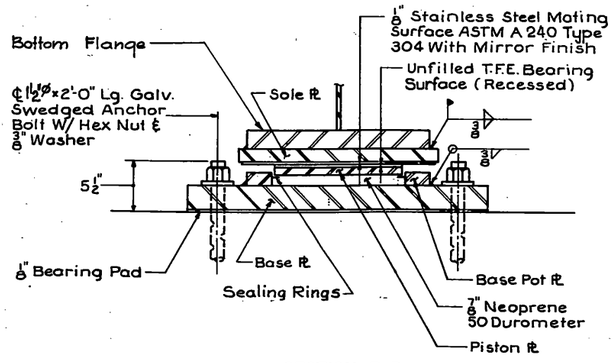
BR-6



NON-GUIDED EXPANSION BEARING DEVICE
Scale: 1½"=1'-0"



SECTION A-A
Scale: 1½"=1'-0"



SECTION B-B
Scale: 1½"=1'-0"

EXPANSION BEARING SETTING CORRECTIONS

UNIT	TEMP. °F	0°	15°	30°	45°	60°	68°	75°	90°
1	W. Abutment	⅜"	¼"	⅛"	0	⅛"	3/16"	¼"	⅜"
	Pier 10W	⅜"	¼"	⅛"	0	⅛"	3/16"	¼"	⅜"
	Pier 9W	1/16"	1/16"	¼"	0	¼"	⅜"	½"	11/16"
	Pier 8W (West)	1/16"	1/16"	⅜"	0	⅜"	9/16"	11/16"	1 1/16"
2	Pier 8W (East)	1 1/16"	1⅛"	9/16"	0	9/16"	⅝"	1⅛"	1 1/16"
	Pier 7W	1 3/16"	13/16"	⅜"	0	⅜"	5/8"	13/16"	1 3/16"
	Pier 6W	1/16"	7/16"	¼"	0	¼"	⅜"	7/16"	1/16"
	Pier 3W	¾"	½"	¼"	0	¼"	⅜"	½"	¾"
	Pier 2W (West)	1⅘"	⅞"	7/16"	0	7/16"	5/8"	⅞"	1⅘"
4	Pier 2E (East)	1⅜"	1⅛"	9/16"	0	9/16"	⅝"	1 3/16"	1⅜"
	Pier 3E	1⅘"	13/16"	7/16"	0	7/16"	5/8"	13/16"	1⅘"
	Pier 4E	¾"	½"	¼"	0	¼"	⅜"	½"	¾"
	Pier 7E	1/16"	½"	¼"	0	¼"	⅜"	½"	7/16"
	Pier 8E	1 3/16"	13/16"	⅜"	0	⅜"	5/8"	13/16"	1 3/16"
	Pier 9E (West)	1 1/16"	1⅛"	9/16"	0	9/16"	7/16"	1⅛"	1 1/16"
5	Pier 9E (East)	1⅘"	⅞"	7/16"	0	7/16"	5/8"	⅞"	1⅘"
	Pier 10E	¾"	½"	¼"	0	¼"	⅜"	½"	¾"
	Pier 13E	1/16"	7/16"	¼"	0	¼"	⅜"	7/16"	11/16"
	Pier 14E	1 3/16"	13/16"	⅜"	0	⅜"	5/8"	13/16"	1 3/16"
	Pier 15E (West)	1 1/16"	1⅛"	9/16"	0	9/16"	⅝"	1⅛"	1 1/16"
6	Pier 15E (East)	13/16"	½"	¼"	0	¼"	7/16"	½"	13/16"
	Pier 16E	⅜"	¼"	⅛"	0	⅛"	3/16"	¼"	⅜"
	E. Abutment	⅜"	¼"	⅛"	0	⅛"	3/16"	¼"	⅜"

← West — East →

EXPANSION BEARINGS (NON-GUIDED)

LOCATION	GIRDER	POT I.D.	BASE POT ℄ "A"	BASE POT ℄ "B"	SOLE ℄ "C"	SOLE ℄ "D"	SOLE ℄ "t"	BASE ℄ "E"	BASE ℄ "F"	BASE ℄ "h"	"d"	"bf"	DESIGN LOADS Per GIRDER(kips) Brg.	Long.	Tran.
W. Abutment	1, 5	7½"	9"	12"	13¼"	14"	1 5/16"	25"	13¼"	2"	5¼	12"	144	2.9	—
Pier 10W		10½"	12¼"	16"	14"	18"	1½"	29"	14"	2 7/16"	5 13/16"	16"	290	6.6	—
Pier 9W		11¼"	13½"	16"	15½"	18"	1 5/8"	29"	15½"	2½"	5 15/16"	16"	338	8.3	—
Pier 8W(W)		7½"	9"	12"	13¼"	14"	1 5/8"	25	13¼"	2"	5 7/16"	12"	148	2.8	—
Pier 8W(E)		8½"	10"	12"	17"	14"	1¾"	25"	17"	2"	5½"	12"	180	4.0	—
Pier 7W		13½"	16"	20"	20"	22"	1 15/16"	33"	20"	2½"	6 1/16"	20"	466	12.4	—
Pier 6W		12¾"	15"	16"	17½"	18"	1 13/16"	29"	17½"	2 5/8"	6⅛"	16"	404	8.3	—
Pier 3W		13½"	16"	20"	20"	22"	1 5/8"	33"	20"	2½"	5 15/16"	20"	466	4.0	—
Pier 2W(W)		8½"	10"	12"	17"	14"	1⅜"	25"	17"	2"	5 5/16"	12"	185	4.2	—
Pier 2E (E)		8½"	10"	12"	17"	14"	1¼"	25"	17"	2"	5¼"	12"	184	4.1	—
Pier 3E		13½"	16"	20"	20"	22"	1 7/16"	33"	20"	2½"	5 13/16"	20"	481	13.0	—
Pier 4E		12¾"	15"	16"	17½"	18"	1½"	29"	17½"	2 5/8"	6"	16"	419	11.0	—
Pier 7E		12¾"	15"	16"	17½"	18"	1 5/8"	29"	17½"	2 5/8"	6 1/16"	16"	419	11.0	—
Pier 8E		13½"	16"	20"	20"	22"	1¾"	33"	20"	2½"	6"	20"	481	13.0	—
Pier 10E		14"	17"	20"	21"	22"	1 9/16"	33"	21	2½"	5 7/8"	20"	504	12.6	—
Pier 13E		12¾"	15"	16"	17½"	18"	1 3/16"	29"	17½"	2 5/8"	5 7/8"	16"	434	10.7	—
Pier 14E		14"	17"	20"	21"	22"	1¼"	33"	21"	2½"	5 3/8"	20"	504	12.6	—
Pier 15E(W)		8½"	10"	12"	17"	14"	1 3/16"	25"	17"	2"	5¼"	12"	180	4.3	—
Pier 15E(E)		8"	10"	12"	13½"	14"	1 5/16"	25"	13½"	2"	5¼"	12"	158	3.5	—
Pier 16E		12"	14"	16"	15¾"	18	1 3/16"	29	15¾"	2 9/16"	5 13/16"	16"	369	9.5	—
Pier 9E(W)		8½"	10"	12"	17"	14"	1 9/16"	25"	17"	2"	5 3/8"	12"	185	4.0	—
Pier 9E(E)		8½"	10"	12"	17"	14"	1 9/16"	25"	17"	2"	5 3/8"	12"	183	4.3	—
E. Abutment	1, 5	8"	10"	12"	13½"	14"	1 3/16"	25"	13½"	2"	5¼"	12"	162	3.3	—

NOTES:

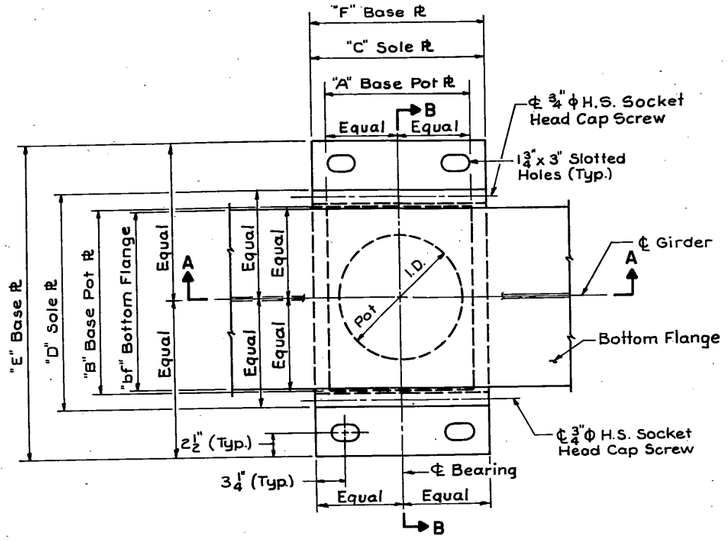
1. For Notes See Sheet SS69.
2. For Unit 3 See Sheet SS72.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

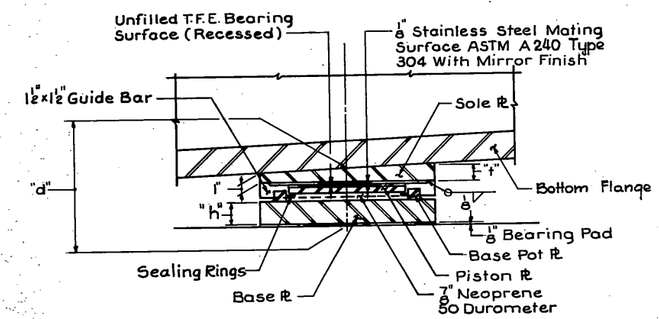
TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
NON-GUIDED EXPANSION BEARING DEVICES	
(STEEL ALTERNATE)	
Designed by K.A.C.	Drawn by R.D.F.
Checked by S.M. date 11-14-84	Bridge Design Supervisor C.J.M./S.M. date 11-14-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS70	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

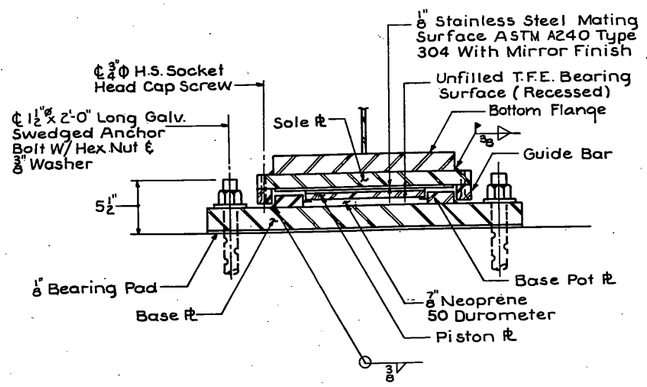
BR-6



GUIDED EXPANSION BEARING DEVICE
Scale: 1½" = 1'-0"



SECTION A-A
Scale: 1½" = 1'-0"



SECTION B-B
Scale: 1½" = 1'-0"

EXPANSION BEARINGS (GUIDED)

LOCATION	GIRDER	POT I.D.	BASE POT ℄		SOLE ℄			BASE ℄					DESIGN LOADS Per GIRDER (Kips)		
			"A"	"B"	"C"	"D"	"t"	"E"	"F"	"h"	"d"	"bf"	Brg.	Long.	Tran.
W. Abutment	2-4	7½"	9"	12¼"	13¼"	16"	1 5/16"	27"	13½"	2"	5¼"	12"	144	2.9	6.1
Pier 10W	2-4	10½"	12¼"	16¼"	14"	20"	1½"	31"	14"	2⅝"	6"	16"	290	6.6	12.2
Pier 9W	2-4	11¼"	13½"	16¼"	15½"	20"	1⅝"	31"	15½"	2 11/16"	6⅛"	16"	338	8.3	12.2
Pier 8W(W)	2-4	7½"	9"	12¼"	13¼"	16"	1⅛"	27"	13¼"	2"	5 7/16"	12"	148	2.8	6.1
Pier 8W(E)	2-4	8½"	10"	12¼"	17"	16"	1¾"	27"	17"	2"	5½"	12"	180	4.0	11.3
Pier 7W	2-4	13½"	16"	20¼"	20"	24"	1 15/16"	35"	20"	2¾"	6 5/16"	20"	466	12.4	20.7
Pier 6W	2-4	12¾"	15"	16¼"	17½"	20"	1 13/16"	31"	17½"	2⅞"	6⅜"	16"	404	8.3	19.6
Pier 3W	2-4	13½"	16"	20¼"	20"	24"	1⅝"	35"	20"	2¾"	6 3/16"	20"	466	4.0	20.7
Pier 2W(W)	2-4	8½"	10"	12¼"	17"	16"	1⅜"	27"	17"	2"	5 5/16"	12"	185	4.2	11.3
Pier 2E(E)	2-4	8½"	10"	12¼"	17"	16"	1¼"	27"	17"	2"	5¼"	12"	184	4.1	11.3
Pier 3E	2-4	13½"	16"	20¼"	20"	24"	1 7/16"	35"	20"	2¾"	6 1/16"	20"	481	13.0	20.7
Pier 4E	2-4	12¾"	15"	16¼"	17½"	20"	1½"	31"	17½"	2⅞"	6¼"	16"	419	11.0	19.6
Pier 7E	2-4	12¾"	15"	16¼"	17½"	20"	1⅝"	31"	17½"	2⅞"	6 5/16"	16"	419	11.0	19.6
Pier 8E	2-4	13½"	16"	20¼"	20"	24"	1¾"	35"	20"	2¾"	6¼"	20"	481	13.0	20.7
Pier 9E(W)	2-4	8½"	10"	12¼"	17"	16"	1 9/16"	27	17	2"	5⅜"	12"	185	4.0	11.3
Pier 9E(E)	2-4	8½"	10"	12¼"	17"	16"	1 9/16"	27	17	2"	5⅜"	12"	183	4.3	11.3
Pier 10E	2-4	14"	17"	20¼"	21"	24"	1 9/16"	35"	21"	2¾"	6⅛"	20"	504	12.6	19.6
Pier 13E	2-4	12¾"	15"	16¼"	17½"	20"	1 3/16"	31"	17½"	2⅞"	6⅛"	16"	434	10.7	19.6
Pier 14E	2-4	14"	17"	20¼"	21"	24"	1¼"	35"	21"	2¾"	6"	20"	504	12.6	19.6
Pier 15E(W)	2-4	8½"	10"	12¼"	17"	16"	1 3/16"	27"	17"	2"	5¼"	12"	180	4.3	11.3
Pier 15E(E)	2-4	8"	10"	12¼"	13¼"	16"	1 3/16"	27"	13¼"	2⅛"	5⅜"	12"	158	3.5	7.3
Pier 16E	2-4	12"	14"	16¼"	15¾"	20"	1 3/16"	31"	15¾"	2 13/16"	6 1/16"	16"	369	9.5	14.5
E. Abutment	2-4	8"	10"	12¼"	13¼"	16"	1 3/16"	27"	13¼"	2⅛"	5⅜"	12"	162	3.3	7.3

STATE OF VERMONT
AGENCY OF TRANSPORTATION

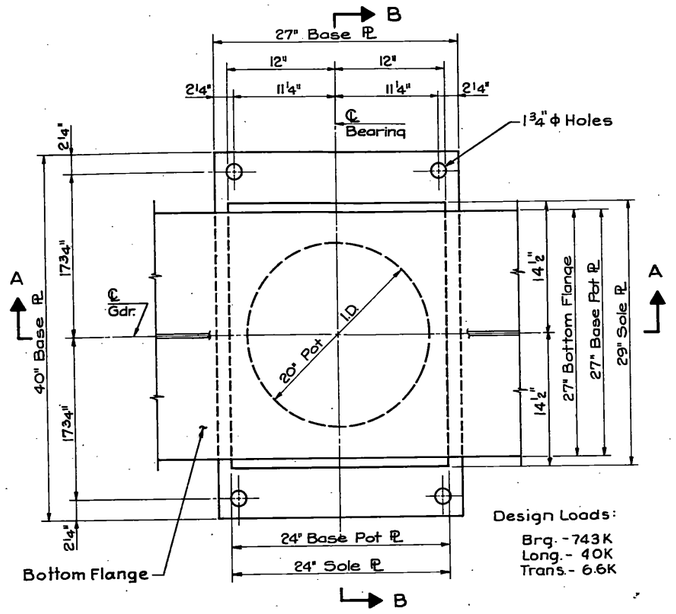
TOWN OF ROUSES POINT N.Y. – ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

GUIDED EXPANSION BEARING DEVICES
(STEEL ALTERNATE)

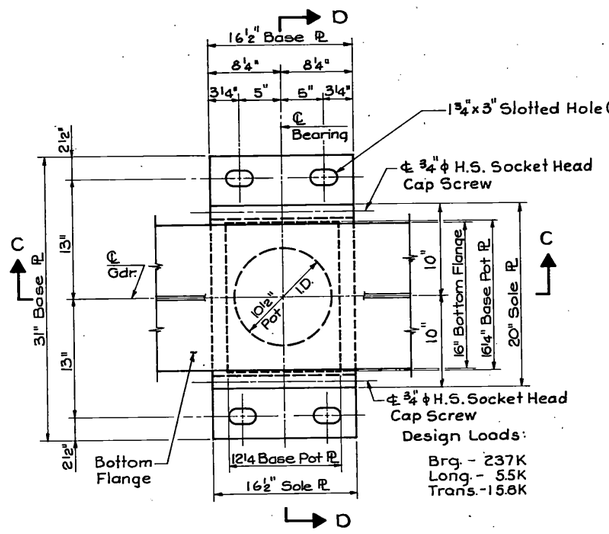
Designed by K.A.C.	Drawn by
Checked by K.E.W. date-11-16-84	Bridge Design Supervisor C.J.M./S.M. date 11-16-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS71 Sheet	of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

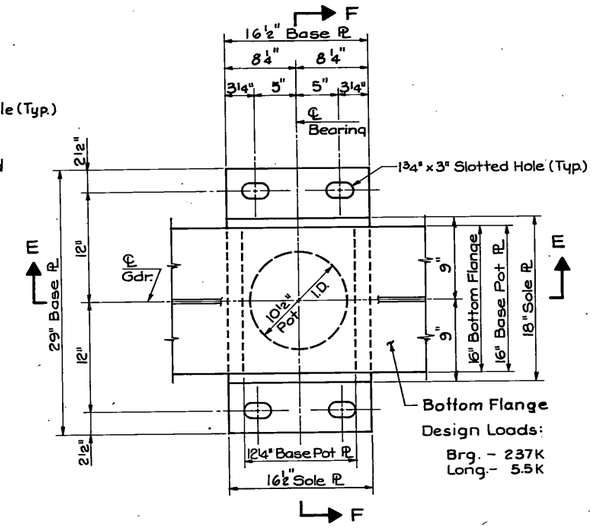
BRUNING 44-131 61144
BR-6



FIXED BEARING DEVICE
Scale: 1½" = 1'-0"



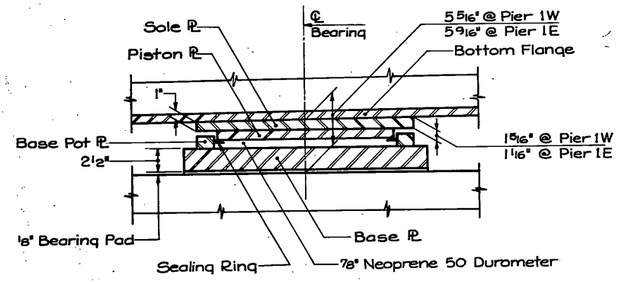
GUIDED BEARING DEVICE
Scale: 1½" = 1'-0"



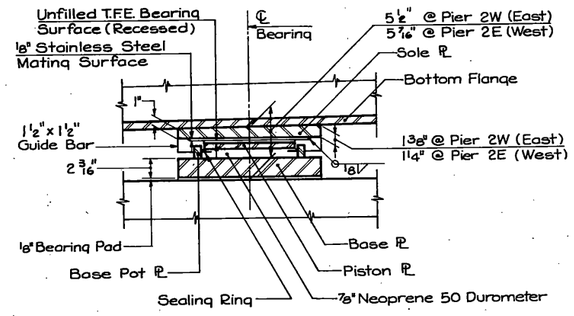
NON-GUIDED BEARING DEVICE
Scale: 1½" = 1'-0"

EXPANSION BEARING SETTING CORRECTIONS								
LOCATION	TEMPERATURE							
	0°	15°	30°	45°	60°	66°	75°	90°
Pier 2W(East)	1⅛" →	¾" →	⅜" →	0"	⅜" ←	9/16" ←	¾" ←	1⅛" ←
Pier 2E(West)	1⅛" ←	¾" ←	⅜" ←	0"	⅜" →	9/16" →	¾" →	1⅛" →

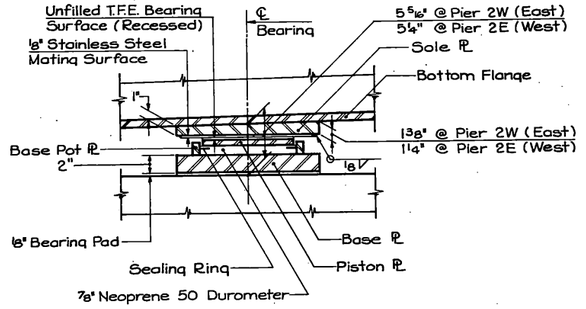
← West East →



SECTION A-A



SECTION C-C



SECTION E-E

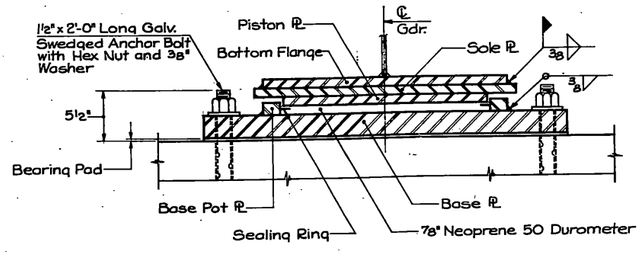
NOTE:

Location of Bearing Devices

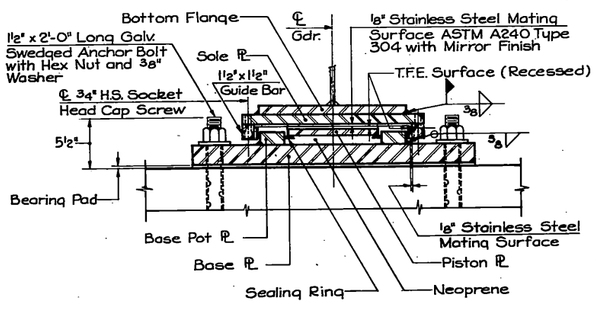
Fixed: Pier 1W - All Girders
Pier 1E - All Girders

Expansion Guided:
Pier 2E (West) - Girders 2-4
Pier 2W (East) - Girders 2-4

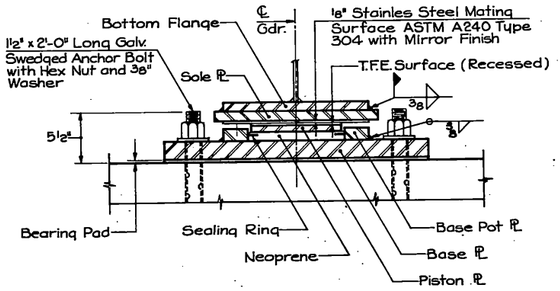
Expansion Non-Guided:
Pier 2W(East) - Girders 1 & 5
Pier 2E (West) - Girders 1 & 5



SECTION B-B



SECTION D-D



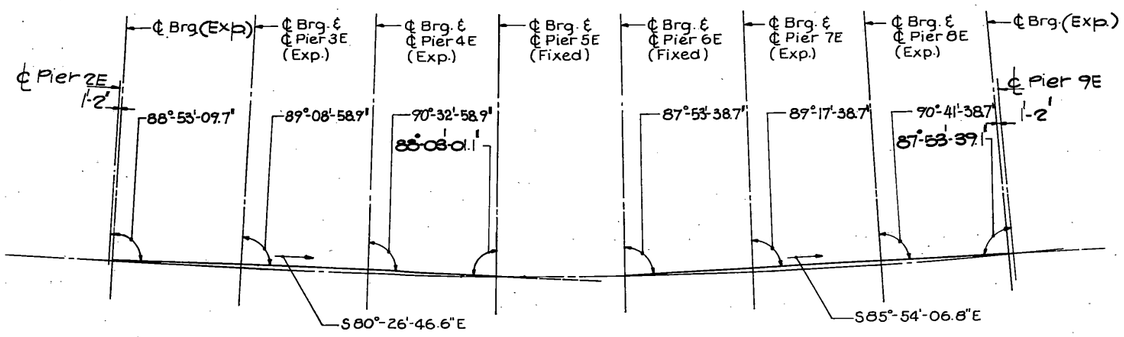
SECTION F-F

STATE OF VERMONT
AGENCY OF TRANSPORTATION

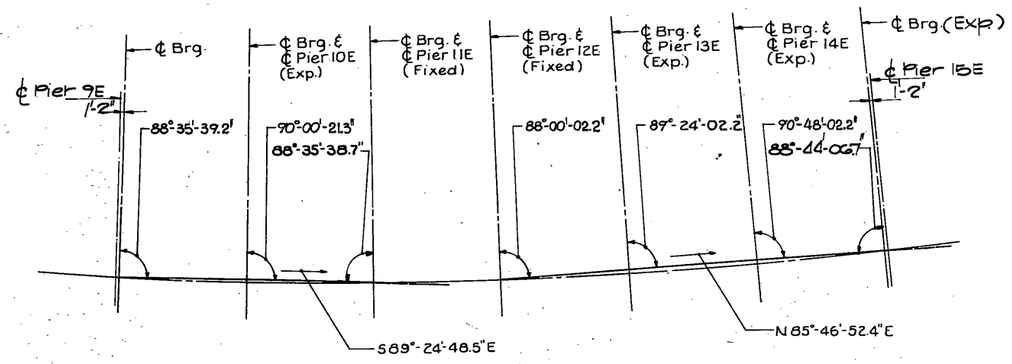
TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
BEARING DEVICES - UNIT 3	
(STEEL ALTERNATE)	
Designed by K.A.C.	Drawn by A.B.M.
Checked by K.E.W. date 11-16-84	Bridge Design Supervisor C.J.M./S.M. date 11-16-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS72	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

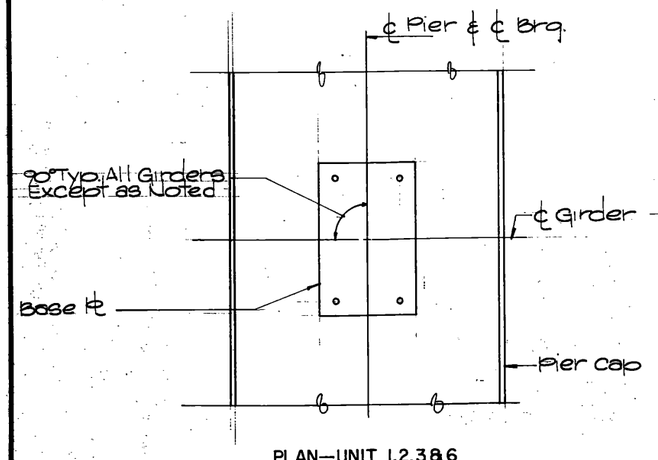
BR-6



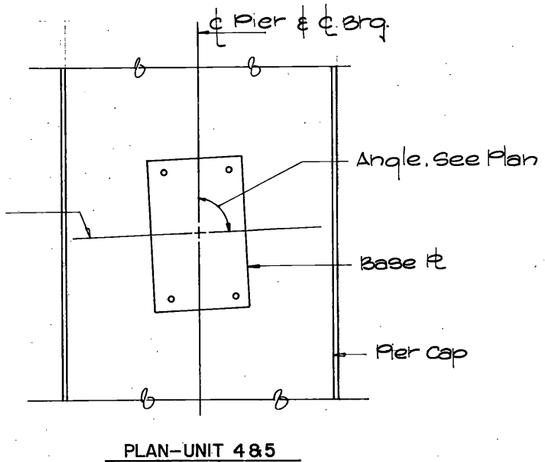
BEARING SETTING-LAYOUT
(UNIT 4)
Scale: 1"=80'



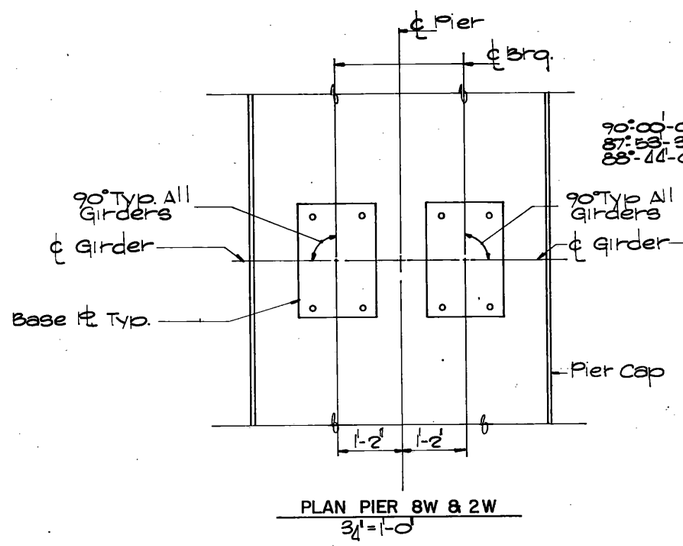
BEARING SETTING - LAYOUT
(UNIT 5)
Scale: 1"=80'



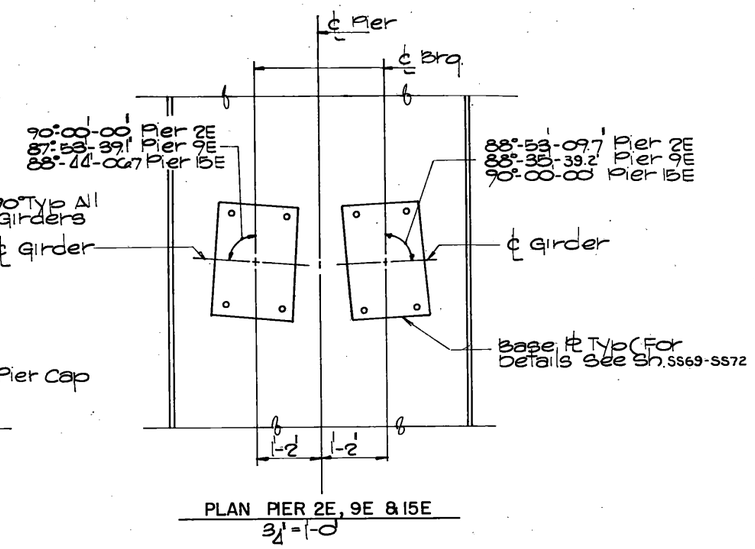
PLAN—UNIT 1,2,3&6
3/4" = 1'-0"



PLAN—UNIT 4&5
3/4" = 1'-0"



PLAN PIER 8W & 2W
3/4" = 1'-0"



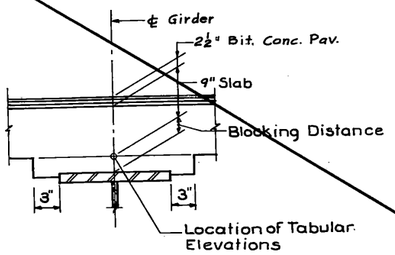
PLAN PIER 2E, 9E & 15E
3/4" = 1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT, N.Y. - ALBURG, VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
BEARING SETTING DETAILS (STEEL ALTERNATE)	
Designed by S.M.	Drawn by R.D.F.
Checked by K.A.C date 10-7-84	Bridge Design Supervisor C.J.M./S.M date 10-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1 (11)
Bridge Sheet No. SS73 Sheet	of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-4



HAUNCH DETAIL
NO Scale

(See Std. Sh. SCB-D7-71)

NOTE:
After the Structural Steel is Erected, But Before the Forms Are Built, Elevations on the Top Flanges of the Beams Are to be Obtained at the Points Indicated in the Table. The Difference Between the Elevations Obtained and Those Shown in the Table Gives the Actual Distance From the Top of the Beam to the Bottom of the Slab at Centerline of the Beam. (Blocking Distance). See Haunch Detail.

VOID See Beam Profiles

TOP OF FORM ELEVATION FOR DECK SLAB (PRIOR TO PLACEMENT OF CONCRETE)

UNIT 1

	Span 1										Span 2										Span 3										Span 4										
Girder NO	℄ Brg. Abut.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	110.30	110.59	110.87	111.15	111.43	111.69	111.94	112.18	112.43	112.69	112.96	113.26	113.58	113.91	114.25	114.59	114.92	115.25	115.59	115.93	116.29	116.66	117.05	117.45	117.84	118.24	118.63	119.02	119.42	119.83	120.26	120.71	121.18	121.66	122.14	122.61	123.07	123.51	123.94	124.36	124.77
G 2	110.65	110.94	111.23	111.51	111.78	112.04	112.29	112.54	112.79	113.04	113.32	113.62	113.94	114.27	114.61	114.94	115.28	115.61	115.95	116.29	116.64	117.02	117.41	117.80	118.20	118.60	118.99	119.38	119.77	120.18	120.62	121.07	121.54	122.02	122.50	122.97	123.43	123.87	124.30	124.72	125.13
G 3	110.79	111.08	111.37	111.65	111.92	112.18	112.43	112.68	112.92	113.18	113.46	113.76	114.08	114.41	114.74	115.08	115.42	115.75	116.08	116.43	116.78	117.16	117.55	117.94	118.34	118.73	119.13	119.52	119.91	120.32	120.76	121.21	121.68	122.16	122.64	123.11	123.57	124.01	124.44	124.85	125.27
G 4	110.65	110.94	111.23	111.51	111.78	112.04	112.29	112.54	112.79	113.04	113.32	113.62	113.94	114.27	114.61	114.94	115.28	115.61	115.95	116.29	116.64	117.02	117.41	117.80	118.20	118.60	118.99	119.38	119.77	120.18	120.62	121.07	121.54	122.02	122.50	122.97	123.43	123.87	124.30	124.72	125.13
G 5	110.30	110.59	110.87	111.15	111.43	111.69	111.94	112.18	112.43	112.69	112.96	113.26	113.58	113.91	114.25	114.59	114.92	115.25	115.59	115.93	116.29	116.66	117.05	117.45	117.84	118.24	118.63	119.02	119.42	119.83	120.26	120.71	121.18	121.66	122.14	122.61	123.07	123.51	123.94	124.36	124.77

UNIT 2

	Span 5										Span 6										Span 7									
Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	124.88	125.61	126.33	127.02	127.68	128.31	128.91	129.49	130.07	130.64	131.25	131.87	132.52	133.18	133.84	134.49	135.13	135.75	136.36	136.98	137.62	138.27	138.95	139.62	140.28	140.93	141.55	142.16	142.76	143.36	143.99
G 2	125.23	125.97	126.68	127.37	128.04	128.67	129.27	129.85	130.42	131.00	131.60	132.23	132.88	133.54	134.20	134.85	135.49	136.11	136.72	137.34	137.98	138.63	139.30	139.98	140.64	141.28	141.91	142.52	143.12	143.72	144.35
G 3	125.37	126.11	126.82	127.51	128.17	128.81	129.41	129.99	130.56	131.14	131.74	132.37	133.02	133.68	134.34	134.99	135.62	136.25	136.86	137.48	138.11	138.77	139.44	140.12	140.78	141.42	142.05	142.66	143.25	143.86	144.48
G 4	125.23	125.97	126.68	127.37	128.04	128.67	129.27	129.85	130.42	131.00	131.60	132.23	132.88	133.54	134.20	134.85	135.49	136.11	136.72	137.34	137.98	138.63	139.30	139.98	140.64	141.28	141.91	142.52	143.12	143.72	144.35
G 5	124.88	125.61	126.33	127.02	127.68	128.31	128.91	129.49	130.07	130.64	131.25	131.87	132.52	133.18	133.84	134.49	135.13	135.75	136.36	136.98	137.62	138.27	138.95	139.62	140.28	140.93	141.55	142.16	142.76	143.36	143.99

UNIT 2

	Span 8										Span 9										Span 10									
Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier	0.1	02	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	143.99	144.64	145.30	145.98	146.64	147.27	147.87	148.44	148.99	149.53	150.08	150.63	151.19	151.75	152.28	152.78	153.26	153.72	154.16	154.61	155.07	155.55	156.02	156.50	156.95	157.36	157.74	158.09	158.39	158.67	158.92
G 2	144.35	144.99	145.66	146.33	146.99	147.63	148.23	148.80	149.35	149.89	150.44	150.99	151.55	152.10	152.63	153.14	153.62	154.08	154.52	154.97	155.43	155.90	156.38	156.85	157.30	157.72	158.10	158.44	158.75	159.02	159.28
G 3	144.48	145.15	145.80	146.47	147.13	147.76	148.37	148.94	149.49	150.03	150.57	151.13	151.69	152.24	152.77	153.28	153.76	154.22	154.66	155.11	155.57	156.04	156.52	156.99	157.46	157.86	158.24	158.58	158.89	159.16	159.42
G 4	144.35	144.99	145.66	146.33	146.99	147.63	148.23	148.80	149.35	149.89	150.44	150.99	151.55	152.10	152.63	153.14	153.62	154.08	154.52	154.97	155.43	155.90	156.38	156.85	157.30	157.72	158.10	158.44	158.75	159.02	159.28
G 5	143.99	144.64	145.30	145.98	146.64	147.27	147.87	148.44	148.99	149.53	150.08	150.63	151.19	151.75	152.28	152.78	153.26	153.72	154.16	154.61	155.07	155.55	156.02	156.50	156.95	157.36	157.74	158.09	158.39	158.67	158.92

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

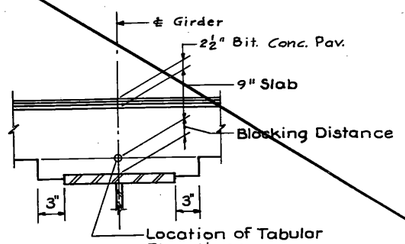
BOTTOM DECK SLAB ELEVATIONS- UNIT 1 & 2
(STEEL ALTERNATE)

Designed by B.J.B.	Drawn by C.S.L.
Checked by K.E.W. date 10-11-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84

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HOWARD NEEDLES TAMMEN & BERGENDOFF

PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS74	Sheet of

BR-6



HAUNCH DETAIL
NO Scale

(See Std. Sh. SCB-07-71)

NOTE:
After the Structural Steel is Erected, But Before the Forms Are Built, Elevations on the Top Flanges of the Beams Are to be Obtained at the Points Indicated in the Table. The Difference Between the Elevations Obtained and Those Shown in the Table Gives the Actual Distance From the Top of the Beam to the Bottom of the Slab at Centerline of the Beam, (Blocking Distance), See Haunch Detail.

VOID See Beam Profiles

TOP OF FORM ELEVATION FOR DECK SLAB (PRIOR TO PLACEMENT OF CONCRETE)

UNIT 3

	Span 11										Span 12										Span 13									
Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	158.97	159.55	160.08	160.55	160.95	161.28	161.55	161.77	161.97	162.18	162.39	162.69	163.00	163.31	163.55	163.71	163.77	163.75	163.68	163.58	163.51	163.47	163.44	163.42	163.37	163.27	163.11	162.89	162.60	162.24	161.84
G 2	159.33	159.91	160.44	160.91	161.31	161.64	161.91	162.13	162.33	162.53	162.75	163.04	163.36	163.66	163.90	164.06	164.13	164.11	164.03	163.96	163.87	163.83	163.80	163.78	163.73	163.63	163.47	163.25	162.96	162.60	162.20
G 3	159.47	160.05	160.58	161.05	161.44	161.78	162.05	162.27	162.47	162.67	162.89	163.18	163.50	163.80	164.04	164.20	164.26	164.24	164.17	164.08	164.01	163.97	163.94	163.91	163.86	163.77	163.61	163.39	163.10	162.74	162.34
G 4	159.33	159.91	160.44	160.91	161.31	161.64	161.91	162.13	162.33	162.53	162.75	163.04	163.36	163.66	163.90	164.06	164.13	164.11	164.03	163.96	163.87	163.83	163.80	163.78	163.73	163.63	163.50	163.30	163.03	162.71	162.33
G 5	158.97	159.55	160.08	160.55	160.95	161.28	161.55	161.77	161.97	162.18	162.39	162.69	163.00	163.31	163.55	163.71	163.77	163.75	163.68	163.58	163.51	163.47	163.44	163.42	163.37	163.27	163.17	163.01	162.78	162.49	162.15

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BOTTOM DECK SLAB ELEVATIONS - UNIT 3

(STEEL ALTERNATE)

Designed by B.J.B.	Drawn by C.S.L.
Checked by K.E.W. date 10-11-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS75	Sheet of

BR-6

TOP OF FORM ELEVATION FOR DECK SLAB
(PRIOR TO PLACEMENT OF CONCRETE)

UNIT 4

Span 14

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	161.81	161.68	161.52	161.34	161.13	160.87	160.58	160.26	159.91	159.56	159.22
G 2	162.16	162.03	161.87	161.69	161.46	161.20	160.91	160.58	160.23	159.87	159.53
G 3	162.30	162.17	162.02	161.84	161.62	161.37	161.07	160.75	160.40	160.05	159.71
G 4	162.30	162.19	162.05	161.89	161.69	161.45	161.18	160.87	160.54	160.21	159.88
G 5	162.12	162.04	161.92	161.78	161.60	161.39	161.14	160.85	160.54	160.23	159.93

Span 15

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	159.22	158.88	158.56	158.23	157.90	157.54	157.16	156.76	156.33	155.90	155.48
G 2	159.53	159.20	158.87	158.54	158.21	157.85	157.47	157.06	156.64	156.21	155.79
G 3	159.71	159.38	159.06	158.73	158.40	158.04	157.66	157.25	156.83	156.40	155.97
G 4	159.88	159.56	159.24	158.92	158.59	158.23	157.85	157.44	157.02	156.58	156.16
G 5	159.93	159.63	159.31	158.99	158.66	158.30	157.92	157.51	157.08	156.65	156.22

Span 16

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	155.48	155.06	154.64	154.22	153.77	153.30	152.79	152.26	151.71	151.17	150.64
G 2	155.79	155.37	154.96	154.53	154.08	153.61	153.10	152.56	152.01	151.47	150.95
G 3	155.97	155.56	155.14	154.72	154.27	153.79	153.29	152.75	152.20	151.66	151.14
G 4	156.16	155.74	155.33	154.90	154.46	153.98	153.48	152.94	152.39	151.85	151.32
G 5	156.22	155.81	155.39	154.97	154.53	154.05	153.55	153.01	152.46	151.91	151.39

Span 17

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	150.64	150.13	149.65	149.16	148.67	148.17	147.65	147.12	146.58	146.04	145.52
G 2	150.95	150.45	149.96	149.47	148.98	148.48	147.96	147.42	146.88	146.35	145.83
G 3	151.14	150.63	150.14	149.66	149.17	148.67	148.15	147.61	147.07	146.53	146.02
G 4	151.32	150.81	150.33	149.85	149.36	148.86	148.34	147.80	147.26	146.72	146.21
G 5	151.39	150.88	150.40	149.92	149.43	148.93	148.40	147.87	147.33	146.79	146.27

UNIT 4

Span 18

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	145.52	145.03	144.55	144.07	143.59	143.09	142.57	142.03	141.49	140.94	140.41
G 2	145.83	145.34	144.86	144.38	143.90	143.40	142.88	142.34	141.79	141.25	140.72
G 3	146.02	145.52	145.05	144.57	144.09	143.59	143.07	142.53	141.98	141.43	140.90
G 4	146.21	145.71	145.23	144.76	144.28	143.78	143.26	142.72	142.17	141.62	141.09
G 5	146.27	145.78	145.30	144.83	144.34	143.84	143.32	142.79	142.24	141.69	141.16

Span 19

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	140.41	139.90	139.40	138.91	138.41	137.90	137.37	136.84	136.31	135.79	135.29
G 2	140.72	140.21	139.71	139.21	138.71	138.20	137.68	137.14	136.61	136.09	135.60
G 3	140.90	140.39	139.90	139.40	138.90	138.39	137.87	137.33	136.80	136.28	135.79
G 4	141.09	140.58	140.08	139.59	139.09	138.58	138.06	137.53	136.99	136.47	135.97
G 5	141.16	140.64	140.15	139.66	139.16	138.65	138.13	137.59	137.06	136.54	136.04

Span 20

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	135.29	134.82	134.36	133.91	133.46	132.99	132.51	132.01	131.49	130.95	130.40
G 2	135.60	135.13	134.68	134.23	133.78	133.31	132.83	132.33	131.80	131.26	130.71
G 3	135.79	135.32	134.86	134.41	133.96	133.50	133.02	132.51	131.99	131.45	130.89
G 4	135.97	135.50	135.04	134.60	134.15	133.69	133.21	132.70	132.18	131.63	131.08
G 5	136.04	135.56	135.11	134.66	134.21	133.75	133.27	132.77	132.24	131.70	131.15

UNIT 5

Span 21

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	130.32	129.97	129.60	129.23	128.83	128.41	127.97	127.52	127.07	126.63	126.22
G 2	130.63	130.28	129.91	129.53	129.13	128.71	128.27	127.82	127.37	126.93	126.53
G 3	130.82	130.47	130.10	129.73	129.33	128.91	128.47	128.01	127.56	127.12	126.71
G 4	131.01	130.65	130.29	129.92	129.52	129.10	128.66	128.20	127.75	127.31	126.90
G 5	131.07	130.72	130.36	129.98	129.58	129.16	128.72	128.27	127.81	127.38	126.97

Span 22

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	125.84	125.49	125.16	124.84	124.52	124.19	123.86	123.53	123.21	122.92	122.65
G 2	126.16	125.80	125.47	125.15	124.83	124.50	124.17	123.84	123.52	123.23	122.96
G 3	126.34	125.99	125.66	125.34	125.02	124.69	124.36	124.02	123.71	123.41	123.15
G 4	126.52	126.17	125.85	125.53	125.20	124.88	124.54	124.21	123.89	123.60	123.33
G 5	126.59	126.24	125.91	125.59	125.27	124.95	124.61	124.28	123.96	123.67	123.40

Span 23

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	122.92	122.65	122.40	122.17	121.93	121.68	121.42	121.16	120.89	120.64	120.42
G 2	123.23	122.96	122.71	122.48	122.24	121.99	121.73	121.46	121.20	120.95	120.73
G 3	123.41	123.15	122.90	122.67	122.43	122.18	121.92	121.65	121.39	121.13	120.91
G 4	123.60	123.33	123.09	122.85	122.61	122.37	122.11	121.84	121.57	121.32	121.10
G 5	123.67	123.40	123.15	122.92	122.68	122.44	122.18	121.91	121.64	121.39	121.16

VOID See Beam Profiles

UNIT 5

Span 24

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	120.42	120.22	120.05	119.90	119.74	119.58	119.41	119.21	119.01	118.81	118.63
G 2	120.73	120.54	120.36	120.21	120.05	119.89	119.71	119.52	119.32	119.12	118.94
G 3	120.91	120.72	120.55	120.39	120.24	120.08	119.90	119.71	119.51	119.31	119.12
G 4	121.10	120.90	120.73	120.58	120.43	120.27	120.09	119.90	119.70	119.49	119.31
G 5	121.16	120.97	120.80	120.65	120.50	120.34	120.16	119.97	119.76	119.56	119.38

Span 25

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	118.63	118.46	118.31	118.16	118.00	117.84	117.66	117.47	117.28	117.10	116.95
G 2	118.94	118.77	118.62	118.47	118.31	118.14	117.96	117.77	117.58	117.41	117.26
G 3	119.12	118.96	118.80	118.66	118.50	118.33	118.15	117.96	117.77	117.60	117.44
G 4	119.31	119.14	118.99	118.84	118.69	118.52	118.34	118.15	117.96	117.78	117.63
G 5	119.38	119.21	119.06	118.91	118.76	118.59	118.41	118.22	118.03	117.85	117.70

Span 26

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	116.95	116.82	116.70	116.59	116.48	116.34	116.18	115.99	115.77	115.53	115.27
G 2	117.26	117.13	117.02	116.91	116.80	116.67	116.52	116.33	116.11	115.87	115.61
G 3	117.44	117.31	117.20	117.09	116.98	116.84	116.68	116.49	116.27	116.02	115.76
G 4	117.63	117.50	117.38	117.25	117.12	116.97	116.79	116.58	116.34	116.08	115.80
G 5	117.70	117.56	117.43	117.29	117.13	116.96	116.76	116.53	116.27	115.98	115.68

UNIT 6

Span 27

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	115.24	115.17	115.09	114.99	114.88	114.74	114.59	114.41	114.23	114.05	113.88
G 2	115.59	115.52	115.44	115.35	115.24	115.10	114.95	114.77	114.59	114.41	114.24
G 3	115.74	115.66	115.58	115.49	115.38	115.24	115.08	114.91	114.73	114.55	114.38
G 4	115.77	115.68	115.59	115.48	115.35	115.20	115.03	114.84	114.64	114.45	114.26
G 5	115.64	115.54	115.43	115.30	115.15	114.98	114.78	114.57	114.36	114.14	113.93

Span 28

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Pier
G 1	113.73	113.59	113.46	113.34	113.20	113.07	112.92	112.78	112.65	112.53	112.43
G 2	113.95	113.82	113.69	113.56	113.42	113.28	113.14	113.00	112.88	112.78	112.70
G 3	114.09	113.96	113.83	113.70	113.56	113.42	113.27	113.14	113.02	112.92	112.84
G 4	114.23	114.09	113.96	113.83	113.70	113.56	113.42	113.28	113.14	113.00	112.88
G 5	113.74	113.59	113.46	113.34	113.20	113.07	112.92	112.78	112.65	112.53	112.43

Span 29

Girder NO	℄ Brg. Pier	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ Brg. Abut.
G 1	112.53	112.43	112.34	112.25	112.16	112.05	111.92	111.76	111.58	111.38	111.17
G 2	112.61	112.52	112.41	112.28	112.12	111.94	111.74	111.53			
G 3	112.70	112.61	112.52	112.41	112.28	112.12	111.94	111.74	111.53		
G 4	112.78	112.70	112.61	112.52	112.41	112.28	112.12	111.94	111.74	111.53	
G 5	112.88	112.78	112.70	112.61	112.52	112.41	112.28	112.12	111.94	111.74	111.53

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. — ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

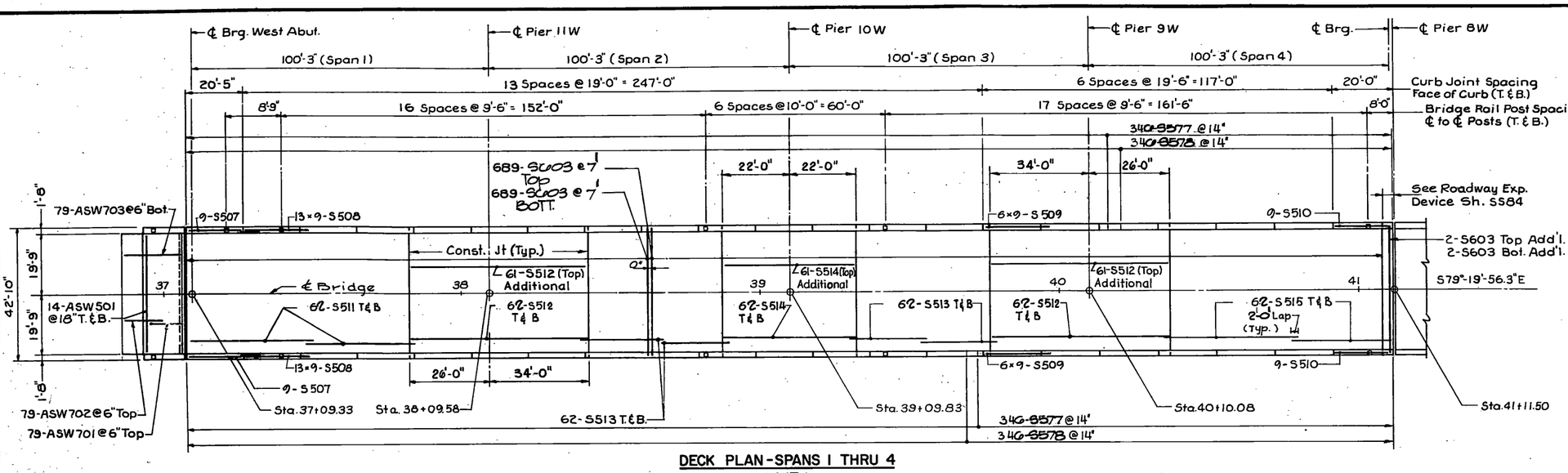
BOTTOM DECK SLAB ELEVATIONS - UNIT 4,5 & 6

(STEEL ALTERNATE)

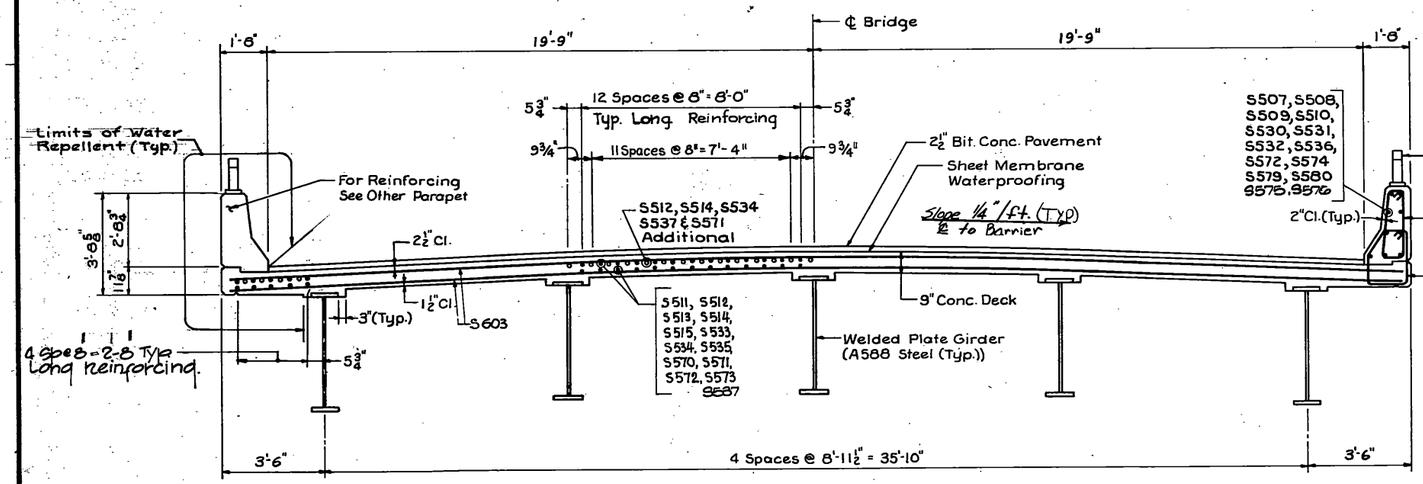
Designed by B.J.B.	Drawn by C.S.L.
Checked by K.E.W. date 10-11-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS 76	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

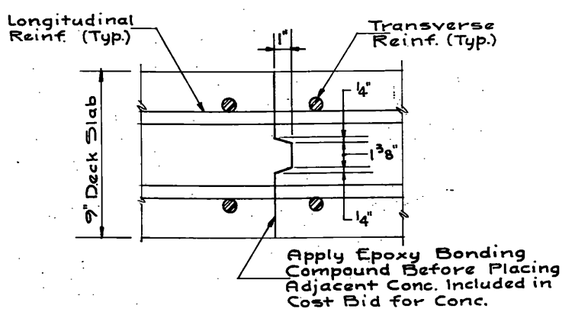
BR-6



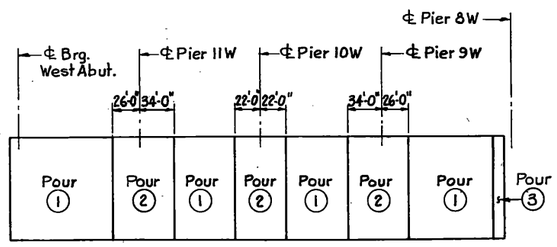
DECK PLAN - SPANS 1 THRU 4
UNIT 1
1" = 20'



TYPICAL CROSS SECTION
SPANS 1 THRU 10 & 27 THRU 29
3/8" = 1'-0"



TRANSVERSE BRIDGE SLAB CONSTRUCTION JT. DETAIL
3" = 1'-0"



DECK SLAB PLACEMENT SEQUENCE
No Scale

12. The Contractor Shall Exercise Care In Applying The Water Repellent Such That No Material Will Come In Contact With The Structural Steel Or Drop Into The Water.

13. The use of stay-in-place forms shall not be permitted.

SUPERSTRUCTURE NOTES:

CONCRETE
1. Minimum 28 Day Cylinder Strength Of Concrete $f'c$ = 4,000 psi (Class A).

REINFORCING STEEL
1. All Reinforcing Steel Shall Conform To ASTM Designation A615, Grade 60.
2. All Reinforcing Steel In Deck And Barriers To Be Epoxy Coated.

BARRIERS
1. Bridge Barrier To Be Placed In Alternate Sections With A Minimum Of 48 Hours Between Pours.

DECK SLAB PLACEMENTS NOTES:

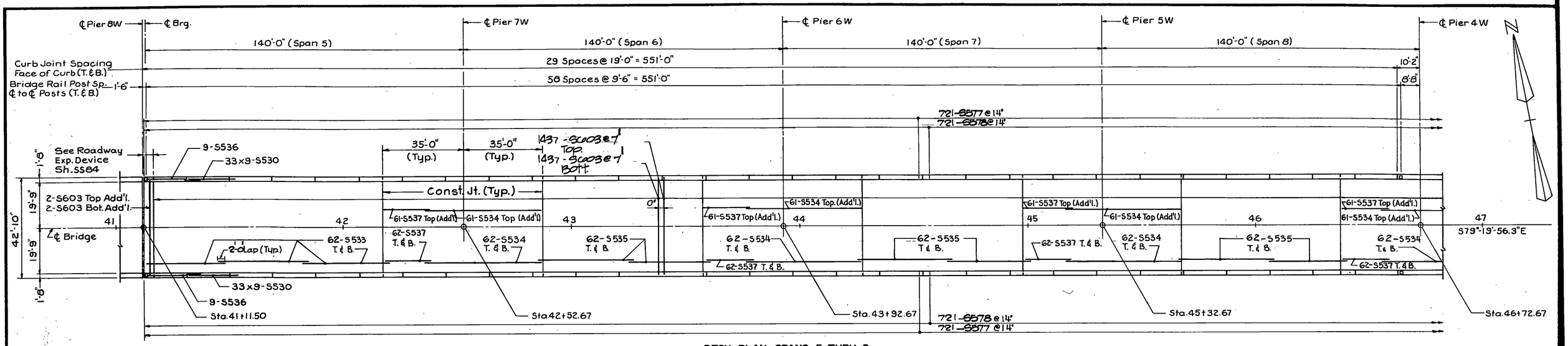
1. The Concrete Deck Slab For This Structure Shall Be Placed According To The Placement Sequence Shown. The Contractor May, At His Option, Submit An Alternate Procedure To The Engineer, For Review And Approval. No Related Work, Including The Installation Of Forms, May Be Initiated By The Contractor Until The Written Approval Of The Alternate Procedure Is Received From The Engineer.
2. Concrete Placement And Finishing Operations Shall Be Performed As Rapidly As Possible. The Engineer May Order The Contractor To Stop His Pour Operations At Any Time If, In The Engineer's Opinion, Concrete Placed During The Pour Has Started To Set, Or Is About To Set, And Further Placement Of Concrete Will Cause Deflection Cracking.
3. In The Event The Contractor's Deck Placement Operation Is Stopped Prior To Completion Of Pour ① Whether By His Own Decision Or By Order Of The Engineer, The Contractor Shall Be Responsible For Providing A Finished Deck Grade Which Matches The Planned Profile. Any Subsequent Revisions To Deck Forms Made Necessary By Such Action Shall Be At The Contractor's Expense.
4. Construction Joints Shall Be Placed Parallel To The Center Line Of Pier.
5. All Areas Shown On The Plans As Pour ① Must Be Placed During The Initial Continuous Work Period. Subsequent Pours (Continuous Placements) Will Not Be Permitted Until 96 Hours After The Completion Of The Previous Pour.
6. Longitudinal Construction Joints Will Not Be Permitted.
7. In Unit 2, 3, 4 And 5 Pour ① Shall Be Accomplished By The Simultaneous Operation Of Two Finishing Machines And Crews. A Minimum Rate Of Placement Of 30 Cy/Hr Shall Be Maintained By Each Machine.
8. The Contractor May Divide Pour ③ In Unit 2, 4 And 5 Into Separate Segments Provided The 96 Hour Waiting Period Between Pours Is Observed.
9. The Contractor May, Subject To The Engineer's Approval, Use A Water Reducer Either Alone Or In Conjunction With A Water Reducing And Set Retarding Admixture, So As To Allow Delivery, Proper Placement, And Finish Of The Concrete.
10. Concrete Placement Should Begin At The Low End Of Each Pour Section.
11. Conc. Surface in Pours 3 or 4 at Exp. Joints shall be Screeded by Hand & Finished by Appropriate Tools to Match the Adjacent Pavement Surfaces.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

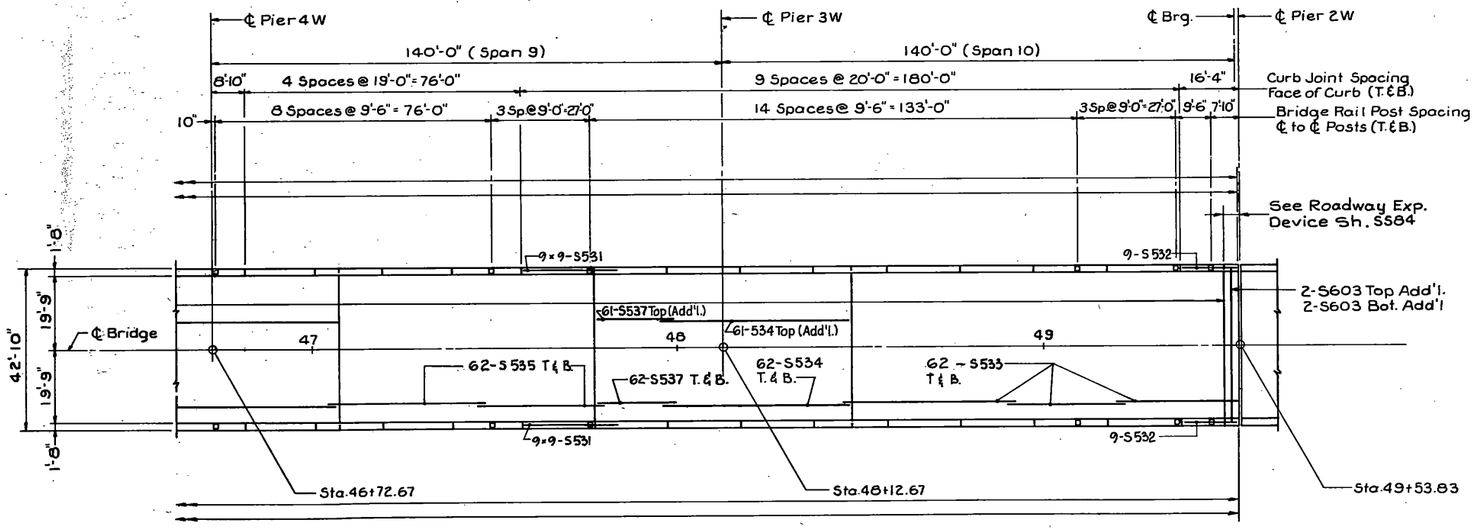
TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
DECK PLAN - UNIT 1	
(STEEL ALTERNATE)	
Designed by J.S.J.	Drawn by R.D.F.
Checked by B.J.B. date 10-4-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BFR 028-1(11)
Bridge Sheet No. SS77	Sheet of

HNTB
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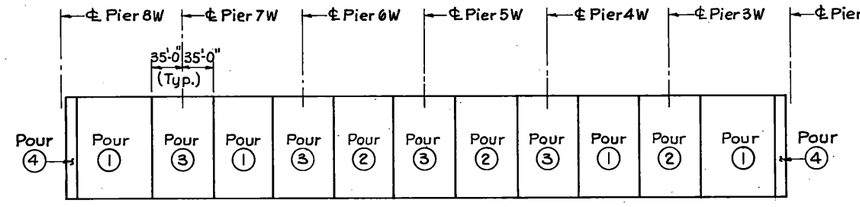
BR-6



DECK PLAN-SPANS 5 THRU 8
UNIT 2
1"=20'



DECK PLAN SPANS 9 & 10
UNIT 2
1"=20'



DECK SLAB PLACEMENT SEQUENCE
No Scale

NOTES:

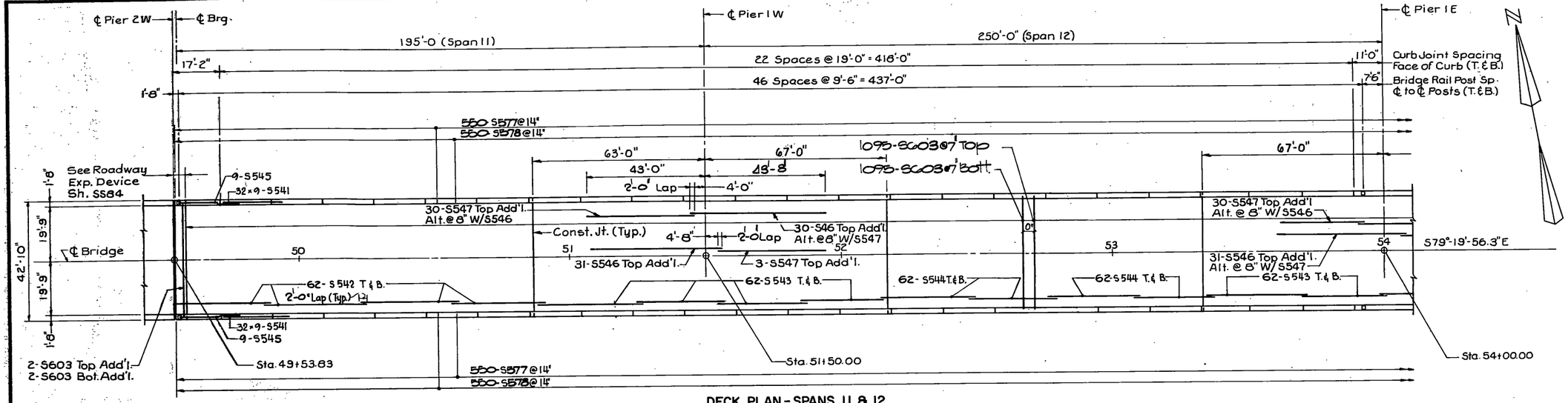
1. For Deck Slab Placements Notes See Sheet SS77.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

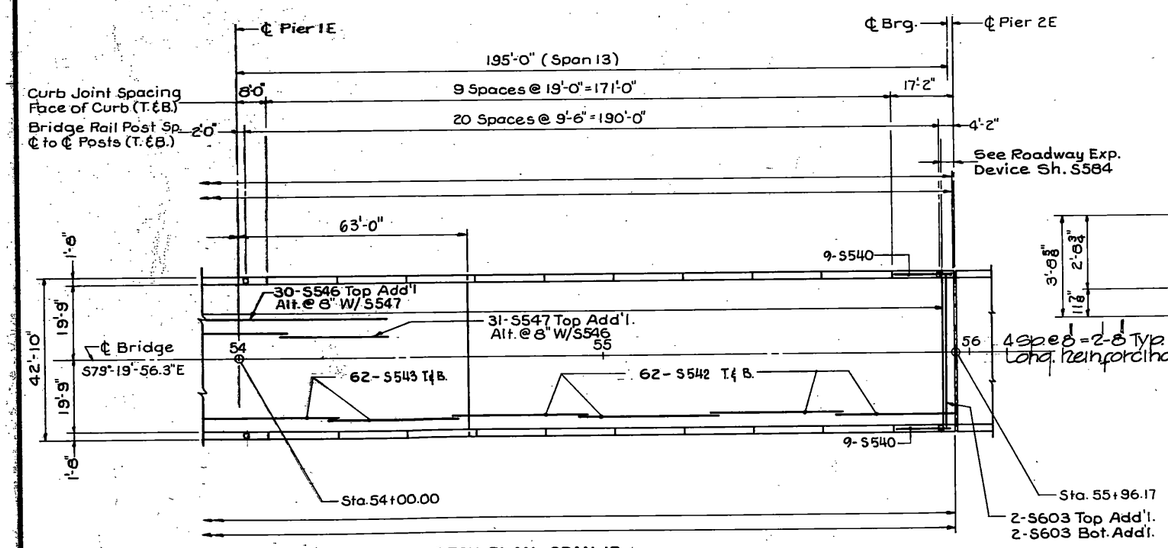
TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0100
	Surv. Sta.
DECK PLAN - UNIT 2	
(STEEL ALTERNATE)	
Designed by J.S.J.	Drawn by R.D.F.
Checked by B.J.B. date 10-4-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF028-1(11)
Bridge Sheet No. SS78	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

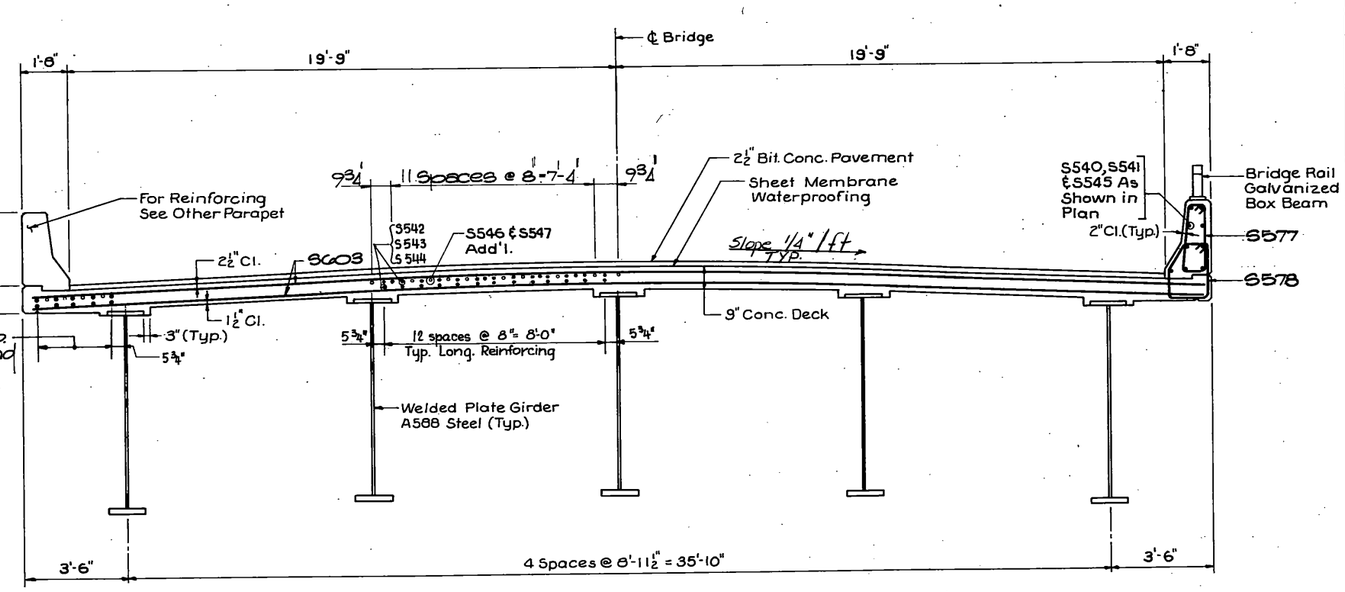
BR-6



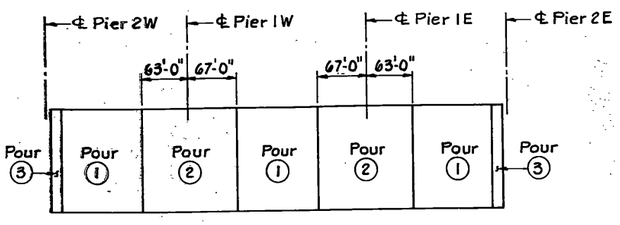
DECK PLAN - SPANS 11 & 12
UNIT 3
1" = 20'



DECK PLAN - SPAN 13
UNIT 3
1" = 20'



TYPICAL CROSS SECTION
SPANS 11 THRU 13
3/8" = 1'-0"



DECK SLAB PLACEMENT SEQUENCE
No Scale

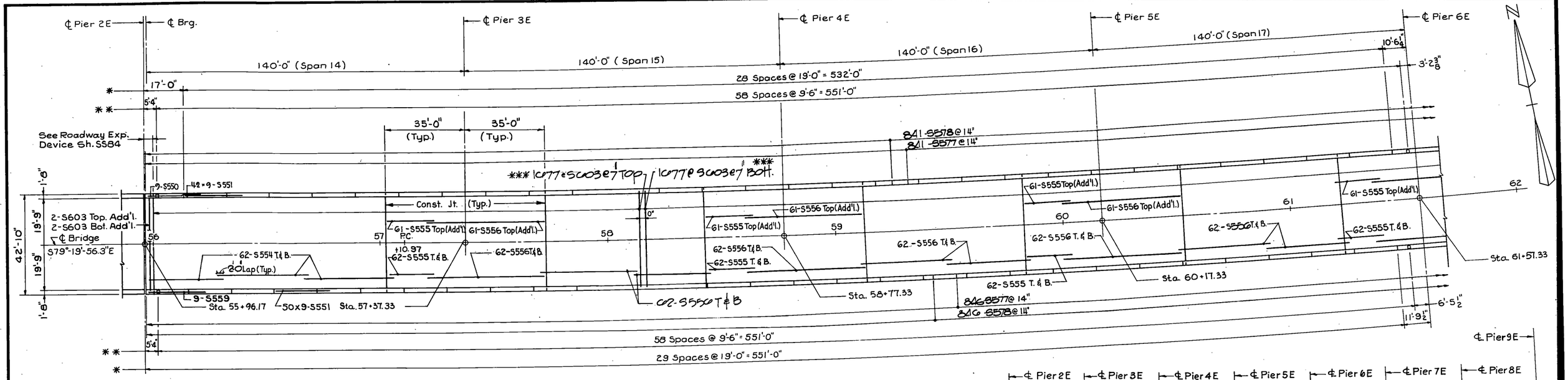
NOTES:

1. For Deck Slab Placements Notes See Sheet S577.

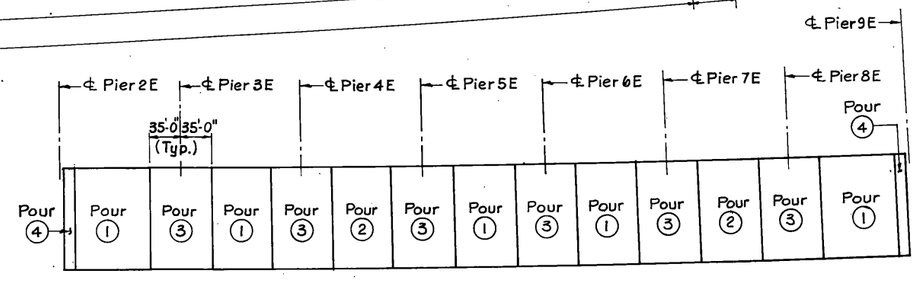
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
DECK PLAN - UNIT 3	
(STEEL ALTERNATE)	
Designed by J.S.J.	Drawn by R.D.F
Checked by B.J.B. date 10-4-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1 (11)
Bridge Sheet No. S579	Sheet of

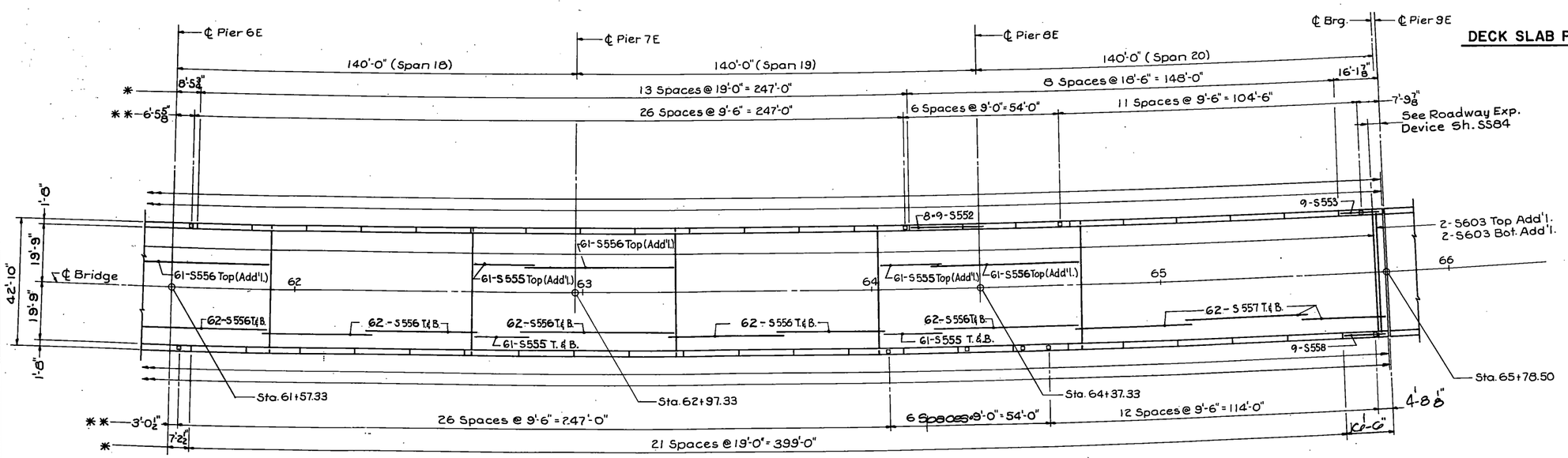
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF



DECK PLAN - SPANS 14 THRU 17
UNIT 4
1" = 20'



DECK SLAB PLACEMENT SEQUENCE
No Scale



DECK PLAN - SPANS 18 THRU 20
UNIT 4
1" = 20'

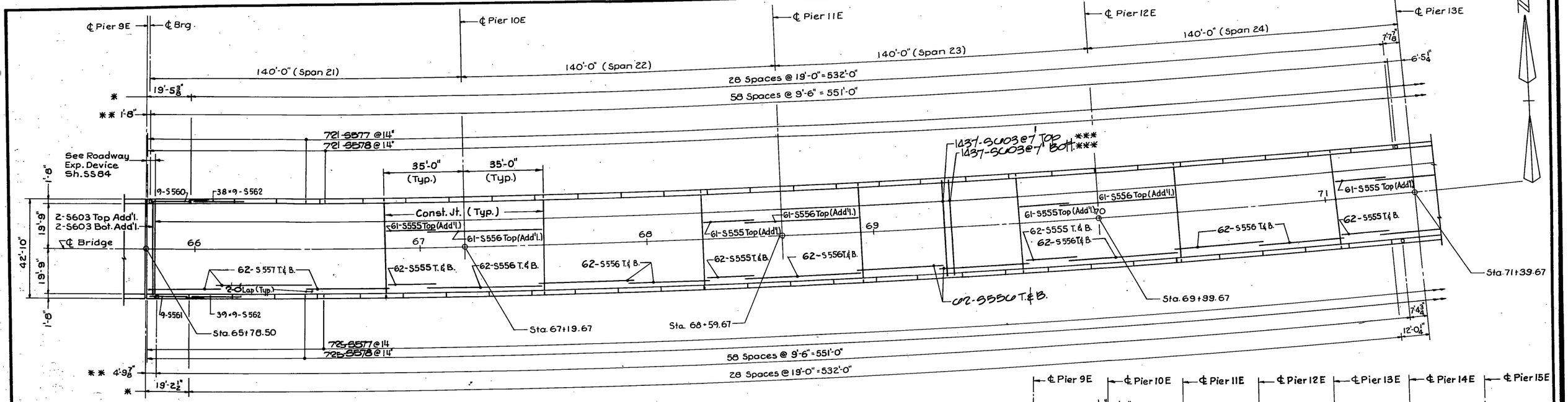
NOTES:
1. * Curb Joint Spacing, Along ℄ of Rail Posts.
2. ** Bridge Rail Post Spacing, ℄ to ℄ Posts.
3. *** Transverse Bars Placed Radially.
4. For Deck Slab Placements Notes See Sheet S577.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

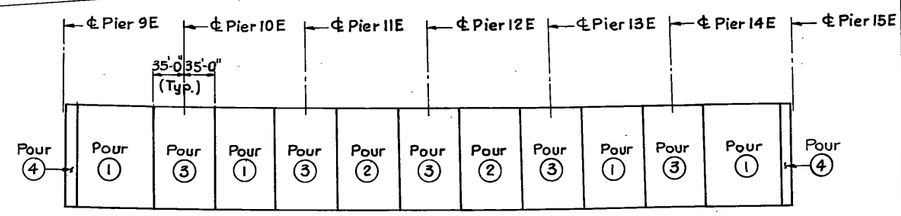
TOWN OF ROUSES POINT N.Y. – ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
DECK PLAN - UNIT 4	
(STEEL ALTERNATE)	
Designed by J.S.J	Drawn by R.D.F
Checked by B.J.B date 10-4-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF028-1 (11)
Bridge Sheet No. SS80	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6

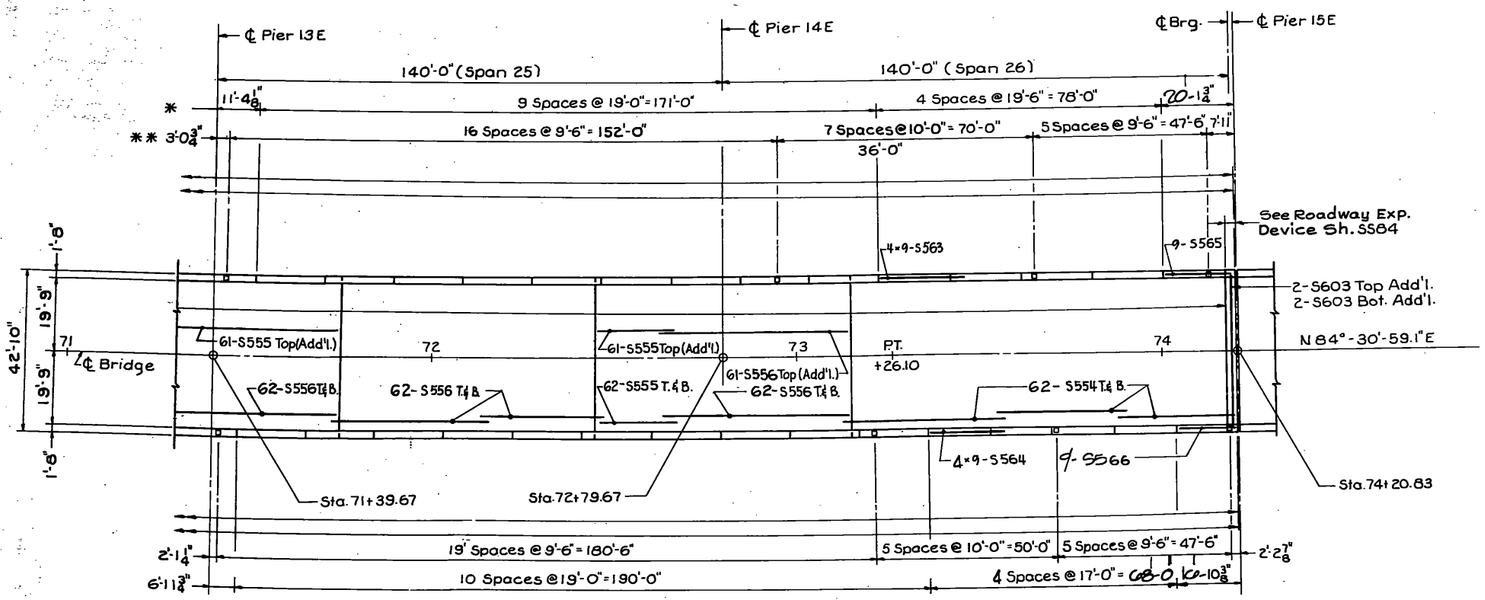


DECK PLAN-SPANS 21 THRU 24
UNIT 5
1"=20'



DECK SLAB PLACEMENT SEQUENCE
No Scale

NOTES
1. * Curb Joint Spacing, Along ℄ of Rail Posts.
2. ** Bridge Rail Post Spacing ℄ to ℄ Posts
3. *** Transverse Bars Placed Radially
4. For Deck Slab Placements Notes See Sheet SS77.



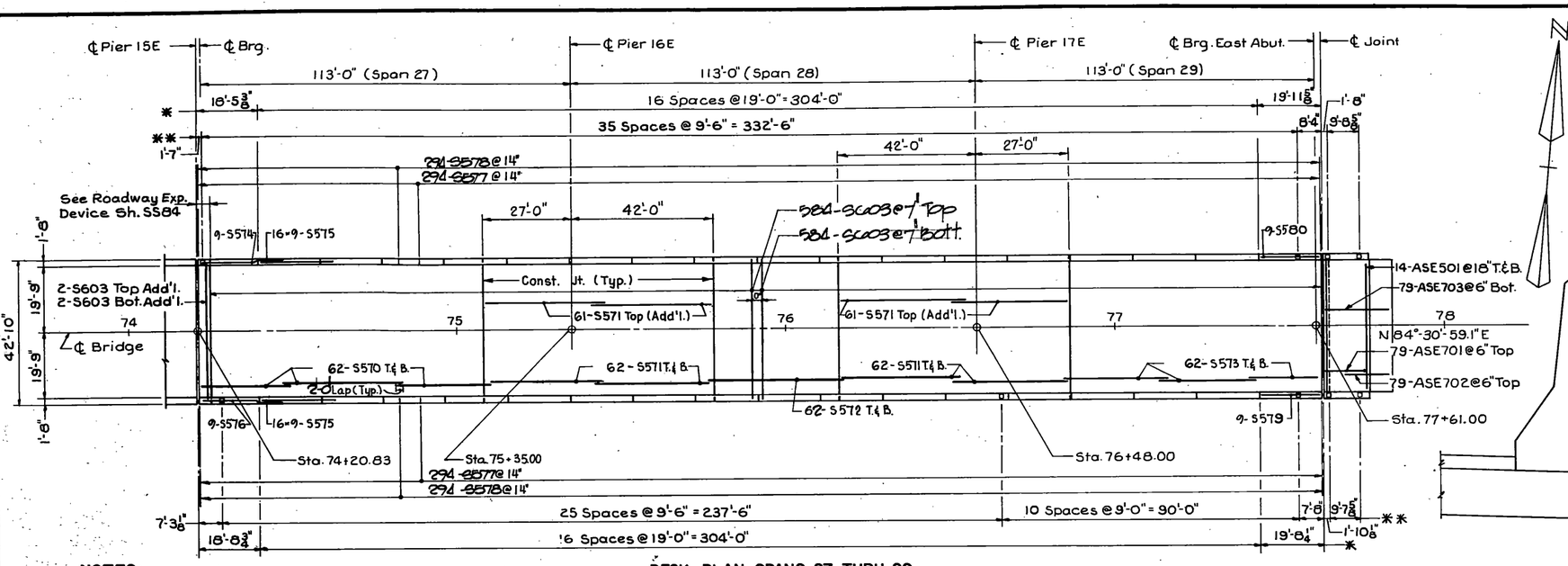
DECK PLAN-SPANS 25 & 26
UNIT 5
1"=20'

STATE OF VERMONT
AGENCY OF TRANSPORTATION

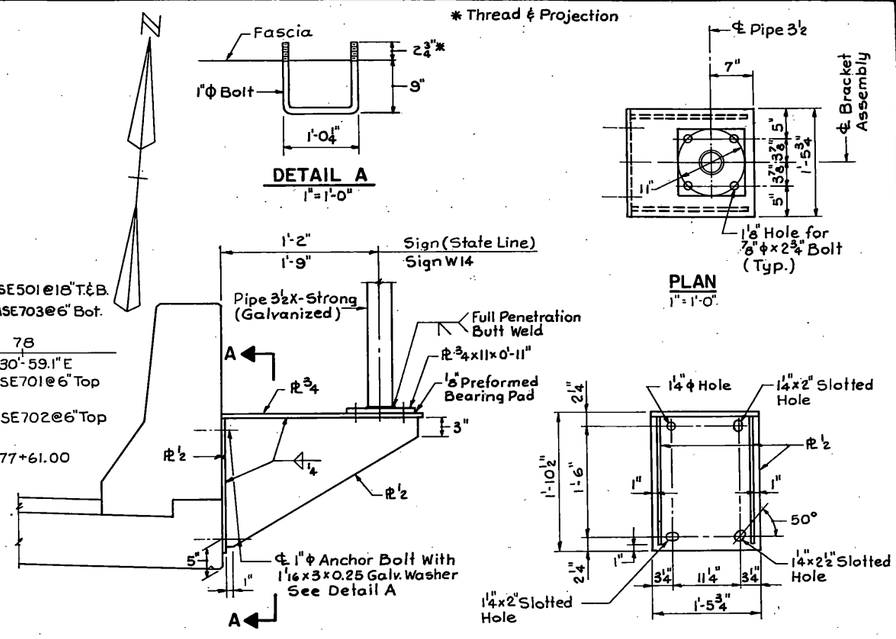
TOWN OF ROUSES POINT N.Y. – ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
DECK PLAN - UNIT 5	
(STEEL ALTERNATE)	
Designed by J.S.J.	Drawn by R.D.F
Checked by B.J.B date 10-4-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS81	Sheet of

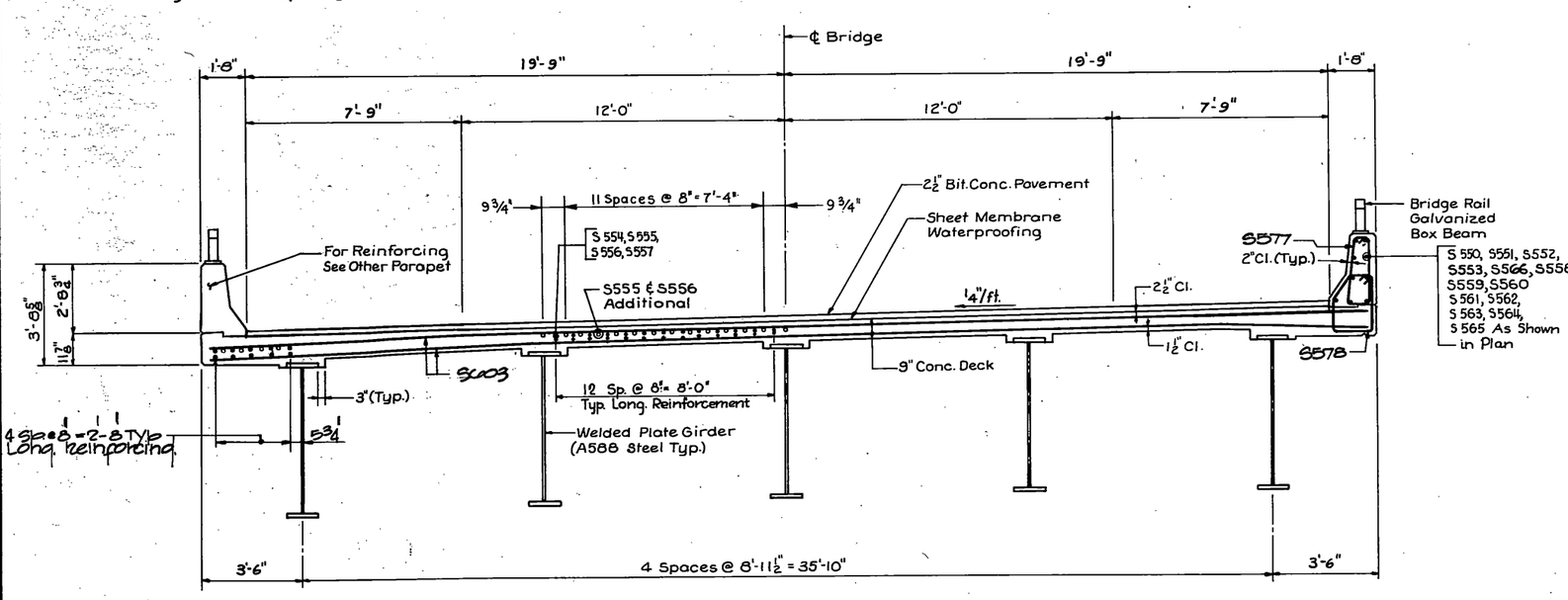
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

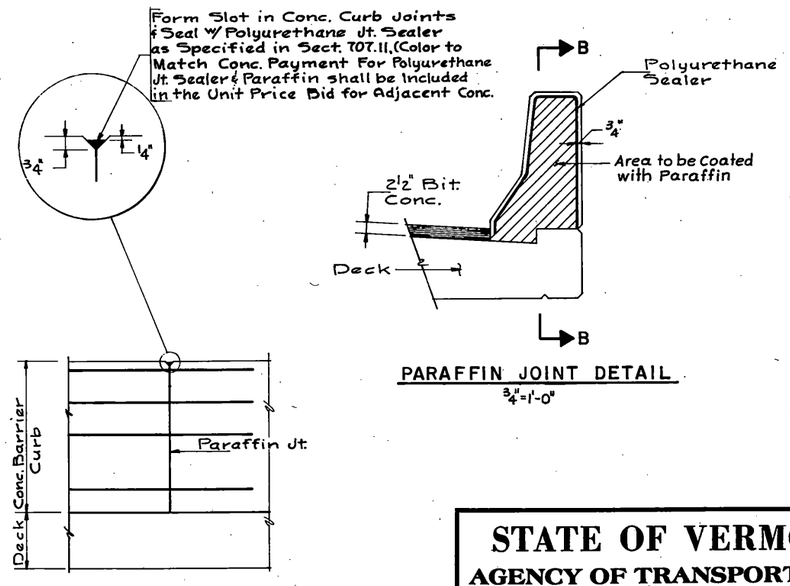
BR-6



DECK PLAN-SPANS 27 THRU 29
UNIT 6
1"=20'







NOTES:

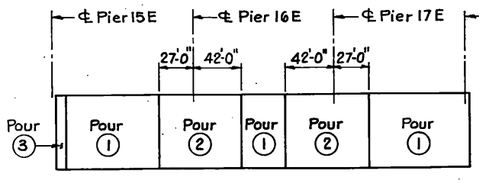
1. ✱ Curb Joint Spacing Along ℄ of Rail Posts.
2. ✱✱ Bridge Rail Post Spacing ℄ to ℄ Posts.

NOTES:

1. For Deck Slab Placements Notes, See Sheet SS77.
2. The Assembly Hardware Used To Fasten A Sign To The Post Shall Be Aluminum Or Stainless Steel Of The Standard Commercial Design Approved By The Engineer. The Contractor Shall Submit Shop Drawings To Be Approved By The Engineer.
3. Bracket Assembly And Anchor Bolts Shall Be Galvanized After Fabrication.
4. For Sign Locations See Sheet SS26.

TYPICAL CROSS SECTION
SPANS 14 THRU 26
⅜"=1'-0"

5. Cost of Bracket Assembly for the Sign Supports to be Included in Item 506.91, Structural Steel.



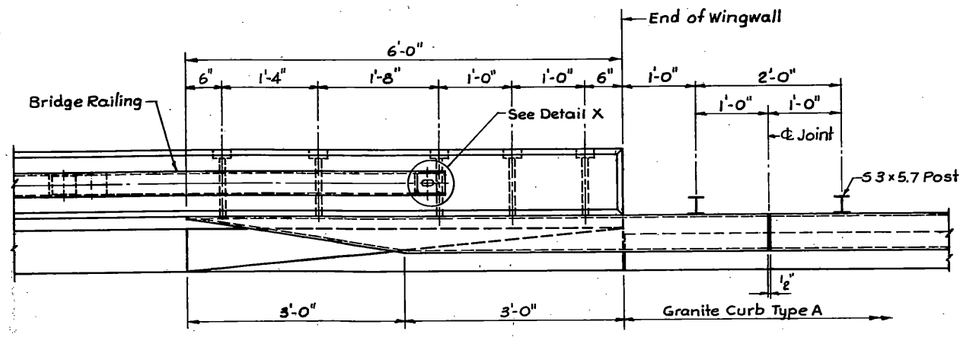
DECK SLAB PLACEMENT SEQUENCE
No Scale

STATE OF VERMONT
AGENCY OF TRANSPORTATION

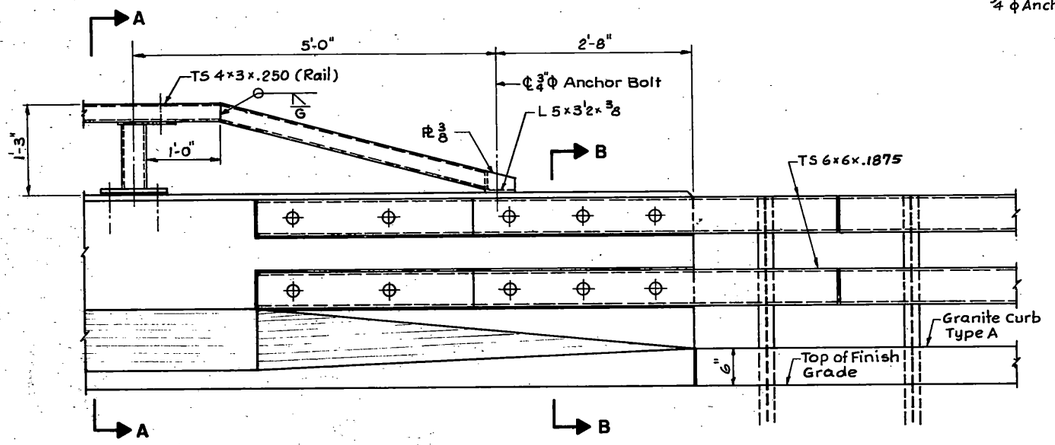
TOWN OF ROUSES POINT N.Y.-ALBURG V.T.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
DECK PLAN-UNIT 6 (STEEL ALTERNATE)	
Designed by J.S.J	Drawn by R.D.F.
Checked by B.J.B. date 10-4-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF028-1(11)
Bridge Sheet No. SS82	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BR-6



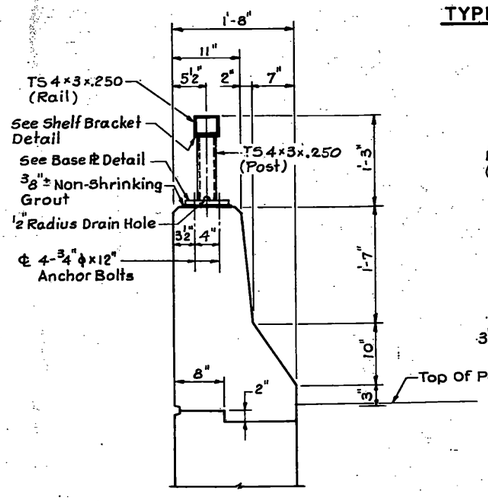
PLAN



ELEVATION

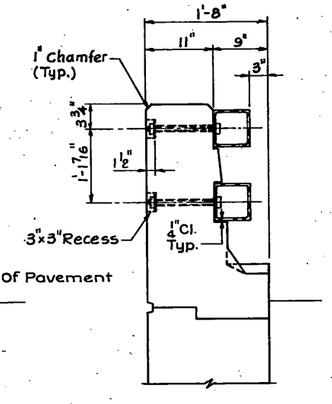
TYPICAL END DETAILS

Scale: 1"=1'-0"



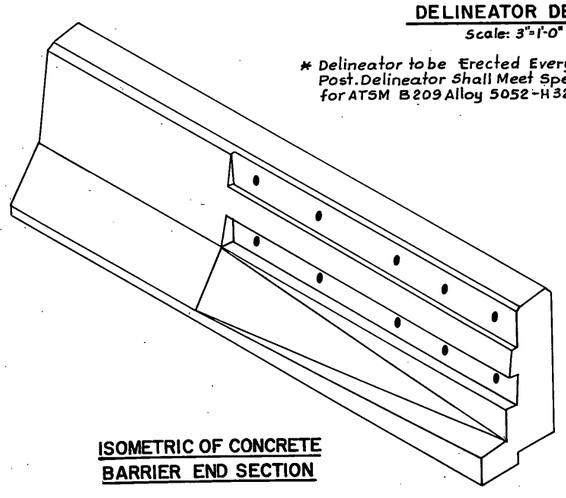
SECTION A-A

Scale: 1"=1'-0"

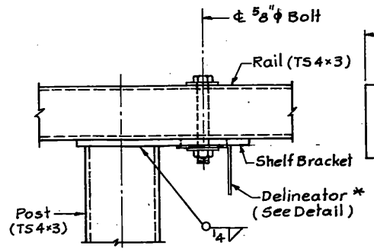


SECTION B-B

Scale: 1"=1'-0"

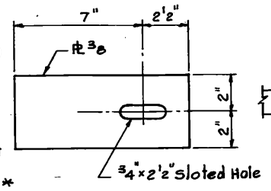


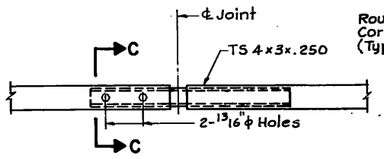
ISOMETRIC OF CONCRETE BARRIER END SECTION



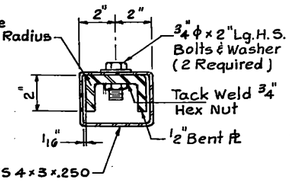
SHELF BRACKET DETAIL

Scale: 3"=1'-0"



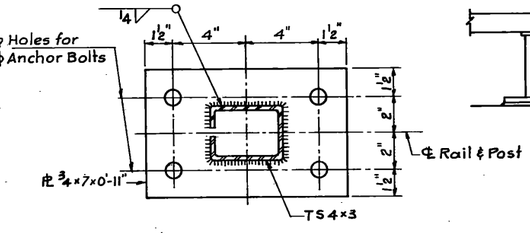


PLAN



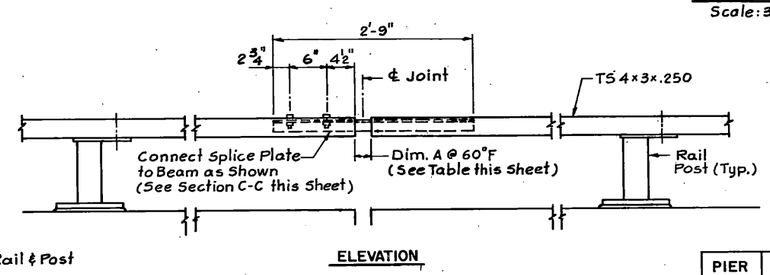
SECTION C-C

Scale: 3=1'-0"



BASE PLATE DETAIL

Scale: 3"=1'-0"



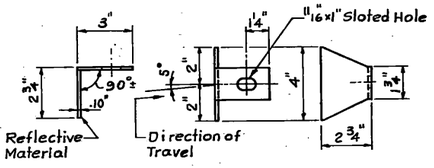
ELEVATION

RAILING EXPANSION JOINT

(At Bridge Expansion Joints)

Scale: 1"=1'-0"

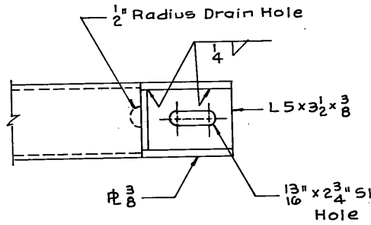
PIER	DIMENSION A
8W	5 3/4"
2W	5 1/4"
2E	5 7/8"
9E	6"
15E	5 3/8"



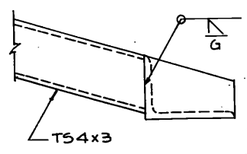
DELINEATOR DETAIL

Scale: 3"=1'-0"

* Delineator to be Erected Every 30 Feet or Closest Post. Delineator Shall Meet Specification Requirements for ATSM B209 Alloy 5052-H32.



PLAN



ELEVATION

DETAIL X

Scale: 1/2"=1'-0"

BRIDGE RAILING NOTES:

1. All Plates, Bars and Angels Shall be ASTM A-36 Steel. Unless Otherwise Specified, All Bolts Shall be ASTM A307. Structural Steel Tubing Shall be ASTM A500 Cold-Formed Grade B as Modified in Section 732.04 (a)
2. All Box Beam Bridge Railings, Components, Anchors Bolts and Attachment Hardware Shall be Galvanized to ASTM A123 After Fabrication.
3. The Rail System Shall be Continuous with Each Tube Section Attached to a Minimum of Two Posts. All Rail Joints Between Deck Expansion Joints Shall be Spliced. (For Typical Splice Detail Refer to Standard SB-R4A-82).
4. All Posts Shall be Set Normal to Grade. Nuts Placed in Concrete are to be Rotated Within 24 Hours After Concrete is Placed to Break Bond Between Nut and Concrete. Nuts Shall Then be Used to Align the Posts Both Horizontally and Vertically. After Final Position has Been Approved, All Voids Between the Base Plate and Concrete Surface Shall be Grouted With Non-Shrinking Grout Conforming to Section 707.04, Mortar Type IV.
5. Anchor Bolts Shall be Cast-in-Place and Conform to the Requirements of Section 714.16.
6. All Box Beam Railing in Spans 14-20 Shall be Horizontally Curved to the Following Radii:
   Top Fascia — R = 5,708.5' (Inside)
   Bottom Fascia — R = 5,751.5' (Outside)
7. Bridge Barrier-Concrete to be Placed in Alternate Sections With a Minimum of 48 Hours Between Pours.
8. Addition: The width of splice plates for pedestrian rail Shall be 3"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

BRIDGE RAILING DETAILS

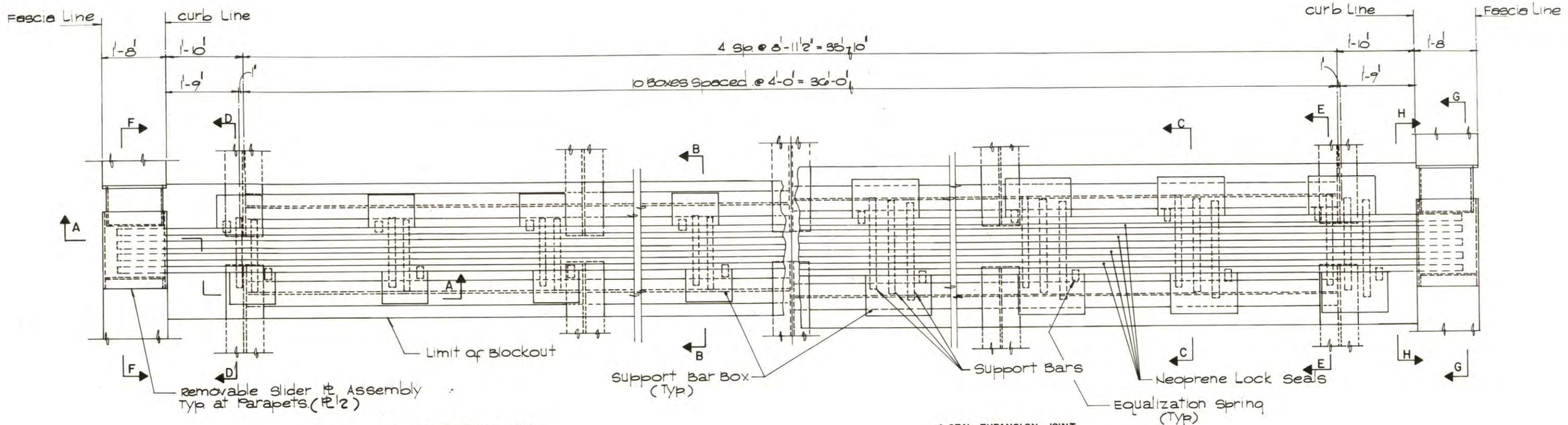
(STEEL ALTERNATE)

Designed by S.H.R.	Drawn by W.L.G.
Checked by S.M. date 10-9-84	Bridge Design Supervisor C.J.M./S.M. date 10-31-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS83	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-1316144.

BR-6

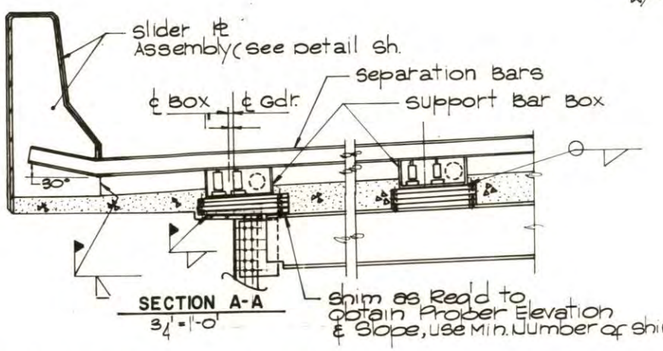


3 SEAL EXPANSION JOINT
(Pier 2W, & 15E)

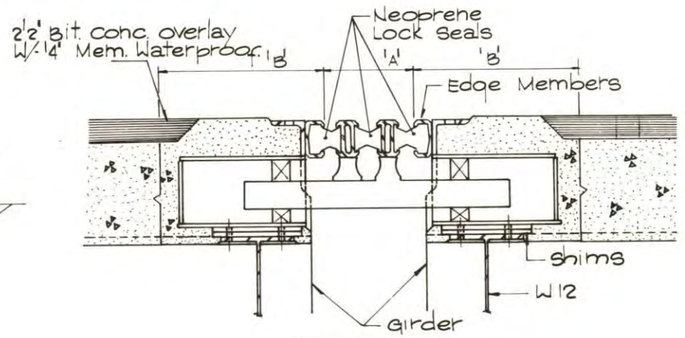
4 SEAL EXPANSION JOINT
(Pier 8W, 2E & 9E)

36+0
2+0
3+0
41+0

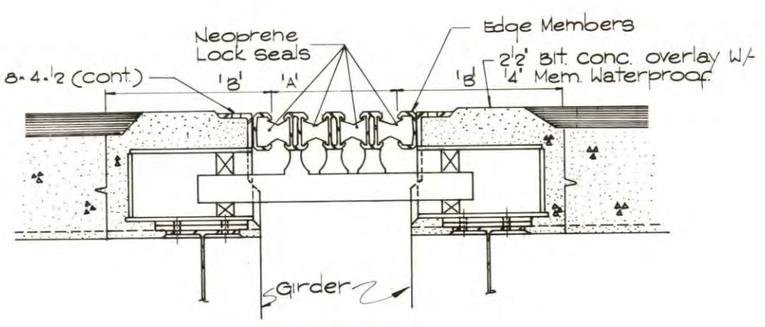
PLAN ROADWAY EXPANSION JOINT
3/4" = 1'-0"



SECTION A-A
3/4" = 1'-0"



SECTION B-B
1 1/2" = 1'-0"



SECTION C-C
1 1/2" = 1'-0"

NOTES:

1. The Expansion device shall be a Pre-fabricated Modular Assembly w/ Multiple Support Bars & Separator Bars as shown in the Plans.
2. The Joint System shall be For H.S. 25 (State of Vermont) Truck Loading & Impact of 30% & shall Accommodate the Movements Shown in the Plans.
3. Material Shall Conform to the Following: A. Extruded Steel Sections Shall Meet the Requirements of A.S.T.M. A-588. B. All other Steel Plates, bars, & Shapes Shall Conform to A.S.T.M. A36
4. The Manufacturer of the Expansion device System Shall Furnish Shop prawings, Which Will Include All Material, Specifications, & Dimensions of the Fabrication Joint Assembly. The Drawings Will Also Show Joint Setting Data.
5. ALL steel in the Modular expansion joints shall be Hot-Dip galvanized or metalized in accordance with subsection 731.06 of the General Special Provisions dated April 25, 1984.

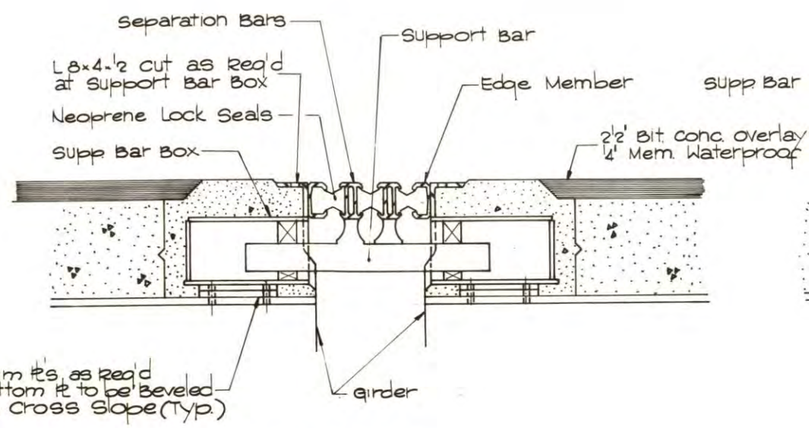
Pier	Dim A*	Dim B*
8W	1'-2"	1'-3"
2W	0 3/4"	1'-6"
2E	1'-2"	1'-3"
9E	1'-2"	1'-3"
15E	0 3/4"	1'-6"

* At 60°F

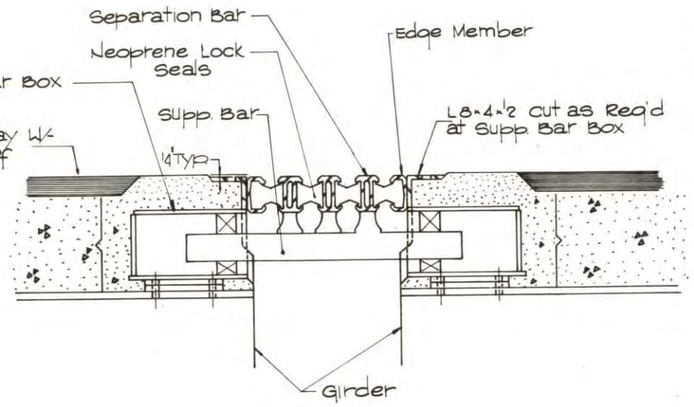
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y.- ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
ROADWAY EXPANSION DEVICES (STEEL ALTERNATE)	
Designed by S.M.	Drawn by WG.
Checked by S.H.R. date 11/5/84	Bridge Design Supervisor C.J.M./S.M. date 11/5/84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS84	Sheet of

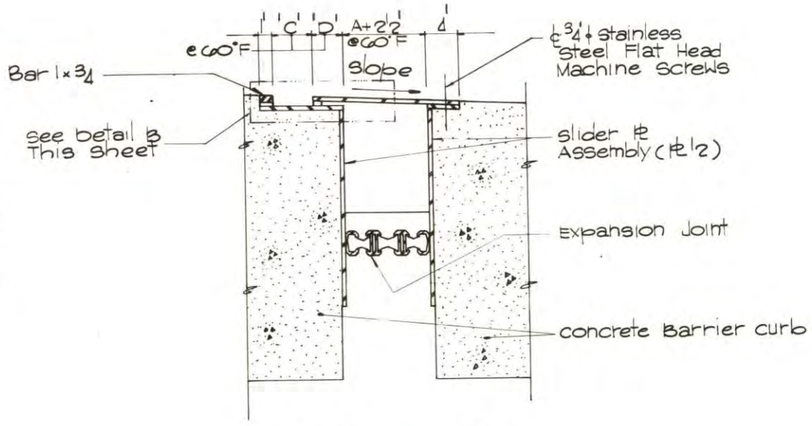
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF



SECTION D-D
1½"=1'-0"

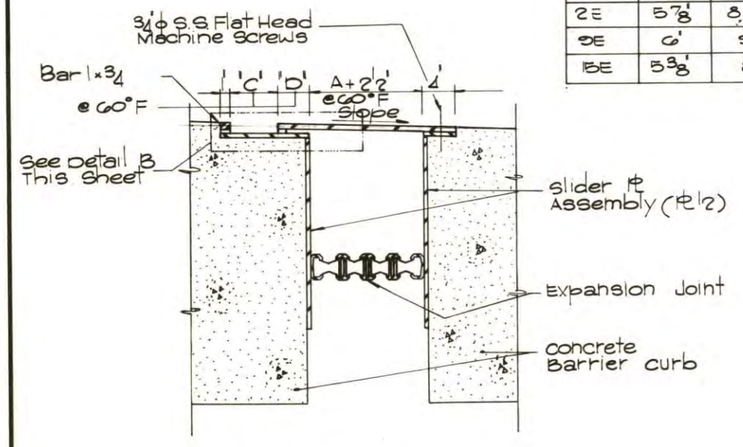


SECTION E-E
1½"=1'-0"

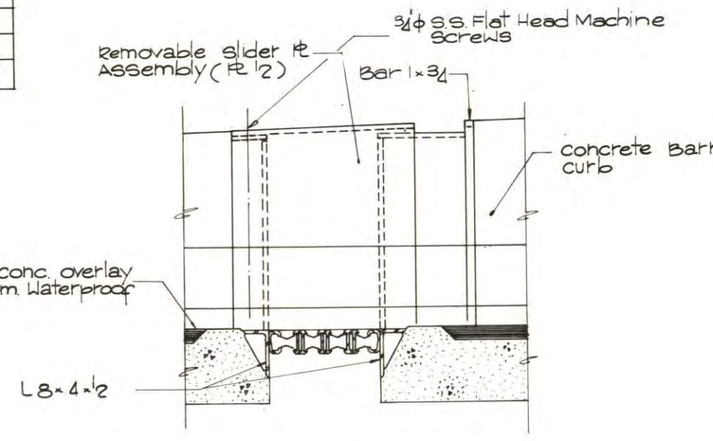


SECTION F-F
1½"=1'-0"

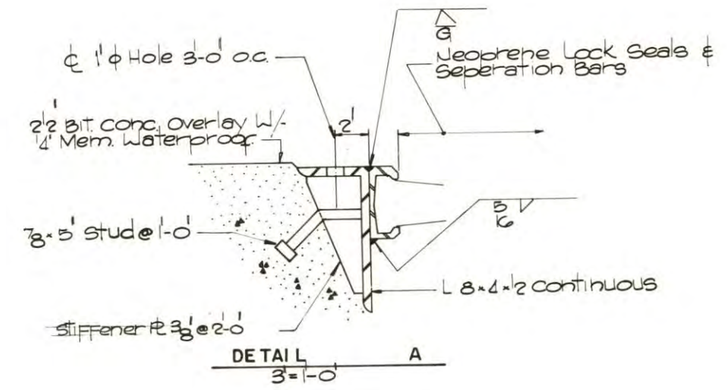
Pier	'C'	'D'	Slope
8W	5 3/4'	8 5/8'	+4.55%
2W	5 1/4'	7 3/4'	+2.34%
2E	5 7/8'	8 3/4'	-1.43%
9E	6'	9'	-3.23%
15E	5 3/8'	8'	-1.20%



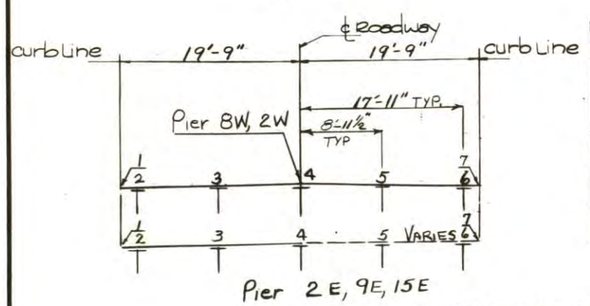
SECTION G-G
3¼"=1'-0"



SECTION H-H
3¼"=1'-0"



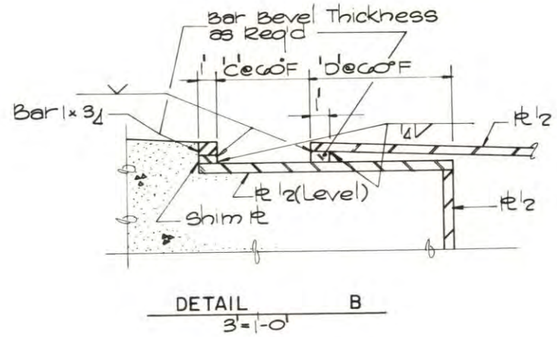
DETAIL A
3"=1'-0"



Pier 2E, 9E, 15E

Pier	1	2	3	4	5	6	7
8W	125.89	125.93	126.11	126.30	126.11	125.93	125.89
2W	160.01	160.05	160.23	160.42	160.23	160.05	160.01
2E	162.89	162.93	163.11	163.30	163.30	163.29	163.29
9E	131.43	131.47	131.65	131.84	132.03	132.21	132.25
15E	116.32	116.36	116.54	116.73	116.74	116.75	116.76

FINISHED GRADE ELEVATIONS @ ℄ OF ROADWAY EXPANSION JOINT



DETAIL B
3"=1'-0"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

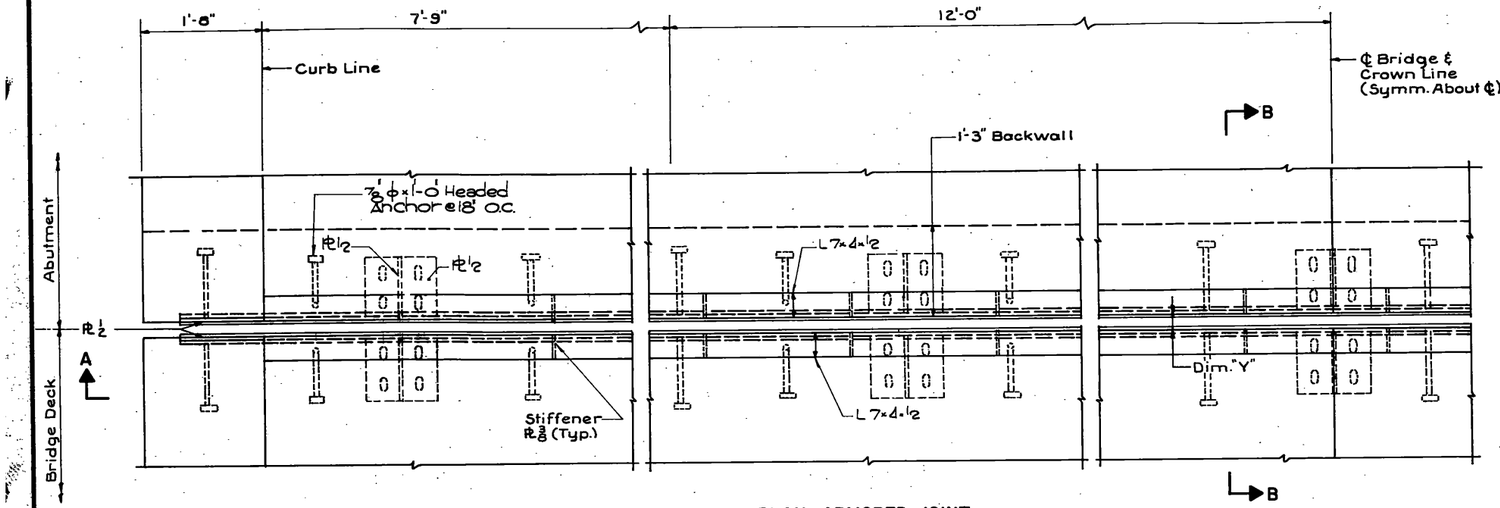
TOWN OF ROUSES POINT N.Y.– ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

ROADWAY EXPANSION DEVICE DETAILS
(STEEL ALTERNATE)

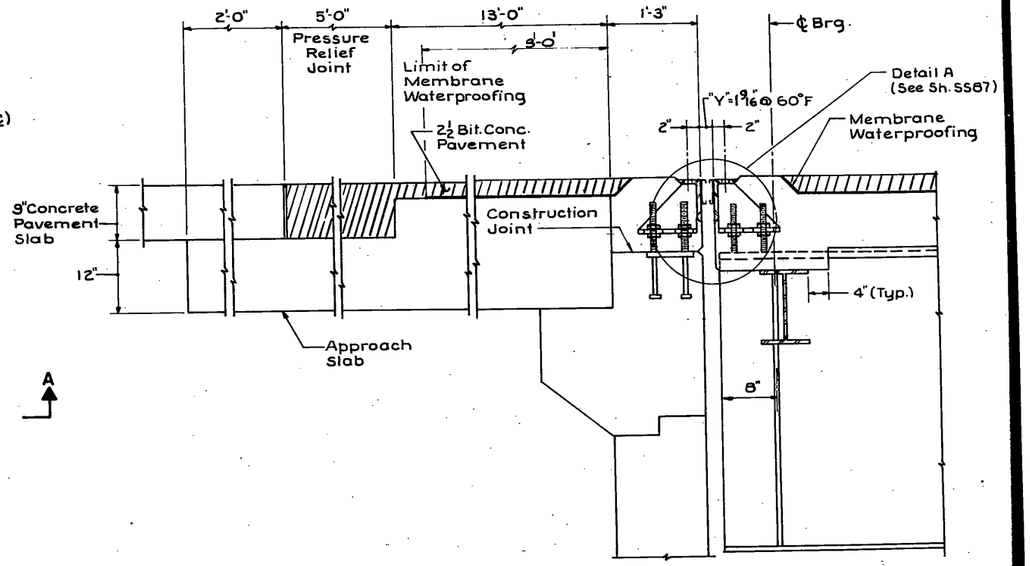
Designed by K.A.C	Drawn by W.G
Checked by, S.M. date 11/5/84	Bridge Design Supervisor C.J.M./S.M. date 11/5/84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS85	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

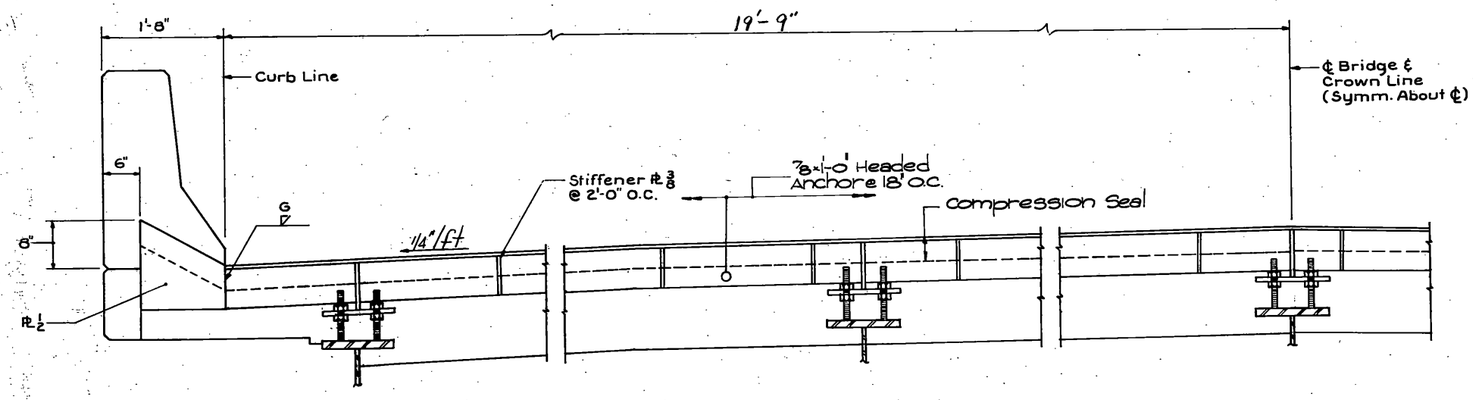
BR-6



PLAN – ARMORED JOINT
1" = 1'-0"



SECTION B-B
1" = 1'-0"



SECTION A-A
1" = 1'-0"

ALTERNATE "A"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. – ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

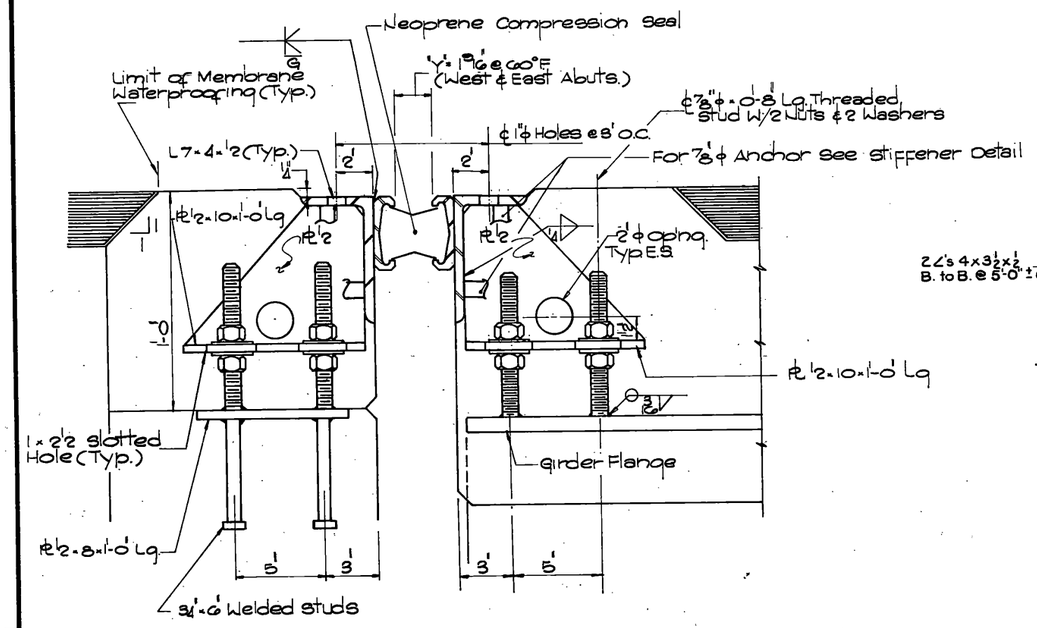
ROADWAY ARMORED JOINT – PLAN & SECTIONS
(STEEL ALTERNATE)

Designed by S.M.	Drawn by R.D.F.
Checked by S.H.R. date 11-14-84	Bridge Design Supervisor C.J.M./S.M. date 11-14-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS86	Sheet of

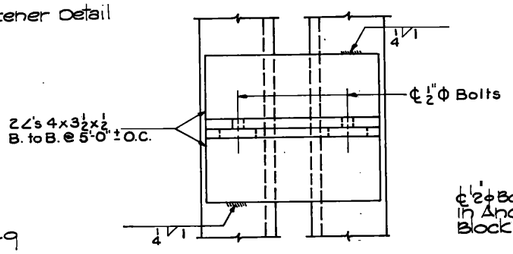
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-131 61144

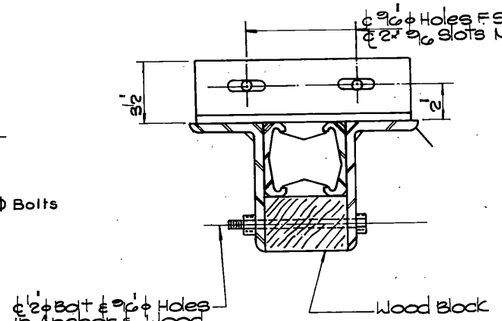
BR-6



DETAIL A
3"=1'-0"

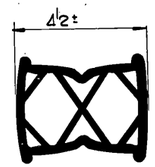


PLAN

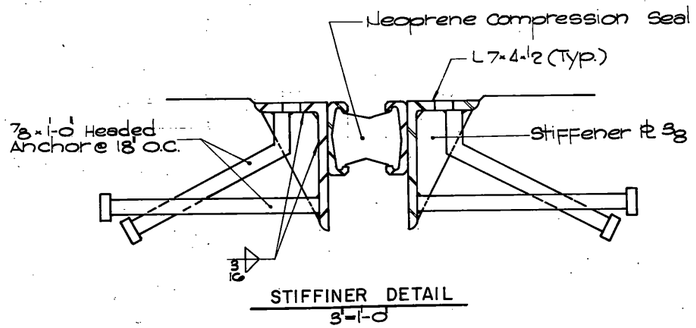


ELEVATION

SHIPPING DEVICE
3"=1'-0"



NEOPRENE COMPRESSION SEAL
No Scale



STIFFINER DETAIL
3"=1'-0"

NOTES:

1. For Armored Joint at abutments the Contractor may select either Alternate "A" or Alternate "B" joint details and shall submit shop drawings for approval by the Engineer.
2. All Armored Joint Assemblies must be properly fitted in the shop and shipped with the device for maintaining proper spacing and fit.
3. With Armored Joint in place, remove 1"ϕ Bolt and Wood Block before anchoring to Bridge
4. Armored Joint Assembly shall be secured to the Beams and/or Anchor Bolts when the ambient temperature is between 40°F and 80°F. No field adjustment of opening "Y" is permitted. Shipping Device must be removed after Armored Joint is securely bolted in place.
5. Grind Armored Joint surface to a smooth finish after removal of back to back angles.
6. All Steel components shall be A.S.T.M. A-36 Galvanized, or Metalized as per Section 731.06, unless otherwise noted.
7. Dimension 'Y' is set in the Shop by the Fabricator.
8. For Detail "A" Location, see Sheet SS86
9. All welds are 3/8" continuous fillets, except as noted.
10. A length of steel pipe may be substituted for the Wood Block Spacer.

ALTERNATE "A"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

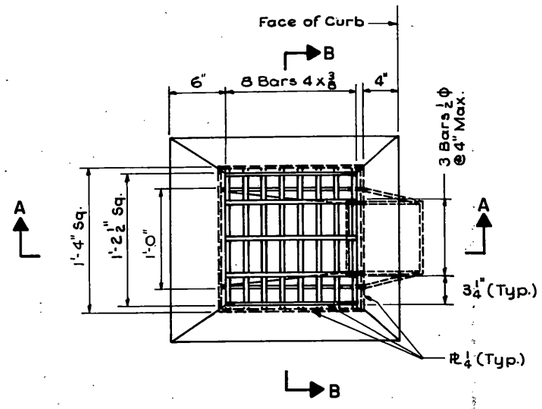
ROADWAY ARMORED JOINT - DETAILS
(STEEL ALTERNATE)

Designed by S.M.	Drawn by R.D.F.
Checked by S.H.R. date 11-14-84	Bridge Design Supervisor C.J.M./S.M. date 11-14-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS87	Sheet of

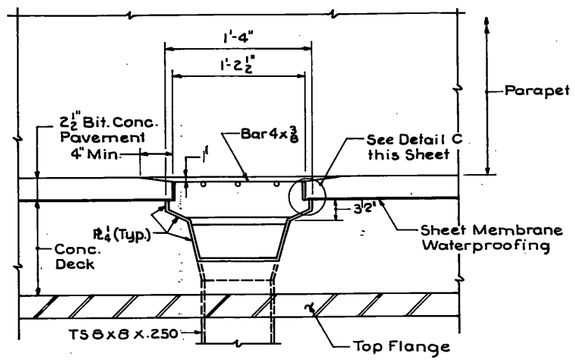
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-1316144

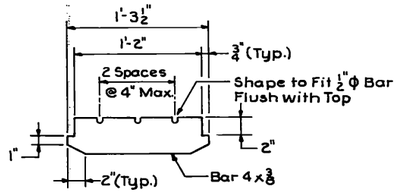
BR-6



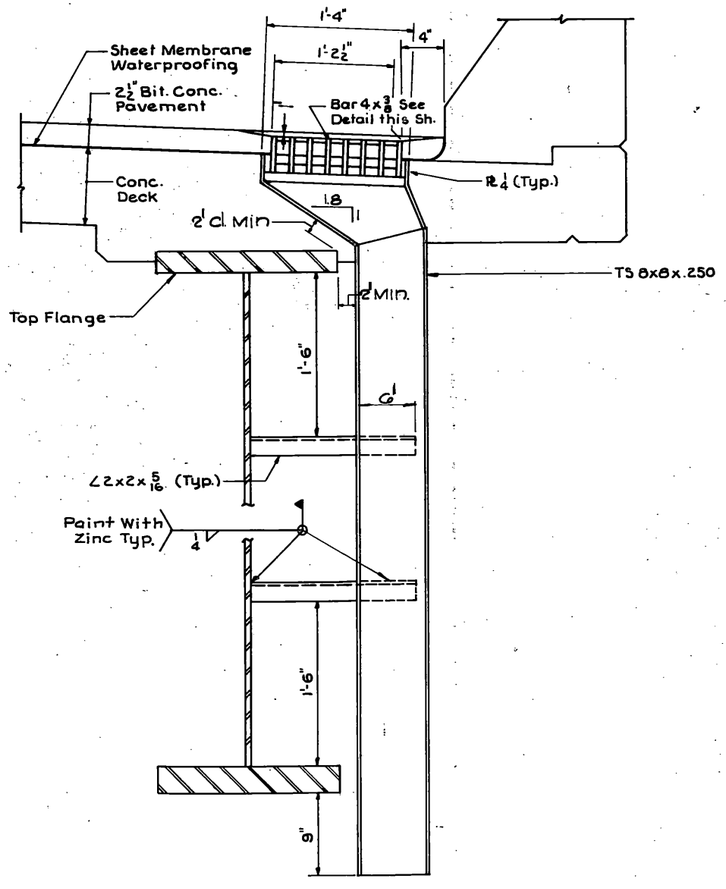
PLAN
1 1/2" = 1'-0"



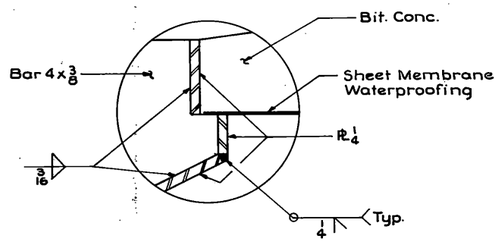
SECTION B-B
1 1/2" = 1'-0"



BAR DETAIL FOR GRATE
1 1/2" = 1'-0"



SECTION A-A
1 1/2" = 1'-0"



DETAIL C
No Scale

NOTES:

1. Hollow Structural Steel Tubing Shall Conform to ASTM A-500 or A501.
2. All Plates, Bars and Angles Shall Conform to ASTM A-36.
3. The Top Surface of Scupper Shall be Sloped to Match Roadway Slope and Grade.
4. The Bar and Grate Section May be Prefabricated Providing the Geometry and Section Properties are Equivalent to the Details Shown.
5. All Scuppers Shall be Galvanized in Accordance With ASTM A-123 After Fabrication.

d. For Scupper Location See Sheets SS25, SS26 & SS27

STATE OF VERMONT
AGENCY OF TRANSPORTATION

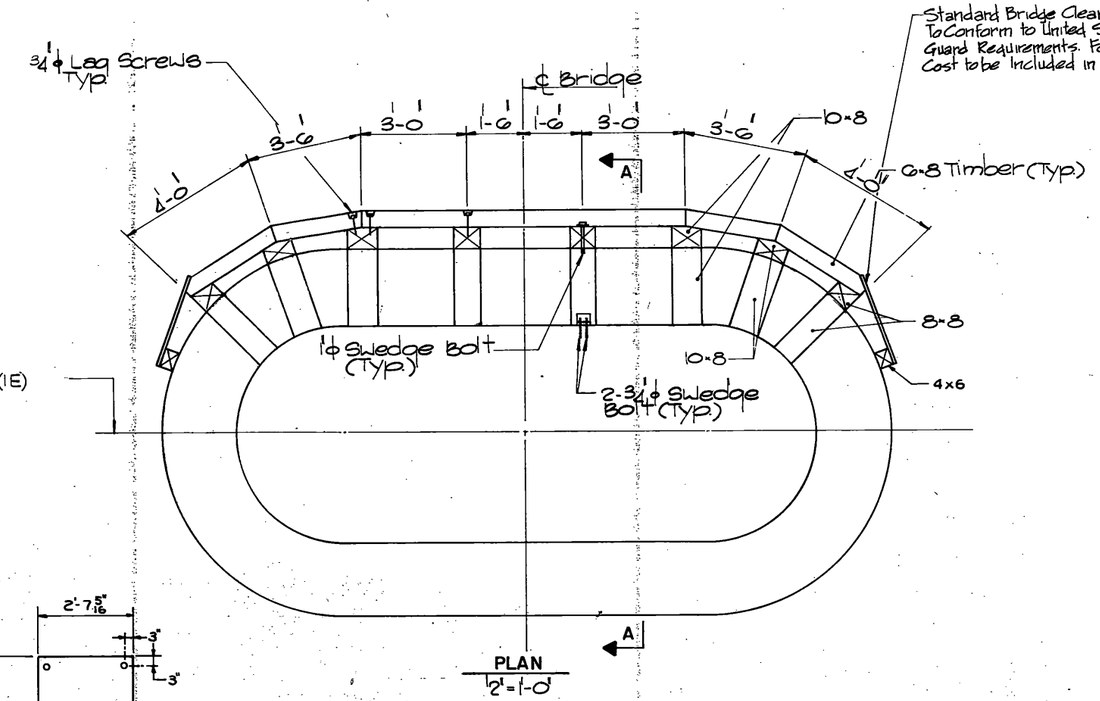
TOWN OF ROUSES POINT N.Y. – ALBURG VT.	Bridge No. 1
	Log Sta. 0+00
HIGHWAY NO. ROUTE 2	Surv. Sta.

SCUPPER DETAILS
(STEEL ALTERNATE)

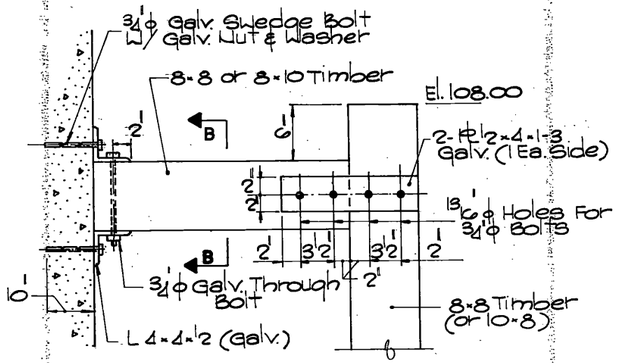
Designed by S.H.R	Drawn by R.D.F.
Checked by S.M. date	Bridge Design Supervisor C.J.M./S.M. date
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS88	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

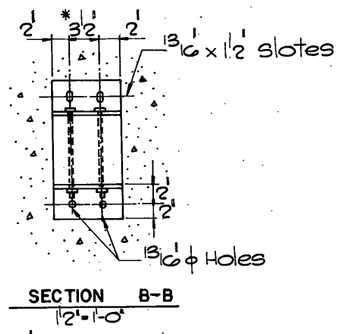
BRUNING 44-131 61144
BR-6



PLAN
1/2"=1'-0"

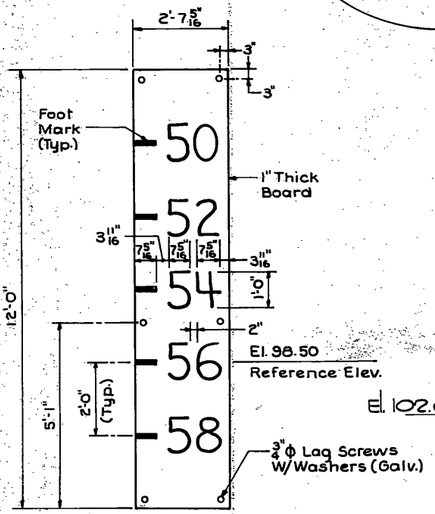


DETAIL A
1½"=1'-0"



SECTION B-B
1½"=1'-0"

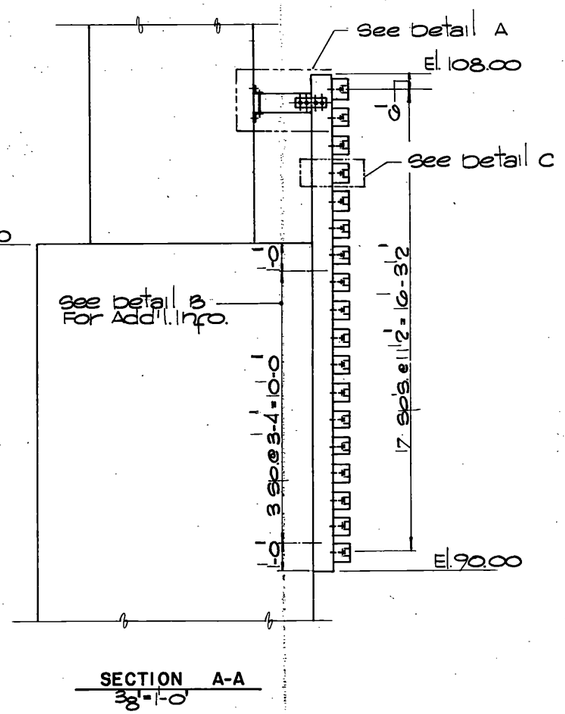
*5½" @ 10-8 Timber



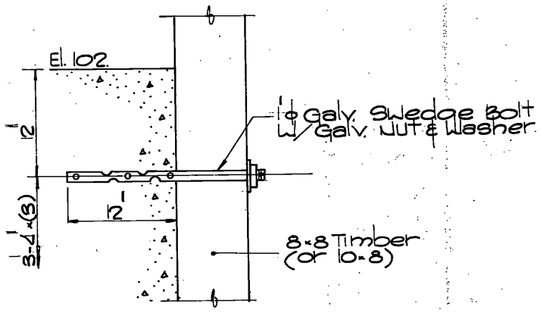
BRIDGE CLEARANCE GAGE
½"=1'-0"

NOTE:

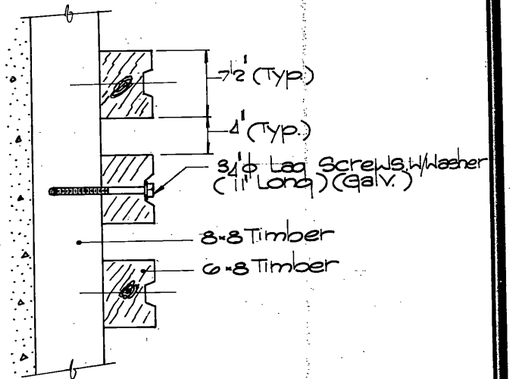
Size, type and spacing of Numerals shall conform to FHWA "Standard Alphabet For Highway Signs" Series C. Numerals to be black on a white background. Paint shall conform to the applicable requirements of Section 675, Traffic Signs.



SECTION A-A
3/8"=1'-0"



DETAIL B
1½"=1'-0"



DETAIL C
1½"=1'-0"

NOTES:

1. All Timber shall be Southern Pine & shall conform to the Specifications For Structural Timber, AASHTO M 168.
2. All Lumber shall be Treated W/a Preservative conforming to The Requirements of AASHTO-M 133. The Method of Treatment shall Conform to American-Wood-Preservers Association Standards C1, C2 & C3.
3. All Structural Steel Angles & Plates shall conform to the Requirements of ASTM Designation A36
4. Bolts, Screws, Nuts, & Washers Shall Conform to the Requirements of ASTM Designation A307 Grade A.
5. All Hardware shall be Zinc Coated (Galvanized) In Accordance W/ASTM Designation A153

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT VT.-ALBURG N.Y.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

PROTECTIVE FENDER - PIER 1W & 1E

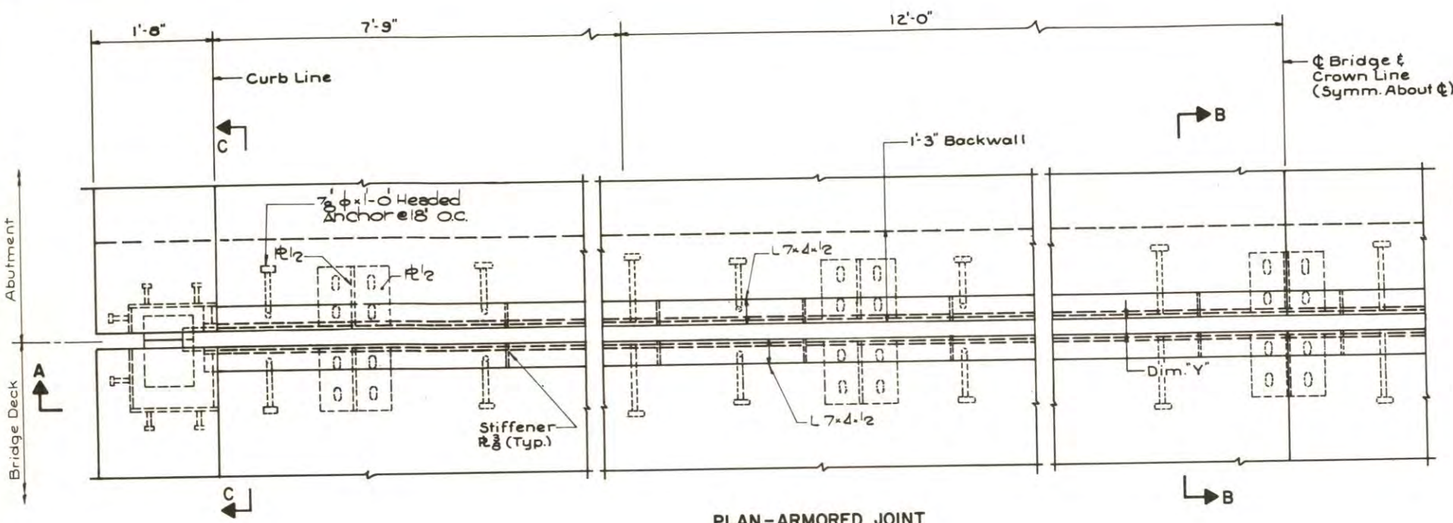
(STEEL ALTERNATE)

Designed by S. M.	Drawn by W.G.
Checked by KAC date 11/5/84	Bridge Design Supervisor C.J.M./S.M. date 11/10/84
PROJECT ROUSES PT. BRIDGE REPLACEMENT	PROJECT NO.
Bridge Sheet No. SS89	Sheet of

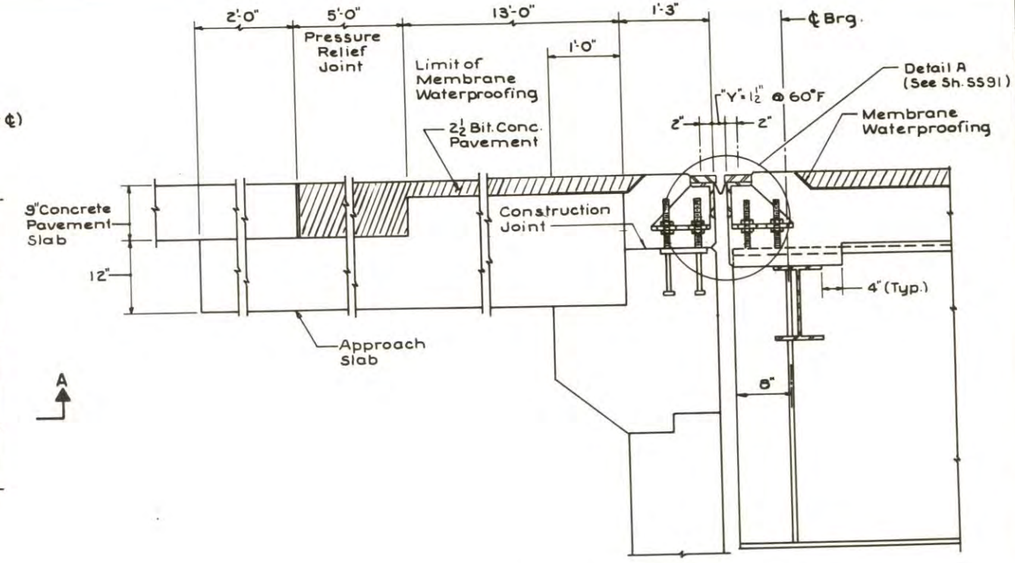
HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

BRUNING 44-1316144

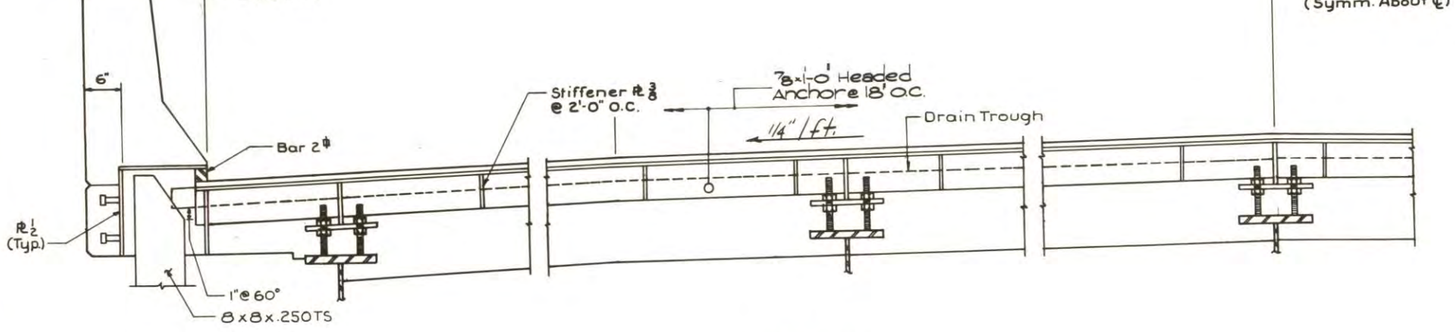
BR-6



PLAN - ARMORED JOINT
1" = 1'-0"



SECTION B-B
1" = 1'-0"



SECTION A-A
1" = 1'-0"

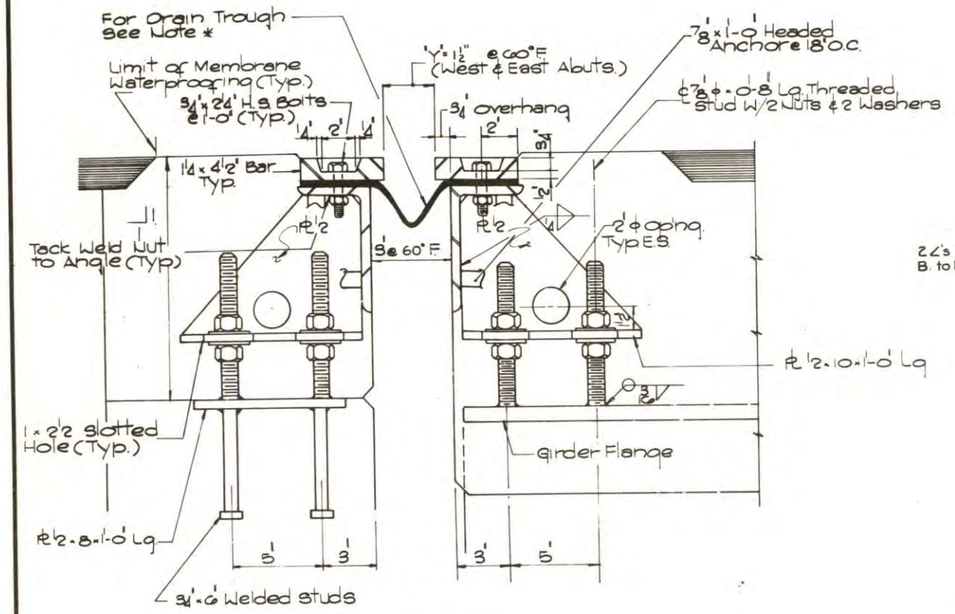
NOTE:
1. For Section C-C see Sheet 91.

ALTERNATE "B"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

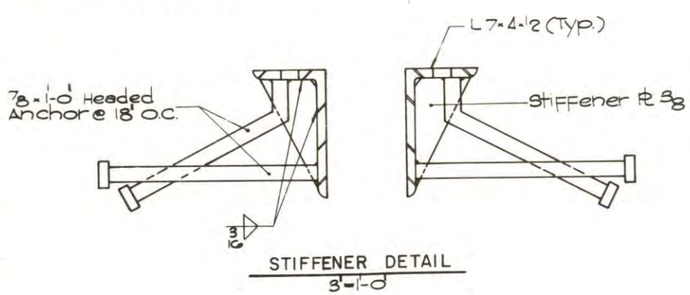
TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
ROADWAY ARMORED JOINT - PLAN & SECTIONS	
(STEEL ALTERNATE)	
Designed by S.H.R.	Drawn by R.D.F.
Checked by S.M. date 12-6-84	Bridge Design Supervisor C.J.M./S.M. date 12-6-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS90	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

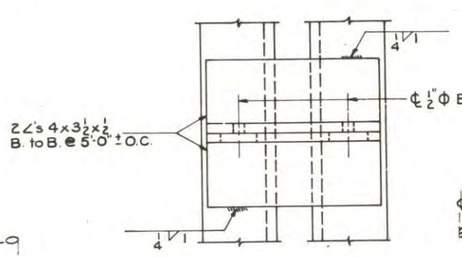


DETAIL A
3" = 1'-0"

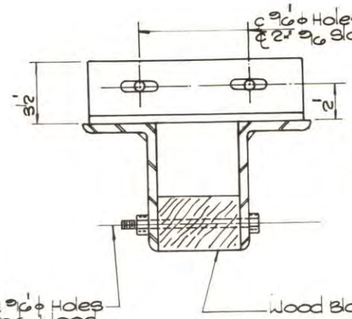
* 16" Wide, 2 Ply Polyester drain Trough 1/8" Min Thickness (See sect. 707.13) Place 12" x 3" butyl rubber tape centered on line of bolts. (Tape shall conform to Military Spec. Mil-C-18969A Type II)



STIFFENER DETAIL
3" = 1'-0"

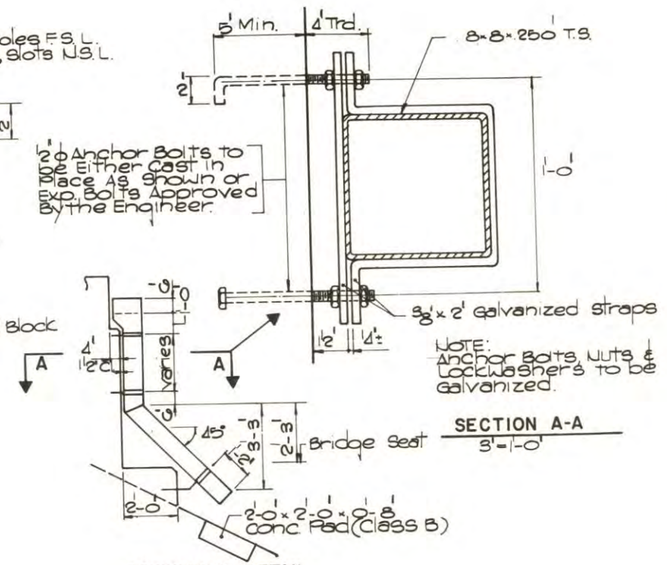


PLAN



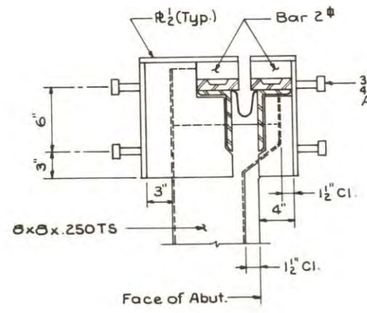
ELEVATION

SHIPPING DEVICE
3" = 1'-0"



SECTION A-A
3" = 1'-0"

DOWNSPOUT DETAIL
3/8" = 1'-0"



SECTION C-C
1 1/2" = 1'-0"

NOTES:

1. Shop drawings shall be submitted for Armored Joints.
2. All Armored Joint Assemblies must be properly fitted in the shop and shipped with the device for maintaining proper spacing and fit.
3. With Armored Joint in place, remove 1/2" ϕ Bolt and Wood Block before anchoring to Bridge
4. Armored Joint Assembly shall be secured to the Beams and/or Anchor Bolts when the ambient temperature is between 40°F and 80°F. No field adjustment of opening 'Y' is permitted. Shipping Device must be removed after Armored Joint is securely bolted in place.
5. Grind Armored Joint surface to a smooth finish after removal of back to back angles.
6. Dimension 'Y' is set in the Shop by the Fabricator.
7. All welds are 3/8" continous fillets, except as noted.
8. A length of steel pipe may be substituded for the wood block spacer.
9. For Detail A location see Sheet SS90.
10. All steel componets shall be ASTM A-36 galvanized, or metalized as per Section 731.06, unless otherwise noted.
11. Drip beads of 1/8" x 4" two-ply polyester material shall be cemented to the center of each end of the fabric trough with an adhesive approved by the manufacturer.
12. For 1/4" to 3/4" plates, use 1/4" fillet weld. For 3/4" to 1 1/2" plates, use 5/16" fillet weld. Groove welds shall be for 1/2" depth of plate. All plates shall be welded both sides.
13. The hoppers and downspouts shall be A-36 galvanized. Payment for hoppers and downspouts shall be the unit bid price bid per pound for structural steel.
14. For location of Section C-C see SS90.

ALTERNATE "B"

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.

ROADWAY ARMORED JOINT - DETAILS
(STEEL ALTERNATE)

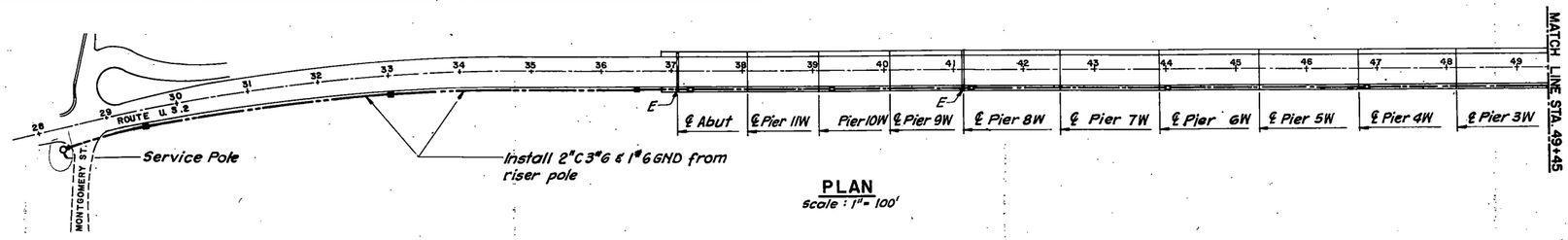
Designed by S.H.R.	Drawn by R.D.F.
Checked by S.M. date 12-6-84	Bridge Design Supervisor C.J.M./S.M. date 12-6-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS91	Sheet of

HNTB
HOWARD NEEDLES TAMMEN & BERGENDOFF

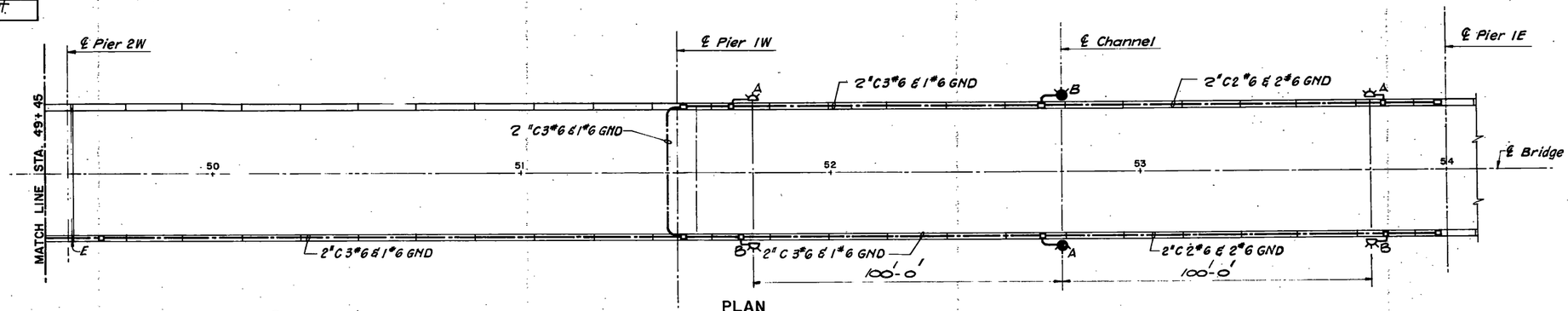
BRUNING 44-1316144

BR-6

Concrete Junction Box Locations	
Sta.	Offset
29+50	2.2' Lt.
33+00	2.2' Lt.
36+50	2.2' Lt.



PLAN
scale : 1" = 100'



PLAN
scale : 1" = 20'

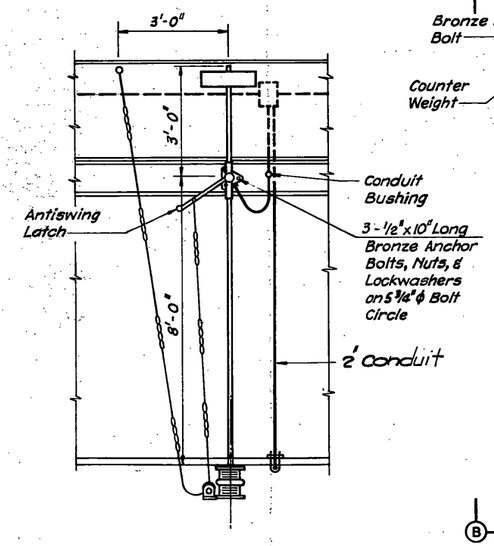
8'-8'-6" Cast Iron Box Locations		
Sta.	Barrier	
37+25	Right	——
39+25	,,	——
41+25	,,	——
44+05	,,	——
46+85	,,	——
49+65	,,	——
51+53	,,	Left
51+68	,,	,,
52+68	,,	,,
53+80	,,	,,
53+96	Right	Left

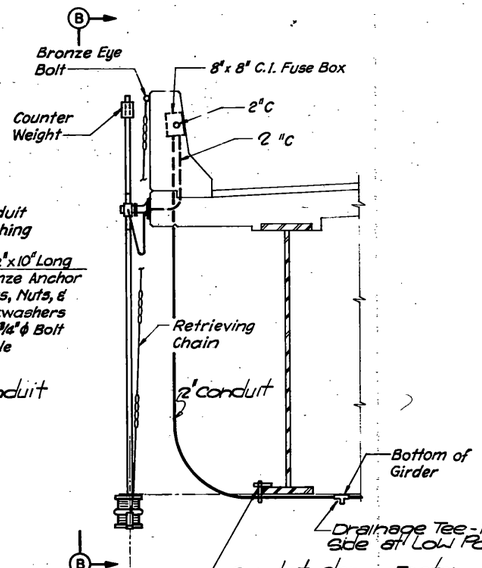
LEGEND

- Concrete Junction Box
- 8"x8"x6" Cast Iron Box
- 2" Underground Conduit
- 2" Conduit in Structure
- E — Conduit Expansion Coupling
- 360° Green - Channel Center Navigation Light (Typ.) - Equal to B&B Electromatic Cat. #M5C-301-LK-CW-A-G360
- 180° Red - Channel Margin Navigation Light (Typ.) - Equal to B&B Electromatic Cat. #M5C-301-LK-CW-A-R180
- A or B — Phase Connection

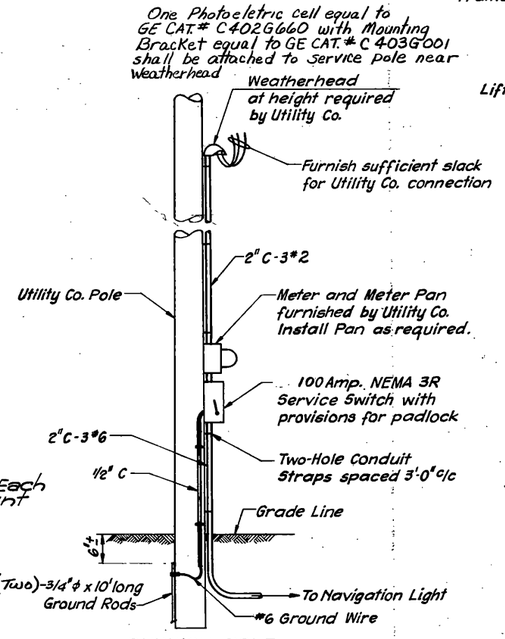
NOTES

1. Bottom of Electrical Junction Box shall be sloped to drain.
2. All reinforcing steel shall have a minimum 1½" Concrete cover.
3. The cover shall have a non-skid surface.
4. The Electrical Junction Box may be precast or cast in place.
5. All conduits in the concrete barrier wall and conduit placed underground shall be P.V.C. conduit.
6. All exposed conduits shall be rigid steel conduit.
7. The Contractor may submit for approval to the Engineer an alternate scheme for attaching the conduit to the superstructure.
8. All work shall be done in accordance with the National Electrical Code.

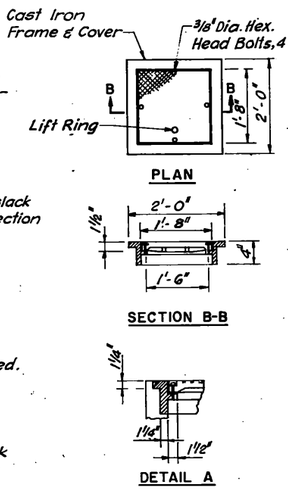




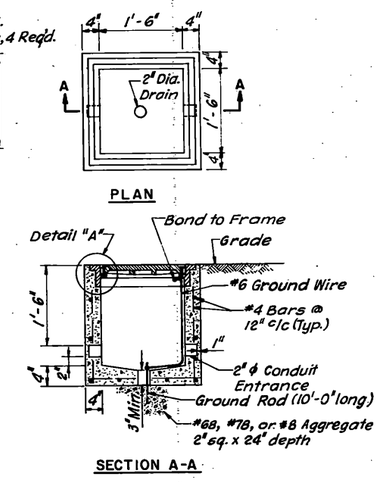
NAVIGATION LIGHT DETAIL
Scale : 1½" = 1'-0"



SERVICE POLE
N. T. S.



FRAME & COVER DETAIL



CONCRETE JUNCTION BOX DETAIL
N. T. S.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y.— ALBURG V.T.	Bridge No. 1
HIGHWAY NO. ROUTE 2	Log Sta. 0+00
	Surv. Sta.
NAVIGATIONAL LIGHTS (STEEL ALTERNATE)	
Designed by P.P.	Drawn by R.D.F.
Checked by P.P. date 11-14-84	Bridge Design Supervisor C.J.M./S.M. date 11-21-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
Bridge Sheet No. SS92	Sheet of

HNTB

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	SUPERSTRUCTURE														
1	UNIT	1													
2	18	5	22-4	S507	STR										
3	234	5	21-0	S508	STR										
4	*109	5	21-6	S509	STR										
5	*19	5	18-11	S510	STR										
6	248	5	39-9	S511	STR										
7	370	5	59-8	S512	STR										
8	496	5	25-4	S513	STR										
9	185	5	43-8	S514	STR										
10	248	5	39-4	S515	STR										
11	692	5	7-0	S577	T1	0-6	2-4	0-9	2-5	0-6	0-6				
12	692	5	6-9	S578	T7	0-6	0-8	0-10	1-1	1-3	0-6	F=1-11			
13	*1385	6	42-6	S603	STR										
14															
15															
16															
17	UNIT	2													
18	594	5	21-0	S530	STR										
19	162	5	22-0	S531	STR										
20	*19	5	15-5	S532	STR										
21	744	5	37-2	S533	STR										
22	925	5	38-4	S534	STR										
23	992	5	38-2	S535	STR										
24	*19	5	20-3	S536	STR										
25	925	5	33-4	S537	STR										
26	1442	5	7-0	S577	T1	0-6	2-4	0-9	2-5	0-6	0-6				
27	1442	5	6-9	S578	T7	0-6	0-8	0-10	1-1	1-3	0-6	F=1-11			
28	*2885	6	42-6	S603	STR										
29															
30															
31															
32	UNIT	3													
33	*19	5	16-1	S540	STR										
34	576	5	21-0	S541	STR										
35	992	5	35-2	S542	STR										
36	992	5	33-11	S543	STR										
37	496	5	31-7	S544	STR										
38	*19	5	18-6	S545	STR										
39	122	5	49-8	S546	STR										
40	122	5	39-0	S547	STR										
41	1100	5	7-0	S577	T1	0-6	2-4	0-9	2-5	0-6	0-6				
42	1100	5	6-9	S578	T7	0-6	0-8	0-10	1-1	1-3	0-6	F=1-11			
43	*2199	6	42-6	S603	STR										
44															
45															
46															
47	UNIT	4													
48	9	5	18-2	S550	STR										
49	828	5	21-0	S551	STR										
50	72	5	20-6	S552	STR										
51	*10	5	15-2	S553	STR										
52	372	5	37-2	S554	STR										
53	1110	5	33-10	S555	STR										
54	2350	5	37-10	S556	STR										
55	372	5	37-2	S557	STR										
56	*10	5	15-5	S558	STR										
57	9	5	20-2	S559	STR										
58	1687	5	7-0	S577	T1	0-6	2-4	0-9	2-5	0-6	0-6				
59	1687	5	6-9	S578	T7	0-6	0-8	0-10	1-1	1-3	0-6	F=1-11			
60	*3355	6	42-6	S603	STR										
61															
62															
63															
64	UNIT	5													
65	372	5	37-2	S554	STR										
66	925	5	33-10	S555	STR										
67	1917	5	37-10	S556	STR										
68	372	5	37-2	S557	STR										
69	*10	5	20-7	S560	STR										
70	9	5	20-4	S561	STR										
71	693	5	21-0	S562	STR										
72	36	5	21-6	S563	STR										
73	*37	5	19-0	S564	STR										
74	9	5	19-1	S565	STR										
75	9	5	15-10	S566	STR										
76	1446	5	7-0	S577	T1	0-6	2-4	0-9	2-5	0-6	0-6				
77	1446	5	6-9	S578	T7	0-6	0-8	0-10	1-1	1-3	0-6	F=1-11			
78	*2883	6	42-6	S603	STR										
79															
80															

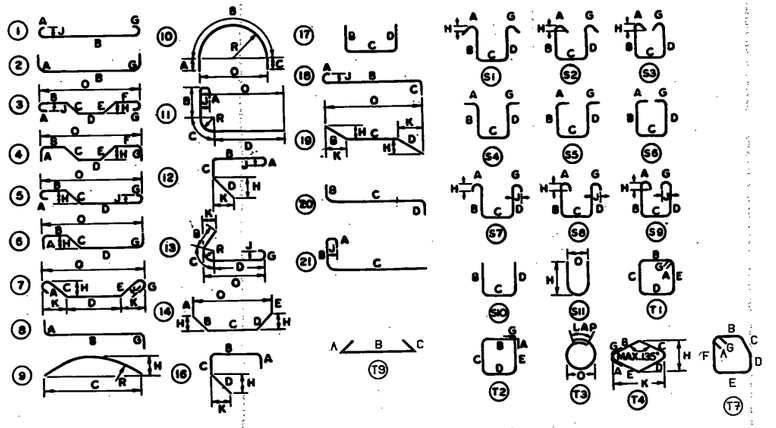
ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	UNIT	6													
81	372	5	30-10	S570	STR										
82	740	5	35-4	S571	STR										
83	124	5	33-4	S572	STR										
84	372	5	31-1	S573	STR										
85	*10	5	19-9	S574	STR										
86	288	5	21-0	S575	STR										
87	9	5	20-1	S576	STR										
88	588	5	7-0	S577	T1	0-6	2-4	0-9	2-5	0-6	0-6				
89	588	5	6-9	S578	T7	0-6	0-8	0-10	1-1	1-3	0-6	F=1-11			
90	*10	5	19-2	S579	STR										
91	9	5	19-7	S580	STR										
92	*1173	6	42-6	S603	STR										
93															
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ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
161															
162															
163															
164															
165															
166															
167															
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179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES. (TWO SAMPLES PER BAR).

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY JSJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS93	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	WEST	ABUTMENT													
1	30	5	7-6	W501	STR										
2	24	5	8-6	W502	STR										
3	78	5	4-0	W503	STR										
4	40	5	5-1	W504	2	0-10	4-3								
5	46	5	6-9	W505	STR										
6	40	5	10-4	W506	STR										
7	44	5	5-7	W507	17		2-8	2-11							
8	40	5	4-10	W508	STR										
9	40	5	7-0	W509	21		0-11	5-3					0-10		
10	32	5	7-3	W510	STR										
11	30	5	24-9	W511	17		22-3	2-6							
12	30	5	25-3	W512	17		22-9	2-6							
13	12	5	11-4	W513	STR										
14	26	5	5-7	W514	16		2-6	0-7	2-6			0-3			
15	6	5	5-7	W515	17		2-6	0-7	2-6						
16	10	5	5-2	W516	16		1-11	0-9	2-6			1-9			
17	10	5	5-4	W517	16		1-11	0-11	2-6			1-9			
18	20	5	5-7	W518	16		1-11	1-2	2-6			1-9			
19	42	5	14-11	W519	STR										
20	32	5	16-11	W520	STR										
21	40	5	5-2	W521	17		4-4	0-10							
22															
23	32	5	9-0	W523	STR										
24	3	5	8-6	W524	STR										
25	32	5	8-0	W525	STR										
26	10	5	7-8	W526	19		2-0	5-8				1-2	K=1-7		
27	6	5	6-11	W527	20		1-4	5-7							
28	16	5	7-7	W528	19		2-0	5-7							
29	5	5	2-0	W529	STR										
30															
31	40	6	19-6	W601	STR										
32	30	6	7-6	W602	STR										
33	24	6	8-6	W603	STR										
34	18	6	24-7	W604	STR										
35	18	6	24-2	W605	STR										
36	32	6	7-3	W607	2	1-0	6-3								
37	79	6	5-6	W608	19		1-9	3-9							
38															
39															
40															
41	WEST	APPROACH	SLAB												
42	28	5	39-2	ASW501	STR										
43	79	7	13-10	ASW701	17		1-2	12-8							
44	79	7	9-6	ASW702	STR										
45	79	7	19-8	ASW703	STR										
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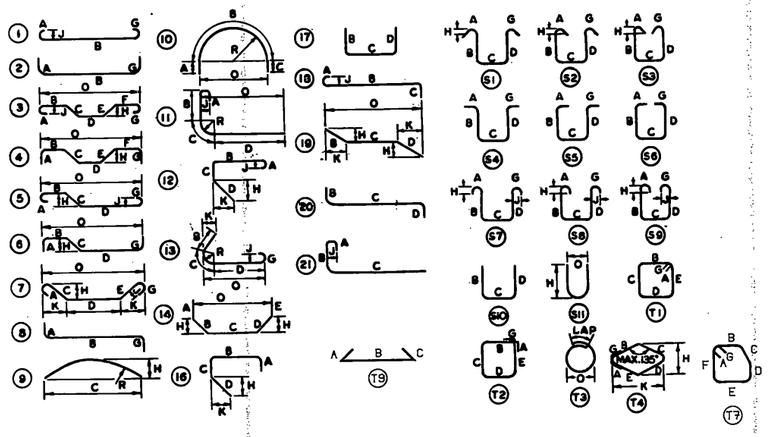
ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	EAST	ABUTMENT													
81	30	5	7-6	E501	STR										
82	24	5	8-6	E502	STR										
83	78	5	4-0	E503	STR										
84	40	5	5-1	E504	2	0-10	4-3								
85	46	5	7-6	E505	STR										
86	40	5	10-6	E506	STR										
87	44	5	5-5	E507	17		2-6	2-11							
88	40	5	4-10	E508	STR										
89	40	5	7-4	E509	21		0-11	5-7					0-10		
90	32	5	7-9	E510	STR										
91	32	5	24-9	E511	17		22-3	2-6							
92	32	5	25-3	E512	17		22-9	2-6							
93	12	5	11-4	E513	STR										
94	20	5	5-7	E514	16		2-6	0-7	2-6			0-3			
95	12	5	5-7	E515	17		2-6	0-7	2-6						
96	10	5	5-2	E516	16		1-11	0-9	2-6			1-9			
97	10	5	5-4	E517	16		1-11	0-11	2-6			1-9			
98	21	5	5-7	E518	16		1-11	1-2	2-6			1-9			
99	42	5	14-11	E519	STR										
100	32	5	16-11	E520	STR										
101	40	5	5-4	E521	17		4-6	0-10							
102															
103	32	5	9-8	E523	STR										
104	3	5	8-8	E524	STR										
105	32	5	8-2	E525	STR										
106	20	5	8-0	E526	19		6-0	2-0							
107	12	5	7-2	E527	2	5-10	1-4								
108	18	5	24-6	E528	STR										
109	18	5	24-1	E529	STR										
110	5	5	2-0	E530	STR										
111															
112	40	6	19-6	E601	STR										
113	30	6	7-6	E602	STR										
114	24	6	8-6	E603	STR										
115	32	6	7-3	E607	2	1-0	6-3								
116	79	6	5-6	E608	19		1-9	3-9							
117															
118															
119															
120	EAST	APPROACH	SLAB												
121	28	5	39-2	ASE501	STR										
122	79	7	13-10	ASE701	17		1-2	12-8							
123	79	7	9-6	ASE702	STR										
124	79	7	19-8	ASE703	STR										
125															
126															
127															
128															
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ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
161															
162															
163															
164															
165															
166															
167															
168															
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ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

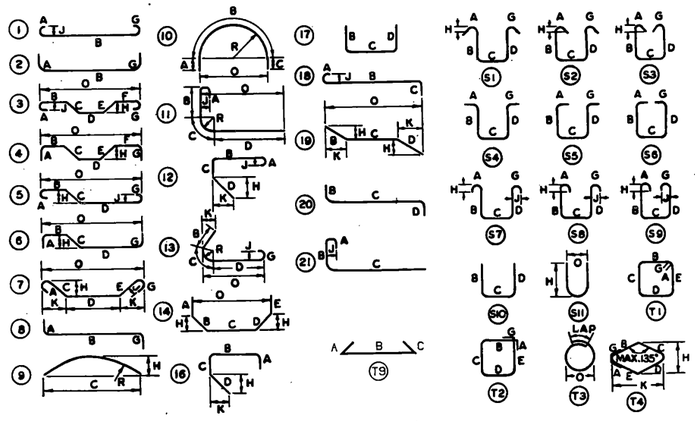
DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY JSJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS94	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER	11W													
1	CAP														
2	9	11	44-10	11W1101	2	2-2	40-6				2-2				
3	*8	11	43-10	11W1102	2	2-2	39-6				2-2				
4	12	6	19-0	11W627	6			2-2	13-0		3-10	0-8¼			
5	2	6	16-0	11W628	STR										
6	2	6	22-0	11W629	STR										
7	2	6	28-0	11W630	STR										
8	2	6	34-0	11W631	STR										
9	2	6	40-0	11W632	STR										
10	2	6	40-5	11W633	STR										
11	2	6	40-5	11W634	STR										
12	2	6	40-5	11W635	STR										
13	14	6	7-8½	11W636	17		2-2	3-4½	2-2						
14	11	6	9-10	11W601	17		3-2	3-6	3-2						
15	11	6	17-6	11W602	17		7-0	3-6	7-0						
16	44	6	7-9¾	11W603	17		3-2	1-5¾	3-2						
17	22	6	8-2½	11W604	17		3-2	1-10½	3-2						
18	4	6	15-1¾	11W605	17		6-10	1-5¾	6-10						
19	4	6	14-5¾	11W606	17		6-6	1-5¾	6-6						
20	4	6	13-7¾	11W607	17		6-1	1-5¾	6-1						
21	4	6	12-11¾	11W608	17		5-9	1-5¾	5-9						
22	4	6	12-1¾	11W609	17		5-4	1-5¾	5-4						
23	4	6	11-5¾	11W610	17		5-0	1-5¾	5-0						
24	4	6	10-7¾	11W611	17		4-7	1-5¾	4-7						
25	4	6	9-9¾	11W612	17		4-2	1-5¾	4-2						
26	4	6	9-1¾	11W613	17		3-10	1-5¾	3-10						
27	4	6	8-3¾	11W614	17		3-5	1-5¾	3-5						
28	4	6	7-7¾	11W615	17		3-1	1-5¾	3-1						
29	2	6	15-6½	11W616	17		6-10	1-10½	6-10						
30	2	6	14-10½	11W617	17		6-6	1-10½	6-6						
31	2	6	14-0½	11W618	17		6-1	1-10½	6-1						
32	2	6	13-4½	11W619	17		5-9	1-10½	5-9						
33	2	6	12-6½	11W620	17		5-4	1-10½	5-4						
34	2	6	11-10½	11W621	17		5-0	1-10½	5-0						
35	2	6	11-0½	11W622	17		4-7	1-10½	4-7						
36	2	6	10-2½	11W623	17		4-2	1-10½	4-2						
37	2	6	9-6½	11W624	17		3-10	1-10½	3-10						
38	2	6	8-8½	11W625	17		3-5	1-10½	3-5						
39	2	6	8-0½	11W626	17		3-1	1-10½	3-1						
40	8	6	12-0	11W643	2	2-1	9-11								
41	4	6	12-8	11W644	17		2-1	8-6	2-1						
42	27	5	7-8	11W501	17		2-1	3-6	2-1						
43															
44	SHAFT														
45	*59	10	17-4	11W1001	2	1-10	15-6								
46	352	6	5-3	11W637	T9	0-10¾	3-5½	0-10¾							
47	64	6	19-4	11W638	10	7-0½	5-3	7-0½						1-8	3-4
48	128	6	9-7½	11W639	T9	0-10¾	8-8¾								
49	64	6	5-2	11W640	T9	0-10¾	3-4½	0-10¾							
50	64	6	4-0	11W641	T9	0-10¾	2-2½	0-10¾							
51	128	6	8-11½	11W642	T9	0-10¾	8-0¾								
52															
53	FOOTING														
54	*43	10	20-6	11W1002	STR										
55	66	8	20-6	11W801	STR										
56	16	8	4-6	11W802	2	1-4	3-2								
57															
58															
59															
60															
61															
62															
63	PIER	10W													
64	CAP														
65	9	11	44-10	10W1101	2	2-2	40-6				2-2				
66	5	11	43-10	10W1102	2	2-2	39-6				2-2				
67	11	6	9-10	10W601	17		3-2	3-6	3-2						
68	11	6	17-6	10W602	17		7-0	3-6	7-0						
69	36	6	7-9¾	10W603	17		3-2	1-5¾	3-2						
70	18	6	8-2½	10W604	17		3-2	1-10½	3-2						
71	4	6	15-1¾	10W605	17		6-10	1-5¾	6-10						
72	4	6	14-3¾	10W606	17		6-5	1-5¾	6-5						
73	4	6	13-3¾	10W607	17		5-11	1-5¾	5-11						
74	4	6	12-3¾	10W608	17		5-5	1-5¾	5-5						
75	4	6	11-3¾	10W609	17		4-11	1-5¾	4-11						
76	4	6	10-5¾	10W610	17		4-6	1-5¾	4-6						
77	4	6	9-5¾	10W611	17		4-0	1-5¾	4-0						
78	4	6	8-5¾	10W612	17		3-6	1-5¾	3-6						
79	4	6	7-5¾	10W613	17		3-0	1-5¾	3-0						
80	2	6	15-6½	10W614	17		6-10	1-10½	6-10						
81	2	6	14-8½	10W615	17		6-5	1-10½	6-5						
82	2	6	13-8½	10W616	17		5-11	1-10½	5-11						
83	2	6	12-8½	10W617	17		5-5	1-10½	5-5						
84	2	6	11-8½	10W618	17		4-11	1-10½	4-11						
85	2	6	10-10½	10W619	17		4-6	1-10½	4-6						
86	2	6	9-10½	10W620	17		4-0	1-10½	4-0						
87	2	6	8-10½	10W621	17		3-6	1-10½	3-6						
88	2	6	7-10½	10W622	17		3-0	1-10½	3-0						
89	12	6	19-0	10W623	6			2-2	13-0		3-10	0-8¼			
90	2	6	16-0	10W624	STR										
91	2	6	22-0	10W625	STR										
92	2	6	28-0	10W626	STR										
93	2	6	34-0	10W627	STR										
94	2	6	40-0	10W628	STR										
95	2	6	40-5	10W629	STR										
96	2	6	40-5	10W630	STR										
97	2	6	40-5	10W631	STR										
98	14	6	7-8½	10W632	17		2-2	3-4½	2-2						
99	8	6	12-0	10W639	2	2-1	9-11								
100	4	6	12-8	10W640	17		2-1	8-6	2-1						
101	27	5	7-8	10W501	17		2-1	3-6	2-1						
102															
103	SHAFT														
104	58	8	19-3	10W801	2	1-4	17-11								
105	407	6	5-3	10W633	T9	0-10¾	3-5½	0-10¾							
106	74	6	19-4	10W634	10	7-0½	5-3	7-0½						1-8	3-4
107	148	6	9-7½	10W635	T9	0-10¾	8-8¾								
108	74	6	5-2	10W636	T9	0-10¾	3-4½	0-10¾							
109	74	6	4-0	10W637	T9	0-10¾	2-2½	0-10¾							
110	148	6	8-11½	10W638	T9	0-10¾	8-0¾								
111															
112	FOOTING														
113	*37	8	10-6	10W802	STR										
114	*20	7	10-6	10W701	STR										
115	24	7	17-6	10W702	STR										
116															
117															
118															
119	PIER	9W													
120	CAP														
121	9	11	44-10	9W1101	2	2-2	40-6				2-2				
122	7	11	43-10	9W1102	2	2-2	39-6				2-2				
123	11	6	9-10	9W601	17		3-2	3-6	3-2						
124	11	6	17-6	9W602	17		7-0	3-6	7-0						
125	44	6	7-9¾	9W603	17		3-2	1-5¾	3-2						
126	22	6	8-2½	9W604	17		3-2	1-10½	3-2						
127	4	6	15-1¾	9W605	17		6-10	1-5¾	6-10						
128	4	6	14-5¾	9W606	17		6-6	1-5¾	6-6						
129	4	6	13-7¾	9W607	17		6-1	1-5¾	6-1						
130	4	6	12-11¾	9W608	17		5-9	1-5¾	5-9						
131	4	6	12-1¾	9W609	17		5-4	1-5¾	5-4						
132	4	6	11-5¾	9W610	17		5-0	1-5¾	5-0						
133	4	6	10-7¾	9W611	17		4-7	1-5¾	4-7						
134	4	6	9-9¾	9W612	17		4-2	1-5¾	4-2						
135	4	6	9-1¾	9W613	17		3-10	1-5¾	3-10						
136	4	6	8-3¾	9W614	17		3-5	1-5¾	3-5						
137	4	6	7-7¾	9W615	17		3-1	1-5¾	3-1						
138	2	6	15-6½	9W616	17		6-10	1-10½	6-10						
139	2	6	14-10½	9W617	17		6-6	1-10½	6-6						
140	2	6	14-0½	9W618	17		6-1	1-10½	6-1						
141	2	6	13-4½	9W619	17		5-9	1-10½	5-9						
142	2	6	12-6½	9W620	17		5-4	1-10½	5-4						
143	2	6	11-10½	9W621	17		5-0	1-10½	5-0						
144	2	6	11-0½	9W622	17		4-7	1-10½	4-7						
145	2	6	10-2½	9W623	17		4-2	1-10½	4-2						
146	2	6	9-6½	9W624	17		3-10	1-10½	3-10						
147	2	6	8-8½	9W625	17		3-5	1-10½	3-5						
148	2	6	8-0½	9W626	17		3-1	1-10½	3-1						
149	12	6	19-0	9W627	6			2-2	13-0		3-10	0-8¼			
150	*3	6	16-0	9W628	STR										
151	2	6	22-0	9W629	STR										
152	2	6	28-0	9W630	STR										
153	2	6	34-0	9W631	STR										
154	2	6	40-0	9W632	STR										
155	2	6	40-5	9W633	STR										
156	2	6	40-5	9W634	STR										
157	2	6	40-5	9W635	STR										
158	14	6	7-8½	9W636	17		2-2	3-4½	2-2						
159	*9	6	12-0	9W643	2	2-1	9-11								
160	4	6	12-8	9W644	17		2-1	8-6	2-1						
161	27	5	7-8	9W501	17		2-1	3-6	2-1						
162															
163	SHAFT														
164	58	8	24-2	9W801	2	1-4	22-10								
165	517	6	5-3	9W637	T9	0-10¾	3-5½	0-10¾							
166	94	6	19-4	9W638	10	7-0½	5-3	7-0½						1-8	3-4
167	188	6	9-7½	9W639	T9	0-10¾	8-8¾								
168	94	6	5-2	9W640	T9	0-10¾	3-4½	0-10¾							
169	94	6	4-0	9W641	T9	0-10¾	2-2½	0-10¾							
170	188	6	8-11½	9W642	T9	0-10¾	8-0¾								
171															
172	FOOTING														
173	*39	8	10-6	9W802	STR										
174	*21	7	10-6	9W701	STR										
175	24	7	18-6	9W702	STR										
176	12	8	4-6	9W803	2	1-4	3-2								
177															
178															
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

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2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

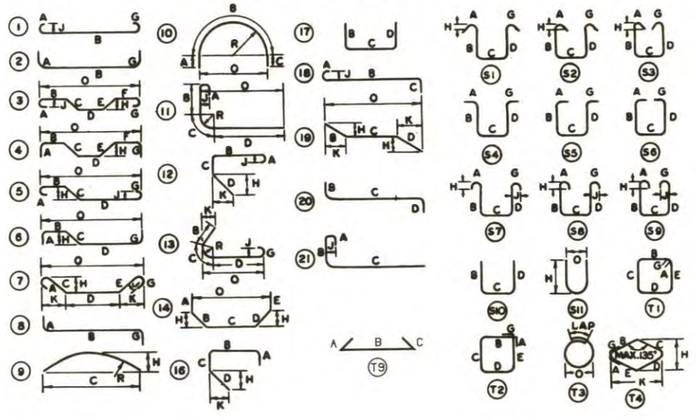
DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY JSJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS95	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER	8W													
1	CAP														
2	13	11	44-10	8W1101	2	2-2	40-6				2-2				
3	3	11	43-10	8W1102	2	2-2	39-6				2-2				
4	11	6	11-4	8W601	17		3-2	5-0	3-2						
5	11	6	19-0	8W602	17		7-0	5-0	7-0						
6	36	6	8-6½	8W603	17		3-2	2-2½	3-2						
7	18	6	8-11½	8W604	17		3-2	2-7½	3-2						
8	4	6	15-10½	8W605	17		6-10	2-2½	6-10						
9	4	6	15-0½	8W606	17		6-5	2-2½	6-5						
10	4	6	14-0½	8W607	17		5-11	2-2½	5-11						
11	4	6	13-0½	8W608	17		5-5	2-2½	5-5						
12	4	6	12-0½	8W609	17		4-11	2-2½	4-11						
13	4	6	11-2½	8W610	17		4-6	2-2½	4-6						
14	4	6	10-2½	8W611	17		4-0	2-2½	4-0						
15	4	6	9-2½	8W612	17		3-6	2-2½	3-6						
16	4	6	8-2½	8W613	17		3-0	2-2½	3-0						
17	2	6	16-3½	8W614	17		6-10	2-7½	6-10						
18	2	6	15-5½	8W615	17		6-5	2-7½	6-5						
19	2	6	14-5½	8W616	17		5-11	2-7½	5-11						
20	2	6	13-5½	8W617	17		5-5	2-7½	5-5						
21	2	6	12-5½	8W618	17		4-11	2-7½	4-11						
22	2	6	11-7½	8W619	17		4-6	2-7½	4-6						
23	2	6	10-7½	8W620	17		4-0	2-7½	4-0						
24	2	6	9-7½	8W621	17		3-6	2-7½	3-6						
25	2	6	8-7½	8W622	17		3-0	2-7½	3-0						
26	12	6	19-0	8W623	6			2-2	13-0		3-10	0-8½			
27	2	6	16-0	8W624	STR										
28	*3	6	22-0	8W625	STR										
29	2	6	28-0	8W626	STR										
30	2	6	34-0	8W627	STR										
31	2	6	40-0	8W628	STR										
32	2	6	40-5	8W629	STR										
33	2	6	40-5	8W630	STR										
34	2	6	40-5	8W631	STR										
35	14	6	9-2½	8W632	17		2-2	4-10½	2-2						
36	12	6	12-0	8W640	2	2-1	9-11								
37	6	6	12-8	8W639	17		2-1	8-6	2-1						
38	27	5	9-2	8W505	17		2-1	5-0	2-1						
39															
40	SHAFT														
41	30	9	8-7	8W901	2	1-7	7-0								
42	30	9	14-7	8W902	2	1-7	13-0								
43	30	9	25-0	8W903	STR										
44	*31	9	19-0	8W904	STR										
45	484	6	6-9	8W633	T9	0-10¾	4-11½	0-10¾							
46	88	6	20-2½	8W634	10	6-3½	7-7½	6-3½					2-5	4-10	
47	88	6	5-3	8W635	T9	0-10¾	3-5½	0-10¾							
48	88	6	3-3	8W636	T9	0-10¾	1-5½	0-10¾							
49	176	6	8-8	8W637	T9	0-10¾	7-9½								
50	176	6	9-5	8W638	T9	0-10¾	8-6½								
51															
52	PEDESTAL														
53	*51	5	4-0	8W501	STR										
54	50	5	5-11	8W502	2	2-3	3-8								
55	50	5	8-6	8W503	STR										
56	20	5	26-4½	8W504	10	6-3	13-10½	6-3					4-5	8-10	
57															
58	FOOTING														
59	*15	8	22-6	8W801	STR										
60	14	7	22-6	8W701	STR										
61	*49	7	12-6	8W702	STR										
62	8	8	4-6	8W802	2	1-4	3-2								
63															
64															
65	PIER	7W													
66	CAP														
67	9	11	44-10	7W1101	2	2-2	40-6				2-2				
68	9	11	43-10	7W1102	2	2-2	39-6				2-2				
69	6	11	35-6	7W1103	STR										
70	11	7	9-10	7W701	17		3-2	3-6	3-2						
71	11	7	18-8	7W702	17		7-7	3-6	7-7						
72	52	7	7-9½	7W703	17		3-2	1-5½	3-2						
73	26	7	8-2½	7W704	17		3-2	1-10½	3-2						
74	4	7	16-3½	7W705	17		7-5	1-5½	7-5						
75	4	7	15-9½	7W706	17		7-2	1-5½	7-2						
76	4	7	15-1½	7W707	17		6-10	1-5½	6-10						
77	4	7	14-5½	7W708	17		6-6	1-5½	6-6						
78	4	7	13-9½	7W709	17		6-2	1-5½	6-2						
79	4	7	13-1½	7W710	17		5-10	1-5½	5-10						
80	4	7	12-5½	7W711	17		5-6	1-5½	5-6						
81	4	7	11-11½	7W712	17		5-3	1-5½	5-3						
82	4	7	11-3½	7W713	17		4-11	1-5½	4-11						
83	4	7	10-7½	7W714	17		4-7	1-5½	4-7						
84	4	7	9-11½	7W715	17		4-3	1-5½	4-3						
85	4	7	9-3½	7W716	17		3-11	1-5½	3-11						
86	4	7	8-7½	7W717	17		3-7	1-5½	3-7						
87	2	7	16-8½	7W718	17		7-5	1-10½	7-5						
88	2	7	16-2½	7W719	17		7-2	1-10½	7-2						
89	2	7	15-6½	7W720	17		6-10	1-10½	6-10						
90	2	7	14-10½	7W721	17		6-6	1-10½	6-6						
91	2	7	14-2½	7W722	17		6-2	1-10½	6-2						
92	2	7	13-6½	7W723	17		5-10	1-10½	5-10						
93	2	7	12-10½	7W724	17		5-6	1-10½	5-6						
94	2	7	12-4½	7W725	17		5-3	1-10½	5-3						
95	2	7	11-8½	7W726	17		4-11	1-10½	4-11						
96	2	7	11-0½	7W727	17		4-7	1-10½	4-7						
97	2	7	10-4½	7W728	17		4-3	1-10½	4-3						
98	2	7	9-8½	7W729	17		3-11	1-10½	3-11						
99	2	7	9-0½	7W730	17		3-7	1-10½	3-7						
100	12	6	19-0	7W601	6			2-2	13-0		3-10	0-8½			
101	*3	6	16-0	7W602	STR										
102	2	6	22-0	7W603	STR										
103	2	6	28-0	7W604	STR										
104	2	6	34-0	7W605	STR										
105	2	6	40-0	7W606	STR										
106	2	6	40-5	7W607	STR										
107	2	6	40-5	7W608	STR										
108	12	6	7-8½	7W610	17		2-2	3-4½	2-2						
109	8	6	12-0	7W617	2	2-1	9-11								
110	4	6	12-8	7W618	17		2-1	8-6	2-1						
111	*27	5	7-8	7W505	17		2-1	3-6	2-1						
112															
113	SHAFT														
114	*27	9	8-7	7W901	2	1-7	7-0								
115	26	9	14-7	7W902	2	1-7	13-0								
116	26	9	35-0	7W903	STR										
117	26	9	29-0	7W904	STR										
118	627	6	5-3	7W611	T9	0-10¾	3-5½	0-10¾							
119	114	6	5-1	7W612	T9	0-10¾	3-3½	0-10¾							
120	114	6	3-4	7W613	T9	0-10¾	1-6½	0-10¾							
121	114	6	19-3	7W614	10	7-0½	5-2	7-0½					1-8	3-4	
122	114	6	9-8	7W615	T9	0-10¾	8-9½								
123	228	6	9-2½	7W616	T9	0-10¾	8-3¾								
124															
125	PEDESTAL														
126	48	5	4-0	7W501	STR										
127	48	5	5-11	7W502	2	2-3	3-8								
128	28	5	25-6½	7W503	10	7-0	11-6½	7-0					3-8	7-4	
129	*49	5	12-11	7W504	STR										
130															
131	FOOTING														
132	46	8	14-6	7W801	STR										
133	46	7	22-6	7W731	STR										
134	*25	7	14-6	7W732	STR										
135	16	8	4-6	7W802	2	1-4	3-2								
136															
137	PIER	6W													
138	CAP														
139	9	11	44-10	6W1101	2	2-2	40-6				2-2				
140	9	11	43-10	6W1102	2	2-2	39-6				2-2				
141	2	11	35-6	6W1103	STR										
142	12	6	19-0	6W601	6			2-2	13-0		3-10	0-8½			
143	2	6	16-0	6W602	STR										
144	2	6	22-0	6W603	STR										
145	2	6	28-0	6W604	STR										
146	2	6	34-0	6W605	STR										
147	2	6	40-0	6W606	STR										
148	2	6	40-5	6W607	STR										
149	2	6	40-5	6W608	STR										
150	12	6	7-8½	6W610	17		2-2	3-4½	2-2						
151	11	7	9-10	6W701	17		3-2	3-6	3-2						
152	11	7	18-8	6W702	17		7-7	3-6	7-7						
153	52	7	7-9½	6W703	17		3-2	1-5½	3-2						
154	26	7	8-2½	6W704	17		3-2	1-10½	3-2						
155	4	7	16-3½	6W705	17		7-5	1-5½	7-5						
156	4	7	15-9½	6W706	17		7-2	1-5½	7-2						
157	4	7	15-1½	6W707	17		6-10	1-5½	6-10						
158	4	7	14-5½	6W708	17		6-6	1-5½	6-6						
159	4	7	13-9½	6W709	17		6-2	1-5½	6-2						
160	4	7	13-1½	6W710	17		5-10	1-5½	5-10						
161	4	7	12-5½	6W711	17		5-6	1-5½	5-6						
162	4	7	11-11½	6W712	17		5-3	1-5½	5-3						
163	4	7	11-3½	6W713	17		4-11	1-5½	4-11						
164	4	7	10-7½	6W714	17		4-7	1-5½	4-7						
165	4	7	9-11½	6W715	17		4-3	1-5½	4-3						
166	4	7	9-3½	6W716	17		3-11	1-5½	3-11						
167	4	7	8-7½	6W717	17		3-7	1-5½	3-7						
168	2	7	16-5½	6W718	17		7-5	1-10½	7-5						
169	2	7	16-2½	6W719	17		7-2	1-10½	7-2						
170	2	7	15-6½	6W720	17		6-10	1-10½	6-10						
171	2	7	14-10½	6W721	17		6-6	1-10½	6-6						
172	2	7	14-2½	6W722	17		6-2	1-10½	6-2						
173	2	7	13-6½	6W723	17		5-10	1-10½	5-10						
174	2	7	12-10½	6W724	17		5-6	1-10½	5-6						
175	2	7	12-4½	6W725	17		5-3	1-10½	5-3						
176	2	7	11-8½	6W726	17		4-11	1-10½	4-11						
177	2	7	11-0½	6W727	17		4-7	1-10½	4-7						
178	2	7	10-4½	6W728	17		4-3	1-10½	4-3						
179	2	7	9-8½	6W729	17		3-11	1-10½	3-11						
180	2	7	9-0½	6W730	17		3-7	1-10½	3-7						

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY JSJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS96	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER 6W (CAP CONT.)														
1	8	6	12-0	6W617	2	2-1	9-11								
2	4	6	12-8	6W618	17		2-1	8-6	2-1						
3	27	5	7-8	6W505	17		2-1	3-6	2-1						
4															
5	SHAFT														
6	26	11	11-4	6W1104	2	2-0	9-4								
7	26	11	19-4	6W1105	2	2-0	17-4								
8	52	11	17-7	6W1106	STR										
9	26	9	28-0	6W901	STR										
10	*27	9	20-0	6W902	STR										
11	128	6	19-4	6W611	10	7-0½	5-3	7-0½						1-8	3-4
12	704	6	5-3	6W612	T9	0-10¾	3-5½	0-10¾							
13	128	6	5-1	6W613	T9	0-10¾	3-3½	0-10¾							
14	128	6	3-4	6W614	T9	0-10¾	1-6½	0-10¾							
15	128	6	9-8	6W615	T9	0-10¾	8-9½								
16	256	6	9-2½	6W616	T9	0-10¾	8-3½								
17															
18	PEDESTAL														
19	48	5	4-0	6W501	STR										
20	48	5	5-11	6W502	2	2-3	3-8								
21	30	5	25-6½	6W503	10	7-0	11-6½	7-0						3-8	7-4
22	*49	5	13-5	6W504	STR										
23															
24	FOOTING														
25	*55	9	14-6	6W903	STR										
26	16	7	26-6	6W731	STR										
27	28	7	14-6	6W732	STR										
28	30	9	26-6	6W904	STR										
29	16	8	4-6	6W801	2	1-4	3-2								
30															
31															
32	PIER 5W														
33	CAP														
34	12	11	44-10	5W1101	2	2-2	40-6				2-2				
35	10	11	43-10	5W1102	2	2-2	39-6				2-2				
36	12	6	19-0	5W601	6			2-2	13-0		3-10	0-8½			
37	2	6	16-0	5W602	STR										
38	2	6	22-0	5W603	STR										
39	2	6	28-0	5W604	STR										
40	2	6	34-0	5W605	STR										
41	2	6	40-0	5W606	STR										
42	2	6	40-5	5W607	STR										
43	2	6	40-5	5W608	STR										
44	2	6	40-5	5W609	STR										
45	14	6	8-8½	5W610	17		2-2	4-4½	2-2						
46	11	7	10-10	5W701	17		3-2	4-6	3-2						
47	11	7	19-8	5W702	17		7-7	4-6	7-7						
48	40	7	8-1¾	5W703	17		3-2	1-9¾	3-2						
49	20	7	9-3½	5W704	17		3-2	2-11½	3-2						
50	*5	7	16-7¾	5W705	17		7-5	1-9¾	7-5						
51	4	7	15-9¾	5W706	17		7-0	1-9¾	7-0						
52	4	7	14-11¾	5W707	17		6-7	1-9¾	6-7						
53	4	7	14-1¾	5W708	17		6-2	1-9¾	6-2						
54	4	7	13-3¾	5W709	17		5-9	1-9¾	5-9						
55	4	7	12-5¾	5W710	17		5-4	1-9¾	5-4						
56	4	7	11-7¾	5W711	17		4-11	1-9¾	4-11						
57	4	7	10-9¾	5W712	17		4-6	1-9¾	4-6						
58	4	7	9-9¾	5W713	17		4-0	1-9¾	4-0						
59	4	7	8-11¾	5W714	17		3-7	1-9¾	3-7						
60	2	7	17-9½	5W715	17		7-5	2-11½	7-5						
61	2	7	16-11½	5W716	17		7-0	2-11½	7-0						
62	2	7	11-6½	5W717	17		6-7	2-11½	6-7						
63	2	7	15-3½	5W718	17		6-2	2-11½	6-2						
64	2	7	14-5½	5W719	17		5-9	2-11½	5-9						
65	2	7	13-7½	5W720	17		5-4	2-11½	5-4						
66	2	7	12-9½	5W721	17		4-11	2-11½	4-11						
67	2	7	11-11½	5W722	17		4-6	2-11½	4-6						
68	2	7	10-11½	5W723	17		4-0	2-11½	4-0						
69	2	7	10-1½	5W724	17		3-7	2-11½	3-7						
70	10	6	12-0	5W617	2	2-1	9-11								
71	5	6	12-8	5W618	17		2-1	8-6	2-1						
72	*28	5	8-8	5W505	17		2-1	4-6	2-1						
73	SHAFT														
74	34	11	12-4	5W1103	2	2-0	10-4								
75	34	11	20-4	5W1104	2	2-0	18-4								
76	34	11	22-6	5W1105	2	2-0	20-6								
77	34	11	31-6	5W1106	STR										
78	34	11	12-4	5W1107	STR										
79	*35	8	23-6	5W801	STR										
80	34	8	34-9	5W802	STR										

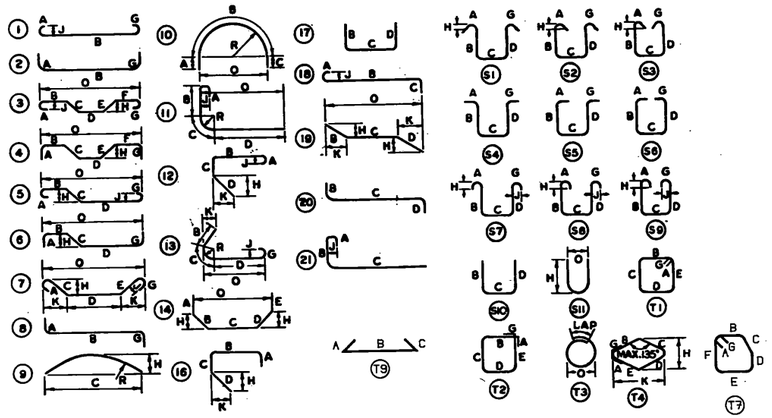
ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
81	200	6	19-11	5W611	10	6-6½	6-10	6-6½						2-2	4-4
82	1100	6	6-3	5W612	T9	0-10¾	4-5½	0-10¾							
83	200	6	5-11	5W613	T9	0-10¾	4-1½	0-10¾							
84	200	6	4-10	5W614	T9	0-10¾	3-0½	0-10¾							
85	400	6	9-6	5W615	T9	0-10¾	8-7½								
86	400	6	8-11½	5W616	T9	0-10¾	8-0¾								
87															
88	PEDESTAL														
89	50	5	4-0	5W501	STR										
90	50	5	5-11	5W502	2	2-3	3-8								
91	36	5	26-1	5W503	10	6-6	13-1	6-6						4-2	8-4
92	50	5	16-11	5W504	STR										
93															
94	FOOTING														
95	*57	10	20-6	5W1001	STR										
96	64	8	27-6	5W803	STR										
97	*30	8	20-6	5W804	STR										
98	24	8	4-6	5W805	2	1-4	3-2								
99															
100															
101	PIER 4W														
102	CAP														
103	12	11	44-10	4W1101	2	2-2	40-6				2-2				
104	8	11	43-10	4W1102	2	2-2	39-6				2-2				
105	12	6	19-0	4W601	6			2-2	13-0		3-10	0-8½			
106	*3	6	16-0	4W602	STR										
107	2	6	22-0	4W603	STR										
108	2	6	28-0	4W604	STR										
109	2	6	34-0	4W605	STR										
110	2	6	40-0	4W606	STR										
111	2	6	40-5	4W607	STR										
112	2	6	40-5	4W608	STR										
113	2	6	40-5	4W609	STR										
114	14	6	8-8½	4W610	17		2-2	4-4½	2-2						
115	11	7	10-10	4W701	17		3-2	4-6	3-2						
116	11	7	19-8	4W702	17		7-7	4-6	7-7						
117	36	7	8-1¾	4W703	17		3-2	1-9¾	3-2						
118	18	7	9-3½	4W704	17		3-2	2-11½	3-2						
119	4	7	16-7¾	4W705	17		7-5	1-9¾	7-5						
120	4	7	15-9¾	4W706	17		7-0	1-9¾	7-0						
121	4	7	14-9¾	4W707	17		6-6	1-9¾	6-6						
122	4	7	13-9¾	4W708	17		6-0	1-9¾	6-0						
123	4	7	12-9¾	4W709	17		5-6	1-9¾	5-6						
124	4	7	11-11¾	4W710	17		5-1	1-9¾	5-1						
125	4	7	10-11¾	4W711	17		4-7	1-9¾	4-7						
126	4	7	9-11¾	4W712	17		4-1	1-9¾	4-1						
127	4	7	8-11¾	4W713	17		3-7	1-9¾	3-7						
128	2	7	17-9½	4W714	17		7-5	2-11½	7-5						
129	2	7	16-11½	4W715	17		7-0	2-11½	7-0						
130	2	7	15-11½	4W716	17		6-6	2-11½	6-6						
131	2	7	14-11½	4W717	17		6-0	2-11½	6-0						
132	2	7	13-11½	4W718	17		5-6	2-11½	5-6						
133	2	7	13-1½	4W719	17		5-1	2-11½	5-1						
134	2	7	12-1½	4W720	17		4-7	2-11½	4-7						
135	2	7	11-1½	4W721	17		4-1	2-11½	4-1						
136	2	7	10-1½	4W722	17		3-7	2-11½	3-7						
137	10	6	12-0	4W617	2	2-1	9-11								
138	5	6	12-8	4W618	17		2-1	8-6	2-1						
139	27	5	8-8	4W505	17		2-1	4-6	2-1						
140															
141	SHAFT														
142	*35	11	12-4	4W1103	2	2-0	10-4								
143	34	11	20-4	4W1104	2	2-0	18-4								
144	34	11	22-6	4W1105	2	2-0	20-6								
145	34	11	38-2	4W1106	STR										
146	34	11	14-2	4W1107	STR										
147	*35	8	23-6	4W801	STR										
148	34	8	39-6	4W802	STR										
149	212	6	19-11	4W611	10	6-6½	6-10	6-6½						2-2	4-4
150	1166	6	6-3	4W612	T9	0-10¾	4-5½	0-10¾							
151	212	6	5-11	4W613	T9	0-10¾	4-1½	0-10¾							
152	212	6	4-10	4W614	T9	0-10¾	3-0½	0-10¾							
153	424	6	9-6	4W615	T9	0-10¾	8-7½								
154	424	6	8-11½	4W616	T9	0-10¾	8-0¾								
155															
156	PEDESTAL														
157	*51	5	4-0	4W501	STR										
158	50	5	5-11	4W502	2	2-3	3-8								
159	38	5	26-1	4W503	10	6-6	13-1	6-6						4-2	8-4
160	50	5	17-5	4W504	STR										

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	FOOTING														
161	*47	10	22-6	4W1001	STR										
162	*73	7	22-6	4W723	STR										
163															
164															
165															
166															
167															
168															
169															
170															
171															
172															
173															
174															
175															
176															
177															
178															
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

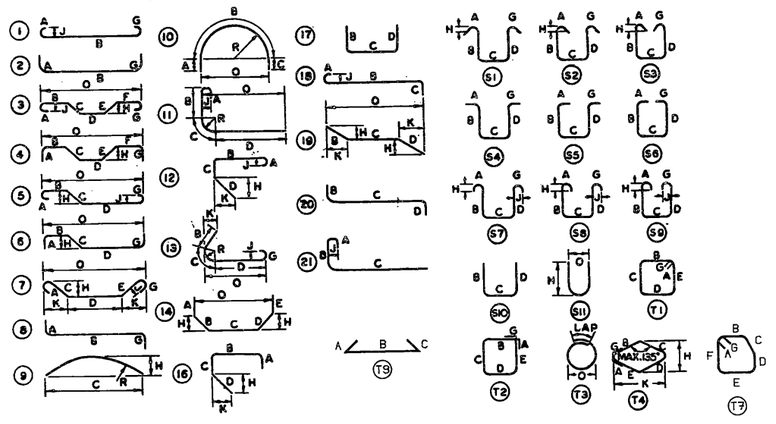
DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY JSJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS97	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER 3W														
1	CAP														
2	12	11	44-10	3W1101	2	2-2	40-6				2-2				
3	12	11	43-10	3W1102	2	2-2	39-6				2-2				
4	12	6	19-0	3W601	6			2-2	13-0		3-10	0-8¼			
5	2	6	16-0	3W602	STR										
6	2	6	22-0	3W603	STR										
7	2	6	28-0	3W604	STR										
8	2	6	34-0	3W605	STR										
9	2	6	40-0	3W606	STR										
10	2	6	40-5	3W607	STR										
11	2	6	40-5	3W608	STR										
12	2	6	40-5	3W609	STR										
13	14	6	8-8½	3W610	17		2-2	4-4½	2-2						
14	11	7	10-10	3W701	17		3-2	4-6	3-2						
15	11	7	19-8	3W702	17		7-7	4-6	7-7						
16	44	7	18-1¾	3W703	17		3-2	1-9¾	3-2						
17	22	7	9-3½	3W704	17		3-2	2-11¾	3-2						
18	4	7	16-7¾	3W705	17		7-5	1-9¾	7-5						
19	4	7	15-11¾	3W706	17		7-1	1-9¾	7-1						
20	4	7	15-1¾	3W707	17		6-8	1-9¾	6-8						
21	4	7	14-5¾	3W708	17		6-4	1-9¾	6-4						
22	4	7	13-7¾	3W709	17		5-11	1-9¾	5-11						
23	4	7	12-10¾	3W710	17		5-7	1-9¾	5-7						
24	4	7	12-1¾	3W711	17		5-2	1-9¾	5-2						
25	4	7	11-3¾	3W712	17		4-9	1-9¾	4-9						
26	4	7	10-7¾	3W713	17		4-5	1-9¾	4-5						
27	4	7	9-9¾	3W714	17		4-0	1-9¾	4-0						
28	4	7	9-1¾	3W715	17		3-8	1-9¾	3-8						
29	2	7	17-9½	3W716	17		7-5	2-11½	7-5						
30	2	7	17-1½	3W717	17		7-1	2-11½	7-1						
31	2	7	16-3½	3W718	17		6-8	2-11½	6-8						
32	2	7	15-7½	3W719	17		6-4	2-11½	6-4						
33	2	7	14-9½	3W720	17		5-11	2-11½	5-11						
34	2	7	14-1½	3W721	17		5-7	2-11½	5-7						
35	2	7	13-3½	3W722	17		5-2	2-11½	5-2						
36	2	7	12-5½	3W723	17		4-9	2-11½	4-9						
37	2	7	11-9½	3W724	17		4-5	2-11½	4-5						
38	2	7	10-11½	3W725	17		4-0	2-11½	4-0						
39	2	7	10-3½	3W726	17		3-8	2-11½	3-8						
40	10	6	12-0	3W617	2	2-1	9-11								
41	5	6	12-8	3W618	17		2-1	8-6	2-1						
42	27	5	8-8	3W505	17		2-1	4-6	2-1						
43															
44	SHAFT														
45	34	11	12-4	3W1103	2	2-0	10-4								
46	34	11	20-4	3W1104	2	2-0	18-4								
47	34	11	24-6	3W1105	STR										
48	34	11	22-11	3W1106	STR										
49	34	9	25-2	3W901	STR										
50	34	9	39-6	3W902	STR										
51	34	8	23-6	3W801	STR										
52	182	6	19-10¾	3W611	10	6-6½	6-9¾	6-6½						2-2	4-4
53	1001	6	6-3	3W612	T9	0-10¾	4-5½	0-10¾							
54	182	6	5-11	3W613	T9	0-10¾	4-1½	0-10¾							
55	182	6	4-10	3W614	T9	0-10¾	3-0½	0-10¾							
56	364	6	9-6	3W615	T9	0-10¾	8-7½								
57	364	6	8-11½	3W616	T9	0-10¾	8-0¾								
58															
59	PEDESTAL														
60	50	5	4-0	3W501	STR										
61	50	5	5-11	3W502	2	2-3	3-8								
62	44	5	26-1	3W503	10	6-6	13-1	6-6						4-2	8-4
63	50	5	20-4	3W504	STR										
64															
65	FOOTING														
66	21	9	25-6	3W903	STR										
67	52	9	19-6	3W904	STR										
68	21	7	25-6	3W727	STR										
69	27	7	19-6	3W728	STR										
70															
71															
72															
73	PIER 2W														
74	CAP														
75	14	11	44-10	2W1101	2	2-2	40-6				2-2				
76	8	11	43-10	2W1102	2	2-2	39-6				2-2				
77	12	6	19-0	2W627	6			2-2	13-0		3-10	0-8¾			
78	2	6	16-0	2W628	STR										
79	2	6	22-0	2W629	STR										
80	2	6	28-0	2W630	STR										
81	2	6	34-0	2W631	STR										
82	2	6	40-0	2W632	STR										
83	2	6	40-5	2W633	STR										
84	2	6	40-5	2W634	STR										
85	2	6	40-5	2W635	STR										
86	14	6	9-8½	2W636	17		2-2	5-4½	2-2						
87	11	6	11-10	2W601	17		3-2	5-6	3-2						
88	11	6	19-6	2W602	17		7-0	5-6	7-0						
89	44	6	8-7	2W603	17		3-2	2-3	3-2						
90	22	6	9-4¾	2W604	17		3-2	3-0¾	3-2						
91	4	6	15-11	2W605	17		6-10	2-3	6-10						
92	4	6	15-3	2W606	17		6-6	2-3	6-6						
93	4	6	14-5	2W607	17		6-1	2-3	6-1						
94	4	6	13-9	2W608	17		5-9	2-3	5-9						
95	4	6	12-11	2W609	17		5-4	2-3	5-4						
96	4	6	12-3	2W610	17		5-0	2-3	5-0						
97	4	6	11-5	2W611	17		4-7	2-3	4-7						
98	4	6	10-7	2W612	17		4-2	2-3	4-2						
99	4	6	9-11	2W613	17		3-10	2-3	3-10						
100	4	6	9-1	2W614	17		3-5	2-3	3-5						
101	4	6	8-5	2W615	17		3-1	2-3	3-1						
102	2	6	16-8¾	2W616	17		6-10	3-0¾	6-10						
103	2	6	16-0¾	2W617	17		6-6	3-0¾	6-6						
104	2	6	15-2¾	2W618	17		6-1	3-0¾	6-1						
105	2	6	14-6¾	2W619	17		5-9	3-0¾	5-9						
106	2	6	13-8¾	2W620	17		5-4	3-0¾	5-4						
107	2	6	13-0¾	2W621	17		5-0	3-0¾	5-0						
108	2	6	12-2¾	2W622	17		4-7	3-0¾	4-7						
109	2	6	11-4¾	2W623	17		4-2	3-0¾	4-2						
110	2	6	10-8¾	2W624	17		3-10	3-0¾	3-10						
111	2	6	9-10¾	2W625	17		3-5	3-0¾	3-5						
112	2	6	9-2¾	2W626	17		3-1	3-0¾	3-1						
113	12	6	12-0	2W645	2	2-1	9-11								
114	6	6	12-8	2W646	17		2-1	8-6	2-1						
115	27	5	9-8	2W505	17		2-1	5-6	2-1						
116															
117	SHAFT														
118	34	9	9-7	2W901	2	1-7	8-0								
119	34	9	15-7	2W902	2	1-7	14-0								
120	68	9	31-11	2W903	STR										
121	34	9	39-6	2W904	STR										
122	34	9	33-6	2W905	STR										
123	150	6	20-5½	2W637	10	6-0½	8-4½	6-0½						2-8	5-4
124	750	6	7-3	2W638	T9	0-10¾	5-5½	0-10¾							
125	150	6	6-10	2W639	T9	0-10¾	5-0½	0-10¾							
126	150	6	5-9	2W640	T9	0-10¾	3-11½	0-10¾							
127	150	6	4-1	2W641	T9	0-10¾	2-3½	0-10¾							
128	150	6	9-8	2W642	T9	0-10¾	8-9¼								
129	300	6	9-5	2W643	T9	0-10¾	8-6¼								
130	300	6	8-6	2W644	T9	0-10¾	7-7¼								
131															
132	PEDESTAL														
133	50	5	4-0	2W501	STR										
134	50	5	5-11	2W502	2	2-3	3-8								
135	40	5	26-8	2W503	10	6-0	14-8	6-0						4-8	9-3
136	50	5	19-2	2W504	STR										
137															
138	FOOTING														
139	30	10	27-6	2W1001	STR										
140	58	8	14-6	2W801	STR										
141	16	8	27-6	2W802	STR										
142	8	8	4-6	2W803	2	1-4	3-2								
143															
144															
145															
146															
147															
148															
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176															
177															
178															
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
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#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY J.S.J. DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS98	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER 1W														
1	CAP														
2	14	11	44-10	1W1101	2	2-2	40-6				2-2				
3	14	11	43-10	1W1102	2	2-2	39-6				2-2				
4	4	11	35-6	1W1103	STR										
5	12	6	20-6	1W601	6			2-2	13-0		5-4	0-8½			
6	2	6	16-0	1W602	STR										
7	2	6	22-0	1W603	STR										
8	2	6	28-0	1W604	STR										
9	2	6	34-0	1W605	STR										
10	2	6	40-0	1W606	STR										
11	2	6	40-5	1W607	STR										
12	2	6	40-5	1W608	STR										
13	2	6	40-5	1W609	STR										
14	2	6	40-5	1W610	STR										
15	16	6	9-8½	1W611	17		2-2	5-4½	2-2						
16	11	7	13-6	1W701	17		4-0	5-6	4-0						
17	11	7	22-0	1W702	17		8-3	5-6	8-3						
18	30	7	11-1	1W704	17		4-0	3-1	4-0						
19	60	7	10-3½	1W703	17		4-0	2-3½	4-0						
20	2	7	19-3	1W720	17		8-1	3-1	8-1						
21	4	7	18-5½	1W705	17		8-1	2-3½	8-1						
22	2	7	18-9	1W721	17		7-10	3-1	7-10						
23	4	7	17-11½	1W706	17		7-10	2-3½	7-10						
24	2	7	18-3	1W722	17		7-7	3-1	7-7						
25	4	7	17-5½	1W707	17		7-7	2-3½	7-7						
26	2	7	17-9	1W723	17		7-4	3-1	7-4						
27	4	7	16-11½	1W708	17		7-4	2-3½	7-4						
28	2	7	17-1	1W724	17		7-0	3-1	7-0						
29	4	7	16-3½	1W709	17		7-0	2-3½	7-0						
30	2	7	16-7	1W725	17		6-9	3-1	6-9						
31	4	7	15-9½	1W710	17		6-9	2-3½	6-9						
32	2	7	15-11	1W726	17		6-5	3-1	6-5						
33	4	7	15-1½	1W711	17		6-5	2-3½	6-5						
34	2	7	15-5	1W727	17		6-2	3-1	6-2						
35	4	7	14-7½	1W712	17		6-2	2-3½	6-2						
36	2	7	14-11	1W728	17		5-11	3-1	5-11						
37	4	7	14-1½	1W713	17		5-11	2-3½	5-11						
38	2	7	14-5	1W729	17		5-8	3-1	5-8						
39	4	7	13-7½	1W714	17		5-8	2-3½	5-8						
40	2	7	13-9	1W730	17		5-4	3-1	5-4						
41	4	7	12-11½	1W715	17		5-4	2-3½	5-4						
42	2	7	13-3	1W731	17		5-1	3-1	5-1						
43	4	7	12-5½	1W716	17		5-1	2-3½	5-1						
44	2	7	12-9	1W732	17		4-10	3-1	4-10						
45	4	7	11-11½	1W717	17		4-10	2-3½	4-10						
46	2	7	12-1	1W733	17		4-6	3-1	4-6						
47	4	7	11-3½	1W718	17		4-6	2-3½	4-6						
48	2	7	11-7	1W734	17		4-3	3-1	4-3						
49	4	7	10-9½	1W719	17		4-3	2-3½	4-3						
50	27	5	9-8	1W505	17		2-1	5-6	2-1						
51	12	6	12-0	1W622	2	2-1	9-11								
52	6	6	12-8	1W623	17		2-1	8-6	2-1						
53															
54	SHAFT														
55	36	11	13-3	1W1104	2	2-0	11-3								
56	36	11	21-3	1W1105	2	2-0	19-3								
57	40	11	28-6	1W1106	2	2-0	26-6								
58	36	11	29-1	1W1107	STR										
59	36	11	31-5	1W1108	STR										
60	36	9	29-10	1W901	STR										
61	36	9	24-6	1W902	STR										
62	36	9	40-6	1W903	STR										
63	232	6	20-5½	1W612	10	6-0½	8-4½	6-0½					2-8	5-4	
64	1276	6	7-3	1W613	T9	0-10½	5-5½	0-10½							
65	232	6	6-10	1W614	T9	0-10½	5-0½	0-10½							
66	232	6	5-7	1W615	T9	0-10½	3-9½	0-10½							
67	232	6	9-8	1W616	T9	0-10½	8-9½								
68	464	6	9-5	1W617	T9	0-10½	8-6½								
69	464	6	8-10	1W618	T9	0-10½	7-11½								
70															
71	PEDESTAL														
72	50	5	4-0	1W501	STR										
73	50	5	24-11	1W502	STR										
74	50	5	5-11	1W503	2	2-3	3-8								
75	50	5	26-8	1W504	10	6-0	14-8	6-0					4-8	9-4	
76															
77	FOOTING														
78	52	10	33-6	1W1001	STR										
79	68	10	25-6	1W1002	STR										
80	16	8	22-0	1W801	STR										

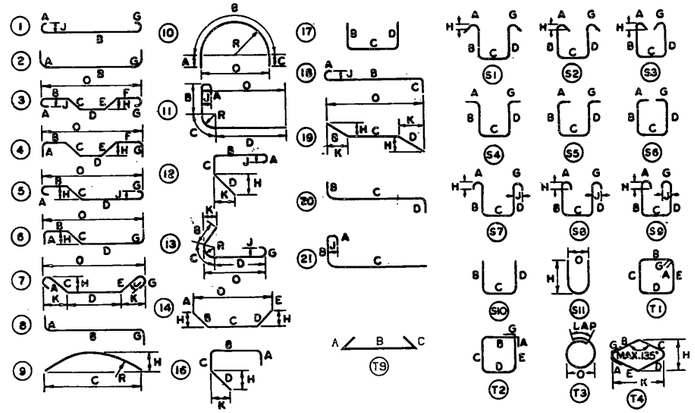
ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
81	24	8	14-0	1W802	STR										
82	124	6	10-6	1W619	14	2-7	6-7	1-4				5-10½			
83	10	6	33-6	1W620	STR										
84	10	6	25-6	1W621	STR										
85															
86															
87															
88	PIER 1E														
89	CAP														
90	14	11	44-10	1E1101	2	2-2	40-6				2-2				
91	14	11	43-10	1E1102	2	2-2	39-6				2-2				
92	4	11	35-6	1E1103	STR										
93	12	6	20-6	1E601	6			2-2	13-0		5-4	0-8½			
94	2	6	16-0	1E602	STR										
95	2	6	22-0	1E603	STR										
96	2	6	28-0	1E604	STR										
97	2	6	34-0	1E605	STR										
98	2	6	40-0	1E606	STR										
99	2	6	40-5	1E607	STR										
100	2	6	40-5	1E608	STR										
101	2	6	40-5	1E609	STR										
102	2	6	40-5	1E610	STR										
103	16	6	9-8½	1E611	17		2-2	5-4½	2-2						
104	11	7	13-6	1E701	17		4-0	5-6	4-0						
105	11	7	22-0	1E702	17		8-3	5-6	8-3						
106	60	7	10-3½	1E703	17		4-0	2-3½	4-0						
107	30	7	11-1	1E704	17		4-0	3-1	4-0						
108	2	7	19-3	1E720	17		8-1	3-1	8-1						
109	4	7	18-5½	1E705	17		8-1	2-3½	8-1						
110	2	7	18-9	1E721	17		7-10	3-1	7-10						
111	4	7	17-11½	1E706	17		7-10	2-3½	7-10						
112	2	7	18-3	1E722	17		7-7	3-1	7-7						
113	4	7	17-5½	1E707	17		7-7	2-3½	7-7						
114	2	7	17-9	1E723	17		7-4	3-1	7-4						
115	4	7	16-11½	1E708	17		7-4	2-3½	7-4						
116	2	7	17-1	1E724	17		7-0	3-1	7-0						
117	4	7	16-3½	1E709	17		7-0	2-3½	7-0						
118	2	7	16-7	1E725	17		6-9	3-1	6-9						
119	4	7	15-9½	1E710	17		6-9	2-3½	6-9						
120	2	7	15-11	1E726	17		6-5	3-1	6-5						
121	4	7	15-1½	1E711	17		6-5	2-3½	6-5						
122	2	7	15-5	1E727	17		6-2	3-1	6-2						
123	4	7	14-7½	1E712	17		6-2	2-3½	6-2						
124	2	7	14-11	1E728	17		5-11	3-1	5-11						
125	4	7	14-1½	1E713	17		5-11	2-3½	5-11						
126	2	7	14-5	1E729	17		5-8	3-1	5-8						
127	4	7	13-7½	1E714	17		5-8	2-3½	5-8						
128	2	7	13-9	1E730	17		5-4	3-1	5-4						
129	4	7	12-11½	1E715	17		5-4	2-3½	5-4						
130	2	7	13-3	1E731	17		5-1	3-1	5-1						
131	4	7	12-5½	1E716	17		5-1	2-3½	5-1						
132	2	7	12-9	1E732	17		4-10	3-1	4-10						
133	4	7	11-11½	1E717	17		4-10	2-3½	4-10						
134	2	7	12-1	1E733	17		4-6	3-1	4-6						
135	4	7	11-3½	1E718	17		4-6	2-3½	4-6						
136	2	7	11-7	1E734	17		4-3	3-1	4-3						
137	4	7	10-9½	1E719	17		4-3	2-3½	4-3						
138	27	5	9-8	1E505	17		2-1	5-6	2-1						
139	12	6	12-0	1E622	2	2-1	9-11								
140	6	6	12-8	1E623	17		2-1	8-6	2-1						
141															
142	SHAFT														
143	36	11	13-3	1E1104	2	2-0	11-3								
144	36	11	21-3	1E1105	2	2-0	19-3								
145	40	11	28-6	1E1106	2	2-0	26-6								
146	36	11	29-1	1E1107	STR										
147	36	11	32-6	1E1108	STR										
148	36	9	31-0	1E901	STR										
149	36	9	24-6	1E902	STR										
150	36	9	40-6	1E903	STR										
151	234	6	20-5½	1E612	10	6-0½	8-4½	6-0½					2-8	5-4	
152	1287	6	7-3	1E613	T9	0-10½	5-5½	0-10½							
153	234	6	6-9½	1E614	T9	0-10½	5-0	0-10½							
154	234	6	5-7	1E615	T9	0-10½	3-9½	0-10½							
155	234	6	9-8	1E616	T9	0-10½	8-9½								
156	468	6	9-5	1E617	T9	0-10½	8-6½								
157	468	6	8-10	1E618	T9	0-10½	7-11½								
158															
159	PEDESTAL														
160	50	5	4-0	1E501	STR										

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
161	50	5	24-11	1E502	STR										
162	50	5	5-11	1E503	2	2-3	3-8								
163	50	5	26-8	1E504	10	6-0	14-8	6-0						4-8	9-4
164															
165	FOOTING														
166	52	10	33-6	1E1001	STR										
167	68	10	25-6	1E1002	STR										
168	16	8	22-0	1E801	STR										
169	24	8	14-0	1E802	STR										
170	124	6	10-6	1E619	14	2-7	6-7	1-4				5-10½			
171	10	6	33-6	1E620	STR										
172	10	6	25-6	1E621	STR										
173															
174															
175															
176															
177															
178															
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

✱ DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY JSJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS99	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER 2E														
1	CAP														
2	14	11	44-10	2E1101	2	2-2	40-6				2-2				
3	8	11	43-10	2E1102	2	2-2	39-6				2-2				
4	12	6	19-0	2E627	6			2-2	13-0		3-10	0-8½			
5	2	6	16-0	2E628	STR										
6	2	6	22-0	2E629	STR										
7	2	6	28-0	2E630	STR										
8	2	6	34-0	2E631	STR										
9	2	6	40-0	2E632	STR										
10	2	6	40-5	2E633	STR										
11	2	6	40-5	2E634	STR										
12	2	6	40-5	2E635	STR										
13	14	6	9-8½	2E636	17		2-2	5-4½	2-2						
14	11	6	11-10	2E601	17		3-2	5-6	3-2						
15	11	6	19-6	2E602	17		7-0	5-6	7-0						
16	44	6	8-7	2E603	17		3-2	2-3	3-2						
17	22	6	9-4½	2E604	17		3-2	3-0¾	3-2						
18	4	6	15-11	2E605	17		6-10	2-3	6-10						
19	4	6	15-3	2E606	17		6-6	2-3	6-6						
20	4	6	14-5	2E607	17		6-1	2-3	6-1						
21	4	6	13-9	2E608	17		5-9	2-3	5-9						
22	4	6	12-11	2E609	17		5-4	2-3	5-4						
23	4	6	12-3	2E610	17		5-0	2-3	5-0						
24	4	6	11-5	2E611	17		4-7	2-3	4-7						
25	4	6	10-7	2E612	17		4-2	2-3	4-2						
26	4	6	9-11	2E613	17		3-10	2-3	3-10						
27	4	6	9-1	2E614	17		3-5	2-3	3-5						
28	4	6	8-5	2E615	17		3-1	2-3	3-1						
29	2	6	16-8¾	2E616	17		6-10	3-0¾	6-10						
30	2	6	16-0¾	2E617	17		6-6	3-0¾	6-6						
31	2	6	15-2¾	2E618	17		6-1	3-0¾	6-1						
32	2	6	14-6¾	2E619	17		5-9	3-0¾	5-9						
33	2	6	13-8¾	2E620	17		5-4	3-0¾	5-4						
34	2	6	13-0¾	2E621	17		5-0	3-0¾	5-0						
35	2	6	12-2¾	2E622	17		4-7	3-0¾	4-7						
36	2	6	11-4¾	2E623	17		4-2	3-0¾	4-2						
37	2	6	10-8¾	2E624	17		3-10	3-0¾	3-10						
38	2	6	9-10¾	2E625	17		3-5	3-0¾	3-5						
39	2	6	9-2¾	2E626	17		3-1	3-0¾	3-1						
40	12	6	12-0	2E645	2	2-1	9-11								
41	6	6	12-8	2E646	17		2-1	8-6	2-1						
42	27	5	9-8	2E505	17		2-1	5-6	2-1						
43															
44	SHAFT														
45	34	9	9-7	2E901	2	1-7	8-0								
46	34	9	15-7	2E902	2	1-7	14-0								
47	68	9	37-10	2E903	STR										
48	34	9	39-6	2E904	STR										
49	34	9	33-6	2E905	STR										
50	158	6	20-5½	2E637	10	6-0½	8-4½	6-0½					2-8	5-4	
51	790	6	7-3	2E638	T9	0-10¾	5-5½	0-10¾							
52	158	6	6-10	2E639	T9	0-10¾	5-0½	0-10¾							
53	158	6	5-9	2E640	T9	0-10¾	3-11½	0-10¾							
54	158	6	4-1	2E641	T9	0-10¾	2-3½	0-10¾							
55	158	6	9-8	2E642	T9	0-10¾	8-9½								
56	316	6	9-5	2E643	T9	0-10¾	8-6½								
57	316	6	8-6	2E644	T9	0-10¾	7-7½								
58															
59	PEDESTAL														
60	50	5	4-0	2E501	STR										
61	50	5	5-11	2E502	2	2-3	3-8								
62	46	5	26-8	3E503	10	6-0	14-8	6-0					4-8	9-4	
63	50	5	22-2	2E504	STR										
64															
65	FOOTING														
66	30	10	29-6	2E1001	STR										
67	62	7	14-6	2E701	STR										
68	16	7	29-6	2E702	STR										
69															
70															
71															
72	PIER 3E														
73	CAP														
74	12	11	44-10	3E1101	2	2-2	40-6				2-2				
75	12	11	43-10	3E1102	2	2-2	39-6				2-2				
76	6	6	19-9	3E601	6			2-2	13-0		4-7	0-8½			
77	6	6	19-0	3E602	6			2-2	13-0		3-10	0-8½			
78	2	6	16-0	3E603	STR										
79	2	6	22-0	3E604	STR										
80	2	6	28-0	3E605	STR										

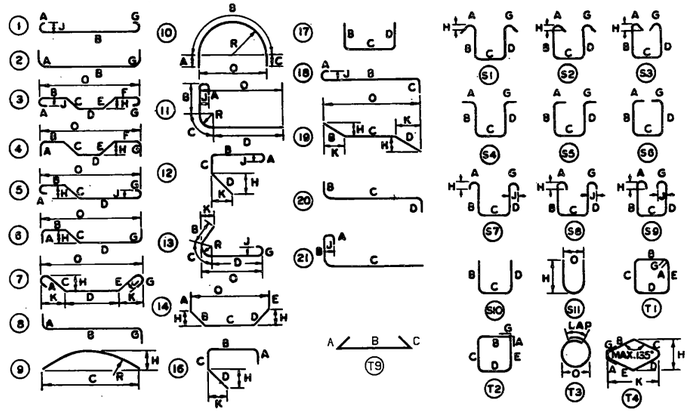
ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
81	2	6	34-0	3E606	STR										
82	2	6	40-0	3E607	STR										
83	2	6	40-5	3E608	STR										
84	2	6	40-5	3E609	STR										
85	2	6	40-5	3E610	STR										
86	14	6	8-8½	3E611	17		2-2	4-4½	2-2						
87	11	7	10-10	3E701	17		3-2	4-6	3-2						
88	11	7	20-8	3E702	17		8-1	4-6	8-1						
89	48	7	8-1¾	3E703	17		3-2	1-9¾	3-2						
90	24	7	9-3½	3E704	17		3-2	2-11½	3-2						
91	2	7	17-7¾	3E705	17		7-11	1-9¾	7-11						
92	2	7	17-1¾	3E706	17		7-8	1-9¾	7-8						
93	2	7	16-5¾	3E707	17		7-4	1-9¾	7-4						
94	2	7	15-7¾	3E708	17		6-11	1-9¾	6-11						
95	2	7	14-11¾	3E709	17		6-7	1-9¾	6-7						
96	2	7	14-3¾	3E710	17		6-3	1-9¾	6-3						
97	2	7	13-9¾	3E711	17		6-0	1-9¾	6-0						
98	2	7	13-1¾	3E712	17		5-8	1-9¾	5-8						
99	2	7	12-5¾	3E713	17		5-4	1-9¾	5-4						
100	2	7	11-9¾	3E714	17		5-0	1-9¾	5-0						
101	2	7	11-1¾	3E715	17		4-8	1-9¾	4-8						
102	2	7	10-5¾	3E716	17		4-4	1-9¾	4-4						
103	2	7	16-11¾	3E717	17		7-7	1-9¾	7-7						
104	2	7	16-3¾	3E718	17		7-3	1-9¾	7-3						
105	2	7	15-7¾	3E719	17		6-11	1-9¾	6-11						
106	2	7	14-11¾	3E720	17		6-7	1-9¾	6-7						
107	2	7	14-3¾	3E721	17		6-3	1-9¾	6-3						
108	2	7	13-7¾	3E722	17		5-11	1-9¾	5-11						
109	2	7	12-9¾	3E723	17		5-6	1-9¾	5-6						
110	2	7	12-1¾	3E724	17		5-2	1-9¾	5-2						
111	2	7	11-5¾	3E725	17		4-10	1-9¾	4-10						
112	2	7	10-9¾	3E726	17		4-6	1-9¾	4-6						
113	2	7	10-1¾	3E727	17		4-2	1-9¾	4-2						
114	2	7	9-1¾	3E728	17		3-8	1-9¾	3-8						
115	1	7	18-9½	3E729	17		7-11	2-11½	7-11						
116	1	7	18-3½	3E730	17		7-8	2-11½	7-8						
117	1	7	17-7½	3E731	17		7-4	2-11½	7-4						
118	1	7	16-9½	3E732	17		6-11	2-11½	6-11						
119	1	7	16-1½	3E733	17		6-7	2-11½	6-7						
120	1	7	15-5½	3E734	17		6-3	2-11½	6-3						
121	1	7	14-11½	3E735	17		6-0	2-11½	6-0						
122	1	7	14-3½	3E736	17		5-8	2-11½	5-8						
123	1	7	13-7½	3E737	17		5-4	2-11½	5-4						
124	1	7	12-11½	3E738	17		5-0	2-11½	5-0						
125	1	7	12-3½	3E739	17		4-8	2-11½	4-8						
126	1	7	11-7½	3E740	17		4-4	2-11½	4-4						
127	1	7	18-1½	3E741	17		7-7	2-11½	7-7						
128	1	7	17-5½	3E742	17		7-3	2-11½	7-3						
129	1	7	16-9½	3E743	17		6-11	2-11½	6-11						
130	1	7	16-1½	3E744	17		6-7	2-11½	6-7						
131	1	7	15-5½	3E745	17		6-3	2-11½	6-3						
132	1	7	14-9½	3E746	17		5-11	2-11½	5-11						
133	1	7	13-11½	3E747	17		5-6	2-11½	5-6						
134	1	7	13-3½	3E748	17		5-2	2-11½	5-2						
135	1	7	12-7½	3E749	17		4-10	2-11½	4-10						
136	1	7	11-11½	3E750	17		4-6	2-11½	4-6						
137	1	7	11-3½	3E751	17		4-2	2-11½	4-2						
138	1	7	10-3½	3E752	17		3-8	2-11½	3-8						
139	15	6	12-0	3E618	2	2-1	9-11								
140	27	5	8-8	3E505	17		2-1	4-6	2-1						
141															
142	SHAFT														
143	34	11	12-4	3E1103	2	2-0	10-4								
144	34	11	20-4	3E1104	2	2-0	18-4								
145	34	11	23-2	3E1105	STR										
146	34	11	26-0	3E1106	STR										
147	34	9	29-7	3E901	STR										
148	34	9	39-6	3E902	STR										
149	34	8	23-6	3E801	STR										
150	188	6	19-10¾	3E612	10	6-6½	6-9¾	6-6½						2-2	4-4
151	1034	6	6-3	3E613	T9	0-10¾	4-5½	0-10¾							
152	188	6	5-11	3E614	T9	0-10¾	4-1½	0-10¾							
153	188	6	4-10	3E615	T9	0-10¾	3-0½	0-10¾							
154	376	6	9-6	3E616	T9	0-10¾	8-7½								
155	376	6	8-11½	3E617	T9	0-10¾	8-0¾								
156															
157	PEDESTAL														
158	50	5	4-0	3E501	STR										
159	50	5	19-1	3E502	STR										
160	50	5	5-11	3E503	2	2-3	3-8								

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
161	40	5	26-1	3E504	10	6-6	13-1	6-6						4-2	8-4
162															
163	FOOTING														
164	36	9	26-6	3E903	STR										
165	81	8	17-6	3E802	STR										
166	19	8	26-6	3E803	STR										
167	16	8	4-6	3E804	2	1-4	3-2								
168															
169															
170															
171															
172															
173															
174															
175															
176															
177															
178															
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY J SJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS100	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER 4E														
1	CAP														
2	12	11	40-10	4E1101	17	2-2	40-6				2-2				
3	8	11	43-10	4E1102	2	2-2	39-6				2-2				
4	6	6	19-9	4E601	6			2-2	13-0		4-7	0-8½			
5	6	6	19-0	4E602	6			2-2	13-0		3-10	0-8½			
6	2	6	16-0	4E603	STR										
7	2	6	22-0	4E604	STR										
8	2	6	28-0	4E605	STR										
9	2	6	34-0	4E606	STR										
10	2	6	40-0	4E607	STR										
11	2	6	40-5	4E608	STR										
12	2	6	40-5	4E609	STR										
13	2	6	40-5	4E610	STR										
14	14	6	8-8½	4E611	17		2-2	4-4½	2-2						
15	11	7	10-10	4E701	17		3-2	4-6	3-2						
16	11	7	20-10	4E702	17		8-2	4-6	8-2						
17	40	7	8-1¾	4E703	17		3-2	1-9¾	3-2						
18	20	7	9-3½	4E704	17		3-2	2-11½	3-2						
19	2	7	17-9¾	4E705	17		8-0	1-9¾	8-0						
20	2	7	16-11¾	4E706	17		7-7	1-9¾	7-7						
21	2	7	16-1¾	4E707	17		7-2	1-9¾	7-2						
22	2	7	15-3¾	4E708	17		6-9	1-9¾	6-9						
23	2	7	14-5¾	4E709	17		6-4	1-9¾	6-4						
24	2	7	13-9¾	4E710	17		6-0	1-9¾	6-0						
25	2	7	12-11¾	4E711	17		5-7	1-9¾	5-7						
26	2	7	12-1¾	4E712	17		5-2	1-9¾	5-2						
27	2	7	11-3¾	4E713	17		4-9	1-9¾	4-9						
28	2	7	10-5¾	4E714	17		4-4	1-9¾	4-4						
29	2	7	16-11¾	4E715	17		7-7	1-9¾	7-7						
30	2	7	16-1¾	4E716	17		7-2	1-9¾	7-2						
31	2	7	15-3¾	4E717	17		6-9	1-9¾	6-9						
32	2	7	14-5¾	4E718	17		6-4	1-9¾	6-4						
33	2	7	13-7¾	4E719	17		5-11	1-9¾	5-11						
34	2	7	12-9¾	4E720	17		5-6	1-9¾	5-6						
35	2	7	11-11¾	4E721	17		5-1	1-9¾	5-1						
36	2	7	11-1¾	4E722	17		4-8	1-9¾	4-8						
37	2	7	10-1¾	4E723	17		4-2	1-9¾	4-2						
38	2	7	9-3¾	4E724	17		3-9	1-9¾	3-9						
39	1	7	18-11½	4E725	17		8-0	2-11½	8-0						
40	1	7	18-1½	4E726	17		7-7	2-11½	7-7						
41	1	7	17-3½	4E727	17		7-2	2-11½	7-2						
42	1	7	16-5½	4E728	17		6-9	2-11½	6-9						
43	1	7	15-7½	4E729	17		6-4	2-11½	6-4						
44	1	7	14-11½	4V730	17		6-0	2-11½	6-0						
45	1	7	14-1½	4E731	17		5-7	2-11½	5-7						
46	1	7	13-3½	4E732	17		5-2	2-11½	5-2						
47	1	7	12-5½	4E733	17		4-9	2-11½	4-9						
48	1	7	11-7½	4E734	17		4-4	2-11½	4-4						
49	1	7	18-1½	4E735	17		7-7	2-11½	7-7						
50	1	7	17-3½	4E736	17		7-2	2-11½	7-2						
51	1	7	16-5½	4E737	17		6-9	2-11½	6-9						
52	1	7	15-7½	4E738	17		6-4	2-11½	6-4						
53	1	7	14-9½	4E739	17		5-11	2-11½	5-11						
54	1	7	13-11½	4E740	17		5-6	2-11½	5-6						
55	1	7	13-1½	4E741	17		5-1	2-11½	5-1						
56	1	7	12-3½	4E742	17		4-8	2-11½	4-8						
57	1	7	11-3½	4E743	17		4-2	2-11½	4-2						
58	1	7	10-5½	4E744	17		3-9	2-11½	3-9						
59	15	6	12-0	4E618	2	2-1	9-11								
60	27	5	8-8	4E505	17		2-1	4-6	2-1						
61															
62	SHAFT														
63	34	11	12-4	4E1103	2	2-0	10-4								
64	34	11	20-4	4E1104	2	2-0	18-4								
65	34	11	22-0	4E1105	STR										
66	34	11	21-0	4E1106	STR										
67	34	9	39-6	4E901	STR										
68	34	9	25-10	4E902	STR										
69	34	8	23-6	4E801	STR										
70	178	6	19-10¾	4E4612	10	6-6½	6-9¾	6-6½					2-2	4-4	
71	979	6	6-3	4E613	T9	0-10¾	4-5½	0-10¾							
72	178	6	5-11	4E614	T9	0-10¾	4-1½	0-10¾							
73	178	6	4-10	4E615	T9	0-10¾	3-0½	0-10¾							
74	356	6	9-6	4E616	T9	0-10¾	8-7¼								
75	356	6	8-11½	4E617	T9	0-10¾	8-0¾								
76															
77	PEDESTAL														
78	50	5	4-0	4E501	STR										
79	50	5	5-11	4E502	2	2-3	3-8								
80	50	5	26-1	4E503	10	6-6	13-1	6-6					4-2	8-4	

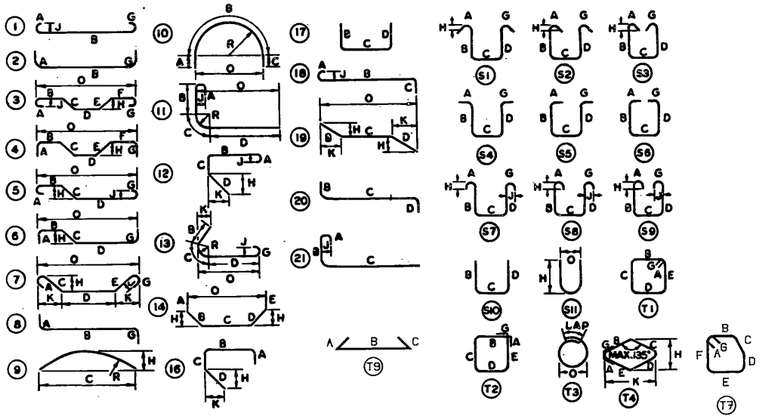
ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
81	50	5	17-10	4E504	STR										
82															
83	FOOTING														
84	36	9	26-6	4E903	STR										
85	81	8	17-6	4E802	STR										
86	19	8	26-6	4E803	STR										
87	16	8	4-6	4E804	2	1-4	3-2								
88															
89															
90	PIER 5E														
91	CAP														
92	12	11	44-10	5E1101	2	2-2	40-6				2-2				
93	10	11	43-10	5E1102	2	2-2	39-6				2-2				
94	6	6	19-9	5E601	6			2-2	13-0		4-7	0-8½			
95	6	6	19-0	5E602	6			2-2	13-0		3-10	0-8½			
96	2	6	16-0	5E603	STR										
97	2	6	22-0	5E604	STR										
98	2	6	28-0	5E605	STR										
99	2	6	34-0	5E606	STR										
100	2	6	40-0	5E607	STR										
101	2	6	40-5	5E608	STR										
102	2	6	40-5	5E609	STR										
103	2	6	40-5	5E610	STR										
104	14	6	8-8½	5E611	17		2-2	4-4½	2-2						
105	11	7	10-10	5E701	17		3-2	4-6	3-2						
106	11	7	20-10	5E702	17		8-2	4-6	8-2						
107	40	7	8-1¾	5E703	17		3-2	1-9¾	3-2						
108	20	7	9-3½	5E704	17		3-2	2-11½	3-2						
109	2	7	17-9¾	5E705	17		8-0	1-9¾	8-0						
110	2	7	16-11¾	5E706	17		7-7	1-9¾	7-7						
111	2	7	16-1¾	5E707	17		7-2	1-9¾	7-2						
112	2	7	15-3¾	5E708	17		6-9	1-9¾	6-9						
113	2	7	14-5¾	5E709	17		6-4	1-9¾	6-4						
114	2	7	13-9¾	5E710	17		6-0	1-9¾	6-0						
115	2	7	12-11¾	5E711	17		5-7	1-9¾	5-7						
116	2	7	12-1¾	5E712	17		5-2	1-9¾	5-2						
117	2	7	11-3¾	5E713	17		4-9	1-9¾	4-9						
118	2	7	10-5¾	5E714	17		4-4	1-9¾	4-4						
119	2	7	16-11¾	5E715	17		7-7	1-9¾	7-7						
120	2	7	16-1¾	5E716	17		7-2	1-9¾	7-2						
121	2	7	15-3¾	5E717	17		6-9	1-9¾	6-9						
122	2	7	14-5¾	5E718	17		6-4	1-9¾	6-4						
123	2	7	13-7¾	5E719	17		5-11	1-9¾	5-11						
124	2	7	12-9¾	5E720	17		5-6	1-9¾	5-6						
125	2	7	11-11¾	5E721	17		5-1	1-9¾	5-1						
126	2	7	11-1¾	5E722	17		4-8	1-9¾	4-8						
127	2	7	10-1¾	5E723	17		4-2	1-9¾	4-2						
128	2	7	9-3¾	5E724	17		3-9	1-9¾	3-9						
129	1	7	18-11½	5E725	17		8-0	2-11½	8-0						
130	1	7	18-1½	5E726	17		7-7	2-11½	7-7						
131	1	7	17-3½	5E727	17		7-2	2-11½	7-2						
132	1	7	16-5½	5E728	17		6-9	2-11½	6-9						
133	1	7	15-7½	5E729	17		6-4	2-11½	6-4						
134	1	7	14-11½	5E730	17		6-0	2-11½	6-0						
135	1	7	14-1½	5E731	17		5-7	2-11½	5-7						
136	1	7	13-3½	5E732	17		5-2	2-11½	5-2						
137	1	7	12-5½	5E733	17		4-9	2-11½	4-9						
138	1	7	11-7½	5E734	17		4-4	2-11½	4-4						
139	1	7	18-1½	5E735	17		7-7	2-11½	7-7						
140	1	7	17-3½	5E736	17		7-2	2-11½	7-2						
141	1	7	16-5½	5E737	17		6-9	2-11½	6-9						
142	1	7	15-7½	5E738	17		6-4	2-11½	6-4						
143	1	7	14-9½	5E739	17		5-11	2-11½	5-11						
144	1	7	13-11½	5E740	17		5-6	2-11½	5-6						
145	1	7	13-1½	5E741	17		5-1	2-11½	5-1						
146	1	7	12-3½	5E742	17		4-8	2-11½	4-8						
147	1	7	11-3½	5E743	17		4-2	2-11½	4-2						
148	1	7	10-5½	5E744	17		3-9	2-11½	3-9						
149	15	6	12-0	5E618	2	2-1	9-11								
150	27	5	8-8	5E505	17		2-1	4-6	2-1						
151															
152	SHAFT														
153	68	11	12-4	5E1103	2	2-0	10-4								
154	68	11	20-4	5E1104	2	2-0	18-4								
155	68	11	25-0	5E1105	STR										
156	68	11	33-0	5E1106	STR										
157	34	9	39-6	5E901	STR										
158	34	9	23-6	5E902	STR										
159	218	6	19-11	5E612	10	6-6½	6-10	6-6½						2-2	4-4
160	1199	6	6-3	5E613	T9	0-10¾	4-5½	0-10¾							

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
161	218	6	5-11	5E614	T9	0-10¾	4-1½	0-10¾							
162	218	6	4-10	5E615	T9	0-10¾	3-0½	0-10¾							
163	436	6	9-6	5E616	T9	0-10¾	8-7¼								
164	436	6	8-11½	5E617	T9	0-10¾	8-0¾								
165															
166	PEDESTAL														
167	50	5	4-0	5E501	STR										
168	50	5	5-11	5E502	2	2-3	3-8								
169	40	5	26-1	5E503	10	6-6	13-1	6-6						4-2	8-4
170	50	5	19-1	5E504	STR										
171															
172	FOOTING														
173	56	11	26-6	5E1107	STR										
174	28	9	27-6	5E903	STR										
175	28	8	27-6	5E801	STR										
176	29	8	26-6	5E802	STR										
177	32	8	4-6	5E803	2	1-4	3-2								
178															
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY JSJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS101	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER 6E														
1	CAP														
2	12	11	44-10	6E1101	2	2-2	40-6				2-2				
3	10	11	43-10	6E1102	2	2-2	39-6				2-2				
4	6	6	19-9	6E601	6			2-2	13-0		4-7	0-8½			
5	6	6	19-0	6E602	6			2-2	13-0		3-10	0-8½			
6	2	6	16-0	6E603	STR										
7	2	6	22-0	6E604	STR										
8	2	6	28-0	6E605	STR										
9	2	6	34-0	6E606	STR										
10	2	6	40-0	6E607	STR										
11	2	6	40-5	6E608	STR										
12	2	6	40-5	6E609	STR										
13	2	6	40-5	6E610	STR										
14	14	6	8-8½	6E611	17		2-2	4-4½	2-2						
15	11	7	10-10	6E701	17		3-2	4-6	3-2						
16	11	7	20-10	6E702	17		8-2	4-6	8-2						
17	40	7	8-1½	6E703	17		3-2	1-9½	3-2						
18	20	7	9-3½	6E704	17		3-2	2-11½	3-2						
19	2	7	17-9½	6E705	17		8-0	1-9½	8-0						
20	2	7	16-11½	6E706	17		7-7	1-9½	7-7						
21	2	7	16-1½	6E707	17		7-2	1-9½	7-7						
22	2	7	15-3½	6E708	17		6-9	1-9½	6-9						
23	2	7	14-5½	6E709	17		6-4	1-9½	6-4						
24	2	7	13-9½	6E710	17		6-0	1-9½	6-0						
25	2	7	12-7½	6E711	17		5-7	1-9½	5-7						
26	2	7	12-1½	6E712	17		5-2	1-9½	5-2						
27	2	7	11-3½	6E713	17		4-9	1-9½	4-9						
28	2	7	10-5½	6E714	17		4-4	1-9½	4-4						
29	2	7	16-11½	6E715	17		7-7	1-9½	7-7						
30	2	7	16-1½	6E716	17		7-2	1-9½	7-2						
31	2	7	15-3½	6E717	17		6-9	1-9½	6-9						
32	2	7	14-5½	6E718	17		6-4	1-9½	6-4						
33	2	7	13-7½	6E719	17		5-11	1-9½	5-11						
34	2	7	12-9½	6E720	17		5-6	1-9½	5-6						
35	2	7	11-11½	6E721	17		5-1	1-9½	5-1						
36	2	7	11-1½	6E722	17		4-8	1-9½	4-8						
37	2	7	10-1½	6E723	17		4-2	1-9½	4-2						
38	2	7	9-3½	6E724	17		3-9	1-9½	3-9						
39	1	7	18-11½	6E725	17		8-0	2-11½	8-0						
40	1	7	18-1½	6E726	17		7-7	2-11½	7-7						
41	1	7	17-3½	6E727	17		7-2	2-11½	7-2						
42	1	7	16-5½	6E728	17		6-9	2-11½	6-9						
43	1	7	15-7½	6E729	17		6-4	2-11½	6-4						
44	1	7	14-11½	6E730	17		6-0	2-11½	6-0						
45	1	7	14-1½	6E731	17		5-7	2-11½	5-7						
46	1	7	13-3½	6E732	17		5-2	2-11½	5-2						
47	1	7	12-5½	6E733	17		4-9	2-11½	4-9						
48	1	7	11-7½	6E734	17		4-4	2-11½	4-4						
49	1	7	18-1½	6E735	17		7-7	2-11½	7-7						
50	1	7	17-3½	6E736	17		7-2	2-11½	7-2						
51	1	7	16-5½	6E737	17		6-9	2-11½	6-9						
52	1	7	15-7½	6E738	17		6-4	2-11½	6-4						
53	1	7	14-9½	6E739	17		5-11	2-11½	5-11						
54	1	7	13-11½	6E740	17		5-6	2-11½	5-6						
55	1	7	13-1½	6E741	17		5-1	2-11½	5-1						
56	1	7	12-3½	6E742	17		4-8	2-11½	4-8						
57	1	7	11-3½	6E743	17		4-2	2-11½	4-2						
58	1	7	10-5½	6E744	17		3-9	2-11½	3-9						
59	15	6	12-0	6E618	2	2-1	9-11								
60	27	5	8-8	6E505	17		2-1	4-6	2-1						
61															
62		SHAFT													
63	68	11	12-4	6E1103	2	2-0	10-4								
64	68	11	20-4	6E1104	2	2-0	18-4								
65	68	11	25-0	6E1105	STR										
66	68	11	28-0	6E1106	STR										
67	34	9	23-6	6E901	STR										
68	34	9	36-3	6E902	STR										
69	208	6	19-11	6E612	10	6-6½	6-10	6-6½						2-2	4-4
70	1144	6	6-3	6E613	T9	0-10½	4-5½	0-10½							
71	208	6	5-11	6E614	T9	0-10½	4-1½	0-10½							
72	208	6	4-10	6E615	T9	0-10½	3-0½	0-10½							
73	416	6	9-6	6E616	T9	0-10½	8-7½								
74	416	6	8-11½	6E617	T9	0-10½	8-0½								
75															
76		PEDESTAL													
77	50	5	4-0	6E501	STR										
78	50	5	5-11	6E502	2	2-3	3-8								
79	40	5	26-1	6E503	10	6-6	13-1	6-6						4-2	8-4
80	50	5	17-8	6E504	STR										

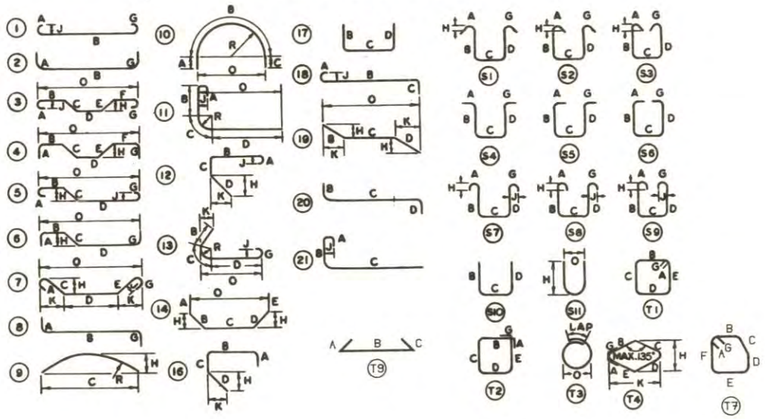
ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
		FOOTING													
81	56	11	26-6	6E1107	STR										
82	28	9	27-6	6E903	STR										
83	28	8	27-6	6E801	STR										
84	29	8	26-6	6E802	STR										
85	32	8	4-6	6E803	2	1-4	3-2								
86															
87	PIER 7E														
88	CAP														
89	9	11	44-10	7E1101	2	2-2	40-6				2-2				
90	9	11	43-10	7E1102	2	2-2	39-6				2-2				
91	2	11	35-6	7E1103	STR										
92	6	6	19-9	7E601	6			2-2	13-0		4-7	0-8½			
93	6	6	19-0	7E602	6			2-2	13-0		3-10	0-8½			
94	2	6	16-0	7E603	STR										
95	2	6	22-0	7E604	STR										
96	2	6	28-0	7E605	STR										
97	2	6	34-0	7E606	STR										
98	2	6	40-0	7E607	STR										
99	2	6	40-5	7E608	STR										
100	2	6	40-5	7E609	STR										
101	12	6	7-8½	7E610	17		2-2	3-4½	2-2						
102	11	7	9-10	7E701	17		3-2	3-6	3-2						
103	11	7	19-10	7E702	17		8-2	3-6	8-2						
104	52	7	7-9½	7E703	17		3-2	1-5½	3-2						
105	26	7	8-2½	7E704	17		3-2	1-10½	3-2						
106	2	7	17-5½	7E705	17		8-0	1-5½	8-0						
107	2	7	16-9½	7E706	17		7-8	1-5½	7-8						
108	2	7	16-3½	7E707	17		7-5	1-5½	7-5						
109	2	7	15-7½	7E708	17		7-1	1-5½	7-1						
110	2	7	14-11½	7E709	17		6-9	1-5½	6-9						
111	2	7	14-5½	7E710	17		6-6	1-5½	6-6						
112	2	7	13-9½	7E711	17		6-2	1-5½	6-2						
113	2	7	13-1½	7E712	17		5-10	1-5½	5-10						
114	2	7	12-5½	7E713	17		5-6	1-5½	5-6						
115	2	7	11-11½	7E714	17		5-3	1-5½	5-3						
116	2	7	11-3½	7E715	17		4-11	1-5½	4-11						
117	2	7	10-9½	7E716	17		4-8	1-5½	4-8						
118	2	7	10-1½	7E717	17		4-4	1-5½	4-4						
119	2	7	16-7½	7E718	17		7-7	1-5½	7-7						
120	2	7	16-1½	7E719	17		7-4	1-5½	7-4						
121	2	7	15-5½	7E720	17		7-0	1-5½	7-0						
122	2	7	14-9½	7E721	17		6-8	1-5½	6-8						
123	2	7	14-1½	7E722	17		6-4	1-5½	6-4						
124	2	7	13-5½	7E723	17		6-0	1-5½	6-0						
125	2	7	12-11½	7E724	17		5-9	1-5½	5-9						
126	2	7	12-3½	7E725	17		5-5	1-5½	5-5						
127	2	7	11-7½	7E726	17		5-1	1-5½	5-1						
128	2	7	10-11½	7E727	17		4-9	1-5½	4-9						
129	2	7	10-3½	7E728	17		4-5	1-5½	4-5						
130	2	7	9-7½	7E729	17		4-1	1-5½	4-1						
131	2	7	8-11½	7E730	17		3-9	1-5½	3-9						
132	1	7	17-10½	7E731	17		8-0	1-10½	8-0						
133	1	7	17-2½	7E732	17		7-8	1-10½	7-8						
134	1	7	16-8½	7E733	17		7-5	1-10½	7-5						
135	1	7	16-0½	7E734	17		7-1	1-10½	7-1						
136	1	7	15-4½	7E735	17		6-9	1-10½	6-9						
137	1	7	14-10½	7E736	17		6-6	1-10½	6-6						
138	1	7	14-2½	7E737	17		6-2	1-10½	6-2						
139	1	7	13-6½	7E738	17		5-10	1-10½	5-10						
140	1	7	12-10½	7E739	17		5-6	1-10½	5-6						
141	1	7	12-4½	7E740	17		5-3	1-10½	5-3						
142	1	7	11-8½	7E741	17		4-11	1-10½	4-11						
143	1	7	11-2½	7E742	17		4-8	1-10½	4-8						
144	1	7	10-6½	7E743	17		4-4	1-10½	4-4						
145	1	7	17-0½	7E744	17		7-7	1-10½	7-7						
146	1	7	16-6½	7E745	17		7-4	1-10½	7-4						
147	1	7	15-10½	7E746	17		7-0	1-10½	7-0						
148	1	7	15-2½	7E747	17		6-8	1-10½	6-8						
149	1	7	14-6½	7E748	17		6-4	1-10½	6-4						
150	1	7	13-10½	7E749	17		6-0	1-10½	6-0						
151	1	7	13-4½	7E750	17		5-9	1-10½	5-9						
152	1	7	12-8½	7E751	17		5-5	1-10½	5-5						
153	1	7	12-0½	7E752	17		5-1	1-10½	5-1						
154	1	7	11-4½	7E753	17		4-9	1-10½	4-9						
155	1	7	10-8½	7E754	17		4-5	1-10½	4-5						
156	1	7	10-0½	7E755	17		4-1	1-10½	4-1						
157	1	7	9-4½	7E756	17		3-9	1-10½	3-9						
158	12	6	12-0	7E617	2	2-1	9-11								
159	27	5	5-8	7E505	17		2-1	3-6	2-1						
160															

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
161		SHAFT													
162	26	11	11-4	7E1104	2	2-0	9-4								
163	26	11	19-4	7E1105	2	2-0	17-4								
164	52	11	23-2	7E1106	STR										
165	26	9	30-9	7E901	STR										
166	26	9	22-9	7E902	STR										
167	803	6	5-3	7E611	T9	0-10½	3-5½	0-10½							
168	146	6	5-1	7E612	T9	0-10½	3-3½	0-10½							
169	146	6	3-4	7E613	T9	0-10½	1-6½	0-10½							
170	146	6	19-3	7E614	10	7-0½	5-2	7-0½						1-8	3-4
171	146	6	9-8	7E615	T9	0-10½	8-9½								
172	292	6	9-2½	7E616	T9	0-10½	8-3½								
173															
174															
175															
176															
177															
178															
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

REINFORCING STEEL SCHEDULE

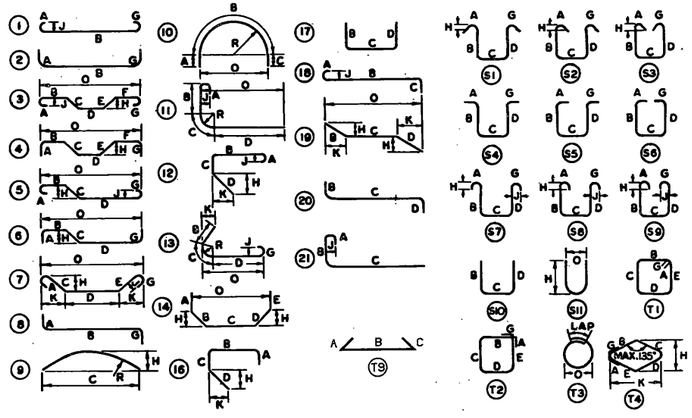
DESIGNED BY	DRAWN BY C.A.D.
CHECKED BY DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS102	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER 7E (CONT'D)														
1	PEDESTAL														
2	48	5	4-0	7E501	STR										
3	48	5	5-11	7E502	2	2-3	3-8								
4	40	5	25-6½	7E503	10	7-0	11-6½	7-0						3-8	7-4
5	48	5	19-1	7E504	STR										
6															
7	FOOTING														
8	54	9	14-6	7E903	STR										
9	30	9	26-6	7E904	STR										
10	28	7	14-6	7E757	STR										
11	16	7	26-6	7E758	STR										
12	12	8	4-6	7E801	2	1-4	3-2								
13															
14															
15	PIER 8E														
16	CAP														
17	9	11	44-10	8E1101	2	2-2	40-6				2-2				
18	9	11	43-10	8E1102	2	2-2	39-6				2-2			1-8	3-4
19	6	11	35-6	8E1103	STR										
20	6	6	19-9	8E601	6			2-2	13-0		4-7	0-8¼			
21	6	6	19-0	8E602	6			2-2	13-0		3-10	0-8¼			
22	2	6	16-0	8E603	STR										
23	2	6	22-0	8E604	STR										
24	2	6	28-0	8E605	STR										
25	2	6	34-0	8E606	STR										
26	2	6	40-0	8E607	STR										
27	2	6	40-5	8E608	STR										
28	2	6	40-5	8E609	STR										
29	12	6	7-8½	8E610	17		2-2	3-4½	2-2						
30	11	7	9-10	8E701	17		3-2	3-6	3-2						
31	11	7	19-10	8E702	17		8-2	3-6	8-2						
32	52	7	7-9¾	8E703	17		3-2	1-5¾	3-2						
33	26	7	8-2¾	8E704	17		3-2	1-10¾	3-2						
34	2	7	17-5¾	8E705	17		8-0	1-5¾	8-0						
35	2	7	16-9¾	8E706	17		7-8	1-5¾	7-8						
36	2	7	16-3¾	8E707	17		7-5	1-5¾	7-5						
37	2	7	15-7¾	8E708	17		7-1	1-5¾	7-1						
38	2	7	14-11¾	8E709	17		6-9	1-5¾	6-9						
39	2	7	14-5¾	8E710	17		6-6	1-5¾	6-6						
40	2	7	13-9¾	8E711	17		6-2	1-5¾	6-2						
41	2	7	13-1¾	8E712	17		5-10	1-5¾	5-10						
42	2	7	12-5¾	8E713	17		5-6	1-5¾	5-6						
43	2	7	11-11¾	8E714	17		5-3	1-5¾	5-3						
44	2	7	10-3¾	8E715	17		4-11	1-5¾	4-11						
45	2	7	10-9¾	8E716	17		4-8	1-5¾	4-8						
46	2	7	10-1¾	8E717	17		4-4	1-5¾	4-4						
47	2	7	16-7¾	8E718	17		7-7	1-5¾	7-7						
48	2	7	16-1¾	8E719	17		7-4	1-5¾	7-4						
49	2	7	15-5¾	8E720	17		7-0	1-5¾	7-0						
50	2	7	14-9¾	8E721	17		6-8	1-5¾	6-8						
51	2	7	14-1¾	8E722	17		6-4	1-5¾	6-4						
52	2	7	13-5¾	8E723	17		6-0	1-5¾	6-0						
53	2	7	12-11¾	8E724	17		5-9	1-5¾	5-9						
54	2	7	12-3¾	8E725	17		5-5	1-5¾	5-5						
55	2	7	11-7¾	8E726	17		5-1	1-5¾	5-1						
56	2	7	10-11¾	8E727	17		4-9	1-5¾	4-9						
57	2	7	10-3¾	8E728	17		4-5	1-5¾	4-5						
58	2	7	9-7¾	8E729	17		4-1	1-5¾	4-1						
59	2	7	8-11¾	8E730	17		3-9	1-5¾	3-9						
60	1	7	17-10¾	8E731	17		8-0	1-10¾	8-0						
61	1	7	17-2¾	8E732	17		7-8	1-10¾	7-8						
62	1	7	16-8¾	8E733	17		7-5	1-10¾	7-5						
63	1	7	16-0¾	8E734	17		7-1	1-10¾	7-1						
64	1	7	15-4¾	8E735	17		6-9	1-10¾	6-9						
65	1	7	14-10¾	8E736	17		6-6	1-10¾	6-6						
66	1	7	14-2¾	8E737	17		6-2	1-10¾	6-2						
67	1	7	13-6¾	8E738	17		5-10	1-10¾	5-10						
68	1	7	12-10¾	8E739	17		5-6	1-10¾	5-6						
69	1	7	12-4¾	8E740	17		5-3	1-10¾	5-3						
70	1	7	11-8¾	8E741	17		4-11	1-10¾	4-11						
71	1	7	11-2¾	8E742	17		4-8	1-10¾	4-8						
72	1	7	10-6¾	8E743	17		4-4	1-10¾	4-4						
73	1	7	17-0¾	8E744	17		7-7	1-10¾	7-7						
74	1	7	16-6¾	8E745	17		7-4	1-10¾	7-4						
75	1	7	15-10¾	8E746	17		7-0	1-10¾	7-0						
76	1	7	15-2¾	8E747	17		6-8	1-10¾	6-8						
77	1	7	14-6¾	8E748	17		6-4	1-10¾	6-4						
78	1	7	13-10¾	8E749	17		6-0	1-10¾	6-0						
79	1	7	13-4¾	8E750	17		5-9	1-10¾	5-9						
80	1	7	12-8¾	8E751	17		5-5	1-10¾	5-5						
81	1	7	12-0¾	8E752	17		5-1	1-10¾	5-1						
82	1	7	11-4¾	8E753	17		4-9	1-10¾	4-9						
83	1	7	10-8¾	8E754	17		4-5	1-10¾	4-5						
84	1	7	10-0¾	8E755	17		4-1	1-10¾	4-1						
85	1	7	9-4¾	8E756	17		3-9	1-10¾	3-9						
86	12	6	12-0	8E617	2	2-1	9-11								
87	27	5	5-8	8E505	17		2-1	3-6	2-1						
88															
89	SHAFT														
90	26	11	11-4	8E1104	2	2-0	9-4								
91	26	11	19-4	8E1105	2	2-0	17-4								
92	52	11	22-1	8E1106	STR										
93	26	9	25-6	8E901	STR										
94	26	9	17-6	8E902	STR										
95	726	6	5-3	8E611	T9	0-10¾	3-5½	0-10¾							
96	132	6	5-1	8E612	T9	0-10¾	3-3½	0-10¾							
97	132	6	3-4	8E613	T9	0-10¾	1-6½	0-10¾							
98	132	6	19-4	8E614	10	7-0½	5-3	7-0½						1-8	3-4
99	132	6	9-8	8E615	T9	0-10¾	8-9½								
100	264	6	9-2½	8E616	T9	0-10¾	8-3¾								
101															
102	PEDESTAL														
103	48	5	4-0	8E501	STR										
104	48	5	5-11	8E502	2	2-3	3-8								
105	38	5	25-6½	8E503	10	7-0	11-6½	7-0						3-8	7-4
106	48	5	17-11	8E504	STR										
107															
108	FOOTING														
109	54	9	14-6	8E903	STR										
110	28	7	14-6	8E757	STR										
111	30	9	26-6	8E904	STR										
112	16	7	26-6	8E758	STR										
113	16	8	4-6	8E801	2	1-4	3-2								
114															
115															
116	PIER 9E														
117	CAP														
118	13	11	44-10	9E1101	2	2-2	40-6				2-2				
119	5	11	43-10	9E1102	2	2-2	39-6				2-2				
120	6	6	19-9	9E641	6			2-2	13-0		4-7	0-8¼			
121	6	6	19-0	9E642	6			2-2	13-0		3-10	0-8¼			
122	2	6	16-0	9E643	STR										
123	2	6	22-0	9E644	STR										
124	2	6	28-0	9E645	STR										
125	2	6	34-0	9E646	STR										
126	2	6	40-0	9E647	STR										
127	2	6	40-5	9E648	STR										
128	2	6	40-5	9E649	STR										
129	2	6	40-5	9E650	STR										
130	14	6	9-2½	9E651	17		2-2	4-10½	2-2						
131	11	6	11-4	9E601	17		3-2	5-0	3-2						
132	11	6	20-0	9E602	17		7-6	5-0	7-6						
133	36	6	8-6½	9E603	17		3-2	2-2½	3-2						
134	18	6	8-11½	9E604	17		3-2	2-7½	3-2						
135	2	6	16-10½	9E605	17		7-4	2-2½	7-4						
136	2	6	16-0½	9E606	17		6-11	2-2½	6-11						
137	2	6	15-0½	9E607	17		6-5	2-2½	6-5						
138	2	6	14-2½	9E608	17		6-0	2-2½	6-0						
139	2	6	13-2½	9E609	17		5-6	2-2½	5-6						
140	2	6	12-4½	9E610	17		5-1	2-2½	5-1						
141	2	6	11-6½	9E611	17		4-8	2-2½	4-8						
142	2	6	10-8½	9E612	17		4-3	2-2½	4-3						
143	2	6	9-8½	9E613	17		3-9	2-2½	3-9						
144	2	6	16-4½	9E614	17		7-1	2-2½	7-1						
145	2	6	15-6½	9E615	17		6-8	2-2½	6-8						
146	2	6	14-6½	9E616	17		6-2	2-2½	6-2						
147	2	6	13-6½	9E617	17		5-8	2-2½	5-8						
148	2	6	12-6½	9E618	17		5-2	2-2½	5-2						
149	2	6	11-8½	9E619	17		4-9	2-2½	4-9						
150	2	6	10-8½	9E620	17		4-3	2-2½	4-3						
151	2	6	9-8½	9E621	17		3-9	2-2½	3-9						
152	2	6	8-8½	9E622	17		3-3	2-2½	3-3						
153	1	6	17-3½	9E623	17		7-4	2-7½	7-4						
154	1	6	16-5½	9E624	17		6-11	2-7½	6-11						
155	1	6	15-5½	9E625	17		6-5	2-7½	6-5						
156	1	6	14-7½	9E626	17		6-0	2-7½	6-0						
157	1	6	13-7½	9E627	17		5-6	2-7½	5-6						
158	1	6	12-9½	9E628	17		5-1	2-7½	5-1						
159	1	6	11-11½	9E629	17		4-8	2-7½	4-8						
160	1	6	11-1½	9E630	17		4-3	2-7½	4-3						
161	1	6	10-1½	9E631	17		3-9	2-7½	3-9						
162	1	6	16-9½	9E632	17		7-1	2-7½	7-1						
163	1	6	15-11½	9E633	17		6-8	2-7½	6-8						
164	1	6	14-11½	9E634	17		6-2	2-7½	6-2						
165	1	6	13-11½	9E635	17		5-8	2-7½	5-8						
166	1	6	12-11½	9E636	17		5-2	2-7½	5-2						
167	1	6	12-1½	9E637	17		4-9	2-7½	4-9						
168	1	6	11-1½	9E638	17		4-3	2-7½	4-3						
169	1	6	10-1½	9E639	17		3-9	2-7½	3-9						
170	1	6	9-1½	9E640	17		3-3	2-7½	3-3						
171	18	6	12-0	9E658	2	2-1	9-11								
172	27	5	9-2	9E505	17		2-1	5-0	2-1						
173															
174															
175															
176															
177															
178															
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

✱ DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY JSJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS103	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER 9E (CONT'D)														
1	SHAFT														
2	30	9	8-~~7~~	9E901	2	1-~~7~~	7-0								
3	30	9	14-~~7~~	9E902	2	1-~~7~~	13-0								
4	30	9	39-3	9E903	STR										
5	30	9	33-4	9E904	STR										
6	594	6	6-9	9E652	T9	0-10½	4-11½	0-10½							
~~7~~	108	6	20-2½	9E653	10	6-3½	~~7-7½~~	6-3½						2-5	4-10
8	108	6	6-1½	9E654	T9	0-10½	3-5½	0-10½							
9	108	6	3-~~7½~~	9E655	T9	0-10½	1-5½	0-10½							
10	216	6	8-8	9E656	T9	0-10½	~~7-9½~~								
11	216	6	9-5	9E657	T9	0-10½	8-6½								
12															
13	PEDESTAL														
14	50	5	4-0	9E501	STR										
15	50	5	5-11	9E502	2	2-3	3-8								
16	50	5	~~17~~-6	9E503	STR										
~~17~~	38	5	26-~~4½~~	9E504	10	6-3	13-10½	6-3						4-5	8-10
18															
19	FOOTING														
20	14	8	22-6	9E801	STR										
21	14	~~7~~	22-6	9E701	STR										
22	48	~~7~~	12-6	9E702	STR										
23	12	8	4-6	9E802	2	1-4	3-2								
24															
25	PIER 10E														
26	CAP														
~~27~~	9	11	44-10	10E1101	2	2-2	40-6				2-2				
28	9	11	43-10	10E1102	2	2-2	39-6				2-2				
29	6	11	35-6	10E1103	STR										
30	6	6	19-9	10E601	6			2-2	13-0		4-~~7~~	0-8¼			
31	6	6	19-0	10E602	6			2-2	13-0		3-10	0-8¼			
32	2	6	16-0	10E603	STR										
33	2	6	22-0	10E604	STR										
34	2	6	28-0	10E605	STR										
35	2	6	34-0	10E606	STR										
36	2	6	40-0	10E607	STR										
~~37~~	2	6	40-5	10E608	STR										
38	2	6	40-5	10E609	STR										
39	12	6	~~7-8½~~	10E610	~~17~~		2-2	3-4½	2-2						
40	11	~~7~~	9-10	10E701	~~17~~		3-2	3-6	3-2						
41	11	~~7~~	19-10	10E702	~~17~~		8-2	3-6	8-2						
42	52	~~7~~	~~7-9½~~	10E703	~~17~~		3-2	1-~~5½~~	3-2						
43	26	~~7~~	8-2½	10E704	~~17~~		3-2	1-10½	3-2						
44	2	~~7~~	~~17-5½~~	10E705	~~17~~		8-0	1-~~5½~~	8-0						
45	2	~~7~~	16-~~9½~~	10E706	~~17~~		~~7-8~~	1-~~5½~~	~~7-8~~						
46	2	~~7~~	16-3½	10E707	~~17~~		~~7-5~~	1-~~5½~~	~~7-5~~						
47	2	~~7~~	15-~~7½~~	10E708	~~17~~		~~7-1~~	1-~~5½~~	~~7-1~~						
48	2	~~7~~	14-11½	10E709	~~17~~		6-9	1-~~5½~~	6-9						
49	2	~~7~~	14-~~5½~~	10E710	~~17~~		6-6	1-~~5½~~	6-6						
50	2	~~7~~	13-~~9½~~	10E711	~~17~~		6-2	1-~~5½~~	6-2						
51	2	~~7~~	13-1½	10E712	~~17~~		5-10	1-~~5½~~	5-10						
52	2	~~7~~	12-~~5½~~	10E713	~~17~~		5-6	1-~~5½~~	5-6						
53	2	~~7~~	11-11½	10E714	~~17~~		5-3	1-~~5½~~	5-3						
54	2	~~7~~	11-3½	10E715	~~17~~		4-11	1-~~5½~~	4-11						
55	2	~~7~~	10-~~9½~~	10E716	~~17~~		4-8	1-~~5½~~	4-8						
56	2	~~7~~	10-1½	10E717	~~17~~		4-4	1-~~5½~~	4-4						
57	2	~~7~~	16-~~7½~~	10E718	~~17~~		~~7-7~~	1-~~5½~~	~~7-7~~						
58	2	~~7~~	16-1½	10E719	~~17~~		~~7-4~~	1-~~5½~~	~~7-4~~						
59	2	~~7~~	15-~~5½~~	10E720	~~17~~		~~7-0~~	1-~~5½~~	~~7-0~~						
60	2	~~7~~	14-~~9½~~	10E721	~~17~~		6-8	1-~~5½~~	6-8						
61	2	~~7~~	14-1½	10E722	~~17~~		6-4	1-~~5½~~	6-4						
62	2	~~7~~	13-~~5½~~	10E723	~~17~~		6-0	1-~~5½~~	6-0						
63	2	~~7~~	12-11½	10E724	~~17~~		5-9	1-~~5½~~	5-9						
64	2	~~7~~	12-3½	10E725	~~17~~		5-5	1-~~5½~~	5-5						
65	2	~~7~~	11-~~7½~~	10E726	~~17~~		5-1	1-~~5½~~	5-1						
66	2	~~7~~	10-11½	10E727	~~17~~		4-9	1-~~5½~~	4-9						
67	2	~~7~~	10-3½	10E728	~~17~~		4-5	1-~~5½~~	4-5						
68	2	~~7~~	9-~~7½~~	10E729	~~17~~		4-1	1-~~5½~~	4-1						
69	2	~~7~~	8-11½	10E730	~~17~~		3-9	1-~~5½~~	3-9						
~~70~~	1	~~7~~	~~17~~-10½	10E731	~~17~~		8-0	1-10½	8-0						
~~71~~	1	~~7~~	~~17~~-2½	10E732	~~17~~		~~7-8~~	1-10½	~~7-8~~						
~~72~~	1	~~7~~	16-~~8½~~	10E733	~~17~~		~~7-5~~	1-10½	~~7-5~~						
~~73~~	1	~~7~~	16-0½	10E734	~~17~~		~~7-1~~	1-10½	~~7-1~~						
~~74~~	1	~~7~~	15-4½	10E735	~~17~~		6-9	1-10½	6-9						
~~75~~	1	~~7~~	14-10½	10E736	~~17~~		6-6	1-10½	6-6						
~~76~~	1	~~7~~	14-2½	10E737	~~17~~		6-2	1-10½	6-2						
~~77~~	1	~~7~~	13-6½	10E738	~~17~~		5-10	1-10½	5-10						
~~78~~	1	~~7~~	12-10½	10E739	~~17~~		5-6	1-10½	~~7-5~~						
~~79~~	1	~~7~~	12-4½	10E740	~~17~~		5-3	1-10½	5-3						
80	1	~~7~~	11-8½	10E741	~~17~~		4-11	1-10½	4-11						

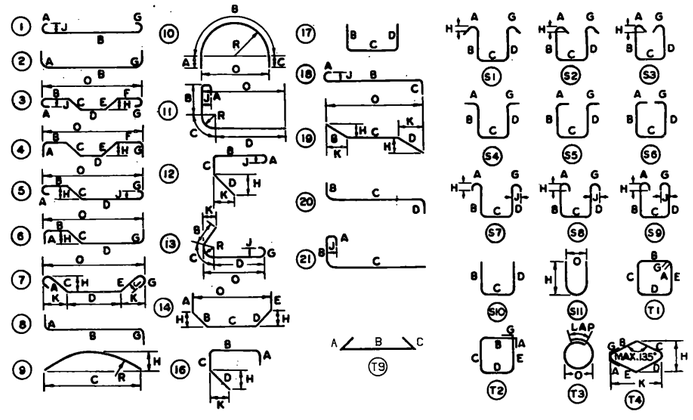
ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
81	1	~~7~~	11-2¾	10E742	~~17~~		4-8	1-10½	4-8						
82	1	~~7~~	10-6¾	10E743	~~17~~		4-4	1-10½	4-4						
83	1	~~7~~	~~17~~-0¾	10E744	~~17~~		~~7-7~~	1-10½	~~7-7~~						
84	1	~~7~~	16-6¾	10E745	~~17~~		~~7-4~~	1-10½	~~7-4~~						
85	1	~~7~~	15-10¾	10E746	~~17~~		7-0	1-10½	7-0						
86	1	~~7~~	15-2¾	10E747	~~17~~		6-8	1-10½	6-8						
87	1	~~7~~	14-6¾	10E748	~~17~~		6-4	1-10½	6-4						
88	1	~~7~~	13-10¾	10E749	~~17~~		6-0	1-10½	6-0						
89	1	~~7~~	13-4¾	10E750	~~17~~		5-9	1-10½	5-9						
90	1	~~7~~	12-8¾	10E751	~~17~~		5-5	1-10½	5-5						
91	1	~~7~~	12-0¾	10E752	~~17~~		5-1	1-10½	5-1						
92	1	~~7~~	11-4¾	10E753	~~17~~		4-9	1-10½	4-9						
93	1	~~7~~	10-8¾	10E754	~~17~~		4-5	1-10½	4-5						
94	1	~~7~~	10-0¾	10E755	~~17~~		4-1	1-10½	4-1						
95	1	~~7~~	9-4¾	10E756	~~17~~		3-9	1-10½	3-9						
96	12	6	12-0	10E617	2	2-1	9-11								
97	~~27~~	5	~~7~~-8	10E505	~~17~~		2-1	3-6	2-1						
98															
99	SHAFT														
100	26	9	8-6	10E901	2	1-~~7~~	6-11								
101	26	9	14-6	10E902	2	1-~~7~~	12-11								
102	26	9	33-4	10E903	STR										
103	26	9	27-4	10E904	STR										
104	616	6	5-3	10E611	T9	0-10½	3-5½	0-10½							
105	112	6	5-1	10E612	T9	0-10½	3-3½	0-10½							
106	112	6	3-4	10E613	T9	0-10½	1-6½	0-10½							
107	112	6	19-3	10E614	10	~~7~~-0½	5-2	~~7~~-0½						1-8	3-4
108	112	6	9-8	10E615	T9	0-10½	8-9½								
109	224	6	9-2½	10E616	T9	0-10½	8-3½								
110															
111	PEDESTAL														
112	48	5	4-0	10E501	STR										
113	48	5	5-11	10E502	2	2-3	3-8								
114	34	5	25-6½	10E503	10	~~7~~-0	11-6½	~~7~~-0						3-8	~~7~~-4
115	48	5	16-6	10E504	STR										
116															
117	FOOTING														
118	46	8	14-6	10E801	STR										
119	24	~~7~~	14-6	10E757	STR										
120	46	~~7~~	22-6	10E758	STR										
121	16	8	4-6	10E802	2	1-4	3-2								
122															
123	PIER 11E														
124	CAP														
125	9	11	44-10	11E1101		2-2	40-6							2-2	
126	9	11	43-10	11E1102		2-2	39-6							2-2	
127	2	11	35-6	11E1103											
128	6	6	19-9	11E601	6			2-2	13-0					4-~~7~~	0-8¼
129	6	6	19-0	11E602	6			2-2	13-0					3-10	0-8¼
130	2	6	16-0	11E603	STR										
131	2	6	22-0	11E604	STR										
132	2	6	28-0	11E605	STR										
133	2	6	34-0	11E605	STR										
134	2	6	40-0	11E607	STR										
135	2	6	40-5	11E608	STR										
136	2	6	40-5	11E609	STR										
137	12	6	~~7~~-8½	11E610	~~17~~		2-2	3-4½	2-2						
138	11	~~7~~	9-10	11E701	~~17~~		3-2	3-6	3-2						
139	11	~~7~~	19-10	11E702	~~17~~		8-2	3-6	8-2						
140	52	~~7~~	~~7~~-9¾	11E703	~~17~~		3-2	1-~~5½~~	3-2						
141	26	~~7~~	8-2¾	11E704	~~17~~		3-2	1-10½	3-2						
142	2	~~7~~	~~17~~-5¾	11E705	~~17~~		8-0	1-~~5½~~	8-0						
143	2	~~7~~	16-9¾	11E706	~~17~~		~~7~~-8	1-~~5½~~	~~7~~-8						
144	2	~~7~~	16-3¾	11E707	~~17~~		7-5	1-~~5½~~	7-5						
145	2	~~7~~	15-~~7½~~	11E708	~~17~~		~~7~~-1	1-~~5½~~	7-1						
146	2	~~7~~	14-11¾	11E709	~~17~~		6-9	1-~~5½~~	6-9						
147	2	~~7~~	14-~~5½~~	11E710	~~17~~		6-6	1-~~5½~~	6-6						
148	2	~~7~~	13-~~9½~~	11E711	~~17~~		6-2	1-~~5½~~	6-2						
149	2	~~7~~	13-1¾	11E712	~~17~~		5-10	1-~~5½~~	5-10						
150	2	~~7~~	12-~~5½~~	11E713	~~17~~		5-6	1-~~5½~~	5-6						
151	2	~~7~~	11-11¾	11E714	~~17~~		5-3	1-~~5½~~	5-3						
152	2	~~7~~	11-3¾	11E715	~~17~~		4-11	1-~~5½~~	4-11						
153	2	~~7~~	10-~~9½~~	11E716	~~17~~		4-8	1-~~5½~~	4-8						
154	2	~~7~~	10-1¾	11E717	~~17~~		4-4	1-~~5½~~	4-4						
155	2	~~7~~	16-~~7½~~	11E718	~~17~~		~~7~~-7	1-~~5½~~	~~7~~-7						
156	2	~~7~~	16-1¾	11E719	~~17~~		~~7~~-4	1-~~5½~~	~~7~~-4						
157	2	~~7~~	15-~~5½~~	11E720	~~17~~		~~7~~-0	1-~~5½~~	~~7~~-0						
158	2	~~7~~	14-~~9½~~	11E721	~~17~~		6-8	1-~~5½~~	6-8						
159	2	~~7~~	14-1¾	11E722	~~17~~		6-4	1-~~5½~~	6-4						
160	2	~~7~~	13-~~5½~~	11E723	~~17~~		6-0	1-~~5½~~	6-0						

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
161	2	~~7~~	12-11¾	11E724	~~17~~		5-9	1-~~5½~~	5-9						
162	2	~~7~~	12-3¾	11E725	~~17~~		5-5	1-~~5½~~	5-5						
163	2	~~7~~	11-~~7¾~~	11E726	~~17~~		5-1	1-~~5½~~	5-1						
164	2	~~7~~	10-11¾	11E727	~~17~~		4-9	1-~~5½~~	4-9						
165	2	~~7~~	10-3¾	11E728	~~17~~		4-5	1-~~5½~~	4-5						
166	2	~~7~~	9-~~7¾~~	11E729	~~17~~		4-1	1-~~5½~~	4-1						
~~167~~	2	~~7~~	8-11¾	11E730	~~17~~		3-9	1-~~5½~~	3-9						
168	1	~~7~~	~~17~~-10¾	11E731	~~17~~		8-0	1-10¾	8-0						
169	1	~~7~~	~~17~~-2¾	11E732	~~17~~		~~7~~-8	1-10¾	~~7~~-8						
170	1	~~7~~	16-8¾	11E733	~~17~~		~~7~~-5	1-10¾	~~7~~-5						
171	1	~~7~~	16-0¾	11E734	~~17~~		~~7~~-1	1-10¾	~~7~~-1						
172	1	~~7~~	15-~~4¾~~	11E735	~~17~~		6-9	1-10¾	6-9						
173	1	~~7~~	14-10¾	11E736	~~17~~		6-6	1-10¾	6-6						
174	1	~~7~~	14-2¾	11E737	~~17~~		6-2	1-10¾	6-2						
175	1	~~7~~	13-6¾	11E738	~~17~~		5-10	1-10¾	5-10						
176	1	~~7~~	12-10¾	11E739	~~17~~		5-6	1-10¾	5-6						
177	1	~~7~~	12-~~4¾~~	11E740	~~17~~		5-3	1-10¾	5-3						
178	1	~~7~~	11-8¾	11E741	~~17~~		4-11	1-10¾	4-11						
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

✱ DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

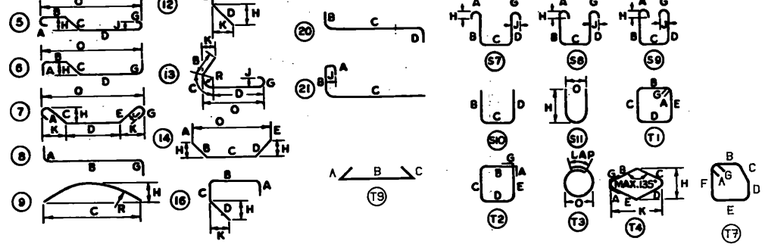
DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY JSJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS104	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER	11E	CONT'D)												
1	1	7	11-2½	11E742	17		4-8	1-10¾	4-8						
2	1	7	10-6¾	11E743	17		4-4	1-10¾	4-4						
3	1	7	17-0¾	11E744	17		7-7	1-10¾	7-7						
4	1	7	16-6¾	11E745	17		7-4	1-10¾	7-4						
5	1	7	15-10¾	11E746	17		7-0	1-10¾	7-0						
6	1	7	15-2¾	11E747	17		6-8	1-10¾	6-8						
7	1	7	14-6¾	11E748	17		6-4	1-10¾	6-4						
8	1	7	13-10¾	11E749	17		6-0	1-10¾	6-0						
9	1	7	13-4¾	11E750	17		5-9	1-10¾	5-9						
10	1	7	12-8¾	11E751	17		5-5	1-10¾	5-5						
11	1	7	12-0¾	11E752	17		5-1	1-10¾	5-1						
12	1	7	11-4¾	11E753	17		4-9	1-10¾	4-9						
13	1	7	10-8¾	11E754	17		4-5	1-10¾	4-5						
14	1	7	10-0¾	11E755	17		4-1	1-10¾	4-1						
15	1	7	9-4¾	11E756	17		3-9	1-10¾	3-9						
16	12	6	12-0	11E617	2	2-1	9-11								
17	27	5	7-8	11E505	17		2-1	3-6	2-1						
18															
19	SHAFT														
20	62	11	12-4	11E1104	2	2-0	10-4								
21	62	11	23-6	11E1105	2	2-0	20-0								
22	845	6	5-3	11E611	T9	0-10¾	3-5½	0-10¾							
23	130	6	4-5	11E612	T9	0-10¾	2-7½	0-10¾							
24	260	6	9-7½	11E613	T9	0-10¾	8-8¾								
25	260	6	9-0	11E614	T9	0-10¾	8-1½								
26	130	6	19-4	11E615	10	7-0½	5-3	7-0½						1-8	3-4
27	62	11	28-6	11E1106	STR										
28															
29	PEDESTAL														
30	48	5	5-11	11E502	2	2-3	3-8								
31	32	5	25-6½	11E503	10	7-0	11-6½	7-0						3-8	7-4
32	48	5	14-11	11E504	STR										
33	48	5	4-0	11E501	STR										
34															
35	FOOTING														
36	56	10	20-6	11E1001	STR										
37	22	9	27-6	11E901	STR										
38	29	8	20-6	11E801	STR										
39	22	8	27-6	11E802	STR										
40	24	8	4-6	11E803	2	1-4	3-2								
41															
42															
43	PIER	12E													
44	CAP														
45	9	11	44-10	12E1101	2	2-2	40-6				2-2				
46	9	11	43-10	12E1102	2	2-2	39-6				2-2				
47	4	11	35-6	12E1103	STR										
48	6	6	19-9	12E601	6			2-2	13-0		4-7	0-8½			
49	6	6	19-0	12E602	6			2-2	13-0		3-10	0-8½			
50	2	6	16-0	12E603	STR										
51	2	6	22-0	12E604	STR										
52	2	6	28-0	12E605	STR										
53	2	6	34-0	12E606	STR										
54	2	6	40-0	12E607	STR										
55	2	6	40-5	12E608	STR										
56	2	6	40-5	12E609	STR										
57	12	6	7-8½	12E610	17		2-2	3-4½	2-2						
58	11	7	9-10	12E701	17		3-2	3-6	3-2						
59	11	7	19-10	12E702	17		8-2	3-6	8-2						
60	52	7	7-9¾	12E703	17		3-2	1-5¾	3-2						
61	26	7	8-2¾	12E704	17		3-2	1-10¾	3-2						
62	2	7	17-5¾	12E705	17		8-0	1-5¾	8-0						
63	2	7	16-9¾	12E706	17		7-8	1-5¾	7-8						
64	2	7	16-3¾	12E707	17		7-5	1-5¾	7-5						
65	2	7	15-7¾	12E708	17		7-1	1-5¾	7-1						
66	2	7	14-11¾	12E709	17		6-9	1-5¾	6-9						
67	2	7	14-5¾	12E710	17		6-6	1-5¾	6-6						
68	2	7	13-9¾	12E711	17		6-2	1-5¾	6-2						
69	2	7	13-1¾	12E712	17		5-10	1-5¾	5-10						
70	2	7	12-5¾	12E713	17		5-6	1-5¾	5-6						
71	2	7	11-11¾	12E714	17		5-3	1-5¾	5-3						
72	2	7	11-3¾	12E715	17		4-11	1-5¾	4-11						
73	2	7	10-9¾	12E716	17		4-8	1-5¾	4-8						
74	2	7	10-1¾	12E717	17		4-4	1-5¾	4-4						
75	2	7	16-7¾	12E718	17		7-7	1-5¾	7-7						
76	2	7	16-1¾	12E719	17		7-4	1-5¾	7-4						
77	2	7	15-5¾	12E720	17		7-0	1-5¾	7-0						
78	2	7	14-9¾	12E721	17		6-8	1-5¾	6-8						
79	2	7	14-1¾	12E722	17		6-4	1-5¾	6-4						
80	2	7	13-5¾	12E723	17		6-0	1-5¾	6-0						
81	2	7	12-11¾	12E724	17		5-9	1-5¾	5-9						
82	2	7	12-3¾	12E725	17		5-5	1-5¾	5-5						
83	2	7	11-7¾	12E726	17		5-1	1-5¾	5-1						
84	2	7	10-11¾	12E727	17		4-9	1-5¾	4-9						
85	2	7	10-3¾	12E728	17		4-5	1-5¾	4-5						
86	2	7	9-7¾	12E729	17		4-1	1-5¾	4-1						
87	2	7	8-11¾	12E730	17		3-9	1-5¾	3-9						
88	1	7	17-10¾	12E731	17		8-0	1-10¾	8-0						
89	1	7	17-2¾	12E732	17		7-8	1-10¾	7-8						
90	1	7	16-8¾	12E733	17		7-5	1-10¾	7-5						
91	1	7	16-0¾	12E734	17		7-1	1-10¾	7-1						
92	1	7	15-4¾	12E735	17		6-9	1-10¾	6-9						
93	1	7	14-10¾	12E736	17		6-6	1-10¾	6-6						
94	1	7	14-2¾	12E737	17		6-2	1-10¾	6-2						
95	1	7	13-6¾	12E738	17		5-10	1-10¾	5-10						
96	1	7	12-10¾	12E739	17		5-6	1-10¾	5-6						
97	1	7	12-4¾	12E740	17		5-3	1-10¾	5-3						
98	1	7	11-8¾	12E741	17		4-11	1-10¾	4-11						
99	1	7	11-2¾	12E742	17		4-8	1-10¾	4-8						
100	1	7	10-6¾	12E743	17		4-4	1-10¾	4-4						
101	1	7	17-0¾	12E744	17		7-7	1-10¾	7-7						
102	1	7	16-6¾	12E745	17		7-4	1-10¾	7-4						
103	1	7	15-10¾	12E746	17		7-0	1-10¾	7-0						
104	1	7	15-2¾	12E747	17		6-8	1-10¾	6-8						
105	1	7	14-6¾	12E748	17		6-4	1-10¾	6-4						
106	1	7	13-10¾	12E749	17		6-0	1-10¾	6-0						
107	1	7	13-4¾	12E750	17		5-9	1-10¾	5-9						
108	1	7	12-8¾	12E751	17		5-5	1-10¾	5-5						
109	1	7	12-0¾	12E752	17		5-1	1-10¾	5-1						
110	1	7	11-4¾	12E753	17		4-9	1-10¾	4-9						
111	1	7	10-8¾	12E754	17		4-5	1-10¾	4-5						
112	1	7	10-0¾	12E755	17		4-1	1-10¾	4-1						
113	1	7	9-4¾	12E756	17		3-9	1-10¾	3-9						
114	12	6	12-0	12E617	2	2-1	9-11								
115	27	5	7-8	12E505	17		2-1	3-6	2-1						
116															
117	SHAFT														
118	62	11	12-4	12E1104	2	2-0	10-4								
119	62	11	22-6	12E1105	2	2-0	20-6								
120	62	11	26-0	12E1106	STR										
121	120	6	4-5	12E611	T9	0-10¾	2-7½	0-10¾							
122	780	6	5-3	12E612	T9	0-10¾	3-5½	0-10¾							
123	120	6	19-4	12E613	10	7-0½	5-3	7-0½						1-8	3-4
124	240	6	9-7½	12E614	T9	0-10¾	8-8¾								
125	240	6	9-0	12E615	T9	0-10¾	8-1½								
126															
127	PEDESTAL														
128	48	5	4-0	12E501	STR										
129	48	5	5-11	12E502	2	2-3	3-8								
130	32	5	25-6½	12E503	10	7-0	11-6½	7-0						3-8	7-4
131	48	5	14-11	12E504	STR										
132															
133	FOOTING														
134	56	10	20-6	12E1001	STR										
135	22	9	27-6	12E901	STR										
136	29	8	20-6	12E801	STR										
137	22	8	27-6	12E802	STR										
138	24	8	4-6	12E803	2	1-4	3-2								
139															
140															
141	PIER	13E													
142	CAP														
143	9	11	44-10	13E1101	2	2-2	40-6				2-2				
144	9	11	43-10	13E1102	2	2-2	39-6				2-2				
145	2	11	35-6	13E1103	STR										
146	6	6	19-9	13E601	6			2-2	13-0		4-7	0-8½			
147	6	6	19-0	13E602	6			2-2	13-0		3-10	0-8½			
148	2	6	16-0	13E603	STR										
149	2	6	22-0	13E604	STR										
150	2	6	28-0	13E605	STR										
151	2	6	34-0	13E606	STR										
152	2	6	40-0	13E607	STR										
153	2	6	40-5	13E608	STR										
154	2	6	40-5	13E609	STR										
155	12	6	7-8½	13E610	17		2-2	3-4½	2-2						
156	11	7	9-10	13E701	17		3-2	3-6	3-2						
157	11	7	19-10	13E702	17		8-2	3-6	8-2						
158	52	7	7-9¾	13E703	17		3-2	1-5¾	3-2						
159	26	7	8-2¾	13E704	17		3-2	1-10¾	3-2						
160	2	7	17-5¾	13E705	17		8-0	1-5¾	8-0						
161	2	7	16-9¾	13E706	17		7-8	1-5¾	7-8						
162	2	7	16-3¾	13E707	17		7-5	1-5¾	7-5						
163	2	7	15-7¾	13E708	17		7-1	1-5¾	7-1						
164	2	7	14-11¾	13E709	17		6-9	1-5¾	6-9						
165	2	7	14-5¾	13E710	17		6-6	1-5¾	6-6						
166	2	7	13-9¾	13E711	17		6-2	1-5¾	6-2						
167	2	7	13-1¾	13E712	17		5-10	1-5¾	5-10						
168	2	7	12-5¾	13E713	17		5-6	1-5¾	5-6						
169	2	7	11-11¾	13E714	17		5-3	1-5¾	5-3						
170	2	7	11-3¾	13E715	17		4-11	1-5¾	4-11						
171	2	7	10-9¾	13E716	17		4-8	1-5¾	4-8						
172	2	7	10-1¾	13E717	17		4-4	1-5¾	4-4						
173	2	7	16-7¾	13E718	17		7-7	1-5¾	7-7						
174	2	7	16-1¾	13E719	17		7-4	1-5¾	7-4						
175	2	7	15-5¾	13E720	17		7-0	1-5¾	7-0						
176															
177															
178															
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY J S J DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS105	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER	13E	CONT	*D)											
1	2	7	14-9¾	13E721	17		6-8	1-5¾	6-8						
2	2	7	14-1¾	13E722	17		6-4	1-5¾	6-4						
3	2	7	13-5¾	13E723	17		6-0	1-5¾	6-0						
4	2	7	12-11¾	13E724	17		5-9	1-5¾	5-9						
5	2	7	12-3¾	13E725	17		5-5	1-5¾	5-5						
6	2	7	11-7¾	13E726	17		5-1	1-5¾	5-1						
7	2	7	10-11¾	13E727	17		4-9	1-5¾	4-9						
8	2	7	10-3¾	13E728	17		4-5	1-5¾	4-5						
9	2	7	9-7¾	13E729	17		4-1	1-5¾	4-1						
10	2	7	8-11¾	13E730	17		3-9	1-5¾	3-9						
11	1	7	7-10¾	13E731	17		8-0	1-10¾	8-0						
12	1	7	17-2¾	13E732	17		7-8	1-10¾	7-8						
13	1	7	16-8¾	13E733	17		7-5	1-10¾	7-5						
14	1	7	16-0¾	13E734	17		7-1	1-10¾	7-1						
15	1	7	15-4¾	13E735	17		6-9	1-10¾	6-9						
16	1	7	14-10¾	13E736	17		6-6	1-10¾	6-6						
17	1	7	14-2¾	13E737	17		6-2	1-10¾	6-2						
18	1	7	13-6¾	13E738	17		5-10	1-10¾	5-10						
19	1	7	12-10¾	13E739	17		5-6	1-10¾	5-6						
20	1	7	12-4¾	13E740	17		5-3	1-10¾	5-3						
21	1	7	11-8¾	13E741	17		4-11	1-10¾	4-11						
22	1	7	11-2¾	13E742	17		4-8	1-10¾	4-8						
23	1	7	10-6¾	13E743	17		4-4	1-10¾	4-4						
24	1	7	17-0¾	13E744	17		7-7	1-10¾	7-7						
25	1	7	16-6¾	13E745	17		7-4	1-10¾	7-4						
26	1	7	15-10¾	13E746	17		7-0	1-10¾	7-0						
27	1	7	15-2¾	13E747	17		6-8	1-10¾	6-8						
28	1	7	14-6¾	13E748	17		6-4	1-10¾	6-4						
29	1	7	13-10¾	13E749	17		6-0	1-10¾	6-0						
30	1	7	13-4¾	13E750	17		5-9	1-10¾	5-9						
31	1	7	12-8¾	13E751	17		5-5	1-10¾	5-5						
32	1	7	12-0¾	13E752	17		5-1	1-10¾	5-1						
33	1	7	11-4¾	13E753	17		4-9	1-10¾	4-9						
34	1	7	10-8¾	13E754	17		4-5	1-10¾	4-5						
35	1	7	10-0¾	13E755	17		4-1	1-10¾	4-1						
36	1	7	9-4¾	13E756	17		3-9	1-10¾	3-9						
37	12	6	12-0	13E617	2	2-1	9-11								
38	27	5	7-8	13E505	17		2-1	3-6	2-1						
39															
40	SHAFT														
41	26	9	8-6	13E901	2	1-7	6-11								
42	26	9	14-6	13E902	2	1-7	12-11								
43	26	9	22-9	13E903	STR										
44	26	9	16-9	13E904	STR										
45	495	6	5-3	13E611	T9	0-10½	3-5½	0-10½							
46	90	6	5-1	13E612	T9	0-10½	3-3½	0-10½							
47	90	6	3-4	13E613	T9	0-10½	1-6½	0-10½							
48	90	6	19-4	13E614	10	7-0½	5-3	7-0½					1-8	3-4	
49	90	6	9-8	13E615	T9	0-10½	8-9½								
50	180	6	9-2½	13E616	T9	0-10½	8-3½								
51															
52	PEDESTAL														
53	48	5	4-0	13E501	STR										
54	48	5	5-11	13E502	2	2-3	3-8								
55	28	5	25-6½	13E503	10	7-0	11-6½	7-0					3-8	7-4	
56	48	5	13-5	13E504	STR										
57															
58	FOOTING														
59	46	8	14-6	13E801	STR										
60	24	7	14-6	13E757	STR										
61	46	7	22-6	13E758	STR										
62	16	8	4-6	13E802	2	1-4	3-2								
63															
64															
65	PIER	14E													
66	CAP														
67	9	11	44-10	14E1101	2	2-2	40-6				2-2				
68	9	11	43-10	14E1102	2	2-2	39-6				2-2				
69	6	11	35-6	14E1103	STR										
70	6	6	19-9	14E601	6			2-2	13-0		4-7	0-8½			
71	6	6	19-0	14E602	6			2-2	13-0		3-10	0-8½			
72	2	6	16-0	14E603	STR										
73	2	6	22-0	14E604	STR										
74	2	6	28-0	14E605	STR										
75	2	6	34-0	14E606	STR										
76	2	6	40-0	14E607	STR										
77	2	6	40-5	14E608	STR										
78	2	6	40-5	14E609	STR										
79	12	6	7-8½	14E610	17		2-2	3-4½	2-2						
80	11	7	9-10	14E701	17		3-2	3-6	3-2						

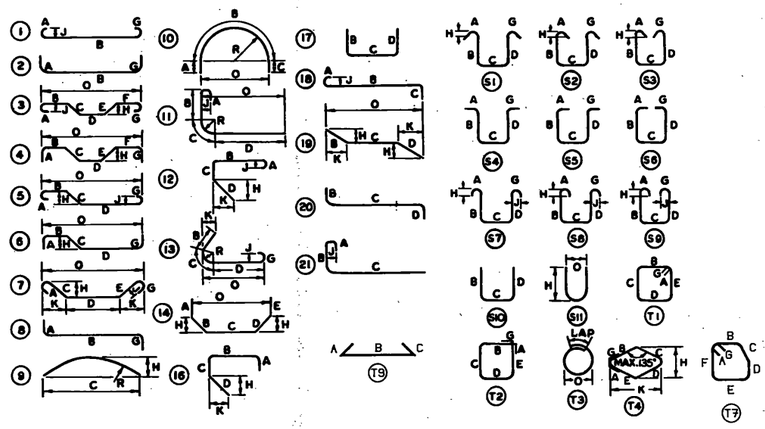
ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
81	11	7	19-10	14E702	17		8-2	3-6	8-2						
82	52	7	7-9¾	14E703	17		3-2	1-5¾	3-2						
83	26	7	8-2¾	14E704	17		3-2	1-10¾	3-2						
84	2	7	17-5¾	14E704	17		8-0	1-5¾	8-0						
85	2	7	16-9¾	14E706	17		7-8	1-5¾	7-8						
86	2	7	16-3¾	14E707	17		7-5	1-5¾	7-5						
87	2	7	15-7¾	14E708	17		7-1	1-5¾	7-1						
88	2	7	14-11¾	14E709	17		6-9	1-5¾	6-9						
89	2	7	14-5¾	14E710	17		6-6	1-5¾	6-6						
90	2	7	13-9¾	14E711	17		6-2	1-5¾	6-2						
91	2	7	13-1¾	14E712	17		5-10	1-5¾	5-10						
92	2	7	12-5¾	14E713	17		5-6	1-5¾	5-6						
93	2	7	11-11¾	14E714	17		5-3	1-5¾	5-3						
94	2	7	11-3¾	14E715	17		4-11	1-5¾	4-11						
95	2	7	10-9¾	14E716	17		4-8	1-5¾	4-8						
96	2	7	10-1¾	14E717	17		4-4	1-5¾	4-4						
97	2	7	16-7¾	14E718	17		7-7	1-5¾	7-7						
98	2	7	16-1¾	14E719	17		7-4	1-5¾	7-4						
99	2	7	15-5¾	14E720	17		7-0	1-5¾	7-0						
100	2	7	14-9¾	14E721	17		6-8	1-5¾	6-8						
101	2	7	14-1¾	14E722	17		6-4	1-5¾	6-4						
102	2	7	13-5¾	14E723	17		6-0	1-5¾	6-0						
103	2	7	12-11¾	14E724	17		5-9	1-5¾	5-9						
104	2	7	12-3¾	14E725	17		5-5	1-5¾	5-5						
105	2	7	11-7¾	14E726	17		5-1	1-5¾	5-1						
106	2	7	10-11¾	14E727	17		4-9	1-5¾	4-9						
107	2	7	10-3¾	14E728	17		4-5	1-5¾	4-5						
108	2	7	9-7¾	14E729	17		4-1	1-5¾	4-1						
109	2	7	8-11¾	14E730	17		3-9	1-5¾	3-9						
110	1	7	17-10¾	14E731	17		8-0	1-10¾	8-0						
111	*1	7	17-2¾	14E732	17		7-8	1-10¾	7-8						
112	1	7	16-8¾	14E733	17		7-5	1-10¾	7-5						
113	1	7	16-0¾	14E734	17		7-1	1-10¾	7-1						
114	1	7	15-4¾	14E735	17		6-9	1-10¾	6-9						
115	1	7	14-10¾	14E736	17		6-6	1-10¾	6-6						
116	1	7	14-2¾	14E737	17		6-2	1-10¾	6-2						
117	1	7	13-6¾	14E738	17		5-10	1-10¾	5-10						
118	1	7	12-10¾	14E739	17		5-6	1-10¾	5-6						
119	1	7	12-4¾	14E740	17		5-3	1-10¾	5-3						
120	1	7	11-8¾	14E741	17		4-11	1-10¾	4-11						
121	1	7	11-2¾	14E742	17		4-8	1-10¾	4-8						
122	1	7	10-6¾	14E743	17		4-4	1-10¾	4-4						
123	1	7	17-0¾	14E744	17		7-7	1-10¾	7-7						
124	1	7	16-6¾	14E745	17		7-4	1-10¾	7-4						
125	1	7	15-10¾	14E746	17		7-0	1-10¾	7-0						
126	1	7	15-2¾	14E747	17		6-8	1-10¾	6-8						
127	1	7	14-6¾	14E748	17		6-4	1-10¾	6-4						
128	1	7	13-10¾	14E749	17		6-0	1-10¾	6-0						
129	1	7	13-4¾	14E750	17		5-9	1-10¾	5-9						
130	1	7	12-8¾	14E751	17		5-5	1-10¾	5-5						
131	1	7	12-0¾	14E752	17		5-1	1-10¾	5-1						
132	1	7	11-4¾	14E753	17		4-9	1-10¾	4-9						
133	1	7	10-8¾	14E754	17		4-5	1-10¾	4-5						
134	1	7	10-0¾	14E755	17		4-1	1-10¾	4-1						
135	1	7	9-4¾	14E756	17		3-9	1-10¾	3-9						
136	12	6	12-0	14E617	2	2-1	9-11								
137	27	5	7-8	14E505	17		2-1	3-6	2-1						
138															
139	SHAFT														
140	26	9	8-6	14E901	2	1-7	6-11								
141	26	9	14-6	14E902	2	1-7	12-11								
142	26	9	21-0	14E903	STR										
143	26	9	15-0	14E904	STR										
144	484	6	5-3	14E611	T9	0-10½	3-5½	0-10½							
145	88	6	5-1	14E612	T9	0-10½	3-3½	0-10½							
146	88	6	3-4	14E613	T9	0-10½	1-6½	0-10½							
147	88	6	19-4	14E614	10	7-0½	5-3	7-0½					1-8	3-4	
148	88	6	9-8	14E615	T9	0-10½	8-9½								
149	176	6	9-2½	14E616	T9	0-10½	8-3½								
150															
151	PEDESTAL														
152	48	5	4-0	14E501	STR										
153	48	5	5-11	14E502	2	2-3	3-8								
154	28	5	25-6½	14E503	10	7-0	11-6½	7-0					3-8	7-4	
155	48	5	13-5	14E504	STR										
156															
157															
158															
159															
160															

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	FOOTING														
161	46	8	14-6	14E801	STR										
162	24	7	14-6	14E757	STR										
163	46	7	22-6	14E758	STR										
164	16	8	4-6	14E802	2	1-4	3-2								
165															
166	PIER	15E													
167	CAP														
168	13	11	44-10	15E1101	2	2-2	40-6				2-2				
169	5	11	43-10	15E1102	2	2-2	39-6				2-2				
170	6	6	19-5	15E641	6			2-2	13-0		4-3	0-8½			
171	6	6	19-0	15E642	6			2-2	13-0		3-10	0-8½			
172	2	6	16-0	15E643	STR										
173	2	6	22-0	15E644	STR										
174	2	6	28-0	15E645	STR										
175	2	6	34-0	15E646	STR										
176	2	6	40-0	15E647	STR										
177	2	6	40-5	15E648	STR										
178	2	6	40-5	15E649	STR										
179	2	6	40-5	15E650	STR										
180	14	6	9-2½	15E651	17		2-2	4-10½	2-2						

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

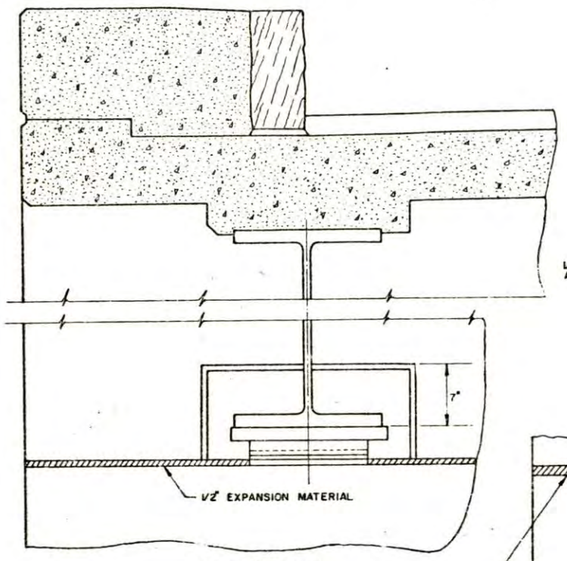
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

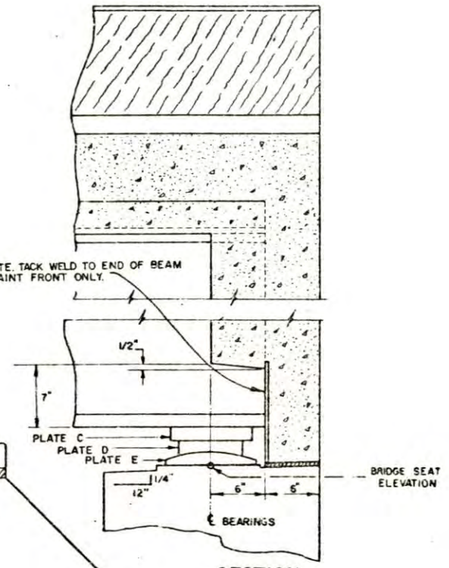
(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

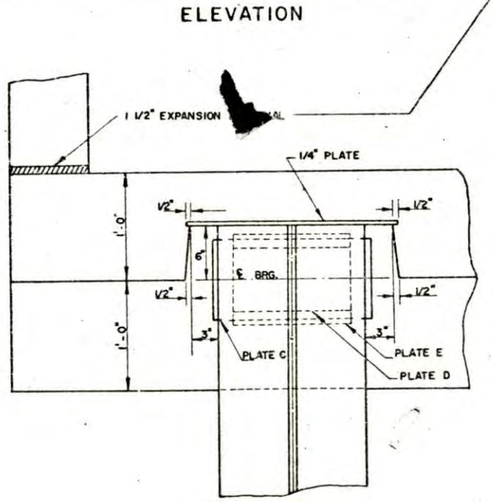
DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY JSJ DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS106	SHEET OF



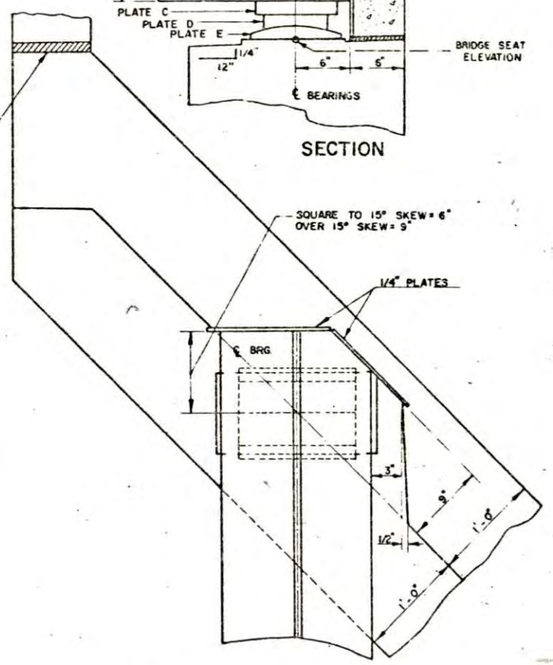
ELEVATION



SECTION

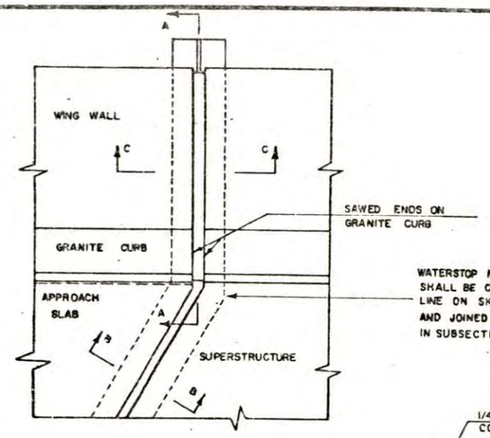


PLAN FOR SQUARE BRIDGES

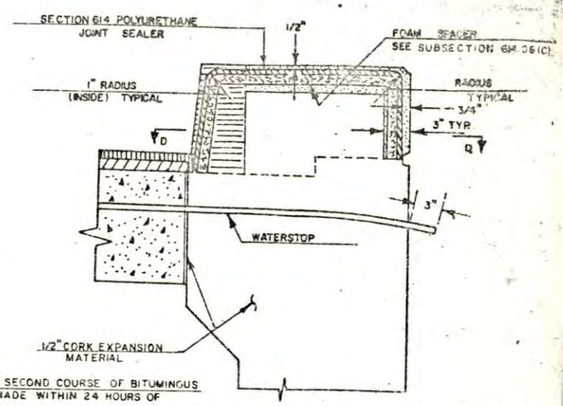


PLAN FOR SKEWED BRIDGES

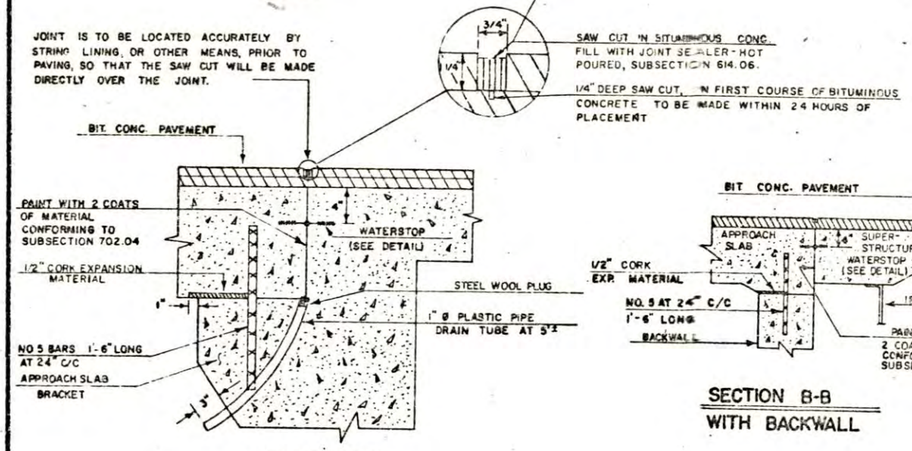
(DETAILS SHOWN FOR EXP END; FIXED END SIMILAR EXCEPT ℄s A AND B IN LIEU OF ℄s C, D AND E; SEE SCB-D8-71) Ⓐ



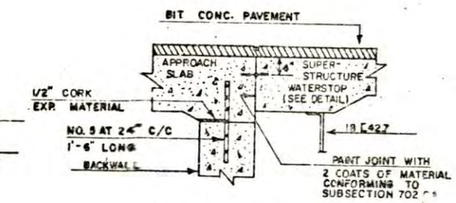
PLAN



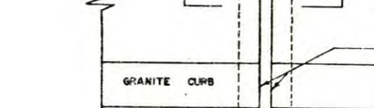
SECTION A-A



SECTION B-B



SECTION B-B
WITH BACKWALL

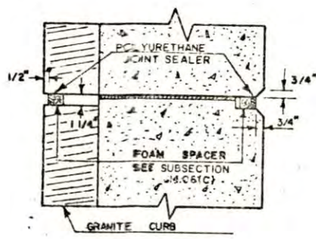


WATERSTOP DETAIL

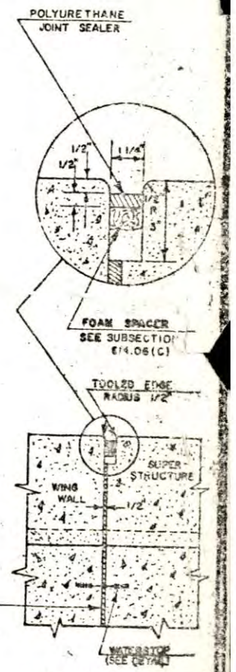
MATERIAL TO BE POLYVINYLCHLORIDE, AS SPECIFIED IN SUBSECTION 707.30, OTHER CONFIGURATIONS, WITH MINOR DIMENSION VARIATIONS, MAY BE USED WITH THE APPROVAL OF THE BRIDGE ENGINEER.

COST OF THE WATERSTOP SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 501.20 CONCRETE.

THE CONTRACTOR SHALL PROVIDE ADEQUATE SUPPORT TO MAINTAIN PROPER ALIGNMENT OF WATERSTOP DURING CONSTRUCTION.



SECTION D-D



SECTION C-C Ⓑ

REVISIONS AND CORRECTIONS
1. Added notes to saw cut 1st. & 2nd. courses of Bit. Concr. WOOD 1-27-75

APPROVED: DATE: 12/14/71

R H Crawford
CHIEF ENGINEER

E. H. Stechmeyer
ASST. CHIEF ENGINEER

Gene Bunn
BRIDGE ENGINEER

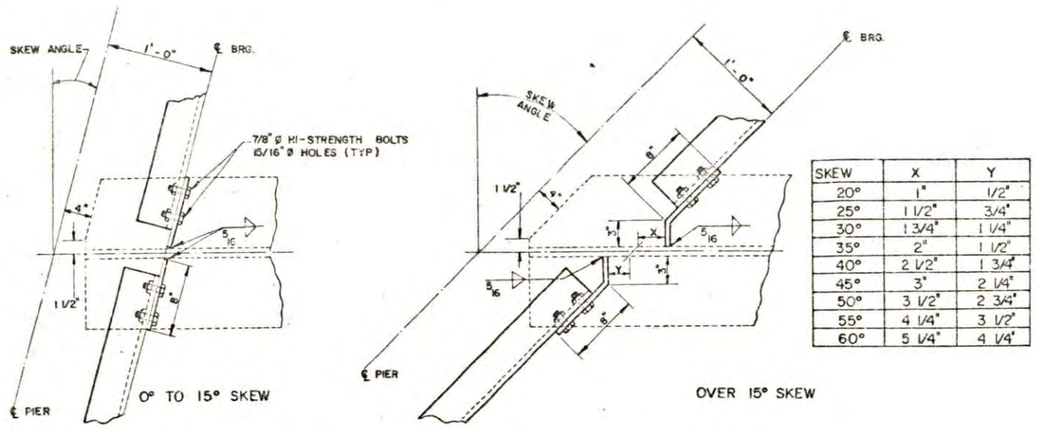
DETAILS OF W BEAM BRIDGES

Ⓐ CURTAIN WALL AT BEARING DEVICES

Ⓑ FIXED END JOINT DETAILS

VERMONT
DEPARTMENT OF HIGHWAYS
STRUCTURE STANDARDS

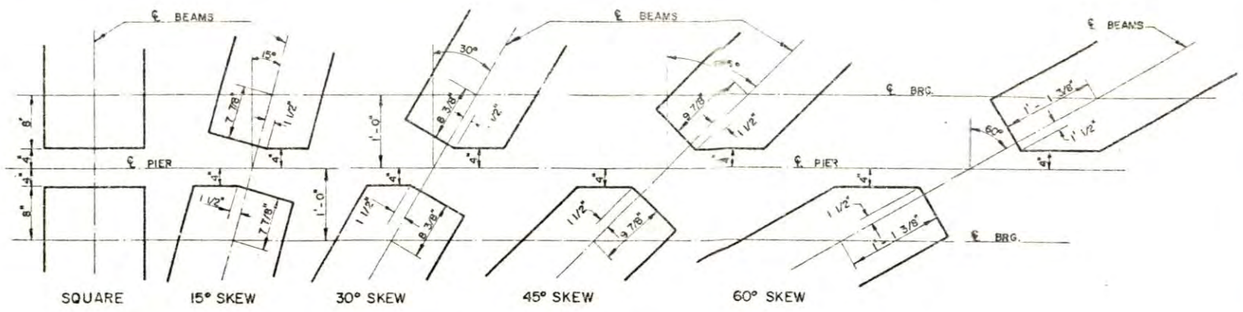
SCB-D9-71



SKEW	X	Y
20°	1"	1/2"
25°	1 1/2"	3/4"
30°	1 3/4"	1 1/4"
35°	2"	1 1/2"
40°	2 1/2"	1 3/4"
45°	3"	2 1/4"
50°	3 1/2"	2 3/4"
55°	4 1/4"	3 1/2"
60°	5 1/4"	4 1/4"

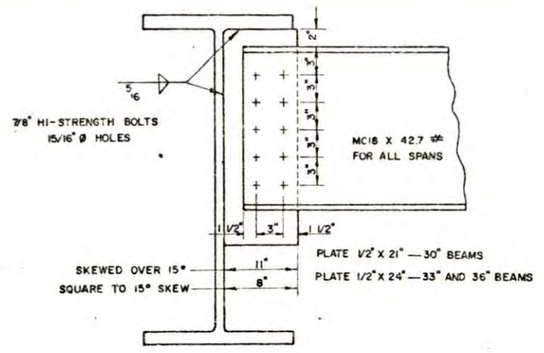
DETAILS OF PIER DIAPHRAGM CONNECTIONS

Ⓐ

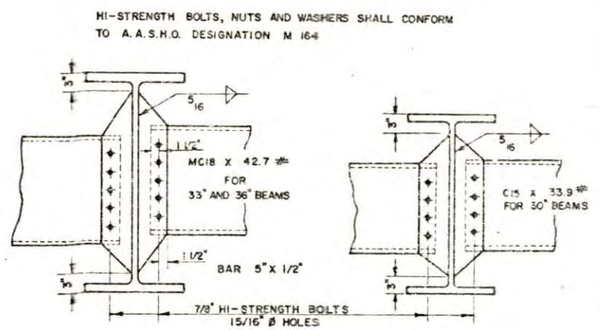


INTERIOR W BEAM CUT-OFFS AT PIER

Ⓑ

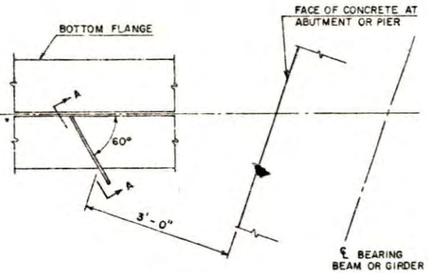


PIER DIAPHRAGMS

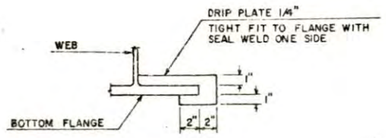


INTERMEDIATE DIAPHRAGMS

Ⓓ



PLAN

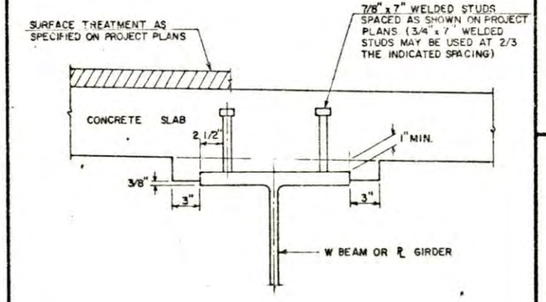


SECTION A-A

NOTE: DRIP PLATES SHALL BE PLACED ON OUTSIDE EDGE OF FASCIA GIRDERS ON THE HIGH SIDE OF ALL PIERS AND ABUTMENTS OR AS INDICATED ON PROJECT PLANS.

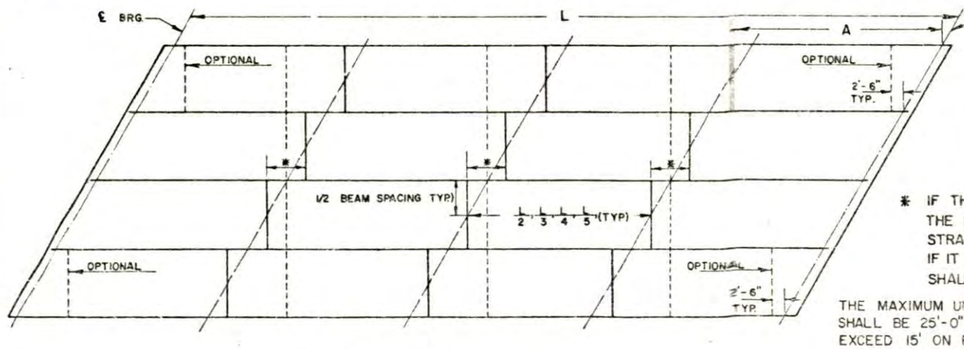
DRIP PLATE DETAILS

Ⓒ



BEAM HAUNCH AND SHEAR CONNECTOR DETAILS

Ⓕ



SPAN LENGTH	SETS OF DIAPH. REQUIRED
28'-0" THROUGH 43'-0"	1
44'-0" 69'-0"	2
70'-0" 84'-0"	3
85'-0" 99'-0"	4

* IF THIS DIMENSION IS LESS THAN 1'-0" THE DIAPHRAGMS MAY BE PLACED IN A STRAIGHT LINE AS INDICATED BY DASH LINE. IF IT IS GREATER THAN 1'-0" THE DIAPHRAGMS SHALL BE STAGGERED AS SHOWN.

THE MAXIMUM UNBRACED LENGTH OF BEAM IN ALL CASES SHALL BE 25'-0", EXCEPT DIMENSION "A" SHALL NOT EXCEED 15' ON FASCIA BEAMS UNLESS DIAPHRAGMS ARE USED AT ℄ OF BEARINGS, OR UNLESS OPTIONAL DIAPHRAGMS ARE USED AS SHOWN.

DIAPHRAGM LOCATION PLAN

Ⓔ

REVISIONS AND CORRECTIONS

1. REMOVED DETAIL "C". J. WOOD 1-22-73
2. NOTE CONCERNING DIMENSION "A" ADDED TO DETAIL "E". J. WOOD 1-22-73
3. ADDED DETAILS "C" AND "F". W TRIPP 12-15-76

APPROVED: DATE: 12/14/71

CHIEF ENGINEER

ASST. CHIEF ENGINEER

BRIDGE ENGINEER

DETAILS OF W BEAM BRIDGES

STRUCTURAL STEEL DETAILS

Ⓐ Ⓓ Ⓔ DIAPHRAGM DETAILS
Ⓑ WF BEAM CUT-OFFS
Ⓒ DRIP PLATE DETAILS
Ⓕ BEAM HAUNCH & SHEAR CONNECTOR DETAILS

VERMONT
DEPARTMENT OF HIGHWAYS
STRUCTURE STANDARDS

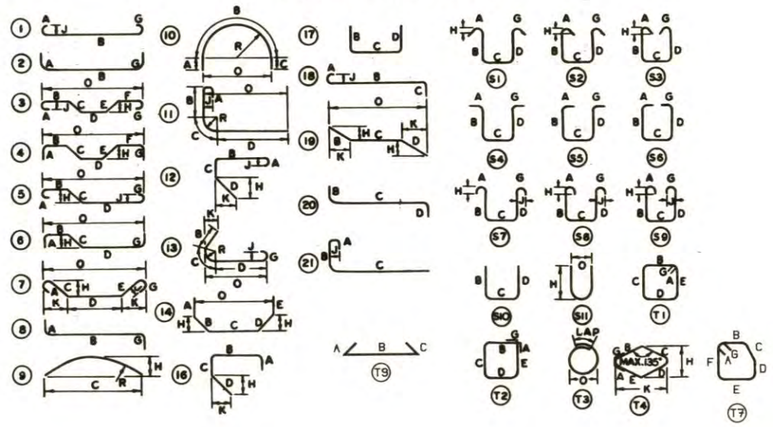
SCB-D7-71

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER	15E	(CONT'D.)												
1	11	6	11-4	15E601	17		3-2	5-0	3-2						
2	11	6	19-8	15E602	17		7-4	5-0	7-4						
3	36	6	8-6¾	15E603	17		3-2	2-2¾	3-2						
4	18	6	8-11¾	15E604	17		3-2	2-7½	3-2						
5	2	6	16-6¾	15E605	17		7-2	2-2¾	7-2						
6	2	6	15-6¾	15E606	17		6-8	2-2¾	6-8						
7	2	6	14-8¾	15E607	17		6-3	2-2¾	6-3						
8	2	6	13-8¾	15E608	17		5-9	2-2¾	5-9						
9	2	6	12-10¾	15E609	17		5-4	2-2¾	5-4						
10	2	6	11-10¾	15E610	17		4-10	2-2¾	4-10						
11	2	6	10-10¾	15E611	17		4-4	2-2¾	4-4						
12	2	6	10-0¾	15E612	17		3-11	2-2¾	3-11						
13	2	6	9-0¾	15E613	17		3-5	2-2¾	3-5						
14	2	6	16-2¾	15E614	17		7-0	2-2¾	7-0						
15	2	6	15-4¾	15E615	17		6-7	2-2¾	6-7						
16	2	6	14-4¾	15E616	17		6-1	2-2¾	6-1						
17	2	6	13-4¾	15E617	17		5-7	2-2¾	5-7						
18	2	6	12-4¾	15E618	17		5-1	2-2¾	5-1						
19	2	6	11-6¾	15E619	17		4-8	2-2¾	4-8						
20	2	6	10-6¾	15E620	17		4-2	2-2¾	4-2						
21	2	6	9=6¾	15E621	17		3-8	2-2¾	3-8						
22	2	6	8-6¾	15E622	17		3-2	2-2¾	3-2						
23	1	6	16-11½	15E623	17		7-2	2-7½	7-2						
24	1	6	15-11½	15E624	17		6-8	2-7½	6-8						
25	1	6	15-1½	15E625	17		6-3	2-7½	6-3						
26	1	6	14-1½	15E626	17		5-9	2-7½	5-9						
27	1	6	13-3½	15E627	17		5-4	2-7½	5-4						
28	1	6	12-3½	15E628	17		4-10	2-7½	4-10						
29	1	6	11-3½	15E629	17		4-4	2-7½	4-4						
30	1	6	10-5½	15E630	17		3-11	2-7½	3-11						
31	1	6	9-5½	15E631	17		3-5	2-7½	3-5						
32	1	6	16-7½	15E632	17		7-0	2-7½	7-0						
33	1	6	15-9½	15E633	17		6-7	2-7½	6-7						
34	1	6	14-9½	15E634	17		6-1	2-7½	6-1						
35	1	6	13-9½	15E635	17		5-7	2-7½	5-7						
36	1	6	12-9½	15E636	17		5-1	2-7½	5-1						
37	1	6	11-11½	15E637	17		4-8	2-7½	4-8						
38	1	6	10-11½	15E638	17		4-2	2-7½	4-2						
39	1	6	9-11½	15E639	17		3-8	2-7½	3-8						
40	1	6	8-11½	15E640	17		3-2	2-7½	3-2						
41	18	6	12-0	15E658	2	2-1	9-11								
42	27	5	9-2	15E505	17		2-1	5-0	2-1						
43															
44	SHAFT														
45	30	9	8-7	15E901	2	1-7	7-0								
46	30	9	14-7	15E902	2	1-7	13-0								
47	30	9	20-2	15E903	STR										
48	30	9	14-2	15E904	STR										
49	451	6	6-9	15E652	T9	0-10½	4-11½	0-10½							
50	82	6	20-2½	15E653	10	6-3½	7-7½	6-3½						2-5	4-10
51	82	6	5-3	15E654	T9	0-10½	3-5½	0-10½							
52	82	6	3-3	15E655	T9	0-10½	1-5½	0-10½							
53	164	6	8-8	15E656	T9	0-10½	7-9½								
54	164	6	9-5	15E657	T9	0-10½	8-6½								
55															
56	FOOTING														
57	26	8	22-6	15E801	STR										
58	46	8	12-6	15E802	STR										
59	14	7	22-6	15E701	STR										
60	24	7	12-6	15E702	STR										
61	12	8	4-6	15E803	2	1-4	3-2								
62															
63															
64	PIER	16E													
65	CAP														
66	9	11	44-10	16E1101	2	2-2	40-6					2-2			
67	9	11	43-10	16E1102	2	2-2	39-6					2-2			
68	12	6	19-0	16E629	6			2-2	13-0			3-10	0-8½		
69	2	6	16-0	16E630	STR										
70	2	6	22-0	15E631	STR										
71	2	6	28-0	16E632	STR										
72	2	6	34-0	16E633	STR										
73	2	6	40-0	16E634	STR										
74	2	6	40-5	16E635	STR										
75	2	6	40-5	16E636	STR										
76	2	6	40-5	16E637	STR										
77	14	6	7-8½	16E638	17		2-2	3-4½	2-2						
78	11	6	9-10	16E601	17		3-2	3-6	3-2						
79	11	6	17-8	16E602	17		7-1	3-6	7-1						
80	48	6	7-9½	16E603	17		3-2	1-5½	3-2						
81	24	6	8-2½	16E604	17		3-2	1-10½	3-2						
82	4	6	15-3½	16E605	17		6-11	1-5½	6-11						
83	4	6	14-7½	16E606	17		6-7	1-5½	6-7						
84	4	6	13-11½	16E607	17		6-3	1-5½	6-3						
85	4	6	13-3½	16E608	17		5-11	1-5½	5-11						
86	4	6	12-7½	16E609	17		5-7	1-5½	5-7						
87	4	6	11-9½	16E610	17		5-2	1-5½	5-2						
88	4	6	11-1½	16E611	17		4-10	1-5½	4-10						
89	4	6	10-5½	16E612	17		4-6	1-5½	4-6						
90	4	6	9-9½	16E613	17		4-2	1-5½	4-2						
91	4	6	9-1½	16E614	17		3-10	1-5½	3-10						
92	4	6	8-3½	16E615	17		3-5	1-5½	3-5						
93	4	6	7-9½	16E616	17		3-2	1-5½	3-2						
94	2	6	15-8½	16E617	17		6-11	1-10½	6-11						
95	2	6	15-1½	16E618	17		6-7	1-10½	6-7						
96	2	6	14-4½	16E619	17		6-3	1-10½	6-3						
97	2	6	13-8½	16E620	17		5-11	1-10½	5-11						
98	2	6	13-0½	16E621	17		5-7	1-10½	5-7						
99	2	6	12-2½	16E622	17		5-2	1-10½	5-2						
100	2	6	11-6½	16E623	17		4-10	1-10½	4-10						
101	2	6	10-10½	16E624	17		4-6	1-10½	4-6						
102	2	6	10-2½	16E625	17		4-2	1-10½	4-2						
103	2	6	9-6½	16E626	17		3-10	1-10½	3-10						
104	2	6	8-8½	16E627	17		3-5	1-10½	3-5						
105	2	6	8-2½	16E628	17		3-2	1-10½	3-2						
106	8	6	12-0	16E645	2	2-1	9-11								
107	4	6	12-8	16E646	17		2-1	8-6	2-1						
108	27	5	7-8	16E501	17		2-1	3-6	2-1						
109															
110	SHAFT														
111	58	8	23-7	16E801	2	1-4	22-3								
112	506	6	5-3	16E639	T9	0-10½	3-5½	0-10½							
113	92	6	19-4	16E640	10	7-0½	5-3	7-0½						1-8	3-4
114	184	6	9-7½	16E641	T9	0-10½	8-8½								
115	184	6	8-11½	16E642	T9	0-10½	8-0½								
116	92	6	5-2	16E643	T9	0-10½	3-4½	0-10½							
117	92	6	4-0	16E644	T9	0-10½	2-2½	0-10½							
118															
119	FOOTING														
120	38	8	10-6	16E802	STR										
121	20	7	10-6	16E701	STR										
122	24	7	18-6	16E702	STR										
123	12	8	4-6	16E803	2	1-4	3-2								
124															
125															
126	PIER	17E													
127	CAP														
128	9	11	44-10	17E1101	2	2-2	40-6					2-2			
129	9	11	43-10	17E1102	2	2-2	39-6					2-2			
130	12	6	19-0	17E629	6			2-2	13-0			3-10	0-8½		
131	2	6	16-0	17E630	STR										
132	2	6	22-0	17E631	STR										
133	2	6	28-0	17E632	STR										
134	2	6	34-0	17E633	STR										
135	2	6	40-0	17E634	STR										
136	2	6	40-5	17E635	STR										
137	2	6	40-5	17E636	STR										
138	2	6	40-5	17E637	STR										
139	14	6	7-8½	17E638	17		2-2	3-4½	2-2						
140	11	6	9-10	17E601	17		3-2	3-6	3-2						
141	11	6	17-6	17E602	17		7-0	3-6	7-0						
142	48	6	7-9½	17E603	17		3-2	1-5½	3-2						
143	24	6	8-2½	17E604	17		3-2	1-5½	3-2						
144	4	6	15-1½	17E605	17		6-10	1-5½	6-10						
145	4	6	14-5½	17E606	17		6-6	1-5½	6-6						
146	4	6	13-9½	17E607	17		6-2	1-5½	6-2						
147	4	6	13-1½	17E608	17		5-10	1-5½	5-10						
148	4	6	12-5½	17E609	17		5-6	1-5½	5-6						
149	4	6	11-9½	17E610	17		5-2	1-5½	5-2						
150	4	6	10-11½	17E611	17		4-9	1-5½	4-9						
151	4	6	10-3½	17E612	17		4-5	1-5½	4-5						
152	4	6	9-7½	17E613	17		4-1	1-5½	4-1						
153	4	6	8-11½	17E614	17		3-9	1-5½	3-9						
154	4	6	8-3½	17E615	17		3-5	1-5½	3-5						
155	4	6	7-7½	17E616	17		3-1	1-5½	3-1						
156	2	6	15-6½	17E617	17		6-10	1-10½	6-10						
157	2	6	14-10½	17E618	17		6-6	1-10½	6-6						
158	2	6	14-2½	17E619	17		6-2	1-10½	6-2						
159	2	6	13-6½	17E620	17		5-10	1-10½	5-10						
160	2	6	12-10½	17E621	17		5-6	1-10½	5-6						
161	2	6	12-2½	17E622	17		5-2	1-10½	5-2						
162	2	6	11-4½	17E623	17		4-9	1-10½	4-9						
163	2	6	10-8½	17E624	17		4-5	1-10½	4-5						
164	2	6	10-0½	17E625	17		4-1	1-10½	4-1						
165	2	6	9-4½	17E626	17		3-9	1-10½	3-9						
166	2	6	8-8½	17E627	17		3-5	1-10½	3-5						
167	2	6	8-0½	17E628	17		3-1	1-10½	3-1						
168	8	6	12-0	17E649	2	2-1	9-11								
169	4	6	12-8	17E650	17		2-1	8-6	2-1						
170	27	5	7-8	17E501	17		2-1	3-6	2-1						
171															
172															
173															
174															
175															
176															
177															
178															
179															
180															

ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

(STEEL ALTERNATE)

REINFORCING STEEL SCHEDULE

DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY J S J DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS107	SHEET OF

ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
	PIER	17E	CONT.	*D)											
1	SHAFT														
2	68	11	27-0	17E1103	2	2-0	25-0								
3	612	6	5-3	17E639	T9	0-10¾	3-5½	0-10¾							
4	102	6	19-4	17E640	10	7-0½	5-3	7-0½						1-8	3-4
5	102	6	5-1	17E641	T9	0-10¾	3-3½	0-10¾							
6	102	6	3-11	17E642	T9	0-10¾	2-1½	0-10¾							
7	204	6	9-7½	17E643	T9	0-10¾	8-8¾								
8	204	6	9-0	17E644	T9	0-10¾	8-1								
9															
10	PEDESTAL														
11	23	6	18-10	17E645	17		4-9	9-4	4-9						
12	23	6	9-4	17E646	STR										
13	20	6	9-6	17E647	2	4-9	4-9								
14	10	6	21-6	17E648	STR										
15															
16	FOOTING														
17	50	9	24-6	17E901	STR										
18	78	7	24-6	17E701	STR										
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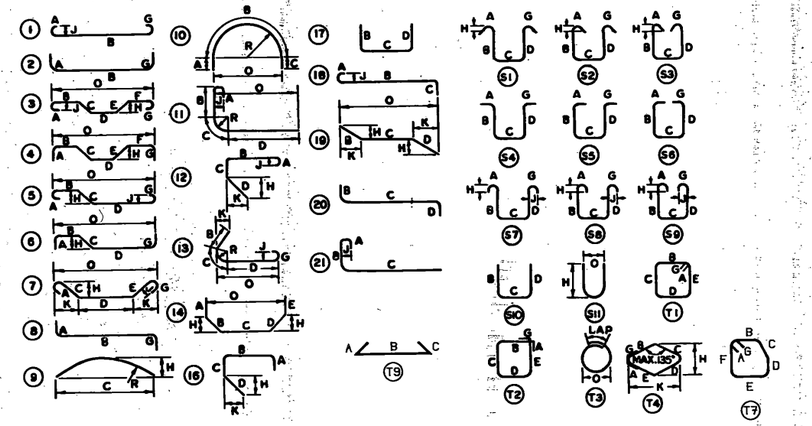
ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
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ITEM	NO. PCS.	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	G	H	J	R	O
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ASTM STANDARD REINFORCING BARS

BAR SIZE DESIGNATION	WEIGHT POUNDS PER FOOT	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER INCHES	CROSS SECTIONAL AREA SQ. INCHES	PERIMETER INCHES
#3	.376	.375	.11	1.178
#4	.668	.500	.20	1.571
#5	1.043	.625	.31	1.963
#6	1.502	.750	.44	2.356
#7	2.044	.875	.60	2.749
#8	2.670	1.000	.79	3.142
#9	3.400	1.128	1.00	3.544
#10	4.303	1.270	1.27	3.990
#11	5.313	1.410	1.56	4.430
#14	7.65	1.693	2.25	5.32
#18	13.60	2.257	4.00	7.09

TYPICAL BAR BENDS



NOTES

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT," AASHTO M 31 (ASTM A 615), GRADE 60.
2. 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."
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
5. "J" DIMENSION ON 180° HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45° DIMENSIONS "H" AND "K" MUST BE SHOWN.

* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.

REV. NO.	MADE BY	DATE	DESCRIPTION

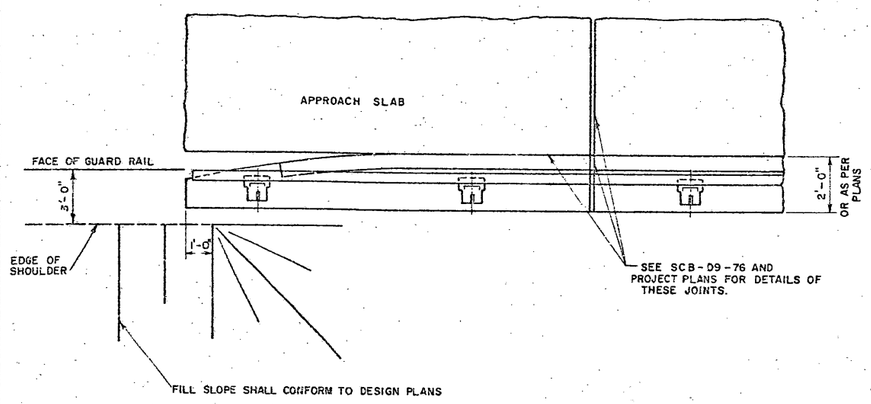
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ROUSES POINT N.Y. - ALBURG VT.	BRIDGE NO. 1
HIGHWAY NO. ROUTE 2	LOG STA. 0+00
	SURV. STA.

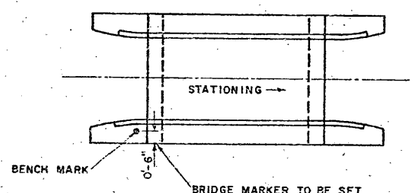
(STEEL ALTERNATE)

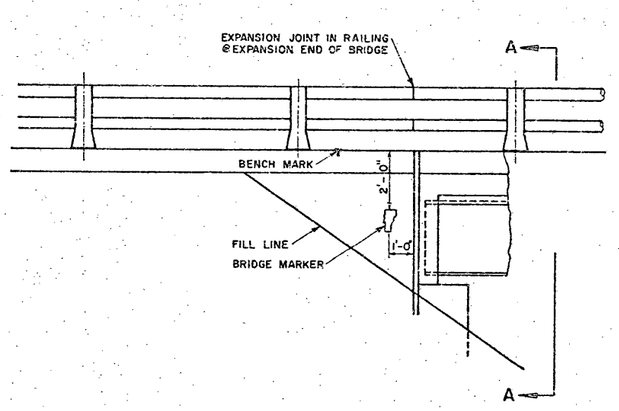
REINFORCING STEEL SCHEDULE

DESIGNED BY KAC	DRAWN BY C.A.D.
CHECKED BY J S J DATE 12-7-84	BRIDGE DESIGN SUPERVISOR C.J.M./S.M. DATE 12-7-84
PROJECT ROUSES POINT BRIDGE REPLACEMENT	PROJECT NO. BRF 028-1(11)
BRIDGE SHEET NO. SS108	SHEET OF

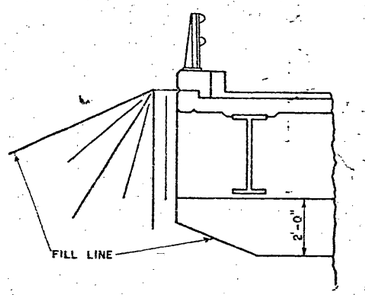


PLAN AT ABUTMENT





ELEVATION AT ABUTMENT



SECTION A-A

GENERAL NOTES

ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, DATED MARCH 1976 AND ITS LATEST REVISIONS AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 1977 AND ITS LATEST REVISIONS. DESIGN IS FOR HS-20-44 LOADING MODIFIED FOR THE NATIONAL SYSTEM OF INTERSTATE HIGHWAYS, APPLIED IN ACCORDANCE WITH THE PROVISIONS OF AASHTO STANDARD SPECIFICATIONS.

THE FOLLOWING NOTES SHALL APPLY UNLESS OTHERWISE NOTED ON PROJECT PLANS.

1. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM DESIGNATION A-588 (UNPAINTED). ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" Ø ASTM A-325, TYPE III BOLTS IN 15/16" Ø HOLES. WHERE CONNECTIONS ARE NOT DETAILED ON THE PLANS THEY SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STATE FOR APPROVAL.
2. WHEN NOT DETAILED ON THE PLANS, SIMPLE SPAN BEAMS SHALL BE CAMBERED FOR THE DEAD LOAD DEFLECTION PLUS ONE-EIGHTH (1/8) INCH FOR EACH TEN FEET OF SPAN OR FRACTION THEREOF. THE CAMBER SHALL APPROXIMATE A SIMPLE CIRCULAR CURVE FROM END TO END OF BEAM. TOLERANCES IN CAMBER SHALL BE AS INDICATED IN THE A.I.S.C. HANDBOOK FOR ROLLED BEAMS AND AS INDICATED IN THE AWS SPECIFICATION FOR WELDED GIRDERS.
3. ALL WELDING AND DIMENSIONAL TOLERANCES OF WELDED MEMBERS SHALL CONFORM TO AWS D1.1-80 "STRUCTURAL WELDING CODE" AND ITS LATEST REVISIONS EXCEPT AS MODIFIED BY THE AASHTO STANDARD SPECIFICATIONS FOR WELDING OF STRUCTURAL STEEL HIGHWAY BRIDGES, DATED 1981 AND ITS LATEST REVISIONS.
4. ALLOWABLE DESIGN STRESSES: *

CONCRETE:	CLASS A	f'c	3,500 psi	fc	1400 psi
	CLASS B	f'c	3,500 psi	fc	1400 psi

STRUCTURAL STEEL: A-588 MAX. DESIGN STRESS- 27,000 psi (or as per AASHTO Specs)

REINFORCING STEEL:

	GRADE 40	GRADE 60
DESIGN STRESS (TENSION)	20,000 psi	24,000 psi
DESIGN STRESS (COMPRESSION)	16,000 psi	20,000 psi

5. AFTER SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF ERECTED BEAMS SHALL BE TAKEN UNDER THE DIRECTION OF THE ENGINEER FOR USE IN DETERMINING THE FINAL GRADE.
6. MINIMUM COVER FOR REINFORCING STEEL (EXCEPT IN DECKS) SHALL BE 2" IN BACK FACES OF WALLS AGAINST EARTH AND 3" ELSEWHERE.
7. ALL EXPOSED EDGES OF CONCRETE IN THE SUBSTRUCTURE AND SUPERSTRUCTURE SHALL BE CHAMFERED 1" x 1".
8. DECK CONCRETE SHALL BE CONCRETE CLASS A. ALL OTHER CONCRETE SHALL BE CONCRETE CLASS B.
9. BRIDGE SEATS OF ALL PIERS AND ABUTMENTS SHALL BE SLOPED 1/2" PER FOOT EXCEPT UNDER BEARING PLATES WHERE THE SURFACES SHALL BE LEVEL. ABUTMENTS SHALL BE SLOPED FULL WIDTH, PIERS SHALL BE SLOPED EACH WAY FROM CENTER. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE SMOOTH STEEL TROWEL FINISHED
10. ABUTMENT CONCRETE ABOVE THE ADJACENT BRIDGE SEAT ELEVATIONS SHALL PREFERABLY NOT BE PLACED UNTIL FINAL FINISHED GRADE OF DECK IS ESTABLISHED BY THE ENGINEER
11. ANY FORM BRACKET HOLES IN FASCIA BEAMS OR GIRDER WEBS SHALL BE FILLED WITH BUTTON-HEAD OR HEX-HEAD BOLTS (TYPE III ON A-588 STEEL).
12. GRANULAR BORROW USED IN AREAS THROUGH WHICH PILES ARE TO BE DRIVEN SHALL HAVE A MAXIMUM STONE SIZE OF NINE INCHES.
13. BORINGS INDICATED ON THE DRAWINGS HAVE BEEN MADE FOR DESIGN PURPOSES ONLY AND DO NOT WARRANT ACTUAL SUB-SURFACE CONDITIONS.
14. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 68° F.

*NOTE: SPECIFICATIONS CALL FOR A CLASS A CONCRETE WHICH WILL PRODUCE 4000 PSI AT 28 DAYS. HOWEVER, SUPERSTRUCTURE CONCRETE IS DESIGNED ON THE BASIS OF f'c = 3500 THUS PROVIDING AN ADDITIONAL FACTOR OF SAFETY IN BRIDGE SLABS.

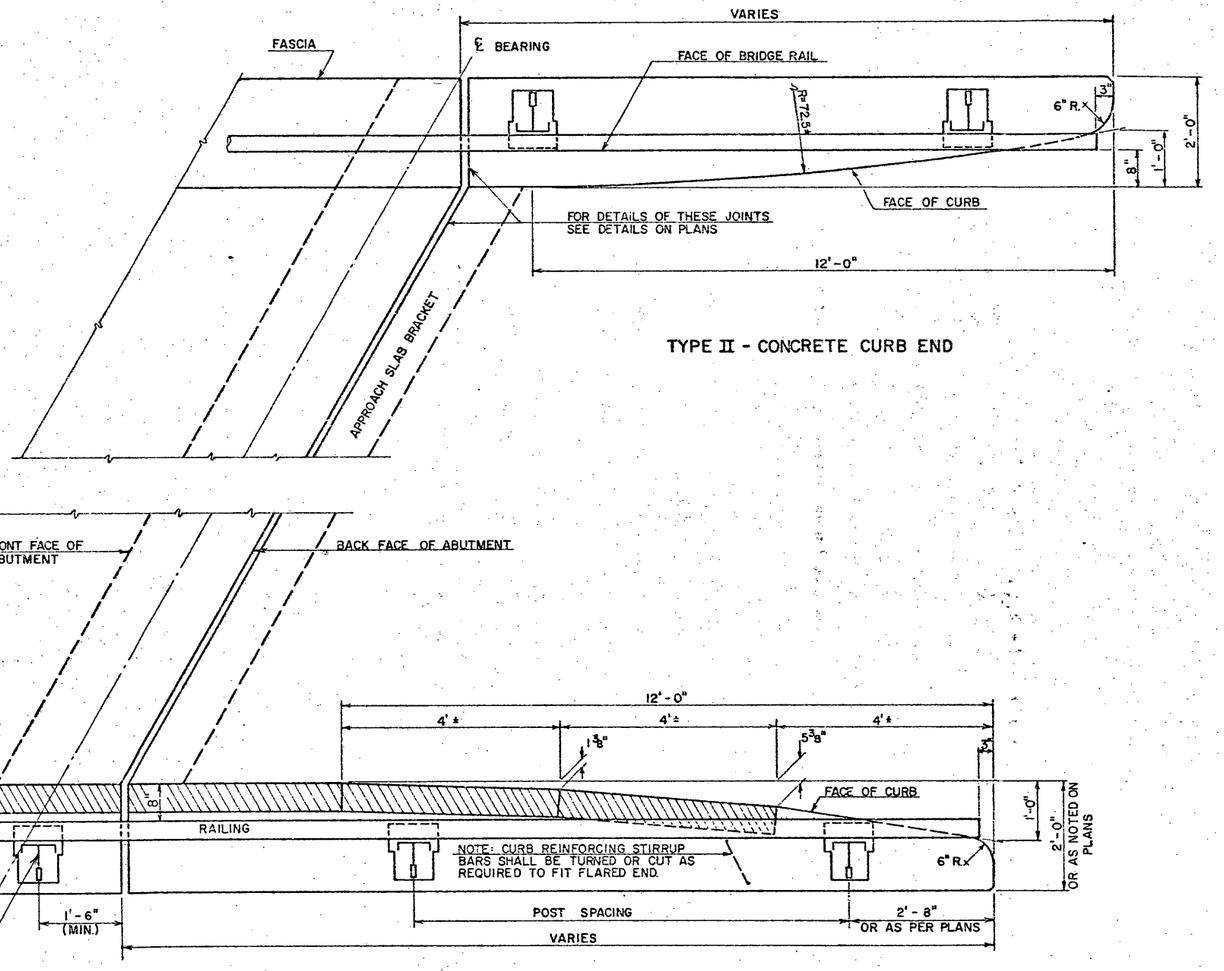
15. IF ALL DECK CONCRETE IS NOT PLACED IN ONE WORKING DAY, A MINIMUM DELAY PERIOD OF 96 HOURS (FOLLOWING END OF PLACEMENT OF THE PREVIOUS CONCRETE) WILL BE REQUIRED BEFORE PLACING ADDITIONAL CONCRETE. THE MINIMUM DELAY PERIOD SHALL BE INCREASED WHEN SO ORDERED BY THE ENGINEER. IN ALL CASES THE PLACEMENT SEQUENCE INDICATED ON THE PLANS SHALL BE FOLLOWED.
16. REINFORCING PLACEMENT TOLERANCES SHALL BE AS FOLLOWS:
    SPACING TOLERANCE: ± 1"
    CLEARANCE TOLERANCE: ± 1/4"

REVISIONS AND CORRECTIONS
1- Added word seat in line 3 of Note #9 J. WOOD 4-23-75
2. CHANGED VERMONT SPEC. DATE, GEN. NOTE, AND ADDED NOTE NO. 15, W. TRIPP, 4-26-76.
3. REVISED NOTES, W. TRIPP, 12-15-76.
4. REVISED DATES, NOTE NO. 3. W. TRIPP 4-25-77
5. REVISED NOTES W. TRIPP 4-3-78
6. REVISED NOTE NO. 3, DATES W. TRIPP 9-14-81

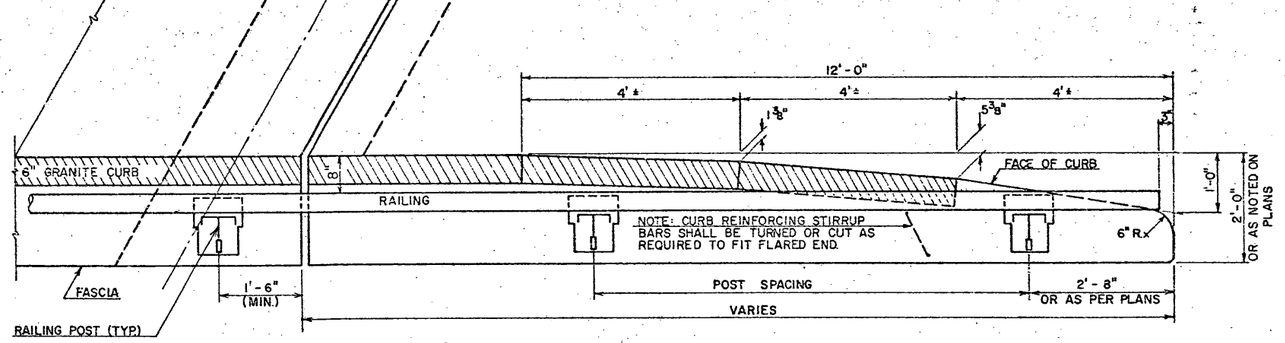
APPROVED
Nov. 30 1915 DATE
CHIEF ENGINEER
ASST. CHIEF ENGINEER
BRIDGE ENGINEER

DETAILS OF W BEAM BRIDGES GENERAL INFORMATION AND GENERAL NOTES

VERMONT DEPARTMENT OF HIGHWAYS STANDARD SCB-DI-75



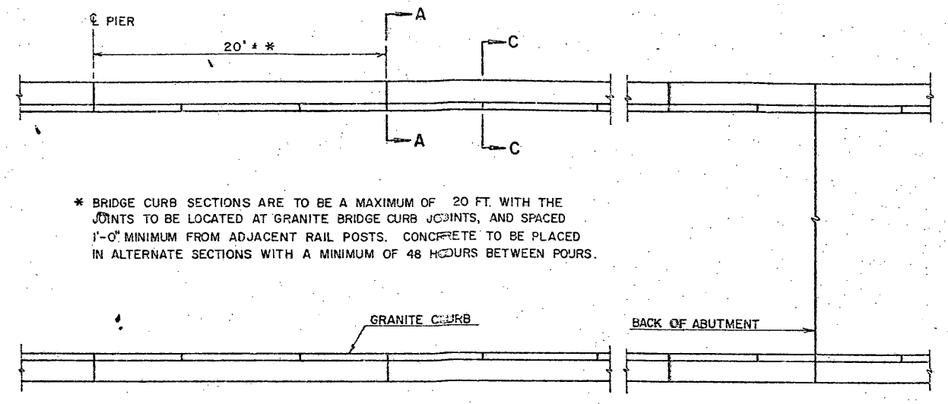
TYPE II - CONCRETE CURB END



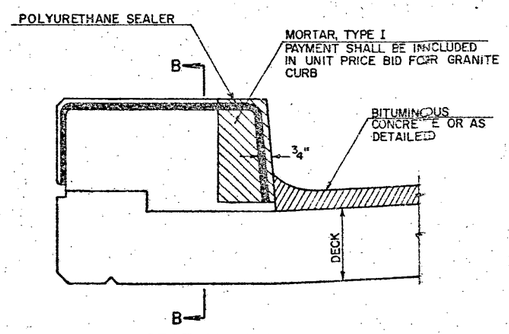
TYPE I - GRANITE CURB END

—PLAN AT ABUTMENT—

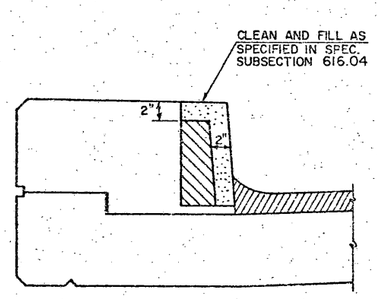
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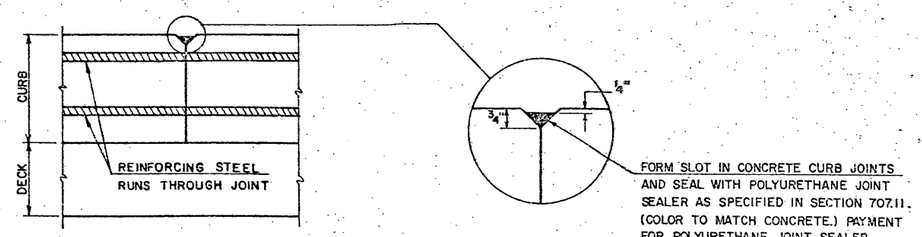
—TYPICAL PLAN—



—SECTION A-A—



—SECTION C-C—



— SECTION B-B —

Ⓑ

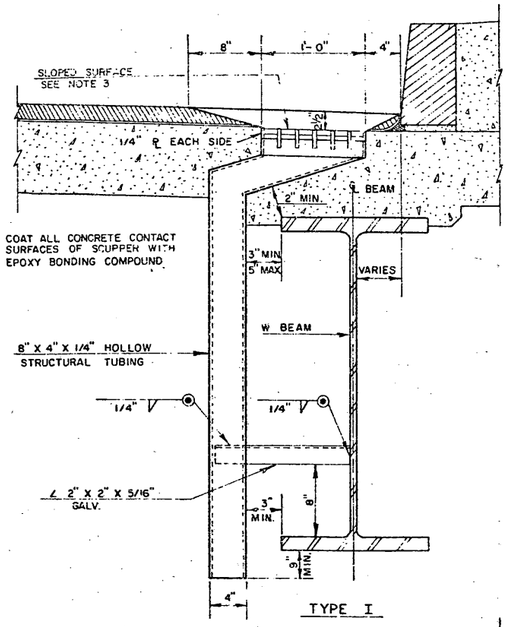
REVISIONS AND CORRECTIONS
1. DETAIL B, PARAFFIN ELIMINATED FROM CURB JOINT, AND REINFORCING STEEL RUN THRU JOINT. R.L.O. 10-12-83

APPROVED:
JAN 8 1976 DATE
E. H. Dickney CHIEF ENGINEER
R. O. Munn ASST. CHIEF ENGINEER
W. M. Smith BRIDGE ENGINEER

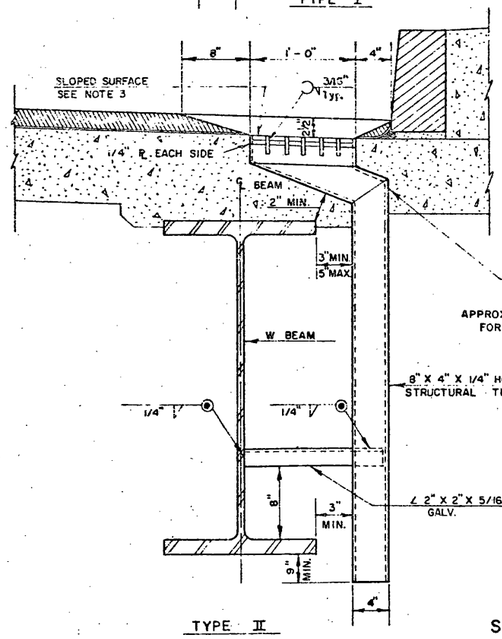
DETAILS OF W BEAM BRIDGES
Ⓐ CURB LAYOUT DETAILS
Ⓑ CURB JOINT DETAILS

VERMONT DEPARTMENT OF HIGHWAYS STANDARD

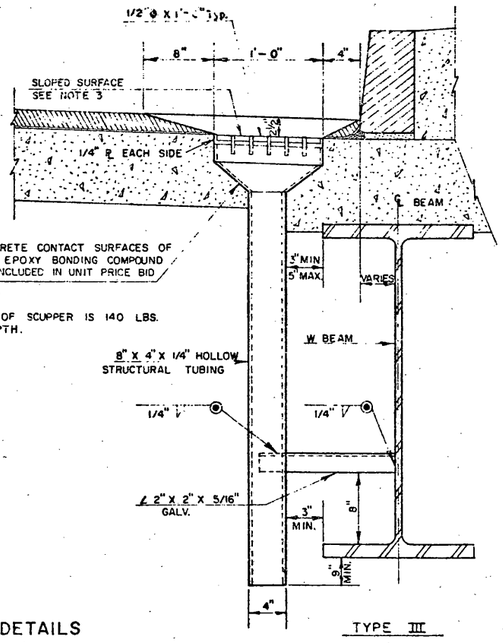
SCB-D4-76



TYPE I



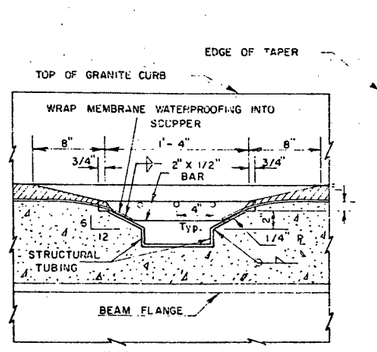
TYPE II



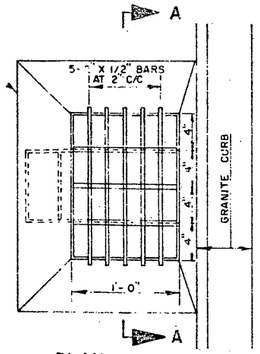
TYPE III

COAT ALL CONCRETE CONTACT SURFACES OF SCUPPER WITH EPOXY BONDING COMPOUND (SECTION 719) INCLUDED IN UNIT PRICE BID FOR CONCRETE.

APPROXIMATE WEIGHT OF SCUPPER IS 140 LBS. FOR 36" BEAM DEPTH.



SECTION A-A



PLAN

NOTES -
THE FOLLOWING NOTES APPLY TO ALL SCUPPERS UNLESS OTHERWISE DETAILED ON PROJECT PLANS:

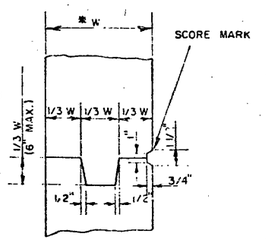
1. HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A-500 OR A-501. ALL PLATES, BARS AND ANGLES SHALL CONFORM TO ASTM A-36
2. ALL SCUPPERS SHALL BE GALVANIZED ACCORDING TO ASTM A-123 AFTER FABRICATION.
3. TOP SURFACE OF SCUPPERS MUST BE SLOPED TO MATCH ROADWAY CROSS SLOPE AND GRADE.
4. END SCUPPERS ARE TO BE PLACED MIDWAY BETWEEN ℄ BRG. AND FIRST DIAPHRAGM ASSEMBLY.
5. INTERMEDIATE SCUPPERS ARE TO BE PLACED MIDWAY BETWEEN DIAPHRAGM ASSEMBLIES.
6. ON PROJECTS WITH NO BITUMINOUS WEARING SURFACE, SET SCUPPERS 3/4" BELOW TOP OF CONCRETE SLAB.

SCUPPER DETAILS

Ⓐ

CONSTRUCTION JOINTS SHALL BE PLACED AS INDICATED ON THE PLANS.

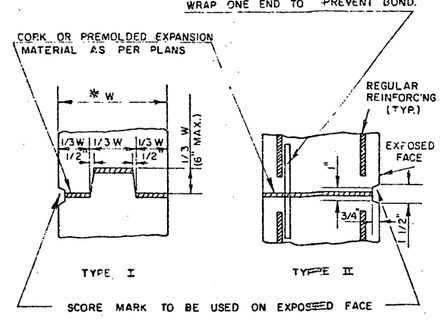
HORIZONTAL SCORE MARKS SHALL BE PLACED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.



TYPICAL DETAIL OF CONSTRUCTION JOINT AND SCORE MARKS

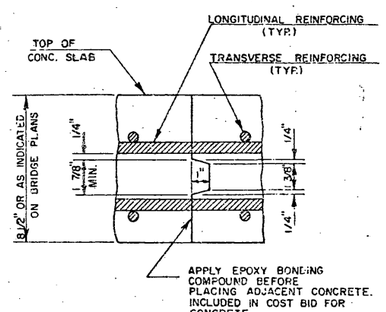
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4' LONG DEFORMED BAR (TO BE PAID FOR AS REINFORCING STEEL). WRAP ONE END TO PREVENT BOND.



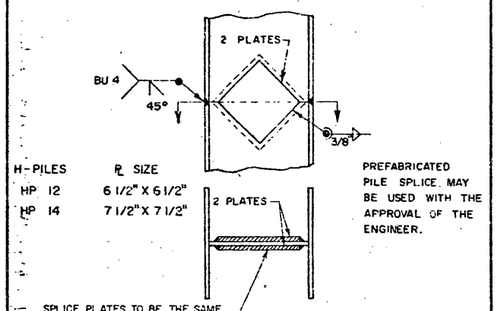
DETAILS OF VERTICAL EXPANSION JOINTS

Ⓒ



TRANSVERSE BRIDGE SLAB CONSTRUCTION JOINT DETAILS

Ⓓ



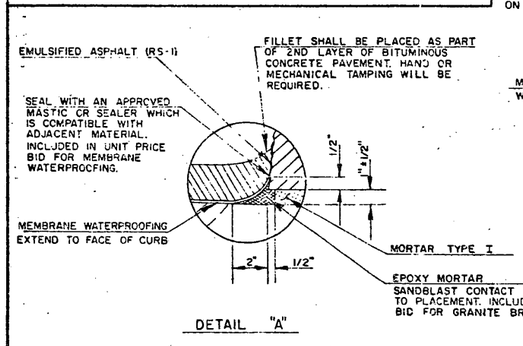
H-PILES	℞ SIZE
HP 12	6 1/2" X 6 1/2"
HP 14	7 1/2" X 7 1/2"

PREFABRICATED PILE SPLICE MAY BE USED WITH THE APPROVAL OF THE ENGINEER.

SPLICE PLATES TO BE THE SAME THICKNESS AS PILE WEB, ± 1/16".

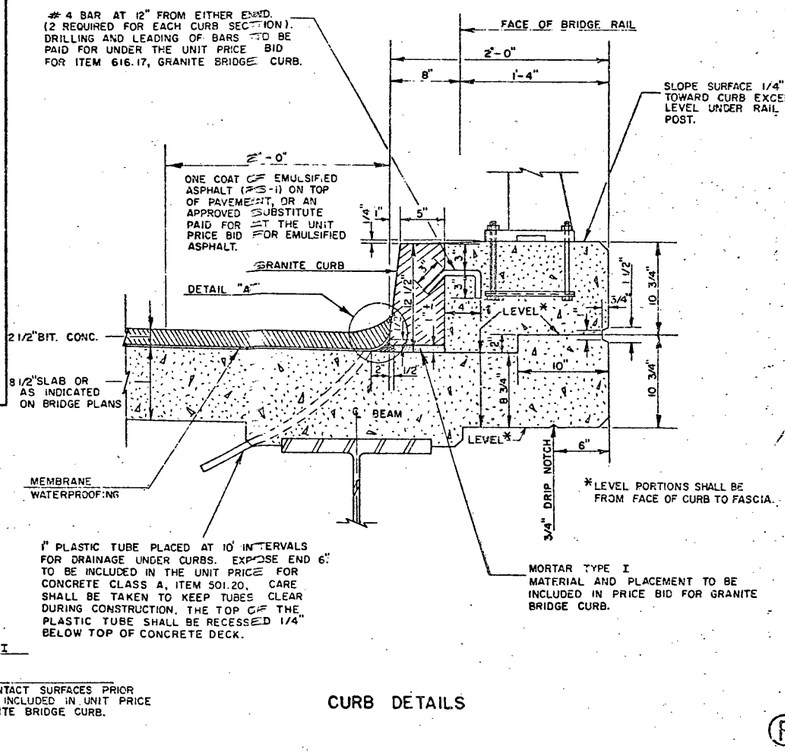
DETAIL OF PILE SPLICE

Ⓔ



DETAIL "A"

4 BAR AT 12" FROM EITHER END. (2 REQUIRED FOR EACH CURB SECTION). DRILLING AND LEADING OF BARS TO BE PAID FOR UNDER THE UNIT PRICE BID FOR ITEM 616.17, GRANITE BRIDGE CURB.



CURB DETAILS

Ⓕ

REVISIONS AND CORRECTIONS

1.-Added 1/2" ϕ bars to scupper details	J. WOOD 1-27-75
2.-Added to note on 1" plastic tubes	J. WOOD 1-27-75
3.-Revised pile splice weld.	W. Tripp 12-29-75
4.-Revised scupper length and pile splice detail	W. Tripp 12-15-76
5.-Revised slab and pavement thicknesses	W. Tripp 4-3-78
6.-Revised scupper notes.	W. Tripp 1-3-79

APPROVED DATE: Nov. 28 1973

E. H. Stickney
CHIEF ENGINEER

R. O. Nunn
ASST. CHIEF ENGINEER

W. M. Smith
BRIDGE ENGINEER

DETAILS OF W BEAM BRIDGES

- Ⓐ SCUPPER DETAILS
- ⒷⒸⒹ CONSTRUCTION DETAILS
- Ⓔ PILE DETAILS
- Ⓕ CURB DETAILS

VERMONT AGENCY OF TRANSPORTATION

STANDARD

SCB-D6-73