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STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

# PROPOSED IMPROVEMENT

INTERSTATE PROJECT

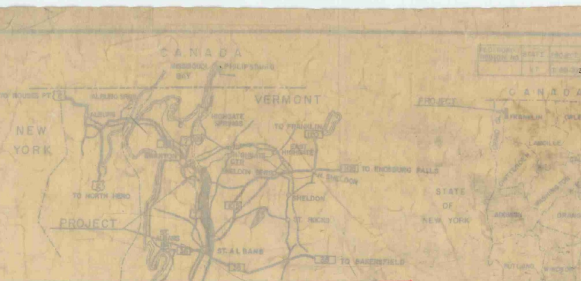
## TOWNS OF ST. ALBANS—SWANTON
COUNTY OF FRANKLIN
INTERSTATE ROUTE 89
BURLINGTON—PHILIPSBURG, QUE. ROAD

CONTRACT #= 1

BEGINNING AT A POINT 3.795 MILES SOUTHERLY OF THE ST. ALBANS - SWANTON TOWN LINE AND EXTENDING NORTHERLY 3.337 MILES.

| | | | |
|---|---|---|---|
| LENGTH OF ROADWAY | 17,474.9 | FEET = 3.310 | MILES |
| LENGTH OF BRIDGE | 143.0 | FEET = 0.027 | MILE |
| LENGTH OF CONTRACT | 17,617.90 | FEET = 3.337 | MILES |

1966 ADT 2530
1986 ADT 8090
DHV 1000
D 57.5%
T 7.0%
V 60 MPH




PROJ. NAME & NO. STAGE 1 RECORD PLANS - MATERIALS
ST. ALBANS - SWANTON I 89-3(36) C-1

SUB-BASE OF GRAVEL - SMITH PIT, ST. ALBANS, VT.
SUB-BASE OF SAND - GRATTON PIT NO. 2, ST. ALBANS, VT.
SUB-BASE OF CR. ROCK & STONE GRITS - SWANTON LIME WORKS, SWANTON, VT.
TACK COAT, TYPE RC, & CUTBACK ASPHALT - HUMBLE OIL CO., EVERETT, MASS.
TAR EMULSION FOR BRIDGE FLOORS - TECK CHEMICAL CORP., CHESHIRE, CONN.
BITUMINOUS CONCRETE PAVEMENT - L.M. PIKE & SONS, SWANTON, VT.
JOINT SEALER, HOT POURED - DEWEY & ALMY CHEM. DIV., W.R. GRACE & CO., CAMBRIDGE, MASS.
PREFORMED JOINT SEALER - D.S. BROWN CO
CONC., CLASS 'B', - A.G. ANDERSON, SWANTON, VT.
REINFORCING STEEL - BETHLEHEM STEEL CORP., BETHLEHEM, PA.
CAST IRON COVERS, METAL PIPE CULVERTS - N.E. METAL CULV. CO., WHITE RIVER JCT., VT.
CAST IRON GRATES, TYPE 'A' & 'B' - W.W. WYMAN - SHELBURN FALLS, MASS.
GUARD RAIL ITEMS, PROPERTY LINE FENCE, PRCC D.I.'S, R.C. PIPE - S.T. GRISWOLD, ESSEX JCT., VT.
JOINT SEALER, PREFORMED, STEEL PILING, SHEAR CONNECTORS, BRIDGE RAILING - VT. STR. STEEL, BURLINGTON, VT.
WATER REPELLENT - SPENCER-KELLOGG DIV. OF TEXTRON, INC., BUFFALO, N.Y.
STRUCTURAL STEEL - DOMINION BRIDGE CO., LTD., LACHINE, QUEBEC, CANADA
BRIDGE RAILING - WARD WELLER CO., INC., NATICK, MASS.
TREATED TIMBER PILING - N.E. POLE & WOOD TREATING CORP., MERRIMACK, N.H.
BRIDGE PAINT - AMSTERDAM COLOR WORK, INC., N.Y., N.Y.

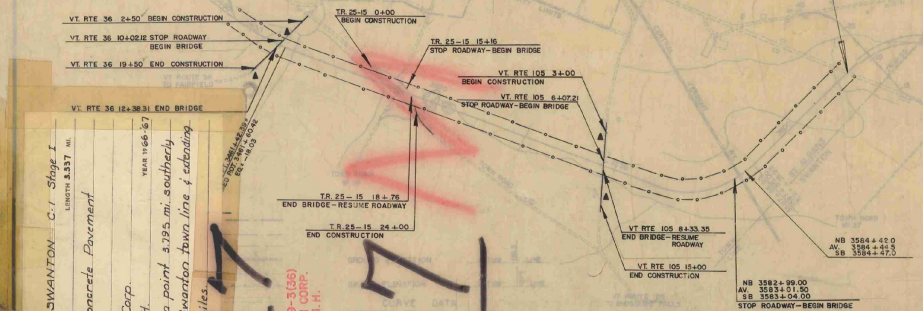
CONTRACTOR - THE PALAZZI CORP.
HOOKSETT, N.H.
RESIDENT ENGINEER - J.R. HUGHES
INSPECTORS - D. BRODIEN, A. ELWOOD
A. BOMBARDIER, R. LA ROSE
RECORD PLANS - P. WU

CONTRACT
DATED - 21 APR, '66
BEGUN - 3 MAY, '66
COMPLETED - 24 JUNE, '67
ACCEPTED - 27 JUNE, '67

END PROJECT I 89-3(35) 36
BEGIN CONTRACT #1

STA 3620+00
END CONTRACT #1 | BEGIN CONTRACT #2
PROJECT I 89-3(36)

NB STA 3867+64.74 =
MED STA 540+00.00
36 BEGIN PROJECT I 89-3 (38)
END CONTRACT #2




PROJECT ST. ALBANS - SWANTON C-1 Stage 1
NUMBER I 89-3(36)
TYPE Bituminous Concrete Pavement
LENGTH 3.337 MI.
YEAR 1966-67
CONTRACTOR The Palazzi Corp. Hooksett, N.H.
LOCATION Beginning at a point 3.795 mi. southerly of the St. Albans - Swanton town line & extending northerly 3.337 miles.

227

ST. ALBANS - SWANTON I 89-3(36)
CONTRACTOR - THE PALAZZI CORP.
HOOKSETT, N.H.
RES. ENG. - J.R. HUGHES
RECORD PLANS - P. WU

POINT OF ACCESS A
LIMITS OF ACCESS

FOR R.O.W. DETAILS, SEE ROW PLANS FOR THIS PROJECT

NOTE: ANY INFORMATION CONCERNING FINAL QUANTITIES, ETC. RELATIVE TO THIS CONTRACT IS TO BE FOUND IN EITHER THE FIELD BOOKS OR THE ESTIMATE FILE.

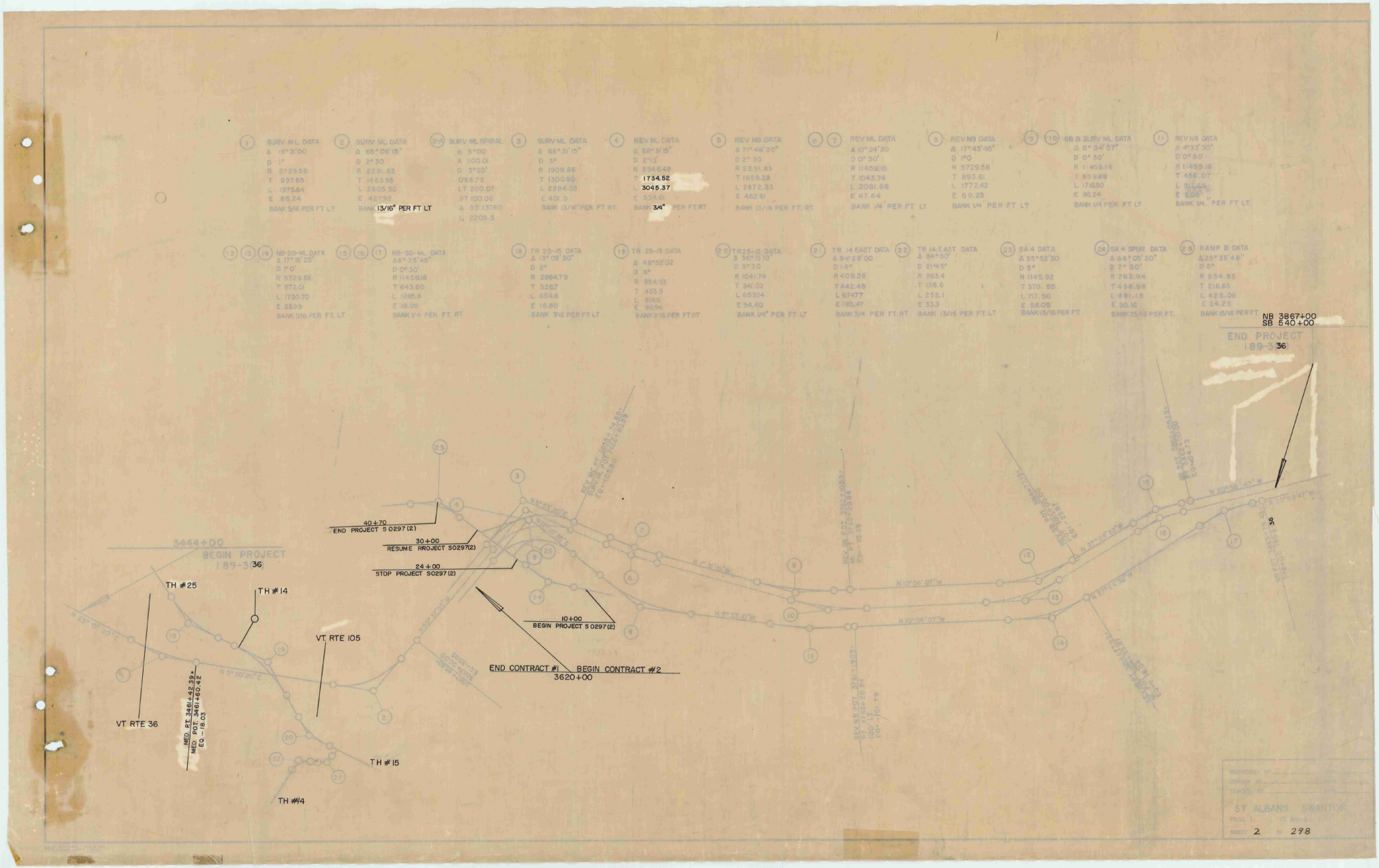
| | | |
|---|---|---|
| R.H. Arnold | E.H. Stickney | Stan Byam |
| 12/15/65 | 12/9/65 | 12/15/65 |
| Bill Blanchard | A.M. Lane | A.D. Bishop |
| 9/21/64 | 12/15/65 | 12/15/65 |

THESE PLANS ARE SUBJECT TO SUCH REVISIONS AS MAY BE REQUIRED BY THE BUREAU OF PUBLIC ROADS OR THE COMMISSIONER OF HIGHWAYS.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL, 1964, AS APPROVED BY THE BUREAU OF PUBLIC ROADS ON OCTOBER 12, 1964, INCLUDING ALL SUBSEQUENT APPROVED REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

STAGE 1 CONSTRUCTION
DEPARTMENT OF TRANSPORTATION

36
CONTRACT #= 1


1 SURV ML DATA
Δ 19°31'00"
D 1°
R 5729.58
T 997.85
L 1975.84
E 86.24
BANK 5/16 PER FT LT
2 SURV ML DATA
Δ 65°08'15"
D 2°30
R 2291.83
T 1463.95
L 2605.50
E 427.92
BANK 13/16" PER FT LT
2-A SURV ML SPIRAL
θ 5°00
A 100.01
D 3°20'
Θs 8.72
ST 100.06
LT 200.07
Δ 55.13780
L 2205.5
3 SURV ML DATA
Δ 68°31'15"
D 3°
R 1909.86
T 1300.90
L 2284.03
E 401.0
BANK 13/16" PER FT RT
4 REV ML DATA
Δ 68°31'15"
D 2°15'
R 2546.48
T 1734.52
L 3045.37
E 534.61
BANK 3/4" PER FT RT
5 REV NB DATA
Δ 71°48'30"
D 2° 30
R 2291.83
T 1659.28
L 2872.33
E 462.91
BANK 13/16 PER FT. RT.
6 7 REV ML DATA
Δ 10°24'30
D 0°30'
R 11459.16
T 1043.74
L 2081.68
E 47.44
BANK 1/4 PER FT LT
8 REV NB DATA
Δ 17°43'45"
D 1°0
R 5729.58
T 893.61
L 1772.42
E 69.23
BANK 1/4 PER FT LT
9 10 SB & SURV ML DATA
Δ 6°34'57"
D 0°30'
R 11459.16
T 659.88
L 1316.50
E 95.24
BANK 1/4 PER FT LT
11 REV NB DATA
Δ 4°33'30"
D 0°30'
R 11459.16
T 456.07
L 911.69
E 9.08
BANK 1/4" PER FT LT
12 13 14 NB-SB-ML DATA
Δ 17°18'25"
D 1°0'
R 5729.58
T 872.01
L 1730.70
E 65.99
BANK 5/16 PER FT. LT
15 16 17 NB-SB-ML DATA
Δ 6°25'45"
D 0°30'
R 11459.16
T 643.60
L 1285.8
E 18.06
BANK 1/4 PER FT. RT
18 TR 25-15 DATA
Δ 13°05'30"
D 2°
R 2864.79
T 328.7
L 654.6
E 16.80
BANK 7/16 PER FT LT
19 TR 25-15 DATA
Δ 48°52'02
D 6°
R 954.93
T 433.9
L 813.5
E 93.94
BANK 7/16 PER FT RT
20 TR25-15 DATA
Δ 36°15'10"
D 5°30
R 1041.74
T 341.02
L 659.14
E 54.40
BANK 1/4" PER FT LT
21 TR 14 EAST DATA
Δ 94°28'00
D 14°
R 409.26
T 442.48
L 673.77
E 193.47
BANK 3/4 PER FT. RT
22 TR 14 EAST DATA
Δ 94°50'
D 21°45'
R 263.4
T 136.6
L 252.1
E 33.3
BANK 13/16 PER FT LT
23 SA 4 DATA
Δ 35°52'30
D 5°
R 1145.92
T 370. 95
L 717. 50
E 58.09
BANK 13/15 PER FT
24 SA 4 SPUR DATA
Δ 66°05'20"
D 7°30'
R 763.94
T 496.98
L 881.19
E 30.16
BANK 15/16 PER FT.
25 RAMP B DATA
Δ 28°38'48"
D 6°
R 954.93
T 216.63
L 426.06
E 24.26
BANK 15/16 PER FT
NB 3867+00
SB 540+00
END PROJECT
189-3 36
3444+00
BEGIN PROJECT
189-3 36
40+70
END PROJECT S 0297(2)
30+00
RESUME PROJECT S0297(2)
24+00
STOP PROJECT S0297(2)
10+00
BEGIN PROJECT S 0297(2)
END CONTRACT #1
BEGIN CONTRACT #2
3620+00
TH #25
TH #14
VT RTE 105
VT RTE 36
TH #15
TH #14
MED. FT. 3461+42.39
MED. POT. 3461+60.42
EQ. - 18.03
N 23° 01' 00" E
N 5° 30' 20" E
N 25° 37' 50" W
N 8° 33' 10" W
N 10° 06' 07" W
N 31° 14' 52" W
N 20° 58' 47" W
N 10° 58' 47" W
ST ALBANS SWANTON
SHEET 2 OF 298

# INTERSTATE TYPICAL SECTIONS

PARABOLIC DETAILS

THESE ITEMS ARE NOT PART OF STAGE I CONSTRUCTION

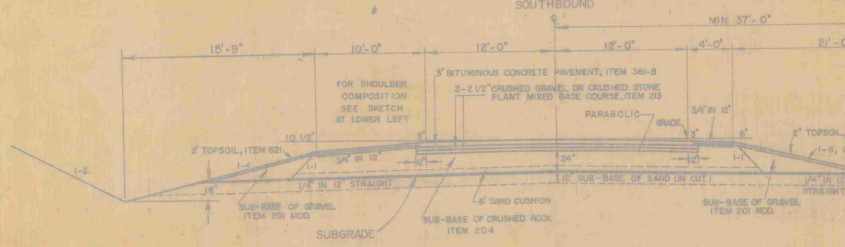
- 3" BITUMINOUS CONCRETE PAVEMENT, ITEM 361-B (± 1/4")
- 2-2 1/2" CRUSHED GRAVEL OR CRUSHED STONE PLANT MIXED BASE COURSE, ITEM 213 (± 1/2" FOR TOTAL THICKNESS)
- 24" SUB-BASE OF CRUSHED ROCK, ITEM 204 (± 1")
- SUB-BASE OF GRAVEL, ITEM 201 MOD.
- SHOULDERS: (1 1/2" BITUMINOUS CONCRETE PAVEMENT, ITEM 361-B (TOP COURSE ONLY) WITH TACK COAT, TYPE III, ITEM 315 MOD.
- 1 1/2" CRUSHED STONE SHOULDERS, ITEM 303

PERMISSIBLE TOLERANCES IN PARENTHESIS APPLY TO THICKNESS ONLY

12" GRANULAR BORROW, ITEM 105 (± 1") IN FILL
12" SUB-BASE OF SAND, ITEM 202 (± 1") IN CUT
TO BE PLACED AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER

CONSTRUCTED AS DESIGNED

SOUTHBOUND




ITEMS ABOVE SUBGRADE ARE NOT PART OF STAGE I CONTRACT.

NORTHBOUND

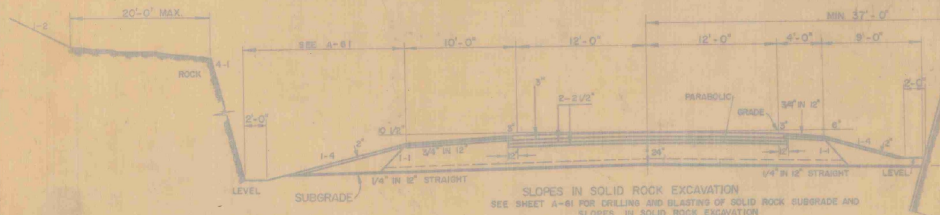




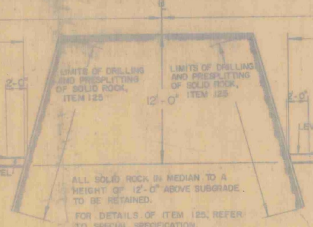


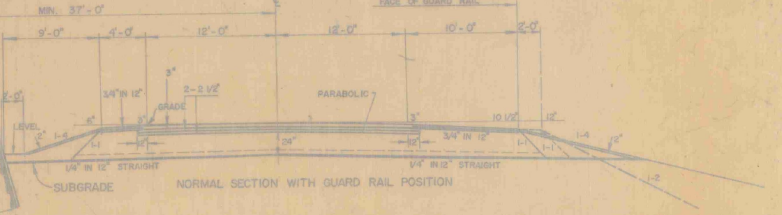
MAXIMUM BANKED SECTION 5/16" PER FT.

NOTE: DRILLING AND PRESPLITTING OF SOLID ROCK, ITEM 125, TO A DEPTH OF 4'-0" BELOW SUBGRADE, IS NOT TO BE USED WHERE SLOPE MEASUREMENT BETWEEN TOP OF LEDGE AND SUBGRADE IS LESS THAN 10'-0".




SLOPES IN SOLID ROCK EXCAVATION
SEE SHEET A-61 FOR DRILLING AND BLASTING OF SOLID ROCK SUBGRADE AND SLOPES IN SOLID ROCK EXCAVATION

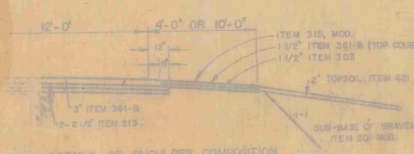



NORMAL SECTION WITH GUARD RAIL POSITION

| SEEDING, ITEM 611 % | LBS/ACRE | NAME | PURITY % | GERM % |
|---|---|---|---|---|
| 33.33 | 20 | CREEPING RED FESCUE | 97 | 85 |
| 10.00 | 6 | TALL FESCUE | 85 | 80 |
| 16.67 | 10 | KENTUCKY BLUE GRASS | 85 | 75 |
| 8.33 | 5 | RED TOP | 92 | 90 |
| 16.67 | 10 | DOMESTIC RYE GRASS | 98 | 90 |
| 5.33 | 8 | BIRDSFOOT TREFOIL (EMPIRE) | 99 | 80 |
| 0.48 | 1/4 | WEED SEED | | |
| 9.19 | 5 1/4 | INERT MATERIAL | | |
| 100.00 | 60 LBS PER ACRE | | | |

30 LBS OF WINTER RYE PER ACRE TO BE ADDED TO THE ABOVE SEEDING FORMULA IF DIRECTED BY THE ENGINEER.




DETAILS OF SHOULDER COMPOSITION

GENERAL NOTES:
FOR ROUNDING OF SLOPES, SEE STANDARD SHEET B-5
STEEL MARKER POSTS, ITEM 547-D, TO BE PLACED AS DIRECTED BY THE ENGINEER.
MULCH, ITEM 622, TO BE PLACED ON ALL EARTH SLOPES AT THE RATE OF TWO TONS PER ACRE.
FERTILIZER, ITEM 615, 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.

J. LANE CONSTRUCTION
STC MEDIAN

TYPICALS FOR SIDELINES

| | | |
|---|---|---|
| VT. ROUTE # 36 | SEE SHEET | 31 |
| T.H. # 25-15 | " | 39 |
| T.H. # 14 | " | 41-42 |
| VT. ROUTE 105 | " | 52 |

ST. ALBANS-SWANTON

CONTRACT # I

DRAWN AND TRACED: AJA, MAR 1968

STAGE I CONSTRUCTION
PROJECT I NO. 89-3(36)
SHEET 3 OF 298 SHEETS

D

# QUANTITY SHEET

STATE OF VERMONT / DEPARTMENT OF HIGHWAYS

PROJECT NO.

SUMMARY SHEET NO. ____ OF ____ 19__

## APPROXIMATE SUMMARY OF QUANTITIES

| 204 | VT 36 | TR25-15 | VT 105 | 189 over CVRR | ROADWAY | QUANTITIES GRAND TOTAL | UNIT | ITEMS | | ITEM NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1 | 1 | L.S. | Clearing & Grubbing + Ind. Trees | | 101 |
| | | | | | 236,500 | 236,500 | C.Y. | Common Excavation | 111 | 103-AA |
| | | | | | 1,500 | 1,500 | C.Y. | Solid Rock Excavation | 151 | 103-B |
| | | | | | 548,000 | 548,078 | C.Y. | Borrow | 380 | 104 |
| | | | | | 76,000 | 76,000 | C.Y. | Granular Borrow | 226 | 105 |
| 253 | | | | | 8,250 | 8,503 | C.Y. | Trench Excav. of Earth 100% | 23 | 106-A |
| | | | | | 250 | 250 | C.Y. | Trench Excav. of Earth 150% | 5 | 106-A |
| 43 | | | | | 250 | 293 | C.Y. | Trench Excav. of Rock 100% | 7 | 106-B |
| | | | | | 50 | 50 | C.Y. | Trench Excav. of Rock 150% | 13 | 106-B |
| | | | | | 30,900 | 30,900 | S.Y. | Fine Grading-Subgrade | 15 | 107 |
| | | | | | 1,700 | 1,700 | C.Y. | Channel Excav. of Earth | 5 | 108-A |
| | 112 | 318 | 355 | 206 | 1,200 | 2,191 | C.Y. | Structure Excavation | 26 | 109 |
| | | | | | 200 | 200 | Hrs. | Roadway Patrol Maintenance, Est. | | 110 |
| | | | | | 750 | 750 | M/Gal | Dust Control w/Water, Est. | | 112 |
| | | | | | 10 | 10 | Ton | Dust Control w/Cal. Chloride, Est. | | 113 |
| | | | | | 3,300 | 3,300 | S.Y. | Drilling & Blasting of Solid Rock, Subgrade | 73 | 115 |
| | | | | | 75 | 75 | Hrs. | Bulldozer Rental, Est. | | 120 |
| | | | | | 75 | 75 | Hrs. | All Purpose Excavator Rental, Est. | | 124 |
| | | | | | 1,000 | 1,000 | Ton | Cr. Grav. or Cr.Stone Plant Mixed Base Crse. | 44 | 213 |
| 34 | | | | | 15,700 | 15,734 | C.Y. | Sub-base of Gravel | 34 | 201 |
| | | | | | 5,000 | 5,000 | C.Y. | Sub-base of Sand, Est. | | 202 |
| | 104 | 151 | 98 | 328 | 250 | 931 | C.Y. | Sub-base of Crushed Rock | 25 | 204 |
| 425 | 1,488 | | 2,376 | 2,136 | 264,063 | 270,488 | CY/Mi. | Overhaul | | 221 |
| | 124 | | 198 | 178 | 925 | 925 | C.Y. | Gravel Backfill for Structures | 18 | 222-B |
| | | | | | 4,200 | 4,200 | C.Y. | Stripping of Gravel Pits | 53 | 223 |
| | | | | | 450 | 450 | C.Y. | Crushed Stone Shoulders | 93 | 303 |
| | | | | | 4,400 | 4,400 | Gal. | Tack Coat-Type III | 75 | 315 |
| | | | | | 1,124 | 1,124 | Gal. | Tar Emulsion for Bridge Floors | | 318 |
| | | | | | 1,570 | 1,570 | Ton | Bit. Conc. Pavement | 5 | 361-B |
| | | | | | 63 | 63 | L.F. | Joint Sealer-Hot Poured | | 372-A |
| | 82 | 62 | 48 | 234 | 0 | 426 | L.F. | Joint Sealer-Type A Preformed | | 372-C |
| | | | | | | | | Concrete & Reinforcement | | |
| | 259 | 396 | 265 | 471 | 0 | 1,391 | C.Y. | Concrete Class AA | | 401-AA |
| | 363 | 353 | 426 | 508 | 142 | 1,792 | C.Y. | Concrete Class B | | 401-B |
| | 105,700 | 121,290 | 108,770 | 161,930 | 12,320 | 509,960 | Lbs. | Reinf. Steel | | 402 |
| | | 1/2 | | 1/2 | 0 | 1 | L.S. | Shear Connectors (7030 11520 studs) | | 403 |
| | 284,090 | 372,350 | 267,600 | 399,760 | 0 | 1,323,740 | Lbs. | Structural Steel | | 404-A |
| | 31 | 95 | 38 | 46 | 0 | 210 | S.Y. | Asphaltic-Asbestos Coating | | 407 |
| | 256 | | 44 | | 0 | 300 | S.Y. | Paint-Waterproofing | | 410 |
| | | | | | 112 | 112 | C.Y. | Cement Rubble Masonry | 0.6 | 411 |
| 236 | | | | | 0 | 236 | L.F. | 12" Reinf.Conc.Pipe, Class III | | 421-D |
| | | | | | 3,936 | 3936 | L.F. | 18" Reinf.Conc.Pipe, Class III | | 421-M |
| | | | | | 828 | 828 | L.F. | 18" Reinf.Conc.Pipe, Class IV | | 421-N |
| | | | | | 172 | 172 | L.F. | 24" Reinf.Conc.Pipe, Class III | | 421-K |
| | | | | | 172 | 172 | L.F. | 30" Reinf.Conc.Pipe, Class III | | 421-L |
| | | | | | 188 | 188 | L.F. | 30" Reinf.Conc.Pipe, Class IV | | 421-L |
| | | | | | 36 | 36 | L.F. | 18" Asph.Ctd.Corr.Galv.Met.Pipe Elbow 200 | 5 Ga | 422-H |
| | | | | | 138 | 138 | L.F. | 72" Asph.Ctd.Corr.Galv.Met.Pipe 8 Ga.Strut. | | 424-S |
| | | | | | 10 | 10 | L.F. | 8" Asph.Ctd.Corr.Galv.Met.Pipe, 16 Ga. | 4 | 421-B |
| | | | | | 2,732 | 2,732 | L.F. | 18" Asph.Ctd.Corr.Galv.Met.Pipe, 16 Ga. | | 421-H |
| | | | | | 196 | 196 | L.F. | 24" Asph.Ctd.Corr.Galv.Met.Pipe, 14 Ga. | | 424-K |
| | | | | | 470 | 470 | L.F. | 24" Asph.Ctd.Corr.Galv.Met.Pipe, 16 Ga. | | 424-K |
| | | | | | 156 | 156 | L.F. | 30" Asph.Ctd.Corr.Galv.Met.Pipe, 14 Ga. | | 424-L |
| | | | | | 444 | 444 | L.F. | 36" Asph.Ctd.Corr.Galv.Met.Pipe, 14 Ga. | | 424-M |
| | | | | | 106 | 106 | L.F. | 48" Asph.Ctd.Corr.Galv.Met.Pipe, 12 Ga. | | 424-O |
| | | | | | 272 | 272 | L.F. | 83"x27" Asph.Ctd.Corr.Galv.Met.Pipe Arch | 14Ga | 425-M |
| | | | | | 248 | 248 | L.F. | 58"x36" Asph.Ctd.Corr.Galv.Met.Pipe Arch | 10Ga. | 425-O |
| | | | | | 406 | 406 | L.F. | 72"x44" Asph.Ctd.Corr.Galv.Met.Pipe Arch | 8 Ga. | 425-Q |
| 44 | | | | | 0 | 44 | L.F. | Sleeves for Water Pipes | | 431 |
| | 67 | 77 | 54 | 64 | 0 | 262 | Gal. | Water Repellent | | 440 |
| | 1/4 | 1/4 | 1/4 | 1/4 | 0 | 1 | L.S. | Furn. Equip. for Driving Piles | | 501 |
| | | | 1 | | 0 | 1 | L.S. | Preparing Sub-surface for Driving Piles | | 502 |
| | 2,970 | 3,165 | | | 0 | 6,135 | L.F. | Treated Timber Piling | | 503-B |
| | | | 640 | 2,605 | 0 | 3,245 | L.F. | Steel Piling | | 503-C |
| | | | 8 | 20 | 0 | 28 | Ea. | Splices for Steel Piling | | 504 |
| | 3 | 6 | 2 | 6 | 0 | 17 | Ea. | Pile Loading Tests | | 505 |
| | | | | | 230 | 230 | C.Y. | Stone Fill for Slope Protection (Light Type) | 8 | 512 |
| | | | | | 305 | 305 | C.Y. | Riprap (Light Type) | 3 | 513-B |
| | | | | | 3,000 | 3,000 | L.F. | 6" Perf.Asph.Ctd.Corr.Galv.Met.Und. | 1076 | 521-1A |
| | | | | | 500 | 500 | L.F. | 6" Perf.Asph.Ctd.Corr.Galv.Met. Pipe | 209 | 521-11M |
| | | | | | 5 | 5 | Ea. | Cast Iron Cov. for Asph.Ctd.Corr.Galv. Met. Pipe Flushing Basin | 2 | 525 |
| | | | | | 7 | 7 | Ea. | Drop Inlet II | | 531 |
| | | | | | 39 | 39 | Ea. | Cast Iron Grate, Type A | | 534-A |
| | | | | | 9 | 9 | Ea. | Cast Iron Grate, Type B | | 534-A |
| | | | | | 2 | 2 | Ea. | Cast Iron Grate, Type C | | 534-A |
| | | | | | 1,832 | 1,832 | L.F. | Two Cable Guard Rail | | 541 |
| | | | | | 8,968 | 8,068 | L.F. | Three Cable Guard Rail w/Steel Posts | | 542 |
| | | | | | 12 | 12 | Ea. | Anchor for Two Cable Guard Rail | | 543 |
| | | | | | 48 | 48 | Ea. | Anchor for Three Cable Guard Rail w/St.Posts | | 544 |

## DETAILED SUMMARY OF QUANTITIES

| QUANTITIES | UNIT | ITEMS | ITEM NO. |
|---|---|---|---|
| | | COMMON EXCAVATION | |
| 228,768 | C.Y. | Roadway-Mainline & Sidelines | |
| 1,188 | " | Special Ditches | |
| 25 | | Drives Vt. 36 | |
| 7 | | " TR 25-15 | |
| 16 | | " TR 14 | |
| 73 | | " VT 105 | |
| 423 | | Rounding | |
| 236,500 | | Total | |
| | | TRENCH EXCAVATION OF EARTH - 100% | |
| 6,351 | C.Y. | Culverts-Special Ditches, etc. | |
| 1,187 | C.Y. | Underdrain-Designed | |
| 656 | C.Y. | Underdrain-Estimated | |
| 33 | C.Y. | Test Trench for Drilling & Blasting | |
| 23 | C.Y. | Rounding | |
| 8,250 | C.Y. | TOTAL | |
| | | TRENCH EXCAVATION OF ROCK - 100% | |
| 121 | C.Y. | Culverts Special Ditches, etc. | |
| 108 | C.Y. | Underdrain-Design | |
| 21 | C.Y | Rounding | |
| 250 | C.Y. | Total | |
| | | SUB-BASE OF GRAVEL, MOD. | |
| 5,192 | C.Y. | Vt. #36 (Including Drives) | |
| 4,818 | C.Y. | TR 25-15 " | |
| 2,341 | C.Y. | TR #14 ( E&W) " | |
| 3,265 | C.Y. | VT. 105 " | |
| 84 | C.Y. | Rounding | |
| 15,700 | C.Y. | Total | |
| | | CRUSHED STONE SHOULDERS | |
| 257 | C.Y. | Vt. #36 | |
| 150 | C.Y. | Vt. 105 | |
| 43 | C.Y. | Rounding | |
| 450 | C.Y. | TOTAL | |
| | | BITUMINOUS CONCRETE PAVEMENT | |
| 612 | Ton | Vt. #36 | |
| 458 | Ton | TR 25-15 | |
| 114 | Ton | TR 14 east | |
| 381 | Ton | Vt. 105 | |
| 5 | Ton | Rounding | |
| 1,570 | Ton | TOTAL | |
| | | GRANULAR BORROW | |
| 12,000 | C.Y. | Est. for fill area | |
| 12,325 | C.Y. | Bridge = Vt. 36 Incl.Bridge & Roadway | |
| 2,735 | C.Y. | = TH 25-15 Incl. Bridge & Rdwy. | |
| 4,124 | C.Y. | = Vt. 105 inc. Bridge & Roadway | |
| 44,590 | C.Y. | = CVRR inc. Bridge & Roadway | |
| 226 | C.Y. | Rounding | |
| 76,000 | C.Y. | TOTAL | |
| | | TAR EMULSION FOR BRIDGE FLOORS | |
| 377 | Gal. | Vt. #36 Bridge | |
| 384 | Gal. | TH 25-15 Bridge | |
| 363 | Gal. | Vt. 105 Bridge | |
| 1,124 | Gal. | Total | |
| | | JOINT SEALER-HOT POURED | |
| 32 | L.F. | Vt. 36 Bridge | |
| | | TH 25-15 Bridge | |
| 31 | L.F. | Vt. 105 Bridge | |
| 63 | L.F. | TOTAL | |

## DETAILED SUMMARY OF QUANTITIES

| QUANTITIES | UNIT | ITEMS | ITEM NO. |
|---|---|---|---|
| | | ROW BID ITEMS | |
| | | TR 14 (East) 7+20±-Water Pipe | |
| 55 | C.Y. | Trench Excavation of Earth | 106-A |
| 44 | L.F. | Sleeve for Water Pipe | 431 |
| 178 | L.F. | 3/4" Seamless Copper Water Tube | 594 |
| | | &L 3480+83.29-Water Pipe & Sleeves | |
| 198 | C.Y. | Trench Excavation of Earth | 106-A |
| 43 | C.Y. | Trench Excavation of Rock | 106-B |
| 236 | L.F. | 12" Reinf.Conc.Pipe, Class III | 421-D |
| 2 | Ea. | Extension Service Box and Curb Stop | 596 |
| 624 | Ea. | 4" CI Mech.Joint Type Pipe | 441-A |
| | | Drive Vt. 105 13+30 Lt. | |
| 78 | C.Y. | Borrow | 104 |
| 34 | C.Y. | Sub-base of Gravel, Mod. | 201 |
| 425 | C.Y. | Gravel Overhaul | 221 |

## TYPE OF CONSTRUCTION

| STATIONS FROM | STATIONS TO | PAVEMENT WIDTHS 24' | BRIDGE | TRANSITION | EQUATIONS + | EQUATIONS − |
|---|---|---|---|---|---|---|
| 3444+00 | 3461+42.39 | 1742.39 | | | | 18.03 |
| 3461+60.42 | 3581+51.5 | 11991.08 | | | | |
| 3581+51.5 | 3583+01.50 | | | 150.00 | | |
| 3583+01.50 | 3584+44.5 | | 143.0 | | | |
| 3584+44.50 | 3585+94.50 | | | 150.0 | | |
| 3585+94.50 | 3587+85.93 | 191.43 | | | 35.93 | |
| 3587+50 | 3620+00 | 3250.00 | | | | |
| TOTALS | | 17179.90 | 143.0 | 300.0 | | |

LENGTH OF PROJECT

| STATIONS | | FEET | MILES | REMARKS |
|---|---|---|---|---|
| 3444+00 | 3620+00 | 17817.90 | 3.337 | |
| TOTALS | | | | |

STAGE 1 CONSTRUCTION CONTRACT NO. 1 I 89-3(36)

ST. ALBANS-SWANTON

Sheet # 298

# QUANTITY SHEET

STATE OF VERMONT DEPARTMENT OF HIGHWAYS

PROJECT NO. _____

SUMMARY SHEET NO. ___ OF _____, 19___

## APPROXIMATE SUMMARY OF QUANTITIES

| ROW | VT 36 | TR 25-15 | VT105 | I 89 over CVRR BRIDGE | ROADWAY | QUANTITIES GRAND TOTAL | UNIT | ITEMS | REMARKS | ITEM NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 675 | 675 | L.F. | Standard Steel Beam Guard Rail w/Stl.Posts | | 545-A |
| | | | | | 20 | 20 | Ea. | Wood Marker Posts | 1 | 547-C |
| | | | | | 85 | 85 | Ea. | Steel Marker Posts | 2 | 547-D |
| | | | | | 860 | 860 | L.F. | Rem. & Disp. of Present Guard Rail | 10 | 549 |
| | 560 | 765 | 542 | 664 | 0 | 2,537 | L.F. | Granite Bridge Curb | | 556-C |
| | | | | | 1,390 | 1,390 | L.F. | Treated Timber Curb | 4 | 558 |
| | | | | | 2 | 2 | Ea. | Erection of Project Markers | | 566 |
| | | | | | 60 | 60 | Ea. | Boundary Markers | Est. | 567 |
| | 559 | 765 | 542 | 658 | 0 | 2,524 | L.F. | Bridge Railing | | 572 |
| | | | | | 34,200 | 34,200 | L.F. | Property Line Fn. w/Steel Posts | 25 | 583-11 |
| | | | | | 80 | 80 | Ea. | Steel Brace for Prop. Line Fence | 5 | 583-1Y |
| | | | | | 1 | 1 | L.S. | Dem. & Disp. of Bldg. Yt. 36 17+00 Lt. | 1 | 586 |
| | | | | | 1 | 1 | L.S. | Dem & Disp. of Bldg. BL 3547+50 Lt. | 2A | 586 |
| | | | | | 1 | 1 | L.S. | Dem. & Disp. of Bldg. BL 3548+10 Lt. | 2B | 586 |
| | | | | | 1 | 1 | L.S. | Dem. & Disp. of Bldg. BL 3549+50 Lt. | 3 | 586 |
| 178 | | | | | 0 | 178 | L.F. | 3/8" Seamless Copper Water Tube | | 594 |
| 2 | | | | | 0 | 2 | Ea. | Extn. Service Box w/Curb Stop | | 596 |
| | | | | | 96 | 96 | Hrs. | Uniformed Traffic Officers | | 598 |
| | | | | | 1 | 1 | L.S. | Field Office, Engineers | | 599-A |
| | | | | | 1 | 1 | L.S. | Field Office, Soils & Materials | | 599-B |
| | | | | | 3,200 | 3,200 | Lbs. | Seeding | 65 | 611 |
| | | | | | 28,600 | 28,600 | Lbs. | Fertilizer | 100 | 615 |
| | | | | | 1,670 | 1,670 | C.Y. | Topsoil Est. | | 621 |
| | | | | | 115 | 115 | Ton | Mulch | 1 | 622 |
| | | | | | 1,000 | 1,000 | S.Y. | Jute Matting | Est. | 623 |
| 624 | | | | | 0 | 624 | L.F. | 4" Cast Iron Pipe | | 419-A |
| | | | | | | | | OPTIONAL PIPE | | |
| | | | | | 212 | 212 | L.F. | 12" Pipe | | |
| | | | | | | | | Corr.Galv.Met.Pipe, 16 Ga. cr | | 423-D |
| | | | | | | | | Corr.Alum.Alloy Galv. Pipe, 16 Ga. | | 420-D |
| | | | | | 30 | 30 | L.F. | 12" Pipe | | |
| | | | | | | | | Corr.Alum.Alloy Galv.Pipe, 16 Ga. | | 420-D |
| | | | | | | | | Reinf.Conc.Pipe, Class III | | 421-D |
| | | | | | | | | Corr.Galv.Met.Pipe, 16 Ga. | | 423-D |
| | | | | | 198 | 198 | L.F. | 18" Pipe | | |
| | | | | | | | | Corr.Alum.Alloy Galv.Pipe, 16 Ga. | | 420-H |
| | | | | | | | | Reinf.Conc.Pipe, Class III | | 421-H |
| | | | | | | | | Corr.Galv.Met.Pipe, 16 Ga. | | 423-H |
| | | | | | 54 | 54 | L.F. | 12" Pipe Elbow | | |
| | | | | | | | | Corr.Galv.Met.Pipe Elbow, 16 Ga. | | 422-10 |
| | | | | | | | | Corr.Alum. Alloy Pipe Elbow 16 Ga. | | 853-D |

## DETAILED SUMMARY OF QUANTITIES

| QUANTITIES | UNIT | ITEMS |
|---|---|---|

## DETAILED SUMMARY OF QUANTITIES

| QUANTITIES | UNIT | ITEMS |
|---|---|---|

## TYPE OF CONSTRUCTION

| STATIONS FROM | STATIONS TO | PAVEMENT WIDTHS | | | EQUATIONS + | EQUATIONS − |
|---|---|---|---|---|---|---|
| | | | | | | |
| TOTALS | | | | | | |

## LENGTH OF PROJECT

| STATIONS | FEET | MILES | REMARKS |
|---|---|---|---|
| | | | |
| TOTALS | | | |

STAGE I CONSTRUCTION ST. ALBANS-SWANTON CONTRACT NO. I 89-3(36)

No. Final Sheets

Sheet 5 of 298 Sheets

# ITEM DETAIL AND DRAINAGE SHEET

## DRAINAGE STRUCTURES

CONTRACT #1 3444+00-3620+00

GAGES—S INDICATES STRUTTING
N.A. INDICATES NOT APPLICABLE
DIA—GP INDICATES OPTION ELBOW

| STA. | STA. | POSITIONS | ASKEW | TYPE IN / OUT | R.C.P. CLASS | R.C.P. D (IN) | R.C.P. L (FT) | A.C.C.G.M.P. D (IN) | A.C.C.G.M.P. L (FT) | GAGE | C.G.M.P.P. / P.P.A D/S (IN/IN) | /R (IN) | L (FT) | OPTION D (IN) | OPTION L (FT) | CG MP (GA) | R CP (CL) | CAA CP (GA) | ELBOW D (IN) | ELBOW L (FT) | DEGREE TOP | DEGREE BOT | CB | DI (TYPE) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MAINLINE | | | | | | | | | | | | | | | | | | | | | | | | |
| 3446+00 | | BL | | SH | | | | 24" | 176' | 16 | | | | | | | | | | | | | | |
| 3450+02 | 3452+06 | Rt-Lt | | CH-CH | | | | | | 14 | 43" | 27" | 272' | | | | | | | | | | | |
| SB3452+00 | 3452+32 | Lt | | | | | | | | | | | | | | | | | | | | | | |
| 3452+13 | | SB | | DI w/Gr. | III | 18" | 80' | | | | | | | | | | | | | | | | | |
| 3454+00 | 3455+00 | NBrt-SBLt | | SH | | | | 36" | 218' | 14 | | | | | | | | | | | | | | |
| 3455+25 | 3456+00 | SB Lt | | | | | | | | | | | | | | | | | | | | | | |
| 3456+00 | 3457+00 | SBlt-SBrt | | DI w/Grate | III | 18" | 132' | | | | | | | | | | | | | | | | | |
| 3457+00 | | NB | | DI w/Cov. DI | III | 18" | 76' | | | | | | | | | | | | | | | | | |
| 3459+88 | 3461+60 | NBrt-SBLt | | SH-CH | | | | 36" | 226' | 14 | | | | | | | | | | | | | | |
| 3461+60 | | SB | | DI w/Gr. | | | | 18" | 80' | 16 | | | | | | | | | | | | | | |
| 3463+50 | | NB | | SH-DI | | | | 18" | 82' | 16 | | | | | | | | | | | | | | |
| 3463+50 | | SB | | DI w/Gr. | | | | 18" | 76' | 16 | | | | | | | | | | | | | | |
| 3468+92 | | NB | | SH-DI | | | | 30" | 78' | 14 | | | | | | | | | | | | | | |
| 3468+92 | | SB | | DI w/Gr. | | | | 30" | 78' | 14 | | | | | | | | | | | | | | |
| 3468+92 | 3473+75 | NB-RT | | | | | | | | | | | | | | | | | | | | | | |
| 3474+00 | | NB | | SH-DI | III | 24" | 78' | | | | | | | | | | | | | | | | | |
| 3474+00 | | SB | | DI w/Gr. | III | 24" | 94' | | | | | | | | | | | | | | | | | |
| 3474+00 | 3476+75 | NB-Rt | | | | | | | | | | | | | | | | | | | | | | |
| 3477+00 | | NB | | SH-DI | III | 18" | 80' | | | | | | | | | | | | | | | | | |
| 3477+00 | | SB | | DI w/Gr. | IV | 18" | 88' | | | | | | | | | | | | | | | | | |
| 3477+00 | 3480+50 | NB-Rt | | | | | | | | | | | | | | | | | | | | | | |
| 3480+92 | 3481+25 | SBLt-SBrt | | DI w/Gr. | III | 30" | 88' | | | | | | | | | | | | | | | | | |
| 3481+25 | 3481+52 | NBLt-NBrt | | SH-DI | III | 30" | 84' | | | | | | | | | | | | | | | | | |
| 3481+52 | 3485+00 | NB Rt | | | | | | | | | | | | | | | | | | | | | | |
| 3485+00 | | SB | | DI w/Gr. | III | 18" | 84' | | | | | | | | | | | | | | | | | |
| 3483+00 | 3487+00 | SB-Lt | | | | | | | | | | | | | | | | | | | | | | |
| 3485+50 | 3488+00 | NB-Rt | | | | | | | | | | | | | | | | | | | | | | |
| 3487+00 | 3487+95 | SBlt-NBrt | | CH-CH | | | | | | 8 | 72" | 44" | 198' | | | | | | | | | | | |
| 3488+00 | 3489+25 | NB-Rt | | | | | | | | | | | | | | | | | | | | | | |
| 3492+00 | | NB | | DI w/Cov/DI | III | 18" | 72' | | | | | | | | | | | | | | | | | |
| 3492+00 | | SB | | DI w/Cov/DI | III | 18" | 72' | | | | | | | | | | | | | | | | | |
| 3492+00 | 3495+00 | ML | | DI w/Gr/DI | III | 18" | 300' | | | | | | | | | | | | | | | | | |
| 3495+00 | | NB | | DI w/Cov/DI | III | 18" | 72' | | | | | | | | | | | | | | | | | |
| 3495+00 | | SB | | DI w/Cov/DI | III | 18" | 72' | | | | | | | | | | | | | | | | | |
| 3495+00 | 3498+50 | ML | | DI w/Gr/DI | III | 18" | 348' | | | | | | | | | | | | | | | | | |
| 3498+50 | | NB | | DI w/Gr. | | | | 18" | 96' | 16 | | | | | | | | | | | | | | |
| 3501+00 | 3503+30 | SB-Lt | | | | | | | | | | | | | | | | | | | | | | |
| 3502+00 | | NB | | DI w/Gr. | | | | 18" | 96' | 16 | | | | | | | | | | | | | | |
| 3505+35 | 3509+00 | NB-Rt | | | | | | | | | | | | | | | | | | | | | | |
| 3505+50 | | SB-NB | | SH | | | | 24" | 218' | 16 | | | | | | | | | | | | | | |
| 3506+00 | | NB | | DI w/Gr. | | | | 18" | 114' | 16 | | | | | | | | | | | | | | |
| 3509+00 | | SB | | SH-DI | | | | 18" | 92' | 16 | | | | | | | | | | | | | | |
| 3506+69 | 3506+84 | NB-Rt | | | | | | | | | | | | | | | | | | | | | | |
| 3509+00 | | NB | | DI w/Gr. | | | | 18" | 106' | 16 | | | | | | | | | | | | | | |
| 3511+24 | 3511+46 | NB (RT-LT) | | DI w/Gr. | IV | 18" | 100' | | | | | | | | | | | | | | | | | |
| 3511+46 | 3511+71 | SB (RT-LT) | | SH-DI | III | 18" | 88' | | | | | | | | | | | | | | | | | |
| 3516+00 | | SB | | SH-DI | | | | 18" | 74' | 16 | | | | | | | | | | | | | | |
| 3516+00 | | NB | | DI w/Gr. | | | | 18" | 94' | 16 | | | | | | | | | | | | | | |
| 3520+00 | | SB | | SH-DI | | | | 18" | 74' | 16 | | | | | | | | | | | | | | |
| 3520+00 | | NB | | DI w/Gr. | | | | 18" | 96' | 16 | | | | | | | | | | | | | | |
| | SIDELINES | | | | | | | | | | | | | | | | | | | | | | | |
| VT. #36 | | | | | | | | | | | | | | | | | | | | | | | | |
| 18+16 | 18+50 | Lt-Rt | | DI w/Gr. | | | | 18" | 84' | 16 | | | | | | | | | | | | | | |
| 5+74 | | | | SH-CH | | | | 48" | 106' | 12 | | | | | | | | | | | | | | |
| 6+50 | | Rt-Rt | | PRCCDI | | | | | | | | | | 12" | 28' | 16 | | 16 | 12" | 12' | 15° | 25° | | 1 |
| 6+50 | | Lt-Lt | | PRCCDI | | | | | | | | | | 12" | 26' | 16 | | 16 | 12" | 12' | 15° | 25° | | 1 |
| 13+00 | | Lt-Lt | | PRCCDI | | | | | | | | | | 12" | 40' | 16 | | 16 | 12" | 12' | 15° | 25° | | 1 |
| 13+00 | | Rt-Rt | | PRCCDI | | | | | | | | | | 12" | 38' | 16 | | 16 | 12" | 12' | 15° | 25° | | 1 |
| 3459+88 NBrt-17+50 | | Vt.#36 Lt. | | | | | | | | | | | | | | | | | | | | | | |
| 18+85 | 19+15 | Lt-Lt | | | | | | | | | | | | 12" | 30' | 16 | III | 16 | | | | | | |
| 5+74 | | ℄ | 80°04'Rt | | | | | | | | | | | | | | | | | | | | | |
| 15+50 | | ℄ | | | | | | | | | | | | | | | | | | | | | | |
| TOWN ROAD #25-#15 | | | | | | | | | | | | | | | | | | | | | | | | |
| 3+79 | 4+07 | Lt | | | | | | | | | | | | 18" | 28' | 16 | III | 16 | | | | | | |
| 3+89 | 4+16 | Rt | | | | | | | | | | | | 18" | 28' | 16 | III | 16 | | | | | | |
| 9+00 | | Rt-Lt | | SH | III | 18" | 84' | | | | | | | | | | | | | | | | | |
| 12+75 | 13+25 | Lt | | | | | | | | | | | | | | | | | | | | | | |
| 19+00 | | Rt | | PRCCDI | | | | | | | | | | 12" | 34' | 16 | | 16 | 12" | 6' | 10° | | | 1 |
| 20+95 | 21+05 | Rt-Lt | | SH | | | | 24" | 112' | 14 | | | | | | | | | | | | | | |
| 21+00 | 22+75 | Rt | | | | | | | | | | | | | | | | | | | | | | |
| 23+25 | 24+00 | Rt | | | | | | | | | | | | | | | | | | | | | | |
| 21+00 | | ℄ | 87°35'Rt | | | | | | | | | | | | | | | | | | | | | |
| TR #14 WEST | | | | | | | | | | | | | | | | | | | | | | | | |
| 2+31.2 | | Rt-Lt | | SH | | | | 18" | 84' | 16 | | | | | | | | | | | | | | |
| 5+50 | | Rt-Lt | | SH | III | 18" | 72' | | | | | | | | | | | | | | | | | |
| 2+31 | | Rt | | | | | | | | | | | | | | | | | | | | | | |
| TR #14 EAST | | | | | | | | | | | | | | | | | | | | | | | | |
| 0+30 | | Rt-Lt | | | | | | | | | | | | 18" | 56' | 16 | III | 16 | | | | | | |
| 4+00 | | Lt-Rt | | SH | | | | | | | | | | 18" | 38' | 16 | III | 16 | | | | | | |
| 7+85 | 8+07 | Rt-Lt | | SH | | | | | | | | | | 18" | 48' | 16 | III | 16 | | | | | | |
| 7+62 | 7+85 | Rt | | | | | | | | | | | | | | | | | | | | | | |
| | | SHEET TOTAL | | | III | 18" | 1632 | 18 | 1248 | 16 (14) | 43 | 27 | 272 | 12" | 166' | 16 | | 16 | 12 | 6 | 10° | | | 5 |
| | | | | | IV | 18" | 188' | 24 | 112 | 14 (8) | 72 | 44 | 198 | 18" | 198' | 16 | III | 16 | 12 | 24 | 15° | | | |
| | | | | | III | 24" | 172 | 24 | 394 | 16 | | | | 12" | 30' | 16 | III | 16 | 12 | 24 | | 25° | | |
| | | | | | III | 30" | 172 | 30 | 156 | 14 | | | | | | | | | | | | | | |
| | | | | | | | | 36 | 444 | 14 | | | | | | | | | | | | | | |
| | | | | | | | | 48 | 106 | 12 | | | | | | | | | | | | | | |

| STA. | STA. | DEPTH D.I. (FT) | REINF. STEEL (LB) | CONC. CLASS B (C.Y.) | D.I. TYPE | C.R.M. (CY) | M.E.S. (DIA) | TR. EARTH 100% (C.Y.) | TR. EARTH 150% (C.Y.) | TR. ROCK 100% (C.Y.) | TR. ROCK 150% (C.Y.) | STRUCT EXCAV. (C.Y.) | CHANNEL EXCAV. (C.Y.) | STONE FILL 511 (C.Y.) | STONE FILL 512 (C.Y.) | RIP RAP (C.Y.) | GRAVEL BACKFILL (C.Y.) | PAVED GUTTER (TON) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3446+00 | | | | | | 2.7 | | 119 | 2 | | | | | | | | | |
| 3450+02 | 3452+06 | | | | | 3.2 | | 382 | 46 | | | | | | | 14 | | |
| SB3452+00 | 3452+32 | | | | | | | 22 | | | | | | | | | | |
| 3452+13 | | 4.0 | 196 | 2.1 | A | | | 44 | | | | | | | | | | 2.5 |
| 3454+00 | 3455+00 | | | | | 4.9 | | 232 | | | | | | | | | | |
| 3455+25 | 3456+00 | | | | | | | 175 | | | | | | | | | | |
| 3456+00 | 3457+00 | 4.0 | 196 | 2.1 | A | | | 87 | | | | | | | | | | |
| 3457+00 | | 4.0 | 217 | 2.3 | | | | 51 | | | | | | | | | | |
| 3459+88 | 3461+60 | | | | | 7.0 | | 224 | 21 | | | | | | | 20 | | |
| 3461+60 | | 5.0 | 226 | 2.6 | A | | | 35 | | | | | | | | | | 2.5 |
| 3463+50 | | | | | | 1.8 | | 47 | | | | | | | | | | |
| 3463+50 | | 4.0 | 196 | 2.1 | | | | 27 | | | | | | | | | | |
| 3468+92 | | | | | | 3.5 | | 34 | | | | | | | | | | |
| 3468+92 | | 5.0 | 272 | 3.2 | A | | | 35 | 2 | | | | | | | | | |
| 3474+00 | | | | | | 2.7 | | 23 | | | | | | | | | | |
| 3474+00 | | 5.5 | 234 | 2.8 | A | | | 8 | 1 | | | | | | | | | |
| 3477+00 | | | | | | 1.8 | | 51 | | | | | | | | | | |
| 3477+00 | | 5.0 | 226 | 2.6 | A | | | 21 | 1 | | | | | | | | | |
| 3480+92 | 3481+25 | 5.5 | 284 | 3.6 | A | | | 86 | 3 | 20 | 9 | | | | | | | |
| 3481+25 | 3481+52 | | | | | 3.5 | | | | 101 | 28 | | | | | | | |
| 3485+00 | | 4.0 | 196 | 2.1 | A | | | 50 | | | | | | | | | | |
| 3483+00 | 3487+00 | | | | | | | | | | | | 552 | | | 60 | | |
| 3487+00 | 3487+95 | | | | | 5.0 | | | | | | 344 | | | | 13 | | |
| 3488+00 | 3489+25 | | | | | | | | | | | | 524 | | 157 | | | |
| 3492+00 | | 4.0 | 217 | 2.3 | | | | 52 | 14 | | | | | | | | 10 | |
| 3492+00 | | 4.0 | 217 | 2.3 | | | | 52 | 12 | | | | | | | | 10 | |
| 3492+00 | 3495+00 | 5.0 | 226 | 2.6 | A | | | 201 | 2 | | | | | | | | 40 | |
| 3495+00 | | 4.0 | 217 | 2.3 | | | | 52 | 12 | | | | | | | | 10 | |
| 3495+00 | | 4.5 | 225 | 2.5 | | | | 52 | 17 | | | | | | | | 10 | |
| 3495+00 | 3498+50 | 5.0 | 226 | 2.6 | A | | | 201 | 3 | | | | | | | | 46 | |
| 3498+50 | | 4.5 | 203 | 2.4 | A | | | 20 | 1 | | | | | | | | 14 | |
| 3502+00 | | 4.5 | 203 | 2.4 | A | | | 7 | | | | | | | | | | |
| 3505+35 | 3509+00 | | | | | | | 430 | | | | | | | | | | |
| 3505+50 | | | | | | 2.7 | | 43 | | | | | | | | | | |
| 3506+00 | | 4.0 | 196 | 2.1 | A | | | 39 | 3 | | | | | | | | | |
| 3509+00 | | | | | | 1.8 | | 10 | | | | | | | | | | |
| 3506+69 | 3506+84 | | | | | | | 5 | | | | | | | | | | |
| 3509+00 | | 7.5 | 296 | 3.7 | A | | | 10 | | | | | | | | | | |
| 3511+24 | 3511+46 | 6.0 | 257 | 3.0 | A | | | 26 | | | | | | | | | | |
| 3511+46 | 3511+71 | | | | | 1.8 | | 61 | | | | | | | | | | |
| 3516+00 | | | | | | 1.8 | | 58 | 4 | | | | | | | | | |
| 3516+00 | | 5.0 | 226 | 2.6 | A | | | 136 | | | | | | | | | | |
| 3520+00 | | | | | | 1.8 | | 46 | | | | | | | | | | |
| 3520+00 | | 4.5 | 203 | 2.4 | A | | | 43 | | | | | | | | | | |
| 18+16 | 18+50 | 4.5 | 203 | 2.4 | C | | | 62 | 5 | | | | | | | | | |
| 5+74 | | | | | | 9.7 | | 76 | | | | | | | | | | |
| 6+50 | | | | | B | | | 17 | | | | | | | | | | |
| 6+50 | | | | | B | | | 15 | | | | | | | | | | |
| 13+00 | | | | | B | | | 20 | | | | | | | | | | |
| 13+00 | | | | | B | | | 20 | | | | | | | | | | |
| 3459+88 NBrt-17+50 | | | | | | | | | | | | | 619 | | 65 | 195 | | |
| 18+85 | 19+15 | | | | | | | 1 | | | | | | | | | | |
| 9+00 | | | | | | 1.8 | | 15 | | | | | | | | | | |
| 12+75 | 13+25 | | | | | | | 6 | | | | | | | | | | |
| 19+00 | | | | | A | | | 13 | | | | | | | | | | |
| 20+95 | 21+05 | | | | | 2.7 | | 53 | 2 | | | | | | | | | |
| 21+00 | | | | | | | | 7 | | | | | | | | | | |
| 2+31.2 | | | | | | 1.8 | | 3 | | | | | | | | | | |
| 5+50 | | | | | | 1.8 | | 6 | | | | | | | | | | |
| 0+30 | | | | | | | | 31 | | | | | | | | | | |
| 4+00 | | | | | | 1.8 | | 10 | | | | | | | | | | |
| 7+85 | 8+07 | | | | | 1.8 | | 59 | | | | | | | | | | |
| 7+62 | 7+85 | | | | | | | 26 | | | | | | | | | | |
| SHEET TOTAL | | | 5358 | 61.1 | A18 | 67.4 | | 3737 | 151 | 121 | 37 | 344 | 1695 | | 222 | 302 | 140 | 5.0 |
| | | | | | 34 | | | | | | | | | | | | | |
| | | | | | C1 | | | | | | | | | | | | | |

| STA. | STA. | CONSTRUCT DITCH IN (X) | CONSTRUCT DITCH OUT (X) | CHAN. ELEV. MH (X) | 24" CPL. BAND (X) | R.C. BOX S (FT x FT) | R.C. BOX L (FT) | STEEL MARKER POSTS LT. (EA) | STEEL MARKER POSTS RT. (EA) | WOOD MARKER POSTS LT. (EA) | WOOD MARKER POSTS RT. (EA) | OLD CULVERT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3446+00 | | X | X | | | | | 1 | 1 | | | | |
| 3450+02 | 3452+06 | X | | | | | | 1 | 1 | | | | |
| SB3452+00 | 3452+32 | | | | | | | | | | | | Special Ditch |
| 3452+13 | | | | | | | | 1 | | | | | |
| 3454+00 | 3455+00 | X | | | | | | 1 | 1 | | | | |
| 3455+25 | 3456+00 | | | | | | | | | | | | Special Ditch |
| 3456+00 | 3457+00 | | X | | | | | 1 | | | | | |
| 3459+88 | 3461+60 | X | X | | | | | 1 | 1 | | | | |
| 3461+60 | | | X | | | | | | | | | | |
| 3463+50 | | X | | | | | | | 1 | | | | |
| 3463+50 | | | X | | | | | 1 | | | | | |
| 3468+92 | | X | | | | | | | 1 | | | | |
| 3468+92 | | | X | | | | | 1 | | | | | |
| 3468+92 | 3473+75 | | | | | | | | | | | | Special Berm Ditch Item 103 |
| 3474+00 | | X | | | | | | | 1 | | | | |
| 3474+00 | | | | | | | | 1 | | | | | |
| 3474+00 | 3476+75 | | | | | | | | | | | | Special Berm Ditch Item 103 |
| 3477+00 | | | | | | | | | 1 | | | | |
| 3477+00 | | | | | | | | 1 | | | | | |
| 3477+00 | 3480+50 | | | | | | | | | | | | Special Berm Ditch Item 103 |
| 3480+92 | 3481+25 | | X | | | | | 1 | | | | | |
| 3481+25 | 3481+52 | X | | | | | | | 1 | | | | |
| 3481+52 | 3485+00 | | | | | | | | | | | | Special Berm Ditch Item 103 |
| 3485+00 | | | X | | | | | 1 | | | | | |
| 3483+00 | 3487+00 | | | | | | | | | | | | Construct Channel |
| 3485+50 | 3488+00 | | | | | | | | | | | | Special Berm Ditch Item 103 |
| 3487+00 | 3487+95 | | | | | | | 1 | 1 | | | | |
| 3488+00 | 3489+25 | | | | | | | | | | | | Construct Channel |
| 3498+50 | | | | | | | | | 1 | | | | |
| 3501+00 | 3503+30 | | | | | | | | | | | | Special Ditch Item 103 |
| 3502+00 | | | | | | | | | 1 | | | | |
| 3505+35 | 3509+00 | | | | | | | | | | | | Special Ditch |
| 3505+50 | | | | | | | | 1 | 1 | | | | |
| 3506+00 | | | | | | | | | 1 | | | | |
| 3509+00 | | X | | | | | | 1 | | | | | |
| 3506+69 | 3506+84 | | | | | | | | | | | 36"GMP | Removal |
| 3509+00 | | | | | | | | | 1 | | | | |
| 3511+24 | 3511+46 | | X | | | | | | 1 | | | | |
| 3511+46 | 3511+71 | X | | | | | | 1 | | | | | |
| 3516+00 | | X | | | | | | 1 | | | | | |
| 3516+00 | | | X | | | | | | 1 | | | | |
| 3520+00 | | X | | | | | | 1 | | | | | |
| 3520+00 | | | X | | | | | | 1 | | | | |
| 18+16 | 18+50 | | X | | | | | 1 | 1 | | | | |
| 5+74 | | X | X | | | | | 1 | 1 | | | | |
| 6+50 | | | | | X | | | | 1 | | | | |
| 6+50 | | | | | X | | | 1 | | | | | |
| 13+00 | | | | | X | | | 1 | | | | | |
| 13+00 | | | | | X | | | | 1 | | | | |
| 3459+88 NBrt-17+50 | | | | | | | | | | | | | Construct Channel Item 108 |
| 5+74 | | | | | | | | | | | | 36"CMP | Remove |
| 15+50 | | | | | | | | | | | | 30"RCP | Remove |
| 3+79 | 4+07 | | | | | | | | | 1 | 1 | | |
| 3+89 | 4+16 | | | | | | | | | 1 | 1 | | |
| 9+00 | | X | X | | | | | | | 1 | 1 | | |
| 12+75 | 13+25 | | | | | | | | | | | | Special Ditch |
| 19+00 | | | | | X | | | | | | 1 | | |
| 20+95 | 21+05 | | X | | | | | | | 1 | 1 | | |
| 21+00 | 22+75 | | | | | | | | | | | | Special Ditch Item 103 |
| 23+25 | 24+00 | | | | | | | | | | | | Special Ditch Item 103 |
| 21+00 | | | | | | | | | | | | 15"CMP | Remove |
| 2+31.2 | | | | | | | | | | 1 | 1 | | |
| 5+50 | | | | | | | | | | 1 | 1 | | |
| 2+31 | | | | | | | | | | | | 18"ACCGMP | Remove |
| 0+30 | | | | | | | | | | 1 | 1 | | |
| 4+00 | | X | | | | | | | | 1 | 1 | | |
| 7+85 | 8+07 | X | | | | | | | | 1 | 1 | | |
| 7+62 | 7+85 | | | | | | | | | | | | Special Ditch |
| SHEET TOTAL | | | | | | | | 22 | 22 | 9 | 10 | | |
| | | | | | | | | 44 | | 19 | | | |

### THREE CABLE GUARD RAIL WITH STEEL POSTS

| STA. | STA. | LT. | RT. | MEDIAN | ANCHORS |
|---|---|---|---|---|---|
| VT #36 | STAGE I CONSTRUCTION | | | | |
| 4+94 | 9+82 | | 488 | | 2 |
| 4+99 | 9+71 | 472 | | | 2 |
| 12+58 | 18+02 | 544 | | | 4 |
| 12+69 | 17+09 | | 440 | | 2 |
| VT. #105 | STAGE I CONSTRUCTION | | | | |
| 5+41 | 6+07 | 56 | | | 2 |
| 5+34 | 6+06 | | 72 | | 2 |
| 8+32 | 12+24 | | 392 | | 2 |
| 8+35 | 12+11 | 376 | | | 2 |
| SUBTOTAL | | 1448 | 1392 | | 20 |
| MAINLINE | STAGE 2 CONSTRUCTION | | | | |
| NB3563+55 | 3582+84 | | 1928 | | 8 |
| SB3572+27 | 3592+55 | 568 | | | 8 |
| SB3584+60 | 3603+52 | 1928 | | | 8 |
| NB[illegible] | 3602+05 | | 1252 | | 8 |
| N.B 3580+70 | 3582+90 | 200 | | | 2 |
| SB3584+61 | 3586+61 | | 200 | | 2 |
| STAGE 2 CONSTRUCTION | | | | | |
| | SUBTOTAL | 2696 | 3880 | | 32 |
| (TO SHEET #8 of 153) | | | | | |
| TOTALS | | | | | |
| TOTALS | | | | | |

* = STAGE 2 CONSTRUCTION

D.I. DEPTH IS MEASURED FROM FLOOR INSIDE TO TOP EDGE OF GRATE OR COVER SEAT.

[illegible] STAGE 2 CONSTRUCTION
ST. ALBANS-SWANTON I 89-3[illegible](42)
PROJECT NO.

# ITEM DETAIL AND DRAINAGE SHEET

## DRAINAGE STRUCTURES

GAGES — S INDICATES STRUTTING
N.A. INDICATES NOT APPLICABLE
DIA — OP INDICATES OPTION ELBOW

THREE CABLE GUARD RAIL WITH STEEL POSTS

| | STA. | STA. | POSITIONS | ASKEW | TYPE IN / OUT | R. C. P. CLASS | R. C. P. D | R. C. P. L | A.C.C.G.M.P. D | A.C.C.G.M.P. L | A.C.C.G.M.P. GAGE | C.G.M.P.P. / P.P.A. D/S | C.G.M.P.P. / P.P.A. /R | C.G.M.P.P. / P.P.A. L | OPTION D | OPTION L | CS MP | R CP | CAA CP | ELBOW D | ELBOW L | DEGREE TOP | DEGREE BOT | CB | PRCC DI. | DEPTH D.I. | REINF. STEEL | CONC. CLASS B | DI. SIZE | C. P. M. S. | TR. EARTH 100% | TR. EARTH 150% | TR. ROCK 100% | TR. ROCK 150% | STRUCT EXCAV. | CHANNEL EXCAV. | STONE FILL SEE STD | STONE FILL SEE STD | RIP RAP | GRAVEL BACKFILL | PAVED GUTTER | CROSSOVER DITCH | CHANN. FLOW WAY | 24" CPL. BAND | R. C. BOX S | R. C. BOX L | STEEL MARKER POSTS LT. | STEEL MARKER POSTS RT. | WOOD MARKER POSTS LT. | WOOD MARKER POSTS RT. | OLD CULVERTS | REMARKS | STA. | STA. | LT. | RT. | MEDIAN | ANCHORS |
|---|---|---

CONTRACT NO. 1

# ITEM DETAIL AND DRAINAGE SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

## MISCELLANEOUS CONSTRUCTION ITEMS

| STA. | STA. | POS. | CURBING STD. CONC. | CURBING BLOCK COATED | CURBING VERT. | FENCE WOOD CHAIN LINK | FENCE CHAIN LINK |
|---|---|---|---|---|---|---|---|
| 3444+00 | 3457+50 | Lt. | | | | 1350 | |
| 3444+00 | 3457+00 | Rt. | | | | 1300 | |
| 3458+50 | 3498+50 | Rt | | | | 3600 | |
| 3459+50 | 3491+00 | Lt | | | | 3150 | |
| 3491+00 | 3546+00 | Lt | | | | 5500 | |
| 3496+50 | 3546+50 | Rt | | | | 5000 | |
| 3547+00 | 3583+00 | Lt | | | | 3600 | |
| 3548+00 | 3583+00 | Rt | | | | 3500 | |
| 3584+25 | 3620+10 | Lt | | | | 3575 | |
| 3584+00 | 3620+00 | Rt | | | | 3600 | |
| | | | | | TOTAL | 34175 | |

TREATED TIMBER CURB

| | | | |
|---|---|---|---|
| VT. 36 | | | |
| 6+49 | 9+72 | Lt | 323 |
| 6+49 | 9+83 | Rt | 334 |
| 12+57 | 15+25 | Lt | 268 |
| 12+68 | 16+00 | Rt | 332 |
| SUB-TOTAL | | | 1257 |
| TR 25-15 | | | |
| 13+75 | 14+72 | Rt | 97 |
| 18+75 | 19+07 | Rt | 32 |
| TOTAL | | | 1386 |

## CUTTING AND REMOVING TREES

| STA. | LT. | RT. |
|---|---|---|
| | | |

## GUIDE POSTS

| STA. | LT. | RT. |
|---|---|---|
| | | |

## UNDERDRAIN DRAINAGE STRUCTURES

| STA. | STA. | POS. | DIAM. | LENGTH -I- | LENGTH -II- | TRENCH E. 100 % | TRENCH E. 150 % | TRENCH R. 100% | TRENCH R. 150 % | CORR. PIPE F.B. S | CORR. PIPE F.B. L | CORR. PIPE F.B. COVERS | CRM | SUB-BASE OF GRAVEL | STEEL MARKER POSTS LT. | STEEL MARKER POSTS RT. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3477+02 | | ℄ | 6" | | 160 | 96 | | | | | | | 0.3 | | 1 | |
| 3477+02 | 3481+25 | Rt | 6" | 424 | 5 | 121 | | 108 | | 8" | 2 | 1 | | | | 1 |
| 3490+00 | 3497+60 | Lt | 6" | 700 | 78 | 465 | | | | 8" | 2 | 1 | 0.3 | | 1 | |
| 3490+00 | 3498+25 | Rt | 6" | 800 | 98 | 505 | | | | 8" | 2 | 1 | 0.3 | | | 1 |
| | TOTAL | | 6" | 1924 | 291 | 1187 | | 108 | | 8" | 6 | 3 | 0.9 | | 2 | 2 |

## JUTE MATTING

| STA. | STA. | POS. | L.F. | S.Y. |
|---|---|---|---|---|
| | | | | |

REMARKS

## TWO CABLE GUARD RAIL WITH POSTS

| STA. | STA. | LT. | RT. | ANCH. |
|---|---|---|---|---|
| TR 25-15 | | | | |
| 8+62 | 11+70 | 288 | | 2 |
| 12+35 | 15+32 | 296 | | 2 |
| 13+70 | 14+90 | | 120 | 2 |
| 18+67 | 19+55 | | 88 | 2 |
| 18+87 | 21+27 | 240 | | |
| TR 14 (West) | | | | |
| 0+17 | 4+65 | 448 | | 2 |
| 0+27 | 3+79 | | 352 | 2 |
| | | 1272 | 560 | |
| | TOTAL | 1832 | | 12 |

## STANDARD STEEL BEAM GUARDRAIL

| STA. | STA. | LT. | RT. |
|---|---|---|---|
| NB 3454+50 | 3465+33 | | 154 |
| NB 3465+33 | 3480+32 | 168 | |
| SB 3457+41 | 3473+25 | | 168 |
| SB 3496+18 | 3498+02 | 154 | |
| NB 3480+32 | 3468+47 | | 154 |
| SB 3497+25 | 3474+04 | | 179 |
| NB 3498+47 | 3479+74 | 179 | |
| SB 3468+15 | 3483+02 | 154 | |
| NB 3474+73 | 3487+40 | 167 | |
| SB 3483+49 | 3498+07 | | 167 |
| Misc. 3484+00 | 3484+47 | 54 | |
| Misc. 3484+00 | 3484+47 | 54 | |
| SB 3484+47 | 3487+52 | | 154 |
| NB 3487+40 | 3491+52 | | 154 |
| SB 3491+52 | 3496+92 | 154 | |
| Misc. 3528+00 | | 54 | |
| Misc. 3534+ | | 54 | |
| SB 3534+49 | 3544+02 | 154 | |
| NB 3544+49 | 3547+52 | | 154 |
| SB 3547+15 | 3558+52 | 154 | |

NB 3558+79 | 3571+93 | 154
SB 3574+48 | 3584+52 | 154
NB 3704+49 | 3762+97 | 154
SB 3722+98 | [illegible] | 54

STAGE 2 CONSTRUCTION
CONTRACT NO. 1
PROJECT 1 NO. 89-3 (4)
ST. ALBANS-SWANTON
SHEET 11 OF 133 SHEETS

STAGE 2 FINISHED GRADE SHOWN.
STAGE 1 SUBGRADE ELEVATION 2.67 FEET (2 FT. 8 IN.) BELOW

N.B. MAIN LINE

# EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

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

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | GRADES CORR V.C. | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3440+00 | 585.15 | | | | | | | | | | | |
| | | +50 | 585.46 | | | 50 | | | | | | | | |
| | | 3441 | 585.78 | | | 50 | | | | | | | | |
| | | +50 | 586.10 | | | 50 | | | | | | | | |
| | | 3442 | 586.42 | | | 50 | | | | | | | | |
| | | +50 | 586.74 | | 0.00 | 50 | | | | | | | | |
| | +0.63769% | 3443 | 587.06 | 587.04 | - 0.02 | 50 | | | | | | | | |
| | | +50 | 587.38 | 587.30 | - 0.08 | 50 | | | | | | | | |
| | | 3444 | 587.70 | 587.53 | - 0.17 | 50 | 6 | | | | 115 | | | |
| | | +50 | 588.01 | 587.70 | - 0.31 | 50 | 6 | 11 | | | 113 | 211 | | |
| | | 3445 | 588.33 | 587.85 | - 0.48 | 50 | 0 | 6 | | | 243 | 330 | | |
| | | +50 | 588.65 | 587.95 | - 0.70 | 50 | | | | | 304 | 506 | | |
| | | 3446 | 588.97 | 588.02 | - 0.95 | 50 | | | | | 327 | 584 | C | 363 |
| | | +50 | 589.29 | 588.05 | - 1.24 | 50 | | | | | 321 | 600 | F | 3530 |
| | | 3447 | 588.99 | 588.04 | - 0.95 | 50 | 0 | | | | 253 | 531 | ExF | 4050 |
| | | +50 | 588.69 | 587.99 | - 0.70 | 50 | 1 | 1 | | | 186 | 406 | | |
| | | 3448 | 588.39 | 587.91 | - 0.48 | 50 | 11 | 11 | | | 72 | 239 | | |
| | | +50 | 588.09 | 587.78 | - 0.31 | 50 | 39 | 46 | | | 16 | 61 | | |
| | | 3449 | 587.79 | 587.62 | - 0.17 | 50 | 71 | 102 | | | 2 | 17 | | |
| | | +50 | 587.50 | 587.42 | - 0.08 | 50 | 56 | 118 | | | 0 | 2 | | |
| | | 3450 | 587.20 | 587.18 | - 0.02 | 50 | 17 | 68 | | | 25 | 23 | | |
| | | +50 | 586.90 | | 0.00 | 50 | 12 | 77 | | | 105 | 119 | | |
| | -0.59816% | 3451 | 586.60 | | | 50 | 4 | 15 | | | 133 | 219 | C | 113 |
| | | +50 | 586.30 | | | 50 | 2 | 6 | | | 91 | 207 | F | 2713 |
| | | 3452 | 586.00 | | | 50 | 12 | 13 | | | 91 | 169 | ExF | 3303 |
| | | +50 | 585.70 | | | 50 | 8 | 19 | | | 76 | 155 | | |
| | | 3453 | 585.40 | | | 50 | 0 | 7 | | | 182 | 239 | | |
| | | +50 | 585.10 | | | 50 | | | | | 300 | 446 | | |
| | | 3454 | 584.80 | | | 50 | | | | | 315 | 569 | | |
| | | +50 | 584.50 | | | 50 | 0 | 26 | | | 170 | 449 | | |
| | | 3455 | 584.21 | | | 50 | 28 | 213 | | | 4 | 161 | | |
| | | +50 | 583.91 | | | 50 | 202 | 469 | | | 0 | 4 | | |
| | | 3456 | 583.61 | | | 50 | 304 | 562 | | | | | | |
| | | +50 | 583.31 | | | 50 | 303 | 551 | | | | | C | 4251 |
| | | 3457 | 583.01 | | | 50 | 292 | 651 | | | | | F | 71 |
| | | +50 | 582.71 | | | 50 | 411 | 657 | | | | | ExC | 4153 |
| | | 3458 | 582.41 | | | 50 | 299 | 530 | | | | | | |
| | | +50 | 582.11 | | | 50 | 273 | 369 | | | | | | |
| | | 3459 | 581.81 | | | 50 | 125 | 173 | | | | | | |
| | | +50 | 581.51 | | | 50 | 62 | 66 | | | 0 | 67 | | |
| | | +81.97 | 581.32 | | 0.00 | 50 | | | | | | | | |
| | | 3460.0 | 581.21 | 581.21 | + 0.00 | 50 | 9 | 13 | | | 72 | 166 | | |
| | | | | | | | | 4717 | | | | 6334 | | |

CARRIED FORWARD
COLUMN FOOTINGS

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | GRADES CORR V.C. | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3460+00 | 581.21 | 581.21 | + 0.00 | 50 | 9 | 13 | | | 72 | 166 | | |
| | | +50 | 580.92 | 580.96 | + 0.04 | 50 | 5 | 6 | | | 109 | 263 | | |
| | | 3461 | 580.62 | 580.75 | + 0.13 | 42.39 | 1 | 1 | | | 175 | 272 | C | 62 |
| | | 3461+42.39 = 3461+50.42 EQ = - 19.03 | 580.36 | 580.60 | + 0.24 | 39.58 | 0 | 1 | | | 171 | 262 | F | 3292 |
| | | 3462 | 580.13 | 580.51 | + 0.38 | 50 | 1 | 1 | | | 187 | 356 | ExF | 4053 |
| | | +50 | 579.83 | 580.42 | + 0.59 | 50 | 0 | | | | 197 | 344 | | |
| | | 3463 | 579.53 | 580.38 | + 0.85 | 50 | | | | | 175 | 353 | | |
| | | +50 | 579.23 | 580.39 | + 1.16 | 50 | 0 | 15 | | | 206 | 379 | | |
| | | 3464 | 578.93 | 580.44 | + 1.51 | 50 | 16 | 16 | | | 203 | 456 | | |
| | | +50 | 579.39 | 580.55 | + 1.16 | 50 | 1 | 9 | | | 292 | 439 | | |
| | | 3465 | 579.85 | 580.70 | + 0.85 | 50 | 9 | 17 | | | 182 | 370 | | |
| | | +50 | 580.30 | 580.89 | + 0.59 | 50 | 9 | 13 | | | 218 | 365 | | |
| | | 3466 | 580.76 | 581.14 | + 0.38 | 50 | 5 | 8 | | | 176 | 306 | | |
| | | +50 | 581.22 | 581.43 | + 0.21 | 50 | 4 | 18 | | | 154 | 258 | C | 134 |
| | | 3467 | 581.68 | 581.77 | + 0.09 | 50 | 15 | 23 | | | 125 | 273 | F | 3726 |
| | | +50 | 582.14 | 582.16 | + 0.02 | 50 | 10 | 30 | | | 170 | 291 | ExF | 4524 |
| | +0.91608% | 3468 | 582.59 | | 0.00 | 50 | 22 | 21 | | | 144 | 308 | | |
| | | +50 | 583.05 | | | 50 | 1 | 1 | | | 189 | 483 | | |
| | | 3469 | 583.51 | | | 50 | 0 | 1 | | | 333 | 573 | | |
| | | +50 | 583.97 | | | 50 | 1 | 2 | | | 288 | 497 | | |
| | | 3470 | 584.43 | | | 50 | 1 | 3 | | | 249 | 420 | | |
| | | +50 | 584.88 | | | 50 | 2 | 2 | | | 205 | 460 | | |
| | | 3471 | 585.34 | | | 50 | 0 | | | | 292 | 617 | | |
| | | +50 | 585.80 | | | 50 | 0 | | | | 374 | 777 | C | 14 |
| | | 3472 | 586.26 | | | 50 | 0 | | | | 465 | 850 | F | 7109 |
| | | +50 | 586.72 | | | 50 | 0 | | | | 453 | 910 | ExF | 8872 |
| | | 3473 | 587.17 | | | 50 | 0 | | | | 530 | 958 | | |
| | | +50 | 587.63 | | | 50 | 0 | | | | 505 | 844 | | |
| | | 3474 | 588.09 | | | 50 | 0 | | | | 407 | 679 | | |
| | | +50 | 588.55 | | | 50 | 0 | 9 | | | 326 | 594 | | |
| | | 3475 | 589.01 | | | 50 | 10 | 20 | | | 315 | 539 | | |
| | | +50 | 589.47 | | | 50 | 12 | 35 | | | 267 | 407 | | |
| | | 3476 | 589.92 | | | 50 | 26 | 140 | | | 173 | 292 | C | 3233 |
| | | +50 | 590.38 | | | 50 | 125 | 201 | | | 142 | 262 | R<br>F | 84<br>1987 |
| | | 3477 | 590.84 | | | 50 | 92 | 162 | | | 141 | 237 | Fac | 1.25 |
| | | +50 | 591.30 | | | 50 | 83 | 217 | | | 115 | 172 | ExC | 790 |
| | | 3478 | 591.76 | | | 50 | 151 | 376 | | | 71 | 72 | | |
| | | +50 | 592.21 | | | 50 | 255 | 569 | | | 7 | 6 | | |
| | | 3479 | 592.67 | | | 50 | 360 | 710 | 0 | 14 | 0 | | | |
| | | +50 | 593.13 | | | 50 | 407 | 903 | 15 | 40 | 0 | | | |
| | | 3480 | 593.59 | | | 50 | 460 | 1030 | 28 | 63 | 0 | | | |
| | | +50 | 594.05 | | | 50 | 652 | 1041 | 40 | 49 | 0 | | | |
| | | 3481 | 594.50 | | | 50 | 472 | 963 | 13 | 44 | 0 | | | |
| | | +50 | 594.96 | | | 50 | 568 | 1184 | 35 | 134 | 0 | | | |
| | | 3482 | 595.42 | | | 50 | 711 | 1396 | 110 | 194 | 0 | | | |
| | | 3482+50 | 595.88 | | | 50 | 790 | 1447 | 100 | 180 | 0 | | | |
| | | | | | | | | 5608 | | 484 | | 16114 | | |

CARRIED FORWARD
COLUMN FOOTINGS

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | GRADES CORR V.C. | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3482+50 | 595.88 | | | | | 790 | | 100 | | 0 | | |
| | | 3483 | 596.34 | | 0.00 | 50 | | 1447 | | 180 | | 0 | C | 10378 |
| | | +50 | 596.79 | 596.76 | - 0.03 | 50 | | 773 | | 94 | | 0 | R | 1149 |
| | | 3484 | 597.25 | 597.13 | - 0.12 | 50 | | 1391 | | 179 | | 0 | F | 121 |
| | | +50 | 597.71 | 597.43 | - 0.28 | 50 | | 729 | | 99 | | 0 | ExC | 11085 |
| | | 3485 | 598.17 | 597.68 | - 0.49 | 50 | | 1081 | | 199 | | 0 | | |
| | | +50 | 598.63 | 597.86 | - 0.77 | 50 | | 438 | | 116 | | 0 | | |
| | | 3486 | 599.08 | 597.98 | - 1.10 | 50 | | 506 | | 107 | | 67 | | |
| | | +50 | 599.54 | 598.04 | - 1.50 | 50 | | 111 | | 0 | | 62 | | |
| | +0.91608% | 3487 | 600.00 | 598.04 | - 1.96 | 50 | | 343 | | | | 62 | | |
| | | +50 | 599.48 | 597.98 | - 1.50 | 50 | | 259 | | | | 0 | | |
| | | 3488 | 598.95 | 597.85 | - 1.10 | 50 | | 240 | | | | 168 | | |
| | | +50 | 598.43 | 597.66 | - 0.77 | 50 | | 0 | | | | 181 | | |
| | | 3489 | 597.90 | 597.41 | - 0.49 | 50 | | 28 | | | | 271 | | |
| | | +50 | 597.38 | 597.10 | - 0.28 | 50 | | 30 | | | | 112 | | |
| | | 3490 | 596.86 | 596.74 | - 0.12 | 50 | | 16 | | | | 188 | | |
| | | +50 | 596.33 | 596.30 | - 0.03 | 50 | | 20 | | | | 91 | C | 2929 |
| | | 3491 | 595.81 | | 0.00 | 50 | | 52 | | | | 130 | F | 977 |
| | | +50 | 595.28 | | | 50 | | 36 | | | | 49 | Fac | 1.25 |
| | | 3492 | 594.76 | | | 50 | | 71 | | | | 77 | ExC | 1708 |
| | | +50 | 594.24 | | | 50 | | 41 | | | | 31 | | |
| | | 3493 | 593.71 | | | 50 | | 89 | | | | 87 | | |
| | | +50 | 593.19 | | | 50 | | 55 | | | | 60 | | |
| | | 3494 | 592.67 | | | 50 | | 218 | | | | 56 | | |
| | | +50 | 592.14 | | | 50 | | 180 | | | | 0 | | |
| | | 3495 | 591.62 | | | 50 | | 454 | | | | 0 | | |
| | | +50 | 591.10 | | | 50 | | 310 | | | | 0 | | |
| | | 3496 | 590.57 | | | 50 | | 722 | | | | 0 | | |
| | | +50 | 590.05 | | | 50 | | 470 | | | | 0 | | |
| | | 3497 | 589.52 | | | 50 | | 1009 | | | | 0 | | |
| | | +50 | 589.00 | | | 50 | | 620 | | | | 0 | | |
| | | 3498 | 588.48 | | | 50 | | 1472 | | | | 0 | | |
| | | +50 | 587.95 | | | 50 | | 970 | | | | 0 | | |
| | | 3499 | 587.43 | | | 50 | | 1917 | | | | 0 | | |
| | | +50 | 586.90 | | | 50 | | 1100 | | | | 0 | | |
| | | 3500 | 586.38 | | | 50 | | 2204 | | | | 0 | C | 23.274 |
| | | +50 | 585.86 | | | 50 | | 1280 | | | | 0 | | |
| | | 3501 | 585.33 | | | 50 | | 2505 | | | | 0 | ExC | 23.274 |
| | | +50 | 584.81 | | | 50 | | 1425 | | | | 0 | | |
| | | 3502 | 584.29 | | | 50 | | 2708 | | | | 0 | | |
| | | +50 | 583.76 | | | 50 | | 1500 | | | | 0 | | |
| | | 3503 | 583.24 | | | 50 | | 2694 | | | | 0 | | |
| | | +50 | 582.71 | | | 50 | | 1410 | | | | 0 | | |
| | | 3504 | 582.19 | | | 50 | | 2634 | | | | 0 | | |
| | | +50 | 581.67 | | | 50 | | 1435 | | | | 0 | | |
| | | | | | | | | 2554 | | | | | | |
| | | | | | | | | 1323 | | | | 0 | | |
| | | | | | | | | 2392 | | | | | | |
| | | | | | | | | 1260 | | | | 0 | | |
| | | | | | | | | 2194 | | | | | | |
| | | | | | | | | 1110 | | | | 0 | | |
| | | | | | | | | 1870 | | | | | | |
| | | | | | | | | 910 | | | | 0 | | |
| | | | | | | | | 1506 | | | | | | |
| | | | | | | | | 715 | | | | 0 | | |
| | | | | | | | | 1111 | | | | | | |
| | | | | | | | | 485 | | | | 0 | | |
| | | | | | | | | 690 | | | | | C | 5917 |
| | | | | | | | | 260 | | | | 0 | F | 3134 |
| | | | | | | | | 241 | | | | 194 | | |
| | | | | | | | | 0 | | | 210 | | ExC | 1988 |
| | | | | | | | | | | | | 417 | | |
| | | | | | | | | 0 | | | 240 | | | |
| | | | | | | | | | | | | 537 | | |
| | | | | | | | | 0 | | | 340 | | | |
| | | | | | | | | | | | | 639 | | |
| | | | | | | | | 0 | | | 350 | | | |
| | | | | | | | | | | | | 657 | | |
| | | | | | | | | 0 | | | 360 | | | |
| | | | | | | | | | | | | 690 | | |
| | | | | | | | | 0 | | | 385 | | | |
| | | | | | | | | | | | | 768 | | |
| | | | | | | | | 0 | | | 140 | | | |
| | | | | | | | | | | | | 861 | | |
| | | | | | | | | 0 | | | 490 | | | |
| | | | | | | | | | | | | 870 | | |
| | | | | | | | | 0 | | | 450 | | | |
| | | | | | | | | | | | | 815 | | |
| | | | | | | | | 0 | | | 430 | | F | 9033 |
| | | | | | | | | | | | | 852 | | |
| | | | | | | | | 0 | | | 490 | | ExF | 11281 |
| | | | | | | | | | | | | 920 | | |
| | | | | | | | | 0 | | | 510 | | | |
| | | | | | | | | | | | | 963 | | |
| | | | | | | | | 0 | | | 530 | | | |
| | | | | | | | | | | | | 1028 | | |
| | | | | | | | | 0 | | | 580 | | | |
| | | | | | | | | | | | | 1066 | | |
| | | | | | | | | | | | 560 | | | |

CARRIED FORWARD
COLUMN FOOTINGS 38390 665 12314

PROJECT STAGE 2 CONSTRUCTION ST. ALBANS-SWANTON N.B.

PROJECT 1 NO 89-3(42)
SHEET 15 OF 153 SHEETS

STAGE 2 FINISHED GRADES SHOWN.
STAGE 1 SUBGRADE ELEVATION 2.67 FEET (2 FT. 8 IN.) BELOW

# 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 | | |

N.B. MAINLINE

| VC | % GRADE | STATION | ELEVATION ON TANGENT | ELEVATION ON V CURVES | CORR V C | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3504+50 | 581.67 | | | | | | | | 500 | | | |
| | | | | | | 50 | | | | | | 954 | | |
| | | 3505 | 581.14 | | | | | | | | 530 | | | |
| | | | | | | 50 | | | | | | 981 | | |
| | | +50 | 580.62 | | | | | | | | 530 | | | |
| | | | | | | 50 | | | | | | 806 | | |
| | | 3506 | 580.10 | | | | | | | | 340 | | | |
| | | | | | | 50 | | | | | | 1227 | | |
| | | +50 | 579.57 | | | | | | | | 985 | | | |
| | | | | | | 50 | | | | | | 1808 | F | 14,962 |
| | | 3507 | 579.05 | | | | | | | | 968 | | | |
| | | | | | | 50 | | | | | | 1783 | ExF | 18,703 |
| | | +50 | 578.52 | | | | | | | | 958 | | | |
| | | | | | | 50 | | | | | | 1748 | | |
| | | 3508 | 578.00 | | | | | | | | 930 | | | |
| | | | | | | 50 | | | | | | 1722 | | |
| | | +50 | 577.48 | | | | | | | | 930 | | | |
| | | | | | | 50 | | | | | | 1705 | | |
| | | 3509 | 576.95 | | | | | | | | 911 | | | |
| | | | | | | 50 | | | | | | 1636 | | |
| | | +50 | 576.43 | | | | | | | | 856 | | | |
| | | | | | | 50 | | | | | | 1546 | | |
| | | 3510 | 575.90 | | | | | | | | 814 | | | |
| | | | | | | 50 | | | | | | 1448 | | |
| | | +50 | 575.38 | | | | | | | | 750 | | | |
| | | | | | | 50 | | | | | | 1287 | | |
| | | 3511 | 574.86 | | | | | | | | 640 | | | |
| | | | | | | 50 | | | | | | 1068 | C | 64 |
| | | +50 | 574.33 | | | | | | | | 513 | | F | 6412 |
| | | | | | | 50 | | | | | | 824 | | |
| | | 3512 | 573.81 | | | | 0 | | | | 377 | | ExF | 7951 |
| | | | | | | 50 | | 3 | | | | 568 | | |
| | | +50 | 573.29 | | | | 3 | | | | 236 | | | |
| | | | | | | 50 | | 8 | | | | 364 | | |
| | | 3513 | 572.76 | | | | 6 | | | | 157 | | | |
| | | | | | | 50 | | 15 | | | | 230 | | |
| | | +50 | 572.24 | | | | 10 | | | | 91 | | | |
| | | | | | | 50 | | 16 | | | | 186 | | |
| | | 3514 | 571.71 | | | | 7 | | | | 110 | | | |
| | | | | | | 50 | | 11 | | | | 208 | | |
| | | +50 | 571.19 | | | | 5 | | | | 115 | | | |
| | | | | | | 50 | | 11 | | | | 229 | | |
| | | 3515 | 570.67 | | | | 7 | | | | 132 | | | |
| | | | | | | 50 | | 20 | | | | 187 | | |
| | -1.0476% | +50 | 570.14 | | | | 15 | | | | 70 | | | |
| | | | | | | 50 | | 28 | | | | 147 | | |
| | | 3516 | 569.62 | | | | 15 | | | | 89 | | | |
| | | | | | | 50 | | 25 | | | | 149 | C | 145 |
| | | +50 | 569.10 | | | | 12 | | | | 72 | | F | 2989 |
| | | | | | | 50 | | 25 | | | | 146 | | |
| | | 3517 | 568.57 | | | | 15 | | | | 86 | | ExF | 3591 |
| | | | | | | 50 | | 20 | | | | 180 | | |
| | | +50 | 568.05 | | | | 7 | | | | 108 | | | |
| | | | | | | 50 | | 12 | | | | 234 | | |
| | | 3518 | 567.52 | | | | 6 | | | | 145 | | | |
| | | | | | | 50 | | 9 | | | | 312 | | |
| | | +50 | 567.00 | | | | 4 | | | | 192 | | | |
| | | | | | | 50 | | 4 | | | | 442 | | |
| | | 3519 | 566.48 | | | | 0 | | | | 285 | | | |
| | | | | | | 50 | | 1 | | | | 575 | | |
| | | +50 | 565.95 | | | | 1 | | | | 336 | | | |
| | | | | | | 50 | | 1 | | | | 617 | | |
| | | 3520 | 565.43 | | | | 0 | | | | 330 | | | |
| | | | | | | 50 | | | | | | 668 | | |
| | | +50 | 564.90 | | | | 0 | | | | 391 | | | |
| | | | | | | 50 | | | | | | 838 | | |
| ⊠ | | 3521 | 564.38 | | - 0.00 | | 0 | | | | 514 | | | |
| | | | | | | 50 | | | | | | 973 | F | 9883 |
| | | +50 | 563.86 | 563.84 | - 0.02 | | 0 | | | | 537 | | | |
| | | | | | | 50 | | | | | | 1035 | ExF | 12354 |
| | | 3522 | 563.34 | 563.27 | - 0.07 | | 0 | | | | 581 | | | |
| | | | | | | 50 | | | | | | 1056 | | |
| | | +50 | 562.81 | 562.66 | - 0.15 | | 0 | | | | 559 | | | |
| | | | | | | 50 | | | | | | 1008 | | |
| | | 3523 | 562.29 | 562.02 | - 0.27 | | 0 | | | | 528 | | | |
| | | | | | | 50 | | | | | | 1002 | | |
| | | +50 | 561.77 | 561.35 | - 0.42 | | 0 | | | | 554 | | | |
| | | | | | | 50 | | | | | | 1076 | | |
| | | 3524 | 561.24 | 560.63 | - 0.61 | | 0 | | | | 628 | | | |
| | | | | | | 50 | | | | | | 1116 | | |
| 1200' VC | | +50 | 560.72 | 559.90 | - 0.82 | | 0 | | | | 597 | | | |
| | | | | | | 50 | | | | | | 1111 | | |
| | | 3525 | 560.20 | 559.12 | - 1.08 | | 0 | | | | 603 | | | |
| | | | | | | 50 | | | | | | 1114 | | |
| | | +50 | 559.67 | 558.31 | - 1.36 | | 0 | | | | 600 | | | |
| | | CARRIED FORWARD | | | | | | | | | | | | |
| | | COLUMN FOOTINGS | | | | | | 209 | | | | 35200 | | |

| VC | % GRADE | STATION | ELEVATION ON TANGENT | ELEVATION ON V CURVES | CORR V C | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION CU YDS | AREA | CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3525+50 | 559.67 | 558.31 | - 1.36 | | 0 | | | | 600 | | | |
| | -1.0476% | | | | | 50 | | | | | | 1042 | | |
| | | 3526 | 559.15 | 557.47 | - 1.68 | | 0 | | | | 525 | | | |
| | | | | | | 50 | | | | | | 892 | | |
| | | +50 | 558.62 | 556.58 | - 2.04 | | 0 | | | | 438 | | F | 8678 |
| 1200' VC | | | | | | 50 | | | | | | 787 | ExF | 10847 |
| ⊠ | | 3527 | 558.10 | 555.68 | - 2.42 | | 0 | | | | 412 | | | |
| | | | | | | 50 | | | | | | 750 | | |
| | | +50 | 556.77 | 554.73 | - 2.04 | | 0 | | | | 398 | | | |
| | | | | | | 50 | | | | | | 791 | | |
| | | 3528 | 555.44 | 553.76 | - 1.68 | | 0 | | | | 456 | | | |
| | | | | | | 50 | | | | | | 890 | | |
| | | +50 | 554.11 | 552.75 | - 1.36 | | 0 | | | | 505 | | | |
| | | | | | | 50 | | | | | | 912 | | |
| | | 3529 | 552.77 | 551.69 | - 1.08 | | 0 | | | | 480 | | | |
| | | | | | | 50 | | | | | | 806 | | |
| | | +50 | 551.44 | 550.62 | - 0.82 | | 0 | | | | 390 | | | |
| | | | | | | 50 | | | | | | 694 | | |
| | | 3530 | 550.11 | 549.50 | - 0.61 | | 0 | | | | 360 | | | |
| | | | | | | 50 | | | | | | 677 | | |
| | | +50 | 548.78 | 548.36 | - 0.42 | | 0 | | | | 371 | | | |
| | | | | | | 50 | | | | | | 684 | | |
| | | 3531 | 547.45 | 547.18 | - 0.27 | | 0 | | | | 368 | | | |
| | | | | | | 50 | | | | | | 666 | | |
| | | +50 | 546.12 | 545.97 | - 0.15 | | 0 | | | | 351 | | F | 5010 |
| | | | | | | 50 | | | | | | 590 | | |
| | | 3532 | 544.78 | 544.71 | - 0.07 | | 0 | | | | 286 | | ExF | 6262 |
| | | | | | | 50 | | | | | | 478 | | |
| | | +50 | 543.45 | 543.43 | - 0.02 | | 0 | | | | 230 | | | |
| | -2.6633% | | | | | 50 | | | | | | 387 | | |
| ⊠ | | 3533 | 542.12 | | 0.00 | | 0 | | | | 188 | | | |
| | | | | | | 50 | | | | | | 382 | | |
| | | +50 | 540.79 | | | | 0 | | | | 225 | | | |
| | | | | | | 50 | | | | | | 373 | | |
| | | 3534 | 539.46 | | | | 0 | | | | 178 | | | |
| | | | | | | 50 | | | | | | 354 | | |
| | | +50 | 538.13 | | | | 0 | | | | 204 | | | |
| | | | | | | 50 | | | | | | 419 | | |
| | | 3535 | 536.79 | | | | 0 | | | | 218 | | | |
| | | | | | | 50 | | | | | | 507 | | |
| | | +50 | 535.46 | | | | 0 | | | | 300 | | | |
| | | | | | | 50 | | | | | | 581 | | |
| | | 3536 | 534.13 | | | | 0 | | | | 328 | | | |
| | | | | | | 50 | | | | | | 595 | | |
| | | +50 | 532.80 | | | | 0 | | | | 315 | | F | 5873 |
| | | | | | | 50 | | | | | | 622 | | |
| | | 3537 | 531.47 | | | | 0 | | | | 357 | | ExF | 7341 |
| | | | | | | 50 | | | | | | 621 | | |
| | | +50 | 530.14 | | | | 0 | | | | 314 | | | |
| | | | | | | 50 | | | | | | 613 | | |
| | | 3538 | 528.80 | | | | 0 | | | | 348 | | | |
| | | | | | | 50 | | | | | | 733 | | |
| | | +50 | 527.47 | | | | 0 | | | | 444 | | | |
| | | | | | | 50 | | | | | | 696 | | |
| | | 3539 | 526.14 | | | | 0 | | | | 308 | | | |
| | | | | | | 50 | | | | | | 532 | | |
| | | +50 | 524.81 | | | | 0 | | | | 267 | | | |
| | | | | | | 50 | | | | | | 373 | | |
| | | 3540 | 523.48 | | | | 0 | | | | 136 | | | |
| | | | | | | 50 | | 63 | | | | 134 | | |
| | | +50 | 522.15 | | | | 68 | | | | 9 | | | |
| | | | | | | 50 | | 322 | | | | 8 | C | 12,351 |
| | | 3541 | 520.81 | | | | 280 | | | | 0 | | R | 22 |
| | | | | | | 50 | | 555 | | | | 0 | F | 142 |
| | | +50 | 519.48 | | | | 319 | | | | 0 | | | |
| | | | | | | 50 | | 860 | | | | | ExC | 12,189 |
| | | 3542 | 518.15 | | | | 610 | | | | 0 | | | |
| | | | | | | 50 | | 1342 | | | | | | |
| | | +50 | 516.82 | | | | 939 | | 0 | | 0 | | | |
| | | | | | | 50 | | 1625 | | 11 | | | | |
| | | 3543 | 515.49 | | | | 916 | | 12 | | 0 | | | |
| | | | | | | 50 | | 1763 | | 11 | | | | |
| | | +50 | 514.16 | | | | 988 | | 0 | | 0 | | | |
| | | | | | | 50 | | 1856 | | | | | | |
| | | 3544 | 512.82 | | | | 1016 | | | | 0 | | | |
| | | | | | | 50 | | 1969 | | | | | | |
| | | +50 | 511.49 | | | | 1110 | | | | 0 | | | |
| | | | | | | 50 | | 1996 | | | | | | |
| | | 3545 | 510.16 | | | | 1046 | | | | 0 | | | |
| | | | | | | 50 | | 1888 | | | | | | |
| | | +50 | 508.83 | | | | 993 | | | | 0 | | | |
| | | | | | | 50 | | 1781 | | | | | | |
| | | 3546 | 507.50 | | | | 930 | | | | 0 | | C | 13,691 |
| | | | | | | 50 | | 1644 | | | | | | |
| | | +50 | 506.17 | | | | 846 | | | | 0 | | ExC | 13,691 |
| | | | | | | 50 | | 1663 | | | | | | |
| | | 3547 | 504.83 | | | | 950 | | | | | | | |
| | | | | | | 50 | | 1639 | | | | | | |
| | | +50 | 503.50 | | | | 820 | | | | | | | |
| | | | | | | 50 | | 1458 | | | | | | |
| | | 3548 | 502.17 | | | | 755 | | | | | | | |
| | | CARRIED FORWARD | | | | | | 10,073 | | | | | | |
| | | COLUMN FOOTINGS | | | | | | 22,424 | | 22 | | 18,589 | | |

| VC | % GRADE | STATION | ELEVATION ON TANGENT | ELEVATION ON V CURVES | CORR V C | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3548+00 | 502.17 | | | | 755 | | | | 0 | | | |
| | | | | | | 50 | | 1284 | | | | | | |
| | | +50 | 500.84 | | | | 632 | | | | 0 | | | |
| | | | | | | 50 | | 1096 | | | | | | |
| ⊠ | | 3549 | 499.51 | | 0.00 | | 552 | | | | 0 | | | |
| | | | | | | 50 | | 746 | | | | | | |
| | | +50 | 498.18 | 498.20 | + 0.02 | | 254 | | | | 0 | | | |
| | | | | | | 50 | | 492 | | | | | | |
| | | 3550 | 496.84 | 496.93 | + 0.09 | | 277 | | | | 0 | | | |
| | | | | | | 50 | | 432 | | | | | | |
| | | +50 | 495.51 | 495.72 | + 0.21 | | 190 | | | | 0 | | | |
| | | | | | | 50 | | 158 | | | | | | |
| | | 3551 | 494.18 | 494.56 | + 0.38 | | 81 | | | | 0 | | C | 913 |
| | | | | | | 50 | | 117 | | | | | F | 872 |
| | | +50 | 492.85 | 493.44 | + 0.59 | | 45 | | | | 0 | | | |
| | -2.6633% | | | | | 50 | | 54 | | | | 22 | ExF | 177 |
| | | 3552 | 491.52 | 492.37 | + 0.85 | | 13 | | | | 24 | | | |
| | | | | | | 50 | | 25 | | | | 59 | | |
| | | +50 | 490.19 | 491.35 | + 1.16 | | 14 | | | | 40 | | | |
| | | | | | | 50 | | 30 | | | | 84 | | |
| | | 3553 | 488.85 | 490.37 | + 1.52 | | 18 | | | | 51 | | | |
| | | | | | | 50 | | 43 | | | | 82 | | |
| | | +50 | 487.52 | 489.44 | + 1.92 | | 28 | | | | 35 | | | |
| | | | | | | 50 | | 38 | | | | 86 | | |
| | | 3554 | 486.19 | 488.56 | + 2.37 | | 13 | | | | 55 | | | |
| 1100' VC | | | | | | 50 | | 14 | | | | 185 | | |
| | ⊠ | +50 | 484.86 | 487.73 | + 2.87 | | 2 | | | | 145 | | | |
| | | | | | | 50 | | 2 | | | | 354 | | |
| | | 3555 | 484.57 | 486.94 | + 2.37 | | 0 | | | | 237 | | | |
| | | | | | | 50 | | | | | | 508 | | |
| | | +50 | 484.28 | 486.20 | + 1.92 | | 0 | | | | 312 | | | |
| | | | | | | 50 | | | | | | 648 | | |
| | | 3556 | 484.00 | 485.52 | + 1.52 | | 0 | | | | 388 | | | |
| | | | | | | 50 | | | | | | 744 | F | 7875 |
| | | +50 | 483.71 | 484.87 | + 1.16 | | 0 | | | | 415 | | | |
| | | | | | | 50 | | | | | | 804 | ExF | 9841 |
| | | 3557 | 483.42 | 484.27 | + 0.85 | | 0 | | | | 453 | | | |
| | | | | | | 50 | | | | | | 831 | | |
| | | +50 | 483.13 | 483.72 | + 0.59 | | 0 | | | | 445 | | | |
| | | | | | | 50 | | | | | | 826 | | |
| | | 3558 | 482.85 | 483.23 | + 0.38 | | 0 | | | | 447 | | | |
| | | | | | | 50 | | | | | | 819 | | |
| | | +50 | 482.56 | 482.77 | + 0.21 | | 0 | | | | 437 | | | |
| | | | | | | 50 | | | | | | 831 | | |
| | | 3559 | 482.27 | 482.36 | + 0.09 | | 0 | | | | 464 | | | |
| | | | | | | 50 | | | | | | 914 | | |
| | -0.5753% | +50 | 481.98 | 482.00 | + 0.02 | | 0 | | | | 523 | | | |
| | | | | | | 50 | | | | | | 947 | | |
| ⊠ | | 3560 | 481.69 | | 0.00 | | 0 | | | | 500 | | | |
| | | | | | | 50 | | | | | | 1005 | | |
| | | +50 | 481.41 | | | | 0 | | | | 585 | | | |
| | | | | | | 50 | | | | | | 1063 | | |
| | | 3561 | 481.12 | | | | 0 | | | | 563 | | | |
| | | | | | | 50 | | | | | | 1066 | | |
| | | +50 | 480.83 | | | | 0 | | | | 588 | | F | 11536 |
| | | | | | | 50 | | | | | | 1278 | | |
| | | 3562 | 480.54 | | | | 0 | | | | 630 | | ExF | 14420 |
| | | | | | | 50 | | | | | | 1192 | | |
| | | +50 | 480.26 | | | | 0 | | | | 657 | | | |
| | | | | | | 50 | | | | | | 1236 | | |
| | | 3563 | 479.97 | | | | 0 | | | | 678 | | | |
| | | | | | | 50 | | | | | | 1237 | | |
| | | +50 | 479.68 | | | | 0 | | | | 658 | | | |
| | | | | | | 50 | | | | | | 1207 | | |
| | | 3564 | 479.39 | | | | 0 | | | | 646 | | | |
| | | | | | | 50 | | | | | | 1158 | | |
| | | +50 | 479.10 | | | | 0 | | | | 605 | | | |
| | | | | | | 50 | | | | | | 1094 | | |
| | | 3565 | 478.82 | | | | 0 | | | | 576 | | | |
| | | | | | | 50 | | | | | | 1080 | | |
| | | +50 | 478.53 | | | | 0 | | | | 590 | | | |
| | | | | | | 50 | | | | | | 1105 | | |
| | | 3566 | 478.24 | | | | 0 | | | | 603 | | | |
| | | | | | | 50 | | | | | | 1128 | | |
| | | +50 | 477.96 | | | | 0 | | | | 615 | | F | 11655 |
| | | | | | | 50 | | | | | | 1122 | | |
| | | 3567 | 477.67 | | | | 0 | | | | 597 | | ExF | 14569 |
| | | | | | | 50 | | | | | | 1121 | | |
| ⊠ | | +50 | 477.38 | | + 0.00 | | 0 | | | | 614 | | | |
| | | | | | | 50 | | | | | | 1155 | | |
| | | 3568 | 477.09 | 477.13 | + 0.04 | | 0 | | | | 633 | | | |
| | | | | | | 50 | | | | | | 1189 | | |
| | | +50 | 476.81 | 476.96 | + 0.15 | | 0 | | | | 651 | | | |
| | | | | | | 50 | | | | | | 1206 | | |
| | | 3569 | 476.52 | 476.87 | + 0.35 | | 0 | | | | 699 | | | |
| | | | | | | 50 | | | | | | 1270 | | |
| | | +50 | 476.23 | 476.85 | + 0.62 | | 0 | | | | 673 | | | |
| | | | | | | 50 | | | | | | | | |
| | | CARRIED FORWARD | | | | | | | | | | 10376 | | |
| | | COLUMN FOOTINGS | | | | | | 4531 | | | | 30659 | | |

PROJECT STAGE 2 CONSTRUCTION ST. ALBANS-SWANTON N.B.

PROJECT I NO. 89-3(42)

# EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

STAGE 2 FINISHED GRADES SHOWN.
STAGE 1 SUBGRADE ELEVATION 2.67 FEET (2 FT. 8 IN.)
N.B. MAINLINE

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

| V.C. | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | GRADES CORR V.C. | GRADES DIST. | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | EMBANKMENT AREA | EMBANKMENT CU. YDS. | BASE AREA | BASE CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3569+50 | 476.23 | 476.85 | + 0.62 | 50 | | | | | 673 | 1279 | | |
| | -0.5753% | 3570 | 475.94 | 476.90 | + 0.96 | 50 | | | | | 708 | 1303 | | |
| | | +50 | 475.66 | 477.05 | + 1.39 | 50 | | | | | 699 | 1288 | | |
| | | 3571 | 475.37 | 477.26 | + 1.89 | 50 | | | | | 692 | 1260 | F | 12,535 |
| 800' VC | | +50 | 475.08 | 477.55 | + 2.47 | 50 | | | | | 669 | 1273 | ExF | 15,669 |
| | | 3572 | 476.03 | 477.92 | + 1.89 | 50 | | | | | 706 | 1237 | | |
| | | +50 | 476.97 | 478.36 | + 1.39 | 50 | | | | | 630 | 1174 | | |
| | | 3573 | 477.92 | 478.88 | + 0.96 | 50 | | | | | 638 | 1193 | | |
| | | +50 | 478.86 | 479.48 | + 0.62 | 50 | | | | | 651 | 1225 | | |
| | | 3574 | 479.81 | 480.16 | + 0.35 | 50 | | | | | 672 | 1261 | | |
| | | +50 | 480.75 | 480.90 | + 0.15 | 50 | | | | | 690 | 1321 | | |
| | | 3575 | 481.70 | 481.74 | + 0.04 | 50 | | | | | 737 | 1422 | | |
| | | +50 | 482.64 | | 0.00 | 50 | | | | | 799 | 1556 | | |
| | | 3576 | 483.59 | | | 50 | | | | | 882 | 1618 | F | 22,867 |
| | | +50 | 484.53 | | | | | | | | 865 | 1694 | ExF | 28,584 |
| | +1.8900% | +75 | 485.00 | | 0 | 50 | | | | | 1065 | 2018 | | |
| | | 3577 | 485.48 | 485.47 | - 0.01 | 50 | | | | | 1115 | 2245 | | |
| | | +50 | 486.42 | 486.32 | - 0.10 | 50 | | | | | 1310 | 2598 | | |
| | | 3578 | 487.37 | 487.08 | - 0.29 | 50 | | | | | 1496 | 2934 | | |
| | | +50 | 488.31 | 487.75 | - 0.56 | 50 | | | | | 1673 | 3231 | | |
| | | 3579 | 489.26 | 488.33 | - 0.93 | 50 | | | | | 1817 | 3551 | | |
| | | +50 | 490.20 | 488.82 | - 1.38 | 50 | | | | | 2018 | 3955 | | |
| | | 3580 | 491.15 | 489.22 | - 1.93 | 50 | | | | | 2254 | 4242 | | |
| | | +50 | 492.09 | 489.52 | - 2.57 | 50 | | | | | 2328 | 4344 | F | 30932 |
| | | 3581 | 493.04 | 489.73 | - 3.31 | 50 | | | | | 2364 | 4457 | ExF | 38665 |
| | | +50 | 493.98 | 489.85 | - 4.13 | 50 | | | | | 2450 | 4628 | | |
| | | 3582 | 494.93 | 489.88 | - 5.05 | 50 | | | | | 2548 | 4224 | | |
| | | +50 +99 | 495.87 | 489.82 | - 6.05 | 49 BUTT | | | | | 2548 | | | |
| | | 3583 | 496.82 | 489.67 | - 7.15 | | | | BRIDGE | | | | | |
| 1350' VC | | +50 | 497.76 | 489.42 | - 8.34 | | | | BRIDGE | | | | | |
| | | 3584 | 496.23 | 489.08 | - 7.15 | BUTT | | | | | 2716 | 51 | | |
| | | +42 +50 | 494.71 | 488.66 | - 6.05 | 8 | | | | | 2716 | 5031 | | |
| | | 3585 | 493.18 | 488.13 | - 5.05 | 50 | | | | | 2716 | 4075 | | |
| | | +50 | 491.65 | 487.52 | - 4.13 | 50 | | | | | 2685 | 4862 | | |
| | -3.0535% | 3586 | 490.13 | 486.82 | - 3.31 | 50 | | | | | 2566 | 4626 | F | N698N |
| | | +50 | 488.60 | 486.03 | - 2.57 | 50 | | | | | 2450 | 4426 | ExF | 58730 |
| | | 3587 | 487.07 | 485.14 | - 1.93 | 50 | | | | | 2350 | 4296 | | |
| | | +50 | 485.55 | 484.17 | - 1.38 | | | | | | 2290 | 3060 | | |
| REV. ML P.I.= 3587+85.93 | | | | | | | | | | | | | | |
| SUR. POT 3597+50.00 | | | | | | | | | | | | | | |
| EQ. -+35.93 | | 3587+50 | 484.45 | 483.40 | - 1.05 | | | | | | 2300 | 4315 | | |
| | | 3588 | 482.92 | 482.27 | - 0.65 | 50 | | | | | 2360 | 4338 | | |
| | | +50 | 481.40 | 481.05 | - 0.35 | 50 | | | | | 2325 | 4301 | | |
| | | 3589 | 479.87 | 479.72 | - 0.15 | 50 | | | | | 2320 | 4287 | | |
| | | +50 | 478.34 | 478.31 | - 0.03 | 50 | | | | | 2310 | | | |
| | | | | | | | | | | | | 42586 | | |
| | | CARRIED FORWARD | | | | | | | | | | 110199 | | |
| | | COLUMN FOOTINGS | | | | | | | | | | | | |

| V.C. | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | GRADES CORR V.C. | GRADES DIST. | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | EMBANKMENT AREA | EMBANKMENT CU. YDS. | BASE AREA | BASE CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3589+50 | 478.34 | 478.31 | - 0.03 | | | | | | | | | |
| | | +59.07 | 477.18 | | 0 | 50 | | | | | 2460 | 4398 | | |
| | | 3590 | 476.81 | | | 50 | | | | | 2290 | 4232 | | |
| | | +50 | 475.29 | | | 50 | | | | | 2280 | 4167 | | |
| | | 3591 | 473.76 | | | 50 | | | | | 2220 | 4002 | F | 37055 |
| | | +50 | 472.23 | | | 50 | | | | | 2102 | 3840 | ExF | 46319 |
| | | 3592 | 470.71 | | | 50 | | | | | 2045 | 3815 | | |
| | | +50 | 469.18 | | | 50 | | | | | 2075 | 3798 | | |
| | | 3593 | 467.65 | | | 50 | | | | | 2028 | 3656 | | |
| | | +50 | 466.13 | | | 50 | | | | | 1920 | 3444 | | |
| | | 3594 | 464.60 | | | 50 | | | | | 1800 | 3187 | | |
| | | +50 | 463.07 | | | 50 | | | | | 1642 | 2914 | | |
| | | 3595 | 461.55 | | | 50 | | | | | 1505 | 2597 | | |
| | | +50 | 460.02 | | | 50 | | | | | 1300 | 2245 | | |
| | | 3596 | 458.49 | | | 50 | | | | | 1125 | 1954 | F | 19814 |
| | | +50 | 456.97 | | | 50 | | | | | 985 | 1856 | ExF | 24768 |
| | | 3597 | 455.44 | | | 50 | | | | | 1020 | 1861 | | |
| | | +50 | 453.91 | | | 50 | | | | | 990 | 1869 | | |
| | | 3598 | 452.38 | | | 50 | | | | | 1028 | 1906 | | |
| | | +50 | 450.86 | | | 50 | | | | | 1036 | 1883 | | |
| | | 3599 | 449.33 | | | 50 | | | | | 1004 | 1856 | | |
| | | +50 | 447.81 | | | 50 | | | | | 1000 | 1787 | | |
| | | 3600 | 446.28 | | | 50 | | | | | 930 | 1662 | | |
| | | +50 | 444.75 | | | 50 | | | | | 865 | 1523 | C | 24 |
| | | 3601 | 443.23 | | | 50 | | | | | 780 | 1347 | F | 12364 |
| | | +50 | 441.70 | | | 50 | | | | | 675 | 1255 | ExF | 15431 |
| | | 3602 | 440.17 | | | 50 | | | | | 680 | 1292 | | |
| | | +50 | 438.65 | | | 50 | | | | | 715 | 1536 | | |
| | | 3603 | 437.12 | | | 50 | | | | | 944 | 1624 | | |
| | | +50 | 435.59 | | | 50 | | | | | 810 | 1196 | | |
| | | 3604 | 434.07 | | | 50 | | | | | 482 | 685 | | |
| | | +50 | 432.54 | | | 50 | | | | | 258 | 244 | | |
| | | 3605 | 431.01 | | | 50 | 0 | | | | 6 | 6 | | |
| | | +50 | 429.49 | | | 50 | 26 | 24 | | | 0 | | | |
| | | 3606 | 427.96 | | | 50 | 284 | 287 | | | | | | |
| | | +50 | 426.43 | | | 50 | 563 | 784 | | | | | | |
| | | 3607 | 424.91 | | | 50 | 829 | 1289 | | | | | C | 20,487 |
| | | +50 | 423.38 | | | 50 | 1058 | 1747 | | | | | F | 6 |
| | | 3608 | 421.85 | | | 50 | 1250 | 2137 | | | | | ExC | 20,479 |
| | | +50 | 420.33 | | | 50 | 1456 | 2505 | | | | | | |
| | | 3609 | 418.80 | | | 50 | 1658 | 2883 | | | | | | |
| | | +50 | 417.27 | | | 50 | 1637 | 3051 | | | | | | |
| | | 3610 | 415.74 | | 0 | 50 | 1528 | 2930 | | | | | | |
| | | +50 | 414.22 | 414.26 | + 0.04 | 50 | 1576 | 2874 | | | | | | |
| | | 3611 | 412.69 | 412.84 | + 0.15 | 50 | 1531 | 2877 | | | | | | |
| | | +50 | 411.16 | 411.50 | + 0.34 | 50 | 1552 | 2855 | | | | | | |
| | | 3612 | 409.64 | 410.24 | + 0.60 | 50 | 1242 | 2587 | | | | | | |
| | | | | | | | 940 | 2020 | | | | | | |
| | | CARRIED FORWARD | | | | | | 10,339 | | | | 76,637 | | |
| | | COLUMN FOOTINGS | | | | | | 30,850 | | | | | | |

| V.C. | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | GRADES CORR V.C. | GRADES DIST. | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | EMBANKMENT AREA | EMBANKMENT CU. YDS. | BASE AREA | BASE CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3612+00 | 409.64 | 410.24 | + 0.60 | 50 | 940 | | | | | | | |
| | | +50 | 408.11 | 409.05 | + 0.94 | | 774 | 1587 | | | | | | |
| | | 3613 | 406.58 | 407.94 | + 1.36 | | 620 | 1291 | | | | | | |
| | | +50 | 405.06 | 406.91 | + 1.85 | | 413 | 956 | | | | | C | 15,159 |
| | | 3614 | 403.53 | 405.95 | + 2.42 | | 229 | 594 | | | | | F | 99 |
| | -3.0535% | +50 | 403.21 | 405.06 | + 1.85 | | 95 | 300 | | | 0 | | ExF | 15,035 |
| 800' VC | | 3615 | 402.89 | 404.25 | + 1.36 | | 4 | 92 | | | 107 | 99 | | |
| | | +50 | 402.58 | 403.52 | + 0.94 | | 0 | 4 | | | 259 | 339 | | |
| | | 3616 | 402.26 | 402.86 | + 0.60 | | | | | | 327 | 543 | | |
| | | +50 | 401.94 | 402.28 | + 0.34 | | | | | | 341 | 619 | | |
| | | 3617 | 401.62 | 401.77 | + 0.15 | | | | | | 387 | 674 | | |
| | | +50 | 401.31 | 401.35 | + 0.04 | | | | | | 317 | 652 | C | 4 |
| | | 3618 | 400.99 | | 0 | | | | | | 393 | 657 | F | 7059 |
| | -0.6353% | +50 | 400.67 | | | | | | | | 445 | 776 | ExF | 8820 |
| | | 3619 | 400.35 | | | | | | | | 650 | 1014 | | |
| | | +50 | 400.04 | | | | | | | | 483 | 1049 | | |
| | | 3620 | 399.72 | | | 50 | | | | | 312 | 736 | | |
| | | COLUMN FOOTINGS | | | | | | 4824 | | | | 7158 | | |
| | | REMOVAL OF APPROACH FROM U.S. #7 TO I 89 SWANTON-HIGHGATE | | | | | | | | | | | | |
| | | 9+00 : 5+00 APPROACH STATIONING | | | | | | | | | | | | |
| | | STAGE 2 CONSTRUCTION | | | | | | | | | | | | |
| | | 9+00 | | | | 50 | 0 | | | | 0 | | | |
| | | +50 | | | | | 230 | 213 | | | 15 | 14 | | |
| | | 10 | | | | | 480 | 657 | | | 35 | 37 | | |
| | | +50 | | | | | 375 | 792 | | | 0 | 32 | | |
| | | 11 | | | | | 450 | 764 | | | | | | |
| | | +50 | | | | | 430 | 815 | | | | | | |
| | | 12 | | | | | 450 | 815 | | | | | | |
| | | +50 | | | | | 320 | 713 | | | | | | |
| | | 13 | | | | | 230 | 509 | | | | | | |
| | | +50 | | | | | 120 | 324 | | | | | | |
| | | 14 | | | | | 80 | 185 | | | | | | |
| | | +50 | | | | | 45 | 116 | | | | | | |
| | | 15 | | | | 50 | 0 | 42 | | | | | | |
| | | APPROACH STATIONING TOTALS (TO SHEET 20) | | | | | | 5945 | | | | 83 | | |
| | | CARRIED FORWARD | | | | | | | | | | | | |
| | | COLUMN FOOTINGS | | | | | | | | | | | | |
| | | STAGE 2 CONSTRUCTION | | | | | | | | | | | | |

PROJECT ST. ALBANS-SWANTON N.B.

PROJECT I NO. 89-3(42)
SHEET 17 OF 153 SHEETS

# EARTHWORK SHEET

STAGE 2 FINISHED GRADE SHOWN.
STAGE 1 SUBGRADE ELEVATION 2.67 FEET (2 FT. 8 IN.) BELOW.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

| FED. ROAD DIVISION NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 1 | VT. | | FRONT MAN | | |

S.H. MAINLINE

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | GRADES CORR V.C. | DIST. | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3440+00 | 581.68 | | | | | | | | | | | |
| | | +50 | 582.09 | | | | | | | | | | | |
| | | 3441 | 582.50 | | | | | | | | | | | |
| | | +50 | 582.91 | | | | | | | | | | | |
| | | 3442 | 583.32 | | | | | | | | | | | |
| | | +50 | 583.73 | | 0 | | | | | | | | | |
| | -0.818% | 3443 | 584.14 | 584.12 | - 0.02 | | | | | | | | | |
| | | +50 | 584.55 | 584.46 | - 0.09 | | | | | | | | | |
| | | 3444 | 584.95 | 584.74 | - 0.21 | | | | | | | | | |
| | | +50 | 585.36 | 585.00 | - 0.36 | | | | | | | | | |
| | | 3445 | 585.77 | 585.20 | - 0.57 | | | | | | | | | |
| | | +50 | 586.18 | 585.36 | - 0.82 | | | | | | | | | |
| | | 3446 | 586.59 | 585.47 | - 1.12 | | | | | | | | | |
| | | +50 | 587.00 | 585.54 | - 1.46 | | | | | | | | | |
| | | 3447 | 586.68 | 585.56 | - 1.12 | | | | | | | | | |
| | | +50 | 586.36 | 585.54 | - 0.82 | | | | | | | | | |
| | | 3448 | 586.04 | 585.47 | - 0.57 | | | | | | | | | |
| | | +50 | 585.72 | 585.36 | - 0.36 | | | | | | | | | |
| | | 3449 | 585.40 | 585.19 | - 0.21 | | | | | | | | | |
| | | +50 | 585.08 | 584.99 | - 0.09 | | | | | | | | | |
| | | 3450 | 584.76 | 584.74 | - 0.02 | | | | | | | | | |
| | | +50 | 584.44 | | 0 | | | | | | | | | |
| | | 3451 | 584.12 | | | | | | | | | | | |
| | | +50 | 583.80 | | | | | | | | | | | |
| | -0.640% | 3452 | 583.48 | | | | | | | | | | | |
| | | +50 | 583.15 | | | | | | | | | | | |
| | | 3453 | 582.83 | | | | | | | | | | | |
| | | +50 | 582.51 | | | | | | | | | | | |
| | | 3454 | 582.19 | | | | | | | | | | | |
| | | +50 | 581.87 | | | | | | | | | | | |
| | | 3455 | 581.55 | | | | | | | | | | | |
| | | +50 | 581.23 | | | | | | | | | | | |
| | | 3456 | 580.91 | | | | | | | | | | | |
| | | +50 | 580.59 | | | | | | | | | | | |
| | | 3457 | 580.27 | | | | | | | | | | | |
| | | +50 | 579.95 | | | | | | | | | | | |
| | | 3458 | 579.63 | | | | | | | | | | | |
| | | +50 | 579.31 | | | | | | | | | | | |
| | | 3459 | 578.99 | | | | | | | | | | | |
| | | +50 | 578.67 | | | | | | | | | | | |
| | | +81.97 | 578.46 | | 0 | | | | | | | | | |
| | | 3460 | 578.35 | 578.35 | + 0.00 | | | | | | | | | |
| | | +50 | 578.03 | 578.08 | + 0.05 | | | | | | | | | |
| | | 3461 | 577.71 | 577.85 | + 0.14 | | | | | | | | | |

CARRIED FORWARD
COLUMN FOOTINGS

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| | | | | | | | | | | | | | | |
| | | S.B. | 3444+00 | | | | | | | | | | | |
| | | BEGIN PROJECT | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | 5 | | | | | 45 | | | |
| | | | | | | | 6 | | | | | 126 | | |
| | | | | | | 2 | | | | | 91 | | | |
| | | | | | | | 2 | | | | | 182 | | |
| | | | | | | 0 | | | | | 106 | | | |
| | | | | | | | | | | | | 249 | | |
| | | | | | | | | | | | 163 | | | |
| | | | | | | | | | | | | 319 | | |
| | | | | | | | | | | | 181 | | | |
| | | | | | | | | | | | | 348 | | |
| | | | | | | | | | | | 195 | | | |
| | | | | | | | | | | | | 337 | | |
| | | | | | | 0 | | | | | 169 | | | |
| | | | | | | | 1 | | | | | 270 | C | 266 |
| | | | | | | 1 | | | | | 123 | | | |
| | | | | | | | 3 | | | | | 190 | F | 2175 |
| | | | | | | 2 | | | | | 82 | | | |
| | | | | | | | 10 | | | | | 106 | ExF | 2453 |
| | | | | | | 9 | | | | | 32 | | | |
| | | | | | | | 25 | | | | | 39 | | |
| | | | | | | 18 | | | | | 10 | | | |
| | | | | | | | 85 | | | | | 9 | | |
| | | | | | | 74 | | | | | 0 | | | |
| | | | | | | | 134 | | | | | | | |
| | | | | | | 71 | | | | | | | | |
| | | | | | | 9 | 71 | | | | 0 | | | |
| | | | | | | | 15 | | | | | 28 | | |
| | | | | | | 7 | | | | | 30 | | | |
| | | | | | | | 7 | | | | | 82 | | |
| | | | | | | 1 | | | | | 59 | | C | 132 |
| | | | | | | | 6 | | | | | 142 | | |
| | | | | | | 6 | | | | | 94 | | | |
| | | | | | | | 8 | | | | | 136 | F | 1778 |
| | | | | | | 3 | | | | | 53 | | | |
| | | | | | | | 3 | | | | | 200 | ExF | 2091 |
| | | | | | | 0 | | | | | 163 | | | |
| | | | | | | | | | | | | 314 | | |
| | | | | | | | | | | | 208 | | | |
| | | | | | | | | | | | | 328 | | |
| | | | | | | | | | | | 145 | | | |
| | | | | | | | | | | | | 324 | | |
| | | | | | | 0 | | | | | 20+ | | | |
| | | | | | | | 19 | | | | | 194 | | |
| | | | | | | 21 | | | | | 6 | | | |
| | | | | | | | 152 | | | | | 5 | | |
| | | | | | | 143 | | | | | 0 | | | |
| | | | | | | | 328 | | | | | | | |
| | | | | | | 211 | | | | | | | | |
| | | | | | | | 440 | | | | | | | |
| | | | | | | 26+ | | | | | | | C | 3270 |
| | | | | | | | 388 | | | | | | | |
| | | | | | | 155 | | | | | | | F | 25 |
| | | | | | | | 330 | | | | | | | |
| | | | | | | 201 | | | | | | | ExC | 3239 |
| | | | | | | | 491 | | | | | | | |
| | | | | | | 329 | | | | | | | | |
| | | | | | | | 548 | | | | | | | |
| | | | | | | 263 | | | | | | | | |
| | | | | | | | 354 | | | | | | | |
| | | | | | | 119 | | | | | | | | |
| | | | | | | | 171 | | | | | | | |
| | | | | | | 66 | | | | | 0 | | | |
| | | | | | | | 68 | | | | | 19 | | |
| | | | | | | 7 | | | | | 20 | | | |
| | | | | | | | 9 | | | | | 92 | | |
| | | | | | | 3 | | | | | 79 | | | |
| | | | | | | | 4 | | | | | 143 | | |
| | | | | | | 1 | | | | | 75 | | | |
| | | | | | | | | | | | | 235 | | |
| | | | | | | | 13 | | | | | 4213 | | |

CARRIED FORWARD
COLUMN FOOTINGS

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3461+00 | 577.71 | 577.85 | + 0.14 | | | | | | | | | |
| | | | | | | 42.4 | 1 | | | | 75 | | | |
| | | 3461+82.39 | 577.44 | 577.70 | + 0.26 | | | 1 | | | | 162 | | |
| | | 3461+60.42 | | | | 30.6 | 0 | | | | 131 | | C | 14 |
| | | EQ + -18.03 | | | | 50 | | | | | | 213 | | |
| | | 3462 | 577.18 | 577.58 | + 0.40 | | | | | | 159 | | F | 3003 |
| | | | | | | 50 | | | | | | 290 | | |
| | | +50 | 576.86 | 577.49 | + 0.63 | | | | | | 154 | | ExF | 3740 |
| | -0.640% | 3463 | 576.54 | 577.44 | + 0.90 | | | | | | | 291 | | |
| | | | | | | | | | | | 160 | | | |
| | | +50 | 576.22 | 577.45 | + 1.23 | | | | | | | 277 | | |
| | 800' VC | 3464 | 575.90 | 577.50 | + 1.60 | | | | | | 139 | | | |
| | | | | | | | | | | | | 321 | | |
| | | +50 | 576.38 | 577.61 | + 1.23 | | | | | | 208 | | | |
| | | 3465 | 576.86 | 577.76 | + 0.90 | | | | | | | 569 | | |
| | | | | | | | | | | | 407 | | | |
| | | +50 | 577.34 | 577.97 | + 0.63 | | | | | | | 645 | | |
| | | 3466 | 577.82 | 578.22 | + 0.40 | | | | | | 290 | | | |
| | | | | | | | 0 | | | | | 481 | | |
| | | +50 | 578.30 | 578.53 | + 0.23 | | | 1 | | | 229 | | | |
| | | 3467 | 578.78 | 578.88 | + 0.10 | | 1 | | | | | 351 | | |
| | | | | | | | | 1 | | | 150 | | | |
| | | +50 | 579.26 | 579.29 | + 0.03 | | 0 | | | | | 267 | | |
| | +0.960+1% | 3468 | 579.74 | | 0 | | | 1 | | | 138 | | | |
| | | | | | | | | | | | | 259 | | |
| | | +50 | 580.22 | | | | | | | | 142 | | C | 2 |
| | | 3469 | 580.70 | | | | | | | | | 303 | | |
| | | | | | | | | | | | 191 | | F | 4286 |
| | | +50 | 581.18 | | | | | | | | | 364 | | |
| | | 3470 | 581.66 | | | | | | | | 202 | | ExF | 5358 |
| | | | | | | | | | | | | 425 | | |
| | | +50 | 582.14 | | | | | | | | 257 | | | |
| | | 3471 | 582.62 | | | | | | | | | 505 | | |
| | | | | | | | | | | | 288 | | | |
| | | +50 | 583.10 | | | | | | | | | 618 | | |
| | | 3472 | 583.58 | | | | | | | | 379 | | | |
| | | | | | | | | | | | | 708 | | |
| | | +50 | 584.06 | | | | | | | | 366 | | | |
| | | 3473 | 584.54 | | | | | | | | | 811 | | |
| | | | | | | | | | | | 490 | | | |
| | | +50 | 585.02 | | | | | | | | | 947 | | |
| | | 3474 | 585.50 | | | | | | | | 533 | | | |
| | | | | | | | | | | | | 903 | C | 0 |
| | | +50 | 585.98 | | | | | | | | 412 | | | |
| | | 3475 | 586.46 | | | | | | | | | 876 | F | 9411 |
| | | | | | | | | | | | 504 | | | |
| | | +50 | 586.94 | | | | | | | | | 957 | ExF | 11764 |
| | | 3476 | 587.43 | | | | | | | | 530 | | | |
| | | | | | | | | | | | | 993 | | |
| | | +50 | 587.91 | | | | | | | | 542 | | | |
| | | 3477 | 588.39 | | | | | | | | | 1034 | | |
| | | | | | | | | | | | 575 | | | |
| | | +50 | 588.87 | | | | | | | | | 1020 | | |
| | | 3478 | 589.35 | | | | | | | | 527 | | | |
| | | | | | | | | | | | | 950 | | |
| | | +50 | 589.83 | | | | | | | | 499 | | | |
| | | 3479 | 590.31 | | | | | | | | | 920 | | |
| | | | | | | | | | | | 495 | | | |
| | | +50 | 590.79 | | | | | | | | | 812 | | |
| | | 3480 | 591.27 | | | | | | | | 382 | | | |
| | | | | | | | | | | | | 606 | | |
| | | +50 | 591.75 | | | | | | | | 272 | | | |
| | | 3481 | 592.23 | | | | | | | | | 485 | | |
| | | | | | | | | | | | 252 | | | |
| | | +50 | 592.71 | | | | | | | | | 574 | C | 50 |
| | | 3482 | 593.19 | | | | | | | | | | F | 6108 |
| | | | | | | | | | | | 368 | | | |
| | | +50 | 593.67 | | | | | | | | | 667 | ExF | 7585 |
| | | 3483 | 594.15 | | 0 | | | | | | 352 | | | |
| | | | | | | | | | | | | 641 | | |
| | | +50 | 594.63 | 594.60 | - 0.03 | | | | | | 340 | | | |
| | | | | | | | | | | | | 632 | | |
| | | | | | | | | | | | 345 | | | |
| | | | | | | | | | | | | 668 | | |
| | | | | | | | | | | | 379 | | | |
| | | | | | | | | | | | | 570 | | |
| | | | | | | | | | | | 237 | | | |
| | | | | | | | | | | | | 451 | | |
| | | | | | | | | | | | 290 | | | |
| | | | | | | | | | | | | 347 | | |
| | | | | | | | | | | | 125 | | | |
| | | | | | | | | | | | | 173 | | |
| | | | | | | | | | | | 62 | | | |
| | | | | | | | | | | | | 87 | | |
| | | | | | | | | | | | 32 | | | |
| | | | | | | | | | | | | 57 | | |
| | | | | | | | | | | | 30 | | | |
| | | | | | | | | | | | | 101 | | |
| | | | | | | | | | | | 79 | | | |
| | | | | | | | | | | | | 198 | | |
| | | | | | | | | | | | 135 | | | |
| | | | | | | | | | | | | 32 | | |
| | | | | | | | | | | | 213 | | | |
| | | | | | | | | | | | | 1285 | | |
| | | | | | | | | | | | | 23856 | | |

CARRIED FORWARD
COLUMN FOOTINGS

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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STAGE 2 FINISHED GRADE SHOWN
STAGE 1 SUBGRADE ELEVATION 2.67 FEET (2 FT. 8 IN.) BELOW.

S.B. MAINLINE

# EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

| FED. ROAD DIVISION NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| | VT | | | | |

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | GRADES CORR V.C. | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | 545 | 977 | | |
| | | 3505 | 581.14 | | | 50 | | | | | 510 | 750 | | |
| | | +50 | 580.62 | | | | | | | | 300 | 764 | | |
| | | 3506 | 580.10 | | | | | | | | 525 | 1336 | | |
| | | +50 | 579.57 | | | | | | | | 918 | 1600 | C | 0 |
| | | 3507 | 579.05 | | | | | | | | 810 | 1499 | F | 13,336 |
| | | +50 | 578.52 | | | | | | | | 809 | 1477 | ExF | 16,670 |
| | | 3508 | 578.00 | | | | | | | | 786 | 1383 | | |
| | | +50 | 577.48 | | | | | | | | 708 | 1301 | | |
| | | 3509 | 576.95 | | | | | | | | 697 | 1218 | | |
| | | +50 | 576.43 | | | | | | | | 618 | 1031 | | |
| | | 3510 | 575.90 | | | | | | | | 495 | 811 | | |
| | | +50 | 575.38 | | | | | | | | 384 | 665 | | |
| | | 3511 | 574.86 | | | | | | | | 334 | 596 | | |
| | | +50 | 574.33 | | | | | | | | 310 | 389 | | |
| | | 3512 | 573.81 | | | | 0 | 16 | | | 110 | 146 | C | 187 |
| | | +50 | 573.29 | | | | 17 | 68 | | | 48 | 50 | F | 2894 |
| | | 3513 | 572.76 | | | | 56 | 110 | | | 6 | 6 | ExF | 2881 |
| | | +50 | 572.24 | | | | 63 | 110 | | | 0 | 2 | | |
| | | 3514 | 571.71 | | | | 56 | 89 | | | 2 | 14 | | |
| | | +50 | 571.19 | | | | 40 | 94 | | | 13 | 12 | | |
| | | 3515 | 570.67 | | | | 62 | 181 | | | 0 | | | |
| | | +50 | 570.14 | | | | 13 | 253 | | | | | | |
| | | 3516 | 569.62 | | | | 140 | 223 | | | | | | |
| | | +50 | 569.10 | | | | 101 | 188 | | | | | C | 1320 |
| | | 3517 | 568.57 | | | | 103 | 177 | | | 0 | 7 | F | 693 |
| | | +50 | 568.05 | | | | 88 | 125 | | | 8 | 21 | ExC | 516 |
| | | 3518 | 567.52 | | | | 47 | 49 | | | 15 | 69 | | |
| | | +50 | 567.00 | | | | 6 | 15 | | | 60 | 204 | | |
| | | 3519 | 566.48 | | | | 10 | 44 | | | 160 | 211 | | |
| | | +50 | 565.95 | | | | 38 | 64 | | | 68 | 131 | | |
| | | 3520 | 565.43 | | | | 31 | 35 | | | 73 | 180 | | |
| | | +50 | 564.90 | | | | 7 | 6 | | | 121 | 320 | | |
| | | 3521 | 564.38 | | | | 0 | 1 | | | 225 | 407 | | |
| | | +50 | 563.86 | | | | 1 | 1 | | | 215 | 447 | C | 43 |
| | | 3522 | 563.33 | | | | 0 | | | | 268 | 529 | F | 5072 |
| | | +50 | 562.81 | | | | | | | | 303 | 586 | ExF | 6297 |
| | | 3523 | 562.29 | | | | | | | | 332 | 692 | | |
| | | +50 | 561.76 | | | | | | | | 415 | 677 | | |
| -1.04764 | | 3524 | 561.24 | | | 0 | | | | | 338 | 614 | | |
| | | +50 | 560.71 | 560.69 | - 0.02 | | | | | | 325 | 598 | | |
| | | 3525 | 560.19 | 560.11 | - 0.08 | | | | | | 321 | 621 | | |
| | | +50 | 559.67 | 559.49 | - 0.18 | | | | | | 350 | 631 | | |
| | | 3526 | 559.14 | 558.82 | - 0.32 | 50 | | | | | 331 | | | |

CARRIED FORWARD
COLUMN FOOTINGS

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | GRADES CORR V.C. | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3526+00 | 559.14 | 558.82 | - 0.32 | | | | | | 331 | 603 | | |
| | | +50 | 558.62 | 558.11 | - 0.51 | | | | | | 320 | 593 | | |
| | | 3527 | 558.10 | 557.37 | - 0.73 | | | | | | 320 | 580 | | |
| | | +50 | 557.57 | 556.58 | - 0.99 | | | | | | 306 | 608 | C | 15 |
| | | 3528 | 557.05 | 555.75 | - 1.30 | | | | | | 351 | 566 | F | 5530 |
| | | +50 | 556.52 | 554.88 | - 1.64 | | | | | | 260 | 442 | ExF | 6898 |
| | | 3529 | 556.00 | 553.98 | - 2.02 | | | | | | 217 | 430 | | |
| | | +50 | 554.67 | 553.03 | - 1.64 | | | | | | 247 | 456 | | |
| | | 3530 | 553.33 | 552.03 | - 1.30 | | | | | | 246 | 431 | | |
| | | +50 | 552.00 | 551.01 | - 0.99 | | | | | | 219 | 497 | | |
| | | 3531 | 550.67 | 549.94 | - 0.73 | | | | | | 218 | 469 | | |
| | | +50 | 549.33 | 548.82 | - 0.51 | | | | | | 188 | 308 | | |
| | | 3532 | 548.00 | 547.68 | - 0.32 | | | | | | 145 | 301 | C | 398 |
| | | +50 | 546.67 | 546.49 | - 0.18 | | | | | | 180 | 315 | F | 3712 |
| | | 3533 | 545.33 | 545.25 | - 0.08 | | | | | | 160 | 327 | ExF | 4280 |
| | | +50 | 544.00 | 543.98 | - 0.02 | | | | | | 193 | 389 | | |
| -2.6667% | | 3534 | 542.67 | | 0 | | | | | | 227 | 368 | | |
| | | +50 | 541.33 | | | | | | | | 170 | 337 | | |
| | | 3535 | 540.00 | | | | | | | | 194 | 431 | | |
| | | +50 | 538.67 | | | | | | | | 272 | 528 | | |
| | | 3536 | 537.33 | | | | | | | | 298 | 542 | | |
| | | +50 | 536.00 | | | | | | | | 287 | 544 | | |
| | | 3537 | 534.67 | | | | | | | | 301 | 481 | C | 378 |
| | | +50 | 533.33 | | | | | | | | 219 | 436 | F | 4158 |
| | | 3538 | 532.00 | | | | | | | | 252 | 456 | ExF | 4817 |
| | | +50 | 530.67 | | | | | | | | 240 | 368 | | |
| | | 3539 | 529.33 | | | | | | | | 157 | 250 | | |
| | | +50 | 528.00 | | | | | | | | 113 | 118 | | |
| | | 3540 | 526.67 | | | | | | | | 14 | 13 | | |
| | | +50 | 525.33 | | | | | | | | 0 | | C | 15,826 |
| | | 3541 | 524.00 | | | | | | | | | | R | 20 |
| | | +50 | 522.67 | | | | | | | | | | F | 13 |
| | | 3542 | 521.33 | | | | | | | | | | ExC | 15,879 |
| | | +50 | 520.00 | | | | | | | | | | | |
| | | 3543 | 518.67 | | | | | | | | | | | |
| | | +50 | 517.33 | | | | | | | | | | | |
| | | 3544 | 516.00 | | | | | | | | | | | |
| | | +50 | 514.67 | | | | | | | | | | | |
| | | 3545 | 513.33 | | | | | | | | | | | |
| | | +50 | 512.00 | | | | | | | | | | | |
| | | 3546 | 510.67 | | | | | | | | | | | |
| | | +50 | 509.33 | | | | | | | | | | | |
| | | 3547 | 508.00 | | | | | | | | | | | |
| | | +50 | 506.67 | | | | | | | | | | | |
| | | 3548 | 505.33 | | | | | | | | | | | |
| | | +50 | 504.00 | | | | | | | | | | | |

CARRIED FORWARD
COLUMN FOOTINGS

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | GRADES CORR V.C. | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3548+50 | 504.00 | | | | | | | | | | | |
| | | 3549 | 502.67 | | | 50 | | | | | | | C | 17,340 |
| | | +50 | 501.33 | | | | | | | | | | R | 109 |
| | | 3550 | 500.00 | | | | | | | | | | ExC | 17,418 |
| | | +50 | 498.67 | | | | | | | | | | | |
| | | 3551 | 497.33 | | | | | | | | | | | |
| | | +50 | 496.00 | | | | | | | | | | | |
| -2.6667% | | 3552 | 494.67 | | 0 | | | | | | | | | |
| | | +50 | 493.33 | 493.36 | + 0.03 | | | | | | | | | |
| | | 3553 | 492.00 | 492.13 | + 0.13 | | | | | | | | | |
| | | +50 | 490.67 | 490.96 | + 0.29 | | | | | | | | | |
| | | 3554 | 489.33 | 489.85 | + 0.52 | | | | | | | | | |
| | | +50 | 488.00 | 488.82 | + 0.82 | | | | | | | | | |
| | | 3555 | 486.67 | 487.85 | + 1.18 | | | | | | | | | |
| | | +50 | 485.33 | 486.93 | + 1.60 | | | | | | | | | |
| 800' VC | | 3556 | 484.00 | 486.09 | + 2.09 | | | | | | | | | |
| | | +50 | 483.71 | 485.31 | + 1.60 | | | | | | | | | |
| | | 3557 | 483.42 | 484.60 | + 1.18 | | | | | | | | | |
| | | +50 | 483.14 | 483.96 | + 0.82 | | | | | | | | | |
| | | 3558 | 482.85 | 483.37 | + 0.52 | | | | | | | | | |
| | | +50 | 482.56 | 482.85 | + 0.29 | | | | | | | | | |
| | | 3559 | 482.27 | 482.40 | + 0.13 | | | | | | | | | |
| | | +50 | 481.98 | 482.01 | + 0.03 | | | | | | | | | |
| -0.57534 | | 3560 | 481.70 | | 0 | | | | | | | | | |
| | | +50 | 481.41 | | | | | | | | | | | |
| | | 3561 | 481.12 | | | | | | | | | | | |
| | | +50 | 480.83 | | | | | | | | | | | |
| | | 3562 | 480.55 | | | | | | | | | | | |
| | | +50 | 480.26 | | | | | | | | | | | |
| | | 3563 | 479.97 | | | | | | | | | | | |
| | | +50 | 479.68 | | | | | | | | | | | |
| | | 3564 | 479.39 | | | | | | | | | | | |
| | | +50 | 479.11 | | | | | | | | | | | |
| | | 3565 | 478.82 | | | | | | | | | | | |
| | | +50 | 478.53 | | | | | | | | | | | |
| | | 3566 | 478.25 | | | | | | | | | | | |
| | | +50 | 477.96 | | | | | | | | | | | |
| | | 3567 | 477.67 | | | | | | | | | | | |
| | | +50 | 477.38 | | + 0.00 | | | | | | | | | |
| | | 3568 | 477.09 | 477.13 | + 0.04 | | | | | | | | | |
| | | +50 | 476.81 | 476.96 | + 0.15 | | | | | | | | | |
| | | 3569 | 476.52 | 476.87 | + 0.35 | | | | | | | | | |
| | | +50 | 476.23 | 476.85 | + 0.62 | | | | | | | | | |
| | | 3570 | 475.94 | 476.90 | + 0.96 | 50 | | | | | | | | |

CARRIED FORWARD
COLUMN FOOTINGS 3526 24316

PROJECT STAGE 2 CONSTRUCTION S.J. ALBAN-SWANTON S.B.

PROJECT I NO. 89-3(42)
SHEET 19 OF 153 SHEETS

# EARTHWORK SHEET

STAGE 2 FINISHED GRADE SHOWN.
STAGE 1 SUBGRADE ELEVATION 2.67 FEET (2 FT. 8 IN.) BELOW

S 8 MAINLINE

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

| FED. ROAD DIVISION NO. | STATE | PROJECT NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|---|---|
| 1 | VT | | POST 1956 | | |

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | CORR V.C. | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | -0.5753% | 3570+00 | 475.94 | 476.90 | + 0.96 | | | | | | | | | |
| | | +50 | 475.66 | 477.05 | + 1.39 | 50 | | | | | 477 | 845 | | |
| | | 3571 | 475.37 | 477.26 | + 1.89 | | | | | | 436 | 802 | | |
| 800' VC | | +50 | 475.08 | 477.55 | + 2.47 | | | | | | 430 | 756 | | |
| | | 3572 | 476.03 | 477.92 | + 1.89 | | | | | | 386 | 679 | F | 7921 |
| | | +50 | 476.97 | 478.36 | + 1.39 | | | | | | 347 | 637 | ExF | 9901 |
| | | 3573 | 477.92 | 478.88 | + 0.96 | | | | | | 341 | 642 | | |
| | | +50 | 478.86 | 479.48 | + 0.62 | | | | | | 352 | 695 | | |
| | | 3574 | 479.81 | 480.16 | + 0.35 | | | | | | 399 | 831 | | |
| | | +50 | 480.75 | 480.90 | + 0.15 | | | | | | 498 | 975 | | |
| | | 3575 | 481.70 | 481.74 | + 0.04 | | | | | | 555 | 1059 | | |
| | | +50 | 482.64 | | 0.00 | | | | | | 589 | 1204 | | |
| | | 3576 | 483.59 | | | | | | | | 711 | 1386 | | |
| | +1.8900% | +50 | 484.53 | | | | | | | | 786 | 1536 | F | 21.810 |
| | | +75 | 485.00 | | 0 | | | | | | 873 | 1801 | ExF | 27.263 |
| | | 3577 | 485.48 | 485.47 | - 0.01 | | | | | | 1072 | 2058 | | |
| | | +50 | 486.42 | 486.32 | - 0.10 | | | | | | 1151 | 2168 | | |
| | | 3578 | 487.37 | 487.08 | - 0.29 | | | | | | 1190 | 2344 | | |
| | | +50 | 488.31 | 487.75 | - 0.56 | | | | | | 1342 | 2728 | | |
| | | 3579 | 489.26 | 488.33 | - 0.93 | | | | | | 1604 | 3110 | | |
| | | +50 | 490.20 | 488.82 | - 1.38 | | | | | | 1755 | 3475 | | |
| | | 3580 | 491.15 | 489.22 | - 1.93 | | | | | | 1998 | 3839 | | |
| | | +50 | 492.09 | 489.52 | - 2.57 | | | | | | 2148 | 4067 | | |
| | | 3581 | 493.04 | 489.73 | - 3.31 | | | | | | 2245 | 4274 | F | 26.981 |
| | | +50 | 493.98 | 489.85 | - 4.13 | | | | | | 2371 | 4441 | ExF | 33.701 |
| | | 3582 | 494.93 | 489.88 | - 5.05 | | | | | | 2425 | 4505 | | |
| | | +50 | 495.87 | 489.82 | - 6.05 | | | | | | 2440 | 4518 | | |
| | | 3583 | 496.82 | 489.67 | - 7.15 | 50 | | | | | 2440 | 4518 | | |
| | | +04 | | | | 04 | | | | | 2440 | 361 | | |
| 1350' VC | | +50 | 497.76 | 489.42 | - 8.34 | 50 | BRIDGE | | | | | | | |
| | | 3584 | 496.23 | 489.08 | - 7.15 | | | | | | 2443 | 271 | | |
| | | +47 | | | | 03 | | | | | 2443 | | | |
| | | +50 | 494.71 | 488.66 | - 6.05 | 50 | | | | | | 4524 | | |
| | | 3585 | 493.18 | 488.13 | - 5.05 | | | | | | 2443 | 4513 | | |
| | | +50 | 491.65 | 487.52 | - 4.13 | | | | | | 2431 | 4329 | | |
| | | 3586 | 490.13 | 486.82 | - 3.31 | | | | | | 2244 | 4063 | | |
| | | +50 | 488.60 | 486.03 | - 2.57 | | | | | | 2150 | 4037 | F | 13.829 |
| | -3.0535% | 3587 | 487.07 | 485.14 | - 1.93 | | | | | | 2210 | 4067 | ExF | 54.786 |
| | | +50 | 485.55 | 484.17 | - 1.38 | | | | | | 2182 | 2913 | | |
| REV. ML PT 3587+85.93 | | Eq. | +35.93 | | | | | | | | | | | |
| SUR. POT | | 3587+50 | | | | | | | | | | | | |
| | | +50 | 484.45 | 483.40 | - 1.05 | | | | | | 2188 | 4007 | | |
| | | 3588 | 482.92 | 482.27 | - 0.65 | | | | | | 2140 | 3898 | | |
| | | +50 | 481.40 | 481.05 | - 0.35 | | | | | | 2070 | 3902 | | |
| | | 3589 | 479.87 | 479.72 | - 0.15 | | | | | | 2144 | 4041 | | |
| | | +50 | 478.34 | 478.31 | - 0.03 | 50 | | | | | 2220 | 4054 | | |
| | | +89.07 | 477.15 | | 0 | 39.07 | | | | | | | | |
| | | 3590 | 476.81 | | | 0.93 | | | | | 2158 | 3933 | | |
| | | +50 | 475.29 | | | 50 | | | | | 2090 | | | |
| | | | CARRIED FORWARD | | | | | | | | | 3933 | | |
| | | | COLUMN FOOTINGS | | | | | | | | | 104454 | | |

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | CORR V.C. | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3590+50 | 475.23 | | | 50 | | | | | 2090 | | | |
| | | 3591 | 473.76 | | | | | | | | | 3883 | | |
| | | +50 | 472.23 | | | | | | | | 2104 | 3939 | | |
| | | 3592 | 470.71 | | | | | | | | 2150 | 3935 | F | 35.841 |
| | | +50 | 469.18 | | | | | | | | 2100 | 3917 | ExF | 44.801 |
| | | 3593 | 467.65 | | | | | | | | 2130 | 3842 | | |
| | | +50 | 466.13 | | | | | | | | 2020 | 3623 | | |
| | | 3594 | 464.60 | | | | | | | | 1893 | 3268 | | |
| | | +50 | 463.07 | | | | | | | | 1637 | 2858 | | |
| | | 3595 | 461.55 | | | | | | | | 1450 | 2643 | | |
| | -3.0535% | +50 | 460.02 | | | | | | | | 1404 | 2504 | | |
| | | 3596 | 458.49 | | | | | | | | 1300 | 2305 | | |
| | | +50 | 456.97 | | | | | | | | 1190 | 2009 | | |
| | | 3597 | 455.44 | | | | | | | | 980 | 1731 | | |
| | | +50 | 453.91 | | | | | | | | 890 | 1604 | F | 18.423 |
| | | 3598 | 452.39 | | | | | | | | 940 | 1722 | ExF | 23.029 |
| | | +50 | 450.86 | | | | | | | | 920 | 1671 | | |
| | | 3599 | 449.33 | | | | | | | | 885 | 1634 | | |
| | | +50 | 447.81 | | | | | | | | 880 | 1602 | | |
| | | 3600 | 446.28 | | | | | | | | 850 | 1551 | | |
| | | +50 | 444.75 | | | | | | | | 825 | 1468 | | |
| | | 3601 | 443.23 | | | | | | | | 760 | 1337 | | |
| | | +50 | 441.70 | | | | | | | | 684 | 1249 | C | 252 |
| | | 3602 | 440.17 | | | | | | | | 665 | 1329 | F | 10.968 |
| | | +50 | 438.65 | | | | | | | | 770 | 1430 | ExF | 12.833 |
| | | 3603 | 437.12 | | | | | | | | 774 | 1391 | | |
| | | +50 | 435.59 | | | | | | | | 728 | 1137 | | |
| | | 3604 | 434.07 | | | | 0 | | | | 500 | 700 | | |
| | | +50 | 432.54 | | | | 6 | | | | 236 | 332 | | |
| | | 3605 | 431.01 | | | | 7 | | | | 103 | 95 | | |
| | | +50 | 429.49 | | | | 246 | | | | 0 | | | |
| | | 3606 | 427.96 | | | | 259 | 670 | | | | | | |
| | | +50 | 426.43 | | | | 465 | 989 | | | | | | |
| | | 3607 | 424.91 | | | | 603 | 1286 | | | | | C | 20.720 |
| | | +50 | 423.38 | | | | 786 | 1735 | | | | | E+C | 20.720 |
| | | 3608 | 421.85 | | | | 1088 | 2276 | | | | | | |
| | | +50 | 420.33 | | | | 1370 | 2672 | | | | | | |
| | | 3609 | 418.80 | | | | 1516 | 2883 | | | | | | |
| | | +50 | 417.27 | | | | 1598 | 2873 | | | | | | |
| | | 3610 | 415.74 | | | 0 | 1505 | 2703 | | | | | | |
| | | +50 | 414.22 | 414.26 | + 0.04 | | 1414 | 2633 | | | | | | |
| | | 3611 | 412.69 | 412.84 | + 0.15 | | 1430 | 2655 | | | | | | |
| | | +50 | 411.16 | 411.50 | + 0.31 | | 1477 | 2692 | | | | | | |
| | | 3612 | 409.64 | 410.24 | + 0.60 | | 1390 | 2176 | | | | | | |
| | | +50 | 408.11 | 409.05 | + 0.91 | | 960 | 1598 | | | | | | |
| | | 3613 | 406.58 | 407.94 | + 1.36 | 50 | 764 | 1272 | | | | | | |
| | | | CARRIED FORWARD | | | | 610 | 907 | | | | | | |
| | | | COLUMN FOOTINGS | | | | 456 | 11,378 | | | | | | |
| | | | | | | | | 32,350 | | | | | | |
| | | | | | | | | 50,799 | | | | | | |

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V CURVES | CORR V.C. | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU YDS | ROCK AREA | ROCK CU YDS | EMBANKMENT AREA | EMBANKMENT CU YDS | BASE AREA | BASE CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | -3.0535% | 3613 | 406.58 | 407.94 | + 1.36 | 50 | 456 | | | | | | | |
| | | +50 | 405.06 | 406.91 | + 1.85 | | 320 | 718 | | | | | | |
| | | 3614 | 403.53 | 405.95 | + 2.42 | | 234 | 513 | | | | | C | 12,874 |
| | | +50 | 403.21 | 405.06 | + 1.85 | | 26 | 241 | | | 0 | 28 | F | 173 |
| | | 3615 | 402.89 | 404.25 | + 1.36 | | 0 | 24 | | | 30 | 145 | ExC | 12.658 |
| | | +50 | 402.58 | 403.52 | + 0.94 | | | | | | 127 | 319 | | |
| | | 3616 | 402.26 | 402.86 | + 0.60 | | | | | | 217 | 462 | | |
| | | +50 | 401.94 | 402.28 | + 0.34 | | | | | | 282 | 534 | | |
| | | 3617 | 401.62 | 401.77 | + 0.15 | | | | | | 295 | 503 | F | 5.620 |
| | | +50 | 401.31 | 401.35 | + 0.04 | | | | | | 248 | 464 | ExF | 7.025 |
| | -0.6353% | 3618 | 400.99 | | 0 | | | | | | 253 | 458 | | |
| | | +50 | 400.67 | | | | | | | | 242 | 489 | | |
| | | 3619 | 400.35 | | | | | | | | 286 | 595 | | |
| | | +50 | 400.04 | | | | | | | | 357 | 847 | | |
| | | 3620 | 399.72 | | | 50 | | | | | 558 | 949 | | |
| | | | | | | | | | | | 467 | | | |
| | | COLUMN FOOTINGS | | | | | | 1496 | | | | 5793 | | |
| | | US RTE. 7 APPROACH TO I 89 SWANTON-HIGHGATE | | | | | | | | | | | | |
| | | STA. 5+50 TO 7+00, REMOVAL AND REPLACEMENT OF U.S. 7 | | | | | | | | | | | | |
| | | STA. 7+00 TO 12+00 REMOVAL OF OLD SURFACE OF US 7 | | | | | | | | | | | | |
| | | STAGE 2 CONSTRUCTION | | | | | | | | | | | | |
| | | APPROX. GRADES ONLY | | | | | | | | | | | | |
| | | | 5+50 | BEGIN CONSTRUCTION | | | | | | | | | | |
| | | 5+50 | 170.20 | | | BUTT 50 | 55 | 106 | | | 0 | 6 | | |
| | | 6+00 | 169.30 | | | | 60 | 134 | | | 7 | 6 | | |
| | | +50 | 168.40 | | | | 85 | 204 | | | 0 | | | |
| | | 7+00 | 167.50 | | | | DK 135 AHD 85 | 218 | | | | | | |
| | | +50 | 166.70 | | | | 150 | 403 | | | 0 | 9 | | |
| | | 8+00 | 165.80 | | | | 285 | 634 | | | 10 | 9 | | |
| | | +50 | 164.80 | | | | 400 | 926 | | | 0 | | | |
| | | 9+00 | 163.80 | | | | 600 | 1370 | | | | | | |
| | | +50 | 162.80 | | | | 880 | 1111 | | | | | | |
| | | 10+00 | 161.70 | | | | 320 | 519 | | | | | | |
| | | +50 | 160.60 | | | | 240 | 356 | | | | | | |
| | | 11+00 | 159.30 | | | | 145 | 213 | | | | | | |
| | | +50 | 158.00 | | | 50 | 85 | 79 | | | | | | |
| | | 12+00 | 156.50 | | | | 0 | | | | | | | |
| | | | | 12+00 | END CONSTRUCTION | | | | | | | | | |
| | | US 7 STATIONING TOTALS | | | | | | 6273 | | | | 32 | | |
| | | APPROACH STATIONING TOTALS (FROM SH. 17) | | | | | | 5915 | | | | 83 | | |
| | | STAGE 2 CONSTRUCTION TOTAL | | | | | | 12228 | | | | 115 | | |
| | | EXCESS CUT 12084 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | |

# EARTHWORK

| V.C. | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V. CURVES | GRADES CORR. V.C. | DIST. | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU. YDS. | EMBANKMENT AREA | EMBANKMENT CU. YDS. | BASE AREA | BASE CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | VT #36 | | | | | | | | | |
| | | 0+00 | | | | | | | | | | |
| | | +50 | | | | | | VT. #36 TO BE BUILT IN ITS ENTIRETY DURING | | | | |
| | | +73 | | | | | | STAGE I CONSTRUCTION | | | | |
| | | 1 | 571.20 | | | | | | | | | |
| | | +23 | 571.71 | | | | | | | | | |
| | | +50 | 572.30 | | | | | | | | | |
| | | +75 | 572.85 | | | | | | | | | |
| | | 2 | 573.40 | | | | 0 | | | | | |
| | | +50 | 574.50 | | | 50 | 22 | 20 | | | C<br>F<br>ExF | 59<br>2498<br>3061 |
| | +2.200% | +64 | 574.81 | | | 50 | | 30 | | | | |
| | | 3 | 575.60 | | | | 10 | | 0 | | | |
| | | +32 | 576.30 | | | 50 | | 9 | | 88 | | |
| | | +50 | 576.70 | | | | 0 | | 95 | | | |
| | | 4 | 577.80 | | 0 | 50 | | | 294 | 360 | | |
| | | +50 | 578.90 | 579.02 | + 0.12 | 50 | | | 577 | 806 | | |
| | 200' VC | 5 | 580.00 | 580.49 | + 0.49 | 50 | | | 761 | 1242 | | |
| | | +50 | 582.09 | 582.21 | + 0.12 | 50 | | | 784 | 1433 | | |
| | | +74 | 583.09 | 583.12 | + 0.03 | 50 | | | | 1578 | C<br>F<br>ExF | 0<br>25777<br>32221 |
| | | 6 | 584.17 | | 0 | 50 | | | 990 | 1942 | | |
| | | +50 | 586.26 | | | 50 | | | 1107 | 2204 | | |
| | | 7 | 588.35 | | | 50 | | | 1273 | 2477 | | |
| | | +50 | 590.43 | | | 50 | | | 1402 | 2716 | | |
| | | 8 | 592.52 | | | 50 | | | 1561 | 2981 | | |
| | | +50 | 594.61 | | | 50 | | | 1659 | 3180 | | |
| | | 9 | 596.69 | | | 50 | | | 1775 | 3432 | | |
| | | +50 | 598.78 | | | 25 | | | 1931 | 1811 | | |
| | | +75 | 599.82 | | | 27.12 | | | 1981 | | | |
| | | 10 | 600.67 | | | | | | | 1990 | | |
| | | +02.12 | | | | | | 10+02.12 END ROADWAY BEGIN BRIDGE | | | | |
| | +4.173% | +25 | 601.91 | | | | | | | | | |
| | | +50 | 602.95 | | | | | | | | | |
| | | +58 | 603.29 | | | | | | | | | |
| | | +75 | 603.99 | | | | | | | | | |
| | | 11 | 605.04 | | | | | | | | | |
| | | +25 | 606.08 | | | | | | | | | |
| | | +50 | 607.12 | | | | | | | | | |
| | | +75 | 608.17 | | | | | | | | | |
| | | 12 | 609.21 | | | | | 12+38.31 END BRIDGE RESUME ROADWAY | | | | |
| | | +25 | 610.25 | | | | | | | | | |
| | | +38.31 | | | | 11.69 | | | 1814 | 785 | | |
| | | +50 | 611.30 | | | 25 | | | 1814 | 1660 | | |
| | | +75 | 612.34 | | 0 | 25 | | | 1762 | 1584 | | |
| | | 13 | 613.38 | 613.42 | + 0.04 | 25 | | | 1660 | 1150 | | |
| | 650' VC | +25 | 614.43 | 614.58 | + 0.15 | | | | 1579 | | | |
| | | | | | | | | CARRIED FORWARD | | 5179 | | |
| | | | | | | | | COLUMN FOOTINGS | 59 | 38631 | | |

# EARTHWORK

| V.C. | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V. CURVES | GRADES CORR. V.C. | DIST. | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU. YDS. | EMBANKMENT AREA | EMBANKMENT CU. YDS. | BASE AREA | BASE CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 13+25 | 614.43 | 614.58 | + 0.15 | 25 | | | 1579 | | | |
| | | +50 | 615.47 | 615.81 | + 0.34 | 50 | | | 1471 | 1412 | C<br>F | 0<br>13356 |
| | +4.173% | 14 | 617.56 | 618.51 | + 0.95 | 50 | | | 1323 | 2587 | ExF | 16695 |
| | | +50 | 619.64 | 621.51 | + 1.87 | 50 | | | 1148 | 2288 | | |
| | | 15 | 621.73 | 624.83 | + 3.10 | 50 | | | 893 | 1890 | | |
| | | +50 | 623.82 | 628.43 | + 4.61 | 50 | | | 493 | 1283 | | |
| | 650' VC | 16 | 625.90 | 632.35 | + 6.45 | 50 | | | 321 | 939 | | |
| | | +50 | 631.96 | 636.57 | + 4.61 | 50 | | | 345 | 802 | | |
| | | 17 | 638.01 | 641.11 | + 3.10 | 50 | 0 | | 254 | 555 | C<br>F | 488<br>4196 |
| | | +50 | 644.07 | 645.94 | + 1.87 | 50 | 19 | 18 | 155 | 379 | ExF | 9757 |
| | | 18 | 650.12 | 651.07 | + 0.95 | 50 | 56 | 69 | 38 | 179 | | |
| | +12.111% | +16 | 652.06 | 652.79 | + 0.73 | 50 | | 131 | | 46 | | |
| | | +50 | 656.18 | 656.52 | + 0.34 | 50 | 85 | | 12 | | | |
| | | 19 | 662.23 | 662.27 | + 0.04 | 50 | 92 | 164 | 1 | 12 | | |
| | | +25 | 665.26 | | 0 | 50 | | 106 | | 1 | | |
| | | +50 | 668.29 | | | | 22 | | 0 | | | |
| | | +73 | 671.07 | | | | BUTT | | | | | |
| | | 20 | | | | | | | | | | |
| | | +50 | | | | | | | | | | |
| | | +92 | | | | | | | | | | |
| | | 21 | | | | | | | | | | |
| | | | | | | | | TOTAL | | 547 | | |
| | | | | | | | | CARRIED FORWARD | | | | |
| | | | | | | | | COLUMN FOOTINGS | 488 | 17552 | | |

# 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 |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

## SUMMARY BY COLUMNS

| SHEET NO. | COL. NO. | 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 STAGE I CONSTRUCTION CONTRACT #1
ST. ALBANS-SWANTON VT #36

PROJECT 1 NO. 89-3 (36)
SHEET 16 OF 298 SHEETS

# EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

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

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | ON V CURVES | CORR V C | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | CU YDS | AREA | CU YDS | EMBANKMENT AREA | CU YDS | BASE AREA | CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TR #25 & 15 RELOCATION | | | | | | | | | | | | |
| | | | | | | | BUTT | | | | | | | |
| | | 0+00 | 573.30 | | | | 18 | | | | | | | |
| | | +50 | 576.15 | | | 50 | 3 | 19 | | | 0 | | | |
| | +5.700% | +75 | 577.58 | 577.58 | - 0.00 | | | 5 | | | | 85 | | |
| 50' VC | | 1 | 579.00 | 578.75 | - 0.25 | | 2 | | | | 92 | | | |
| | | +25 | 579.45 | 579.45 | - 0.00 | | | 19 | | | | 144 | C | 359 |
| | | +50 | 579.89 | | | | 18 | | | | 63 | | F | 1491 |
| | | | | | | | | 21 | | | | 171 | Fac | 1.25 |
| | | 2 | 580.78 | | | | 5 | | | | 122 | | Exf | 1455 |
| | | | | | | | | 43 | | | | 204 | | |
| | | +50 | 581.67 | | | | 41 | | | | 98 | | | |
| | +1.780% | | | | | | | 82 | | | | 170 | | |
| | | 3 | 582.56 | | | | 48 | | | | 86 | | | |
| | | | | | | | | 78 | | | | 168 | | |
| | | +50 | 583.45 | | | | 36 | | | | 95 | | | |
| | | | | | | | | 48 | | | | 173 | | |
| | | 4 | 584.34 | | | | 16 | | | | 92 | | | |
| | | | | | | | | 24 | | | | 180 | | |
| | | +50 | 585.23 | | | | 10 | | | | 102 | | | |
| | | | | | | | | 20 | | | | 156 | | |
| | | 5 | 586.12 | 586.12 | + 0.00 | | 12 | | | | 66 | | | |
| | | | | | | | | 15 | | | | 126 | | |
| | | +50 | 587.01 | 587.09 | + 0.08 | | 4 | | | | 70 | | | |
| | | | | | | | | 8 | | | | 122 | | |
| | | 6 | 587.90 | 588.21 | + 0.31 | | 5 | | | | 62 | | | |
| | | | | | | | | 9 | | | | 136 | C | 98 |
| | | +50 | 589.40 | 589.48 | + 0.08 | | 5 | | | | 85 | | F | 3837 |
| | | | | | | | | 19 | | | | 167 | Fac | 1.25 |
| | | 7+0 | 590.91 | 590.91 | + 0.00 | | 15 | | | | 95 | | ExF | 4698 |
| | | | | | | | | 31 | | | | 247 | | |
| | | +50 | 592.41 | | | | 18 | | | | 172 | | | |
| | | | | | | | | 16 | | | | 372 | | |
| | | 8+0 | 593.92 | | | | 0 | | | | 230 | | | |
| | | | | | | | | | | | | 400 | | |
| | | +50 | 595.42 | | | | | | | | 202 | | | |
| | | | | | | | | | | | | 506 | | |
| | | 9 | 596.93 | | | | | | | | 345 | | | |
| | | | | | | | | | | | | 769 | | |
| | | +50 | 598.43 | | | | | | | | 486 | | | |
| | | | | | | | | | | | | 932 | | |
| | | 10 | 599.94 | | | | | | | | 585 | | | |
| | | | | | | | | | | | | 1066 | | |
| | | +50 | 601.44 | | | | | | | | 566 | | | |
| | | | | | | | | | | | | 1187 | | |
| | | 11 | 602.95 | | | | | | | | 716 | | | |
| | | | | | | | | | | | | 1331 | | |
| | | +50 | 604.45 | | | | | | | | 721 | | | |
| | | | | | | | | | | | | 1253 | C | 0 |
| | | 12 | 605.95 | | | | | | | | 632 | | F | 11,960 |
| | | | | | | | | | | | | 1119 | Fac | 1.25 |
| | | +50 | 607.46 | | | | | | | | 577 | | ExF | 14,925 |
| | | | | | | | | | | | | 1236 | | |
| | | 13 | 608.96 | | | | | | | | 780 | | | |
| | | | | | | | | | | | | 1222 | | |
| | | +50 | 610.47 | 610.47 | 0.00 | 50 | | | | | 540 | | | |
| | | | | | | | | | | | | 1139 | | |
| | | 14 | 611.97 | 611.86 | - 0.11 | 50 | | | | | 690 | | | |
| | | | | | | | | | | | | 611 | | |
| | | +25 | 612.72 | 612.46 | - 0.26 | 25 | | | | | 630 | | | |
| | | | | | | | | | | | | 588 | | |
| | | +50 | 613.48 | 613.02 | - 0.46 | 25 | | | | | 640 | | | |
| | | | | | | | | | | | | 565 | | |
| | | +75 | 614.23 | 613.51 | - 0.72 | 25 | | | | | 580 | | | |
| | | | | | | | | | | | | 530 | | |
| | | 15 | 614.98 | 613.94 | - 1.04 | 25 | | | | | 585 | | | |
| | | +07 | BEGIN BRIDGE | | | 7 | BUTT | | | | | 73 | | |
| | | +25 | 615.73 | 614.31 | - 1.42 | 25 | | | | | | | | |
| | | +50 | 616.49 | 614.63 | - 1.86 | 25 | | | | | | | | |
| | | +75 | 617.24 | 614.89 | - 2.35 | 25 | | | | | | | | |
| | | 16 | 617.99 | 615.09 | - 2.90 | 25 | | | | | | | | |
| | | +25 | 618.74 | 615.24 | - 3.50 | 25 | | | | | | | | |
| | | +50 | 619.49 | 615.31 | - 4.18 | 25 | | | | | | | | |
| | | +75 | 620.25 | 615.35 | - 4.90 | 25 | | | | | | | | |
| 70' VC | | 17 | 621.00 | 615.32 | - 5.62 | 25 | | | | | | | | |
| | | +25 | 620.13 | 615.23 | - 4.90 | 25 | | | | | | | | |
| | | +50 | 619.25 | 615.07 | - 4.18 | 25 | | | | | | | | |
| | -3.400% | +75 | 618.38 | 614.98 | - 3.50 | 25 | | | | | | | | |
| | | 18 | 617.51 | 614.61 | - 2.90 | 25 | | | | | | | | |
| | | +25 | 616.64 | 614.29 | - 2.35 | 25 | | | | | | | | |
| | | CARRIED FORWARD | | | | | 457 | | | | | 17,228 | | |
| | | COLUMN FOOTINGS | | | | | | | | | | | | |

| VC | % GRADE | STATION | GRADES ELEVATION ON TANGENT | ON V CURVES | CORR V C | DIST | TOTAL EXCAVATION EARTH AND ROCK AREA | CU YDS | AREA | CU YDS | EMBANKMENT AREA | CU YDS | BASE AREA | CU YDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 18+25 | 616.64 | 614.29 | - 2.35 | 25 | | | | | | | | |
| | | +50 | 615.76 | 613.90 | - 1.86 | 25 | | | | | | | C | 0 |
| | | +75 | 614.89 | 613.47 | - 1.42 | BUTT | | | | | | | F | 3489 |
| | | +87 | END BRIDGE | | | 13 | | | | | | 221 | Fac | 1.25 |
| | | 19 | 614.02 | 612.98 | - 1.04 | 25 | | | | | 920 | | ExF | 9361 |
| | | | | | | | | | | | | 838 | | |
| | | +25 | 613.15 | 612.43 | - 0.72 | 25 | | | | | 890 | | | |
| | | | | | | | | | | | | 810 | | |
| | | +50 | 612.27 | 611.81 | - 0.46 | 25 | | | | | 860 | | | |
| | | | | | | | | | | | | 805 | | |
| | | +75 | 611.40 | 611.14 | - 0.26 | 25 | | | | | 880 | | | |
| | | 20 | 610.53 | 610.42 | - 0.11 | 25 | 0 | 56 | | | 880 | | | |
| | | | | | | | | | | | | 819 | | |
| | | +25 | 609.60 | 609.62 | - 0.03 | 25 | 120 | 101 | | | 890 | | | |
| | | | | | | | | | | | | 801 | | |
| | | +50 | 608.78 | 608.78 | 0.00 | 25 | 98 | 94 | | | 840 | | | |
| | | | | | | | | | | | | 720 | | |
| | | +75 | 607.91 | | | 25 | 105 | 49 | | | 715 | | | |
| | | 21 | 607.04 | 607.04 | + 0.00 | 25 | 0 | | | | 770 | 687 | | |
| | | | | | | | | | | | | 602 | | |
| | | +25 | 606.16 | 606.19 | + 0.03 | 25 | 0 | | | | 531 | | C | 598 |
| | | | | | | | | | | | | 429 | F | 5156 |
| | | +50 | 605.29 | 605.41 | + 0.12 | 25 | 0 | | | | 395 | | Fac | 1.25 |
| | | | | | | | | | | | | 325 | ExF | 5847 |
| | | +75 | 604.42 | 604.69 | + 0.27 | 25 | 0 | 3 | | | 307 | | | |
| | | 22 | 603.55 | 604.02 | + 0.47 | 25 | 7 | 10 | | | 242 | 254 | | |
| | | | | | | | | | | | | 186 | | |
| | | +25 | 602.67 | 603.41 | + 0.74 | 25 | 22 | 27 | | | 160 | 128 | | |
| | | +50 | 601.80 | 602.86 | + 1.06 | 25 | 36 | 42 | | | 115 | 96 | | |
| | | +75 | 601.63 | 602.37 | + 0.74 | 25 | 54 | 46 | | | 92 | 70 | | |
| | | 23 | 601.47 | 601.94 | + 0.47 | 25 | 46 | 47 | | | 60 | 32 | | |
| | | +50 | 601.13 | 601.25 | + 0.12 | 15 | 55 | 29 | | | 10 | 3 | | |
| | | +65 | 601.03 | 601.09 | + 0.06 | 35 | 50 | 63 | | | 2 | 4 | | |
| | | 24 | 600.80 | 600.80 | + 0.00 | 28 | 47 | 27 | | | 4 | | | |
| | | +28 | | | | | 6 | | | | BUTT | | | |
| | | | | | | | BUTT | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | |

# EARTHWORK

T.R. #14 WEST

| V.C. | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V. CURVES | CORR. V.C. | DIST. | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU. YDS. | | | EMBANKMENT AREA | EMBANKMENT CU. YDS. | BASE AREA | BASE CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
| | | | | | | | TR #14 (WEST) TO BE BUILT IN ITS ENTIRETY DURING STAGE II CONSTRUCTION. | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | 0+11 BEGIN CONSTRUCTION | | | | | | | |
| | | | | | | | | | | | | | | |
| | | 0+00.0= TR 12+00.0 ℄ | 605.97 | | | | | | | | | | | |
| | | 0+11 | 606.55 | | | | 0 | | | | 0 | | | |
| | | | | | | 39 | | 177 | | | | 498 | | |
| | | +50 | 606.21 | | | | #45 | | | | 690 | | | |
| | | | | | | 50 | | 456 | | | | 1298 | | |
| | | 1+00 | 605.63 | | | | 248 | | | | 712 | | | |
| | | | | | | | | 419 | | | | 1300 | | |
| | | +50 | 605.05 | | | | 205 | | | | 692 | | | |
| | | | | | | | | 310 | | | | 1280 | | |
| | | 2+00 | 604.47 | | | | 215 | | | | 690 | | C | 2314 |
| | | | | | | | | | | | | | F | 8152 |
| | | +31.2 | 604.11 | | | | | 356 | | | | 1169 | Fac | 1.25 |
| | | | | | | | | | | | | | ExF | 7876 |
| | | +50 | 603.89 | | | | 170 | | | | 573 | | | |
| | | | | | | | | 243 | | | | 906 | | |
| | | 3+00 | 603.32 | | | | 92 | | | | 405 | | | |
| | | | | | | | | 85 | | | | 611 | | |
| | | +50 | 602.74 | | | | 0 | | | | 255 | | | |
| | | | | | | | | | | | | 421 | | |
| | | 4+00 | 602.16 | | | | 0 | | | | 200 | | | |
| | | | | | | | | 16 | | | | 304 | | |
| | | +50 | 601.58 | 601.58 | 0.00 | | 17 | | | | 128 | | | |
| | | | | | | | | 56 | | | | 191 | | |
| | | 5+00 | 601.00 | 601.39 | + 0.39 | | 44 | | | | 78 | | | |
| | | | | | | 50 | | 92 | | | | 140 | | |
| | | +50 | 602.00 | 602.00 | 0.00 | | 55 | | | | 73 | | | |
| | | | | | | | | 25 | | | | 34 | | |
| | | +75 | | | | 25 BUTT | 0 | | | | 0 | | | |
| | | 5+00 | 603.00 | | | | | | | | | | | |
| | | +50 | 604.00 | | | | 5+50 END CONSTRUCTION | | | | | | | |
| | | 7+00 | | | | | | | | | | | | |
| | | +25 | | | | | | | | | | | | |
| | | +50 | | | | | | | | | | | | |
| | | 8+00 | | | | | | | | | | | | |

COMPUTED +6.250%

-1.157%

VA 0.00%

+2.00%

CARRIED FORWARD COLUMN FOOTINGS 2314 8152

# EARTHWORK

| V.C. | % GRADE | STATION | GRADES ELEVATION ON TANGENT | GRADES ELEVATION ON V. CURVES | CORR. V.C. | DIST. | TOTAL EXCAVATION EARTH AND ROCK AREA | TOTAL EXCAVATION EARTH AND ROCK CU. YDS. | | | EMBANKMENT AREA | EMBANKMENT CU. YDS. | BASE AREA | BASE CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

CARRIED FORWARD COLUMN FOOTINGS

# 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 |
|---|---|---|---|---|---|---|---|---|

SUMMARY BY COLUMNS

| SHEET NO. | COL. NO. | 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 TOWN ROAD 14-WEST ST. ALBANS-SWANTON CONTRACT #1 STAGE I CONSTRUCTION

PROJECT I NO. 89-3(36)

SHEET 18 OF 288 SHEETS

# EARTHWORK

ROUTE 105

| V.C. | % GRADE | STATION | GRADES: ELEVATION ON TANGENT | GRADES: ELEVATION ON V. CURVES | GRADES: CORR. V.C. | DIST. | TOTAL EXCAVATION EARTH AND ROCK: AREA | TOTAL EXCAVATION EARTH AND ROCK: CU. YDS. | AREA | CU. YDS. | EMBANKMENT: AREA | EMBANKMENT: CU. YDS. | BASE: AREA | BASE: CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 0+00 | | | | | | | | | | | | |
| | | +50 | | | | | | VT. 105 TO BE BUILT IN ITS ENTIRETY DURING | | | | | | |
| | | +80 | | | | | | STAGE I CONSTRUCTION | | | | | | |
| | | +86 | | | | | | | | | | | | |
| | | 1+00 | | | | | | | | | | | | |
| | | +50 | | | | | | | | | | | | |
| | | 2 | | | | | | | | | | | C | 265 |
| | | | | | | | | | | | | | F | 368 |
| | | +09 | | | | | | | 3+00 | | | | ExF | 190 |
| | | +50 | | | | | | | BEGIN CONSTRUCTION | | | | | |
| | | 3 | 543.75 | | | | 25 | | | | | | | |
| | | +50 | 542.50 | | | 50 | 80 | 97 | | | | | | |
| | | +82.5 | 541.69 | | | | | 100 | | | 0 | | | |
| | | 4 | 541.25 | 541.25 | 0 | | 28 | | | | 11 | 10 | | |
| | | +13 | 540.93 | 540.93 | - 0.00 | | | | | | | | | |
| | -2.500% | +42.5 | 540.19 | 540.14 | - 0.05 | 50 | | 47 | | | | 78 | | |
| | | +50 | 540.00 | 539.93 | - 0.07 | | 23 | | | | 71 | | | |
| | | 5 | 538.75 | 538.48 | - 0.27 | 50 | 0 | 21 | | | 229 | 278 | | |
| | | +50 | 537.50 | 536.90 | - 0.60 | 50 | | | | | 496 | 671 | | |
| | | | | | | | | | | | | 925 | | |
| | | 6 | 536.25 | 535.18 | - 1.07 | 7.21 | | | | | 503 | 134 | | |
| | | +07.21 | | | | | | | | | 503 | | | |
| | | +25 | 535.63 | 534.28 | - 1.35 | | | | | | | | | |
| | 500' VC | +50 | 535.00 | 533.33 | - 1.67 | | | | | | | | | |
| | | +75 | 533.71 | 532.36 | - 1.35 | | | | | | | | | |
| | | 7 | 532.42 | 531.35 | - 1.07 | | | | | | | | C | 0 |
| | | | | | | | | | | | | | F | 8124 |
| | | +15 | 531.64 | 530.73 | - 0.91 | | | BRIDGE | | | | | ExF | 10155 |
| | | +25 | 531.12 | 530.30 | - 0.82 | | | | | | | | | |
| | | +50 | 529.83 | 529.23 | - 0.60 | | | | | | | | | |
| | | +75 | 528.54 | 528.12 | - 0.42 | | | | | | | | | |
| | | 8 | 527.25 | 526.98 | - 0.47 | | | | | | | | | |
| | | +25 | 525.96 | 525.81 | - 0.15 | | | | | | | | | |
| | | +33.35 | | | | 16.35 | | | | | 1058 | | | |
| | | +35 | 525.44 | 525.33 | - 0.11 | | | | | | | 63 | | |
| | | 8+50 | 524.67 | 524.60 | - 0.07 | | | | | | 1052 | | | |
| | | +75 | 523.37 | 523.35 | - 0.02 | 50 | | | | | | 2001 | | |
| | | 9 | 522.08 | 522.08 | 0 | | | | | | 1109 | | | |
| | | +25 | 520.79 | | | 50 | | | | | | 2106 | | |
| | -5.167% | +50 | 519.50 | | | | | | | | 1166 | | | |
| | | | | | | 50 | | | | | | 2224 | | |
| | | 10 | 516.92 | 516.92 | 0 | | | | | | 1236 | | | |
| | | | | | | | | | | | | 2494 | | |
| | | +50 | 514.33 | 514.49 | + 0.16 | | | | | | 1458 | | | |
| | | +92.4 | 512.14 | 512.68 | + 0.54 | 50 | | | | | | 2645 | | |
| | | 11 | 511.75 | 512.38 | + 0.63 | | | | | | 1399 | | | |
| | | +32 | 510.10 | 511.19 | + 1.09 | 50 | | | | | | 2070 | | |
| | | +50 | 509.17 | 510.58 | + 1.41 | | | | | | 837 | | | |
| | | | | | | 50 | | | | | | 1370 | | |
| | | 12 | 506.58 | 509.09 | + 2.51 | | | | | | 643 | | | |
| | 500' VC | | | | | 50 | | | | | | 878 | | |
| | | +50 | 504.00 | 507.92 | + 3.92 | | | | | | 305 | | | |
| | +1.100% | +73 | 504.25 | 507.48 | + 3.23 | 50 | | | | | | 452 | | |
| | | 13 | 504.55 | 507.06 | + 2.51 | | 0 | | | | 183 | | | |
| | | | CARRIED FORWARD | | | | | | | | | 9909 | | |
| | | | COLUMN FOOTINGS | | | | | 265 | | | | 18397 | | |

# EARTHWORK

| V.C. | % GRADE | STATION | GRADES: ELEVATION ON TANGENT | GRADES: ELEVATION ON V. CURVES | GRADES: CORR. V.C. | DIST. | TOTAL EXCAVATION EARTH AND ROCK: AREA | TOTAL EXCAVATION EARTH AND ROCK: CU. YDS. | AREA | CU. YDS. | EMBANKMENT: AREA | EMBANKMENT: CU. YDS. | BASE: AREA | BASE: CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 13+00 | 504.55 | 507.06 | + 2.51 | 50 | 0 | 43 | | | 183 | | | |
| | | +50 | 505.10 | 506.51 | + 1.41 | | 46 | | | | 33 | 200 | C | 457 |
| | | | | | | 50 | | 114 | | | | 42 | F | 10,172 |
| | | 14 | 505.65 | 506.28 | + 0.63 | | 77 | | | | 12 | | ExF | 12,258 |
| | | | | | | 50 | | 176 | | | | 16 | | |
| | | +50 | 506.20 | 506.36 | + 0.16 | | 113 | | | | 5 | | | |
| | 500' VC | | | | | 50 | | 124 | | | | 5 | | |
| | +1.100% | 15 | 506.75 | 506.75 | 0 | | 21 | | | | 0 | | | |
| | | +50 | | | | | | | | | | | | |
| | | 16 | | | | | | | 15+00 | | | | | |
| | | +37 | | | | | | | END CONSTR. | | | | | |
| | | +50 | | | | | | | | | | | | |
| | | 17 | | | | | | | | | | | | |
| | | +50 | | | | | | | | | | | | |
| | | 18 | | | | | | | | | | | | |
| | | | CARRIED FORWARD | | | | | | | | | | | |
| | | | COLUMN FOOTINGS | | | | | 457 | | | | 263 | | |

# 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 |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

SUMMARY BY COLUMNS

| SHEET NO. | COL. NO. | 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 STAGE I CONSTRUCTION CONTRACT #1
ST. ALBANS-SWANTON

PROJECT 1 NO. 09-3(36)
SHEET 19 OF 298 SHEETS

# EARTHWORK SUMMARY

## 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 |
|---|---|---|---|---|---|---|---|---|
| NB3444+00 | 3450+00 | 363 | | 3,530 | | 4,050 | | 4,050 |
| SB3444+00 | 3450+00 | 266 | | 2,175 | | 2,453 | | 6,503 |
| NB3450+00 | 3455+00 | 113 | | 2,733 | | 3,303 | | 9,806 |
| SB3450+00 | 3455+00 | 132 | | 1,778 | | 2,091 | | 11,897 |
| NB3455+00 | 3460+00 | 4,241 | | 71 | 4,152 | | | 7,745 |
| SB3455+00 | 3460+00 | 3,270 | | 25 | 3,239 | | | 4,506 |
| NB3460+00 | 3465+00 | 62 | | 3,292 | | 4,053 | | 8,559 |
| SB3460+00 | 3465+00 | 14 | | 3,003 | | 3,740 | | 12,299 |
| NB3465+00 | 3470+00 | 134 | | 3,726 | | 4,524 | | 16,823 |
| SB3465+00 | 3470+00 | 2 | | 4,286 | | 5,356 | | 22,179 |
| NB 3470+00 | 3475+00 | 14 | | 7,109 | | 8,872 | | 31,051 |
| SB3470+00 | 3475+00 | | | 9,411 | | 11,764 | | 42,815 |
| NB3475+00 | 3480+00 | 3,233 | 54 | 1,987 | 790 | | | 42,025 |
| SB3475+00 | 3480+00 | 50 | | 6,108 | | 7,583 | | 49,608 |
| NB3480+00 | 3485+00 | 10,378 | 1,149 | 124 | 11,085 | | | 38,523 |
| SB3480+00 | 3485+00 | 1,191 | | 2,848 | | 2,419 | | 40,942 |
| NB3485+00 | 3490+00 | 2,929 | | 977 | 1,708 | | | 39,236 |
| SB3485+00 | 3490+00 | 3,312 | | 987 | 2,078 | | | 37,156 |
| NB3490+00 | 3495+00 | 23,274 | | | 23,274 | | | 13,882 |
| SB3490+00 | 3495+00 | 22,790 | | | 22,790 | | 8,908 | |
| NB3495+00 | 3500+00 | 5,417 | | 3,134 | 1,499 | | 10,407 | |
| SB3495+00 | 3500+00 | 5,311 | | 3,639 | 762 | | 11,168 | |
| NB3500+00 | 3505+00 | | | 9,033 | | 11,291 | | 122 |
| SB3500+00 | 3505+00 | | | 10,159 | | 12,699 | | 12,821 |
| NB3505+00 | 3510+00 | | | 14,962 | | 18,703 | | 31,524 |
| SB3505+00 | 3510+00 | | | 13,336 | | 16,670 | | 48,194 |
| NB3510+00 | 3515+00 | 64 | | 6,412 | | 7,351 | | 48,105 |
| SB3510+00 | 3515+00 | 487 | | 2,694 | | 2,861 | | 53,026 |
| NB3515+00 | 3520+00 | 145 | | 2,989 | | 3,591 | | 62,617 |
| SB3515+00 | 3520+00 | 1,320 | | 643 | 516 | | | 62,101 |
| NB3520+00 | 3525+00 | | | 9,883 | | 12,384 | | 74,455 |
| SB3520+00 | 3525+00 | 43 | | 5,072 | | 6,297 | | 80,752 |
| NB3525+00 | 3530+00 | | | 8,67 | | 10,848 | | 91,600 |
| SB3525+00 | 3530+00 | 15 | | 5,5 | | 6,898 | | 98,498 |
| NB3530+00 | 3535+00 | | | 5,010 | | 6,263 | | 104,761 |
| SB3530+00 | 3535+00 | 398 | | 3,742 | | 4,280 | | 109,041 |
| NB3535+00 | 3540+00 | | | 5,873 | | 7,341 | | 116,382 |
| SB3535+00 | 3540+00 | 376 | | 4,154 | | 4,817 | | 121,199 |
| NB3540+00 | 3545+00 | 12,351 | 22 | 142 | 12,190 | | | 109,009 |
| SB3540+00 | 3545+00 | 15,876 | 20 | 13 | 15,875 | | | 93,134 |
| NB3545+00 | 3550+00 | 13,691 | | | 13,691 | | | 79,443 |
| SB3545+00 | 3550+00 | 17,340 | 104 | | 17,418 | | | 62,025 |
| NB3550+00 | 3555+00 | 913 | | 872 | | 177 | | 62,202 |
| SB3550+00 | 3555+00 | 923 | | 959 | | 276 | | 62,478 |
| NB3555+00 | 3560+00 | | | 7,675 | | 9,844 | | 72,322 |
| SB3555+00 | 3560+00 | | | 6,935 | | 8,669 | | 80,994 |
| NB3560+00 | 3565+00 | | | 11,536 | | 14,420 | | 95,418 |
| SB3560+00 | 3565+00 | | | 8,083 | | 10,104 | | 105,519 |
| NB3565+00 | 3570+00 | | | 11,655 | | 14,569 | | 120,088 |
| SB3565+00 | 3570+00 | | | 8,399 | | 10,499 | | 130,587 |
| NB3570+00 | 3575+00 | | | 12,535 | | 15,669 | | 146,252 |
| SB3570+00 | 3575+00 | | | 7,921 | | 9,901 | | 156,153 |
| NB3575+00 | 3580+00 | | | 22,867 | | 28,584 | | 184,737 |
| SB3575+00 | 3580+00 | | | 21,810 | | 27,263 | | 212,000 |
| NB3580+00 | 3585+00 | | | 30,932 | | 38,665 | | 250,665 |
| SB3580+00 | 3585+00 | | | 26,961 | | 33,701 | | 284,366 |
| NB3585+00 | 3590+00 | | | 16,984 | | 58,750 | | 343,096 |
| SB3585+00 | 3590+00 | | | 43,829 | | 54,786 | | 397,882 |
| NB3590+00 | 3595+00 | | | 37,053 | | 46,319 | | 444,201 |
| SB3590+00 | 3595+00 | | | 35,341 | | 44,801 | | 489,002 |
| COLUMN FOOTINGS CARRIED FORWARD | | 150,388 | 1349 | 512,315 | 131,067 | 620,069 | | |

## 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 |
|---|---|---|---|---|---|---|---|---|
| *Brought Forward* | | *150,388* | *1349* | *512,315* | *131,067* | *620,069* | | |
| NB 3595+00 | 3600+00 | | | 19,814 | | 24,768 | | 513,770 |
| SB3595+00 | 3600+00 | | | 18,423 | | 23,029 | | 536,799 |
| NB 3600+00 | 3605+00 | 24 | | 12,364 | | 15,431 | | 552,230 |
| SB 3600+00 | 3605+00 | 252 | | 10,468 | | 12,833 | | 565,063 |
| NB 3605+00 | 3610+00 | 20,487 | | 6 | 20,479 | | | 544,584 |
| SB 3605+00 | 3610+00 | 20,720 | | | 20,720 | | | 523,864 |
| NB 3610+00 | 3615+00 | 15,159 | | 99 | 15,035 | | | 508,829 |
| SB 3610+00 | 3615+00 | 12,874 | | 173 | 12,658 | | | 496,171 |
| NB 3615+00 | 3620+00 | 4 | | 7,059 | | 8,820 | | 504,991 |
| SB 3615+00 | 3620+00 | | | 5,620 | | 7,025 | | 512,016 |
| *Main Line Totals* | | *219,908* | *1349* | *586,541* | | | | |
| SIDELINES | | | | | | | | |
| VT. #36 | | | | | | | | |
| 0+00 | 5+00 | 59 | | 2,496 | | 3,061 | | 3,061 |
| 5+00 | 10+00 | | | *25,777* | | *32221* | | *35,282* |
| 10+00 | 15+00 | | | *13,356* | | *16,695* | | *51,977* |
| 15+00 | 20+00 | *428* | | 4,196 | | 4,757 | | *56,734* |
| SUB-TOTAL | | 547 | | 45,825 | | | | |
| TOWN ROAD 25-15 | | | | | | | | |
| 0+00 | 5+00 | 359 | | 1,451 | | 1,455 | | 1,455 |
| 5+00 | 10+00 | 98 | | 3,837 | | 4,698 | | 6,153 |
| 10+00 | 15+00 | | | 11,940 | | 14,925 | | 21,078 |
| 15+00 | 20+00 | | | 3,489 | | 4,361 | | 25,439 |
| 20+00 | 24+28 | 598 | | 5,156 | | 5,847 | | 31,286 |
| TOWN ROAD 14-EAST | | 5,571 | | 718 | 4,673 | | | 26,613 |
| TOWN ROAD 18-WEST | | 2,311 | | 2,152 | | 7,876 | | 34,489 |
| *Sub-Total* | | *8,940* | | *34,748* | | | | |
| VT. #105 | | | | | | | | |
| 2+50 | 5+00 | 265 | | 364 | | 190 | | 190 |
| 5+00 | 10+00 | | | 8,124 | | 10,155 | | 10,345 |
| 10+00 | 15+00 | 457 | | 10,172 | | 12,258 | | 22,603 |
| SUBTOTAL | | 722 | | 10,660 | | | | |
| GRAND TOTAL (Side Lines) | | 10,209 | | 79,228 | 4673 | 113826 | | |
| *Grand Total (M.L.& Side Lines)* | | *230,117* | *1349* | *685569* | | | | *625,842* |

# SUMMARY BY COLUMNS

| SHEET NO. | COL. NO. | EXCAVATION TOTAL CU YDS | EXCAVATION ROCK CU YDS | EMBANKMENT CUBIC YARDS |
|---|---|---|---|---|

## REMARKS

| | | |
|---|---|---|
| EARTH AND ROCK EXCAVATION | | 230,117 |
| SOLID ROCK EXCAVATION | | 1,349 |
| EARTH EXCAVATION | | 228,768 |
| PLANIMETERED FILL | | 685,569 |
| LESS FACTORED SOLID ROCK | 1.4 | 1,889 |
| LESS DISPLACEMENT OF ANY LARGE STRUCTURES | | |
| NET PLANIMETERED FILL | | 683,680 |
| FACTOR | 1.25 | |
| PLANIMETERED FILL INCLUDING FACTOR | | 854,600 |
| MATERIALS AVAILABLE FOR FILLS | | |
| EARTH EXCAVATION | | 228,768 |
| CHANNEL EXCAVATION | 60% | 1,020 |
| UNDERDRAIN EXCAVATION | 60% | 712 |
| STRUCTURE EXCAVATION | 40% | 480 |
| GRANULAR BORROW | | 76,000 |
| TOTAL MATERIAL AVAILABLE FOR FILL | | 306,980 |
| TOTAL FILL INCLUDING FACTOR | | 854,600 |
| TOTAL MATERIAL FOR FILL | | 306,980 |
| BORROW | | 547,620 |

PROJECT ST. ALBANS-SWANTON I 89-3(36) NO.

# FINAL EARTHWORK SHEET

NORTHBOUND

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | EXCESS AREA | EXCESS CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3443 | | - | | | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | |
| +50 | | 0 | | | | 0 | | | | C - 0 | | | | | |
| 3444 | | 4 | 41 | | | 116 | 107 | | | F - 615 | | | | | |
| | | | | | | 100 | 200 | | | | | | | | |
| +50 | | 0 | 4 | | | 220 | 308 | | | | | | | | |
| 3445 | | | | | | | | | | | | | | | |
| +50 | | | | | | 209 | 502 | | | | | | | | |
| 3446 | | | | | | 208 | 567 | | | C - 278 | | | | | |
| | | | | | | | | | | F - 2887 | | | | | |
| +25 | | | | | | 228 | 538 | | | | | | | | |
| 3447 | | | | | | 240 | 368 | | | | | | | | |
| +50 | | 0 | | | | 158 | 200 | | | | | | | | |
| 3448 | | 8 | 72 | | | 68 | 80 | | | | | | | | |
| +50 | | 26 | 41 | | | 21 | 21 | | | | | | | | |
| 3449 | | 58 | 82 | | | 8 | 6 | | | | | | | | |
| +50 | | 48 | 84 | | | 6 | 30 | | | | | | | | |
| 3450 | | 31 | 53 | | | 80 | 129 | | | | | | | | |
| +50 | | 5 | 20 | | | 109 | 221 | | | | | | | | |
| 3451 | | 9 | 74 | | | 180 | 217 | | | C - 397 | | | | | |
| | | | | | | | | | | F - 2748 | | | | | |
| +50 | | 3 | 8 | | | 104 | 162 | | | | | | | | |
| 3452 | | 18 | 19 | | | 78 | 176 | | | | | | | | |
| +50 | | 7 | 23 | | | 80 | 214 | | | | | | | | |
| 3453 | | 81 | 54 | | | 186 | 422 | | | | | | | | |
| +50 | | 17 | 67 | | | 276 | 554 | | | | | | | | |
| 3454 | | 0 | 16 | | | 827 | 467 | | | | | | | | |
| +50 | | 25 | 38 | | | 177 | 170 | | | | | | | | |
| 3455 | | 160 | 165 | | | 18 | 14 | | | | | | | | |
| +50 | | 344 | 507 | | | 0 | | | | C - 5213 | | | | 5TH. 3455+00 TO 3460+00 SEE SB SHEET | |
| 3456 | | 500 | 628 | | | | | | | F - 77 | | | | | |
| +50 | | 450 | 888 | | | | | | | | | | | | |
| 3457 | | 288 | 670 | | | | | | | | | | | | |
| +50 | | 330 | 589 | | | | | | | | | | | | |
| 3458 | | 288 | 578 | | | | | | | | | | | | |
| +50 | | 240 | 373 | | | | | | | | | | | | |
| 3459 | | 168 | 225 | | | 0 | | | | | | | | | |
| +50 | | 82 | 89 | | | 68 | 63 | | | | | | | | |
| 3460 | | 9 | 19 | | | 96 | 152 | | | | | | | | |
| +50 | 51 | 5 | 3 | | | 144 | 222 | | | C - 127 | | | | | |
| 3461 | | 0 | | | | 136 | 236 | | | F - 3174 | | | | | |
| 3461+89 = 3462+68.89 | 50 | | | | | | 343 | | | | | | | | |
| 3462 | | | | | | 176 | 338 | | | | | | | | |
| +50 | | | | | | 170 | 350 | | | | | | | | |
| 3463 | | | | | | 186 | 362 | | | | | | | | |
| +50 | | 0 | | | | 210 | 380 | | | | | | | | |
| 3464 | | 37 | 34 | | | 200 | 438 | | | | | | | | |
| +50 | | 17 | 50 | | | 209 | 396 | | | | | | | | |
| 3465 | 50 | 10 | 29 | | | 152 | | | | | | | | | |
| CARRIED FORWARD | | | 0 | | | | 0 | | | | | | | | |
| COLUMN TOTAL | | | 6023 | | | | 9441 | | | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | OVER BREAK AREA | OVER BREAK CU. YDS. | 10 % AREA | 10 % CU. YDS. | ROCK BORROW AREA | ROCK BORROW CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3466 | | 10 | 42 | | | 152 | 320 | | | | | | | | |
| +50 | 50 | 35 | | | | 198 | | | | | | | | | |
| 3466 | | 4 | 36 | | | 188 | 313 | | | | | C - 324 | | | |
| +50 | | 8 | 0 | | | 189 | 263 | | | | | F - 3438 | | | |
| 3467 | | 32 | 32 | | | 116 | 236 | | | | | | | | |
| +50 | | 32 | 54 | | | 151 | 247 | | | | | | | | |
| 3468 | | 28 | 70 | | | 186 | 266 | | | | | | | | |
| +50 | | 21 | 60 | | | 167 | 284 | | | | | | | | |
| 3469 | | 0 | 19 | | | 826 | 457 | | | | | | | | |
| +50 | | 0 | 0 | | | 890 | 565 | | | | | | | | |
| 3470 | | 0 | 0 | | | 867 | 497 | | | | | | | | |
| +50 | | 0 | 0 | | | 206 | 419 | | | | | | | | |
| 3471 | | 0 | 0 | | | 274 | 444 | | | | | C - 41 | | | |
| +50 | | 0 | 0 | | | 570 | 596 | | | | | F - 7005 | | | |
| 3472 | | 0 | 0 | | | 767 | 767 | | | | | | | | |
| +50 | | 0 | 0 | | | 668 | 868 | | | | | | | | |
| 3473 | | 0 | 0 | | | 477 | 925 | | | | | | | | |
| +50 | | 0 | 0 | | | 522 | 937 | | | | | | | | |
| 3474 | | 0 | 0 | | | 490 | 822 | | | | | | | | |
| +50 | | 0 | 0 | | | 828 | 657 | | | | | | | | |
| 3475 | | 0 | 0 | | | 812 | 512 | | | | | | | | |
| +50 | | 17 | 16 | | | 306 | 532 | | | | | | | | |
| 3476 | | 10 | 17 | | | 269 | 392 | | | | | | | | |
| +50 | | 8 | 25 | | | 154 | 251 | | | | | C - 3077 | | | |
| 3476 | | 19 | 112 | | | 117 | 255 | | | | | F - 1886 | | | |
| +50 | | 102 | 170 | | | 158 | 238 | | | | | R - 56 | | | |
| 3477 | | 82 | 190 | | | 97 | 179 | | | | | RB 134 | | | |
| +50 | | 135 | 259 | | | 64 | 65 | | | | | 10% 6 | | | |
| 3478 | | 157 | 372 | | | 6 | 6 | | | | | 08 148 | | | |
| +50 | | 248 | 550 | | | 0 | | | | | | | | | |
| 3479 | | 353 | 711 | | | | | | | | | | | | |
| +50 | | 405 | 662 | 0 | 36 | | | 0 | | | | | | | |
| 3480 | | 300 | 719 | 60 | 321 | | | 151 | 440 | 6 | | 134 | | C + 9567 | |
| +50 | | 476 | 718 | 287 | 671 | | | 55 | 191 | 32 | | 159 | | F + 2961 | |
| 3481 | | 519 | 1005 | 457 | 927 | | | 0 | 51 | 51 | | 0 | | 10% 648 | |
| +50 | | 570 | 1326 | 542 | 930 | | | 84 | 75 | 75 | | 0 | | 08 - 836 | |
| 3482 | | 862 | 1534 | 462 | 850 | | | 131 | 196 | 93 | | 103 | | R - 6899 | |
| +50 | | 796 | 1592 | 463 | 959 | | | 135 | 246 | 86 | | 160 | | 08 1538 | |
| 3483 | | 702 | 1216 | 568 | 998 | | | 163 | 267 | 96 | | 171 | | | |
| +50 | | 600 | 898 | 510 | 780 | | | 118 | 251 | 100 | | 151 | | | |
| 3484 | | 361 | 439 | 332 | 374 | 0 | 30 | 82 | 186 | 78 | | 103 | | | |
| +50 | | 106 | 142 | 78 | 67 | 32 | 266 | 0 | 76 | 37 | | 39 | | | |
| 3485 | | 47 | 44 | 0 | | 265 | 392 | | | | | | | | |
| +50 | | 0 | 0 | | | 168 | 214 | | | | | | | | |
| 3486 | | 0 | 0 | | | 94 | 268 | | | | | | | | |
| +50 | | 0 | 0 | | | 190 | 215 | | | | | | | | |
| 3487 | | 0 | | | | 42 | | | | | | | | | |
| CARRIED FORWARD | | | 6023 | | 0 | | 9441 | | 0 | | 0 | | 0 | | |
| COLUMN TOTAL | | | 18063 | | 6955 | | 15747 | | 1678 | | 654 | | 1020 | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 50 | | | | | | | | | | | | | | |
| 3487 | | 0 | 0 | | | 42 | | | | | | | | | |
| +50 | | 0 | 0 | | | 78 | | | | | | | | | |
| 3488 | | 0 | 269 | | | 18 | 17 | | | C - 2256 | | | | | |
| +50 | | 270 | 776 | | | 0 | 97 | | | F - 1328 | | | | | |
| 3489 | | 224 | 572 | | | 27 | 26 | | | | | | | 5TH. 3488+50 TO 3497+00 SEE SB SHEET | |
| +50 | | 215 | 894 | | | 6 | | | | | | | | | |
| 3490 | | 578 | 1344 | | | | | | | | | | | | |
| +50 | | 382 | 1775 | | | | | | | | | | | | |
| 3491 | | 1035 | 2017 | | | | | | | C - 22487 | | | | | |
| +50 | | 1230 | 2435 | | | | | | | | | | | | |
| 3492 | | 1400 | 2662 | | | | | | | | | | | | |
| +50 | | 1475 | 2658 | | | | | | | | | | | | |
| 3493 | | 1387 | 2588 | | | | | | | | | | | | |
| +50 | | 1405 | 2788 | | | | | | | | | | | | |
| 3494 | | 1284 | 2298 | | | | | | | | | | | | |
| +50 | | 1198 | 2102 | | | | | | | | | | | | |
| 3495 | | 1052 | 1674 | | | | | | | | | | | | |
| +50 | | 762 | 1282 | | | | | | | | | | | | |
| 3496 | | 627 | 919 | | | | | | | C - 4669 | | | | | |
| +50 | | 369 | 502 | | | | | | | F - 5619 | | | | | |
| 3497 | | 177 | 164 | | | 8 | 269 | | | | | | | | |
| +50 | | 8 | | | | 390 | 763 | | | | | | | | |
| 3498 | | | | | | 534 | 1129 | | | | | | | | |
| +50 | | | | | | 685 | 1184 | | | | | | | | |
| 3499 | | | | | | 594 | 1113 | | | | | | | | |
| +50 | | | | | | 658 | 1155 | | | | | | | | |
| 3500 | | | | | | 690 | 1260 | | | | | | | | |
| +50 | | | | | | 721 | 1454 | | | | | | | | |
| 3501 | | 8 | 6 | | | 846 | 1496 | | | F - 1551 | | | | | |
| +50 | | A | 33 | | | 770 | 1435 | | | C - 327 | | | | | |
| 3502 | | 29 | 41 | | | 780 | 1430 | | | | | | | | |
| +50 | | 15 | 48 | | | 765 | 1479 | | | | | | | | |
| 3503 | | 38 | 77 | | | 832 | 1640 | | | | | | | | |
| +50 | | 47 | 44 | | | 946 | 1866 | | | | | | | | |
| 3504 | | 6 | 0 | | | 1069 | 1786 | | | | | | | | |
| +50 | | 21 | 19 | | | 864 | 1668 | | | | | | | | |
| 3505 | | 37 | 56 | | | 932 | 1682 | | | | | | | | |
| +50 | | 8 | 36 | | | 885 | 1347 | | | | | | | 5TH. 3505+00 TO 3515+00 SEE SB SHEET | |
| 3506 | | 10 | 0 | | | 570 | 1387 | | | | | | | | |
| +50 | | 45 | 42 | | | 928 | 1794 | | | | | | | | |
| 3507 | | 26 | 60 | | | 955 | 1732 | | | | | | | | |
| +50 | | 31 | 53 | | | 915 | 1697 | | | | | | | | |
| 3508 | 50 | 45 | 78 | | | 917 | | | | | | | | | |
| CARRIED FORWARD | | | 19076 | | | | 29188 | | | | | | | | |
| COLUMN TOTAL | | | 29812 | | | | 30920 | | | | | | | | |

PROJECT ST. ALBANS - BURLINGTON

PROJECT F NO. BF-2(16)C1

SHEET 1 OF 9

DEP-DLH 8-8-67

# FINAL EARTHWORK SHEET

NORTH BOUND

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | | | | | NB + SB TOP SOIL STRIPPING AREA | NB + SB TOP SOIL STRIPPING CU. YDS. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3508 | 50 | 45 | | | | 917 | 1663 | | | | | STR. 3505+50 TO 3515+00 SEE STR. SHEET | | | |
| | +50 | 20 | 60 | | | 879 | | | | | | | | | |
| 3509 | | 10 | 17 | | | 886 | 1634 | F-16022 | | | | | | | |
| | +50 | 11 | 10 | | | 845 | 1603 | C- 366 | | | | | | | |
| 3510 | | 0 | | | | 784 | 1508 | | | | | | | | |
| | +50 | | | | | 704 | 1378 | | | | | | | | |
| 3511 | | | | | | 587 | 1195 | | | | | | | | |
| | +50 | | | | | 489 | 996 | | | | | | | | |
| 3512 | | 2 | 2 | | | 364 | 790 | F-8133 | | | | | | | |
| | +50 | 2 | 6 | | | 250 | 567 | C-40 | | | | | | | |
| 3513 | | 4 | 9 | | | 150 | 370 | | | | | | | | |
| | +50 | 6 | 9 | | | 85 | 327 | | | | | | | | |
| 3514 | | 4 | 6 | | | 116 | 175 | | | | | | | | |
| | +50 | 3 | 8 | | | 105 | 205 | | | | | | | | |
| 3515 | | 6 | 19 | | | 120 | 208 | | | | | | | | |
| | +50 | 14 | 29 | | | 80 | 185 | | | | | | | | |
| 3516 | | 12 | 26 | | | 93 | 160 | | | | | | | | |
| | +50 | 11 | 23 | | | 76 | 156 | | | | | | | | |
| 3517 | | 14 | 18 | | | 78 | 193 | F-2938 | | | | | | | |
| | +50 | 5 | 7 | | | 100 | 165 | C-127 | | | | | | | |
| 3518 | | 3 | 4 | | | 144 | 226 | | | | | | | | |
| | +50 | 1 | 1 | | | 185 | 305 | | | | | | | | |
| 3519 | | 0 | | | | 288 | 438 | | | | | | | | |
| | +50 | | | | | 320 | 562 | | | | | | | | |
| 3520 | | | | | | 325 | 597 | | | | | | | | |
| | +50 | | | | | 390 | 662 | | | | | | | | |
| 3521 | | | | | | 500 | 827 | | | | | | | | |
| | +50 | | | | | 487 | 917 | | | | | | | | |
| 3522 | | | | | | 523 | 935 | F-9281 ✓ | | | | | | | |
| | +50 | | | | | 427 | 948 | | | | | | | | |
| 3523 | | | | | | 510 | 932 | | | | | | | | |
| | +50 | | | | | 517 | 951 | | | | | | | | |
| 3524 | | | | | | 601 | 1036 | | | | | | | | |
| | +50 | | | | | 548 | 1064 | | | | | | | | |
| 3525 | | | | | | 551 | 1018 | | | | | | | | |
| | +50 | | | | | 563 | 1032 | | | | | | | | |
| 3526 | | | | | | 482 | 968 | | | | | | | | |
| | +50 | | | | | 430 | 844 | | | | | | | | |
| 3527 | | | | | | 350 | 759 | F-8157 ✓ | | | | | | | |
| | +50 | | | | | 358 | 693 | | | | | | | | |
| 3528 | | | | | | 438 | 737 | | | | | | | | |
| | +50 | | | | | 463 | 880 | | | | | | | | |
| 3529 | | | | | | 457 | 852 | | | | | | | | |
| | +50 | | | | | 379 | 771 | | | | | | | | |
| 3530 | | | | | | 338 | 661 | | | | | | | | |
| | 50 | | | | | | | | | | | | | | |
| CARRIED FORWARD | | 49888 | | | | 54108 | | | | | | | | | |
| COLUMN TOTAL | | 266 | | | | 32917 | | | | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | | | | | NB + SB TOP SOIL STRIPPING AREA | NB + SB TOP SOIL STRIPPING CU. YDS. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3530 | 50 | | | | | 338 | 681 | | | | | | | | |
| +50 | | | | | | 365 | 652 | | | | | | | | |
| 3531 | | | | | | 339 | 619 | | | | | | | | |
| +50 | | | | | | 329 | 555 | | | | | | | | |
| 3532 | | | | | | 270 | 478 | F-11904 | | | | | | | |
| +50 | | | | | | 246 | 411 | | | | | | | | |
| 3533 | | | | | | 178 | 393 | | | | | | | | |
| +50 | | | | | | 226 | 367 | | | | | | | | |
| 3534 | | | | | | 173 | 349 | | | | | | | | |
| +50 | | | | | | 204 | 427 | | | | | | | | |
| 3535 | | | | | | 257 | 502 | | | | | | | | |
| +50 | | | | | | 285 | 567 | | | | | | | | |
| 3536 | | | | | | 327 | 599 | | | | | | | | |
| +50 | | | | | | 309 | 599 | F-5784 | | | | | | | |
| 3537 | | | | | | 338 | 630 | C-7 | | | | | | | |
| +50 | | | | | | 332 | 624 | | | | | | | | |
| 3538 | | | | | | 342 | 706 | | | | | | | | |
| +50 | | | | | | 420 | 673 | | | | | | | | |
| 3539 | | | | | | 306 | 539 | | | | | | | | |
| +50 | | 0 | | | | 265 | 376 | | | | | | | | |
| 3540 | | 8 | 7 | | | 141 | 144 | F-158 ✓ | | | | | | | |
| +50 | | 67 | 69 | | | 151 | 14 | C-12309 | | | | STR. 3540+00 TO 3551+00 SEE STR. SHEET | | | |
| 3541 | | 305 | 341 | | | 0 | | | | | | | | | |
| +50 | | 332 | 570 | | | | | | | | | | | | |
| 3542 | | 622 | 885 | | | | | | | | | | | | |
| +50 | | 800 | 1316 | | | | | | | | | | | | |
| 3543 | | 913 | 1586 | | | | | | | | | | | | |
| +50 | | 970 | 1744 | | | | | | | | | | | | |
| 3544 | | 1022 | 1849 | | | | | | | | | | | | |
| +50 | | 1098 | 1757 | | | | | | | | | | | | |
| 3545 | | 1043 | 1976 | | | | | | | | | | | | |
| +50 | | 387 | 1880 | | | | | | | | | | | | |
| 3546 | | 906 | 1759 | | | | | C-13022 | | | | | | | |
| +50 | | 804 | 1583 | | | | | | | | | | | | |
| 3547 | | 897 | 1575 | | | | | | | | | | | | |
| +50 | | 682 | 1467 | | | | | | | | | | | | |
| 3548 | | 685 | 1271 | | | | | | | | | | | | |
| +50 | | 676 | 1260 | | | | | | | | | | | | |
| 3549 | | 480 | 1071 | | | | | | | | | | | | |
| +50 | | 259 | 883 | | | | | | | | | | | | |
| 3550 | | 258 | 479 | | | | | | | | | | | | |
| +50 | | 194 | 417 | | | | | | | | | | | | |
| 3551 | | 92 | 267 | | | | | | | | | | | | |
| +50 | | 67 | 147 | | | 0 | | | | | | | | | |
| 3552 | 50 | 15 | 76 | | | 8 | 7 | | | | | | | | |
| CARRIED FORWARD | | 49154 | | | | 87025 | | | | | | | | | |
| COLUMN TOTAL | | 8640 | | | | 10853 | | | | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3552 | 50 | 15 | 14 | | | 8 | 34 | | | | | | | | |
| +50 | | 0 | 0 | | | 27 | 71 | F- 685 ✓ | | | | | | | |
| 3553 | | 0 | 0 | | | 48 | 79 | C- 916 | | | | | | | |
| +50 | | 0 | 0 | | | 37 | 62 | | | | | | | | |
| 3554 | | 0 | 0 | | | 30 | 138 | | | | | | | | |
| +50 | | 0 | 0 | | | 119 | 244 | | | | | | | | |
| 3555 | | 0 | 0 | | | 198 | 470 | | | | | | | | |
| +50 | | | | | | 310 | 674 | | | | | | | | |
| 3556 | | | | | | 391 | 746 | | | | | | | | |
| +50 | | | | | | 445 | 830 | | | | | | | | |
| 3557 | | 0 | 15 | | | 471 | 859 | F- 7965 ✓ | | | | | | | |
| +50 | | 16 | 16 | | | 451 | 850 | C- 30 | | | | | | | |
| 3558 | | 0 | | | | 468 | 861 | | | | | | | | |
| +50 | | | | | | 463 | 866 | | | | | | | | |
| 3559 | | | | | | 472 | 909 | | | | | | | | |
| +50 | | | | | | 570 | 940 | | | | | | | | |
| 3560 | | | | | | 505 | 1002 | | | | | | | | |
| +50 | | | | | | 584 | 1060 | | | | | | | | |
| 3561 | | | | | | 560 | 1051 | | | | | | | | |
| +50 | | | | | | 575 | 1106 | F- 11371 ✓ | | | | | | | |
| 3562 | | | | | | 617 | 1170 | | | | | | | | |
| +50 | | | | | | 645 | 1215 | | | | | | | | |
| 3563 | | | | | | 667 | 1219 | | | | | | | | |
| +50 | | | | | | 644 | 1251 | | | | | | | | 1 |
| 3564 | | | | | | 704 | 1210 | | | | | | | | |
| +50 | | | | | | 600 | 1086 | | | | | | | | |
| 3565 | | | | | | 572 | 1062 | | | | | | | | |
| +50 | | | | | | 575 | 1076 | | | | | | | | |
| 3566 | | | | | | 587 | 1075 | | | | | | | | |
| +50 | | | | | | 595 | 1034 | F 11481 ✓ | | | | | | | |
| 3567 | | | | | | 600 | 1113 | | | | | | | | |
| +50 | | | | | | 602 | 1175 | | | | | | | | |
| 3568 | | | | | | 635 | 1188 | | | | | | | | |
| +50 | | | | | | 648 | 1248 | | | | | | | | |
| 3569 | | | | | | 691 | 1261 | | | | | | | | |
| +50 | | | | | | 680 | 1259 | | | | | | | | |
| 3570 | 50 | | | | | 670 | | | | | | | | | |
| CARRIED FORWARD | | 75394 | | | | 978785 | | | | | | | | | |
| COLUMN TOTAL | | 441 | | | | 31495 | | | | | | | | | |

PROJECT ST. ALBANS - SWANTON

PROJECT F NO. 89-3(36) S/1
SHEET 8 OF 7

WEA 8/23/67
DLH - DAP 8-1-67

# FINAL EARTHWORK SHEET

## NORTHBOUND

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | OVERBREAK AREA | OVERBREAK CU. YDS. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 50 | | | | | | | | | | | | | | |
| 3570 | | | | | | 690 | 1278 | | | | | | | | |
| +50 | | | | | | 670 | 1267 | | | | | | | | |
| 3571 | | | | | | 678 | 1253 | | | | | | | | |
| +50 | | | | | | 675 | 1263 | F- 12341 | | | | | | | |
| 3572 | | | | | | 678 | 1209 | | | | | | | | |
| +50 | | | | | | 625 | 1176 | | | | | | | | |
| 3573 | | | | | | 645 | 1185 | | | | | | | | |
| +50 | | | | | | 635 | 1183 | | | | | | | | |
| 3574 | | | | | | 695 | 1227 | | | | | | | | |
| +50 | | | | | | 680 | 1310 | | | | | | | | |
| 3575 | | | | | | 735 | 1440 | | | | | | | | |
| +50 | | | | | | 820 | 1567 | F- 23060 | | | | | | | |
| 3576 | | | | | | 875 | 1670 | | | | | | | | |
| +50 | | | | | | 950 | 1872 | | | | | | | | |
| 3577 | | | | | | 1072 | 1999 | | | | | | | | |
| +50 | | | | | | 1087 | 2214 | | | | | | | | |
| 3578 | | | | | | 1305 | 2581 | | | | | | | | |
| +50 | | | | | | 1488 | 2916 | | | | | | | | |
| 3579 | | | | | | 1660 | 3233 | | | | | | | | |
| +50 | | | | | | 1837 | 3537 | | | | | | | | |
| 3580 | | | | | | 1970 | 3728 | | | | | | | | |
| +50 | | | | | | 2252 | 4240 | | | | | | | | |
| 3581 | | | | | | 2327 | 4335 | F- 24451 | | | | | | | |
| +50 | | | | | | 2355 | 4427 | | | | | | | | |
| 3582 | | | | | | 2426 | 4615 | | | | | | | | |
| +50 | | | | | | 2558 | 4793 | | | | | | | | |
| 3583 | | | | | | 1970 | 1834 | | | | | | | | |
| +50 | | | | | | ⊙ | 0 | | | | | | | | |
| 3584 | | | | | | ⊙ | 2190 | | | | | | | | |
| +50 | | | | | | 2365 | 4679 | | | | | | | | |
| 3585 | | | | | | 2710 | 5037 | | | | | | | | |
| +50 | | | | | | 2730 | 4929 | | | | | | | | |
| 3586 | | | | | | 2593 | 4707 | | | | | | | | |
| +50 | | | | | | 2480 | 4514 | F- 48546 | | | | | | | |
| 3587 | | | | | | 2385 | 4368 | | | | | | | | |
| +50 | | | | | | 2333 | 3104 | | | | | | | | |
| 3587+28.33 | | | | | | 2330 | 4400 | | | | | | | | |
| 3587+50.00 | 50 | | | | | | | | | | | | | | |
| 3588 | | | | | | 2422 | 4493 | | | | | | | | |
| +50 | | | | | | 2355 | 4392 | | | | | | | | |
| 3589 | | | | | | 2388 | 4361 | | | | | | | | |
| +50 | | | | | | 2322 | 4314 | | | | | | | | |
| 3590 | | | | | | 2332 | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | |
| CARRIED FORWARD | | | | | | 129372 | | | | | | | | | |
| COLUMN TOTAL | | | | | | 118796 | | | | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | OVERBREAK AREA | OVERBREAK CU. YDS. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 50 | | | | | | | | | | | | | | |
| 3590 | | | | | | 2337 | 4257 | | | | | | | | |
| +50 | | | | | | 2260 | 4120 | | | | | | | | |
| 3591 | | | | | | 2190 | 3992 | F- 37000 | | | | | | | |
| +50 | | | | | | 2100 | 3884 | | | | | | | | |
| 3592 | | | | | | 2100 | 3856 | | | | | | | | |
| +50 | | | | | | 2065 | 3778 | | | | | | | | |
| 3593 | | | | | | 2010 | 3627 | | | | | | | | |
| +50 | | | | | | 1907 | 3432 | | | | | | | | |
| 3594 | | | | | | 1805 | 3186 | | | | | | | | |
| +50 | | | | | | 1635 | 2881 | | | | | | | | |
| 3595 | | | | | | 1480 | 2574 | | | | | | | | |
| +50 | | | | | | 1300 | 2345 | | | | | | | | |
| 3596 | | | | | | 1125 | 1950 | F- 19609 | | | | | | | |
| +50 | | | | | | 982 | 1835 | | | | | | | | |
| 3597 | | | | | | 1000 | 1852 | | | | | | | | |
| +50 | | | | | | 1000 | 1861 | | | | | | | | |
| 3598 | | | | | | 1010 | 1883 | | | | | | | | |
| +50 | | | | | | 1020 | 1876 | | | | | | | | |
| 3599 | | | | | | 1000 | 1818 | | | | | | | | |
| +50 | | | | | | 955 | 1732 | | | | | | | | |
| 3600 | | | | | | 915 | 1648 | | | | | | | | |
| +50 | | | | | | 863 | 1500 | | | | | | | | |
| 3601 | | | | | | 758 | 1339 | F- 12235 | | | | | | | |
| +50 | | | | | | 670 | 1244 | C- 28. | | | | | | | |
| 3602 | | | | | | 673 | 1263 | | | | | | | | |
| +50 | | | | | | 670 | 1491 | | | | | | | | |
| 3603 | | | | | | 920 | 1588 | | | | | | | | |
| +50 | | | | | | 790 | 1772 | | | | | | | | |
| 3604 | | | | | | 476 | 722 | | | | | | | | |
| +50 | | | | | | 310 | 287 | | | | | | | | |
| 3605 | | | 28. | | | ⊙ | | | | | | | | | |
| +50 | | 274 | 281 | | | | | | | | | | | | |
| 3606 | | 564 | 776 | | | | | | | | | | | | |
| +50 | | 890 | 1346 | | | | | C- 21298 | | | | | | | |
| 3607 | | 1109 | 1864 | | | | | | | | | | | | |
| +50 | | 1322 | 2251 | | | | | | | | | | | | |
| 3608 | | 1540 | 2650 | | | | | | | | | | | | |
| +50 | | 1740 | 3057 | | | | | | | | | | | | |
| 3609 | | 1655 | 3144 | | | | | | | | | | | | |
| +50 | | 1678 | 3994 | | | | | | | | | | | | |
| 3610 | | 1623 | 2968 | | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | |
| CARRIED FORWARD | | | 75436 | | | | 242721 | | | | | | | | |
| COLUMN TOTAL | | | 41326 | | | | 68844 | | | | | | | | |

## STATE OF VERMONT
## DEPARTMENT OF HIGHWAYS

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | 10% AREA | 10% CU. YDS. | ROCK BORROW AREA | ROCK BORROW CU. YDS. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 50 | | | | | | | | | | | | |
| 3610 | | 1623 | | | | | | | | | | | |
| +50 | | 1552 | 2944 | | | | | | | | | | |
| 3611 | | 1540 | 2870 | | | | | | | | | | |
| +50 | | 1252 | 2571 | | | | | | | | | | |
| 3612 | | 949 | 2038 | | | | | | | | | | |
| +50 | | 810 | 1629 | | | | | | | | | | |
| 3613 | | 603 | 1308 | | | | | | | | | | |
| +50 | | 410 | 938 | | | | | | | | | | |
| 3614 | | 220 | 583 | | | | | C- 15242. | | | | | |
| +50 | | 70 | 267 | | | | | F- 132. | | | | | |
| 3615 | | 8 | 72 | | | 143 | 137 | | | | | | |
| +50 | | ⊙ | 7 | | | 284 | 395 | | | | | | |
| 3616 | | | | | | 340 | 578 | F- 78258 | | | | | |
| +50 | | | | | | 370 | 676 | C- 7. | | | | | |
| 3617 | | | | | | 406 | 737 | | | | | | |
| +50 | | | | | | 395 | 742 | | | | | | |
| 3618 | | | | | | 420 | 755 | | | | | | |
| +50 | | | | | | 455 | 810 | | | | | | |
| 3619 | | | | | | 685 | 1056 | | | | | | |
| +50 | | | | | | 771 | 1070 | | | | | | |
| 3620 | | | | | | 271 | 706 | | | | | | |
| | 50 | | | | | | | | | | | | |
| CARRIED FORWARD | | 96764 | | | | 316616 | | | | | | | |
| COLUMN TOTAL | | 15449 | | | | 7657 | | | | | | | |
| TOTAL | | 112213 | | 6963 | | TOTAL - 324272 | | | | | | | |

PROJECT ST. ALBANS ~ SWANTON

PROJECT 654 I NO. 1020 89-3 (36) S1

SHEET 9 OF 9

DLH — DEP 8-9-67

VSA 8/17/67

# FINAL EARTHWORK SHEET

SOUTHBOUND

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU.YDS. | ROCK AREA | ROCK CU.YDS. | FILL AREA | FILL CU.YDS. | | | | | NB 4-5B TOP SOIL STRIPPING AREA | NB 4-5B TOP SOIL STRIPPING CU.YDS. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3470 | | | | | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | |
| +00 | | | | | | | | | | | | | | | |
| 3471 | | 0 | | | | 42 | | F- 314 | | | | | | | |
| | 50 | | | | | 90 | 124 | | | | | | | | |
| 3472 | | | | | | 116 | 131 | | | | | | | | |
| | 50 | | | | | 100 | 256 | | | | | | | | |
| 3473 | | | | | | 170 | 311 | | | | | | | | |
| | 50 | | | | | 195 | 344 | | | | | | | | |
| 3474 | | | | | | 169 | 324 | F- 1868 | | | | | | | |
| | 50 | | | | | 114 | 265 | C- 189 | | | | | | | |
| 3475 | | 0 | | | | 81 | 138 | | | | | | | | |
| | 50 | 6 | 11 | | | 87 | 117 | | | | | | | | |
| 3476 | | 16 | 34 | | | 8 | 34 | | | | | | | | |
| | 50 | 64 | 72 | | | 0 | | | | | | | | | |
| 3477 | | 12 | 23 | | | | | | | | | | | | |
| | 50 | 11 | 24 | | | 0 | | | | | | | | | |
| 3478 | | 4 | 12 | | | 82 | 37 | | | | | | | | |
| | 50 | 9 | 14 | | | 62 | 76 | F- 1836 | | | | | | | |
| 3479 | | 3 | 8 | | | 92 | 143 | C- 138 | | | | | | | |
| | 50 | 27 | 25 | | | 92 | 133 | | | | | | | | |
| 3480 | | 0 | | | | 185 | 173 | | | | | | | | |
| | 50 | | | | | 190 | 308 | | | | | | | | |
| 3481 | | | | | | 128 | 310 | | | | | | | | |
| | 50 | 0 | | | | 202 | 324 | | | | | | | | |
| 3482 | | 87 | 184 | | | 132 | 304 | | | | | 2490 | 517 | | |
| | 50 | 172 | 447 | | | 0 | 127 | | | | | 270 | 509 | | |
| 3483 | | 307 | 691 | | | | | F- 153 | | | | 280 | 519 | | |
| | 50 | 375 | 673 | | | | | C- 3676 | | | | 280 | 471 | | |
| 3484 | | 248 | 419 | | | | | | | | | 250 | 398 | | |
| | 50 | 199 | 462 | | | | | | | | | 180 | 315 | | |
| 3485 | | 207 | 482 | | | | | | | | | 160 | 315 | | |
| | 50 | 246 | 311 | | | | | | | | | 180 | 333 | | |
| 3486 | | 122 | 194 | | | | | | | | | 180 | 283 | | |
| | 50 | 23 | 28 | | | 0 | 3 | | | | | 180 | 305 | | |
| 3487 | | 7 | 0 | | | 33 | 102 | | | | | 150 | | | |
| | 50 | 0 | | | | 86 | 164 | | | | | | | | |
| 3488 | | | | | | 90 | 204 | | | | | | | | |
| | 50 | | | | | 175 | 319 | F- 3207 | | | | | | | |
| 3489 | | | | | | 180 | 264 | C- 6 | | | | | | | |
| | 50 | | | | | 165 | 319 | | | | | | | | |
| 3490 | | | | | | 139 | 331 | | | | | | | | |
| | 50 | | | | | 150 | 335 | | | | | | | | |
| 3491 | | | | | | 220 | 384 | | | | | | | | |
| | 50 | | | | | 373 | 550 | | | | | | | | |
| 3492 | | | | | | 261 | 537 | | | | | | | | |
| CARRIED FORWARD | | | 0 | | | | 0 | | | | | | | | |
| COLUMN TOTAL | | | 3989 | | | | 7378 | | | | | | 4038 | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU.YDS. | ROCK AREA | ROCK CU.YDS. | FILL AREA | FILL CU.YDS. | OVER BREAK AREA | OVER BREAK CU.YDS. | I O % AREA | I O % CU.YDS. | ROCK BORROW AREA | ROCK BORROW CU.YDS. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3465 | | 0 | | | | 261 | | | | | | | | | |
| | 50 | | | | | | 45 | | | | | | | | |
| 3466 | | | | | | 287 | 33 | F- 4323 | | | | | | | |
| | 50 | | | | | 189 | 36 | | | | | | | | |
| 3467 | | | | | | 186 | 26 | | | | | | | | |
| | 50 | | | | | 109 | 32 | | | | | | | | |
| 3468 | | | | | | 196 | 37 | | | | | | | | |
| | 50 | | | | | 210 | 41 | | | | | | | | |
| 3469 | | | | | | 230 | 50 | | | | | | | | |
| | 50 | | | | | 210 | 65 | | | | | | | | |
| 3470 | | | | | | 894 | 74 | | | | | | | | |
| | 50 | | | | | 405 | 19 | | | | | | | | |
| 3471 | | | | | | 466 | 90 | F- 9276 | | | | | | | |
| | 50 | | | | | 285 | 88 | | | | | | | | |
| 3472 | | | | | | 625 | 86 | | | | | | | | |
| | 50 | | | | | 498 | 94 | | | | | | | | |
| 3473 | | | | | | 586 | 96 | | | | | | | | |
| | 50 | | | | | 518 | 101 | | | | | | | | |
| 3474 | | | | | | 573 | 101 | | | | | | | | |
| | 50 | | | | | 521 | 96 | | | | | | | | |
| 3475 | | | | | | 536 | 93 | | | | | | | | |
| | 50 | | | | | 488 | 70 | | | | | | | | |
| 3476 | | | | | | 281 | 50 | | | | | | | | |
| | 50 | | | | | 261 | 47 | | | | | | | | |
| 3477 | | | | | | 255 | 57 | F- 5888 | | | | | | | |
| | 50 | | | | | 367 | 67 | C- 78 | | | | | | | |
| 3478 | | 0 | | | | 360 | 65 | | | | | | | | |
| | 50 | 1 | 1 | | | 350 | 65 | | | | | | | | |
| 3479 | | 15 | 15 | | | 358 | 66 | | | | | | | | |
| | 50 | 14 | 27 | | | 362 | 55 | | | | | | | | |
| 3480 | | 24 | 58 | 0 | | 240 | 41 | | | | | | | | |
| | 50 | 68 | 85 | 40 | 3 | 209 | 30 | | | | | | | | |
| 3481 | | 82 | 137 | 18 | 57 | 125 | 18 | | | | | | | | |
| | 50 | 148 | 213 | 117 | 214 | 75 | 12 | F- 2741 | | | | | | | |
| 3482 | | 173 | 297 | 118 | 142 | 38 | 6 | C- 1187 | | | | | | | |
| | 50 | 79 | 237 | 35 | 34 | 30 | 9 | R- 620 | | | | | | | |
| 3483 | | 40 | 110 | 6 | 6 | 67 | 16 | | | | | | | | |
| | 50 | 18 | 54 | 0 | | 114 | 22 | | | | | | | | |
| 3484 | | 1 | 17 | | | 192 | 43 | | | | | | | | |
| | 50 | 0 | 1 | | | 276 | 55 | | | | | | | | |
| 3485 | | 40 | 37 | | | 324 | 57 | | | | | | | | |
| | 50 | 42 | 74 | | | 269 | 41 | | | | | | | | |
| 3486 | | 45 | 84 | | | 176 | 30 | | | | | | | | |
| | 50 | 61 | 97 | | | 150 | 21 | | | | | | | | |
| 3487 | | 30 | 84 | | | 80 | 13 | | | | | | | | |
| | 60 | | | | | 60 | | | | | | | | | |
| CARRIED FORWARD | | | 3989 | | 0 | | 7378 | | | | | | | | |
| COLUMN TOTAL | | | 1604 | | 620 | | 2330 | | | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU.YDS. | ROCK AREA | ROCK CU.YDS. | FILL AREA | FILL CU.YDS. | | | | | NB - 5B TOP SOIL STRIPPING AREA | NB - 5B TOP SOIL STRIPPING CU.YDS. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3487 | | 30 | | | | 60 | | | | | | | 1 | | |
| | 50 | 15 | 41 | | | | 100 | | | | | | | | |
| 3488 | | 56 | 86 | | | 48 | 71 | F- 1256 | | | | | | | |
| | 50 | 137 | 179 | | | 29 | 27 | C- 3386 | | | | | | | |
| 3489 | | 425 | 502 | | | 0 | | | | | | 140 | 870 | | |
| | 50 | 615 | 982 | | | | | | | | | 210 | 378 | | |
| 3490 | | 764 | 1217 | | | | | | | | | 230 | 426 | | |
| | 50 | 870 | 1515 | | | | | | | | | 240 | 444 | | |
| 3491 | | 1041 | 1261 | | | | | C- 31267 | | | | 240 | 444 | | |
| | 50 | 1047 | 1795 | | | | | | | | | 340 | 435 | | |
| 3492 | | 1209 | 2088 | | | | | | | | | 230 | 426 | | |
| | 50 | 1252 | 2277 | | | | | | | | | 230 | 417 | | |
| 3493 | | 1305 | 2367 | | | | | | | | | 230 | 417 | | |
| | 50 | 1367 | 2477 | | | | | | | | | 230 | 426 | | |
| 3494 | | 1297 | 2467 | | | | | | | | | 230 | 435 | | |
| | 50 | 1187 | 2302 | | | | | | | | | 230 | 435 | | |
| 3496 | | 1050 | 2071 | | | | | | | | | 210 | 407 | | |
| | 50 | 866 | 1774 | | | | | | | | | 200 | 380 | | |
| 3496 | | 640 | 1394 | | | | | | | | | 210 | 380 | | |
| | 50 | 375 | 969 | | | | | | | | | 210 | 384 | | |
| 3497 | | 178 | 531 | | | 0 | | | | | | 190 | 370 | | |
| | 50 | 0 | 165 | | | 255 | 228 | | | | | Subtotal | 6777 | | |
| 3498 | | | | | | 652 | 844 | C- 4822 | | | | | | | |
| | 50 | | | | | 671 | 1225 | F- 6343 | | | | | | | |
| 3499 | | | | | | 728 | 1291 | | | | | | | | |
| | 50 | | | | | 732 | 1354 | | | | | | | | |
| 3500 | | | | | | 772 | 1397 | | | | | | | | |
| | 50 | | | | | 795 | 1454 | | | | | | | | |
| 3501 | | | | | | 868 | 1540 | F- 16934 | | | | | | | |
| | 50 | | | | | 788 | 1533 | | | | | | | | |
| 3502 | | | | | | 901 | 1564 | | | | | | | | |
| | 50 | | | | | 1008 | 1762 | | | | | | | | |
| 3503 | | | | | | 1025 | 1882 | | | | | | | | |
| | 50 | | | | | 972 | 1864 | | | | | | | | |
| 3504 | | | | | | 1023 | 1764 | | | | | | | | |
| | 50 | | | | | 878 | 1732 | | | | | | | | |
| 3505 | | | | | | 962 | 1726 | | | | | 120 | 315 | | |
| | 50 | | | | | 902 | 1521 | | | | | 230 | 393 | | |
| 3506 | | | | | | 925 | 1304 | | | | | 210 | 426 | | |
| | 50 | | | | | 879 | 1554 | | | | | 250 | 463 | | |
| 3507 | | | | | | 800 | 1484 | | | | | 250 | 481 | | |
| | 50 | | | | | 800 | 1495 | | | | | 270 | 509 | | |
| 3508 | | | | | | 768 | | | | | | 280 | | | |
| CARRIED FORWARD | | | 5573 | | | | 30683 | | | | | | 4038 | | |
| COLUMN TOTAL | | | 29136 | | | | 32310 | | | | | | 9591 | | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT Fm Hubbell - Bridgman

PROJECT F NO. BRF 3(36)127
SHEET 4 OF 7

DLH - DEP 8-16-67

WEA 8/24/67

# FINAL EARTHWORK SHEET

SOUTHBOUND

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | NB & SB TOP SOIL STRIPPING AREA | NB & SB TOP SOIL STRIPPING CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3502 | | 0. | | | | 768. | | | | | | | |
| | 50 | | | | | | 1346. | | | | | | |
| +50 | | | | | | 686. | | | | 280 | 519. | | |
| 3509 | | | | | | 673. | 1258. | F- 1962. | | 280 | 519. | | |
| +50 | | | | | | 608. | | | | 280 | 537. | | |
| 3510 | | | | | | 468. | 1186. | | | 300 | | | |
| +50 | | | | | | 371. | 996. | | | 280 | 537. | | |
| 3511 | | | | | | 322. | 672. | | | 270 | 509. | | |
| +50 | | 0. | | | | 305. | 581. | F- 2625. | | 250 | 481. | | |
| 3512 | | 44. | 41. | | | 105. | 380. | C- 570. | | 230 | 444. | | |
| +50 | | 27. | 66. | | | 50. | 144. | | | 230 | 426. | | |
| 3513 | | 58. | 79. | | | 8. | 54. | | | 210. | 407. | | |
| | | | 100. | | | | | | | | 380. | | |
| +50 | | 50. | | | | 0. | 7. | | | 200 | | | |
| 3514 | | 51. | 91. | | | 0. | 0. | | | 180. | 352. | | |
| +50 | | 42. | 84. | | | 20. | 18. | | | 200. | 380. | | |
| 3515 | | 70. | 104. | | | 0. | 17. | | | 210. | | | |
| +50 | | 138. | 193. | | | | | | | 3505+00 | | | |
| 3516 | | 170. | 238. | | | | | | | 3515+00 | 8,435. | | |
| +50 | | 114. | 263. | | | | | | | TOTAL | | | |
| 3517 | | 128. | 224. | | | | | F- 546. | | | | | |
| +50 | | 88. | 200. | | | 0. | | C- 1465. | | | | | |
| 3518 | | 48. | 121. | | | 3. | 3. | | | | | | |
| +50 | | 3. | 43. | | | 54. | 59. | | | | | | |
| 3519 | | 15. | 14. | | | 140. | 188. | | | | | | |
| +50 | | 36. | 47. | | | 65. | 198. | | | | | | |
| 3520 | | 42. | 72. | | | 65. | 128. | | | | | | |
| +50 | | 13. | 68. | | | 134. | 194. | | | | | | |
| 3521 | | 0. | 12. | | | 214. | 322. | | | | | | |
| +50 | | | | | | 232. | 408. | F- 4932. | | | | | |
| 3522 | | | | | | 269. | 425. | C- 63. | | | | | |
| +50 | | | | | | 298. | 525. | | | | | | |
| 3523 | | | | | | 342. | 593. | | | | | | |
| +50 | | | | | | 387. | 671. | | | | | | |
| 3524 | | | | | | 319. | 651. | | | | | | |
| +50 | | | | | | 295. | 564. | | | | | | |
| 3525 | | | | | | 300. | 551. | | | | | | |
| +50 | | | | | | 307. | 560. | | | | | | |
| 3526 | | | | | | 310. | 571. | | | | | | |
| +50 | | | | | | 321. | 584. | F- 5852. | | | | | |
| 3527 | | | | | | 302. | 577. | C- 39. | | | | | |
| +50 | | | | | | 324. | 580. | | | | | | |
| 3528 | | | | | | 348. | 628. | | | | | | |
| +50 | | 0. | | | | 271. | 574. | | | | | | |
| 3529 | | 6. | 5. | | | 206. | 441. | | | | | | |
| +50 | | 11. | 12. | | | 232. | 408. | | | | | | |
| 3530 | 50 | 9. | 17. | | | 238. | 438. | | | | | | |
| CARRIED FORWARD | | | 34723. | | | | 62993. | | | | 13629. | | |
| COLUMN TOTAL | | | 2137. | | | | 18239. | | | | 5843. | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | NB & SB TOP SOIL STRIPPING AREA | NB & SB TOP SOIL STRIPPING CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3530 | | 9. | | | | 238. | | | | | | | | | |
| | 50 | | 34. | | | | 401. | | | | | | | | |
| +50 | | 28. | | | | 195. | | | | | | | | | |
| 3531 | | 43. | 66. | | | 220. | 384. | | | | | | | | |
| +50 | | 19. | 67. | | | 188. | 377. | | | | | | | | |
| 3532 | | 16. | 32. | | | 120. | 283. | F- 3397. | | | | | | | |
| +50 | | 27. | 40. | | | 163. | 269. | C- 564. | | | | | | | |
| 3533 | | 68. | 89. | | | 139. | 284. | | | | | | | | |
| +50 | | 19. | 84. | | | 197. | 311. | | | | | | | | |
| 3534 | | 17. | 33. | | | 219. | 338. | | | | | | | | |
| +50 | | 55. | 61. | | | 175. | 341. | | | | | | | | |
| 3535 | | 76. | 66. | | | 195. | 412. | | | | | | | | |
| +50 | | 14. | 38. | | | 265. | 494. | | | | | | | | |
| 3536 | | 9. | 24. | | | 273. | 501. | | | | | | | | |
| +50 | | 5. | 14. | | | 274. | 517. | F- 3969. | | | | | | | |
| 3537 | | 24. | 28. | | | 286. | 478. | C- 489. | | | | | | | |
| +50 | | 0. | 27. | | | 227. | 433. | | | | | | | | |
| 3538 | | 0. | 0. | | | 245. | 432. | | | | | | | | |
| +50 | | 96. | 30. | | | 227. | 344. | | | | | | | | |
| 3539 | | 27. | 59. | | | 149. | 338. | | | | | | | | |
| +50 | | 50. | 71. | | | 98. | 247. | | | | | | | | |
| 3540 | | 183. | 216. | | | 3. | 3. | | | | | 190. | 343. | | |
| +50 | | 379. | 520. | | | 0. | | F- 9. | | | | 180. | 349. | | |
| 3541 | | 534. | 845. | | | | | C- 15724. | | | | 190. | 352. | | |
| +50 | | 660. | 1013. | | | | | | | | | 190. | 361. | | |
| 3542 | | 655. | 1125. | | | | | | | | | 200. | 380. | | |
| +50 | | 942. | 1477. | | | | | | | | | 210. | 398. | | |
| 3543 | | 1054. | 1848. | | | | | | | | | 220. | 398. | | |
| +50 | | 1139. | 2038. | | | | | | | | | 210. | 389. | | |
| 3544 | | 1265. | 2228. | | | | | | | | | 210. | 398. | | |
| +50 | | 1286. | 2369. | | | | | | | | | 220. | 398. | | |
| 3545 | | 1171. | 2279. | | | | | | | | | 220. | 407. | | |
| +50 | | 1229. | 2222. | | | | | | | | | 210. | 398. | | |
| 3546 | | 1280. | 2329. | | | | | | | | | 220. | 398. | | |
| +50 | | 1300. | 2236. | | | | | C- 17286. | | | | 210. | 380. | | |
| 3547 | | 1114. | 2043. | | | | | | | | | 200. | 370. | | |
| +50 | | 1092. | 1958. | | | | | | | | | 200. | 380. | | |
| 3548 | | 1020. | 1956. | | | | | | | | | 210. | 389. | | |
| +50 | | 661. | 1121. | | | | | | | | | 210. | 370. | | |
| 3549 | | 550. | 854. | | | | | | | | | 220. | 398. | | |
| +50 | | 372. | 587. | | | | | | | | | 210. | 370. | | |
| 3550 | | 262. | 363. | | | | | | | | | 190. | 349. | | |
| +50 | | 130. | 184. | | | 0 | 26. | | | | | 180. | 333. | | |
| 3551 | | 64. | 89. | | | 28. | 93. | | | | | 180. | | | |
| +50 | | 32. | 42. | | | 72. | 130. | | | | | | | | |
| 3552 | 50 | 19. | | | | 68. | | | | | | | | | |
| CARRIED FORWARD | | | 36866. | | | | 81233. | | | | | | 12422. | | |
| COLUMN TOTAL | | | 34743. | | | | 7618. | | | | | | 8334. | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3552 | | 19. | | | | 68. | | | | | | | | | |
| | 80 | | 42. | | | | 120. | | | | | | | | |
| +50 | | 26. | | | | 62. | | | | | | | | | |
| 3553 | | 65. | 84. | | | 9. | 66. | F- 883. | | | | | | | |
| +50 | | 52. | 108. | | | 8. | 16. | C- 1039. | | | | | | | |
| 3554 | | 36. | 81. | | | 44. | 48. | | | | | | | | |
| +50 | | 6. | 37. | | | 108. | 141. | | | | | | | | |
| 3555 | | 0. | 6. | | | 154. | 243. | | | | | | | | |
| +50 | | | | | | 258. | 379. | | | | | | | | |
| 3556 | | | | | | 274. | 508. | | | | | | | | |
| +50 | | | | | | 305. | 555. | F- 6859. | | | | | | | |
| 3557 | | | | | | 370. | 644. | | | | | | | | |
| +50 | | | | | | 450. | 779. | | | | | | | | |
| 3558 | | | | | | 445. | 824. | | | | | | | | |
| +50 | | | | | | 452. | 832. | | | | | | | | |
| 3559 | | | | | | 409. | 792. | | | | | | | | |
| +50 | | | | | | 409. | 752. | | | | | | | | |
| 3560 | | | | | | 445. | 791. | | | | | | | | |
| +50 | | | | | | 460. | 836. | | | | | | | | |
| 3561 | | | | | | 448. | 841. | | | | | | | | |
| +50 | | | | | | 425. | 809. | F- 8130. | | | | | | | |
| 3562 | | | | | | 485. | 849. | | | | | | | | |
| +50 | | | | | | 498. | 952. | | | | | | | | |
| 3563 | | | | | | 440. | 813. | | | | | | | | |
| +50 | | | | | | 424. | 800. | | | | | | | | |
| 3564 | | | | | | 410. | 772. | | | | | | | | |
| +50 | | | | | | 423. | 781. | | | | | | | | |
| 3565 | | | | | | 408. | 777. | | | | | | | | |
| +50 | | | | | | 445. | 794. | | | | | | | | |
| 3566 | | | | | | 431. | 811. | | | | | | | | |
| +50 | | | | | | 460. | 824. | | | | | | | | |
| 3567 | | | | | | 461. | 853. | F- 8401. | | | | | | | |
| +50 | | | | | | 468. | 856. | | | | | | | | |
| 3568 | | | | | | 460. | 838. | | | | | | | | |
| +50 | | | | | | 445. | 840. | | | | | | | | |
| 3569 | | | | | | 462. | 863. | | | | | | | | |
| +50 | | | | | | 470. | 878. | | | | | | | | |
| 3570 | | 0. | | | | 470. | | | | | | | | | |
| CARRIED FORWARD | | | 716.08. | | | | 88350. | | | | | | | | |
| COLUMN TOTAL | | | 360. | | | | 24024. | | | | | | | | |

PROJECT St. ALBANS — SWANTON

PROJECT I NO. BF 1C46(2) FC
SHEET 8 OF 9

Ground Total Top Soil - 27,796

DLH - DFF 8-16-57

WEN - 8/24/57

# FINAL EARTHWORK SHEET

SOUTHBOUND

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3570 | | 0 | | | | 470 | 831 | | | | | | | | |
| | 50 | | | | | | | | | | | | | | |
| +50 | | | | | | 427 | 771 | | | | | | | | |
| 3571 | | | | | | 406 | 719 | | | F 1572 | | | | | |
| +50 | | | | | | 370 | 675 | | | | | | | | |
| 3572 | | | | | | 327 | 610 | | | | | | | | |
| +50 | | | | | | 332 | 613 | | | | | | | | |
| 3573 | | | | | | 330 | 648 | | | | | | | | |
| +50 | | | | | | 370 | 777 | | | | | | | | |
| 3574 | | | | | | 469 | 920 | | | | | | | | |
| +50 | | | | | | 525 | 1038 | | | | | | | | |
| 3575 | | | | | | 596 | 1172 | | | | | | | | |
| +50 | | | | | | 672 | 1349 | | | | | | | | |
| 3576 | | | | | | 765 | 1600 | | | F 21787 | | | | | |
| +50 | | | | | | 855 | 1757 | | | | | | | | |
| 3577 | | | | | | 1045 | 2042 | | | | | | | | |
| +50 | | | | | | 1160 | 2195 | | | | | | | | |
| 3578 | | | | | | 1210 | 2393 | | | | | | | | |
| +50 | | | | | | 1374 | 2761 | | | | | | | | |
| 3579 | | | | | | 1608 | 3123 | | | | | | | | |
| +50 | | | | | | 1764 | 3473 | | | | | | | | |
| 3580 | | | | | | 2005 | 3839 | | | | | | | | |
| +50 | | | | | | 2141 | 4092 | | | | | | | | |
| 3581 | | | | | | 2278 | 4303 | | | F 33732 | | | | | |
| +50 | | | | | | 2370 | 4450 | | | | | | | | |
| 3582 | | | | | | 2437 | 4604 | | | | | | | | |
| +50 | | | | | | 2235 | 4181 | | | | | | | | |
| 3582 | | | | | | 1980 | 1833 | | | | | | | | |
| +50 | | | | | | 0 | 0 | | | | | | | | |
| 3584 | | | | | | 0 | 1926 | | | | | | | | |
| +50 | | | | | | 2080 | 4204 | | | | | | | | |
| 3585 | | | | | | 2460 | 4545 | | | | | | | | |
| +50 | | | | | | 2450 | 4386 | | | | | | | | |
| 3586 | | | | | | 2287 | 4181 | | | F 41372 | | | | | |
| +50 | | | | | | 2248 | 4155 | | | | | | | | |
| 3587 | | | | | | 2260 | 4150 | | | | | | | | |
| +50 | 50 | | | | | 2223 | 2951 | | | | | | | | |
| 3587+62 | 38 | | | | | | | | | | | | | | |
| 3587+50 | | | | | | 2215 | | | | | | | | | |
| 3588 | 50 | | | | | | 1143 | | | | | | | | |
| +50 | | | | | | 2180 | 3921 | | | | | | | | |
| 3589 | | | | | | 2035 | 3861 | | | | | | | | |
| +50 | | | | | | 2115 | 4024 | | | | | | | | |
| 3590 | 50 | 0 | | | | 2230 | 4054 | | | | | | | | |
| | | | | | | 2148 | | | | | | | | | |
| CARRIED FORWARD | | | | | | | 112874 | | | | | | | | |
| COLUMN TOTAL | | | | | | | 109163 | | | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3590 | | 0 | | | | 2148 | 3896 | | | | | | | | |
| | 60 | | | | | | | | | | | | | | |
| +50 | | | | | | 2058 | 3817 | | | | | | | | |
| 3591 | | | | | | 2070 | 3876 | F 27778 | | E - 35398 | | | | | |
| +50 | | | | | | 2138 | 3910 | | | | | | | | |
| 3592 | | | | | | 2085 | 3895 | | | | | | | | |
| +50 | | | | | | 2182 | 3785 | | | | | | | | |
| 3593 | | | | | | 1965 | 3532 | | | | | | | | |
| +50 | | | | | | 1897 | 3214 | | | | | | | | |
| 3594 | | | | | | 1622 | 2807 | | | | | | | | |
| +50 | | | | | | 1404 | 2697 | | | | | | | | |
| 3595 | | | | | | 1400 | 2523 | | | | | | | | |
| +50 | | | | | | 1325 | 2286 | | | | | | | | |
| 3596 | | | | | | 1144 | 1941 | | | F - 18186 | | | | | |
| +50 | | | | | | 952 | 1781 | | | | | | | | |
| 3597 | | | | | | 972 | 1748 | | | | | | | | |
| +50 | | | | | | 915 | 1643 | | | | | | | | |
| 3598 | | | | | | 860 | 1570 | | | | | | | | |
| +50 | | | | | | 857 | 1604 | | | | | | | | |
| 3599 | | | | | | 895 | 1667 | | | | | | | | |
| +50 | | | | | | 820 | 1501 | | | | | | | | |
| 3600 | | | | | | 802 | 1433 | | | | | | | | |
| +50 | | | | | | 745 | 1324 | | | | | | | | |
| 3601 | | | | | | 685 | 1242 | | | | | | | | |
| +50 | | | | | | 662 | 1332 | | | F - 10748 | | | | | |
| 3602 | | | | | | 777 | 1562 | | | C - 238 | | | | | |
| +50 | | | | | | 810 | 1518 | | | | | | | | |
| 3603 | | | | | | 730 | 1145 | | | | | | | | |
| +50 | | | | | | 507 | 731 | | | | | | | | |
| 3604 | | 0 | 17 | | | 282 | 358 | | | | | | | | |
| +50 | | 18 | 216 | | | 105 | 97 | | | | | | | | |
| 3605 | | 215 | 671 | | | 0 | 0 | | | | | | | | |
| +50 | | 510 | 1033 | | | | | | | | | | | | |
| 3606 | | 605 | 1347 | | | | | | | C - 21606 | | | | | |
| +50 | | 850 | 1824 | | | | | | | | | | | | |
| 3607 | | 1120 | 2375 | | | | | | | | | | | | |
| +50 | | 1445 | 2783 | | | | | | | | | | | | |
| 3608 | | 1560 | 2995 | | | | | | | | | | | | |
| +50 | | 1675 | 2977 | | | | | | | | | | | | |
| 3609 | | 1540 | 2804 | | | | | | | | | | | | |
| +50 | | 1483 | 2797 | | | | | | | | | | | | |
| 3610 | | 1533 | | | | 0 | | | | | | | | | |
| CARRIED FORWARD | | | 71965 | | | | 217037 | | | | | | | | |
| COLUMN TOTAL | | | 21839 | | | | 64272 | | | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3610 | | 1533 | 2839 | | | 0 | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | |
| +50 | | 1533 | 2531 | | | | | | | | | | | | |
| 3611 | | 1200 | 2013 | | | | | | | C - 12757 | | | | | |
| +50 | | 947 | 1612 | | | | | | | | | | | | |
| 3612 | | 767 | 1239 | | | | | | | F - 191 | | | | | |
| +50 | | 636 | 1033 | | | | | | | | | | | | |
| 3613 | | 468 | 757 | | | | | | | | | | | | |
| +50 | | 350 | 556 | | | | | | | | | | | | |
| 3614 | | 250 | 273 | | | 0 | 30 | | | | | | | | |
| +50 | | 45 | 54 | | | 32 | 161 | | | | | | | | |
| 3615 | | 13 | 21 | | | 142 | 337 | | | | | | | | |
| +50 | | 10 | 19 | | | 222 | 465 | | | | | | | | |
| 3616 | | 0 | 0 | | | 280 | 528 | | | | | | | | |
| +50 | | | | | | 290 | 500 | | | C - 30 | | | | | |
| 3617 | | | | | | 250 | 456 | | | F - 5644 | | | | | |
| +50 | | | | | | 243 | 464 | | | | | | | | |
| 3618 | | | | | | 258 | 503 | | | | | | | | |
| +50 | | | | | | 285 | 557 | | | | | | | | |
| 3619 | | | | | | 349 | 856 | | | | | | | | |
| +50 | | | | | | 574 | 949 | | | | | | | | |
| 3620 | | | | | | 421 | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | |
| CARRIED FORWARD | | | 93807 | | | | 281307 | | | | | | | | |
| COLUMN TOTAL | | | 12987 | | | | 5835 | | | | | | | | |
| | | TOTAL | 106794 | GRAND TOTAL | | | 287142 | | | | | | | | |

PROJECT I ST ALBANS — SWANTON

PROJECT I NO. 89-2(36)E/1
SHEET 6 OF 9

MED. DLH 9-8-67
WEA 8/29/67

# FINAL EARTHWORK SHEET

Vt. 36

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | ADJUSTMENTS FILL FOR EXCESS TIMBER EXCAV. AREA | ADJUSTMENTS FILL FOR EXCESS TIMBER EXCAV. CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 125 | 22. | | | | | | | | | | | | | |
| | 50 | | 41. | | | | | | | | | | | | |
| +00 | | 22. | | | | | | | | E+R | 97. | | | | |
| | | | 33. | | | | | | | F | 2561. | | | | |
| 3 | | 19. | | | | 0 | | | | | | | | | |
| | | | 18. | | | | 102. | | | | | | | | |
| +50 | | 0 | | | | 116. | | | | | | | | | |
| | | | | | | 317. | 402. | | | | | | | | |
| 4 | | | | | | 571. | 824. | | | | | | | | |
| | 50 | | | | | | 1232. | | | | | | | | |
| 5 | | | | | | 763. | | | | | | | | | |
| | | | | | | 945. | 1551. | | | | | | | | |
| +50 | | | | | | 1055. | 1933. | | | | | | | | |
| 6 | | | | | | 1123. | 2003. | | | | | | | | |
| | 100 | | | | | | 2216. | | | F | 26110. | | | | |
| 7 | | | | | | 1265. | | | | | | | | | |
| | | | | | | 1424. | 2470. | | | | | | | | |
| +50 | | | | | | 1516. | 2759. | | | | | | | | |
| 8 | | | | | | 1635. | 2964. | | | | | | | | |
| | 100 | | | | | | 3202. | | | | | | | | |
| 9 | | | | | | 1815. | 3483. | | | | | | | | |
| | 50 | | | | | | | | | | | | | | |
| +50 | | | | | | 1845. | 2852. | | | | | | | | |
| 10+25 | | | | | | 0. | | | | | | | | | |
| 10+00-12+60 | | | | BRIDGE | | | | | | | | | | | |
| 12 | | | | | | 0. | | | | | | | | | |
| | 75 | | | | | 1702. | 2472. | | | | | | | | |
| +75 | 25 | | | | | 1835. | | 0. | 50. | F | 18611. | | | | |
| 13 | | | | | | 1842. | | 105. | 109. | | 555. | | | | |
| | 25 | | | | | 1578. | 1490. | 128. | | | | | | | |
| +25 | 25 | | | | | 1410. | 1410. | | 94. | | | | | | |
| 13+50 | 50 | | | | | 1410. | | 76. | 70. | | | | | | |
| | | | | | | 1348. | 2601. | 0. | | | | | | | |
| 14 | | | | | | 1115. | 2274. | | 116. | | | | | | |
| | | | | | | | | 125. | | | | | | | |
| +50 | | | | | | 855. | 1832. | 0. | 116. | | | | | | |
| 15 | | | | | | 435. | 1269. | | | | | | | | |
| | | | | | | 665. | 902. | | | | | | | | |
| +50 | | | | | | 352. | 665. | | | | | | | | |
| 16 | | | | | | 276. | 509. | | | E+R | 410. | | | | |
| | | 0. | | | | | 393. | | | F | 4347. | | | | |
| +50 | | 14. | 13. | | | 162. | | | | | | | | | |
| 17 | | 59. | 68. | | | 55. | 171. | | | | | | | | |
| | | | 124. | | | 16. | 45. | | | | | | | | |
| +50 | | 60. | 160. | | | 18. | 31. | | | | | | | | |
| 18 | | 73. | 108. | | | 0. | 17. | | | | | | | | |
| | | | | | | | | | | | | | | | |
| +50 | 20 | 22. | 20. | | | | | | | | | | | | |
| 20 | | 0. | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CARRIED FORWARD | | 0 | | | | 0 | | 0 | | | | | | | |
| COLUMN TOTAL | | | 593. | | | | 45711. | | 555. | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Vt. 105 @ 35+46 + 92.66 | | | | | | | | | |
| 3 | 50 | 0 | | | | | | | | C | 216. | | | | |
| | | | | | | | | | | F | 552. | | | | |
| +50 | | 60. | 74. | | | 0. | 3. | | | | | | | | |
| 4 | | 28. | 100. | | | 9. | 16. | | | | | | | | |
| | 50 | 0. | 26. | | | 72. | | | | | | | | | |
| 5 | | 17. | 15. | | | 228. | 274. | | | | | | | | |
| | 50 | 0. | | | | 528. | 697. | | | | | | | | |
| +50 | | | 15. | | | | 972. | | | | | | | | |
| 5 | 50 | | | | | 839. | | | | | | | | | |
| | | | | | | 1007. | | | | C | 16. | | | | |
| BOT. - SIDE | | BRIDGE | | | | | | | | F | 2059. | | | | |
| 8+33 | 92 | | | | | 1092. | 1648. | | | | | | | | |
| | 70 | | | | | 1092. | 1010. | | | | | | | | |
| 9 | 70 | | | | | 1084. | 1044. | | | | | | | | |
| | 25 | | | | | 1166. | 1105. | | | | | | | | |
| +25 | 25 | | | | | 1220. | 2333. | | | | | | | | |
| +50 | 50 | | | | | | | | | | | | | | |
| 10 | | | | | | 1300. | 2600. | | | | | | | | |
| | 50 | | | | | 1647. | 3007. | | | | | | | | |
| 11 | | | | | | 1860. | 2359. | | | C | 319. | | | | |
| | 50 | | | | | 930. | 1403. | | | F | 10940. | | | | |
| 12 | | | | | | 665. | 513. | | | | | | | | |
| | 50 | | | | | 298. | 481. | | | | | | | | |
| 13 | | 0. | | | | 171. | 109. | | | | | | | | |
| | | | 14. | | | | | | | | | | | | |
| +50 | | 16. | 46. | | | 36. | 40. | | | | | | | | |
| 14 | | 35. | 134. | | | 7. | 9. | | | | | | | | |
| | 50 | 115. | 130. | | | 3. | 11. | | | | | | | | |
| 15 | | 20. | 23. | | | 9. | 8. | | | | | | | | |
| | 50 | 0. | | | | 0. | | | | | | | | | |
| | | | | | | | | | | C | 22. | | | | |
| | | | | | | | | | | F | 8. | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CARRIED FORWARD | | 0 | | | | 0 | | | | | | | | | |
| COLUMN TOTAL | | | 504. | | | | 20220. | | | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CARRIED FORWARD | | | | | | | | | | | | | | | |
| COLUMN TOTAL | | | | | | | | | | | | | | | |

PROJECT St. Albans - Swanton.

PROJECT I NO. 89 3(36)
SHEET 7 OF 9

RHC DCB - 8-7.8-67.

# FINAL EARTHWORK SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

T.R. 15-25 @ M. 3494+28.31

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | FILL AREA | FILL CU. YDS. | | |

# FINAL EARTHWORK SHEET

T.R. 14 EAST

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

COMMON EXCAVATION - SPECIAL DITCHES 103 A-1 CLASS I

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | Fill AREA | Fill CU. YDS. | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0+00 | | 0 | 54 | | | | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | | | |
| 0+50 | | 58 | 319 | | | | | | | | | | | | | | |
| 1+00 | | 227 | 776 | | | | | | | | | | | | | | |
| 1+50 | | 551 | 1018 | | | | | | | | | | | | | | |
| 2+00 | | 548 | 980 | | | | | | | | | | | | | | |
| 2+50 | | 478 | 715 | | | | | | | | | | | | | | |
| 3+00 | | 392 | 437 | | | | | | | | | | | | | | |
| 3+50 | | 180 | 167 | | | 0 | 92 | C- | 4446 | | | | | | | | |
| 4+00 | | 0 | 0 | | | 99 | 203 | F- | 411 | | | | | | | | |
| | 50 | | | | | | | | | | | | | | | | |
| 4+50 | | 0 | 32 | | | 120 | 116 | | | | | | | | | | |
| 4+78 | 48 | 36 | 35 | | | 10 | 20 | | | | | | | | | | |
| 5+34.7 | 36.7 | 15 | 32 | | | 20 | 59 | | | | | | | | | | |
| 5+88.2 | 53.5 | 17 | 19 | | | 40 | 77 | C- | 677 | | | | | | | | |
| 6+31.9 | 43.7 | 7 | 13 | | | 55 | 70 | F- | 738 | | | | | | | | |
| 6+75.1 | 43.2 | 9 | 21 | | | 32 | 48 | | | | | | | | | | |
| 7+18.5 | 43.4 | 17 | 128 | | | 28 | 38 | | | | | | | | | | |
| 7+62.5 | 44.0 | 141 | 227 | | | 19 | 86 | | | | | | | | | | |
| 8+07.5 | 45.0 | 132 | 146 | | | 85 | 131 | | | | | | | | | | |
| 8+53.9 | 46.4 | 38 | 41 | | | 67 | 125 | | | | | | | | | | |
| 9+02.3 | 48.4 | 8 | 15 | | | 72 | 84 | | | | | | | | | | |
| 9+53.2 | 50.9 | 8 | | | | 17 | | | | | | | | | | | |
| 10+PoT= | 46.8 | | | | | | | | | | | | | | | | |
| 10+47.7 | | | 23 | | | | 19 | F- | 95 | | | | | | | | |
| 10+50 | 0.3 | 19 | 37 | | | 5 | 16 | C- | 62 | | | | | | | | |
| 11+00 | 50 | 23 | | | | 12 | | | | | | | | | | | |
| CARRIED FORWARD COLUMN TOTAL | | | 5205 | | | | 1184 | | | | | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NORTH BOUND | Rt. | | | | | | | | | | | | | | | | |
| 3468+92 | | 0 | 5 | | | | | | | | | | | | | | |
| 3469+00 | 8 | 30 | | C- | 221 | | | | | | | | | | | | |
| | 50 | | 93 | | | | | | | | | | | | | | |
| +50 | | 70 | 123 | | | | | | | | | | | | | | |
| 3470+00 | | 63 | 72 | | | | | | | | | | | | | | |
| +50 | | 36 | 83 | | | | | | | | | | | | | | |
| 3471+00 | | 54 | 116 | | | | | | | | | | | | | | |
| +50 | | 71 | 104 | | | | | | | | | | | | | | |
| 3472+00 | | 41 | 81 | C- | 687 | | | | | | | | | | | | |
| +50 | | 47 | 88 | | | | | | | | | | | | | | |
| 3473+00 | | 46 | 43 | | | | | | | | | | | | | | |
| +50 | 50 | 0 | 0 | | | | | | | | | | | | | | |
| 3473+75 | 25 | 0 | 0 | | | | | | | | | | | | | | |
| 3474+00 | | 0 | 28 | | | | | | | | | | | | | | |
| +50 | 50 | 30 | 56 | | | | | | | | | | | | | | |
| 3476+00 | | 30 | 68 | | | | | | | | | | | | | | |
| +50 | | 43 | 67 | | | | | | | | | | | | | | |
| 3476+00 | | 29 | 42 | | | | | | | | | | | | | | |
| +50 | 50 | 16 | 7 | | | | | | | | | | | | | | |
| 3476+75 | 25 | 0 | 0 | C- | 677 | | | | | | | | | | | | |
| 3477+00 | 50 | 0 | 69 | | | | | | | | | | | | | | |
| +50 | | 76 | 127 | | | | | | | | | | | | | | |
| 3478+00 | | 62 | 118 | | | | | | | | | | | | | | |
| +50 | | 65 | 98 | | | | | | | | | | | | | | |
| 3479+00 | | 41 | 54 | | | | | | | | | | | | | | |
| +50 | | 17 | 27 | | | | | | | | | | | | | | |
| 3480+00 | | 12 | 11 | | | | | | | | | | | | | | |
| +50 | | 0 | 0 | | | | | | | | | | | | | | |
| 3481+00 | 50 | 0 | 0 | | | | | | | | | | | | | | |
| +50 | | 0 | 0 | | | | | | | | | | | | | | |
| 3481+62 | 12 | 0 | | C- | 689 | | | | | | | | | | | | |
| 3482+00 | 38 | 147 | 103 | | | | | | | | | | | | | | |
| +50 | 50 | 55 | 187 | | | | | | | | | | | | | | |
| 3483+00 | | 60 | 106 | | | | | | | | | | | | | | |
| +50 | | 50 | 102 | | | | | | | | | | | | | | |
| 3484+00 | | 32 | 76 | | | | | | | | | | | | | | |
| +50 | | 12 | 41 | | | | | | | | | | | | | | |
| 3485+00 | | 0 | 11 | | | | | | | | | | | | | | |
| +50 | | 74 | 69 | | | | | | | | | | | | | | |
| 3486+00 | | 240 | 271 | C- | 2094 | | | | | | | | | | | | |
| +50 | | 215 | 421 | | | | | | | | | | | | | | |
| 3487+00 | | 255 | 435 | | | | | | | | | | | | | | |
| +50 | | 280 | 488 | | | | | | | | | | | | | | |
| 3488+00 | 50 | 193 | 410 | | | | | | | | | | | | | | |
| CARRIED FORWARD COLUMN TOTAL | | | 4318 | | | | | | | | | | | | | | |

| STATION | DIST | TOTAL EXCAV. EARTH & ROCK AREA | TOTAL EXCAV. EARTH & ROCK CU. YDS. | ROCK AREA | ROCK CU. YDS. | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | COMMON EXCAVATION - SPECIAL DITCHES 103 A-1 CLASS I | | | | | | | | | | | | | | |
| NORTH BOUND | RT. | | | | | | | | | | | | | | | | |
| 3552+00 | | 0 | | | | | | | | | | | | | | | |
| | 50 | | 75 | | | | | | | | | | | | | | |
| +50 | | 81 | 172 | | | | | | | | | | | | | | |
| 3553+00 | | 72 | | C- | 450 | | | | | | | | | | | | |
| | | | 109 | | | | | | | | | | | | | | |
| +50 | | 46 | 81 | | | | | | | | | | | | | | |
| 3554+00 | | 42 | 42 | | | | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | | | |
| +50 | | 3 | 1 | | | | | | | | | | | | | | |
| | 25 | | | | | | | | | | | | | | | | |
| 3554+75 | | 0 | | | | | | | | | | | | | | | |
| NB Total | = | | 476 | | | | | | | | | | | | | | |
| SOUTH BOUND | | | | | | | | | | | | | | | | | |
| 3501+00 | | | | | | | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | | | |
| +50 | | | | | | | | | | | | | | | | | |
| 3502+00 | | | | | | | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | | | |
| +50 | | | | | | | | | | | | | | | | | |
| 3503+00 | | | | | | | | | | | | | | | | | |
| | 30 | | | | | | | | | | | | | | | | |
| +30 | | | | | | | | | | | | | | | | | |
| TR 25+15 | Rt. | | | | | | | | | | | | | | | | |
| 21+00 | | 210 | | | | | | | | | | | | | | | |
| | 50 | | 366 | | | | | | | | | | | | | | |
| +50 | | 185 | | C- | 761 | | | | | | | | | | | | |
| 22+00 | | 154 | 314 | | | | | | | | | | | | | | |
| | 50 | | 235 | | | | | | | | | | | | | | |
| +50 | | 100 | 46 | | | | | | | | | | | | | | |
| | 25 | | | | | | | | | | | | | | | | |
| 22+75 | | 0 | | | | | | | | | | | | | | | |
| 23+00 | | | | | | | | | | | | | | | | | |
| 23+25 | | | | | | | | | | | | | | | | | |
| | 25 | | | | | | | | | | | | | | | | |
| +50 | | | | | | | | | | | | | | | | | |
| | 50 | | | | | | | | | | | | | | | | |
| 24+00 | | | | | | | | | | | | | | | | | |
| TR 25+15 | TOTAL | | 761 | | | | | | | | | | | | | | |
| | | | COMMON EXCAVATION - SPECIAL DITCHES | | | | | | | | | | | | | | |
| | | | TNL (NB) = 476 | | | | | | | | | | | | | | |
| | | | TR 25+15 = 761 | | | | | | | | | | | | | | |
| | | | GRAND TOTAL 5727 | | | | | | | | | | | | | | |
| CARRIED FORWARD | | | | | | | | | | | | | | | | | |
| COLUMN TOTAL | | | 1411 | | | | | | | | | | | | | | |

PROJECT ST. ALBANS - SWANTON

PROJECT F NO. 89-3636(2)
SHEET 9 OF 9

OLH + 100' 8-15-67
OLH + 100' 8-12-67

# FINAL EARTHWORK SUMMARY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

| NOTES | STATIONS | | TOTAL EXCAVATION DESIGN | TOTAL EXCAVATION FINAL | TOTAL EXCAVATION DIFFERENCE | ROCK DESIGN | ROCK FINAL | ROCK DIFFERENCE | EMBANKMENT DESIGN | EMBANKMENT FINAL | EMBANKMENT DIFFERENCE | UNAUTHORIZED WASTE DESIGN | UNAUTHORIZED WASTE FINAL | UNAUTHORIZED WASTE DIFFERENCE | BASE DESIGN | BASE FINAL | BASE DIFFERENCE | 10% DESIGN | 10% FINAL | 10% DIFFERENCE | ROCK BORROW DESIGN | ROCK BORROW FINAL | ROCK BORROW DIFFERENCE | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NB 3444+00 | 3450+00 | 363 | 286 | - 77 | | | | 3530 | 3502 | - 28 | | | | | | | | | | | | | |
| | SB 3444+00 | 3460+00 | 266 | 169 | - 97 | | | | 2175 | 2142 | + 3976 | | | | | | | | | | | | | |
| | NB 3458+00 | 3458+00 | 113 | 397 | + 284 | | | | 2733 | 2748 | + 15 | | | | | | | | | | | | | |
| | SB 3450+00 | 3455+00 | 132 | 138 | + 6 | | | | 1778 | 1836 | + 58 | | | | | | | | | | | | | |
| | NB 3455+00 | 3460+00 | 4241 | 5213 | + 888 | | | | 71 | 77 | + 6 | | | | | | | | | | | | | |
| | SB 3455+00 | 3460+00 | 3270 | 3676 | + 406 | | | | 25 | 153 | + 128 | | | | | | | | | | | | | |
| | NB 3460+00 | 3465+00 | 62 | 127 | + 65 | | | | 3292 | 3114 | - 178 | | | | | | | | | | | | | |
| | SB 3460+00 | 3465+00 | 14 | 6 | - 8 | | | | 3003 | 3207 | + 204 | | | | | | | | | | | | | |
| | NB 3465+00 | 3470+00 | 134 | 324 | + 190 | | | | 3726 | 3438 | - 288 | | | | | | | | | | | | | |
| | SB 3465+00 | 3470+00 | 2 | 0 | - 2 | | | | 4286 | 4329 | + 57 | | | | | | | | | | | | | |
| | NB 3470+00 | 3475+00 | 14 | 41 | + 27 | | | | 7109 | 7005 | - 104 | | | | | | | | | | | | | |
| | SB 3470+00 | 3475+00 | 0 | 10 | + 0 | | | | 9411 | 9296 | - 115 | | | | | | | | | | | | | |
| | NB 3475+00 | 3480+00 | 3233 | 3077 | - 156 | 54 | 56 | + 2 | 1987 | 1886 | - 101 | | | | | | | | 6 | | | 134 | | |
| | SB 3475+00 | 3480+00 | 50 | 78 | + 28 | | | | 6106 | 5888 | - 218 | | | | | | | | | | | | | |
| | NB 3480+00 | 3485+00 | 10378 | 9767 | - 611 | 1149 | 6898 | + 5749 | 124 | 296 | + 172 | | | | | | | | 618 | | | 886 | | |
| | SB 3480+00 | 3485+00 | 1141 | 1187 | + 46 | 0 | 620 | + 620 | 2848 | 2741 | - 107 | | | | | | | | | | | | | |
| | NB 3485+00 | 3490+00 | 2929 | 2256 | - 673 | | | | 777 | 1123 | + 346 | | | | | | | | | | | | | |
| | SB 3485+00 | 3490+00 | 3312 | 3386 | + 74 | | | | 887 | 1255 | + 268 | | | | | | | | | | | | | |
| | NB 3490+00 | 3495+00 | 23274 | 22437 | - 837 | | | | 0 | 0 | 0 | | | | | | | | | | | | | |
| | SB 3490+00 | 3495+00 | 22750 | 21261 | - 1523 | | | | 0 | 0 | 0 | | | | | | | | | | | | | |
| | NB 3495+00 | 3500+00 | 5417 | 4569 | - 848 | | | | 3134 | 5613 | + 2479 | | | | | | | | | | | | | |
| | SB 3495+00 | 3500+00 | 5311 | 4822 | - 489 | | | | 3639 | 6343 | + 2704 | | | | | | | | | | | | | |
| STOP → | NB 3500+00 | 3505+00 | 0 | 327 | + 327 | | | | 9033 | 15512 | + 6479 | | | | | | | | | | | | | |
| | SB 3500+00 | 3508+00 | 0 | 0 | 0 | | | | 16139 | 16914 | + 8775 | | | | | | | | | | | | | |
| | NB 3505+00 | 3510+00 | 0 | 366 | + 366 | | | | 14982 | 16002 | + 1020 | | | | | | | | | | | | | |
| | SB 3508+00 | 3510+00 | 0 | 0 | 0 | | | | 13336 | 13621 | + 285 | | | | | | | | | | | | | |
| | NB 3510+00 | 3515+00 | 64 | 50 | - 14 | | | | 6412 | 6188 | - 224 | | | | | | | | | | | | | |
| | SB 3510+00 | 3518+00 | 487 | 570 | + 83 | | | | 2694 | 2623 | - 71 | | | | | | | | | | | | | |
| | NB 3515+00 | 3520+00 | 145 | 127 | - 18 | | | | 2987 | 2938 | - 51 | | | | | | | | | | | | | |
| | SB 3518+00 | 3520+00 | 1320 | 1465 | + 145 | | | | 643 | 546 | - 97 | | | | | | | | | | | | | |
| | NB 3520+00 | 3525+00 | 0 | 0 | 0 | | | | 9883 | 9281 | - 602 | | | | | | | | | | | | | |
| | SB 3520+00 | 3525+00 | 43 | 63 | + 20 | | | | 5072 | 4932 | - 140 | | | | | | | | | | | | | |
| | NB 3525+00 | 3530+00 | 0 | 0 | 0 | | | | 8678 | 8157 | - 521 | | | | | | | | | | | | | |
| | SB 3525+00 | 3530+00 | 15 | 39 | + 24 | | | | 5530 | 5352 | - 178 | | | | | | | | | | | | | |
| | NB 3530+00 | 3535+00 | 0 | 0 | 0 | | | | 5010 | 4704 | - 106 | | | | | | | | | | | | | |
| | SB 3530+00 | 3535+00 | 398 | 564 | + 166 | | | | 9742 | 9397 | - 345 | | | | | | | | | | | | | |
| | NB 3535+00 | 3540+00 | 0 | 7 | + 7 | | | | 5823 | 5784 | - 39 | | | | | | | | | | | | | |
| | SB 3535+00 | 3540+00 | 326 | 439 | + 113 | | | | 4154 | 3969 | - 185 | | | | | | | | | | | | | |
| | NB 3540+00 | 3545+00 | 12351 | 12309 | - 38 | 22 | 0 | - 22 | 142 | 158 | + 16 | | | | | | | | | | | | | |
| | SB 3540+00 | 3545+00 | 15876 | 15724 | - 152 | 20 | 0 | - 20 | 13 | 3 | - 10 | | | | | | | | | | | | | |
| | NB 3545+00 | 3550+00 | 13671 | 13022 | - 649 | | | | 0 | 0 | 0 | | | | | | | | | | | | | |
| | SB 3545+00 | 3550+00 | 17340 | 17226 | - 54 | 104 | 0 | - 104 | 0 | 0 | 0 | | | | | | | | | | | | | |
| | NB 3550+00 | 3555+00 | 913 | 916 | + 3 | | | | 872 | 685 | - 187 | | | | | | | | | | | | | |
| | SB 3550+00 | 3555+00 | 923 | 1039 | + 116 | | | | 959 | 883 | - 76 | | | | | | | | | | | | | |
| | NB 3555+00 | 3560+00 | 0 | 30 | + 30 | | | | 7876 | 7965 | + 54 | | | | | | | | | | | | | |
| | SB 3555+00 | 3560+00 | 0 | 0 | 0 | | | | 6935 | 6859 | - 76 | | | | | | | | | | | | | |
| | NB 3560+00 | 3565+00 | 0 | 0 | 0 | | | | 11596 | 11371 | - 129 | | | | | | | | | | | | | |
| | SB 3560+00 | 3565+00 | 0 | 0 | 0 | | | | 8089 | 8130 | + 41 | | | | | | | | | | | | | |
| | NB 3565+00 | 3570+00 | 0 | 0 | 0 | | | | 11655 | 11481 | - 174 | | | | | | | | | | | | | |
| | SB 3565+00 | 3570+00 | 0 | 0 | 0 | | | | 8399 | 12401 | + 3 | | | | | | | | | | | | | |
| | NB 3570+00 | 3575+00 | 0 | 0 | 0 | | | | 12536 | 12341 | - 194 | | | | | | | | | | | | | |
| | SB 3570+00 | 3575+00 | 0 | 0 | 0 | | | | 7721 | 7772 | - 349 | | | | | | | | | | | | | |
| | NB 3575+00 | 3580+00 | 0 | 0 | 0 | | | | 22887 | 23060 | + 173 | | | | | | | | | | | | | |
| | SB 3575+00 | 3580+00 | 0 | 0 | 0 | | | | 21810 | 21787 | - 23 | | | | | | | | | | | | | |
| | NB 3580+00 | 3585+00 | 0 | 0 | 0 | | | | 30722 | 34471 | + 3819 | | | | | | | | | | | | | |
| | SB 3580+00 | 3585+00 | 0 | 0 | 0 | | | | 26961 | 33432 | + 4471 | | | | | | | | | | | | | |
| | NB 3585+00 | 3590+00 | 0 | 0 | 0 | | | | 41689 | 42536 | + 1522 | | | | | | | | | | | | | |
| | SB 3585+00 | 3590+00 | 0 | 0 | 0 | | | | 43829 | 41372 | - 2457 | | | | | | | | | | | | | |
| | NB 3590+00 | 3595+00 | 0 | 0 | 0 | | | | 37055 | 37006 | - 54 | | | | | | | | | | | | | |
| | SB 3590+00 | 3595+00 | 0 | 0 | 0 | | | | 35841 | 35338 | + 503 | | | | | | | | | | | | | |
| | NB 3595+00 | 3600+00 | 0 | 0 | 0 | | | | 18814 | 18607 | - 208 | | | | | | | | | | | | | |
| | SB 3595+00 | 3600+00 | 0 | 0 | 0 | | | | 18423 | 18126 | - 297 | | | | | | | | | | | | | |
| | TOTALS | | 150386 | 147867 | - 2519 | 1349 | 7515 | 6166 | 550852 | 578310 | + 28378 | | | | | | | | 654 | | | 1020 | | |

DLH - DEF 2-11-67

## COLUMN SUMMARY

| SHEET | COLUMN | EXCAVATION | ROCK | FILL | UNAUTHORIZED WASTE | BASE |
|---|---|---|---|---|---|---|
| TOTALS | | | | | | |

REMARKS

PROJECT ST. ALBANS — SWANTON

PROJECT F NO. 89-9(36)S

SHEET 1 OF SHEETS 2

# FINAL EARTHWORK SUMMARY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

| NOTES | STATIONS | | TOTAL EXCAVATION DESIGN | TOTAL EXCAVATION FINAL | TOTAL EXCAVATION DIFFERENCE | ROCK DESIGN | ROCK FINAL | ROCK DIFFERENCE | EMBANKMENT DESIGN | EMBANKMENT FINAL | EMBANKMENT DIFFERENCE | UNCLASSIFIED WASTE DESIGN | UNCLASSIFIED WASTE FINAL | UNCLASSIFIED WASTE DIFFERENCE | BORROW DESIGN | BORROW FINAL | BORROW DIFFERENCE | 10% DESIGN | 10% FINAL | 10% DIFFERENCE | ROCK BORROW DESIGN | ROCK BORROW DIFFERENCE | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 150388 | 147327 | -3061 | 1349 | 7575 | (6226) | 550552 | 678930 | | | | | | | | | 694 | | 1020 | | |
| | NB 3600+00 | 3605+00 | 24 | 28 | +4 | | | | 12364 | 12235 | -124 | | | | | | | | | | | | |
| | SB 3600+00 | 3605+00 | 252 | 233 | -19 | | | | 10468 | 10778 | +310 | | | | | | | | | | | | |
| | NB 3605+00 | 3610+00 | 20987 | 21278 | +291 | | | | 6 | 0 | -6 | | | | | | | | | | | | |
| | SB 3605+00 | 3610+00 | 20720 | 21606 | +886 | | | | 0 | 0 | 0 | | | | | | | | | | | | |
| | NB 3610+00 | 3615+00 | 15159 | 15242 | +83 | | | | 97 | 182 | +33 | | | | | | | | | | | | |
| | SB 3610+00 | 3615+00 | 12874 | 12757 | +83 | | | | 173 | 191 | +18 | | | | | | | | | | | | |
| | NB 3615+00 | 3620+00 | 4 | 7 | +3 | | | | 7059 | 7525 | +466 | | | | | | | | | | | | |
| | SB 3615+00 | 3620+00 | 0 | 30 | +30 | | | | 5620 | 5644 | +24 | | | | | | | | | | | | |
| | Main Line | Totals | 219900 | 218,807 | -1178 | 1349 | 7575 | 6226 | 626291 | 611,416 | -29769 | | | | | | | | 654 | | 1020 | | |
| TR # 25 +15 RELOCATION | 0+00 | 5+00 | 339 | 168 | -171 | | | | 1451 | 1644 | +193 | | | | | | | | | | | | |
| | 5+00 | 10+00 | 98 | 63 | -35 | | | | 9837 | 9717 | -120 | | | | | | | | | | | | |
| | 10+00 | 15+00 | 0 | 0 | 0 | | | | 11840 | 11270 | -670 | | | | | | | | | | | | |
| | 15+00 | 20+00 | 0 | 01 | 0 | | | | 3489 | 4751 | +1462 | | | | | | | | | | | | |
| | 20+00 | 24+28 | 598 | 505 | -93 | | | | 5156 | 4925 | -231 | | | | | | | | | | | | |
| | TR 25+15 | Totals | 1035 | 736 | -919 | | | | 25573 | 26,207 | +634 | | | | | | | | | | | | |
| VT # 36 | 0+00 | 5+00 | 59 | 97 | +38 | | | | 9496 | 9567 | +71 | | | | | | | | | | | | |
| | 5+00 | 10+00 | | | | | | | 25,727 | 25,118 | -609 | | | | | | | | | | | | |
| | 10+00 | 15+28 | | | | | | | 18,358 | 18,679 | +323 | | | | | | | | | | | | |
| | 15+00 | 20+00 | 488 | 496 | +8 | | | | 11,146 | 11,317 | +171 | | | | | | | | | | | | |
| | | VT 36 Totals | 547 | 593 | +46 | | | | 45,825 | 45,711 | -114 | | | | | | | | | | | | |
| VT # 105 | 2+50 | 5+00 | 265 | 216 | -49 | | | | 364 | 362 | -1 | | | | | | | | | | | | |
| | 5+00 | 10+00 | | 16 | +16 | | | | 9,124 | 9,859 | +735 | | | | | | | | | | | | |
| | 10+00 | 15+00 | 457 | 329 | -128 | | | | 10,172 | 10,990 | +818 | | | | | | | | | | | | |
| | 15+00 | 20+00 | | 23 | +23 | | | | | 8 | +8 | | | | | | | | | | | | |
| | | VT 105 Totals | 722 | 584 | -138 | | | | 19,660 | 20,220 | +560 | | | | | | | | | | | | |
| TR # 14 East | 0+00 | 5+00 | | 4466 | | | | | | 411 | | | | | | | | | | | | | |
| | 5+00 | 10+00 | | 677 | | | | | | 738 | | | | | | | | | | | | | |
| | 10+00 | 11+00 | | 62 | | | | | | 35 | | | | | | | | | | | | | |
| | Totals TR | #14 East | 5571 | 5205 | -366 | | | | 718 | 1184 | +466 | | | | | | | | | | | | |
| TR # 14 West | 0+00 | 5+00 | | 1141 | | | | | | 2061 | | | | | | | | | | | | | |
| | 5+00 | 6+50 | | 174 | | | | | | 0 | | | | | | | | | | | | | |
| | TR #14 West | Totals | 2314 | 1315 | -1004 | | | | 8152 | 7061 | -1091 | | | | | | | | | | | | |
| Total (Side hines) | | | 10209 | 8433 | -1781 | | | | 99,228 | 100,683 | +1455 | | | | | | | | | | | | |
| Grand Total (main & Side hines) | | | 230117 | 227,240 | +2854 | 1349 | 7575 | 6226 | 685,566 | 712,099 | +30,514 | | | | | | | | 654 | | 1020 | | |

M/L E&R 218,807 cy
DED. BOULDERS & SOLID ROCK - 7875
EARTH 210,932

| | | |
|---|---|---|
| TR # 25 & 15 | " | 736 |
| VT # 36 | " | 593 |
| VT 105 | " | 584 |
| TR # 14 EAST | " | 5,205 |
| TR # 14 WEST | " | 1315 |
| 103-A1 | " | 219,365 cy. |

9-23-67

TOTALS

DLH + DEP 8-11-67

## COLUMN SUMMARY

| SHEET | COLUMN | EXCAVATION | ROCK | FILL | UNAUTHORIZED WASTE | SPECIAL Ex Rock | 10% | TRM Borrow |
|---|---|---|---|---|---|---|---|---|
| NB 1 | 1 | 6033 | | 944 | | | | |
| | 2 | 13053 | 6,955 | 13747 | | | 654 | 1020 |
| | 3 | 21,812 | | 30,920 | | | | |
| 2 | 1 | 266 | | 32,917 | | | | |
| | 2 | 26,240 | | 10,852 | | | | |
| | 3 | 44 | | 31,495 | | | | |
| 3 | 1 | — | | 118,398 | | | | |
| | 2 | 21,326 | | 68,844 | | | | |
| | 3 | 15,249 | | 7,657 | | | | |
| | Total | 112,013 | 6,955 | 324,272 | | | 654 | 1020 |
| SB 4 | 1 | 3,989 | | 7,378 | | | | |
| | 2 | 1,604 | 620 | 23,305 | | | | |
| | 3 | 29,136 | | 32,310 | | | | |
| 5 | 1 | 2,137 | | 18,287 | | | | |
| | 2 | 34,742 | | 3,418 | | | | |
| | 3 | 360 | | 24,024 | | | | |
| 6 | 1 | — | | 104,163 | | | | |
| | 2 | 21,889 | | 64,320 | | | | |
| | 3 | 12,987 | | 8,835 | | | | |
| | Total | 106,796 | 620 | 287,144 | | | | |
| VT # 36 7 | 1 | 593 | | 45,711 | 555 | | | |
| VT # 105 7 | 2 | 584 | | 20,220 | | | | |
| TR # 25 & 15 8 | 1 | 573 | | 26,297 | | | | |
| | 2 | 163 | | 210 | | | | |
| | Total | 736 | | 26,507 | | | | |
| TR # 14 East 8 | 2 | 1,315 | | 2,061 | | | | |
| TR # 14 West 9 | 1 | 5,205 | | 1,184 | | | | |
| NB 5D 9 | 2 | | | | | 4,318 | | |
| | 3 | | | | | 450 | | |
| | | | | | Total | 4,768 | | |
| TR # 25 & 15 9 | 3 | | | | | 761 | | |

REMARKS

Workable Fill Factor

| | Original | | Final |
|---|---|---|---|
| Earth and Rock Excavation | 230,117 | | 227,240 |
| Solid Rock Excavation | - 1,349 | - | 7,875 |
| Undercut to Topsoil, Stockpile & Backfill - Cut areas | | - | 27,796 |
| Earth Excavation | 228,768 | | 191,569 |
| Unclassified Fill | 685,369 | | 712,099 |
| Less Footings, Solid Rock, I.F. | - 1,803 | | |
| Less Footings, C.C. (Incl. 10% Adj. & Rock Borrow) @ I.F. | | - | 12,631 |
| Boulders (Ded. # Non-Ded.) | | - | 818 |
| Undercut for Topsoil, Stockpile - Fill areas | | + | 15,128 |
| Net Roadway Earth Fill | 683,680 | | 714,228 |
| Factor (1.28 Orig.) (1.18 Final) | | | |
| Finished Fill Incl. Factor | 854,600 | | 843,997 |
| Material Available: | | | |
| Earth Excavation | 228,768 | | 191,569 |
| Channel Excavation 60% | 1,229 | | 1,284 |
| Underdrain Excavation 60% | 74 | | 0 |
| Structure Excavation 40% | 480 | | 413 |
| Granular Borrow | 78,022 | | 140,823 |
| Total | 308,980 | | 332,649 |
| Total Fill Incl. Factor | 854,600 | | 843,997 |
| Total Material for Fill | 308,980 | | 332,649 |
| Borrow | 545,620 | | 511,348 |

PROJECT S. ALBANS - SWANTON

PROJECT I NO 893(34) 31
SHEET 2 OF SHEETS 2

# STATE OF VERMONT
# DEPARTMENT OF HIGHWAYS
# RIGHT-OF-WAY PLANS
## DETAIL SHEET 1 OF 5

### TABLE OF PROJECT PROPERTY ACQUISITION

| PARCEL NO. | GRANTOR | SHEET NO. | BEGINNING STATION | ENDING STATION | TAKING | REM. | RIGHTS | TITLE TAKEN | DATE | TOWN OR CITY RECORDED | BK. | PG. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.A | CARLTON P. SOULE ET | 18,21 | 3457+37 | 3469+41 | 7.7A± | LA 123.8A± | | | | | | | |
| B | | 19 | 2+00 Vt. 36 | 3458+40 Gl. | 1.5A± | | | | | | | | |
| C | O. FRANCIS HOURIGAN | 20 | 3459+50 Bl. | 20+00 Vt. 36 | 2.0A± | | | | | | | | SPRING HOUSE |
| | | | 3461+60 Lt. | | | | DRAINAGE | | | | | | |
| | | | 3465+00 Lt. | | | | " | | | | | | |
| | | | 3468+92 Lt. | | | | " | | | | | | |
| | | | 5+74 Vt 36 Lt. | | | | | | | | | | |
| 2.A | EQUITIES, INC. | 21,22,23 | 3468+90 | 3496+23 | 19.6A± | LA 450.3A± | | | | | | | |
| B | | 23,25 | -0+50 TR 25 | 3492+50 Bl. | 5.0A± | | | | | | | | |
| C | | 24 | 8+44 TR 14 | 11+00 TR 14 | 0.1A± | | | | | | | | |
| | | | 7+80 TR 14 Rt. | 9+80 TR 14 | | | (0.1A±) SLOPE RIGHTS | | | | | | |
| | | | 7+85 TR 14 Rt. | | | | DRAINAGE | | | | | | |
| | | | 3489+40 Rt. | 7+85 TR 14 Rt. | | | DITCHING | | | | | | |
| | | | 3474+00 Rt. | | | | DRAINAGE | | | | | | |
| | | | 9+00 TR 25 Rt. | | | | " | | | | | | |
| | | | 3477+00 Lt. | 3484+40 Lt. | | | DITCHING | | | | | | DREDGE PRESENT STREAM |
| | | | 2+31 TR 14 Lt. | | | | DRAINAGE | | | | | | |
| | | | 5+50 TR 14 Lt. | | | | " | | | | | | |
| | | | 1+00 TR 14 Rt. | 3+85 TR 14 Rt. | | | (0.2A±) SLOPE RIGHTS | | | | | | |
| | | | 3477+00 Lt. | | | | DRAINAGE | | | | | | |
| | | | 3480+92 Lt. | | | | " | | | | | | |
| 3. | GUIDO, DAVID J. & JEANE M. | 22,26 | 3490+53 | 3493+11 | 0.6A± | LA 1.4A± | | | | | | | |
| | | | 4+50 TR 14 Rt. | | | | DRIVE | | | | | | |
| | | | 19+90 TR 15 Rt. | 20+85 TR 15 Rt. | | | (1500 sq. ft.) SLOPE RIGHTS | | | | | | |
| | | | 4+00 TR 14 Rt. | | | | DRAINAGE & DITCHING | | | | | | |
| | | | 6+90 TR 14 | | | | WATER LINE CROSSING | | | | | | |
| 4. | RAINE, LEO W. & CAROL E. | 24 | 6+35 TR 14 Rt. | | | | DRIVE | | | | | | |
| | | | 6+90 TR 14 | | | | WATER LINE CROSSING | | | | | | |
| 5.A | GRATTON, ALPHONSE W. & ALMA L. | 24,27,28 | 3501+30 | 3534+59 | 20.8A± | LA 3+1.4A± | | | | | | | |
| B | | 24 | 11+00 TR 14 | 24+42 TR 15 | 1.8A± | | | | | | | | LOSS OF ACCESS 54.2A± |
| | | | 0+73 TR 14 Lt. | 4+25 TR 14 Lt. | | | (0.2A±) SLOPE RIGHTS | | | | | | |
| | | | 8+00 TR 14 Lt. | 8+75 TR 14 Lt. | | | (150 sq. ft.) " " | | | | | | |
| | | | 20+85 TR 15 Rt. | 3+00 TR 14 Rt. | | | (0.4A±) " " | | | | | | |
| | | | 4+00 TR 14 Lt. | | | | DITCHING | | | | | | |
| | | | 3509+00 Lt. | | | | DRAINAGE | | | | | | |
| | | | 3511+71 Lt. | | | | " | | | | | | |
| | | | 3516+00 Rt. | | | | " | | | | | | |
| | | | 3520+00 Rt. | | | | " | | | | | | |
| | | | 3525+63 Rt. | | | | " | | | | | | |
| | | | 3529+00 Rt. | | | | " | | | | | | |
| | | | 3533+00 Rt. | | | | " | | | | | | |
| | | | 7+60 TR 14 Rt. | 8+44 TR 14 Rt. | | | (1,395 S.F.) SLOPE RIGHTS | | | | | | |

### TABLE OF REVISIONS

| REVISION NO. | SHEET NO. | DESCRIPTION OF REVISION | DATE | MADE BY | APPROVED BY |
|---|---|---|---|---|---|
| 1 | 18 | 13+00 Vt 36 Rt. Pipe Note revised | | | |
| 2 | 18 | 13+00 Vt 36 Lt. Pipe Note revised | | | |
| 3 | 18 | 15+20 Vt 36 Lt. Pipe Note revised | | | |
| 4 | 18 | 3457+00 P.O.S.T. added | | | |
| 5 | 19 | 6+50 Vt 36 Rt. Pipe Note revised | | | |
| 6 | 19 | 6+50 Vt 36 Lt. Pipe Note revised | | | |
| 7 | 20 | 13+00 Vt 36 Lt. Pipe Note revised | | | |
| 8 | 20 | 15+20 Vt 36 Lt. Pipe Note revised | | | |
| 9 | 20 | 13+00 Vt 36 Rt. Pipe Note revised | | | |
| 10 | 20 | 3461+00 ℄ Lt. Added To Pipe Note | | | |
| 11 | 21 | Added gage no. 4 Changed Length & pipe at 3453+88 NB - 3461+60 SB | | | |
| 12 | 21 | Added gage No. To pipe at 3461+60 ℄ | | | |
| 13 | 21 | Added gage To pipe at 3465+00 SB | | | |
| 14 | 21 | Added gage To pipe at 3465+00 NB | | | |
| 15 | 21 | Added gage To pipe at 3468+92 SB | | | |
| 16 | 21 | Added gage To pipe at 3468+92 SB | 10-6-64 | Chase | |
| 17 | 22 | Added sideline Stationing, Topo, Construction & Two design Notes. | | | |
| 18 | 23 | 3+79 - 4+07 Lt. Changed pipe specs | | | |
| 19 | 23 | 3+89 - 4+16 Rt. Changed pipe Specs | | | |
| 20 | 23 | 9+00 Changed pipe specs. | | | |
| 21 | 24 | 7+85 Rt - 8+02 5 Lt. Changed Pipe Specs | | | |
| 22 | 24 | 4+00 Changed pipe specs | | | |
| 23 | 24 | 0+30 Changed pipe specs | | | |
| 24 | 24 | 20+95 Rt - 21+05 Lt. Changed pipe specs. | | | |
| 25 | 25 | 2+31.2 Changed pipe specs. | | | |
| 26 | 25 | 5+50 Changed Pipe specs. | | | |
| 27 | 26 | Added gage To pipe at 3498+50 N.B. | | | |
| 28 | 26 | Added gage To pipe 3502+00 N.B. | | | |
| 29 | 26 | Added gage & Changed pipe size at 3503+30 NB & S.B. | | | |
| 30 | 26 | Added gage To pipe at 3506+00 N.B. | | | |
| 31 | 29 | Added item no. To pipe at 3542+00 - 3544+00 | | | |
| 32 | 29 | Added P.O.T. note | | | |
| 33 | 29 | 11+05 - 14+00 Vt 10.5 Lt. Added Special ditch | | | |
| 34 | 30 | Same as rev. No. 33 | | | |

LEGEND

- TAKING WITHOUT ACCESS
- TAKING WITHOUT ACCESS ALONG PROPERTY LINES
- TAKING WITH ACCESS
- SLOPE RIGHTS
- PROPERTY LINE
- TOP OF CUT
- TOE OF SLOPE

MADE BY M.M.G. DATE 9/18/64

CHECKED BY [illegible] DATE 9/18/64

APPROVED [illegible] DATE 9/21/64
PROGRAM SUPERVISOR

APPROVED [illegible] DATE 9/25/64
CHIEF ENGINEER

APPROVED [illegible] DATE 9/21/64
R.O.W. DIRECTOR

ST ALBANS - SWANTON

SHEET 5 OF 66 SHEETS I 89-3(25)

Sheet No. 21 of 298 Sheets
Contract #1

# STATE OF VERMONT
# DEPARTMENT OF HIGHWAYS
# RIGHT-OF-WAY PLANS
## DETAIL SHEET 2 OF 5

### TABLE OF PROJECT PROPERTY ACQUISITION

| PARCEL NO. | GRANTOR | SHEET NO. | BEGINNING STATION | ENDING STATION | TAKING | REM. | RIGHTS | TITLE TAKEN | DATE | TOWN OR CITY RECORDED | BK. | PG. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6. | GARCEAU, GASTON J. & THERESA D. | 24 | 23+14 TR 15<br>23+09 TR 15 Lt. | 24+42 TR 15<br>23+50 TR 15 Lt. | 0.1A± | 0.4A± | (75 sq.ft.±) SLOPE RIGHTS | | | | | | |
| 7. A<br>B | SPORTSMAN'S CLUB OF FRANKLIN COUNTY, INC. | 26<br>24 | 34+95+51<br>34+95+51 BL<br>21+05 TR 15 Lt.<br>22+82 TR 15 Lt. | 35+02+60<br>23+36 TR 15<br>23+14 TR 15 Lt. | 4.3A±LA<br>1.1A± | 9.3A± | DRAINAGE<br>(200 sq.ft.±) SLOPE RIGHTS | | | | | | 6.9A± LOSS OF ACCESS |
| 8. A<br>B | BRODEUR, PHILIP C. & IRENE M. | 28<br>29,30 | 3533+80<br>11+06 Yr. 105<br>3537+00 Rt.<br>12+83 Yr. 105 Rt. | 3538+38<br>15+30 Yr. 105 | 2.3A±LA<br>0.5A± | 32.5A± | DRAINAGE<br>DRIVE | | | | | | |
| 9. A<br>B | COLLINS, ALWIN D. & MARTHA D. | 29<br>29 | 3542+08<br>3545+93 BL<br>3+00 Yr. 105 Rt. | 3546+61<br>2+27 Yr. 105 | 0.3A±LA<br>0.3A± | 4.4A± | DRIVE | | | | | | |
| 10. A<br>B | TESSIER, LEON L. & ROSE M. | 28,29<br>29,30 | 3537+52<br>3546+72<br>11+00 Yr. 105 Lt.<br>14+25 Yr. 105 Lt.<br>3541+70 Rt. | 3549+60<br>15+50 Yr. 105 | 7.4A±LA<br>1.5A± | 6.3A± | DRAINAGE<br>" | | | | | | HOUSE, BARN<br>0.8A± LOSS OF ACCESS |
| 11. A<br>B | COLLINS, ALWIN D. & MARTHA D. | 29<br>29 | 3548+80<br>2+37 Yr. 105<br>3+60 Yr. 105 Lt.<br>3+82 Yr. 105 Lt. | 3549+72<br>3547+50 BL<br>3+85 Yr. 105 Lt. | 0.2A±LA<br>0.4A± | 4.4A± | (50 sq.ft.±) SLOPE RIGHTS<br>DRIVE | | | | | | SPRING HOUSE |
| 12. | ROCHELEAU, HARRIET M. | 29,31<br>32. | 3549+04<br>3554+75 Rt.<br>3557+00 Rt.<br>3560+00 Rt.<br>3564+50 Rt.<br>3568+00 Rt.<br>3572+00 Rt.<br>3576+00 Lt.<br>3579+00 Lt. | 3583+59 | 20.2A±LA | 199.8A± | DRAINAGE<br>"<br>"<br>"<br>"<br>"<br>"<br>" | | | | | | |
| 13. | CENTRAL VERMONT RAILWAY, INC. | 32 | 3583+37<br>3583+53<br>3583+59 Rt.<br>3583+93 Rt. | 3583+77<br>3584+25<br>3583+72 Lt.<br>3584+28 Lt. | 0.1 A±LA | N/A | CROSSING EASEMENT<br>(500 sq.ft.±) SLOPE RIGHTS<br>(3500 sq.ft.±) " " | | | | | | |

### TABLE OF REVISIONS

| REVISION NO. | SHEET NO. | DESCRIPTION OF REVISION | DATE | MADE BY | APPROVED BY |
|---|---|---|---|---|---|
| 35 | 30 | 14+100 Lt. - 14+50 Rt. Changed Pipe Length | | | |
| 36 | 32 | Added gage To pipe at 3573+00 SB | | | |
| 37 | 33 | Added gage To pipe at 3588+00 SB | | | |
| 38 | 33 | Added gage & Elbows To pipe at 3592+80 SB | | | |
| 39 | 35 | Added interchanged, Topo, Constr. & design notes | | | |
| 40 | 37 | Added gage no. & Changed pipe length on pipe at 3650+75 NB | | | |
| 41 | 37 | Added gage no. & Changed pipe length on pipe at 3651+75 SB | | | |
| 42 | 37 | Added gage To pipe at 3660+00 NB | | | |
| 43 | 38 | Deleted pipe at 3667+00 N.B. | | | |
| 44 | 38 | Deleted Underdrain at 3675+50 - 3680+00 NB Lt. | | | |
| 45 | 38 | Added gage To pipe at 3675+00 SB | | | |
| 46 | 40 | Added gage To pipe at 3699+00 NB | | | |
| 47 | 46 | Added bearing | | | |
| 48 | 46 | Added Guard rail Note | | | |
| 49 | 56 | Chg'd pipe fr. 3854+50 NB | | | |
| 50 | 50 | Deleted pipe at 3854+93 NB | 10-6-64 | Chase | |
| 51 | 50 | Deleted pipe at 3858+00 NB. | | | |
| 52 | 50 | Added To Curve Data Note | | | |
| 53 | 51 | Chg'd const. limits fr. 3860+50 - 3862+00 NB | | | |
| 54 | 28,29 | Chg'd P.L. between parcels 8 & 10 | | | |
| 55 | 29 | Parcel 11 sold To owner of Parcel 9 | 1-14-65 | Silver | |
| 56 | 23,24, 26 | Change in ownership (Parcel #3) | | | |
| 57 | 24 | PARCEL #5B DECREASED TAKE (0.2A±) AND ADDED SLOPE RIGHTS PER BPR LETTER (4-6-65) | 4-14-65 | MMG | |
| 58 | 26,27 28 | Parcel #5A "Loss of Access" increased 4.9A± per recomputation and Change Order #139 | 9-1-65 | MMG | KAPR |
| 59 | 24 | Parcel #6 Property line changed, slope rts. reduced (200 sf±), no change in area of take or remainder, per Change Order #152 | 9-16-65 | MMG | KAPR |
| 60 | 24,26 | Parcel #7A+B Property line changed for ROW of drive, slope rts. added (200 sf±), no change in area of take or remainder per Change Order #153 | 9-16-65 | MMG | KAPR |

LEGEND

- TAKING WITHOUT ACCESS
- TAKING WITHOUT ACCESS ALONG PROPERTY LINES
- TAKING WITH ACCESS
- SLOPE RIGHTS
- PROPERTY LINE
- TOP OF CUT
- TOE OF SLOPE

MADE BY: M.M.G. DATE: 9/18/64

CHECKED BY: [illegible] DATE: 9/18/64

APPROVED: [illegible] DATE: 9/21/64
PROGRAM SUPERVISOR

APPROVED: [illegible] DATE: 9/21/64
CHIEF ENGINEER

APPROVED: [illegible] DATE: 9/21/64
R.O.W. DIRECTOR

ST. ALBANS - SWANTON

SHEET 6 OF 20 SHEETS I 89-3(22)

STATE 22 298
CONTRACT #1

# STATE OF VERMONT
# DEPARTMENT OF HIGHWAYS
# RIGHT-OF-WAY PLANS
## DETAIL SHEET 3 OF 5

### TABLE OF PROJECT PROPERTY ACQUISITION

| PARCEL NO. | GRANTOR | SHEET NO. | BEGINNING STATION | ENDING STATION | TAKING | REM. | RIGHTS | TITLE TAKEN | DATE | TOWN OR CITY RECORDED | BK. | PG. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 | LAURIE, ERDINE M., LAURIE, JESSE M., LAURIE, RICHARD M. | 32,33<br>34,35 | 3584+03<br>3592+00LT<br>3596+00RT<br>3600+00RT<br>3604+00RT<br>3601+65LT<br>3604+30RT<br>3619+90LT<br>3620+35LT<br>3588+00LT | 3622+11<br><br><br><br><br>3602+15LT<br>3604+50RT<br><br>3621+10LT | 24.8A±LA | 210.2A± | DRAINAGE<br>"<br>"<br>"<br>DITCHING<br>"<br>DRAINAGE<br>DITCHING<br>DRAINAGE | | | | | | 18.5 A± LOSS OF ACCESS<br><br><br><br><br>DREDGE PRESENT STREAM<br>DREDGE PRESENT STREAM<br><br>DREDGE PRESENT STREAM |
| 15 A<br>B<br>C | DUSSAULT, MARY L. | 34,35,36<br>35<br>35 | 3605+80<br>3620+00<br>3621+32 BL<br>3604+40RT<br>3618+30RT<br>3604+00RT<br>3621+10LT<br>3640+65NBRT | 3645+52<br>3628+00<br>30+00 SA 4<br>3605+00RT<br>3619+00RT<br><br>3621+60LT | 25.0A±LA<br>1.2A±LA<br>1.8A±LA | 115.0A± | DITCHING<br>"<br>DRAINAGE<br>DITCHING<br>DRAINAGE | | | | | | (15A) REMAINDER INCLUDES LANDS ON PROJECT S029-7(2)<br>(15B) HOUSE & GAR NON-PARTICIPATING<br>DREDGE PRESENT STREAM<br>" " "<br>(15C) NON-PARTICIPATING<br>DREDGE PRESENT STREAM |
| 16 A<br>B<br>C<br>D | TOWN OF SWANTON | 36<br>41<br>44,45<br>47 | 3642+22 NB<br>3724+67 BL<br>3778+13<br>3825+07 | 3645+52 BL<br>3723+74 NB<br>3780+90<br>3825+43 | | | TR 36 RIGHT TITLE INTEREST<br>TR 35 RIGHT TITLE INTEREST<br>TR 25 RIGHT TITLE INTEREST<br>SA 3 RIGHT TITLE INTEREST | | | SWANTON | | | |
| 17 | HUBBARD, RALPH C & PATRICIA P. | 36,37 | 3642+22 NB<br>3651+95 BLLT<br>3661+00 BLLT | 3664+38 BL | 16.1A±LA | 109.9A± | DRAINAGE & DITCHING<br>DRAINAGE | | | | | | 15.7A± LOSS OF ACCESS |
| 18 | SALISBURY, ERNEST E & HUDAK, VIRGINIA | 36 | 3646+79 BL | 3651+07 BL | 0.8A±LA | 169.2A± | | | | | | | 13.7A± LOSS OF ACCESS |
| 19 | HUBBARD, GEORGE F & EUGENIA N. | 37,38 | 3660+77 NB<br>3665+00 BLLT<br>3670+00 BLLT | 3673+56 BL | 10.2A±LA | 129.8A± | DRAINAGE<br>" | | | | | | |
| 20 | WILDER, WILCOX P & CAROLYN M. | 38,39 | 3669+75 NB<br>3675+00 BLLT<br>3681+50 NBRT<br>3683+50 NBRT<br>3685+50 BLLT<br>3679+50 BLLT<br>3684+00 BLLT | 3691+93 BL | 26.4A±LA | 98.6A± | DRAINAGE<br>"<br>"<br>"<br>" | | | | | | 7.2A± LOSS OF ACCESS |

### TABLE OF REVISIONS

| REVISION NO. | SHEET NO. | DESCRIPTION OF REVISION | DATE | MADE BY | APPROVED BY |
|---|---|---|---|---|---|
| 61 | 43,44 | Parcel #24 P/L Relocated, taking reduced (12.7A±), and remainder reduced (20.5A±) and loss of access reduced (21.0A±) per C.O. #162. | 9-17-65 | M.N.D. | HPR |
| 62 | 43,44 | Parcel #26 P/L Relocated, taking increased (12.7A±) and remainder increased (20.5A±) per C.O. #163 | 9-17-65 | M.N.D. | HPR |
| 63 | 49,50 | Parcel #30A and Parcel #34 - correction of property line, no change in taking area, per Change Order #177 | 9-30-65 | MMG | [illegible] |
| 64 | 42,43<br>44 | Parcel #24 Change in total area acreage; increased (17.2A±) per Change Order #181 | 10-5-65 | MMG | [illegible] |
| 65 | 18,19<br>20,21 | Parcel #1 Change of ownership per Change Order #191 | 10-18-65 | MMG | [illegible] |
| 66 | 43 | Parcel #24 Proposed future farm pond shown with relocated Special Ditch serving as outlet per Change Order #200. | 11-18-65 | MMG | [illegible] |

LEGEND

—///— - - —///— TAKING WITHOUT ACCESS
—///— P/L —///— TAKING WITHOUT ACCESS ALONG PROPERTY LINES
—— — — —— TAKING WITH ACCESS

—SR—SR— SLOPE RIGHTS
—— —— —— PROPERTY LINE
—Δ—Δ—Δ— TOP OF CUT
—○—○—○— TOE OF SLOPE

MADE BY WCS DATE 9/18/64
CHECKED BY [illegible] DATE 9/18/64

APPROVED T. C. Bernatchez DATE 9/18/64
PROGRAM SUPERVISOR
APPROVED [illegible] DATE 9/21/64
HWY. ENGR.
APPROVED [illegible] DATE 9/21/64
R.O.W. DIRECTOR

ST. ALBANS - SWANTON I89-3(25)

SHEET 7 OF 88 SHEETS
SHEET 23 OF 298
Contract #1

# STATE OF VERMONT
# DEPARTMENT OF HIGHWAYS
# RIGHT-OF-WAY PLANS

DETAIL SHEET 4 OF 5

## TABLE OF PROJECT PROPERTY ACQUISITION

| PARCEL NO. | GRANTOR | SHEET NO. | BEGINNING STATION | ENDING STATION | TAKING | REM. | RIGHTS | TITLE TAKEN | DATE | TOWN OR CITY RECORDED | BK. | PG. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | McMAHON, CECIL & WINIFRED D | 39,40 | 3686+31 BL<br>3694+00 BLLT<br>3699+50 BLLT<br>3705+00 BLLT | 3706+24 BL | 11.6A± LA | 113.4A± | DRAINAGE<br>"<br>" | | | | | | |
| 22 | SABOURIN, HOWELL B & MARY L | 39,40 | 3688+50 NB<br>3695+50 NBRT<br>3699+00 NBRT<br>3706+00 NBRT<br>3709+00 NBRT | 3710+26 NB | 16.5A± LA | 48.5A± | DRAINAGE<br>"<br>"<br>" | | | | | | |
| 23 | RAINVILLE, MAURICE & LUCILLE | 40,41,42 | 3704+91 BL<br>3714+00 NBRT<br>3721+50 NBRT<br>3742+50 NBRT | 3745+83 BL | 48.2A± LA | 161.8A± | DRAINAGE<br>"<br>" | | | | | | |
| 24 | DECKER, W. RALSTON & ECHO N. | 42,43,44 | 3742+96 BL<br>3752+40 LT. | 3766+42 BL<br>3753+20 LT. | 15.5A± LA | 134.5A± | DITCHING | | | | | | 12.8A± LOSS OF ACCESS<br>DREDGE PRESENT STREAM |
| 25 | JENNISON, KEITH W, JENNISON, PETER S & PRATT, KATHARINE J. | 42,43 | 3743+12 NB<br>3748+00 NBRT | 3748+86 NB | 1.7A± LA | 448.3A± | DRAINAGE | | | | | | |
| 26 | CASEY, KENNETH F. & IRENE F. | 44,45 | 3759+19 LT.<br>3767+50 LT. | 3780+90 | 15.2A± LA | 120.8A± | DRAINAGE & DITCHING | | | | | | |
| 27 | DUHAMEL, EUCLIDE & AMELIA | 44,45 | 3778+13<br>3788+00 LT.<br>3793+00 LT. | 3795+13 | 12.8A± LA | 99.2A± | DRAINAGE<br>" | | | | | | |
| 28 | CASEY, MARK M. & EDNA M. | 45,46 | 3791+15<br>3796+00 LT.<br>3801+40 LT. | 3807+01 | 11.1A± LA | 188.9A± | DRAINAGE<br>" | | | | | | 11.4A± LOSS OF ACCESS |
| 29 A.<br>B.<br>C. | HAMLEN, CARLETON L & RACHEL W. | 46,47<br>47<br>48 | 3803+38<br>3825+09<br>3824+53<br>3812+27 BL LT.<br>3814+07 BL LT.<br>3818+50 BL LT.<br>3822+50 BL LT. | 3825+43<br>3825+53<br>3825+07 | 18.1A± LA<br>2900 SQ FT.<br>0.2A± | 31.7A± | DRAINAGE<br>"<br>"<br>" | | | | | | |

## TABLE OF REVISIONS

| REVISION NO. | SHEET NO. | DESCRIPTION OF REVISION | DATE | MADE BY | APPROVED BY |
|---|---|---|---|---|---|
| | | | | | |

LEGEND

MADE BY MMG DATE 9/21/64

CHECKED BY [signature] DATE 9/21/64

—///— —///— TAKING WITHOUT ACCESS

—///— P/L —///— TAKING WITHOUT ACCESS ALONG PROPERTY LINES

—— —— —— TAKING WITH ACCESS

—SR— —SR— SLOPE RIGHTS

—— —— —— PROPERTY LINE

—Δ— —Δ— —Δ— TOP OF CUT

—○— —○— —○— TOE OF SLOPE

APPROVED T. C. Bernatchy DATE 9/21/64
PROGRAM SUPERVISOR

APPROVED [signature] DATE 9/21/64
HWY ENGR

APPROVED [signature] DATE 9/21/64
R.O.W. DIRECTOR

ST. ALBANS - SWANTON

SHEET 8 OF 88 SHEETS I 89-3(25)

Sheet 24 of 298
Contract #1

# STATE OF VERMONT
# DEPARTMENT OF HIGHWAYS
# RIGHT-OF-WAY PLANS

## DETAIL SHEET 5 OF 5

### TABLE OF PROJECT PROPERTY ACQUISITION

| PARCEL NO. | GRANTOR | SHEET NO. | BEGINNING STATION | ENDING STATION | TAKING | REM. | RIGHTS | TITLE TAKEN | DATE | TOWN OR CITY RECORDED | BK. | PG. | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30.A | SEARS, ALBERT A. & | 47,49 | 3825+07 | 3842+65 | 8.7A±LA | 371.9A± | | | | | | | |
| B | SEARS, EDWARD T. | 50,51 | 3859+35 NB | 3864+90BL | 2.2A±LA | | | | | | | | |
| C | | 48 | 3824+87 | 3825+41 | 0.2A± | | | | | | | | |
| | | | 3837+50BLLT | | | | DRAINAGE | | | | | | |
| | | | 3840+30BLLT | | | | " | | | | | | |
| 31.A | BUSHEY, ROBERT R. & | 47,49 | 3825+16 | 3832+88 | 4.1A±LA | 4.7A± | | | | | | | |
| B | GERALDINE J. | 47 | 3825+43 | 3825+98 | 0.1A± | | | | | | | | |
| 32. | BERTHIAUME, FRANCOIS T. & ANTONIA H. | 47 | 3825+19 | 3825+64 | 3200 SQ.FT. | 244.0A± | | | | | | | |
| 33. | BABY, HENRI & AUDREY A. | 49 | 3831+45 | 3836+15 | 1.2A±LA | 6.8A± | | | | | | | |
| | | | 3831+50 LT | | | | DRAINAGE | | | | | | |
| 34. | HOWRIGAN, W. P. | 49,50 | 3837+05 BL | 3862+98 BL | 20.5A±LA | 40.6A± | | | | | | | 32.0A± LOSS OF ACCESS |
| | | 51 | 3852+40BLLT | | | | DRAINAGE | | | | | | BARN, SHED, MILK HOUSE, |
| | | | 3858+03SBLT | | | | " | | | | | | GARAGE, SPRING. |
| | | | 3844+25SBLT | | | | " | | | | | | |
| 35. | BELLROSE, LAWRENCE J. & MERCEDES C. | 51 | 3859+97 BL | 3861+96 BL | 0.1A±LA | 0.9A± | | | | | | | |
| 36. | WAITE, FRANCES M. | 51 | 3861+95 BL | 3864+19BL | 2200 SQ.FT. LA | 1.0A± | | | | | | | |
| 37A | TOWN OF ST. ALBANS | 22 | 3490+53 | 3490+79.87 | | | TR14, RIGHT, TITLE, & INTEREST | | | | | | |
| B | | 22 | 3487+00 | 3490+79.87 | | | TR25, " " " | | | | | | |
| C | | 25 | 3490+79.87 | 20+00 TR15 | | | TR15, " " " | | | | | | |
| D | | 35 | 3621+32 | 3622+70 | | | SA4, " " " | | | | | | |

### TABLE OF REVISIONS

| REVISION NO. | SHEET NO. | DESCRIPTION OF REVISION | DATE | MADE BY | APPROVED BY |
|---|---|---|---|---|---|
| | | | | | |

LEGEND

MADE BY MMB DATE 9/18/64

CHECKED BY [signature] DATE 9/18/64

—/// — — —/// — TAKING WITHOUT ACCESS

—/// — P/L — —/// — TAKING WITHOUT ACCESS ALONG PROPERTY LINES

— — — — TAKING WITH ACCESS

—SR— —SR— SLOPE RIGHTS

— — — — PROPERTY LINE

—Δ— —Δ— —Δ— TOP OF CUT

—O— —O— —O— TOE OF SLOPE

APPROVED T.C. Bernatchy DATE 9/21/64
PROGRAM SUPERVISOR

APPROVED [signature] DATE 9/21/64
HWY. ENGR.

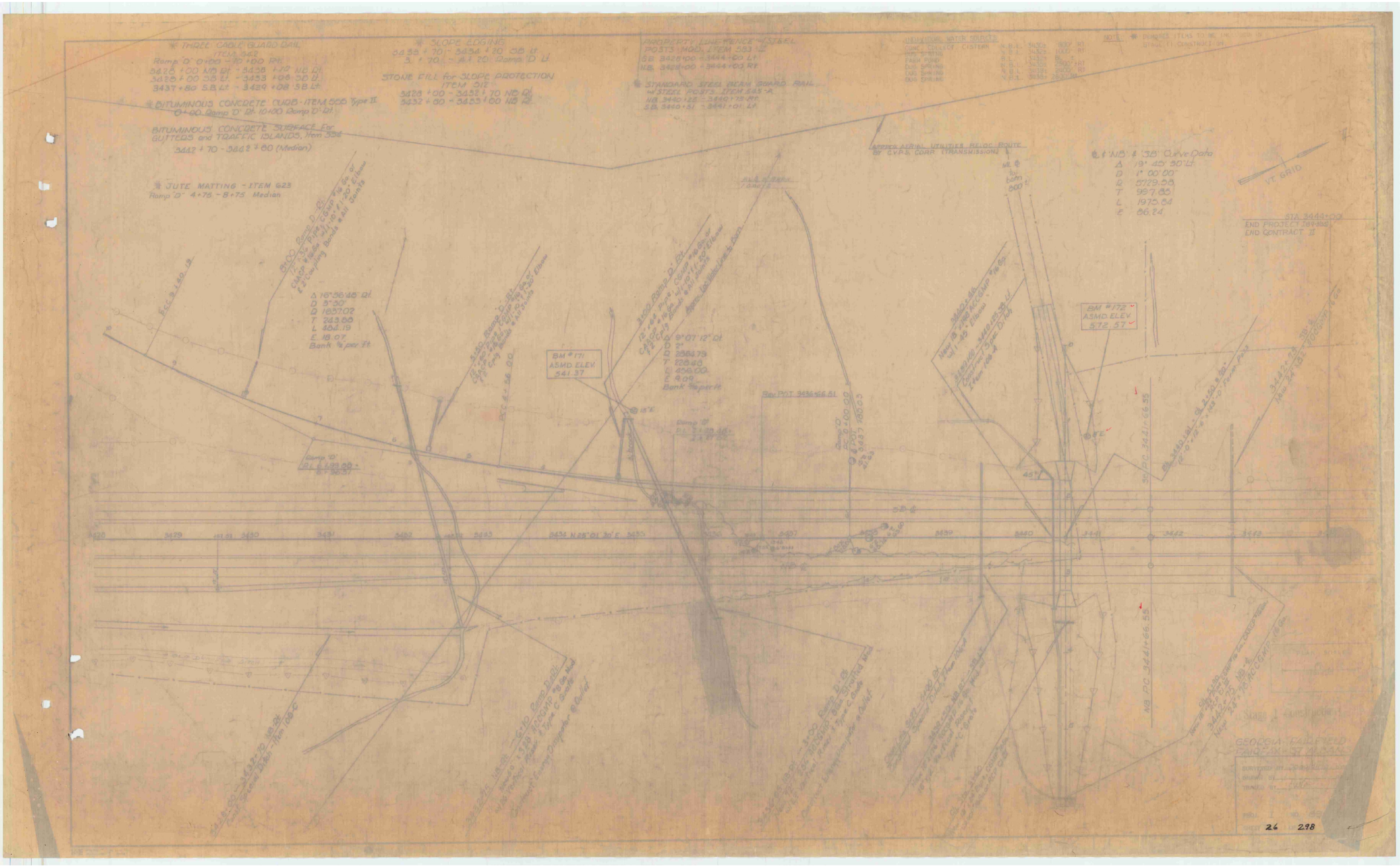
APPROVED [signature] DATE 9/21/64
R.O.W. DIRECTOR

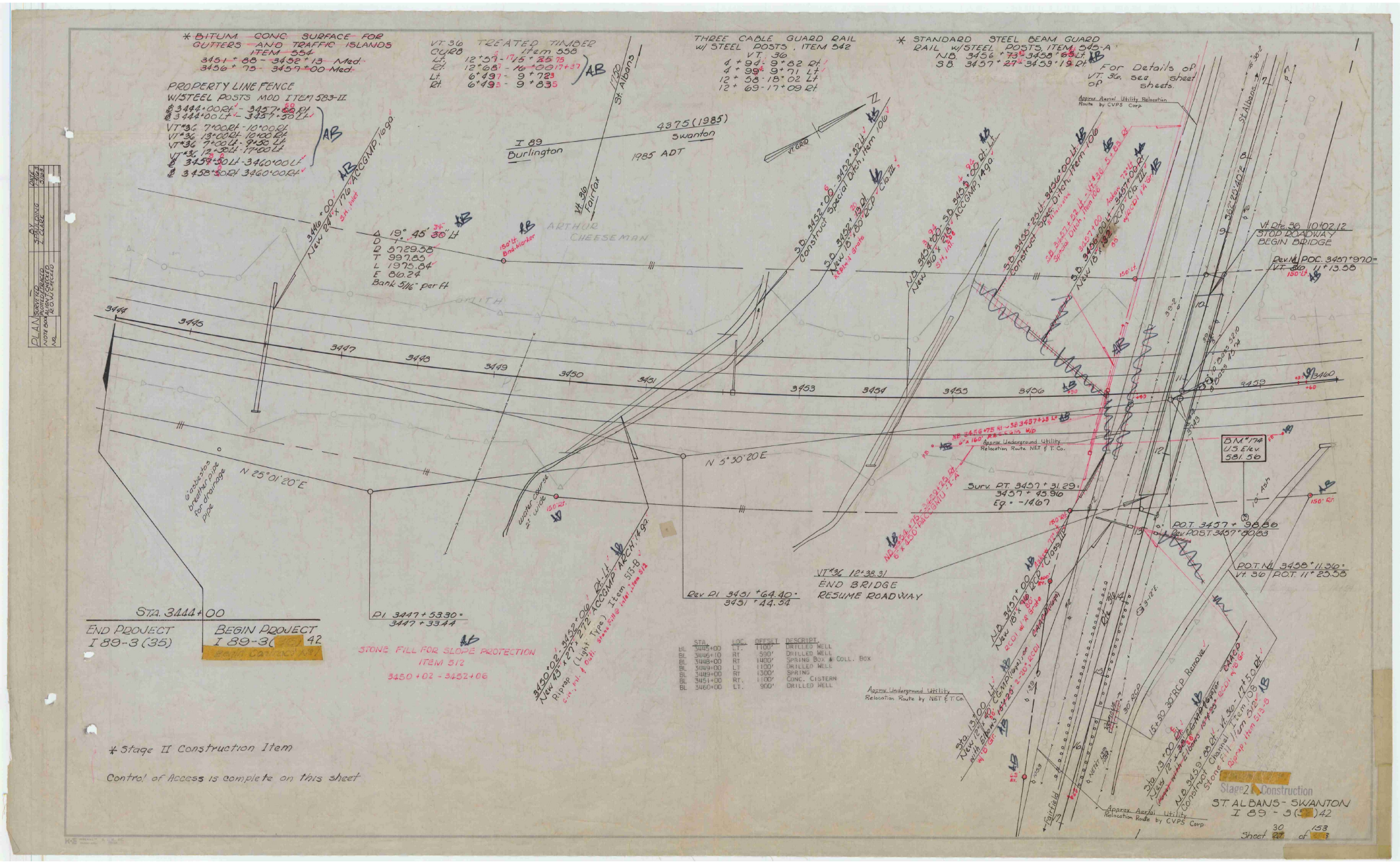
ST. ALBANS - SWANTON

SHEET 9 OF 89 SHEETS I 89-3(25)

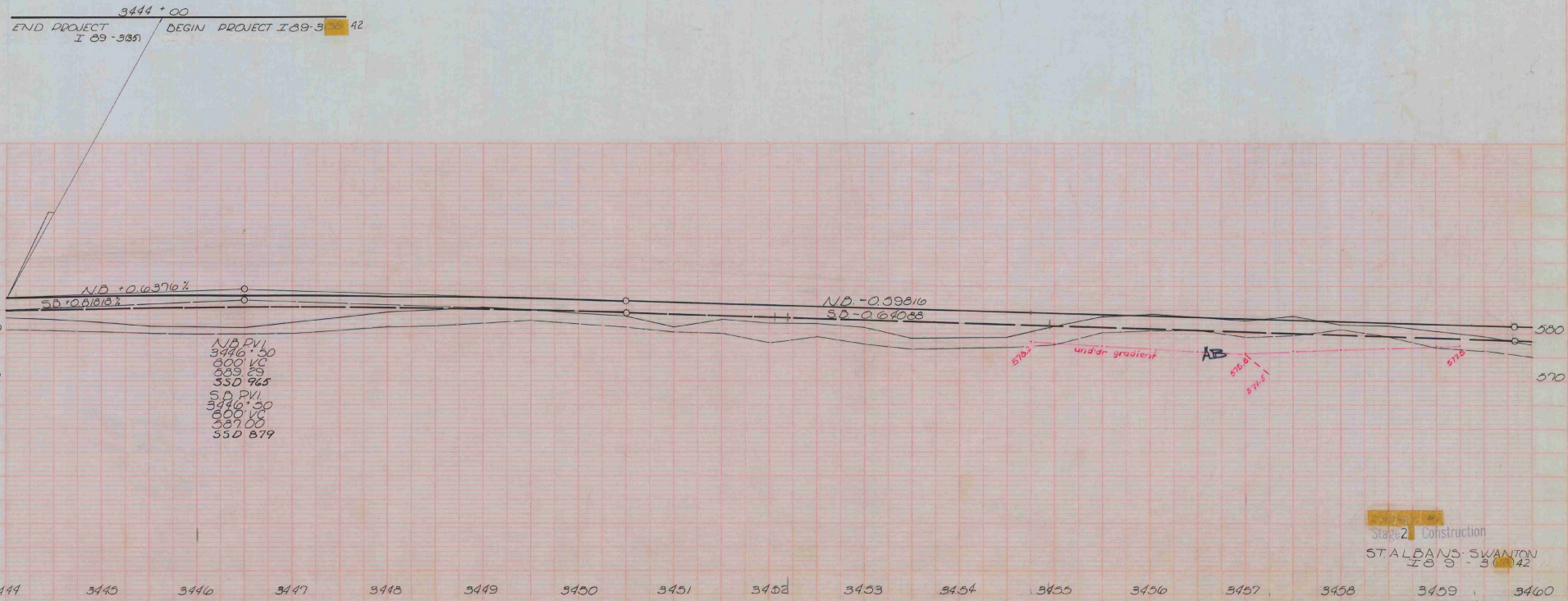
Sheet 25 of 298

Contract #1


* THREE CABLE GUARD RAIL
ITEM 541
Ramp 'D' 0+00 - 1+20 Rt.
3428 + 00 NB Rt. - 3438 + 12 NB Rt.
3436 + 00 SB Lt. - 3433 + 08 SB Lt.
3437 + 80 SB Lt. - 3439 + 08 SB Lt.
* BITUMINOUS CONCRETE CURB - ITEM 609 Type II
0+60 Ramp 'D' Rt. 10+00 Ramp 'D' Rt.
BITUMINOUS CONCRETE SURFACE For GUTTERS and TRAFFIC ISLANDS, Item 334
3442 + 70 - 3442 + 80 (Median)
* JUTE MATTING - ITEM 623
Ramp 'D' 4+76 - 8+75 Median
* SLOPE EDGING
3438 + 70 - 3434 + 20 SB Lt
3 + 70 - All 20' Ramp 'D' Lt
STONE FILL for SLOPE PROTECTION
ITEM 512
3428 + 00 - 3432 + 70 NB Rt
3432 + 60 - 3433 + 00 NB Rt
PROPERTY LINE FENCE W/STEEL POSTS (MOD. ITEM 593 LF
SB 3428+00 - 3444+60 Lt
NB 3428+00 - 3444+03 Rt
* STANDARD STEEL BEAM GUARD RAIL W/STEEL POSTS - ITEM 545-A
NB 3440+22 - 3440+78 Rt.
SB 3440+51 - 3441+01 Lt
UNDERGROUND WATER SOURCES
CONC. CISTERN
HAND PUMP
DUG SPRING
TUBE SPRING
DRILLED
NOTE: * DENOTES ITEMS TO BE PAID FOR UNDER ITEM 150 CONSTRUCTION
APPROX AERIAL UTILITIES RELOC ROUTE BY G.P.S. CORP. (TRANSMISSION)
℄ 'NB' & 'SB' Curve Data
Δ 19° 45' 30" Lt.
D 1° 00' 00"
R 5729.58
T 997.85
L 1975.84
E 86.24
VT. GRID
STA. 3444+00
END PROJECT 384-1002
END CONTRACT II
BM # 171
ASMD. ELEV.
541.37
BM # 172
ASMD. ELEV.
572.57
Ramp 'D'
P.I. 0+93.98
E = 5637
Ramp 'D'
P.I. 1+39.08
E = 5637
Ramp 'D' P.I. 3+56.00
Ramp 'D' P.I. 4+76.00
Ramp 'D' P.I. 8+75.00
NB P.C. 3441+66.55
SB P.C. 3441+66.55
3428
3429
3430
3431
3432
3433
3434 N 28° 01' 30" E 3435
3436
3437
3438
3439
3440
3441
3442
3443
GEORGIA DEPARTMENT OF TRANSPORTATION
PROJECT NO. 384-1002
DESIGNED BY
DRAWN BY
TRACED BY
CHKD.
DATE
SHEET NO.
26
298




| | STA. | LOC. | OFFSET | DESCRIPT. |
|---|---|---|---|---|
| BL | 3445+00 | LT. | 1100' | DRILLED WELL |
| BL | 3446+10 | RT | 590' | DRILLED WELL |
| BL | 3448+00 | RT | 1400' | SPRING BOX & COLL. BOX |
| BL | 3449+00 | LT | 1100' | DRILLED WELL |
| BL | 3449+00 | RT | 1300' | SPRING |
| BL | 3451+00 | RT. | 1100' | CONC. CISTERN |
| BL | 3460+00 | LT. | 900' | DRILLED WELL |




Stage 2 Construction

ST. ALBANS - SWANTON
I 8 9 - 3(42)

CONSTRUCT DRIVE
2+64 Lt. - 3+32 Rt.
2+64 Lt.

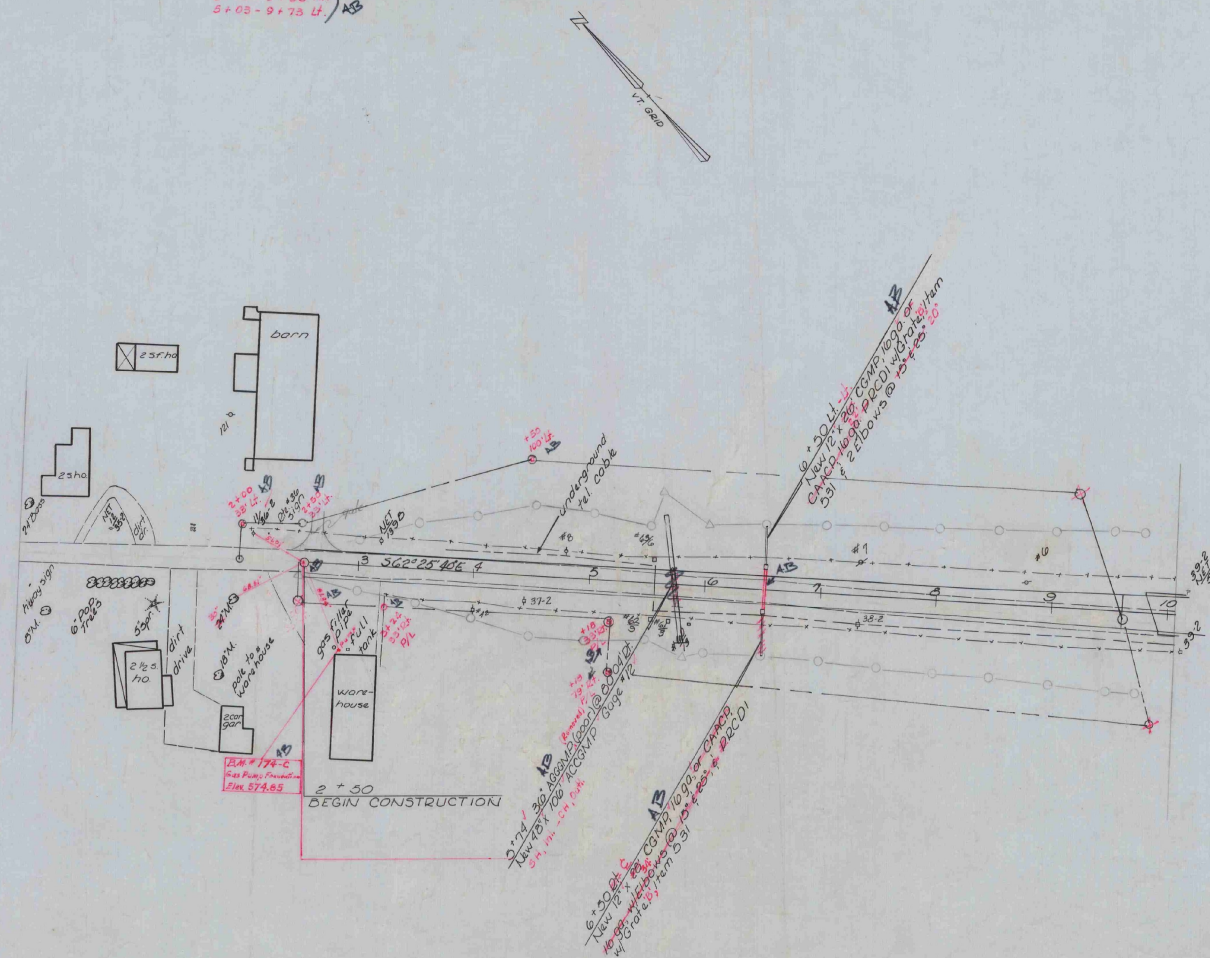
THREE CABLE GUARD RAIL
W/STEEL POSTS, ITEM 542
~~4+99 - 9+71 Lt.~~
~~4+94 - 9+82 Rt.~~
5+13 - 9+85 Rt.
5+03 - 9+73 Lt.) AB

TREATED TIMBER CURB
ITEM 558
6+49 - 9+72 Lt.
6+49 - 9+85 Rt. AB

BITUM. CONC. SURFACE FOR
GUTTERS AND TRAFFIC ISLAND
ITEM 554
6 + 50 Rt.

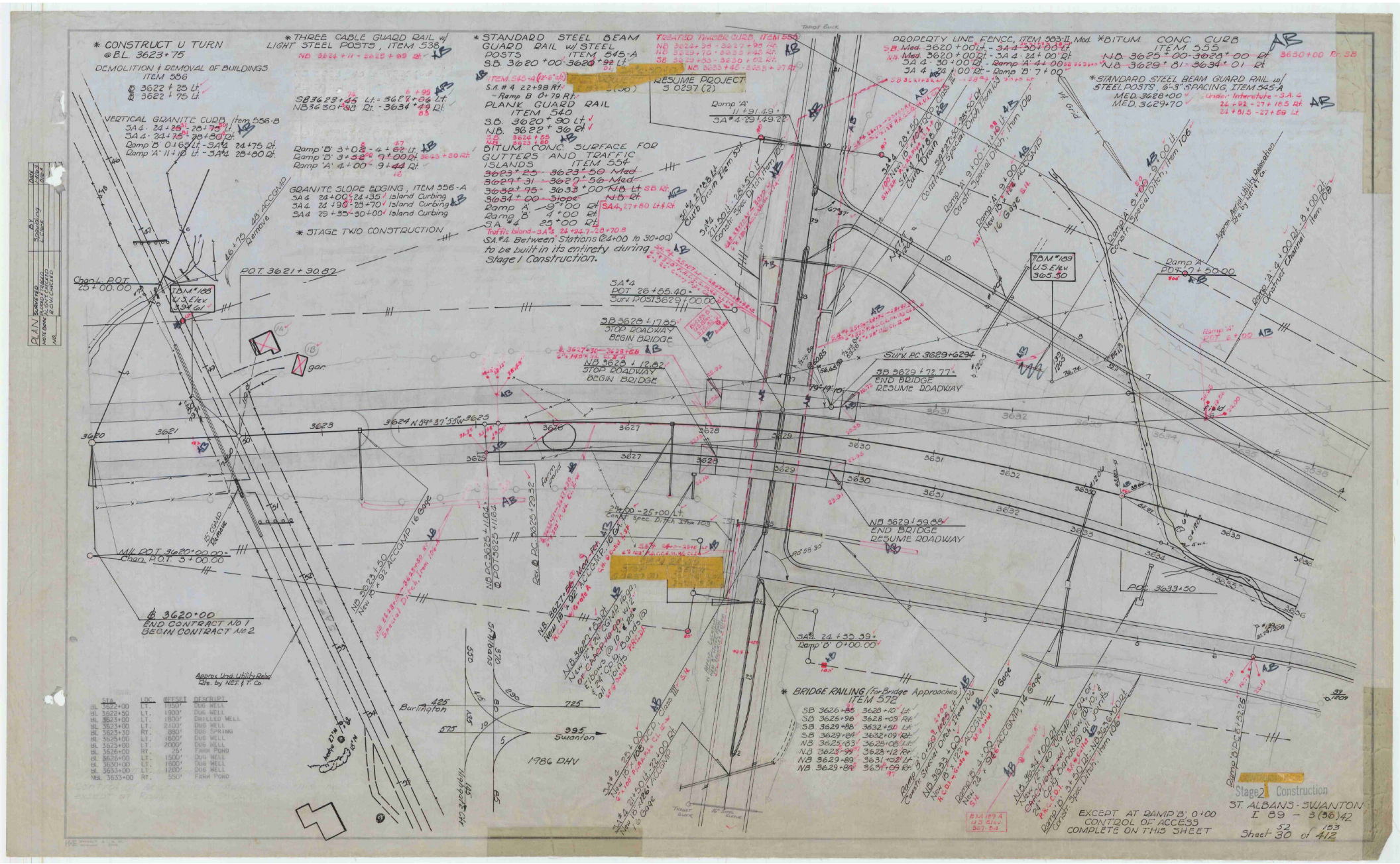
| | STA. | LOC. | OFFSET | DESCRIPT. |
|---|---|---|---|---|
| VT.#36 | 1+40 | RT. | 150' | DRILLED WELL |
| VT.#36 | 2+00 | LT. | 90' | DRILLED WELL |

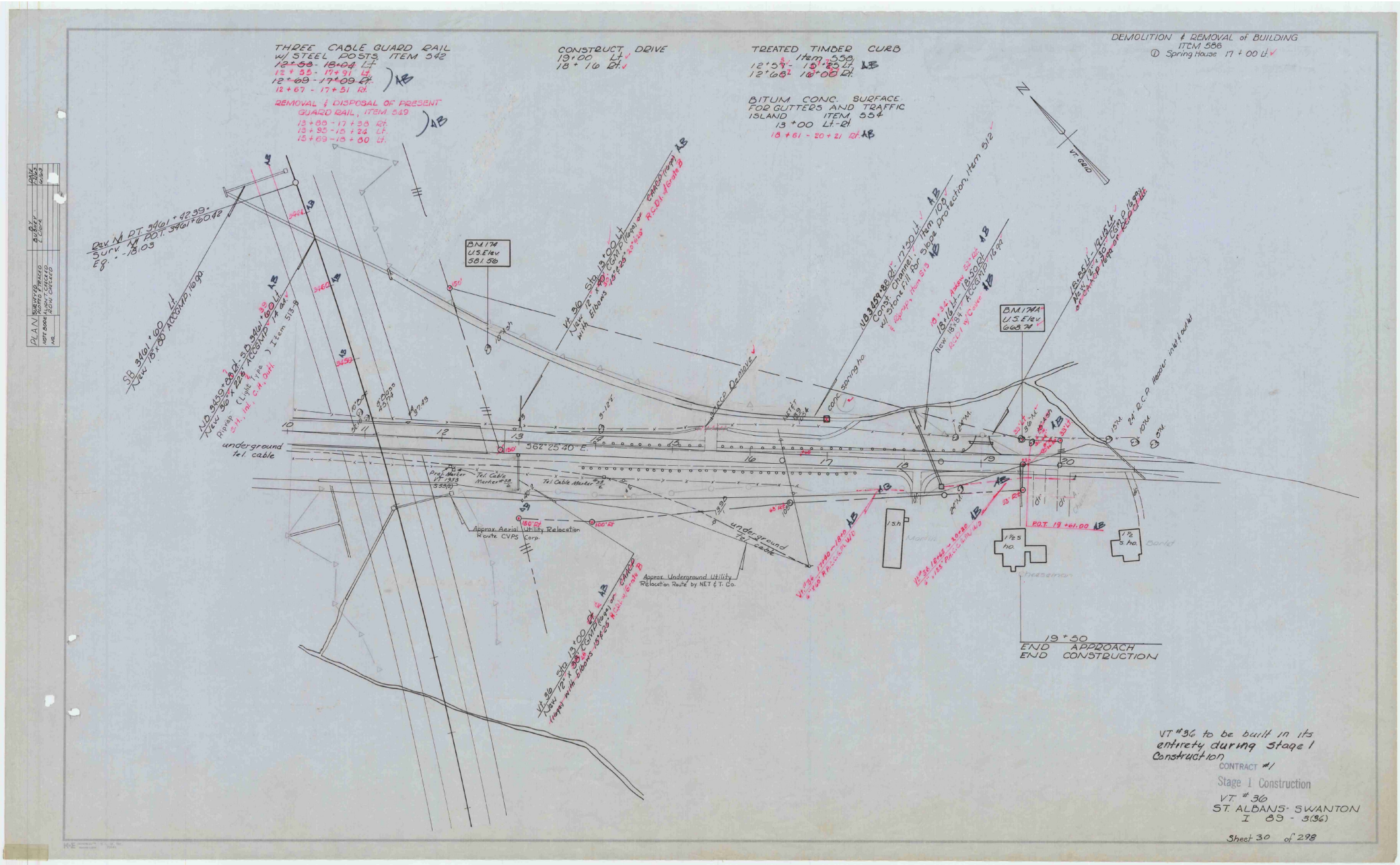
| PLAN | SURVEYED | BY | DATE |
|---|---|---|---|
| | PLOTTED & TRACED | Bushey | 12/6/63 |
| | ALIGNT. CHECKED | L. Clare | 6/6/63 |
| NOTE BOOK | R.O.W. CHECKED | | |
| NO. | | | |




VT #36 to be built in its entirety during Stage 1 Construction

CONTRACT #1
Stage 1 Construction
ST. ALBANS - SWANTON
State Highway #36
I 89 - 3(36)
Sheet 29 of 298

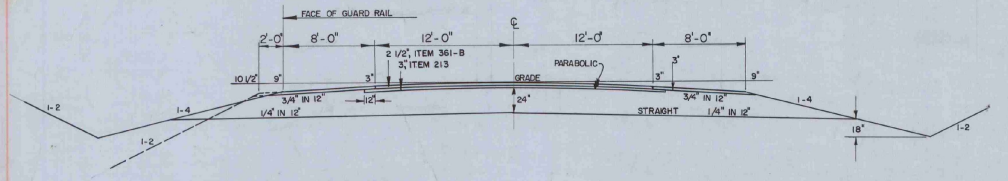

* CONSTRUCT U TURN @ B.L. 3623+75
DEMOLITION & REMOVAL OF BUILDINGS ITEM 586
@ 3622 + 25 Lt.
3622 + 75 Lt.
VERTICAL GRANITE CURB, Item 556-B
SA 4 · 24+25 - 25+75 Lt.
SA 4 · 24+75 - 28+80 Rt.
Ramp 'B' 0+69 Lt. - SA4 24+75 Rt.
Ramp 'A' 11+10 Lt. - SA4 28+80 Rt.
* THREE CABLE GUARD RAIL w/ LIGHT STEEL POSTS, ITEM 538
NB 3624+11 - 3625+69 Rt.
SB 3623+45 Lt. - 3627+06 Lt.
NB 3630+98 Rt. - 3634+49 Rt.
Ramp 'B' 3+02 - 4+62 Lt.
Ramp 'B' 3+32 - 9+00 Rt.
Ramp 'A' 4+00 - 9+44 Rt.
GRANITE SLOPE EDGING, ITEM 556-A
SA 4 24+00 - 24+35 Island Curbing
SA 4 24+90 - 25+70 Island Curbing
SA 4 29+35 - 30+00 Island Curbing
* STAGE TWO CONSTRUCTION
* STANDARD STEEL BEAM GUARD RAIL w/ STEEL POSTS, ITEM 545-A
SB 3620+00 - 3620+92 Lt.
(ITEM 545-A (6'-3"))
S.A. # 4 22+98 Rt.
- Ramp B 0+79 Rt.
PLANK GUARD RAIL ITEM 540
SB. 3620+90 Lt.
NB. 3622+36 Rt.
BITUM. CONC. SURFACE FOR GUTTERS AND TRAFFIC ISLANDS ITEM 554
3623+25 - 3623+50 Med.
3627+31 - 3627+56 Med.
3632+75 - 3633+00 Med.
3634+00 - Slope.
Ramp A -9+00 Rt.
Ramp B 4+00 Rt.
SA #4 25+00 Rt.
Traffic Island - SA #4 24+24.7 - 28+70.8
SA #4 Between Stations (24+00 to 30+00) to be built in its entirety during Stage I Construction.
TREATED TIMBER CURB, ITEM 554
NB 3624+98 - 3627+98 Rt.
NB 3629+70 - 3633+42 Rt.
SB 3623+53 - 3630+62 Rt.
NB 3633+42 - 3633+87 Rt.
RESUME PROJECT S 0297 (2)
Ramp 'A' 11+91.49 + SA #4 23+49.22
PROPERTY LINE FENCE, ITEM 303-11 Mod.
S.B. Med. 3620+00 Lt. - SA 4 30+00 Lt.
N.B. Med. 3620+00 Rt. - SA 4 · 24+00 Rt.
SA 4 · 30+00 Rt. - Ramp 'A' 4+00 Rt.
SA 4 · 24+00 Rt. - Ramp 'B' 7+00
* BITUM. CONC. CURB ITEM 555
N.B. 3625+00 - 3628+00 Rt.
N.B. 3629+81 - 3634+01 Rt.
* STANDARD STEEL BEAM GUARD RAIL w/ STEEL POSTS, 6'-3" SPACING, ITEM 545-A
MED. 3628+00
MED. 3629+70
Under Interchute - S.A. 4
24+92 - 27+18.5 Rt.
24+81.5 - 27+59 Lt.
Ramp 'A' 9+00 Rt. - ACCOMP New 18" x 12" ACCOMP 16 Gauge
Ramp 'A' 4+00 Rt. - 6+00 Rt. Constr. Special Ditch, Item 106
Ramp 'A' 4+00 Rt. - 6+00 Lt. Constr. Special Ditch, Item 106
Approx. Aerial Utility Relocation by N.E.T. Co.
Ramp 'A' 4+00 Rt. - 6+00 Lt. Constr. Special Channel, Item 108
Ramp 'A' POT 27+50.00
Ramp 'A' POT 4+00
TBM #189 U.S. Elev. 365.50
TBM #189A U.S. Elev. 361.64
Chan. POT 25+00.00
TBM #188 U.S. Elev. 394 Cal.
POT 3621+90.82
46+79 dg ACCOMP Remove
3A #4 POT 26+55.40 +
Surv. POS 3629+00.00
SB 3628+17.85 STOP ROADWAY BEGIN BRIDGE
NB 3628+12.82 STOP ROADWAY BEGIN BRIDGE
Surv. PC 3629+62.94
SB 3629+72.77 END BRIDGE RESUME ROADWAY
NB 3629+59.88 END BRIDGE RESUME ROADWAY
3620 3621 3622 3623 3624 N 59° 37' 53" W 3625 3626 3627 3628 3629 3630 3631 3632 3633 3634 3635 3636
Ramp 'A' POT 6+00
Ramp 'A' POT 4+00
POT 3633+50
Ramp 'A' 6+00 Rt. - 9+00 Rt. Constr. Special Ditch, Item 106
Ramp 'A' 6+00 Lt. - 9+00 Lt. Constr. Special Ditch, Item 106
Ramp 'A' 9+00 Rt. - ACCOMP New 18" x 12" ACCOMP 16 Gauge
Ramp 'A' 9+00 Lt. - ACCOMP New 18" x 12" ACCOMP 16 Gauge

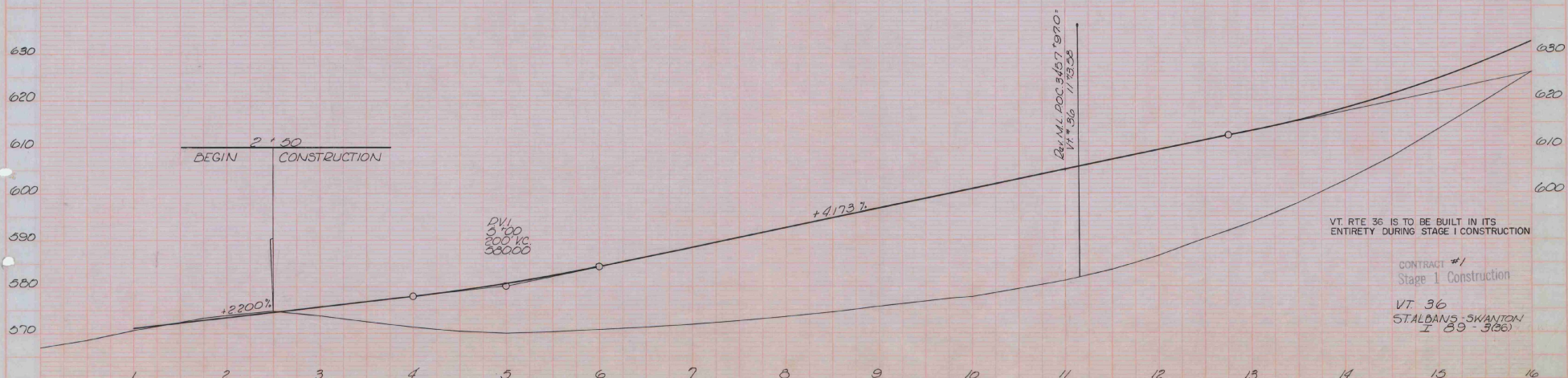

THREE CABLE GUARD RAIL w/ STEEL POSTS ITEM 542
12+58 - 18+04 Lt.
12+55 - 17+91 Lt.
12+69 - 17+09 Rt.
12+67 - 17+51 Rt.
REMOVAL & DISPOSAL OF PRESENT GUARD RAIL, ITEM 549
13+88 - 17+38 Rt.
13+95 - 13+24 Lt.
15+69 - 18+80 Lt.
CONSTRUCT DRIVE
19+00 Lt.
18+16 Rt.
TREATED TIMBER CURB
Item 559
12+58 - 15+35 Lt.
12+68 - 18+00 Rt.
BITUM CONC. SURFACE FOR GUTTERS AND TRAFFIC ISLAND ITEM 554
13+00 Lt.-Rt.
18+61 - 20+21 Rt.
DEMOLITION & REMOVAL of BUILDING ITEM 586
① Spring House 17+00 Lt.
PLAN
Dev. Nt. P.T. 346+92.39
Surv. Nt. P.O.T. 346+60.42
Eq. -18.03
SB 346+00 Lt.
New 18"x80' Accomp. 16 Qa.
ND 345+68 Lt.
New 36"x22' Accomp. 74 Qa.
Riprap (Light Type) Item 513.9
3:1, Int. C.M. Outl.
SB 345+60 Lt.
New 18"x80' Accomp. 16 Qa.
BM 174
U.S.Elev
581.56
Vt 30 SB 13+00 Lt.
New 12"x 35' CGMP (16ga) with Elbows 15°±25°
CARD (16ga)
R.C.D.I. 16ga Hdwl.
NB 349+38 Bel. Lt. 17+30 Lt.
Const. Channel w/ Stone Fill for Slope Protection, Item 512
New 18"x34' Accomp. 74 Qa.
New 18"x34' CGMP 16ga
R.C.D.I. w/ Cover
NB 345+11 - 18+45 Lt.
New 24"x30' CGMP 16ga or RCP 16ga
or CMP 14ga
BM 174A
U.S.Elev
668.74
Vt 30 SB 13+00 Lt.
New 12"x 35' CGMP (16ga) with Elbows 15°±25°
CARD (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 13+30 - 18+40
New 12"x 510' CGMP (16ga)
Vt 30 17+40 - 18+40
New 12"x 100' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 18+45 - 19+25
New 12"x 80' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 19+25 - 19+45
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 19+45 - 20+21
New 12"x 76' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 20+21 - 20+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 20+41 - 21+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 21+01 - 21+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 21+21 - 21+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 21+41 - 21+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 21+61 - 21+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 21+81 - 22+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 22+01 - 22+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 22+21 - 22+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 22+41 - 22+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 22+61 - 22+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 22+81 - 23+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 23+01 - 23+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 23+21 - 23+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 23+41 - 23+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 23+61 - 23+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 23+81 - 24+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 24+01 - 24+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 24+21 - 24+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 24+41 - 24+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 24+61 - 24+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 24+81 - 25+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 25+01 - 25+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 25+21 - 25+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 25+41 - 25+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 25+61 - 25+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 25+81 - 26+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 26+01 - 26+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 26+21 - 26+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 26+41 - 26+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 26+61 - 26+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 26+81 - 27+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 27+01 - 27+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 27+21 - 27+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 27+41 - 27+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 27+61 - 27+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 27+81 - 28+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 28+01 - 28+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 28+21 - 28+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 28+41 - 28+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 28+61 - 28+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 28+81 - 29+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 29+01 - 29+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 29+21 - 29+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 29+41 - 29+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 29+61 - 29+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 29+81 - 30+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 30+01 - 30+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 30+21 - 30+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 30+41 - 30+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 30+61 - 30+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 30+81 - 31+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 31+01 - 31+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 31+21 - 31+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 31+41 - 31+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 31+61 - 31+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 31+81 - 32+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 32+01 - 32+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 32+21 - 32+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 32+41 - 32+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 32+61 - 32+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 32+81 - 33+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 33+01 - 33+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 33+21 - 33+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 33+41 - 33+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 33+61 - 33+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 33+81 - 34+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 34+01 - 34+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 34+21 - 34+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 34+41 - 34+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 34+61 - 34+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 34+81 - 35+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 35+01 - 35+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 35+21 - 35+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 35+41 - 35+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 35+61 - 35+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 35+81 - 36+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 36+01 - 36+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 36+21 - 36+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 36+41 - 36+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 36+61 - 36+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 36+81 - 37+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 37+01 - 37+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 37+21 - 37+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 37+41 - 37+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 37+61 - 37+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 37+81 - 38+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 38+01 - 38+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 38+21 - 38+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 38+41 - 38+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 38+61 - 38+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 38+81 - 39+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 39+01 - 39+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 39+21 - 39+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 39+41 - 39+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 39+61 - 39+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 39+81 - 40+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 40+01 - 40+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 40+21 - 40+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 40+41 - 40+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 40+61 - 40+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 40+81 - 41+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 41+01 - 41+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 41+21 - 41+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 41+41 - 41+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 41+61 - 41+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 41+81 - 42+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 42+01 - 42+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 42+21 - 42+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 42+41 - 42+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 42+61 - 42+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 42+81 - 43+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 43+01 - 43+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 43+21 - 43+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 43+41 - 43+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 43+61 - 43+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 43+81 - 44+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 44+01 - 44+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 44+21 - 44+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 44+41 - 44+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 44+61 - 44+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 44+81 - 45+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 45+01 - 45+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 45+21 - 45+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 45+41 - 45+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 45+61 - 45+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 45+81 - 46+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 46+01 - 46+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 46+21 - 46+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 46+41 - 46+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 46+61 - 46+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 46+81 - 47+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 47+01 - 47+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 47+21 - 47+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 47+41 - 47+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 47+61 - 47+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 47+81 - 48+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 48+01 - 48+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 48+21 - 48+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 48+41 - 48+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 48+61 - 48+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 48+81 - 49+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 49+01 - 49+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 49+21 - 49+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 49+41 - 49+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 49+61 - 49+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 49+81 - 50+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 50+01 - 50+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 50+21 - 50+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 50+41 - 50+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 50+61 - 50+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 50+81 - 51+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 51+01 - 51+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 51+21 - 51+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 51+41 - 51+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 51+61 - 51+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 51+81 - 52+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 52+01 - 52+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 52+21 - 52+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 52+41 - 52+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 52+61 - 52+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 52+81 - 53+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 53+01 - 53+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 53+21 - 53+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 53+41 - 53+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 53+61 - 53+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 53+81 - 54+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 54+01 - 54+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 54+21 - 54+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 54+41 - 54+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 54+61 - 54+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 54+81 - 55+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 55+01 - 55+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 55+21 - 55+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 55+41 - 55+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 55+61 - 55+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 55+81 - 56+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 56+01 - 56+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 56+21 - 56+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 56+41 - 56+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 56+61 - 56+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 56+81 - 57+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 57+01 - 57+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 57+21 - 57+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 57+41 - 57+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 57+61 - 57+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 57+81 - 58+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 58+01 - 58+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 58+21 - 58+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 58+41 - 58+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 58+61 - 58+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 58+81 - 59+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 59+01 - 59+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 59+21 - 59+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 59+41 - 59+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 59+61 - 59+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 59+81 - 60+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 60+01 - 60+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 60+21 - 60+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 60+41 - 60+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 60+61 - 60+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 60+81 - 61+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 61+01 - 61+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 61+21 - 61+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 61+41 - 61+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 61+61 - 61+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 61+81 - 62+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 62+01 - 62+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 62+21 - 62+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 62+41 - 62+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 62+61 - 62+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 62+81 - 63+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 63+01 - 63+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 63+21 - 63+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 63+41 - 63+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 63+61 - 63+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 63+81 - 64+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 64+01 - 64+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 64+21 - 64+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 64+41 - 64+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 64+61 - 64+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 64+81 - 65+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 65+01 - 65+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 65+21 - 65+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 65+41 - 65+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 65+61 - 65+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 65+81 - 66+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 66+01 - 66+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 66+21 - 66+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 66+41 - 66+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 66+61 - 66+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 66+81 - 67+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 67+01 - 67+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 67+21 - 67+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 67+41 - 67+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 67+61 - 67+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 67+81 - 68+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 68+01 - 68+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 68+21 - 68+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 68+41 - 68+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 68+61 - 68+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 68+81 - 69+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 69+01 - 69+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 69+21 - 69+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 69+41 - 69+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 69+61 - 69+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 69+81 - 70+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 70+01 - 70+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 70+21 - 70+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 70+41 - 70+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 70+61 - 70+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 70+81 - 71+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 71+01 - 71+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 71+21 - 71+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 71+41 - 71+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 71+61 - 71+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 71+81 - 72+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 72+01 - 72+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 72+21 - 72+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 72+41 - 72+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 72+61 - 72+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 72+81 - 73+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 73+01 - 73+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 73+21 - 73+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 73+41 - 73+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 73+61 - 73+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 73+81 - 74+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 74+01 - 74+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 74+21 - 74+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 74+41 - 74+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 74+61 - 74+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 74+81 - 75+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 75+01 - 75+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 75+21 - 75+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 75+41 - 75+61
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 75+61 - 75+81
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 75+81 - 76+01
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 76+01 - 76+21
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 76+21 - 76+41
New 12"x 20' CGMP (16ga)
R.C.D.I. 16ga Hdwl.
Vt 30 76+41 - 76+61
New 12"

# TYPICAL SECTION VT. ROUTE 36

PERMISSIBLE TOLERANCES IN PARENTHESIS APPLY TO THICKNESS ONLY.

2 1/2" BITUMINOUS CONCRETE PAVEMENT, ITEM 361-B (± 1/4")
3" CRUSHED GRAVEL OR CRUSHED STONE PLANT MIXED BASE COURSE, ITEM 213 (± 1/2")
24" SUB-BASE OF GRAVEL, ITEM 201 (± 1")
3" CRUSHED STONE SHOULDERS, ITEM 303 WITH ITEM 315




VT. RTE 36 IS TO BE BUILT IN ITS ENTIRETY DURING STAGE I CONSTRUCTION

CONTRACT #1
Stage 1 Construction

VT. 36
ST. ALBANS - SWANTON
I 89 - 3(36)

Sheet 31 of 278

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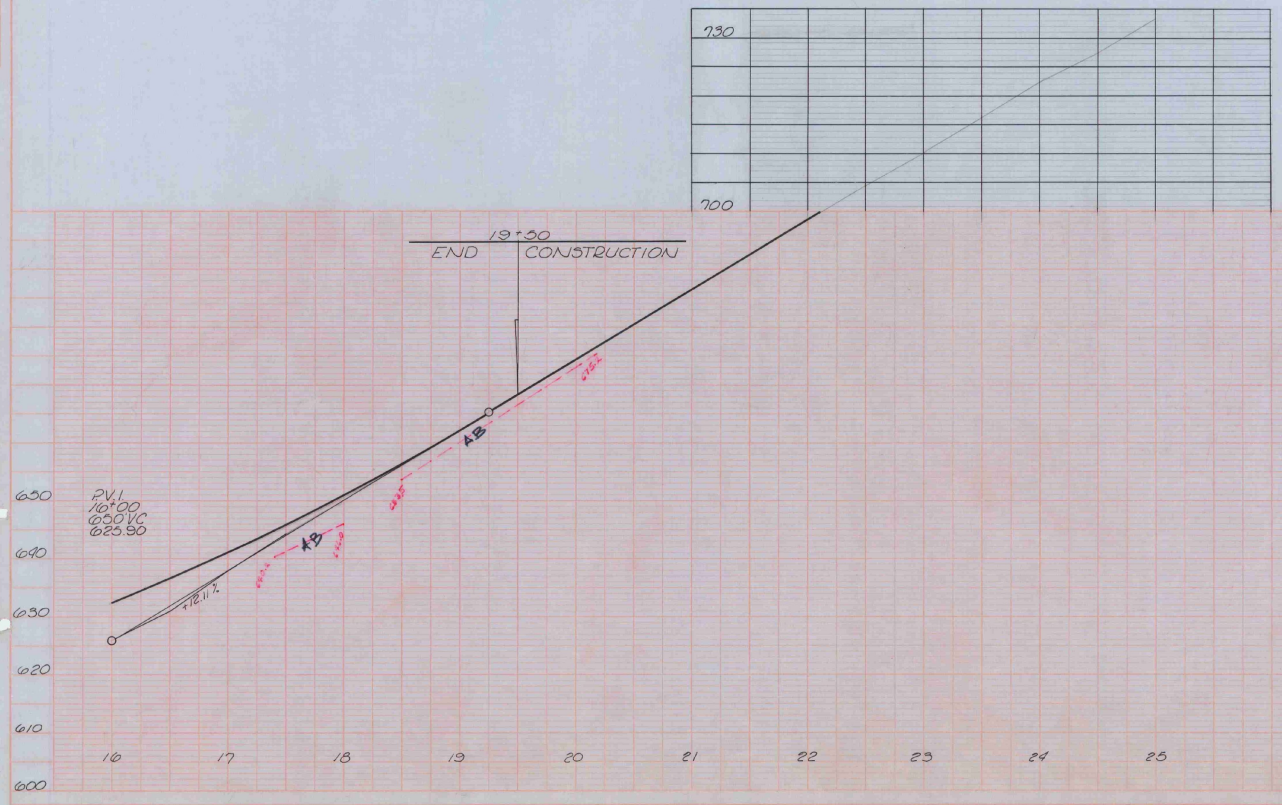


CONTRACT #1
Stage 1 Construction
VT 36
ST ALBANS - SWANTON
I 89 - 3(36)

Sheet 32 of 298

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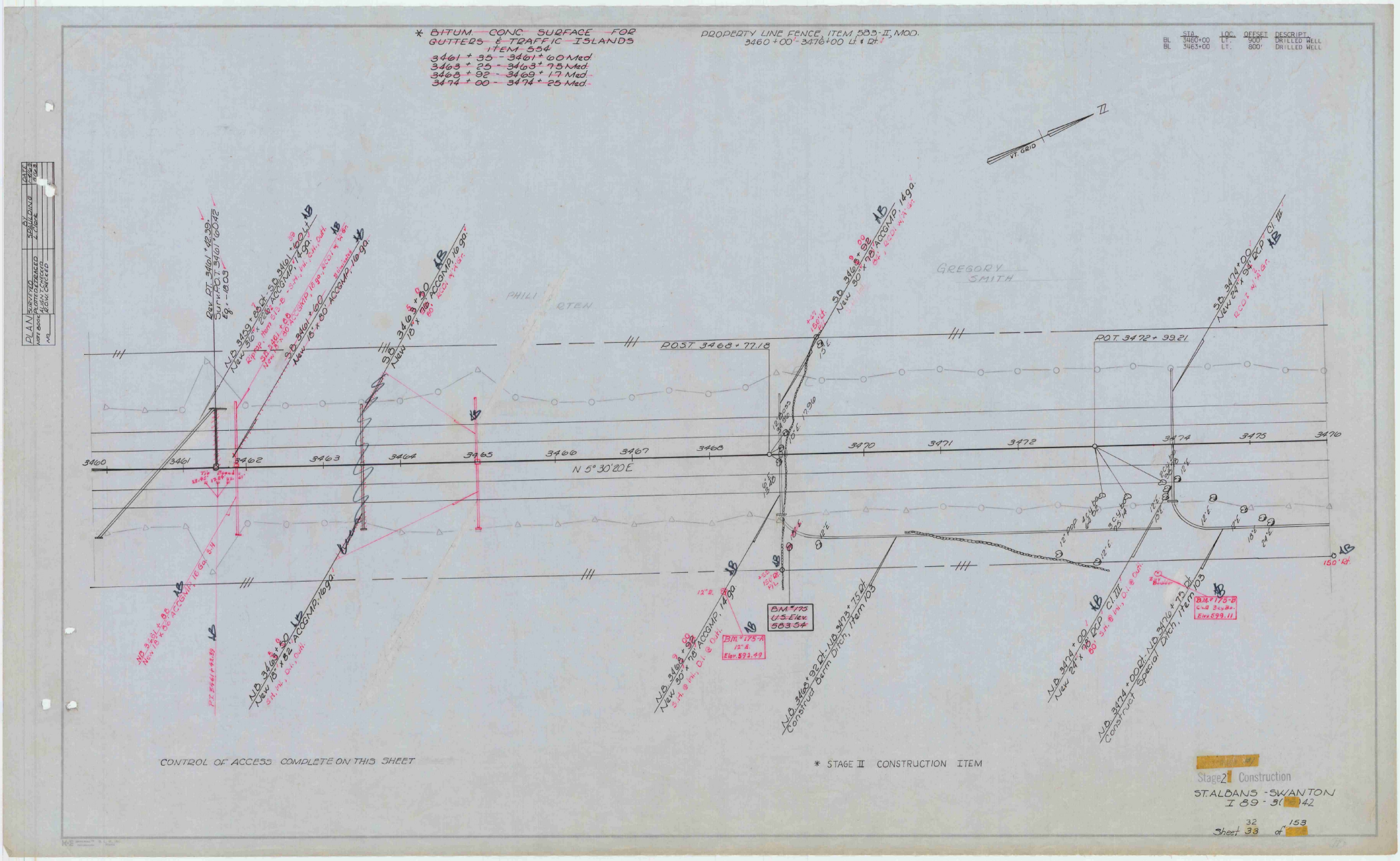
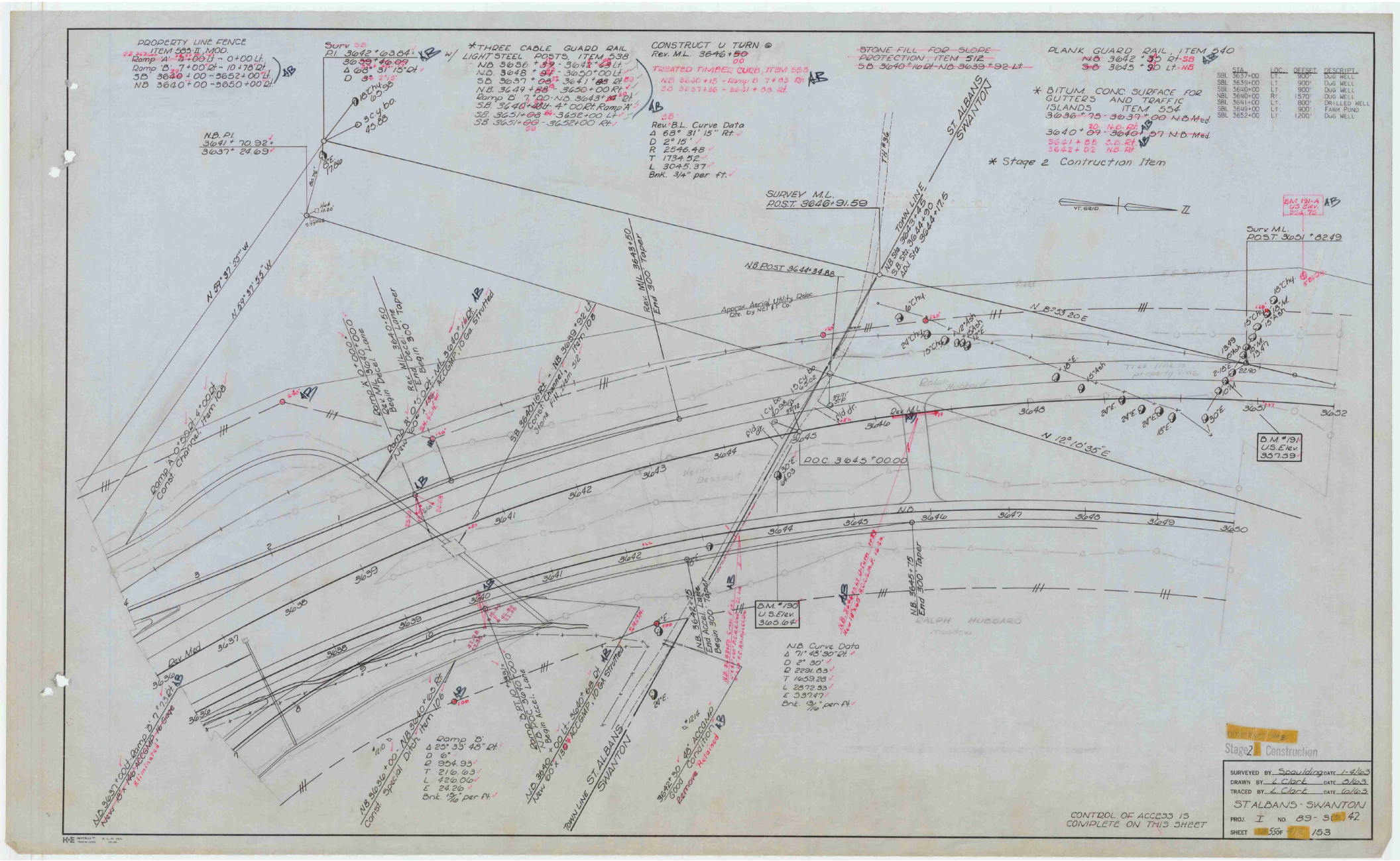
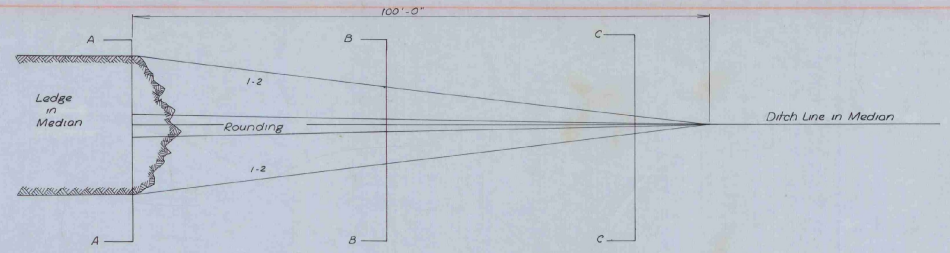


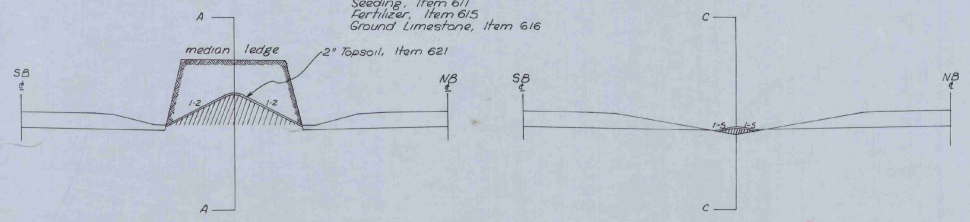
* BITUM. CONC. SURFACE FOR GUTTERS & TRAFFIC ISLANDS ITEM 554
3461 + 35 - 3461 + 60 Med.
3463 + 25 - 3463 + 75 Med.
3468 + 92 - 3469 + 17 Med.
3474 + 00 - 3474 + 25 Med.
PROPERTY LINE FENCE, ITEM 583-II, MOD.
3460 + 00' - 3476 + 00 Lt. & Rt.
STA. LOC. OFFSET DESCRIPT.
BL 3460+00 LT. 900' DRILLED WELL
BL 3463+00 LT. 800' DRILLED WELL
VT. GRID
GREGORY SMITH
PHILI RTEN
POST 3468 + 77.18
POT 3472 + 99.21
N 5° 30' 20 E
3460
3461
3462
3463
3464
3465
3466
3467
3468
3470
3471
3472
3474
3475
3476
B.M. #175 U.S. Elev. 583.54
B.M. #175-A 12" E. Elev. 592.49
B.M. #175-B Elev. 599.11
150' Rt.
CONTROL OF ACCESS COMPLETE ON THIS SHEET
* STAGE II CONSTRUCTION ITEM
Stage 2 Construction
ST. ALBANS - SWANTON
I 89 - 3(
Sheet 33 of 153


PROPERTY LINE FENCE
ITEM 585.11 MOD.
Ramp 'A' 2+66 Lt. - 0+00 Lt.
Ramp 'B' 7+00 Rt. - 10+78 Rt.
SB 3640+00 - 3652+00 Lt.
NB 3640+00 - 3650+00 Rt.
Surv. SB
P.I. 3642+63.84
3639+46.09
Δ 68° 31' 15" Rt.
D 3° 27'
R 1659.30
T 1134.52
L 1985.37
E 379.47
Bnk. 3/4" per ft.
3 Ch @ 60.00
3 C.Y. @ 45.00
N.B. P.I.
3641+70.92
3637+24.69
N 59° 37' 55" W
* THREE CABLE GUARD RAIL
LIGHT STEEL POSTS ITEM 538
N.B. 3636+32 - 3642+63 Lt.
N.B. 3648+91 - 3650+00 Lt.
S.B. 3637+08 - 3641+88 Rt.
N.B. 3649+88 - 3650+00 Rt.
Ramp 'B' 7+00 - N.B. 3643+88 Rt.
S.B. 3640+88 - 4+00 Rt. Ramp 'A'
S.B. 3651+08 - 3652+00 Lt.
S.B. 3651+60 - 3652+00 Rt.
CONSTRUCT U TURN @
Rev. M.L. 3646+50
TREATED TIMBER CURB ITEM 558
N.B. 3640+15 - Ramp 'B' 7+83 Rt.
S.B. 3637+36 - 3641+88 Lt.
Rev. B.L. Curve Data
Δ 68° 31' 15" Rt.
D 2° 15'
R 2546.48
T 1734.52
L 3045.37
Bnk. 3/4" per ft.
STONE FILL FOR SLOPE
PROTECTION - ITEM 512
S.B. 3640+10 Lt. - N.B. 3639+92 Lt.
PLANK GUARD RAIL, ITEM 540
N.B. 3642+35 Rt. - S.B.
S.B. 3645+30 Lt. - N.B.
* BITUM. CONC. SURFACE FOR GUTTERS AND TRAFFIC ISLANDS ITEM 554
3636+75 - 3637+00 N.B. Med.
3640+30 N.B. Rt.
3640+09 - 3640+57 N.B. Med.
3641+88 S.B. Rt.
3642+02 N.B. Rt.
* Stage 2 Contruction Item
STA. LOC. OFFSET DESCRIPT.
SBL 3637+00 LT. 900' DUG WELL
SBL 3639+00 LT. 900' DUG WELL
SBL 3640+00 LT. 900' DUG WELL
NBL 3640+00 RT. 1570' DUG WELL
SBL 3641+00 LT. 800' DRILLED WELL
SBL 3649+00 LT. 900' FARM POND
SBL 3652+00 LT. 1200' DUG WELL
ST. ALBANS SWANTON
TOWN LINE
N.B. Sta. 3643+45
S.B. Sta. 3644+00
Δ Lt. Sta. 3644+17.5
VT. 6210
SURVEY M.L.
P.O.S.T. 3646+91.59
T.H. #36
N.B. POST 3644+34.88
Approx. Aerial Utility Detec. Rte. by NEITT Co.
N 8° 39' 20" E
Rev. Mill 3643+50 End 300 Taper
Ramp 'A' 0+00 - 0+00 Lane Begin Widen. 360'+0 Taper
Ramp 'A' 0+00 - 2+66 Lt. Rem. Discard Lane Begin 300 Taper
Ramp 'A' 0+00 - 2+66 Lt. - Mill 3640+00 Rt. New 20' x 1½" Asph. Accomp. 10 Ga Strutted
Ramp 'A' 0+00 - 4+00 Rt. Const. Channel Item 108
S.B. 3642+10 Rt. - N.B. 3639+92 Lt. Const. Channel Item 108
15 C.Y. @ 3642+00
Rev. M.L.
P.O.C. 3645+00.00
N 12° 10' 35" E
D.M. #191 U.S. Elev. 397.39
D.M. #190 U.S. Elev. 365.64
Rev. Mill 3645+75 End 300 Taper
N.B. 3642+75 End Accel. Taper Begin 300
N.B. Curve Data
Δ 71° 48' 30" Rt.
D 2° 30'
R 2291.83
T 1659.38
L 2872.33
E 337.97
Bnk. 3/4" per ft.
Ramp 'B' 0+00 - 7+83 Rt. Const. Special Ditch, Item 106
Ramp 'B'
Δ 25° 33' 48" Rt.
D 6°
R 954.93
T 216.03
L 426.06
E 24.26
Bnk. 1 3/4" per ft.
N.B. 3636+00 - N.B. 3640+00 Rt. Const. Special Ditch, Item 106
N.B. 3640+00 - 0+00 Lt. - 3640+68 Rt. New 20' x 1½" Asph. Accomp. 10 Ga Strutted
S.B. 3642+30 - Accomp. Good Condition Remove Retained
Rev. Mill
Rev. Med.
RALPH HUBBARD meadow
Henry Dessault
Ralph Hubbard
Tree line is property line
Stage 2 Construction
SURVEYED BY Spaulding DATE 1-4-83
DRAWN BY L. Clark DATE 3-1-83
TRACED BY L. Clark DATE 6-1-83
ST. ALBANS - SWANTON
PROJ. I NO. 89-3(42)
SHEET 5 OF 7 153
CONTROL OF ACCESS IS COMPLETE ON THIS SHEET



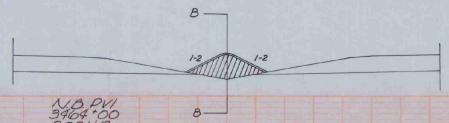

## TYPICAL APPROACH BERM AT MEDIAN LEDGE LOCATIONS

SCALE 1" = 10'




NOTE:

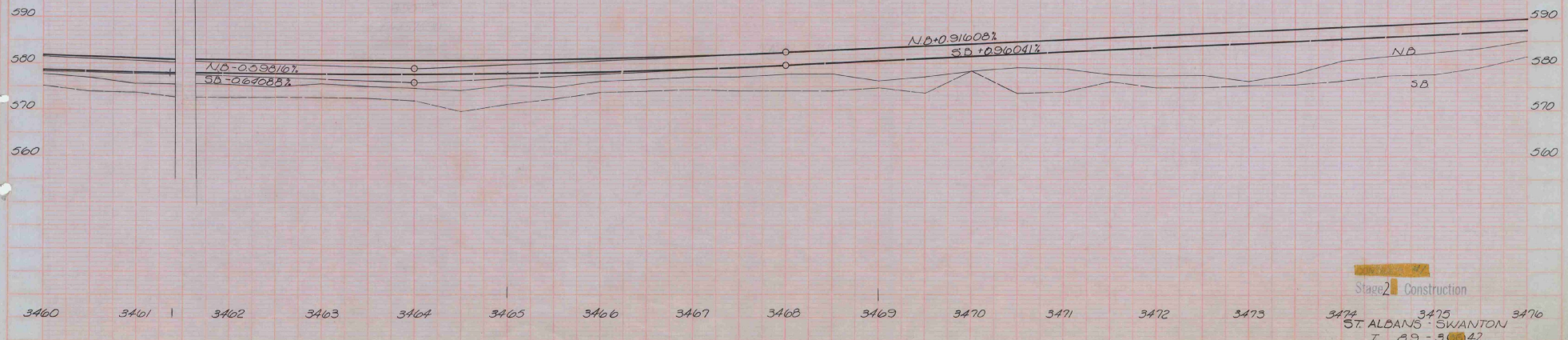
Detail shown is based on normal sections in standard median. Design can be varied where unequal grades or other conditions prevail. Drainage of Subgrade should be provided where feasible.




3461+42.39=
3461+60.92
Eq = -18.03

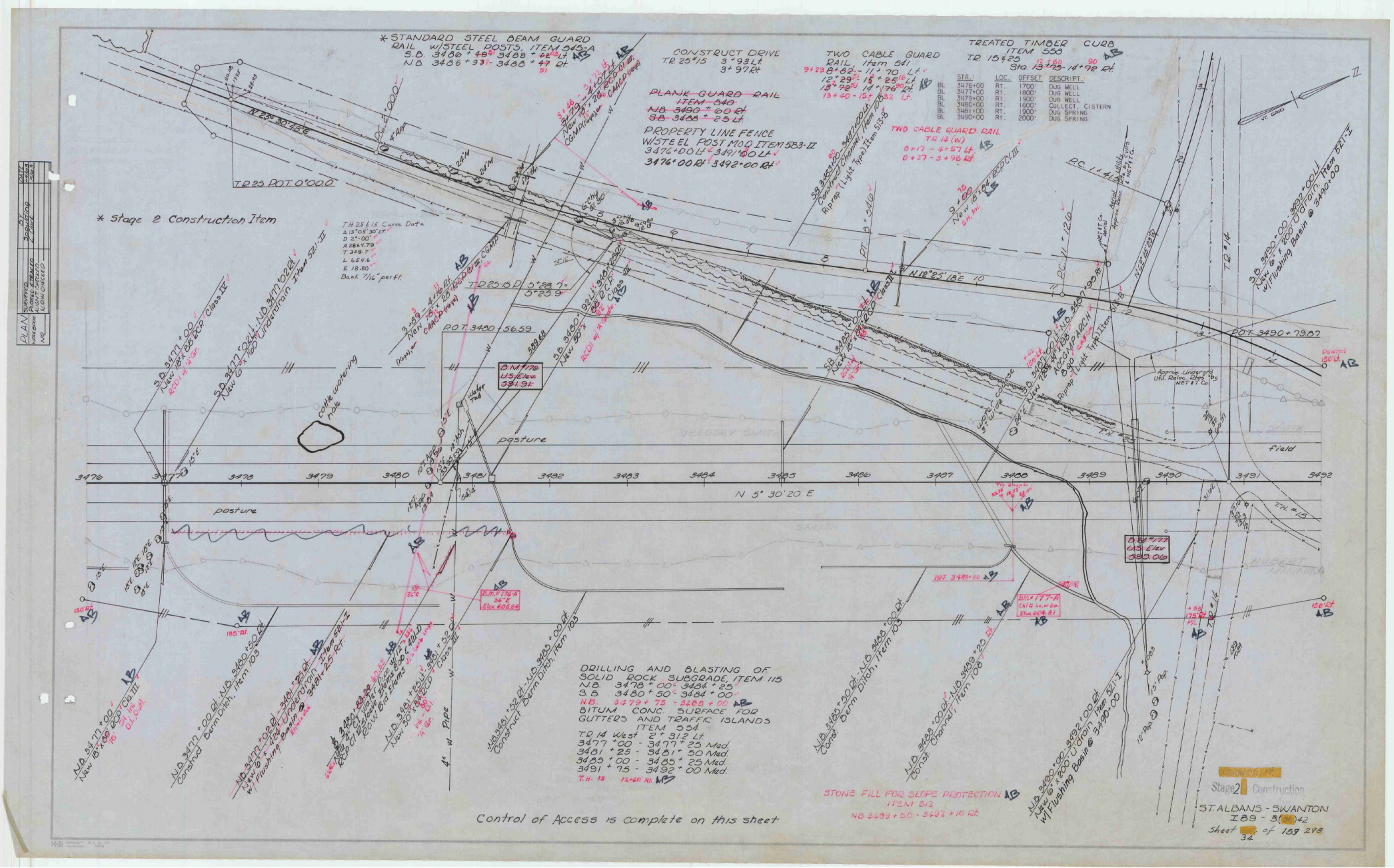
NB PVI
3464+00
800' VC
578.95

SB PVI
3464+00
800' VC
579.50

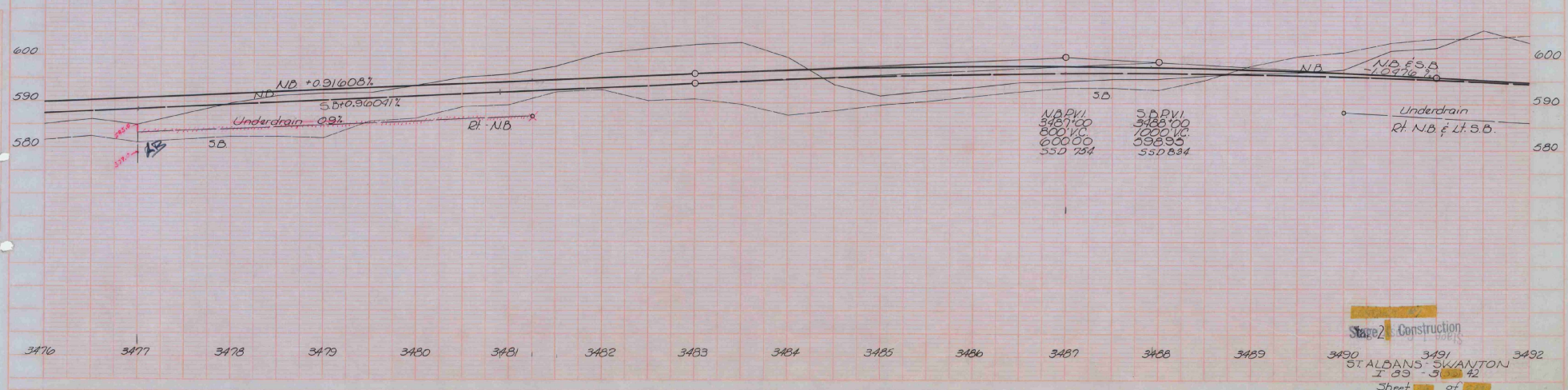



Stage 2 Construction

ST. ALBANS - SWANTON
I 89-3(042)
Sheet 33 of 133



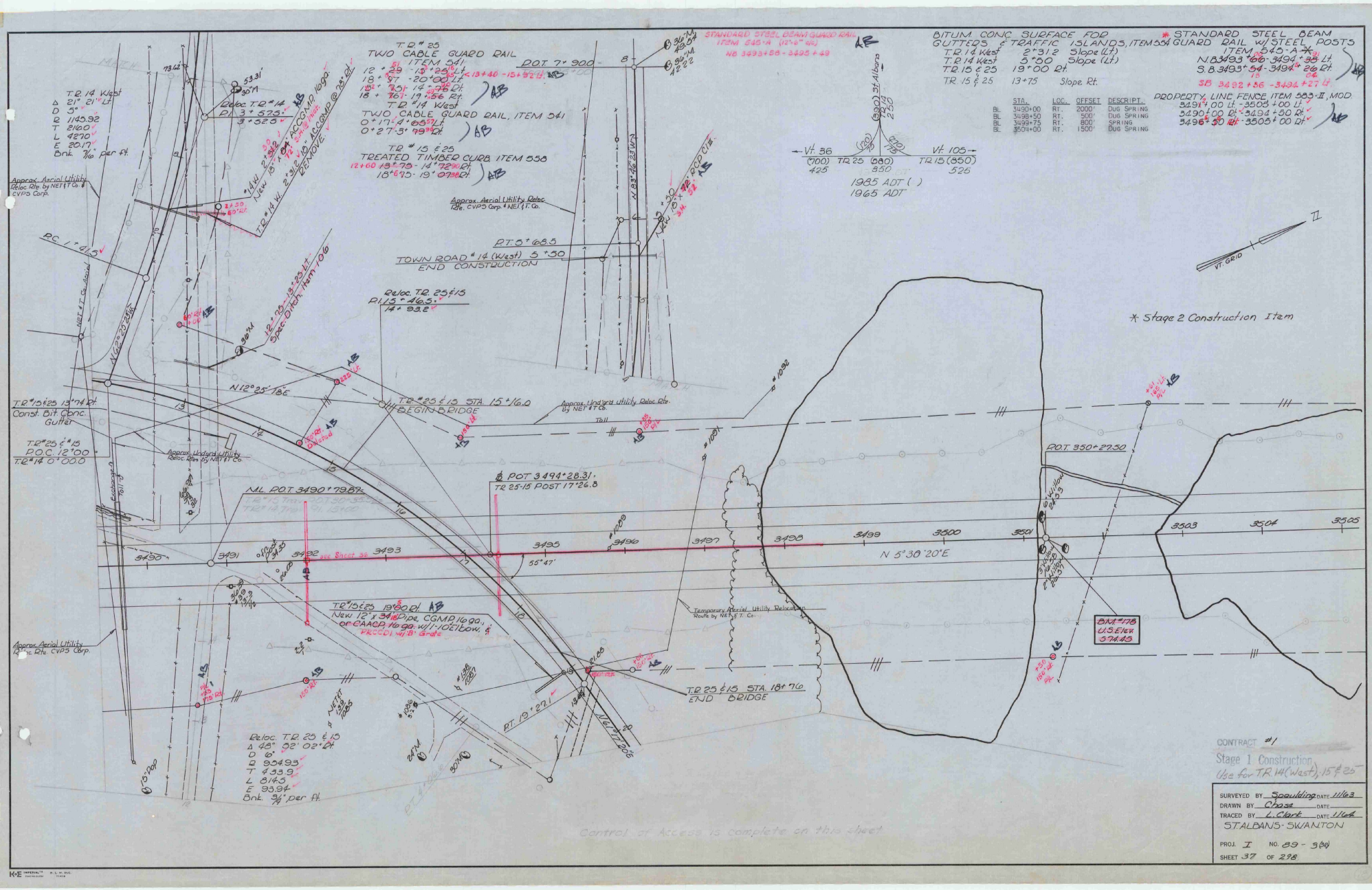
* STANDARD STEEL BEAM GUARD RAIL W/STEEL POSTS, ITEM 545-A
S.B. 3486 + 48 51 3488 + 02 05 Lt.
N.B. 3486 + 93 - 3488 + 47 51 Rt.
CONSTRUCT DRIVE
T.R. 25 #15 3 + 93 Lt.
3 + 97 Rt.
PLANK GUARD RAIL
ITEM 540
N.B. 3490 + 60 Rt.
S.B. 3488 + 25 Lt.
PROPERTY LINE FENCE
W/STEEL POST MOD ITEM 583-II
3476 + 00 Lt. 3491 + 00 Lt.
3476 + 00 Rt. 3492 + 00 Rt.
TWO CABLE GUARD RAIL, Item 541
9 + 29 8 + 82 - 11 + 70 Lt.
12 + 29 51 15 + 25 16 Lt.
15 + 72 51 14 + 176 90 Rt.
13 + 40 - 15 + 632 Lt.
TREATED TIMBER CURB
ITEM 558
T.R. 15 & 25 12 + 60 90
Sta. 13 + 75 - 14 + 72 Rt.
STA. LOC. OFFSET DESCRIPT.
BL 3476+00 RT. 1700' DUG WELL
BL 3477+00 RT. 1800' DUG WELL
BL 3479+00 RT. 1900' DUG WELL
BL 3480+00 RT. 1600' COLLECT. CISTERN
BL 3481+00 RT. 1900' DUG SPRING
BL 3490+00 RT. 2000' DUG SPRING
TWO CABLE GUARD RAIL
TR 14 (W)
0 + 17 - 4 + 57 Lt.
0 + 27 - 3 + 96 Rt.
* Stage 2 Construction Item
T.H. 25 & 15 Curve Data
Δ 13°05'30" Lt.
D 2°-00'
R 2864.79
T 328.7
L 654.6
E 18.80
Bank 7/16" per ft.
T.R. 25 P.O.T. 0+00.0
N 25° 30' 48" E
N 12° 25' 18" E
P.O.T. 3480 + 56.59
P.O.T. 3490 + 79.87
B.M. #176
U.S. Elev.
591.91
B.M. #177
U.S. Elev.
599.06
cattle watering hole
pasture
field
N 5° 30' 20 E
3476
3477
3478
3479
3480
3481
3482
3483
3484
3485
3486
3487
3488
3489
3490
3491
3492
DRILLING AND BLASTING OF SOLID ROCK SUBGRADE, ITEM 115
N.B. 3478 + 00 - 3484 + 25
S.B. 3480 + 50 - 3484 + 00
N.B. 3479 + 75 - 3485 + 00
BITUM. CONC. SURFACE FOR GUTTERS AND TRAFFIC ISLANDS
ITEM 554
T.R. 14 West 2 + 31.2 Lt.
3477 + 00 - 3477 + 25 Med.
3481 + 25 - 3481 + 50 Med.
3485 + 00 - 3485 + 25 Med.
3491 + 75 - 3492 + 00 Med.
T.H. 15 12 + 60 Rt.
STONE FILL FOR SLOPE PROTECTION
ITEM 512
NB 3489 + 50 - 3492 + 10 Rt.
Control of Access is complete on this sheet
Stage 2 Construction
ST. ALBANS - SWANTON
I 89 - 3(36)42
Sheet 34 of 159 298

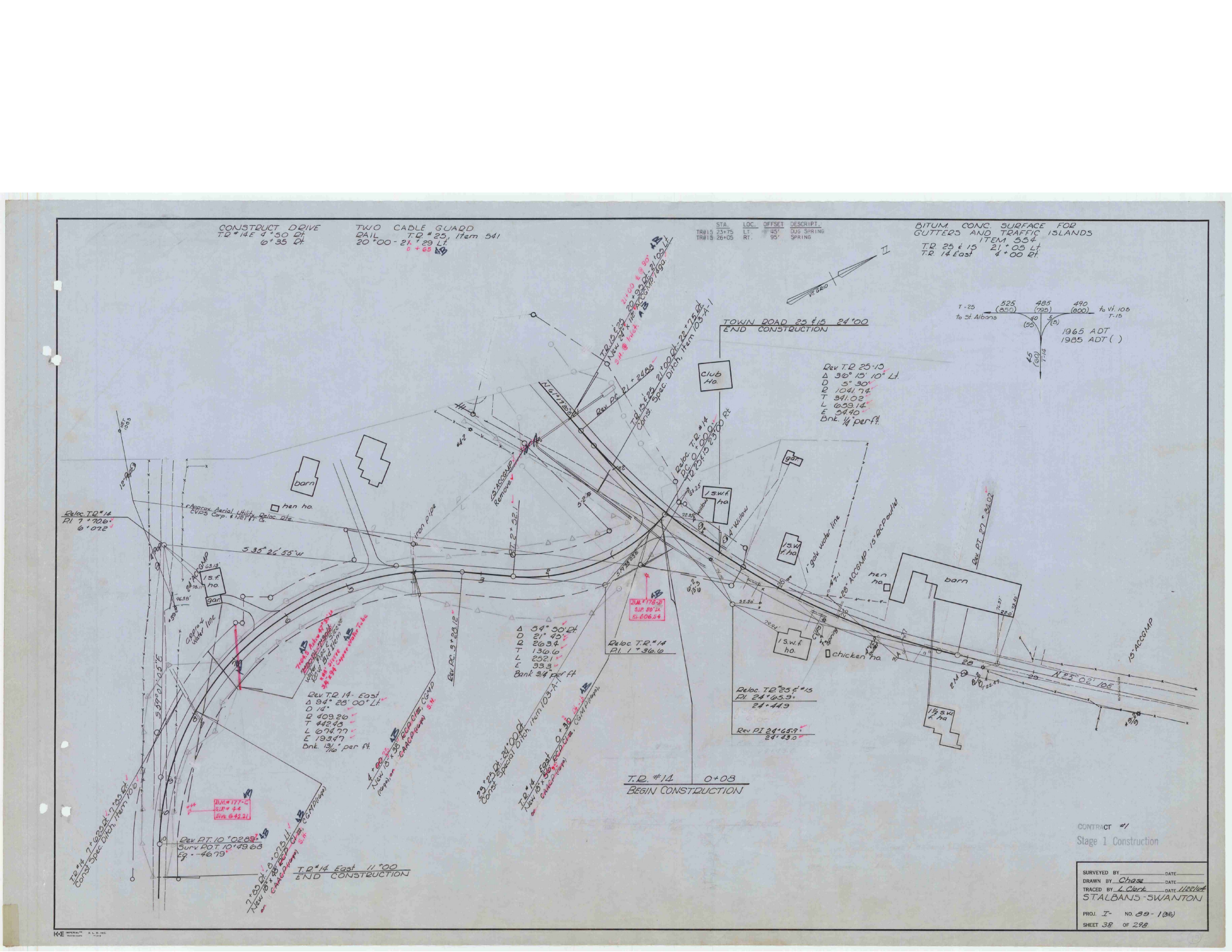



Stage 2 Construction

ST. ALBANS - SWANTON
I 89 - 3 [illegible] 42

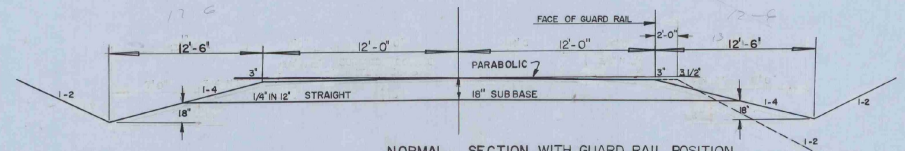
Sheet 35 of 153


T.R. 14 West
Δ 21° 21' Lt.
D 5°
R 1145.92
T 216.0'
L 427.0'
E 20.17'
Bnk. 1/16 per ft.
Reloc. T.R. 14 P.I. 3+523.
T.D. # 25
TWO CABLE GUARD RAIL
ITEM 541
12+29 - 12+254 Lt.
18+97 - 20+00 Lt.
18+751 - 19+256 Rt.
18+761 - 19+156 Rt.
T.D. #14 West
TWO CABLE GUARD RAIL, ITEM 541
0+17.4 - 0+65.5 Lt.
0+27.5 - 0+79.5 Rt.
T.R. # 15 & 25
TREATED TIMBER CURB ITEM 558
12+60 18+79.5 - 14+72.5 Rt.
18+67.5 - 19+07.5 Rt.
STANDARD STEEL BEAM GUARD RAIL ITEM 545-A (12'-6" W.)
NB 3493+58 - 3495+49
BITUM. CONC. SURFACE FOR GUTTERS & TRAFFIC ISLANDS, ITEM 554
T.R. 14 West 2'-3.2 Slope (Lt.)
T.R. 14 West 5'-5.0 Slope (Lt.)
T.R. 15 & 25 19'-00 Rt.
T.R. 15 & 25 13+75 Slope Rt.
* STANDARD STEEL BEAM GUARD RAIL W/ STEEL POSTS ITEM 545-A-7*
N.B. 3493+66 - 3494+35 Lt.
S.B. 3493+54 - 3494+26 Rt.
SB 3492+56 - 3494+27 Lt.
PROPERTY LINE FENCE, ITEM 583-II, MOD.
3491+00 Lt. - 3505+00 Lt.
3490+00 Rt. - 3494+50 Rt.
3496+50 Rt. - 3505+00 Rt.
STA. LOC. OFFSET DESCRIPT.
BL 3490+00 RT. 2000' DUG SPRING
BL 3498+50 RT. 500' DUG SPRING
BL 3499+75 RT. 800' SPRING
BL 3504+00 RT. 1500' DUG SPRING
Vt. 36 (700) 425
TR 25 (880) 850
Vt. 105 TR 15 (850) 525
1985 ADT ( )
1965 ADT
St. Albans
Vt. Grid
P.C. 1°-01.5'
P.T. 0°-68.5
TOWN ROAD #14 (West) 5°-50
END CONSTRUCTION
Reloc. T.R. 25 & 15 P.I. 15°-46.5' 14+93.2
Approx. Aerial Utility Reloc. Rte. by NET & T. Co. & CVPS Corp.
Approx. Aerial Utility Reloc. Rte. CVPS Corp. & NET & T. Co.
Approx. Underg'd. Utility Reloc. Rte. by NET & T. Co.
Temporary Aerial Utility Relocation Route by NET & T. Co.
T.R. # 15 & 25 13+74 Rt. Const. Bit. Conc. Gutter
T.R. # 25 & # 15 P.O.C. 12+00
T.R. # 14 0+00.0
T.R. # 25 & 15 STA. 15+16.0 BEGIN BRIDGE
T.R. 25 & 15 STA. 18+76 END BRIDGE
N.L. POT 3490+79.8
POT 3494+28.31'
TR 25-15 POST 17'26.8
POT 350+27.50
N 5°30'20"E
55°47'
N 12°25'18"E
N 62°25'35"E
Relocate T.R. 14 West
New 12'x34' Pipe, CGMP 16 ga., or CAACP 16 ga. w/1-10° Elbow, & FRCCD1 w/1:8 Grate
Reloc. T.R. 25 & 15 Δ 48° 32' 02" Rt. D 6° R 954.93 T 439.9 L 814.5 E 93.9' Bnk. 3/4" per ft.
BM #178 U.S. Elev. 374.45
Control of Access is complete on this sheet
* Stage 2 Construction Item
CONTRACT #1
Stage 1 Construction
Use for T.R. 14 (West), 15 & 25
SURVEYED BY Spaulding DATE 11/63
DRAWN BY Chase DATE
TRACED BY L. Clark DATE 11/64
ST. ALBANS - SWANTON
PROJ. I NO. 89 - 3(8)
SHEET 37 OF 238

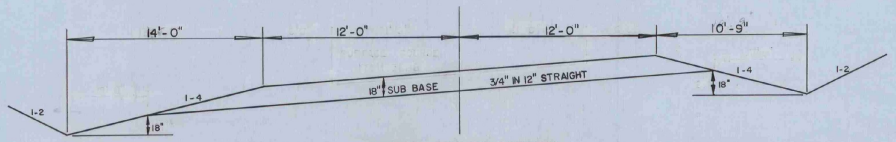

CONSTRUCT DRIVE
T.R. #14 E 4+30 Rt.
6+35 Rt.
TWO CABLE GUARD
RAIL T.R. #25, Item 541
20+00 - 21+29 Lt.
0 + 65
STA. LOC. OFFSET DESCRIPT.
TR#15 23+75 LT. 45' DUG SPRING
TR#15 26+05 RT. 95' SPRING
BITUM. CONC. SURFACE FOR GUTTERS AND TRAFFIC ISLANDS ITEM 554
T.R. 25 & 15 21+05 Lt.
T.R. 14 East 4+00 Rt.
TOWN ROAD 25 & 15 24+00
END CONSTRUCTION
1965 ADT
1985 ADT ( )
to St. Albans
to Vt. 105
Rev. T.R. 25-15
Δ 36° 15' 10" Lt.
D 5° 30'
R 1041.74
T 341.02
L 659.14
E 54.90
Bnk. 1/4" per ft.
Reloc. T.R. #14
P.I. 7+70.6
6+07.2
S 35° 26' 55" W
Reloc. T.R. #14
P.I. 1+36.6
Δ 54° 30' Rt.
D 21° 49'
R 263.4
T 136.6
L 252.1
E 33.3
Bank 3/4" per ft.
Rev. T.R. 14-East
Δ 94° 28' 00" Lt.
D 14°
R 409.26
T 442.48
L 674.77
E 193.47
Bnk. 13/16" per ft.
Reloc. T.R. #25 & #15
P.I. 24+05.9
24+44.9
Rev. P.I. 24+65.9
24+43.0
T.R. #14 0+08
BEGIN CONSTRUCTION
T.R. #14 East 11+00
END CONSTRUCTION
Rev. P.T. 10+02.89
Surv. P.O.T. 10+49.68
Eq. -46.79
B.M. #177-C
S.I.P. #44
Elev. 642.21
B.M. #178-B
S.I.P. 50' Lt.
El. 606.54
CONTRACT #1
Stage 1 Construction
SURVEYED BY _____ DATE _____
DRAWN BY Chase DATE _____
TRACED BY L. Clark DATE 11/22/66
STALBANS-SWANTON
PROJ. I- NO. 89-1(36)
SHEET 38 OF 298

# TOWN ROAD 25 & 15
## TYPICAL SECTION

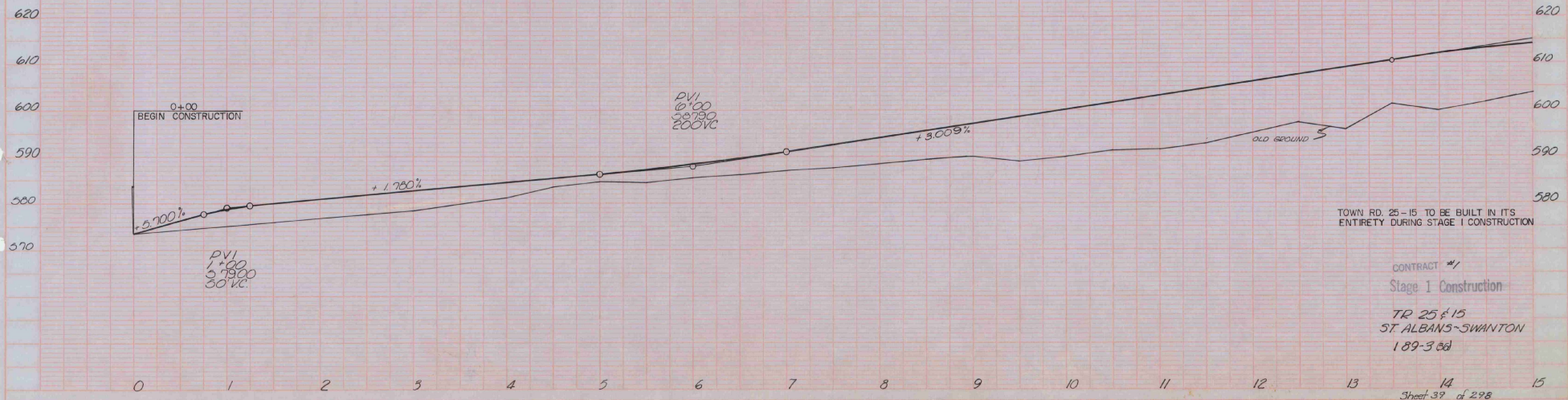
18" SUB-BASE OF GRAVEL ITEM 201




NORMAL SECTION WITH GUARD RAIL POSITION




MAXIMUM BANKED SECTION
3/4" PER FT




TOWN RD. 25 - 15 TO BE BUILT IN ITS ENTIRETY DURING STAGE I CONSTRUCTION

CONTRACT #1
Stage 1 Construction

TR 25 & 15
ST ALBANS - SWANTON
189-3(8)



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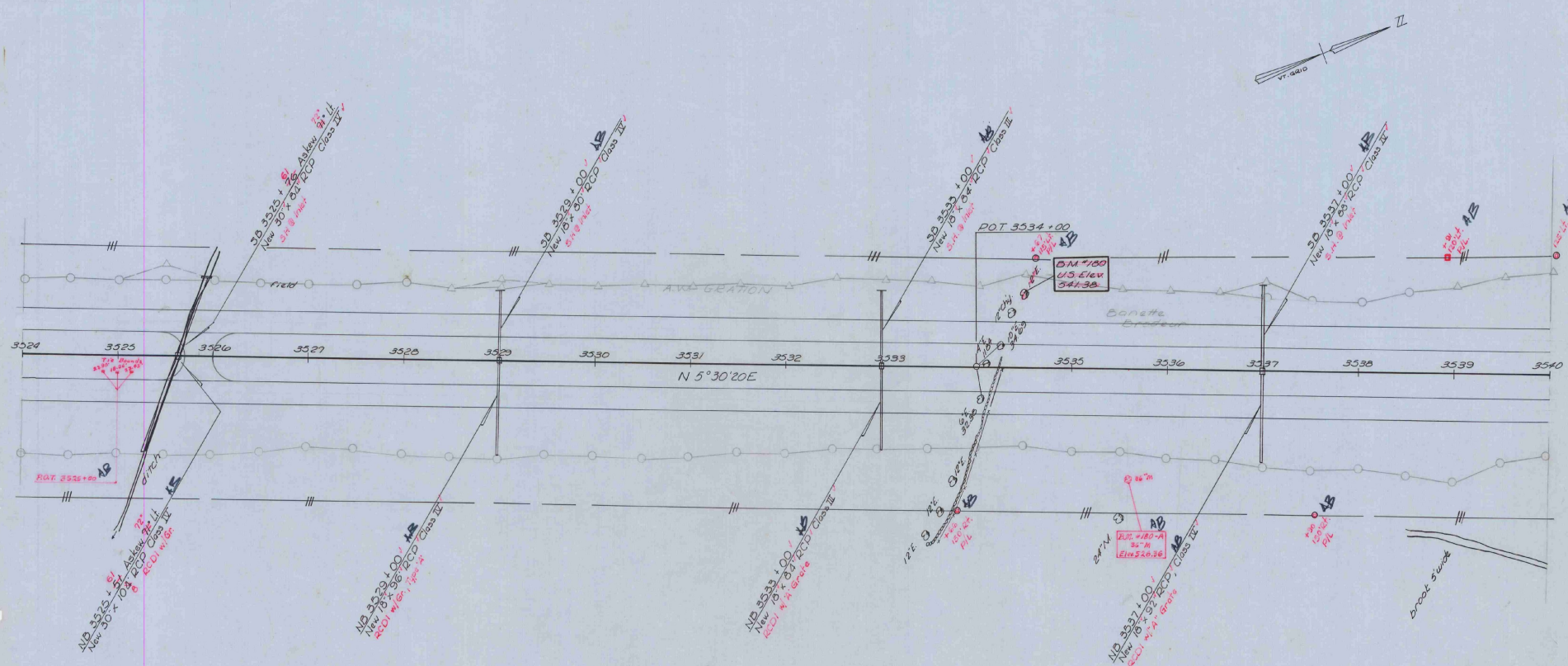
CONSTRUCT U TURN
@ B.L. 3525+85

* STAGE II CONSTRUCTION ITEM

* ~~BITUM CONC. SURFACE FOR GUTTERS & TRAFFIC ISLANDS ITEM 554~~
~~3525+26 - 3525+51 Med.~~
~~3528+75 - 3529+00 Med.~~
~~3532+75 - 3533+00 Med.~~
~~3536+75 - 3537+00 Med.~~

PROPERTY LINE FENCE
ITEM 583-II, MOD.
3524+00 - 3540+00 Lt & Rt.

| | STA. | LOC. | OFFSET | DESCRIPT. |
|---|---|---|---|---|
| BL | 3532+00 | LT. | 1500' | DUG SPRING |
| BL | 3534+00 | RT. | 1600' | FARM POND |
| BL | 3535+00 | RT. | 1500' | DUG SPRING |
| BL | 3536+00 | RT. | 1400' | DUG WELL |
| BL | 3540+00 | LT. | 600' | DUG WELL |




Control of Access is complete on this sheet

Stage 2 Construction

ST. ALBANS - SWANTON
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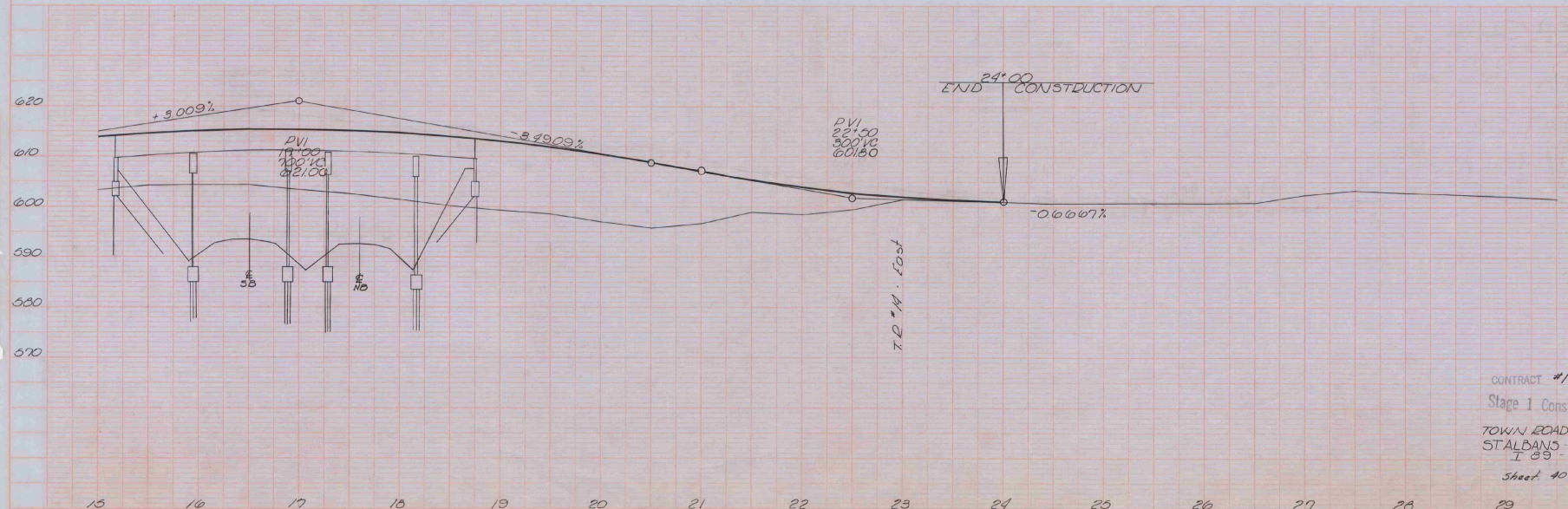
Sheet 47 40 of 153




CONTRACT #1

Stage 1 Construction

TOWN ROADS #25 & 10

ST ALBANS - SWANTON

I 89 - 3(30)

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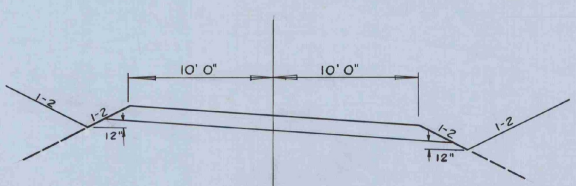
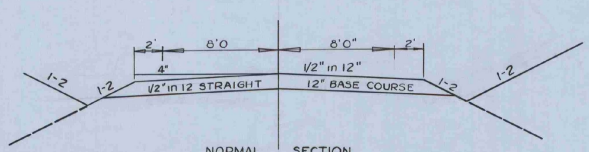
# TYPICAL SECTIONS

12" SUB-BASE OF GRAVEL, ITEM 201



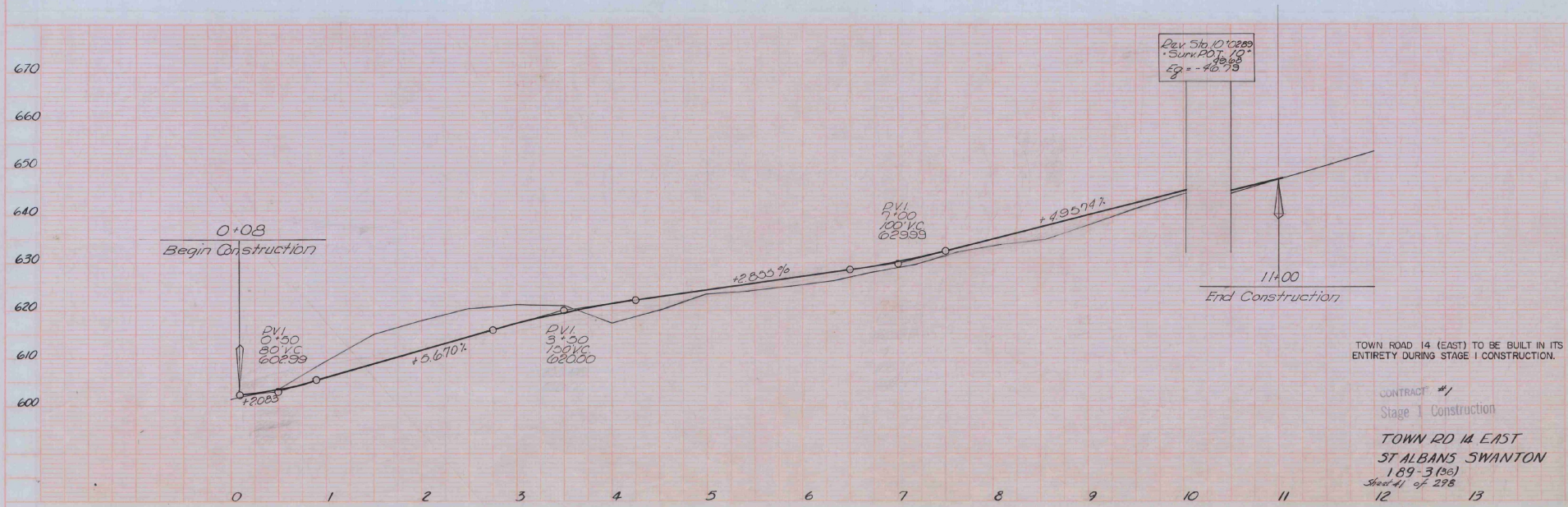

MAXIMUM BANKED SECTION

3/4" PER FT.




NORMAL SECTION

## TOWN ROAD 14 (EAST)



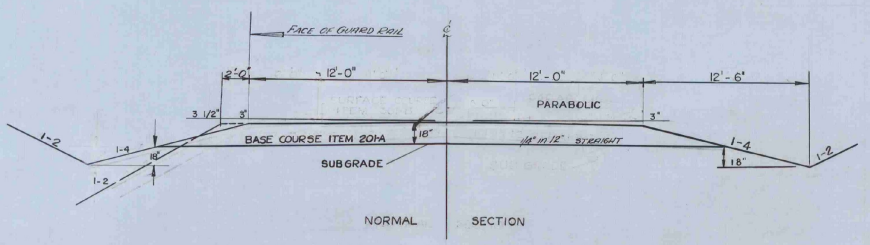

TOWN ROAD 14 (EAST) TO BE BUILT IN ITS ENTIRETY DURING STAGE I CONSTRUCTION.

CONTRACT #1
Stage 1 Construction

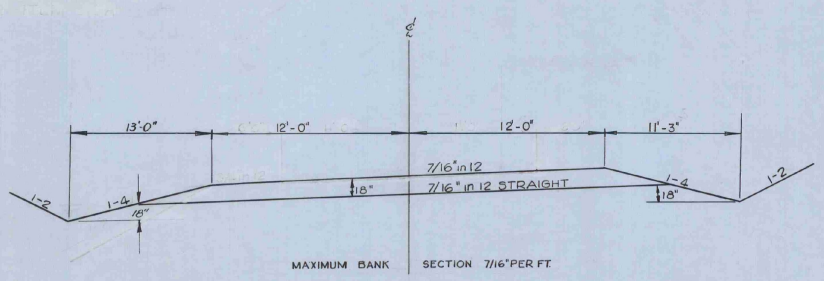
TOWN RD 14 EAST
ST ALBANS SWANTON
189-3(36)
Sheet 41 of 298

# TYPICAL SECTIONS

18" SUB-BASE OF GRAVEL, ITEM 201

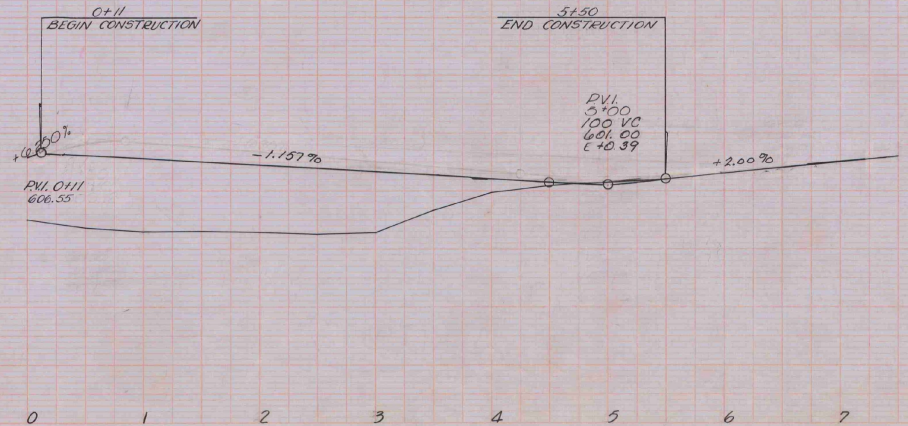



NORMAL SECTION




MAXIMUM BANK SECTION 7/16" PER FT

## TOWN ROAD 14 (WEST)




TOWN ROAD #14 (WEST) TO BE BUILT IN ITS ENTIRETY DURING STAGE I CONSTRUCTION.

CONTRACT #1
Stage 1 Construction
T.R. 14 West
ST. ALBANS - SWANTON
I 89 - 3(36)
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STANDARD STEEL BEAM GUARD RAIL W/ STEEL POSTS (6" 3" C.B.C.)

S.B. 3492+36 — 3494+27 Lt.
S.B. 3493+13 — 3495+04 Rt.
N.B. 3493+00 — 3494+91 Lt.

* STANDARD STEEL BEAM GUARD RAIL W/ STEEL POSTS & 6'-3" SPACING OF POSTS, ITEM 545A

N.B. 3492+94 - 3494+86 Lt.
S.B. 3493+12 - 3495+04 Rt.
S.B. 3492+39 — 3494+31 Lt.

* STAGE TWO CONSTRUCTION ITEMS

* BITUM. CONC. SURFACE FOR GUTTERS AND TRAFFIC ISLANDS, ITEM 554

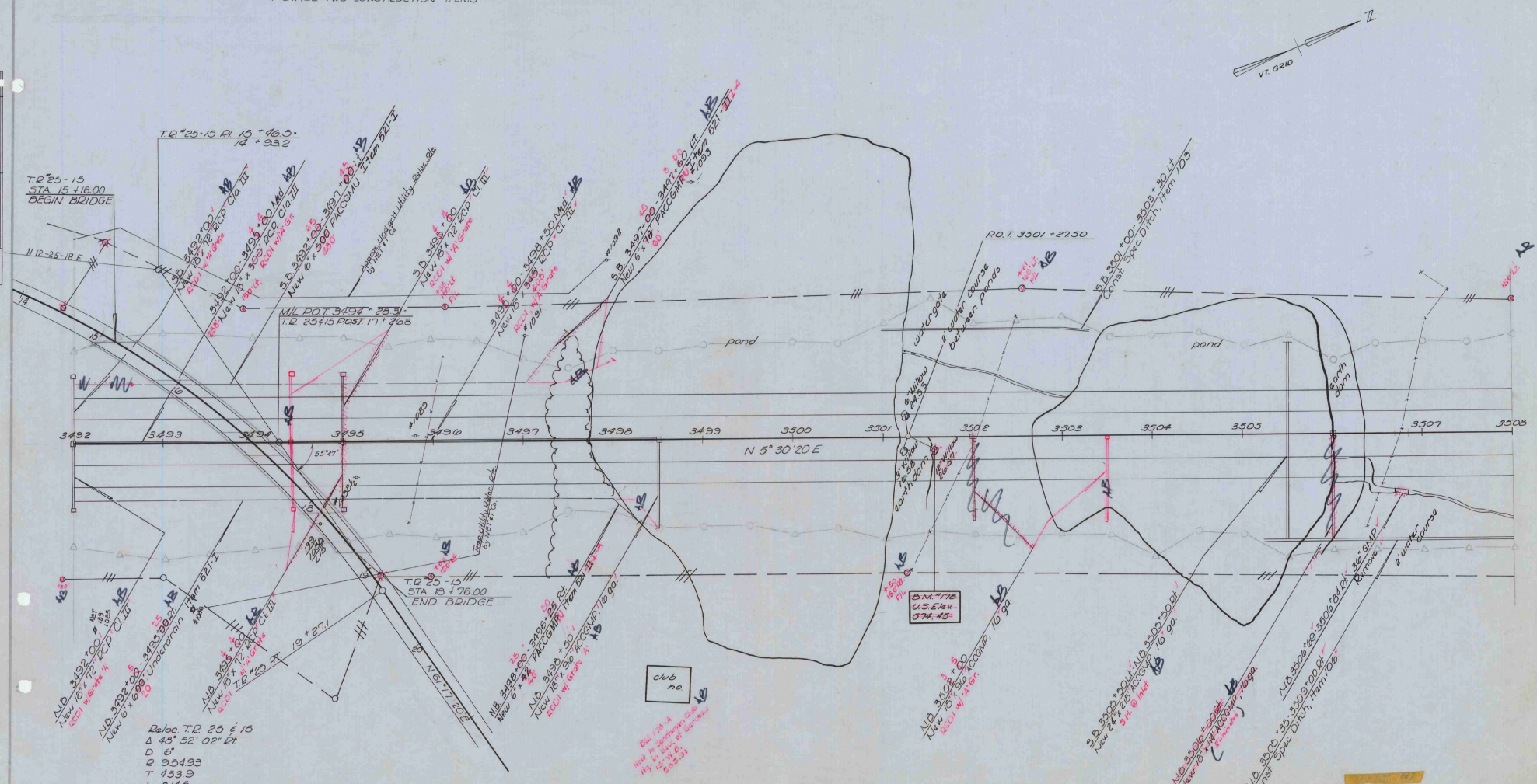
3494+75 - 3495+00 Med.
3498+25 - 3498+50 Med.
3501+75 - 3502+00 Med.
3505+75 - 3506+00 Med.

PROPERTY LINE FENCE, ITEM 583-II, MOD.

@ 3492+00 Lt. - 3508+00 Lt.
3492+00 Rt. - 3494+50 Rt.
3496+00 Rt. - 3508+00 Rt.

| | STA. | LOC. | OFFSET | DESCRIPT. |
|---|---|---|---|---|
| BL | 3498+50 | RT. | 500' | DUG SPRING |
| BL | 3499+75 | RT. | 800' | SPRING |
| BL | 3504+00 | RT. | 1500' | DUG SPRING |
| BL | 3506+00 | RT. | 1500' | SPRING |

STANDARD STEEL BEAM GUARD RAIL W/ STEEL POSTS, ITEM 545-A
Spacing of Posts - 12'-6"
NB 3493+55 - 3495+47 Rt.

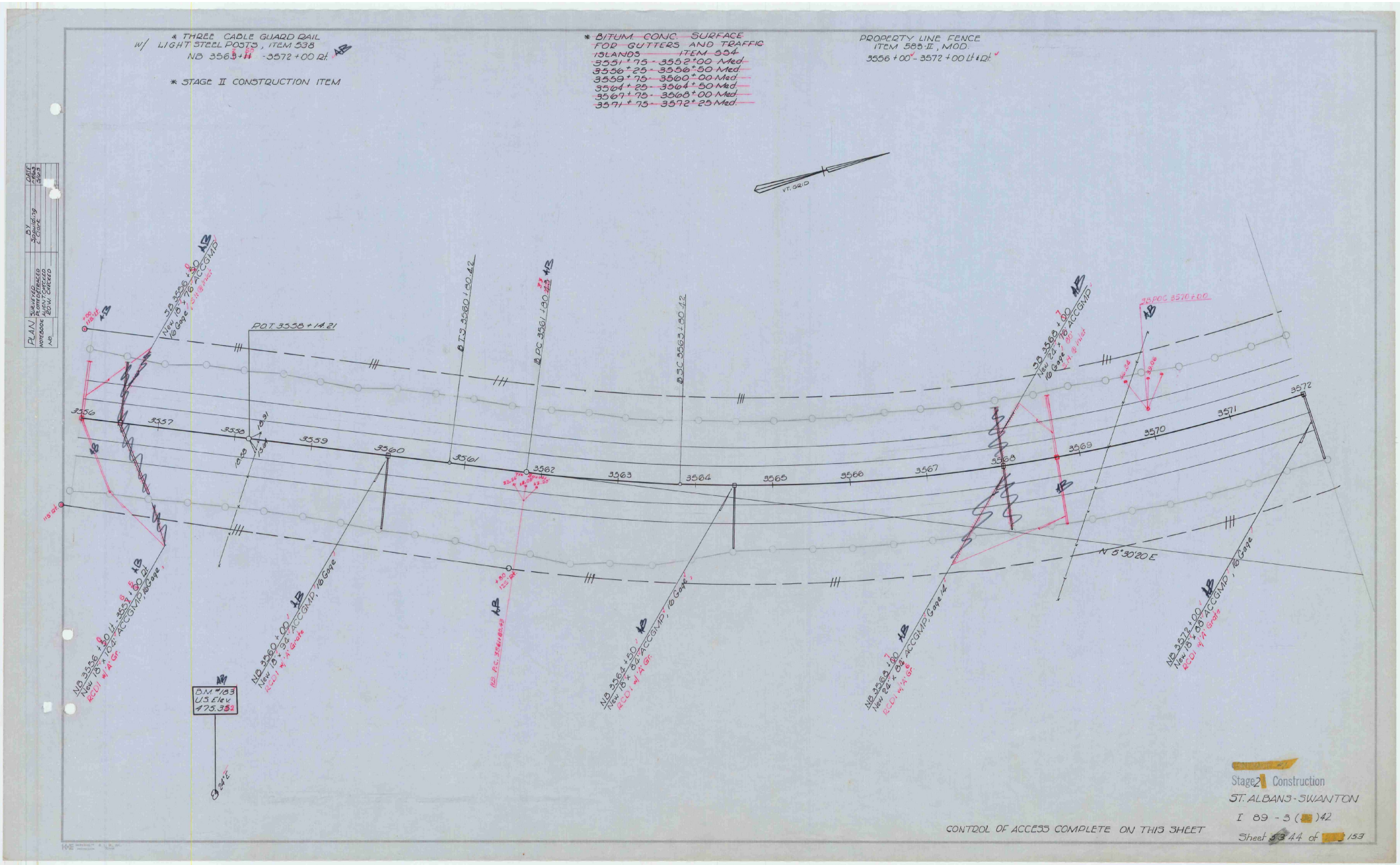



CONTROL OF ACCESS IS COMPLETE ON THIS SHEET

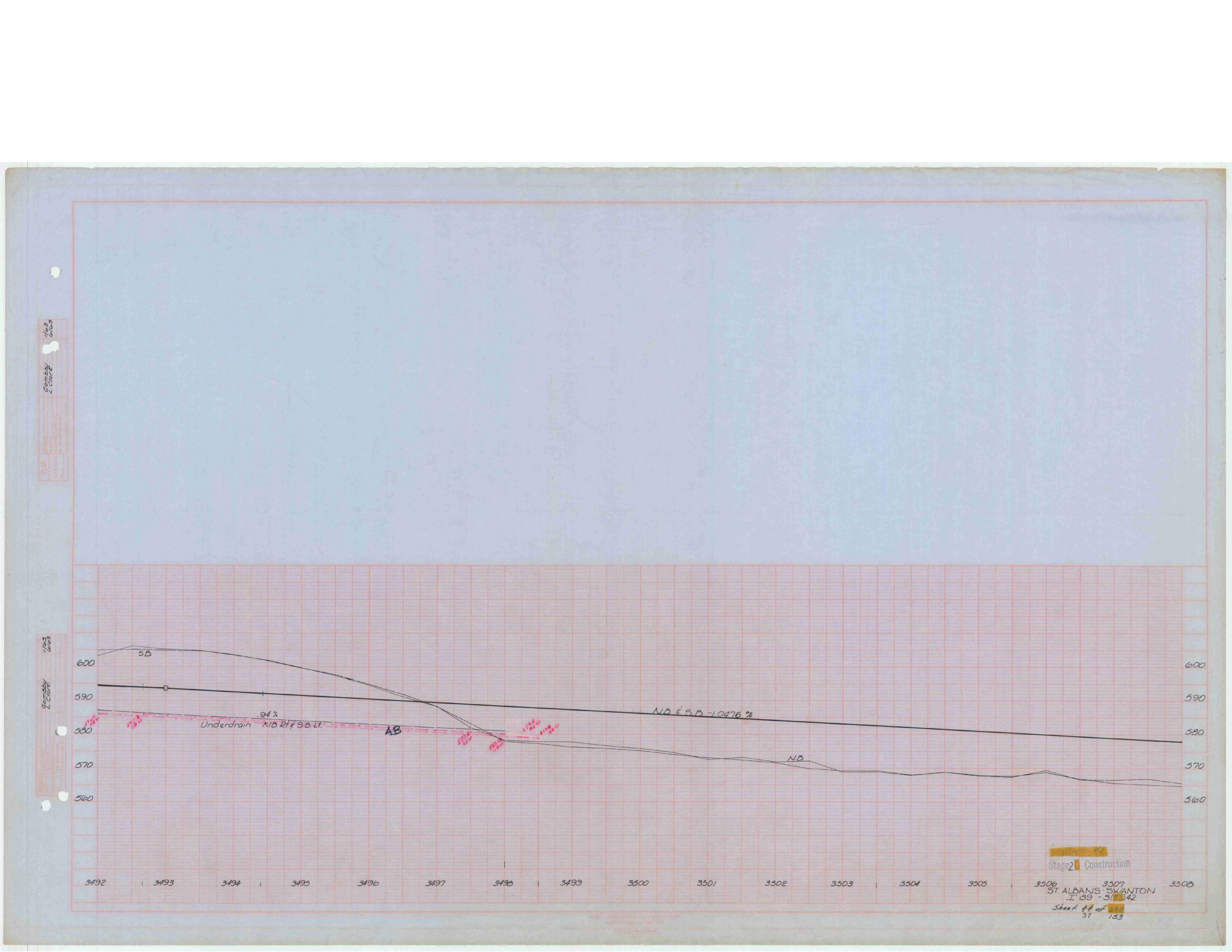
Stage 2 Construction

ST. ALBANS - SWANTON
I 89 - 3[illegible] 42

sheet 43 of 153



* THREE CABLE GUARD RAIL
w/ LIGHT STEEL POSTS, ITEM 538
NB 3563+11 -3572+00 Rt.
* STAGE II CONSTRUCTION ITEM
* BITUM. CONC. SURFACE
FOR GUTTERS AND TRAFFIC
ISLANDS ITEM 554
3551+75 - 3552+00 Med.
3556+25 - 3556+50 Med.
3559+75 - 3560+00 Med.
3564+25 - 3564+50 Med.
3567+75 - 3568+00 Med.
3571+75 - 3572+25 Med.
PROPERTY LINE FENCE
ITEM 583-II, MOD.
3556+00 - 3572+00 Lt & Rt.
VT. GRID
P.O.T. 3558+14.21
B.T.S. 3560+80.42
B.P.C. 3561+80.42
B.S.C. 3563+80.42
SB 3556+50
New 18" x 76' ACCGMP
16 Gage
SB 3568+00
New 24" x 76' ACCGMP
16 Gage
SB POC 3570+00
3556
3557
3558
3559
3560
3561
3562
3563
3564
3565
3566
3567
3568
3569
3570
3571
3572
N 5°30'20 E
NB 3556+50 Lt. - 3557+00 Rt.
New 18" x 104' ACCGMP, 16 Gage
RCDI w/ "A" Gr.
NB 3560+00
New 18" x 94' ACCGMP, 16 Gage
RCDI w/ "A" Grate
NB P.C. 3561+80.42
NB 3564+50
New 18" x 84' ACCGMP, 16 Gage
RCDI w/ "A" Gr.
NB 3568+00
New 24" x 84' ACCGMP, Gage 14
RCDI w/ "A" Gr.
NB 3572+00
New 18" x 88' ACCGMP, 16 Gage
RCDI w/ "A" Grate
B.M. #183
U.S. Elev.
475.352
24" E
PLAN
NOTEBOOK
NO.
SURVEYED
PLOTTED
LIGHT CARDED
RDW CARDED
BY
Spaulding
L. Clark
DATE
Stage 2 Construction
ST. ALBANS - SWANTON
I 89 - 3 ( )42
Sheet 44 of 153
CONTROL OF ACCESS COMPLETE ON THIS SHEET


SB
.94%
Underdrain NB Rt. & SB Lt.
AB
N.B. & S.B. -1.0476 %
N.B.
600
590
580
570
560
3492
3493
3494
3495
3496
3497
3498
3499
3500
3501
3502
3503
3504
3505
3506
3507
3508
Stage 2 Construction
ST. ALBANS - SWANTON
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Sheet 44 of 153
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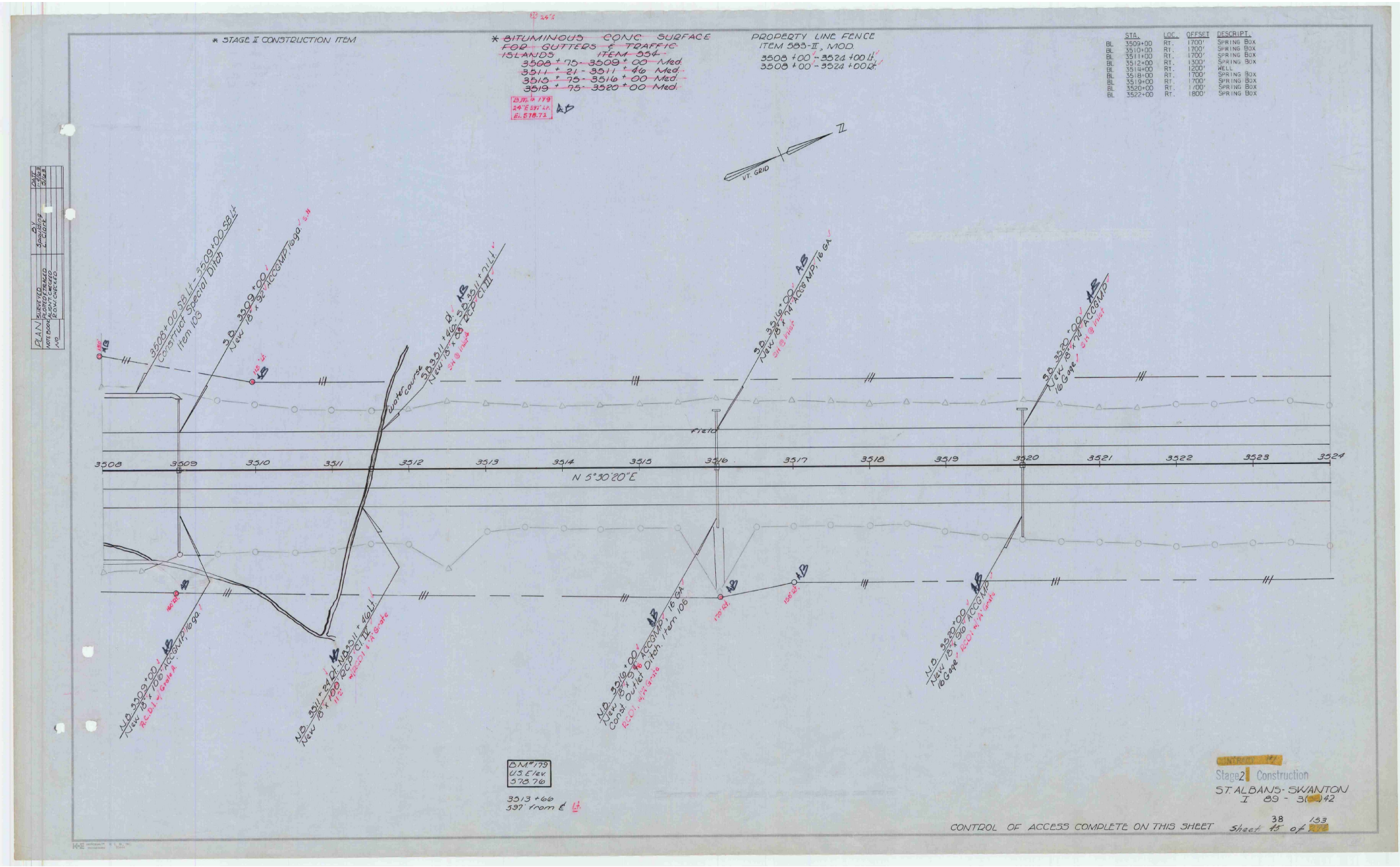
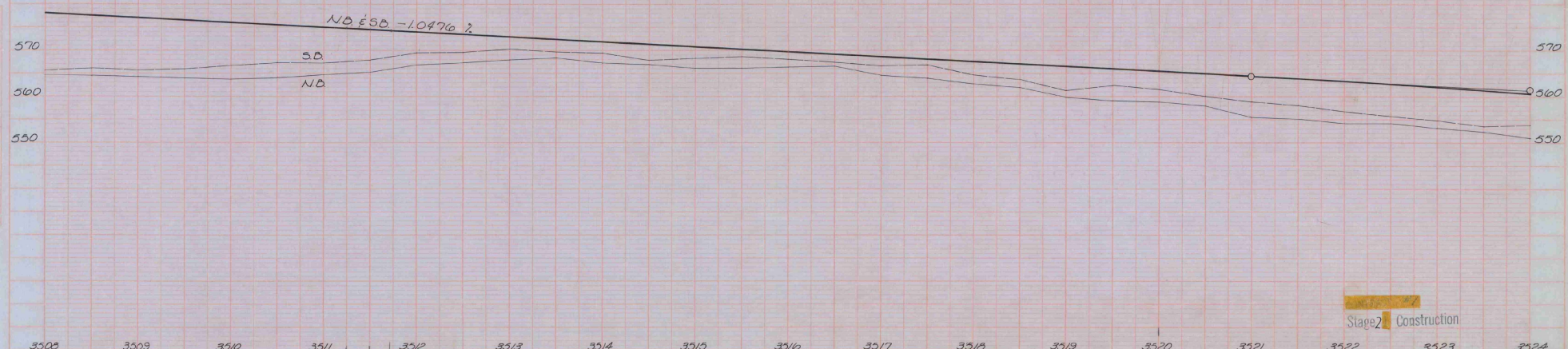


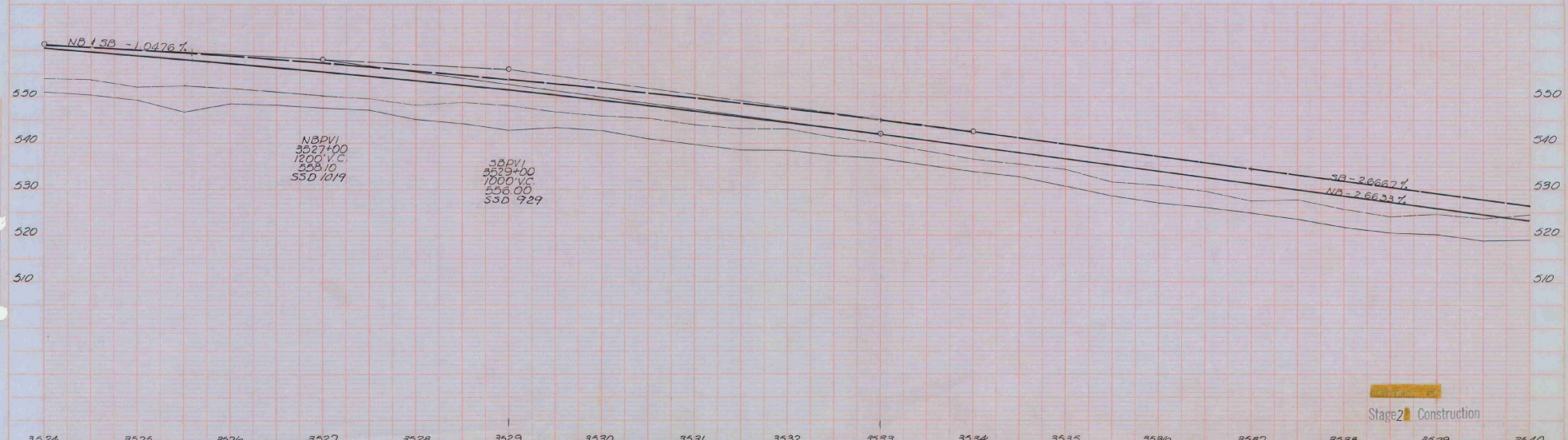
* STAGE II CONSTRUCTION ITEM
* BITUMINOUS CONC. SURFACE FOR GUTTERS & TRAFFIC ISLANDS ITEM 554
3508 + 75 - 3509 + 00 Med.
3511 + 21 - 3511 + 46 Med.
3515 + 75 - 3516 + 00 Med.
3519 + 75 - 3520 + 00 Med.
B.M. # 179
24" E 597' Lt.
El. 578.72
PROPERTY LINE FENCE
ITEM 583-II, MOD.
3508 + 00 - 3524 + 00 Lt.
3508 + 00 - 3524 + 00 Rt.
STA. LOC. OFFSET DESCRIPT.
BL 3509+00 RT. 1700' SPRING BOX
BL 3510+00 RT. 1700' SPRING BOX
BL 3511+00 RT. 1700' SPRING BOX
BL 3512+00 RT. 1300' SPRING BOX
BL 3514+00 RT. 1200' WELL
BL 3518+00 RT. 1700' SPRING BOX
BL 3519+00 RT. 1700' SPRING BOX
BL 3520+00 RT. 1700' SPRING BOX
BL 3522+00 RT. 1800' SPRING BOX
VT. GRID
N
3508+00 SB Lt - 3509+00 SB Lt
Construct Special Ditch
Item 103
S.B. 3509+00
New 18" x 92' ACCGMP, 16 ga.
S.B. 3511+46 Dl. - S.B. 3511+71 Lt.
New 18" x 88' RCP Cl. III
Water course
S.B. 3516+00
New 18" x 74' ACCGMP, 16 GA.
S.B. 3520+00
New 18" x 74' ACCGMP
16 Gage
Field
3508
3509
3510
3511
3512
3513
3514
3515
3516
3517
3518
3519
3520
3521
3522
3523
3524
N 5°30'20"E
N.B. 3509+00
New 18" x 106' ACCGMP, 16 ga.
R.C.D.I. w/ Grate A
N.B. 3511+24 Dl. - N.B. 3511+46 Lt.
New 18" x 100' RCP Cl. IV
112'
w/ RCD I. & "A" Grate
N.B. 3516+00
New 18" x 94' ACCGMP, 16 GA.
Const. Outlet Ditch, Item 106
RCD I. w/ "A" Grate
170' Rt.
150' Rt.
N.B. 3520+00
New 18" x 96' ACCGMP
16 Gage
RCD I. w/ "A" Grate
BM #179
U.S. Elev.
578.76
3513 + 66
597' from ℄ Lt.
PLAN
SURVEYED
PLOTTED & TRACED
ALIGN. CHECKED
R.O.W. CHECKED
NOTE BOOK
NO.
BY
Spaulding
L. Clark
DATE
1-4-63
5/63
CONTROL OF ACCESS COMPLETE ON THIS SHEET
Stage 2 Construction
ST. ALBANS - SWANTON
I 89 - 3(38)42
Sheet 45 of 153




Stage 2 Construction

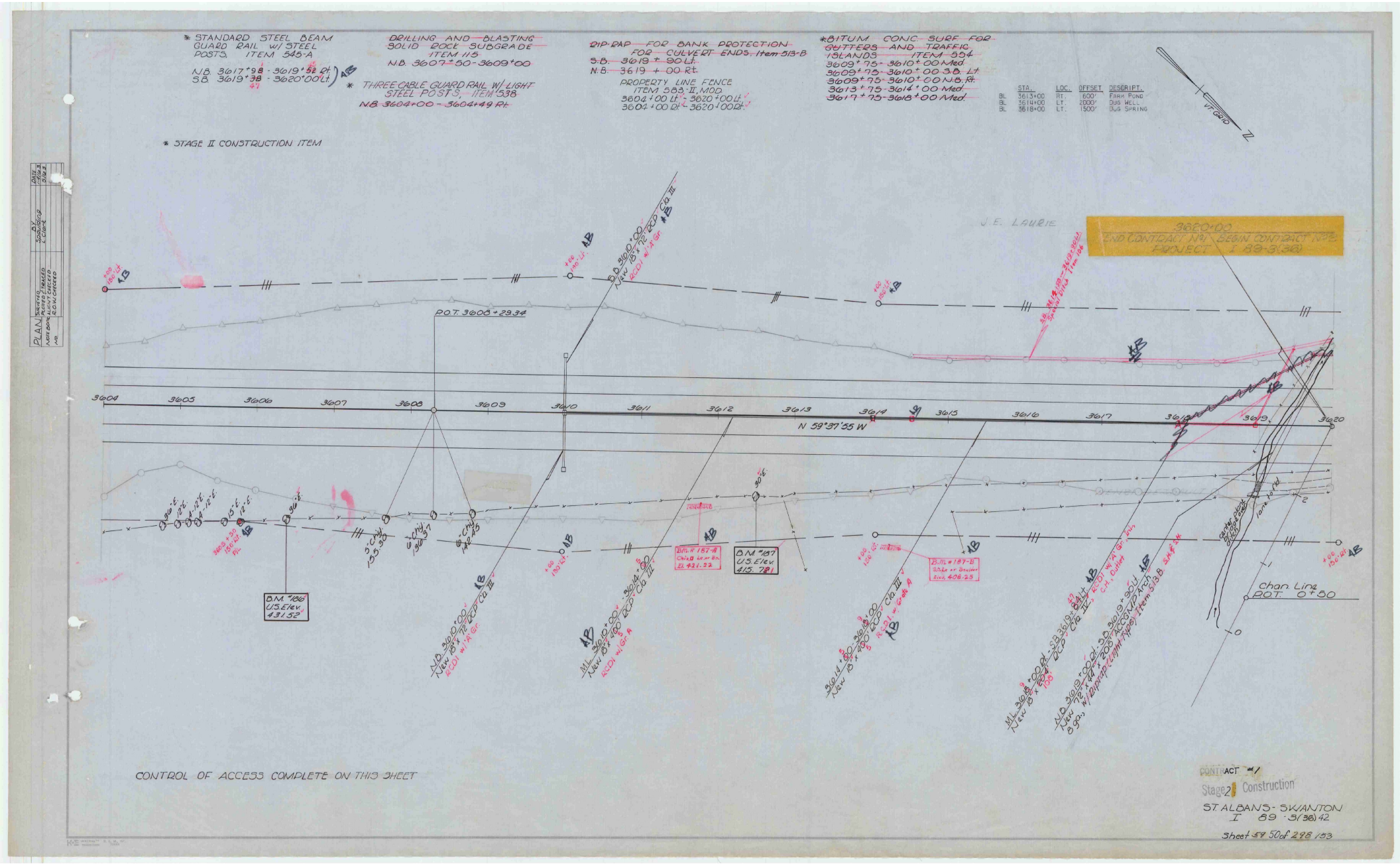
ST. ALBANS - SWANTON
I 89 - 3( )42

Sheet 16 of 39 153

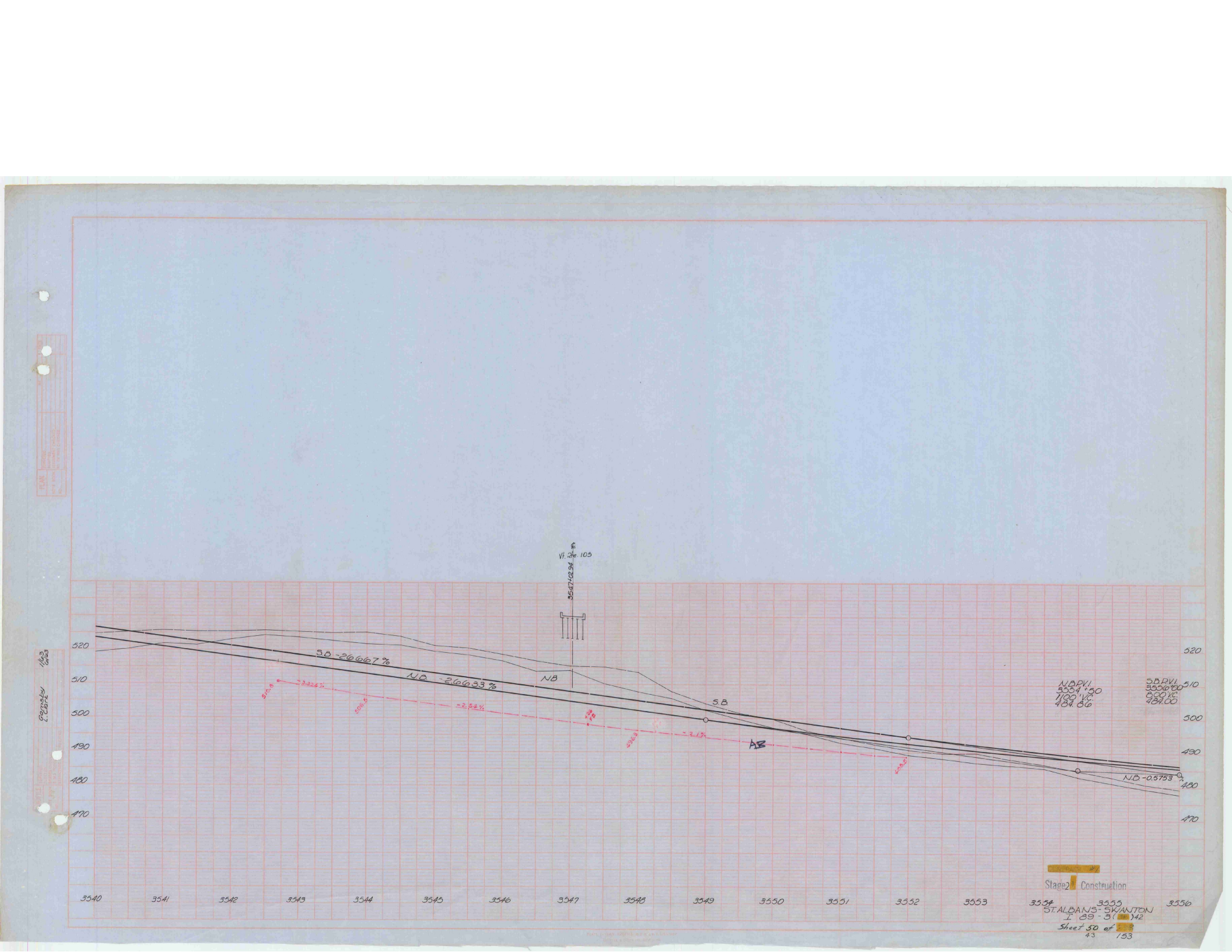



Stage 2 Construction

ST. ALBANS - SWANTON
I 89 - 3 ( )42
Sheet 18 41 of 153



* STANDARD STEEL BEAM GUARD RAIL w/ STEEL POSTS, ITEM 545-A
N.B. 3617+98 - 3619+52 Rt.
S.B. 3619+38 - 3620+00 Lt.
DRILLING AND BLASTING SOLID ROCK SUBGRADE ITEM 115
N.B. 3607+50 - 3609+00
* THREE CABLE GUARD RAIL W/ LIGHT STEEL POSTS, ITEM 538
N.B. 3604+00 - 3604+49 Rt.
RIP-RAP FOR BANK PROTECTION FOR CULVERT ENDS, Item 513-B
S.B. 3619 + 90 Lt.
N.B. 3619 + 00 Rt.
PROPERTY LINE FENCE ITEM 583-II, MOD.
3604+00 Lt. - 3620+00 Lt.
3604+00 Rt. - 3620+00 Rt.
*BITUM. CONC. SURF. FOR GUTTERS AND TRAFFIC ISLANDS ITEM 554
3609+75 - 3610+00 Med.
3609+75 - 3610+00 S.B. Lt.
3609+75 - 3610+00 N.B. Rt.
3613+75 - 3614+00 Med.
3617+75 - 3618+00 Med.
STA. LOC. OFFSET DESCRIPT.
BL 3613+00 RT. 600' FARM POND
BL 3614+00 LT. 2000' DUG WELL
BL 3618+00 LT. 1500' DUG SPRING
* STAGE II CONSTRUCTION ITEM
VT. GRID
N
J.E. LAURIE
3620+00
END CONTRACT No. 1 BEGIN CONTRACT No. 2
PROJECT I 89-3(36)
P.O.T. 3608+29.34
3604
3605
3606
3607
3608
3609
3610
3611
3612
3613
3614
3615
3616
3617
3618
3619
3620
N 59°37'55 W
B.M. #186 U.S. Elev. 431.52
B.M. #187 U.S. Elev. 415.78
B.M. #187-A
B.M. #187-B
Chan. Line P.O.T. 0+50
CONTROL OF ACCESS COMPLETE ON THIS SHEET
CONTRACT #1
Stage 2 Construction
ST. ALBANS - SWANTON
I 89-3(36) 42
Sheet 59 50 of 298 153


SB -2.6667 %
NB -2.6633 %
NB
SB
AB
NB -0.5753 %
NB PVI
3554+50
1100 V.C.
484.86
SB PVI
3550+00
600 V.C.
484.00
520
510
500
490
480
470
3540
3541
3542
3543
3544
3545
3546
3547
3548
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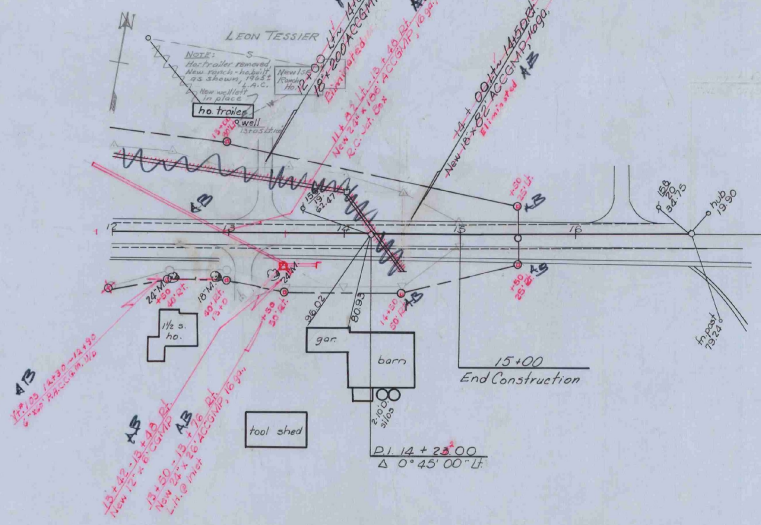
3556
Stage 2 Construction
ST. ALBANS - SWANTON
I 89 - 3( )42
Sheet 50 of
43
153

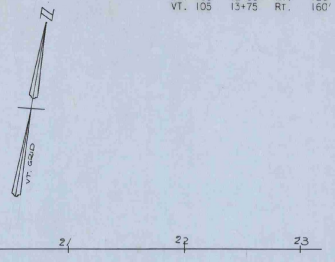
CONSTRUCT DRIVE
13+12 Rt

CONSTRUCT DRIVE
13+30 Lt
ROW BID ITEM




THREE CABLE GUARD RAIL
w/ STEEL POSTS, ITEM 542
12+00 - 12+13 Lt.
12+00 - 12+25 Rt.

| STA. | | LOC. | OFFSET | DESCRIPT. |
|---|---|---|---|---|
| VT. 105 | 12+75 | RT. | 105' | DRILLED WELL |
| VT. 105 | 12+85 | RT. | 120' | DUG WELL |
| VT. 105 | 13+75 | RT. | 160' | DUG WELL |



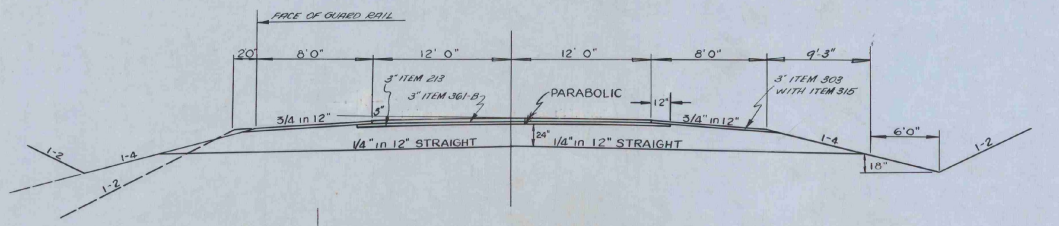

VT #105 to be built in its entirety during Stage 1 Construction

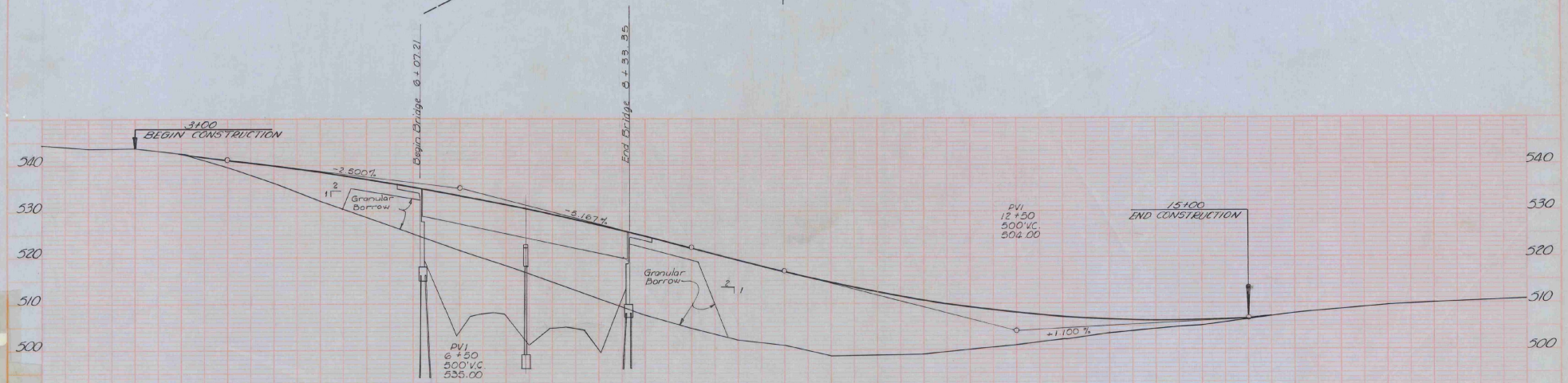
CONTRACT #1
Stage 1 Construction
VT. 105
ST. ALBANS-SWANTON
I 89-3(36)
Sheet 51 of 298

# TYPICAL SECTION VT 105

PERMISSIBLE TOLERANCES IN PARENTHESIS APPLY TO THICKNESS ONLY.

2 1/2" BITUMINOUS CONCRETE PAVEMENT, ITEM 361-B (± 1/4")
3" CRUSHED GRAVEL OR CRUSHED STONE PLANT MIXED BASE COURSE, ITEM 213 (± 1/2")
24" SUB-BASE OF GRAVEL, ITEM 201 (± 1")
3" CRUSHED STONE SHOULDERS, ITEM 303, WITH ITEM 315.




VT. RTE. 105 IS TO BE BUILT IN ITS ENTIRETY DURING STAGE I CONSTRUCTION.

CONTRACT #1
Stage 1 Construction

VT. 105
Contract 1
ST. ALBANS-SWANTON
I 89-3(36)

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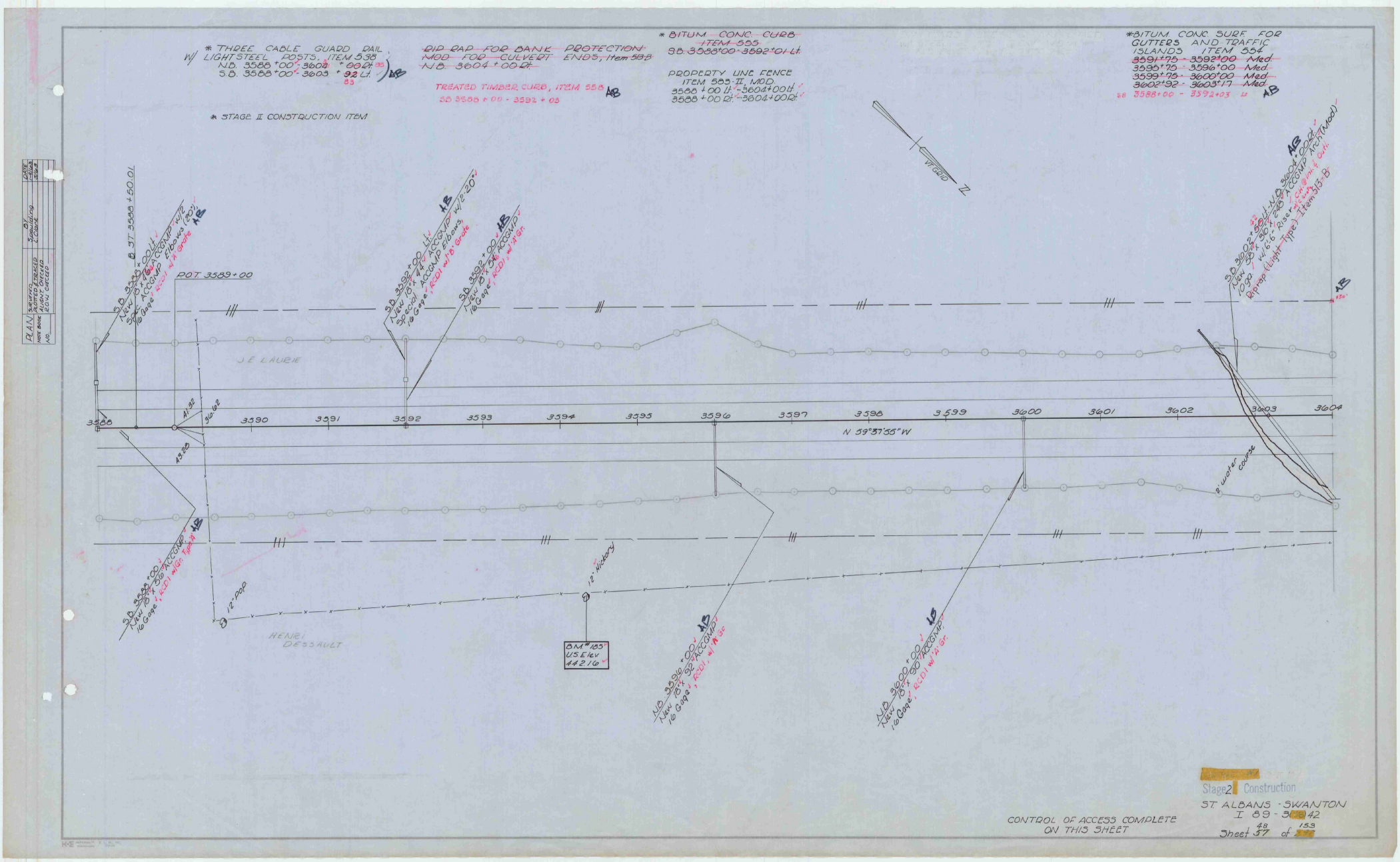
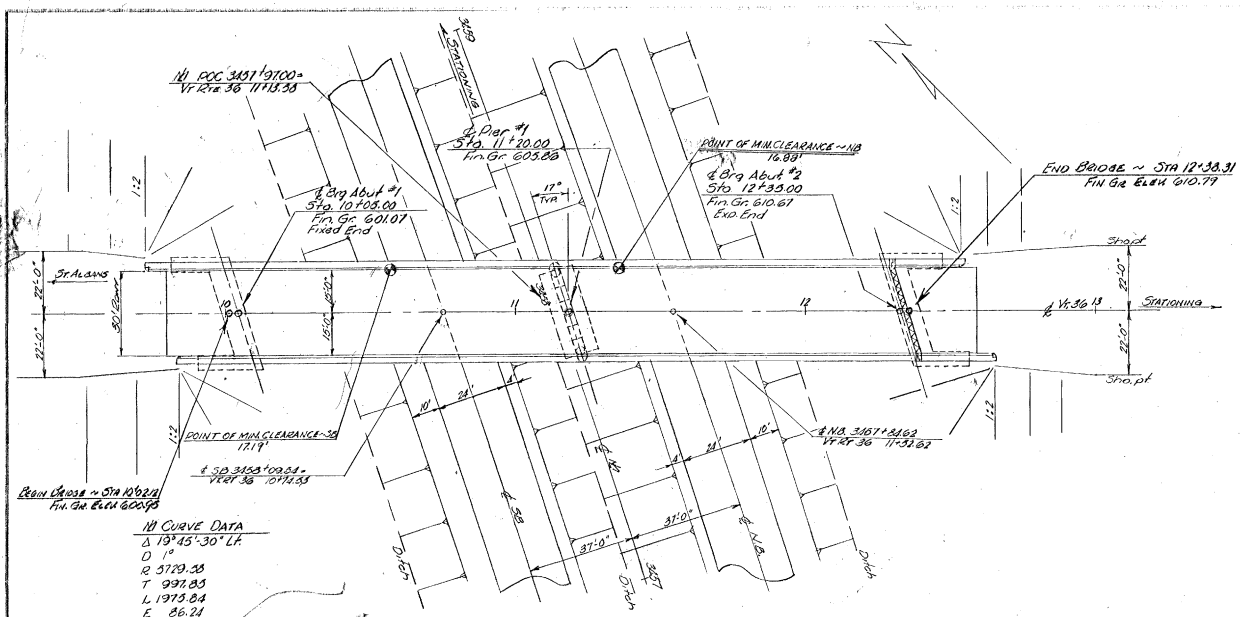
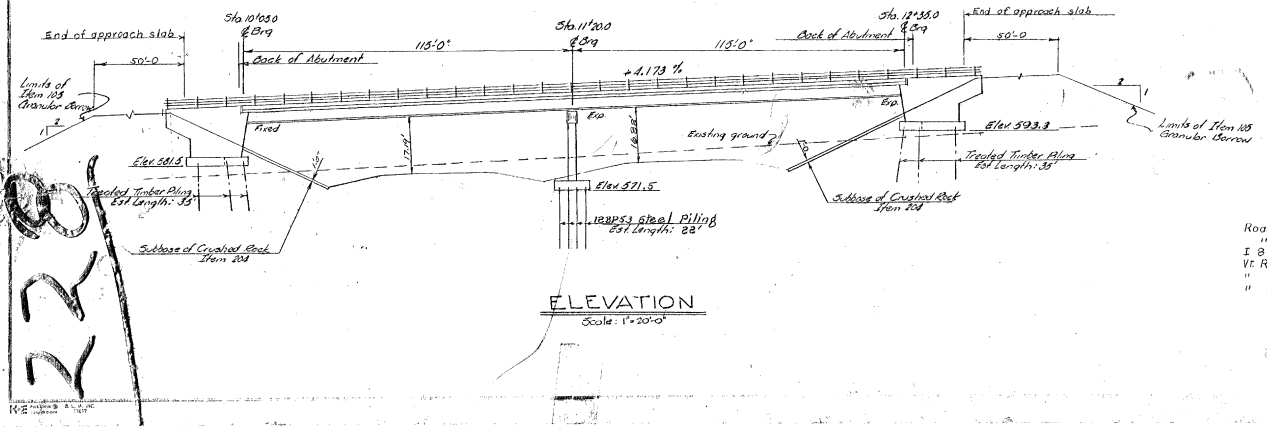

* THREE CABLE GUARD RAIL W/ LIGHT STEEL POSTS, ITEM 538
N.B. 3588+00 - 3602+00 = 1402 Lt.
S.B. 3588+00 - 3603+92 = 1592 Lt.
RIP RAP FOR BANK PROTECTION AND FOR CULVERT ENDS, Item 613
N.B. 3604+00 Rt.
TREATED TIMBER CURB, ITEM 558
SB 3588+00 - 3592+03
* BITUM CONC CURB ITEM 555
SB 3588+00 - 3592+01 Lt.
PROPERTY LINE FENCE ITEM 585 II, MOD.
3588+00 Lt. - 3604+00 Lt.
3588+00 Rt. - 3604+00 Rt.
*BITUM CONC SURF FOR GUTTERS AND TRAFFIC ISLANDS ITEM 554
3591+75 - 3592+00 Med.
3595+75 - 3596+00 Med.
3599+25 - 3600+00 Med.
3602+92 - 3603+17 Med.
SB 3588+00 - 3592+03 Lt
* STAGE II CONSTRUCTION ITEM
PLAN
SURVEYED
PLOTTED
TRACED
CHECKED
NOTE BOOK
ZONE
DATE
SHEET
BY
Staking
Check
PROJECT
DETAILED
ZONE CHECKED
NO.
℄ ST 3588+50.01
POT 3589+00
SB 3588+00 Lt
New 18"x 38' RCCMP w/ 2 - 30° RCCMP Elbows
16 Gage, RCDI w/ 4 Grate
SB 3592+00 Lt
New 18" x 44' RCCMP w/ 2 - 20° Special RCCMP Elbows
16 Gage, RCDI w/ 5 Grate
SB 3592+00 Rt
New 18" x 34' RCCMP
16 Gage, RCDI w/ 3 Gr.
SB 3602+00 Lt
New 18" x 50' RCCMP
16 Gage, RCDI w/ 4 Gr.
Riprap (Light Type) Item 613-B
J.E. LAURIE
HENRI DESSAULT
N 59°37'55" W
41.38
30.62
43.20
12.00
12" Hickory
BM = 185'
US Elev
442.16
water course
3588
3590
3591
3592
3593
3594
3595
3596
3597
3598
3599
3600
3601
3602
3603
3604
SB 3588+00 Lt
New 18" x 36' RCCMP
16 Gage, RCDI w/ Type B
NB 3596+00 Lt
New 18" x 32' RCCMP
16 Gage, RCDI w/ R Gr.
NB 3600+00 Lt
New 18" x 30' RCCMP
16 Gage, RCDI w/ A Gr.
CONTROL OF ACCESS COMPLETE ON THIS SHEET
Stage 2 Construction
ST ALBANS - SWANTON
I 89 - 3(12)42
Sheet 48 of 153




PLAN

Scale 1" = 20'-0"




ELEVATION

Scale: 1" = 20'-0"

GENERAL NOTES:-

1. Elevation datum is geo level based on nearest U.S. Government vertical control.
2. For additional notes, see SCB-01-65 and detail sheets.
3. All piles are to be driven to design load as shown on abutment and pier sheets. All piling is to be driven a minimum of 10 ft. into original ground.
4. 118m 505 Pile Loading Tests shall be used only when ordered in writing by the Engineer.

LIST OF SHEETS


Br. 100 - Plan & Elevation
101 - Bridge Quantity Sheet
102 - Preliminary Information Sheet
103 - Borings
104 - Girder Details
105 - Bracing Details & Bearing Devices
106 - Expansion Dam Details
107 - Abutment #1
108 - Abutment #2
109 - Pier
110 - Curb & Railing Detail
111 - Approach Slab #1
112 - Approach Slab #2
Br. 113 - Reinforcing Steel Schedule


STANDARD SHEETS

G-3a
SCB-01-65
SCB-04-65
SCB-06-65
SB-121-64 ~ Shts. #1 & #2
SB-122-65

REFERENCE SHEETS

| | | |
|---|---|---|
| Roadway Plan Sheet | Sta | 3444+0 – 3460+0 |
| " Profile " | Sta | 3444+0 – 3460+0 |
| I 89 Sections | Sta | 3437+0 – 3460+0 |
| Vt. Route 36 Plan Sh. | Sta | 1+0 – 16+0 |
| " " " Profile Sh. | Sta | 1+0 – 16+0 |
| " " " Sections | Sta | 7+0 – 16+0 |

| | |
|---|---|
| REVISION 1 WMS 6/6/66 | TREATED TIMBER PILES CHANGED TO 12BP53 STEEL PILES UNDER PIER |

BR. 100 OF 113 REV. SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans - Swanton
ROAD NO. Vt. Rte. 36 BRIDGE NO. ____
Vt. Rte. 36 over I-89 @ Sta. 3457+97
PLAN & ELEVATION
SCALE 1" = 20'-0"
SURVEYED BY Spaulding
DRAWN BY W CHECKED BY AGC
PROJECT NO. I-89-3(34) 71(42)
SHEET 93 OF 113

## EARTHWORK

| % GRD | STATION | GRADES ELEVATION ON TAN. | GRADES ELEVATION ON V.C. | CORR. V.C. | DIST. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | |

# BRIDGE QUANTITY SHEET

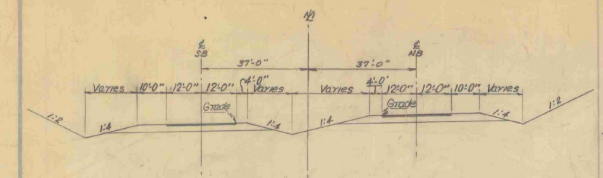
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

| | NO. | ITEM | UNIT | QUANTITY BREAKDOWN: Abut. 1 (AB) | Abut. 2 (AB) | Pier (AB) | Superstr. (AB) | App. Slab 1 (AB) | App. Slab 2 (AB) | NET | OVER-RUN | TOTAL | FINAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 105 | Granular Borrow (Between abutments) | c.y. | 105 | 95 | | | | | | | * 200 | AB |
| | 109 | Structure Excavation | c.y. | 10' | 10' | ~~43~~ 114 | | | | | | 112 | 137 |
| | 204 | Subbase of Crushed Rock | c.y. | ~~45~~ 47 | ~~37~~ 60 | | | | | | | 104 | 107 |
| | 221 | Overhaul (12.0 miles) | c.y./mi | ~~852~~ | ~~636~~ | | | | | | | 1488 | 0 |
| | 222-B | Gravel Backfill for Structures | c.y. | ~~74~~ 70 | ~~53~~ 61 | | | | | | | 122 | 131 |
| * | 318 | Tar Emulsion for Bridge Floors | gal. | | | | 311 | 33 | 33 | | | * 377 | |
| * | 361-B | Bituminous Concrete Pavement (Coarse grade Bottom and Top Course) | tons | | | | 66 | 7 | 7 | | | * 80 | |
| * | 372-A | Joint Sealer - Hot Poured | l.f. | | | | | 32 | | | | * 32 | |
| | 372-C | Joint Sealer - Preformed (Type A) | l.f. | | | | | 41' | ~~44~~ | | | 82 | 41 |
| | 401-AA | Concrete Class AA | c.y. | | | ~~24~~ 32 | ~~235~~ 238 | | | | | 259 | 270 |
| | 401-B | Concrete Class B | c.y. | ~~136~~ 53 | ~~129~~ 130 | 40' | | ~~29~~ 25 | ~~29~~ 25 | | | 368 | 363 |
| | 602 | Reinforcing Steel | lb. | ~~19264~~ 13845 | ~~13,173~~ 13215 | ~~13,433~~ 12500 | 57606 91 | ~~5047~~ 4270 | ~~4047~~ 4270 | | | 105,700 | 106,451 |
| | 604-A | Structural Steel @ Sta 3457+97 | lb. | 190 | 190 | | 283,650 | | | | | 284030 | 292,012 |
| | 607 | Asphaltic Asbestos Coating | s.y. | ~~74~~ 8 | ~~74~~ 10 | 14' | | | | | | 31 | 32 |
| | 610 | Paint Waterproofing | s.y. | ~~128~~ 123 | ~~128~~ 123 | | | | | | | 256 | 244 |
| | 640 | Water Repellant | gal. | ~~16 3/4~~ | ~~16 3/4~~ | ~~5 3/4~~ | ~~26 3/4~~ | | | | | 67 | 30 |
| | 501 | Furnishing Equipment for Driving Piling | l.s. | | | 1/4' | | | | | | 1/4 | 1/4 |
| | 503-B | Treated Timber Piling | l.f. | ~~465~~ 1085 | ~~638~~ 1025 | 0 | | | | | | 2170 | 1,111 |
| | 503-B | Treated Timber Piling Cut-offs @ 50% Unit Price | l.f. | | | | | | | | | | 870 |
| | 503-C | steel Piling (12BP53) | l.f. | | | ~~44~~ 392 | | | | | | 440 | 392 |
| | 503-C | Steel Piling Cut-offs @ 50% Unit Price | l.f. | | | | | | | | | | 119 |
| | 556-C | Granite Bridge Curb | l.f. | 489 | 489 | | 464' | | | | | 560 | 562 |
| | 572 | Bridge Railing | l.f. | | | | ~~559~~ 564 | | | | | 559 | 564 |
| | 505 | Pile Loading Tests | ea. | 1 | 1 | 1 | | | | | | 3 | 0 |

* To Be Included in Rdwy. Quantities

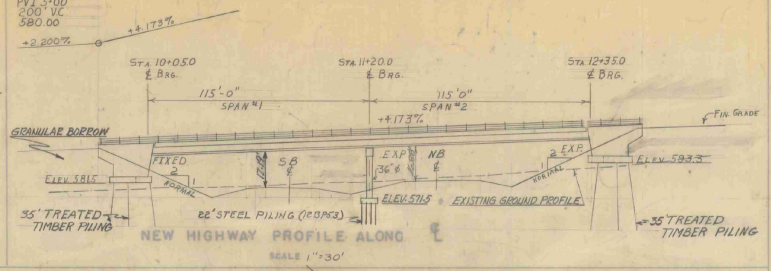
BRIDGE(S) AT STATION(S) 3457+97
LOCATION(S) Vt. Rte 36 over I-89

St. Albans-Swanton PROJECT NO. I-89-3(36)91
REV. SHEET BR 101 OF 113 SHEET NO. 62A OF 298



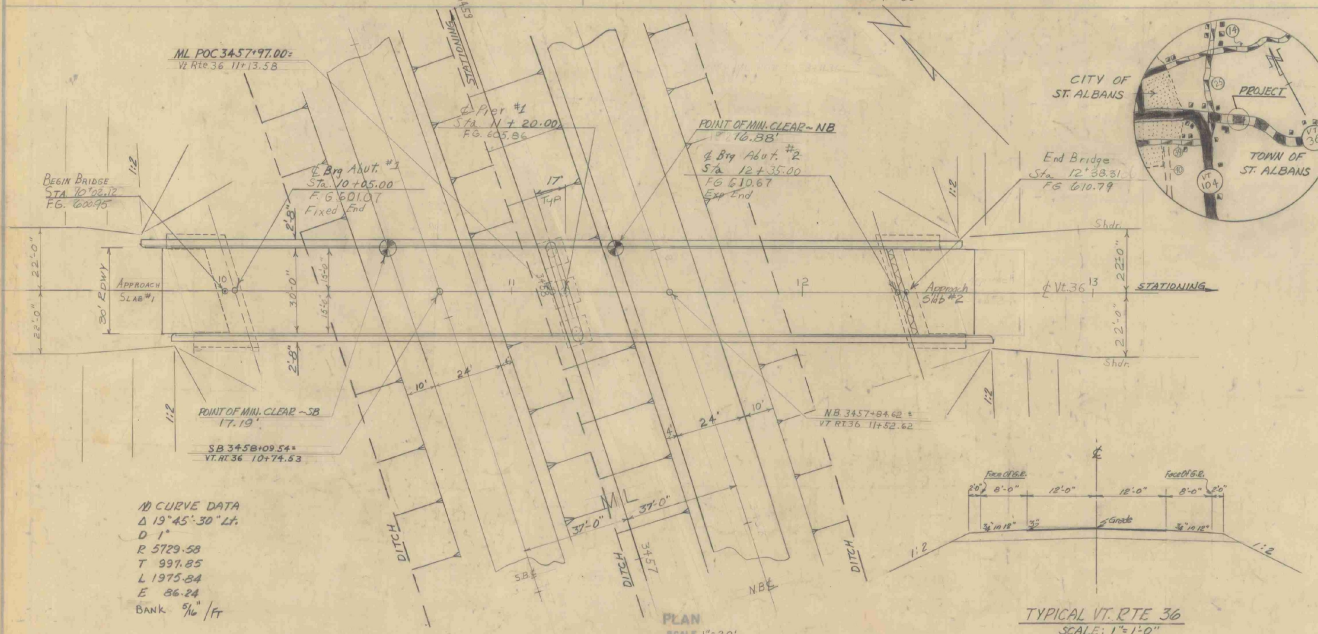

NEW HIGHWAY SECT. STA. 3456+0 TO STA. 3460+0

SCALE: 1"= 20'-0"




NEW HIGHWAY PROFILE ALONG ℄

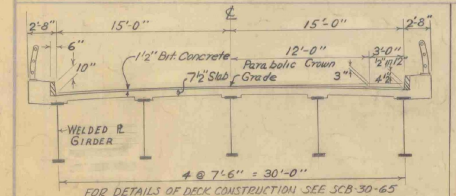
SCALE 1"=30'




TYPICAL VT. RTE 36

SCALE: 1"= 1'-0"

N CURVE DATA
Δ 19°45'30" Lt.
D 1°
R 5729.58
T 997.85
L 1975.84
E 86.24
Bank 3/4"/Ft



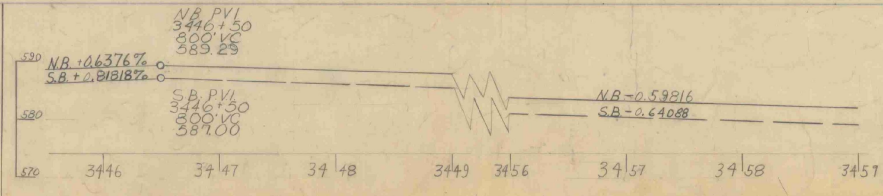

FOR DETAILS OF DECK CONSTRUCTION SEE SCB-30-65

FOR CURB DETAILS SEE SCB-DG-65 DET. "A"

FOR RAILING DETAILS SEE SB-121-64 (SHTS 1 & 2) & SB-122-65

TYPICAL SECTION

SCALE 1"=5'




PROFILE OF PROPOSED I-89

SCALE HOR. 1"=50'
VERT. 1"=10'

HIGHWAY NO. VT. RTE. 36 NAME OF HIGHWAY ST. ALBANS – BAKERSFIELD ROAD
STRUCTURE NO. COUNTY FRANKLIN TOWN ST. ALBANS
PROJECT NO I 89-3(36) LOCATION ST. ALBANS – SWANTON ~ VT. RTE 36 OVER I 89

## EXISTING STRUCTURE

1 RATED LOADING OF EXISTING STRUCTURE
2 TYPE OF EXISTING STRUCTURE
3 UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE COST OF REMOVAL
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT
7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE WATERWAY TO ORDINARY H.W.
8 EXTREME HIGH WATER AT EXISTING STRUCTURE
9 SPAN OF EXISTING BRIDGE UPSTREAM WATERWAY TO EXTREME H.W.
SPAN OF EXISTING BRIDGE DOWNSTREAM WATERWAY TO EXTREME H.W.
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS
11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE
12 IF NOT, AT WHAT ELEVATION IS RELIEF AFFORDED
13 ADDITIONAL WATERWAY AREA PROVIDED

## NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE 2-SPAN CONTINUOUS WELDED GIRDER
2 RECOMMENDED CLEAR SPAN OR SPANS 115'-115' ℄ Brgs.
MEASURED PARALLEL TO ℄ NEW HIGHWAY
MEASURED AT RIGHT ANGLES TO ℄ STREAM N/A
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM, ANSWER YES OR NO N/A
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE N/A
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE SOURCE OF INFORMATION N/A
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE? N/A
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? IS ORDINARY RISE RAPID? N/A
8 LOW WATER ELEVATION AT NEW STRUCTURE N/A
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE CHARACTER OF TERRAINE N/A
10 IS STREAM EVER DRY? N/A
11 VELOCITY OF STREAM AT HIGH WATER STAGE ESTIMATED DISCHARGE N/A
12 AREA FULL OPENING AREA BELOW ORDINARY H.W. N/A
13 CHARACTER OF SCOUR DRIFT ICE N/A
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE N/A
15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION N/A
16 ARE SIDEWALKS REQUIRED, IF SO ON WHAT SIDE NONE BOTH SIDES
17 RECOMMENDED TYPE OF PAVEMENT 1½" Bitum. Concrete Wearing Surface
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. N/A ONE OR TWO WAYS PROBABLE COST
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE N/A
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES? No
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS 82 TON/PILE Vt 600 PILES BE USED? Yes EST. LGTH 35' MAX.
40 TON/PILE STEEL

## FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

DESIGN LOADING: HS 20 - 44

DESIGN STRESSES:
A 36 STEEL $f_s$ = 20,000 psi.
CONCRETE $f_c'$ = 3,000 psi.
REINF. STEEL $f_s$ = 20,000 psi. (TENSION)

Recommended for Approval: Lyn Bjorn, Bridge Engineer, 5/3/65
Recommended for Approval: E.H. Otterbein, Const. Engineer, 5/6/65
Recommended for Approval: R.H. Arnold, Asst. Const. Engineer, 5/13/65
Approved by: A.D. Bishop, Chief Engr. & Dir. of Highways, 5/13/65

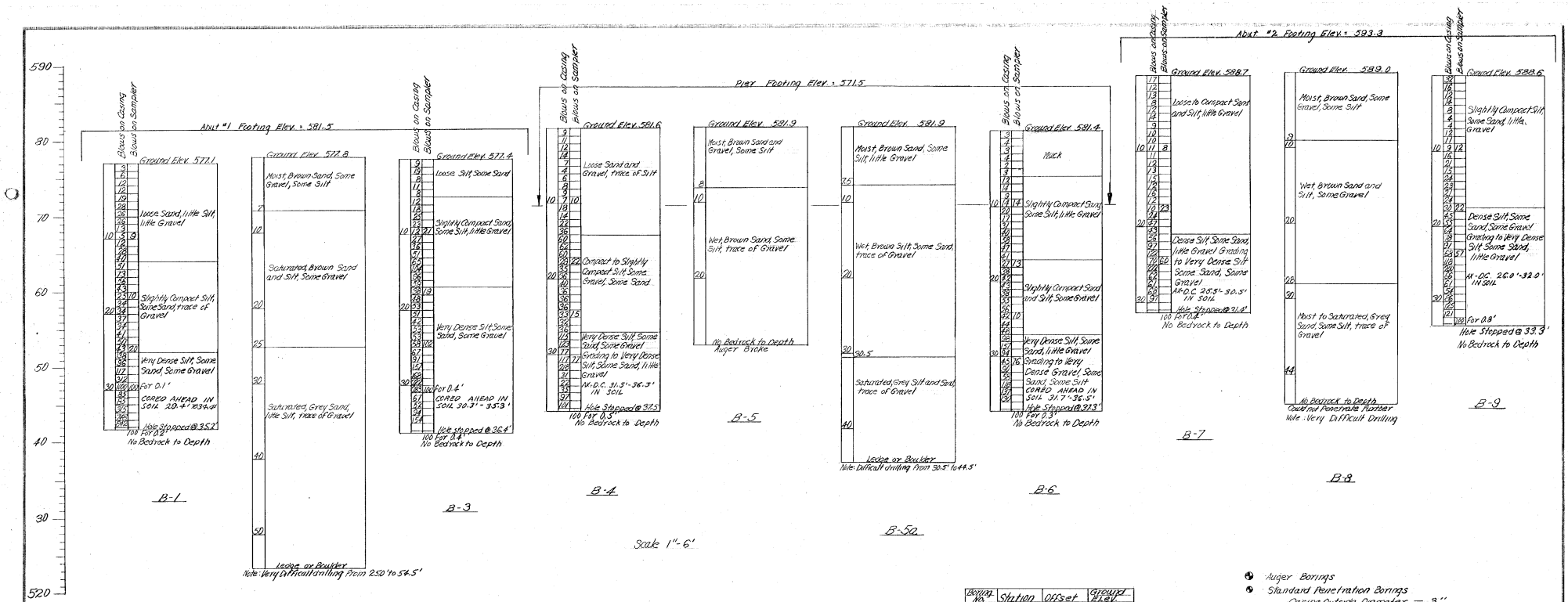
BR 102 OF 113 REV. SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

I 89 IN THE TOWNS OF
ST. ALBANS - SWANTON
ROUTE NO. LOG STA.
VT. RT. 36 OVER INTERSTATE 89

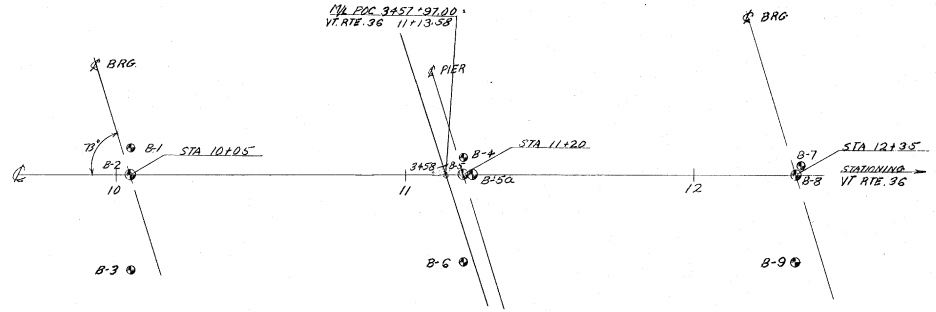
SURVEYED BY — DRAWN BY JGC | CHECKED BY — IN CHARGE RWK EPP | SCALE AS NOTED | DATE Aug 64
PROJECT NO I-89-3(36) | SHEET 63A OF 298
CONT. # 1

REV. MAR. 1965 RWH C.H.K. MAR 1965 RLM




| Boring No. | Station | Offset | Ground Elev. |
|---|---|---|---|
| B-1 | 10+05 | 9' Lt. | 577.1 |
| B-2 | 10+05 | ℄ | 577.8 |
| B-3 | 10+05 | 33' Rt. | 577.4 |
| B-4 | 11+20 | 6' Lt. | 581.6 |
| B-5 | 11+20 | ℄ | 581.9 |
| B-5a | 11+23 | ℄ | 581.9 |
| B-6 | 11+20 | 30' Rt. | 581.4 |
| B-7 | 12+37 | 3' Lt. | 588.7 |
| B-8 | 12+35 | ℄ | 589.0 |
| B-9 | 12+35 | 30' Rt. | 588.6 |

- Auger Borings
- Standard Penetration Borings
  - Casing Outside Diameter — 3"
  - Casing Inside Diameter — 2 1/4"
  - Weight of Hammer — 350 Lbs.
  - Hammer Fall — 24"
  - Sampler Outside Diameter — 2"
  - Sampler Inside Diameter — 1 3/8"
  - Weight of Hammer — 140"
  - Hammer Fall — 30"



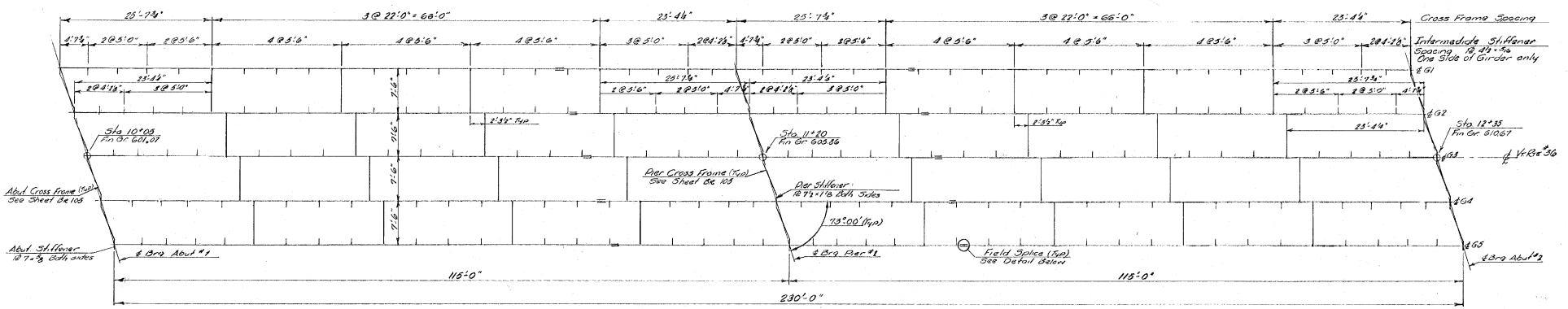

| ITEM NO. | ITEM | UNIT | NET | | TOTAL | FINAL |
|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | |
| | UNCLASS. CHAN. EXCAV. | C.Y. | | | | |
| | STRUCT. EXCAV. | C.Y. | | | | |
| | CONC. CLASS AA (MOD.) | C.Y. | | | | |
| | CONC. CLASS B (MOD.) | C.Y. | | | | |
| | REINF. STEEL | LBS. | | | | |
| | ASPHALTIC-ASB. COATING | S.Y. | | | | |
| | TREATED TIMBER PILING | L.F. | | | | |
| | SPLICES FOR STEEL PILING | EA. | | | | |
| | STEEL PILING | L.F. | | | | |
| | UNTREATED TIMBER PILING | L.F. | | | | |

Be 103 of 113

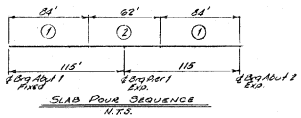
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans - Highgate
ROUTE No. I-89 LOG. STA
Vt. Rte. 36 over I-89

SCALE As Noted
SURVEYED BY
DRAWN BY S.R.O. CHECKED BY R.H.W.
PROJECT NO. I-89-3(36) CONT #1
SHEET 64 OF 298



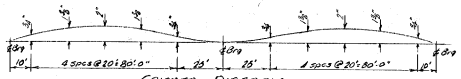

FRAMING PLAN
Scale: 1/8"=1'0"



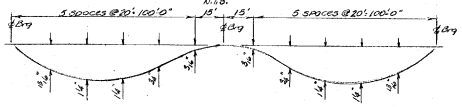

SLAB POUR SEQUENCE
N.T.S.



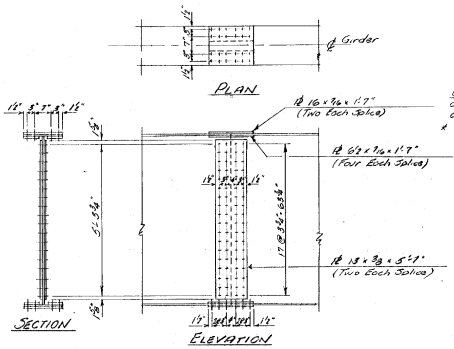

ELEVATION ~ G3 (TYPICAL)
Scale: 1/8"=1'0"



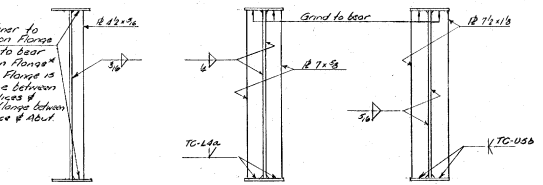

CAMBER DIAGRAM
N.T.S.




DEAD LOAD DEFLECTION DIAGRAM
N.T.S.

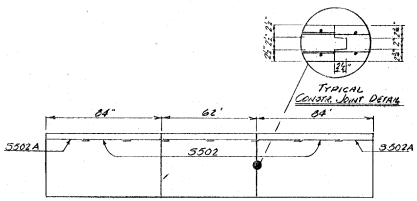



FIELD SPLICE DETAILS
Scale 1/2"=1'0"




Note: Clip 1"x1" on inside corners of all stiffeners

STIFFENER DETAILS
Scale: 1/2"=1'0"



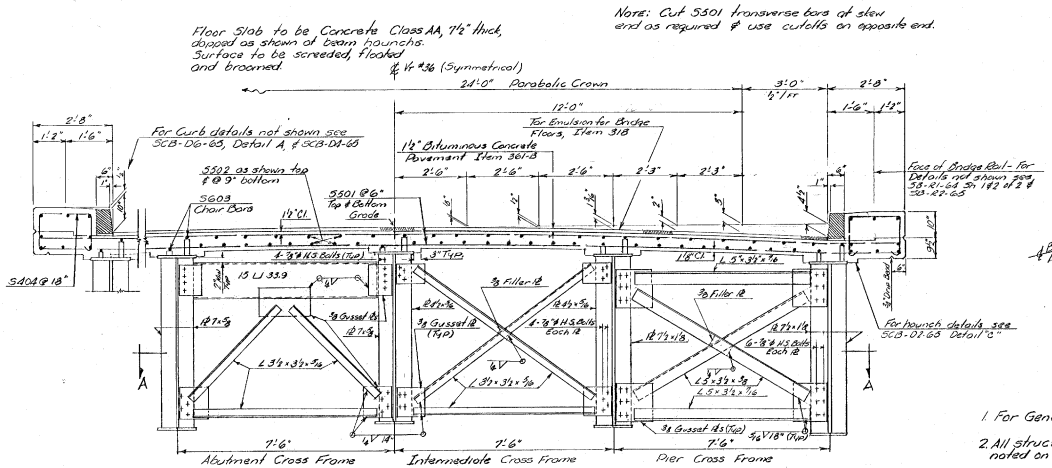

REINFORCING STEEL DETAIL (longitudinal)
N.T.S.

Notes:-
For additional notes see Br 105

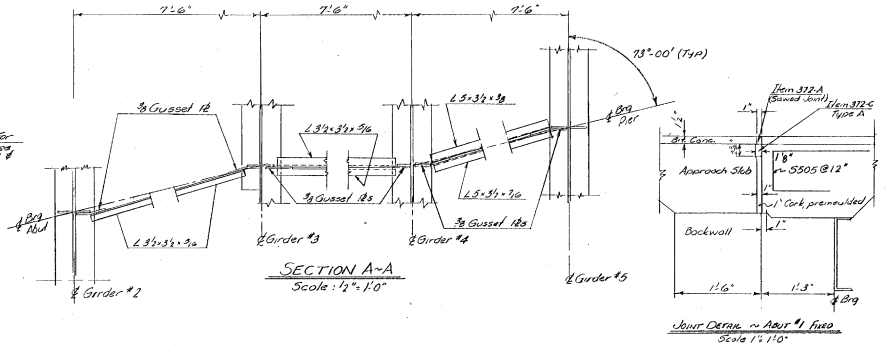
Br 104 OF 113

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans ~ Swanton
ROUTE No. Vermont Rte #36
Vt. 36 over I-89 @ Sta. 3431+91
Superstructure ~ Girder Details
SCALE: As Noted
SURVEYED BY
DRAWN BY W CHECKED BY AGG
PROJECT NO. I-89-3(36)41
SHEET 65 OF 298




TYPICAL BRIDGE SECTION
Scale: ½"=1'-0"




SECTION A-A
Scale: ½"=1'-0"

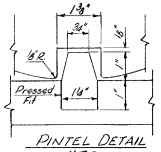
JOINT DETAIL @ ABUT #1 FIXED
Scale 1½"=1'0"

## SUPERSTRUCTURE NOTES

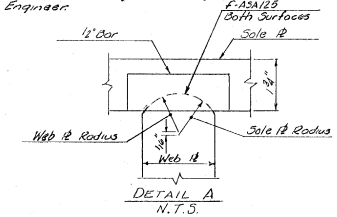
1. For General Notes see Std. Sh. SCB-01-65 and Br. 100.
2. All structural steel shall be ASTM A36-62T unless otherwise noted on the plans.
3. All field connections shall be made with ⅞" ϕ High Strength bolts in 1⅜" holes unless otherwise noted on the plans.
4. Water Repellent Item 440 shall be applied to safety walk, fascia and bottom of slab back to drip bead.

## BEARING DEVICE NOTES

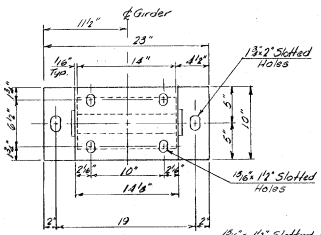
1. Preformed Fabric Pads or Canvas and Red Lead pads ⅛" thick, equal in size to the bearing plates, shall be used under each bearing, conforming to Spec. 401.02(23).
2. Align devices so that all rocker arm shafts will be vertical at 45°F. For temperatures other than 45°F, adjust rockers and expansion devices by the following amount in feet according to whether bridge is in expanded or contracted position: Length from fixed bearing x 0.0000065 x degree of change from 45° F.
3. Contact surfaces of rockers to be given shop coat of White Lead & Tallow. Pintel holes are to be filled with graphite at time of placement. Remainder of bearing to be given 3 coats of paint in accordance with Vt. Spec. 401.03. Those parts of bearing, coated with White Lead & Tallow, shall be cleaned prior to erection & coated with graphite & grease as directed by the Engineer.



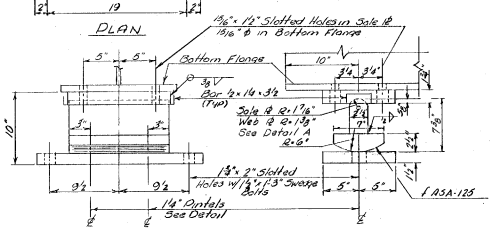

PINTEL DETAIL
N.T.S.



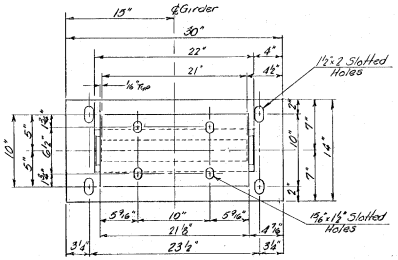

DETAIL A
N.T.S.



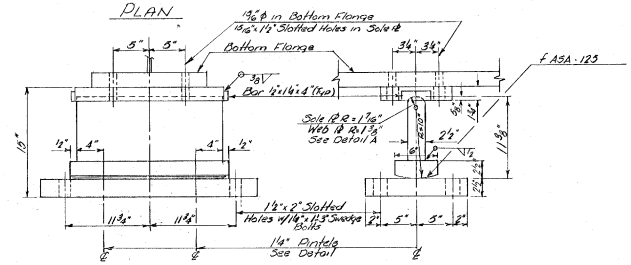

PLAN




FRONT ELEVATION SIDE ELEVATION
ABUTMENT EXPANSION DEVICE

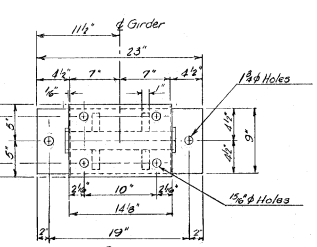



PLAN

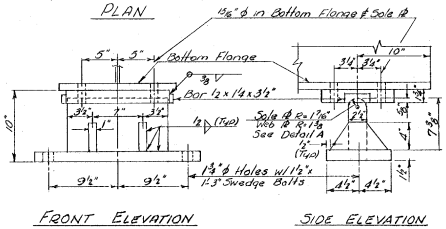



FRONT ELEVATION SIDE ELEVATION
PIER EXPANSION DEVICE

BEARING DEVICES
Scale: 1½"=1'0"




PLAN

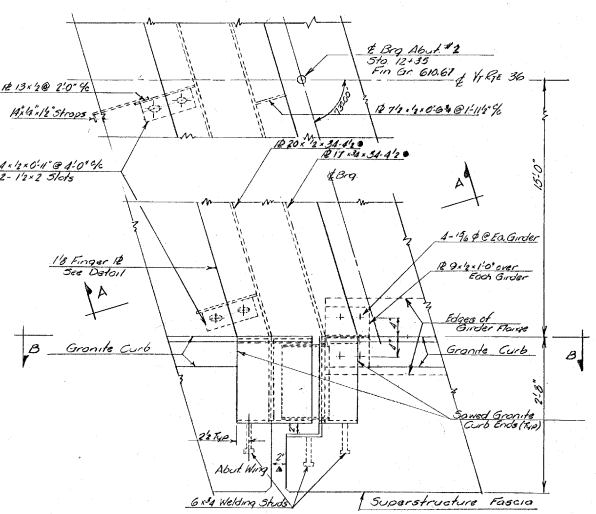



FRONT ELEVATION SIDE ELEVATION
ABUTMENT FIXED DEVICE

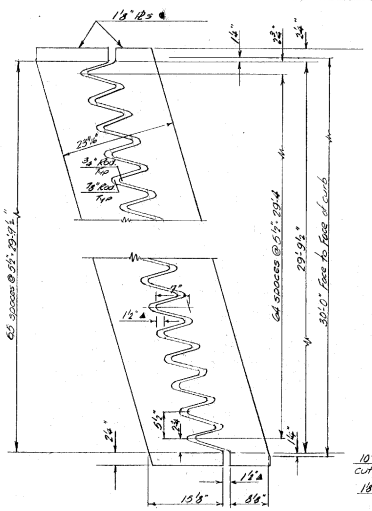
BR 103 of 113

**STATE OF VERMONT**
DEPARTMENT OF HIGHWAYS

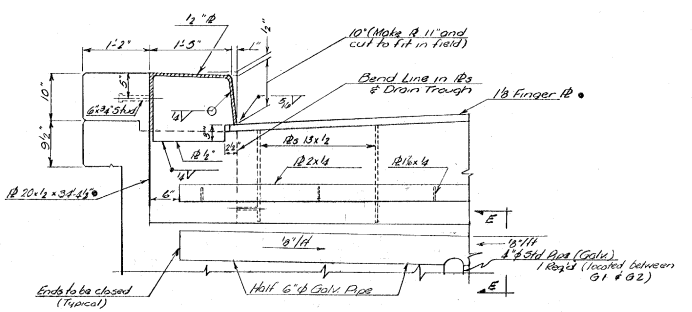
TOWN OF St. ALBANS ~ SWANTON
ROUTE NO. VERMONT RTE #36
Vt #36 OVER I-89 @ STA. 3401+97
BEARING DETAILS & BEARING DEVICES
SCALE AS NOTED
SURVEYED BY
DRAWN BY JV CHECKED BY AGC
PROJECT NO. I-89-3(36) 91
SHEET 66 OF 298



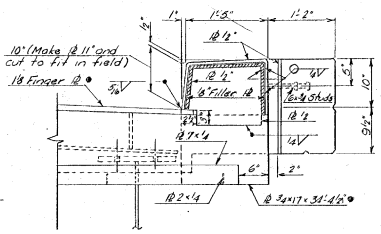

PLAN OF EXPANSION DAM
Scale: 1"=1'-0"



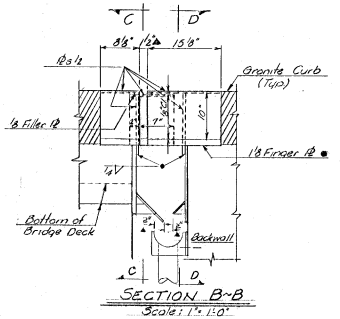

FINGER PLATE DETAIL
Scale: 1"=1'-0"



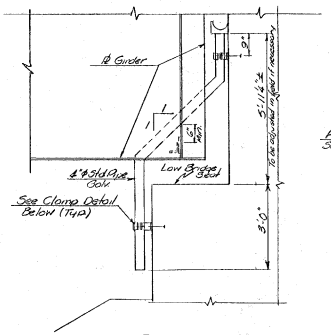

SECTION D-D
Scale: 1"=1'-0"



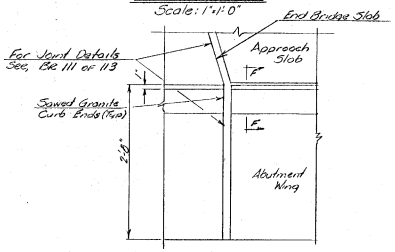

SECTION C-C
Scale: 1"=1'-0"




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



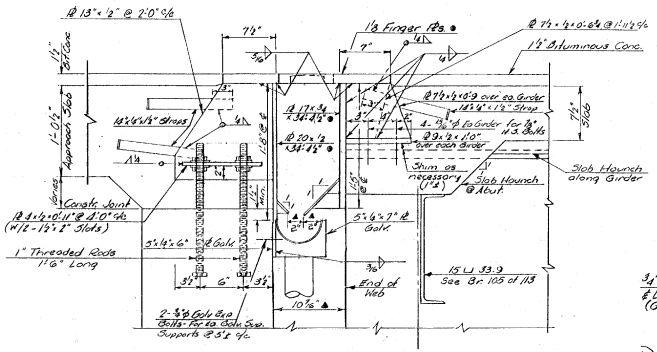

SECTION E-E
Scale: ½"=1'-0"



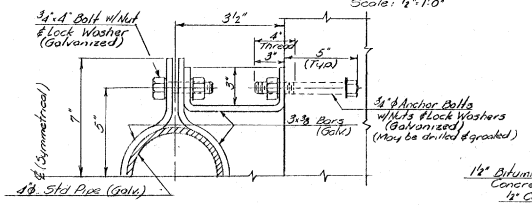

PLAN OF FIXED ABUTMENT @ CURB
Scale: 1"=1'-0"

• NOTES •

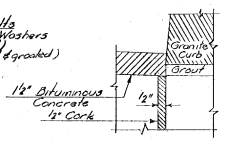
1. Plates marked ● shall conform to the roadway grade and parabolic crown.
2. All clear dimensions indicated ▲ are for 68°F
3. All steel for the Expansion Dam shall be ASTM A-242 unless otherwise noted, except plates completely embedded in concrete may be A-36 Steel.




SECTION A-A
Scale: 1½"=1'-0"




CLAMP DETAIL
N.T.S.

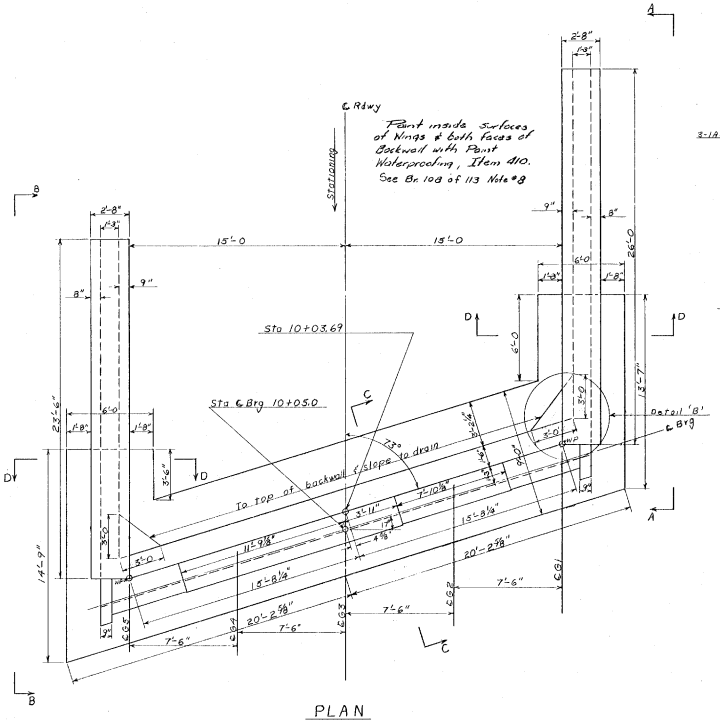



SECTION F-F
Scale: 3"=1'-0"

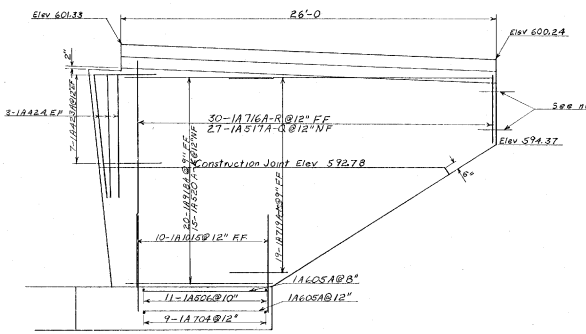
Br. 106 OF 113

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

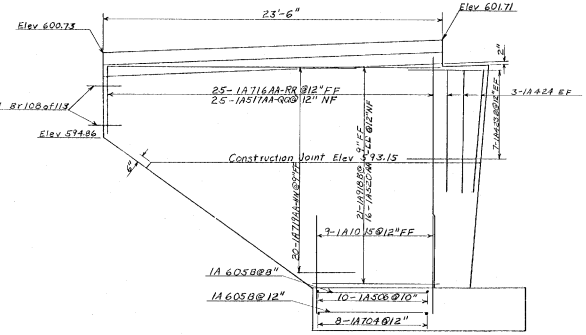
TOWN OF St Albans ~ Swanton
ROUTE No. Vt #36
Vt #36 over I-89 @ Sta 3157+97
Expansion Dam & Fixed End Curb Details
SCALE: As Noted
SURVEYED BY
DRAWN BY JL CHECKED BY AGC
PROJECT No. I-89-3(36)91
SHEET 67 OF 298



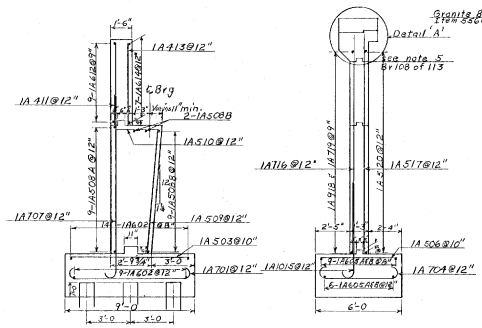

PLAN




SEC A-A

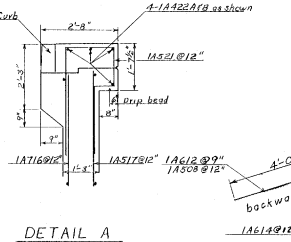



SEC B-B

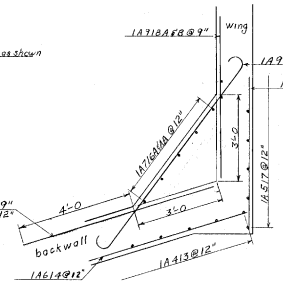



SEC C-C

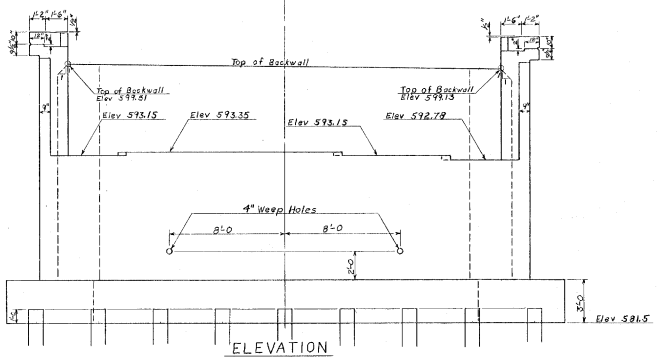
SEC D-D



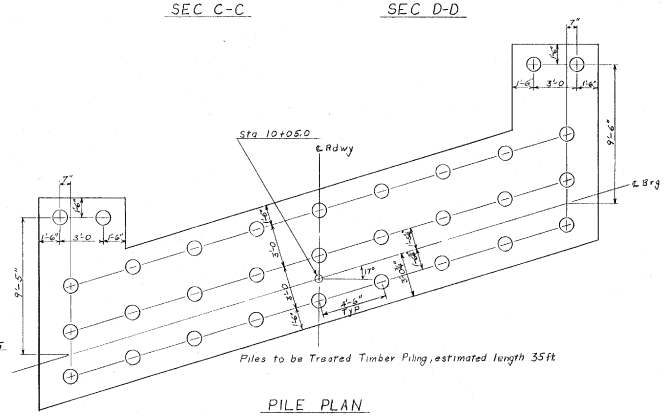

DETAIL A
Scale: 1/2 in = 1 ft.




DETAIL B
Scale: 1/2 in = 1 ft.




ELEVATION



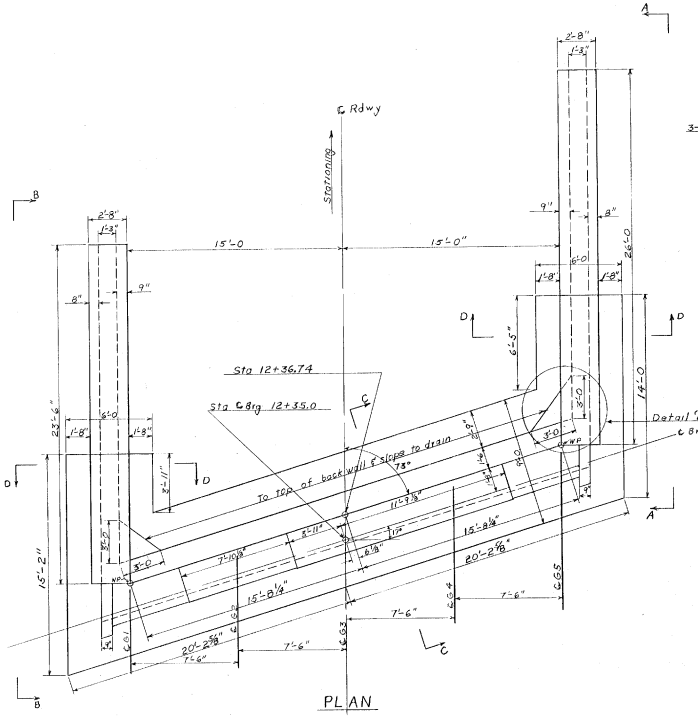

PILE PLAN

NOTES:
1. For abutment notes see Br 108 of 113

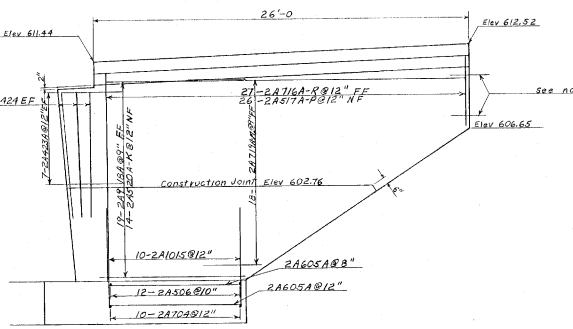
Br 107 of 113

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

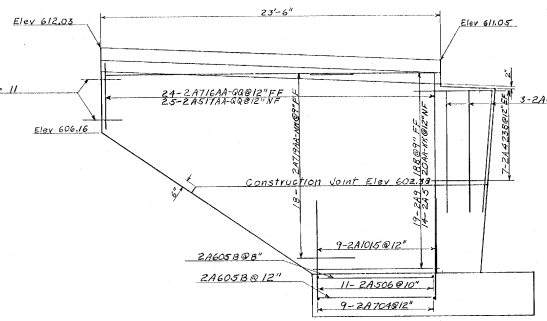
TOWN OF ST. ALBANS - SWANTON
ROUTE NO. VT 36 LOG STA.
VT 36 OVER I 89 @ STA 3457+97
ABUTMENT NO. 1
SCALE 1/2"=1' EAs Noted
SURVEYED BY
DRAWN BY AGC CHECKED BY DP
PROJECT NO. I-89-3(36) Cont. 1
SHEET 68 OF 298



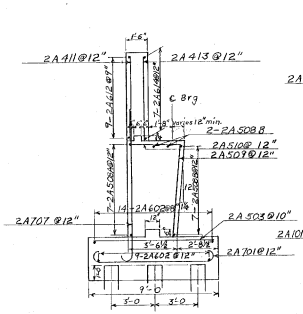

PLAN



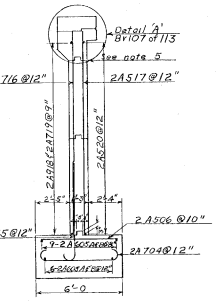

SEC A-A




SEC B-B

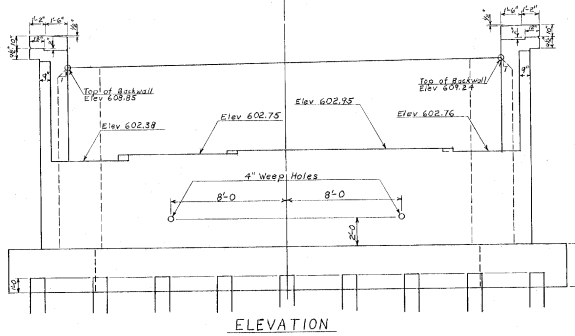



SEC C-C

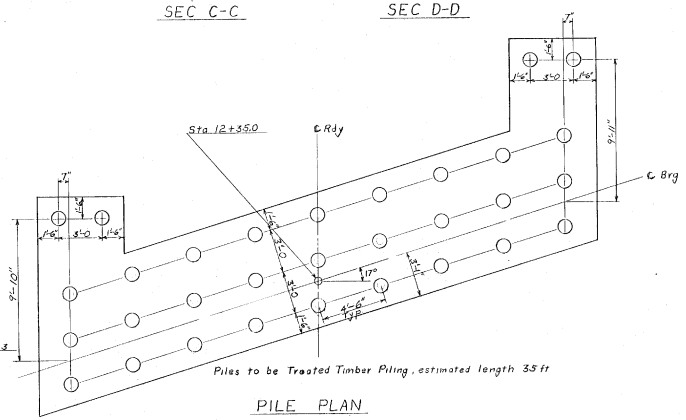



SEC D-D

NOTES:
1. For General Notes see Br 100 of 113.
2. Maximum design pile load is 22 Tons.
3. See note 3 on Br 100 of 113 for additional pile notes.
4. All abutment concrete is to be Class B.
5. No concrete is to be placed above this point until Girders have been profiled and final grade is established by the Engineer. This joint may be omitted and joint at adjacent bridge seat used.
6. All reinforcing steel to have minimum cover of 2" except 3" in footing.
7. Slope bridge seats ¼ in. per ft. to drain except under bearings.
8. Front face of backwall above bridge seats and inside face of abutment and wings shall be coated with Item 410, Paint Waterproofing.
9. Item 440, Water Repellent, shall be used on all exposed areas of abutments and wings not otherwise treated.
10. For details of curved granite curb and block see SCB-D4-65.
11. For details of Cable Guard Rail Anchorage see Std Sh G-3A. Bolts are to be cast in abutment wing. Anchors and first post to be paid for as Structural Steel Item 404 A.




ELEVATION



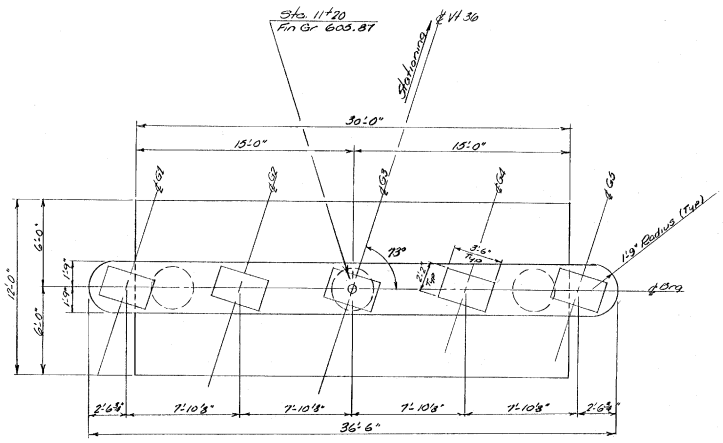

Piles to be Treated Timber Piling, estimated length 35 ft

PILE PLAN

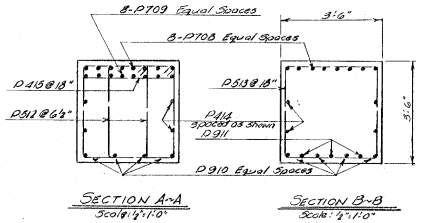
Br 108 of 113

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF ST ALBANS - SWANTON
ROUTE NO. VT 36 LOG STA.
VT 36 OVER I 89 @ STA 3457+97
ABUTMENT NO. 2
SCALE ¼"=1'
SURVEYED BY
DRAWN BY AGC CHECKED BY D.E.P.
PROJECT NO. I-89-3(34) Cont 1
SHEET 69 OF 298

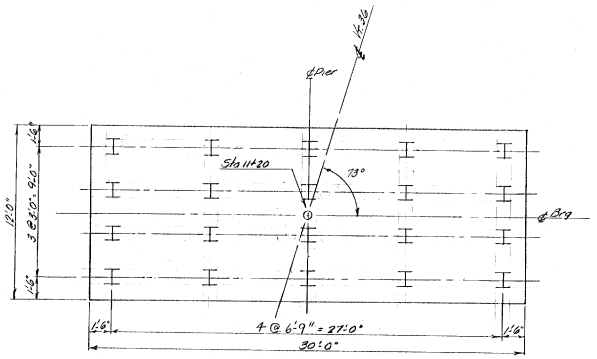



PLAN
Scale: ¼"=1'-0"

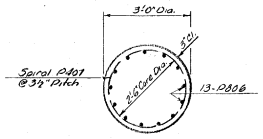



SECTION A-A
Scale: ½"=1'-0"

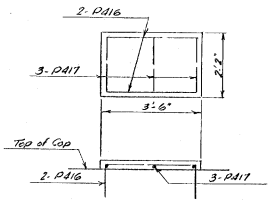
SECTION B-B
Scale: ½"=1'-0"




PILE LAYOUT
Scale: ¼"=1'-0"



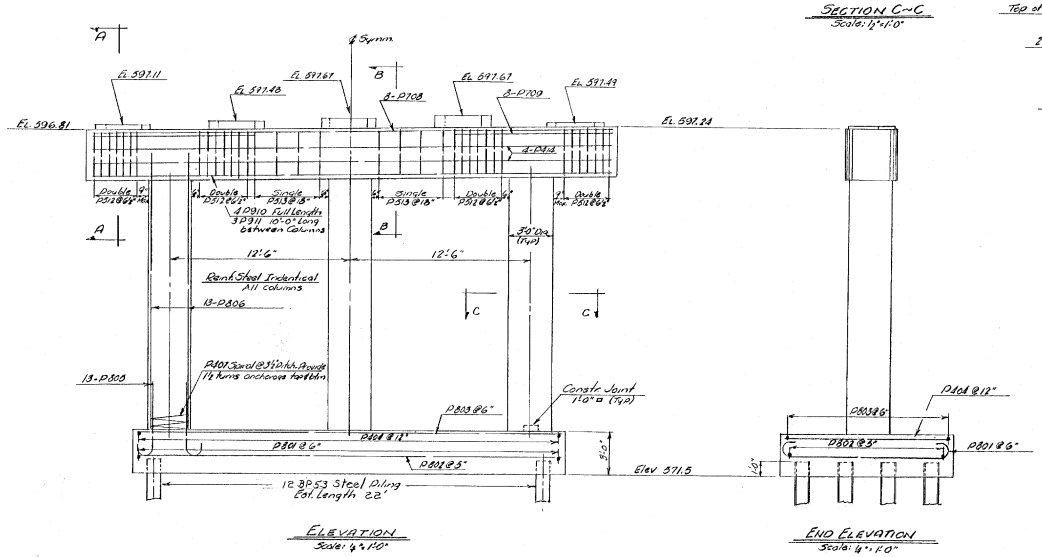

SECTION C-C
Scale: ½"=1'-0"




DETAIL OF BEARING PEDESTAL
Scale: ½"=1'-0"

**NOTES:-**

1. For General Notes see BR 100
2. Maximum design pile load, 40 Tons.
3. All concrete in footing to be Class "B". All concrete in columns & Pier cap to be Class "AA"
4. See note 3 on Sheet BR 100 of 113 for additional pile notes.
5. All spiral reinforcement shall conform to AASHO designation M32-60 Cold Drawn Steel Wire for Concrete Reinforcement and shall be paid for under Item 402 Reinforcing Steel, Item 402.
6. The sides, ends and bottom of the pier cap shall be coated with Item 499, Water Repellent
7. All reinforcing steel in cap to have 2" of cover and 3" cover in footing & columns.



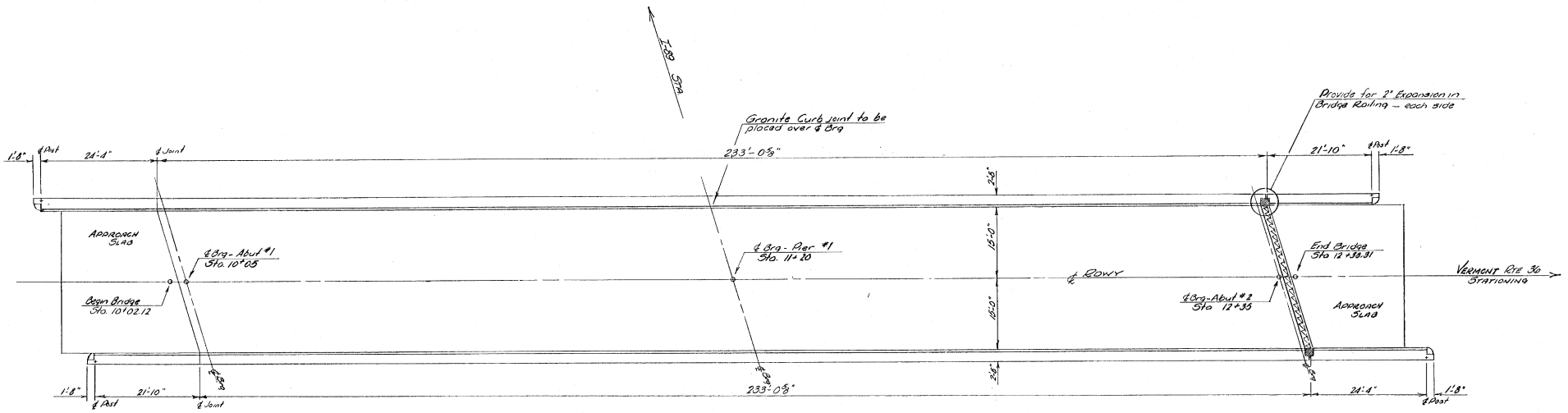

ELEVATION
Scale: ¼"=1'-0"

END ELEVATION
Scale: ¼"=1'-0"

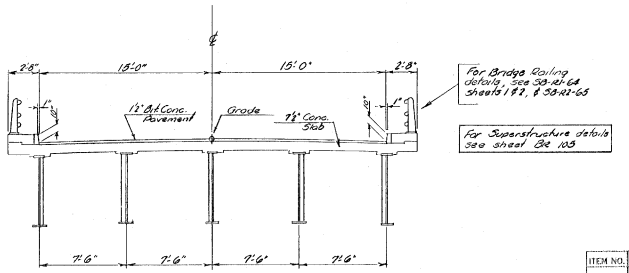
BR 109 OF 113 REVISED SHEET

**STATE OF VERMONT**
DEPARTMENT OF HIGHWAYS

TOWN OF St. ALBANS-- SWANTON
ROUTE NO. VERMONT ROUTE 36
VT. 36 OVER I-89
PIER
SCALE AS NOTED
SURVEYED BY
DRAWN BY JT CHECKED BY AGC
PROJECT NO. I-89-3(96)91
SHEET 70A OF 278




CURB & RAILING PLAN
Scale: 1"= 10'-0"




TYPICAL SECTION
Scale: 1"=5'-0"

| ITEM NO. | ITEM | UNIT | NET | | TOTAL | FINAL |
|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | |
| | UNCLASS. CHAN. EXCAV. | C.Y. | | | | |
| | STRUCT. EXCAV. | C.Y. | | | | |
| | CONC. CLASS AA (MOD.) | C.Y. | | | | |
| | CONC. CLASS B (MOD.) | C.Y. | | | | |
| | REINF. STEEL | LBS. | | | | |
| | ASPHALTIC-ASB. COATING | S.Y. | | | | |
| | TREATED TIMBER PILING | L.F. | | | | |
| | SPLICES FOR STEEL PILING | EA. | | | | |
| | STEEL PILING | L.F. | | | | |
| | UNTREATED TIMBER PILING | L.F. | | | | |

Br 110 of 113

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

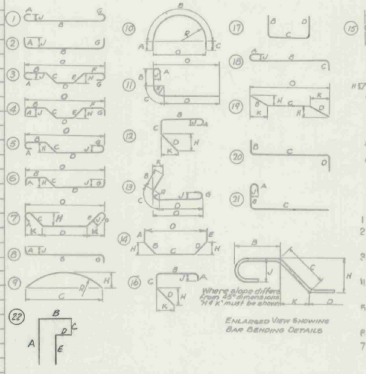
TOWN OF St ALBANS ~ SWANTON
ROUTE NO. Vt Rte 36 LOG STA.
VERMONT RTE 36 OVER I-89
CURB & RAILING PLAN
SCALE AS NOTED
SURVEYED BY
DRAWN BY JT CHECKED BY AGC
PROJECT NO. I-89-3(36) 91
SHEET 71 OF 238

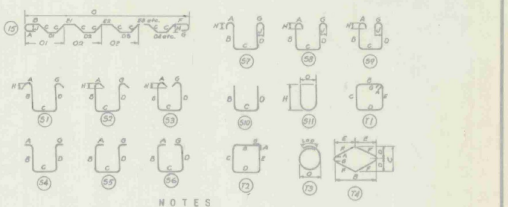
| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | Ø |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | — SUPERSTRUCTURE — | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | |
| 2 * | 927 | 5 | 35-0 | 5501 | Str | | | | | | | | | | | | |
| 3 | 443 | 5 | 32-1 | 5502 | Str | | | | | | | | | | | | |
| 4 | 148 | 5 | 26-1 | 5502A | Str | | | | | | | | | | | | |
| 5 * | 61 | 6 | 32-1 | 5603 | Str | | | | | | | | | | | | |
| 6 | 20 | 6 | 26-1 | 5603A | Str | | | | | | | | | | | | |
| 7 | 310 | 4 | 5-3 | 5404 | 53 | 0-5 | 1-4½ | 1-8 | 1-4½ | | | 0-5 | 0-3 | | | | |
| 8 | 35 | 5 | 4-2 | 5505 | 17 | | 2-6 | 0-8 | 1-0 | | | | | | | | |
| 9 * | 1 | 4 | 4-0 | 5406 | Str | Test Bar | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | |
| 12 | | | | — PIER — | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | |
| 14 | 60 | 8 | 13-8 | PB01 | 1 | 1-1 | 11-6 | | | | | 1-1 | | 0-9 | | | |
| 15 | 28 | 8 | 29-6 | PB02 | Str | | | | | | | | | | | | |
| 16 | 24 | 8 | 29-6 | PB03 | Str | | | | | | | | | | | | |
| 17 | 30 | 4 | 11-6 | PB04 | Str | | | | | | | | | | | | |
| 18 | * 40 | 8 | 6-2 | PB05 | 1 | 1-1 | 5-1 | | | | | 0-0 | | 0-9 | | | |
| 19 | 39 | 8 | 21-2 | PB06 | Str | | | | | | | | | | | | |
| 20 | 8 | 7 | 36-0 | PB08 | Str | | | | | | | | | | | | |
| 21 | * 17 | 7 | 10-9 | PB09 | Str | | | | | | | | | | | | |
| 22 | 4 | 9 | 36-0 | PB10 | Str | | | | | | | | | | | | |
| 23 | * 7 | 9 | 10-0 | PB11 | Str | | | | | | | | | | | | |
| 24 | 56 | 5 | 11-10 | PB12 | T1 | 0-6 | 2-3 | 3-2 | 2-3 | 3-2 | | 0-6 | 0-3½ | | | | |
| 25 | 8 | 5 | 13-8 | PB13 | T1 | 0-6 | 3-2 | 3-2 | 3-2 | 3-2 | | 0-6 | 0-3½ | | | | |
| 26 | 4 | 4 | 36-0 | PB14 | Str | | | | | | | | | | | | |
| 27 | 24 | 4 | 3-2 | PB15 | Str | | | | | | | | | | | | |
| 28 | 10 | 4 | 5-8 | PB16 | 17 | | 1-3 | 3-2 | 1-3 | | | | | | | | |
| 29 | 15 | 4 | 1-10 | PB17 | Str | | | | | | | | | | | | |
| 30 | | | - Spiral - | | | | | | | | | | | | | | |
| 31 | | | | | | CORE | PITCH | TURNS | SPACERS | | | | | | | | |
| 32 | 1 | 4 | 19-2½ | PB07A | 2-6 | 3'2" | 68 | 3 | | | Lt. Col. | | | | | | |
| 33 | 1 | 4 | 19-6 | PB07B | 2-6 | 3'2" | 68 | 3 | | | M.D. Col. | | | | | | |
| 34 | 1 | 4 | 19-7 | PB07C | 2-6 | 3'2" | 69 | 3 | | | Rt. Col. | | | | | | |
| 35 | | | | | | | | | | | | | | | | | |
| 36 | | | | | | | | | | | | | | | | | |
| 37 | | | | | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | | | | |
| 39 | | | | — Approach Slab #1 — | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | |
| 41 | 1 | 10 | 20-7 | 1A5100A | 1 | 1-1 | | | | | | 0-0 | | 0-9 | | | |
| 42 | | | | | | | | | | | | | | | | | |
| 43 | | | 31 bars in increments of 0-4" | | | | | | | | | | | | | | |
| 44 | 1 | 10 | 30-0 | 1A5100B | 1 | 1-1 | | | | | | 0-0 | | 0-9 | | | |
| 45 | 47 | 5 | 15-10 | 1A5503 | Str | | | | | | | | | | | | |
| 46 | 5 | 5 | 15-10 | 1A5503A | Str | Cut to fit asbuilt | | | | | | | | | | | |
| 47 | 2 | 5 | 16-8 | 1A5503B | Str | | | | | | | | | | | | |
| 48 | | | | | | | | | | | | | | | | | |
| 49 | | | | — Approach Slab #2 — | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | | | | | | |
| 51 | | | Same as Approach Slab #1 except mark is 2A5100 A etc. | | | | | | | | | | | | | | |
| 52 | | | | | | | | | | | | | | | | | |
| 53 | | | | | | | | | | | | | | | | | |
| 54 | | | | — Abutment #1 — | | | | | | | | | | | | | |
| 55 | 41 | 7 | 10-2 | 1A701 | 1 | 0-10 | 8-6 | | | | | 0-10 | | | | | |
| 56 | 46 | 6 | 21-3 | 1A602 | Str | | | | | | | | | | | | |
| 57 | 49 | 5 | 8-6 | 1A503 | Str | | | | | | | | | | | | |
| 58 | 17 | 7 | 7-2 | 1A704 | 1 | 0-10 | 5-6 | | | | | 0-10 | | | | | |
| 59 | 15 | 6 | 8-9 | 1A605A | Str | | | | | | | | | | | | |
| 60 | * 16 | 6 | 7-9 | 1A605B | Str | | | | | | | | | | | | |
| 61 | * 22 | 5 | 5-6 | 1A506 | Str | | | | | | | | | | | | |
| 62 | 36 | 7 | 13-5 | 1A707 | 1 | 0-10 | 12-7 | | | | | 0-0 | | | | | |
| 63 | 9 | 5 | 32-6 | 1A508A | Str | | | | | | | | | | | | |
| 64 | 11 | 5 | 35-0 | 1A508B | Str | | | | | | | | | | | | |
| 65 | 36 | 5 | 8-6 | 1A509 | Str | | | | | | | | | | | | |
| 66 | 36 | 5 | 8-0 | 1A510 | Str | | | | | | | | | | | | |
| 67 | * 29 | 4 | 6-0 | 1A411 | Str | | | | | | | | | | | | |
| 68 | 9 | 6 | 32-6 | 1A612 | Str | | | | | | | | | | | | |
| 69 | 36 | 4 | 6-0 | 1A413 | Str | | | | | | | | | | | | |
| 70 | 7 | 6 | 35-0 | 1A614 | Str | | | | | | | | | | | | |
| 71 | * 20 | 10 | 8-2 | 1A1015 | 1 | 1-3 | 6-9 | | | | | 0-0 | | | | | |
| 72 | 5 | 7 | 14-5 | 1A716A | Str | | | | | | | | | | | | |
| 73 | 6 | 7 | 15-1 | 1A716B | Str | | | | | | | | | | | | |
| 74 | 1 | 7 | 14-8 | 1A716C | Str | | | | | | | | | | | | |
| 75 | 16 | bars in increments of 7½" | | | | | | | | | | | | | | | |
| 76 | 1 | 7 | 4-9 | 1A716R | Str | | | | | | | | | | | | |
| 77 | 11 | 5 | 15-1 | 1A517A | Str | | | | | | | | | | | | |
| 78 | 1 | 5 | 14-8 | 1A517B | Str | | | | | | | | | | | | |
| 79 | 16 | bars in increments of 7½" | | | | | | | | | | | | | | | |
| 80 | 1 | 5 | 4-9 | 1A517Q | Str | | | | | | | | | | | | |
| 81 | | | | | | | | | | | | | | | | | |

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | Ø |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 82 | 20 | 9 | 8-5 | 1A918A | Str | | | | | | | | | | | | |
| 83 | 1 | 7 | 4-0 | 1A714A | Str | | | | | | | | | | | | |
| 84 | 12 | bars in increments of 14½" | | | | | | | | | | | | | | | |
| 85 | 1 | 7 | 17-3 | 1A719L | Str | | | | | | | | | | | | |
| 86 | 7 | 7 | 18-3 | 1A719MS | Str | | | | | | | | | | | | |
| 87 | 1 | 5 | 10-3 | 1A520A | Str | | | | | | | | | | | | |
| 88 | 10 | bars in increments of 19" | | | | | | | | | | | | | | | |
| 89 | 1 | 5 | 24-5 | 1A520J | Str | | | | | | | | | | | | |
| 90 | 5 | 5 | 25-5 | 1A520KQ | Str | | | | | | | | | | | | |
| 91 | 4 | 7 | 14-9 | 1A716AA | Str | | | | | | | | | | | | |
| 92 | 5 | 7 | 15-6 | 1A716BB | Str | | | | | | | | | | | | |
| 93 | 1 | 7 | 14-4 | 1A716CC | Str | | | | | | | | | | | | |
| 94 | 15 | bars in increments of 8¢" | | | | | | | | | | | | | | | |
| 95 | 1 | 7 | 4-7½ | 1A716QQ | Str | | | | | | | | | | | | |
| 96 | 9 | 5 | 15-6 | 1A517AA | Str | | | | | | | | | | | | |
| 97 | 1 | 5 | 14-6 | 1A517BB | Str | | | | | | | | | | | | |
| 98 | 15 | bars in increments of 8½" | | | | | | | | | | | | | | | |
| 99 | 1 | 5 | 4-7½ | 1A517PP | Str | | | | | | | | | | | | |
| 100 | 21 | 9 | 7-6 | 1A918B | Str | | | | | | | | | | | | |
| 101 | 1 | 7 | 8-0 | 1A717AA | Str | | | | | | | | | | | | |
| 102 | 18 | bars in increments of 1'-1½ | | | | | | | | | | | | | | | |
| 103 | 1 | 7 | 17-5 | 1A717MM | Str | | | | | | | | | | | | |
| 104 | 7 | 7 | 18-0 | 1A717NN | Str | | | | | | | | | | | | |
| 105 | 1 | 5 | 8-11 | 1A520AA | Str | | | | | | | | | | | | |
| 106 | 11 | bars in increments of 16" | | | | | | | | | | | | | | | |
| 107 | 1 | 5 | 22-3 | 1A520KR | Str | | | | | | | | | | | | |
| 108 | 5 | 5 | 23-3½ | 1A520LL | Str | | | | | | | | | | | | |
| 109 | 51 | 5 | 7-4 | 1A521 | 22 | 2-6 | 1-6 | 1-3 | 0-10 | 1-3 | | | | | | | |
| 110 | 4 | 4 | 25-6 | 1A422A | Str | | | | | | | | | | | | |
| 111 | 4 | 4 | 23-0 | 1A422B | Str | | | | | | | | | | | | |
| 112 | 14 | 4 | 4-0 | 1A423A | Str | | | | | | | | | | | | |
| 113 | 12 | 4 | 8-6 | 1A424 | Str | | | | | | | | | | | | |
| 114 | 14 | 4 | 5-0 | 1A423B | Str | | | | | | | | | | | | |
| 115 | 20 | 9 | 10-9 | 1A918C | 1 | 1-3 | 8-3 | | | | | | 1-3 | | | | |
| 116 | 21 | 9 | 8-9 | 1A918D | 1 | 1-3 | 6-3 | | | | | | 1-3 | | | | |
| 117 | | | | | | | | | | | | | | | | | |
| 118 | | | | | | | | | | | | | | | | | |
| 119 | | | | | | | | | | | | | | | | | |
| 120 | | | | | | | | | | | | | | | | | |
| 121 | | | | | | | | | | | | | | | | | |
| 122 | | | | | | | | | | | | | | | | | |
| 123 | | | | | | | | | | | | | | | | | |
| 124 | | | | — Abutment #2 — | | | | | | | | | | | | | |
| 125 | | | | | | | | | | | | | | | | | |
| 126 | 41 | 7 | 10-2 | 2A701 | 1 | 0-10 | 8-6 | | | | | | 0-10 | | | | |
| 127 | 46 | 6 | 21-3 | 2A602 | Str | | | | | | | | | | | | |
| 128 | 49 | 5 | 8-6 | 2A503 | Str | | | | | | | | | | | | |
| 129 | 19 | 7 | 7-2 | 2A704 | 1 | 0-10 | 5-6 | | | | | | 0-10 | | | | |
| 130 | 15 | 6 | 9-3 | 2A605A | Str | | | | | | | | | | | | |
| 131 | 15 | 6 | 8-3 | 2A605B | Str | | | | | | | | | | | | |
| 132 | 23 | 5 | 5-6 | 2A506 | Str | | | | | | | | | | | | |
| 133 | 36 | 7 | 11-7 | 2A707 | 1 | 0-10 | 10-9 | | | | | | 0-0 | | | | |
| 134 | 7 | 5 | 32-6 | 2A508A | Str | | | | | | | | | | | | |
| 135 | 9 | 5 | 35-0 | 2A508B | Str | | | | | | | | | | | | |
| 136 | 36 | 5 | 5-11 | 2A509 | Str | | | | | | | | | | | | |
| 137 | 36 | 5 | 3-6 | 2A510 | Str | | | | | | | | | | | | |
| 138 | 28 | 4 | 6-3 | 2A411 | Str | | | | | | | | | | | | |
| 139 | 9 | 6 | 32-6 | 2A612 | Str | | | | | | | | | | | | |
| 140 | 36 | 4 | 6-3 | 2A413 | Str | | | | | | | | | | | | |
| 141 | 7 | 6 | 35-0 | 2A614 | Str | | | | | | | | | | | | |
| 142 | 19 | 10 | 8-2 | 2A1015 | 1 | 1-5 | 6-9 | | | | | | 0-0 | | | | |
| 143 | 5 | 7 | 12-9 | 2A716A | Str | | | | | | | | | | | | |
| 144 | 6 | 7 | 13-11 | 2A716B | Str | | | | | | | | | | | | |
| 145 | 1 | 7 | 13-4 | 2A716C | Str | | | | | | | | | | | | |
| 146 | 15 | bars in increments of 7½" | | | | | | | | | | | | | | | |
| 147 | 1 | 7 | 4-7 | 2A716R | Str | | | | | | | | | | | | |
| 148 | 11 | 5 | 13-11 | 2A517A | Str | | | | | | | | | | | | |
| 149 | 1 | 5 | 13-4 | 2A517B | Str | | | | | | | | | | | | |
| 150 | 16 | bars in increments of 7" | | | | | | | | | | | | | | | |
| 151 | 1 | 5 | 4-7 | 2A517P | Str | | | | | | | | | | | | |
| 152 | 19 | 9 | 8-6 | 2A918A | Str | | | | | | | | | | | | |
| 153 | 1 | 7 | 4-3 | 2A719A | Str | | | | | | | | | | | | |
| 154 | 13 | bars in increments of 14" | | | | | | | | | | | | | | | |
| 155 | 1 | 7 | 17-6 | 2A719L | Str | | | | | | | | | | | | |
| 156 | 5 | 7 | 18-3 | 2A719M | Str | | | | | | | | | | | | |
| 157 | 1 | 5 | 10-3 | 2A520A | Str | | | | | | | | | | | | |
| 158 | 10 | bars in increments of 18" | | | | | | | | | | | | | | | |
| 159 | 1 | 5 | 23-9 | 2A520J | Str | | | | | | | | | | | | |
| 160 | 4 | 5 | 25-6 | 2A520K | Str | | | | | | | | | | | | |
| 161 | 4 | 9 | 12-3 | 2A716AA | Str | | | | | | | | | | | | |
| 162 | | | | | | | | | | | | | | | | | |

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | Ø |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 163 | 5 | 7 | 13-6 | 2A716BB | Str | | | | | | | | | | | | |
| 164 | 1 | 7 | 13-10 | 2A716CC | Str | | | | | | | | | | | | |
| 165 | 15 | bars in increments of 8" | | | | | | | | | | | | | | | |
| 166 | 1 | 7 | 4-7 | 2A716QQ | Str | | | | | | | | | | | | |
| 167 | 9 | 5 | 13-10 | 2A517AA | Str | | | | | | | | | | | | |
| 168 | 1 | 5 | 13-3 | 2A517BB | Str | | | | | | | | | | | | |
| 169 | 15 | bars in increments of 7½" | | | | | | | | | | | | | | | |
| 170 | 1 | 5 | 4-7 | 2A517PP | Str | | | | | | | | | | | | |
| 171 | 19 | 9 | 7-6 | 2A918B | Str | | | | | | | | | | | | |
| 172 | 1 | 7 | 4-3 | 2A719AA | Str | | | | | | | | | | | | |
| 173 | 12 | bars in increments of 12" | | | | | | | | | | | | | | | |
| 174 | 1 | 7 | 16-5 | 2A719LL | Str | | | | | | | | | | | | |
| 175 | 6 | 7 | 17-3 | 2A719MM | Str | | | | | | | | | | | | |
| 176 | 1 | 5 | 8-9 | 2A520AA | Str | | | | | | | | | | | | |
| 177 | 10 | bars in increments of 18" | | | | | | | | | | | | | | | |
| 178 | 1 | 5 | 22-3 | 2A520JJ | Str | | | | | | | | | | | | |
| 179 | 4 | 5 | 22-10 | 2A520KK | Str | | | | | | | | | | | | |
| 180 | 51 | 5 | 7-4 | 2A521 | 22 | 2-6 | 1-6 | 1-3 | 0-10 | 1-3 | | | | | | | |
| 181 | 4 | 4 | 25-6 | 2A422A | Str | | | | | | | | | | | | |
| 182 | 4 | 4 | 23-0 | 2A422B | Str | | | | | | | | | | | | |
| 183 | 14 | 4 | 4-9 | 2A423A | Str | | | | | | | | | | | | |
| 184 | 14 | 4 | 5-6 | 2A423B | Str | | | | | | | | | | | | |
| 185 | 12 | 4 | 8-6 | 2A424 | Str | | | | | | | | | | | | |
| 186 | 19 | 9 | 10-7 | 2A918C | 1 | 1-3 | 8-3 | | | | 1-3 | | | | | | |
| 187 | 19 | 9 | 8-9 | 2A918D | 1 | 1-3 | 6-3 | | | | 1-3 | | | | | | |
| 188 | | | | | | | | | | | | | | | | | |
| 189 | | | | | | | | | | | | | | | | | |
| 190 | | | | | | | | | | | | | | | | | |

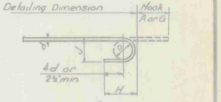
## Typical Bar Bends



### NOTES

1. All dimensions are out to out of bar
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used
3. Where 'J' is not shown, 'J' will be kept equal to or less than 'H'. Where 'J' can exceed 'H', it should be shown.
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances bending dimensions which require closer working should have limits indicated
6. Figures in circles show types
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.




Standard Hook Detail

### Bar Sizes

| Equivalent Size | Present Number | Weight per ft |
|---|---|---|
| 4/8" | 2 | .167 |
| 5/8" | 3 | .376 |
| 5/8" | 4 | .668 |
| 5/8" | 5 | 1.043 |
| 5/8" | 6 | 1.502 |
| 7/8" | 7 | 2.044 |
| 1'-0" | 8 | 2.670 |
| 1'-0" | 9 | 3.400 |
| 1'-0" | 10 | 4.303 |
| 1'-0" | 11 | 5.313 |
| 1'-0" | 14 S | 7.650 |
| 2'-0" | 18 S | 13.600 |

### GENERAL NOTES

(1) Unless otherwise designated all standard reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Billet-Steel Bars for Concrete Reinforcement" (Intermediate Grade) AASHO Designation M31-60 or its latest revision.

(2) Unless otherwise designated all special large size reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Special Large size Deformed Billet-Steel Bars for Concrete Reinforcement" (Intermediate Grade) AASHO Designation M-174-60 or its latest revision.

(3) * Denotes one extra bar added for testing purposes.

(4) Stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six times the minimum thickness except for bars larger than 1 inch, in which case the bends shall be made around a pin of eight bar diameters.

### ESTIMATED QUANTITIES

| LOCATION | PLAN (LBS) | FINAL (LBS) |
|---|---|---|
| Superstructure | 57600 | |
| Abutment #1 | 13845 | |
| Abutment #2 | 13215 | |
| Pier | 12900 | |
| Approach Slab #1 | 4270 | |
| Approach Slab #2 | 4270 | |
| | | |
| | | |
| Total | 105700 | |

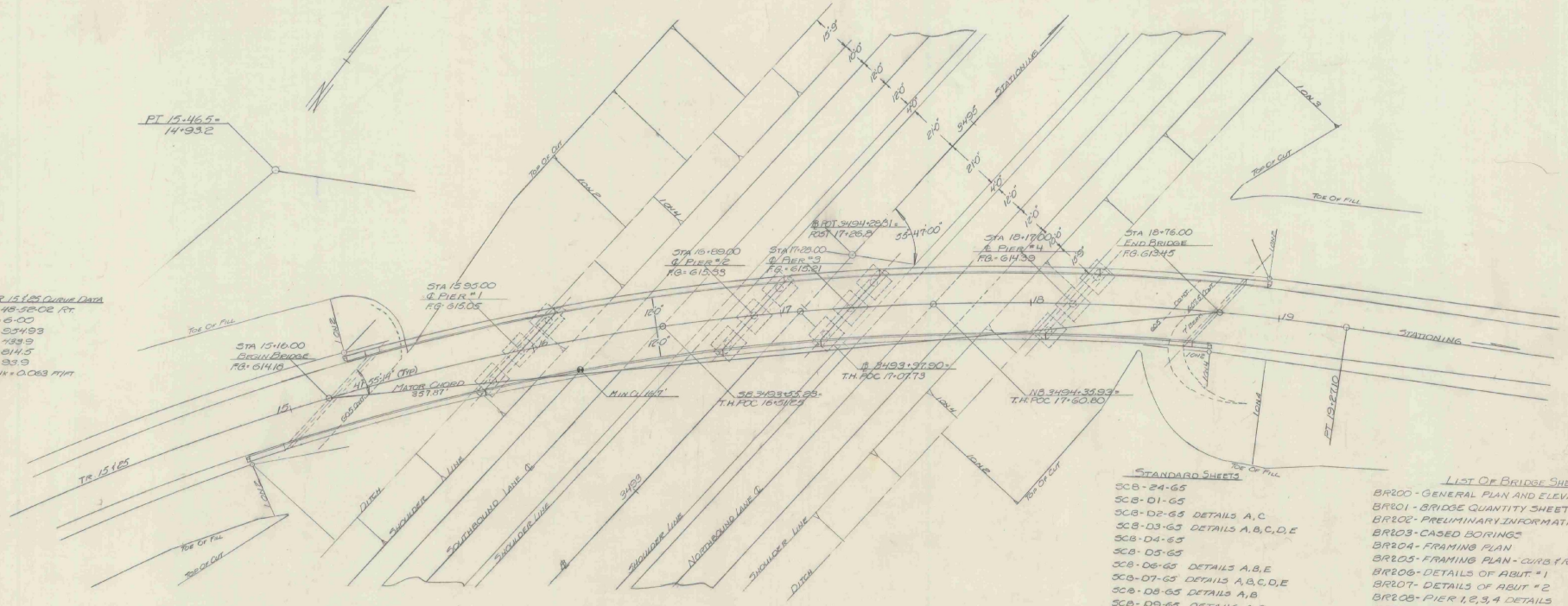
BR 113 OF 113

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans - Swanton
Vt. Rte 36 over I-89

Reinforcing Steel Schedule

DRAWN BY JT CHECKED BY DEPEDWS
PROJECT I NO. 89-3(36)4/1
SHEET 74 OF 298

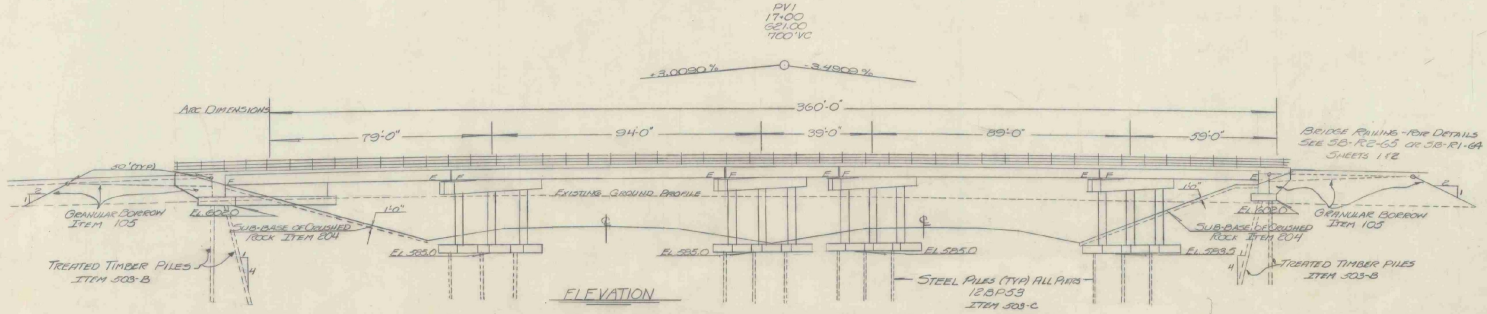



## STANDARD SHEETS

- SCB-24-65
- SCB-D1-65
- SCB-D2-65 DETAILS A, C
- SCB-D3-65 DETAILS A, B, C, D, E
- SCB-D4-65
- SCB-D5-65
- SCB-D6-65 DETAILS A, B, E
- SCB-D7-65 DETAILS A, B, C, D, E
- SCB-D8-65 DETAILS A, B
- SCB-D9-65 DETAILS A, B
- SB-R1-64 SHEETS 1 & 2
- SB-R2-65

## LIST OF BRIDGE SHEETS

- BR200 - GENERAL PLAN AND ELEVATION
- BR201 - BRIDGE QUANTITY SHEET
- BR202 - PRELIMINARY INFORMATION SHEET
- BR203 - CASED BORINGS
- BR204 - FRAMING PLAN
- BR205 - FRAMING PLAN - CURB & RAILING LENGTHS
- BR206 - DETAILS OF ABUT. #1
- BR207 - DETAILS OF ABUT. #2
- BR208 - PIER 1, 2, 3, 4 DETAILS
- BR209 - REINFORCING STEEL DETAILS
- BR210 - REINFORCING STEEL DETAILS




ELEVATION

# STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans-Swanton
ROUTE NO. I 89 LOG STA. ------
PLAN & ELEVATION
I-H 25 & 15 OVER I 89
SCALE 1" = 20'
SURVEYED BY ------
DRAWN BY GII CHECKED BY SNA 10/65
PROJECT NO. I 89-3[redacted] (42)
SHEET 75 OF [redacted] 153

BR-200

## EARTHWORK

| VC | % GRD | STATION | GRADES ELEVATION ON TAN. | GRADES ELEVATION ON V.C. | CORR. V.C. | DIST. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |

# BRIDGE QUANTITY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

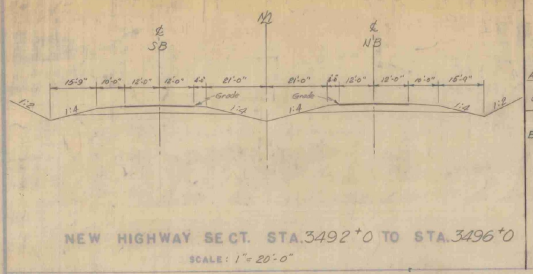
| NO. | ITEM | UNIT | QUANTITY BREAKDOWN: SUPERSTRUCTURE SPAN #1 | SPAN #2 | SPAN #3 | SPAN #4 | SPAN #5 | PIER #1 | PIER #2 | PIER #3 | PIER #4 | ABUT #1 | ABUT #2 | NET | OVER-RUN | TOTAL | FINAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 105 | Granular Borrow | C.Y. | | | | | | | | | | 26 | 240 | | | 266 * | AB |
| 109 | Structure Excavation | C.Y. | | | | | | 56 | 39 | 41 | 75 | 40 | 6 | | | 257 | 237 |
| 204 | Sub-base of Crushed Rock | C.Y. | | | | | | | | | | 81 | 70 | | | 151 | 167 |
| 318 | Tar Emulsion for Bridge Floors | gal | 84 | 100 | 42 | 95 | 63 | | | | | | | | | 384 * | |
| 361-B | Bituminous Concrete Pavement | ton | 18 | 21 | 9 | 19 | 13 | | | | | | | | | 80 * | |
| 372-C | Joint Sealer - Preformed (Type A) | L.F. | 20 | 10 | 10 | 11 | 11 | | | | | | | | | 62 | 60 |
| 401AA | Concrete Class AA | C.Y. | 77 | 86 | 36 | 81 | 56 | 15 | 15 | 15 | 15 | | | | | 396 | 393 |
| 401B | Concrete Class B | C.Y. | | | | | | 49 | 47 | 45 | 44 | 78 | 46 | | | 309 | 310 |
| 402 | Reinforcing Steel | lbs. | 16860 | 19460 | 8310 | 18440 | 12450 | 10230 | 9380 | 8950 | 9080 | 4980 | 3100 | | | 121,240 | 121,901 |
| 403 | Shear Connectors (7030 studs) | L.S. | Req'd | Req'd. | — | Req'd. | Req'd. | | | | | | | | | 1 | 1 |
| 404A | Structural Steel | lbs. | 77900 | 121870 | 28260 | 106230 | 37920 | | | | | | | | | 372,350 | 374,934 |
| 407 | Asphaltic-Asbestos Coating | S.Y. | | | | | | 21 | 19 | 18 | 17 | 12 | 8 | | | 95 | 83 |
| [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | | | [illegible] | [illegible] |
| 440 | Water Repellent | gal | 9 | 11 | 5 | 10 | 7 | 8 | 7 | 7 | 6 | 4 | 3 | | | 77 | 44 |
| 501 | Furnishing Equipment for Driving Piles | L.S. | | | | | | Req'd | Req'd | Req'd | Req'd | Req'd | Req'd | | | 1 | 1/4 |
| 503-B | Treated Timber Piling | L.F. | | | | | | [illegible] | [illegible] | [illegible] | [illegible] | 630 | 510 | | | 1140 | 739 |
| 503-d | Treated Timber Piling Cut-offs AB | L.F. | | | | | | | | | | | | | | | 251 |
| 505 | Pile Loading Tests | EA. | | | | | | 1 | 1 | 1 | 1 | 1 | 1 | | | 6 | 0 |
| 556-C | Granite Bridge Curb | L.F. | 185 | 180 | 79 | 178 | 134 | | | | | | | | | 765 | 767 |
| 572 | Bridge Railing | L.F. | 185 | 189 | 79 | 178 | 134 | | | | | | | | | 765 | 765 |
| 503C | Steel Piling | L.F. | | | | | | 360 | 360 | 360 | 270 | | | | | 1350 | 1082 |
| 503-c | Steel Piling Cut-offs AB | L.F. | | | | | | | | | | | | | | | 235 |
| 504 | Splices for Steel Piling | EA. | | | | | | 4 | 4 | 4 | 4 | | | | | 16 | 0 |

STRUCTURE EXCAVATION FOR PIER FOOTINGS REV.
CONCRETE CLASS B FOR PIER FOOTINGS REV.
TREATED TIMBER PILING CHANGED TO STEEL PILING AT PIERS (12 BENTS) 5/26/66
ITEM 504-SPLICES FOR STEEL PILING ADDED. GTT

* To be included in Roadway Quantities.

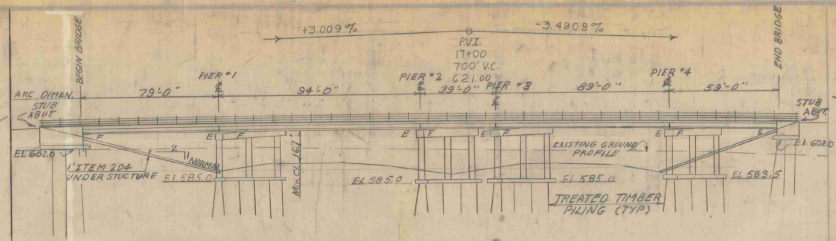
BRIDGE(S) AT STATION(S) 15+16 to 18+76
LOCATION(S) St. Albans, TR #15 & 25 over I89

St. Albans - Swanton PROJECT NO. I89-3(36) Cont #1
BR 201 OF SHEET NO. 76 OF 298



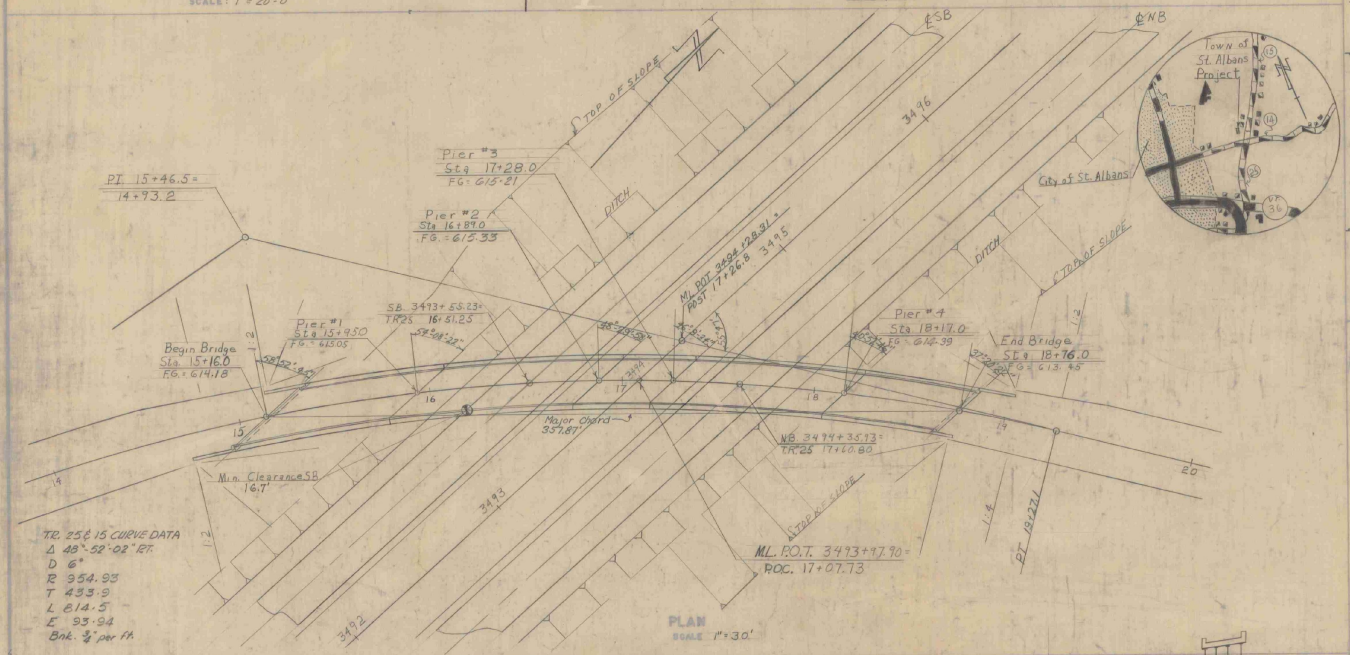

NEW HIGHWAY SECT. STA. 3492+0 TO STA. 3496+0

SCALE: 1"=20'-0"



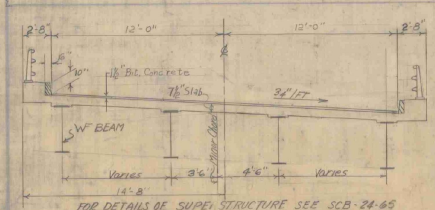

NEW HIGHWAY PROFILE ALONG ℄

SCALE 1"=30'




PLAN

SCALE 1"=30'



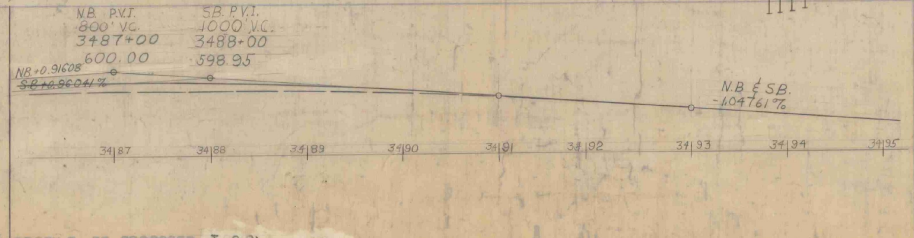

FOR DETAILS OF SUPER STRUCTURE SEE SCB-24-65

FOR CURB DETAILS SEE SCB-D6-65 DET. A

FOR RAILING DETAILS SEE SB-R1-64 (SHTS. 1 & 2) & SB-R3-64

TYPICAL SECTION

NOT TO SCALE




PROFILE OF PROPOSED I 89

SCALE HOR. 1"=60'
VERT. 1"=10'

HIGHWAY NO. T.H. "25," "15 NAME OF HIGHWAY INTERSTATE 89

STRUCTURE NO. _____ COUNTY FRANKLIN TOWN ST. ALBANS

PROJECT NO. I89-3(36) LOCATION ST. ALBANS - SWANTON ~ TH 25 & 15 OVER I89

## EXISTING STRUCTURE

1 RATED LOADING OF EXISTING STRUCTURE _____
2 TYPE OF EXISTING STRUCTURE _____
3 UNDERCLEARANCE - ELEVATION OF EXISTING STRUCTURE _____
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE _____ COST OF REMOVAL _____
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE _____
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT _____
7 ORDINARY HIGH WATER SURFACE EL. EV. AT EXISTING STRUCTURE _____ WATERWAY TO ORDINARY H.W. _____
8 EXTREME HIGH WATER AT EXISTING STRUCTURE _____
9 SPAN OF EXISTING BRIDGE UPSTREAM _____ WATERWAY TO EXTREME H.W. _____
SPAN OF EXISTING BRIDGE DOWNSTREAM _____ WATERWAY TO EXTREME H.W. _____
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS _____
11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE _____
12 IF NOT, AT WHAT ELEVATION IS RELIEF AFFORDED _____
13 ADDITIONAL WATERWAY AREA PROVIDED _____

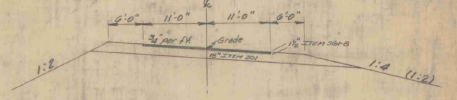
## NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE FIVE SPAN SIMPLE COMPOSITE WF BEAM
2 RECOMMENDED CLEAR SPAN OR SPANS 79 - 94 - 89 - 89 - 59
MEASURED PARALLEL TO ℄ NEW HIGHWAY
MEASURED AT RIGHT ANGLES TO ℄ STREAM _____
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM, ANSWER YES OR NO _____
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE _____
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE _____ SOURCE OF INFORMATION _____
6 IS ALL WATER INTENDED TO FLOW THROUGH NEW STRUCTURE? _____
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION REGULARLY _____ IS ORDINARY HIGH WATER
8 LOW WATER ELEVATION AT NEW STRUCTURE _____
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE _____ CHARACTER OF TERRAIN _____
10 IS STREAM - EVER DRY? _____
11 VELOCITY OF STREAM AT HIGH WATER STAGE _____ ESTIMATED DISCHARGE _____
12 AREA FULL OPENING _____ AREA BELOW ORDINARY H.W. _____
13 CHARACTER OF SCOUR _____ DRIFT _____
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE _____
15 MINIMUM CLEARANCE ABOVE FLOOD ELEVATION _____
16 ARE SIDEWALKS REQUIRED, IF SO ON WHAT SIDE NO NO
17 RECOMMENDED TYPE OF PAVEMENT 1½ Bit. Concrete 7½" REINFORCED CONCRETE
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. N/A ONE OR TWO WAYS PROBABLE _____
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE N/A
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES NO
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS 24 T/PILE SHOULD PILES BE USED YES SEE BORING LOG

## FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN OR NOT SHOWN OR FOR ANY ITEM OR CONDITION ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION. SEE BORING SHEET

DESIGN LOADING: HS 20-44
DESIGN STRESSES: A 36 STEEL $F_s$ = 20,000 PSI.
CONCRETE $F_c$ = 3,000 PSI.
REINF. STEEL $F_s$ = 20,000 PSI. (TENSION)




TYPICAL TR 25 & 15

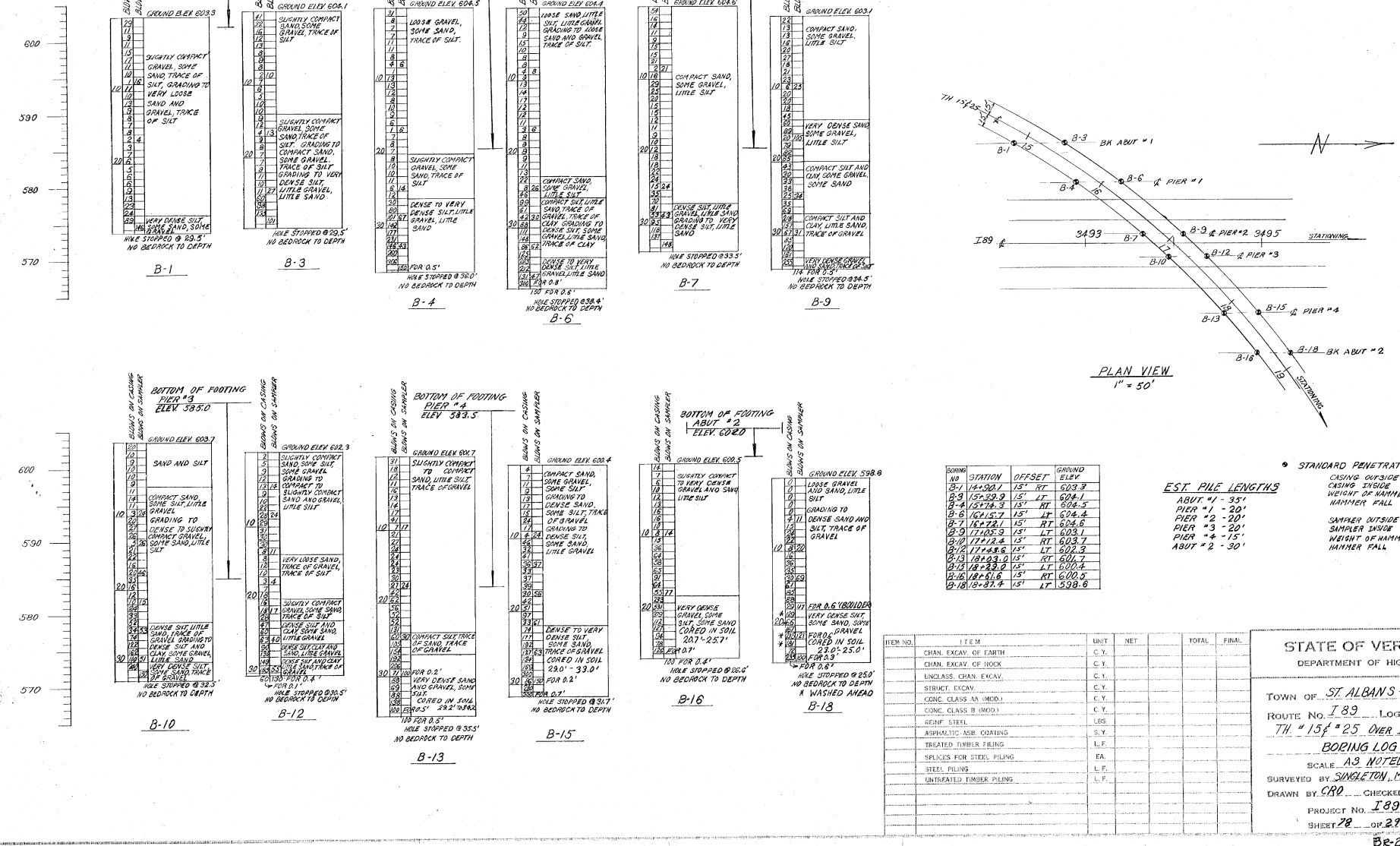
SCALE: 1"=10'-0"

Recommended for Approval: Bridge Engineer — 5/3/65
Recommended for Approval: Const. Engineer — 5/6/65
Recommended for Approval: Asst. Chief Engineer — 5/3/65
Approved by: Chief Engineer — 5/3/65

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
I89 IN THE TOWNS OF
ST. ALBANS - SWANTON
ROUTE NO. _____ LOG STA. _____
ST. ALBANS T.H. 25 & 15 OVER I89
SURVEYED JGC DRAWN BY BWK CHECKED BY BPP AS NOTED DATE Aug 1964
PROJECT NO. I 89-3(36) Cont. # 2 SHEET 77 OF 298

Rev. Mar. 1965 CPO Chk by RLM

BR-202




| BORING NO | STATION | OFFSET | | GROUND ELEV. |
|---|---|---|---|---|
| B-1 | 14+90.1 | 15' | RT | 603.3 |
| B-3 | 15+39.9 | 15' | LT | 604.1 |
| B-4 | 15+16.3 | 15' | RT | 604.5 |
| B-6 | 16+15.7 | 15' | LT | 604.4 |
| B-7 | 16+72.1 | 15' | RT | 604.6 |
| B-9 | 17+05.9 | 15' | LT | 603.1 |
| B-10 | 17+12.4 | 15' | RT | 603.7 |
| B-12 | 17+48.6 | 15' | LT | 602.3 |
| B-13 | 18+23.0 | 15' | RT | 604.7 |
| B-15 | 18+23.2 | 15' | LT | 604.4 |
| B-16 | 18+51.6 | 15' | RT | 600.5 |
| B-18 | 18+37.4 | 15' | LT | 598.6 |

EST. PILE LENGTHS
ABUT "1 - 35'
PIER "1 - 20'
PIER "2 - 20'
PIER "3 - 20'
PIER "4 - 15'
ABUT "2 - 30'

* STANDARD PENETRATION BORINGS

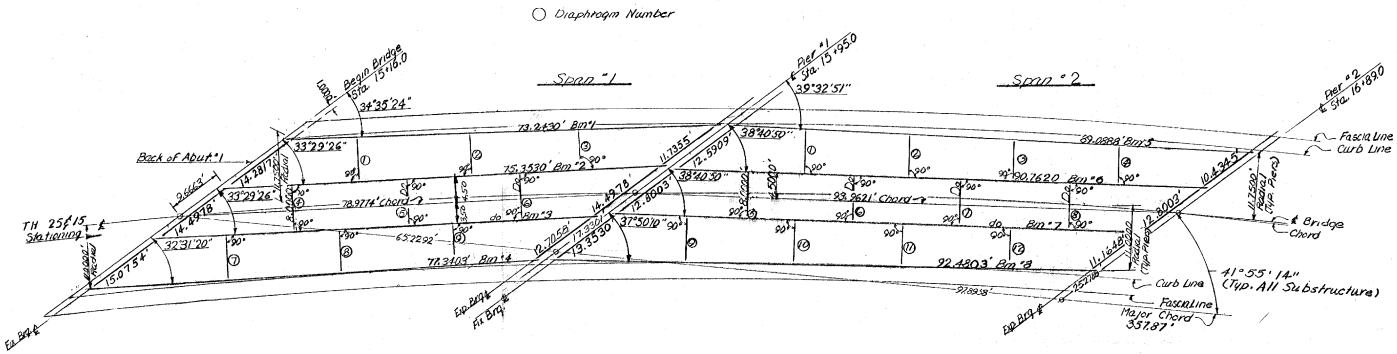
| | |
|---|---|
| CASING OUTSIDE DIA. | 3" |
| CASING INSIDE DIA. | 2 1/4" |
| WEIGHT OF HAMMER | 350 LBS. |
| HAMMER FALL | 24" |
| SAMPLER OUTSIDE DIA. | 2" |
| SAMPLER INSIDE DIA. | 1 3/8" |
| WEIGHT OF HAMMER | 140 LBS. |
| HAMMER FALL | 30" |

| ITEM NO. | ITEM | UNIT | NET | | TOTAL | FINAL |
|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | |
| | UNCLASS. CHAN. EXCAV. | C.Y. | | | | |
| | STRUCT. EXCAV. | C.Y. | | | | |
| | CONC. CLASS AA (MOD.) | C.Y. | | | | |
| | CONC. CLASS B (MOD.) | C.Y. | | | | |
| | REINF. STEEL | LBS. | | | | |
| | ASPHALTIC ASB. COATING | S.Y. | | | | |
| | TREATED TIMBER PILING | L.F. | | | | |
| | SPLICES FOR STEEL PILING | EA. | | | | |
| | STEEL PILING | L.F. | | | | |
| | UNTREATED TIMBER PILING | L.F. | | | | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

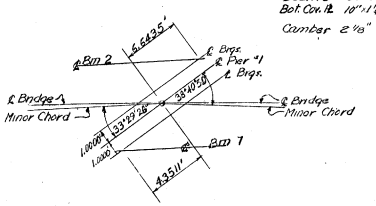
TOWN OF ST. ALBANS - SWANTON
ROUTE NO. I 89 LOG STA. TH "15 & "25 OVER I89
BORING LOG
SCALE AS NOTED
SURVEYED BY SINGLETON, MANCINI
DRAWN BY CRO CHECKED BY RLM 3-22-65
PROJECT NO. I 89-3 (36) Cont. #1
SHEET 28 OF 298

BR-293

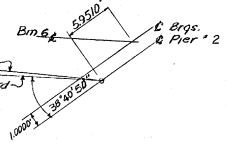



Span "1 - 79' Span
Diaph. 18" □ 42.7
Beams 36 WF 194
Bolt Cov. 12 10"×1¼"×49'-10"
Camber 2⅛"

Span "2 - 94' Span
Diaph. 18" □ 42.7
Beams 36 WF 245
Bolt Cov. 12 14"×1½"×65'-7"
Camber 4½"




## FRAMING PLAN
1" = 10.0'



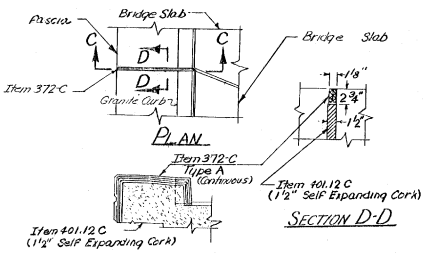

Note: For spans 3, 4 & 5 see Sheet BR.205.

## GENERAL NOTES

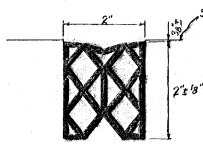
1. For General Notes see Standard Sheet SCB-01-65.
2. Construct embankment within area of abutments to 6" above footing elevation, prior to driving piling. Excavation of this material to be paid as Structure Excavation, Item 109.
3. The abutments and piers are parallel to each other.
4. Superstructure details shall be as per SCB-24-65 except Span #1 (39' span) is to have 36 WF 135 beams.
   Modify the standard details so as to eliminate the approach slab bracket. Modify superstructure details to provide 3/8" per foot superelevation.
   No scuppers are to be used on this bridge.
5. Dimensions given at beams are horizontal dimensions from ℄ bearing to ℄ bearing.
6. The two interior beams in each span are parallel to the minor chord.
7. Dimensions given for diaphragms are horizontal dimensions from ℄ beam to ℄ beam.
8. Minimum clearance from reinforcing steel to face of concrete shall be 3" in footings and 2" elsewhere, except where detailed otherwise.
9. Water Repellent-Item 440 shall be applied to top of safety walks, fascia, and back to drip bead under the slab.

INTERMEDIATE DIAPHRAGM DIMENSIONS

| | DIAPH. NO. | DIAPHRAGM LENGTH ℄ BM TO ℄ BM | ℄ BRG TO DIAPHRAGM ALONG ℄ BM | |
|---|---|---|---|---|
| SPAN 1 | 1 | 7.6333 | BM 1 | BM 3 |
| | 2 | 7.2720 | 26.7923 | |
| | 3 | 6.9106 | 43.6311 | |
| | 4 | 8.0000 | 62.9692 | |
| | 5 | 8.0000 | 12.7929 | 24.8837 |
| | 6 | 8.0000 | 31.6312 | 43.7218 |
| | 7 | 7.8882 | 50.9693 | 62.5601 |
| | 8 | 7.5695 | | 12.8837 |
| | 9 | 7.2508 | | 31.7219 |
| | | | | 50.5601 |
| SPAN 2 | | | BM 6 | BM 7 |
| | 1 | 7.6673 | 23.1560 | |
| | 2 | 7.3928 | 41.3085 | |
| | 3 | 7.1181 | 59.4608 | |
| | 4 | 6.8435 | 77.6131 | |
| | 5 | 8.0000 | 13.1561 | 23.1486 |
| | 6 | 8.0000 | 31.3086 | 41.3010 |
| | 7 | 8.0000 | 49.4609 | 59.4534 |
| | 8 | 8.0000 | 67.6135 | 77.6057 |
| | 9 | 7.9987 | | 13.1987 |
| | 10 | 7.7282 | | 31.3011 |
| | 11 | 7.4597 | | 49.4535 |
| | 12 | 7.1912 | | 67.6058 |
| SPAN 3 | | | BM 10 | BM 11 |
| | 1 | 7.2200 | 22.3506 | |
| | 2 | 8.0000 | 13.6890 | 22.3623 |
| | 3 | 7.5350 | | 13.6957 |
| SPAN 4 | | | BM 14 | BM 15 |
| | 1 | 7.5545 | 20.9977 | |
| | 2 | 7.3560 | 38.1900 | |
| | 3 | 7.1573 | 55.4322 | |
| | 4 | 6.9586 | 72.6743 | |
| | 5 | 8.0000 | 13.4478 | 21.0365 |
| | 6 | 8.0000 | 30.6901 | 38.2788 |
| | 7 | 8.0000 | 47.9323 | 55.5209 |
| | 8 | 8.0000 | 65.1744 | 72.7631 |
| | 9 | 7.8435 | | 13.5365 |
| | 10 | 7.6510 | | 30.7787 |
| | 11 | 7.4584 | | 48.0210 |
| | 12 | 7.2659 | | 65.2632 |
| SPAN 5 | | | BM 18 | BM 19 |
| | 1 | 7.3499 | 22.0602 | |
| | 2 | 7.1721 | 40.8653 | |
| | 3 | 8.0000 | 15.5602 | 22.0499 |
| | 4 | 8.0000 | 34.3653 | 40.8550 |
| | 5 | 7.6019 | | 15.5500 |
| | 6 | 7.4105 | | 34.3551 |




CURB JOINT DETAIL
N.T.S.




Allow 1/8" width and 2⅜" depth for installation. Use at safety walk joints. Other configurations having the approval of the Bridge Engineer may be substituted.

DETAILS - ITEM 372-C JOINT SEALER (PREFORMED)
Material shall be premoulded Neoprene Rubber. N.T.S.

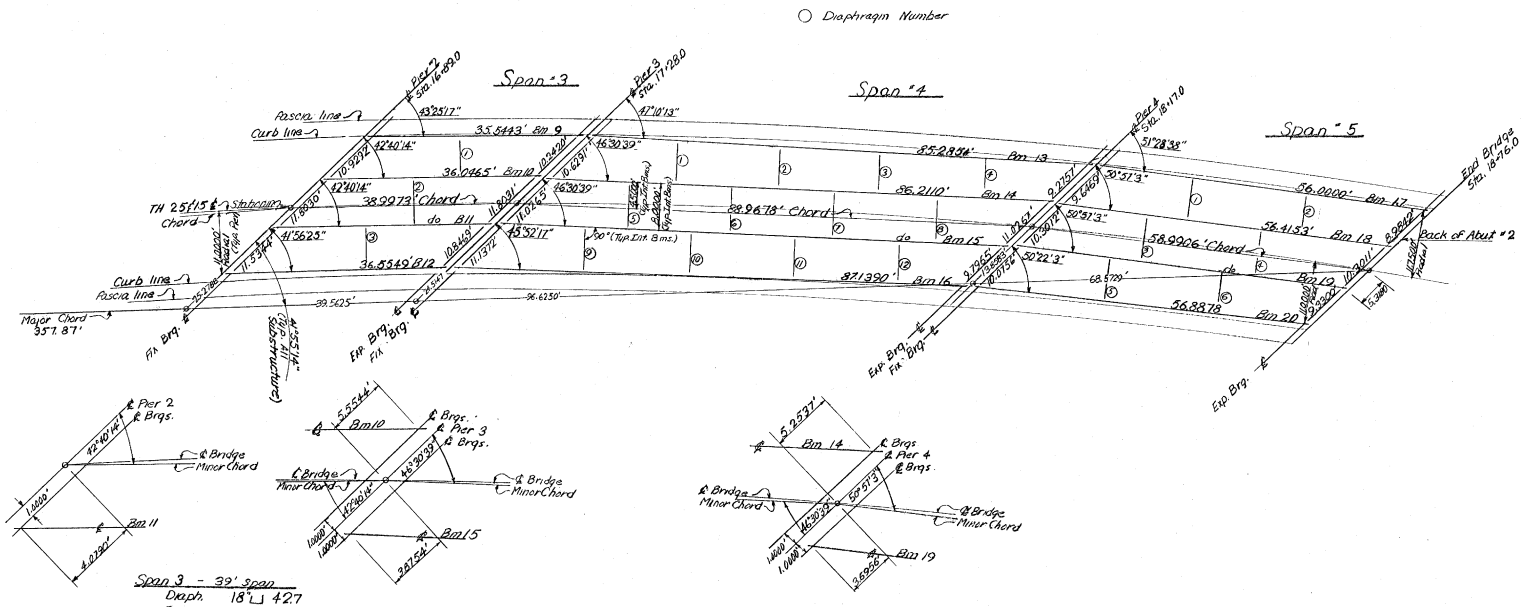
SUPERSTRUCTURE QUANTITIES

| ITEM NO. | ITEM | UNIT | SPAN #1 | SPAN #2 | | | FINAL |
|---|---|---|---|---|---|---|---|
| 313 | TAR EMULSION FOR BRIDGE FLOORS | GAL. | 84 | 100 | | | |
| 361-B | BITUMINOUS CONCRETE PAVEMENT DENSE GRADED TOP AND BOTTOM COURSE | TON | 18 | 21 | | | |
| 372-C | JOINT SEALER (PREFORMED) (TYPE A) | L.F. | 20 | 10 | | | |
| 401AA | CONC. CLASS AA | C.Y. | 77 | 86 | | | |
| | CONC. CLASS B (MOD.) | C.Y. | | | | | |
| 402 | REINF. STEEL | LBS. | 16,860 | 19,460 | | | |
| | ASPHALTIC-ASB. COATING | S.Y. | | | | | |
| 403 | SHEAR CONNECTORS (¾"ø STUDS) | L.S. | Reqd. | Reqd. | | | |
| 404-A | STRUCTURAL STEEL | LBS. | 77900 | 121,830 | | | |
| | | | | | | | |
| 440 | WATER REPELLENT | GAL. | 9 | 11 | | | |
| 556C | GRANITE BRIDGE CURB | L.F. | 185 | 189 | | | |
| 572 | BRIDGE RAILING | L.F. | 185 | 189 | | | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF ST. ALBANS - SWANTON
ROAD NO. ..... BRIDGE NO. .....
FRAMING PLAN
TH "25℄15 over I89
SCALE as noted
SURVEYED BY .....
DRAWN BY CRO CHECKED BY RLM 12-27-65
PROJECT NO. I89-3(36)Cont'd
SHEET 79 OF 238

BR-204



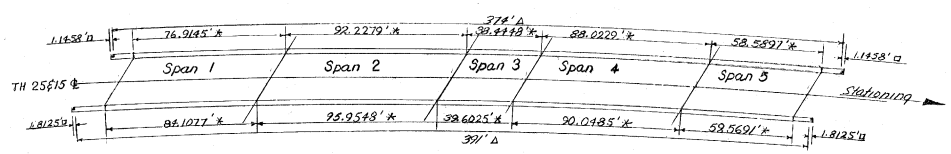

Span 3 - 39' Span
Diaph. 18" ⊔ 42.7
Beams 36 WF 135
Camber 1/2"
No Cover Pl. Req'd.

FRAMING PLAN
1" = 10.0'

Span 4 - 89' Span
Diaph. 18" ⊔ 42.7
Beams 36 WF 230
Bot. Cov. Pl. 14" x 1/4" x 59'-5"
Camber 3 3/4"

Span 5 - 59' Span
Diaph. 18" ⊔ 42.7
Beams 36 WF 135
Bot. Cov. Pl. 10" x 1/2" x 31'-11"
Camber 1 3/8"

— NOTES. —
1. For spans 1 & 2 see sheet BR 204.
2. For Diaphragm locations and lengths see sheet BR 204.




* Dim. along face of curb.
Δ Dim. along ℄ of railing.
□ Dim. to 1st post.

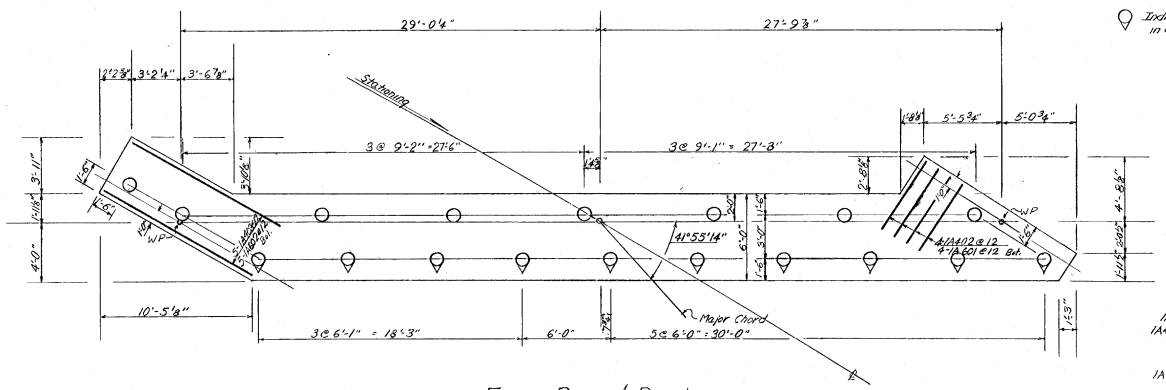
CURB & RAILING GEOMETRY
N.T.S.

| ITEM NO. | ITEM | UNIT | SPAN #3 | SPAN #4 | SPAN #5 |
|---|---|---|---|---|---|
| 318 | TAR EMULSION FOR BRIDGE FLOORS | GAL | 42 | 95 | 63 |
| 361-B | BITUMINOUS CONCRETE PAVEMENT | TON | 9 | 19 | 13 |
| | UNCLASS. CHAN. EXCAV. | C.Y. | | | |
| | STRUCT. EXCAV. | C.Y. | | | |
| 401 AA | CONC. CLASS AA | C.Y. | 36 | 81 | 56 |
| | CONC. CLASS B (MOD.) | C.Y. | | | |
| 402 | REINF. STEEL | LBS. | 8310 | 18,440 | 12,450 |
| | ASPHALTIC-ASB. COATING | S.Y. | | | |
| 403 | SHEAR CONNECTORS (No. STUDS 3260) | L.S. | — | Req'd | Req'd. |
| 404-A | STRUCTURAL STEEL | LBS. | 28,260 | 106,330 | 37,990 |
| 440 | WATER REPELLENT | GAL | 5 | 10 | 7 |
| 556-C | GRANITE BRIDGE CURB | L.F. | 79 | 178 | 134 |
| 572 | BRIDGE RAILING | L.F. | 79 | 178 | 134 |
| 372-C | JOINT SEALER - PREFORMED (TYPE A) | L.F. | 10 | 11 | 11 |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF ST. ALBANS - SWANTON
ROAD NO. _____ BRIDGE NO. _____
FRAMING PLAN
TH 25 & 15 over I89
SCALE as noted
SURVEYED BY _____
DRAWN BY CRO CHECKED BY RLM 10-21-65
PROJECT NO. I89-3(36) Cont. #1
SHEET 80 OF 298

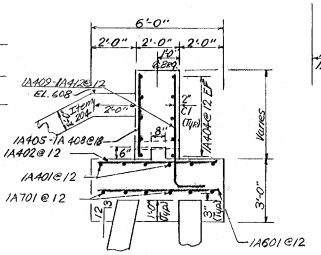
BR-205




FOOTING PLAN & PILE LAYOUT

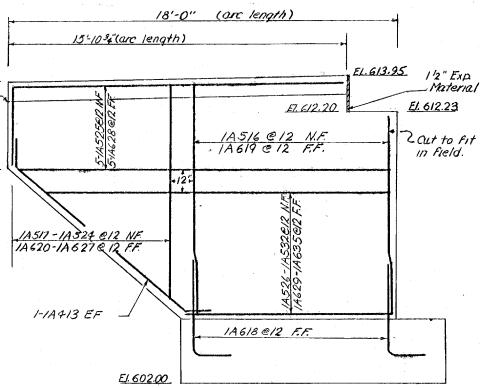
1/4" = 1'-0"

Indicates Pile batter 3 in 12 in direction of arrow.



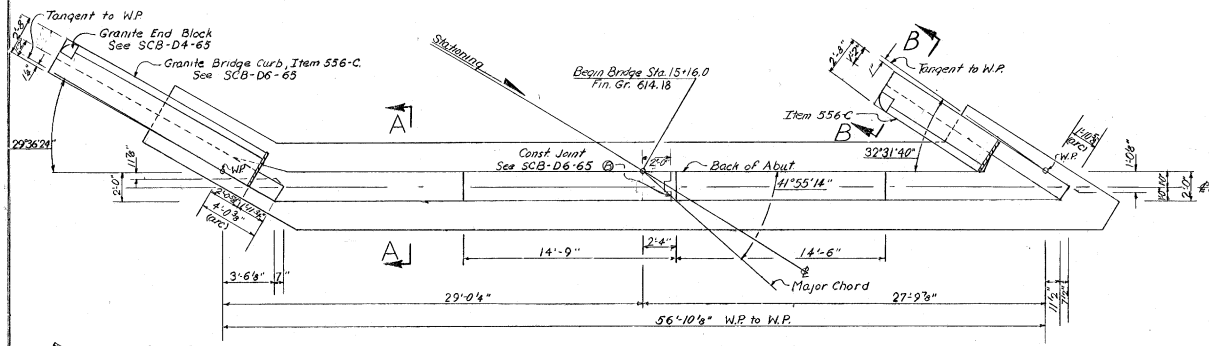

SECTION A-A

3/8" = 1'-0"




RIGHT WING

NTS

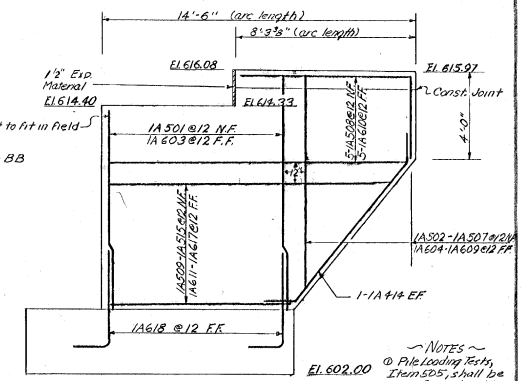



PLAN

1/4" = 1'-0"

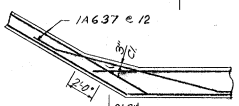
Note: For details see Section BB of Abut. 2 Sheet BR.207.

SECTION B-B



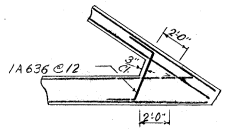

LEFT WING

3/8" = 1'-0"



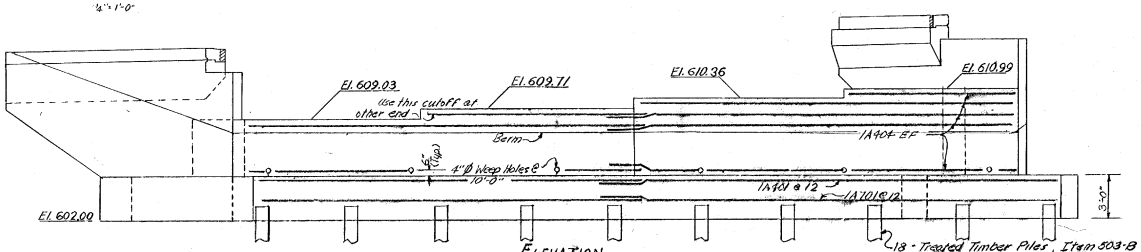

RIGHT FILLET

1/4" = 1'-0"




LEFT FILLET

1/4" = 1'-0"




ELEVATION

1/4" = 1'-0"

| ITEM NO. | ITEM | UNIT | NET | | TOTAL | FINAL |
|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | |
| 105 | GRANULAR BORROW | C.Y. | 26 | | 26 | |
| 109 | STRUCT. EXCAV. | C.Y. | 40 | | 40 | |
| | CONC. CLASS AA (MOD.) | C.Y. | | | | |
| 401-B | CONC. CLASS B | C.Y. | 78 | | 78 | |
| 402 | REINF. STEEL | LBS. | 4980 | | 4980 | |
| 407 | ASPHALTIC-ASB. COATING | S.Y. | 12 | | 12 | |
| 503-B | TREATED TIMBER PILING | L.F. | 630 | | 630 | |
| | SPLICES FOR STEEL PILING | EA. | | | | |
| | STEEL PILING | L.F. | | | | |
| 501 | FURNISHING EQUIPMENT FOR DRIVING PILES | L.S. | Regd | | 1/6 | |
| 505 | PILE LOADING TESTS | L.S. | 1 | | 1/4 | |
| 440 | WATER REPELLENT | GAL | 4 | | | |
| 556-C | GRANITE BRIDGE CURB | L.F. | INCLUDED IN | | | |
| 572 | BRIDGE RAILING | L.F. | SUPERSTRUCTURE QUANTITIES | | | |
| 204 | SUBBASE OF CRUSHED ROCK | C.Y. | 81 | | 81 | |

STATE OF VERMONT

DEPARTMENT OF HIGHWAYS

TOWN OF ST ALBANS - SWANTON

ROUTE NO. I 89 LOG STA.

ABUTMENT "1" DETAILS

SCALE as noted

SURVEYED BY

DRAWN BY CAO CHECKED BY G.T.F. & S.N.A.

PROJECT NO. I 89-3(36) Conf. 1

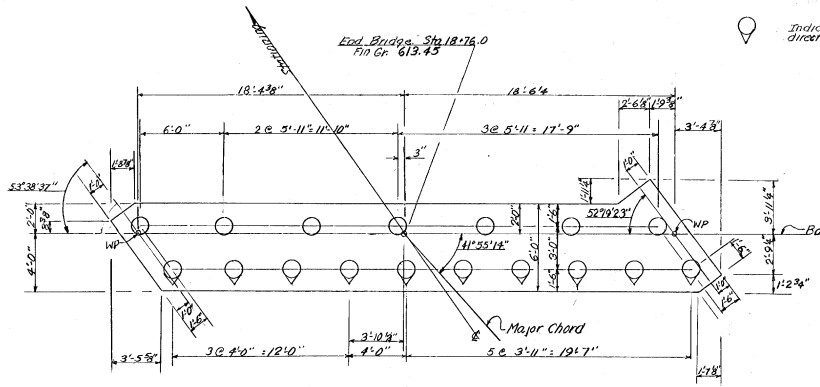
SHEET 81 OF 298

BR-206

~NOTES~

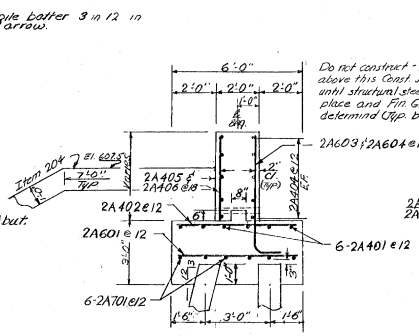
① Pile Loading Tests, Item 505, shall be used and paid for only when directed by the Engineer.

② All reinforcing steel shall have 2" clear, except in bottom of footing which shall be 3".



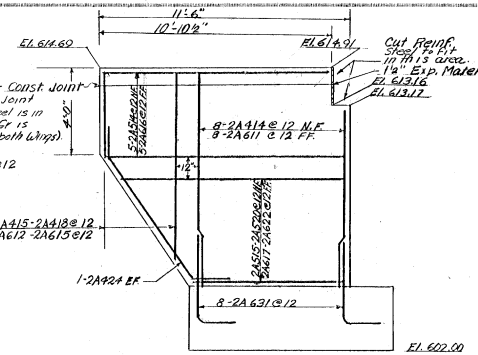

FOOTING PLAN & PILE LAYOUT

¼"=1'-0"



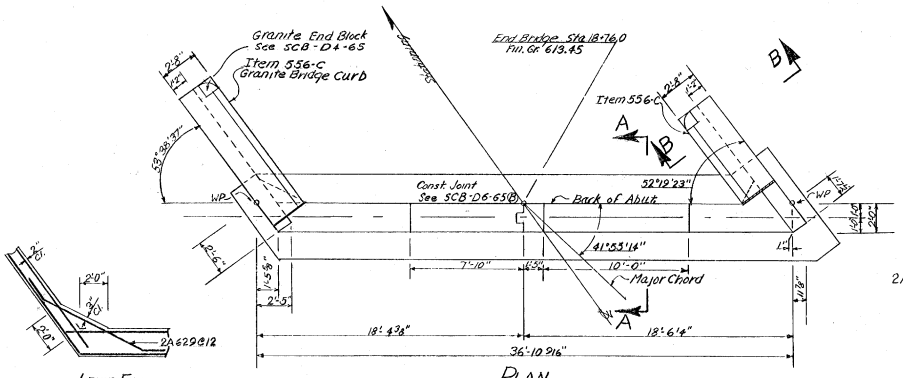

SECTION A-A

⅜"=1'-0"




LEFT WING

⅜"=1'-0"

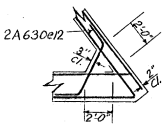



LEFT FILLET

¼"=1'-0"

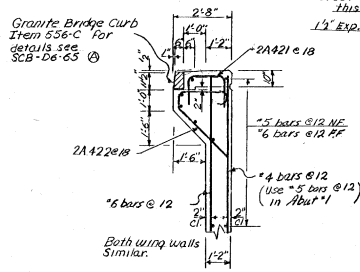
PLAN

¼"=1'-0"



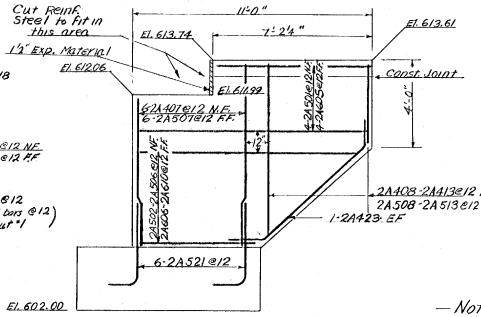

RIGHT FILLET

¼"=1'-0"




SECTION B-B

⅜"=1'-0"

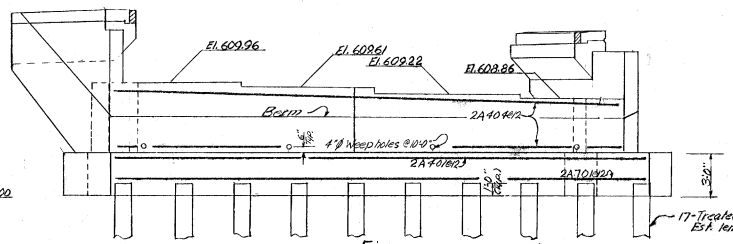



RIGHT WING

⅜"=1'-0"

— NOTES —

1. All reinforcing steel shall have 2" clear, except in bottom of footing which shall be 3".
2. Pile Loading Tests, Item 505, shall be used and paid for only when directed by the Engineer.




ELEVATION

¼"=1'-0"

| ITEM NO. | ITEM | UNIT | NET | | TOTAL | FINAL |
|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | |
| 105 | GRANULAR BORROW | C.Y. | 240 | | 240 | |
| 109 | STRUCT. EXCAV. | C.Y. | 6 | | 6 | |
| | CONC. CLASS AA (MOD.) | C.Y. | | | | |
| 401-B | CONC. CLASS B (MOD.) | C.Y. | 46 | | 46 | |
| 602 | REINF. STEEL | LBS. | 3100 | | 3100 | |
| 407 | ASPHALTIC-ASB. COATING | S.Y. | 8 | | 8 | |
| 503-B | TREATED TIMBER PILING | L.F. | 510 | | 510 | |
| | SPLICES FOR STEEL PILING | EA. | | | | |
| | STEEL PILING | L.F. | | | | |
| 501 | FURNISHING EQUIPMENT FOR DRIVING PILES | L.S. | Reqd. | | Yes | |
| 505 | PILE LOADING TESTS | EA | 1 | | 1 | |
| 440 | WATER REPELLENT | GAL | 3 | | 3 | |
| 556-C | GRANITE BRIDGE CURB | L.F. | INCLUDED IN SUPERSTRUCTURE QUANTITIES | | | |
| 572 | BRIDGE RAILING | L.F. | | | | |
| 204 | SUBBASE OF CRUSHED ROCK | C.Y. | 70 | | 70 | |

STATE OF VERMONT

DEPARTMENT OF HIGHWAYS

TOWN OF ST. ALBANS - SWANTON

ROUTE NO. I 89 LOG STA.

ABUTMENT 2 DETAILS

TH 25 & 15 over I 89

SCALE: as noted

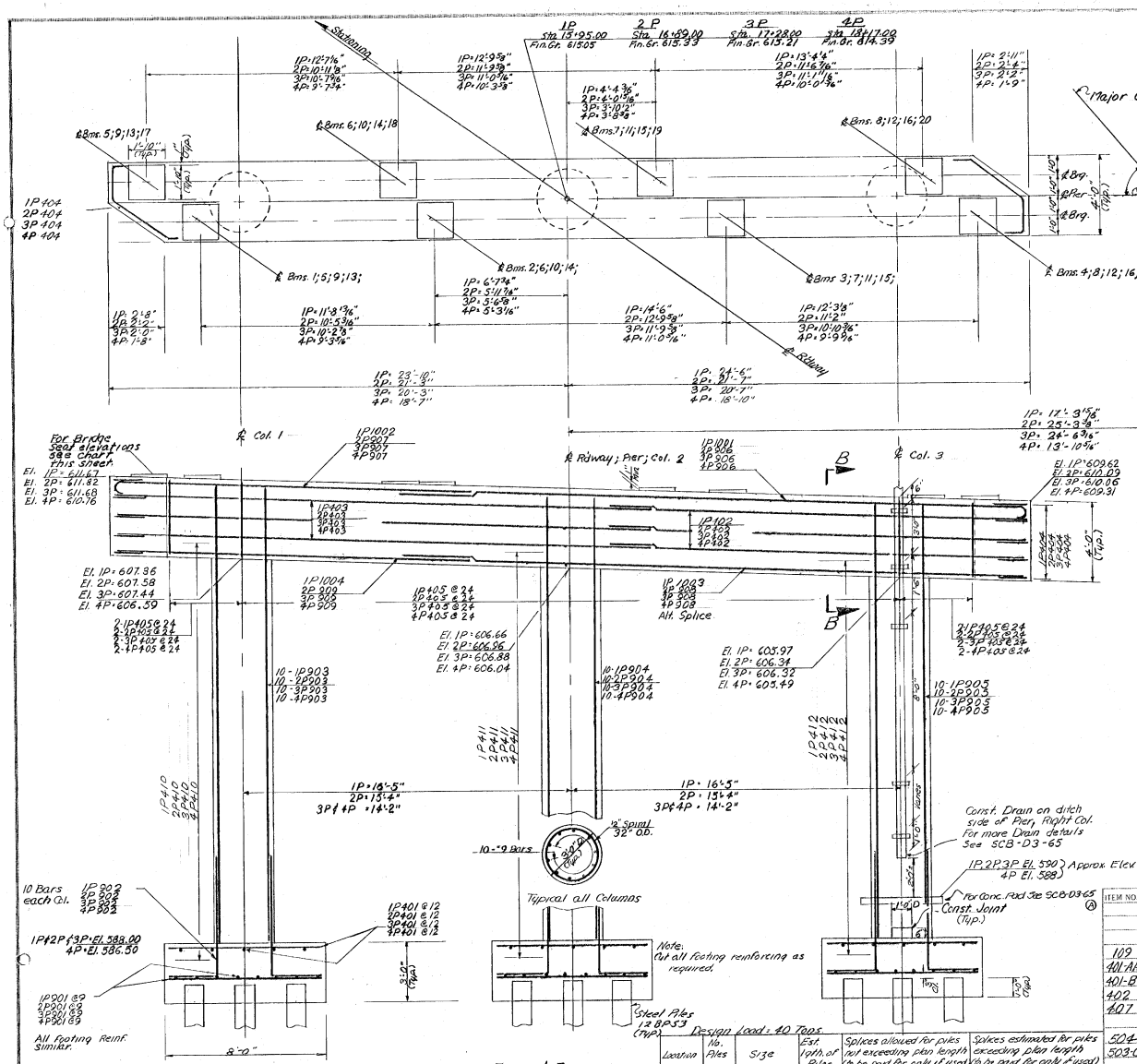
SURVEYED BY:

DRAWN BY: CAO CHECKED BY: G.T.T. & REL.

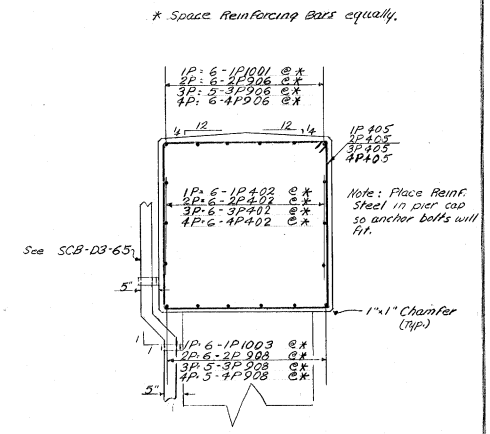
PROJECT NO. I 89-3(36) Cont 1

SHEET 82 OF 298

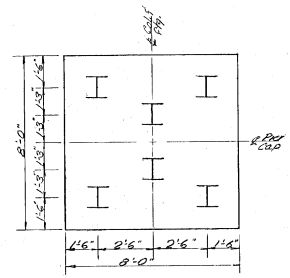
82-207




PLAN & ELEVATION
3/8"=1'-0"




SECTION B-B
3/4" = 1'-0"




PILING LAYOUT
(TYPICAL ALL FOOTINGS)
3/8"=1'-0"

NOTE:
① All columns are to be Class AA Concrete, Item 401-AA.
② Pile loading tests; Item 505, shall be used and paid for only when directed by the Engineer.

| Pier 1 | | Pier 2 | | Pier 3 | | Pier 4 | |
|---|---|---|---|---|---|---|---|
| Bm | Elev. | Bm | Elev. | Bm | Elev. | Bm | Elev. |
| 1 | 611.54 | 5 | 611.72 | 9 | 611.82 | 13 | 610.70 |
| 2 | 611.05 | 6 | 611.30 | 10 | 611.41 | 14 | 610.34 |
| 3 | 610.43 | 7 | 610.78 | 11 | 610.94 | 15 | 609.91 |
| 4 | 609.91 | 8 | 610.33 | 12 | 610.51 | 16 | 609.53 |
| 5 | 611.70 | 9 | 611.92 | 13 | 611.68 | 17 | 610.89 |
| 6 | 611.17 | 10 | 611.55 | 14 | 611.26 | 18 | 610.52 |
| 7 | 610.62 | 11 | 611.05 | 15 | 610.82 | 19 | 609.13 |
| 8 | 610.05 | 12 | 610.59 | 16 | 610.38 | 20 | 609.73 |

BRIDGE SEAT ELEVATIONS

Revisions & Corrections
Changed to Steel piling, S/P 5/16 BY CRO
Changed to 8"-8" Ftg. Ck. by
" Ftg. Reinf. Spacing
" Corresponding Quant.

Design Load: 40 Tons.

| Location | No. Piles | Size | Est. lgth. of Piles | Splices allowed for piles not exceeding plan length (to be paid for only if used) | Splices estimated for piles exceeding plan length (to be paid for only if used) |
|---|---|---|---|---|---|
| Pier 1 | 18 | 12BP53 | 20' | 0 | 4 |
| Pier 2 | 18 | 12BP53 | 20' | 0 | 4 |
| Pier 3 | 18 | 12BP53 | 20' | 0 | 4 |
| Pier 4 | 18 | 12BP53 | 15' | 0 | 4 |

| ITEM NO. | ITEM | UNIT | PIER 1 | PIER 2 | PIER 3 | PIER 4 | TOTAL | FINAL |
|---|---|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | | | |
| | UNCLASS. CHAN. EXCAV. | C.Y. | | | | | | |
| 109 | STRUCT. EXCAV. | C.Y. | 56 | 39 | 41 | 75 | 211 | |
| 401-AA | CONC. CLASS AA | C.Y. | 15 | 15 | 15 | 15 | 60 | |
| 401-B | CONC. CLASS B | C.Y. | 49 | 47 | 45 | 44 | 185 | |
| 402 | REINF. STEEL | LBS. | 10,230 | 9,380 | 8,950 | 9,080 | 37,640 | |
| 407 | ASPHALTIC-ASB. COATING | S.Y. | 21 | 19 | 18 | 17 | 75 | |
| | TREATED TIMBER PILING | L.F. | | | | | | |
| 504 | SPLICES FOR STEEL PILING | EA. | 4 | 4 | 4 | 4 | 16 | |
| 503-C | STEEL PILING | L.F. | 360 | 360 | 360 | 210 | 1350 | |
| | UNTREATED TIMBER PILING | L.F. | | | | | | |
| 440 | WATER REPELLENT | GAL. | 8 | 7 | 7 | 6 | 28 | |
| 505 | PILE LOADING TESTS | L.S. | 1 | 1 | 1 | 1 | 4 | |
| 501 | FURNISHING EQUIPMENT FOR DRIVING PILES | L.S. | Req'd | Req'd | Req'd | Req'd | 2/3 | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

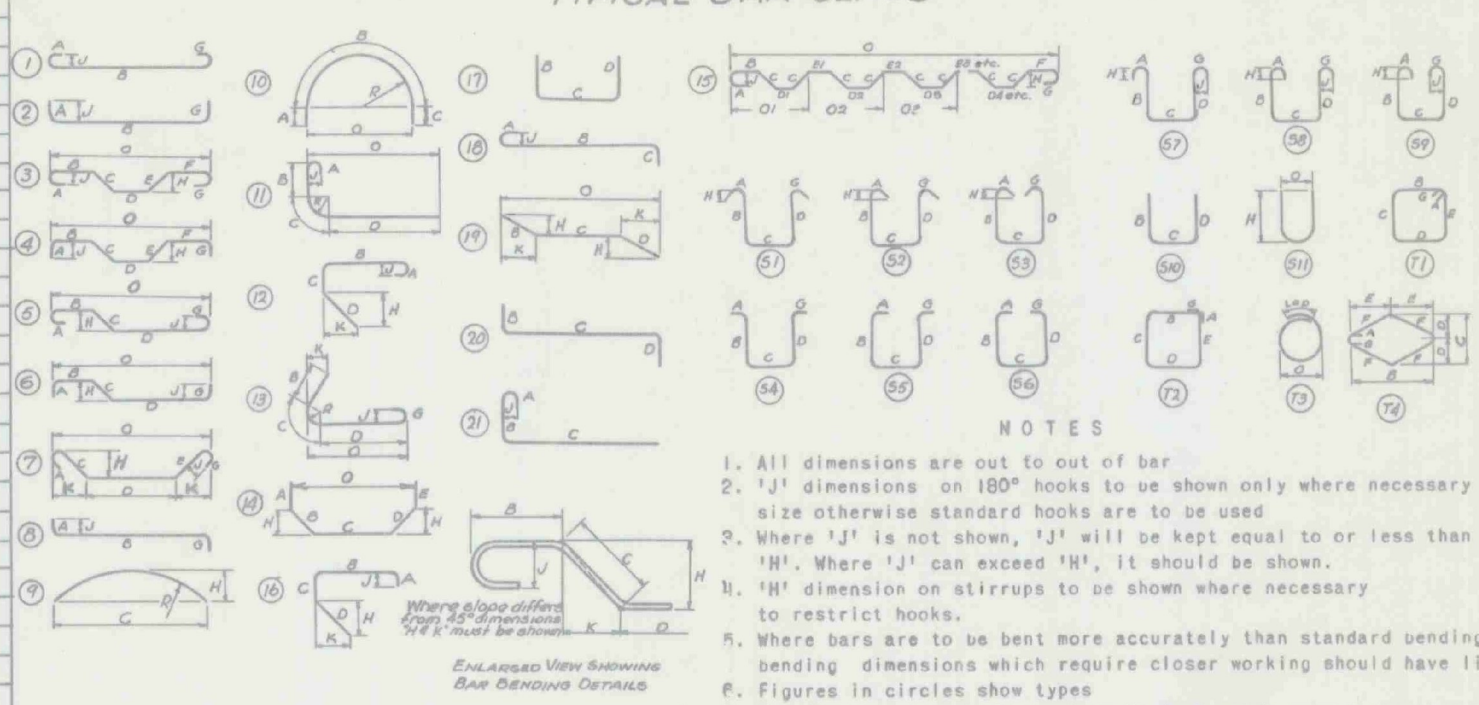
TOWN OF ST. ALBANS-SWANTON
ROUTE NO. I89 LOG STA.
PIERS 1,2,3,4 DETAILS
TH 25 & 15 OVER I89
SCALE as noted
SURVEYED BY
DRAWN BY CRO CHECKED BY SNA
PROJECT NO. I89-3(36) Cont. 1
SHEET 83 OF 238

BR-208

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | ABUTMENT #1 | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | |
| 2 | 12 | 4 | 30-11 | 1A401 | Str. | | | | | | | | | | | | |
| 3 | 65 | | 5-6 | 402 | | | | | | | | | | | | | |
| 4 | 5 | | 11-6 | 403 | | | | | | | | | | | | | |
| 5 | 24 | | 29-2 | 404 | | | | | | | | | | | | | |
| 6 | 10 | | 3-9 | 405 | | | | | | | | | | | | | |
| 7* | 11 | | 4-6 | 406 | | | | | | | | | | | | | |
| 8 | 10 | | 5-1 | 407 | | | | | | | | | | | | | |
| 9 | 8 | 4 | 5-9 | 1A408 | Str. | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | |
| 11 | 15 | 4 | 7-6 | 1A409 | 17 | | 5-6 | 2-0 | / | | | | | | | | |
| 12 | 15 | | 8-3 | 410 | 17 | | 6-3 | 2-0 | / | | | | | | | | |
| 13 | 15 | | 8-10 | 411 | 17 | | 6-10 | 2-0 | / | | | | | | | | |
| 14 | 12 | | 9-6 | 412 | 17 | | 7-6 | 2-0 | / | | | | | | | | |
| 15 | 2 | | 14-6 | 413 | 14 | / | 2-0 | 10-6 | 2-0 | / | | | 1-2 | | | | |
| 16 | 2 | | 12-6 | 414 | 14 | / | 2-0 | 8-6 | 2-0 | / | | | 1-3 | | | | |
| 17 | 19 | | 5-3 | 421 | 17 | | 1-9 | 1-9 | 1-9 | | | | | | | | |
| 18 | 19 | 4 | 6-8 | 1A422 | 12 | 6 | 2-2 | 9 | 3-3 | | | | 2-2 | | 1-9 | | |
| 19 | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | |
| 21 | 9 | 5 | 10-9 | 1A501 | Str. | | | | | | | | | | | | |
| 22 | 1 | | 3-6 | 502 | | | | | | | | | | | | | |
| 23 | | | To | Thru | | | Vary in 1'-3" Increments | | | | | | | | | | |
| 24 | 1 | | 9-9 | 507 | | | | | | | | | | | | | |
| 25 | 5 | | 14-0 | 508 | | | | | | | | | | | | | |
| 26 | 1 | | 8-3 | 509 | | | | | | | | | | | | | |
| 27 | | | To | Thru | | | Vary in 9" Increments | | | | | | | | | | |
| 28 | 1 | | 12-9 | 515 | | | | | | | | | | | | | |
| 29 | 10 | | 8-8 | 516 | | | | | | | | | | | | | |
| 30 | 1 | | 3-6 | 517 | | | | | | | | | | | | | |
| 31 | | | To | Thru | | | Vary in 11" Increments | | | | | | | | | | |
| 32 | 1 | | 9-11 | 524 | | | | | | | | | | | | | |
| 33 | 5 | | 17-6 | 525 | | | | | | | | | | | | | |
| 34 | 1 | | 9-6 | 526 | | | | | | | | | | | | | |
| 35 | | | To | Thru | | | Vary in 1'-1" Increments. | | | | | | | | | | |
| 36 | 1 | | 16-0 | 532 | | | | | | | | | | | | | |
| 37* | 1 | 5 | 4-0 | 1A533 | Str. | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | | | | | |
| 40* | 66 | 6 | 5-6 | 1A601 | Str. | | | | | | | | | | | | |
| 41 | 5 | | 11-6 | 602 | | | | | | | | | | | | | |
| 42 | 9 | | 10-9 | 603 | | | | | | | | | | | | | |
| 43 | 1 | | 3-6 | 604 | | | | | | | | | | | | | |
| 44 | | | To | Thru | | | Vary in 1'-3" Increments | | | | | | | | | | |
| 45 | 1 | | 9-9 | 609 | | | | | | | | | | | | | |
| 46 | 5 | | 14-0 | 610 | | | | | | | | | | | | | |
| 47 | 1 | | 8-3 | 611 | | | | | | | | | | | | | |
| 48 | | | To | Thru | | | Vary in 9" Increments | | | | | | | | | | |
| 49 | 1 | | 12-9 | 617 | | | | | | | | | | | | | |
| 50 | 10 | | 8-8 | 619 | | | | | | | | | | | | | |
| 51 | 1 | | 3-6 | 620 | | | | | | | | | | | | | |
| 52 | | | To | Thru | | | Vary in 11" Increments | | | | | | | | | | |
| 53 | 1 | | 9-11 | 627 | | | | | | | | | | | | | |
| 54 | 5 | | 17-6 | 628 | | | | | | | | | | | | | |
| 55 | 1 | | 9-6 | 629 | | | | | | | | | | | | | |
| 56 | | | To | Thru | | | Vary in 1'-1" Increments. | | | | | | | | | | |
| 57 | 1 | 6 | 16-0 | 1A635 | Str. | | | | | | | | | | | | |
| 58 | | | | | | | | | | | | | | | | | |
| 59 | 19 | 6 | 6-6 | 1A618 | 17 | | 4-3 | 2-3 | / | | | | | | | | |
| 60 | 7 | 6 | 7-11 | 1A636 | 14 | / | 2-0 | 3-11 | 2-0 | / | | | 1-11 | | | | |
| 61 | 5 | 6 | 17-5 | 1A637 | 14 | / | 2-0 | 13-5 | 2-0 | / | | | 6 | | | | |
| 62 | | | | | | | | | | | | | | | | | |
| 63 | | | | | | | | | | | | | | | | | |
| 64 | 12 | 7 | 32-0 | 1A701 | Str. | | | | | | | | | | | | |
| 65* | 1 | 7 | 4-0 | 1A702 | Str. | | | | | | | | | | | | |
| 66 | | | | | | | | | | | | | | | | | |
| 67 | | | | | | | ABUTMENT #2 | | | | | | | | | | |
| 68 | | | | | | | | | | | | | | | | | |
| 69 | 12 | 4 | 21-5 | 2A401 | Str. | | | | | | | | | | | | |
| 70* | 41 | | 5-6 | 402 | | | | | | | | | | | | | |
| 71 | 20 | | 19-6 | 404 | | | | | | | | | | | | | |
| 72 | 12 | | 3-6 | 405 | | | | | | | | | | | | | |
| 73 | 12 | | 4-6 | 406 | | | | | | | | | | | | | |
| 74 | 6 | | 8-6 | 407 | | | | | | | | | | | | | |
| 75 | 1 | | 3-6 | 408 | | | | | | | | | | | | | |
| 76 | | | To | Thru | | | Vary in 10" Increments. | | | | | | | | | | |
| 77 | 1 | | 7-8 | 413 | | | | | | | | | | | | | |
| 78 | 8 | | 9-8 | 414 | | | | | | | | | | | | | |
| 79 | 1 | | 3-6 | 415 | | | | | | | | | | | | | |
| 80 | | | To | Thru | | | Vary in 1'-8" Increments | | | | | | | | | | |
| 81 | 1 | 4 | 8-6 | 2A418 | Str. | | | | | | | | | | | | |

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | ABUT. #2 Cont. | | | | | | | | | | |
| 82 | 12 | 4 | 5-3 | 2A421 | 17 | | 1-9 | 1-9 | 1-9 | | | | | | | | |
| 83 | 12 | 4 | 6-8 | 2A422 | 12 | 6 | 2-2 | 9 | 3-3 | | | | 2-2 | | 1-9 | | |
| 84 | 2 | 4 | 10-6 | 2A423 | 14 | / | 2-0 | 6-6 | 2-0 | / | | | 1-3 | | | | |
| 85 | 2 | 4 | 11-0 | 2A424 | 14 | / | 2-0 | 7-0 | 2-0 | / | | | 1-6 | | | | |
| 86 | | | | | | | | | | | | | | | | | |
| 87 | | | | | | | | | | | | | | | | | |
| 88 | 4 | 5 | 10-6 | 2A501 | Str. | | | | | | | | | | | | |
| 89 | 1 | | 5-6 | 502 | | | | | | | | | | | | | |
| 90 | | | To | Thru | | | Vary in 1'-2" Increments | | | | | | | | | | |
| 91 | 1 | | 10-2 | 506 | | | | | | | | | | | | | |
| 92 | 6 | | 8-6 | 507 | | | | | | | | | | | | | |
| 93 | 1 | | 3-6 | 508 | | | | | | | | | | | | | |
| 94 | | | To | Thru | | | Vary in 10" Increments | | | | | | | | | | |
| 95 | 1 | | 7-8 | 513 | | | | | | | | | | | | | |
| 96 | 5 | | 11-0 | 514 | | | | | | | | | | | | | |
| 97 | 1 | | 6-11 | 515 | | | | | | | | | | | | | |
| 98 | | | To | Thru | | | Vary in 8" Increments | | | | | | | | | | |
| 99 | 1 | | 10-3 | 520 | | | | | | | | | | | | | |
| 100* | 1 | 5 | 4-0 | 2A522 | Str. | | | | | | | | | | | | |
| 101 | | | | | | | | | | | | | | | | | |
| 102 | 6 | 5 | 5-10 | 2A521 | 17 | | 3-10 | 2-0 | / | | | | | | | | |
| 103 | | | | | | | | | | | | | | | | | |
| 104 | | | | | | | | | | | | | | | | | |
| 105* | 41 | 6 | 5-6 | 2A601 | Str. | | | | | | | | | | | | |
| 106 | 4 | | 10-6 | 605 | | | | | | | | | | | | | |
| 107 | 1 | | 5-6 | 606 | | | | | | | | | | | | | |
| 108 | | | To | Thru | | | Vary in 1'-2" Increments | | | | | | | | | | |
| 109 | 1 | | 10-2 | 610 | | | | | | | | | | | | | |
| 110 | 8 | | 9-8 | 611 | | | | | | | | | | | | | |
| 111 | 1 | | 3-6 | 612 | | | | | | | | | | | | | |
| 112 | | | To | Thru | | | Vary in 1'-8" Increments | | | | | | | | | | |
| 113 | 1 | | 8-6 | 615 | | | | | | | | | | | | | |
| 114 | 5 | | 11-0 | 616 | | | | | | | | | | | | | |
| 115 | 1 | | 6-11 | 617 | | | | | | | | | | | | | |
| 116 | | | To | Thru | | | Vary in 8" Increments | | | | | | | | | | |
| 117 | 1 | 6 | 10-3 | 2A622 | Str. | | | | | | | | | | | | |
| 118 | | | | | | | | | | | | | | | | | |
| 119 | 17 | 6 | 6-3 | 2A603 | 17 | | 5-3 | 1-0 | / | | | | | | | | |
| 120 | 18 | 6 | 7-3 | 2A604 | 17 | | 6-3 | 1-0 | / | | | | | | | | |
| 121 | 5 | 6 | 12-0 | 2A629 | 14 | / | 2-0 | 8-0 | 2-0 | / | | | 11 | | | | |
| 122 | 4 | 6 | 8-0 | 2A630 | 14 | / | 2-0 | 4-0 | 2-0 | / | | | 1-9 | | | | |
| 123 | 8 | 6 | 6-3 | 2A631 | 17 | | 4-3 | 2-0 | / | | | | | | | | |
| 124 | | | | | | | | | | | | | | | | | |
| 125 | | | | | | | | | | | | | | | | | |
| 126 | 12 | 7 | 21-5 | 2A701 | Str. | | | | | | | | | | | | |
| 127* | 1 | 7 | 4-0 | 2A702 | Str. | | | | | | | | | | | | |
| 128 | | | | | | | | | | | | | | | | | |
| 129 | | | | | | | | | | | | | | | | | |
| 130 | | | | | | | PIER #1 | | | | | | | | | | |
| 131 | | | | | | | | | | | | | | | | | |
| 132 | 42 | 4 | 9-6 | 1P401 | Str. | | | | | | | | | | | | |
| 133 | 6 | 4 | 17-2 | 1P402 | Str. | | | | | | | | | | | | |
| 134 | 6 | 4 | 30-0 | 1P403 | Str. | | | | | | | | | | | | |
| 135* | 11 | 4 | 9-3 | 1P404 | Str. | | Bend in Field | | | | | | | | | | |
| 136 | | | | | | | | | | | | | | | | | |
| 137 | 22 | 4 | 15-6 | 1P405 | T1 | 5 | 3-8 | 3-8 | 3-8 | 3-8 | | 5 | | | | | |
| 138 | | | | | | | | | | | | | | | | | |
| 139 | | | | | | | | | | | | | | | | | |
| 140 | | | | | | Core Dia. | Pitch | Turns | No. Spacers | | | | | | | | |
| 141 | 1 | 4 | 19-10 | 1P410 | Spiral | 32" | 2¾" | 87 | 4 | | | | | | | | |
| 142 | 1 | 4 | 19-1 | 1P411 | Spiral | 32" | 2¾" | 84 | 4 | | | | | | | | |
| 143 | 1 | 4 | 18-5 | 1P412 | Spiral | 32" | 2¾" | 81 | 4 | | | | | | | | |
| 144 | | | | | | | | | | | | | | | | | |
| 145 | | | | | | | | | | | | | | | | | |
| 146 | 60 | 9 | 9-6 | 1P901 | Str. | | | | | | | | | | | | |
| 147 | 10 | 9 | 23-1 | 1P903 | Str. | | | | | | | | | | | | |
| 148 | 10 | 9 | 22-4 | 1P904 | Str. | | | | | | | | | | | | |
| 149 | 10 | 9 | 21-8 | 1P905 | Str. | | | | | | | | | | | | |
| 150* | 1 | 9 | 4-0 | 1P906 | Str. | | | | | | | | | | | | |
| 151 | | | | | | | | | | | | | | | | | |
| 152 | 30 | 9 | 8-5 | 1P902 | 17 | | 5-11 | 2-6 | / | | | | | | | | |
| 153 | | | | | | | | | | | | | | | | | |
| 154 | | | | | | | | | | | | | | | | | |
| 155 | 6 | 10 | 30-6 | 1P1003 | Str. | | | | | | | | | | | | |
| 156 | 6 | 10 | 21-10 | 1P1004 | Str. | | | | | | | | | | | | |
| 157* | 1 | 10 | 4-0 | 1P1005 | Str. | | | | | | | | | | | | |
| 158 | | | | | | | | | | | | | | | | | |
| 159 | 6 | 10 | 33-5 | 1P1001 | 1 | 1-5 | 32-0 | | | | | | | | | | |
| 160 | 6 | 10 | 21-9 | 1P1002 | 1 | 1-5 | 20-4 | | | | | | | | | | |
| 161 | | | | | | | | | | | | | | | | | |
| 162 | | | | | | | | | | | | | | | | | |

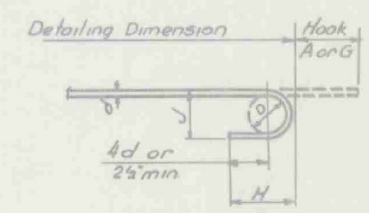
## TYPICAL BAR BENDS



### NOTES

1. All dimensions are out to out of bar
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used
3. Where 'J' is not shown, 'J' will be kept equal to or less than 'H'. Where 'J' can exceed 'H', it should be shown.
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances bending dimensions which require closer working should have limits indicated
6. Figures in circles show types
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 163 | | | | | | | | PIER #2 | | | | | | | | | |
| 164 | 42 | 4 | 9-6 | 2P401 | Str | | | | | | | | | | | | |
| 165 | 6 | 4 | 12-2 | 2P402 | Str | | | | | | | | | | | | |
| 166 | 6 | 4 | 30-0 | 2P403 | Str | | | | | | | | | | | | |
| 167* | 11 | 4 | 9-3 | 2P404 | Str | | Bend in Field | | | | | | | | | | |
| 168 | | | | | | | | | | | | | | | | | |
| 169 | 20 | 4 | 15-6 | 2P405 | T1 | 5 | 3-8 | 3-8 | 3-8 | 3-8 | | 5 | | | | | |
| 170 | | | | | | | | | | | | | | | | | |
| 171 | | | | | | Core Dia. | Pitch | Turns | No. Spacers | | | | | | | | |
| 172 | 1 | 4 | 20-0 | 2P410 | Spiral | 32" | 2¾" | 88 | 4 | | | | | | | | |
| 173 | 1 | 4 | 19-5 | 2P411 | Spiral | 32" | 2¾" | 85 | 4 | | | | | | | | |
| 174 | 1 | 4 | 18-10 | 2P412 | Spiral | 32" | 2¾" | 83 | 4 | | | | | | | | |
| 175 | | | | | | | | | | | | | | | | | |
| 176 | | | | | | | | | | | | | | | | | |
| 177 | 60 | 9 | 9-6 | 2P901 | Str | | | | | | | | | | | | |
| 178 | 10 | 9 | 23-3 | 2P903 | Str | | | | | | | | | | | | |
| 179 | 10 | 9 | 22-8 | 2P904 | Str | | | | | | | | | | | | |
| 180 | 10 | 9 | 22-1 | 2P905 | Str | | | | | | | | | | | | |
| 181 | 6 | 9 | 27-6 | 2P908 | Str | | | | | | | | | | | | |
| 182 | 6 | 9 | 18-8 | 2P909 | Str | | | | | | | | | | | | |
| 183* | 1 | 9 | 4-0 | 2P910 | Str | | | | | | | | | | | | |
| 184 | | | | | | | | | | | | | | | | | |
| 185 | 30 | 9 | 8-5 | 2P902 | 17 | 5-11 | 2-6 | / | | | | | | | | | |
| 186 | 6 | 9 | 31-3 | 2P906 | 1 | 1-3 | 30-0 | / | | | | | | | | | |
| 187 | 6 | 9 | 17-5 | 2P909 | 1 | 1-3 | 16-2 | / | | | | | | | | | |
| 188 | | | | | | | | | | | | | | | | | |
| 189 | | | | | | | | | | | | | | | | | |
| 190 | | | | | | | | | | | | | | | | | |




STANDARD HOOK DETAIL

### BAR SIZES

| Equivalent Size | Present Number | Weight per ft. |
|---|---|---|
| ¼"φ | 2 | .167 |
| ⅜"φ | 3 | .376 |
| ½"φ | 4 | .668 |
| ⅝"φ | 5 | 1.043 |
| ¾"φ | 6 | 1.502 |
| ⅞"φ | 7 | 2.044 |
| 1"φ | 8 | 2.670 |
| 1"φ | 9 | 3.400 |
| 1⅛"φ | 10 | 4.303 |
| 1¼"φ | 11 | 5.313 |
| 1½"φ | 14S | 7.650 |
| 2"φ | 18S | 13.600 |

### GENERAL NOTES

(1) Unless otherwise designated all standard reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M31-60 or its latest revision.

(2) Unless otherwise designated all special large size reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Special Large size Deformed Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M-174-60 or its latest revision.

(3) * Denotes one extra bar added for testing purposes.

(4) Stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six times the minimum

(4) (continued) thickness except for bars larger than 1 inch, in which case the bends shall be made around a pin of eight bar diameters.

### ESTIMATED QUANTITIES

| LOCATION | PLAN (LBS) | FINAL (LBS) |
|---|---|---|
| ABUT #1 | 4980 | |
| ABUT #2 | 3100 | |
| PIER #1 | 10,230 | |
| PIER #2 | 9380 | |
| TOTAL | 27,690 | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF ST. ALBANS-SWANTON
REINFORCING STEEL DETAILS
TH 15 & 25 over I89

DRAWN BY CRO. CHECKED BY R.J.C.
PROJECT NO. I89-3(36)Cont.#1
SHEET 84 OF 298

BR-209

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | PIER #3 | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | |
| 2 | 42 | 4 | 9-6 | 3P401 | Str. | | | | | | | | | | | | |
| 3 | 6 | 4 | 15-2 | 3P402 | Str. | | | | | | | | | | | | |
| 4 | 6 | 4 | 25-2 | 3P403 | Str. | | | | | | | | | | | | |
| 5* | 11 | 4 | 9-3 | 3P404 | Str. | | Bend in Field | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | |
| 7 | 19 | 4 | 15-6 | 3P405 | T1 | 5 | 3-8 | 3-8 | 3-8 | 3-8 | | 5 | | | | | |
| 8 | | | | | | | | | | | | | | | | | |
| 9 | | | | | Spiral | Core Dia. | Pitch | Turns | No. Spaces | | | | | | | | |
| 10 | 1 | 4 | 19-11 | 3P410 | Spiral | 32" | 2¾" | 87 | 4 | | | | | | | | |
| 11 | 1 | 4 | 19-4 | 3P411 | Spiral | 32" | 2¾" | 85 | 4 | | | | | | | | |
| 12 | 1 | 4 | 18-9 | 3P412 | Spiral | 32" | 2¾" | 82 | 4 | | | | | | | | |
| 13 | | | | | | | | | | | | | | | | | |
| 14 | | | | | | | | | | | | | | | | | |
| 15 | 60 | 9 | 9-6 | 3P901 | Str. | | | | | | | | | | | | |
| 16 | 10 | 9 | 23-2 | 3P903 | Str. | | | | | | | | | | | | |
| 17 | 10 | 9 | 22-7 | 3P904 | Str. | | | | | | | | | | | | |
| 18 | 10 | 9 | 22-0 | 3P905 | Str. | | | | | | | | | | | | |
| 19 | 5 | 9 | 26-6 | 3P908 | Str. | | | | | | | | | | | | |
| 20 | 5 | 9 | 17-8 | 3P909 | Str. | | | | | | | | | | | | |
| 21* | 1 | 9 | 4-0 | 3P910 | Str. | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | |
| 23 | 30 | 9 | 8-5 | 3P902 | 17 | | 5-11 | 2-6 | | | | | | | | | |
| 24 | 5 | 9 | 28-3 | 3P906 | 1 | | 1-3 | 27.0 | | | | | | | | | |
| 25 | 5 | 9 | 18-5 | 3P907 | 1 | | 1-3 | 17-2 | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | |
| 27 | | | | | | | | | | | | | | | | | |
| 28 | | | | | | | PIER #4 | | | | | | | | | | |
| 29 | 42 | 4 | 9-6 | 4P401 | Str. | | | | | | | | | | | | |
| 30 | 6 | 4 | 13-3 | 4P402 | Str. | | | | | | | | | | | | |
| 31 | 6 | 4 | 24-0 | 4P403 | Str. | | | | | | | | | | | | |
| 32* | 11 | 4 | 9-3 | 4P404 | Str. | | Bend in Field | | | | | | | | | | |
| 33 | | | | | | | | | | | | | | | | | |
| 34 | 19 | 4 | 15-6 | 4P405 | T1 | 5 | 3-8 | 3-8 | 3-8 | 3-8 | | 5 | | | | | |
| 35 | | | | | | | | | | | | | | | | | |
| 36 | | | | | Spiral | Core Dia. | Pitch | Turns | No. Spaces | | | | | | | | |
| 37 | 1 | 4 | 20-7 | 4P410 | Spiral | 32" | 2¾" | 90 | 4 | | | | | | | | |
| 38 | 1 | 4 | 20-0 | 4P411 | Spiral | 32" | 2¾" | 88 | 4 | | | | | | | | |
| 39 | 1 | 4 | 19-5 | 4P412 | Spiral | 32" | 2¾" | 86 | 4 | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | |
| 41 | | | | | | | | | | | | | | | | | |
| 42 | 60 | 9 | 9-6 | 4P901 | Str. | | | | | | | | | | | | |
| 43 | 10 | 9 | 23-10 | 4P903 | Str. | | | | | | | | | | | | |
| 44 | 10 | 9 | 23-3 | 4P904 | Str. | | | | | | | | | | | | |
| 45 | 10 | 9 | 22-8 | 4P905 | Str. | | | | | | | | | | | | |
| 46 | 5 | 9 | 24-8 | 4P908 | Str. | | | | | | | | | | | | |
| 47 | 5 | 9 | 15-6 | 4P909 | Str. | | | | | | | | | | | | |
| 48* | 1 | 9 | 4-0 | 4P910 | Str. | | | | | | | | | | | | |
| 49 | | | | | | | | | | | | | | | | | |
| 50 | 30 | 9 | 8-5 | 4P902 | 17 | | 5-11 | 2-6 | | | | | | | | | |
| 51 | 6 | 9 | 26-7 | 4P906 | 1 | | 1-3 | 25.4 | | | | | | | | | |
| 52 | 6 | 9 | 16-3 | 4P907 | 1 | | 1-3 | 15-0 | | | | | | | | | |
| 53 | | | | | | | | | | | | | | | | | |
| 54 | | | | | | | | | | | | | | | | | |
| 55 | | | | | | | | | | | | | | | | | |
| 56 | | | | | | | SUPERSTRUCTURE | | | | | | | | | | |
| 57 | | | | | | | | | | | | | | | | | |
| 58 | | | | | | | SPAN #1 | | | | | | | | | | |
| 59 | 108 | 4 | 5-3 | 154 | S3 | 5 | 1-4½ | 1-8 | 1-4½ | | | 5 | 3 | | | | |
| 60 | 51 | 4 | 7-10 | 156A | S5 | 5 | 3-2 | 8 | 8-2 | | | 5 | | | | | |
| 61 | | | | | | | | | | | | | | | | | |
| 62 | | | | | | | | | | | | | | | | | |
| 63 | 316 | 5 | 29-0 | 151 | Str. | | | | | | | | | | | | |
| 64 | 177 | 5 | 27-6 | 152 | Str. | | | | | | | | | | | | |
| 65 | 12 | 5 | 27-2 | 155A | Str. | | | | | | | | | | | | |
| 66 | 6 | 5 | 20-4 | 155B | Str. | | | | | | | | | | | | |
| 67 | | | | | | | | | | | | | | | | | |
| 68 | 22 | 5 | 4-2 | 156P | 17 | | 2-6 | 8 | 1-0 | | | | | | | | |
| 69 | | | | | | | | | | | | | | | | | |
| 70 | | | | | | | | | | | | | | | | | |
| 71 | 24 | 6 | 28-0 | 153 | Str. | | | | | | | | | | | | |
| 72 | | | | | | | | | | | | | | | | | |
| 73 | | | | | | | | | | | | | | | | | |
| 74 | | | | | | | | | | | | | | | | | |
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| 80 | | | | | | | | | | | | | | | | | |
| 81 | | | | | | | | | | | | | | | | | |

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 82 | 128 | 4 | 5-3 | 254 | S3 | 5 | 1-4½ | 1-8 | 1-4½ | | | 5 | 3 | | | | |
| 83 | | | | | | | | | | | | | | | | | |
| 84 | | | | | | | | | | | | | | | | | |
| 85 | 376 | 5 | 29-0 | 251 | Str. | | | | | | | | | | | | |
| 86 | 177 | 5 | 32-6 | 252 | Str. | | | | | | | | | | | | |
| 87 | 6 | 5 | 20-5 | 255P1 | Str. | | | | | | | | | | | | |
| 88 | 6 | 5 | 18-3 | 255P2 | Str. | | | | | | | | | | | | |
| 89 | | | | | | | | | | | | | | | | | |
| 90 | 44 | 5 | 4-2 | 256P | 17 | | 2-6 | 8 | 1-0 | | | | | | | | |
| 91 | | | | | | | | | | | | | | | | | |
| 92 | | | | | | | | | | | | | | | | | |
| 93 | 24 | 6 | 33-0 | 253 | Str. | | | | | | | | | | | | |
| 94 | | | | | | | | | | | | | | | | | |
| 95 | | | | | | | | | | | | | | | | | |
| 96 | | | | | | | | | | | | | | | | | |
| 97 | | | | | | | SPAN #3 | | | | | | | | | | |
| 98 | 54 | 4 | 5-3 | 354 | S3 | 5 | 1-4½ | 1-8 | 1-4½ | | | 5 | 3 | | | | |
| 99 | | | | | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | | | |
| 101 | 156 | 5 | 29-0 | 351 | Str. | | | | | | | | | | | | |
| 102 | 118 | 5 | 20-3 | 352 | Str. | | | | | | | | | | | | |
| 103 | 6 | 5 | 18-3 | 355P2 | Str. | | | | | | | | | | | | |
| 104 | 3 | 5 | 32-11 | 355P3 | Str. | | | | | | | | | | | | |
| 105 | | | | | | | | | | | | | | | | | |
| 106 | 44 | 5 | 4-2 | 356P | 17 | | 2-6 | 8 | 1-0 | | | | | | | | |
| 107 | | | | | | | | | | | | | | | | | |
| 108 | | | | | | | | | | | | | | | | | |
| 109 | 16 | 6 | 20-6 | 353 | Str. | | | | | | | | | | | | |
| 110 | | | | | | | | | | | | | | | | | |
| 111 | | | | | | | | | | | | | | | | | |
| 112 | | | | | | | SPAN #4 | | | | | | | | | | |
| 113 | 120 | 4 | 5-3 | 454 | S3 | 5 | 1-4½ | 1-8 | 1-4½ | | | 5 | 3 | | | | |
| 114 | | | | | | | | | | | | | | | | | |
| 115 | | | | | | | | | | | | | | | | | |
| 116 | 356 | 5 | 29-0 | 451 | Str. | | | | | | | | | | | | |
| 117 | 177 | 5 | 31-0 | 452 | Str. | | | | | | | | | | | | |
| 118 | 3 | 5 | 32-10 | 455P3 | Str. | | | | | | | | | | | | |
| 119 | 3 | 5 | 30-2 | 455P4 | Str. | | | | | | | | | | | | |
| 120 | | | | | | | | | | | | | | | | | |
| 121 | 44 | 5 | 4-2 | 456P | 17 | | 2-6 | 8 | 1-0 | | | | | | | | |
| 122 | | | | | | | | | | | | | | | | | |
| 123 | | | | | | | | | | | | | | | | | |
| 124 | 24 | 6 | 31-3 | 453 | Str. | | | | | | | | | | | | |
| 125 | | | | | | | | | | | | | | | | | |
| 126 | | | | | | | | | | | | | | | | | |
| 127 | | | | | | | SPAN #5 | | | | | | | | | | |
| 128* | 1 | 4 | 4-0 | 554A | Str. | | | | | | | | | | | | |
| 129 | | | | | | | | | | | | | | | | | |
| 130 | 80 | 4 | 5-3 | 554 | S3 | 5 | 1-4½ | 1-8 | 1-4½ | | | 5 | 3 | | | | |
| 131 | 34 | 4 | 6-8 | 556A | S5 | 5 | 2-7 | 8 | 2-7 | | | 5 | | | | | |
| 132 | | | | | | | | | | | | | | | | | |
| 133 | | | | | | | | | | | | | | | | | |
| 134* | 1 | 5 | 4-0 | 555D1 | Str. | | | | | | | | | | | | |
| 135 | 236 | 5 | 29-0 | 551 | Str. | | | | | | | | | | | | |
| 136 | 118 | 5 | 30-3 | 552 | Str. | | | | | | | | | | | | |
| 137 | 3 | 5 | 29-6 | 555P4 | Str. | | | | | | | | | | | | |
| 138 | 6 | 5 | 33-6 | 555A | Str. | | | | | | | | | | | | |
| 139 | | | | | | | | | | | | | | | | | |
| 140 | 22 | 5 | 4-2 | 556P | 17 | | 2-6 | 8 | 1-0 | | | | | | | | |
| 141 | | | | | | | | | | | | | | | | | |
| 142 | | | | | | | | | | | | | | | | | |
| 143* | 1 | 6 | 4-0 | 5560 | Str. | | | | | | | | | | | | |
| 144 | 16 | 6 | 30-6 | 553 | Str. | | | | | | | | | | | | |
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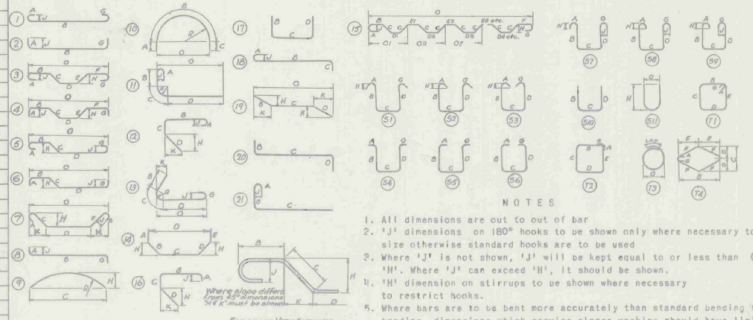
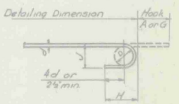
| 191 | | | | | | | | | | | | | | | | | |

## TYPICAL BAR BENDS




NOTES

1. All dimensions are out to out of bar
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used
3. Where 'J' is not shown, 'J' will be kept equal to or less than 'H'. Where 'J' can exceed 'H', it should be shown.
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances bending dimensions which require closer working should have limits indicated
6. Figures in circles show types
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.




STANDARD HOOK DETAIL

BAR SIZES

| Equivalent Size | Present Number | Weight per ft |
|---|---|---|
| ⅜" | 3 | .376 |
| ½" | 4 | .668 |
| ⅝" | 5 | 1.043 |
| ¾" | 6 | 1.502 |
| ⅞" | 7 | 2.044 |
| 1"ϕ | 8 | 2.670 |
| 1⅛" | 9 | 3.400 |
| 1¼" | 10 | 4.303 |
| 1⅜" | 11 | 5.313 |
| 1½" | 14.5 | 7.650 |
| 2" | 18.5 | 13.600 |

GENERAL NOTES

(1) Unless otherwise designated all standard reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Billet-Steel Bars for Concrete Reinforcement" (Intermediate Grade) AASHO Designation M31-60 or its latest revision.

(2) Unless otherwise designated all special large size reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Special Large size Deformed Billet-Steel Bars for Concrete Reinforcement" (Intermediate Grade) AASHO Designation M-174-60 or its latest revision.

(3) * Denotes one extra bar added for testing purposes.

(4) Stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six times the minimum thickness except for bars larger than 1 inch, in which case the bends shall be made around a pin of eight bar diameters.

ESTIMATED QUANTITIES

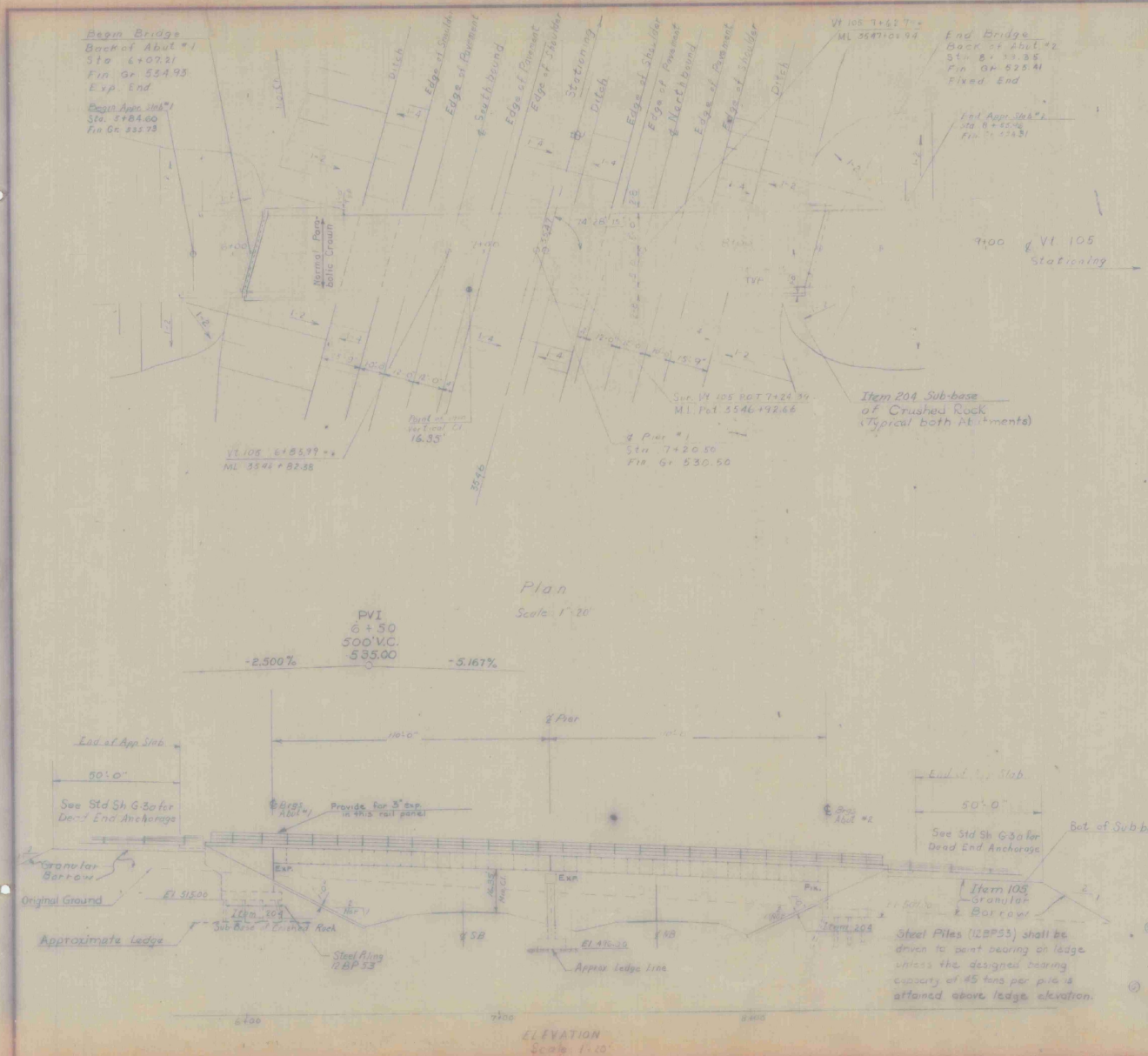
| LOCATION | PLAN (LBS) | FINAL (LBS) |
|---|---|---|
| PIER #3 | 8250 | |
| PIER #4 | 9080 | |
| SPAN #1 | 16,860 | |
| SPAN #2 | 15,260 | |
| SPAN #3 | 8310 | |
| SPAN #4 | 18,440 | |
| SPAN #5 | 12,450 | |
| TOTAL | 93,550 | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF ST. ALBANS - SWANTON
REINFORCING STEEL DETAILS
TH 15 & 25 over I89

DRAWN BY C.R.O. CHECKED BY R.J.C.
PROJECT NO. I89-3(36)X Cont'l
SHEET 85 OF 298

Be-210




## List of Bridge Sheets

BR-300 General Plan and Elevation
BR-301 Bridge Quantity Sheet
BR-302 Preliminary Information Sheet
BR-303 Boring Layout and Boring Logs
BR-304 Boring Logs
BR-305 Framing Plan and Girder Details
BR-306 Rail and Curb Lengths
BR-307 Typical Section and Bearing Devices
BR-308 Expansion Joint Assembly and Fixed End Curb Details
BR-309 Details of Abutment #1
BR-310 Details of Abutment #2
BR-311 Pier Details
BR-312 Details of Pier Reinforcing
BR-313 Details of Approach Slab #1
BR-314 Details of Approach Slab #2
BR-315 & BR-116 Reinforcing Steel Schedule.

## Bridge Standards

SCB-D1-65, SCB-D6-65 (Details A, B & F) Details of WF Beam Bridges.
SB-R1-64 Sheets 1+2, SB-R2-65 Details of Bridge Railing.
G-3a, Dead End Anchorage at Bridge Approachs.

## Reference Sheets

Interstate Plan (Scale: 1"=50'), ℄ Sta. 3540+00 to Sta. 3556+00 (1 Sheet).
Profile of Interstate, ℄ Sta. 3540+00 to Sta. 3556+00 (1 Sheet).
Profile of Vt. 105, Sta. 2+00 to Sta. 18+00 and Typical Section Vt. 105. (1 Sheet)
Interstate Cross Sections, Sta. 3544+50 to Sta. 3549+00 (2 Sheets).
Vt. 105 Cross Sections Sta. 5+00 to Sta. 9+50 (5 Sheets)

## Notes

① For General Notes see Std. Dwg. SCB-D1-65.

② The Superstructure is of Continuous Plate Girder Design for a 30-ft. Roadway.

③ Item 440 Water Repellent shall consist of furnishing and applying water repellent on exterior concrete surfaces on top of the safety walks, on the fascia and back to the drip bead under the slab, on the sides, ends and bottoms of Pier Cap, and on the exposed areas of Abutments not otherwise treated.

④ Item 502, Preparing Subsurface for Driving Piling shall be used at Abut. #1 if called for by the Engineer in order to drive the steel piles (12BP53) a minimum in-place length of 11'-0".

⑤ For details of conduit in curb see sheet BR-306.

⑥ Item 505, Pile Loading Tests shall be used only when ordered in writing by the Engineer.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT NAME St. Albans-Swanton
TOWN OF St. Albans
ROUTE No. I 89
Vt. #105 over I 89 @ ℄ Sta 3546+92.66
General Plan and Elevation
SCALE As noted
DRAWN BY V.F. CHECKED BY R.P.G.
PROJECT No. I 89-3(36) Cont #1
53-B3 SHEET 86 OF 298
BR-300

## EARTHWORK

| P.C. | P.I. | STATION | GRADES ELEVATION ON TAN. | GRADES ELEVATION ON V.C. | CORR. V.C. | DIST. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. | AREA | CU. YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |

# BRIDGE QUANTITY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

| | NO. | ITEM | UNIT | QUANTITY BREAKDOWN Abut.#1 | Abut.#2 | Pier | Super-Structure | Approach Slab #1 | Approach Slab #2 | NET | OVER-RUN | TOTAL | FINAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 105 | Granular Borrow (Front of Back of Abut) | C.Y. | | 80 | | | | | | | 80 | 18 |
| | 109 | Structure Excavation | C.Y. | 170 | 140 | 130 | | | | | | 440 | 489 |
| | 204 | Sub-base of Crushed Rock | C.Y. | 56 | 42 | | | | | | | 98 | 92 |
| | 221 | Overhaul | C.Y./M. | | | | | | | | | 2784 | 0 |
| | 222-B | Gravel Backfill for Structures | C.Y. | 92 | 140 | | | | | | | 232 | 227 |
| * | 318 | Tar Emulsion for Bridge Floors | Gal. | | | | 297 | 33 | 33 | | | 363 | |
| * | 361-B | Bituminuous Concrete Pavement (Dense Graded Bottom and Top Course) | Ton | | | | 68 | 8 | 8 | | | 84 | |
| * | 372-A | Joint Sealer - Hot Poured | L.F. | | | | | | 31 | | | 31 | 0 |
| | 372-C | Joint Sealer - Preformed, Type A | L.F. | | | | | | 48 | | | 48 | 41 |
| | 401-AA | Concrete Class AA | C.Y. | | | 35 | 230 | | | | | 265 | 202 |
| | 401-B | Concrete Class B | C.Y. | 181 | 172 | 38 | | 28 | 28 | | | 447 | 465 |
| | 402 | Reinforcing Steel | Lb. | 19,800 | 19,500 | 9,420 | 55,720 | 3980 | 3960 | | | 112,380 | 118,373 |
| (W.P.G.) | 404-A | Structural Steel @ Sta. 3546+92.66 | Lb. | | | | 267,880 | | | | | 267,880 | 271,202 |
| | 407 | Asphaltic Asbestos Coating | S.Y. | 11 | 9 | 18 | | | | | | 38 | 35 |
| | 410 | Paint Waterproofing | S.Y. | 22 | 22 | | | | | | | 44 | 33 |
| | 440 | Water Repellent | Gal. | 13 | 10 | 5'2 | 25½ | | | | | 54 | 32 |
| | 501 | Furnishing Equipment for Driving Piling | L.S. | | | | | | | | | ¼ | ¼ |
| | 502 | Preparing Sub-Surface for Driving Piling | L.S. | 1 | | | | | | | | 1 | 1 |
| | 503-C | Steel Piling (12BP53) | L.F. | 320 | | | | | | | | 320 | 247 |
| | 503-C | Steel Piling Cut-offs @ 58% Unit Price | L.F. | | | | | | | | | | 70 |
| | 504 | Splices for Steel Piling | Ea. | 4 | | | | | | | | 4 | 0 |
| | 505 | Pile Loading Tests | Ea. | 1 | | | | | | | | 1 | 0 |
| | 556-C | Granite Bridge Curb | L.F. | 54 | 44 | | 444 | | | | | 542 | 533 |
| | 572 | Bridge Railing (Std. 3-Rail) | L.F. | | | | 542 | | | | | 542 | 542 |

Revised: 9/15/66 R.A.O.
Item 404-A changed from 267,600 # to 267,880 #

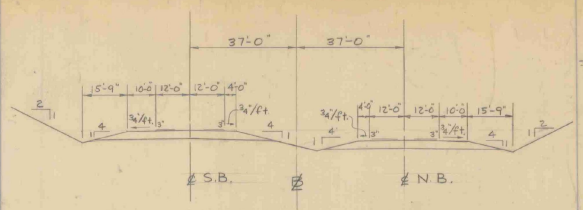
Revised 7/18/66 R.A.O.
Items 109, 221, 222-B, 401-B 402, 503-C 504 & 505 changed for Abutment No 2 and total quantities for these items revised.

* Indicates Items to be included in Roadway Quantities.

Prepared by: R.P.G.
Checked by: J.J.C.

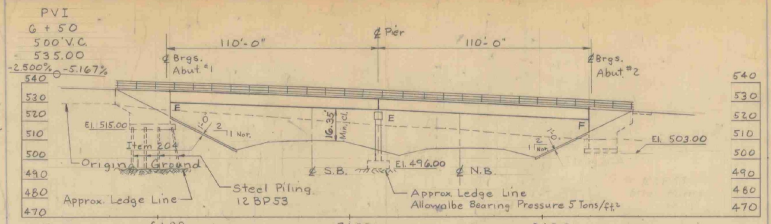
BRIDGE(S) AT STATION(S) ℄ 3546+92.66
LOCATION(S) Vt. Route 105 over I89

St. Albans-Swanton PROJECT NO. I89-3(36) Cont.#1
BR 30 OF 316 SHEET NO. 87 OF 298




NEW HIGHWAY SECT. I89 @ STA. 3547+00

SCALE 1"= 20'




NEW HIGHWAY PROFILE ALONG FASCIA

SCALE 1"= 30'

HIGHWAY NO I 89 NAME OF HIGHWAY Interstate

STRUCTURE NO S3-83 COUNTY Franklin TOWN St. Albans

PROJECT NO I 89-3(36) Cont #1 LOCATION St. Albans - Swanton

Vt. 105 over I 89

## EXISTING STRUCTURE

1 RATED LOADING OF EXISTING STRUCTURE

2 TYPE OF EXISTING STRUCTURE

3 UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE

4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE COST OF REMOVAL

5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE

6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT

7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE WATERWAY TO ORDINARY H.W.

8 EXTREME HIGH WATER AT EXISTING STRUCTURE

9 SPAN OF EXISTING BRIDGE UPSTREAM WATERWAY TO EXTREME H.W.

SPAN OF EXISTING BRIDGE DOWNSTREAM WATERWAY TO EXTREME H.W.

10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS

11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE

12 IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED

13 ADDITIONAL WATERWAY AREA PROVIDED

## NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE 2 Span Continuous R. Girder 110' c. to c. brgs.

2 RECOMMENDED CLEAR SPAN OR SPANS 107'-107'

MEASURED PARALLEL TO ℄ NEW HIGHWAY

MEASURED AT RIGHT ANGLES TO ℄ STREAM

3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM, ANSWER YES OR NO

4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE

5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE SOURCE OF INFORMATION

6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE?

7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? IS ORDINARY RISE RAPID?

8 LOW WATER ELEVATION AT NEW STRUCTURE

9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE CHARACTER OF TERRAINE

10 IS STREAM EVER DRY?

11 VELOCITY OF STREAM AT HIGH WATER STAGE ESTIMATED DISCHARGE

12 AREA FULL OPENING AREA BELOW ORDINARY H.W.

13 CHARACTER OF SCOUR DRIFT ICE

14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE

15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION

16 ARE SIDEWALKS REQUIRED, IF SO ON WHAT SIDE No BOTH SIDES

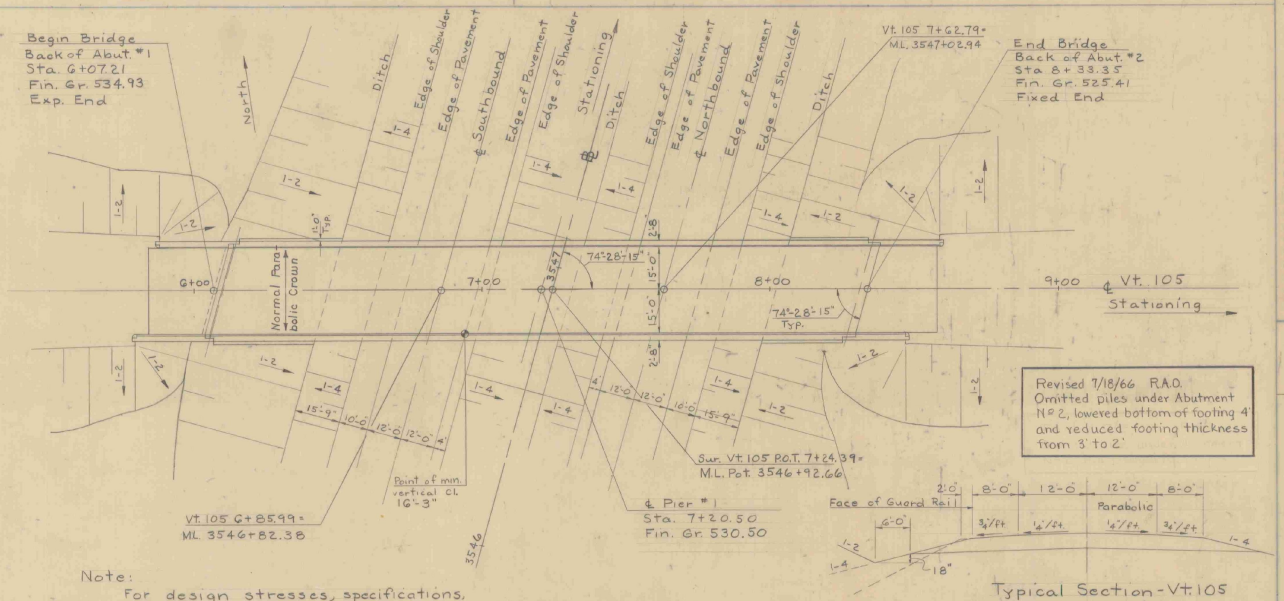
17 RECOMMENDED TYPE OF PAVEMENT 1 2" Bit. Conc.

18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. ONE OR TWO WAYS PROBABLE COST

19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE

20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES ?

21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS 45 Tons/Pile Steel PILES BE USED ? Yes EST. LGTH. 20'
5 Tons/Sq. ft. Ledge @ Abut #1 only




Revised 7/18/66 R.A.O.
Omitted piles under Abutment No 2, lowered bottom of footing 4" and reduced footing thickness from 3' to 2'

Note:
For design stresses, specifications, and loading see Std. Sh. SCB-D1-65.

PLAN

SCALE 1"= 20'

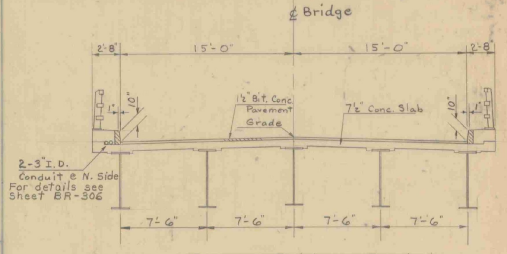



Typical Section - Vt. 105

Scale 1"= 10'

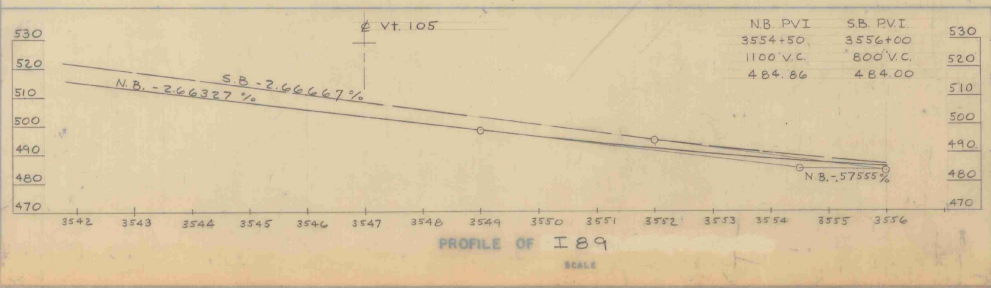
## FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.




Typical Bridge Section

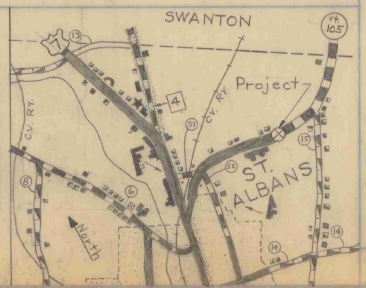
Scale 1"= 5'




PROFILE OF I 89

SCALE

| | N.B. P.V.I. | S.B. P.V.I. |
|---|---|---|
| | 3554+50. | 3556+00 |
| | 1100' V.C. | 800' V.C. |
| | 484.86 | 484.00 |




Recommended for Approval: Bridge Engineer — Lyn Byers — 3/4/65

Recommended for Approval: Asst. Chief Engineer — R.H. Cundel — 3/4/65

Approved by: Chief Engineer — A.O. Dufresne — 3/4/65

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Interstate IN THE TOWNS OF St. Albans - Swanton

ROUTE NO I 89 LOG STA Vt. 105 over I 89

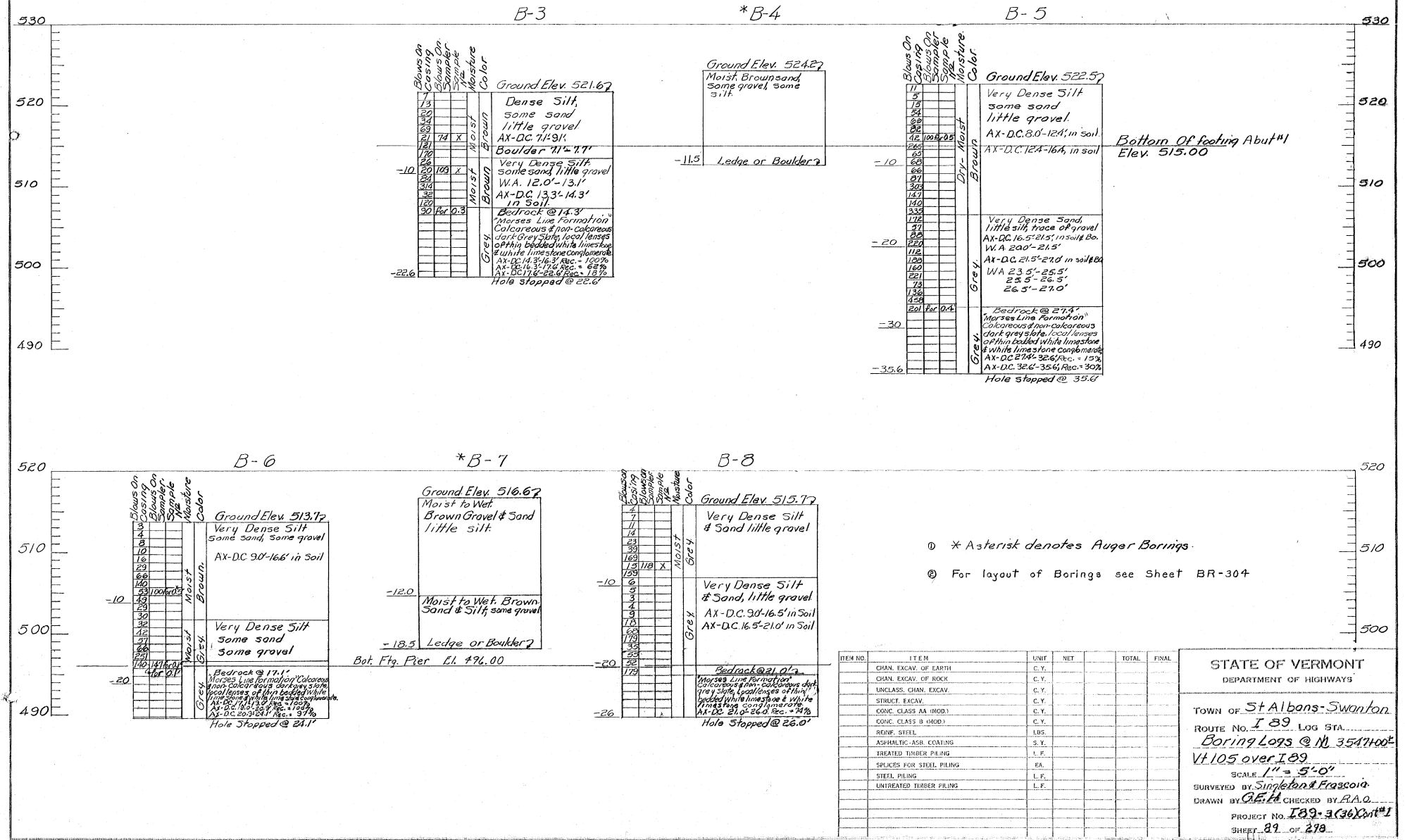
DRAWN BY A.J.C. | CHECKED BY Lhb | SCALE As Noted

TRACED BY | CHECKED BY RWB | DATE 7/6/64

PROJECT NO I89-3(36) | SHEET 88 OF 298

Cont. #1

BR-302-A




① * Asterisk denotes Auger Borings.

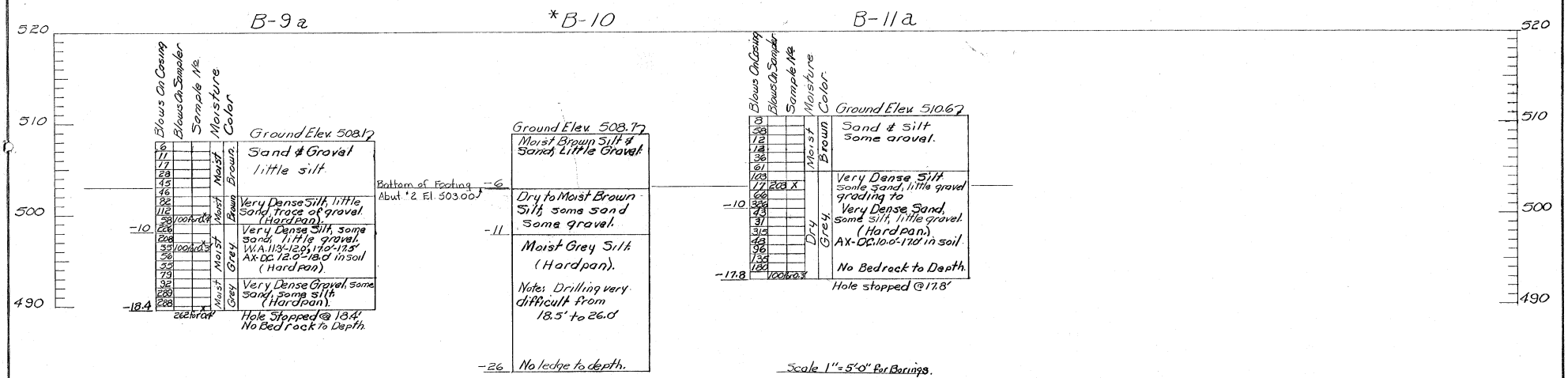
② For layout of Borings see Sheet BR-304

| ITEM NO. | ITEM | UNIT | NET | | TOTAL | FINAL |
|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | |
| | UNCLASS. CHAN. EXCAV. | C.Y. | | | | |
| | STRUCT. EXCAV. | C.Y. | | | | |
| | CONC. CLASS AA (MOD.) | C.Y. | | | | |
| | CONC. CLASS B (MOD.) | C.Y. | | | | |
| | REINF. STEEL | LBS. | | | | |
| | ASPHALTIC-ASB. COATING | S.Y. | | | | |
| | TREATED TIMBER PILING | L.F. | | | | |
| | SPLICES FOR STEEL PILING | EA. | | | | |
| | STEEL PILING | L.F. | | | | |
| | UNTREATED TIMBER PILING | L.F. | | | | |

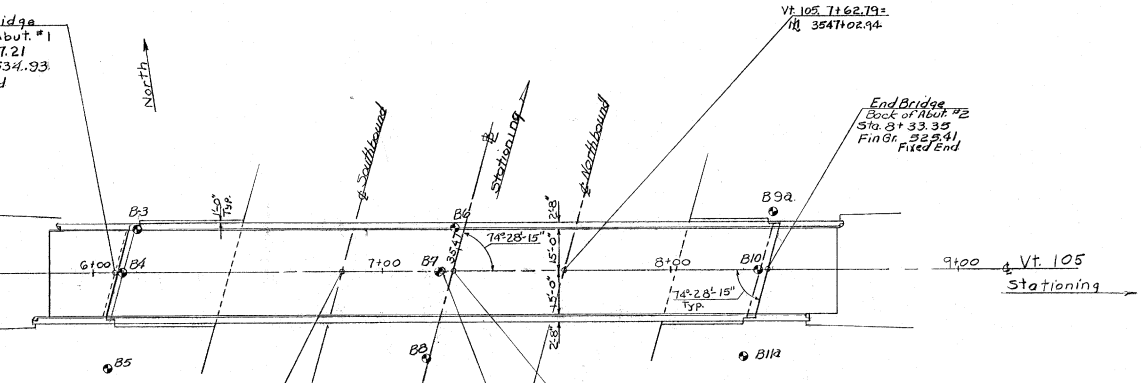
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St Albans-Swanton
ROUTE No. I 89 LOG STA.
Boring Logs @ N 3547+00±
Vt 105 over I 89
SCALE 1" = 5'-0"
SURVEYED BY Singleton & Prascoia
DRAWN BY G.E.H. CHECKED BY R.A.O.
PROJECT No. I 89-3(36)Cont #1
SHEET 89 OF 278

BR-303




Begin Bridge
Back of Abut. #1
Sta 6+07.21
Fin. Gr. 534.93
Exp. End




Vt. 105 7+62.79 =
℄ 3547+02.94

End Bridge
Back of Abut. #2
Sta. 8+33.35
Fin Gr. 529.41
Fixed End

| Station | Boring No. | Offset from ℄ | Type of Boring |
|---|---|---|---|
| 6+15 | B-3 | 15' Lt. | Casing |
| 6+10 | B-4 | ℄ | Auger |
| 6+05 | B-5 | 33' Rt. | Casing |
| 7+25 | B-6 | 15' Lt. | Casing |
| 7+20 | B-7 | ℄ | Auger |
| 7+15 | B-8 | 30' Rt. | Casing |
| 8+35 | B-9a | 20' Lt. | Casing |
| 8+30 | B-10 | ℄ | Auger |
| 8+25 | B-11a | 30' Rt. | Casing |

| | O.D. | I.D. | Hammer | Hammer Fall |
|---|---|---|---|---|
| Casing | 3" | 2 4/4" | 350# | 24" |
| Sampler | 2" | 1 3/8" | 140# | 30" |

*Borings marked with asterisk are Auger Borings.

Vt 105 6+85.99 =
℄ 3546+82.38

Sur. Vt 105 POT 7+24.39 =
ML Por. 3546+92.66

℄ Pier #1
Sta. 7+20.50
Fin. Gr. 530.50

3546

PLAN
Scale: 1"=20'

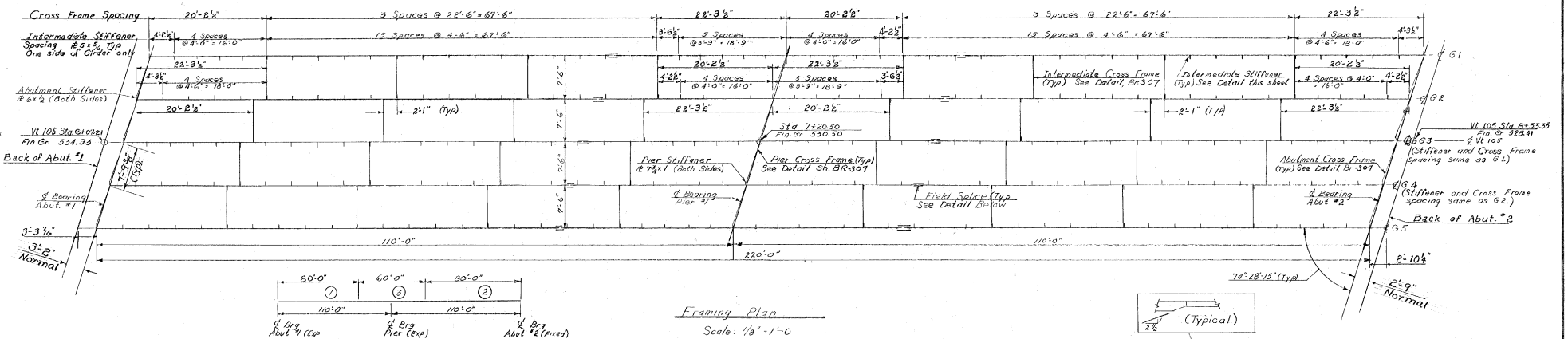
Revised 7/18/66 R.A.O.
Lowered Abutment #2
Bottom of footing elevation to 503.00.

| ITEM NO. | ITEM | UNIT | NET | | TOTAL | FINAL |
|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | |
| | UNCLASS. CHAN. EXCAV. | C.Y. | | | | |
| | STRUCT. EXCAV. | C.Y. | | | | |
| | CONC. CLASS AA (MOD.) | C.Y. | | | | |
| | CONC. CLASS B (MOD.) | C.Y. | | | | |
| | REINF. STEEL | LBS. | | | | |
| | ASPHALTIC-ASB. COATING | S.Y. | | | | |
| | TREATED TIMBER PILING | L.F. | | | | |
| | SPLICES FOR STEEL PILING | EA. | | | | |
| | STEEL PILING | L.F. | | | | |
| | UNTREATED TIMBER PILING | L.F. | | | | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans ~ Swanton
ROUTE NO. I 89 LOG STA.
Boring Logs & Layout @ ℄ 3547+00 Vt 105 over I 89
SCALE As Noted.
SURVEYED BY Singleton & Frascoia
DRAWN BY G.E.H. CHECKED BY R.A.O.
PROJECT NO. I 89-3(36) Cont #1
SHEET 90 OF 298

BR-304-A

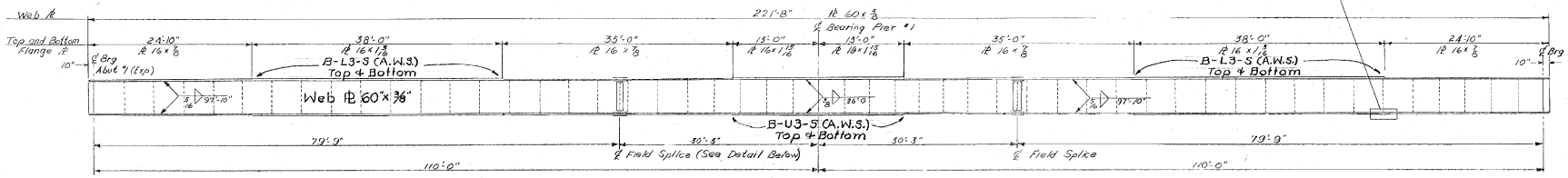



Framing Plan
Scale: 1/8" = 1'-0

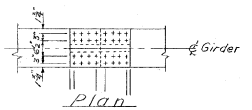



Slab Pour Sequence
N. T. S.

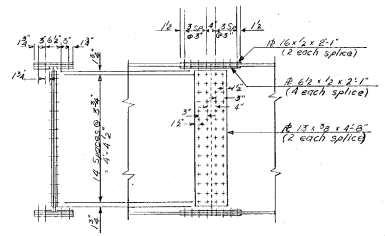



Elevation - G5
Scale: 1/8" = 1'-0"

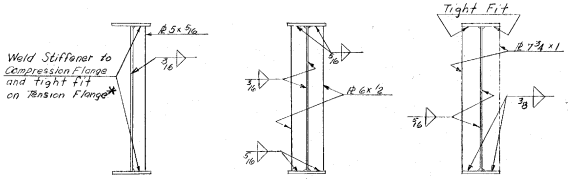



Plan




Section Elevation

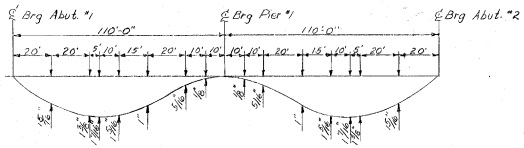
Field Splice Detail
Scale: 1/2" = 1'-0"



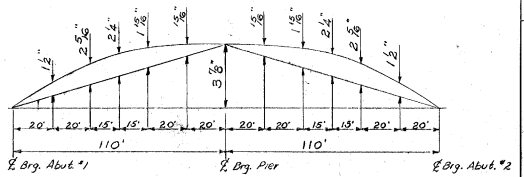

Note: Clip 1" x 1" on inside corners of all stiffeners.

Stiffener Details
Scale: 1/2" = 1'-0"

* Top Flange is in tension between Field Splices. Bottom Flange is in tension between Field Splices and Abutments.




Dead Load Deflection Diagram
(Includes Girder & Slab)
N. T. S.

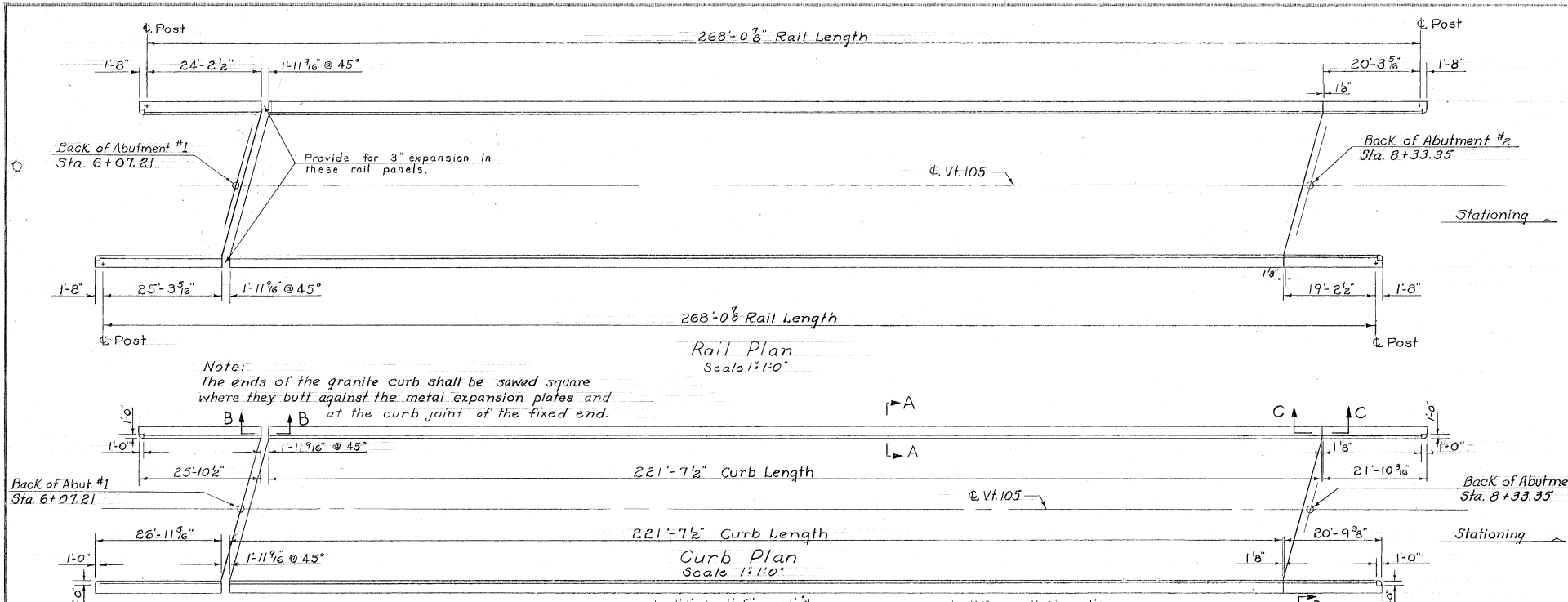



Girder Camber Diagram
N. T. S.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT NAME St Albans-Swanton
TOWN OF Swanton
ROUTE No. I 89
Vt #105 over I 89 @ ℄ Sta 334+92.66
Framing Plan & Girder Details
SCALE As noted
SURVEYED BY
DRAWN BY VF CHECKED BY A. J. C.
PROJECT NO. I 89-3(36) Cont. #1
SHEET 91 OF 298

BR-305



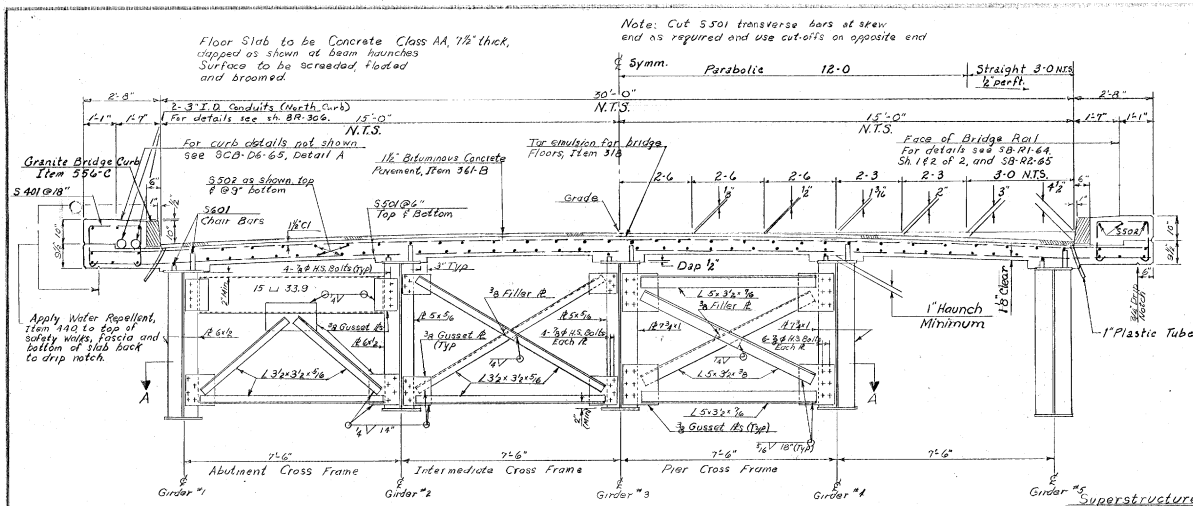

Notes

① For Typical Bridge Section see Bridge Sheet BR-307.
② For General Notes and Design Stresses see Std. Dwg. SCB-D1-65.
③ For details of Bridge Railing see Std. Dwgs. SB-R1-64, Sheets 1 & 2 and SB-R2-65.
④ For details of Curb, Score Marks and Pile Splices See Std. Dwg. SCB-D6-65, Details A, B & F.
⑤ For details of Joint in Curb and Roadway see Sheet BR-308 and BR-310.
⑥ For details of Item 372-C, Type A, see Sheet BR-314.
⑦ For details of Dead End Anchorage at Bridge Approaches see Std. Dwg. G-3a.
⑧ The two 3" I.D. utility conduits shall be furnished, installed, and anchored against floation by the Contractor.
⑨ Installation is in the curb section on the north side of the bridge.
⑩ The 3" I.D. utility conduits shall be either galvanized steel, aluminum, fibre, or non-metalic material suitable for encasement in concrete, as approved by the Engineer.
⑪ Longitudinal expansion joints in the conduit shall be installed at each end of the bridge to provide for movement due to expansion, contraction, or deflection of the bridge.
⑫ The cost of furnishing and installing the conduits shall be included in the unit price bid for Concrete Class AA, Item 401-AA.

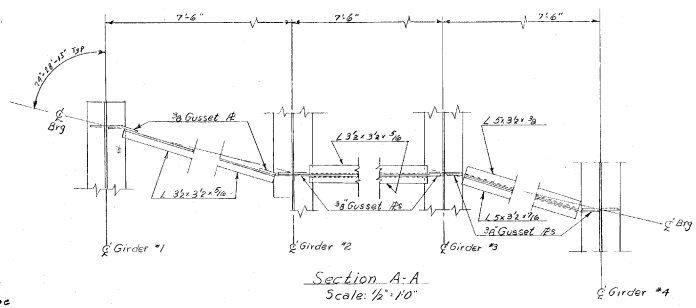
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Project Name St. Albans-Swanton
TOWN OF St. Albans
ROUTE NO. 189 LOG STA.
Vt. 105 over I89 @ Sta. 3546+92.66
Rail and Curb Lengths
SCALE As Noted
SURVEYED BY
DRAWN BY J.J.C. CHECKED BY R.P.G.
PROJECT NO. I89-3(36) Cont #1
SHEET 72 OF 278

BR-306



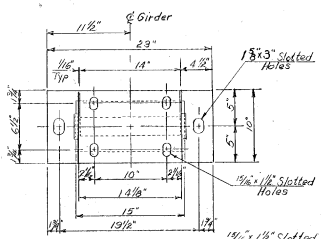

## Typical Bridge Section
Scale: ½"=1'-0"



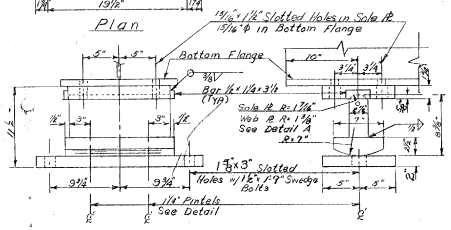

## Section A-A
Scale: ½"=1'-0"

## Superstructure Notes
1. For General Notes see Std Sh. SCB-D1-65 and Br. Sh. 300
2. All structural steel shall be ASTM A 36-62T unless otherwise noted on the plans
3. All field connections shall be made with ⅞" ℄ High Strength bolts in 15/16" ℄ holes, unless otherwise noted on the plans.

## Bearing Device Notes
1. Red Lead and Canvas or Preformed Fabric Pads ⅛" thick, equal in size to the bearing plates shall be used under each bearing conforming to Specification 404.02 (23).
2. Align devices so that all rocker arm shafts will be vertical at 45°F.
3. Contact surfaces of rockers to be given shop coat of white lead and tallow. Pintel holes are to be filled with graphite at time of placement. Remainder of bearing to be given 3 coats of paint in accordance with Vt. Spec. 404.03

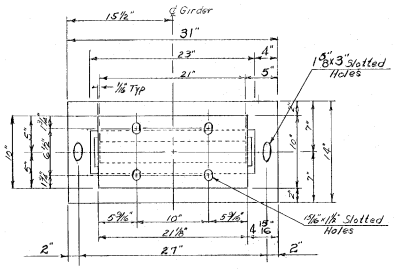



Plan

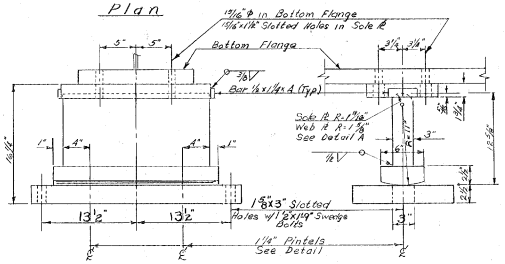



Front Elevation Side Elevation

Abutment Expansion Device

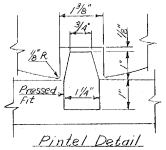



Plan

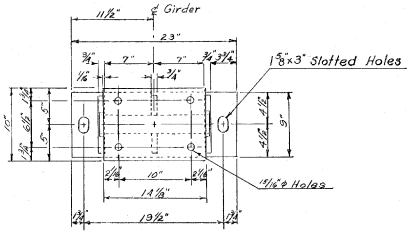



Front Elevation Side Elevation

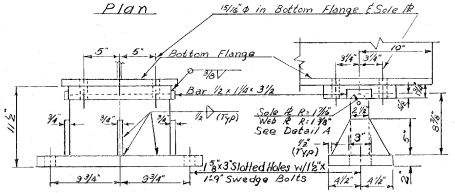
Pier Expansion Device




Pintel Detail
N.T.S.
Finish All Over

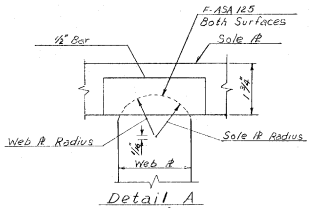



Plan




Front Elevation Side Elevation

Abutment Fixed Device



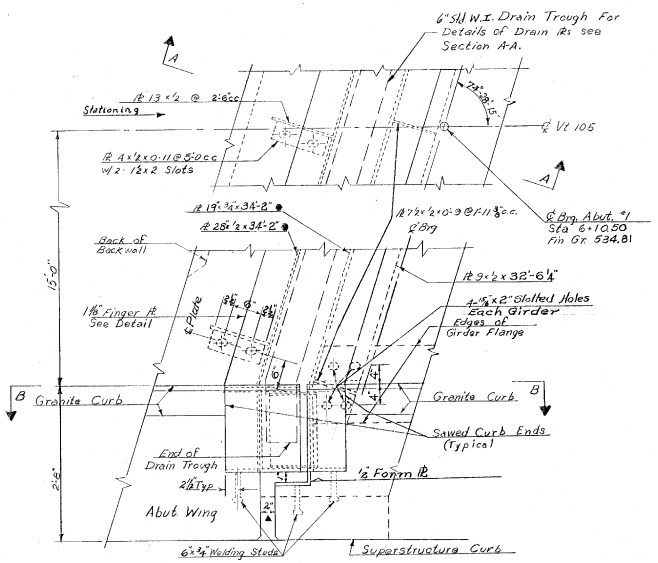

Detail A
N.T.S.

## Bearing Devices
Scale: 1½"=1'-0"

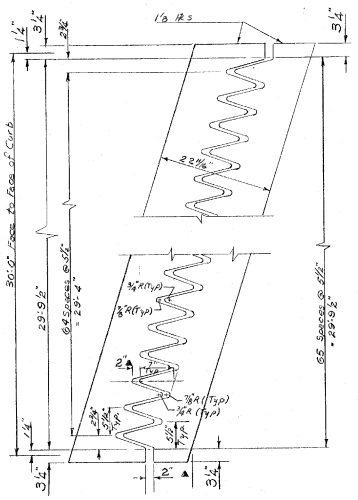
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT NAME St. Albans - Swanton
TOWN OF St. Albans
ROUTE NO. I 89
Vt. 105 over I 89 @ Sta. 3546+32.66
Typical Section and Bearing Devices
SCALE As noted
SURVEYED BY
DRAWN BY V.E. CHECKED BY A.J.C.
PROJECT NO. I 89-3(36) Cont.#1
SHEET 93 OF 298

BR-307

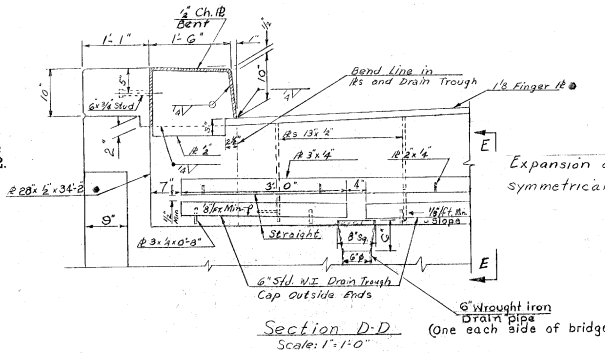



Plan of Expansion Dam
Scale: 1"=1'-0"



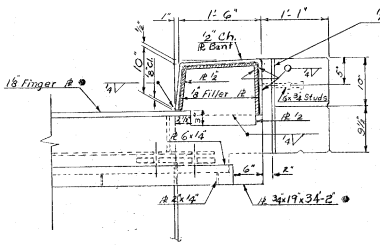

Finger Plate Detail
Scale: 1"=1'-0"

Note:
Fingers to be Symetrical about ℄ of Plate. Flame cut from 21"x1'8" Pl.

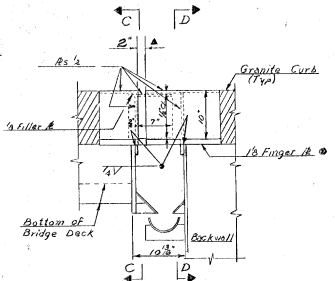



Section D-D
Scale: 1"=1'-0"

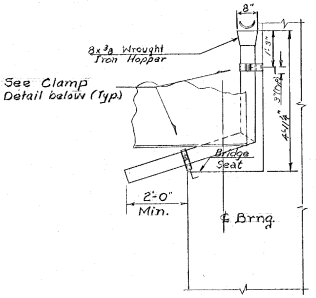
Expansion dam to be symmetrical about ℄.



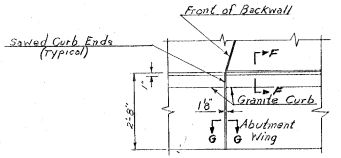

Section C-C
Scale: 1"=1'-0"




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




Section E-E
Scale: ½"=1'-0"

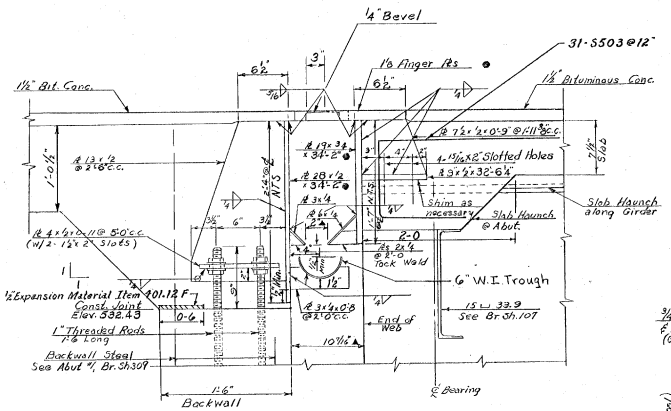



Plan of Fixed Abutment @ Curb
Scale: ½"=1'-0"

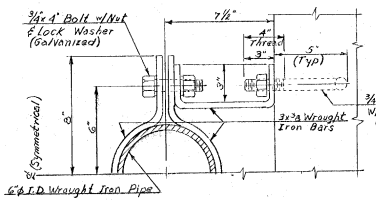
## Notes

1. Plates marked ● shall conform to the roadway grade and parabolic crown
2. All clear dimensions indicated ▲ are for 45° F
3. All steel for the Expansion Dam shall be ASTM A-242 unless otherwise noted, except plates completely embedded in concrete may be A-36 Steel.
4. For details of 3" I.D. utility conduit see sheet BR-306.

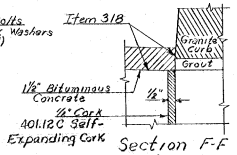
Revised: 9/15/66 R.A.O.
Substituted Std. W.I. for 20 oz. copper in 6" drain trough.




Section A-A
Scale: 1½"=1'-0"

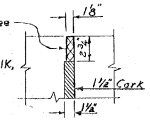



Clamp Detail
Scale: 3"=1'-0"




Section F-F
Scale: 3"=1'-0"

Item 372-C Type A - See Std. Dwg. SB-AS-65. To be continuous up Curb, across Safety walk, and down fascia.

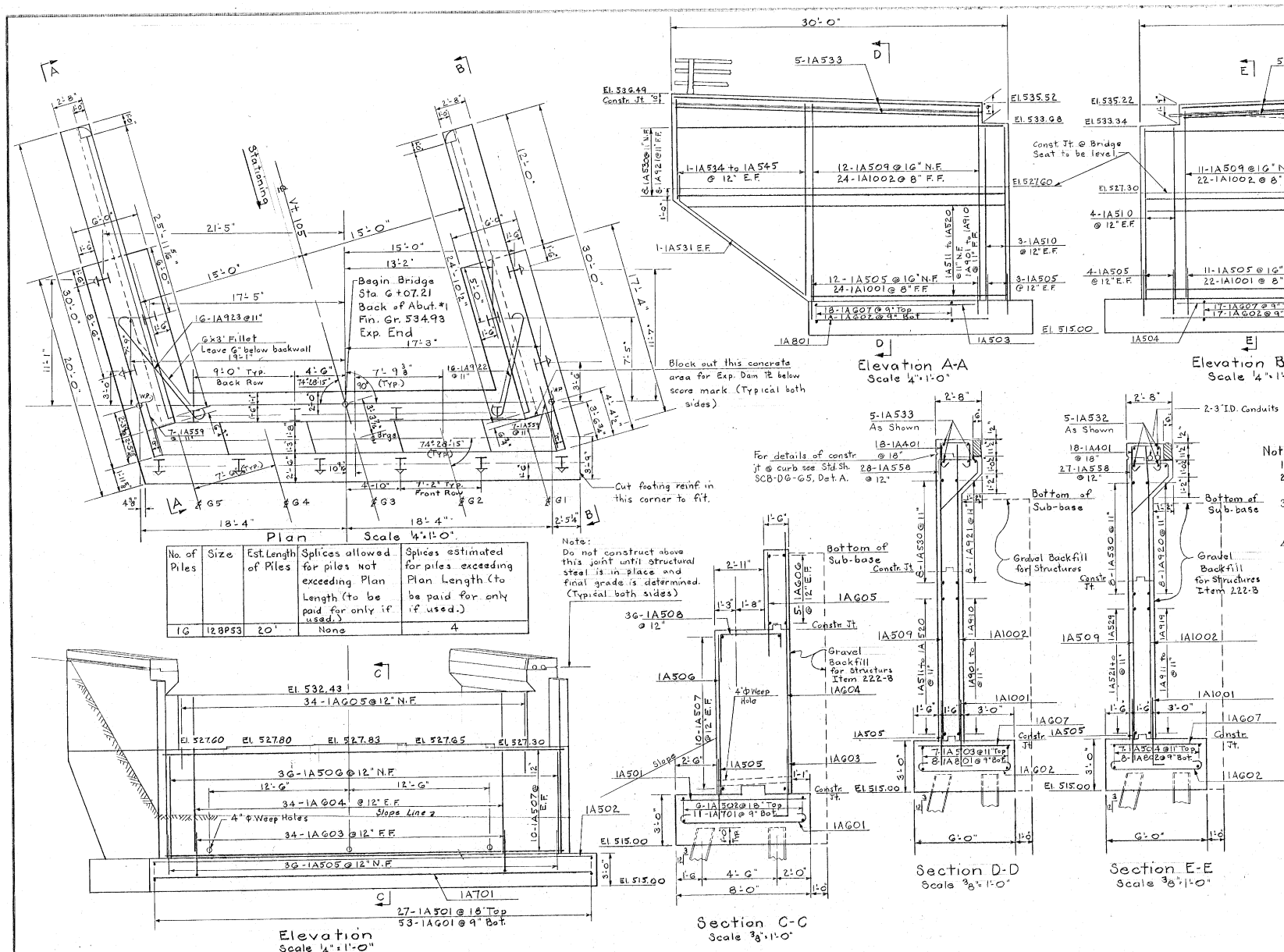



Section G-G
N.T.S.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT NAME St. Albans - Swanton
TOWN OF St. Albans
ROUTE NO. 189
Vt. 105 over I 89 @ ± Sta. 3546+92.66
Exp. Jt. Assembly + Fixed End Curb Details.
SCALE As noted
SURVEYED BY
DRAWN BY V.E. CHECKED BY A.J.C.
PROJECT NO. I 89-3(8) Cont. #1
SHEET 94 OF 298

BR-308-A




| No. of Piles | Size | Est. Length of Piles | Splices allowed for piles not exceeding Plan Length (to be paid for only if used.) | Splices estimated for piles exceeding Plan Length (to be paid for only if used.) |
|---|---|---|---|---|
| 16 | 12BP53 | 20' | None | 4 |

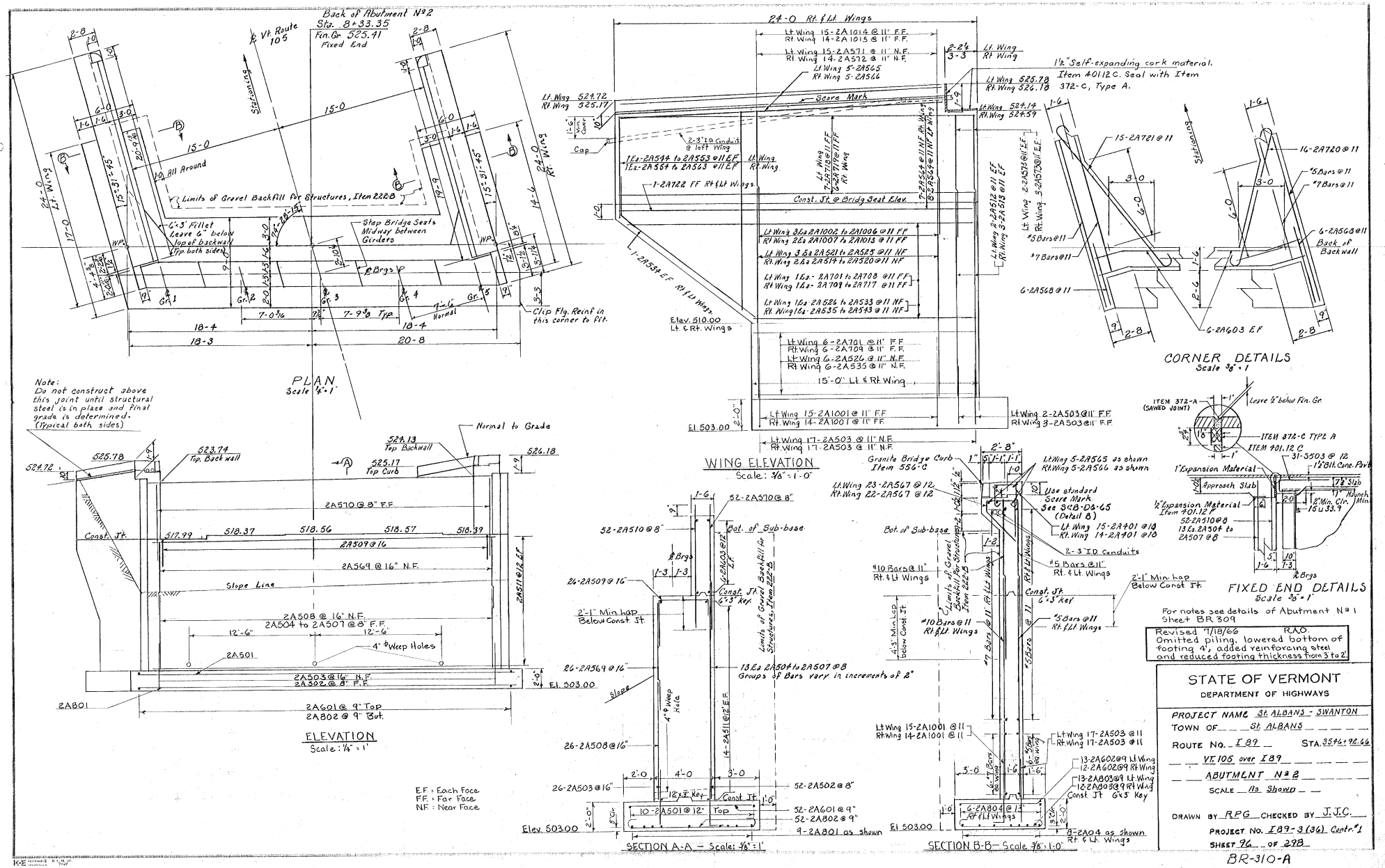
Notes:

1. For General Notes see SCB-D1-65 & BR-300.
2. All reinforcing steel to have a minimum clear cover of 2" except 3" in footing.
3. Front face of backwall above bridge seats to be coated with two coats of Item 410, Paint Waterproofing.
4. ⊥ Indicates battered pile of 3" in 12" and direction of batter.
5. Step bridge seats midway between beams.
6. Payment of 4"φ Weep Holes in Abutments to be included in the price bid for Concrete Class B, Item 401-B in Spec (401.10.3)
7. The minimum accepted in-place length of any pile in these Abutments shall be 11'-0".
8. Steel piles (12BP53) shall be driven to point bearing on ledge unless the designed bearing capacity of 45 tons per pile is attained above ledge elevation.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

PROJECT NAME St. Albans - Swanton
TOWN OF St. Albans
ROUTE NO. I 89 LOG STA.
Vt. 105 over I 89 @ Pl. Sta. 354G+92.66
Abutment #1
SCALE As Noted
DRAWN BY A.J.C. CHECKED BY RPG
PROJECT NO. I 89-3(36) Cont #1
SHEET 95 OF 298

BR-309



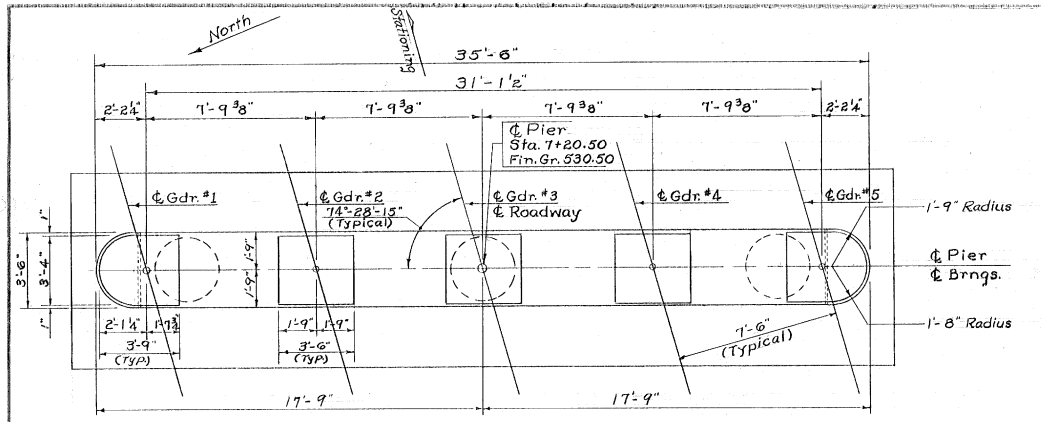

For notes see details of Abutment No 1 Sheet BR 309

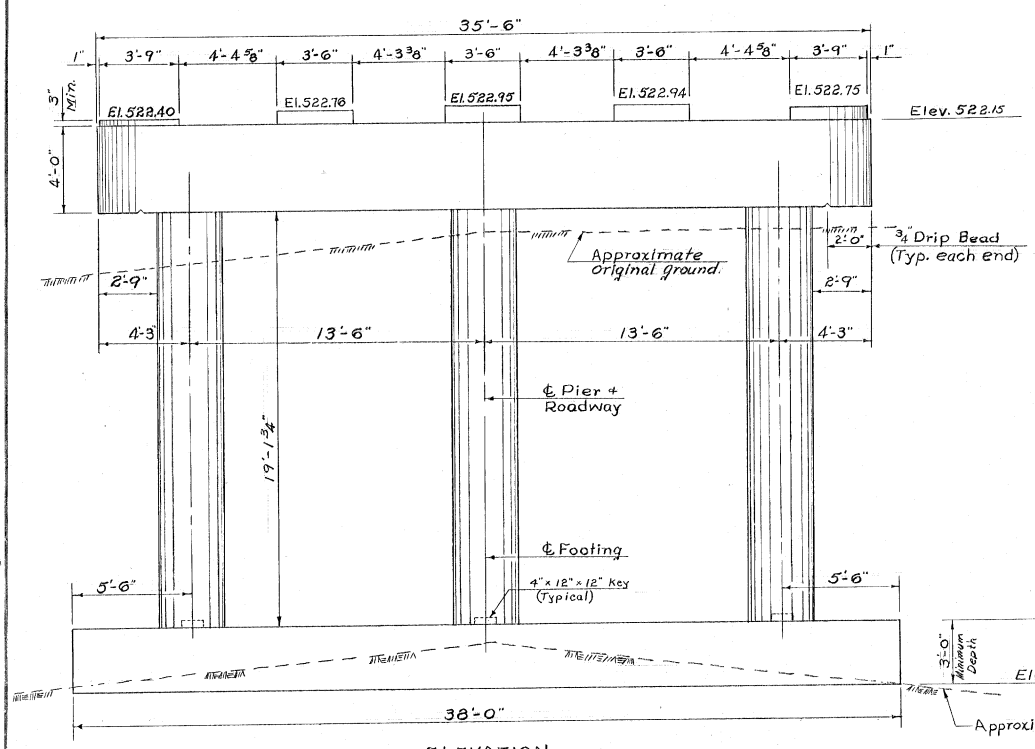
Revised 7/18/66 R.A.O.
Omitted piling, lowered bottom of footing 4", added reinforcing steel and reduced footing thickness from 3 to 2'.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

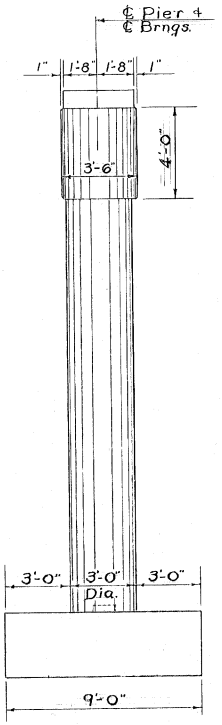
PROJECT NAME St. ALBANS - SWANTON
TOWN OF St. ALBANS
ROUTE No. I 89 STA. 3546+96.66
VT 105 over I 89
ABUTMENT No 2
SCALE As Showo
DRAWN BY RPG CHECKED BY J.J.C.
PROJECT NO. I 89-3(36) Contr. #1
SHEET 96 OF 298

BR-310-A




ELEVATION
Scale ~ 3/8" = 1'-0"




END ELEVATION
Scale ~ 3/8" = 1'-0"

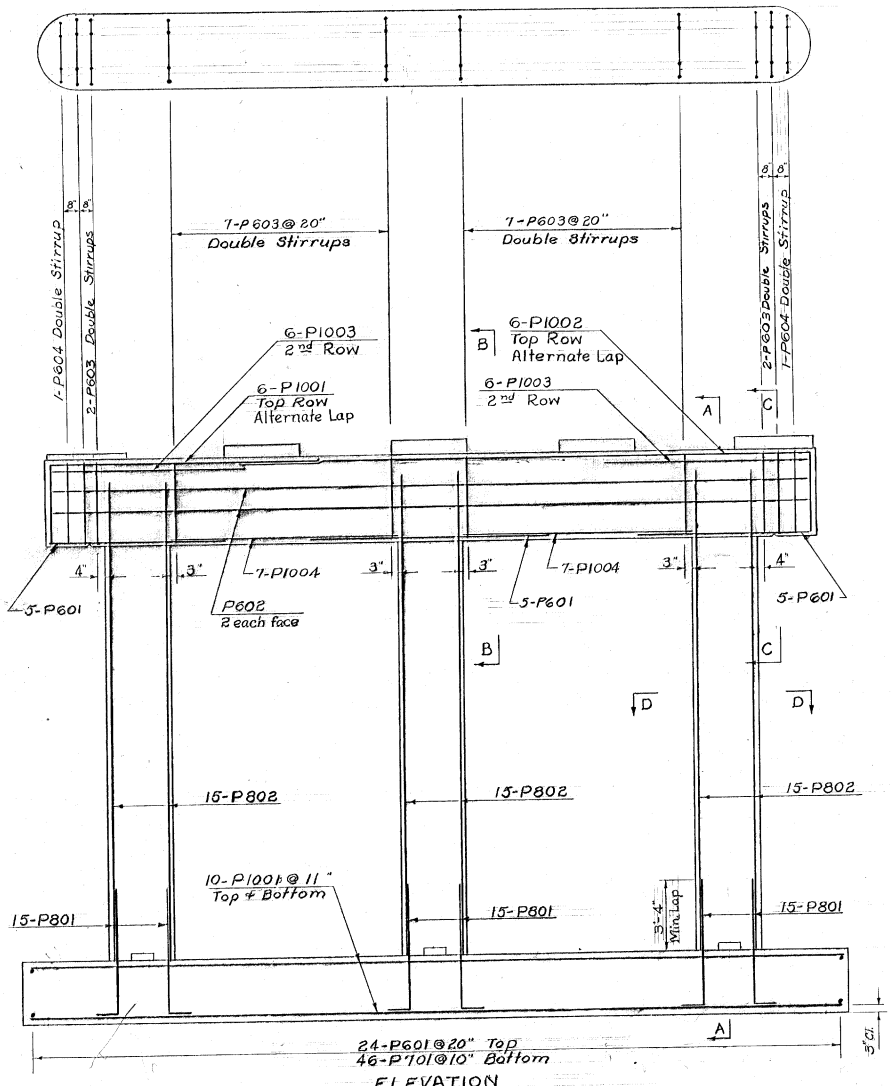
## Notes:

1. For General Notes see Std. Dwg. SCB-01-65 and BR-300.
2. Pier Footing to rest on ledge. Maximum designed bearing pressure is 2 3/4 Tons/Sq. Ft.
3. Concrete in the footing to be Class B. Concrete above the footing to be Class A-A.
4. Bridge Seats given are for ℄ of bearings.
5. All girders are parallel to ℄ of Roadway and Girder #3 coincides with ℄ of Roadway.
6. All spiral reinforcement shall conform to AASHO Designation M32-60 Cold Drawn Steel Wire for Concrete Reinforcement and shall be paid for under Item 402, Reinforcing Steel
7. Reinforcing in the top of the piers shall be placed so as to allow for drilling and placing of anchor bolts.

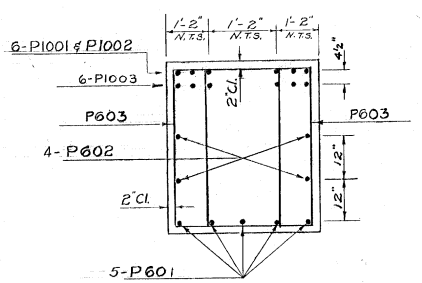
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Project Name: St. Albans Swanton
TOWN OF St. Albans
ROUTE No. I 89 LOG STA.
Vt. 105 over I89 @ ℄ Sta. 3546 + 92.66
Pier Details
SCALE 3/8" = 1'-0"
SURVEYED BY
DRAWN BY J.J.C. CHECKED BY R.F.S.
PROJECT No. I89-3(36) Cont. #1
SHEET 77 OF 278

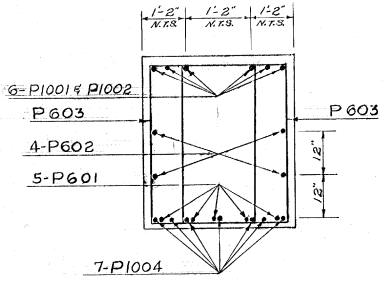
BR-311



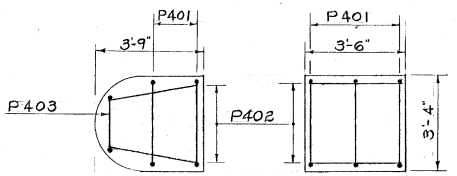

ELEVATION
Scale ~ 3/8" = 1'-0"




SECTION C-C
Scale ~ 3/4" = 1'-0"

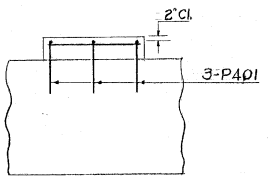



SECTION B-B
Scale ~ 3/4" = 1'-0"

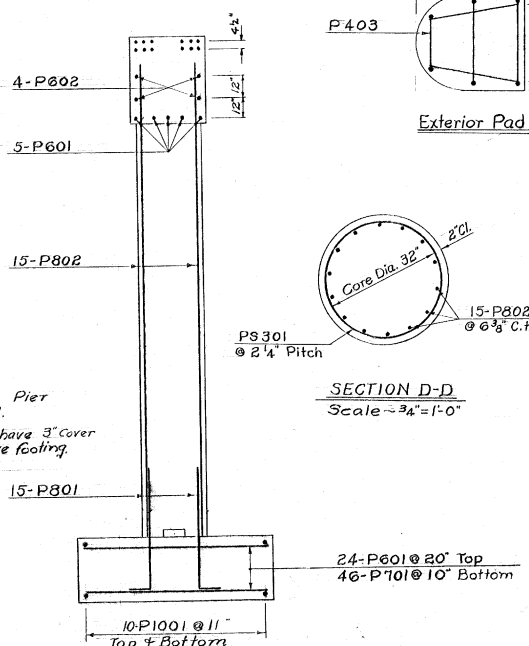



Exterior Pad

Interior Pad




Pad Reinforcing
Scale ~ 1/2" = 1'-0"




SECTION A-A
Scale ~ 3/8" = 1'-0"




SECTION D-D
Scale ~ 3/4" = 1'-0"

For Pier Notes see Pier Layout Sheet BR-311.

Reinforcing Steel to have 3" Cover in footing and 2" above footing. Except as noted.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Project Name: St Albans Swanton
TOWN OF St. Albans

ROUTE No. I 89 LOG STA.
Vt. 105 over I89 @ Sta. 3546 + 98.66

Pier Reinforcing

SCALE As Noted

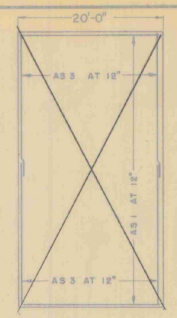
SURVEYED BY

DRAWN BY JJC. CHECKED BY A.J.C.

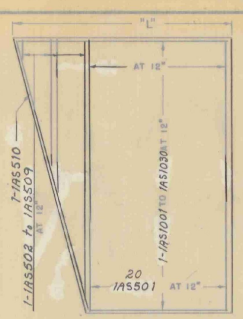
PROJECT NO. I89-3(36) Cont #1

SHEET 98 OF 298

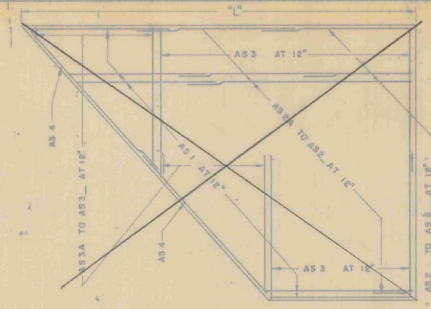
BR-312



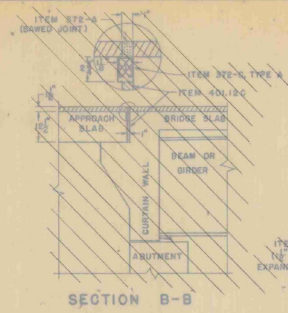

DETAIL "A" - SQUARE



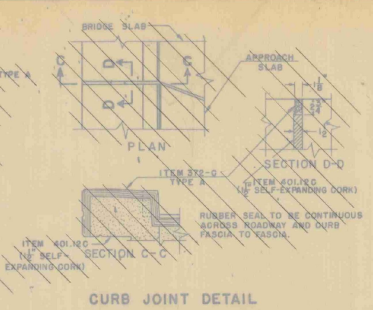

DETAIL "B" - "L" LESS THAN 35'



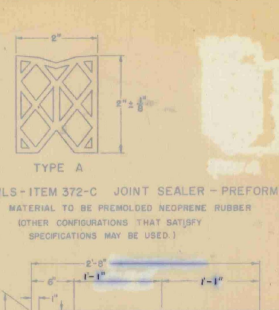

DETAIL "C" - "L" GREATER THAN 35'




SECTION B-B

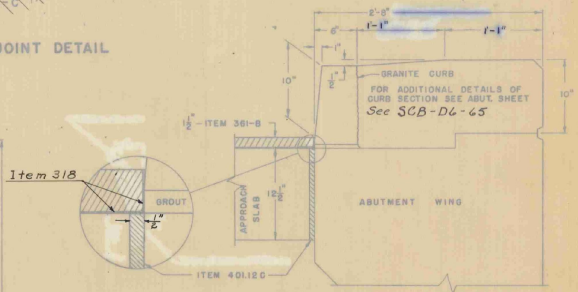



CURB JOINT DETAIL

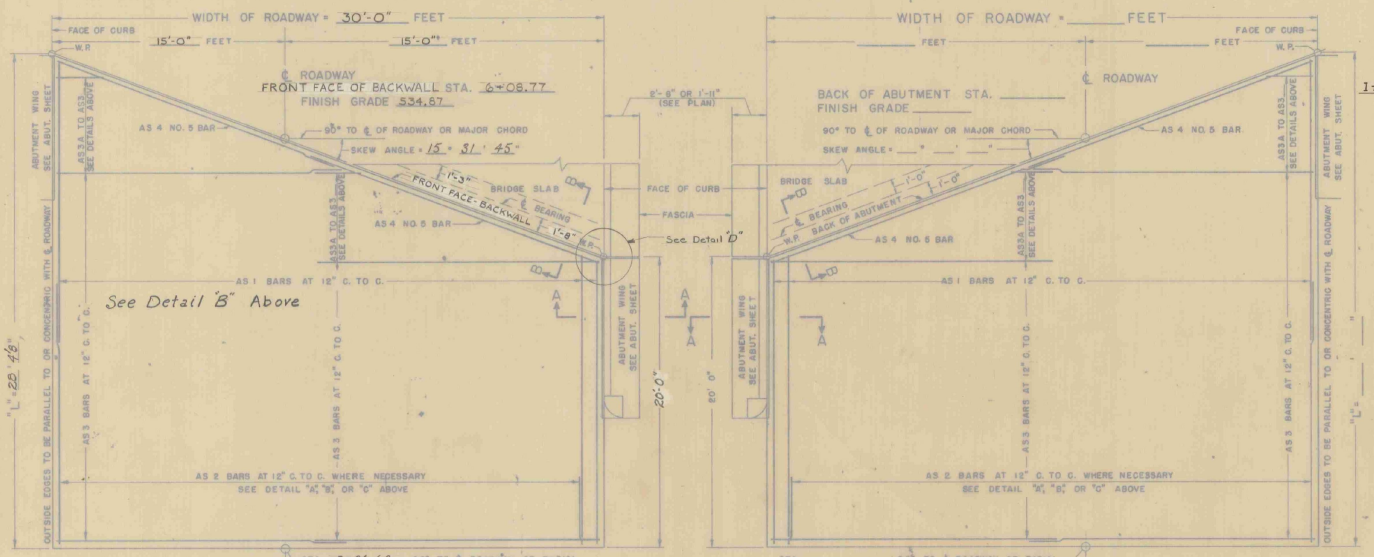



DETAILS - ITEM 372-C JOINT SEALER - PREFORMED

MATERIAL TO BE PREMOLDED NEOPRENE RUBBER (OTHER CONFIGURATIONS THAT SATISFY SPECIFICATIONS MAY BE USED.)



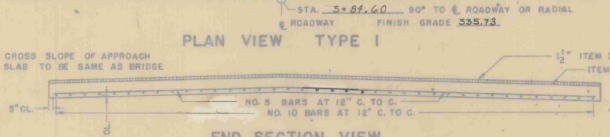

SECTION A-A



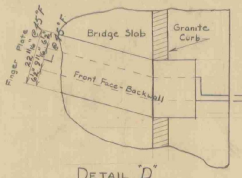

PLAN VIEW TYPE 1




PLAN VIEW TYPE 2




END SECTION VIEW




DETAIL "D"
Scale: ½" = 1'-0"

## GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1961. DESIGNED FOR HS 20-44 LOADING.
2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.

## SUMMARY OF QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL | FINAL |
|---|---|---|---|---|
| 318 | TAR EMULSION FOR BRIDGE FLOORS | GAL. | | |
| 361-B | BITUMINOUS CONCRETE PAVEMENT | TONS | | |
| 372-A | JOINT SEALER - HOT POURED | L.F. | | |
| 372-C | JOINT SEALER - PREFORMED, TYPE A | L.F. | | |
| | | | | |
| 401-B | CONCRETE CLASS B | CY. | | |
| 402 | REINFORCING STEEL | LB. | | |

REINFORCING BENDING DETAILS

A = 1'-1"
J = 0'-8"
B = 19'-6" OR VARIES

DETAIL SHOWN IS FOR AS1 BAR
ALL OTHER BARS ARE TO BE STRAIGHT.

REINFORCING STEEL

| BAR NO. | NO. PIECES | A | B | C | LENGTH | WEIGHT PER FT. | A + B + C WEIGHT IN LBS. |
|---|---|---|---|---|---|---|---|
| AS 1 | | | | | SEE REINFORCING SCHEDULE | 4.303 | |
| AS 2 | | | | | | 4.303 | |
| AS 3 | | | | | | 1.043 | |
| AS 4 | | | | | | 1.043 | |
| | | | | | | TOTAL WEIGHT = | |

REVISIONS AND CORRECTIONS
1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED. 4/15/65 WBT.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED ~~AND ITEM 372-C ADDED~~. 6/23/65 WBT.

DRAWN BY: WBT Jan. 1965
TRACED BY: WBT Jan 1965
CHECKED BY: WMS Apl. 1965
RECOMMENDED FOR APPROVAL: _____ BRIDGE ENGINEER DATE 2/4/65
RECOMMENDED FOR APPROVAL: _____ ASSISTANT CHIEF ENGINEER DATE 2/4/65
APPROVED BY: _____ CHIEF ENGINEER DATE 2/4/65

# DETAILS OF APPROACH SLAB NO. 1 FOR 30 (WIDTH) FOOT BRIDGE

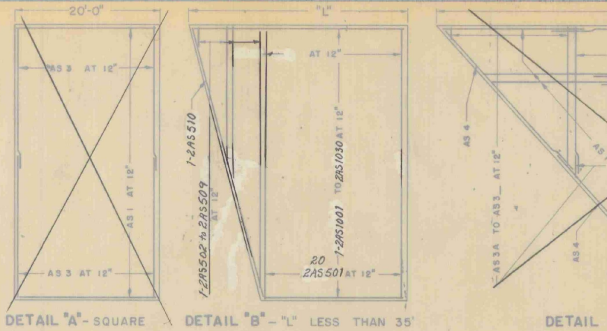
TO BE USED FOR BRIDGE AT STATION ℄ 3546+92.66

LOCATION VT. 105 OVER I-89

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

# SB-AS-65

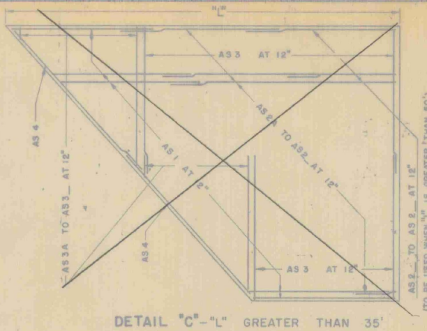
TOWN OF ST. ALBANS
ROUTE NO. I-89
LOG STA. VT. 105 OVER I-89
PROJECT St. ALBANS-SWANTON
DESIGNED BY RFS CHECKED BY RPG
PROJECT NO. I-89-3(36) CONT. # 1
BR 313 OF ____ SHEET 77 OF 278



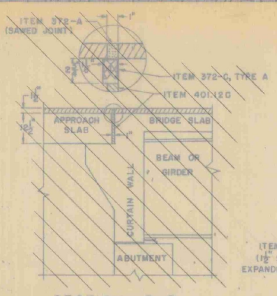

DETAIL "A" - SQUARE



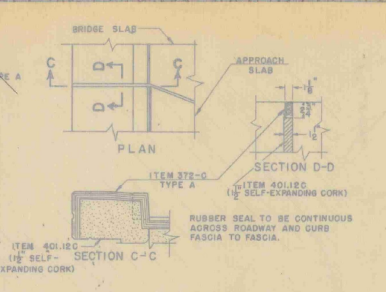

DETAIL "B" - "L" LESS THAN 35'



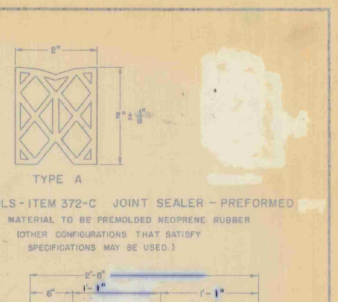

DETAIL "C" - "L" GREATER THAN 35'




SECTION B-B

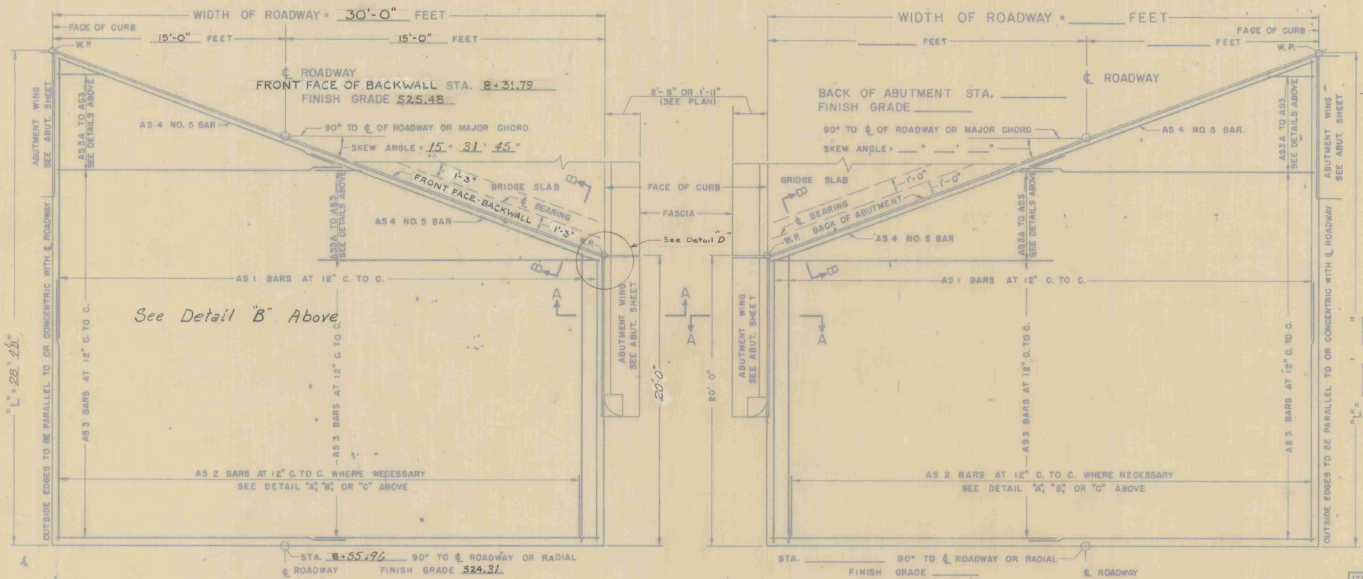



CURB JOINT DETAIL




DETAILS - ITEM 372-C JOINT SEALER - PREFORMED

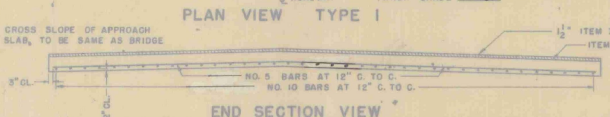
MATERIAL TO BE PREMOLDED NEOPRENE RUBBER (OTHER CONFIGURATIONS THAT SATISFY SPECIFICATIONS MAY BE USED.)



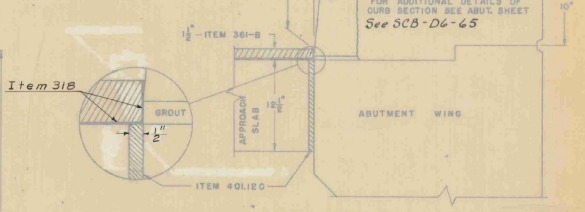

PLAN VIEW TYPE 1




PLAN VIEW TYPE 2




END SECTION VIEW

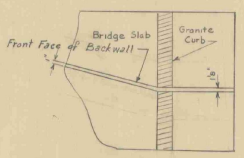



SECTION A-A

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1961. DESIGNED FOR HS 20-44 LOADING.

2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.




DETAIL "D"
Scale: ½" = 1'-0"

For additional details see Sheet BR 308

SUMMARY OF QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL | FINAL |
|---|---|---|---|---|
| 318 | TAR EMULSION FOR BRIDGE FLOORS | GAL. | | |
| 361-B | BITUMINOUS CONCRETE PAVEMENT | TONS | | |
| 372-A | JOINT SEALER - HOT POURED | L.F. | | |
| 372-C | JOINT SEALER - PREFORMED, TYPE A | L.F. | | |
| | | | | |
| 401-B | CONCRETE CLASS B | CY. | | |
| 402 | REINFORCING STEEL | LB. | | |

REINFORCING BENDING DETAILS




A = 1'-1"
J = 0'-9"
B = 1'-8" OR VARIES
DETAIL SHOWN IS FOR ASI BAR
ALL OTHER BARS ARE TO BE STRAIGHT

REINFORCING STEEL

| BAR NO. | NO. PIECES | LENGTH | WEIGHT PER FT. | WEIGHT IN LBS. |
|---|---|---|---|---|
| AS 1 | | | 4.303 | |
| AS 2 | | | 4.303 | |
| AS 3 | | | 1.043 | |
| AS 4 | | | 1.043 | |
| | | TOTAL WEIGHT = | | |

REVISIONS AND CORRECTIONS

1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED. 4/15/65 W.B.T.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED ~~MODIFICATION OF ITEM 372-C ADDED~~ 5/23/65 W.B.T.

DRAWN BY: W.B.T. Jan 1965
TRACED BY: W.B.T. Jan 1965
CHECKED BY: W.M.S. Feb. 1965

RECOMMENDED FOR APPROVAL: Lin Bern, BRIDGE ENGINEER, DATE 6/9/65
RECOMMENDED FOR APPROVAL: R.A. Crisfield, ASSISTANT CHIEF ENGINEER, DATE 2/9/65
APPROVED BY: A.D.T. Gourley, CHIEF ENGINEER, DATE 2/9/65

# DETAILS OF APPROACH SLAB NO. 2 FOR 30 (WIDTH) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION ℄ 3546-92.66

LOCATION VT. 105 OVER I-89

# STATE OF VERMONT DEPARTMENT OF HIGHWAYS STANDARD STRUCTURE

# SB-AS-65

TOWN OF ST. ALBANS
ROUTE NO. I-89
LOG STA. VT. 105 OVER I-89
PROJECT St. ALBANS-SWANTON
DESIGNED BY RFS CHECKED BY RPG
PROJECT NO. I89-3(36) CONT. #1
BR 314 OF ____ SHEET 100 OF 298

## SUPERSTRUCTURE

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 891 | 5 | 35-0 | S501 | Str | | | | | | | | | | | | |
| 4 | 518 | 5 | 33-8 | S502 | Str | | | | | | | | | | | | |
| 6 | 71 | 4 | 34-0 | S401 | Str | | | | | | | | | | | | |
| 7 | 1 | 4 | 4-0 | S402 | Str | | | | | | | | | | | | |
| 8 | 296 | 4 | 5-4 | S401 | S3 | 5 | 1-4½ | 1-9 | 1-4½ | | | 5 | | | | | |
| 10 | 62 | 5 | 5-0 | S503 | 17 | | 3-0 | 0-9 | 1-3 | | | | | | | | |

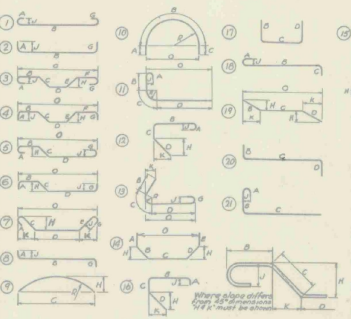
## ABUTMENT Nº 1

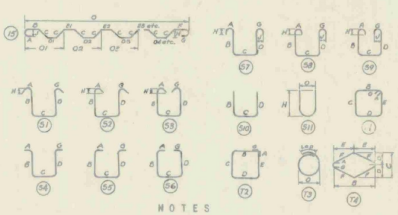
| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14 | 27 | 5 | 7-6 | 1A501 | Str | | | | | | | | | | | | |
| 15 | 6 | ↑ | 39-0 | 1A502 | ↑ | | | | | | | | | | | | |
| 16 | 7 | | 15-0 | 1A503 | | | | | | | | | | | | | |
| 17 | 7 | | 14-0 | 1A504 | | | | | | | | | | | | | |
| 18 | 74 | | 4-1 | 1A505 | | | | | | | | | | | | | |
| 19 | 36 | | 9-0 | 1A506 | | | | | | | | | | | | | |
| 20 | 20 | | 36-4 | 1A507 | | | | | | | | | | | | | |
| 21 | 23 | | 17-0 | 1A509 | | | | | | | | | | | | | |
| 22 | 14 | | 15-2 | 1A510 | | | | | | | | | | | | | |
| 23 | 1 | | 18-0 | 1A511 | | | | | | | | | | | | | |
| 24 | | | to | thru | | Increments of | | | | | | 1-3 | | | | | |
| 25 | 1 | | 29-3 | 1A520 | | | | | | | | | | | | | |
| 26 | 1 | | 18-0 | 1A521 | | | | | | | | | | | | | |
| 27 | | | to | thru | | Increments of | | | | | | 1-4 | | | | | |
| 28 | 1 | | 28-8 | 1A529 | | | | | | | | | | | | | |
| 29 | 16 | | 29-8 | 1A530 | | | | | | | | | | | | | |
| 30 | 5 | | 26-1 | 1A532 | | | | | | | | | | | | | |
| 31 | 5 | | 27-1 | 1A533 | | | | | | | | | | | | | |
| 32 | 2 | | 7-3 | 1A534 | | | | | | | | | | | | | |
| 33 | | | to | thru | | Increments of | | | | | | 0-9 | | | | | |
| 34 | 2 | | 17-6 | 1A545 | | | | | | | | | | | | | |
| 35 | 2 | | 9-7 | 1A546 | | | | | | | | | | | | | |
| 36 | | | to | thru | | Increments of | | | | | | 0-8 | | | | | |
| 37 | 2 | ↑ | 16-11 | 1A557 | ↑ | | | | | | | | | | | | |
| 38 | 14 | 5 | 5-9 | 1A559 | Str | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | | | | | |
| 40 | 34 | 6 | 15-9 | 1A604 | Str | | | | | | | | | | | | |
| 41 | 34 | 6 | 7-6 | 1A605 | Str | | | | | | | | | | | | |
| 42 | 36 | 6 | 5-6 | 1A607 | Str | | | | | | | | | | | | |
| 43 | | | | | | | | | | | | | | | | | |
| 44 | 11 | 7 | 39-0 | 1A701 | Str | | | | | | | | | | | | |
| 45 | 1 | 7 | 4-0 | 1A702 | Str | | | | | | | | | | | | |
| 46 | 8 | 8 | 15-0 | 1A801 | Str | | | | | | | | | | | | |
| 47 | 9 | 8 | 14-0 | 1A802 | Str | | | | | | | | | | | | |
| 48 | | | | | | | | | | | | | | | | | |
| 49 | 1 | 9 | 18-0 | 1A901 | Str | | | | | | | | | | | | |
| 50 | | ↑ | to | thru | ↑ | Increments of | | | | | | 1-3 | | | | | |
| 51 | 1 | | 29-3 | 1B910 | | | | | | | | | | | | | |
| 52 | 1 | | 18-0 | 1A911 | | | | | | | | | | | | | |
| 53 | | | to | thru | | Increments of | | | | | | 1-4 | | | | | |
| 54 | 1 | | 28-8 | 1A919 | | | | | | | | | | | | | |
| 55 | 8 | ↑ | 26-1 | 1A920 | ↑ | | | | | | | | | | | | |
| 56 | 8 | 9 | 27-1 | 1A921 | Str | | | | | | | | | | | | |
| 57 | | | | | | | | | | | | | | | | | |
| 58 | 47 | 10 | 17-0 | 1A1002 | Str | | | | | | | | | | | | |
| 59 | | | | | | | | | | | | | | | | | |
| 60 | 36 | 4 | 5-3 | 1A401 | S3 | 5 | 1-4½ | 1-8 | 1-4½ | | | 5 | | | | | |
| 61 | | | | | | | | | | | | | | | | | |
| 62 | 36 | 5 | 7-10 | 1A508 | 17 | | 2-10 | 4-0 | 1-0 | | | | | | | | |
| 63 | 4 | 5 | 16-5 | 1A531 | 19 | | 2-1 | 14-4 | | | | | 1-9 | | 1-2 | | |
| 64 | 55 | 5 | 8-7 | 1A558 | 16 | 2-6 | 2-4 | 0-9 | 3-0 | | | | 2-1 | | 2-1 | | |
| 65 | | | | | | | | | | | | | | | | | |
| 66 | 53 | 6 | 8-10 | 1A601 | 1 | 8 | 7-6 | | | | | 8 | | | | | |
| 67 | 35 | ↑ | 6-10 | 1A602 | 1 | 8 | 5-6 | | | | | 8 | | | | | |
| 68 | 34 | ↑ | 5-6 | 1A603 | 20 | | 1-0 | 4-6 | | | | | | | | | |
| 69 | 10 | 6 | 35-9 | 1A606 | 19 | | 2-6 | 30-9 | 2-6 | | | | 0-8 | | 2-5 | | |
| 70 | | | | | | | | | | | | | | | | | |
| 71 | 17 | 9 | 12-0 | 1A922 | 1 | 1-3 | 9-6 | | | | | 1-3 | | | | | |
| 72 | 10 | 9 | 14-3 | 1A928 | 1 | 1-3 | 11-9 | | | | | 1-3 | | | | | |
| 73 | | | | | | | | | | | | | | | | | |
| 74 | 46 | 10 | 7-2 | 1A1001 | 20 | | 1-0 | 6-2 | | | | | | | | | |
| 75 | | | | | | | | | | | | | | | | | |
| 76 | | | | | | | | | | | | | | | | | |
| 77 | | | | | | | | | | | | | | | | | |
| 78 | | | | | | | | | | | | | | | | | |
| 79 | | | | | | | | | | | | | | | | | |
| 80 | | | | | | | | | | | | | | | | | |
| 81 | | | | | | | | | | | | | | | | | |

## ABUTMENT Nº 2

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 10 | 5 | 39-6 | 2A501 | Str | | | | | | | | | | | | |
| 85 | 60 | ↑ | 3-9 | 2A503 | ↑ | | | | | | | | | | | | |
| 86 | 13 | | 14-6 | 2A504 | | | | | | | | | | | | | |
| 87 | | | to | thru | | Increments of | | | | | | 0-2 | | | | | |
| 88 | 13 | | 15-0 | 2A507 | | | | | | | | | | | | | |
| 89 | 26 | | 7-9 | 2A508 | | | | | | | | | | | | | |
| 90 | 52 | | 8-8 | 2A510 | | | | | | | | | | | | | |
| 91 | 18 | | 36-4 | 2A511 | | | | | | | | | | | | | |
| 92 | 4 | | 13-10 | 2A512 | | | | | | | | | | | | | |
| 93 | 6 | | 14-3 | 2A513 | | | | | | | | | | | | | |
| 94 | 2 | | 13-2 | 2A514 | | | | | | | | | | | | | |
| 95 | | | to | thru | | Increments of | | | | | | 0-1 | | | | | |
| 96 | 2 | | 14-8 | 2A520 | | | | | | | | | | | | | |
| 97 | 3 | | 14-8 | 2A521 | | | | | | | | | | | | | |
| 98 | | | to | thru | | Increments of | | | | | | 0-2 | | | | | |
| 99 | 3 | | 14-0 | 2A525 | | | | | | | | | | | | | |
| 100 | 1 | | 14-9 | 2A526 | | | | | | | | | | | | | |
| 101 | | | to | thru | | Increments of | | | | | | 1-2 | | | | | |
| 102 | 1 | | 22-11 | 2A533 | | | | | | | | | | | | | |
| 103 | 1 | | 14-9 | 2A535 | | | | | | | | | | | | | |
| 104 | | | to | thru | | Increments of | | | | | | 1-1 | | | | | |
| 105 | 1 | | 23-5 | 2A543 | | | | | | | | | | | | | |
| 106 | 2 | | 6-6 | 2A544 | | | | | | | | | | | | | |
| 107 | | | to | thru | | Increments of | | | | | | 0-9 | | | | | |
| 108 | 2 | | 13-3 | 2A553 | | | | | | | | | | | | | |
| 109 | 2 | | 6-9 | 2A554 | | | | | | | | | | | | | |
| 110 | | | to | thru | | Increments of | | | | | | 0-9 | | | | | |
| 111 | 2 | | 13-6 | 2A568 | | | | | | | | | | | | | |
| 112 | 15 | | 23-6 | 2A564 | | | | | | | | | | | | | |
| 113 | 5 | | 21-6 | 2A565 | | | | | | | | | | | | | |
| 114 | 5 | ↑ | 20-6 | 2A546 | ↑ | | | | | | | | | | | | |
| 115 | 12 | 5 | 5-0 | 2A568 | Str | | | | | | | | | | | | |
| 116 | | | | | | | | | | | | | | | | | |
| 117 | 52 | 6 | 8-6 | 2A601 | Str | | | | | | | | | | | | |
| 118 | 25 | 6 | 5-6 | 2A602 | Str | | | | | | | | | | | | |
| 119 | | | | | | | | | | | | | | | | | |
| 120 | 1 | 7 | 14-9 | 2A701 | Str | | | | | | | | | | | | |
| 121 | | ↑ | to | thru | ↑ | Increments of | | | | | | 1-2 | | | | | |
| 122 | 1 | | 22-11 | 2A708 | | | | | | | | | | | | | |
| 123 | 1 | | 14-9 | 2A709 | | | | | | | | | | | | | |
| 124 | | | to | thru | | Increments of | | | | | | 1-1 | | | | | |
| 125 | 1 | | 23-5 | 2A717 | | | | | | | | | | | | | |
| 126 | 7 | | 21-6 | 2A718 | | | | | | | | | | | | | |
| 127 | 6 | ↑ | 20-6 | 2A719 | ↑ | | | | | | | | | | | | |
| 128 | 2 | 7 | 23-6 | 2A722 | Str | | | | | | | | | | | | |
| 129 | | | | | | | | | | | | | | | | | |
| 130 | 9 | 8 | 39-6 | 2A801 | Str | | | | | | | | | | | | |
| 131 | 28 | 8 | 11-0 | 2A804 | Str | | | | | | | | | | | | |
| 132 | | | | | | | | | | | | | | | | | |
| 133 | 3 | 10 | 14-8 | 2A1002 | Str | | | | | | | | | | | | |
| 134 | | ↑ | to | thru | ↑ | Increments of | | | | | | 0-2 | | | | | |
| 135 | 3 | | 14-0 | 2A1006 | | | | | | | | | | | | | |
| 136 | 2 | | 15-2 | 2A1007 | | | | | | | | | | | | | |
| 137 | | ↑ | to | thru | ↑ | Increments of | | | | | | 0-1 | | | | | |
| 138 | 2 | 10 | 14-8 | 2A1013 | Str | | | | | | | | | | | | |
| 139 | | | | | | | | | | | | | | | | | |
| 140 | 29 | 4 | 5-3 | 2A401 | S3 | 5 | 1-4½ | 1-8 | 1-4½ | | | 5 | | | | | |
| 141 | | | | | | | | | | | | | | | | | |
| 142 | 52 | 5 | 4-9 | 2A502 | 20 | | 1-0 | 3-9 | | | | | | | | | |
| 143 | 26 | ↑ | 7-3 | 2A509 | 17 | | 2-9 | 5-6 | 1-0 | | | | | | | | |
| 144 | 4 | ↑ | 18-9 | 2A534 | 19 | | 2-3 | 11-6 | | | | | 1-9 | | 1-5 | | |
| 145 | 45 | 5 | 8-7 | 2A567 | 16 | 2-6 | 2-4 | 0-9 | 3-0 | | | | 2-1 | | 2-1 | | |
| 146 | | | | | | | | | | | | | | | | | |
| 147 | 12 | 6 | 35-9 | 2A603 | 19 | | 2-6 | 30-9 | 2-6 | | | | 0-8 | | 2-5 | | |
| 148 | | | | | | | | | | | | | | | | | |
| 149 | 10 | 7 | 10-11 | 2A720 | 1 | 10 | 9-3 | | | | | 10 | | | | | |
| 150 | 15 | 7 | 13-2 | 2A721 | 1 | 10 | 11-6 | | | | | 10 | | | | | |
| 151 | | | | | | | | | | | | | | | | | |
| 152 | 52 | 8 | 10-8 | 2A802 | 1 | 1-1 | 8-6 | | | | | 1-1 | | | | | |
| 153 | 25 | 8 | 7-8 | 2A803 | 1 | 1-1 | 5-6 | | | | | 1-1 | | | | | |
| 154 | | | | | | | | | | | | | | | | | |
| 155 | 29 | 10 | 7-2 | 2A1001 | 20 | | 1-0 | 6-2 | | | | | | | | | |
| 156 | | | | | | | | | | | | | | | | | |
| 157 | | | | | | | | | | | | | | | | | |
| 158 | | | | | | | | | | | | | | | | | |
| 159 | | | | | | | | | | | | | | | | | |
| 160 | | | | | | | | | | | | | | | | | |
| 161 | | | | | | | | | | | | | | | | | |
| 162 | | | | | | | | | | | | | | | | | |

## TYPICAL BAR BENDS



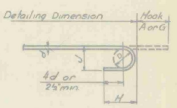



### NOTES

1. All dimensions are out to out of bar
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used
3. Where 'J' is not shown, 'J' will be kept equal to or less than ½ 'H'. Where 'J' can exceed 'H', it should be shown.
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances bending dimensions which require closer working should have limits indicated
6. Figures in circles show types
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.

## ABUTMENT Nº 2
### Additional Reinf Steel

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 167 | 10 | 5 | 36-4 | 2A511 | Str | | | | | | | | | | | | |
| 168 | 6 | ▲ | 14-9 | 2A526 | ▲ | | | | | | | | | | | | |
| 169 | 6 | | 14-9 | 2A535 | | | | | | | | | | | | | |
| 170 | 26 | | 7-6 | 2A569 | | | | | | | | | | | | | |
| 171 | 52 | | 8-6 | 2A570 | | | | | | | | | | | | | |
| 172 | 15 | | 8-9 | 2A571 | | | | | | | | | | | | | |
| 173 | 14 | ▼ | 8-9 | 2A572 | ▼ | | | | | | | | | | | | |
| 174 | 10 | 5 | 8-3 | 2A573 | | | | | | | | | | | | | |
| 175 | | | | | | | | | | | | | | | | | |
| 176 | | | | | | | | | | | | | | | | | |
| 177 | 6 | 7 | 14-9 | 2A701 | | | | | | | | | | | | | |
| 178 | 6 | 7 | 14-9 | 2A709 | | | | | | | | | | | | | |
| 179 | | | | | | | | | | | | | | | | | |
| 180 | 15 | 10 | 11-0 | 2A1014 | ▼ | | | | | | | | | | | | |
| 181 | 14 | 10 | 11-0 | 2A1015 | Str. | | | | | | | | | | | | |
| 182 | | | | | | | | | | | | | | | | | |
| 183 | | | | | | | | | | | | | | | | | |
| 184 | 6 | 7 | 10-11 | 2A720 | 1 | 10 | 9-3 | | | | | 10 | | | | | |
| 185 | 6 | 7 | 13-2 | 2A721 | 1 | 10 | 11-6 | | | | | 10 | | | | | |
| 186 | | | | | | | | | | | | | | | | | |
| 187 | | | | | | | | | | | | | | | | | |
| 188 | | | | | | | | | | | | | | | | | |
| 189 | | | | | | | | | | | | | | | | | |
| 190 | | | | | | | | | | | | | | | | | |




STANDARD HOOK DETAIL

### BAR SIZES

| Equivalent Size | Present Number | Weight per ft |
|---|---|---|
| ¼" | 2 | .167 |
| ⅜" | 3 | .376 |
| ½" | 4 | .668 |
| ⅝" | 5 | 1.043 |
| ¾" | 6 | 1.502 |
| ⅞" | 7 | 2.044 |
| 1" | 8 | 2.670 |
| 1⅛" | 9 | 3.400 |
| 1¼" | 10 | 4.303 |
| 1⅜" | 11 | 5.313 |
| 1½" | 14 S | 7.650 |
| 2" | 18S | 13.600 |

Revised 7/18/66 R.A.O.
Additional steel for revised Abut Nº 2

### GENERAL NOTES

(1) Unless otherwise designated all standard reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M31-60 or its latest revision.

(2) Unless otherwise designated all special large size reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Special Large size Deformed Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M-171-60 or its latest revision.

(3) * Denotes one extra bar added for testing purposes.

(4) Stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six times the minimum thickness except for bars larger than 1 inch, in which case the bends shall be made around a pin of eight bar diameters.

### ESTIMATED QUANTITIES

| LOCATION | PLAN (LBS) | FINAL (LBS) |
|---|---|---|
| Superstructure | 55,720 | |
| Abutment Nº 1 | 19,800 | |
| Abutment Nº 2 | 19,500 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Sub-Total | 95,020 | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
PROJECT St. ALBANS - SWANTON
TOWN OF ST. ALBANS
Vt. 105 over I89 @ Sta. 3546+92.46
REINFORCING STEEL SCHEDULE

DRAWN BY RPG CHECKED BY J.J.C.
PROJECT I89 NO. 3(36) Contr. Nº 1
SHEET 101 OF 298

BR 315-A

## PIER

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 10 | 4 | 3-0 | P402 | Str | | | | | | | | | | | | |
| 5 | 40 | 6 | 8-6 | P601 | Str | | | | | | | | | | | | |
| 6 | 4 | 6 | 33-0 | P602 | Str | | | | | | | | | | | | |
| 9 | 47 | 7 | 8-6 | P701 | Str | | | | | | | | | | | | |
| 11 | 45 | 8 | 22-0 | P802 | Str | | | | | | | | | | | | |
| 13 | 13 | 10 | 9-0 | P1003 | Str | | | | | | | | | | | | |
| 14 | 14 | 10 | 10-6 | P1004 | Str | | | | | | | | | | | | |
| 17 | 13 | 4 | 5-10 | P401 | 17 | | 1-6 | 2-10 | 1-6 | | | | | | | | |
| 18 | 2 | 4 | 4-9 | P403 | 17 | | 1-6 | 1-9 | 1-6 | | | | | | | | |
| 21 | 36 | 6 | 13-0 | P603 | T1 | 0-7 | 2-3 | 3-8 | 2-3 | 3-8 | | 0-7 | | | | | |
| 22 | 4 | 6 | 12-8 | P604 | T1 | 0-7 | 2-1 | 3-8 | 2-1 | 3-8 | | 0-7 | | | | | |
| 24 | 46 | 8 | 7-3 | P801 | 17 | | 1-0 | 6-3 | | | | | | | | | |
| 27 | 6 | 10 | 16-6 | P1001 | 20 | | 3-6 | 13-0 | | | | | | | | | |
| 28 | 6 | 10 | 29-9 | P1002 | 20 | | 3-6 | 26-3 | | | | | | | | | |

| Item | No. Pieces | Size | Length | Mark | Type | Core | Pitch | Turns | Spacers |
|---|---|---|---|---|---|---|---|---|---|
| 31 | 3 | 3 | 19-3 | P301 | | 2-8 | 0-2½ | 103 | 4 |

Cold Drawn Steel Wire

## APPROACH SLAB Nº 1

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 84 | 20 | 5 | 29-6 | 1A5501 | Str | | | | | | | | | | | | |
| 86 | 1 | ↓ | 27-0 | 1A5502 | ↓ | | | | | | | | | | | | |
| 86 | | | to | thru | | | | | | | | | | | | | |
| 87 | 1 | | 1-11 | 1A5509 | | | | | | | | | | | | | |
| 88 | 1 | ↓ | 30-8 | 1A5510 | ↓ | | | | | | | | | | | | |
| 89 | 1 | 5 | 4-0 | 1A5511 | Str | | | | | | | | | | | | |
| 90 | 1 | 10 | 20-7 | 1A51001 | 1 | 1-1 | 19-6 | | | | | | | | | | |
| 91 | | | to | thru | | | to | | | | | | | | | | |
| 92 | 1 | 10 | 28-9 | 1A51030 | 1 | 1-1 | 27-8 | | | | | | | | | | |
| 93 | 1 | 10 | 4-0 | 1A51031 | Str | | | | | | | | | | | | |

Increments of 3-7

Average Increments of 3'-5"

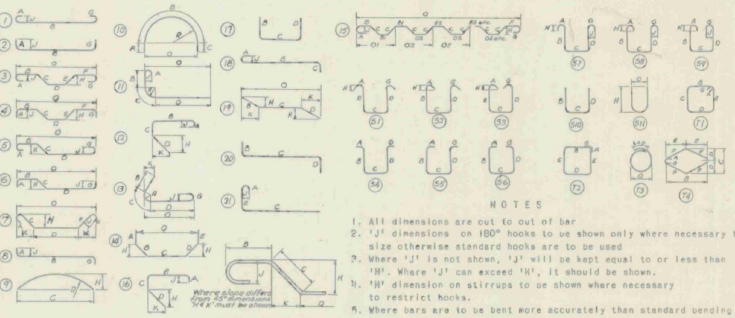
## APPROACH SLAB Nº 2

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 97 | 20 | 5 | 29-6 | 2A5501 | Str | | | | | | | | | | | | |
| 98 | 1 | ↓ | 27-0 | 2A5502 | ↓ | | | | | | | | | | | | |
| 99 | | | to | thru | | | | | | | | | | | | | |
| 100 | 1 | | 1-11 | 2A5509 | | | | | | | | | | | | | |
| 101 | 1 | 5 | 30-8 | 2A5510 | Str | | | | | | | | | | | | |
| 103 | 1 | 10 | 20-7 | 2A51001 | 1 | 1-1 | 19-6 | | | | | | | | | | |
| 104 | | | | thru | | | to | | | | | | | | | | |
| 105 | 1 | 10 | 28-9 | 2A51030 | 1 | 1-1 | 27-8 | | | | | | | | | | |

Increments of 3'-5"

Average Increments of 3'-5"

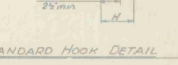
## TYPICAL BAR BENDS




### NOTES

1. All dimensions are out to out of bar
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used
3. Where 'J' is not shown, 'J' will be kept equal to or less than 'H'. Where 'J' can exceed 'H', it should be shown.
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances bending dimensions which require closer working should have limits indicated
6. Figures in circles show types
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 163 | | | | | | | | | | | | | | | | | |
| 164 | | | | | | | | | | | | | | | | | |
| 165 | | | | | | | | | | | | | | | | | |
| 166 | | | | | | | | | | | | | | | | | |
| 167 | | | | | | | | | | | | | | | | | |
| 168 | | | | | | | | | | | | | | | | | |
| 169 | | | | | | | | | | | | | | | | | |
| 170 | | | | | | | | | | | | | | | | | |
| 171 | | | | | | | | | | | | | | | | | |
| 172 | | | | | | | | | | | | | | | | | |
| 173 | | | | | | | | | | | | | | | | | |
| 174 | | | | | | | | | | | | | | | | | |
| 175 | | | | | | | | | | | | | | | | | |
| 176 | | | | | | | | | | | | | | | | | |
| 177 | | | | | | | | | | | | | | | | | |
| 178 | | | | | | | | | | | | | | | | | |
| 179 | | | | | | | | | | | | | | | | | |
| 180 | | | | | | | | | | | | | | | | | |
| 181 | | | | | | | | | | | | | | | | | |
| 182 | | | | | | | | | | | | | | | | | |
| 183 | | | | | | | | | | | | | | | | | |
| 184 | | | | | | | | | | | | | | | | | |
| 185 | | | | | | | | | | | | | | | | | |
| 187 | | | | | | | | | | | | | | | | | |
| 188 | | | | | | | | | | | | | | | | | |
| 189 | | | | | | | | | | | | | | | | | |
| 190 | | | | | | | | | | | | | | | | | |




STANDARD HOOK DETAIL

### BAR SIZES

| Equivalent Size | Present Number | Weight per ft |
|---|---|---|
| ⅜" | 2 | .167 |
| ⅜" | 3 | .376 |
| ½" | 4 | .668 |
| ⅝" | 5 | 1.043 |
| ¾" | 6 | 1.502 |
| ⅞" | 7 | 2.044 |
| 1" | 8 | 2.670 |
| 1" | 9 | 3.400 |
| 1⅛" | 10 | 4.303 |
| 1¼" | 11 | 5.313 |
| 1½" | 14 S | 7.650 |
| 2" | 18 S | 13.600 |

### GENERAL NOTES

(1) Unless otherwise designated all standard reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Billet-Steel Bars for Concrete Reinforcement" (Intermediate Grade) AASHO Designation M31-60 or its latest revision.

(2) Unless otherwise designated all special large size reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Special Large size Deformed Billet-Steel Bars for Concrete Reinforcement" (Intermediate Grade) AASHO Designation M-17N-60 or its latest revision.

(3) " Denotes one extra bar added for testing purposes.

(4) Stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six times the minimum thickness except for bars larger than 1 inch, in which case the bends shall be made around a pin of eight bar diameters.

(5) For requirements of Spiral Reinforcing in columns see Sheet BR-311, Pier Details

### ESTIMATED QUANTITIES

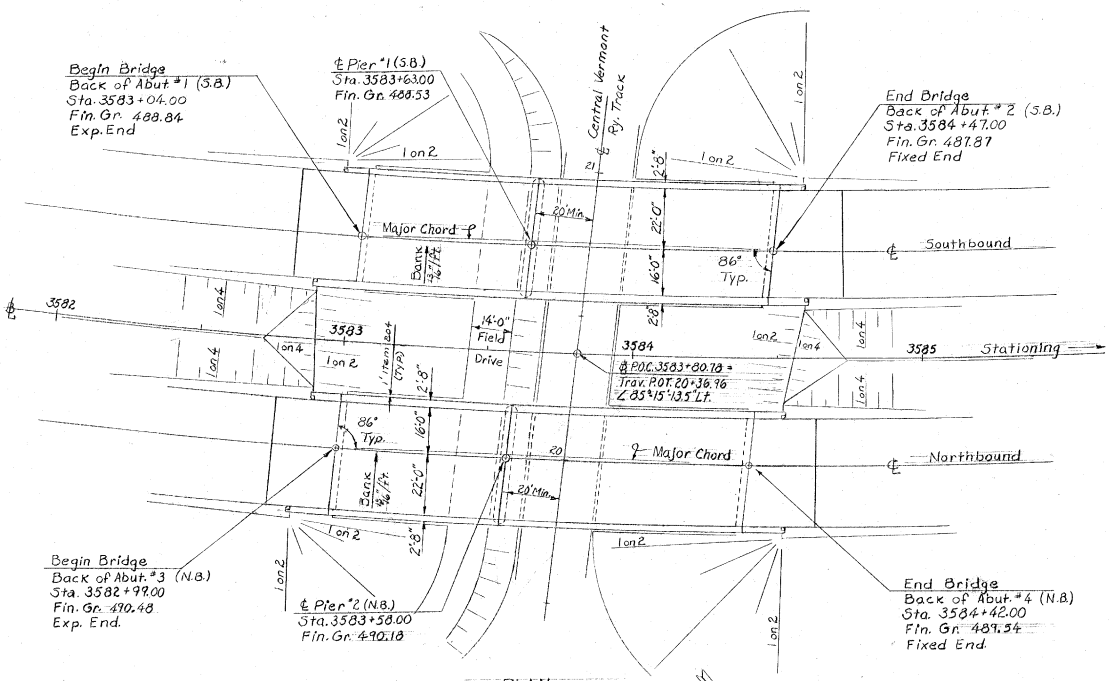
| LOCATION | PLAN (LBS) | FINAL (LBS) |
|---|---|---|
| Pier | 9,420 | |
| Approach Slab Nº1 | 3,980 | |
| Approach Slab Nº2 | 3,960 | |
| Sub-Total | 17,360 | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
PROJECT St. ALBANS - SWANTON
TOWN OF St. ALBANS
Vt. 105 over I89 @ Sta 3546+92.66

REINFORCING STEEL SCHEDULE

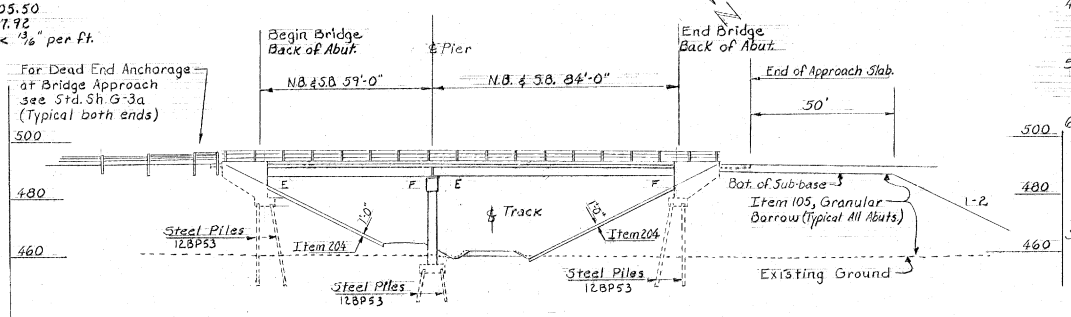
DRAWN BY RPG CHECKED BY J.J.C.
PROJECT I89 NO. 3(36) Contr "1
SHEET 102 OF 298

BR 316




PLAN
Scale: 1" = 20'

℄
Curve Data
Δ 65°-08'-15" Lt.
D 2°-30'
R 2291.83
T 1463.95
L 2605.50
E 427.92
Bank 1/8" per ft.




ELEVATION
Scale: 1" = 20'

7. Anchor Post No. 6 (as shown on Standard Structures G-3a) and necessary hardware to attach to wings of all bridge abutments is to be Furnished, installed and paid for at the unit price bid for Item 404-A Structural Steel

## LIST OF BRIDGE SHEETS

| | |
|---|---|
| BR-400 | General Plan and Elevation |
| BR-401 | Bridge Quantity Sheet |
| BR-402 | Preliminary Information Sheet |
| BR-403 | Boring Layout |
| BR-404 | Boring Logs |
| BR-405 | Boring Logs |
| BR-406 | Boring Logs |
| BR-407 | Framing Plan |
| BR-408 | Curb and Railing Plan and Typical Bridge Section |
| BR-409 | Details of Abutment No. 1 (Southbound) |
| BR-410 | Details of Abutment No. 2 (Southbound) |
| BR-411 | Details of Abutment No. 3 (Northbound) |
| BR-412 | Details of Abutment No. 4 (Northbound) |
| BR-413 | Details of Pier No 1 & No 2 |
| BR-414 | Pier No 1 & No 2 Reinforcing Steel Details |
| BR-415 | Details of Approach Slab No. 1 |
| BR-416 | Details of Approach Slab No. 2 |
| BR-417 | Details of Approach Slab No. 3 |
| BR-418 | Details of Approach Slab No. 4 |
| BR-419 | Reinforcing Steel Schedule |
| BR-420 | Reinforcing Steel Schedule |

## STANDARD SHEETS

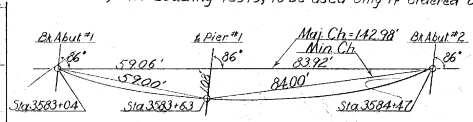
SCB-38-65, SCB-D1-65, SCB-D2-65, SCB-D3-65, SCB-D4-65, SCB-D5-65, SCB-D6-65 (Det. A, B & F), SCB-D7-65, SCB-D8-65, SCB-D9-65 (Det. A), SB-R1-64, Sheets 1 & 2, SB-R2-65, G-3a

## REFERENCE SHEETS

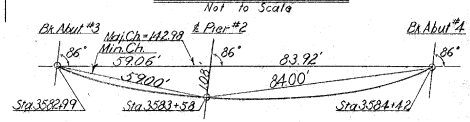
Plan I 89 (Scale 1" = 50') Sta. 3572+00 to Sta. 3588+00
ProFile I89 N.B. & S.B. Sta. 3572+00 to Sta. 3588+00
Cross Sections I 89 Sta. 3582+50 to Sta 3585+0
Cross Sections C.V. RY. Sta. 18+00 to Sta. 21+50

## NOTES

1. For General Notes see Std. Sh. SCB-D1-65.
2. For Superstructure details see Std. Sh. SCB-38-65 and Typical Bridge Section on Sheet BR-408
3. For Details of Dead End Anchorage see Std. Sh. G-3a.
4. Item 440, Water Repellent, shall consist of furnishing and applying water repellent on exterior concrete surfaces on top of the safety walk, sidewalk, on the fascia and back to the drip bead under the slab, on the sides, ends, and bottoms of all pier caps, and on exposed faces of abutments not otherwise treated.
5. All 12 BP 53 Steel Piles shall be driven to the designed bearing capacity of 45 Tons per pile. In any case, these piles are to be driven to penetrate into the original ground at least 10 feet. Minimum length of Pile is to be 10' below Bottom of footing.
6. Item 505, Pile Loading Tests, to be used only if ordered by the Engineer in Writing.




CURVE LAYOUT S.B.
Not to Scale




CURVE LAYOUT N.B.
Not to Scale

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St Albans - Swanton
ROUTE NO. I 89 LOG. STA.
I 89 over C.V.Ry. @ Sta 3584+0±
General Plan and Elevation
SCALE As Noted
SURVEYED BY
DRAWN BY TW CHECKED BY DHB
PROJECT NO. I 89-3 (
SHEET NO. 396 OF 153

BR-400

## EARTHWORK

| P.V.C. | P.V.I. | STATION | GRADES ELEVATION ON TAN. | GRADES ELEVATION ON V.C. | CORR. V.C. | DIST. | AREA | CU.YDS. | AREA | CU.YDS. | AREA | CU.YDS. | AREA | CU.YDS. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |

# BRIDGE QUANTITY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

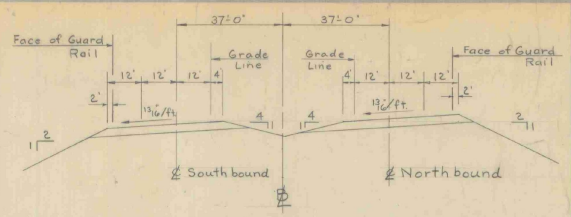
| | NO. | ITEM | UNIT | QUANTITY BREAKDOWN Abut.#1 | Abut.#2 | Abut.#3 | Abut.#4 | Pier#1 | Pier#2 | S.B. super-Structure | N.B. super-Structure | Appr. Slab#1 | Appr. Slab#2 | Appr. Slab#3 | Appr. Slab#4 | NET | OVER-RUN | TOTAL | FINAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 105 | Granular Borrow (Between Abutments) | C.Y. | | | | | | | | | | | | | | | * 8600 | AB |
| | 109 | Structure Excavation | C.Y. | 9 | 9 | 9 | 9 | 85 | 85 | | | | | | | | | 206 | 391 |
| | 204 | Sub-Base of Crushed Rock | C.Y. | 74 | 90 | 74 | 90 | | | | | | | | | | | 328 | 305 |
| | 221 | Overhaul (1/2 miles) | C.Y./Mi. | | | | | | | | | | | | | | | 2136 | 0 |
| | 222-B | Gravel Backfill for Structures | C.Y. | 40 | 40 | 53 | 45 | | | | | | | | | | | 178 | 178 |
| * | 318 | Tar Emulsion for Bridge Floors | Gal. | | | | | | | 242 | 242 | 35 | 38 | 35 | 38 | | | * 630 | |
| * | 361-B | Bituminous Concrete Pavement (Dense Graded Bottom & Top Course) | Ton | | | | | | | 56 | 56 | 7 | 8 | 7 | 8 | | | * 142 | (Stage II) |
| * | 372-A | Joint Sealer - Hot Poured | L.F. | 38 | 38 | 38 | 38 | | | | | | | | | | | * 152 | |
| | 372-C | Joint Sealer: Preformed, Type A | L.F. | 53 | 53 | 53 | 53 | 11 | 11 | | | | | | | | | 234 | 218 |
| | 401-AA | Concrete Class AA | C.Y. | | | | | 43 | 44 | 192 | 192 | | | | | | | 471 | 469 |
| | 401-B | Concrete Class B | C.Y. | 69 | 67 | 80 | 74 | 46 | 46 | | | 30 | 33 | 30 | 33 | | | 508 | 507 |
| | 402 | Reinforcing Steel | Lbs | 5560 | 5400 | 6590 | 5890 | 13,960 | 14,130 | 45,880 | 45,880 | 4460 | 4860 | 4460 | 4860 | | | 161,930 | 162,479 |
| | 403 | Shear Connectors (1520-3/4"x7" Studs) @ Sta. 3583± | L.S. | | | | | | | 1/2 | 1/2 | | | | | | | 1 | 1 |
| R.B. | 404-A | Structural Steel @ Sta. 3583± | Lbs. | 190 | 190 | 190 | 190 | | | 199,500 | 199,500 | | | | | | | 399,760 | 374,241 |
| | 407 | Asphaltic-Asbestos Coating | S.Y. | 5 | 5 | 5 | 5 | 18 | 18 | | | | | | | | | 46 | 56 |
| | 440 | Water Repellent | Gal | 4 | 4 3/4 | 4 3/4 | 4 1/2 | 6 1/2 | 6 1/2 | 16 1/2 | 16 1/2 | | | | | | | 64 | 74 |
| | 501 | Furnishing Equipment for Driving Piling | L.S. | Reqd | Reqd | Reqd | Reqd | Reqd | Reqd | | | | | | | | | 1/4 | 1/4 |
| | 503-C | Steel Piling (12BP53) | L.F. | 525 | 490 | 525 | 525 | 270 | 270 | | | | | | | | | 2605 | 1697 |
| | 503-C | Steel Piling Cut-offs @ 50% Unit Price | L.F. | AB | | | | | | | | | | | | | | | 501 |
| | 504 | Splices for Steel Piling | Ea. | 3 | 3 | 3 | 3 | 4 | 4 | | | | | | | | | 20 | 0 |
| | 505 | Pile Loading Tests | Ea. | 1 | 1 | 1 | 1 | 1 | 1 | | | | | | | | | 6 | 0 |
| | 556C | Granite Bridge Curb | L.F. | 22 | 20 | 26 | 24 | | | 286 | 286 | | | | | | | 664 | 660 |
| | 572 | Bridge Rail | L.F. | | | | | | | 325 | 333 | | | | | | | 658 | 658 |

* Indicates Items to be included in Rdwy. Quantities

Drawn by JW
Checked by DHB

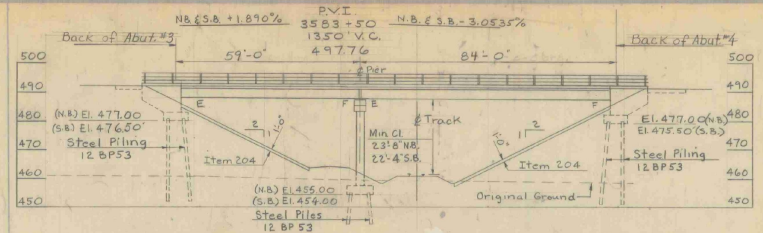
BRIDGE(S) AT STATION(S) 3584+0 ±
LOCATION(S) I89 over C.V. RY

St. ALBANS - SWANTON PROJECT NO. I87-3(42)
BR401 OF 420 SHEET NO. 104 OF 153




TYPICAL HIGHWAY SECT. I 89

SCALE 1" = 20'




NEW HIGHWAY PROFILE ALONG NORTHBOUND FASCIA

SCALE 1" = 20'

HIGHWAY NO. I 89 NAME OF HIGHWAY Interstate

STRUCTURE NO. S3 - 84 COUNTY Franklin TOWN St. Albans

PROJECT NO. I 89-3(36) Cont. # 1 LOCATION St. Albans - Swanton

I 89 over C.V.Ry. Sta 3584 ±

## EXISTING STRUCTURE

1 RATED LOADING OF EXISTING STRUCTURE
2 TYPE OF EXISTING STRUCTURE
3 UNDERCLEARANCE ELEVATION OF EXISTING STRUCTURE
4 WHAT DISPOSITION SHOULD BE MADE OF EXISTING STRUCTURE — COST OF REMOVAL
5 SHOULD EXISTING STRUCTURE BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION OF NEW STRUCTURE
6 SHOULD NEW TEMPORARY STRUCTURE BE BUILT
7 ORDINARY HIGH WATER SURFACE ELEV. AT EXISTING STRUCTURE — WATERWAY TO ORDINARY H.W.
8 EXTREME HIGH WATER AT EXISTING STRUCTURE
9 SPAN OF EXISTING BRIDGE UPSTREAM — WATERWAY TO EXTREME H.W.
SPAN OF EXISTING BRIDGE DOWNSTREAM — WATERWAY TO EXTREME H.W.
10 TYPE OF FOUNDATION UNDER EXISTING ABUTMENTS
11 DOES ALL WATER AT FLOOD ELEVATION PASS THROUGH EXISTING STRUCTURE
12 IF NOT AT WHAT ELEVATION IS RELIEF AFFORDED
13 ADDITIONAL WATERWAY AREA PROVIDED

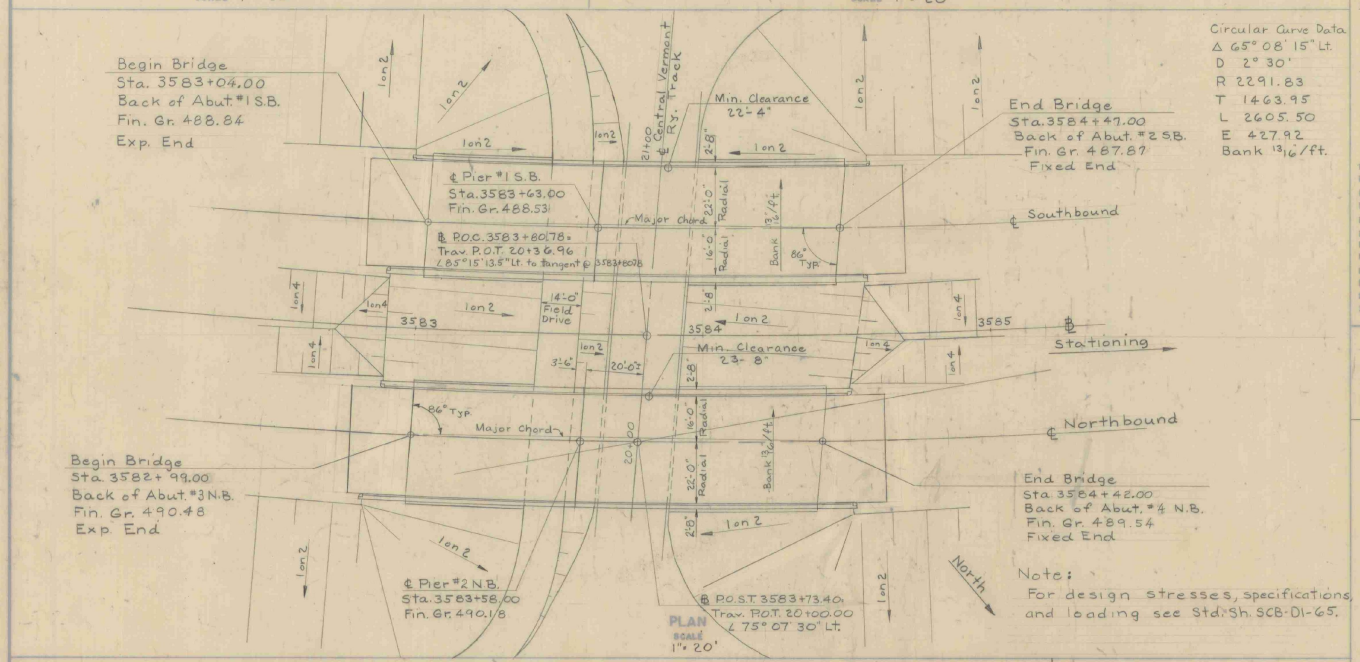
## NEW STRUCTURE

1 RECOMMENDED TYPE OF STRUCTURE 2 Span Simple W^e Beam Bridges SCB-38-65
2 RECOMMENDED CLEAR SPAN OR SPANS 59' - 84' (Composite)
MEASURED PARALLEL TO ℄ NEW HIGHWAY
MEASURED AT RIGHT ANGLES TO ℄ STREAM
3 ARE THERE OBJECTIONS TO A PIER IN THE STREAM, ANSWER YES OR NO.
4 ORDINARY HIGH WATER ELEVATION AT NEW STRUCTURE
5 EXTREME HIGH WATER ELEVATION AT NEW STRUCTURE — SOURCE OF INFORMATION
6 IS ALL WATER INTENDED TO PASS THROUGH NEW STRUCTURE?
7 DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? — IS ORDINARY RISE RAPID?
8 LOW WATER ELEVATION AT NEW STRUCTURE
9 DRAINAGE AREA IN ACRES ABOVE STRUCTURE — CHARACTER OF TERRAINE
10 IS STREAM EVER DRY?
11 VELOCITY OF STREAM AT HIGH WATER STAGE — ESTIMATED DISCHARGE
12 AREA FULL OPENING — AREA BELOW ORDINARY H.W.
13 CHARACTER OF SCOUR — DRIFT — ICE
14 ESTIMATED DRAINAGE AREA ABOVE NATURAL OR ARTIFICIAL STORAGE
15 VERTICAL CLEARANCE ABOVE FLOOD ELEVATION
16 ARE SIDEWALKS REQUIRED, IF SO ON WHAT SIDE No BOTH SIDES
17 RECOMMENDED TYPE OF PAVEMENT 1 1/2" Bit. Concrete
18 TRAFFIC TO BE MAINTAINED UNDER ITEM NO. — ONE OR TWO WAYS — PROBABLE COST
19 PROBABLE COST OF CLEARING AND GRUBBING STREAM CHANNEL AT STRUCTURE SITE
20 SHOULD PROVISIONS BE MADE FOR PUBLIC UTILITIES?
21 ESTIMATED ALLOWABLE LOAD ON FOUNDATIONS 45 Ton/Pile SHOULD PILES BE USED? Yes EST. LGTH.

| | S.B. | N.B. |
|---|---|---|
| Abut. #1 | 35' | Abut. #3 | 35' |
| Pier #1 | 15' | Pier #2 | 15' |
| Abut. #2 | 35' | Abut. #4 | 35' |

## FOUNDATION INFORMATION

OBTAINED FOR DESIGN PURPOSES ONLY, AND THE STATE ASSUMES NO RESPONSIBILITY WHATSOEVER FOR THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN. BOULDERS MAY BE ENCOUNTERED AT ANY PIER OR ABUTMENT LOCATION.

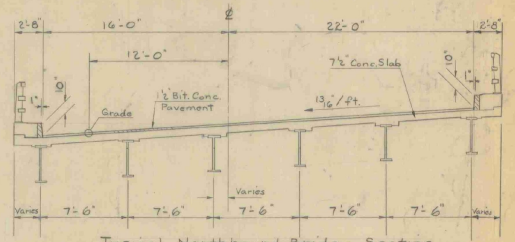



PLAN

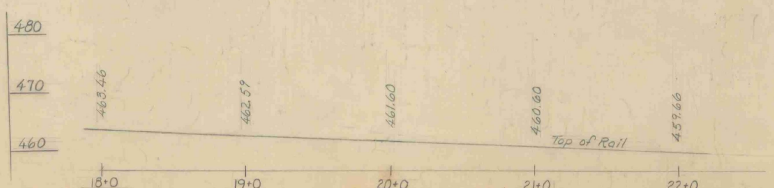
SCALE 1" = 20'

Circular Curve Data
Δ 65° 08' 15" Lt.
D 2° 30'
R 2291.83
T 1463.95
L 2605.50
E 427.92
Bank 13/16"/ft.

Note:
For design stresses, specifications, and loading see Std. Sh. SCB-D1-65.

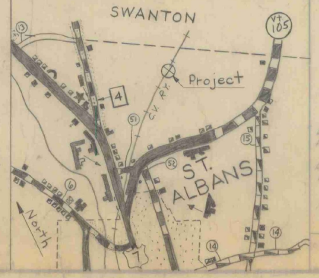



Typical Northbound Bridge Section
Scale 1" = 5'
(Southbound Section Similar)




PROFILE OF C.V.R.R.

SCALE: Hor. 1" = 40'
Vert. 1" = 10'




STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

Interstate IN THE TOWNS OF St. Albans - Swanton

ROUTE NO. I 89 LOG STA. I 89 over C.V.Ry. Sta. 3584 ±

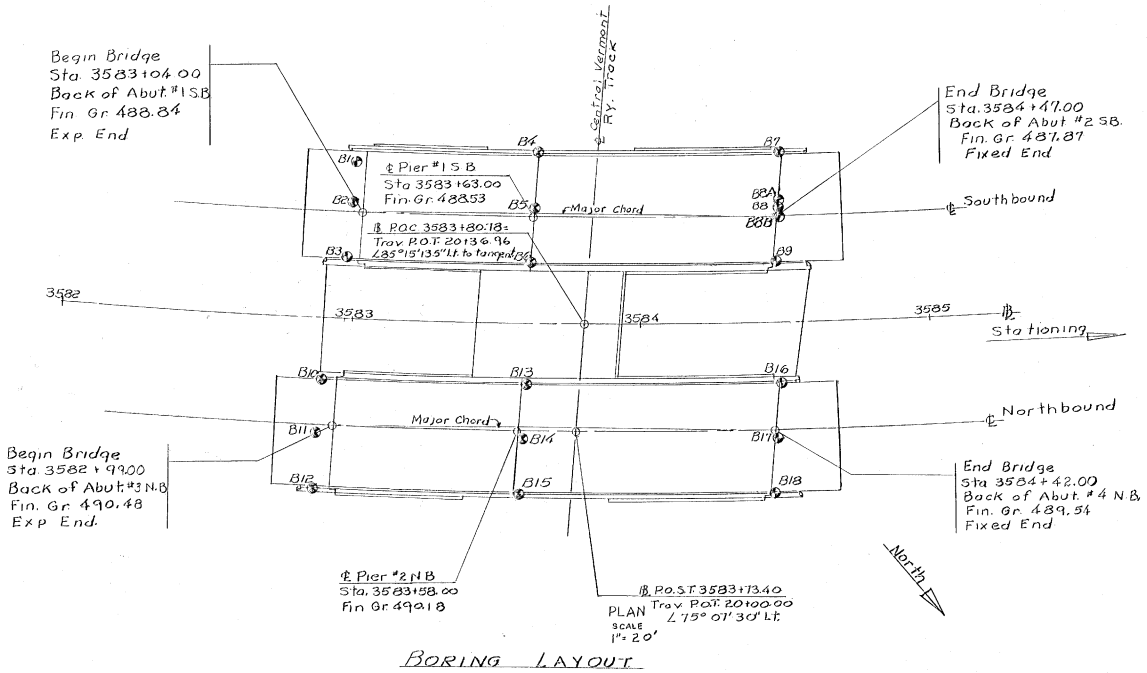
| | | |
|---|---|---|
| Recommended for Approval | Louis M. Bom | 3/3/65 |
| Recommended for Approval | P.H. Cook | 3/3/65 |
| Approved | A.D. Bishop | 3/3/65 |

SURVEYED BY — DRAWN BY A.T.C. — CHECKED BY — IN CHARGE R.W.B. — SCALE As Noted — DATE 3/1/65

PROJECT NO. I 89-3(36) Cont. # 1 SHEET 105 OF 115

BR-402

SHEET 98 of 153




BORING LAYOUT

| Station | Boring No. | Offset from ℄ | Type of Boring |
|---|---|---|---|
| 3583+00 | B1 | 54'Lt. | Casing |
| 3582+99 | B2 | 40'Lt. | Auger |
| 3583+98 | B3 | 21'Lt. | Casing |
| 3583+63 | B4 | 59'Lt. | Casing |
| 3583+62 | B5 | 40'Lt. | Auger |
| 3583+61 | B6 | 21'Lt. | Casing |
| 3584+49 | B7 | 59'Lt. | Casing |
| 3584+48 | B8 | 40'Lt. | Auger |
| 3584+48 | B8A | 42'Lt. | Auger |
| 3584+48 | B8B | 37'Lt. | Auger |
| 3584+47 | B9 | 21'Lt. | Casing |
| 3582+90 | B10 | 21'Rt. | Casing |
| 3582+89 | B11 | 40'Rt. | Auger |
| 3582+88 | B12 | 59'Rt. | Casing |
| 3583+60 | B13 | 21'Rt. | Casing |
| 3583+59 | B14 | 40'Rt. | Auger |
| 3583+58 | B15 | 59'Rt. | Casing |
| 3584+48 | B16 | 21'Rt. | Casing |
| 3584+46 | B17 | 40'Rt. | Auger |
| 3584+45 | B18 | 59'Rt. | Casing |

| | O.D. | I.D. | Wt. Hammer | Hammer Fall |
|---|---|---|---|---|
| Casing | 3" | 2 1/4 | 350# | 24" |
| Sampler | 2" | 1 3/8 | 140# | 30" |

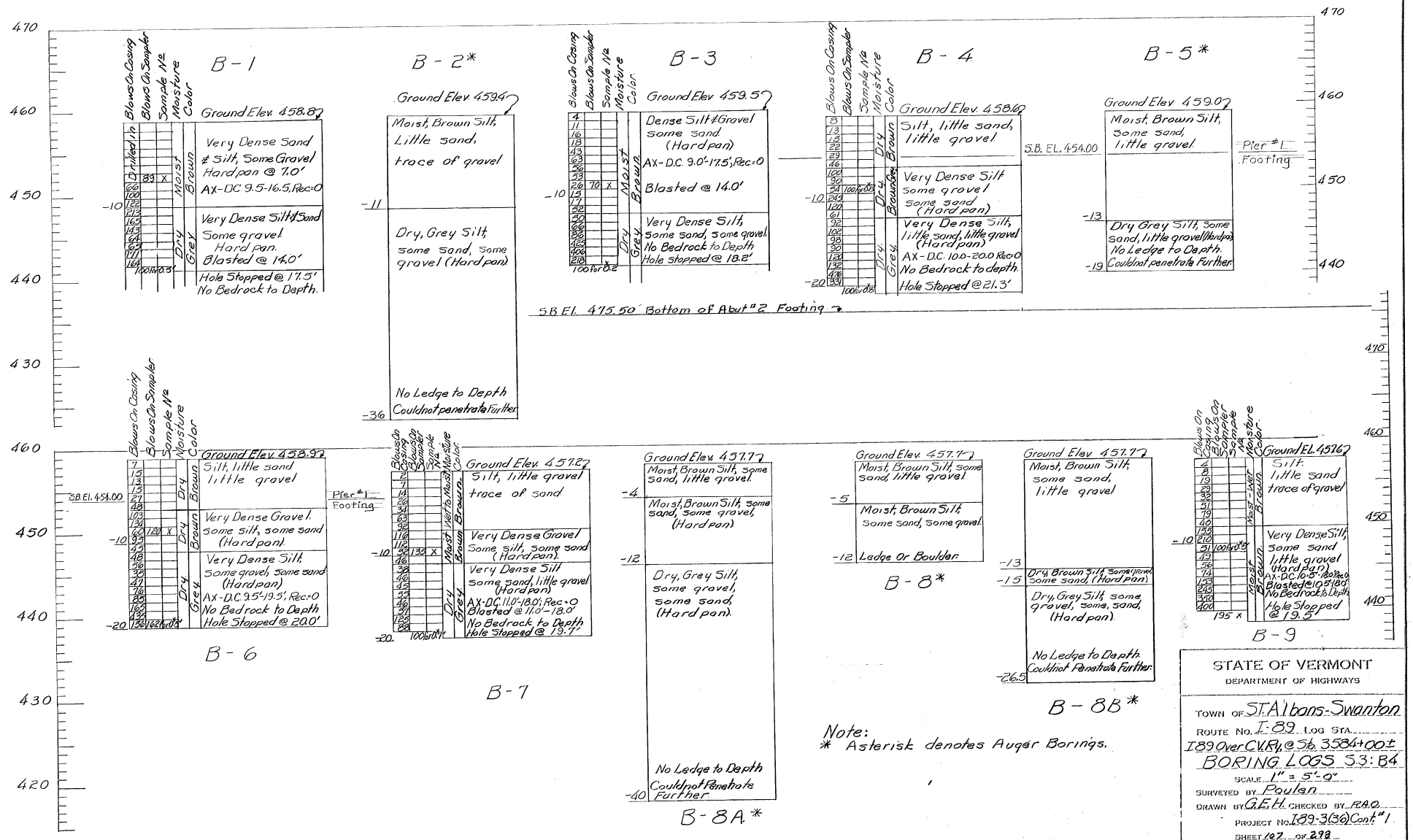
| ITEM NO. | ITEM | UNIT | NET | | TOTAL | PRICE |
|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | |
| | UNCLASS. CHAN. EXCAV. | C.Y. | | | | |
| | STRUCT. EXCAV. | C.Y. | | | | |
| | CONC. CLASS AA (MOD.) | C.Y. | | | | |
| | CONC. CLASS B (MOD.) | C.Y. | | | | |
| | REINF. STEEL | LBS. | | | | |
| | ASPHALTIC ASH. COATING | S.Y. | | | | |
| | TREATED TIMBER PILING | L.F. | | | | |
| | SPLICES FOR STEEL PILING | EA. | | | | |
| | STEEL PILING | L.F. | | | | |
| | UNTREATED TIMBER PILING | L.F. | | | | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans-Swanton
ROUTE NO. I 89 LOG STA.
I-89 over CV R.R. @ Sta. 3584+00±
BORING LAYOUT S3:B4
SCALE 1" = 20'
SURVEYED BY Poulen
DRAWN BY G.E.H. CHECKED BY R.A.O.
PROJECT NO. I 89-3(36)Cont.#1
SHEET 106 OF 298

BR-403

S.B. EL. 476.50? Bottom Abut #1 Footing

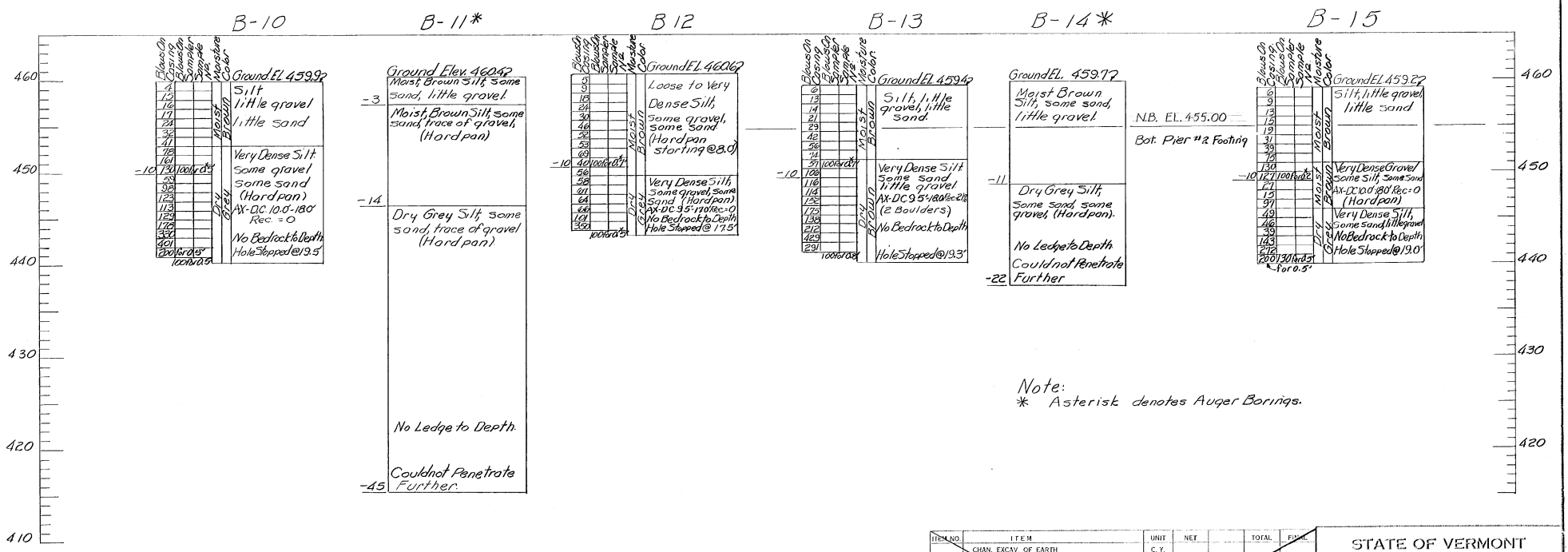



STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans-Swanton
ROUTE No. I-89 LOG STA.
I89 Over C.V.Ry. @ Sta. 3584+00±
BORING LOGS S.3:B4
SCALE 1" = 5'-0"
SURVEYED BY Poulen
DRAWN BY G.E.H. CHECKED BY R.A.O.
PROJECT No. I89-3(36) Cont. #1
SHEET 107 OF 298

BR-404

N.B. EL. 477.00 ℄ Bottom Abut. #3 Footing




Note:
* Asterisk denotes Auger Borings.

| ITEM NO. | ITEM | UNIT | NET | | TOTAL | FINAL |
|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | |
| | UNCLASS. CHAN. EXCAV. | C.Y. | | | | |
| | STRUCT. EXCAV. | C.Y. | | | | |
| | CONC. CLASS AA (MOD.) | C.Y. | | | | |
| | CONC. CLASS B (MOD.) | C.Y. | | | | |
| | REINF. STEEL | LBS. | | | | |
| | ASPHALTIC-ASB. COATING | S.Y. | | | | |
| | TREATED TIMBER PILING | L.F. | | | | |
| | SPLICES FOR STEEL PILING | EA. | | | | |
| | STEEL PILING | L.F. | | | | |
| | UNTREATED TIMBER PILING | L.F. | | | | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans-Swanton
ROUTE NO. I-89 LOG STA.
I89 over CV R4 @ Sta. 3584+00±
BORING LOGS S3: B4
SCALE 1" = 5'
SURVEYED BY Poulen
DRAWN BY G.E.H. CHECKED BY R.A.O.
PROJECT NO. I-89-3(36)Cont'l
SHEET 108 OF 298

BR-405

N.B. EL. 477.00 ℄ Bot. Abut. #4 Footing

## B-16

Blows On Casing | Blows On Sampler | Sample No. | Moisture | Color

Ground Elev. 458.4

| Depth | Blows On Casing | Blows On Sampler | Sample No. | Moisture | Color | Description |
|---|---|---|---|---|---|---|
| | 6 | | | Moist | Brown | Silt little gravel little sand |
| | 13 | | | | | |
| | 19 | | | | | |
| | 26 | | | | | |
| | 39 | | | | | |
| | 42 | | | | | |
| | 57 | | | | | |
| | 97 | | | | | |
| | 106 | | | | | |
| -10 | 260 | | | | | Very Dense Gravel, and Coarse Sand, little Silt. |
| | 50 | 11" for 0.5' | | | | |
| | 59 | | | Dry | Grey | Very Dense Silt, some gravel, some sand |
| | 49 | | | | | |
| | 39 | | | | | AX-DC, 10.5'-18.0' Rec.=0 |
| | 38 | | | | | Blasted @ 10.5'-18.0'. |
| | 44 | | | | | No Bedrock to Depth. |
| | 42 | | | | | Hole Stopped @ 18.7' |
| | 55 | | | | | |
| | 52 | for 0.3' | | | | |
| | 190 | for 0.4' | | | | |

## B-17*

Ground Elev. 458.5

| Depth | Description |
|---|---|
| | Moist, Brown Silt some sand trace of gravel |
| -12 | |
| -14 | Moist Brown Silt, some sand Some gravel. (Hardpan) |
| | Dry, Grey. Silt, some sand, little gravel. (Hardpan) |
| -22 | |
| -25 | Dry to Moist, Grey Silt, some sand, little gravel (Hardpan) |
| | Moist to Wet. Grey Silt some sand trace of gravel, (Hardpan). |
| -51 | |
| | Saturated Grey Silt some sand, trace of gravel (Hard pan). |
| | No Ledge to Depth. |
| -77 | Couldnot Penetrate Further |

## B-18

Blows On Casing | Blows On Sampler | Sample No. | Moisture | Color

Ground Elev. 458.5

| Depth | Blows On Casing | Blows On Sampler | Sample No. | Moisture | Color | Description |
|---|---|---|---|---|---|---|
| | 7 | | | Moist | Brown | Silt little gravel, little sand. |
| | 12 | | | | | |
| | 18 | | | | | |
| | 27 | | | | | |
| | 32 | | | | | |
| | 41 | | | | | |
| | 70 | | | | | |
| | 121 | | | Moist | Grey | Very Dense Silt & Sand, some gravel (Hardpan - Boulders) |
| | 161 | | | | | |
| -10 | 164 | | | | | |
| | 60 | 102" for 0.4' | | | | AX-D.C. 10.4'-18.0', Rec.=0 |
| | 86 | | | | | |
| | 112 | | | | | No Bedrock to Depth. |
| | 169 | | | | | |
| | 291 | | | | | |
| | 300 | | | | | |
| | 387 | | | | | |
| | 375 | | | | | Hole Stopped @ 18.5' |
| | 175 | for 0.5' | | | | |

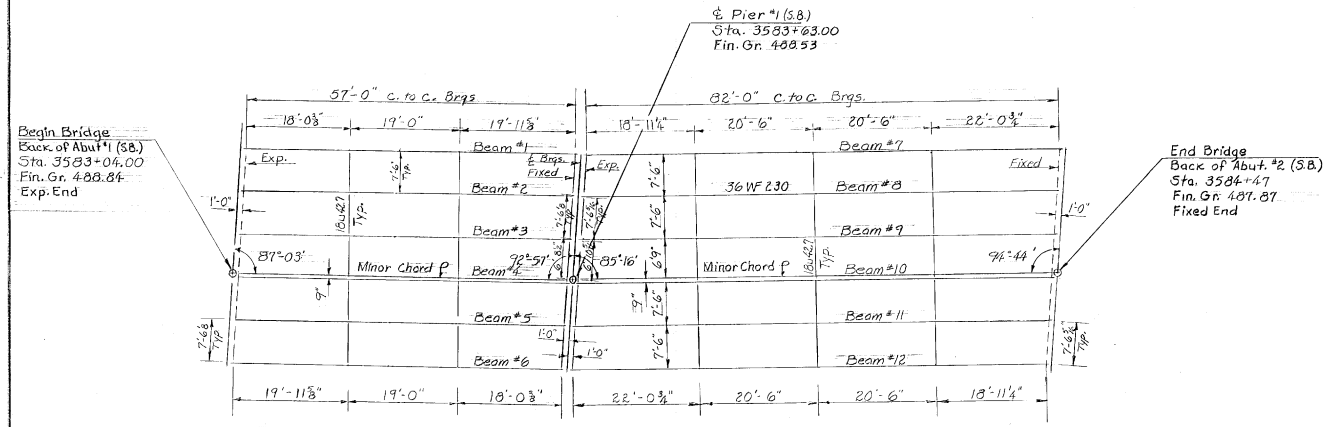
Note:
* Asterisk denotes Auger Borings.

| ITEM NO. | ITEM | UNIT | NET | | TOTAL | FINAL |
|---|---|---|---|---|---|---|
| | CHAN. EXCAV. OF EARTH | C.Y. | | | | |
| | CHAN. EXCAV. OF ROCK | C.Y. | | | | |
| | UNCLASS. CHAN. EXCAV. | C.Y. | | | | |
| | STRUCT. EXCAV. | C.Y. | | | | |
| | CONC. CLASS AA (MOD.) | C.Y. | | | | |
| | CONC. CLASS B (MOD.) | C.Y. | | | | |
| | REINF. STEEL | LBS. | | | | |
| | ASPHALTIC-ASB. COATING | S.Y. | | | | |
| | TREATED TIMBER PILING | L.F. | | | | |
| | SPLICES FOR STEEL PILING | EA. | | | | |
| | STEEL PILING | L.F. | | | | |
| | UNTREATED TIMBER PILING | L.F. | | | | |

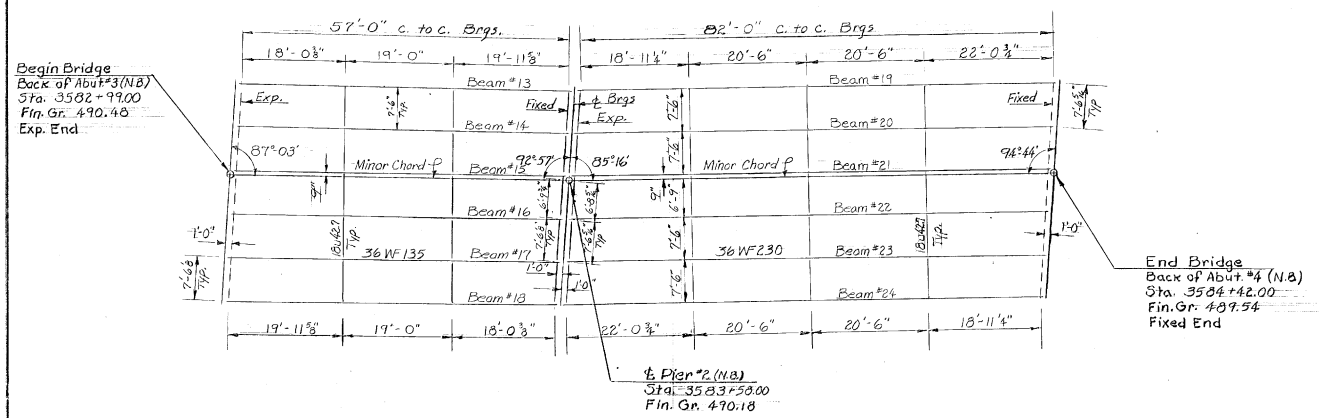
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF ST. Albans-Swanton
ROUTE NO. I 89 LOG STA.
I 89 over C.V.Ry. @ Sta. 3584+00±
BORING LOGS S3: B4
SCALE 1" = 5'
SURVEYED BY Poulen
DRAWN BY G.E.H. CHECKED BY R.A.O.
PROJECT NO. I89-3(36) Cont. #1
SHEET 109 OF 298

BA-406




FRAMING PLAN
Southbound
Scale: 1" = 10'

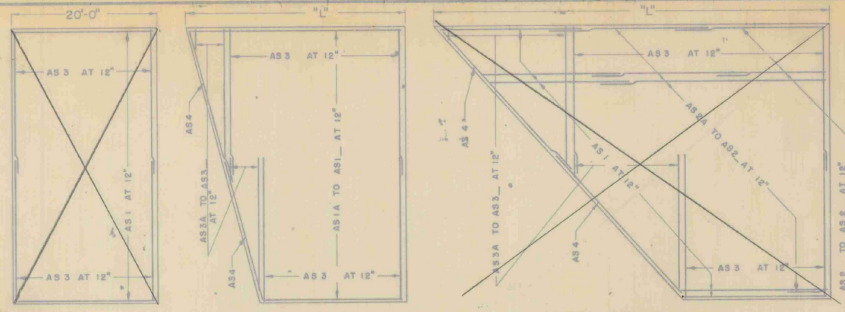



FRAMING PLAN
North bound
Scale: 1" = 10'

Note:
Both bridges are identically framed
All beams are parallel to Minor Chord.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

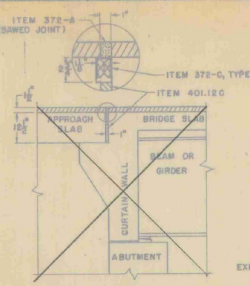
TOWN OF St Albans - Swanton
ROUTE NO. I 89 LOG STA.
I 89 over C.V.Ry @ Sta. 3584+0±
Framing Plan
SCALE As Noted
SURVEYED BY
DRAWN BY J.W. CHECKED BY D.H.B.
PROJECT NO. I 89-3(36)Coak 1
SHEET 110 OF 298
BR-407



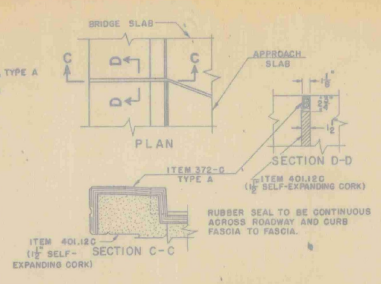

DETAIL "A" - SQUARE

DETAIL "B" - "L" LESS THAN 35'

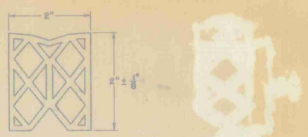
DETAIL "C" - "L" GREATER THAN 35'




SECTION B-B

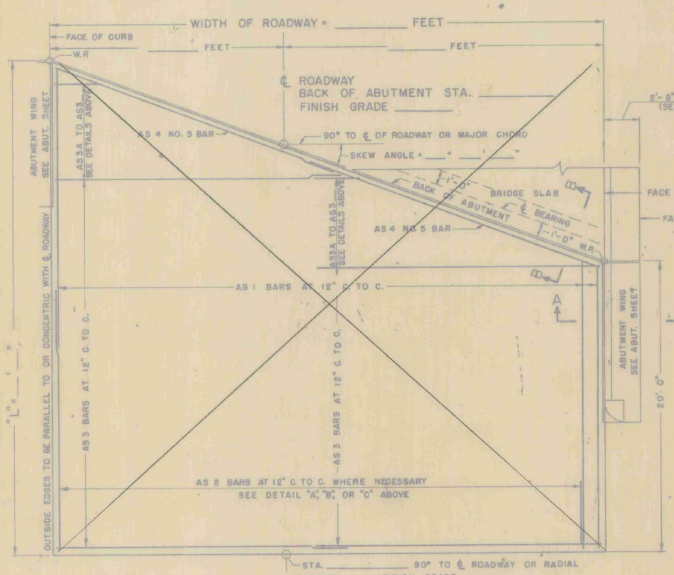



CURB JOINT DETAIL

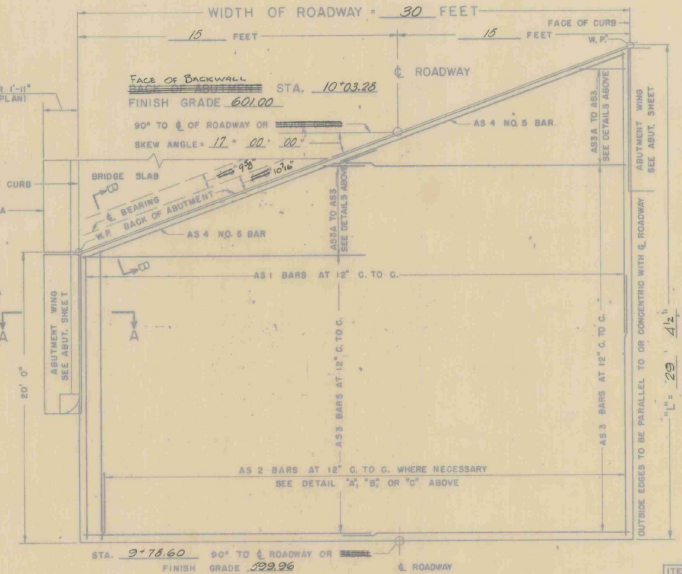



DETAILS - ITEM 372-C JOINT SEALER - PREFORMED (MOD.)

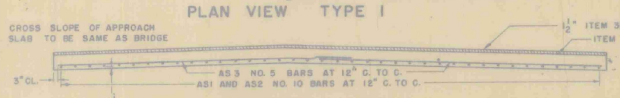
MATERIAL TO BE PREMOLDED NEOPRENE RUBBER (OTHER CONFIGURATIONS THAT SATISFY SPECIFICATIONS MAY BE USED.)



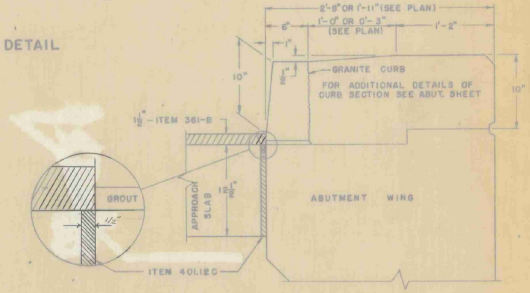

PLAN VIEW TYPE 1




PLAN VIEW TYPE 2




END SECTION VIEW




SECTION A-A

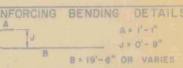
## GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1961. DESIGNED FOR H S 20-44 LOADING.
2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.

## SUMMARY OF QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL | FINAL |
|---|---|---|---|---|
| 318 | TAR EMULSION FOR BRIDGE FLOORS | GAL. | 53 | |
| 361-B | BITUMINOUS CONCRETE PAVEMENT | TONS | | |
| 372-A | JOINT SEALER - HOT POURED | L.F. | 32 | |
| 372-G | JOINT SEALER - PREFORMED, TYPE A (MOD.) | L.F. | 41 | |
| 372-C | JOINT SEALER - PREFORMED, TYPE B (MOD.) | L.F. | | |
| 401-B | CONCRETE CLASS B | CY. | 285 | |
| 402 | REINFORCING STEEL | LB. | 4245 | |

REINFORCING BENDING DETAILS




DETAIL SHOWN IS FOR AS1 BAR
ALL OTHER BARS ARE TO BE STRAIGHT

REINFORCING STEEL

| BAR NO. | NO. PIECES | A LENGTH | B LENGTH | C LENGTH | WEIGHT PER FT. | A x B x C WEIGHT IN LBS. |
|---|---|---|---|---|---|---|
| AS 1 | | | | | 4.303 | |
| AS 2 | | | | | 4.303 | |
| AS 3 | | | | | 1.043 | |
| AS 4 | | | | | 1.043 | |
| | | | | TOTAL WEIGHT = | | |

SEE REINFORCING SCHEDULE

REVISIONS AND CORRECTIONS
1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED. 4/15/65 W.B.T.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED AND MODIFICATION OF ITEM 372-C ADDED. 6/23/65 W.B.T.

DRAWN BY: W.B.T. Jan 1965
TRACED BY: W.B.T. Jan 1965
CHECKED BY: W.M.S. Feb 1965

RECOMMENDED FOR APPROVAL: _____ BRIDGE ENGINEER DATE 2/4/65
RECOMMENDED FOR APPROVAL: _____ ASSISTANT CHIEF ENGINEER DATE 2/4/65
APPROVED BY: _____ CHIEF ENGINEER DATE 2/4/65

# DETAILS OF APPROACH SLAB FOR 30 (WIDTH) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 3457+97

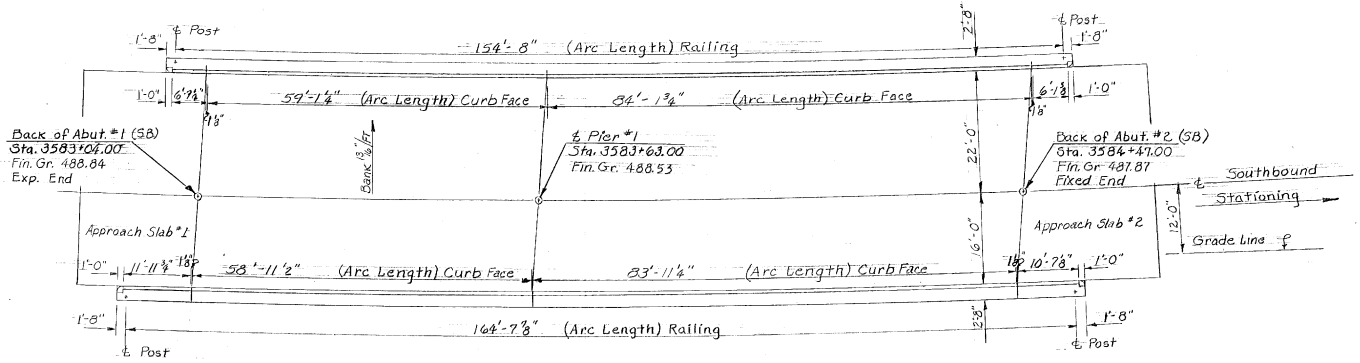
LOCATION Vermont Route 36 over I-89 ~ App Slab #1

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

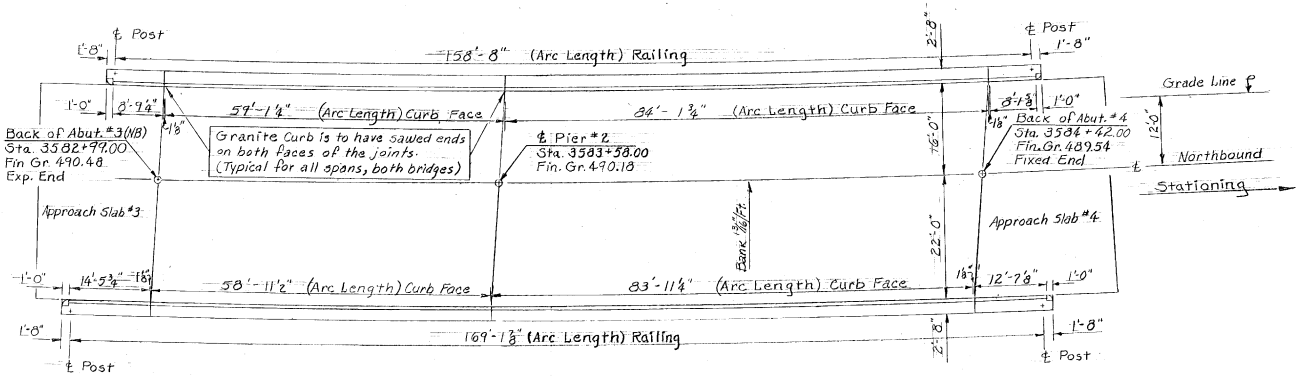
# SB-AS-65

TOWN OF St. Albans - Swanton
ROUTE NO. Vermont Route 36
LOG STA. over I-89

DESIGNED BY VT CHECKED BY DAS
PROJECT NO. I-89-3(36) 61
BR 111 OF 113 SHEET 72 OF 298

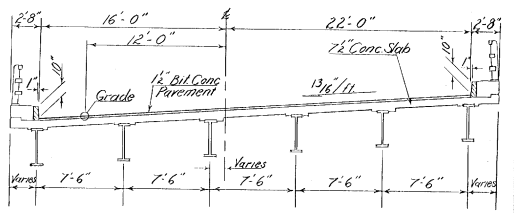



SOUTHBOUND
Scale: 1" = 10'




NORTHBOUND
Scale: 1" = 10'

Note: For Superstructure Details, See Standard Structures SCB-38-65

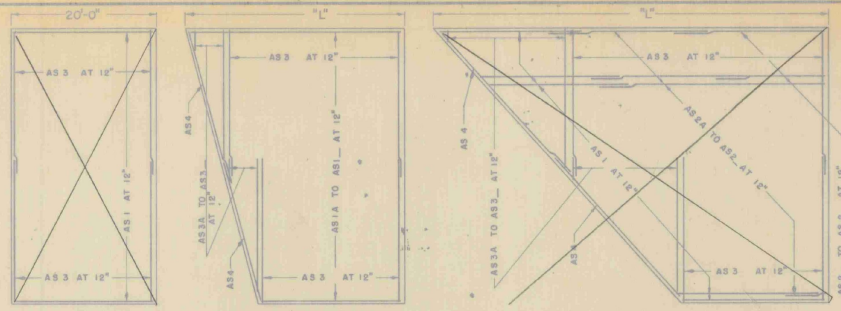



Typical Northbound Bridge Section
Scale 1" = 5'
(Southbound Section Similar)
See Plan View

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans ~ Swanton
ROUTE No. I89 LOG. STA.
I89 over C.V.Ry. @ Sta. 3584+0±
Curb and Railing Plan
SCALE As Noted
SURVEYED BY
DRAWN BY J.W. CHECKED BY DHB
PROJECT No. I89-3 (36) Cont. 1
SHEET (42) 11199 OF 153

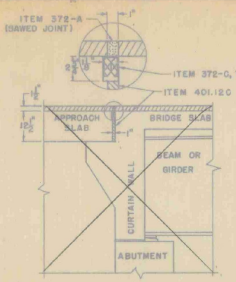
BR-408



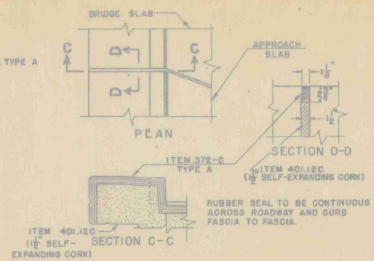

DETAIL "A" - SQUARE

DETAIL "B" - "L" LESS THAN 35'

DETAIL "C" - "L" GREATER THAN 35'

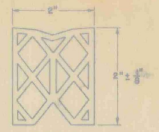



SECTION B-B



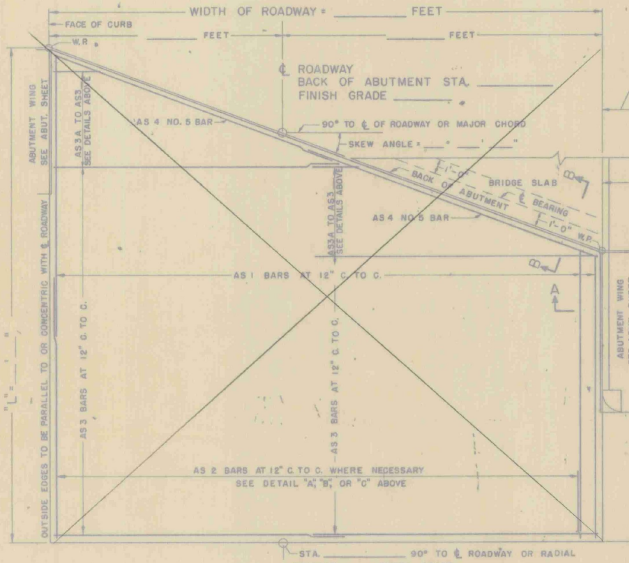

RUBBER SEAL TO BE CONTINUOUS ACROSS ROADWAY AND CURB FASCIA TO FASCIA.

CURB JOINT DETAIL

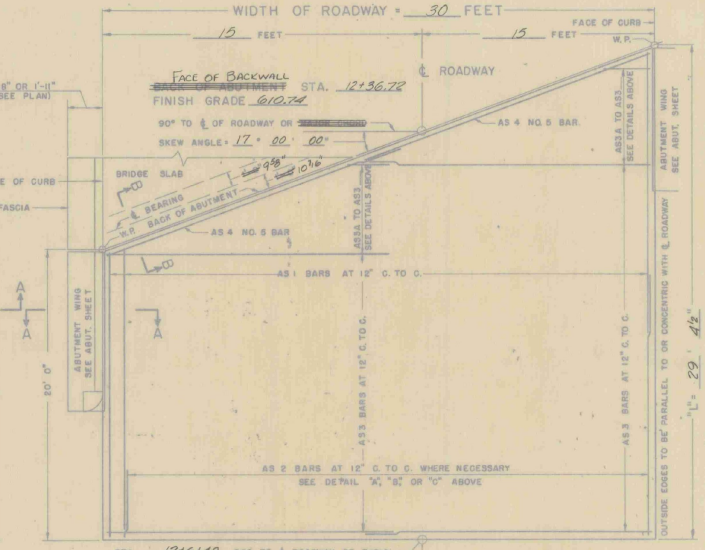



DETAILS - ITEM 372-C JOINT SEALER - PREFORMED (MOD.)

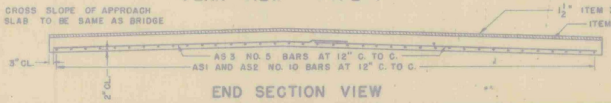
MATERIAL TO BE PREMOLDED NEOPRENE RUBBER (OTHER CONFIGURATIONS THAT SATISFY SPECIFICATIONS MAY BE USED.)



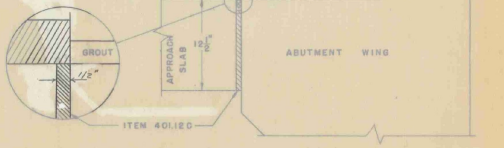

PLAN VIEW TYPE 1




PLAN VIEW TYPE 2




END SECTION VIEW




SECTION A-A

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1961. DESIGNED FOR H S 20-44 LOADING.
2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.

## SUMMARY OF QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL | FINAL |
|---|---|---|---|---|
| 318 | TAR EMULSION FOR BRIDGE FLOORS | GAL. | 33 | |
| 361-B | BITUMINOUS CONCRETE PAVEMENT | TONS | | |
| 372-A | JOINT SEALER - HOT POURED | L.F. | | |
| 372-C | JOINT SEALER - PREFORMED, TYPE A (MOD.) | L.F. | 41 | |
| 372-C | JOINT SEALER - PREFORMED, TYPE B (MOD.) | L.F. | | |
| 401-B | CONCRETE CLASS B | CY. | 28.5 | |
| 402 | REINFORCING STEEL | LB. | 2245 | |

REINFORCING BENDING DETAILS

A = 1'-1"
J = 0'-9"
B = 19'-8" OR VARIES
DETAIL SHOWN IS FOR AS1 BAR ALL OTHER BARS ARE TO BE STRAIGHT

REINFORCING STEEL (SEE REINFORCING SCHEDULE)

| BAR NO. | NO. PIECES | A LENGTH | B LENGTH | C LENGTH | WEIGHT PER FT. | A × B × C WEIGHT IN LBS. |
|---|---|---|---|---|---|---|
| AS 1 | | | | | 4.303 | |
| AS 2 | | | | | 4.303 | |
| AS 3 | | | | | 1.043 | |
| AS 4 | | | | | 1.043 | |
| | | | | TOTAL WEIGHT = | | |

REVISIONS AND CORRECTIONS

1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED. 4/15/65 W.B.T.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED AND MODIFICATION OF ITEM 372-C ADDED. 6/23/65 W.B.T.

DRAWN BY: W.B.T. Jan 1965
TRACED BY: W.B.T. Jan 1965
CHECKED BY: W.M.S. Feb 1965

RECOMMENDED FOR APPROVAL: _____ BRIDGE ENGINEER DATE 2/4/65
RECOMMENDED FOR APPROVAL: _____ ASSISTANT CHIEF ENGINEER DATE 2/4/65
APPROVED BY: _____ CHIEF ENGINEER DATE 2/4/65

# DETAILS OF APPROACH SLAB FOR 30 (WIDTH) FOOT - BRIDGE

TO BE USED FOR BRIDGE AT, STATION 3457+97

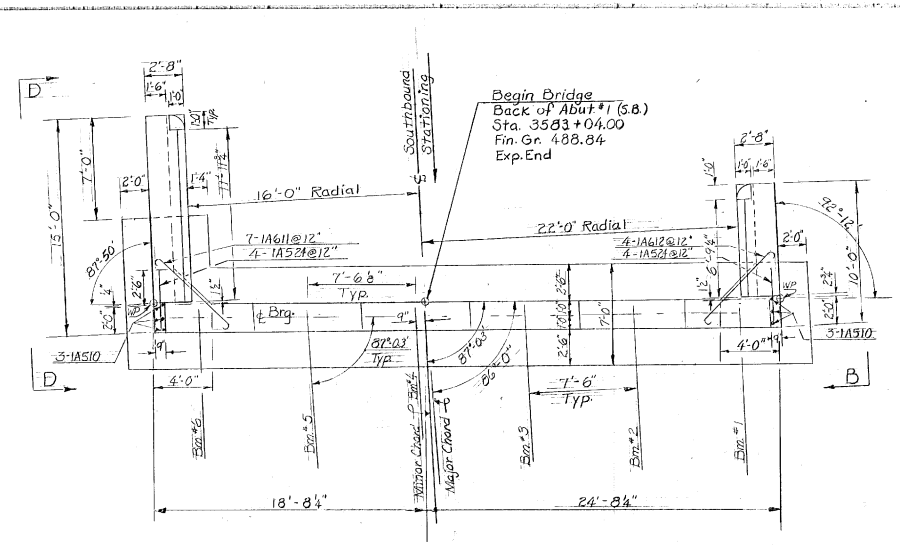
LOCATION Vt Rte 36 over I-89 ~ App Slab #2

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

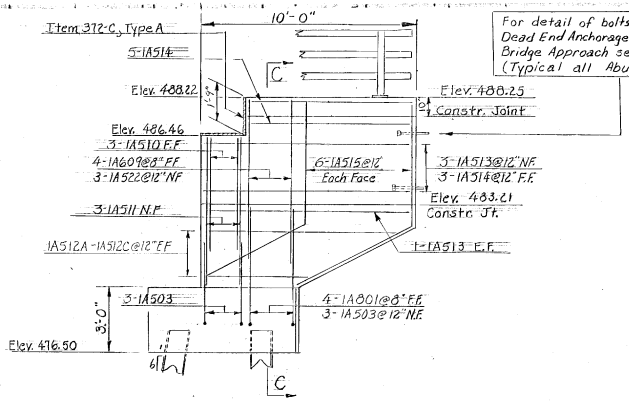
# SB-AS-65

TOWN OF St. Albans - Swanton
ROUTE NO. Vermont Route 36
LOG STA. over I-89

DESIGNED BY VT CHECKED BY DWS
PROJECT NO. I-89-3(36) 91
BR 112 OF 113 SHEET 73 OF 298

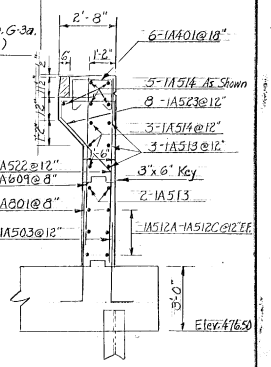



PLAN
Scale ¼" = 1'-0"




For detail of bolts for Dead End Anchorage @ Bridge Approach see Std. Sh. G-3a. (Typical all Abutments)

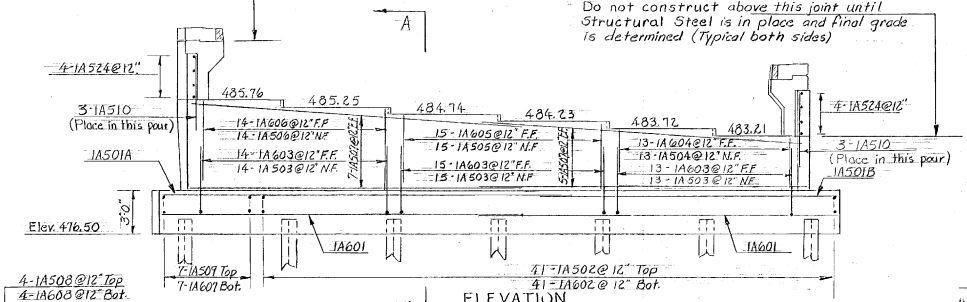
VIEW B-B
Scale ⅜" = 1'-0"



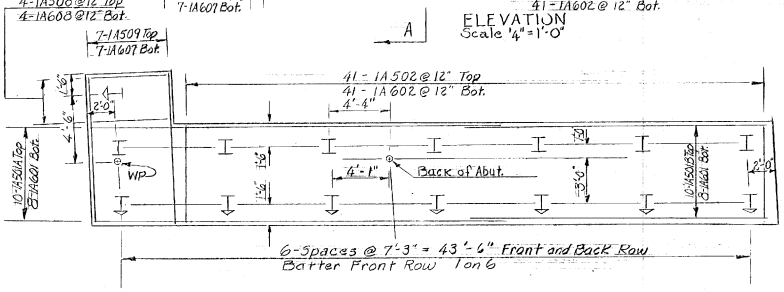

SECTION C-C
Scale ⅜" = 1'-0"

For details of construction joint at curb see Std. Sh. SCB-D6-65, Detail A

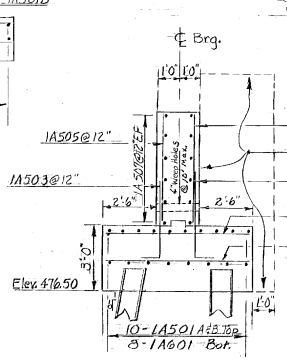
Note:
Do not construct above this joint until Structural Steel is in place and final grade is determined (Typical both sides)



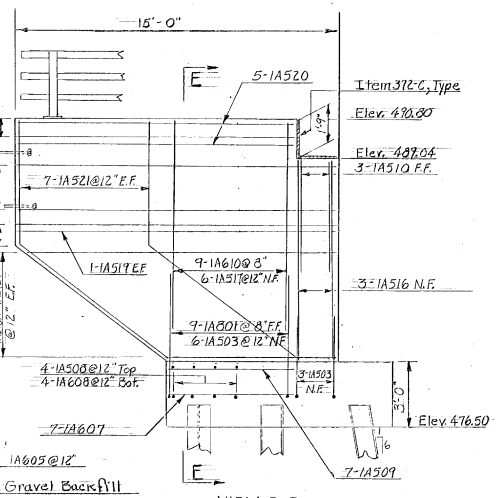

ELEVATION
Scale ¼" = 1'-0"



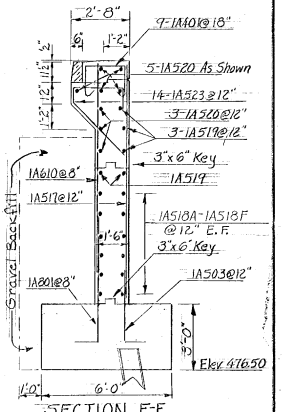

FOOTING REINFORCEMENT AND PILE PLAN
Scale ¼" = 1'-0"




SECTION A-A
Scale ⅜" = 1'-0"




VIEW D-D
Scale ⅜" = 1'-0"




SECTION E-E
Scale ⅜" = 1'-0"

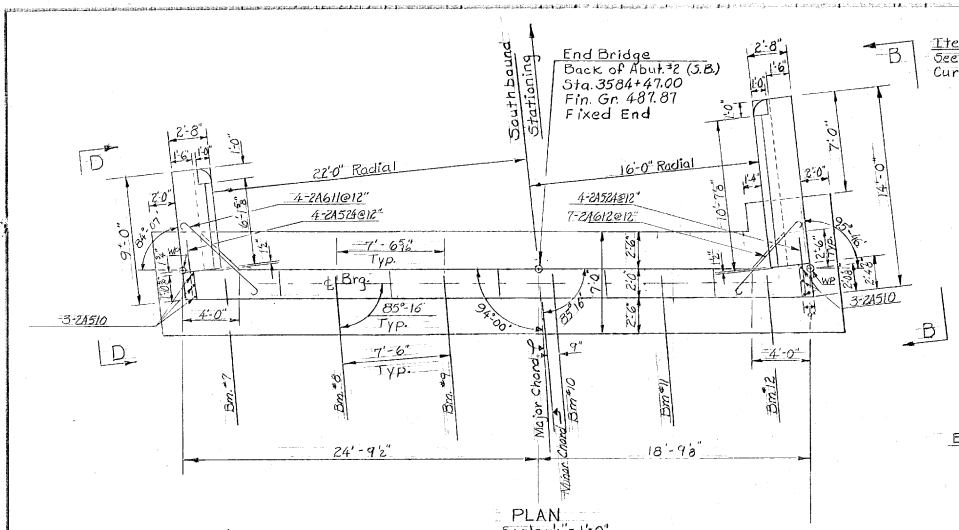
For Abutment Notes see Abutment No. 3, sheet BR-411

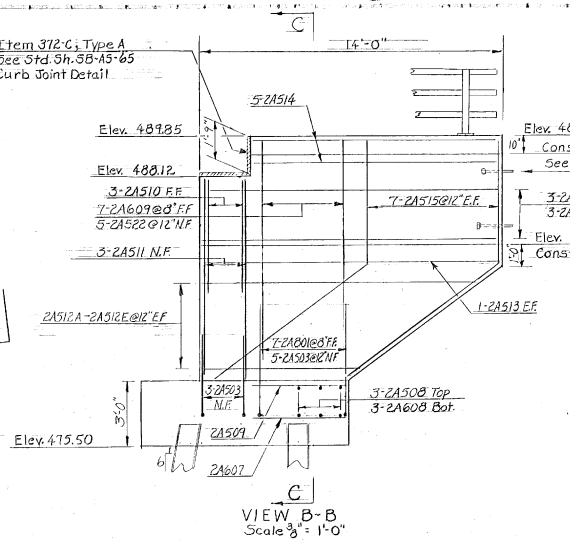
| No. Piles | Size | Est. Length of Piles | Splices Allowed for Piles not exceeding Plan Length (to be paid for only if used) | Splices Estimated for Piles exceeding Plan Length (to be paid for only if used) |
|---|---|---|---|---|
| 15 | 12BP53 | 35 | —— | 3 |

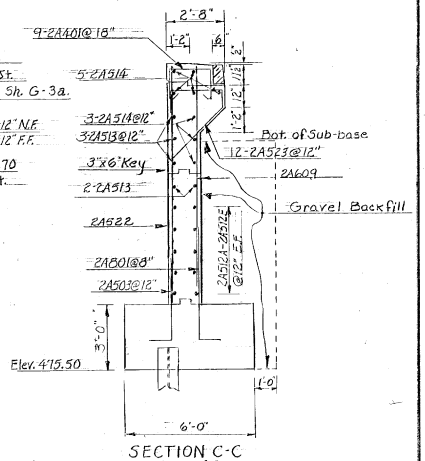
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

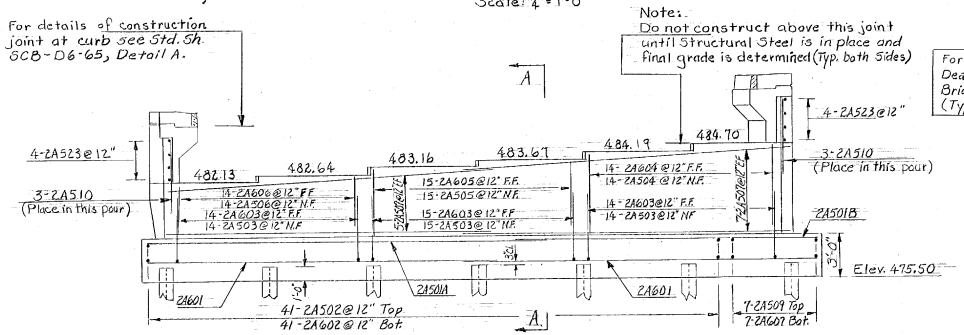
TOWN OF St. Albans - Swanton
ROUTE NO I-89 LOG. STA. ____
Details of Abutment #1 (S.B.)
I-89 over C.V. Ry.
SCALE As Noted
SURVEYED BY ____
DRAWN BY J.W. CHECKED BY DHB
PROJECT NO. I-89-3(36)Cont #
SHEET 112 OF 298

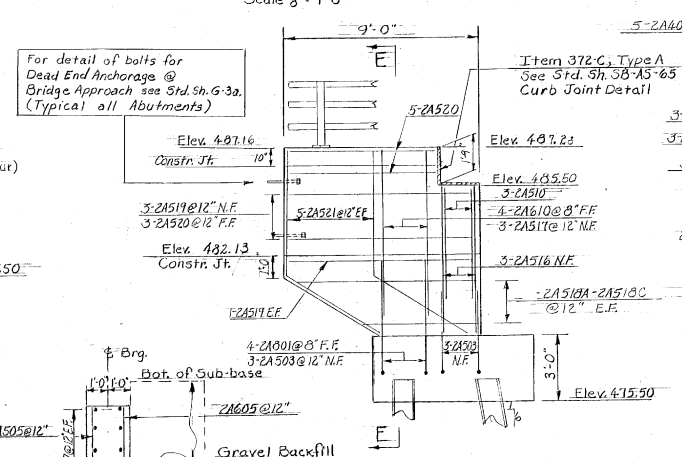
BR-409

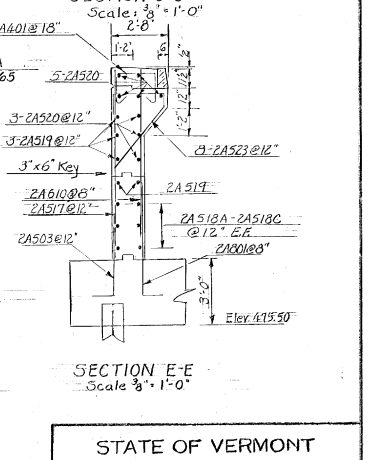


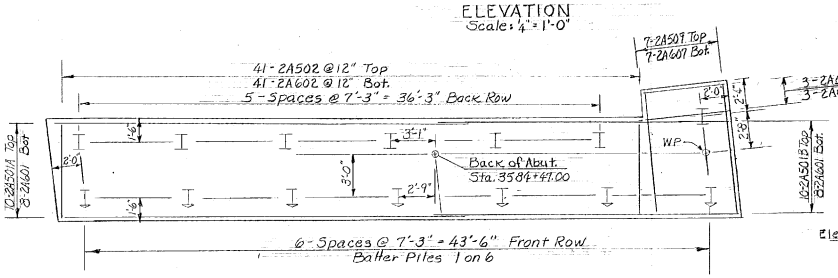



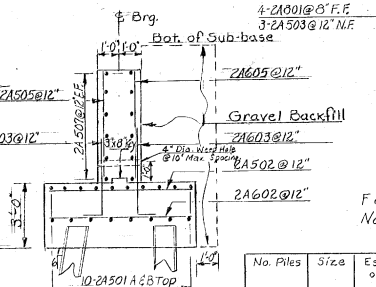



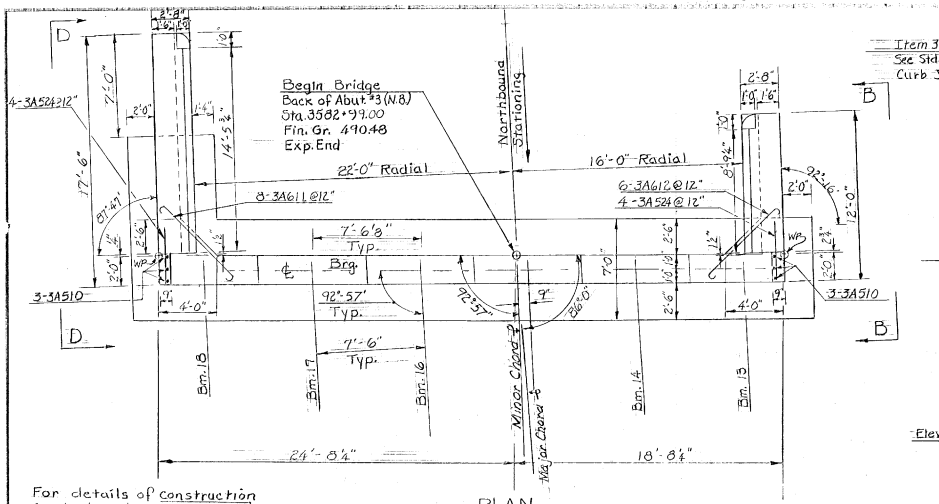

For Abutment Notes see Abutment No. 3 sheet BR-411

| No. Piles | Size | Est. Length of Piles | Splices Allowed for Piles not exceeding Plan Length (to be paid for only if used) | Splices Estimated for Piles exceeding Plan Length (to be paid for only if used.) |
|---|---|---|---|---|
| 14 | 12BP53 | 35 | — | 3 |

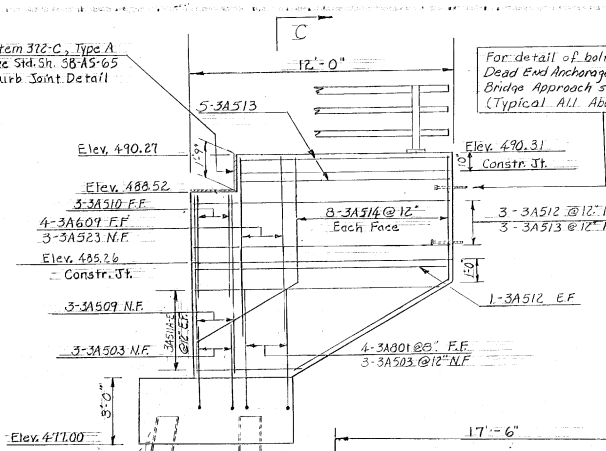
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St Albans - Swanton
ROUTE NO. I 89 LOG STA.
Details of Abutment #2 (S.B.)
I 89 over C.V. Ry.
SCALE - As Noted
SURVEYED BY
DRAWN BY TW CHECKED BY DJB
PROJECT NO. I 89-3(36)Cont'd
SHEET 113 OF 298

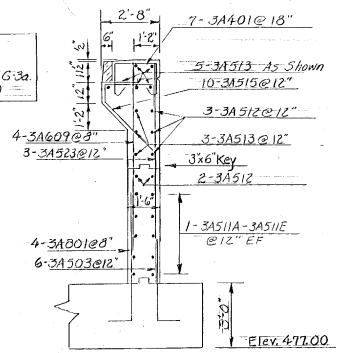
BR-410




PLAN
Scale: ¼" = 1'-0"



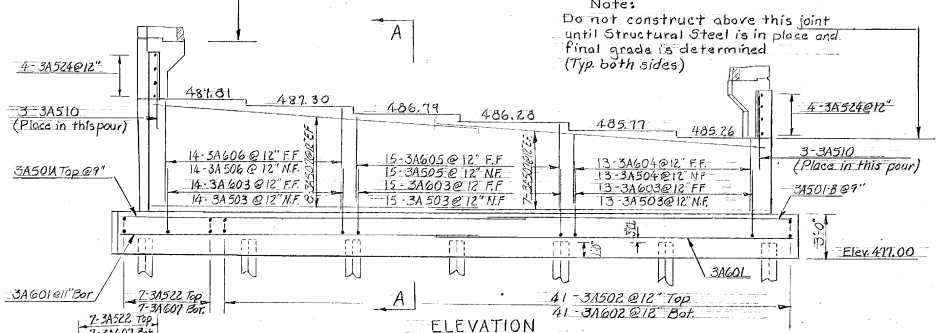

VIEW B-B
Scale: ⅜" = 1'-0"



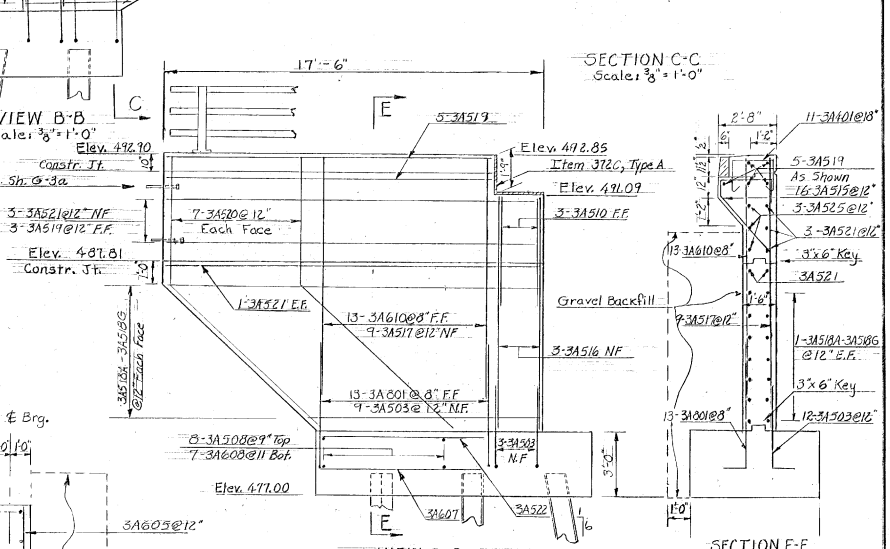

SECTION C-C
Scale: ⅜" = 1'-0"

For details of Construction joint at curb see Std. Sh SCB-D6-65

Note:
Do not construct above this joint until Structural Steel is in place and final grade is determined (Typ. both sides)



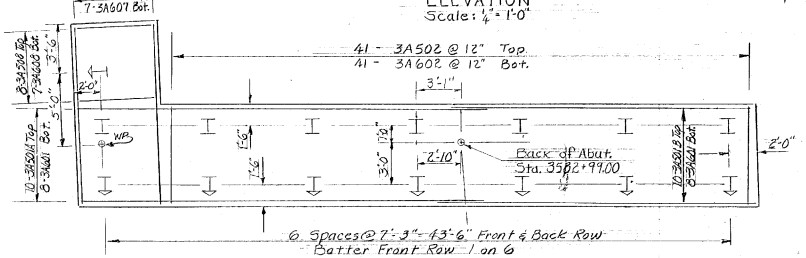

ELEVATION
Scale: ¼" = 1'-0"



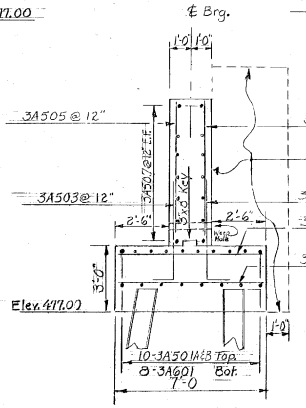

SECTION C-C
Scale: ⅜" = 1'-0"

VIEW D-D
Scale: ⅜" = 1'-0"

SECTION E-E
Scale: ⅜" = 1'-0"




FOOTING REINFORCEMENT AND PILE PLAN
Scale: ¼" = 1'-0"




SECTION A-A
Scale: ⅜" = 1'-0"

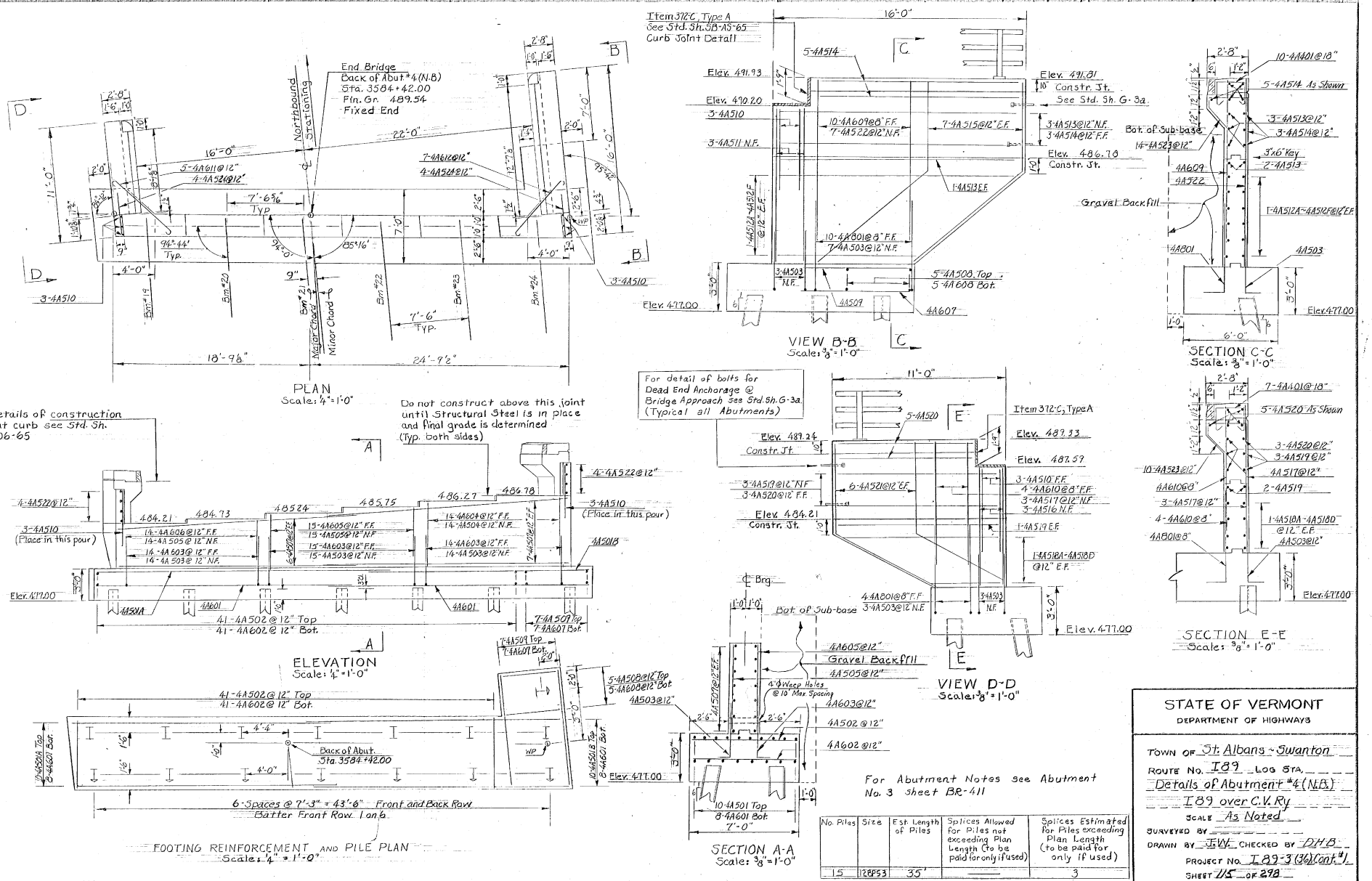
NOTES
(1) Fill shall be made to six inches above bottom of footing and then excavated to design footing elevation after piles are driven.
(2) For Steel Piling see Note 5, sheet BR 400
(3) Reinforcing to have 3" clear cover in footings and 2" clear cover elsewhere.
(4) For Abutment notes see Notes sheet BR 400 and General Notes Std. Sh. SCB-D1-65.

| No. Piles | Size | Est. Length of Piles | Splices Allowed for Piles not exceeding Plan Length (To be paid for only if used) | Splices Estimated for Piles exceeding Plan Length (to be paid for only if used) |
|---|---|---|---|---|
| 15 | 12BP53 | 35 | | 3 |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans-Swanton
ROUTE NO. I89 LOG STA.
Details of Abutment #3 (N.B.)
I89 over C.V. Ry.
SCALE As Noted
SURVEYED BY
DRAWN BY J.W. CHECKED BY D.H.B.
PROJECT NO. I89-3(36)Cont.#1
SHEET 114 OF 298

BR-411

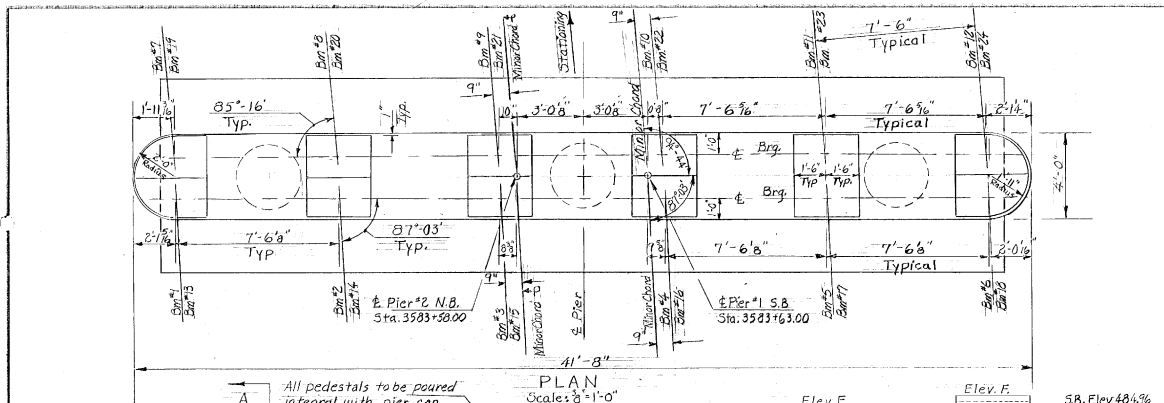


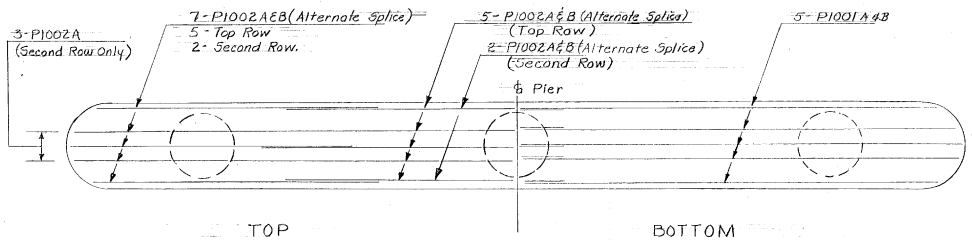

| No. Piles | Size | Est. Length of Piles | Splices Allowed for Piles not exceeding Plan Length (to be paid for only if used) | Splices Estimated for Piles exceeding Plan Length (to be paid for only if used) |
|---|---|---|---|---|
| 15 | 12BP53 | 35' | — | 3 |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

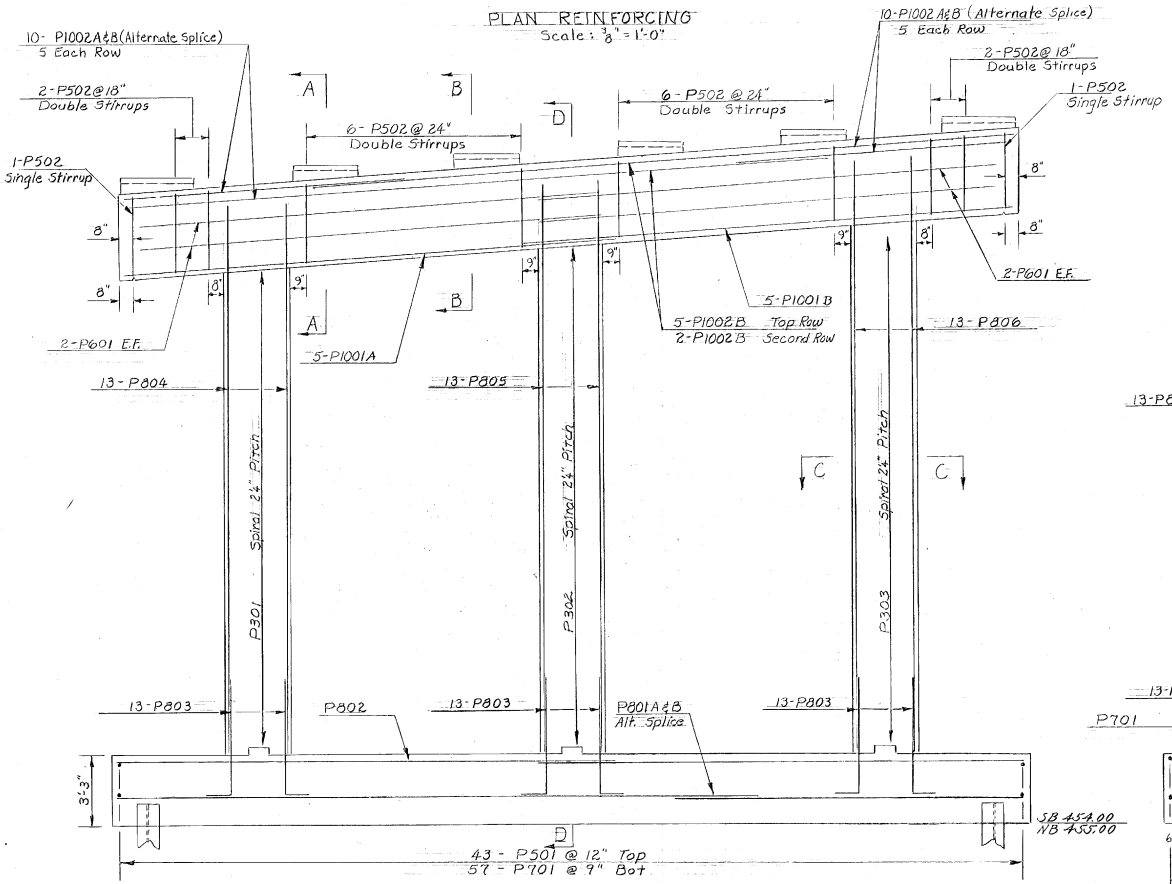
TOWN OF St. Albans - Swanton
ROUTE NO. I89 LOG STA. ____
Details of Abutment #4 (N.B.)
I89 over C.V. Ry
SCALE As Noted
SURVEYED BY ____
DRAWN BY JWV CHECKED BY DMB
PROJECT NO. I 89-3 (36) Cont. #1
SHEET 115 OF 278

BR-412

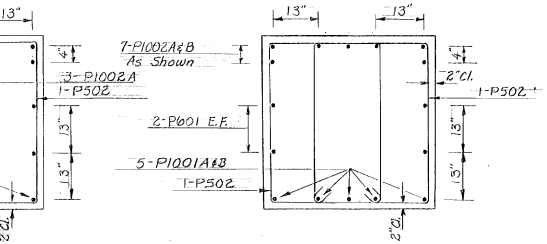

PLAN
Scale: 3/8"=1'-0"
All pedestals to be poured integral with pier cap.
41'-8"
℄ Pier #2 N.B. Sta. 3583+58.00
℄ Pier #1 S.B. Sta. 3583+63.00
85°-16' Typ.
87°-03' Typ.
7'-6" Typical
7'-6 5/16" Typical
7'-6 5/8" Typical
7'-6 3/8" Typ.
3'-0 5/8"
3'-0 3/8"
Miter Point
Miter Point
Miter Point




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

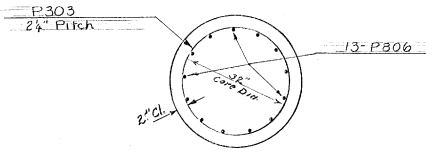



ELEVATION
Scale: 3/8" = 1'-0"

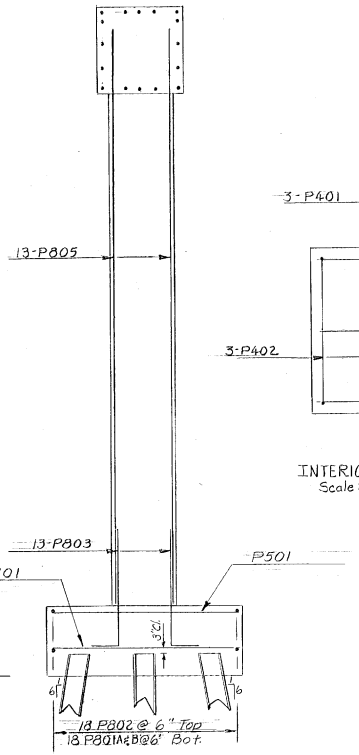



SECTION A-A
Scale: 3/4" = 1'-0"

SECTION B-B
Scale: 3/4" = 1'-0"



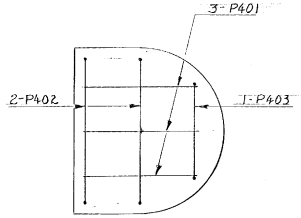

SECTION C-C
Scale: 3/4" = 1'-0"




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




INTERIOR PAD
Scale: 3/4" = 1'-0"




EXTERIOR PAD
Scale: 3/4" = 1'-0"

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF ST. ALBANS — SWANTON
ROUTE No. I 89 LOG STA
PIER #1, #2 REINFORCING DETAILS
I 89 over C.V. RY., STA 358+0 ±
SCALE As Noted
SURVEYED BY
DRAWN BY J.W. CHECKED BY DHB
PROJECT NO I 89-3(36)Cont.#1
SHEET 112 OF 298

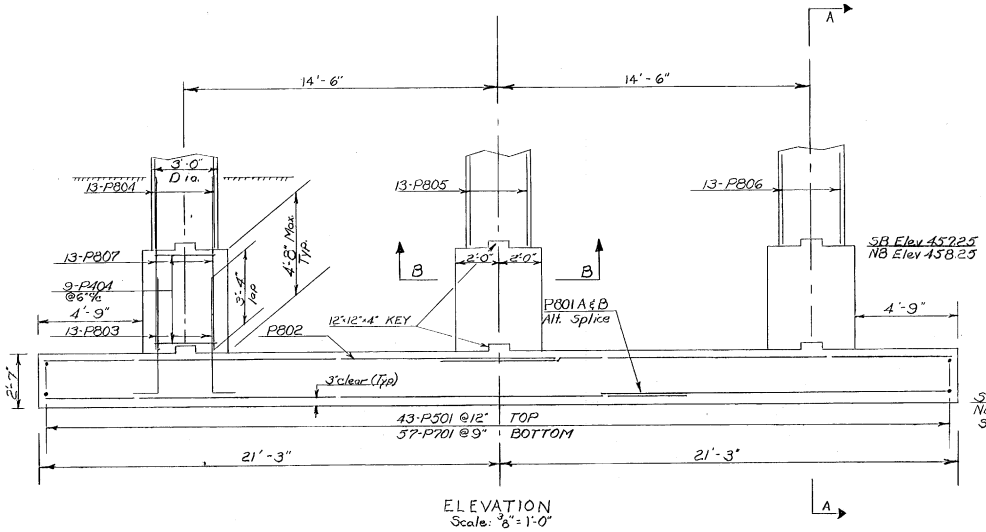
BR-414

## NOTES

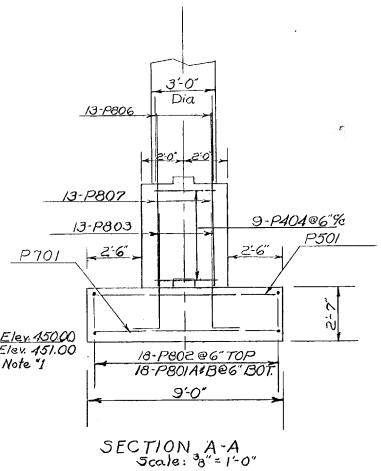
1. Bottom of footing elevations shall be established as shown on this sheet unless otherwise directed by the Resident Engineer.
2. All S.B. & N.B. pier construction above the original footing (S.B. elev. 457.25; N.B. elev. 458.25) shall be as shown on the original contract plans.
3. Maximum foundation pressure 4.8 Kips per square foot.
4. If the pedestal is less than 3'-4" in height, the P807 bars will protrude into the footing to achieve a 40 diameter lap with the P803 bars.
5. All laps shall be 40 times the bar diameter.

### Additional Required Steel

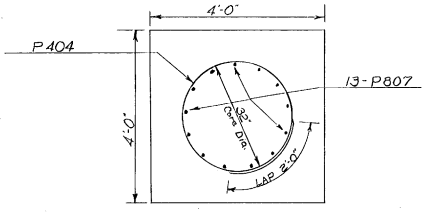
| No. Places | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 | 8 | 8-1 | 1P807 | STR. | | | | | | | | | | | | |
| 22 | 4 | 10-5 | 1P404 | T3 | | | | | | | | | | | | 2.8 |
| 39 | 8 | 8-1 | 2P807 | STR. | | | | | | | | | | | | |
| 22 | 4 | 10-5 | 2P404 | T3 | | | | | | | | | | | | 2.8 |
| | | | | | | | | | | | | | | | | |




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




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

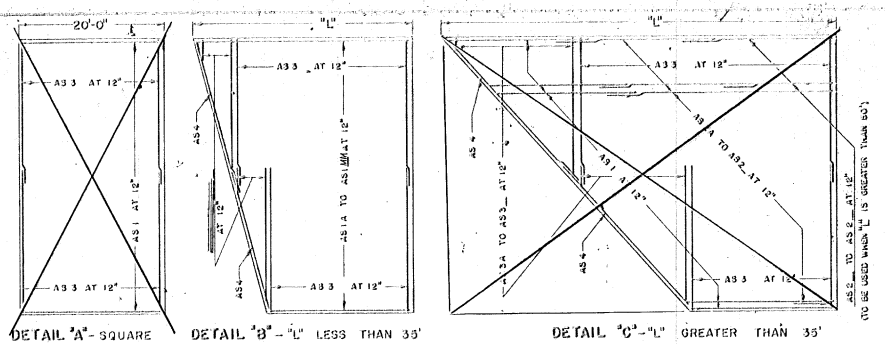



SECTION B-B
Scale: 3/4" = 1'-0"

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF ST. ALBANS - SWANTON
ROUTE NO. I 89 LOG STA.
Rev. Pier "1, "2 Details 8/22/66
I 89 over C.V. RY Sta. 358+0.2
SCALE As Noted
IN CHARGE W.M. SMITH
DRAWN BY C. Korin CHECKED BY R.D. 11/8/66
PROJECT NO. 189-3(36)Cont. "1
SHEET 117A OF 298

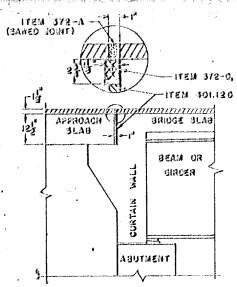
BR-413-A



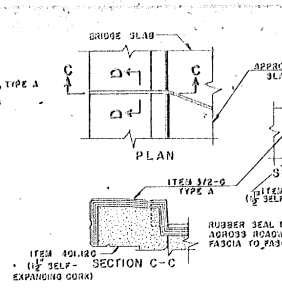

DETAIL "A" - SQUARE

DETAIL "B" - "L" LESS THAN 35'

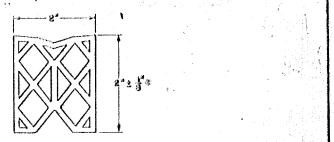
DETAIL "C" - "L" GREATER THAN 35'




SECTION B-B

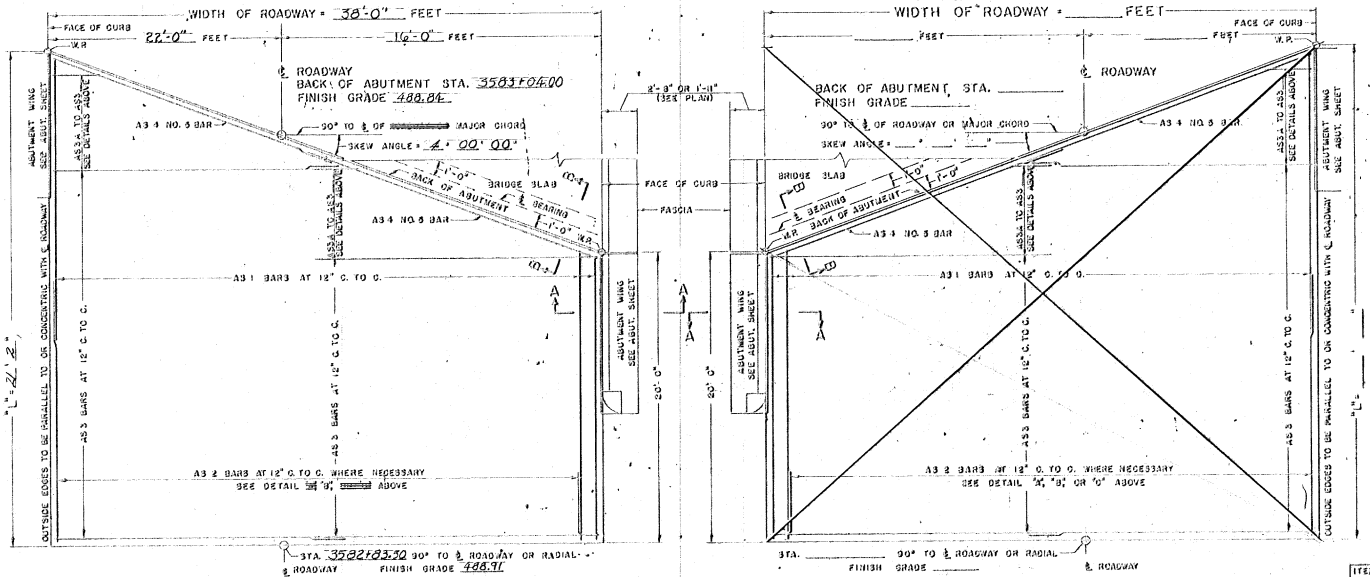



CURB JOINT DETAIL




DETAILS - ITEM 372-C JOINT SEALER - PREFORMED

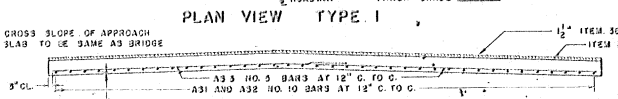
MATERIAL TO BE PREMOLDED NEOPRENE RUBBER (OTHER CONFIGURATIONS THAT SATISFY SPECIFICATIONS MAY BE USED.)



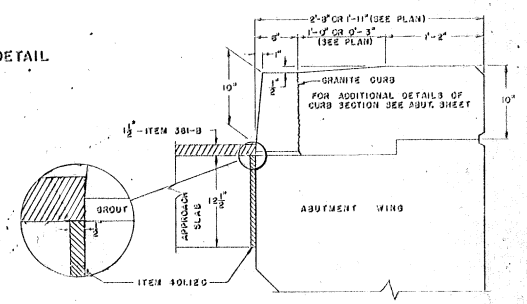

PLAN VIEW TYPE 1




~~PLAN VIEW TYPE 2~~




END SECTION VIEW




SECTION A-A

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1963, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1961. DESIGNED FOR H S 20-44 LOADING.

2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 30 BAR DIAMETERS.

SUMMARY OF QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL | FINAL |
|---|---|---|---|---|
| 319 | TAR EMULSION FOR BRIDGE FLOORS | GAL. | | |
| 301-B | BITUMINOUS CONCRETE PAVEMENT | TONS | | |
| 372-A | JOINT SEALER - HOT POURED | L.F. | | |
| 372-C | JOINT SEALER - PREFORMED, TYPE A (~~3609~~) | L.F. | | |
| 372-C | JOINT SEALER - PREFORMED, TYPE B (~~3608~~) | L.F. | | |
| 401-B | CONCRETE CLASS B | CY. | | |
| 402 | REINFORCING STEEL | LB. | | |

REINFORCING BENDING DETAILS

A = 1'-1"
J = 0'-9"
B = 12'-8" OR VARIES
DETAIL SHOWN IS FOR A31 BAR ALL OTHER BARS ARE TO BE STRAIGHT

REINFORCING STEEL SCHEDULE

| BAR NO. | NO. PIECES | A + B + C LENGTH | WEIGHT PER FT. | WEIGHT IN LBS. |
|---|---|---|---|---|
| A31 | | | 4.303 | |
| A32 | | | 4.303 | |
| A33 | | | 1.043 | |
| A34 | | | 1.043 | |
| | | TOTAL WEIGHT = | | |

REVISIONS AND CORRECTIONS

1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED. 4/13/33 W.B.T.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED AND MODIFICATION OF ITEM 372-C ADDED. 8/23/33 W.B.T.

DRAWN BY: W.B.T. Jan 1965
TRACED BY: W.B.T. Jan 1965
CHECKED BY: W.M.S. Feb 1965

RECOMMENDED FOR APPROVAL: _____ BRIDGE ENGINEER DATE 2/4/65
RECOMMENDED FOR APPROVAL: _____ ASSISTANT CHIEF ENGINEER DATE 2/11/65
APPROVED BY: _____ CHIEF ENGINEER DATE 2/11/65

# DETAILS OF APPROACH SLAB FOR 38'-0" (11.6 M) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 3584+0 ±

LOCATION APPROACH SLAB NO. 1 (S.B)

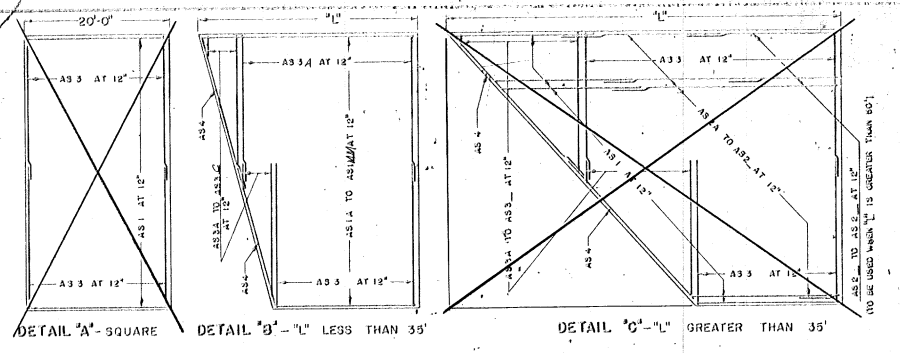
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD STRUCTURE

SB-AS-65

TOWN OF STALBANS-SWANTON
ROUTE NO. I 89
LOG STA. ____

DESIGNED BY J.W. CHECKED BY DHB
PROJECT NO. I 89-3 (42)
BR 415 OF 420 SHEET 118/100 OF 153

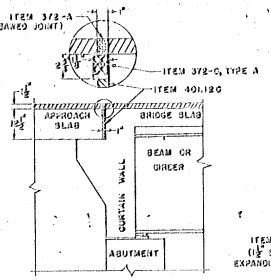
BR-415



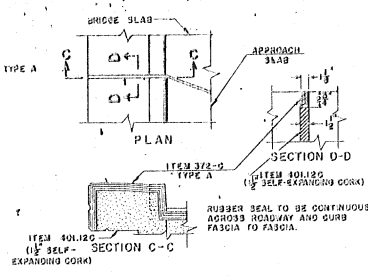

DETAIL "A" - SQUARE

DETAIL "B" - "L" LESS THAN 35'

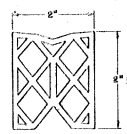
DETAIL "C" - "L" GREATER THAN 35'




SECTION B-B

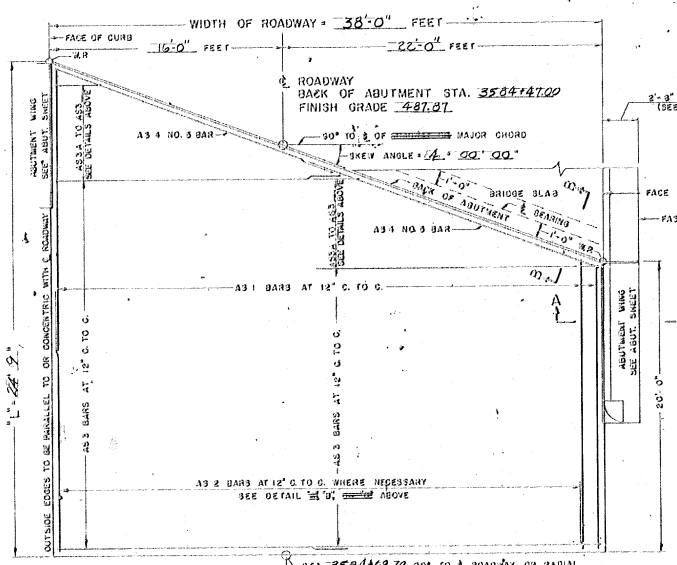



CURB JOINT DETAIL

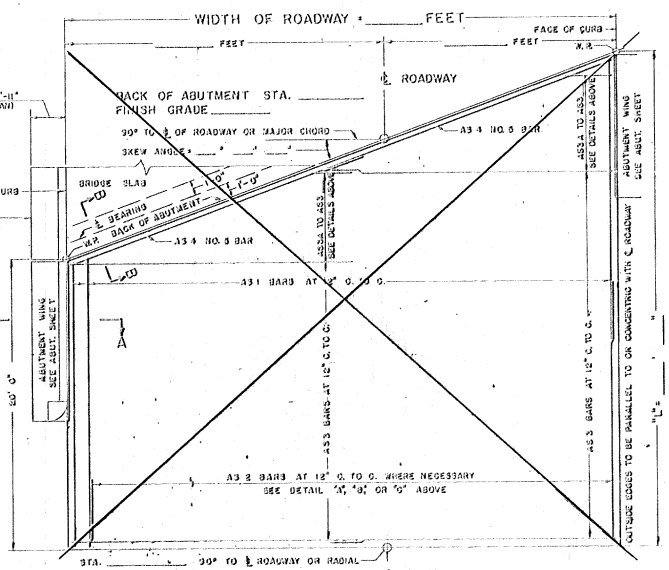



DETAILS - ITEM 372-C JOINT SEALER - PREFORMED (~~1990~~)

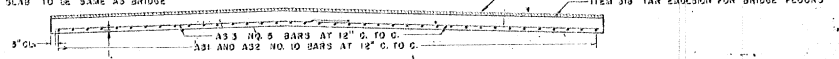
MATERIAL TO BE PREMOLDED NEOPRENE RUBBER (OTHER CONFIGURATIONS THAT SATISFY SPECIFICATIONS MAY BE USED.)



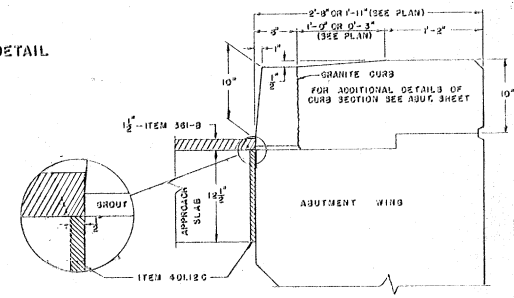

PLAN VIEW TYPE I




~~PLAN VIEW TYPE 2~~




END SECTION VIEW




SECTION A-A

## GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1961. DESIGNED FOR H S 20-44 LOADING.

2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 30 BAR DIAMETERS.

## SUMMARY OF QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL | FINAL |
|---|---|---|---|---|
| 319 | TAR EMULSION FOR BRIDGE FLOORS | GAL. | | |
| 381-B | BITUMINOUS CONCRETE PAVEMENT | TONS | | |
| 372-A | JOINT SEALER - HOT POURED | L.F. | | |
| 372-C | JOINT SEALER - PREFORMED, TYPE A (~~1990~~) | L.F. | | |
| 372-C | JOINT SEALER - PREFORMED, TYPE B (~~1990~~) | L.F. | | |
| 401-B | CONCRETE CLASS B | CY. | | |
| 402 | REINFORCING STEEL | LB. | | |

REINFORCING BENDING DETAILS

A = 1'-1"
J = 0'-3"
B = 19'-8" OR VARIES

DETAIL SHOWN IS FOR A31 BAR ALL OTHER BARS ARE TO BE STRAIGHT

REINFORCING STEEL

| BAR NO. | NO. PIECES | A + B + C LENGTH | WEIGHT PER FT. | WEIGHT IN LBS. |
|---|---|---|---|---|
| A31 | | | 4.303 | |
| A32 | | | 4.303 | |
| A33 | | | 1.043 | |
| A34 | | | 1.043 | |
| | | | TOTAL WEIGHT = | |

(SEE REINFORCING SCHEDULE)

REVISIONS AND CORRECTIONS

1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED. 5/13/65 W.B.T.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED AND MODIFICATION OF ITEM 372-C ADDED. 5/23/65 W.B.T.

DRAWN BY: W.B.T. Jan. 1965

TRACED BY: W.B.T. Jan. 1965

CHECKED BY: W.M.S. Feb. 1965

RECOMMENDED FOR APPROVAL: _____ BRIDGE ENGINEER DATE 2/4/65

RECOMMENDED FOR APPROVAL: _____ ASSISTANT CHIEF ENGINEER DATE 2/11/65

APPROVED BY: _____ CHIEF ENGINEER DATE 2/11/65

# DETAILS OF APPROACH SLAB FOR 38'-0" (WIDTH) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 3584+0±

LOCATION APPROACH SLAB NO. 2 (S.B.)

# STATE OF VERMONT DEPARTMENT OF HIGHWAYS STANDARD STRUCTURE

# SB-AS-65

TOWN OF ST. ALBANS-SWANTON

ROUTE NO. I 89

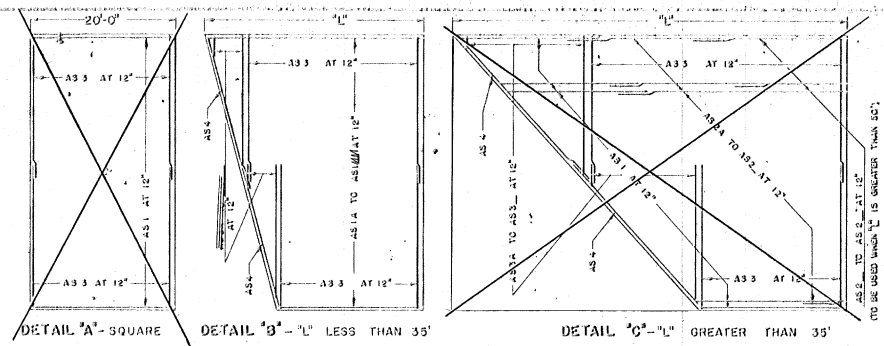
LOG STA. _____

DESIGNED BY J.W. CHECKED BY ZHB

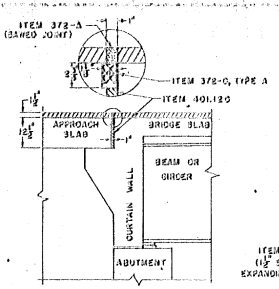
PROJECT NO. I 89-3 (42)

BR 416 OF 420 SHEET 117 (101) OF 220 (133)

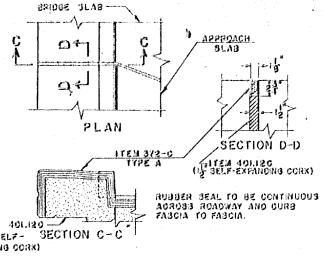
BR-416



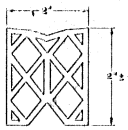

DETAIL "A" - SQUARE  DETAIL "B" - "L" LESS THAN 35'  DETAIL "C" - "L" GREATER THAN 35'




SECTION B-B



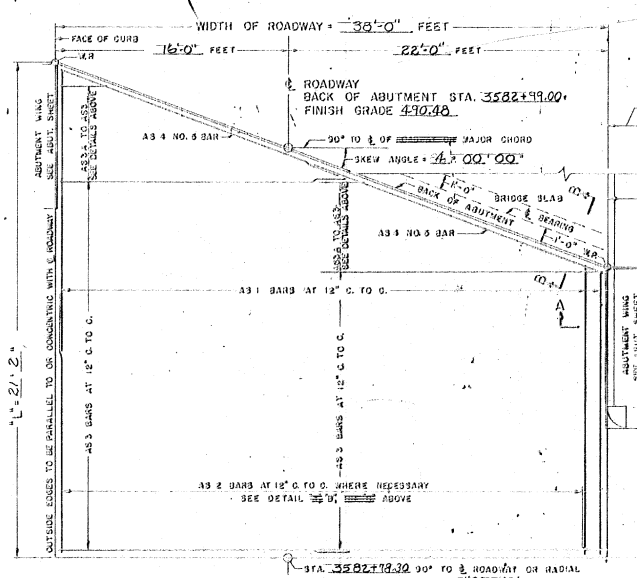

CURB JOINT DETAIL



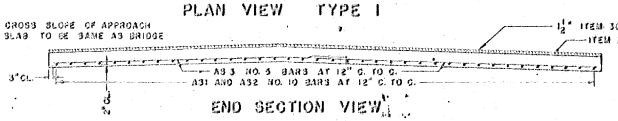

TYPE A

DETAILS - ITEM 372-C JOINT SEALER - PREFORMED (~~)

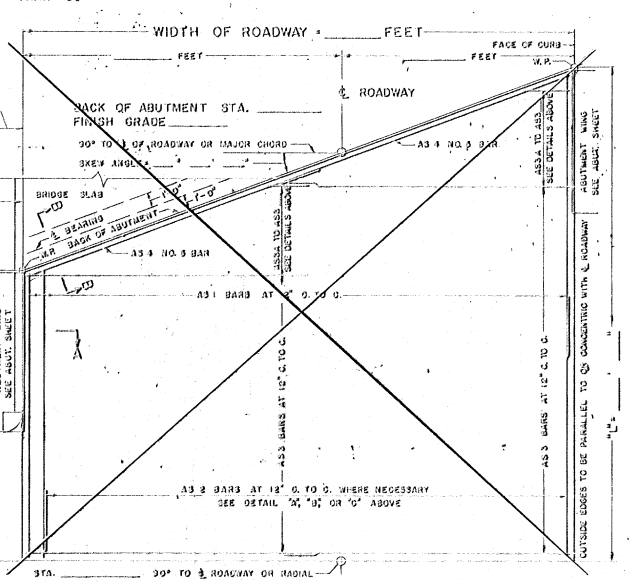
MATERIAL TO BE PREMOLDED NEOPRENE RUBBER (OTHER CONFIGURATIONS THAT SATISFY SPECIFICATIONS MAY BE USED.)



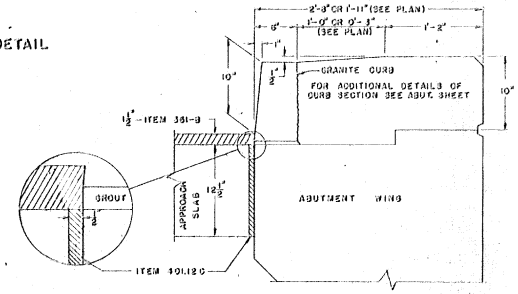

PLAN VIEW TYPE 1




END SECTION VIEW




~~PLAN VIEW TYPE 2~~




SECTION A-A

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION DATED APRIL 1964, AND THE A.A.S.H.O. SPECIFICATIONS DATED 1961. DESIGNED FOR H S 20-44 LOADING.

2. ALL REINFORCING STEEL SHALL BE DETAILED ON THE REINFORCING STEEL SCHEDULE. ALL SPLICES SHALL BE A MINIMUM OF 40 BAR DIAMETERS.

SUMMARY OF QUANTITIES

| ITEM NO. | ITEM | UNIT | TOTAL | FINAL |
|---|---|---|---|---|
| 813 | TAR EMULSION FOR BRIDGE FLOORS | GAL. | | |
| 391-B | BITUMINOUS CONCRETE PAVEMENT | TONS | | |
| 372-A | JOINT SEALER - HOT POURED | L.F. | | |
| 372-C | JOINT SEALER - PREFORMED, TYPE A (~~) | L.F. | | |
| 372-D | JOINT SEALER - PREFORMED, TYPE B ~~~ | L.F. | | |
| 401-B | CONCRETE CLASS B | CY. | | |
| 602 | REINFORCING STEEL | LB. | | |

REINFORCING BENDING DETAILS

A = 1'-1"
J = 0'-9"
B = 13'-0" OR VARIES

DETAIL SHOWN IS FOR A31 BAR ALL OTHER BARS ARE TO BE STRAIGHT

REINFORCING STEEL

| BAR NO. | NO. PIECES | A | B | C | A x B x C WEIGHT IN LBS. |
|---|---|---|---|---|---|
| | | | LENGTH | WEIGHT PER FT. | |
| A31 | SEE REINFORCING SCHEDULE | | 4.303 | | |
| A32 | | | 4.303 | | |
| A33 | | | 1.043 | | |
| A34 | | | 1.043 | | |
| TOTAL WEIGHT = | | | | | |

REVISIONS AND CORRECTIONS

1. DIMENSIONS OF JOINT FOR SEALER TYPE A REVISED. 9/19/95 W.B.T.
2. DIMENSIONS OF JOINT SEALER TYPE B REVISED AND MODIFICATION OF ITEM 372-C ADDED. 8/23/95 W.B.T.

DRAWN BY: W.B.T. Jan 1965
TRACED BY: W.B.T. Jan 1965
CHECKED BY: W.M.S. Feb 1965

RECOMMENDED FOR APPROVAL: [signature] BRIDGE ENGINEER DATE 2/1/65
RECOMMENDED FOR APPROVAL: [signature] ASSISTANT CHIEF ENGINEER DATE 2/1/65
APPROVED BY: [signature] CHIEF ENGINEER DATE 2/1/65

# DETAILS OF APPROACH SLAB FOR 38'-0" (W10 F10) FOOT BRIDGE

TO BE USED FOR BRIDGE AT STATION 3584+0 ℄

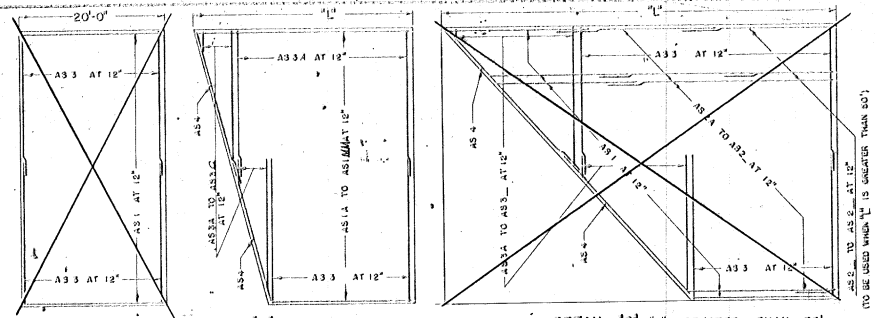
LOCATION APPROACH SLAB NO. 3 (N.B.)

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
STANDARD, STRUCTURE

SB-AS-65

TOWN OF ST. ALBANS-SWANTON
ROUTE NO. I 89
LOG STA.
DESIGNED BY J.W. CHECKED BY DHB
PROJECT NO. I 89-3(42)
BR 417 OF 466 SHEET 120 OF 102 ~~139~~

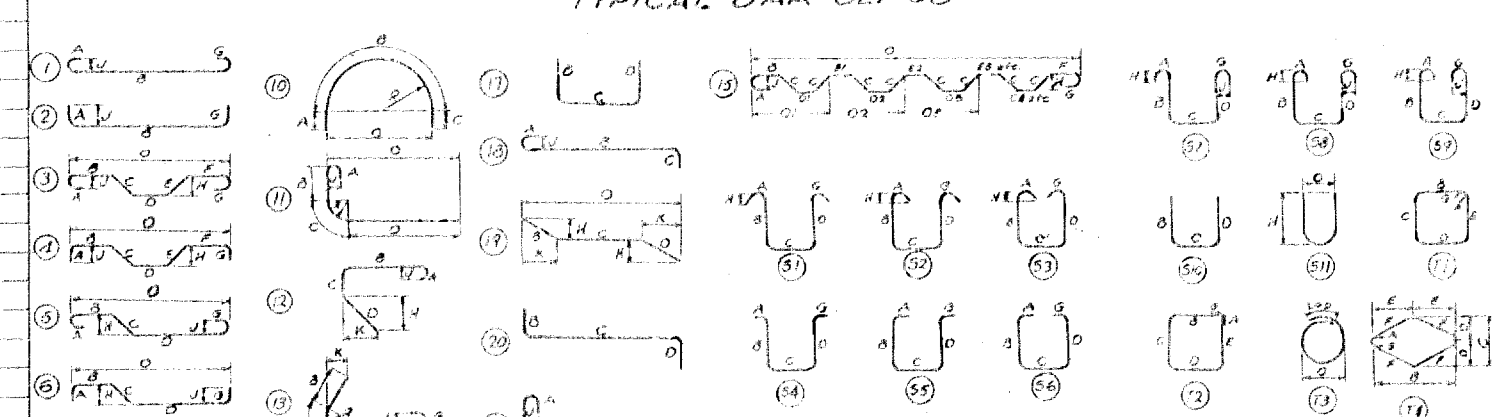
BR-417

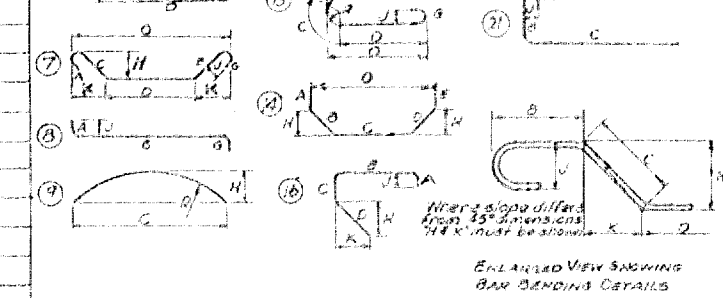

20'-0"
A3 3 AT 12"
A3 1 AT 12"
A3 3 AT 12"
"L"
A3 3,4 AT 12"
A3 3 AT 12"
A3 1 TO A3 3 AT 12"
A3 4 TO A3 2 AT 12"
A3 3 AT 12"
"L"
A3 3 AT 12"
A3 4 TO A3 2 AT 12"
A3 1 AT 12"
A3 4
A3 2 TO A3 3 AT 12"
A3 4
A3 3 AT 12"

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Abutment #1 SB | | | | | | | | | | | | | | |
| 1 | *1 | 4 | 4-0 | 1A402 | Str | | | | | | | | | | | | |
| 2 | 10 | 5 | 28-0 | 501A | ↑ | | | | | | | | | | | | |
| 3 | 10 | 5 | 21-0 | B | | | | | | | | | | | | | |
| 4 | 41 | 5 | 6-6 | 502 | | | | | | | | | | | | | |
| 5 | 13 | 5 | 3-6 | 504 | | | | | | | | | | | | | |
| 6 | 15 | 5 | 4-6 | 505 | | | | | | | | | | | | | |
| 7 | 14 | 5 | 5-6 | 506 | | | | | | | | | | | | | |
| 8 | 24 | 5 | 22-6 | 507 | | | | | | | | | | | | | |
| 9 | 4 | 5 | 5-6 | 508 | | | | | | | | | | | | | |
| 10 | 7 | 5 | 10-0 | 509 | | | | | | | | | | | | | |
| 11 | 6 | 5 | 5-0 | 510 | | | | | | | | | | | | | |
| 12 | 3 | 5 | 6-10 | 511 | | | | | | | | | | | | | |
| 13 | 2 | 5 | 5-0 | 512A | | | | | | | | | | | | | |
| 14 | 2 | 5 | 7-0 | B | | | | | | | | | | | | | |
| 15 | 2 | 5 | 9-0 | C | | | | | | | | | | | | | |
| 16 | 5 | 5 | 9-8 | 513 | | | | | | | | | | | | | |
| 17 | 8 | 5 | 7-5 | 514 | | | | | | | | | | | | | |
| 18 | 3 | 5 | 9-3 | 516 | | | | | | | | | | | | | |
| 19 | 6 | 5 | 11-0 | 517 | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | |
| 21 | 2 | 5 | 7-6 | 518A | | | | | | | | | | | | | |
| 22 | ↕ | ↕ | ↕ | thru | | Vary in 6 equal increments | | | | | | | | | | | |
| 23 | 2 | 5 | 14-0 | 518F | | | | | | | | | | | | | |
| 24 | | | | | | | | | | | | | | | | | |
| 25 | 5 | 5 | 14-8 | 519 | | | | | | | | | | | | | |
| 26 | 8 | 5 | 12-8 | 520 | | | | | | | | | | | | | |
| 27 | 3 | 5 | 8-6 | 522 | | | | | | | | | | | | | |
| 28 | *9 | 5 | 4-0 | 524 | | | | | | | | | | | | | |
| 29 | 16 | 6 | 24-8 | 601 | | | | | | | | | | | | | |
| 30 | 41 | 6 | 6-6 | 602 | | | | | | | | | | | | | |
| 31 | 13 | 6 | 3-6 | 604 | | | | | | | | | | | | | |
| 32 | *16 | 6 | 4-6 | 605 | | | | | | | | | | | | | |
| 33 | 14 | 6 | 5-6 | 606 | | | | | | | | | | | | | |
| 34 | 7 | 6 | 10-0 | 607 | | | | | | | | | | | | | |
| 35 | 4 | 6 | 5-6 | 608 | | | | | | | | | | | | | |
| 36 | 4 | 6 | 7-6 | 609 | ↓ | | | | | | | | | | | | |
| 37 | 9 | 6 | 9-6 | 610 | Str | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | | | | |
| 39 | 15 | 4 | 5-3 | 401 | 53 | 0-5 | 1-4½ | 1-8 | 1-4½ | | | 0-5 | | | | | |
| 40 | 57 | 5 | 5-3 | 503 | 17 | | 4-3 | 1-0 | | | | | | | | | |
| 41 | 12 | 5 | 11-3 | 515 | 19 | | 5-6 | 5-9 | | | | | 4-11 | | 2-4 | | |
| 42 | 14 | 5 | 14-3 | 521 | 19 | | 8-6 | 5-9 | | | | | 6-9 | | 5-1 | | |
| 43 | 22 | 5 | 7-4 | 523 | 16 | 1-0 | 2-4 | 0-9 | 3-3 | | | | 2-3 | | 2-3 | | |
| 44 | 42 | 6 | 5-9 | 603 | 17 | | 4-9 | 1-0 | | | | | | | | | |
| 45 | 7 | 6 | 8-1 | 611 | 1 | 0-8 | 6-9 | | | | | 0-8 | | | | | |
| 46 | 4 | 6 | 8-1 | 612 | 1 | 0-8 | 6-9 | | | | | 0-8 | | | | | |
| 47 | *14 | 8 | 6-6 | 1A801 | 17 | | 5-3 | 1-3 | | | | | | | | | |
| 48 | | | | | | | | | | | | | | | | | |
| 49 | | | | Abutment #2 SB | | | | | | | | | | | | | |
| 50 | 10 | 5 | 28-0 | 2A501A | Str | | | | | | | | | | | | |
| 51 | 10 | 5 | 21-0 | B | ↑ | | | | | | | | | | | | |
| 52 | 41 | 5 | 6-6 | 502 | | | | | | | | | | | | | |
| 53 | 14 | 5 | 5-6 | 504 | | | | | | | | | | | | | |
| 54 | 15 | 5 | 4-6 | 505 | | | | | | | | | | | | | |
| 55 | 14 | 5 | 3-5 | 506 | | | | | | | | | | | | | |
| 56 | 24 | 5 | 22-6 | 507 | | | | | | | | | | | | | |
| 57 | 3 | 5 | 5-6 | 508 | | | | | | | | | | | | | |
| 58 | 7 | 5 | 8-6 | 509 | | | | | | | | | | | | | |
| 59 | 6 | 5 | 5-0 | 510 | | | | | | | | | | | | | |
| 60 | 3 | 5 | 9-3 | 511 | | | | | | | | | | | | | |
| 61 | | | | | | | | | | | | | | | | | |
| 62 | 2 | 5 | 7-0 | 512A | | | | | | | | | | | | | |
| 63 | ↕ | ↕ | ↕ | thru | | Vary in 5 equal increments | | | | | | | | | | | |
| 64 | 2 | 5 | 12-6 | 512E | | | | | | | | | | | | | |
| 65 | | | | | | | | | | | | | | | | | |
| 66 | 5 | 5 | 13-8 | 513 | | | | | | | | | | | | | |
| 67 | 8 | 5 | 11-3 | 514 | | | | | | | | | | | | | |
| 68 | 3 | 5 | 6-10 | 516 | | | | | | | | | | | | | |
| 69 | 3 | 5 | 8-6 | 517 | | | | | | | | | | | | | |
| 70 | 2 | 5 | 5-0 | 518A | | | | | | | | | | | | | |
| 71 | 2 | 5 | 6-6 | B | | | | | | | | | | | | | |
| 72 | 2 | 5 | 8-3 | C | | | | | | | | | | | | | |
| 73 | 5 | 5 | 8-8 | 519 | | | | | | | | | | | | | |
| 74 | 8 | 5 | 6-8 | 520 | | | | | | | | | | | | | |
| 75 | 5 | 5 | 11-2 | 522 | | | | | | | | | | | | | |
| 76 | 8 | 5 | 4-0 | 524 | | | | | | | | | | | | | |
| 77 | 16 | 6 | 24-9 | 601 | | | | | | | | | | | | | |
| 78 | 41 | 6 | 6-6 | 602 | | | | | | | | | | | | | |
| 79 | 14 | 6 | 5-6 | 604 | | | | | | | | | | | | | |
| 80 | 15 | 6 | 4-6 | 605 | ↓ | | | | | | | | | | | | |
| 81 | 14 | 6 | 3-5 | 2A606 | Str | | | | | | | | | | | | |

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 82 | 7 | 6 | 8-6 | 2A607 | Str | | | | | | | | | | | | |
| 83 | 3 | 6 | 5-6 | 608 | ↑ | | | | | | | | | | | | |
| 84 | 7 | 6 | 10-2 | 609 | ↓ | | | | | | | | | | | | |
| 85 | 4 | 6 | 7-6 | 610 | Str | | | | | | | | | | | | |
| 86 | | | | | | | | | | | | | | | | | |
| 87 | 14 | 4 | 5-3 | 401 | 53 | 0-5 | 1-4½ | 1-8 | 1-4½ | | | 0-5 | | | | | |
| 88 | 57 | 5 | 5-3 | 503 | 17 | | 4-3 | 1-0 | | | | | | | | | |
| 89 | 14 | 5 | 14-3 | 515 | 19 | | 8-6 | 5-9 | | | | | 6-9 | | 5-1 | | |
| 90 | 10 | 5 | 11-0 | 521 | 19 | | 5-3 | 5-9 | | | | | 4-6 | | 2-8 | | |
| 91 | 20 | 5 | 7-4 | 523 | 16 | 1-0 | 2-4 | 0-9 | 3-3 | | | | 2-3 | | 2-3 | | |
| 92 | 43 | 6 | 5-9 | 603 | 17 | | 4-9 | 1-0 | | | | | | | | | |
| 93 | 4 | 6 | 8-6 | 611 | 1 | 0-8 | 7-2 | | | | | 0-8 | | | | | |
| 94 | 7 | 6 | 8-0 | 612 | 1 | 0-8 | 6-8 | | | | | 0-8 | | | | | |
| 95 | 11 | 8 | 6-6 | 2A801 | 17 | | 5-3 | 1-3 | | | | | | | | | |
| 96 | | | | | | | | | | | | | | | | | |
| 97 | | | | Abutment #3 NB | | | | | | | | | | | | | |
| 98 | 10 | 5 | 28-0 | 3A501A | Str | | | | | | | | | | | | |
| 99 | 10 | 5 | 21-0 | B | ↑ | | | | | | | | | | | | |
| 100 | 41 | 5 | 6-6 | 502 | | | | | | | | | | | | | |
| 101 | 13 | 5 | 5-1 | 504 | | | | | | | | | | | | | |
| 102 | 15 | 5 | 6-1 | 505 | | | | | | | | | | | | | |
| 103 | 14 | 5 | 7-2 | 506 | | | | | | | | | | | | | |
| 104 | 30 | 5 | 22-6 | 507 | | | | | | | | | | | | | |
| 105 | 8 | 5 | 5-6 | 508 | | | | | | | | | | | | | |
| 106 | 3 | 5 | 8-4 | 509 | | | | | | | | | | | | | |
| 107 | 6 | 5 | 5-0 | 510 | | | | | | | | | | | | | |
| 108 | | | | | | | | | | | | | | | | | |
| 109 | 2 | 5 | 4-6 | 511A | | | | | | | | | | | | | |
| 110 | ↕ | ↕ | ↕ | thru | | Vary in 5 equal increments | | | | | | | | | | | |
| 111 | 2 | 5 | 11-6 | 511E | | | | | | | | | | | | | |
| 112 | | | | | | | | | | | | | | | | | |
| 113 | 5 | 5 | 11-8 | 512 | | | | | | | | | | | | | |
| 114 | 8 | 5 | 9-5 | 513 | | | | | | | | | | | | | |
| 115 | 3 | 5 | 10-10 | 516 | | | | | | | | | | | | | |
| 116 | 9 | 5 | 12-8 | 517 | | | | | | | | | | | | | |
| 117 | | | | | | | | | | | | | | | | | |
| 118 | 2 | 5 | 10-6 | 518A | | | | | | | | | | | | | |
| 119 | ↕ | ↕ | ↕ | thru | | Vary in 7 equal increments | | | | | | | | | | | |
| 120 | 2 | 5 | 17-0 | 518G | | | | | | | | | | | | | |
| 121 | | | | | | | | | | | | | | | | | |
| 122 | 8 | 5 | 15-2 | 519 | | | | | | | | | | | | | |
| 123 | 5 | 5 | 17-2 | 521 | | | | | | | | | | | | | |
| 124 | 7 | 5 | 12-6 | 522 | | | | | | | | | | | | | |
| 125 | 3 | 5 | 10-1 | 523 | | | | | | | | | | | | | |
| 126 | *9 | 5 | 4-0 | 524 | | | | | | | | | | | | | |
| 127 | 16 | 6 | 24-8 | 601 | | | | | | | | | | | | | |
| 128 | 41 | 6 | 6-6 | 602 | | | | | | | | | | | | | |
| 129 | *14 | 6 | 5-1 | 604 | | | | | | | | | | | | | |
| 130 | 15 | 6 | 6-1 | 605 | | | | | | | | | | | | | |
| 131 | 14 | 6 | 7-2 | 606 | | | | | | | | | | | | | |
| 132 | 7 | 6 | 12-6 | 607 | | | | | | | | | | | | | |
| 133 | 7 | 6 | 5-6 | 608 | | | | | | | | | | | | | |
| 134 | 4 | 6 | 8-6 | 609 | ↓ | | | | | | | | | | | | |
| 135 | 13 | 6 | 11-3 | 610 | | | | | | | | | | | | | |
| 136 | *1 | 4 | 4-0 | 402 | Str | | | | | | | | | | | | |
| 137 | 18 | 4 | 5-3 | 401 | 53 | 0-5 | 1-4½ | 1-8 | 1-4½ | | | 0-5 | | | | | |
| 138 | 60 | 5 | 5-3 | 503 | 17 | | 4-3 | 1-0 | | | | | | | | | |
| 139 | 16 | 5 | 14-0 | 514 | 19 | | 8-3 | 5-9 | | | | | 7-2 | | 4-0 | | |
| 140 | 26 | 5 | 7-4 | 515 | 16 | 1-0 | 2-4 | 0-9 | 3-3 | | | | 2-3 | | 2-3 | | |
| 141 | 14 | 5 | 15-3 | 520 | 19 | | 9-6 | 5-9 | | | | | 6-9 | | 6-7 | | |
| 142 | 42 | 6 | 5-9 | 603 | 17 | | 4-9 | 1-0 | | | | | | | | | |
| 143 | 8 | 6 | 8-4 | 611 | 1 | 0-8 | 7-0 | | | | | 0-8 | | | | | |
| 144 | 6 | 6 | 8-1 | 612 | 1 | 0-8 | 6-9 | | | | | 0-8 | | | | | |
| 145 | *18 | 8 | 7-0 | 3A801 | 17 | | 5-9 | 1-3 | | | | | | | | | |
| 146 | | | | | | | | | | | | | | | | | |
| 147 | | | | Abutment #4 NB | | | | | | | | | | | | | |
| 148 | | | | | | | | | | | | | | | | | |
| 149 | 10 | 5 | 28-0 | 4A501A | Str | | | | | | | | | | | | |
| 150 | 10 | 5 | 21-0 | B | ↑ | | | | | | | | | | | | |
| 151 | 41 | 5 | 6-6 | 502 | | | | | | | | | | | | | |
| 152 | 14 | 5 | 6-1 | 504 | | | | | | | | | | | | | |
| 153 | 15 | 5 | 5-1 | 505 | | | | | | | | | | | | | |
| 154 | 14 | 5 | 4-1 | 506 | | | | | | | | | | | | | |
| 155 | 26 | 5 | 22-6 | 507 | | | | | | | | | | | | | |
| 156 | 5 | 5 | 5-6 | 508 | | | | | | | | | | | | | |
| 157 | 7 | 5 | 10-6 | 509 | | | | | | | | | | | | | |
| 158 | 6 | 5 | 5-0 | 510 | ↓ | | | | | | | | | | | | |
| 159 | 3 | 5 | 10-0 | 4A511 | Str | | | | | | | | | | | | |
| 160 | | | | | | | | | | | | | | | | | |
| 161 | | | | | | | | | | | | | | | | | |
| 162 | | | | | | | | | | | | | | | | | |

## TYPICAL BAR BENDS



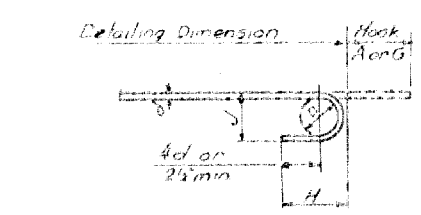


ENLARGED VIEW SHOWING BAR BENDING DETAILS

NOTES

1. All dimensions are out to out of bar
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used
3. Where 'J' is not shown, 'J' will be kept equal to or less than 'H'. Where 'J' can exceed 'H', it should be shown.
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances bending dimensions which require closer working should have limits indicated
6. Figures in circles show types
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 163 | 2 | 5 | 9-3 | 4A512A | Str | | | | | | | | | | | | |
| 164 | ↕ | ↕ | ↕ | thru | ↑ | Vary in 6 equal increments | | | | | | | | | | | |
| 165 | 2 | 5 | 15-3 | 512F | | | | | | | | | | | | | |
| 166 | | | | | | | | | | | | | | | | | |
| 167 | 5 | 5 | 15-8 | 513 | | | | | | | | | | | | | |
| 168 | 8 | 5 | 13-3 | 514 | | | | | | | | | | | | | |
| 169 | 3 | 5 | 7-5 | 516 | | | | | | | | | | | | | |
| 170 | 3 | 5 | 9-1 | 517 | | | | | | | | | | | | | |
| 171 | | | | | | | | | | | | | | | | | |
| 172 | 2 | 5 | 4-6 | 518A | | | | | | | | | | | | | |
| 173 | ↕ | ↕ | ↕ | thru | | Vary in 4 equal increments | | | | | | | | | | | |
| 174 | 2 | 5 | 10-0 | 518D | | | | | | | | | | | | | |
| 175 | | | | | | | | | | | | | | | | | |
| 176 | 5 | 5 | 10-8 | 519 | | | | | | | | | | | | | |
| 177 | 8 | 5 | 8-10 | 520 | | | | | | | | | | | | | |
| 178 | 7 | 5 | 11-8 | 522 | | | | | | | | | | | | | |
| 179 | 8 | 5 | 4-0 | 524 | | | | | | | | | | | | | |
| 180 | 16 | 6 | 24-9 | 601 | | | | | | | | | | | | | |
| 181 | 41 | 6 | 6-6 | 602 | | | | | | | | | | | | | |
| 182 | 14 | 6 | 6-1 | 604 | | | | | | | | | | | | | |
| 183 | 15 | 6 | 5-1 | 605 | | | | | | | | | | | | | |
| 184 | 14 | 6 | 4-1 | 606 | | | | | | | | | | | | | |
| 185 | 7 | 6 | 10-6 | 607 | | | | | | | | | | | | | |
| 186 | 5 | 6 | 5-6 | 608 | | | | | | | | | | | | | |
| 187 | 10 | 6 | 10-2 | 609 | ↓ | | | | | | | | | | | | |
| 188 | 4 | 6 | 7-7 | 4A610 | Str | | | | | | | | | | | | |
| 189 | | | | | | | | | | | | | | | | | |
| 190 | | | | Abutment #4 Continued next sheet | | | | | | | | | | | | | |




STANDARD HOOK DETAIL

BAR SIZES

| Equivalent Size | Present Number | Weight per ft |
|---|---|---|
| ¼"φ | 2 | .167 |
| ⅜"φ | 3 | .376 |
| ½"φ | 4 | .668 |
| ⅝"φ | 5 | 1.043 |
| ¾"φ | 6 | 1.502 |
| ⅞"φ | 7 | 2.044 |
| 1"φ | 8 | 2.670 |
| 1"# | 9 | 3.400 |
| 1⅛"# | 10 | 4.303 |
| 1¼"# | 11 | 5.313 |
| 1½"# | 14S | 7.650 |
| 2"# | 18S | 13.600 |

GENERAL NOTES

(1) Unless otherwise designated all standard reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M31-60 or its latest revision.

(2) Unless otherwise designated all special large size reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Special Large size Deformed Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M-17N-60 or its latest revision.

(3) ✱ Denotes one extra bar added for testing purposes.

(4) Stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six times the minimum

(4) (continued) thickness except for bars larger than 1 inch, in which case the bends shall be made around a pin of eight bar diameters.

ESTIMATED QUANTITIES

| LOCATION | PLAN (LBS) | FINAL (LBS) |
|---|---|---|
| Abutment No. 1 | 5560 | |
| Abutment No. 2 | 5400 | |
| Abutment No. 3 | 6590 | |
| Abutment No. 4 | 5890 | |
| Total | 23,440 | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans - Swanton
I89 over C.V. Ry. @ Sta 3584+0±
Reinforcing Steel Schedule - Abutments

10-5-65

DRAWN BY DHB CHECKED BY J.W.
PROJECT NO. I89-3(36)C/1
SHEET 122 OF 298

BR-419

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Abutment | #4 | N.B. - | Continued | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | |
| 2 | 17 | 4 | 5-3 | 4A401 | S3 | 0-5 | 1-4½ | 1-8 | 1-4½ | | | 0-5 | | | | | |
| 3 | 59 | 5 | 5-3 | 503 | 17 | | 4-3 | 1-0 | | | | | | | | | |
| 4 | 14 | 5 | 14-3 | 515 | 19 | | 8-6 | 5-9 | | | | | 6-9 | | 5-6 | | |
| 5 | 12 | 5 | 12-9 | 521 | 19 | | 7-0 | 5-9 | | | | | 6-3 | | 3-2 | | |
| 6 | 24 | 5 | 7-4 | 523 | 16 | 1-0 | 2-4 | 0-9 | 3-3 | | | | 2-3 | | 2-3 | | |
| 7 | 43 | 6 | 5-9 | 603 | 17 | | 4-9 | 1-0 | | | | | | | | | |
| 8 | 5 | 6 | 8-8 | 611 | 1 | 0-8 | 7-4 | | | | | 0-8 | | | | | |
| 9 | 7 | 6 | 8-2 | 612 | 1 | 0-8 | 6-10 | | | | | 0-8 | | | | | |
| 10 | 14 | 8 | 7-0 | 4A801 | 17 | | 5-9 | 1-3 | | | | | | | | | |
| 11 | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | |
| 13 | | | | Pier | #1 | | S.B. | | | | | | | | | | |
| 14 | *1 | 3 | 4-0 | 1P304 | Str | | | | | | | | | | | | |
| 15 | 18 | 4 | 2-8 | 401 | | | | | | | | | | | | | |
| 16 | 43 | 5 | 8-6 | 501 | | | | | | | | | | | | | |
| 17 | 8 | 6 | 20-7 | 601 | | | | | | | | | | | | | |
| 18 | *58 | 7 | 8-6 | 701 | | | | | | | | | | | | | |
| 19 | 18 | 8 | 30-6 | 801A | | | | | | | | | | | | | |
| 20 | 18 | 8 | 14-10 | B | | | | | | | | | | | | | |
| 21 | 36 | 8 | 22-8 | 802 | | | | | | | | | | | | | |
| 22 | 13 | 8 | 24-4 | 804 | | | | | | | | | | | | | |
| 23 | 13 | 8 | 25-4 | 805 | | | | | | | | | | | | | |
| 24 | 13 | 8 | 26-4 | 806 | | | | | | | | | | | | | |
| 25 | 5 | 10 | 18-11 | 1001A | | | | | | | | | | | | | |
| 26 | 13 | 10 | 13-2 | 1002A | | | | | | | | | | | | | |
| 27 | 7 | 10 | 32-6 | B | | | | | | | | | | | | | |
| 28 | *1 | 10 | 4-0 | 1003 | Str | | | | | | | | | | | | |
| 29 | 5 | 10 | 26-11 | 1001B | Str | | | | | | | | | | | | |
| 30 | 16 | 4 | 5-10 | 402 | 17 | | 1-2 | 3-6 | 1-2 | | | | | | | | |
| 31 | 2 | 4 | 4-7 | 403 | 17 | | 1-2 | 2-3 | 1-2 | | | | | | | | |
| 32 | 34 | 5 | 13-4 | 502 | T1 | 0-6 | 3-8 | 2-6 | 3-8 | 2-6 | | 0-6 | | | | | |
| 33 | 39 | 8 | 6-6 | 803 | 17 | | 1-3 | 5-3 | | | | | | | | | |
| 34 | | | | | | | | | | | | | | | | | |
| 35 | | Spirals | | | | Core | Pitch | Turns | Spacers | | | | | | | | |
| 36 | 1 | 3 | 21-4 | 301 | | 2-8 | 0-2¼ | 117 | 4 | | | | | | | | |
| 37 | 1 | 3 | 22-4 | 302 | | 2-8 | 0-2¼ | 122 | 4 | | | | | | | | |
| 38 | 1 | 3 | 23-4 | 1P303 | | 2-8 | 0-2¼ | 127 | 4 | | | | | | | | |
| 39 | | | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | |
| 41 | | | | Pier | # 2 | | N.B. | | | | | | | | | | |
| 42 | | | | | | | | | | | | | | | | | |
| 43 | Pier #2 is the same as Pier #1 except that the bar marks | | | | | | | | | | | | | | | | |
| 44 | are to be 2P502, 2P801A, etc.; also, replace with the following | | | | | | | | | | | | | | | | |
| 45 | bars:- | | | | | | | | | | | | | | | | |
| 46 | | | | | | | | | | | | | | | | | |
| 47 | 13 | 8 | 25-5 | 2P804 | Str | | | | | | | | | | | | |
| 48 | 13 | 8 | 26-5 | 805 | Str | | | | | | | | | | | | |
| 49 | 13 | 8 | 27-5 | 806 | Str | | | | | | | | | | | | |
| 50 | | Spirals | | | | Core | Pitch | Turns | Spacers | | | | | | | | |
| 51 | 1 | 3 | 22-5 | 301 | | 2-8 | 0-2¼ | 123 | 4 | | | | | | | | |
| 52 | 1 | 3 | 23-5 | 302 | | 2-8 | 0-2¼ | 128 | 4 | | | | | | | | |
| 53 | 1 | 3 | 24-5 | 2P303 | | 2-8 | 0-2¼ | 133 | 4 | | | | | | | | |
| 54 | | | | | | | | | | | | | | | | | |
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| 80 | | | | | | | | | | | | | | | | | |
| 81 | | | | | | | | | | | | | | | | | |

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 82 | | | | Superstructure | | | N B | | | | | | | | | | |
| 83 | | | | | | | | | | | | | | | | | |
| 84 | | | | | | | | | | | | | | | | | |
| 85 | | | | 59' Span | | | | | | | | | | | | | |
| 86 | 118 | 5 | 18-9 | 1NS1-A | Str | | | | | | | | | | | | |
| 87 | 118 | 5 | 26-3 | B | | | | | | | | | | | | | |
| 88 | *119 | 5 | 15-0 | C | | | | | | | | | | | | | |
| 89 | 118 | 5 | 30-0 | D | | | | | | | | | | | | | |
| 90 | 178 | 5 | 30-3 | 1NS2 | | | | | | | | | | | | | |
| 91 | 24 | 6 | 30-6 | 1NS3 | | | | | | | | | | | | | |
| 92 | 22 | 5 | 21-9 | 1NS5 | | | | | | | | | | | | | |
| 93 | *1 | 4 | 4-0 | 1NS8 | Str | | | | | | | | | | | | |
| 94 | | | | | | | | | | | | | | | | | |
| 95 | 80 | 4 | 5-3 | 1NS4 | S3 | 0-5 | 1-4½ | 1-8 | 1-4½ | | | 0-5 | 0-3 | | | | |
| 96 | 32 | 4 | 7-6 | 1NS6A | S5 | 0-5 | 3-0 | 0-8 | 3-0 | | | 0-5 | | | | | |
| 97 | 38 | 5 | 4-2 | 1NS6P | 17 | | 2-6 | 0-8 | 1-0 | | | | | | | | |
| 98 | 27 | 6 | 3-0 | 1NS7 | 1 | 0-8 | 1-8 | | | | | 0-8 | | 0-6 | | | |
| 99 | | | | | | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | | | | | | |
| 101 | | | | 84' Span | | | | | | | | | | | | | |
| 102 | 168 | 5 | 18-9 | 2NS1-A | Str | | | | | | | | | | | | |
| 103 | 168 | 5 | 26-3 | B | | | | | | | | | | | | | |
| 104 | 168 | 5 | 15-0 | C | | | | | | | | | | | | | |
| 105 | 168 | 5 | 30-0 | D | | | | | | | | | | | | | |
| 106 | 267 | 5 | 29-3 | 2NS2 | | | | | | | | | | | | | |
| 107 | *37 | 6 | 29-6 | 2NS3 | | | | | | | | | | | | | |
| 108 | 22 | 5 | 21-9 | 2NS5 | Str | | | | | | | | | | | | |
| 109 | | | | | | | | | | | | | | | | | |
| 110 | 114 | 4 | 5-3 | 2NS4 | S3 | 0-5 | 1-4½ | 1-8 | 1-4½ | | | 0-5 | 0-3 | | | | |
| 111 | 32 | 4 | 8-0 | 2NS6-A | S5 | 0-5 | 3-3 | 0-8 | 3-3 | | | 0-5 | | | | | |
| 112 | 38 | 5 | 4-2 | 2NS6-P | 17 | | 2-6 | 0-8 | 1-0 | | | | | | | | |
| 113 | 27 | 6 | 3-0 | 2NS7 | 1 | 0-8 | 1-8 | | | | | 0-8 | | 0-6 | | | |
| 114 | | | | | | | | | | | | | | | | | |
| 115 | | | | Superstructure S.B. | | | | | | | | | | | | | |
| 116 | Southbound reinforcing shall be the same as above but bar mark | | | | | | | | | | | | | | | | |
| 117 | shall begin with 1SS1-A, 1SS7, 2SS1-A, 2SS7, Etc. | | | | | | | | | | | | | | | | |
| 118 | | | | | | | | | | | | | | | | | |
| 119 | | | | Approach Slab #1 | | | | | | | | | | | | | |
| 120 | 1 | 10 | 20-7 | 1AS1A | 1 | 1-1 | 19-6 | | | | | | | 0-9 | | | |
| 121 | | | | thru | | | | Vary "B" dimension in 39 equal increments | | | | | | | | | |
| 122 | 1 | 10 | 21-9 | 1AS1M-M | 1 | 1-1 | 20-8 | | | | | | | 0-9 | | | |
| 123 | | | | | | | | | | | | | | | | | |
| 124 | 42 | 5 | 19-10 | 1AS3 | Str | | | | | | | | | | | | |
| 125 | 2 | 5 | 19-10 | 1AS4 | Str | | | | | | | | | | | | |
| 126 | | | | | | | | | | | | | | | | | |
| 127 | | | | | | | | | | | | | | | | | |
| 128 | | | | Approach Slab #3 | | | | | | | | | | | | | |
| 129 | | | | | | | | | | | | | | | | | |
| 130 | Approach Slab #3 is the same as Approach Slab #1 | | | | | | | | | | | | | | | | |
| 131 | except that the bar marks shall be changed | | | | | | | | | | | | | | | | |
| 132 | to read 3AS1A, 3AS4, etc. | | | | | | | | | | | | | | | | |
| 133 | | | | | | | | | | | | | | | | | |
| 134 | | | | | | | | | | | | | | | | | |
| 135 | | | | Approach Slab #2 | | | | | | | | | | | | | |
| 136 | | | | | | | | | | | | | | | | | |
| 137 | 1 | 10 | 20-7 | 2AS1A | 1 | 1-1 | 19-6 | | | | | | | 0-9 | | | |
| 138 | ↕ | ↕ | | ↕ thru | | | | Vary "B" dimension in 39 equal increments | | | | | | | | | |
| 139 | 1 | 10 | 25-4 | 2AS1M-M | 1 | 1-1 | 24-3 | | | | | | | 0-9 | | | |
| 140 | | | | | | | | | | | | | | | | | |
| 141 | 44 | 5 | 19-10 | 2AS3A | Str | | | | | | | | | | | | |
| 142 | 2 | 5 | 13-0 | B | | | | | | | | | | | | | |
| 143 | 2 | 5 | 6-0 | C | | | | | | | | | | | | | |
| 144 | 2 | 5 | 20-0 | 2AS4 | | | | | | | | | | | | | |
| 145 | *1 | 10 | 4-0 | 2AS5 | Str | | | | | | | | | | | | |
| 146 | | | | | | | | | | | | | | | | | |
| 147 | | | | Approach Slab #4 | | | | | | | | | | | | | |
| 148 | | | | | | | | | | | | | | | | | |
| 149 | Approach slab #4 is the same as Approach slab #2 | | | | | | | | | | | | | | | | |
| 150 | except that the bar marks shall be changed | | | | | | | | | | | | | | | | |
| 151 | to read 4AS3B, 4AS3C, etc. | | | | | | | | | | | | | | | | |
| 152 | | | | | | | | | | | | | | | | | |
| 153 | | | | | | | | | | | | | | | | | |
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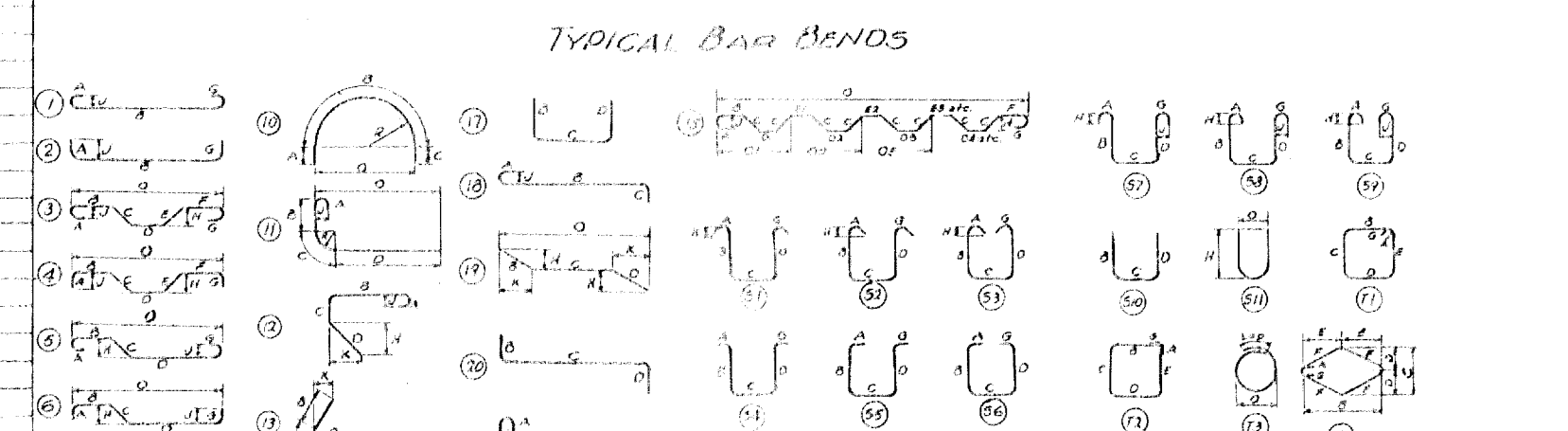
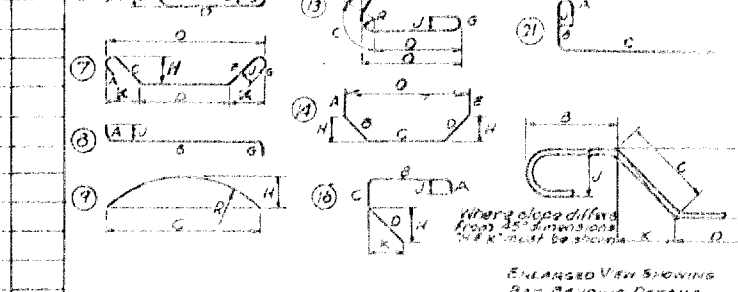
| 161 | | | | | | | | | | | | | | | | | |
| 162 | | | | | | | | | | | | | | | | | |

## TYPICAL BAR BENDS





ENLARGED VIEW SHOWING BAR BENDING DETAILS

### NOTES

1. All dimensions are out to out of bar
2. 'J' dimensions on 180° hooks to be shown only where necessary to restrict hook size otherwise standard hooks are to be used
3. Where 'J' is not shown, 'J' will be kept equal to or less than 'H'. Where 'J' can exceed 'H', it should be shown.
4. 'H' dimension on stirrups to be shown where necessary to restrict hooks.
5. Where bars are to be bent more accurately than standard bending tolerances bending dimensions which require closer working should have limits indicated
6. Figures in circles show types
7. No allowance for bend curvature is to be made except for standard hook & radii in excess of same.

| Item | No. Pieces | Size | Length | Mark | Type | A | B | C | D | E | F | G | H | J | K | R | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 163 | | | | | | | | | | | | | | | | | |
| 164 | | | | | | | | | | | | | | | | | |
| 165 | | | | | | | | | | | | | | | | | |
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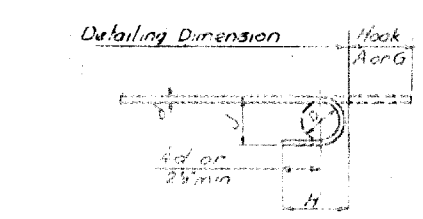
| 189 | | | | | | | | | | | | | | | | | |
| 190 | | | | | | | | | | | | | | | | | |




STANDARD HOOK DETAIL

### BAR SIZES

| Equivalent Size | Present Number | Weight per ft |
|---|---|---|
| ¼"φ | 2 | .167 |
| ⅜"φ | 3 | .376 |
| ½"φ | 4 | .668 |
| ⅝"φ | 5 | 1.043 |
| ¾"φ | 6 | 1.502 |
| ⅞"φ | 7 | 2.044 |
| 1"φ | 8 | 2.670 |
| 1"# | 9 | 3.400 |
| 1⅛"# | 10 | 4.303 |
| 1¼"# | 11 | 5.313 |
| 1½"# | 14 S | 7.650 |
| 2"# | 18S | 13.600 |

### GENERAL NOTES

(1) Unless otherwise designated all standard reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M31-60 or its latest revision.

(2) Unless otherwise designated all special large size reinforcement shall be deformed bars conforming with the requirements of the "Standard Specification for Special Large size Deformed Billet-Steel Bars for Concrete Reinforcement"(Intermediate Grade) AASHO Designation M-174-60 or its latest revision.

(3) ✱ Denotes one extra bar added for testing purposes.

(4) Stirrups and tie bars shall be bent around a pin having a diameter not less than two times the minimum thickness of the bar. Bends for other bars shall be made around a pin having a diameter not less than six times the minimum

(4) (continued) thickness except for bars larger than 1 inch, in which case the bends shall be made around a pin of eight bar diameters.

### ESTIMATED QUANTITIES

| LOCATION | PLAN (LBS) | FINAL (LBS) |
|---|---|---|
| Pier #1 | 13,960 | |
| Pier #2 | 14,130 | |
| Superstructure (N.B.) | 45,880 | |
| Superstructure (S.B.) | 45,880 | |
| Approach slab #1 | 4460 | |
| " " #2 | 4860 | |
| " " #3 | 4460 | |
| " " #4 | 4860 | |
| Total | 138,490 | |

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF St. Albans - Swanton
I89 over CVRy. @ Sta. 3584+0±
Reinf. Steel Schedule - Piers, Superstructures, Approach Slabs

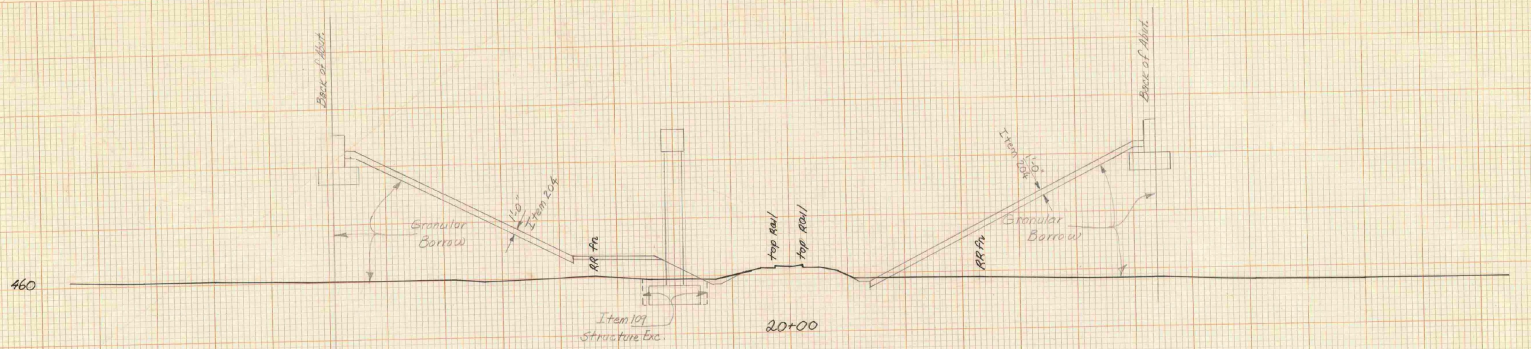
10-5-65

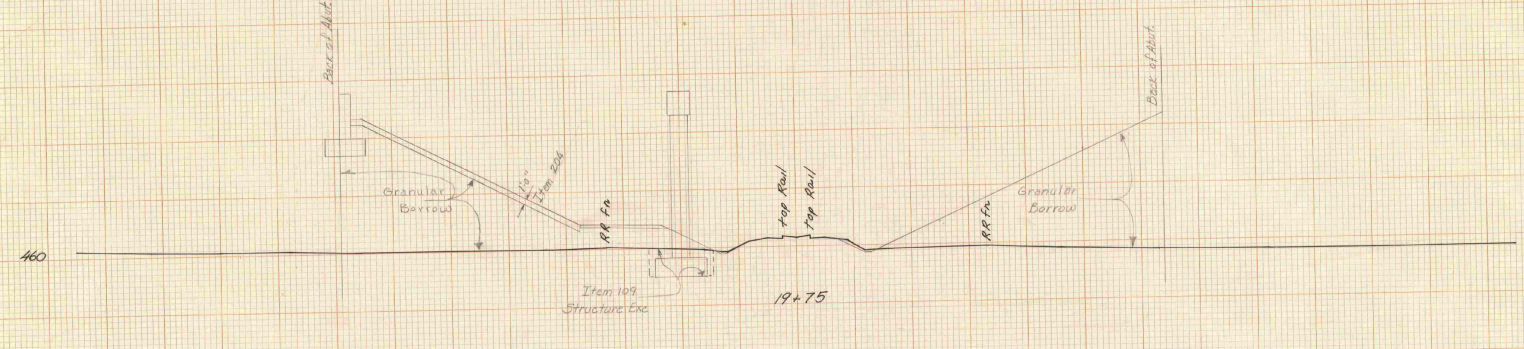
DRAWN BY DHB CHECKED BY J.W.

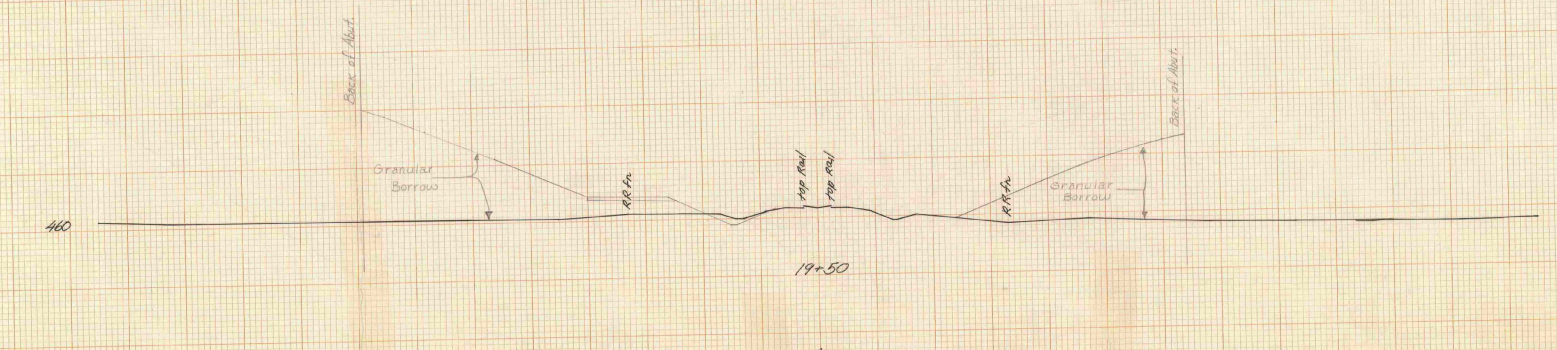
PROJECT NO. I89-3(36)SA

SHEET 123 OF 298

BR-420



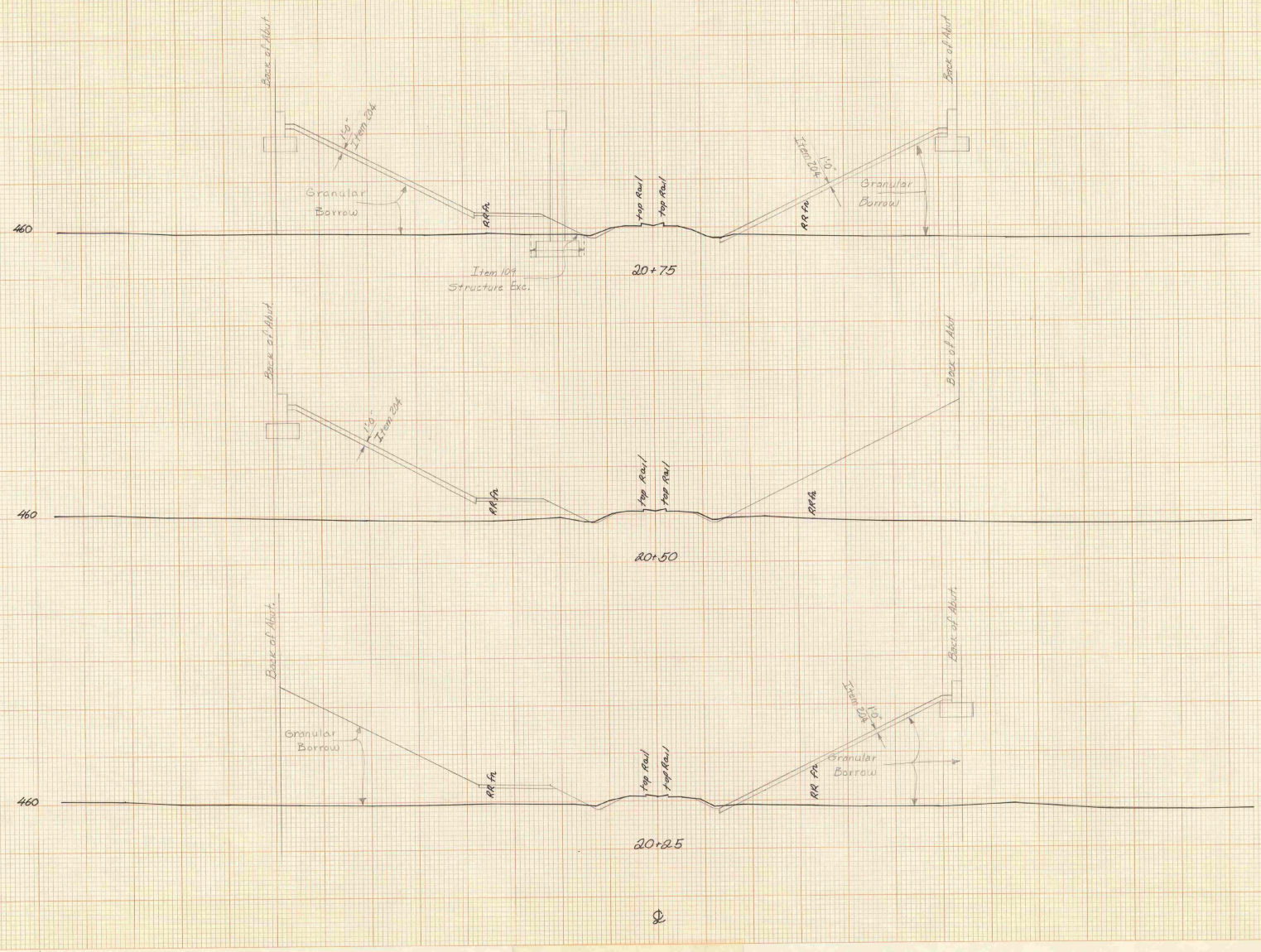




ML POST 3583+73.40 =
RR Trav POT 20+00.0

| STATE OF VERMONT<br>DEPARTMENT OF HIGHWAYS | |
|---|---|
| TOWN OF St. Albans - Swanton | |
| Levels by Laraliee | Date 8/64 |
| Plotted by Lamoray | Ck'd by LL/GH |
| SCALE: 1 INCH = 10 FEET | |
| Proj. No. F 89-3(1) | Sheet 2 of 5 |
| Sta. 19+50 to Sta. 20+00 | |

Sheet 124 of 298




MI. POST 3583 +73.40 =
RR Trav POST 20+00.0

| STATE OF VERMONT<br>DEPARTMENT OF HIGHWAYS | |
|---|---|
| TOWN OF St Albans - Swanton | |
| Levels by Lavallee | Date 8/64 |
| Plotted by Lamoray | Ck'd by LL/KH |
| SCALE: 1 INCH = 10 FEET | |
| Proj. No. Z89-3(1) | Sheet 3 of 5 |
| Sta. 20+25 | to Sta. 20+75 |

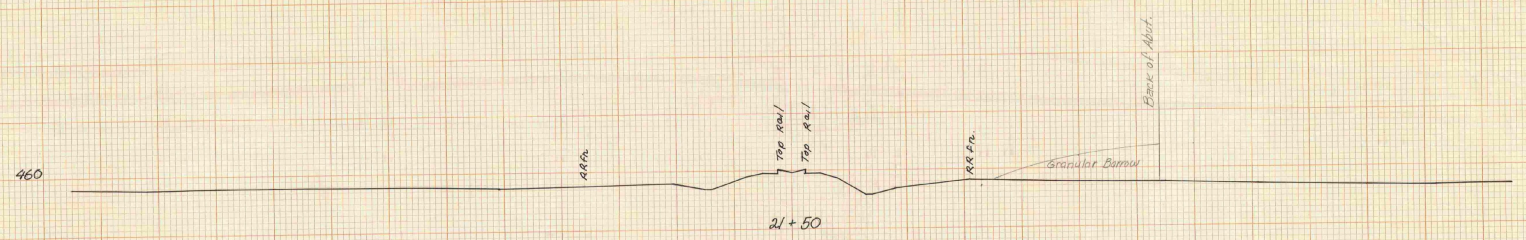
Sheet 125 of 298

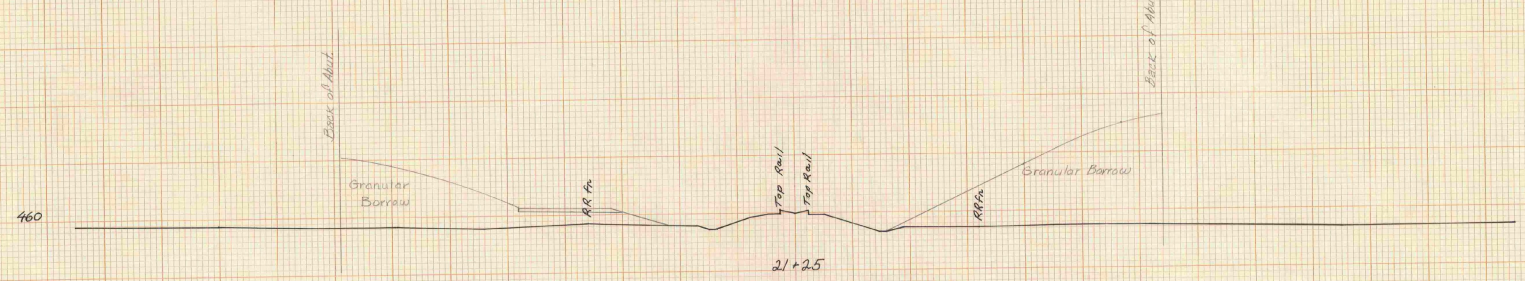
KEUFFEL & ESSER CO.
MADE IN U.S.A.

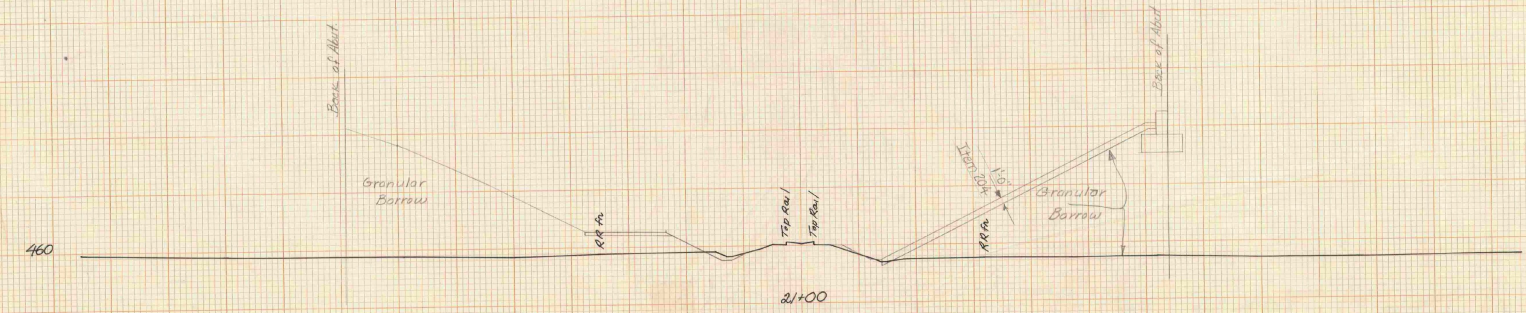
K&E STANDARD ® CROSS SECTION
RULED TO 100 DIVS

KEUFFEL & ESSER CO.

K&E STANDARD ® CROSS SECTION



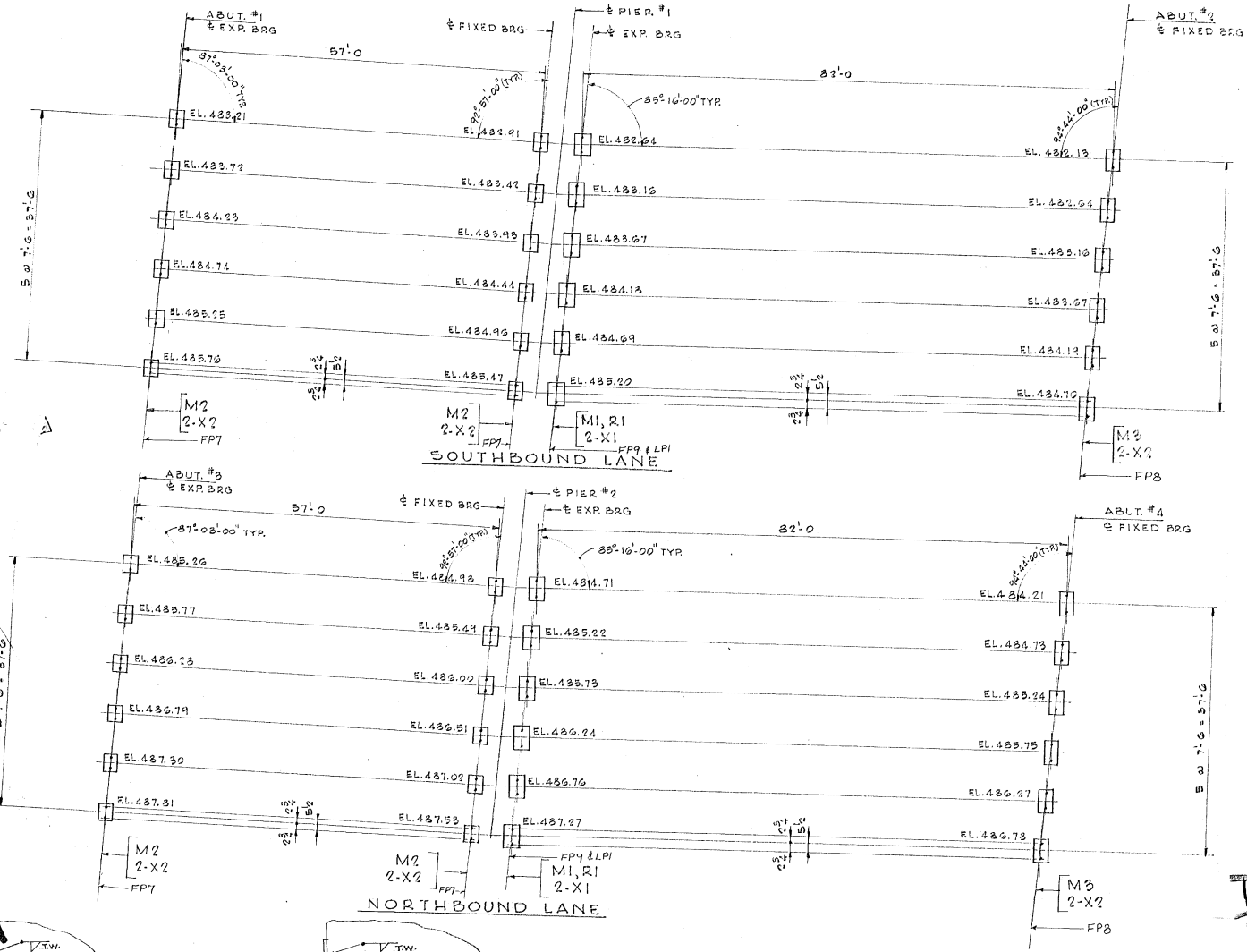

℄

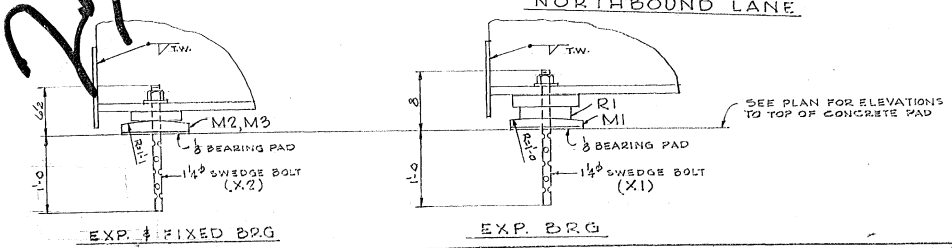
ML POST 3583+73.40=
RR Trav POT 20+020

| STATE OF VERMONT<br>DEPARTMENT OF HIGHWAYS | |
|---|---|
| TOWN OF St Albans - Swanton | |
| Levels by: Lavallee | Date: 8/64 |
| Plotted by: LaMoray | Ck'd by: LL/GH |
| SCALE: 1 INCH = 10 FEET | |
| Proj. No. F89-3(1) | Sheet 4 of 5 |
| Sta. 21+00 | to Sta. 21+50 |

Sheet 126 of 298

KEUFFEL & ESSER CO.
MADE IN U.S.A.
K&E STANDARD ® CROSS SECTION




229 M

TO BE FILED WITH RECORD PLANS

| APPROVAL | STATE OF VERMONT | PROJECT No I-89-3(36) CONT #1 |
|---|---|---|

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-16-66 Per Apr. Ja

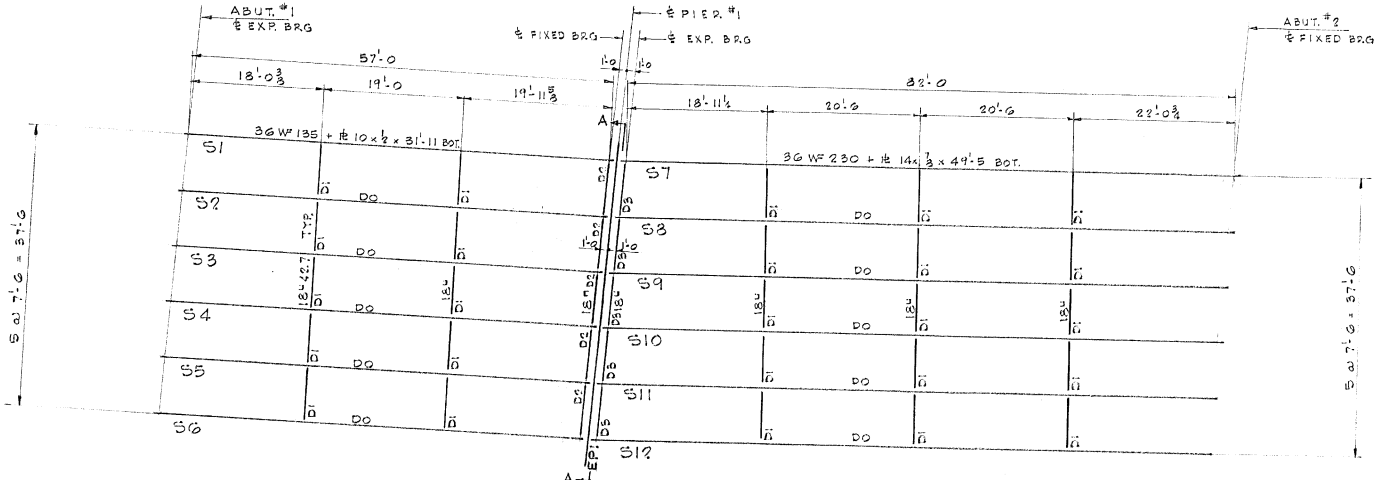
| | | DATE |
|---|---|---|
| DRAWN BY | LVG | |
| CK'D BY | | |

PROJECT I-89 OVER C.V. RY TR.
LOCATION ST. ALBANS - SWANTON, VT.
CUSTOMER
ARCHITECT STATE OF VERMONT DEPT. OF HWYS
JOB NO. 66-1175-300 SHEET NO. E1

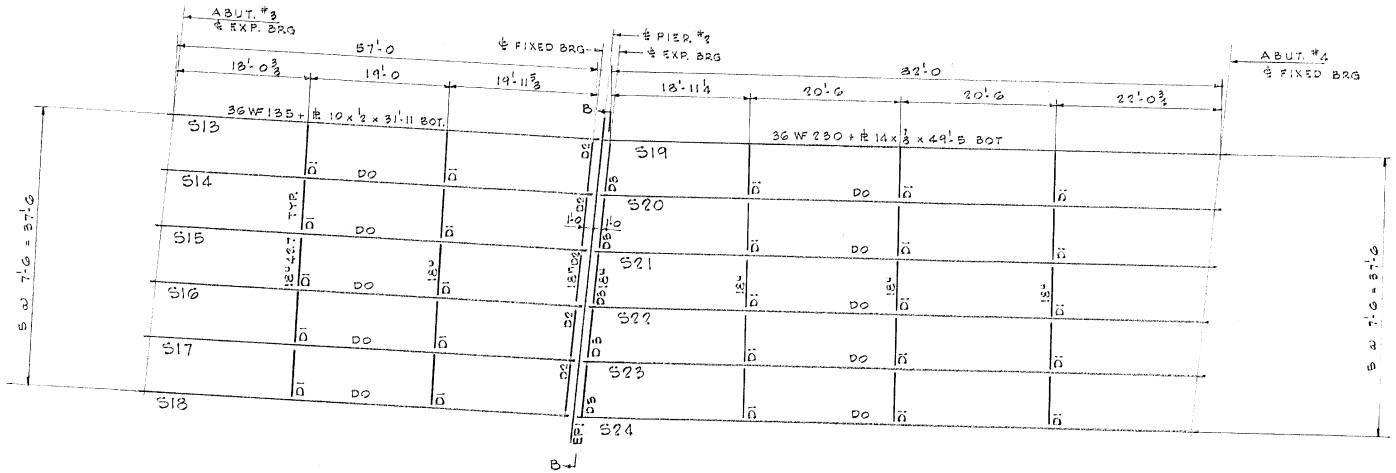
HOLES
RIVETS
PAINT

PRINT RECORD

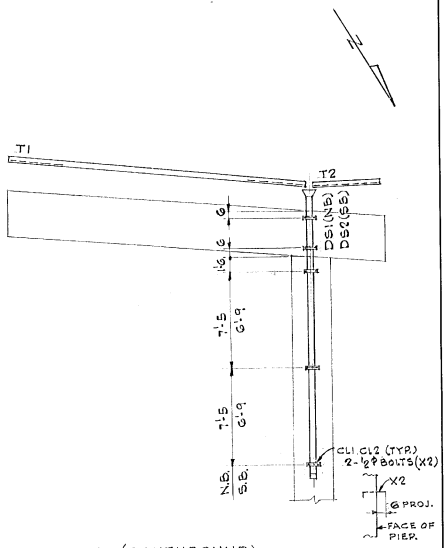
| NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-5 |
| 3 | Fin. App | 8-16 |
| 1 | Shop | 8-23 |
| 3 | Cust. | 8-23 |
| 2 | Stats | 8-23 |
| 3 | Field | 9-6 |
| 3 | Cont. | 9 |
| 1 | J.F.C. | 8 |




SOUTHBOUND LANE




NORTHBOUND LANE




A-A (SOUTHBOUND)
B-B (NORTHBOUND)

NOTES:
1. FIELD CONN. - 1/8ϕ H.S. BOLTS

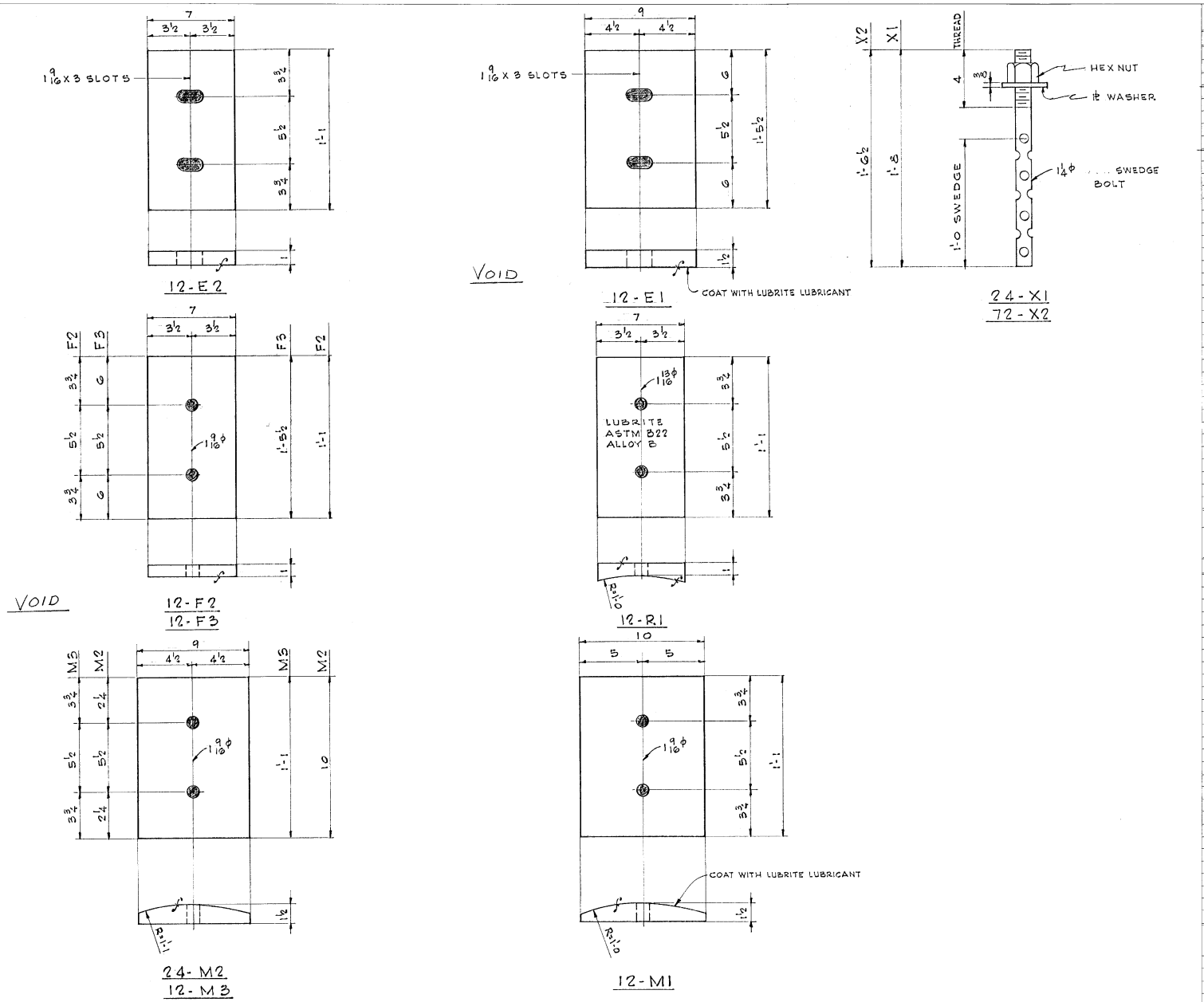
| | | |
|---|---|---|
| APPROVAL | STATE OF VERMONT | PROJECT NO I-89 3(36) CONT. #1 |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

| | | | |
|---|---|---|---|
| DRAWN BY | | DATE | PROJECT I-89 OVER C.V. RY. TR. |
| CKD BY | | | LOCATION ST. ALBANS - SWANTON, VT. |
| HOLES | | | CUSTOMER |
| RIVETS | | | ARCHITECT STATE OF VERMONT DEPT. OF HWYS |
| PAINT | | | JOB NO 66-1175-300 SHEET NO. E2 |

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | ADD | 8-5 |
| 1 | SHOP | 8-23 |
| 3 | CUST | 8-23 |
| 2 | STATE | 8-23 |
| 3 | CONT | 9-6 |

1 ITL 10-17




BILL OF MATERIAL (22)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| | 12 | M1 | PL - 10 x 1½ | 1 | 1 | RES. @ 12-0 | 675 ✓ | |
| | 12 | R1 | PL - 7 x 1½ | 1 | 1 | ASTM B22 ALLOY B (8.7081) | 360 ✓ | |
| VOID | 12 | E1 | PL - 9 x 1½ | 1 | 5½ | | | |
| | | | | | | | | 1035 ✓ |
| | 12 | F2 | PL - 7 x 1 | 1 | 1 | | | |
| | 12 | F3 | DO | 1 | 5½ | | | |
| VOID | | | | | | | | |
| | 12 | E2 | PL - 7 x 1 | 1 | 1 | 6-(22) 6-(26) | | |
| | 24 | M2 | PL - 9 x 1½ | 1 | 1 | RES. @ 12-0 | | |
| | 12 | M3 | DO | 0 | 10 | (26) | 1681 ✓ | 1681 ✓ |
| | | | | | | (46) | | |
| | 24 | X1 | 1¼ϕ SWEDGE BOLT | 1 | 8 | WITH HEX NUT | 167 ✓ 13 ✓ | |
| | 72 | X2 | DO | 1 | 6½ | PL WASHER | 6 ✓ 463 ✓ | |
| | | | | | | RES. @ 20-0 | 39 ✓ 14 ✓ | 707 ✓ |
| | | | PAINT ½ 1% | | | 3023 | 17 | 17 ✓ |
| | | | | | | | | 3440 ✓ |
| | | | | | | 3440 | | |
| | | | | | | 17 | | |
| | | | | | | 3423 | | |

JOB NO. 66-1175-300 SHEET NO. 1

BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 9-2-66 J.B.

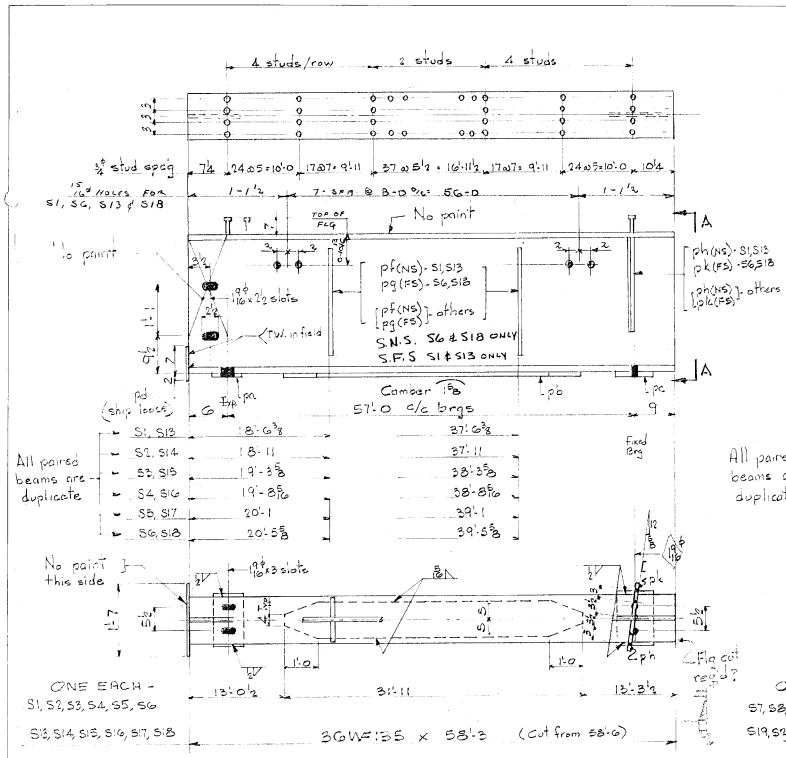
| | | DATE |
|---|---|---|
| DRAWN BY | L.V.G. | |
| OK'D BY | | |

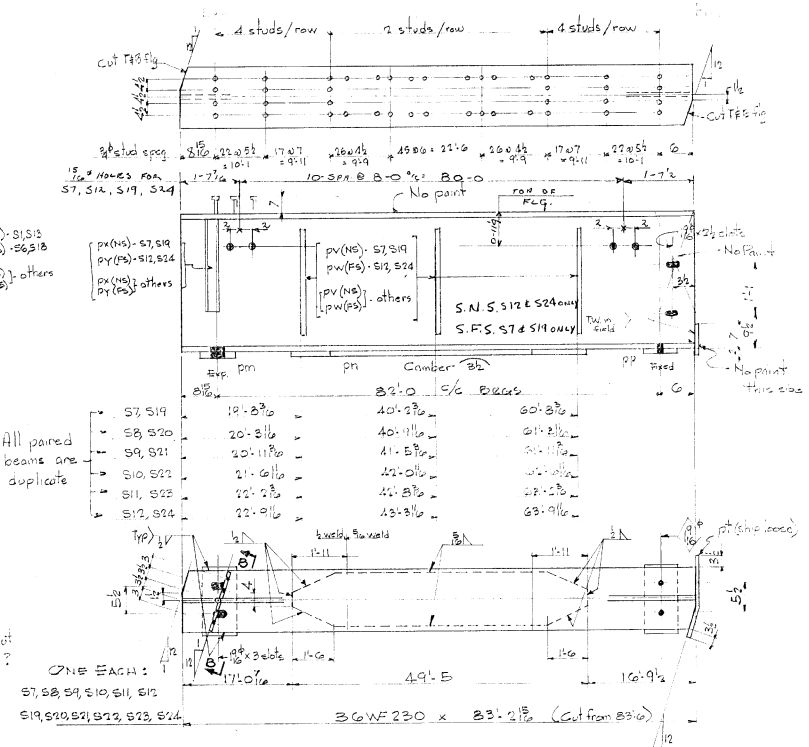
HOLES
BOLTS
PAINT

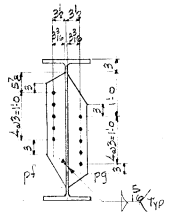
PROJECT I-89 OVER C.V. RY TR
LOCATION ST. ALBANS - SWANTON, VT.
CUSTOMER
ARCHITECT STATE OF VT. DEPT. OF HWYS
JOB NO. 66-1175-300 SHEET NO. 1

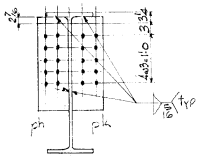
| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-5 |
| 4 | Shop | 8-23 |
| 2 | State | 8-23 |
| 2 | State | 9-2 |
| 1 | T.T.L. | 10-17 |

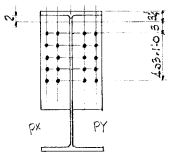
SM 1063 QCP

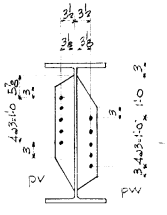


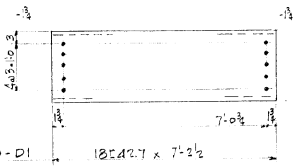



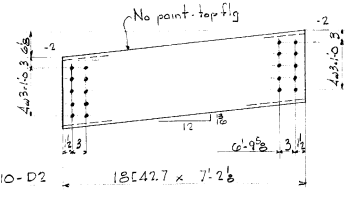



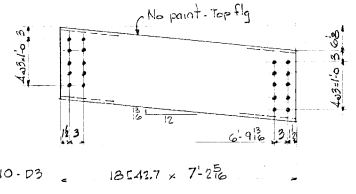



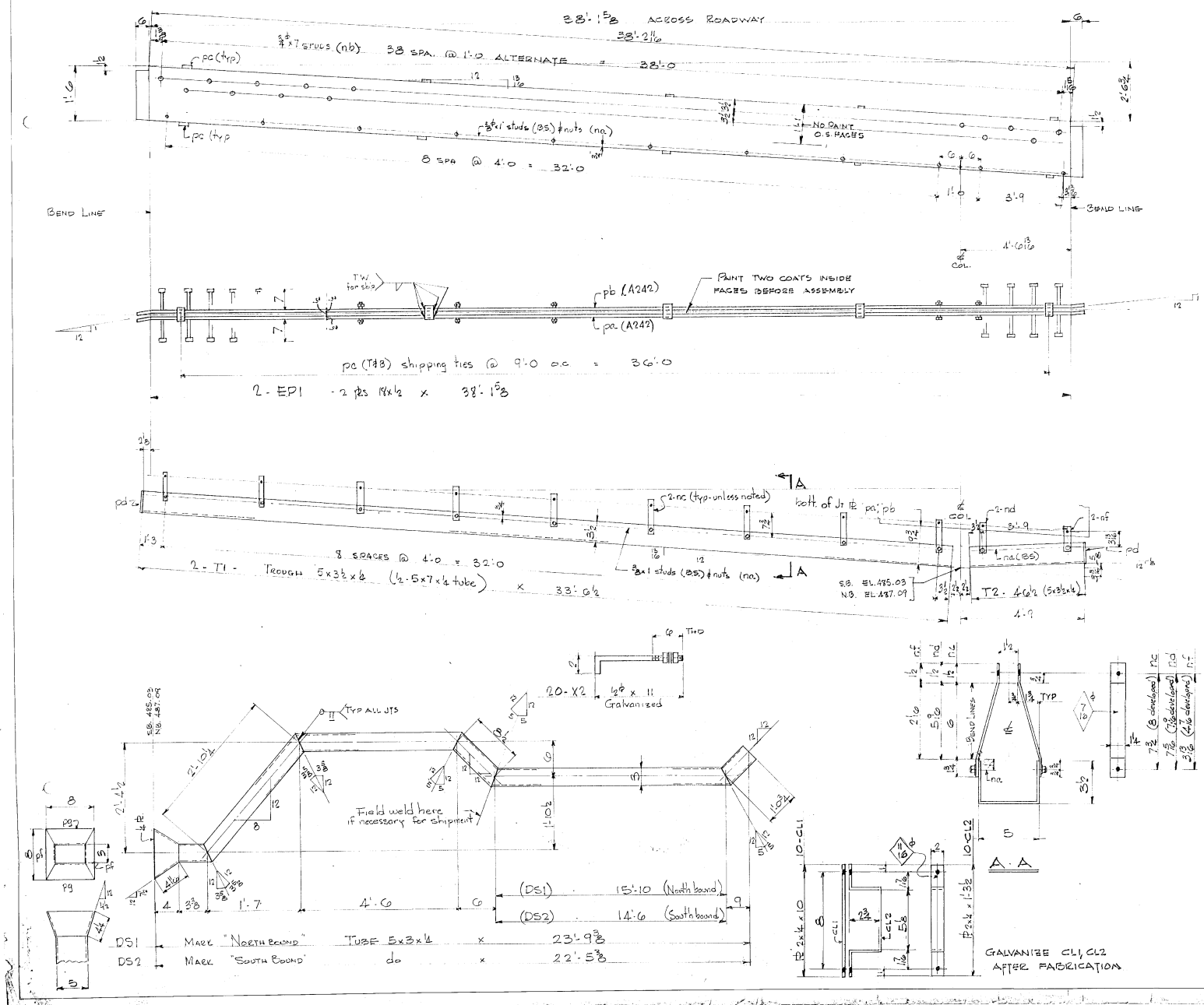




## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |




## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | PAINT 1/2 OF 1% | | | | 32 | 32 |

JOB NO. 66-1175-300 SHEET NO. 3 b/b

## BILL OF MATERIAL (21)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | 887036 | | |
| 2-EP1 | 2 | pa | PL 18 x 1/2 | 39 | 4 | A242 ORD PL 26 | | |
| | 2 | pb | do | 39 | 4 | do x 1/2 x 42.0 | 4910 | |
| | 20 | pc | PL 2 x 3/8 | | 3 | STK. | 13 | |
| | 44 | na | 3/8 φ THRD STUDS | | 1 | GALV. STK. | 1 | |
| | 44 | | Lock nuts & washers | | | | 4 | |
| | 156 | nb | 3/4 nelson studs | 0 | 7 | No Paint | 157 | |
| | | | | | | (51) | | 5085 |
| 2-T1 | 2 | T1 | (1/2 - 7 x 5 x 1/4 tube) | 33 | 6 1/2 | RES. @ 40-0 | 631 | |
| | 2 | pd | PL 3 1/2 x 1/4 | | 5 | STK. | 2 | |
| | 36 | nc | BAR 1 1/4 x 1/4 | | 9 1/2 | RES. @ 20-0 | 30 | |
| | 36 | na | | | | STK. (51) | 1 | |
| | | | | | | | | 664 |
| 2-T2 | 2 | T2 | (1/2 - 7 x 5 x 1/4 tube) | 4 | 6 1/2 | RES. @ 40-0 | 85 | |
| | 2 | pd | | | | STK. | 2 | |
| | 8 | na | | | | | 1 | |
| | 4 | nd | BAR 1 1/4 x 1/4 | | 8 13/16 | RES. @ 20'-0 | | |
| | 4 | nf | do | | 5 5/16 | | 5 | |
| | | | | | | (52) | | 93 |
| 1-DS1 | 1 | DS1 | TUBE 5 x 3 x 1/4 | 25 | 10 5/8 | RES. @ 40'-0 | | |
| 1-DS2 | 1 | DS2 | do | 24 | 6 5/8 | | 606 | |
| | 4 | pf | PL 8 x 1/4 | | 4 1/4 | STK. | | |
| | 4 | pg | do | | 4 11/16 | (53) | 20 | |
| 10-CL1 | 10 | | PL 2 x 1/4 | | 10 | Galv. STK. | | |
| 10-CL2 | 10 | | do | 1 | 3 1/2 | do | 36 | |
| 20-X2 | 20 | X2 | 1/2 φ ROD | 1 | 1 | ORD. STD NUT 87111 w/2 nuts & 1 wash. galvanized | 18 | 680 |
| | | | | | | | | 6522 |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

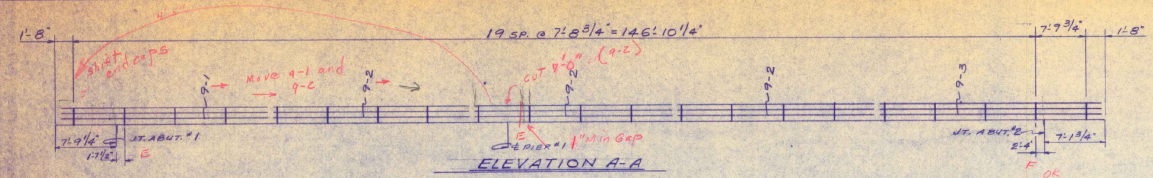
| | | DATE |
|---|---|---|
| DRAWN BY | NCW | 7-6-66 |
| CK'D BY | [illegible] | 8/1/66 |

HOLES as noted
BOLTS
PAINT R.L. See Specs

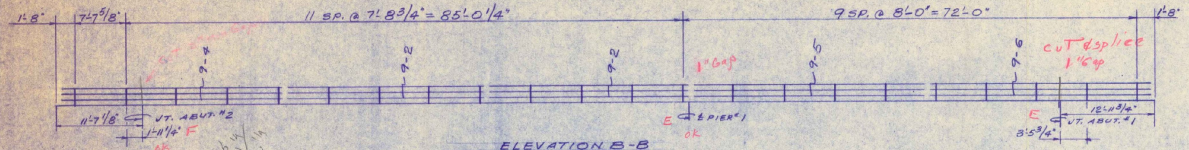
PROJECT ST ALBANS - SWANTON
LOCATION I89 OVER CV RY STA 3584
CUSTOMER
ARCHITECT STATE OF VERMONT
JOB NO. 66-1175-300 SHEET NO. 3 a/b

PRINT RECORD

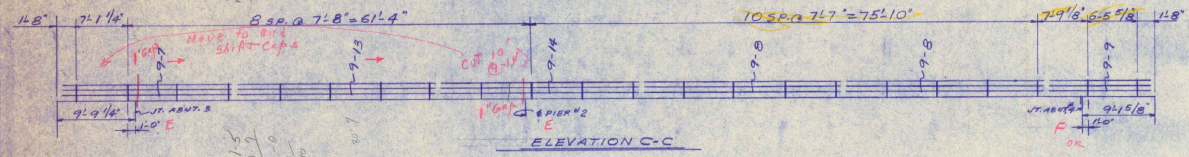
| NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-5 |
| 4 (1) | Shop | 8-23 |
| 2 | Stare | 8-23 |
| 1 | JTL | 10-17 |




ELEVATION A-A




ELEVATION B-B

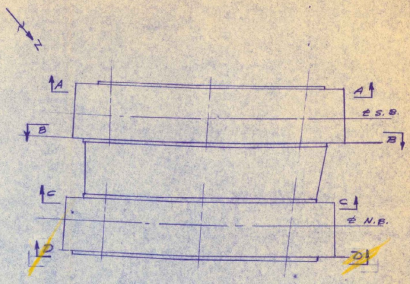



ELEVATION C-C




ELEVATION D-D

5 handrail splices
10 Barrier Rail splices




KEY PLAN

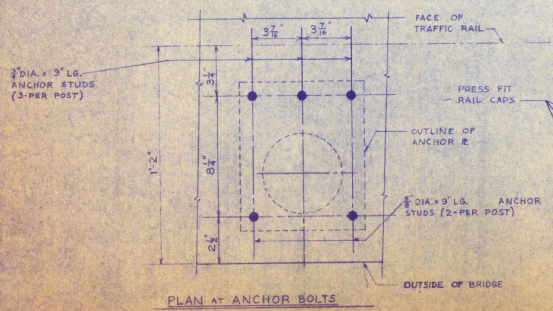
RECEIVED APR 18 1967
CK'D BY FBC OK'D BY W Smith
RESUBMIT APPROVED
BY DATE 4/18/67

## BILL OF MATERIAL

WW"736 DWG." BR-169

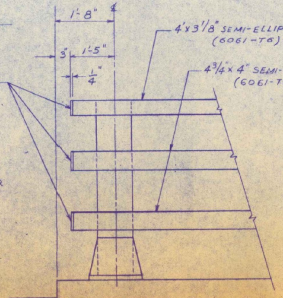
| 4 3/4" x 4" SEMI-ELLIPTICAL TUBE (6061-T6) | | | 4" x 3 1/8" SEMI-ELLIPTICAL TUBE (6061-T6) | |
|---|---|---|---|---|
| MK | QUAN. | LGTH. | QUAN. | LGTH. |
| 9-1 | 2 | 31'-3" | 1 | 31'-3" |
| 9-2 | 10 | 30'-10 1/4" | 5 | 30'-10 1/4" |
| 9-3 | 2 | 33'-4 3/4" | 1 | 33'-4 3/4" |
| 9-4 | 2 | 33'-2 5/8" | 1 | 33'-2 5/8" |
| 9-5 | 2 | 37'-10 1/2" | 1 | 37'-10 1/2" |
| 9-6 | 2 | 34'-4 3/4" | 1 | 34'-4 3/4" |
| 9-7 | 2 | 24'-10" | 1 | 24'-10" |
| 9-8 | 6 | 30'-8 1/4" | 3 | 30'-8 1/4" |
| 9-9 | 2 | 14'-6 3/4" | 1 | 14'-6 3/4" |
| 9-10 | 2 | 30'-8" | 1 | 30'-8" |
| 9-11 | 2 | 30'-8 1/4" | 1 | 30'-8 1/4" |
| 9-12 | 2 | 17'-9 5/8" | 1 | 17'-9 5/8" |
| 9-13 | 2 | 30'-7 1/4" | 1 | 30'-7 1/4" |
| 9-14 | 2 | 30'-5 1/4" | 1 | 30'-5 1/4" |
| 9-15 | 4 | 31'-1 1/4" | 2 | 31'-1 1/4" |

| | |
|---|---|
| 88 | POST "VT3 WITH CLAMP BARS |
| 88 | ANCHOR ASSEMBLIES |
| 8 | HAND RAIL END CAPS |
| 16 | BARRIER RAIL END CAPS |
| 18 ± 5 | HAND RAIL SPLICE BARS |
| 36 ± 10 | BARRIER RAIL SPLICE BARS |
| 88 | POST PAD SETS |

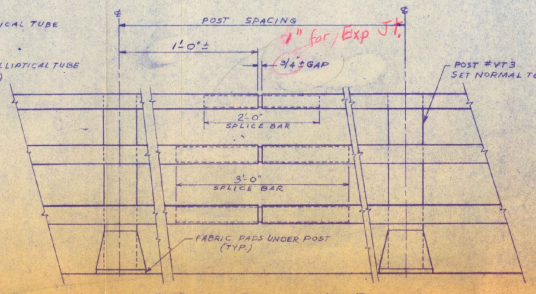



PLAN at ANCHOR BOLTS

BOLTS SHALL PROJECT 2 1/4" ABOVE FINAL POUR




DETAIL at END POST




DETAIL at RAILING JOINT

NOTES

1. FOR NOTES, RAILING DETAILS & ANCHORAGE DETAILS SEE SHEETS 2 & 3
2. ONE SET OF 1/8 THICK "NEW-COR" PADS SHALL BE PLACED UNDER EA POST.
3. ALL DIMS ARE HORIZONTAL, UNLESS NOTED.

STATE

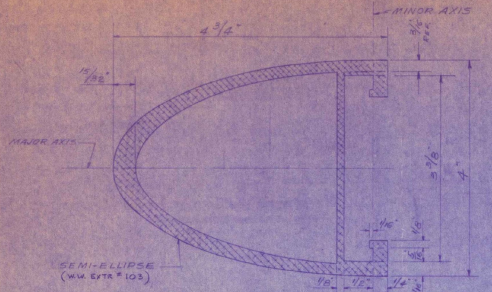
| ISSUE | DATE | DESCRIPTION | BY | CH |
|---|---|---|---|---|
| 2 | 4/18/67 | REV. PER ENGINEER | H. | |
| 1 | 4/1/63 | FOR APPROVAL | RL | DR: W.R. |

WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS

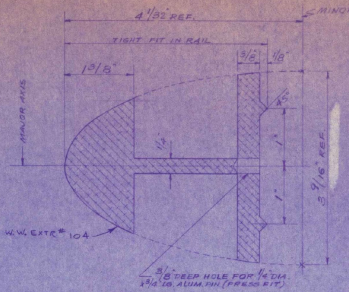
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
ST. ALBANS-SWANTON I-89-3(36)
I-89 OVER C. V. R.Y.
ALUMINUM BRIDGE RAILING
CONTRACTOR: E.T. O'NEILL

SCALE: WW"736 BR-169

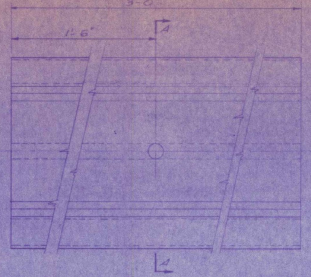
SHT. 1 OF 3



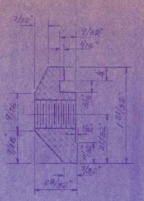

BARRIER RAIL SECTION
N.T.S.



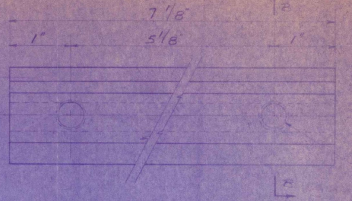

SECTION A-A



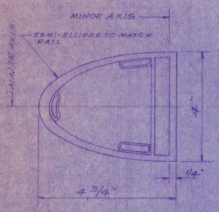
BARRIER RAIL SPLICE DETAIL
N.T.S.



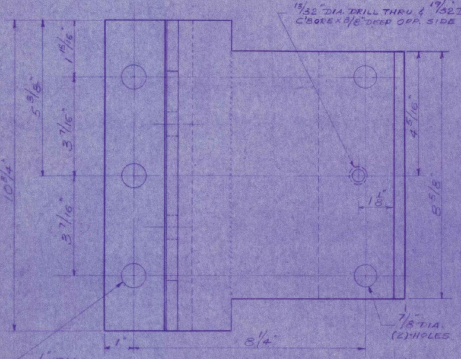
SECTION B-B

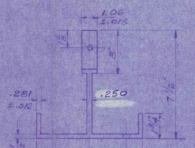


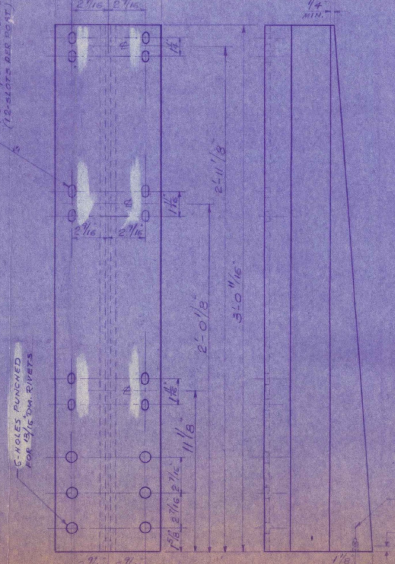
BARRIER RAIL CLAMP BAR DETAIL
FULL SIZE



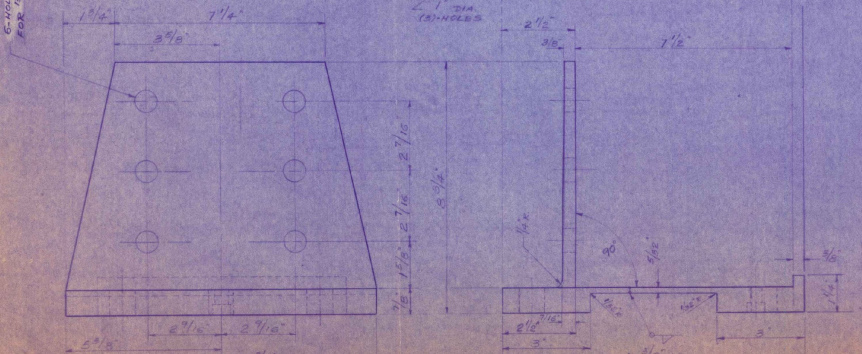

BARRIER RAIL CAP DETAIL
6"=1'-0"






POST STEM DETAILS
3"=1'-0"




POST BASE DETAILS
3"=1'-0"

## GENERAL NOTES:

1. MATERIAL FOR ANCHOR BOLTS SHALL CONFORM TO ASTM A276 TYPE 430 STAINLESS STEEL.
2. MATERIAL FOR CLAMP BAR SCREWS TO BE S.S.A.S.E.N.I. 430 TYPE 430.
3. MATERIAL FOR ANCHOR BOLT IS TO BE ASTM A7.
4. EXPOSED ENDS OF RAIL TUBE SHALL BE CLOSED WITH DRIVE-IN TYPE RAIL END CAPS. CAPS SHALL BE ALUMINUM ALLOY SAND MOLD CASTING CONFORMING TO A.S.T.M. SPEC. B26 ALLOY 43 TO A.
5. ALL WELDING SHALL BE METAL INERT GAS PROCESS.
6. RAILING SYSTEM SHALL BE CONTINUOUS WITH RAIL SECTION ATTACHED TO A MIN. OF THREE POSTS, WHERE POSSIBLE. EACH UNIT IN RAIL LENGTH SHALL BE SPLICED.
7. ANCHOR BOLTS ARE TO BE PRESET IN CONCRETE BY MEANS OF TEMPLATES BY THE CONTRACTOR.
8. MATERIAL FOR ALUMINUM WASHERS SHALL BE A.S.T.M. B-209 ALLOY ALCLAD 2024-T4. MATERIAL FOR RIVETS SHALL BE A.S.T.M. B-316 OR B-221 ALLOY 6061-T6 OR 6063-T6. RIVETS SHALL BE BUTTON HEAD, CONE POINT AND COLD DRIVEN.
9. ALL ALUMINUM SURFACES IN CONTACT WITH POST BASES SHALL BE GIVEN ONE SHOP COAT OF ZINC CHROMATE PRIMER. FABRICATED SHALL BE PERFORMED PARTS IN ACCORDANCE WITH A.S.B.D. SPEC. 2.10.3 (K).
10. MATERIAL FOR POSTS, RAILS, CLIPS, BARS, RODS AND CLEANOUTS TO BE ALUM. EXTRUSIONS CONFORMING TO ASTM-B221 ALLOY 6063-T6 OR 6061-T6.
11. WELD FILLER WIRE SHALL BE ASTM B285 ALLOY ER5356

| NO. | DATE | REVISIONS | BY |
|---|---|---|---|
| 3 | 4/3/67 | REVISED TO CONFORM TO STATE REQUIREMENTS | |
| 2 | 3/14/67 | REV. PER CUSTOMER | |
| 1 | 2/8/67 | FOR APPROVAL | |
| ISSUE | DATE | DESCRIPTION | |

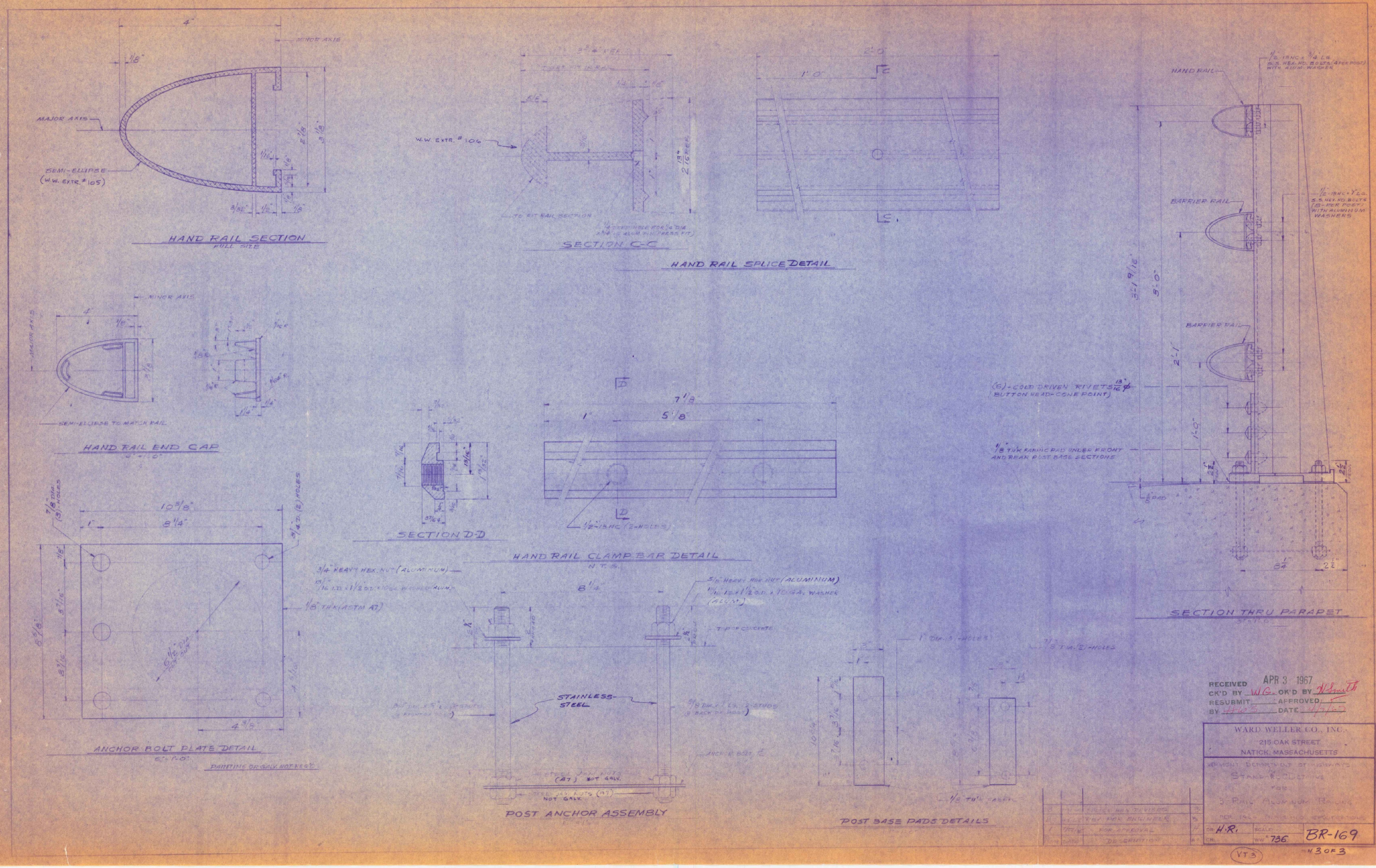
RECEIVED APR 3 1967
CK'D BY W.C. OK'D BY W. Smith
RESUBMIT ____ APPROVED ____
BY ____ DATE ____

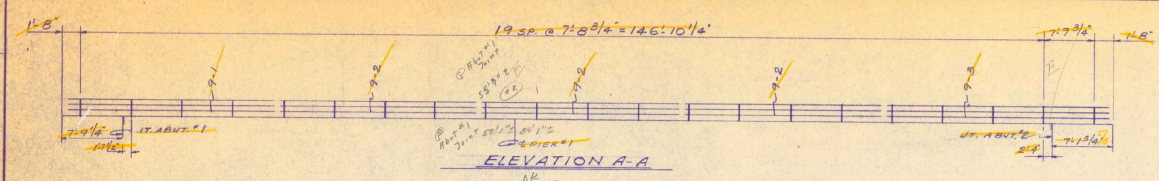
WARD WELLER CO., INC.
213 OAK STREET
NATICK, MASSACHUSETTS

SCALE AS NOTED
DRAWN H.R.
CHECKED
JOB NO. 736

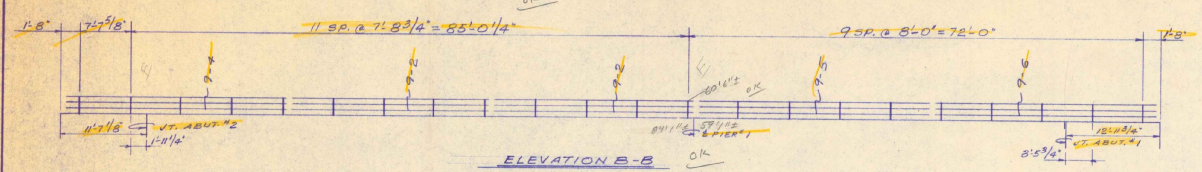
BR-169
2 OF 3

(YT3)

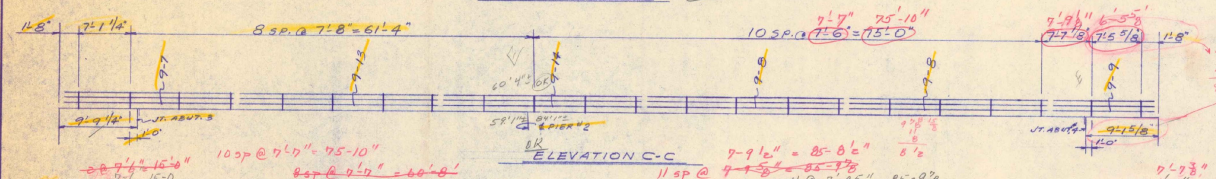

HAND RAIL SECTION
FULL SIZE
MAJOR AXIS
MINOR AXIS
SEMI-ELLIPSE (W.W. EXTR. #105)
SECTION C-C
W.W. EXTR. #106
HAND RAIL SPLICE DETAIL
HAND RAIL END CAP
SEMI-ELLIPSE TO MATCH RAIL
SECTION D-D
HAND RAIL CLAMP BAR DETAIL
N.T.S.
ANCHOR BOLT PLATE DETAIL
PAINTING OR GALV. NOT REQ'D.
STAINLESS STEEL
POST ANCHOR ASSEMBLY
POST BASE PADS DETAILS
HAND RAIL
BARRIER RAIL
SECTION THRU PARAPET
RECEIVED APR 3 1967
CK'D BY W.G. OK'D BY
RESUBMIT APPROVED
BY DATE
WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS
VERMONT DEPARTMENT OF HIGHWAYS
STAND-ROD DETAILS
FOR
3 RAIL ALUMINUM RAILING
DR. H.R.
SCALE
CH.
WW 736
BR-169
VT3
H 3 OF 3



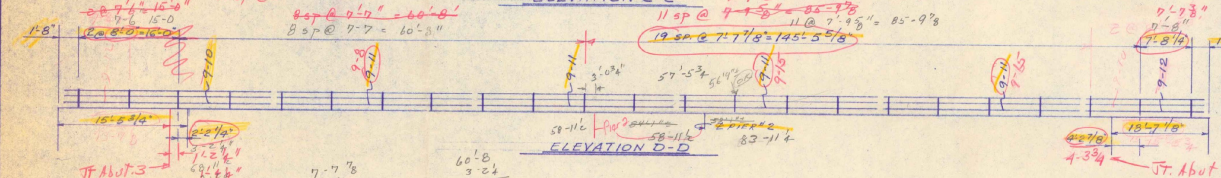

ELEVATION A-A



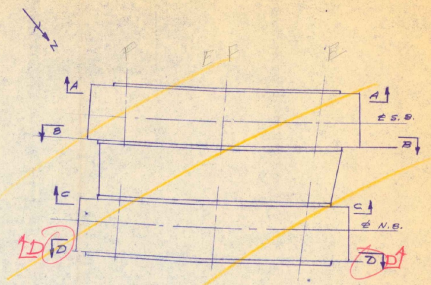

ELEVATION B-B




ELEVATION C-C




ELEVATION D-D




KEY PLAN

RECEIVED APR 3 1967
CK'D BY JSC OK'D BY
RESUBMIT APPROVED
BY DATE

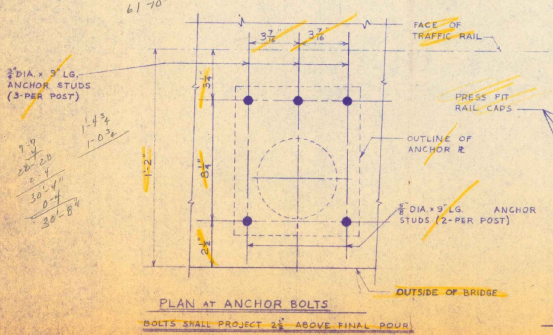
## BILL OF MATERIAL

WW "736 DWG." BR-169

| | 4"x6"x¼" SEMI-ELLIPTICAL TUBE (6061-T6) | | | 4"x8 1/8" SEMI-ELLIPTICAL TUBE (6061-T6) | |
|---|---|---|---|---|---|
| MK | QUAN. | LGTH. | | QUAN. | LGTH. |
| 9-1 | 2 | 82'-3"-3 | | 1 | 82'-3"-3 |
| 9-2 | 10 | 30'-10 1/4" | | 5 | 30'-10 1/4" |
| 9-3 | 2 | 38'-4 3/4" | | 1 | 38'-4 3/4" |
| 9-4 | 2 | 38'-2 5/8" | | 1 | 38'-2 5/8" |
| 9-5 | 2 | 37'-10 1/2" | | 1 | 37'-10 1/2" |
| 9-6 | 2 | 34'-4 3/4" | | 1 | 34'-4 3/4" |
| 9-7 | 2 | 24'-10" | | 1 | 24'-10" |
| 9-8 | 46 | 29'-11 1/2" | 30-1/4 | 23 | 29'-11 1/2" 30-1/4 |
| 9-9 | 2 | 15'-4 3/4" | 15-4 3/4 | 1 | 15'-4 3/4" 15-4 3/4 |
| 9-10 | 2 | 31'-7 3/4" | 30'-7 3/4" | 1 | 31'-7 3/4" 30'-7 3/4 |
| 9-11 | 82 | 30'-6 3/4" | 30'-6 3/4" | 41 | 30'-6 3/4" 30'-6 3/4 |
| 9-12 | 2 | 17'-8 7/8" | 17-8 7/8 | 1 | 17'-8 7/8" 17-8 7/8 |
| 9-13 | 2 | 30'-7 1/4" | | 1 | 30'-7 1/4" |
| 9-14 | 2 | 30'-3 1/4" | 30'-3 1/4 | 1 | 30'-3 1/4" 30'-3 1/4 |
| 9-15 | 4 | 31'-1 1/4" | | 2 | 31'-1 1/4" |

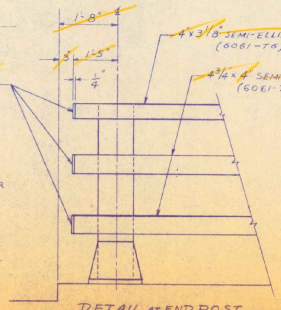
| | |
|---|---|
| 88 | POST # VT 3 WITH CLAMP BARS |
| 88 | ANCHOR ASSEMBLIES |
| 8 | HAND RAIL END CAPS |
| 16 | BARRIER RAIL END CAPS |
| 18 | HAND RAIL SPLICE BARS |
| 36 | BARRIER RAIL SPLICE BARS |
| 88 | POST PAD SETS |

STATE

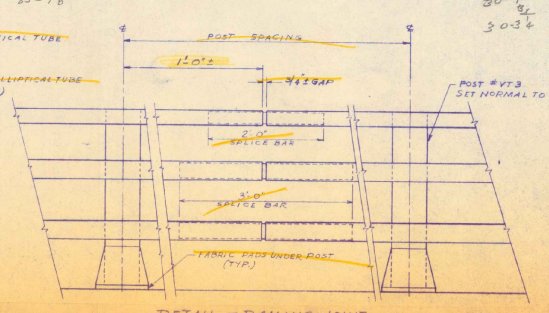



PLAN at ANCHOR BOLTS

BOLTS SHALL PROJECT 2½" ABOVE FINAL POUR




DETAIL at END POST




DETAIL at RAILING JOINT

## NOTES

1. FOR NOTES, RAILING DETAILS & ANCHORAGE DETAILS SEE SHEETS 2 & 3
2. ONE SET OF ⅛" THICK "NEW-COR" PADS SHALL BE PLACED UNDER EA POST.
3. ALL DIM'S ARE HORIZONTAL, UNLESS NOTED.

Void

| ISSUE | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 1 | 4/3/67 | FOR APPROVAL | |

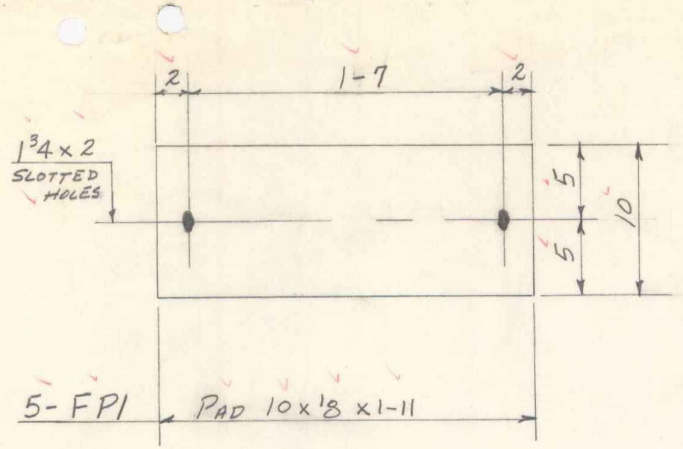
WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS

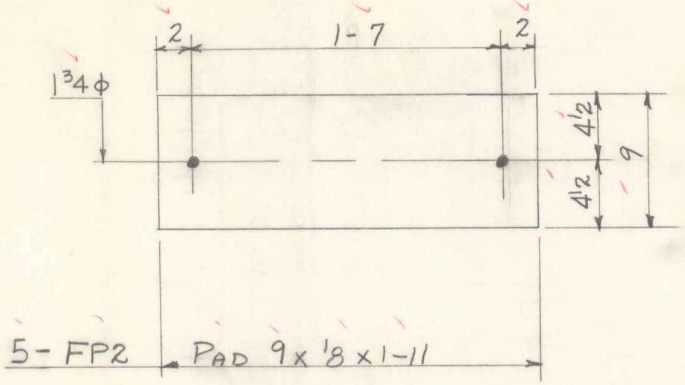
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
ST. ALBANS-SWANTON I-89-3(36)
I-89 OVER C.V. RY.
ALUMINUM BRIDGE RAILING
CONTRACTOR: E.T. O'NEILL

DR: H.R. CH: SCALE: WW # 736

BR-169

SH. 1 OF 3




FABREEKA PADS

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| | | FABREEKA PADS | | | | |
| 5 | FP1 | PAD. 10 x 1'8 | 1 | 11 | ORD. FABREEKA #85822 | |
| 5 | FP2 | PAD 9 x 1'8 | 1 | 11 | | |
| | | | | | SHIP TO SHOP BY 8-15-66 | |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

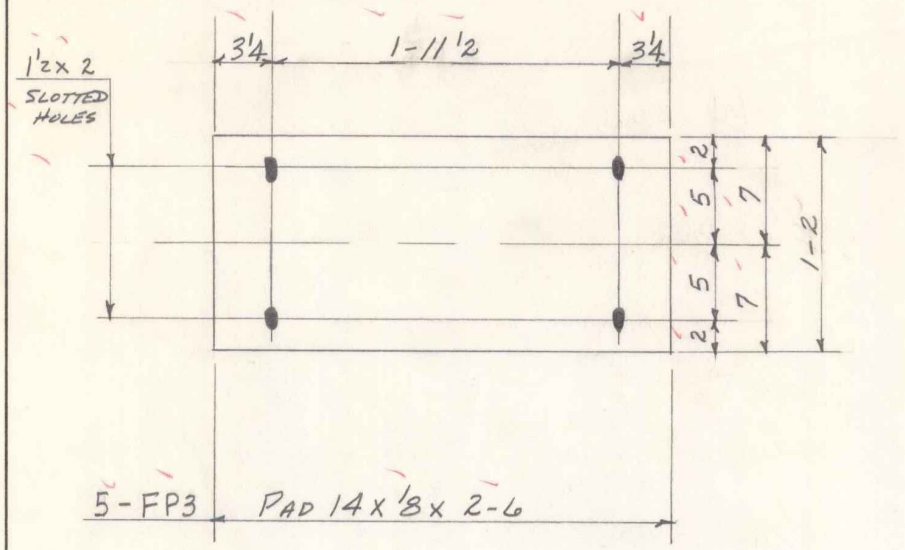
| | | DATE |
|---|---|---|
| DRAWN BY | J.B. | 5-16-66 |
| C'K'D BY | WT | |

HOLES: AS NOTED
BOLTS:
PAINT: NONE

PROJECT: I-89-3(36) CONT. #1
LOCATION: VT. 36 OVER I-89
CUSTOMER: E.T. O'NEIL & SONS CONST. CO.
ARCHITECT: STATE OF VERMONT
JOB NO. 66-1175-100 SHEET NO. FP1

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 2 | WFB | 5-16 |
| 4D | SHOP | 5-18 |
| 1 | HOWE | 7-27 |
| | | |
| | | |




FABREEKA PADS

## BILL OF MATERIAL

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| | | | FABREEKA PADS | | | | | |
| | 5 | FP3 | PAD 14x1'8 | 2 | 6 | ORD. FABREEKA #B582L SHIP TO SHOP BY 8-15-66 | | |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

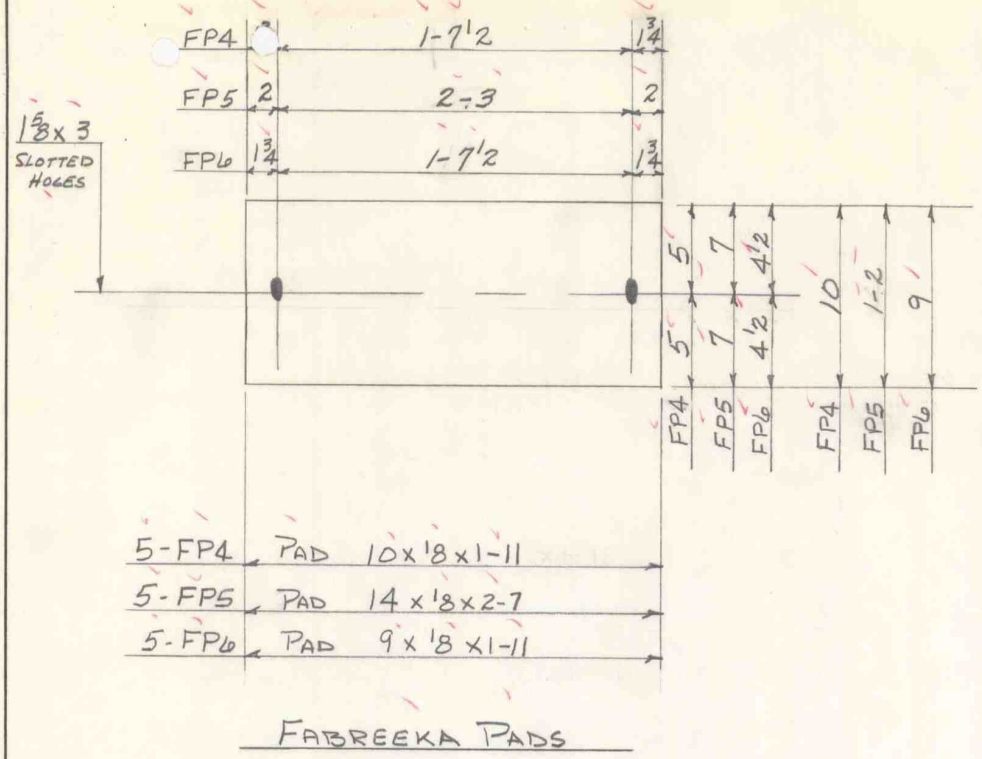
| | | DATE |
|---|---|---|
| DRAWN BY | J.B. | 5-16-66 |
| C'K'D BY | WT | |

HOLES: AS NOTED
BOLTS:
PAINT: NONE

PROJECT: I-89-3(36) CONT. #1
LOCATION: VT. 36 OVER I-89
CUSTOMER: E.T. O'NEIL & SONS CONST. CO.
ARCHITECT: STATE OF VERMONT
JOB NO. 66-1175-100 SHEET NO. FP2

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 2 | WFB | 5-16 |
| 40 | SHOP | 5-18 |
| 1 | HOWE | 7-27 |




5-FP4 PAD 10x1'8x1-11

5-FP5 PAD 14x1'8x2-7

5-FP6 PAD 9x1'8x1-11

FABREEKA PADS

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| | | FABREEKA PADS | | | | |
| 5 | FP4 | PAD 10x1'8 | 1 | 11 | } ORD. FABREEKA #85822 | |
| 5 | FP5 | PAD 14x1'8 | 2 | 7 | | |
| 5 | FP6 | PAD 9x1'8 | 1 | 11 | | |
| | | | | | SHIP TO SHOP By 8-15-66 | |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

| | | DATE |
|---|---|---|
| DRAWN BY | J.B. | 5-16-66 |
| C'K'D BY | WAL | |

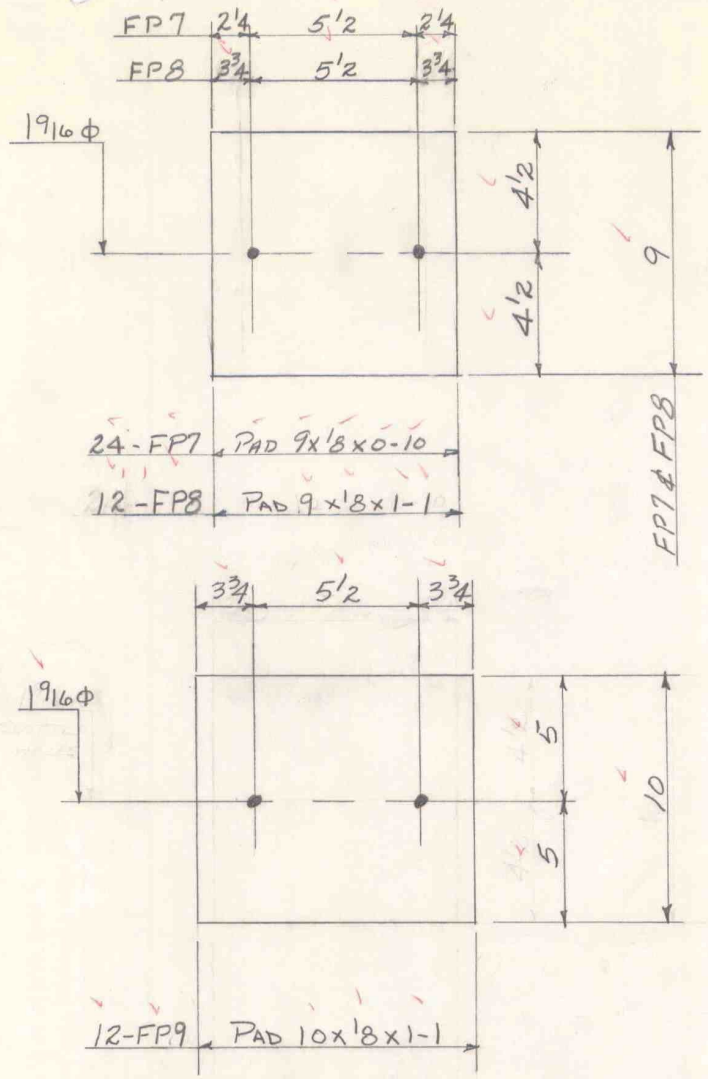
HOLES As Noted
BOLTS
PAINT None

PROJECT I-89-3(36) Cont. #1
LOCATION Vt. Rte 105 over I-89
CUSTOMER E.T. O'Neil & Sons Const. Co.
ARCHITECT State of Vermont
JOB NO. 66-1175-200 SHEET NO. FP3

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 2 | WFB | 5-16 |
| 40 | SHOP | 5-18 |
| 1 | HOME | 7-27 |

# FABREEKA PADS




## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| | | FABREEKA PADS | | | | |
| 24 | FP7 | PAD 9 x 1'8 | 0 | 10 | ORD. FABREEKA #85822 | |
| 12 | FP8 | PAD 9 x 1'8 | 1 | 1 | SHIP TO SHOP BY 8-15-66 | |
| 12 | FP9 | PAD 10 x 1'8 | 1 | 1 | | |

**VERMONT STRUCTURAL STEEL CORPORATION**
BURLINGTON, VERMONT

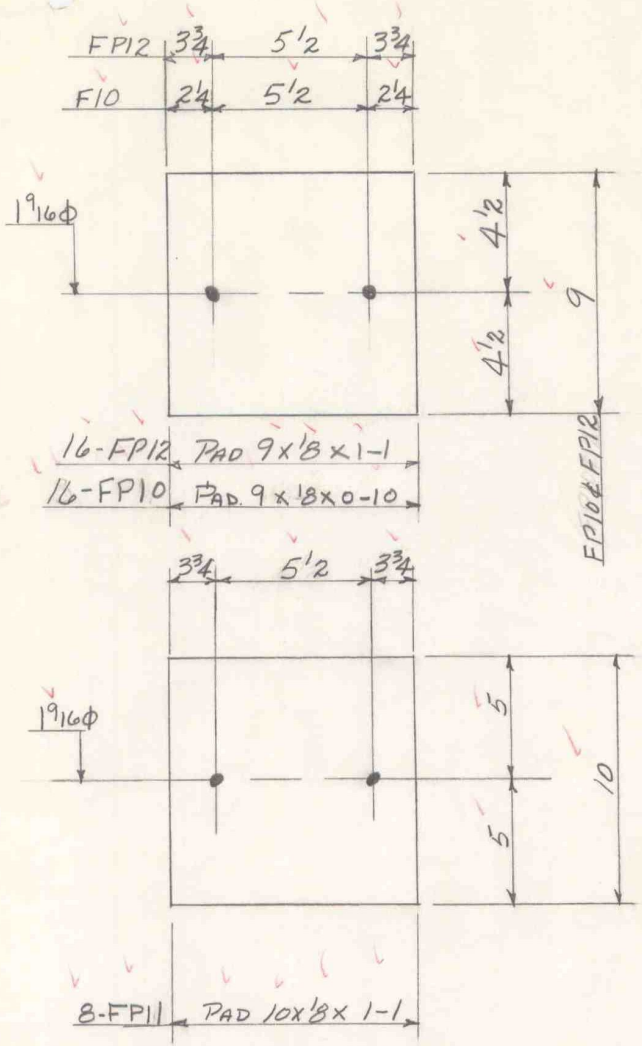
| | | DATE |
|---|---|---|
| DRAWN BY | J.B. | 5-16-66 |
| C'K'D BY | WH | |

HOLES As Noted
BOLTS
PAINT None

PROJECT Town of St. Albans - Swanton
LOCATION I-89 over C.V.Ry @ Sta. 358+10±
CUSTOMER E.T. O'Neil & Sons Const. Co.
ARCHITECT State of Vermont
JOB NO. 66-1175-300 SHEET NO. FP4

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 2 | WFB | 5-16 |
| 4D | Shop | 5-18 |
| 1 | Howe | 7-27 |




## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| | | FABREEKA PADS | | | | |
| 16 | FP10 | PAD 9x1'8 | 0 | 10 | ORD. FABREEKA # 85822 | |
| 8 | FP11 | PAD 10x1'8 | 1 | 1 | | |
| 16 | FP12 | PAD 9x1'8 | 1 | 1 | SHIP TO SHOP BY 8-15-66 | |
| | | 12 - FP12 NEED FOR THIS JOB | | | | |
| | | 3 OF THE 4 EXTRA WILL BE USED | | | | |
| | | FOR CONT. 66-1232 | | | | |
| | | THE OTHER 1 WILL GO INTO STOCK. | | | | |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

| | | DATE |
|---|---|---|
| DRAWN BY | J.B | 5-16-66 |
| C'K'D BY | MF | |

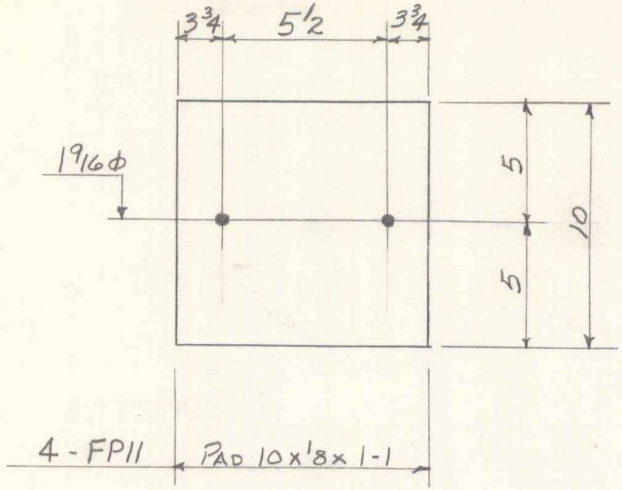
HOLES As Noted
BOLTS
PAINT None

PROJECT Town Rd. 15 & 25 / I-89
LOCATION St Albans - Swanton
CUSTOMER E.T. O'Neil & Sons Const. Co
ARCHITECT State of Vermont
JOB NO. 66-1175-400 SHEET NO. FP5

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 2 | INFB | 5-16 |
| 40 | Shop | 5-18 |
| 1 | Howe | 7-27 |

10M 7-65 QCP




## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | — FABREEKA PADS — | | | | | |
| 4 | FP11 | PAD 10x'8 | 1 | 1 | ORD. FABREEKA 87523 | | |
| | | | | | SHIP TO SHOP BY 9-26-66 | | |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

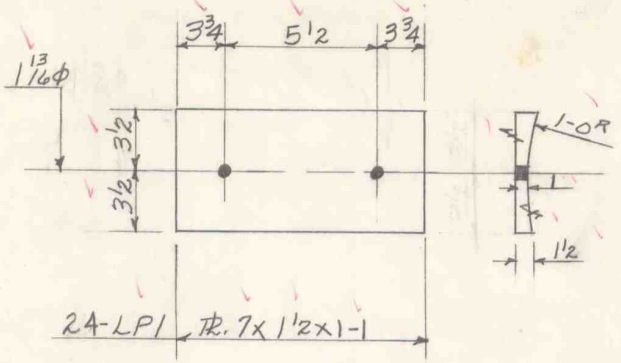
| | | DATE |
|---|---|---|
| DRAWN BY | J.B. | 9-2-66 |
| C'K'D BY | | |

HOLES As Noted
BOLTS
PAINT None

PROJECT Town Rd. 15 & 25/I89
LOCATION St. Albans - Swanton
CUSTOMER E. T. O'Neil & Sons Const. Co.
ARCHITECT State of Vermont
JOB NO. 66-1175-400 SHEET NO. FP5A

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 2 | WFB | 9-2 |
| 2① | Shop | 9-8 |




TO BE CAST BRONZE – ASTM – B 22-40T, CLASS "B." THIS PLATE SHALL HAVE TREPANNED RECESSES FILLED WITH A LUBRICATING COMPOUND. THE LUBRICATING AREA SHALL COMPRISE NOT LESS THAN 25% OF THE TOTAL BEARING AREA. THE MANUFACTURER SHALL SUPPLY ADDITIONAL LUBRICANT IN LIQUID FORM WITH WHICH THE CONTRACTOR SHALL THOROUGHLY COAT THE BEARING SURFACES THAT CONTACT THE LUBRICATED PORTION ON THE BRONZE PLATE. THE COEFFICIENT OF FRICTION SHALL NOT EXCEED 0.10.

66-1175

## BILL OF MATERIAL

| -300 | -400 | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | LUBERITE PLATE | | | | | |
| 12 | 12 | 24 | LPI | PL 7 x 1 1/2 x | 1 | 1 | ORD. COSMEC 87041 | | |
| | 12 | | | | | | TO SHOP BY 8-15-66 | | |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

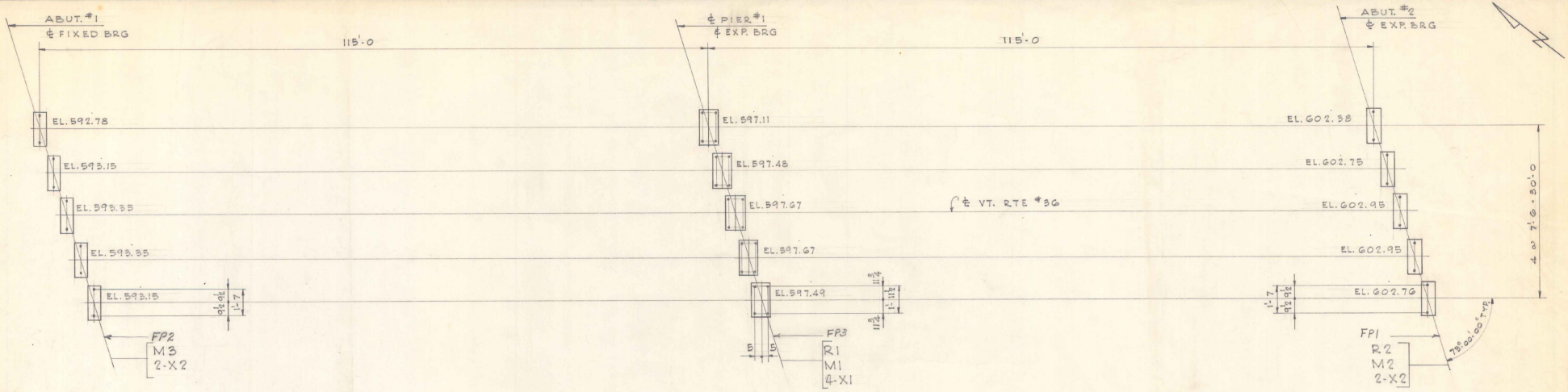
| | | DATE |
|---|---|---|
| DRAWN BY | J.B. | 5-16-66 |
| C'K'D BY | WT | |

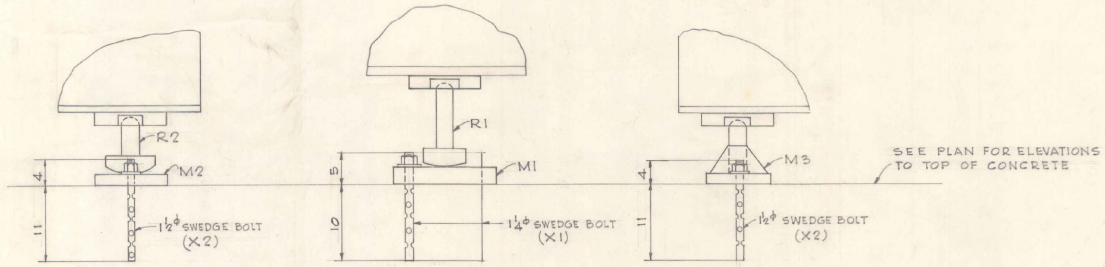
HOLES 1 13/16 Φ
BOLTS
PAINT

PROJECT I-89-3(36) CONT. #1
LOCATION ST. ALBANS – SWANTON
CUSTOMER E.T. O'NEIL & SONS CONST. CO.
ARCHITECT STATE OF VERMONT
JOB NO. 66-1175-300 -400 SHEET NO. LPI

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 2 | WFB | 5-16 |
| 2 | WFB | 7-19 |
| 2D | SHOP | 7-27 |
| 1 | HOWE | 7-27 |




TO BE FILED WITH RECORD PLANS

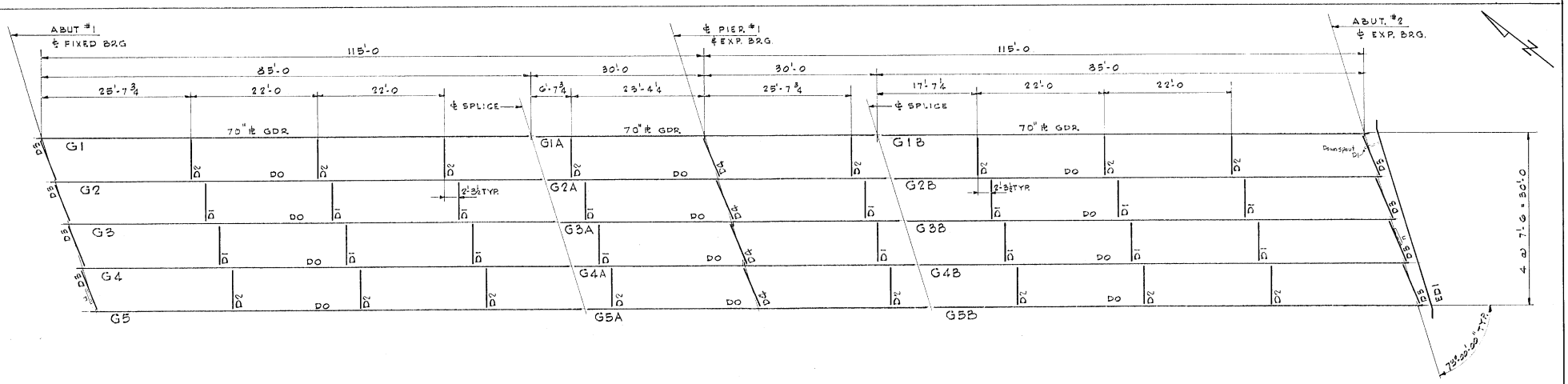
| APPROVAL | STATE OF VERMONT | PROJECT I-89-3(36)S/1 |
|---|---|---|

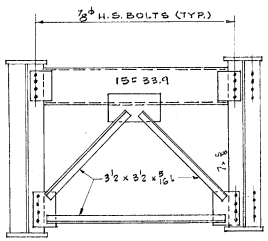
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | LVG | |
| CK'D BY | | |
| HOLES | | |
| RIVETS | | |
| PAINT | | |

PROJECT VT. RTE 36 OVER I-89
LOCATION TOWN OF ST. ALBANS-SWANTON, VT.
CUSTOMER
ARCHITECT STATE OF VT. DEPT. OF HWYS
JOB NO. 66-1175-100 SHEET NO. E1

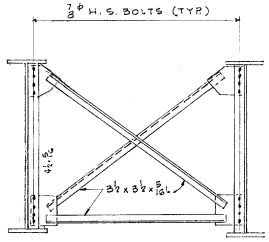
| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 5 | APP | 8-10 |
| 3 | FIELD | 9-6 |
| 1 | SHOP | 9-12 |
| 3 | CONST | 9-12 |
| 2 | STATE | 9-12 |
| 1 | J.T.L. | 10-17 |



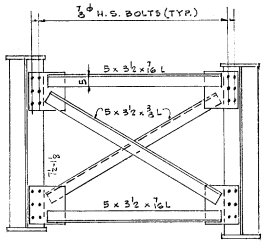

D3

ABUTMENT CROSS FRAME



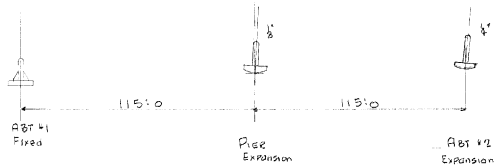

D1 · D2

INTERMEDIATE CROSS FRAME




D4

PIER CROSS FRAME

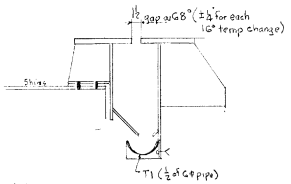



TILT OF ROCKERS TEMPERATURE CORRECTION

All rockers plumb @ 45°F

Correction shown for each 15° rise in temperature

Temperatures below 45° rockers tilt in opposite direction




| APPROVAL | STATE OF VERMONT | PROJECT I-89-3(36)91 |
|---|---|---|

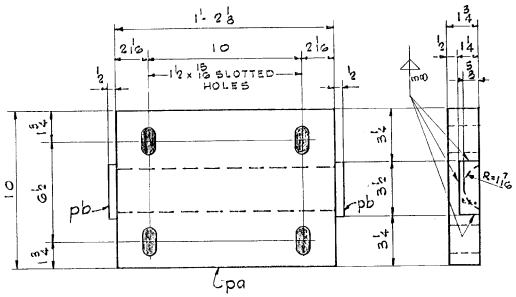
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | LVG | |
| CKD BY | | |

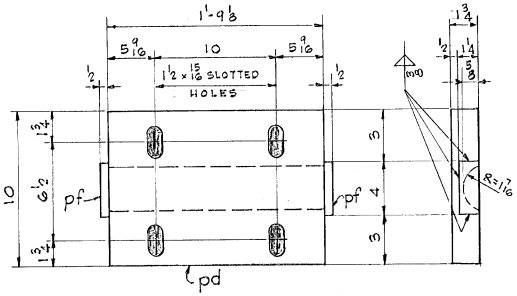
HOLES
RIVETS
PAINT

PROJECT VT. RTE 36 OVER I-89
LOCATION TOWN OF ST. ALBANS - SWANTON, VT.
CUSTOMER
ARCHITECT STATE OF VT. DEPT. OF HWYS
JOB NO. 66-1175-100 SHEET NO. 52

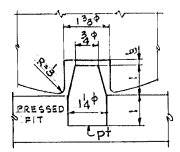
| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | APP | 8-10 |
| 1 | SHOP | 9-12 |
| 3 | CONST | 9-12 |
| 2 | STATE | 9-12 |
| 1 | ITL | 10-17 |



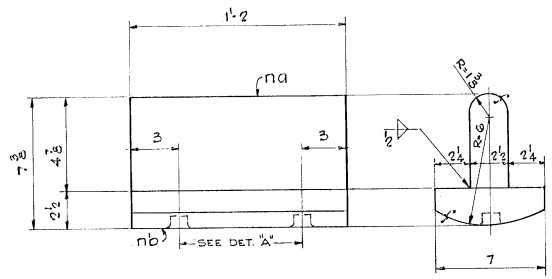

5-E2



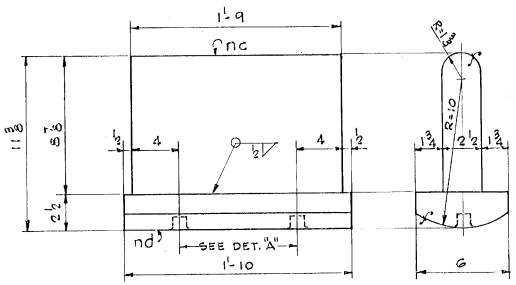

5-E1



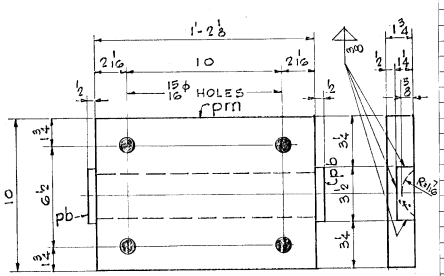

DET "A" & PINTLE DET.



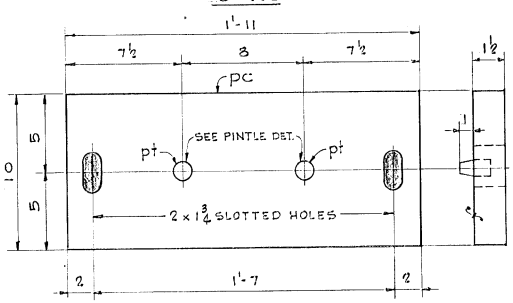

5-R2



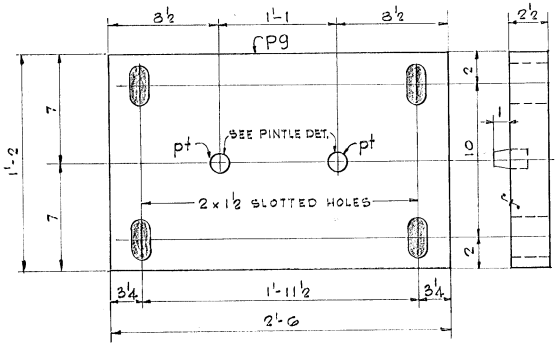

5-R1



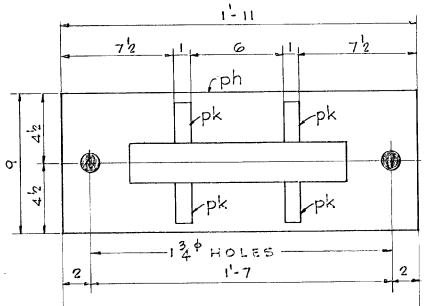

5-F1

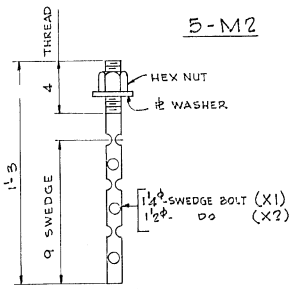



5-M2

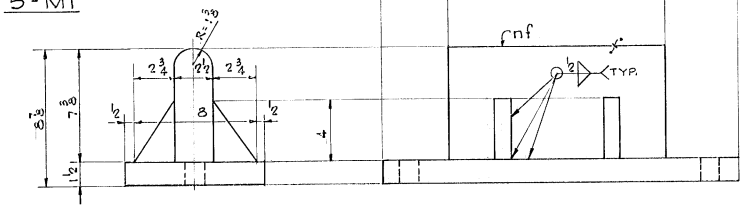



5-M1




20-X1
20-X2




5-M3

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | 5-E2 | | | (24) RES. SHT. | | |
| 5 | pa | ℄ - 10 x 1⅜ | 1 | 2⅜ | STK 1⅜ x 10 A36 | | |
| 10 | pb | ℄ - 1¼ x ½ | 0 | 3½ | STK. | | |
| | | 5-R2 | | | (23) | | |
| 5 | na | ℄ - 4⅜ x 2½ | 1 | 2 | RES. SHT. | 245 ✓ | |
| 5 | nb | ℄ - 7 x 2½ | 1 | 2 | STK 2½ x 10-0 | 351 ✓ | |
| | | 5-M2 | | | (22) | | 596 ✓ |
| 5 | pc | ℄ - 10 x 1½ | 1 | 11 | RES. @ 12-0 | 498 ✓ | |
| 10 | pt | 1¼ ϕ | 0 | 2 | STK (21) | 7 ✓ | |
| | | 5-E1 | | | (24) | | 505 ✓ |
| 5 | pd | ℄ - 10 x 1 13/16 | 1 | 9⅜ | RES. SHT. 2-7 x 1 13/16 x 10-0 | NET WEIGHT GIRD DET | |
| 10 | pf | ℄ - 1¼ x ½ | 0 | 4 | STK. | | |
| | | 5-R1 | | | (22) | | |
| 5 | nc | ℄ - 8⅜ x 2½ | 1 | 9 | RES. SHT. | 668 ✓ | |
| 5 | nd | ℄ - 9 x 2½ | 1 | 10 | 6 x 1/8 x 10-0 | 473 ✓ | |
| | | 5-M1 | | | (22) | | 1141 ✓ |
| 5 | pg | ℄ - 14 x 2½ | 2 | 6 | RES. SHT. 60 x 12 x 10-0 | 1506 ✓ | |
| 10 | pt | | | | STK (21) | 7 ✓ | |
| | | 5-F1 | | | | | 1513 ✓ |
| 5 | pm | ℄ - 10 x 1¾ | 1 | 2⅛ | RES. SHT. 37 x 15/16 x 10-0 | NET WEIGHT GIRD DET | |
| 10 | pb | | | | (26) | | |
| | | 5-M3 | | | | | |
| 5 | ph | ℄ - 9 x 1½ | 1 | 11 | RES. @ 12-0 | 448 ✓ | |
| 20 | pk | ℄ - 2¾ x 1 | 0 | 4 | STK. | 62 ✓ | |
| 5 | nf | ℄ - 7⅜ x 2½ | 1 | 2 | RES. SHT. 30 x 1/2 x 10-0 (A36) | 371 ✓ | |
| | | | | | | | 881 ✓ |
| 20 | X1 | 1¼ϕ SWEDGE BOLT | 1 | 3 | RES. @ 20-0 A36 | 104 ✓ | |
| 20 | X2 | 1½ϕ DO | 1 | 3 | RES. @ 20-0 | 150 ✓ | |
| 20 | | 1¼ HEX NUT | | | | 11 ✓ | |
| 20 | | 1½ HEX NUT | | | STK. | 19 ✓ | |
| 20 | | 1¼ ϕ WASH. | 0 | 0⅜ | | 5 ✓ | |
| 20 | | 1½ ϕ WASH. | 0 | 0⅜ | | 8 ✓ | 297 ✓ |
| | | | | | | | 4933 ✓ |

JOB NO. GG-1175-100 SHEET NO.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | WEIGHT |
|---|---|---|---|---|---|

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

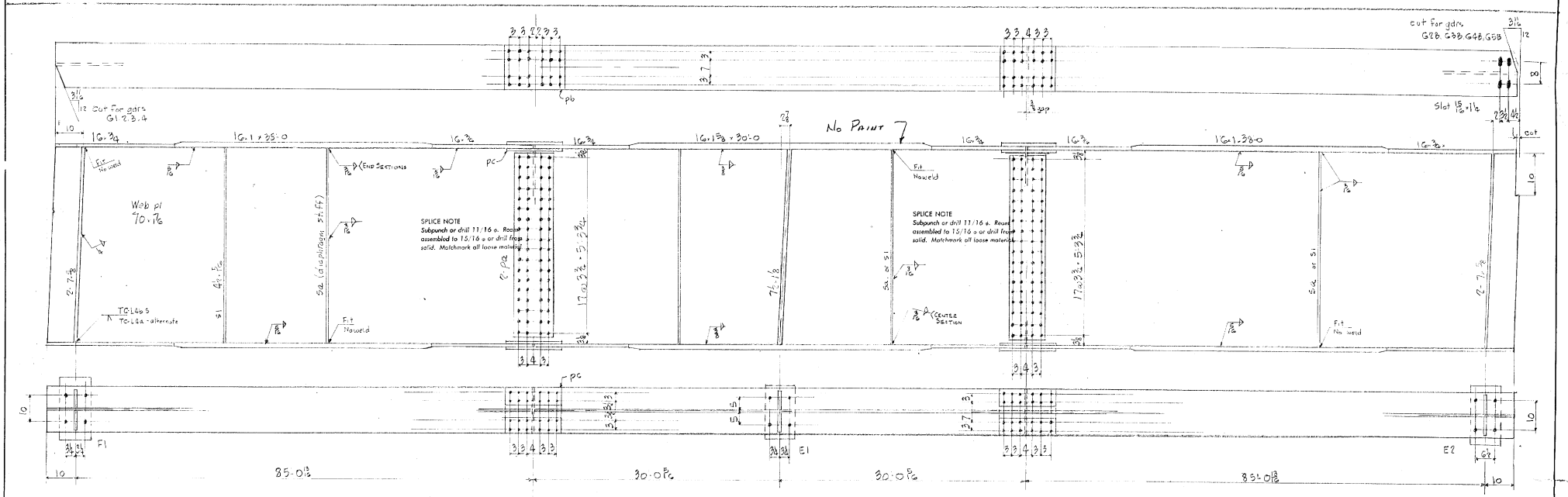
| | | DATE |
|---|---|---|
| DRAWN BY | L.V.C. | |
| CK'D BY | JOHNS | 2/1/66 |
| HOLES | | |
| BOLTS | | |
| PAINT | | |

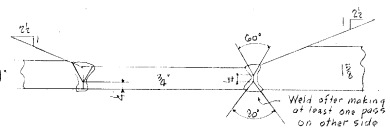
PROJECT VT. RTE 36 OVER I-89
LOCATION ST. ALBANS - SWANTON, VT.
CUSTOMER
ARCHITECT STATE OF VT. DEPT. OF HWYS
JOB NO. GG-1175-100 SHEET NO. 1

PRINT RECORD

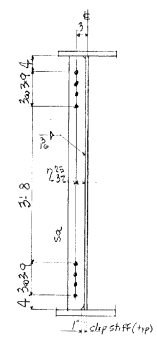
| NO. | FOR | DATE |
|---|---|---|
| 3 | APP. | 8-10 |
| 3 | FIN APP. | 9-2 |
| 40 | SHOP | 9-12 |
| 2 | STATE | 9-12 |
| 1 | JTC | 10-11 |

SM 10-63 QCF

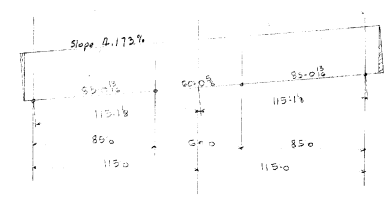


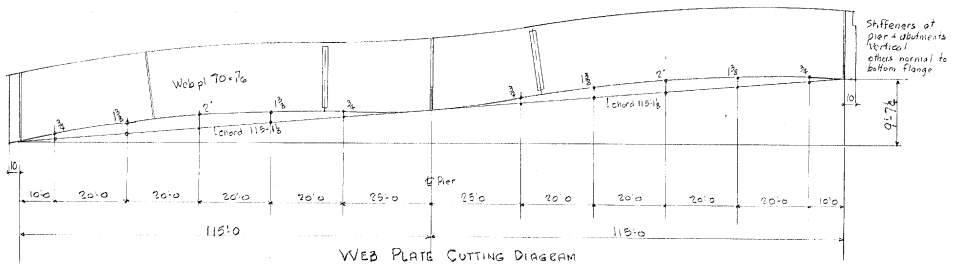

SUBMERGED ARC FLANGE WELDS
Grind welds smooth




DIAPHRAGM STIFF
5a




Notes:
This dwg covers fabrication of web & cover plates
See shts 3, 4 & 5 for stiffeners
Note alternate top & bottom welding of stiffeners




WEB PLATE CUTTING DIAGRAM

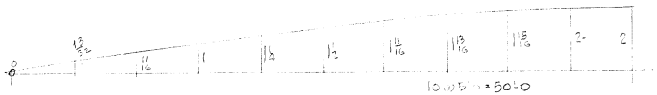
HOLES ARE FOR HIGH TENSILE BOLTS
They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

**VERMONT STRUCTURAL STEEL CORPORATION**
BURLINGTON, VT.

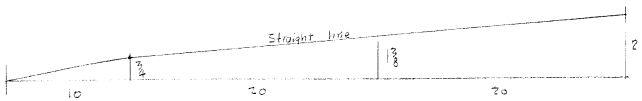
| | | DATE |
|---|---|---|
| DRAWN BY | HEC | |
| CK'D BY | [illegible] | 3/5/66 |
| HOLES | 15/16 | |
| RIVETS | Field H.S. 7/8 bolts | |
| PAINT | One coat VT std | |

PROJECT Rte 36 over I-89
LOCATION ST ALBANS VT
CUSTOMER
ARCHITECT
JOB NO. 66-1175-100 SHEET NO. 2

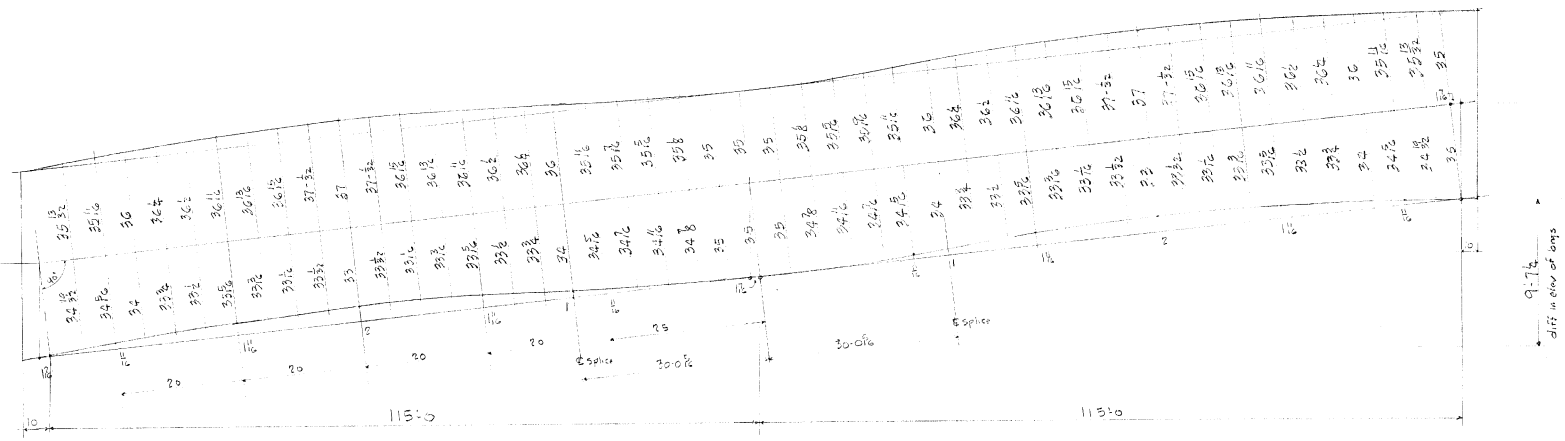
| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | App | 8-10 |
| 4 | Shop | 9-12 |
| 2 | Stare | 9-12 |
| 1 | T.T.L. | 10-11 |




PARABOLIC CAMBER

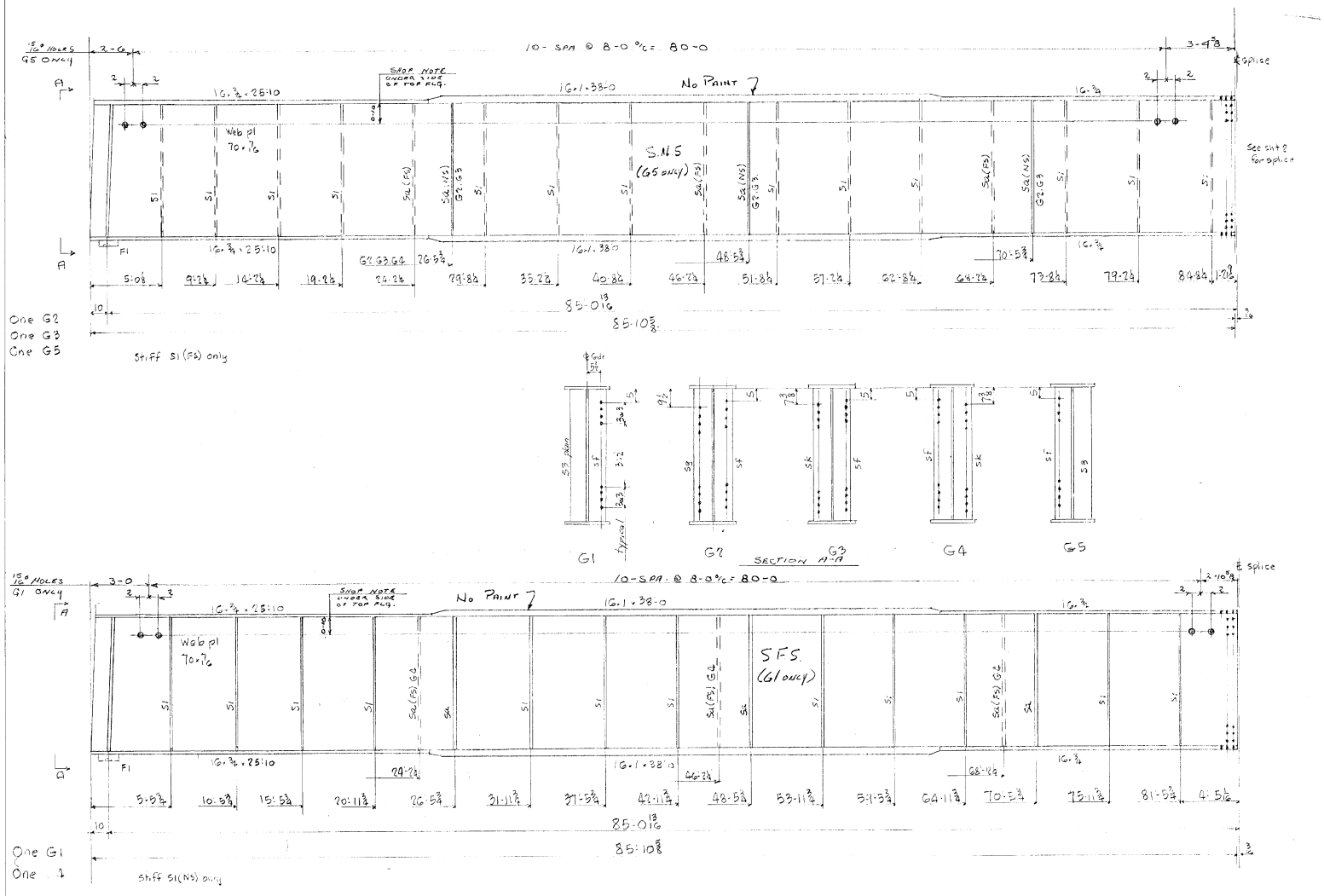



CAMBER SPECIFIED




WEB PLATE CUTTING DIAGRAM

| VERMONT STRUCTURAL STEEL CORPORATION, BURLINGTON, VT. | | | | |
|---|---|---|---|---|
| DRAWN BY / CK'D BY / HOLES / BOLTS / PAINT | DATE | PROJECT Rte 36 over I 89 | PRINT RECORD | |
| | | LOCATION St ALBANS VT | NO. | FOR / DATE |
| | | CUSTOMER | 4 | Stop 9-12 |
| | | | 1 | F.F. 10-11 |
| | | ARCHITECT | | |
| | | JOB NO. 66-1175-100 SHEET NO. 2A | | |




HOLES ARE FOR HIGH TENSILE BOLTS
They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| One G1 One G2 One G3 One G4 One G5 | | | | | | |
| 5 | Web pl | 72×7/16 (CAMBER INC) | 85 | 10 5/8 | ± ORD. PL 78×7/16 ~86-6 886018 A36 | 47273 |
| 10 | cov pl | 16×1 | 38 | 0 | ORD. @ 38-4 886018 | 21,034 ✓ |
| 10 | | 16×3/4 | 25 | 10 | trim ORD. | 10,724 ✓ |
| 10 | | 16×3/4 | 22 | 0 5/8 | " ORD. @ 22-2 886018 | 9154 ✓ |
| 63 | S1 | Fl 4½×5/16 | 5 | 10 | Fl ORD. @ 21-0 886018 | |
| 24 | Sa | Fl do | 5 | 10 | | 2487 ✓ |
| 2 | S3 | PL 7×5/8 | 5 | 10 | ORD. @ 21-0 B&W 85897 | |
| 5 | SF | | 5 | 10 | | |
| 1 | Sg | | 5 | 10 | | |
| 2 | SK | | 5 | 10 | | 886 ✓ |
| 5 | Fl | SEE DETAIL SHT. # 1 | | | | 362 ✓ |
| 20 | | 7/8 ø HS bolts | 0 | 4 | STK. A325 | 24 ✓ |
| 20 | | 7/8 ø Nord Steel Washers | | | | |
| | | 5/16 WELD | 1717 | 11 | | 618 ✓ |
| | | 1/4 WELD | 116 | 8 | | 29 ✓ |
| | | 3/16 WELD | 1038 | 4 | | 156 ✓ |
| | | | | | | 92747 |

JOB NO. 66-1175-100 SHEET NO. 3 6/6

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|

REV 1-5-67 RLM

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

2 STATE 1-16-67

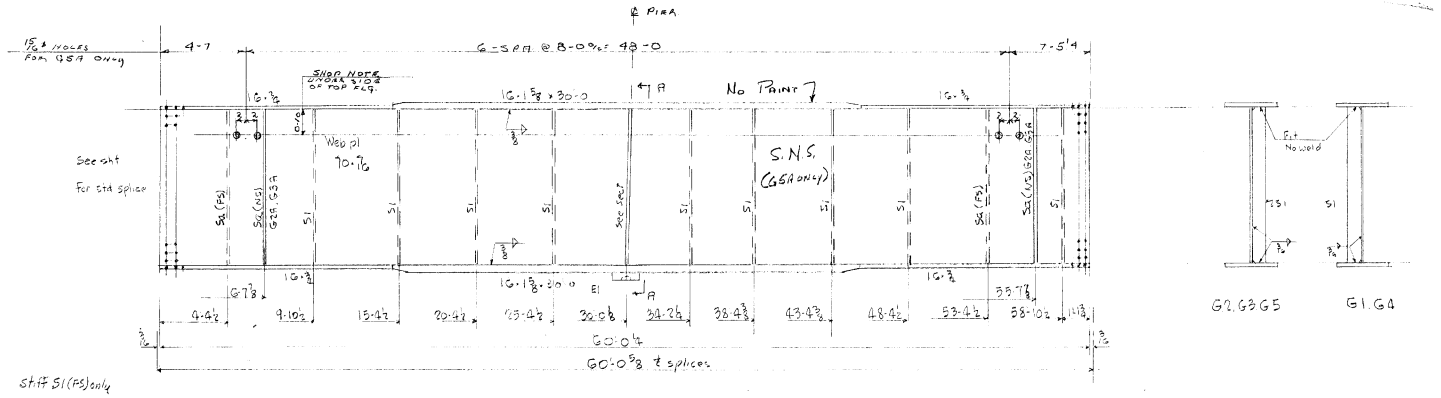
| | | DATE |
|---|---|---|
| DRAWN BY | | |
| CK'D BY | [illegible] | 8/8/66 |

HOLES 15/16
BOLTS 7/8 ø HS Field
PAINT One coat VT hwy spec

PROJECT Rte 36 over I 89
LOCATION ST ALBANS VT
CUSTOMER
ARCHITECT
JOB NO. 66-1175-100 SHEET NO. 3 6/6

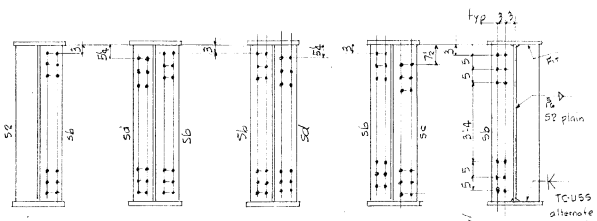
| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | APP | 8-10 |
| 4 (1) | SHOP | 9-12 |
| 2 | STATE | 9-12 |
| 1 | JTL | 10-17 |
| 1 | SHOP | 11-7 |
| 2 | STATE | 11-23 |

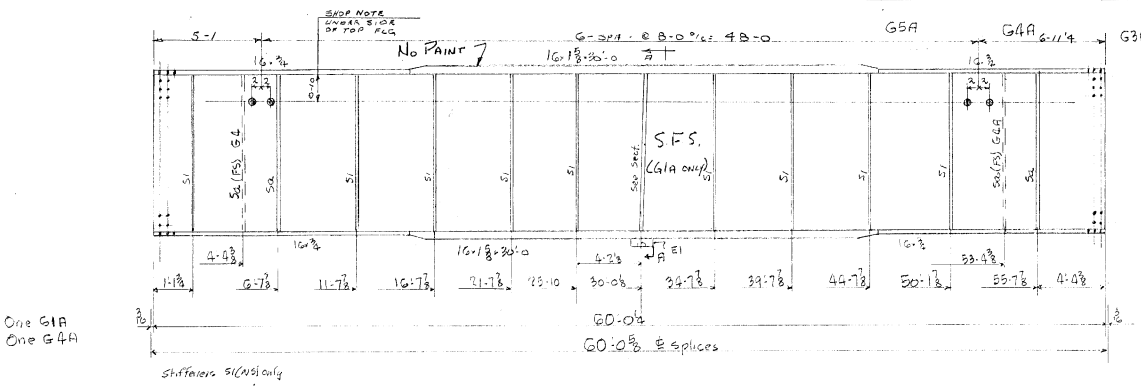
SM 10-63 QCP










HOLES ARE FOR HIGH TENSILE BOLTS They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| One G1A One G2A One G3A | | | One G4A One G5A | | | | |
| 5 | | Web pl 71 x 1/2 (CAMBER) INC | 60 | 0 1/4 | PROJ 7 78 A36K GR 50-10 ASSEMBLE 8860178 A-36 | 31378 | ✓ |
| 10 | | cav 16 x 1 5/8 | 30 | 0 | ORD 50-E ASSEMBLE 8860178 | 26988 | ✓ |
| 20 | | 16 x 3/8 | 18 | 0 1/2 ± | ORD 18 51-F ASSEMBLE 8860178 | 12,462 | ✓ |
| 45 | S1 | Fl 4 1/2 x P1/2 | 5 | 10 | FIE ORD 52-E ASSEMBLE 8860178 | | |
| 4 | Sa | do | 5 | 10 | 2 EA G1 G5 4 EA G3 G4 | | |
| 12 | Sa | do | 5 | 10 | 4 EA G5 | 1744 | ✓ |
| 1 | S2 | R 7 1/2 x 1 1/8 | 5 | 10 | FIE G5A | | |
| 5 | Sb | do | 5 | 10 | " G5A ORD. ASSEMBLE 8860178 | | |
| 1 | Sc | do | 5 | 10 | " G5A ORD. ASSEMBLE 8860178 | | |
| 2 | Sd | do | 5 | 10 | " G5A ORD. ASSEMBLE 8860178 | 1702 | ✓ |
| | | Splice matl | | | | | |
| 20 | pa | R 13 x 3/8 | 5 | 7 | RSG 78 A36 10-0 | 1900 | ✓ |
| 20 | pb | 16 x 7/16 | 1 | 7 | ORD G ASSEMBLE 8860178 A36 | 769 | ✓ |
| 40 | pc | 6 1/2 x 1/2 | 1 | 7 | | 624 | ✓ |
| 5 | E1 | see sht 1 | | | | 540 | ✓ |
| 20 | | 7/8 ø H.S. bolts | 0 | 2 3/4 | STK A325 | 26 | ✓ |
| 20 | | 7/8 ø Hvd Washers | | | | | |
| | | 3/8 WELD | 600 | 0 | | 390 | ✓ |
| | | 5/16 WELD | 600 | 0 | | 216 | ✓ |
| | | 4 WELD | 9 1/2 | 8 | | 19 | ✓ |
| | | 3/16 WELD | 1003 | 0 | | 150 | ✓ |
| | | | | | | 8 on 13 | ✓ |

JOB NO. 66-1175-100 SHEET NO. 4 5/6

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | WEIGHT |
|---|---|---|---|---|---|

REV 1-5-67 REM

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

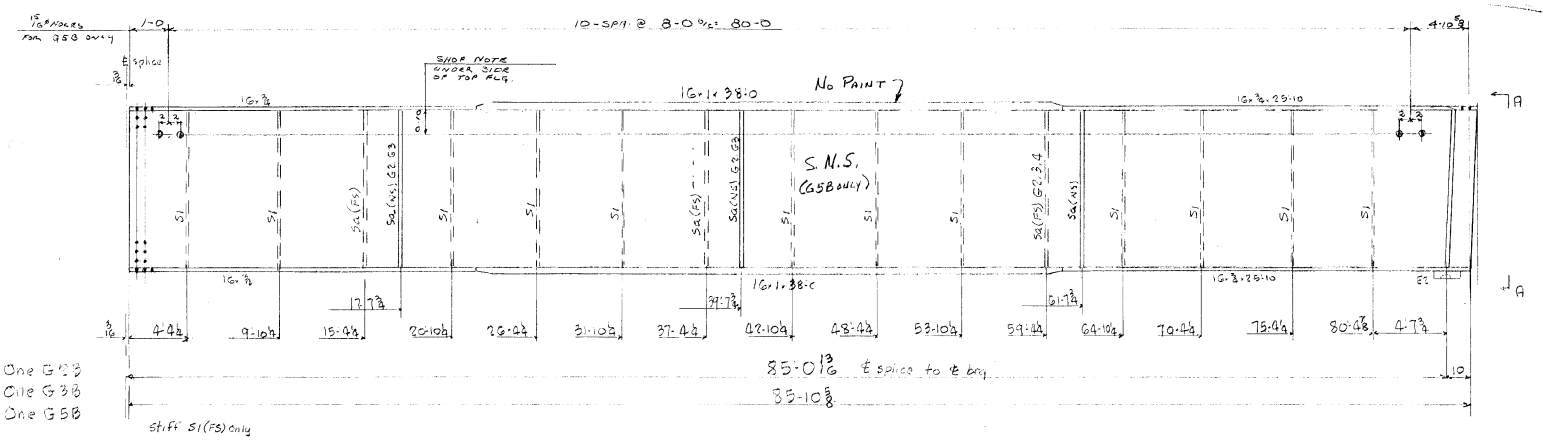
2 STATE 1-16-67

| | | DATE |
|---|---|---|
| DRAWN BY | | |
| CK'D BY | MMR | 12/12/66 |

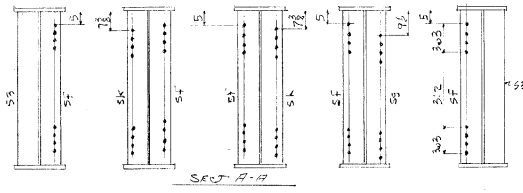
HOLES 15/16 ø
BOLTS 7/8 ø H.S.
PAINT ONE COAT VT. Hwy

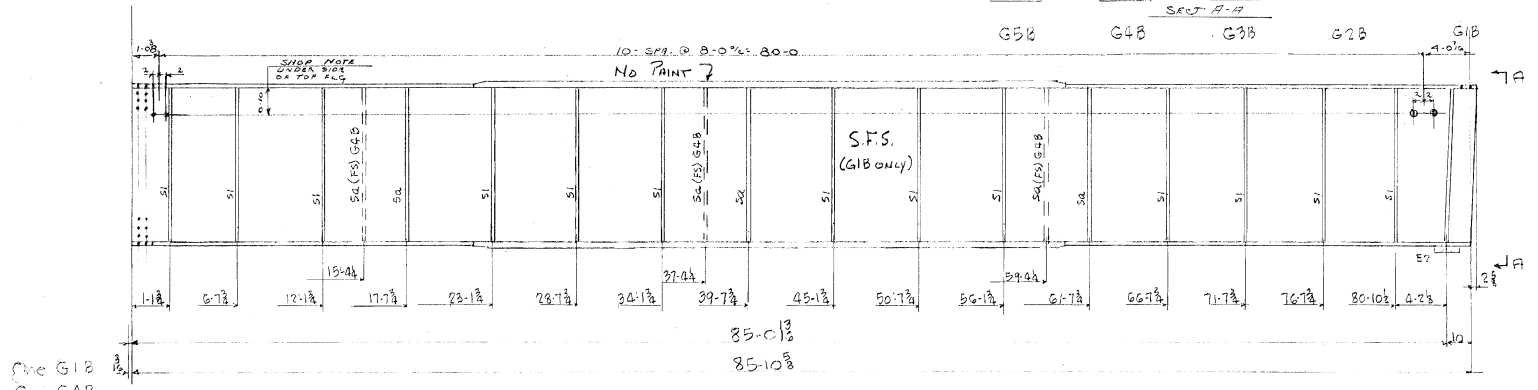
PROJECT VT 36 over I 89
LOCATION ST. ALBANS VT.
CUSTOMER
ARCHITECT
JOB NO. 66-1175-100 SHEET NO. 4 6/6

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | App | 8-10 |
| 3 | Fin. App | 9-8 |
| 40 | Shop | 9-12 |
| 2 | State | 9-12 |
| 1 | Ttl | 10-17 |
| 1/2 | Shop State | 11-7 11-23 |




Stiffeners S1(NS) G1B, G4B
S1(FS) G2B, G3B
Sa as noted




HOLES ARE FOR HIGH TENSILE BOLTS
They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| One G1B, One G2B, One G3B, One G4B, One G5B | | | | | | | |
| 5 | W36 | pls 72"x2" (SAMSON INC) | 38 | 0± | {BB6078 A36 ORD. E 78-8 / 6078 A36 ORD. E 78-8 ST. C} | 47337 | ✓ |
| 10 | | pls 16"x1" | 38 | 0 | BB6078 ORD. E ST. C | 21,034 | ✓ |
| 10 | | pl 16"x 3/4" | 25 | 10 | | 10,724 | ✓ |
| 10 | | pl 16"x 3/4" | 22 | 0 3/8 ± trim | BB6078 | 9146 | ✓ |
| 68 | S1 | Fl 4"x 5/8" | 5 | 10 | FIE ORD. E 61-10 | 1772 | ✓ |
| 24 | Sa | Fl 4"x 5/8" | 5 | 10 | BB6078 | 686 | ✓ |
| 2 | S3 | Pl 7"x 5/8" ✓ | 5 | 10 | | | |
| 3 | SF | | 5 | 10 | ORD. E 21-D | | |
| 1 | S4 | | 5 | 10 | HBW B5877 | | |
| 2 | SK | | 5 | 10 | | 886 | ✓ |
| 5 | E2 | see SHT 1 | | | | 362 | ✓ |
| 20 | | 7/80 H.S. bolts | 0 | 4 | STK. A325 | 24 | ✓ |
| 20 | | Nuts Hardened Steel Washers | | | | | |
| | | 5/16 WELD | 1717 | 11 | | 618 | ✓ |
| | | 1/4 WELD | 116 | 8 | | 29 | ✓ |
| | | 3/16 WELD | 1043 | 0 | | 156 | ✓ |
| | | | | | | 9277# | ✓ |

JOB NO. 66-1175-100 SHEET NO. 5 of

## BILL OF MATERIAL

(11)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | FIELD BOLT LIST (Net count) | | | | | |
| 312 | | 7/8" ϕ Grip 1 1/2 | 0 | 2 | A325 | 451 | ✓ |
| 123 | | do 1 | 0 | 2 1/2 | | 123 | ✓ |
| 720 | | do 1 3/8 | 0 | 2 1/2 | | 694 | ✓ |
| 96 | | do 1/2 | 0 | 2 3/8 | STK. | 96 | ✓ |
| 480 | | do 1 3/8 | 0 | 3 | | 500 | ✓ |
| 20 | | do 1/2 | 0 | 3 1/2 | Exp Jt | 22 | ✓ |
| | | | | | | 1886 | ✓ |
| 1375 | | Nuts Hardened Steel Washers | | | | 196 | ✓ |
| | | | | | | 2082 | |

REV. 1-5-67 R.W.M.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | HEC | |
| CKD BY | WMP | 8/3/66 |

HOLES 13/16
BOLTS 7/8 H.S.
PAINT One coat VT Hwy

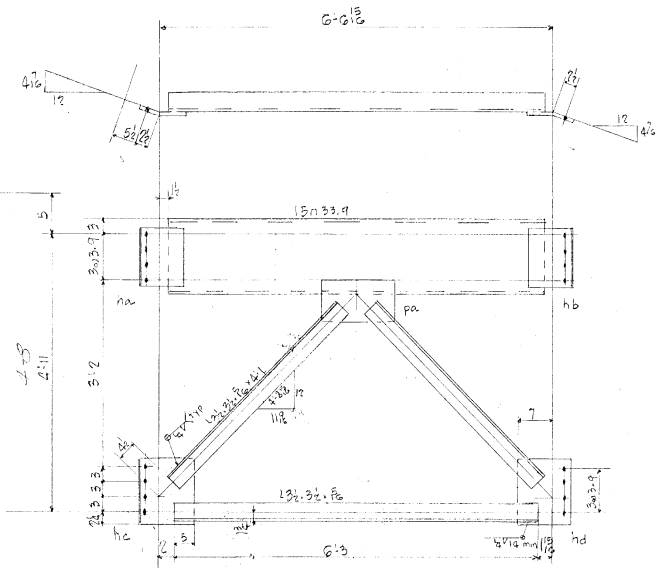
PROJECT Rte 36 over I 89
LOCATION ST ALBANS VT
CUSTOMER
ARCHITECT
JOB NO. 66-1175-100 SHEET NO. 5 of

2-STATE 1-16-67

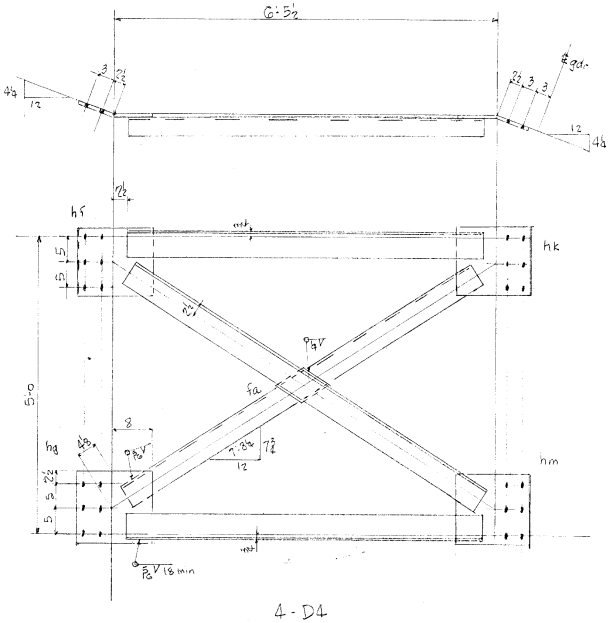
PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 3 | APP | 9-10 |
| 40 | SHOP | 9-12 |
| 2 | STATE | 9-12 |
| 1 | J.T.L | 10-17 |
| 1 | SHOP | 11-7 |
| 2 | STATE | 11-23 |

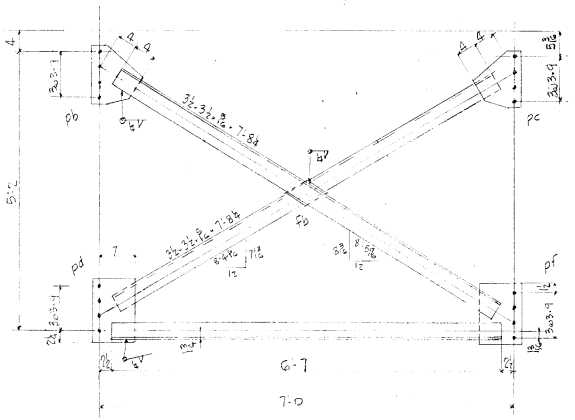
SM 1043-QCP



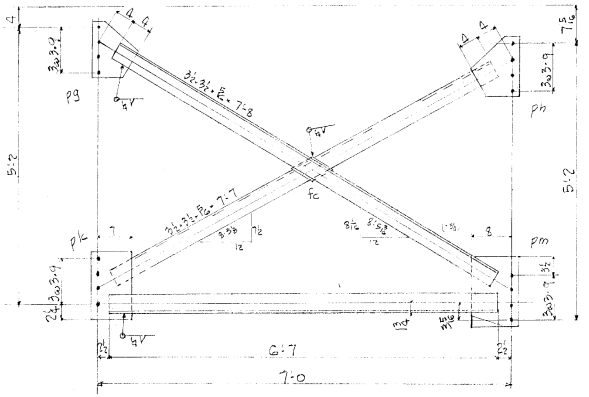

8-D3




4-D4




16-D1




16-D2

HOLES ARE FOR HIGH TENSILE BOLTS
They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

## BILL OF MATERIAL (50)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | 8 - D3 | | | A36 | | |
| 8 | | 15 m 33.9 | 6 | 4 | Res @ 20-0 | 1718 | ✓ |
| 8 | | L 3½ · 3½ · Fa | 6 | 3 | ctrs @ 20-0 & 8SS8240 | | |
| 16 | | do | 4 | 1 | | 830 | ✓ |
| 8 | na | PL 12 · 3/8 | 0 | 8½ | Res @ 20-0 | | |
| 8 | nb | do | 0 | 8½ | | 177 | ✓ |
| 8 | nc | 13 · 3/8 | 0 | 11 | STK. | | |
| 8 | nd | 13 · 3/8 | 0 | 11 | | 248 | ✓ |
| 8 | pa | 9 · 3/8 | 1 | 1 | Res. @ 4½ · 3/8 A36 x 10-0 | 1021 | ✓ |
| | | | | | | | 3075 ✓ |

## (52)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 4 - D4 | | | | | |
| 8 | | L 5 · 3½ · 7/16 | 6 | 0½ | 080 @ 40-0 & 8SS8240 A36 | 580 | ✓ |
| 8 | | L 5 · 3½ · 3/8 | 7 | 0 | ctrs @ 20-0 & 8SS8240 | 582 | ✓ |
| 4 | nf | PL 14 · 3/8 | 1 | 3 | | | |
| 4 | nk | do | 1 | 3 | Res. @ 4½ · 3/8 x 10-0 | | |
| 4 | ng | do | 1 | 3 | | | |
| 4 | nm | do | 1 | 3 | | 366 | ✓ |
| 4 | fa | 6 · 3/8 | | 6 | ▱ STK. A36 | 15 | ✓ 1543 ✓ |
| | | | | | | | 4618 ✓ |

JOB NO. ..... SHEET NO. .....

## BILL OF MATERIAL (50)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | 16 - D1 | | | A36 | | |
| 16 | | L 3½ · 3½ · Fa | 6 | 7 | 080 @ 40-0 & 8SS8240 | | |
| 32 | | do | 7 | 8½ | | 2530 | ✓ |
| 16 | pb | PL 12 · 3/8 | 1 | 0½ | Res. @ 20-0 | | |
| 16 | pc | do | 1 | 0½ | | 521 | ✓ |
| 16 | pd | 8½ · 3/8 | 1 | 0⅜ | Res. str 08 & rs 8-10 | 188 | ✓ |
| 16 | pf | 9½ · 3/8 | 1 | 0 | | 198 | ✓ |
| 16 | fb | 4½ · 3/8 | | 4½ | ▱ A36 | 35 | ✓ |
| | | | | | | | 3472 ✓ |

## (52)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 16 - D2 | | | | | |
| 16 | | L 3½ · 3½ · Fa | 6 | 7 | 080 @ 40-0 A36 & 8SS8240 | | |
| 16 | | do | 7 | 9 | | | |
| 16 | | do | 7 | 7 | | 2525 | ✓ |
| 16 | pg | 12 · 3/8 | 1 | 0½ | Res. @ 20-0 | 261 | ✓ |
| 16 | ph | 12 · 3/8 | 1 | 0½ | | 261 | ✓ |
| 16 | pk | 8½ · 3/8 | 1 | 0⅜ | Res. str 08 & rs 8-10 | | |
| 16 | pm | 8½ · 3/8 | 1 | 2 | | 394 | ✓ |
| 16 | fc | 4½ · 3/8 | | 4½ | ▱ x10 · A36 | 35 | ✓ |
| | | | | | | | |
| | | 5/16 WELD | 72 | 0 | | 26 | ✓ |
| | | 4 WELD | 305 | 4 | | 76 | ✓ 3578 ✓ |
| | | | | | | | 1050 ✓ |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

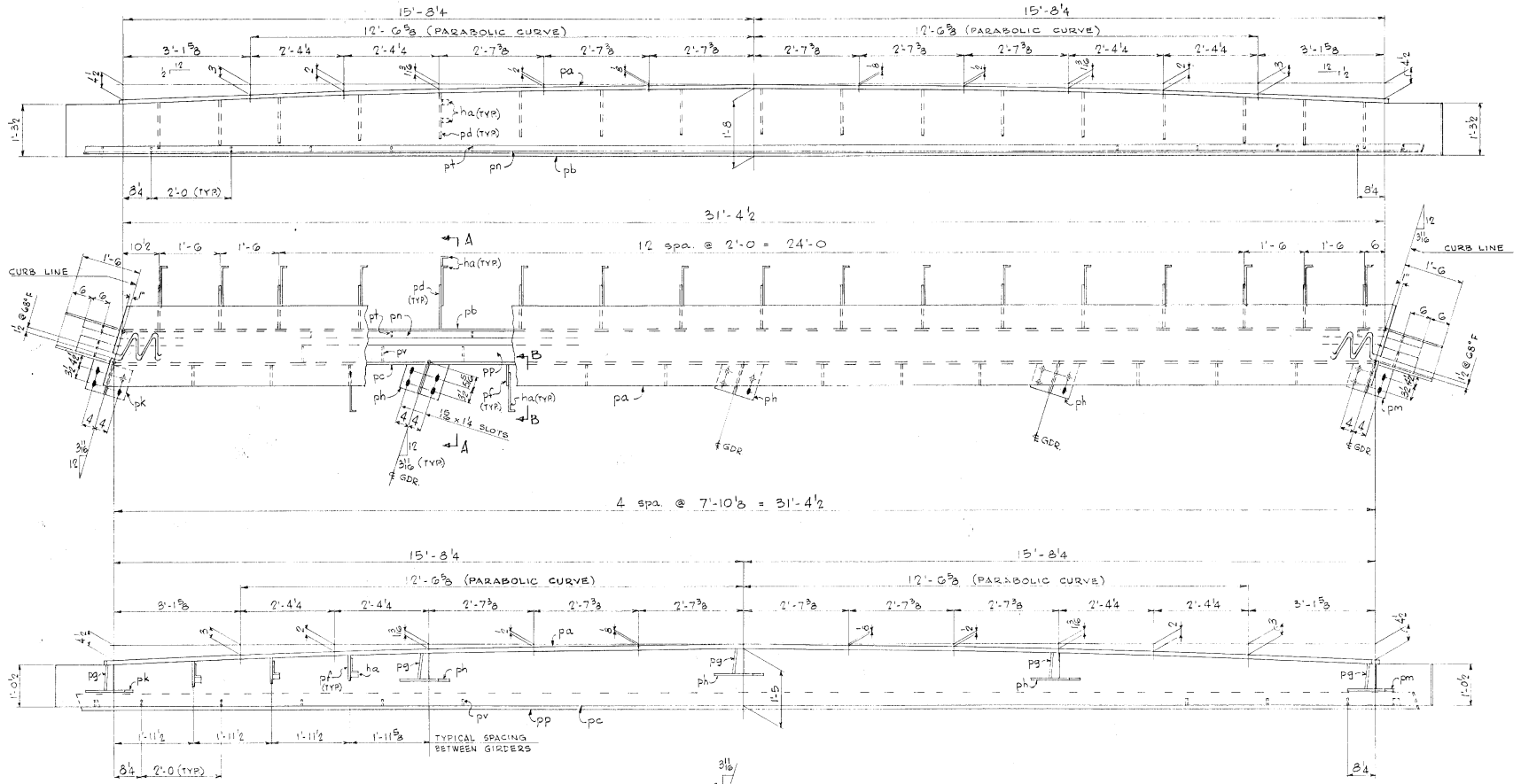
| | | DATE |
|---|---|---|
| DRAWN BY | HEC | |
| CK'D BY | DMS | 8/5/68 |

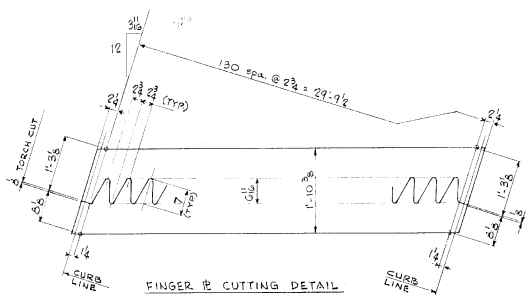
HOLES 13/16
BOLTS 7/8 A325
PAINT One Coat VT Hwy

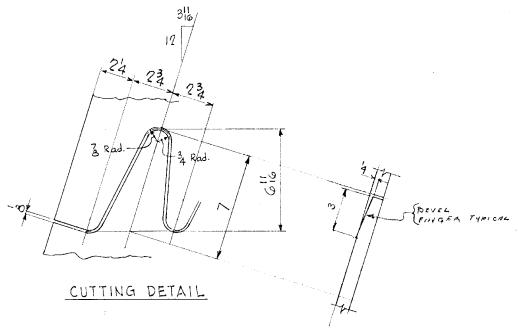
PROJECT Rte 36 over I 89
LOCATION ST. ALBANS VT
CUSTOMER
ARCHITECT
JOB NO. 66-1175-100 SHEET NO. 6

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | App | 8-10 |
| 3 | Fin App | 9-2 |
| 4 (1) | Shop | 9-12 |
| 2 | State | 9-12 |
| 1 | ITL | 10-17 |

SM 10-63 QCP




(21)

NOTE:
FOR SECTIONS & BILL OF MATERIAL SEE SHT Nº 8

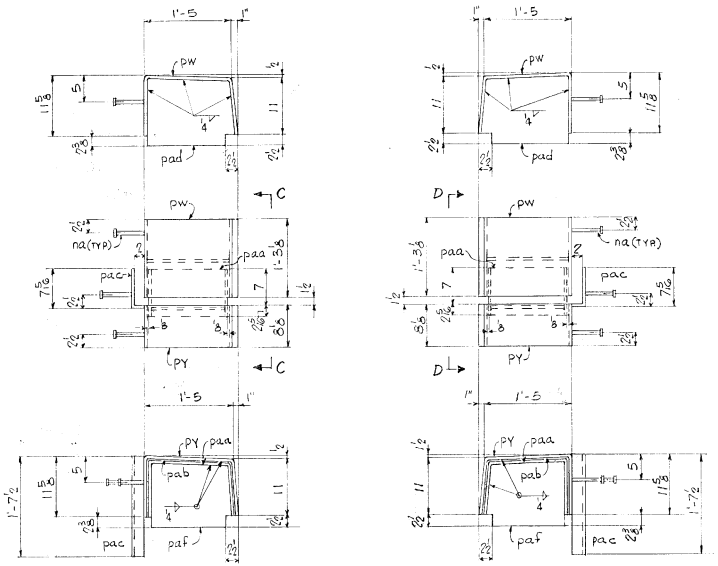
**VERMONT STRUCTURAL STEEL CORPORATION**
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | S.W.H. | |
| CK'D BY | | |
| HOLES | AS NOTED | |
| RIVETS | | |
| PAINT | RL (VT. SPEC'S) | |

PROJECT VT. 36 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-100 SHEET NO. 7

PRINT RECORD

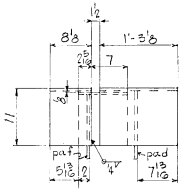
| NO. | FOR | DATE |
|---|---|---|
| 3 | ADD | 8-10 |
| 4 | SHOP | 9-12 |
| 2 | STATE | 9-12 |
| 1 | ITL | 10-17 |
| 1 | SHOP | 10-21 |



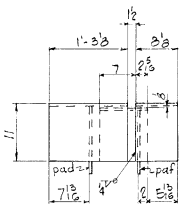

ONE - E2



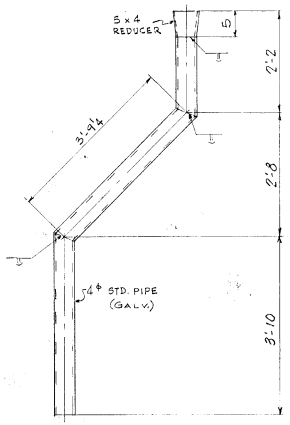

ONE - E3



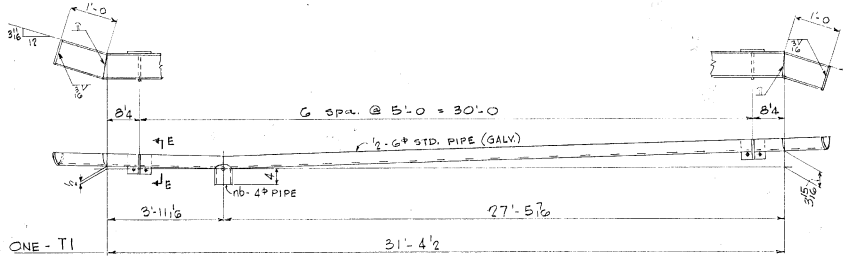

SECT. C-C

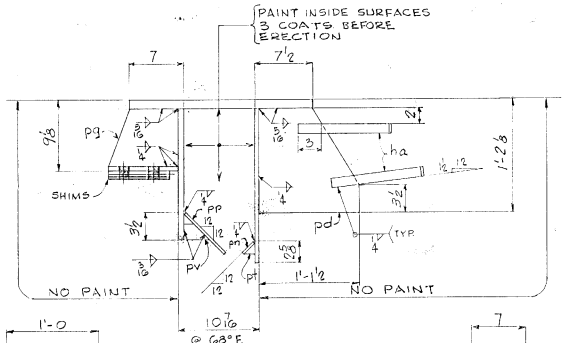



SECT. D-D

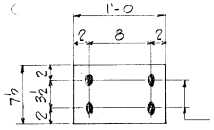


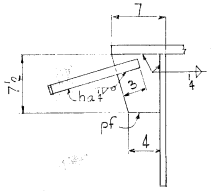

ONE - D1



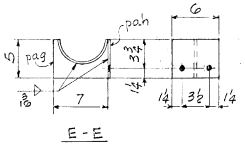



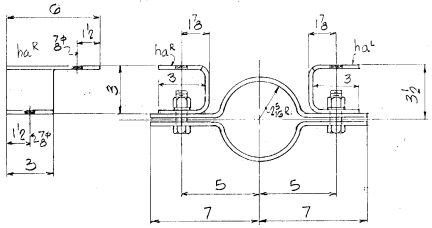

SECT. A-A




SECT. B-B




2 - C1

5 - S1 pt 7½ x ½ x 1'-0
5 - S2 pt 7½ x ¼ x 1'-0
10 - S3 pt 7½ x ⅛ x 1'-0

BILL OF MATERIAL (21)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| ONE-E1 | 1 | pa | pt 22⅜ x ⅛ | 32 | 1½ | ORD 386078 t 22x1/8 x 34-4½ TRAFFIC PL CUT FROM 1 PC. A242 | 279 | ✓ |
| | 1 | pb | pt 20 x ½ | 34 | 4½ | ORD PL 20x½ x34-4½ 386078 | 119 | ✓ |
| | 1 | pc | pt 17 x ¾ | 34 | 4½ | ORD PL 17x¾ x34-4½ 386078 | 151 | ✓ |
| | 17 | pd | pt 13 x ½ | 1 | 1½ | Res. Sup. 98'-2"x10-0 A36 | 43 | ✓ |
| | 12 | pf | pt 6¼ x ½ | 0 | 7½ | Res. Sup. | 8 | ✓ |
| | 5 | pg | pt 7½ x ½ | 0 | 9 | 98'-2"x10-0 Res. Sup. | 4 | ✓ |
| | 3 | ph | pt 11⅞ x ½ | 1 | 0 | 98'-2"x10-0 | 6 | ✓ |
| | 1 | pk | pt 10 x ½ | 1 | 0 | Res. Fdn. Sup 98'-2"x10-0 | 3 | ✓ |
| | 1 | pm | Do | 1 | 0 | Do | 5 | ✓ |
| | 1 | pn | BAR 2 x ¼ | 33 | 4½ | ORD PL 2x¼ x34-4½ 386078 A242 | 5 | ✓ |
| | 1 | pp | pt 7 x ¼ | 33 | 4½ | ORD PL 7x¼ x34-4½ 386078 | 19 | ✓ |
| | 18 | pt | BAR 1¼ x ¼ | 0 | 11½ | Res. Sup. 98'-2"x10-0 A36 | 3 | ✓ |
| | 18 | pv | BAR 2 x ¼ | 0 | 3¼ | Res. @ 20-0 A36 | 8 | ✓ |
| | 40 | ha | BAR 1¼ x ¼ | 1 | 2 | BEND | 5 | ✓ |
| | | | (21) | | | | | |
| ONE-E2 | 2 | pw | pt 15⅛ x ½ | 3 | 3⅜ | BEND Res. A36 | 17 | ✓ |
| ONE-E3 | 2 | py | pt 3⅛ x ½ | 3 | 3⅜ | pt 48x½ x10-0 | 9 | ✓ |
| | 2 | paa | pt 8⅜ x ½ | 3 | 0⅜ | STK. | 8 | ✓ |
| | 2 | pab | pt 2⅜ x ⅛ | 3 | 0⅜ | Res. pt 48x½ x10-0 | 6 | ✓ |
| | 2 | pac | pt 9⅛ x ½ | 1 | 7½ | | 5 | ✓ |
| | 2 | pad | pt 13⅜ x ½ | 1 | 5 | | 6 | ✓ |
| | 2 | paf | pt 12⅞ x ½ | 1 | 3¾ | | 5 | ✓ |
| | 6 | na | ¾¢ STUDS | 0 | 6 | STK (PART OF ANCHOR EQUIP.) | 5 | ✓ |
| | | | (52) | | | | | |
| ONE-D1 | 1 | | 4¢ STD. PIPE | 9 | 6± | Galv. ORD DAVIDSON 86912 | 10 | ✓ |
| | 1 | | 5 x 4 REDUCER | | | do | 1 | ✓ |
| | | | (51) | | | | | |
| ONE-T1 | 1 | | ½ OF 6¢ STD. PIPE | 33 | 0± | Galv. ORD DAVIDSON 86912 | 31 | ✓ |
| | 1 | nb | 4¢ STD. PIPE | 0 | 9 | do | 4 | ✓ |
| | 7 | pag | pt 8 x ¼ | 0 | 7 | GALV. AFTER FAB. Res. 20-0 | | |
| | 7 | pah | Do | 0 | 6 | FAB | 3 | 2 ✓ |
| | | | | | | | | 750 ✓ |

JOB NO. 66-1175-100 SHEET NO. 8

BILL OF MATERIAL (53)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| 2-C1 | 4 | | pt 3 x ⅜ | 1 | 8½ | GALV. AFTER FAB. Res. @ 20-0 | 2 | ✓ |
| | 4 | ha± | pt 6 x ⅜ | | 9½ | FAB. STK. | 2 | ✓ |
| | 4 | | ¾¢ HEX. BOLT ≡ LOCK WASHER & NUT | | 7¼ | GALV. ORD. STD NUT 87111 | 3 | ✓ |
| | | | (60) | | | | | |
| | 5 | S1 | pt 7½ x ½ | 1 | 0 | Res. Sup. 98'-2"x10-0 | 6 | ✓ |
| | 5 | S2 | pt 7½ x ¼ | 1 | 0 | Res. Sup. 98'-2"x10-0 | 3 | ✓ |
| | 10 | S3 | pt 7½ x ⅛ | 1 | 0 | STK. | 3 | ✓ |
| | | | 5/16 WELD | 163 | 6 | | 5 | ✓ |
| | | | ¼ WELD | 201 | 0 | | 5 | ✓ |
| | | | | | | | | 28 ✓ |

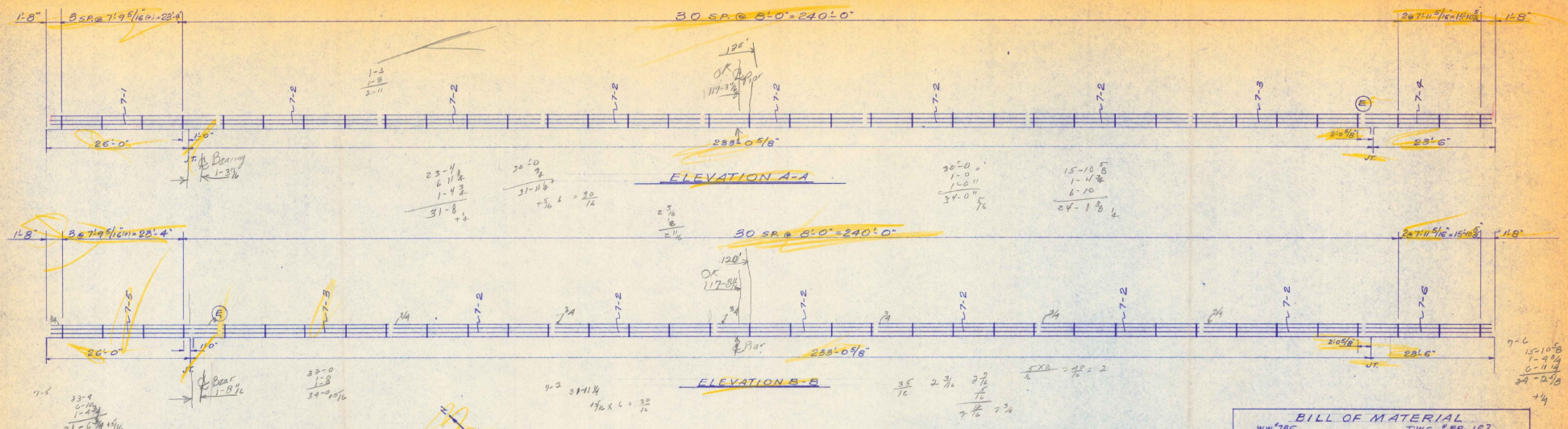
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

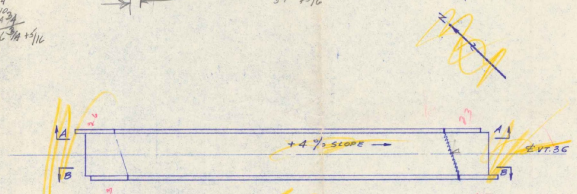
| | | DATE |
|---|---|---|
| DRAWN BY | SWH | |
| CKD BY | JB | |
| HOLES | | |
| BOLTS | | |
| PAINT | | |

PROJECT VT. 30 OVER I 89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-100 SHEET NO. 8

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | APP | 9-10 |
| 3 | FIN APP | 9-12 |
| 40 | SHOP | 9-12 |
| 2 | STATE | 9-18 |
| 1 | J.F.L | 10-17 |

SM 1063 QCP




## BILL OF MATERIAL

WW# 736 DWG. # BR-167

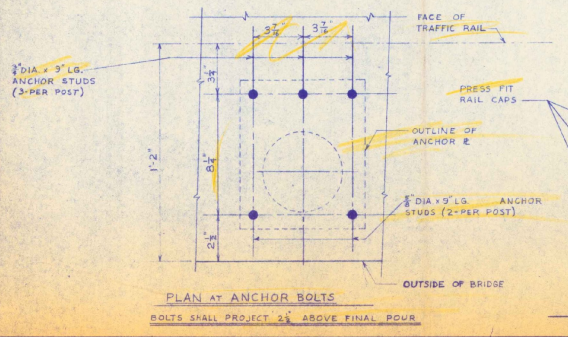
| MK | 4 3/4 x 4" SEMI-ELLIPTICAL TUBE (6061-T6) QUAN. | LGTH. | 4 x 3 1/8 SEMI-ELLIPTICAL TUBE (6061-T6) QUAN. | LGTH. |
|---|---|---|---|---|
| 7-1 | 2 | 31'-8 1/4" | 1 | 31'-8 1/4" |
| 7-2 | 24 | 31'-11 9/16" | 12 | 31'-11 9/16" |
| 7-3 | 4 | 34'-0 5/16" | 2 | 34'-0 5/16" |
| 7-4 | 2 | 24'-1 5/8" | 1 | 24'-1 5/8" |
| 7-5 | 2 | 31'-7 11/16" | 1 | 31'-7 11/16" |
| 7-6 | 2 | 24'-2 7/8" | 1 | 24'-2 7/8" |

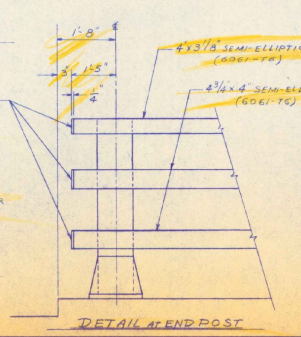
| | |
|---|---|
| 72 | POST # VT 3 WITH CLAMP BARS |
| 72 | ANCHOR ASSEMBLIES |
| 4 | HAND RAIL END CAPS |
| 8 | BARRIER RAIL END CAPS |
| 16 | HAND RAIL SPLICE BARS |
| 32 | BARRIER RAIL SPLICE BARS |
| 72 | POST PAD SETS |

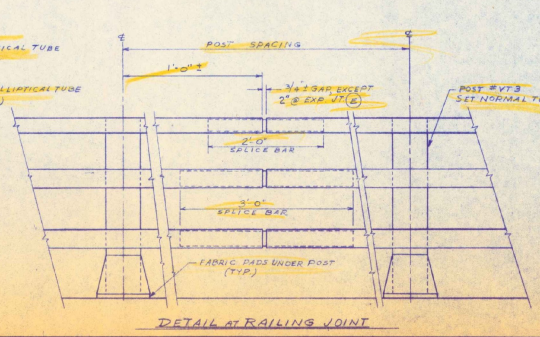
TUBING LENGTHENED FOR SLOPE

STATE

RECEIVED APR 3 1967
CK'D BY JGC OK'D BY
RESUBMIT APPROVED
BY DATE




## NOTES

1. FOR NOTES, RAILING DETAILS & ANCHORAGE DETAILS SEE SHEETS 2 & 3.
2. ONE SET OF 1/8 THICK "NEW-COR" PADS SHALL BE PLACED UNDER EA. POST.
3. ALL DIMS ARE HORIZONTAL, UNLESS NOTED.

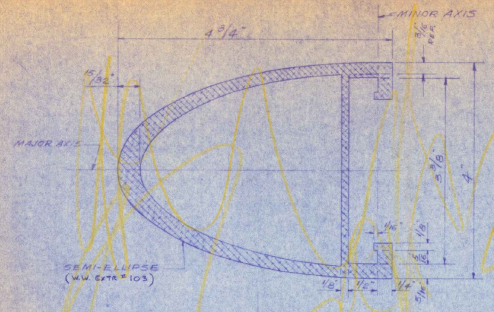
| ISSUE | DATE | DESCRIPTION | BY | CH. |
|---|---|---|---|---|
| 1. | 4/3/67 | FOR APPROVAL | DR. H.R. | SCALE: — |

WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS

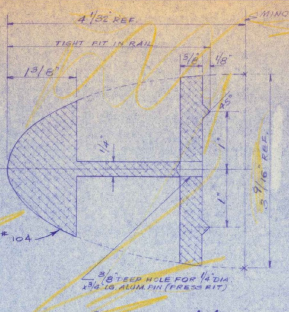
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
St. ALBANS - SWANTON I-89-3(34)
VT. ROUTE 36 OVER INTERSTATE 89
ALUMINUM BRIDGE RAILING
CONTRACTOR: E.T. O'NEILL

WW# 736 BR-167

SHEET 1 OF 3

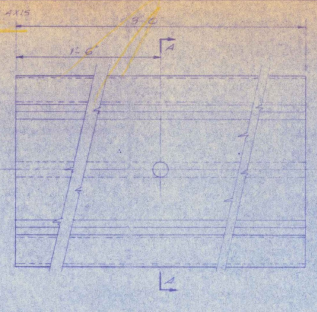


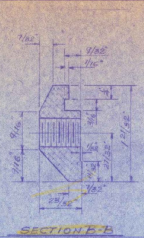

BARRIER RAIL SECTION
N.T.S.



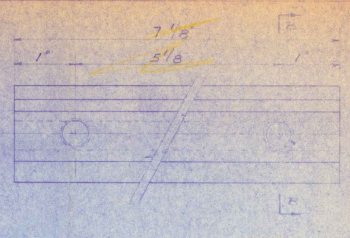

SECTION A-A

BARRIER RAIL SPLICE DETAIL
N.T.S.

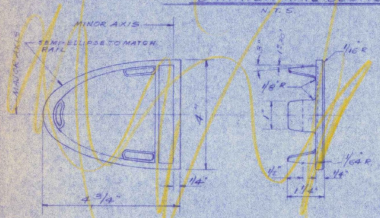




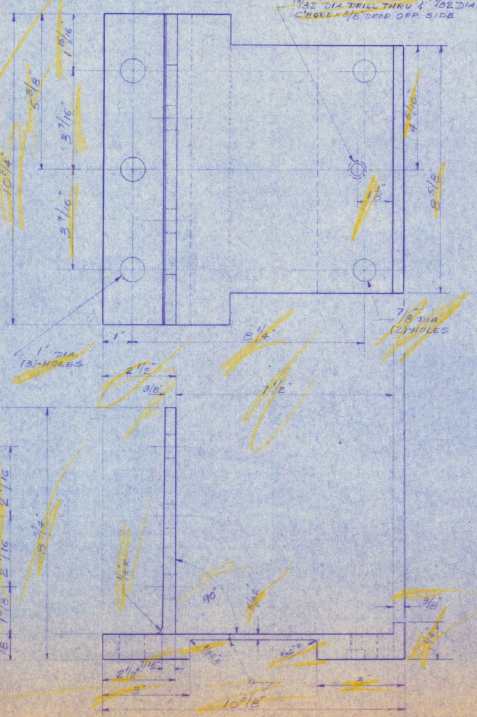
SECTION B-B



BARRIER RAIL CLAMP BAR DETAIL
FULL SIZE




BARRIER RAIL CAP DETAIL
6" = 1'-0"




POST BASE DETAILS
6"=1'-0"




POST STEM DETAILS
6"=1'-0"

## GENERAL NOTES:

1. MATERIAL FOR ANCHOR BOLTS SHALL CONFORM TO ASTM 276 TYPE 430 STAINLESS STEEL.
2. MATERIAL FOR CLAMP BAR SHALL TO BE U.S.A. STD. A36 TYPE B.
3. MATERIAL FOR ANCHOR BOLT & TUBE SHALL BE ASTM A7.
4. EXPOSED ENDS OF RAIL TUBE SHALL BE CLOSED WITH END-FIT TYPE RAIL END CAPS. CAPS SHALL BE ALUMINUM ALLOY 43 MOLD CASTINGS CONFORMING TO A.S.T.M. SPEC. B26 ALLOY 43-A-T4.
5. ALL WELDING SHALL BE METAL INERT GAS PROCESS.
6. RAILING SYSTEM SHALL BE CONTINUOUS WITH EACH RAIL SECTION ATTACHED TO A MIN. OF THREE POSTS, WHERE POSSIBLE. EACH JOINT IN RAIL SECTION SHALL BE SPLICED.
7. ANCHOR BOLTS ARE TO BE PRESET IN CONCRETE BY MEANS OF TEMPLATES BY THE CONTRACTOR.
8. MATERIALS FOR ALUMINUM WASHERS SHALL BE A.S.T.M. B 209 ALLOY ALCLAD 2024-T4. MATERIAL FOR RIVETS SHALL BE A.S.T.M. QQ R 351 ALLOY 2017-T4. RIVETS SHALL BE BUTT TYPE WITH CONE POINT AND COUNTERSUNK HEAD.
9. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE SHOP COAT OF ZINC CHROMATE PRIMER.
10. BASE IS BAR SHALL BE PRESENTED PRESSURE TREATED IN ACCORDANCE WITH SPEC. 2.16.3 (K).
11. MATERIAL FOR POSTS, BASES, SPLICE PLATES AND CLAMP BAR SHALL BE ALUM. EXTRUSIONS CONFORMING TO ASTM B 221 ALLOY 6061-T6.
12. WELD FILLER WIRE SHALL BE ASTM B 285 ALLOY 5356.

VT 36 OVER I-89

RECEIVED APR 3 1967
CK'D BY TGC OK'D BY WWS
RESUBMIT ____ APPROVED ____
BY ____ DATE 4/4/67

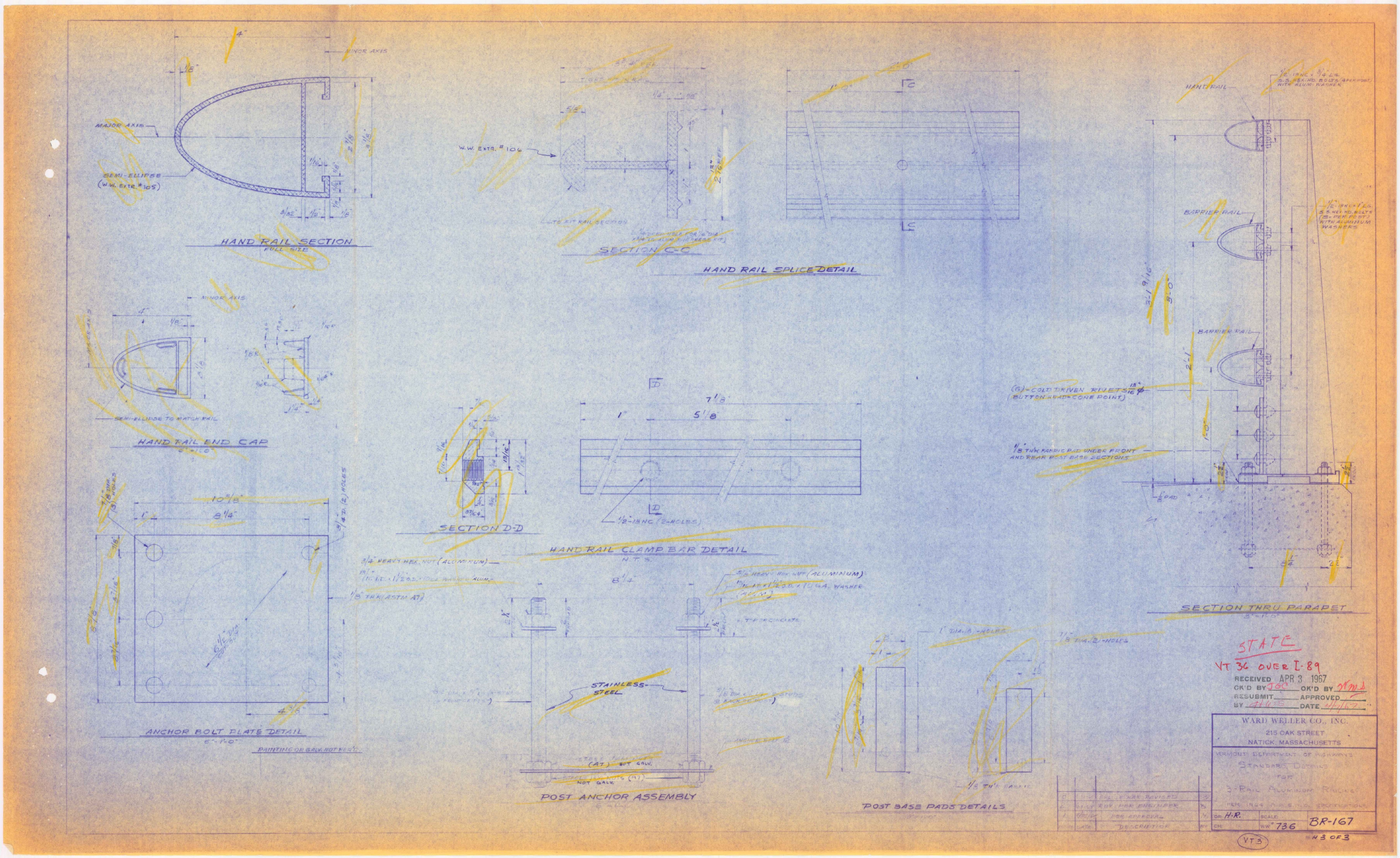
| | | | |
|---|---|---|---|
| B | 1/31/67 | SPLICE PLATE DET. ADD. | |
| C | 3/1/67 | NEW TUBE ENGINEERING | |
| | 3/31/67 | FOR APPROVAL | |
| | ISSUE DATE | DESCRIPTION | |

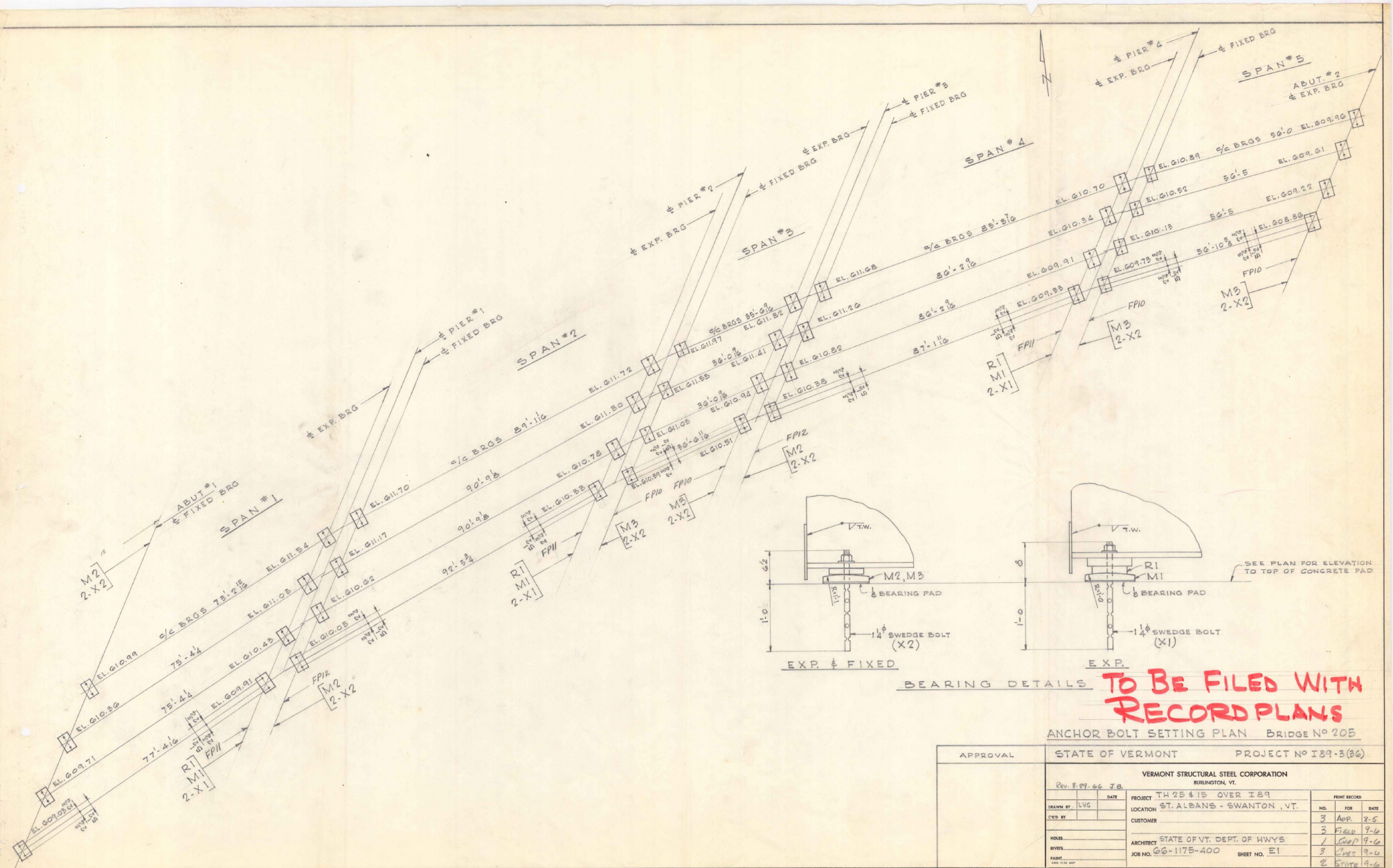
WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS

DR. H.R. SCALE
CH. VER. 736

BR-167
2 OF 3

(VT 3)


HAND RAIL SECTION
FULL SIZE
MAJOR AXIS
MINOR AXIS
SEMI-ELLIPSE (W.W. EXTR. #105)
SECTION C-C
HAND RAIL SPLICE DETAIL
W.W. EXTR. #106
HAND RAIL END CAP
SEMI-ELLIPSE TO MATCH RAIL
SECTION D-D
HAND RAIL CLAMP BAR DETAIL
N.T.S.
ANCHOR BOLT PLATE DETAIL
PAINTING OR GALV. NOT REQ'D.
STAINLESS STEEL
POST ANCHOR ASSEMBLY
POST BASE PADS DETAILS
HAND RAIL
BARRIER RAIL
SECTION THRU PARAPET
STATE
VT 36 OVER I-89
RECEIVED APR 3 1967
CK'D BY JGC
OK'D BY WMS
RESUBMIT
APPROVED
BY
DATE
WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS
VERMONT DEPARTMENT OF HIGHWAYS
STANDARD DETAILS
FOR
3-RAIL ALUMINUM RAILING
PER 1964 A.A.S.H.O. SPECIFICATIONS
DR: H.R.
SCALE:
CH:
WW# 736
BR-167
VT3
#3 OF 3




BEARING DETAILS

TO BE FILED WITH RECORD PLANS

ANCHOR BOLT SETTING PLAN BRIDGE Nº 205

| APPROVAL | STATE OF VERMONT | PROJECT Nº I89-3(36) |
|---|---|---|

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

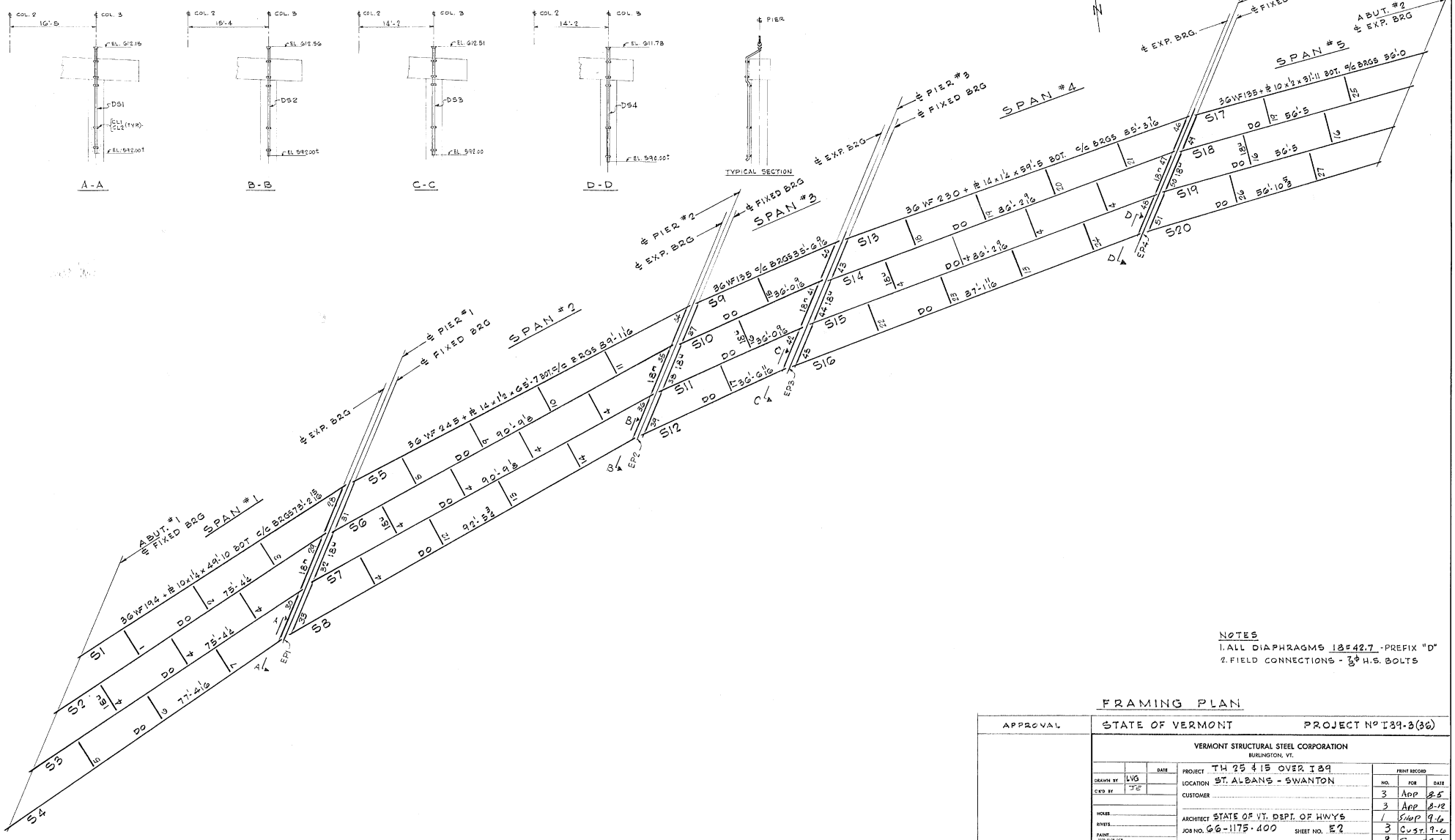
Rev. 8-29-66 J.B.

| | | DATE |
|---|---|---|
| DRAWN BY | LVG | |
| CK'D BY | | |
| HOLES | | |
| RIVETS | | |
| PAINT | | |

PROJECT TH 25 & 15 OVER I89
LOCATION ST. ALBANS - SWANTON, VT.
CUSTOMER
ARCHITECT STATE OF VT. DEPT. OF HWYS
JOB NO. 66-1175-400 SHEET NO. E1

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | APP. | 8-5 |
| 3 | FIELD | 9-6 |
| 1 | SHOP | 9-6 |
| 3 | CUST | 9-6 |
| 2 | STATE | 9-6 |

1 JTL 10-17




NOTES
1. ALL DIAPHRAGMS 18542.7 - PREFIX "D"
2. FIELD CONNECTIONS - ⅞" H.S. BOLTS

# FRAMING PLAN

APPROVAL

STATE OF VERMONT PROJECT NO I 89-3(36)

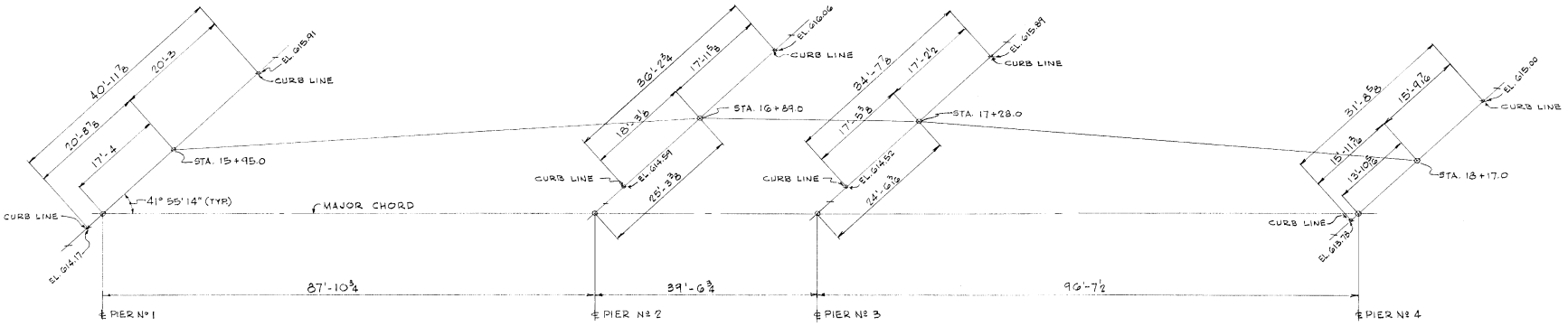
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | LVG | |
| CK'D BY | JE | |
| HOLES | | |
| RIVETS | | |
| PAINT | | |

PROJECT TH 25 & 15 OVER I 89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT STATE OF VT. DEPT. OF HWYS
JOB NO. 66-1175-400 SHEET NO. E2

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | APP | 8-5 |
| 3 | APP | 8-12 |
| 1 | SHOP | 9-16 |
| 3 | CUST. | 9-16 |
| 2 | STATE | 9-16 |

1 JTL 10-17



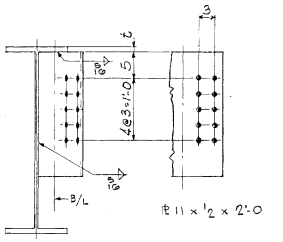

**VERMONT STRUCTURAL STEEL CORPORATION**
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | | |
| CKD BY | | |
| HOLES | | |
| RIVETS | | |
| PAINT | | |

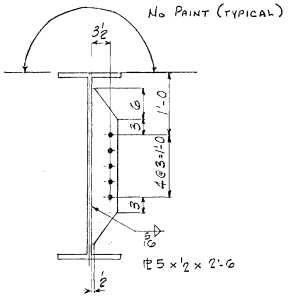
PROJECT T.H. #25 & #15 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 SHEET NO. D1

PRINT RECORD

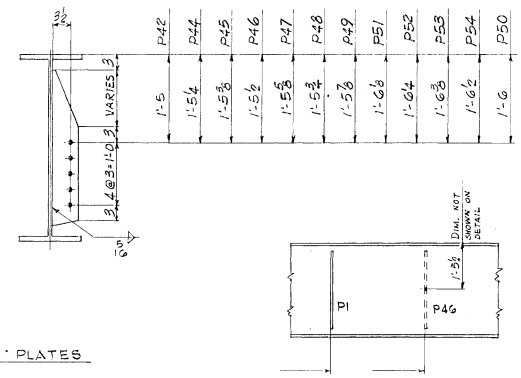
| NO. | FOR | DATE |
|---|---|---|
| 3 | APP | 8-12 |
| 4 | SHOP | 9-6 |
| 2 | STATE | 9-16 |
| 1 | FHWA | 10-17 |




OUTSTANDING LEG ALL BENT PLs.
(DIAPHRAGM CONNECTION AT PIERS)

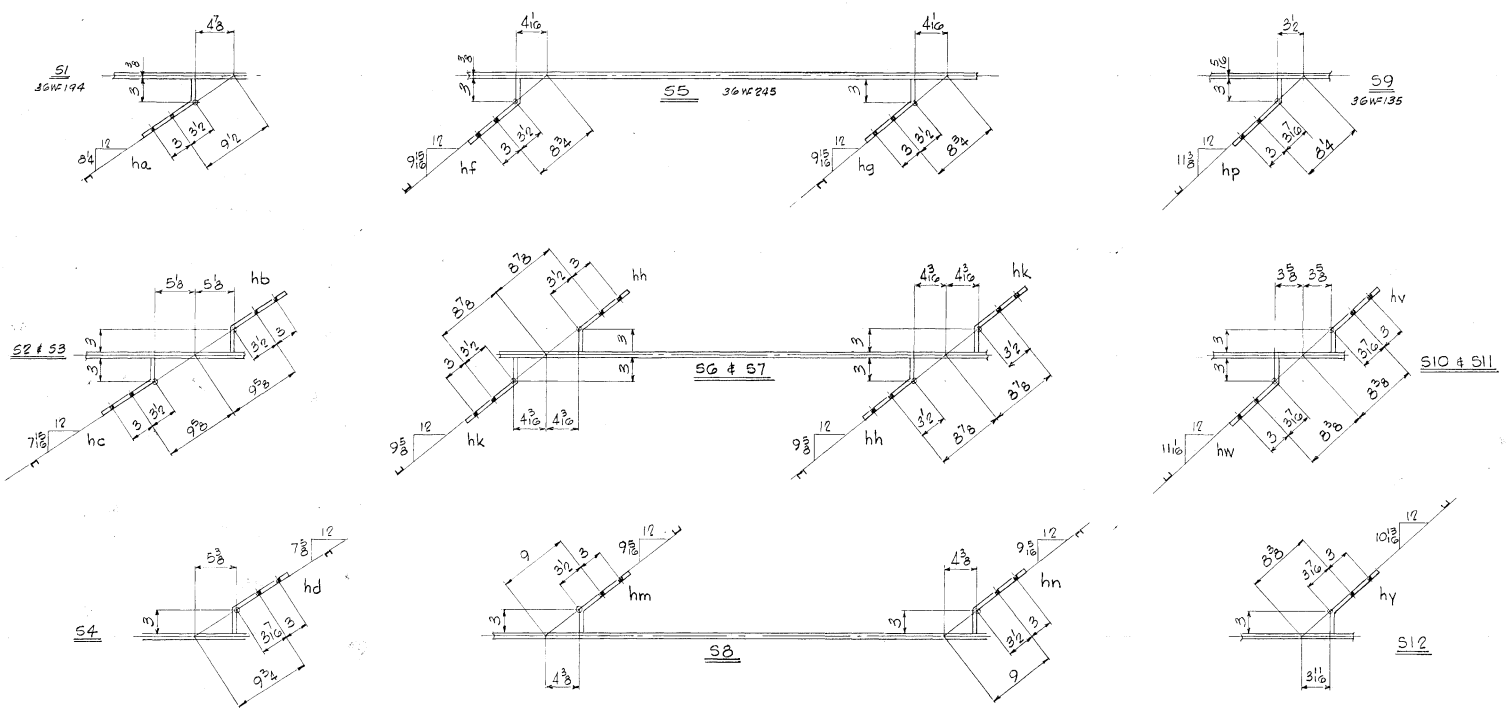



P1




INTERIOR DIAPHRAGM PLATES

**HOLES ARE FOR HIGH TENSILE BOLTS**
*They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.*




PIER No 1

PIER No 2

## BILL OF MATERIAL

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|---|
| | 42 | P1 | PL 5 × 1/2 | 2 | 6 | | |
| | 5 | P42 | | | | | |
| | 3 | P44 | | | | | |
| | 5 | P45 | | | | | |
| | 4 | P46 | | | | | |
| | 3 | P47 | | | | | |
| | 3 | P48 | | | | | |
| | 8 | P49 | | | | | |
| | 1 | P50 | | | | | |
| | 4 | P51 | | | | | |
| | 2 | P52 | | | | | |
| | 3 | P53 | | | | | |
| | 1 | P54 | | | | | |
| TOTAL | 42 | | PL 5 × 1/2 | 2 | 6 | | |

JOB NO. 66-1175-400 SHEET NO. S1

## BILL OF MATERIAL

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|---|
| | 1 | ha | | | | | |
| | 2 | hb | | | | | |
| | 2 | hc | | | | | |
| | 1 | hd | | | | | |
| | 1 | hf | | | | | |
| | 1 | hg | | | | | |
| | 4 | hh | | | | S6, S7 | |
| | 4 | hk | | | | S6, S7 | |
| | 1 | hm | | | | | |
| | 1 | hn | | | | | |
| | 1 | hp | | | | | |
| | 1 | ht | | | | | |
| | 4 | hv | | | | S10, S11 | |
| | 4 | hw | | | | S10, S11 | |
| | 1 | hy | | | | | |
| | 1 | haa | | | | | |
| | 1 | hab | | | | | |
| | 1 | hac | | | | | |
| | 4 | had | | | | S14, S15 | |
| | 4 | haf | | | | S14, S15 | |
| | 1 | hag | | | | | |
| | 1 | hah | | | | | |
| | 1 | hak | | | | | |
| | 2 | ham | | | | | |
| | 2 | han | | | | | |
| | 1 | hap | | | | | |
| TOTAL | 48 | | PL 11 × 1/2 | 2 | 0 | BEND | |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-29-66 J.B.

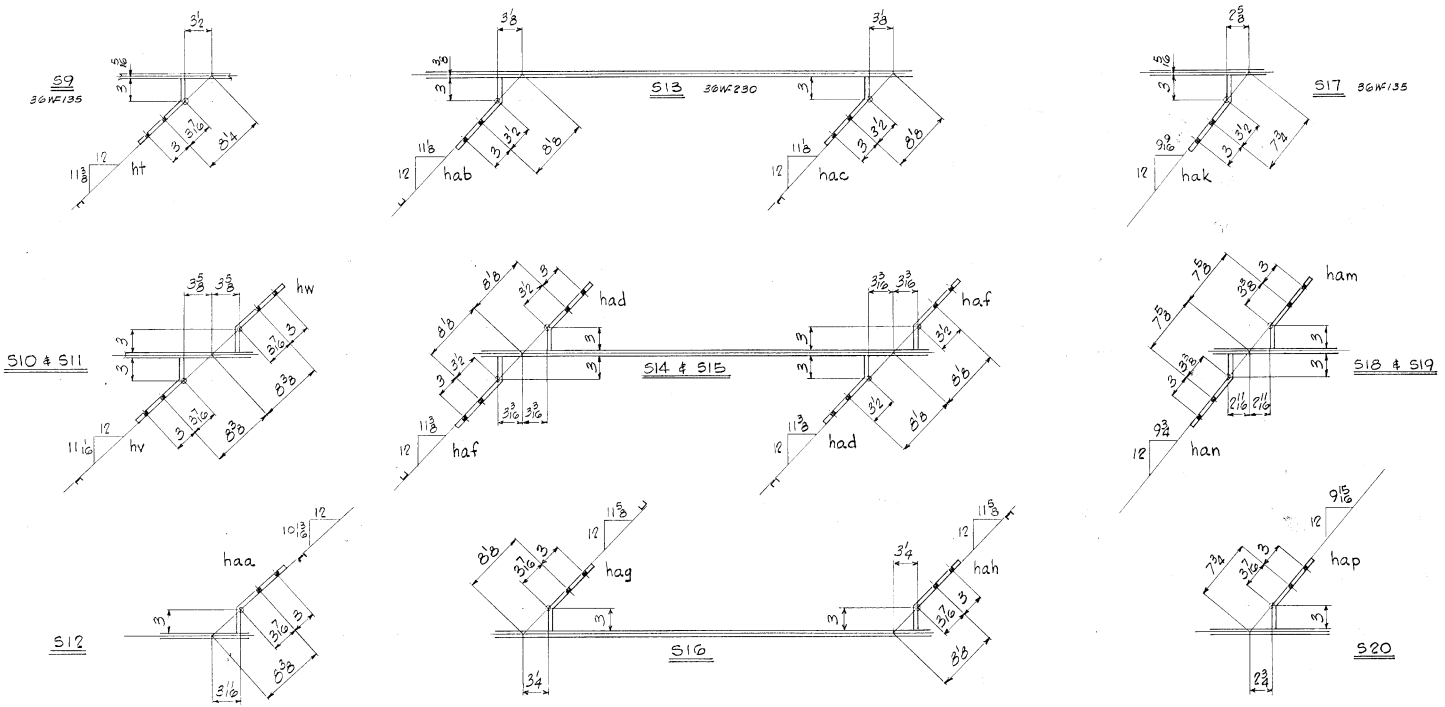
| | | DATE |
|---|---|---|
| DRAWN BY | B.W.H. | |
| OK'D BY | JE | |

HOLES 15/16 ?
BOLTS
PAINT NONE

PROJECT T.H. #25 & #15 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 SHEET NO. S1

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | APP | 8-5 |
| 4 | SHOP | 9-6 |
| 2 | STATE | 9-6 |
| 1 | JTL | 10-17 |

SM 10-63 QCP




PIER Nº 3

PIER Nº 4

## BILL OF MATERIAL

| NO PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | WEIGHT |
|---|---|---|---|---|---|

JOB NO. _____ SHEET NO. _____

## BILL OF MATERIAL

| NO PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | WEIGHT |
|---|---|---|---|---|---|
| SEE B/M SHEET NO. 51 | | | | | |

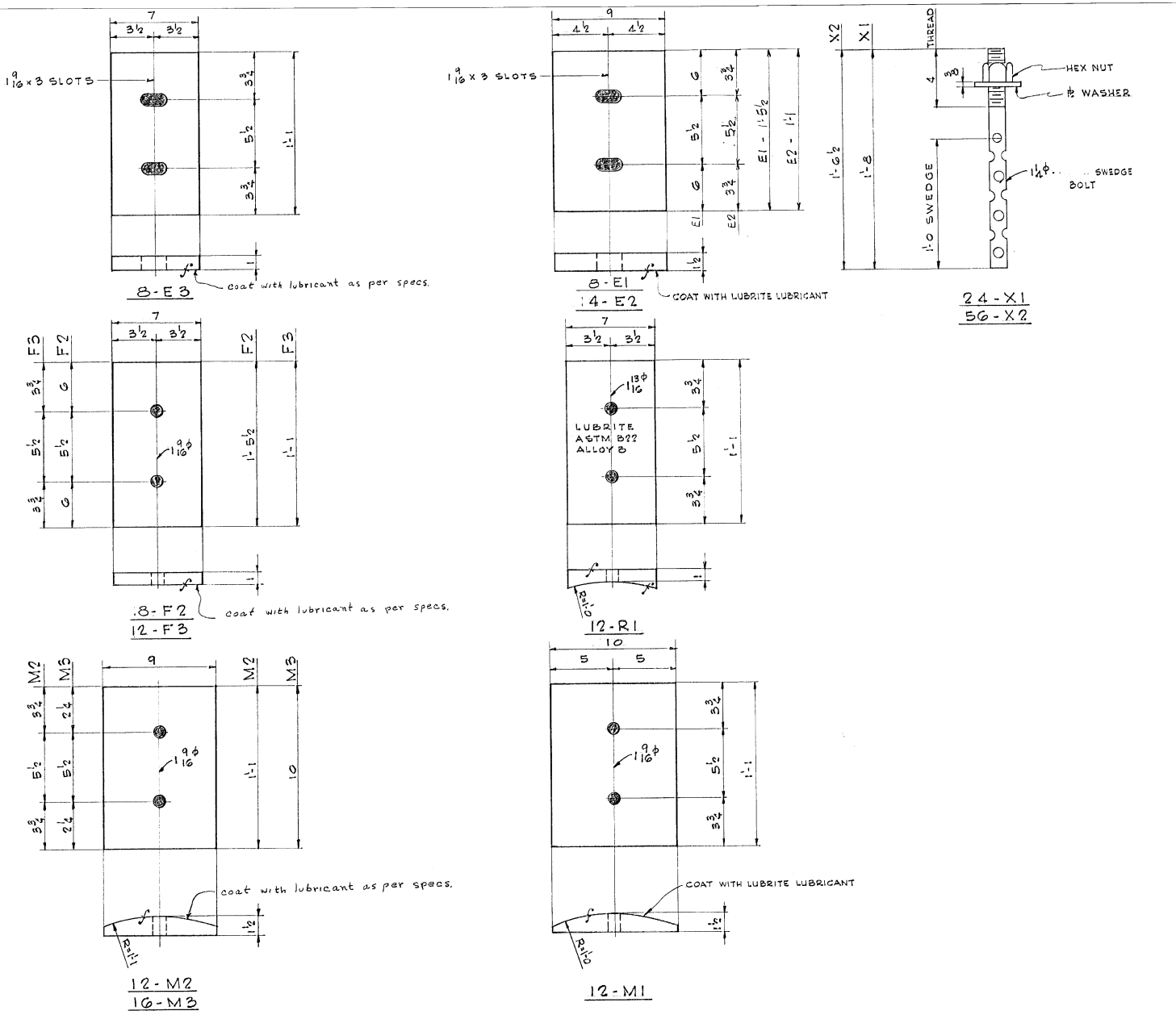
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | S.W.H. | |
| CK'D BY | JE | |
| HOLES | 13 & 15 | |
| BOLTS | | |
| PAINT | NONE | |

PROJECT T.H. #75 & #15 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 SHEET NO. 52

| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-5 |
| 4 | Shop | 9-6 |
| 2 | Stake | 9-6 |
| 1 | ITL | 10-17 |

SM 10-63 QCP




## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | (22) | WEIGHT |
|---|---|---|---|---|---|---|
| 12 | M1 | PL - 10 x 1 1/2 | 1 | 1 | RES. @ 12-0 | 675 ✓ |
| 12 | R1 | PL - 7 x 1 1/2 | 1 | 1 | ASTM B22 ALLOY B ORD. COSMIC 87041 | 360 ✓ |
| 8 | E1 | PL - 9 x 1 1/2 | 1 | 5 1/2 | (22) | |
| 4 | E2 | Do | 1 | 1 | RES. @ 12-0 (22) | SEE BM DETAILS FOR WEIGHTS |
| | | | | | (26) | |
| 8 | F2 | PL - 7 x 1 | 1 | 5 1/2 | RES. @ 20-0 | |
| 12 | F3 | DO | 1 | 1 | | |
| | | | | | (22) | |
| 8 | E3 | PL - 7 x 1 | 1 | 1 | RES. @ 20-0 | |
| | | | | | (26) | |
| 12 | M2 | PL - 9 x 1 1/2 | 1 | 1 | RES. @ 12-0 | |
| 16 | M3 | DO | 0 | 10 | 8-(22) 8-(26) | 1230 ✓ |
| | | | | | (46) | |
| | | | | | RES. @ 20-0 | |
| 24 | X1 | 1 1/4 φ SWEDGE BOLT | 1 | 8 | WITH HEX NUT | |
| 56 | X2 | DO | 1 | 6 1/2 | & PL WASHER | |
| | | | | | STK. | 527 ✓ |
| | | | | | nuts | 43 ✓ |
| | | | | | washers | 46 ✓ |
| | | | | | | 2881 ✓ |

JOB NO. 66-1175-400 SHEET NO. 1

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-29-66 J.B.

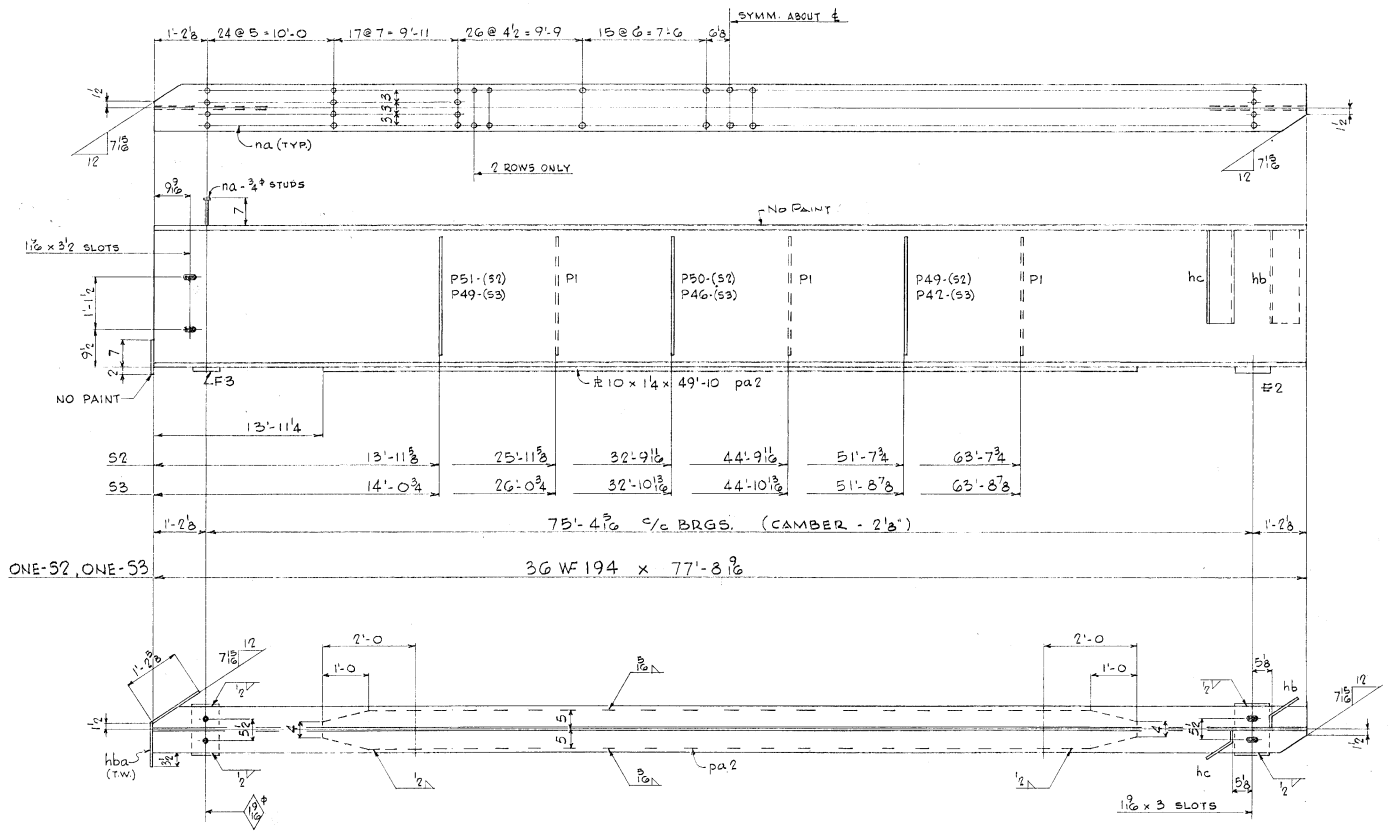
| | | DATE |
|---|---|---|
| DRAWN BY | L.V.G | |
| OK'D BY | | |

HOLES
BOLTS
PAINT

PROJECT TH 25 & 15 OVER I 89
LOCATION ST. ALBANS - SWANTON, VT.
CUSTOMER
ARCHITECT STATE OF VT. DEPT. OF HWYS
JOB NO. 66-1175-400 SHEET NO. 1

| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-5 |
| 3 | Fin. App | 8-29 |
| 4 (1) | Shop | 9-6 |
| 2 | State | 9-6 |
| 1 | J.T.L. | 10-17 |

SM 10-63 QCP




NOTE: SEE SHT. No S1 FOR WEB PL DETAILS.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|

JOB NO. ..... SHEET NO. .....

## BILL OF MATERIAL

(17)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| 2 | S2/S3 | 36 WF 194 | 77 | 8 9/16 | S2, S3 ORD B86846 | 30,155 ✓ |
| 6 | P1 | PL 5 x 1/2 | 2 | 6 | Res. @ 20-0 | |
| 1 | P42 | | 2 | 6 | | |
| 1 | P46 | | 2 | 6 | | |
| 2 | P49 | | 2 | 6 | | |
| 1 | P50 | | 2 | 6 | | |
| 1 | P51 | | 2 | 6 | | 255 ✓ |
| 2 | hc | PL 11 x 1/2 | 2 | 0 | BEND Res. PL 60 x 1/2 x 10-0 | |
| 2 | hb | Do | 2 | 0 | | 153 ✓ |
| 2 | hba | PL 9 x 1/4 | 2 | 1 5/8 | Res PL 48 x 1/4 x 10-0 | 34 ✓ |
| 2 | pa2 | PL 10 x 1 1/4 | 49 | 10 | ORD. B86078 | 4310 ✓ |
| 1004 | na | 3/4 ϕ STUD | 0 | 7 | STK. | 1009 ✓ |
| 2 | E2 | SEE SHT. #1 | | | | 102 ✓ |
| 2 | F3 | SEE SHT #1 | | | | 52 ✓ |
| | | 5/16 F WELD | 259 | 4 | | 93 ✓ |
| | | 1/2 F WELD | 23 | 4 | | 19 ✓ |
| | | | | | | 36,182 Ship Wt. |
| | | | | | - STUDS | 1009 |
| | | | | | | 35,173 Bill Wgt. |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-29-66

| | | DATE |
|---|---|---|
| DRAWN BY | S.W.H. | |
| CK'D BY | JE | |

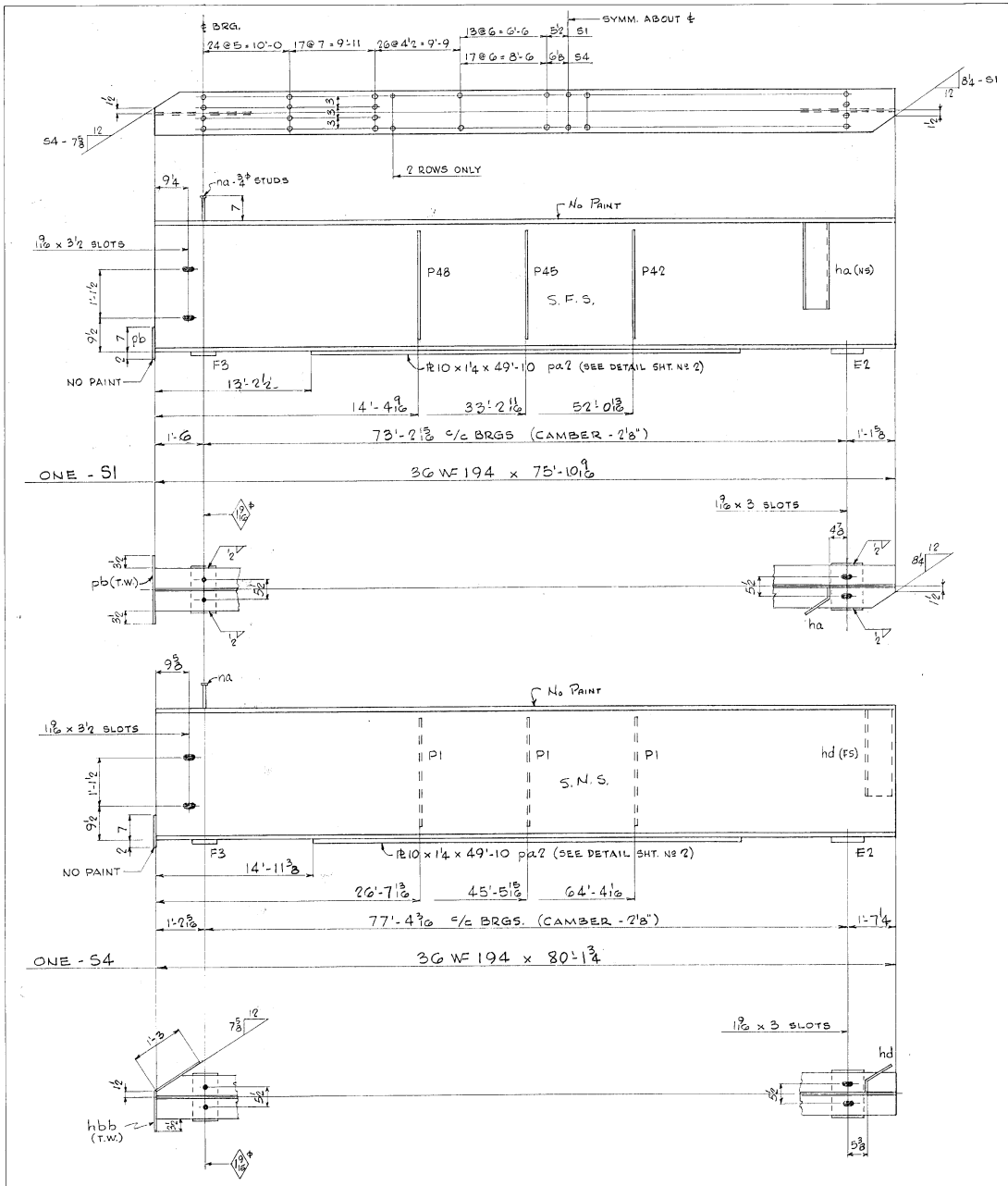
HOLES AS NOTED
BOLTS
PAINT R.L. (VT. SPECS.)

PROJECT T.H. #25 & #15 OVER I 89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 -426 SHEET NO. 2

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 3 | Arp | 8-5 |
| 4 | Shop | 9-6 |
| 2 | State | 9-6 |
| 1 | J.T.L. | 10-17 |

SM 10-63 QCP




NOTE: SEE SHT. Nº S1 FOR WEB ℄ DETAILS.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| | | | | | | |

JOB NO. SHEET NO.

## BILL OF MATERIAL

(17)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|---|
| | 1 | S1 | 36 WF 194 | 75 | 10 9/16 | ORD. B85846 | 14,722 |
| | 1 | P48 | PL 5 x 1/2 | 2 | 6 | RES. @ 20-0 | 2N |
| | 1 | ha | PL 11 x 1/2 | 2 | 0 | BEND RES. @ 20-0 | 38 |
| | 1 | pa2 | PL 10 x 1'4 | 49 | 10 | ORD. B86078 | 2155 |
| | 1 | pb | PL 9 x 1/4 | 1 | 7 | RES. @ 48x4x10-0 | 12 |
| * | 494 | na | ¾ø STUDS | 0 | 7 | STK | 496 |
| | 1 | P45 | PL 5 x 1/2 | 2 | 6 | RES. @ 20-0 | 43 |
| | 1 | P42 | do | 2 | 6 | | |
| | 1 | S4 | 36 WF 194 | 80 | 1¾ | ORD. B85846 | 15,548 |
| | 3 | P1 | PL 5 x 1/2 | 2 | 6 | RES. @ 20-0 | 64 |
| | 1 | hd | PL 11 x 1/2 | 2 | 0 | BEND RES. @ 20-0 | 38 |
| | 1 | hbb | PL 9 x 1/4 | 2 | 2 | DO RES. @ 38x4x10-0 | 18 |
| | 1 | pa2 | | | | | 2155 |
| * | 510 | na | | | | STK. | 513 |
| | 2 | E2 | SEE SHT #1 | | | | 102 |
| | 2 | F3 | do | | | | 52 |

NOTE → * STUDS ON CONT. 66-1175-426

| | | | | |
|---|---|---|---|---|
| 5/16 F WELD | 221 | 4 | | 80 |
| 1/2 F WELD | 23 | 4 | | 19 |
| | | | | 36,016 SHOP WT |
| | | | - STUDS | 1009 |
| | | | | 35,007 BILL WT |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

REV 8-29-66 JB

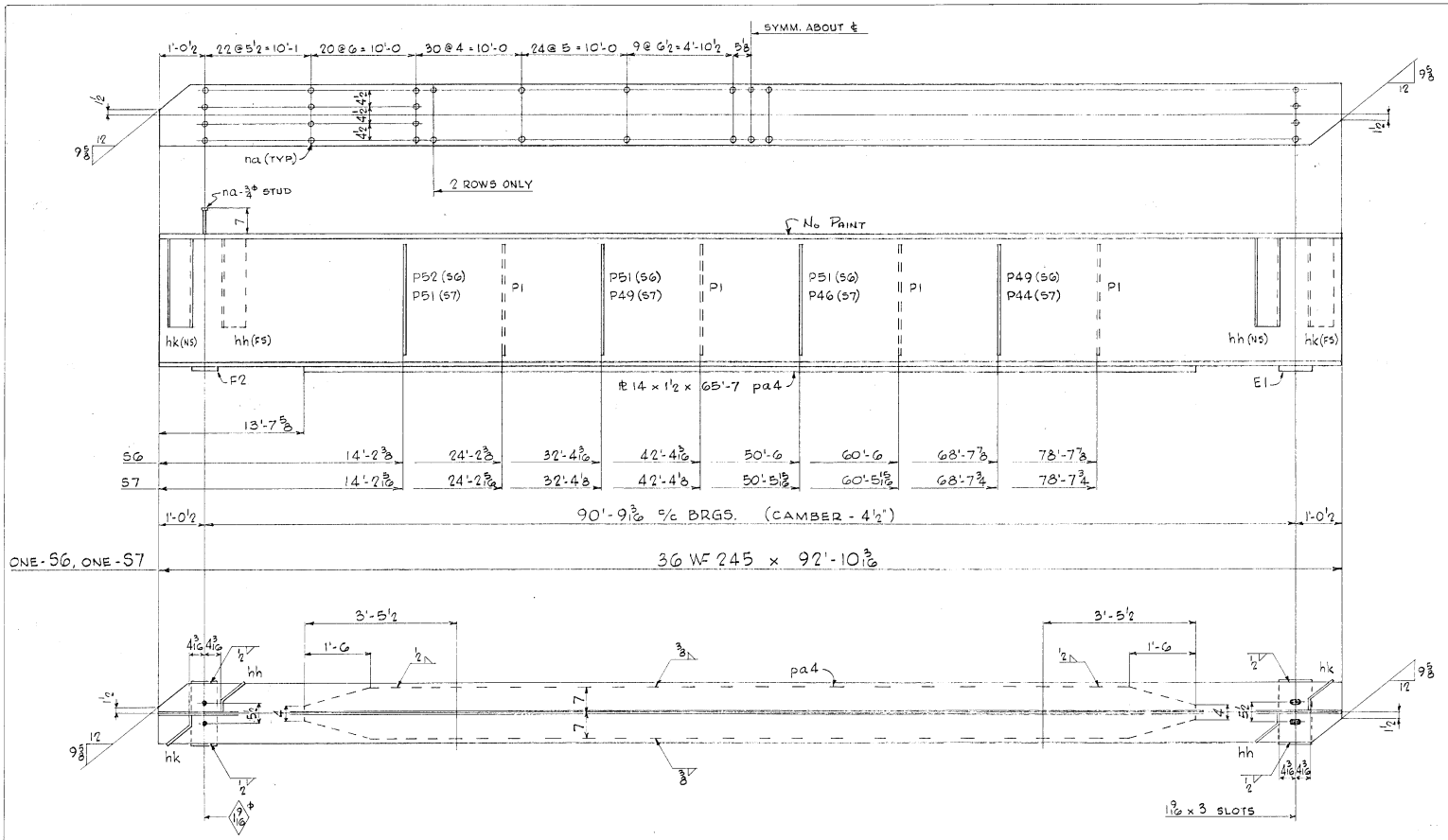
| | | DATE |
|---|---|---|
| DRAWN BY | SWH | |
| CK'D BY | JE | |

HOLES AS NOTED
BOLTS
PAINT R.L. (VT. SPECS)

PROJECT T.H. #25 & #15 OVER I 89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 -426 SHEET NO. 3

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | Appr | 8-5 |
| 40 | Shop | 9-6 |
| 2 | Stand | 9-6 |
| 1 | ITL | 10-17 |

SM 10-63 QCF




NOTE: SEE SHT. Nº 51 FOR WEB PL DETAILS.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|

JOB NO. ..... SHEET NO. .....

## BILL OF MATERIAL

(17)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| 2 | S6/S7 | 36 WF 245 | 92 | 10 3/16 | S6,S7 ORD. B85846 | 115,499 ✓ |
| 2 | pa4 | PL 14 × 1½ | 65 | 7 | ORD. B86078 | 9529 ✓ |
| 8 | P1 | PL 5 × ½ | 2 | 6 | | |
| 1 | P44 | | 2 | 6 | | |
| 1 | P46 | | 2 | 6 | RES. @ 20-0 | |
| 2 | P49 | | 2 | 6 | | |
| 3 | P51 | | 2 | 6 | | |
| 1 | P52 | | 2 | 6 | | 340 ✓ |
| 4 | hh | PL 11 × ½ | 2 | 0 | BEND RES. PL. | |
| 4 | hk | Do | 2 | 0 | Do 60×½×10-0 | 305 ✓ |
| | | 66-1175-426 | | | | |
| 1196 | na | ¾φ STUDS | 0 | 7 | STK. | 1202 ✓ |
| 2 | F2 | SEE DETAIL SHT. Nº 1 | | | | 70 ✓ |
| 2 | E1 | Do | | | | 136 ✓ |
| | | ⅜ F WELD | 346 | 8 | | 173 ✓ |
| | | ½ F WELD | 34 | 4 | | 28 ✓ |
| | | | | | | 57,282 ✓ ship wt. |
| | | | | | — Studs | 1202 ✓ |
| | | | | | | 56,080 ✓ Bill wt. |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

REV. 8-29-66 J.B.

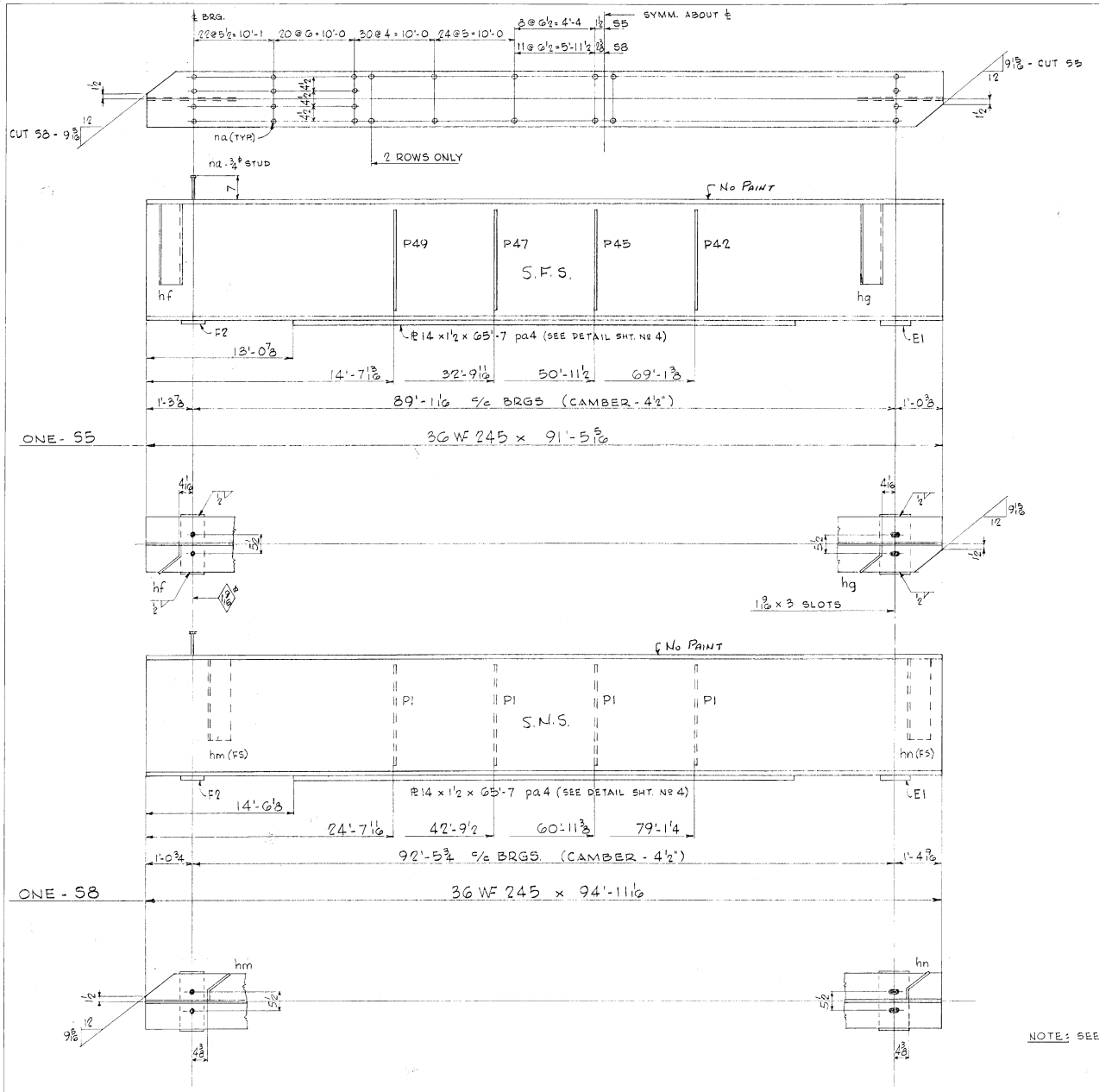
| | | DATE |
|---|---|---|
| DRAWN BY | S.W.H. | |
| CK'D BY | JE | |

HOLES AS NOTED
BOLTS
PAINT R.L. (VT. SPECS)

PROJECT T.H. #25 & #15 OVER I 89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 -426 SHEET NO. 4

| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | APP. | 8-5 |
| 4① | SHOP | 9-6 |
| 2 | STATE | 9-6 |
| 1 | J.T.L. | 10-17 |

SM 10-63 QCP




NOTE: SEE SHT. Nº S1 FOR WEB PL DETAILS.

## BILL OF MATERIAL

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|---|
| | 1 | S5 | 36 WF 245 | 91 | 5 5/16 | ORD. B85846 | 22,405 ✓ |
| | 1 | pa4 | PL 14 x 1½ | 65 | 7 | ORD. B86078 | 4764 ✓ |
| | 1 | P42 | PL 5 x ½ | 2 | 6 | | |
| | 1 | P45 | ↓ | 2 | 6 | Pcs. @ 20-0 | |
| | 1 | P47 | | 2 | 6 | | |
| | 1 | P49 | ↓ | 2 | 6 | | 85 ✓ |
| | 1 | hf | PL 11 x ½ | 2 | 0 | BEND } Pcs. @ | |
| | 1 | hg | Do | 2 | 0 | Do } 60K 2X10-0 | 77 ✓ |
| * | 592 | na | ¾ø STUDS | 0 | 7 | STK. | 595 ✓ |
| | | | | | | | |
| | | | | | | | |
| | 1 | S8 | 36 WF 245 | 94 | 11 1/16 | ORD. B85846 | 23,257 ✓ |
| | 1 | pa4 | | | | ORD. B86078 | 4764 ✓ |
| | 4 | P1 | PL 5 x ½ | 2 | 6 | Pcs. @ 20-0 | 85 ✓ |
| | 1 | hm | PL 11 x ½ | 2 | 0 | BEND } Pcs @ | |
| | 1 | hn | Do | 2 | 0 | Do } 60K 2X10-0 | 77 ✓ |
| * | 604 | na | | | | STK. | 607 ✓ |
| NOTE → | * | | STUDS ON Cont. 66-1175-426 | | | | |
| | 2 | F2 | SEE DETAIL SHT. Nº 1 | | | | 70 ✓ |
| | 2 | E1 | Do | | | | 136 ✓ |
| | | | ⅜ F WELD | 270 | 8 | | 1145 ✓ |
| | | | ½ F WELD | 34 | 4 | | 284 ✓ |
| | | | | | | | 57,095 ✓ Ship wt. |
| | | | | | | - Studs | 1202 ✓ |
| | | | | | | | 55,893 ✓ Bill wt. |

JOB NO. SHEET NO.

## BILL OF MATERIAL (17)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|---|
| | 1 | S5 | 36 WF 245 | 91 | 5 5/16 | ORD. B85846 | 22,405 ✓ |
| | 1 | pa4 | PL 14 x 1½ | 65 | 7 | ORD. B86078 | 4764 ✓ |
| | 1 | P42 | PL 5 x ½ | 2 | 6 | | |
| | 1 | P45 | ↓ | 2 | 6 | Pcs. @ 20-0 | |
| | 1 | P47 | | 2 | 6 | | |
| | 1 | P49 | ↓ | 2 | 6 | | 85 ✓ |
| | 1 | hf | PL 11 x ½ | 2 | 0 | BEND } Pcs. @ | |
| | 1 | hg | Do | 2 | 0 | Do } 60K 2X10-0 | 77 ✓ |
| * | 592 | na | ¾ø STUDS | 0 | 7 | STK. | 595 ✓ |
| | | | | | | | |
| | | | | | | | |
| | 1 | S8 | 36 WF 245 | 94 | 11 1/16 | ORD. B85846 | 23,257 ✓ |
| | 1 | pa4 | | | | ORD. B86078 | 4764 ✓ |
| | 4 | P1 | PL 5 x ½ | 2 | 6 | Pcs. @ 20-0 | 85 ✓ |
| | 1 | hm | PL 11 x ½ | 2 | 0 | BEND } Pcs @ | |
| | 1 | hn | Do | 2 | 0 | Do } 60K 2X10-0 | 77 ✓ |
| * | 604 | na | | | | STK. | 607 ✓ |
| NOTE → | * | | STUDS ON Cont. 66-1175-426 | | | | |
| | 2 | F2 | SEE DETAIL SHT. Nº 1 | | | | 70 ✓ |
| | 2 | E1 | Do | | | | 136 ✓ |
| | | | ⅜ F WELD | 270 | 8 | | 1145 ✓ |
| | | | ½ F WELD | 34 | 4 | | 284 ✓ |
| | | | | | | | 57,095 ✓ Ship wt. |
| | | | | | | - Studs | 1202 ✓ |
| | | | | | | | 55,893 ✓ Bill wt. |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-29-66 J.B.

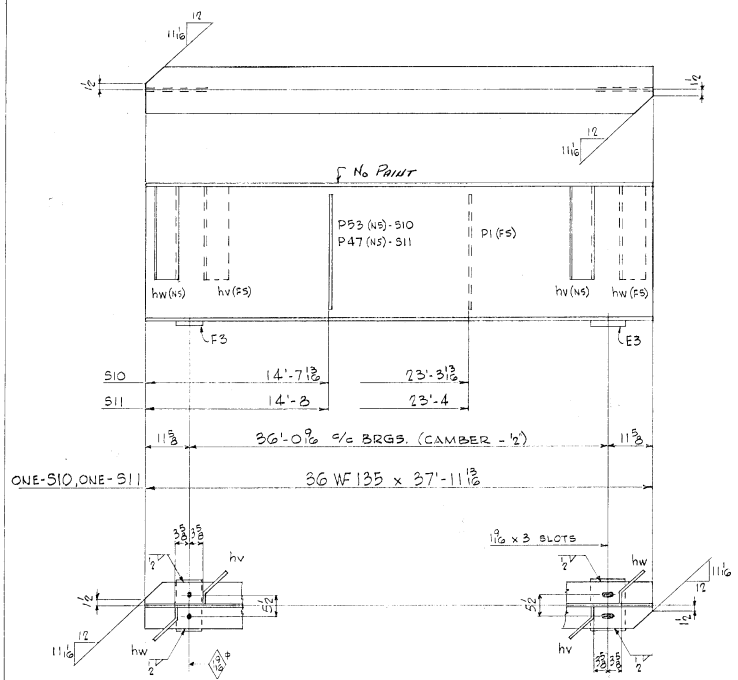
| | | DATE |
|---|---|---|
| DRAWN BY | SWH | |
| CKD BY | JB | |

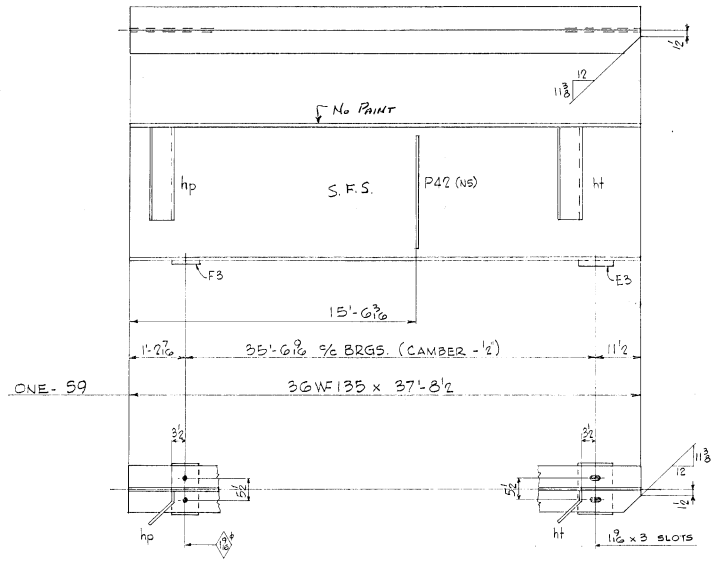
HOLES AS NOTED
BOLTS
PAINT R.L. (VT. SPECS.)

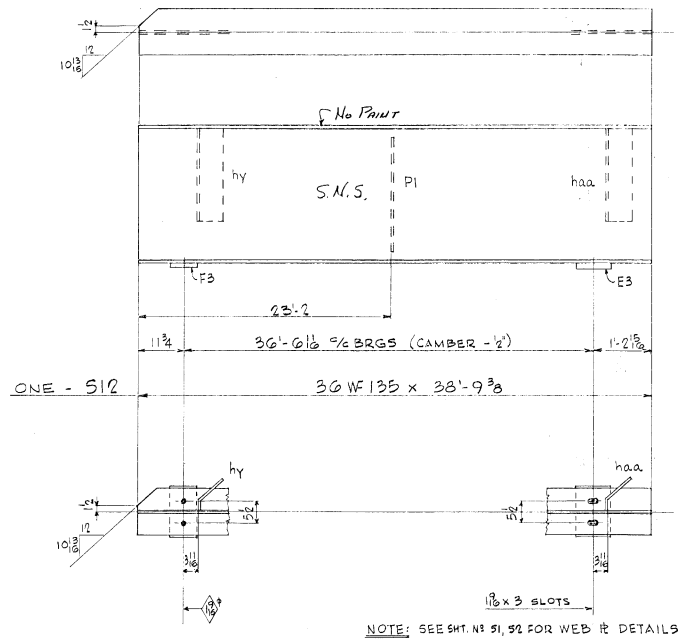
PROJECT T.H.#25 & #15 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 · 426
SHEET NO. 5

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-5 |
| 40 | Shop | 9-16 |
| 2 | Spare | 9-16 |
| 1 | JTL | 10-17 |




NOTE: SEE SHT. NO 51, 52 FOR WEB PL DETAILS

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| 2 | 6 1/8/11 | 36 WF 135 | 37 | 11 3/8 | S10, S11 ord. BB58416 | 10,257 ✓ |
| 2 | P1 | PL 5 x 1/2 | 2 | 6 | Reqs. @ 26'-0 | |
| 1 | P47 | ↓ | 2 | 6 | | |
| 1 | P53 | ↓ | 2 | 6 | | 85 ✓ |
| 4 | hv | PL 11 x 1/2 | 2 | 0 | Reqs. PL 60'-2 x 10'-0 | |
| 4 | hw | Do | 2 | 0 | | 305 ✓ |
| 2 | F3 | SEE DETAIL SHT. NO 1 | | | | 52 ✓ |
| 2 | E3 | Do | | | | 52 |
| | | | | | | |
| 1 | S9 | 36 WF 135 | 37 | 8 1/2 | ord. BB58416 | 5091 ✓ |
| 1 | P47 | PL 5 x 1/2 | 2 | 6 | Reqs. @ 20'-0 | 21 ✓ |
| 1 | hp | PL 11 x 1/2 | 2 | 0 | Reqs. PL 60'-2 x 10'-0 | |
| 1 | ht | Do | 2 | 0 | | 77 ✓ |
| 1 | F3 | SEE DETAIL SHT. No 1 | | | | 26 ✓ |
| 1 | E3 | do | | | | 26 ✓ |
| | | | | | | |
| 1 | S12 | 36 WF 135 | 38 | 9 3/8 | ord. BB58416 | 5235 ✓ |
| 1 | P1 | | | | Reqs. @ 20'-0 | 21 ✓ |
| 1 | hy | PL 11 x 1/2 | 2 | 0 | Reqs. PL 60'-2 x 10'-0 | |
| 1 | haa | Do | 2 | 0 | | 77 ✓ |
| 1 | F3 | SEE DETAIL SHT NO 1 | | | | 26 ✓ |
| 1 | E3 | do | | | | 26 ✓ |
| | | 5/16 F WELD | 118 | 0 | | 28 ✓ |
| | | 1/2 F WELD | 9 | 4 | | 8 ✓ |
| | | | | | | 21,413 ✓ |

JOB NO. SHEET NO.

## BILL OF MATERIAL (47)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| 2 | 6 1/8/11 | 36 WF 135 | 37 | 11 3/8 | S10, S11 ord. BB58416 | 10,257 ✓ |
| 2 | P1 | PL 5 x 1/2 | 2 | 6 | Reqs. @ 26'-0 | |
| 1 | P47 | ↓ | 2 | 6 | | |
| 1 | P53 | ↓ | 2 | 6 | | 85 ✓ |
| 4 | hv | PL 11 x 1/2 | 2 | 0 | Reqs. PL 60'-2 x 10'-0 | |
| 4 | hw | Do | 2 | 0 | | 305 ✓ |
| 2 | F3 | SEE DETAIL SHT. NO 1 | | | | 52 ✓ |
| 2 | E3 | Do | | | | 52 |
| | | | | | | |
| 1 | S9 | 36 WF 135 | 37 | 8 1/2 | ord. BB58416 | 5091 ✓ |
| 1 | P47 | PL 5 x 1/2 | 2 | 6 | Reqs. @ 20'-0 | 21 ✓ |
| 1 | hp | PL 11 x 1/2 | 2 | 0 | Reqs. PL 60'-2 x 10'-0 | |
| 1 | ht | Do | 2 | 0 | | 77 ✓ |
| 1 | F3 | SEE DETAIL SHT. No 1 | | | | 26 ✓ |
| 1 | E3 | do | | | | 26 ✓ |
| | | | | | | |
| 1 | S12 | 36 WF 135 | 38 | 9 3/8 | ord. BB58416 | 5235 ✓ |
| 1 | P1 | | | | Reqs. @ 20'-0 | 21 ✓ |
| 1 | hy | PL 11 x 1/2 | 2 | 0 | Reqs. PL 60'-2 x 10'-0 | |
| 1 | haa | Do | 2 | 0 | | 77 ✓ |
| 1 | F3 | SEE DETAIL SHT NO 1 | | | | 26 ✓ |
| 1 | E3 | do | | | | 26 ✓ |
| | | 5/16 F WELD | 118 | 0 | | 28 ✓ |
| | | 1/2 F WELD | 9 | 4 | | 8 ✓ |
| | | | | | | 21,413 ✓ |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-29-66 J.B.

| | | DATE |
|---|---|---|
| DRAWN BY | SWH | |
| CK'D BY | JE | |

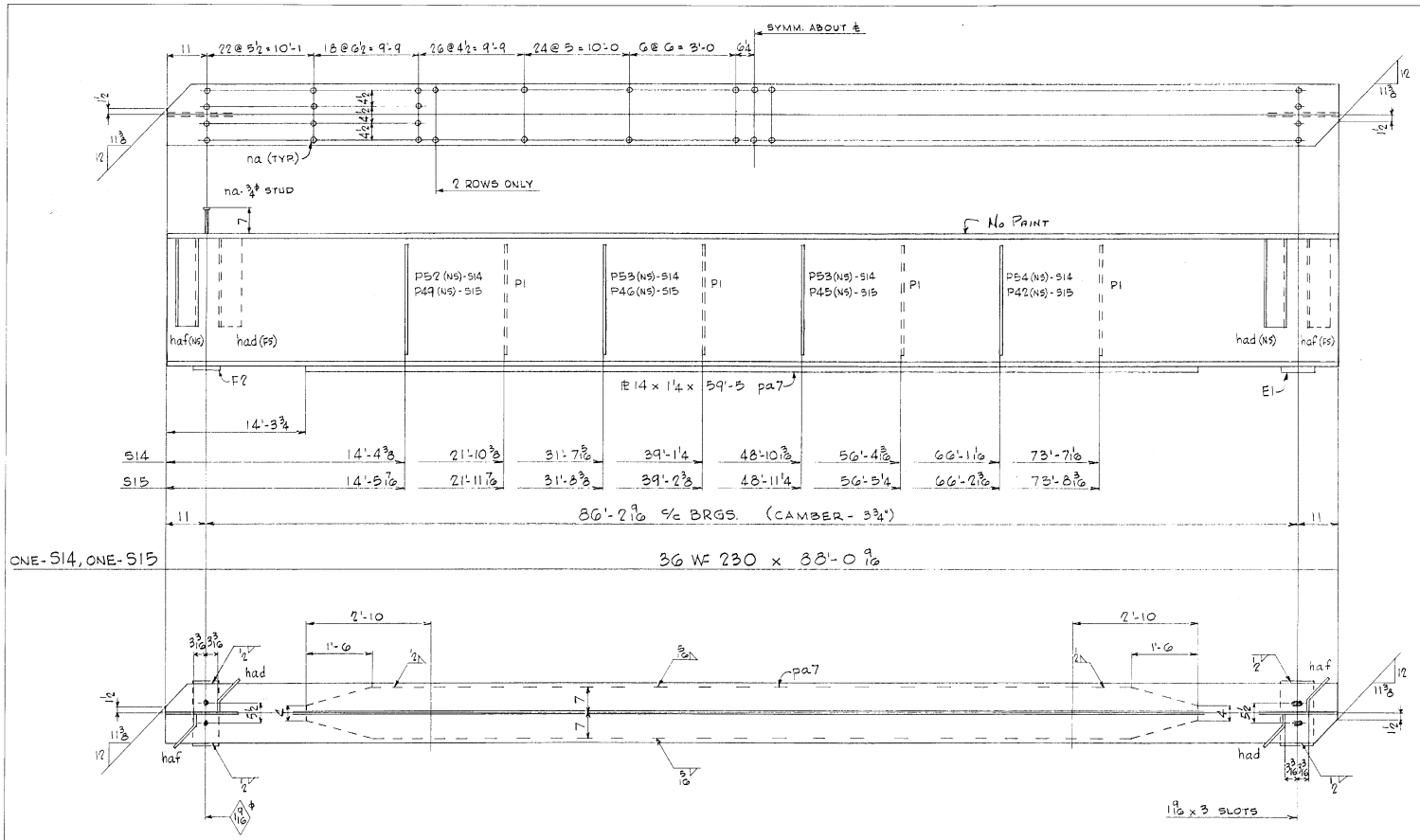
HOLES AS NOTED
BOLTS
PAINT R.L (VT. SPECS)

PROJECT T.H. #15 & #15 OVER I 89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 SHEET NO. 6

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 3 | APP | 8-5 |
| 4 (2) | SHOP | 9-16 |
| 2 | STATE | 9-6 |
| 1 | ITL | 10-17 |

M 1063 QCP




NOTE: SEE SHT. Nº S1, S2 FOR WEB PL DETAILS.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|

JOB NO. SHEET NO.

## BILL OF MATERIAL

(17)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| 2 | S14/S15 | 36 WF 230 | 88 | 0 9/16 | S14, S15 ORD. B85846 | 40,504 ✓ |
| 2 | pa7 | PL 14 x 1¼ | 59 | 5 | ORD. B86078 | 7194 ✓ |
| 8 | P1 | PL 5 x ½ | 2 | 6 | | |
| 1 | P42 | | 2 | 6 | | |
| 1 | P45 | | 2 | 6 | | |
| 1 | P46 | | 2 | 6 | RES. @ 20-0 | |
| 1 | P49 | | 2 | 6 | | |
| 1 | P52 | | 2 | 6 | | |
| 2 | P53 | | 2 | 6 | | |
| 1 | P54 | | 2 | 6 | | 340 ✓ |
| 4 | had | PL 11 x ½ | 2 | 0 | BEND } Res. PL. | |
| 4 | haf | Do | 2 | 0 | Do } 60x½x10-0 | 305 ✓ |
| | | Cont. 66-1175-426 | | | | |
| 1108 | na | ¾ϕ STUDS | 0 | 7 | STK | 1114 ✓ |
| 2 | F2 | SEE DETAIL SHT. Nº 1 | | | | 70 ✓ |
| 2 | E1 | Do | | | | 136 ✓ |
| | | 5/16 F WELD | 327 | 8 | | 118 ✓ |
| | | ½ F WELD | 29 | 4 | | 24 ✓ |
| | | | | | | 49,805 ✓ Ship wt. |
| | | | | | — Studs | 1114 ✓ |
| | | | | | | 48,691 ✓ Bill wt |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-29-66 J.B.

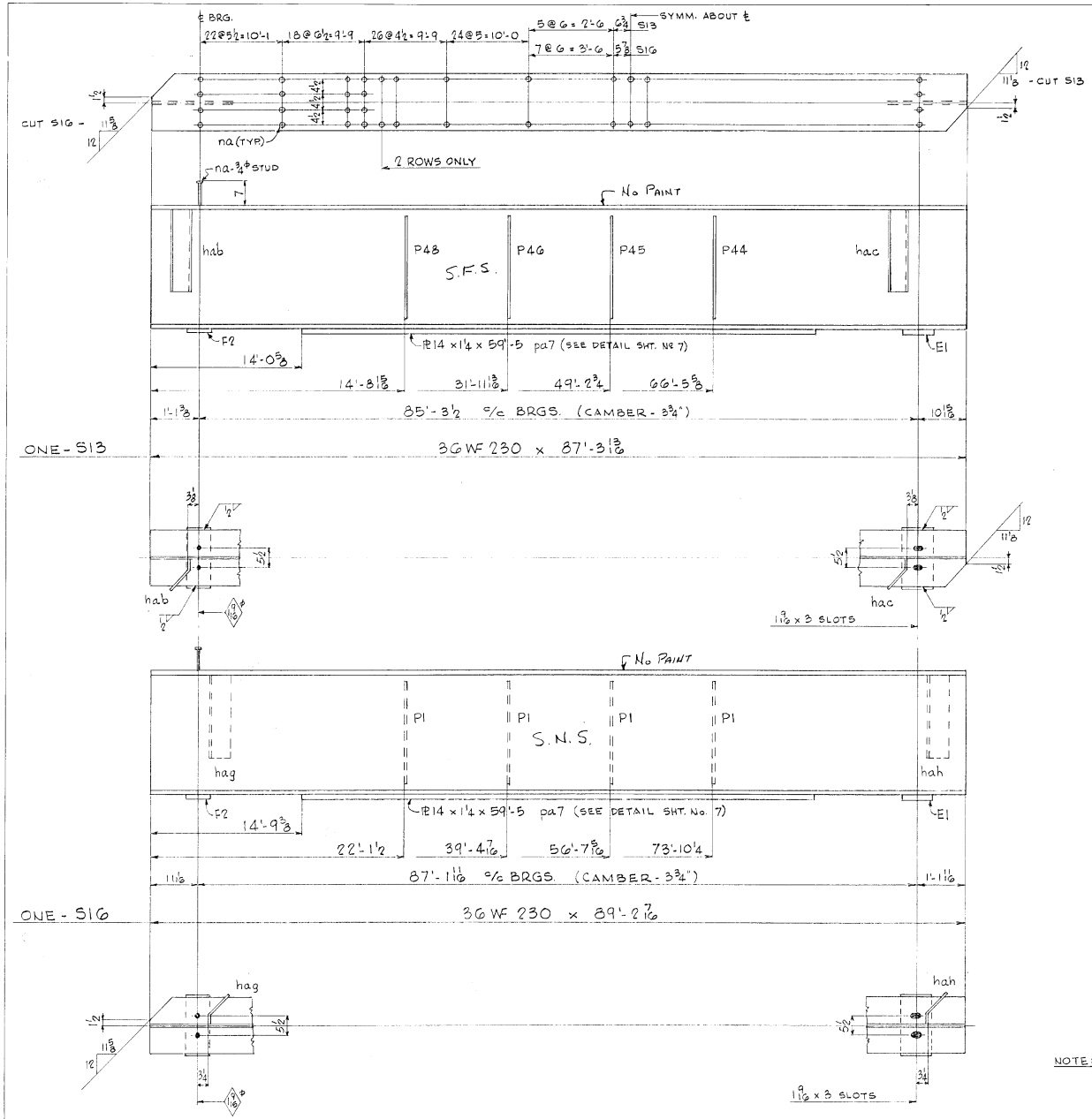
| | | DATE |
|---|---|---|
| DRAWN BY | S.W.H. | |
| CK'D BY | JE | |

HOLES AS NOTED
BOLTS
PAINT R.L. (VT. SPECS.)

PROJECT T.H. #25 & #15 OVER I 89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 -426 SHEET NO. 7

| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-29 |
| 4 (1) | Shop | 9-6 |
| 2 | State | 9-6 |
| 1 | J.T.L. | 10-17 |

1063 QCP




NOTE: SEE SHT. No S1, S2 FOR WEB PL DETAILS

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|

JOB NO. ..... SHEET NO. .....

## BILL OF MATERIAL (17)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|---|
| | 1 | S13 | 36 WF 230 | 87 | 3 13/16 | ORD. B85846 | 20,084 ✓ |
| | 1 | pa7 | PL 14 x 1¼ | 59 | 5 | ORD. B86078 | 3597 ✓ |
| | 1 | P44 | PL 5 x ½ | 2 | 6 | Res. @ 20-0 | |
| | 1 | P45 | | 2 | 6 | | |
| | 1 | P46 | | 2 | 6 | | |
| | 1 | P48 | | 2 | 6 | | 85 ✓ |
| | 1 | hab | PL 11 x ½ | 2 | 0 | BEND Res. PL | |
| | 1 | hac | Do | 2 | 0 | 60x½x10-0 | 77 ✓ |
| * | 550 | na | ¾φ STUDS | 0 | 7 | STK. | 553 ✓ |
| | 1 | S16 | 36 WF 230 | 89 | 2 7/16 | ORD. B85846 | 20,518 ✓ |
| | 1 | pa7 | | | | ORD. B86078 | 3597 ✓ |
| | 4 | P1 | PL 5 x ½ | 2 | 6 | Res. @ 20-0 | 85 ✓ |
| | 1 | hag | PL 11 x ½ | 2 | 0 | BEND Res. PL | |
| | 1 | hah | Do | 2 | 0 | Do 60x½x10-0 | 77 ✓ |
| * | 558 | na | | | | STK. | 561 ✓ |
| Note → | | * | Studs on Cont. 66-1175-426 | | | | |
| | 2 | F2 | SEE DETAIL SHT. No 1 | | | | 70 ✓ |
| | 2 | E1 | Do | | | | 136 ✓ |
| | | | 5/16 F WELD | 271 | 8 | | 98 ✓ |
| | | | ½ F WELD | 29 | 4 | | 24 ✓ |
| | | | | | | | 49,562 ✓ Ship wt. |
| | | | | | | — Studs | 1114 ✓ |
| | | | | | | | 48,448 ✓ Bill wt. |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-29-66 J.B.

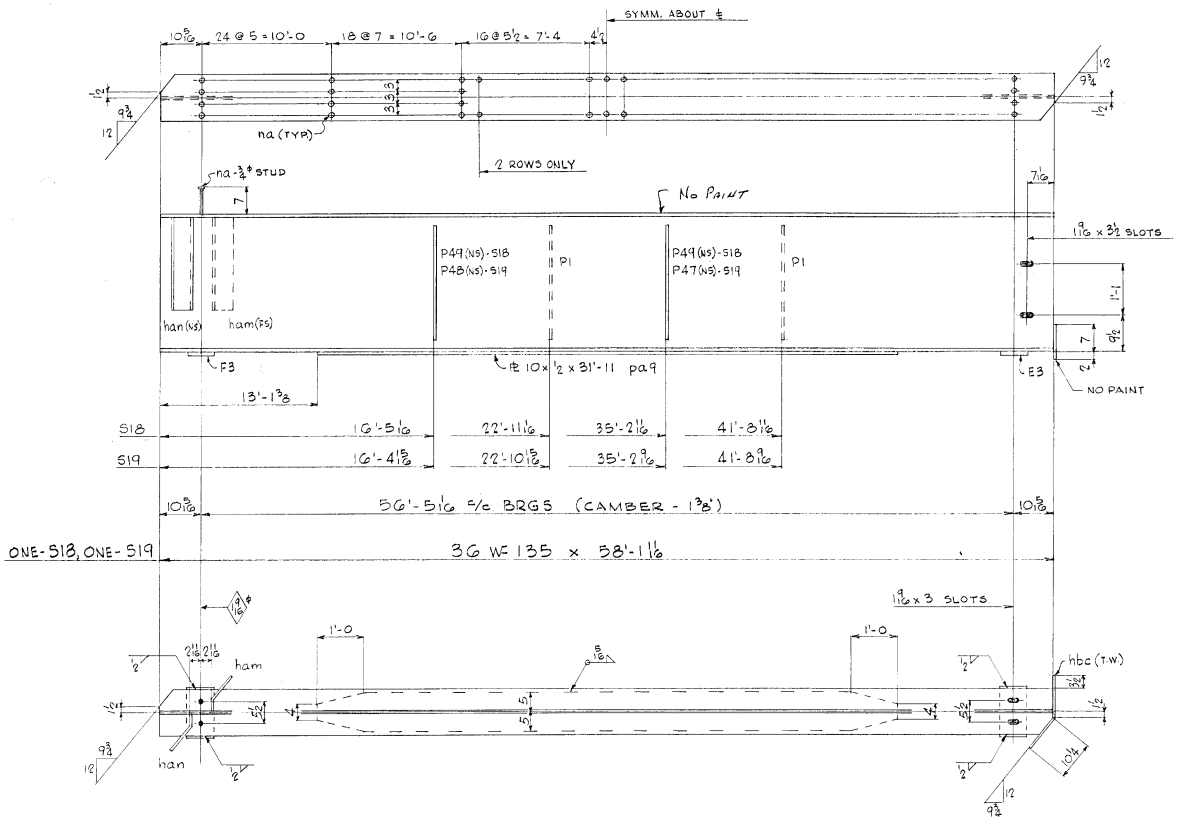
| | | DATE |
|---|---|---|
| DRAWN BY | SWH | |
| CK'D BY | JE | |

HOLES AS NOTED
BOLTS
PAINT R.L. (VT. SPECS.)

PROJECT T.H. #25 & #15 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 -426 SHEET NO. 8

| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-5 |
| 4 | Shop | 9-6 |
| 2 | Stand | 9-6 |
| 1 | J.T.L. | 10-17 |

SM 10-63 QCP




NOTES: SEE SHT. Nº 51, 52 FOR DETAILS OF WEB PL's.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|

JOB NO. ..... SHEET NO. .....

## BILL OF MATERIAL

(17)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| 2 | S18/S19 | 36 WF 135 | 58 | 1 11/16 | ORD. B85846 S18, S19 | 15,699 ✓ |
| 2 | pa9 | PL 10 x ½ | 31 | 11 | ORD. B86078 | 1107 ✓ |
| 4 | P1 | PL 5 x ½ | 2 | 6 | RES. @ 20-0 | |
| 1 | P47 | | 2 | 6 | | |
| 1 | P48 | | 2 | 6 | | |
| 2 | P49 | | 2 | 6 | | 170 ✓ |
| 2 | ham | PL 11 x ½ | 2 | 0 | BEND RES PL | |
| 2 | han | Do | 2 | 0 | Do 60x½x10-0 | 153 ✓ |
| 2 | hbc | PL 9 x ¼ | 1 | 9¼ | Do RES. PL 48x¼x10-0 | 28 ✓ |
| * 820 | na | ¾φ STUDS | 0 | 7 | STK | 824 ✓ |
| 2 | F3 | SEE DETAIL SHT. Nº 1 | | | | 52 ✓ |
| 2 | E3 | Do | | | | 52 ✓ |
| * Note → Studs on Cont. 66-1175-426 | | | | | | |
| | | 5/16 F WELD | 185 | 0 | | 67 ✓ |
| | | ½ F WELD | 2 | 8 | | 2 ✓ |
| | | | | | | 18,154 ✓ Ship wt. |
| | | | | | — Studs | 824 ✓ |
| | | | | | | 17,330 ✓ Bill wt. |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-29-66 J.B.

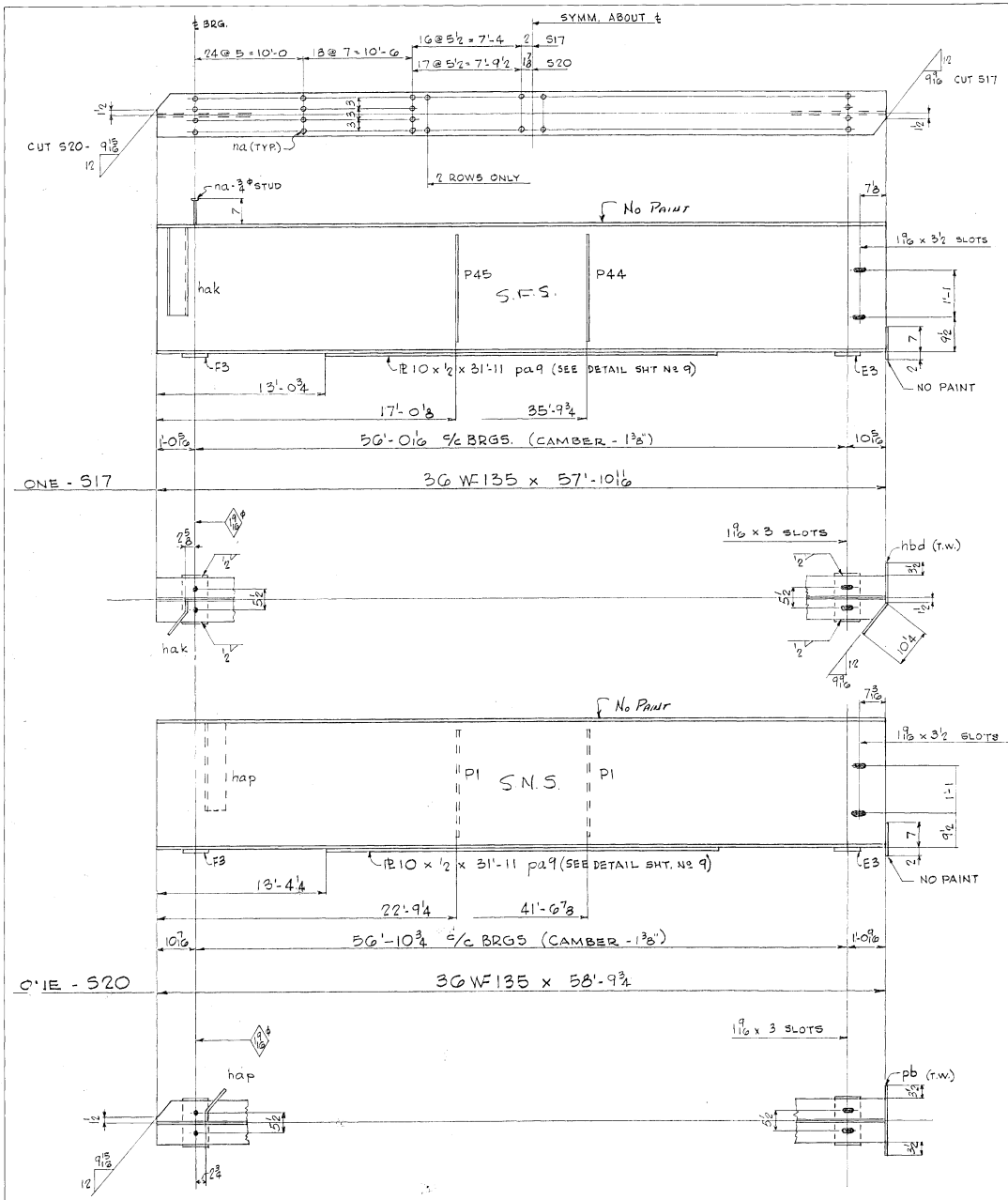
| | | DATE |
|---|---|---|
| DRAWN BY | S.W.H. | |
| CK'D BY | JE | |

HOLES AS NOTED
BOLTS
PAINT R.L. (VT. SPECS)

PROJECT T.H. #25 & #15 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 -426 SHEET NO. 9

| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | App | 9-5 |
| 4 (1) | Shop | 9-6 |
| 2 | State | 9-6 |
| 1 | J.T.L. | 10-17 |

SM 10-63 QCP




NOTE: SEE SHT. Nº S1 & S2 FOR WEB PL DETAILS.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| | | | | | | |

JOB NO. ..... SHEET NO. .....

## BILL OF MATERIAL (17)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|---|
| | 1 | S17 | 36 WF 135 | 57 | 10¹¹⁄₁₆ | ORD. B35846 | 7816 ✓ |
| | 1 | pa9 | PL 10 x ½ | 31 | 11 | ORD. B86076 | 554 ✓ |
| | 1 | P44 | PL 5 x ½ | 2 | 6 | PRES. @ 20-0 | |
| | 1 | P45 | Do | 2 | 6 | | 43 ✓ |
| | 1 | hak | PL 11 x ½ | 2 | 0 | BEND PRES. @ 20'-0 X 10'-0 | 38 ✓ |
| | 1 | hbd | PL 9 x ¼ | | 9¼ | Do PRES. @ 18'-6 X 12'-0 | 14 ✓ |
| * | 408 | na | ¾ϕ STUD | 0 | 7 | STK. | 410 ✓ |
| | 1 | F3 | SEE DETAIL SHT. Nº 1 | | | | 26 ✓ |
| | 1 | E3 | Do | | | | 26 |
| | | | | | | | |
| | 1 | S20 | 36 WF 135 | 58 | 9¾ | ORD. B35846 | 7940 ✓ |
| | 1 | pa9 | | | | ORD. B86076 | 554 ✓ |
| | 2 | P1 | PL 5 x ½ | 2 | 6 | PRES. @ 20-0 | 43 ✓ |
| | 1 | hap | PL 11 x ½ | 2 | 0 | BEND PRES. @ 18'-6 X 10'-0 | 38 ✓ |
| | 1 | pb | PL 9 x ¼ | 1 | 7 | PRES. @ 18'-6 X 10'-0 | 12 ✓ |
| * | 412 | na | | | | STK. | 414 ✓ |
| | 1 | F3 | SEE DETAIL SHT. Nº 1 | | | | 26 ✓ |
| | 1 | E3 | Do | | | | 26 |

NOTE → * STUDS ON CONST. GG-1175-426

| | | | |
|---|---|---|---|
| 5/16 WELD | 157 | 0 | 57 ✓ |
| ½ WELD | 5 | 4 | 4 ✓ |
| | | | 18,041 ✓ Ship wt. |
| | | - Studs | 824 ✓ |
| | | | 17,217 ✓ Bill wt. |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-29-66 J.G.

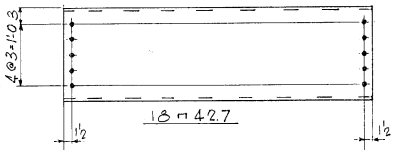
| | | DATE |
|---|---|---|
| DRAWN BY | S.W.H. | |
| CK'D BY | JE | |

HOLES AS NOTED
BOLTS
PAINT RL. (VT. SPECS.)

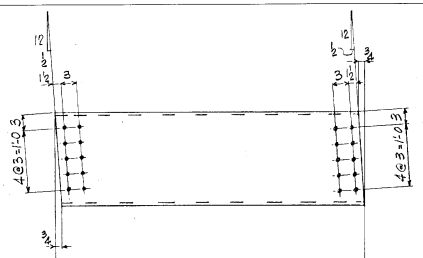
PROJECT T.H. *25 & *15 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. GG-1175-400 -426
SHEET NO. 10

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | APP | 8-5 |
| 4D | SHOP | 9-6 |
| 2 | STATE | 9-6 |
| 1 | I.T.L. | 10-17 |

SM 1063 QCP

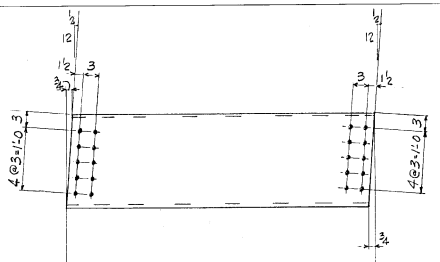



| | | OVERALL LENGTH |
|---|---|---|
| ONE - D1 | 7'-1⅜ | 7'-2⅞ |
| ONE - D2 | 6'-9 | 6'-10½ |
| ONE - D3 | 6'-4 11/16 | 6'-6 3/16 |
| 12 - D4 | 7'-5¾ | 7'-7¼ |
| ONE - D5 | 7'-4 7/16 | 7'-5 15/16 |
| ONE - D6 | 7'-0 9/16 | 7'-2 1/16 |
| ONE - D7 | 6'-8¾ | 6'-10¼ |
| ONE - D8 | 7'-1¾ | 7'-3¼ |
| ONE - D9 | 6'-10 7/16 | 6'-11 15/16 |
| ONE - D10 | 6'-7 3/16 | 6'-8 1/16 |
| ONE - D11 | 6'-3⅜ | 6'-5⅜ |
| ONE - D12 | 7'-2½ | 7'-4 |
| 2 - D13 | 6'-11¼ | 7'-0¾ |
| ONE - D14 | 6'-8 1/16 | 6'-9 9/16 |
| ONE - D15 | 6'-8½ | 6'-10 |
| 3 - D16 | 7'-5⅜ | 7'-7⅜ |
| ONE - D17 | 7'-0 5/16 | 7'-1 13/16 |
| ONE - D18 | 7'-0⅜ | 7'-1⅞ |
| 2 - D19 | 6'-10 | 6'-11½ |
| ONE - D20 | 6'-7⅝ | 6'-9⅛ |
| ONE - D21 | 6'-5¼ | 6'-6¾ |
| ONE - D22 | 7'-3⅜ | 7'-5⅜ |
| ONE - D23 | 7'-1 9/16 | 7'-3 1/16 |
| ONE - D24 | 6'-8 15/16 | 6'-10 7/16 |
| ONE - D25 | 6'-7 15/16 | 6'-9 7/16 |
| ONE - D26 | 7'-1⅛ | 7'-2⅝ |
| ONE - D27 | 6'-10 13/16 | 7'-0 5/16 |




ONE EACH

| | | |
|---|---|---|
| D28 | 18 n 42.7 | x 10'-5 9/16 |
| D29 | | x 13'-2⅝ |
| D30 | | x 11'-5 |
| D34 | | x 9'-3½ |
| D35 | | x 11'-7¾ |
| D36 | | x 10'-0 |
| D40 | | x 9'-2⅛ |
| D41 | | x 10'-8¾ |
| D42 | | x 9'-9¼ |
| D46 | | x 8'-2⅞ |
| D47 | | x 10'-0 |
| D48 | | x 8'-9¼ |




ONE EACH

| | | |
|---|---|---|
| D31 | 18 n 42.7 | x 11'-5⅜ |
| D32 | | x 11'-7¾ |
| D33 | | x 12'-2¼ |
| D37 | | x 9'-10¼ |
| D38 | | x 10'-8¾ |
| D39 | | x 10'-5 9/16 |
| D43 | | x 9'-7 13/16 |
| D44 | | x 10'-0 |
| D45 | | x 10'-1⅜ |
| D49 | | x 8'-8¼ |
| D50 | | x 9'-4¼ |
| D51 | | x 9'-1⅜ |

## BILL OF MATERIAL (41)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | WEIGHT |
|---|---|---|---|---|---|
| 1 | D1 | 18 n 42.7 | 7 | 2⅞ | |
| 1 | D2 | | 6 | 10½ | |
| 1 | D3 | | 6 | 6 3/16 | |
| 12 | D4 | | 7 | 7¼ | |
| 1 | D5 | | 7 | 5 15/16 | |
| 1 | D6 | | 7 | 2 1/16 | |
| 1 | D7 | | 6 | 10¼ | |
| 1 | D8 | | 7 | 3¼ | |
| 1 | D9 | | 6 | 11 15/16 | |
| 1 | D10 | | 6 | 8 1/16 | |
| 1 | D11 | | 6 | 5⅜ | |
| 1 | D12 | | 7 | 4 | |
| 2 | D13 | | 7 | 0¾ | |
| 1 | D14 | | 6 | 9 7/16 | |
| 1 | D15 | | 6 | 10 | |
| 3 | D16 | | 7 | 7⅜ | |
| 1 | D17 | | 7 | 1 13/16 | |
| 1 | D18 | | 7 | 1⅞ | |
| 2 | D19 | | 6 | 11½ | ORD. |
| 1 | D20 | | 6 | 9⅛ | @ 55-0 |
| 1 | D21 | | 6 | 6¾ | 385848 |
| 1 | D22 | | 7 | 5⅜ | |
| 1 | D23 | | 7 | 3 1/16 | |
| 1 | D24 | | 6 | 10 7/16 | |
| 1 | D25 | | 6 | 9 7/16 | |
| 1 | D26 | | 7 | 2⅝ | |
| 1 | D27 | | 7 | 0 5/16 | |
| 1 | D28 | | 10 | 5 9/16 | |
| 1 | D29 | | 13 | 2⅝ | |
| 1 | D30 | | 11 | 5 | |
| 1 | D34 | | 9 | 3½ | |
| 1 | D35 | | 11 | 7¾ | |
| 1 | D36 | | 10 | 0 | |
| 1 | D40 | | 9 | 2⅛ | |
| 1 | D41 | | 10 | 8¾ | |
| 1 | D42 | | 9 | 9¼ | |
| 1 | D46 | | 8 | 2⅞ | 17,376 ✓ |

JOB NO. 66-1175-400 SHEET NO. 11

## BILL OF MATERIAL (41)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | WEIGHT |
|---|---|---|---|---|---|
| 1 | D47 | 18 n 42.7 | 10 | 0 | |
| 1 | D48 | | 8 | 9¼ | |
| 1 | D31 | | 11 | 5⅜ | |
| 1 | D32 | | 11 | 7¾ | ORD. |
| 1 | D33 | | 12 | 2¼ | @ 55-0 |
| 1 | D37 | | 9 | 10¼ | 385848 |
| 1 | D38 | | 10 | 8¾ | |
| 1 | D39 | | 10 | 5 9/16 | |
| 1 | D43 | | 9 | 7 13/16 | |
| 1 | D44 | | 10 | 0 | |
| 1 | D45 | | 10 | 1⅜ | |
| 1 | D49 | | 8 | 8¼ | |
| 1 | D50 | | 9 | 4¼ | |
| 1 | D51 | | 9 | 1⅜ | 6062 ✓ |

## FIELD BOLTS (NET COUNT) (11)

| | | | |
|---|---|---|---|
| 900 | ⅞" H.S. BOLTS | 2¼ | 831 ✓ |
| | | | 6893 ✓ |
| 900 | ⅞ HARD WASH | | 90 |
| | | | 6983 |

HOLES ARE FOR HIGH TENSILE BOLTS
They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 8-29-66 J.G.

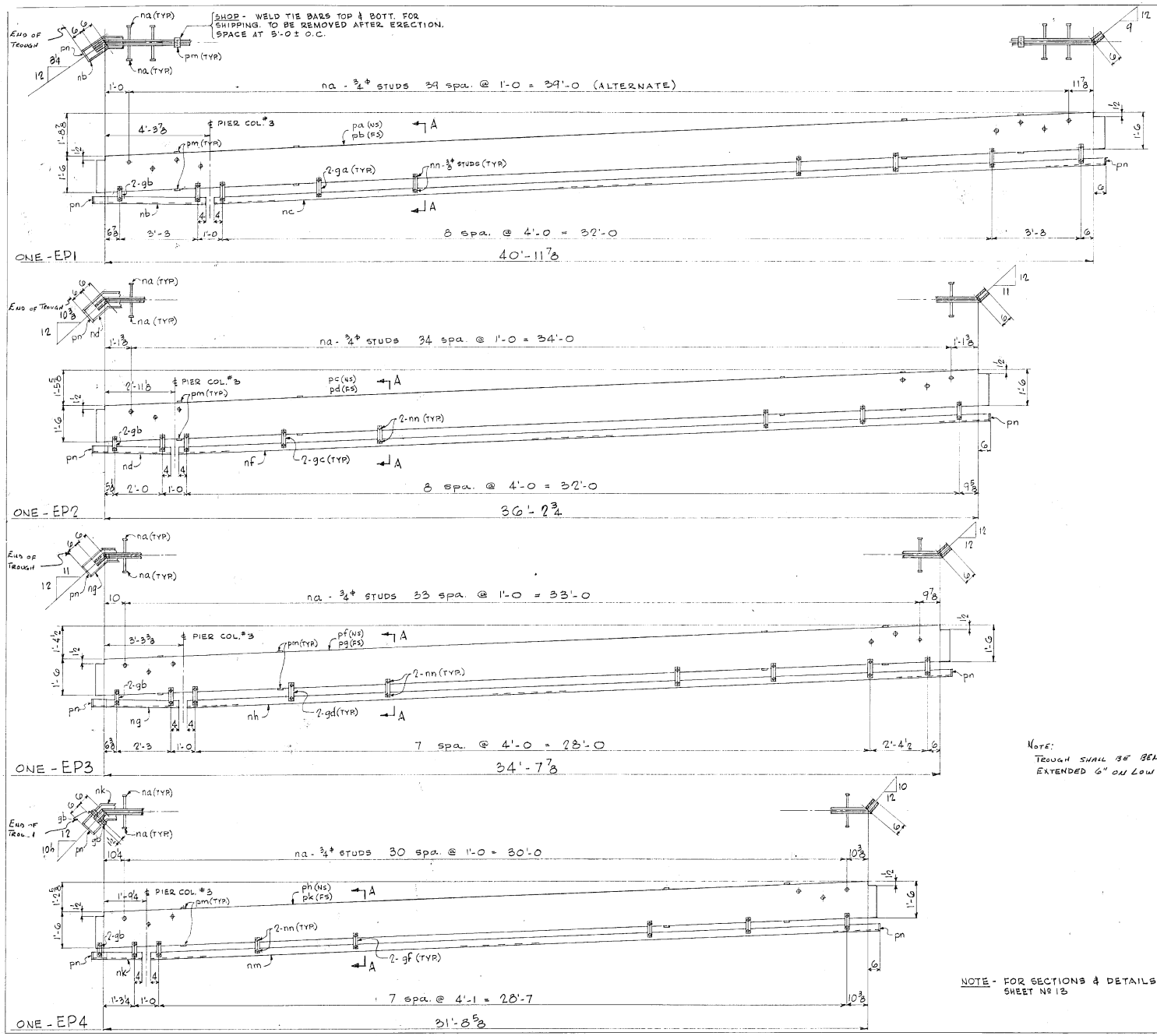
| | | DATE |
|---|---|---|
| DRAWN BY | SWH | |
| OK'D BY | JE | |

PROJECT T.H. #25 & #15 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 SHEET NO. 11

HOLES ⅞"ø
BOLTS
PAINT R.L. (VT. SPEC'S)

| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | APP | 8-5 |
| 40 | SHOP | 9-6 |
| 2 | STATE | 9-6 |
| 1 | ITL | 10-17 |

SM 10-63 GCP




NOTE:
TROUGH SHALL BE BENT AND EXTENDED 6" ON LOW END.

NOTE - FOR SECTIONS & DETAILS SEE SHEET № 13

## BILL OF MATERIAL (50)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| 1-EP3 | 1 | pf | PL 18 x ½ | 35 | 9 | } OR A36 OR A242 | | |
| | 1 | pg | Do | 35 | 9 | } 8.14'x2'x40-0 do | 2232 | ✓ |
| | 14 | pm | | | | } STK. | 6 | ✓ |
| | 68 | na | | | | | 68 | ✓ |
| | 1 | ng | (½ TUBE) 7 x 5 x ¼ | 4 | 1⅛ | } RES. @ 40-0 | | |
| | 1 | nh | Do | 31 | 8½ | | 331 | ✓ |
| | 2 | pn | | | | } STK. | 3 | ✓ |
| | 44 | nn | | | | | 1 | ✓ |
| | 44 | | ⅜ϕ NUTS & LOCK WASHERS | | | GALV. } | 1 | ✓ |
| | 20 | gd | Fl. 1¼ x ⅛ | | 7⅜ | } RES @ 20-0 | | |
| | 2 | gb | | | | | 7 | ✓ |
| 1-EP4 | 1 | ph | PL 18 x ½ | 32 | 9⅛ | } OR A36 OR A242 | | |
| | 1 | pk | Do | 32 | 9⅛ | } 8.14'x2'x40-0 do | 2048 | ✓ |
| | 10 | pm | | | | } STK. | 4 | ✓ |
| | 62 | na | | | | | 62 | ✓ |
| | 1 | nk | (½ TUBE) 7x5x¼ | 2 | 7⅝ | } RES. @ 40-0 | | |
| | 1 | nm | Do | 30 | 3⅛ | | 309 | ✓ |
| | 2 | pn | | | | } STK. | 3 | ✓ |
| | 40 | nn | | | | | 1 | ✓ |
| | 40 | | ⅜ϕ NUTS & LOCK WASHERS | | | GALV. | 1 | ✓ |
| | 18 | gf | Fl. 1¼ x ⅛ | 0 | 6⅛ | } RES @ 20-0 | | |
| | 2 | gb | | | | | 6 | ✓ |
| | | | | | | | 5089 | ✓ |

JOB NO. 66-1175-400 SHEET NO. 12

## BILL OF MATERIAL (50)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| 1-EP1 | 1 | pa | PL 18 x ½ | 42 | 1 | } OR A36 OR A242 | | |
| | 1 | pb | Do | 42 | 1 | } 8.14'x2'x40-0 do | 2627 | ✓ |
| | 16 | pm | PL 2 x ¼ | 0 | 3 | } STK. | 7 | ✓ |
| | 80 | na | ¾ϕ STUD | 0 | 7 | | 80 | ✓ |
| | 1 | nb | (½ TUBE) 7 x 5 x ¼ | 5 | 1⅝ | } RES. @ 20-0 | | |
| | 1 | nc | Do | 37 | 0⅛ | | 397 | ✓ |
| | 2 | pn | PL 3½ x ¼ | 0 | 7 | STK. | 3 | ✓ |
| | 48 | nn | ¾ϕ STUD (THR'D) | | 1 | Galv. } STK. | 2 | ✓ |
| | 48 | | ¾ϕ NUTS & LOCK WASHERS | | | } | 1 | ✓ |
| | 22 | ga | Fl. 1¼ x ⅛ | 0 | 7⅞ | } RES @ 20-0 | | |
| | 2 | gb | Do | 0 | 5½ | | 8 | ✓ |
| 1-EP2 | 1 | pc | PL 18 x ½ | 37 | 3⅜ | } OR A36 OR A242 | | |
| | 1 | pd | Do | 37 | 3⅜ | } 8.14'x2'x40-0 do | 2330 | ✓ |
| | 14 | pm | | | | } STK. | 6 | ✓ |
| | 70 | na | | | | | 70 | ✓ |
| | 1 | nd | (½ TUBE) 7 x 5 x ¼ | 3 | 8⅜ | } RES @ 40-0 | | |
| | 1 | nf | Do | 33 | 7½ | | 352 | ✓ |
| | 2 | pn | | | | } STK. | 3 | ✓ |
| | 44 | nn | | | | | 1 | ✓ |
| | 44 | | ¾ϕ NUTS & LOCK WASHERS | | | GALV. STK. | 1 | ✓ |
| | 20 | gc | Fl. 1¼ x ⅛ | 0 | 7¼ | } RES @ 20-0 | | |
| | 2 | gb | | | | | 7 | ✓ |
| | | | | | | | 5895 | ✓ |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

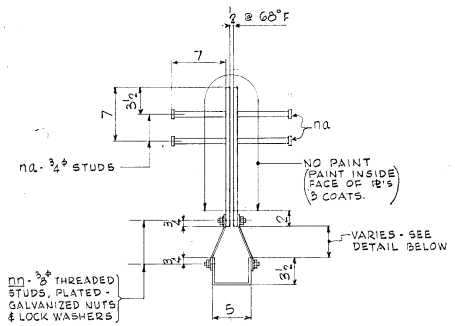
Rev. 8-21-66 J.G.

| | | DATE |
|---|---|---|
| DRAWN BY | SWH | |
| CKD BY | JE | |
| HOLES | | |
| BOLTS | | |
| PAINT | VT. SPEC'S. | |

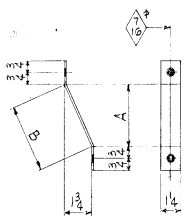
PROJECT T.H.#25 & #15 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 SHEET NO. 12

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | APP. | 8-12 |
| 3 | FIL APP | 8-29 |
| 4 | SHOP | 9-6 |
| 2 | STAGE | 9-6 |
| 1 | ITL | 10-17 |

SM 10.63 QCF



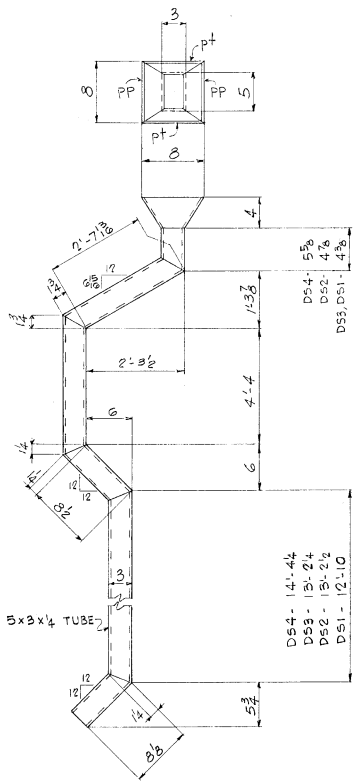

SECT. A-A



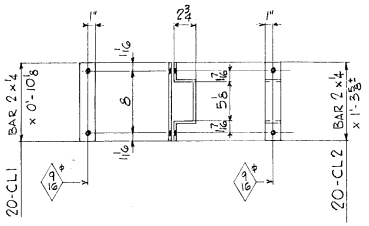

| No. | MARK | A | B |
|---|---|---|---|
| 22 | ga | 4 1/2 | 4 13/16 |
| 8 | gb | 2 | 2 11/16 |
| 20 | gc | 3 3/8 | 4 1/4 |
| 20 | gd | 4 | 4 3/8 |
| 18 | gf | 3 1/8 | 3 9/16 |

DETAIL STRAP HANGERS

NOTE: GALVANIZE AFTER FABRICATION
MAT'L. BILLED ON SHEET № 12




ONE - DS1
ONE - DS2
ONE - DS3
ONE - DS4




NOTE: GALVANIZE CLAMPS AFTER FABRICATION

NOTE: WORK THIS SHEET WITH SHEET № 12

BILL OF MATERIAL

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| 1-DS1 | 1 | | 5 x 3 x 1/4 TUBE | 22 | 0 3/8 | Res. @ 40-0 | 265 | ✓ |
| | 2 | PP | PL 8 x 1/4 | | 4 3/4 | } STK. | | |
| | 2 | pt | Do. | | 4 1/4 | | 11 | ✓ |
| 1-DS2 | 1 | | 5 x 3 x 1/4 TUBE | 22 | 5 3/4 | Res. @ 40-0 | 270 | ✓ |
| | 2 | PP | | | | } STK. | | |
| | 2 | pt | | | | | 11 | ✓ |
| 1-DS3 | 1 | | 5 x 3 x 1/4 TUBE | 22 | 5 ± | Res. @ 40-0 | 269 | ✓ |
| | 2 | PP | | | | } | | |
| | 2 | pt | | | | STK | 11 | ✓ |
| 1-DS4 | 1 | | 5 x 3 x 1/4 TUBE | 23 | 8 1/2 | Res @ 40-0 | 285 | ✓ |
| | 2 | PP | | | | } | | |
| | 2 | pt | | | | (53) STK | 11 | ✓ |
| 20-CL1 | 20 | | BAR 2 x 1/4 | | 10 1/8 | GALV. AFTER FABRICATION Res. @20-0 | | |
| 20-CL2 | 20 | | Do | 1 | 3 5/8 | Do | 73 | ✓ |
| | | | | | | | | 1206 ✓ |

JOB NO. ..... SHEET NO. .....

BILL OF MATERIAL (52)

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| 1-DS1 | 1 | | 5 x 3 x 1/4 TUBE | 22 | 0 3/8 | Res. @ 40-0 | 265 | ✓ |
| | 2 | PP | PL 8 x 1/4 | | 4 3/4 | } STK. | | |
| | 2 | pt | Do. | | 4 1/4 | | 11 | ✓ |
| 1-DS2 | 1 | | 5 x 3 x 1/4 TUBE | 22 | 5 3/4 | Res. @ 40-0 | 270 | ✓ |
| | 2 | PP | | | | } STK. | | |
| | 2 | pt | | | | | 11 | ✓ |
| 1-DS3 | 1 | | 5 x 3 x 1/4 TUBE | 22 | 5 ± | Res. @ 40-0 | 269 | ✓ |
| | 2 | PP | | | | } | | |
| | 2 | pt | | | | STK | 11 | ✓ |
| 1-DS4 | 1 | | 5 x 3 x 1/4 TUBE | 23 | 8 1/2 | Res @ 40-0 | 285 | ✓ |
| | 2 | PP | | | | } | | |
| | 2 | pt | | | | (53) STK | 11 | ✓ |
| 20-CL1 | 20 | | BAR 2 x 1/4 | | 10 1/8 | GALV. AFTER FABRICATION Res. @20-0 | | |
| 20-CL2 | 20 | | Do | 1 | 3 5/8 | Do | 73 | ✓ |
| | | | | | | | | 1206 ✓ |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

Rev. 3 29-66 JB.

| | | DATE |
|---|---|---|
| DRAWN BY | SNH. | |
| CK'D BY | JE | |
| HOLES | AS NOTED | |
| BOLTS | | |
| PAINT | VT. SPECS. | |

PROJECT T.H. #25 & #15 OVER I89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175-400 SHEET NO. 13

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-12 |
| 40 | Shop | 9-6 |
| 2 | State | 9-6 |
| 1 | ITL | 10-17 |

SM 1063 QCP

# BILL OF MATERIAL

| | NO. PIECES | DESCRIPTION | LENGTH FT. | LENGTH IN. | MARK | | WEIGHT |
|---|---|---|---|---|---|---|---|
| | 38 | 1" Φ PLAIN ROD | 4 | 0 | ✓ | STK | 342 ✓ |

via E. 2 Coil 10/10/66

MADE BY J.C.
C.K.D. BY

**VERMONT STRUCTURAL STEEL CORP.**

SOLD TO: E. T. O'NEIL & SON

DATE 10/10/66

SHIP TO: c/o T.H. 25 & 15 OVER I-89

PROJ. I-89-3(36) ST. ALBANS - SWANTON, VT.

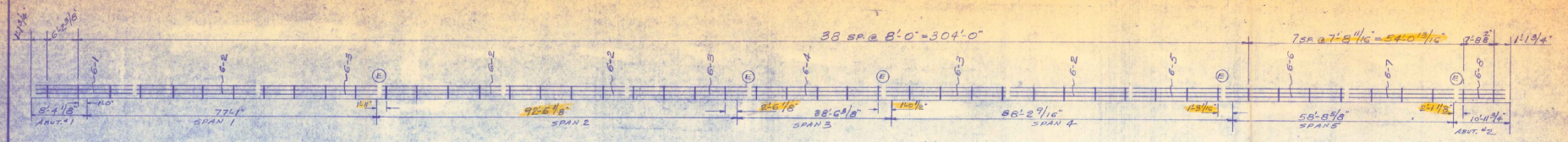
PUT CONTRACT NUMBER ON EACH PIECE IN ADDITION TO SHIPPING MARK

SHEET NO. [illegible] CONTRACT

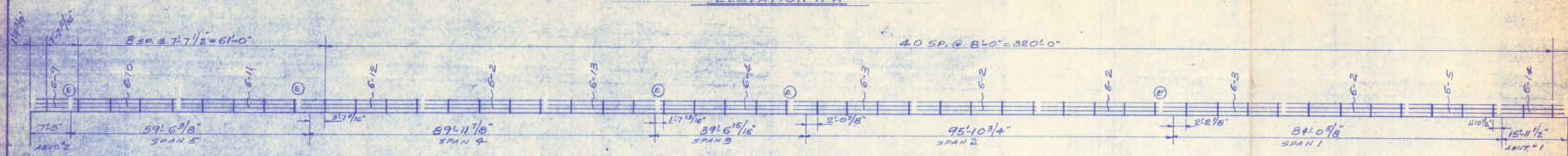
FORM S-[illegible]-64 10M OCP

X1

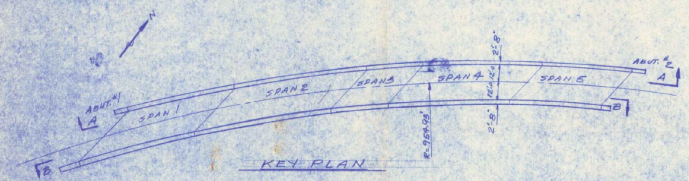
65-1175-400




ELEVATION A-A




ELEVATION B-B




KEY PLAN

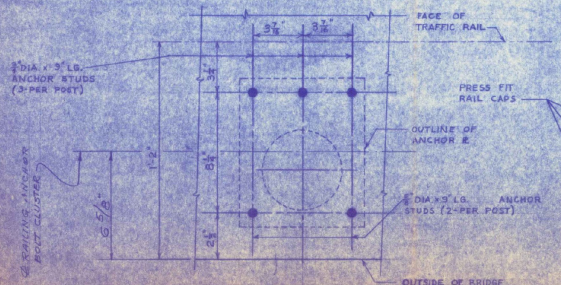
## BILL OF MATERIAL

WW# 736 DWG. # BR-126

| 4 3/4" x 4" SEMI-ELLIPTICAL TUBE (6061-T6) | | | 4" x 3 1/8" SEMI-ELLIPTICAL TUBE (6061-T6) | |
|---|---|---|---|---|
| MK | QUAN. | LGTH. | QUAN. | LGTH. |
| 6-1 | 2 | 22'-0 1/8" | 1 | 22'-10 1/2" |
| 6-2 | 16 | 31'-11 1/4" | 8 | 31'-11 1/4" |
| 6-3 | 10 | 31'-8" | 5 | 31'-8" |
| 6-4 | 4 | 34'-0" | 2 | 34'-0" |
| 6-5 | 4 | 23'-11 1/4" | 2 | 23'-11 1/4" |
| 6-6 | 2 | 30'-10 1/16" | 1 | 30'-10 1/16" |
| 6-7 | 2 | 28'-6" | 1 | 28'-6" |
| 6-8 | 2 | 9'-7 3/8" | 1 | 9'-7 3/8" |
| 6-9 | 2 | 7'-9 13/16" | 1 | 7'-9 13/16" |
| 6-10 | 2 | 24'-10 1/2" | 1 | 24'-10 1/2" |
| 6-11 | 2 | 30'-5 1/4" | 1 | 30'-5 1/4" |
| 6-12 | 2 | 31'-3 1/2" | 1 | 31'-3 1/2" |
| 6-13 | 2 | 29'-7 1/4" | 1 | 29'-7 1/4" |
| 6-14 | 2 | 16'-5 3/4" | 1 | 16'-5 3/4" |

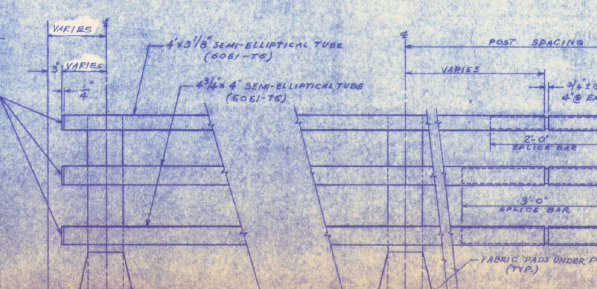
| | |
|---|---|
| 98 | POST #VT3 WITH CLAMP BARS |
| 98 | ANCHOR ASSEMBLIES |
| 4 | HAND RAIL END CAPS |
| 8 | BARRIER RAIL END CAPS |
| 25 | HAND RAIL SPLICE BARS |
| 50 | BARRIER RAIL SPLICE BARS |
| 98 | POST PAD SETS |

RECEIVED OCT 25 1966
CK'D BY GFT OK'D BY R.P. Mosbet
RESUBMIT ____ APPROVED ____
BY HWS DATE 12/27/66




PLAN AT ANCHOR BOLTS

BOLTS SHALL PROJECT 2 1/2" ABOVE FINAL POUR




DETAIL AT END POST




DETAIL AT RAILING JOINT

## NOTES

1. FOR NOTES, RAILING DETAILS & ANCHORAGE DETAILS SEE SHTS. 2 & 3 OF 3.
2. ONE SET OF 1/8" THICK "HEW-COR" PADS SHALL BE PLACED UNDER EA. POST.
3. ALL DIM'S ARE HORIZONTAL ALONG ARC AT ℄ ANCHOR BOLT CLUSTER.

OFFICE COPY

WARD WELLER CO., INC.
219 OAK STREET
NATICK, MASSACHUSETTS

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
PROJECT No. I 89-3-(36)C-1
IN ST. ALBANS-SWANTON
T.H. 25 & 15 OVER I 89

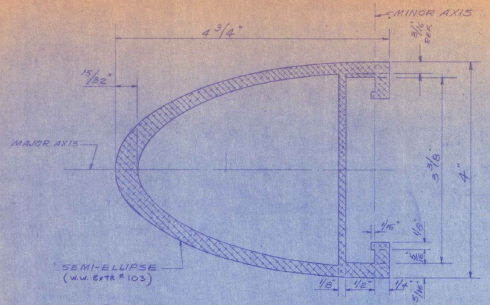
CONTRACTOR: E.T. O'NEILL

| ISSUE | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 2 | 10/25/66 | REV. PER ENGINEER | B. |
| 1 | 10/13/66 | FOR APPROVAL | H. |

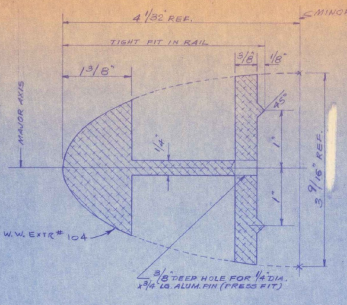
DR: H.R. SCALE: —
CH: WW# 736

BR-126

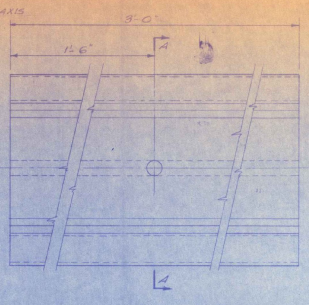
SHT. 1 OF 3



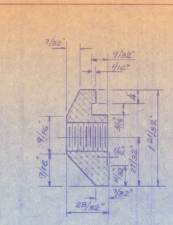

BARRIER RAIL SECTION
N.T.S.



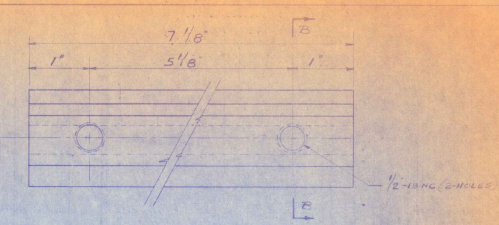

SECTION A-A



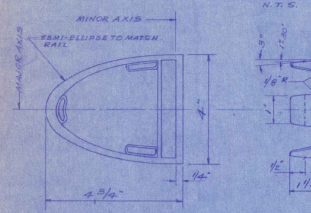
BARRIER RAIL SPLICE DETAIL
N.T.S.



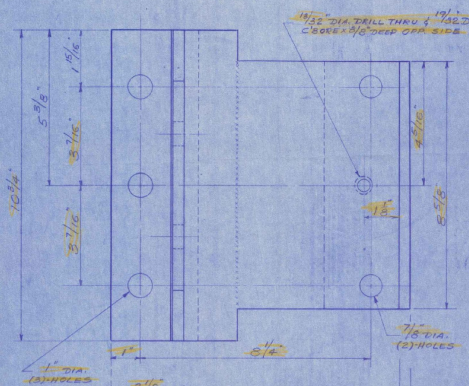
SECTION B-B

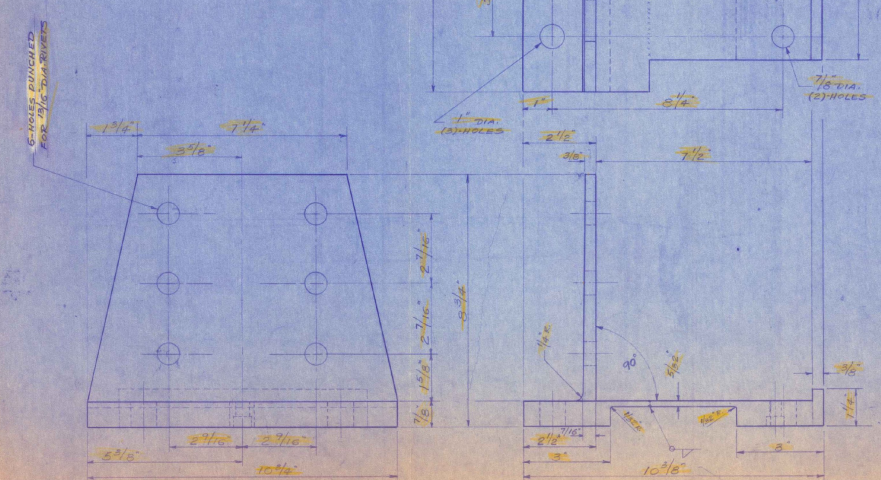



BARRIER RAIL CLAMP BAR DETAIL
FULL SIZE

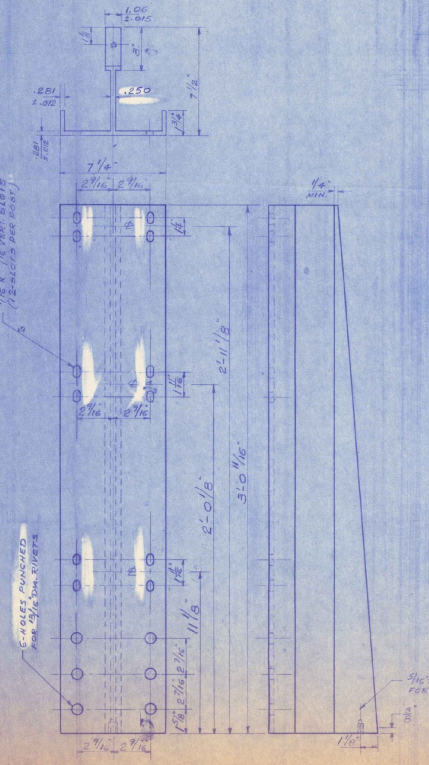



BARRIER RAIL CAP DETAIL
6" = 1'-0"




POST BASE DETAILS
6" = 1'-0"




POST STEM DETAILS
3" = 1'-0"

## GENERAL NOTES:

1. MATERIAL FOR ANCHOR BOLTS SHALL CONFORM TO ASTM 276 TYPE 430 STAINLESS STEEL.
2. MATERIAL FOR CLAMP SET SCREWS TO BE S.S. A.STM. A276 TYPE 430
3. MATERIAL FOR ANCHOR BOLT ℄ TO BE A.S.T.M. A7
4. EXPOSED ENDS OF RAIL TUBE SHALL BE CLOSED WITH DRIVE-IN TYPE RAIL END CAPS. CAPS SHALL BE ALUMINUM ALLOY SAND MOLD CASTING COMPLYING TO A.S.T.M. SPEC. B26 ALLOY SG 70A.
5. ALL WELDING SHALL BE METAL INERT GAS PROCESS.
6. RAILING SYSTEM SHALL BE CONTINOUS, WITH EACH RAIL SECTION ATTACHED TO A MIN. OF THREE POSTS, WHERE POSSIBLE. EACH JOINT IN RAIL LENGTH SHALL BE SPLICED.
7. ANCHOR BOLTS ARE TO BE PRESET IN CONCRETE BY MEANS OF TEMPLATES BY THE CONTRACTOR.
8. MATERIAL FOR ALUMINUM WASHERS SHALL BE A.S.T.M. B-209 ALLOY ALCLAD 2024-T4. MATERIAL FOR RIVETS SHALL BE A.S.T.M. B-316 OR B-221 ALLOY 6061-T6 OR 6062-T6. RIVETS SHALL BE BUTTON HEAD, CONE POINT AND COLD DRIVEN.
9. ALL ALUMINUM SURFACES IN CONTACT WITH POST PADS SHALL BE GIVEN ONE SHOP COAT OF ZINC CHROMATE PAINT.
10. FABRIC PAD SHALL BE PREFORMED FABRIC IN ACCORDANCE WITH A.A.S.H.O. SPEC. 2.10.3 (K).
11. MATERIAL FOR POSTS, BASES, SPLICE BARS, RAILS AND CLAMP BARS TO BE ALUM. EXTRUSIONS CONFORMING TO ASTM B-221 ALLOY 6061-T6 OR 6062-T6.
12. WELD FILLER WIRE SHALL BE ASTM B 285 ALLOY ER 5356

RECEIVED OCT 14 1966
CK'D BY _____ OK'D BY [signature]
RESUBMIT _____ APPROVED _____
BY HWS DATE 10/19/66

PROJ. I 89-3-(36) C-1

WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS

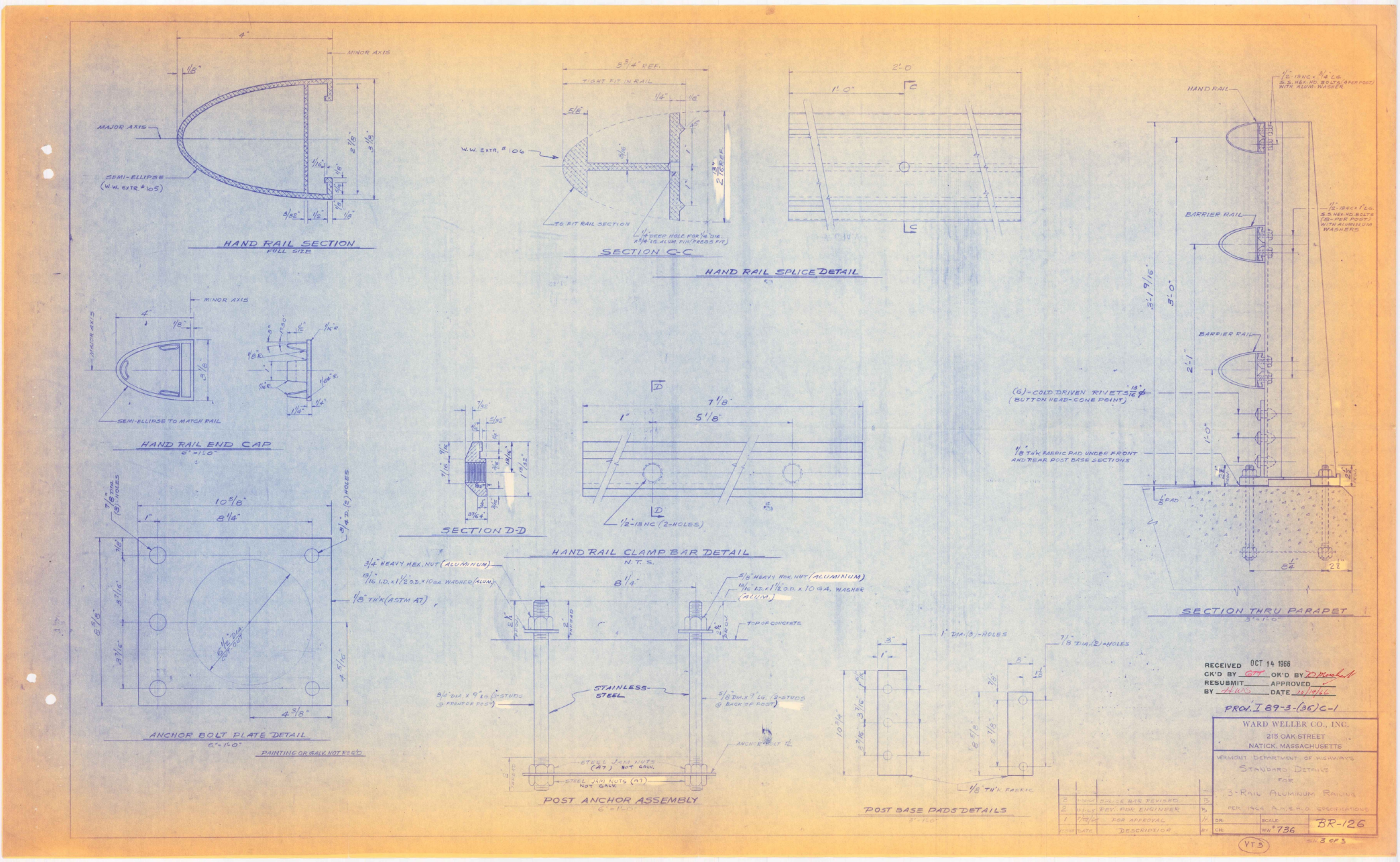
VERMONT DEPARTMENT OF HIGHWAYS
STANDARD DETAIL
FOR
3-RAIL ALUMINUM RAILING
PER 1965 A.A.S.H.O. SPECIFICATIONS

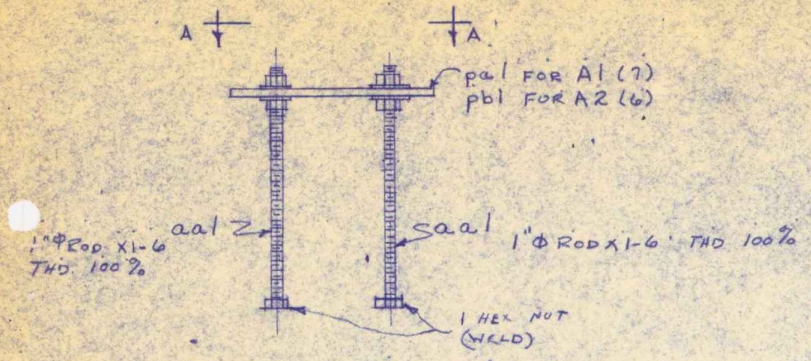
OFFICE COPY

| ISSUE | DATE | DESCRIPTION | BY |
|---|---|---|---|
| 3 | 11-30-65 | SPLICE BAR REVISED | P. |
| 2 | 11-2-65 | REV. PER ENGINEER | B |
| 1 | 7/22/65 | FOR APPROVAL | H. |

DR: SCALE: BR-126
CH: WW # 736
SH 2 OF 3

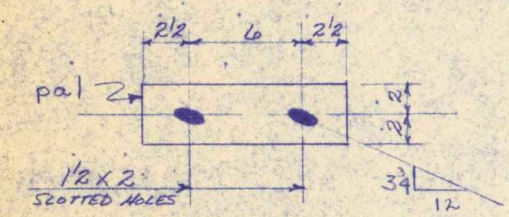
(YT3)

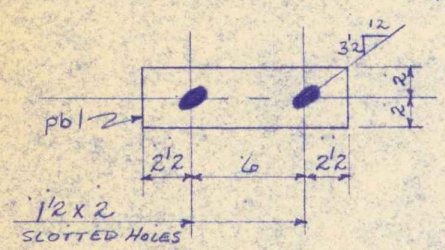

HAND RAIL SECTION
FULL SIZE
MINOR AXIS
MAJOR AXIS
SEMI-ELLIPSE (W.W. EXTR. #105)
SECTION C-C
TIGHT FIT IN RAIL
W.W. EXTR. #106
TO FIT RAIL SECTION
HAND RAIL SPLICE DETAIL
HAND RAIL END CAP
6" = 1'-0"
SEMI-ELLIPSE TO MATCH RAIL
SECTION D-D
HAND RAIL CLAMP BAR DETAIL
N.T.S.
1/2-13NC (2-HOLES)
ANCHOR BOLT PLATE DETAIL
6" = 1'-0"
PAINTING OR GALV. NOT REQ'D
1/8" TH'K (ASTM A7)
3/4" HEAVY HEX. NUT (ALUMINUM)
5/8" HEAVY HEX. NUT (ALUMINUM)
TOP OF CONCRETE
STAINLESS-STEEL
STEEL JAM NUTS (A7) NOT GALV.
POST ANCHOR ASSEMBLY
6" = 1'-0"
POST BASE PADS DETAILS
3" = 1'-0"
1/8" TH'K FABRIC
HAND RAIL
BARRIER RAIL
(6) - COLD DRIVEN RIVETS
(BUTTON HEAD-CONE POINT)
1/8" TH'K FABRIC PAD UNDER FRONT AND REAR POST BASE SECTIONS
SECTION THRU PARAPET
3" = 1'-0"
RECEIVED OCT 14 1966
CK'D BY GTT OK'D BY
RESUBMIT APPROVED
BY HWS DATE 10/19/66
PROJ. I 89-3-(36)C-1
WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS
VERMONT DEPARTMENT OF HIGHWAYS
STANDARD DETAILS FOR 3-RAIL ALUMINUM RAILING
PER 1964 A.A.S.H.O. SPECIFICATIONS
SCALE:
WW #736
BR-126
SH 3 OF 3
VT3
SPLICE BAR REVISED
REV. PER ENGINEER
FOR APPROVAL
DESCRIPTION




— 9 ASSEMBLIES A1 —

— 7 ASSEMBLIES A2 —




— SECTION A-A —

SHOP NOTE:
WILL PICK UP 6-22-66
9:00 A.M.

## BILL OF MATERIAL

(11)

| 100 | -200 | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|---|---|
| 9 | | — 9 ASSEMBLIES A1 — | | | | | | |
| | | 18 | aa1 | 1"Φ ROD THD. 100% | 1 | 6 | RES. @ 20'-0 | |
| | | 9 | pa1 | BAR 4 x ½ | 0 | 11 | STK. | |
| | | 54 | | 1" HEX NUTS | | | STK. | |
| | | 36 | | 1"Φ WASHERS | | | STK. | |
| | 7 | — 7 ASSEMBLIES A2 — | | | | | | |
| | | 14 | aa1 | 1"Φ ROD THD. 100% | 1 | 6 | RES. @ 20'-0 | |
| | | 7 | pb1 | PL. 4 x ½ | 0 | 11 | STK. | |
| | | 42 | | 1" HEX NUTS | | | STK. | |
| | | 28 | | 1"Φ WASHERS | | | STK. | |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

REV. 6-23-66 J.B.

| | | DATE |
|---|---|---|
| DRAWN BY | J.B. | 6-17-66 |
| C'K'D BY | | |

HOLES 1½ x 2 SLOTTED HOLES
BOLTS
PAINT NONE

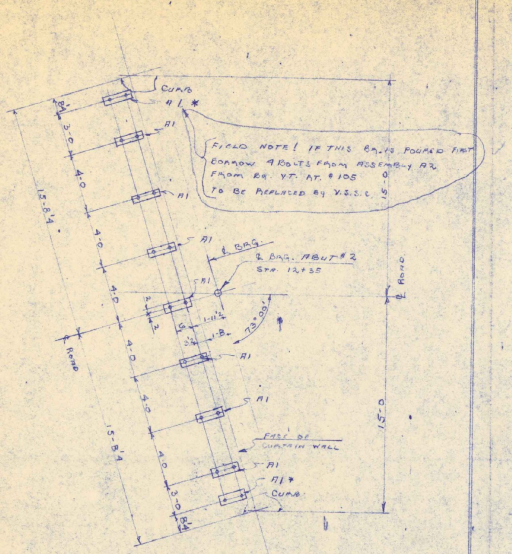
PROJECT I-89-3(36) CONT. #1
LOCATION ST. ALBANS - SWANTON
CUSTOMER E.T. O'NEIL & SON CONST. CO.
ARCHITECT STATE OF VERMONT
JOB NO. 66-1175-100 -200
SHEET NO. 1

PRINT RECORD

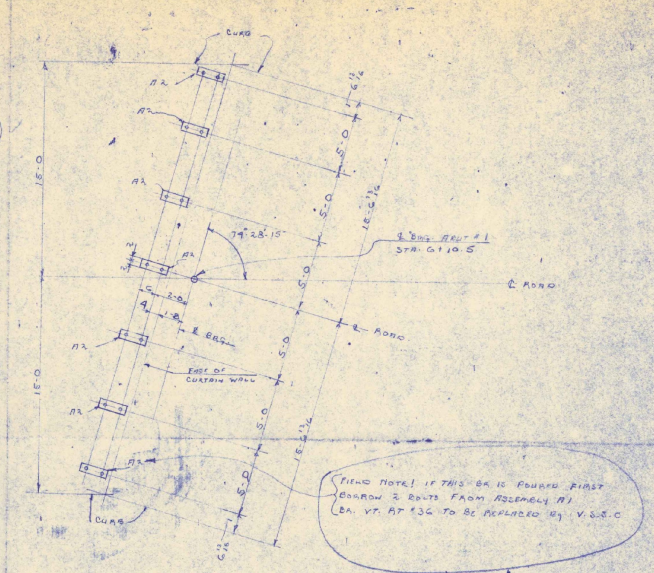
| NO. | FOR | DATE |
|---|---|---|
| 4D | SHOP | 6-16 |
| 2 | HOWE | 6-16 |
| 4D | SHOP | 6-23 |
| 3 | APP | 6-23 |
| 2 | HOWE | 6-23 |

2 STATE 6-30

10M 7-65 QCP




ABUT # 2 VT. RT. # 36 OVER I-89
V.S.S.C CONT. GG-1175-100



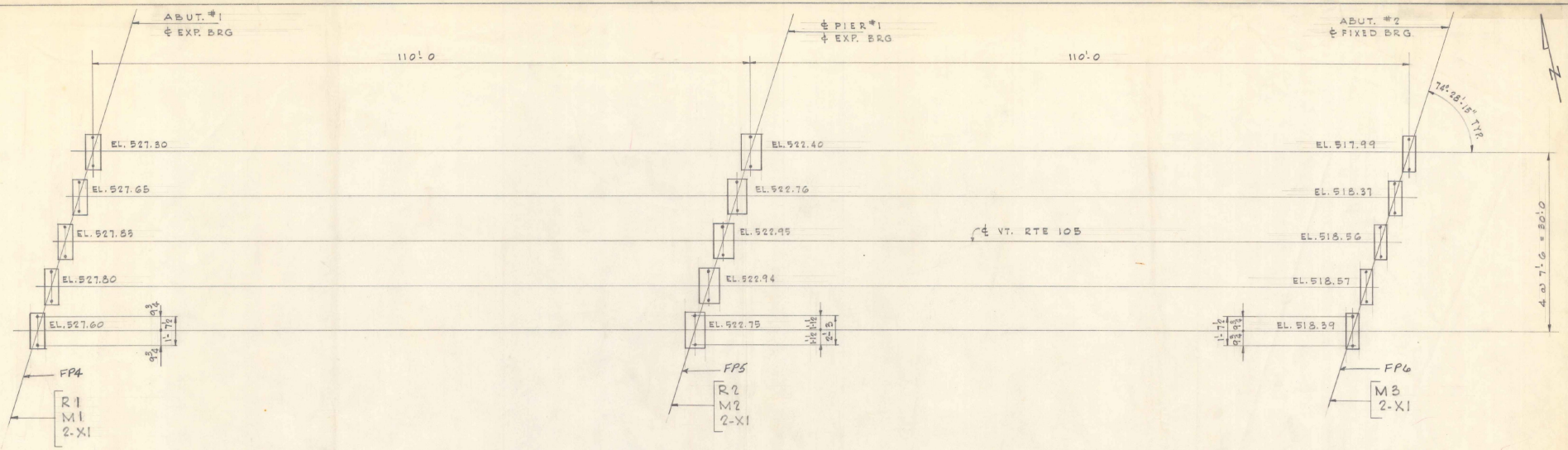

ABUT # 1 VT. RT. # 105 OVER I-89
V.S.S.C. CONT. GG-1175-200

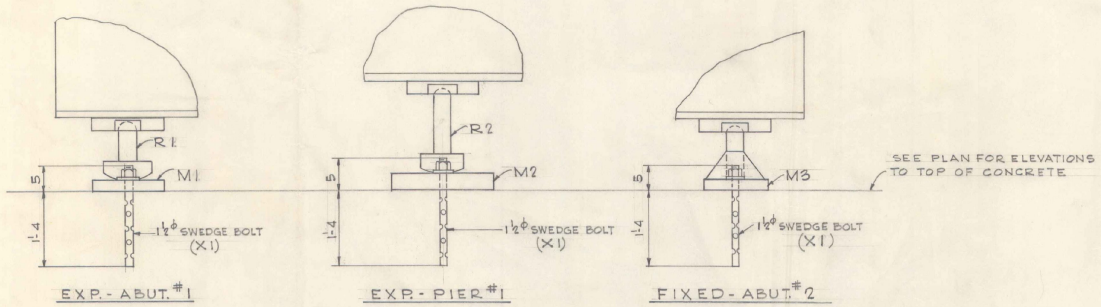
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | JP | 6-22-83 |
| CK'D. BY | | |
| HOLES | | |
| RIVETS | | |
| PAINT | | |

PROJECT I-89-3(16) CONST #1
LOCATION ST. ALBANS - SWANTON VT.
CUSTOMER E.T. O'NEIL & SON CONST. CO.
ARCHITECT STATE OF VT. DEPT. OF HIGHWAYS
JOB NO. GG-1175-105 GG-1175-200 SHEET NO. S.E.1.

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 4 | CONST | 6-23 |
| 3 | V/T | 6-22 |
| 3 | ADD | 6-23 |
| 2 | STATE | 6-30 |
| | | |
| | | |




TO BE FILED WITH RECORD PLANS

APPROVAL

STATE OF VERMONT PROJECT I-89-3(36) CONT.

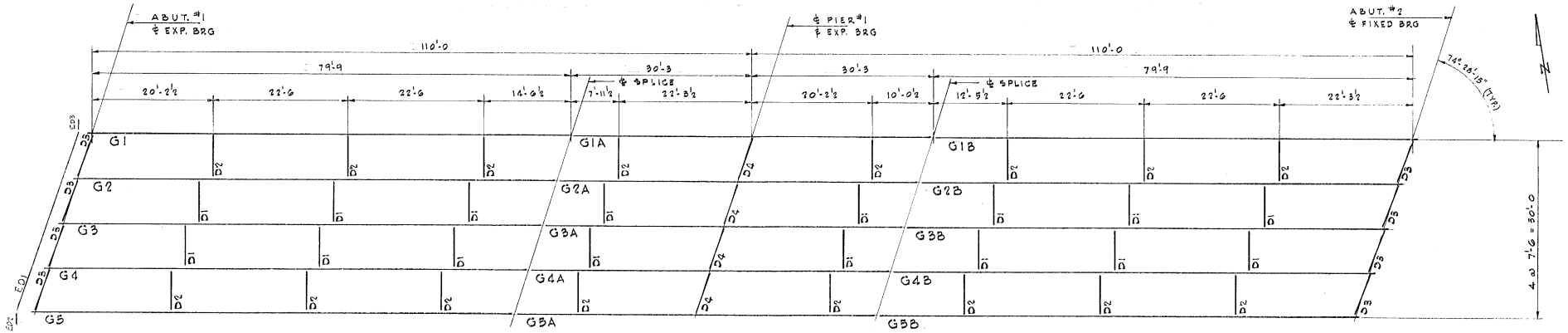
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

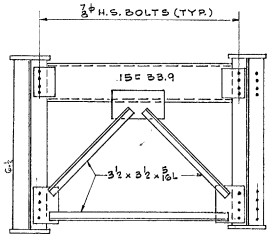
DRAWN BY LVG. DATE
CK'D. BY
HOLES
RIVETS
PAINT

PROJECT VT. RTE #105 OVER I-89
LOCATION TOWN OF ST. ALBANS - SWANTON, VT.
CUSTOMER
ARCHITECT STATE OF VT. DEPT. OF HWYS
JOB NO. 66-1175-200 SHEET NO. E1

| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | APP | 8-11 |
| 5 | FIELD | 9-6 |
| 3 | CORR | 9-22 |
| 1 | SHOP | 9-22 |
| 2 | SHOP | 9-28 |

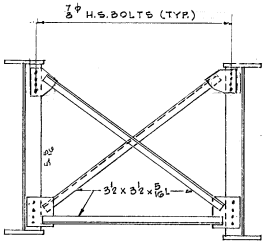
1 JTL. 10-17



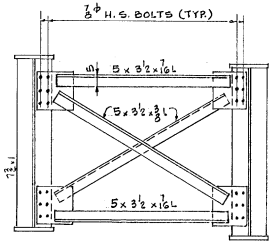

D3

ABUTMENT CROSS FRAME



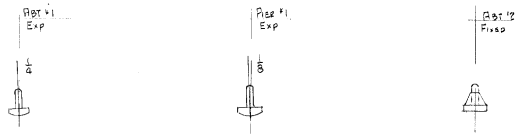

D1 - D2

INTERMEDIATE CROSS FRAME




D4

PIER CROSS FRAME




TILT OF ROCKERS TEMPERATURE CORRECTION

All rockers plumb at 45°F

Correction shown for each 10°rise in temperature

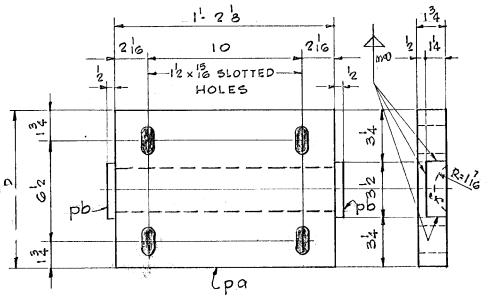
| APPROVAL | STATE OF VERMONT | PROJECT I-89-3(36) CONT.# 1 |
|---|---|---|

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

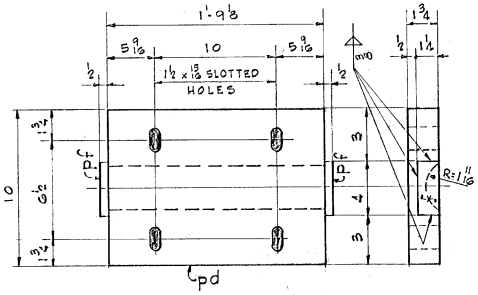
| | | DATE |
|---|---|---|
| DRAWN BY | WG | |
| CKD BY | | |
| HOLES | | |
| RIVETS | | |
| PAINT | | |

PROJECT VT. RTE 105 OVER I-89
LOCATION TOWN OF ST. ALBANS - SWANTON, VT.
CUSTOMER
ARCHITECT STATE OF VT. DEPT. OF HWYS
JOB NO. 66-1175-200 SHEET NO. E2

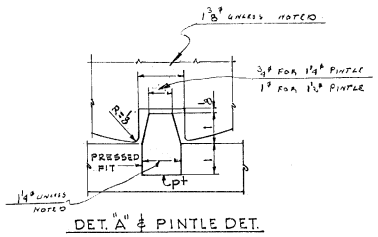
| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | Add | 8-11 |
| 3 | Corr. | 9-28 |
| 1 | Shop | 9-28 |
| 2 | Shop | 9-28 |
| 1 | JTL | 10-17 |



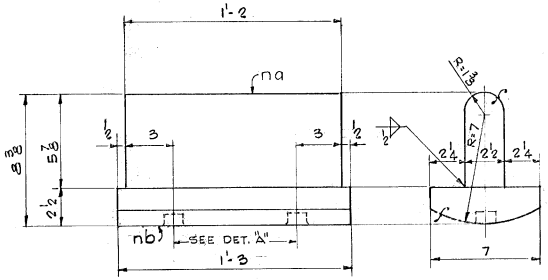

5 - E1



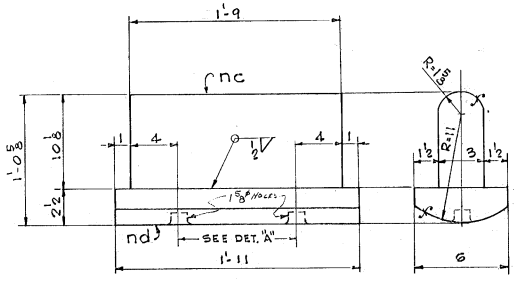

5 - E2



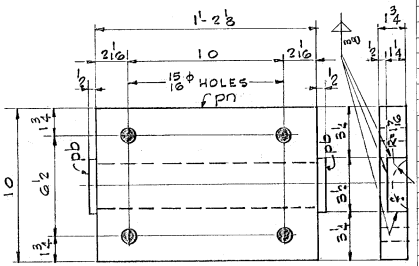

DET. "A" & PINTLE DET.



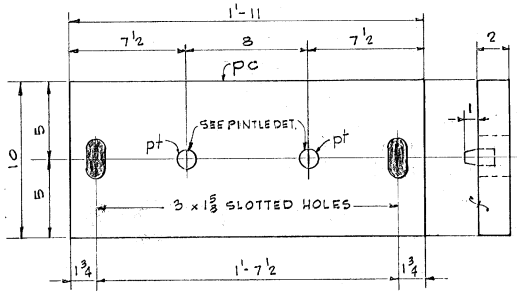

5 - R1



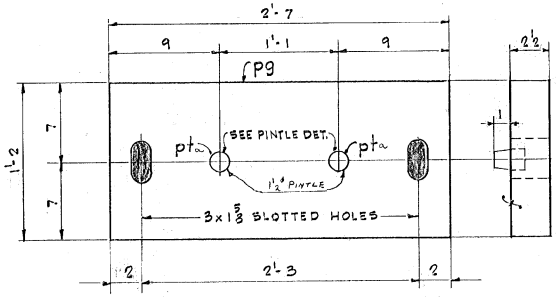

5 - R2



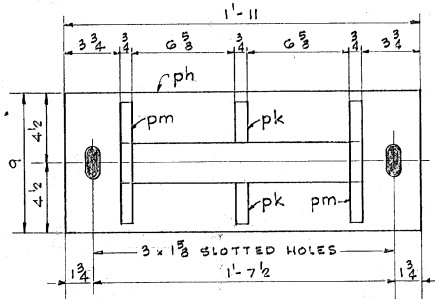

5 - F1



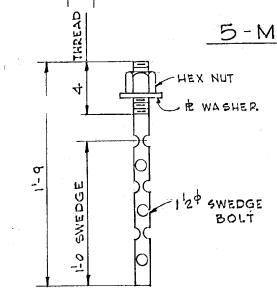

5 - M1



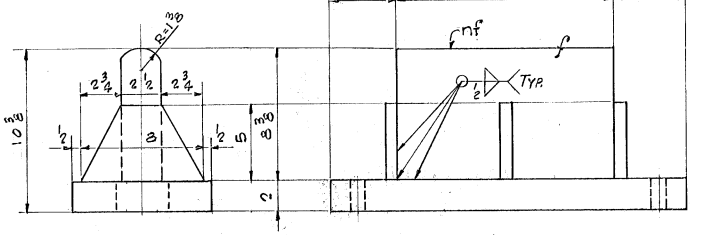

5 - M2




5 - M3




30 - X1




Notes:
X = A.S.A. Fin. 125
Holes - as noted
Paint - see Vt. specs

BILL OF MATERIAL (22)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | 5 - E1 | | | Res. Sht. | Wt. with Gkd. Def. | |
| 5 | pa | ℄ - 10 x 1 3/4 | 1 | 2 3/8 | 58x1 3/4x6-6 | | |
| 10 | pb | ℄ - 1 1/4 x 1/2 | 0 | 3 1/2 | STK. | | |
| | | 5 - R1 | | | (22) | | |
| 5 | na | ℄ - 5 3/8 x 2 1/2 | 1 | 2 | ord. 18 48x2 1/2 x 10-0 BB6018 | 295 | |
| 5 | nb | ℄ - 7 x 2 1/2 | 1 | 3 | | 377 | |
| | | | | | (22) | | 672 |
| | | 5 - M1 | | | Res. Sht. | | |
| 5 | pc | ℄ - 10 x 2 | 1 | 11 | 60x2x10-0 | 663 | |
| 10 | pf | 1 1/4 ϕ | 0 | 2 | Res. @ 20-0 | 7 | |
| | | | | | (22) | | 670 |
| | | 5 - E2 | | | Res. Sht. | Wt. with Gkd. Def. | |
| 5 | pd | ℄ - 10 x 1 3/4 | 1 | 9 3/8 | 58x1 3/4x6-6 | | |
| 10 | pf | ℄ - 1 1/4 x 1/2 | 0 | 4 | STK. | | |
| | | 5 - R2 | | | (22) | | |
| 5 | nc | ℄ - 10 3/8 x 3 | 1 | 9 | Res. Sht. 36x3x10-0 | 915 | |
| 5 | nd | ℄ - 6 x 2 1/2 | 1 | 11 | ord. Sht. 48x2 1/2x10-0 BB6018 | 495 | |
| | | | | | | | 1410 |
| | | 5 - M2 | | | ord. Sht. (22) | | |
| 5 | pg | ℄ - 14 x 2 1/2 | 2 | 7 | 48x2 1/2x10-0 BB6018 | 1554 | |
| 10 | pf | 1 1/2ϕ Add | 0 | 2 | Res. @ 20-0 | 7 | |
| | | | | | (26) | | 1563 |
| | | 5 - F1 | | | Res. Sht. 58x1 3/4x6-6 | Wt. with Gkd. Def. | |
| 5 | pn | ℄ - 10 x 1 3/4 | 1 | 2 3/8 | | | |
| 10 | pb | | | | STK. | | |
| | | 5 - M3 | | | (26) | | |
| 5 | ph | ℄ - 9 x 2 | 1 | 11 | Res. Sht. 60x2x10-0 | 596 | |
| 10 | pk | ℄ - 2 3/4 x 3/4 | 0 | 5 | STK. | 30 | |
| 10 | pm | ℄ - 5 x 3/4 | 0 | 8 | STK. | 85 | |
| 5 | nf | ℄ - 8 3/8 x 2 1/2 | 1 | 2 | ord. Sht. 48x2 1/2x10-0 BB6078 | 420 | |
| | | | | | (46) | | 1131 |
| 30 | X1 | 1 1/2ϕ SWEDGE BOLT | 1 | 9 | Res. @ 20-0 | 315 | |
| 30 | | 1" Hex Nuts | | | STK. | 28 | |
| 30 | | ℄ Wash. | | | | 12 | 355 |
| | | | | | | | 5801 |

JOB NO. 66-1175-200 SHEET NO. 1

BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | WEIGHT |
|---|---|---|---|---|---|

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

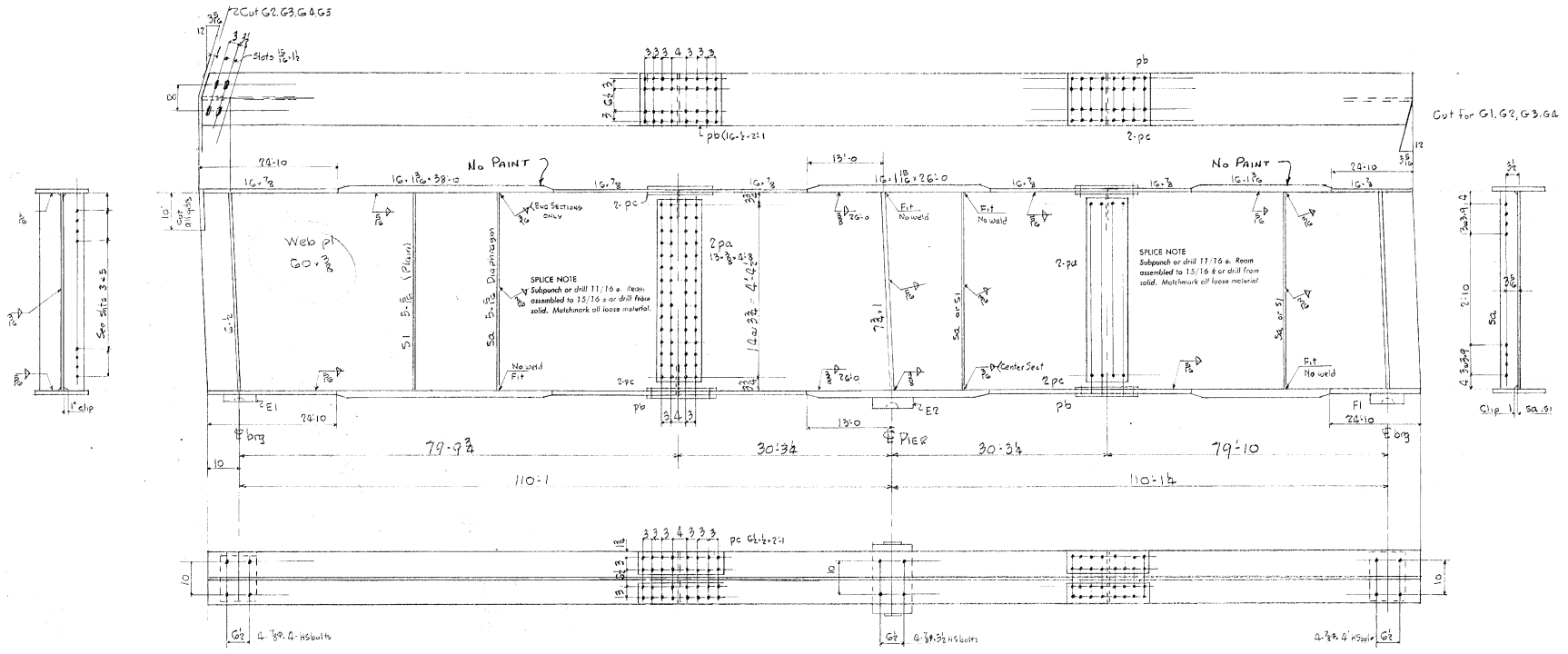
As-Vt. Shop 12-1-66 LD

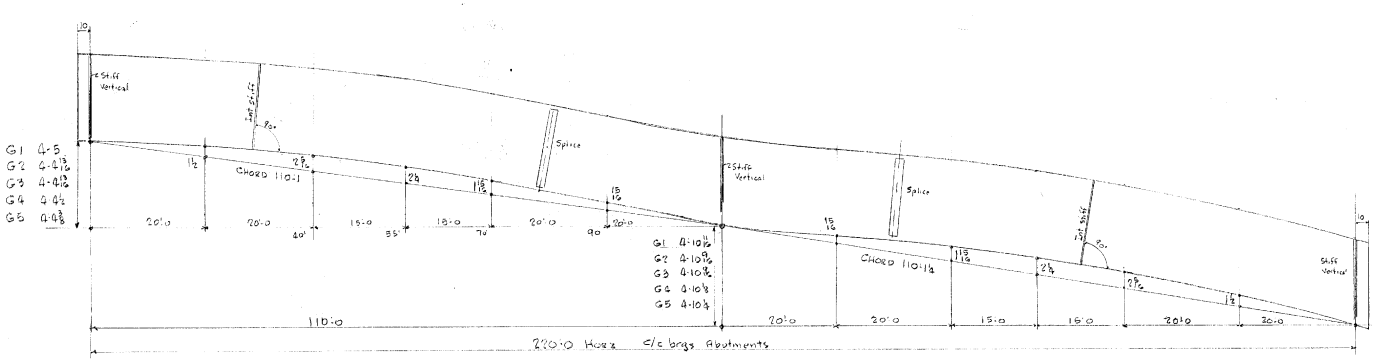
| | | DATE |
|---|---|---|
| DRAWN BY | L.N.G. | |
| CK'D BY | SD | |
| HOLES | | |
| BOLTS | | |
| PAINT | | |

PROJECT VT. RTE. #105 OVER I-89
LOCATION ST. ALBANS - SWANTON, VT.
CUSTOMER
ARCHITECT STATE OF VT. DEPT. OF HWYS
JOB NO. 66-1175-200 SHEET NO. 1

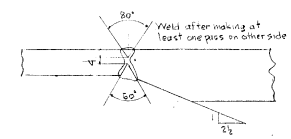
| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-11 |
| 4 (D) | Shop | 9-28 |
| 2 | State | 9-28 |
| 1 | F.T.L. | 10-17 |
| 7 | Revd Shop | 12-1 |

SM-1063-QCP




Web Plate Cutting Diagram




FLANGE WELDS

SUBMERGED ARC

Notes
This dwg covers fabrication of web + cover plates.
See shts 3, 4 + 5 for stiffeners
Note alternate top + bolt welding of stiffeners

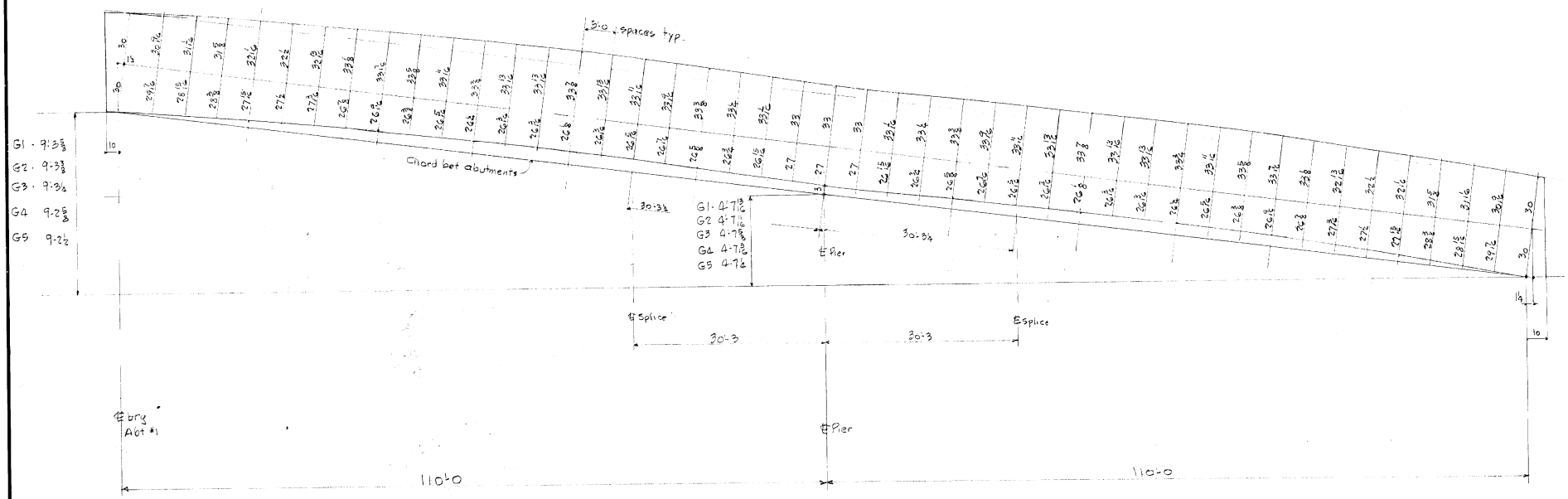
HOLES ARE FOR HIGH TENSILE BOLTS
They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

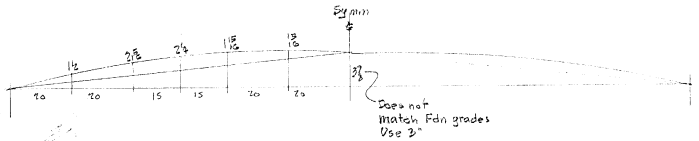
**VERMONT STRUCTURAL STEEL CORPORATION**
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | HEC | |
| CK'D BY | [illegible] | 8/8/66 |
| HOLES | 15/16 ø & 11/16 | |
| RIVETS | HS bolts | |
| PAINT | One coat VT Hwy | |

PROJECT Rte 105 over I89
LOCATION ST ALBANS VT
CUSTOMER
ARCHITECT
JOB NO. 66-1175-200 SHEET NO. 2

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | App | 8-11 |
| 4 | Shop | 9-28 |
| 2 | Stard | 9-28 |
| 1 | ITL | 10-17 |




CAMBER AS SPECIFIED

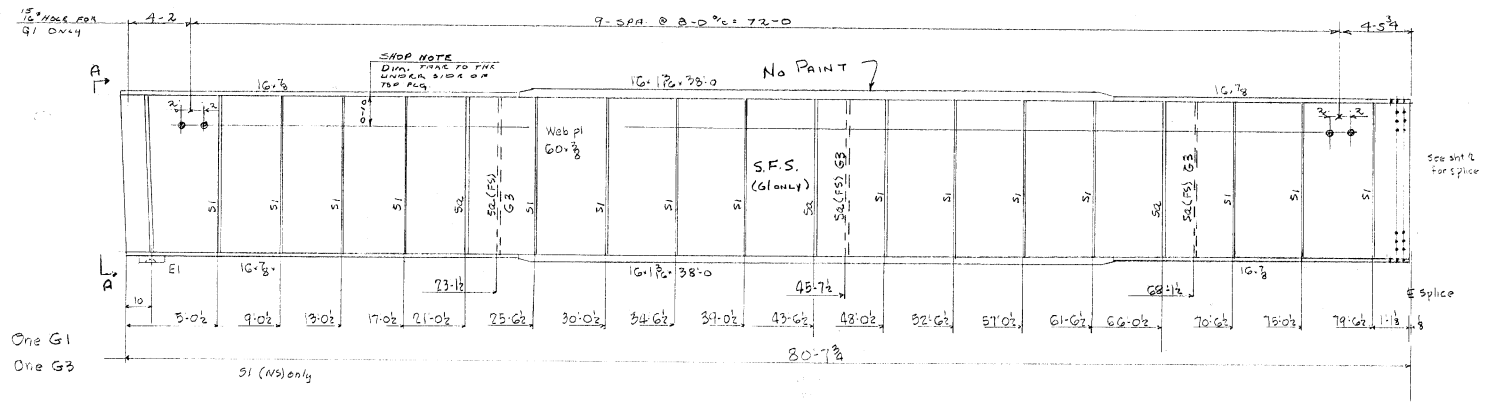
PLATE CUTTING DIAGRAM

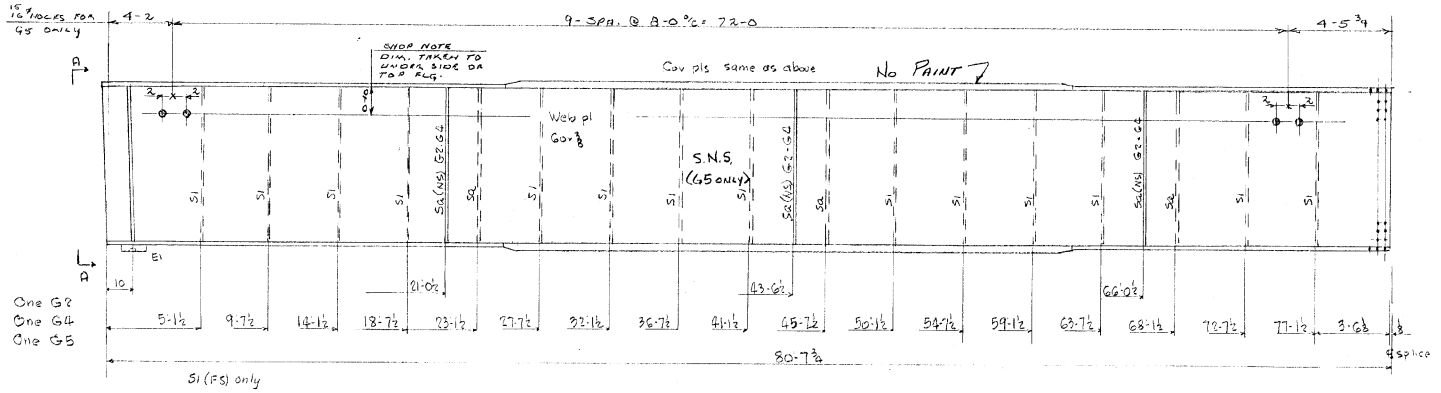
VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

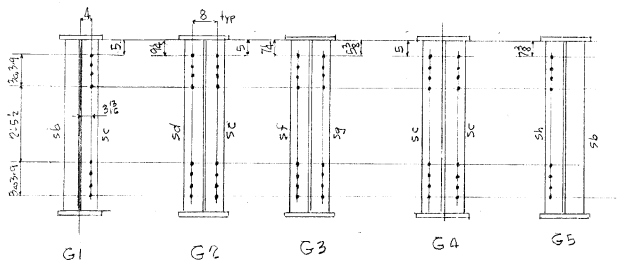
| | | DATE |
|---|---|---|
| DRAWN BY | | |
| CK'D BY | | |
| HOLES | | |
| BOLTS | | |
| PAINT | | |

PROJECT VT Rte 105 over I-89
LOCATION St. Albans VT
CUSTOMER
ARCHITECT
JOB NO. 66-1175-200 SHEET NO. 9A
For Shop Use Only

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | App | 8-11 |
| 4 | Shop | 9-28 |
| 1 | ITL | 10-11 |
| | | |
| | | |




SECTION AA

Note:
SEE SHT. 2 FOR ALL WELDS.

HOLES ARE FOR HIGH TENSILE BOLTS They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

## BILL OF MATERIAL

One G1, One G2, One G3, One G4, One G5

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|
| 5 | | Web pl G2 x 3/8 (CONNECT) | 80 | 10 | ± 81-6 886078 | 3290 ✓ |
| 10 | | R 16 x 1 3/16 | 38 | 0 | 886078 | 2499 ✓ |
| 10 | | 16 x 7/8 | 24 | 10 | 886078 | 1202 ✓ |
| 10 | | 16 x 7/8 | 18 | 0 | ± 886078 | 811 ✓ |
| 30 | S1 | F1 5 x 5/16 | 90 | | FIE | |
| 42 | S1 | 5 x 5/16 | 90 | | " | |
| 6 | Sa | " | 50 | | " | |
| 18 | Sa | " | 50 | | " | 2613 ✓ |
| 2 | Sb | R Cov 1/2 | 50 | | " | |
| 4 | Sc | G 1/2 | 50 | | " | |
| 1 | Sd | | 50 | | " | |
| 1 | Se | | 50 | | " | |
| 1 | Sg | | 50 | | " | |
| 1 | Sh | | 50 | | " | 510 ✓ |
| 5 | E1 | SEE DET. SHT. 1. | | | | 362 ✓ |
| 20 | | 7/8 H Socket | 0 | 4 | STK. | 26 ✓ |
| 20 | | 5/8 HARD WASH | | | | incl. above |
| | | 5/16 F WELD | 1137 | 0 1/2 | | 409 ✓ |
| | | 3/16 F WELD | 980 | 0 | | 147 ✓ |
| | | | | | | 8216 ✓ |

JOB NO. 66-1175-200 SHEET NO. 3

Cov pls: Sa(NS) G2-G4; Res. @ 20-0

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | WEIGHT |
|---|---|---|---|---|---|

REV. 1-5-67 R.L.H.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

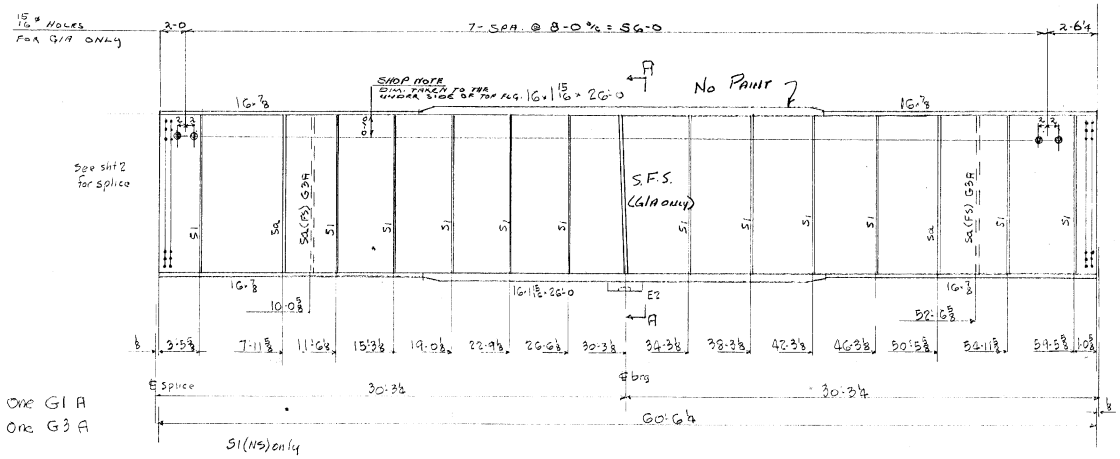
| | | DATE |
|---|---|---|
| DRAWN BY | HEC | |
| CK'D BY | JOH | 5/31/66 |

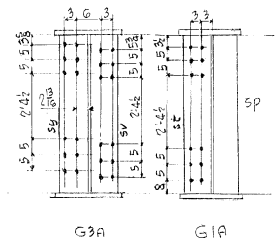
HOLES 15/16
BOLTS 7/8" H.S.
PAINT Shop coat VT Hwy

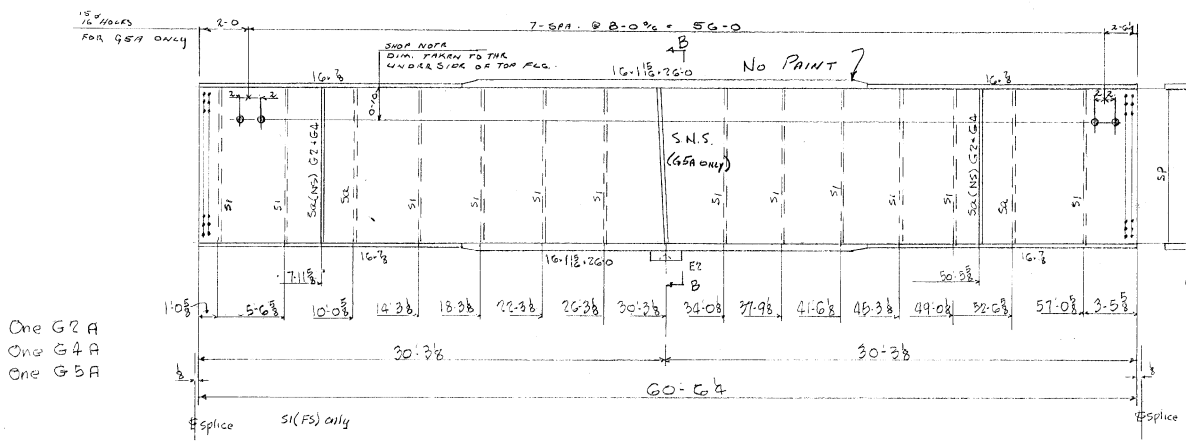
PROJECT Rte. 105 over I 89
LOCATION ST ALBANS VT
CUSTOMER
ARCHITECT
JOB NO. 66-1175-200 SHEET NO. 3

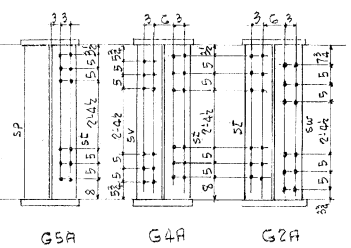
| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-11 |
| 4 | Shop | 9-28 |
| 2 | Store | 9-28 |
| 1 | JTL | 10-11 |
| 1 | SHOP | 11-18 |
| 2 | STATE | 1-16-67 |

SM 10 63 QCP




NOTE: SEE SAT. 2 FOR ALL WELDS.

HOLES ARE FOR HIGH TENSILE BOLTS
They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

## BILL OF MATERIAL

| | NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| | One G1A, One G2A One G3A, One G4A, One G5A | | | | | | | |
| | 5 | Web | PL 6½ x ⅜ (CAMBER INC) | 60 | 6¼ | ORD. PL 6⅞ x ⅜ x 61-6 B86078 | 24440 | |
| | 10 | Cov | PL 16 x 1 15/16 | 26 | 0 | ORD. PL 26-6 B86078 | 27883 | |
| | 20 | Cov | PL 16 x 7/8 | 17 | 3 | ORD. FRM. PL 35-6 G5, FRM. PL 35-6 B86078 | 16708 | |
| | 5 | E2 | SEE DETAIL SAT. #1 | | | | 540 | |
| | 16 | Sa | PL 5 x 5/16 | 5 | 0 | FIE ORD. @ 21-0 B86078 | 2018 | |
| | 60 | S1 | do | 5 | 0 | FIE | | |
| G1, G5 | 2 | Sp | PL 7¾ x 1 | 5 | 0 | FIE | | |
| G1, 2, 4, 5 | 4 | St | | 5 | 0 | Res. PL 66 x 1 x 10-0 | | |
| G3, G4 | 2 | Sv | | 5 | 0 | | | |
| G2 | 1 | Sw | | 5 | 0 | | | |
| G3 | 1 | Sy | | 5 | 0 | | 1343 | |
| | 20 | | 7/8 ø H.S. bolts | 0 | 5 | STK. A325 | 27 | |
| | 20 | | 7/8 ø HARD WASH | | | | 2 | |
| | | | Splice mat'l | | | | | |
| | 20 | pa | PL 13 x 3/8 | 4 | 8 | Res. PL 48 x 3/8 x 10-0 | 1584 | |
| | 20 | pb | 16 x ½ | 2 | 1 | Res. PL 48 x ½ x 10-0 | 1156 | |
| | 40 | pc | 6½ x ½ | 2 | 1 | | 944 | |
| | | | 3/8 F WELD | 520 | 0 | | 260 | |
| | | | 5/16 F WELD | 698 | 0 | | 251 | |
| | | | 3/16 F WELD | 1283 | 4 | | 192 | |
| | | | | | | | | 77348 |

JOB NO. 66-1175-200 SHEET NO. 4

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | WEIGHT |
|---|---|---|---|---|---|

Rev 1-5-67 R.L.M.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | HEC | |
| CK'D BY | [illegible] | 8/5/66 |

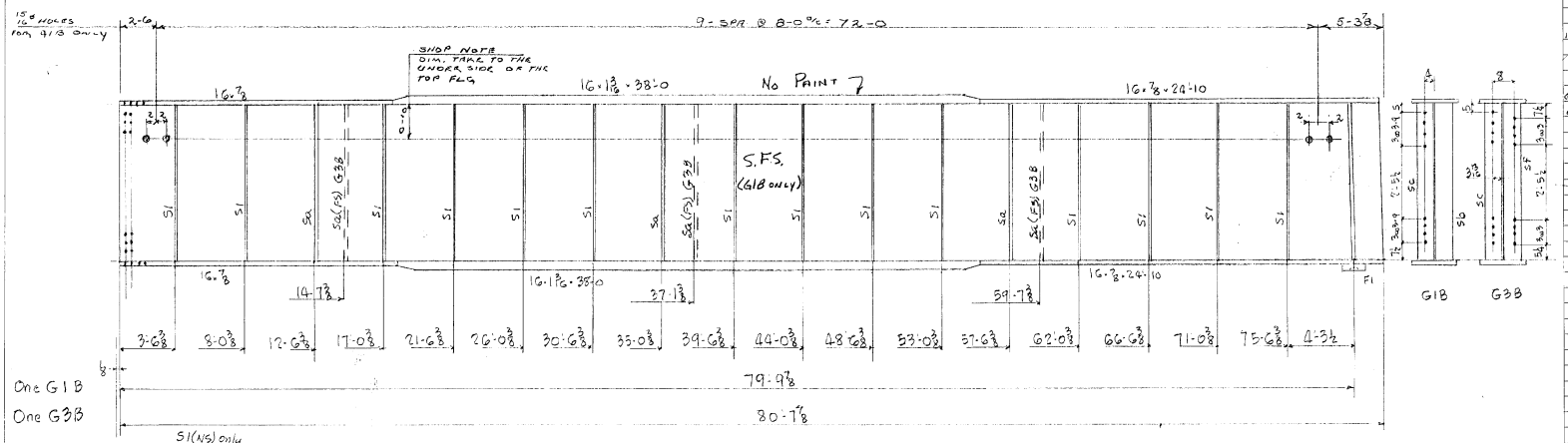
HOLES 15/16
BOLTS 7/8 ø H.S.
PAINT One coat Vt Hwy

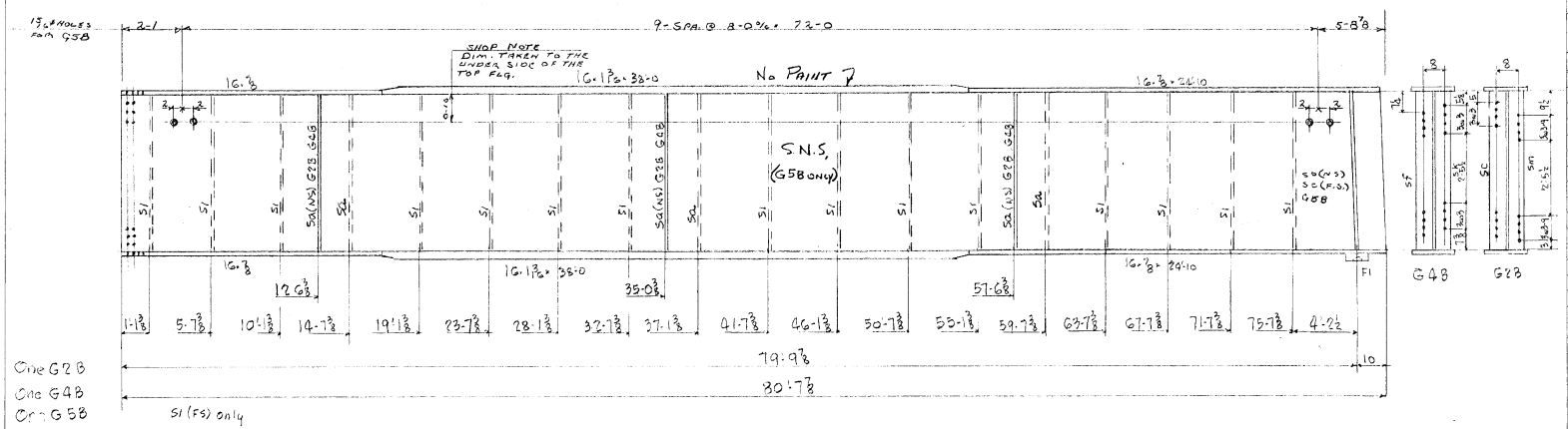
PROJECT Rte 105 over I89
LOCATION
CUSTOMER
ARCHITECT
JOB NO. 66-1175-200 SHEET NO. 4

PRINT RECORD

| NO. | FOR | DATE |
|---|---|---|
| 3 | App | 8-11 |
| 3 | Fin. App | 9-1 |
| 4 (1) | Shop | 9-28 |
| 2 | State | 9-28 |
| 1 | J.T.L. | 10-17 |
| ½ | SHOP | 11-8 |
| ½ | STATE | 1-16-67 |

SM 10-63 QCP




NOTE: SEE SHT 2 FOR ALL WELDS.

HOLES ARE FOR HIGH TENSILE BOLTS They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | One G1B, One G2B, One G3B, One G4B One G5B | | | | | |
| 3 | W60 | PL 62 x 3/8 (CAMBER IN) | 30 | 7 3/8 | ORD. @ 31-6 1386078 | 32335 | ✓ |
| 10 | Del | PL 16 x 1 3/16 | 38 | 0 | ORD. @ 25-6 1386078 | 24977 | ✓ |
| 10 | | PL 16 x 7/8 | 24 | 10 | ORD. @ 25-6 1386078 | 12528 | ✓ |
| 10 | | PL 16 x 7/8 | 17 | 10 1/2 | ORD. @ 25-6 1386078 | 8638 | ✓ |
| 24 | SA | PL 2.5 x 5/16 | 5 | 0 | PIECES @ 21-0 | | |
| 14 G1,3 15 G2,4,5 | 73 | SI | do | 5 | 0 | PIECES @ 21-0 1386078 | 2575 ✓ |
| | 5 | FI | SEE DET. SHT #1 | | | | 362 ✓ |
| G1, G5 | 2 | S10 | PL G x 1/2 | 5 | 0 | FIG | |
| G1,2,3,5 | 4 | S6 | | 5 | 0 | " Res. | |
| G3,4 | 2 | SF | | 5 | 0 | " (220-0 | |
| G4 | 1 | S6 | | 5 | 0 | " | |
| G2 | 1 | Sm | | 5 | 0 | " | 510 ✓ |
| | 20 | | 7/8 ø H.S bolts | 0 | 4 | STK. A325 | 24 ✓ |
| | 20 | | 7/8 ø HARD WASH | | | (11) | 2 |
| | | | FIELD BOLT LIST (Net | | | A325 | |
| | 32 | | 7/8 ø 4.5 bolts & washer | 0 | 2 | | 28 ✓ |
| | 128 | | | 0 | 2 4 | | 118 ✓ |
| | 600 | | | 0 | 2 1/2 | STK. | 578 ✓ |
| | 96 | | | 0 | 2 3/8 | | 96 ✓ |
| | 680 | | | 0 | 3 1/2 | | 694 ✓ |
| | 20 | | | 0 | 4 | Exp dam. | 24 ✓ |
| | 1516 | | Hard Washers 7/8 ø | | | | 152 ✓ |
| | | | 5/16 F WELD | 1631 | 4 | | 587 ✓ |
| | | | 3/16 F WELD | 1180 | 0 | | 177 ✓ |
| | | | | | | | 84405 |

JOB NO. 66-1175-200 SHEET NO. 5

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT |
|---|---|---|---|---|---|---|

REV 1-5-67 R.L.M.

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

| | | DATE |
|---|---|---|
| DRAWN BY | | |
| CK'D BY | DONR | 9/9/66 |

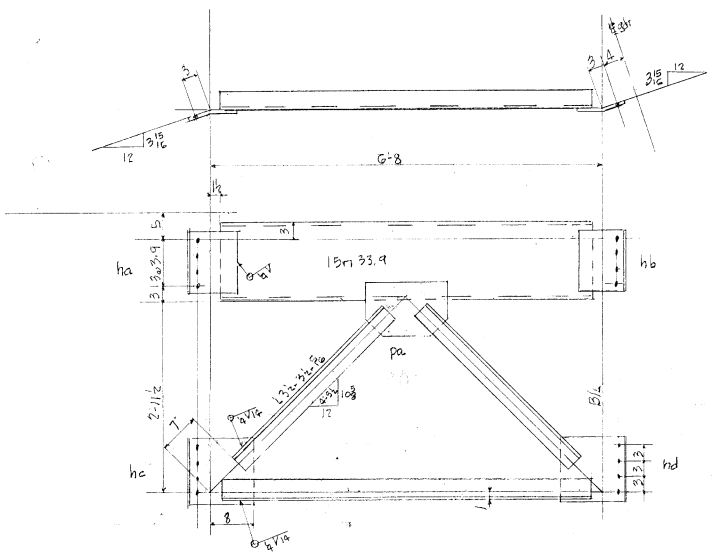
HOLES 13/16 & 15/16
BOLTS 7/8 ø H.S.
PAINT One Coat VT. Hwy.

PROJECT Rte 105 over I 89
LOCATION ST. ALBANS VT.
CUSTOMER
ARCHITECT
JOB NO. 66-1175-200 SHEET NO. 5

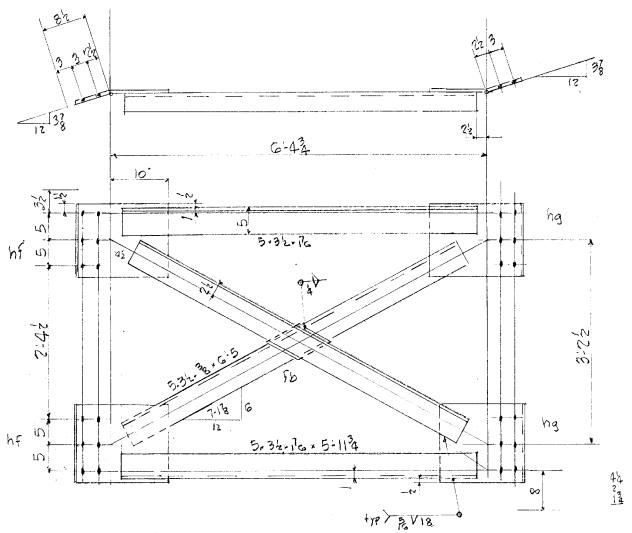
| PRINT RECORD NO. | FOR | DATE |
|---|---|---|
| 3 | App | 9-11 |
| 4D | Shop | 9-28 |
| 2 | State | 9-28 |
| 1 | FTL | 10-17 |
| 1 | SHOP | 1-18 |

2-State 1-19

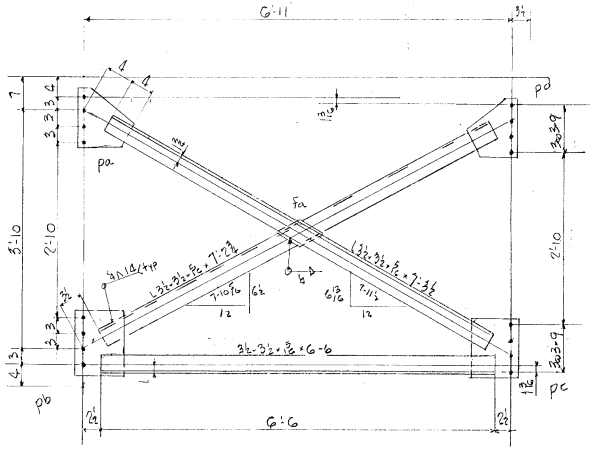
SM 1-0-63 QCP



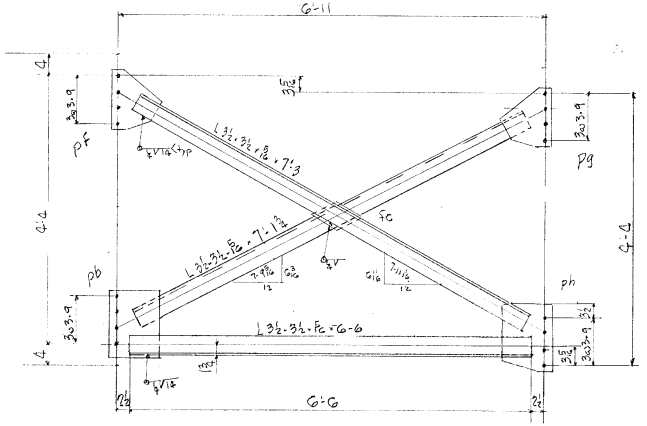

8 - D3




4 - D4




16 - D1




16 - D2

HOLES ARE FOR HIGH TENSILE BOLTS
They are to be free from burrs and shall not be painted on any surface within 5" of such open holes.

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | 8 - D3 | | | (50) | | |
| 8 | | 15 n 33.9 | 6 | 5 | Res. @ 60-0 | 1740 | |
| 8 | | L 3½ × 3½ × 5/16 | 6 | 4 | ORD. @ 40-0 | | |
| 16 | | do | 3 | 8 | B85846 | 787 | |
| 8 | ha | PL 12 × 3/8 | 0 | 9 | Res. @ 22-0 | | |
| 8 | hb | do | 0 | 9 | | | |
| 8 | hc | do | 1 | 0½ | Res. PL 48 × 38 | | |
| 8 | hd | do | 1 | 0½ | × 10-0 | 449 | |
| 8 | pa | 9 × 3/8 | 1 | 1 | | 102 | |
| | | | | | | | 3078 |
| | | 4 - D4 | | | (52) | | |
| 8 | | L 5 × 3½ × 7/16 | 5 | 11¾ | ORD. @ 40-0 B85846 | 574 | |
| 8 | | L 5 × 3½ × 3/8 | 6 | 5 | ORD. @ 40-0 B85846 | 534 | |
| 8 | hf | PL 13 × 3/8 | 1 | 5 | Res. SHT. | | |
| 8 | hg | PL 13 × 3/8 | 1 | 5 | 48 × 38 × 10-0 | 384 | |
| 4 | fb | A 6 × 3/8 | 0 | 6 | Res. @ 20-0 | 15 | |
| | | ¼ F WELD | 632 | 0 | | 158 | 1665 |
| | | | | | | | 4743 |

JOB NO. 66-1175-200 SHEET NO. 6

## BILL OF MATERIAL

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | 16 D1 | | | (52) | | |
| 16 | | L 3½ × 3½ × 5/16 | 6 | 6 | ORD. @ 40-0 | | |
| 16 | | do | 7 | 2¾ | B85846 | | |
| 16 | | do | 7 | 3½ | | 2422 | |
| 16 | pa | PL 10 × 3/8 | 1 | 0 | Res. @ 20-0 | 210 | |
| 16 | pb | 8 × 3/8 | 1 | 0 | Res. @ 20-0 | 163 | |
| 16 | pc | 9 × 3/8 | 1 | 0 | Res. SHT. 48 × 38 × 10-0 | 188 | |
| 16 | pd | 10 × 3/8 | 1 | 0 | Res. @ 20-0 | 210 | |
| 16 | fa | 4½ × 3/8 | 0 | 4½ | □ Res. @ 20-0 | 35 | |
| | | | | | | | 3228 |
| | | 16 - D2 | | | (52) | | |
| 16 | | L 3½ × 3½ × 5/16 | 6 | 6 | ORD. @ 40-0 | | |
| 16 | | L do | 7 | 1¾ | B85846 | | |
| 16 | | L do | 7 | 3 | | 2427 | |
| 16 | pb | PL 8 × 38 | 1 | 0 | Res. @ 20-0 | 163 | |
| 16 | pf | PL 10 × 3/8 | 1 | 0 | Res. @ 20-0 | | |
| 16 | pg | 10 × 3/8 | 1 | 0 | | 419 | |
| 16 | ph | 9 × 3/8 | 1 | 2 | Res. PL 48 × 38 × 10-0 | 220 | |
| 16 | fc | 4½ × 3/8 | 0 | 4½ | Res. @ 20-0 | 35 | 3244 |
| | | | | | | | 6472 |

REV 1-5-67 RLM

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

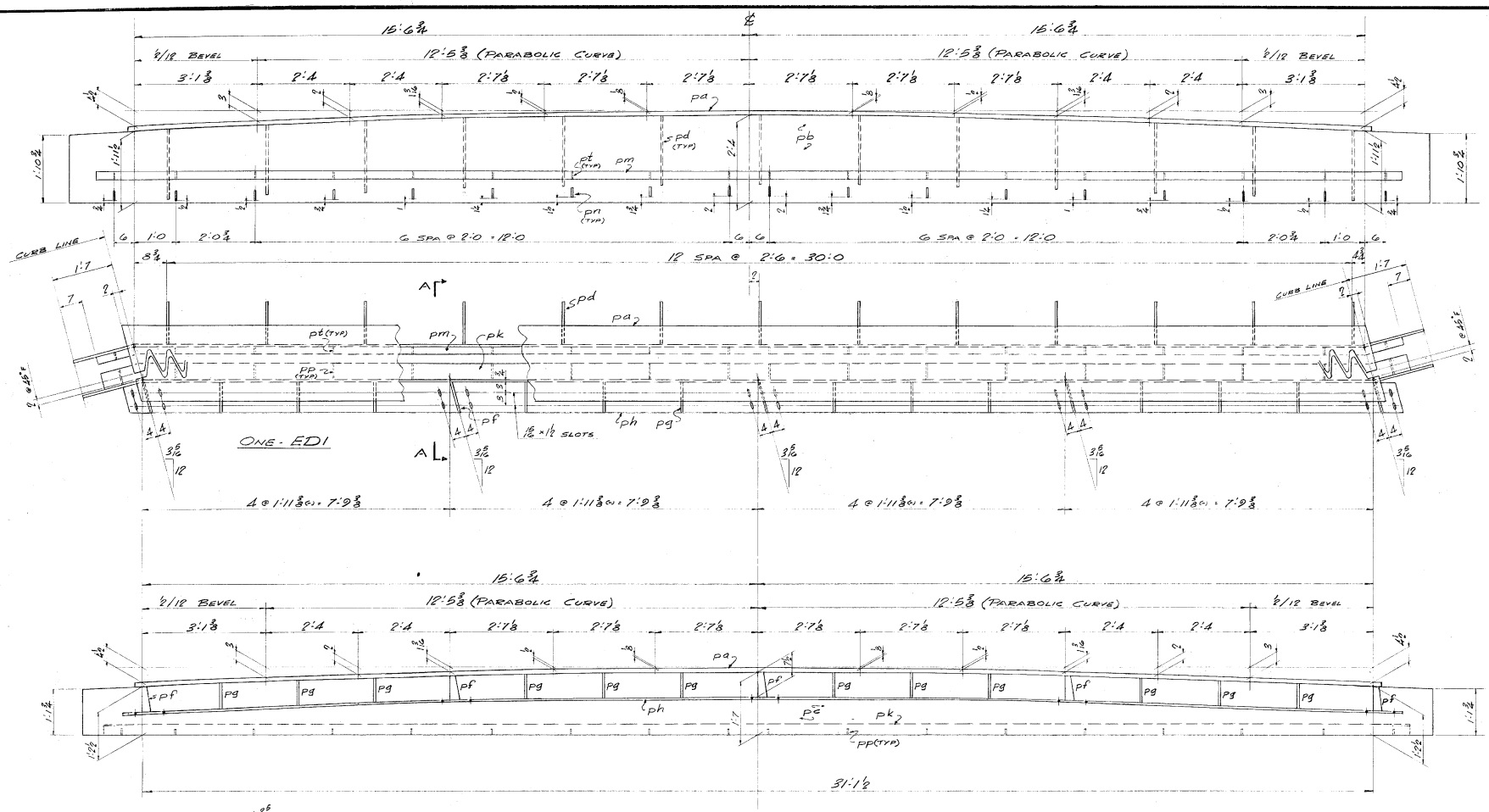
| | | DATE |
|---|---|---|
| DRAWN BY | HEC | |
| CK'D BY | [illegible] | 8/8/66 |

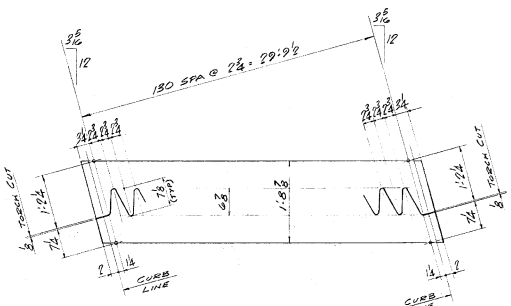
HOLES 15/16
BOLTS H.S 7/16 ⊕
PAINT One coat VT Hwy.

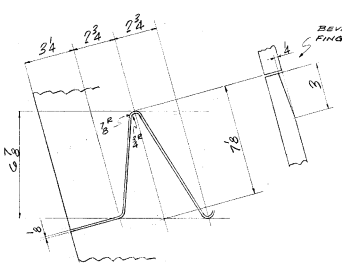
PROJECT Rte 105 over I89
LOCATION ST ALBANS
CUSTOMER
ARCHITECT
JOB NO. 66-1175-200 SHEET NO. 6

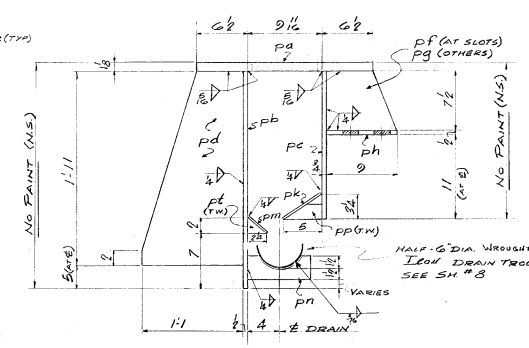
| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | App | 8-11 |
| 3 | Fin. App | 9-1 |
| 4 | Shop | 9-28 |
| 2 | State | 9-28 |
| 1 | J.T.L. | 10-17 |
| 2 | STATE | 1-16-67 |

SM 10-63 QCP




NOTE

SEE SH. #8 FOR BILL OF MATERIAL & ADDITIONAL MATERIAL.

(21)

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

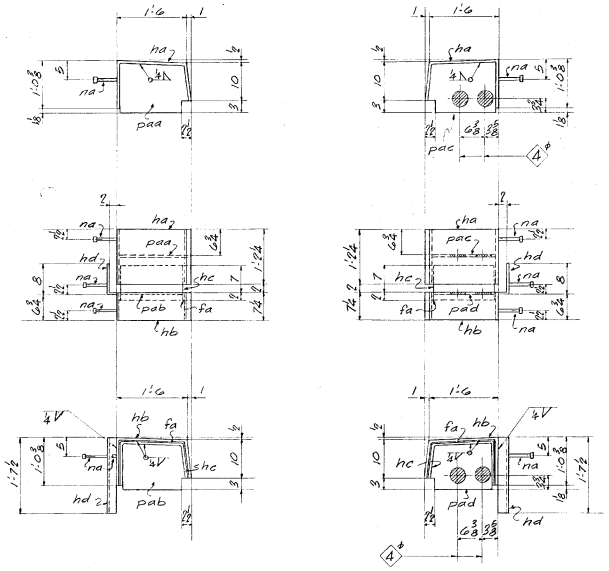
| | | DATE |
|---|---|---|
| DRAWN BY | JWF | 8-5-66 |
| CK'D BY | TE | |
| HOLES | AS NOTED | |
| BOLTS | | |
| PAINT | R.L. (VT. SPECS) | |

PROJECT VT. 105 OVER I-89
LOCATION ST. ALBANS - SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1175.200 SHEET NO. 7

PRINT RECORD

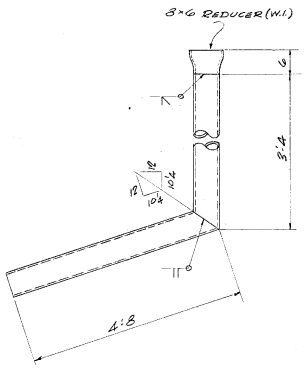
| NO. | FOR | DATE |
|---|---|---|
| 3 | APP | 8-11 |
| 3 | APP | 9-12 |
| 4 | SHOP | 9-28 |
| 2 | STATE | 9-22 |
| 1 | JTL | 11-17 |

SM 7-65 OEP

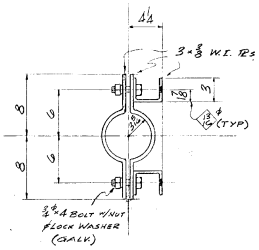



ED2 · SOUTH CURB

ED3 · NORTH CURB




TWO · 6" WROUGHT IRON DRAIN

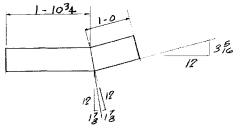



FOUR · CLAMPS



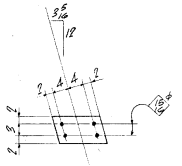

ONE · TROUGH (SOUTH SIDE)

TWO · DRAIN TROUGHS
HALF · 6" WROUGHT IRON PIPE




ONE · TROUGH (NORTH SIDE)

NOTE: SHIP TROUGH WITH EXP JT. TACK FOR SHIPPING




SHIMS

10 - 8" THICK
5 - 4" THICK
5 - 2" THICK

## BILL OF MATERIAL (54)

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | TWO · WROUGHT IRON DRAINS | | | | | |
| 2 | | 6" W.I. PIPE | 8 | 0 | ORD. DAVIDSON 86912 | 304 | |
| 2 | | 3"×6 W.I. REDUCER | 0 | 6 | ORD. BYERS 87110 | 2 | 306 |
| | | FOUR · CLAMPS (56) | | | | | |
| 8 | | W.I. PR 3"×3/8" | 1 | 2½ | ORD. BYERS 87110 | 61 | |
| 8 | | do | 0 | 9½ | | | |
| 8 | | 3/4"ø BOLT (GALV) | 0 | 4 | W/NUT & LOCK WASHER STD. NUT A 7111 | 6 | 67 |
| | | DRAIN TROUGHS (53) | | | | | |
| 2 | | ½·6" W.I. PIPE | 13 | 4 | DAVIDSON ORD. 86912 | | |
| 1 | | do | 2 | 10¾ | | | |
| 1 | | do | 3 | 0⅜ | | | 619 |
| | | (56) | | | | | |
| 10 | | PR 7 × ⅛ | 1 | 2 | SHIMS STK. | 36 | |
| 5 | | PR 7 × ¼ | 1 | 2 | do | 37 | |
| 5 | | PR 7 × ½ | 1 | 2 | do | 70 | 143 |
| | | 5/16 F WELD | 137 | 2 | | 49 | |
| | | ¼ F WELD | 202 | 0 | | 51 | 100 |
| | | | | | | | 12,356 |

JOB NO. 66-1176.200 SHEET NO. 8

## BILL OF MATERIAL (21)

DETAILED ON SHT #7

| NO. PIECES | MARK | DESCRIPTION | LENGTH FT. | LENGTH IN. | ORD | WEIGHT | |
|---|---|---|---|---|---|---|---|
| | | ONE · EXPANSION DAM · ED1 | | | | | |
| 1 | pa | PR 20⅜ × 1⅛ | 31 | 11⅜ | A242 @23"×38'-0" 886078 | 2998 | |
| 1 | pb | PR 28 × ½ | 34 | 3½ | do @34"×38'-0" do | 1699 | |
| 1 | pc | PR 19 × ¾ | 34 | 3½ | do @23"×38'-0" do | 1727 | |
| 13 | pd | PR 13 × ½ | 1 | 11 | REG. PL 48"×2"×10'-0 | 562 | |
| 5 | pf | PR 7½ × ½ | 0 | 9½ | REG. SHT. | | |
| 12 | pg | do | 0 | 9 | 48"×2"×10'-0 | 118 | |
| 1 | ph | PR 9 × ½ | 39 | 4 | | 505 | |
| 1 | pk | PR 6 × ¼ | 33 | 3¼ | A242 ORD. PL 18"×48"×35'-0 | 175 | |
| 1 | pm | PR 3 × ¼ | 33 | 7¼ | do | | |
| 18 | pn | do | 0 | 8 | do 886078 | 117 | |
| 18 | pp | PR 2 × ¼ | 0 | 5 | do | | |
| 18 | pt | do | 0 | 7¼ | do | 19 | 7961 |
| | | ONE · SOUTH CURB · ED2 (21) | | | | | |
| | | ONE · NORTH CURB · ED3 | | | | | |
| 2 | ha | PR 144 × ½ | 3 | 4½ | A242 ORD. PL 24"×6" X 10'-0 886078 | | |
| 2 | hb | PR 74 × ½ | 3 | 4½ | do | | |
| 2 | hc | PR 7 × ½ | 3 | 2 | do | | |
| 2 | hd | PR 10½ × ½ | 1 | 7½ | do | | |
| 2 | fa | PR 2 × ⅛ | 3 | 2½ | do | | |
| 1 | paa | PR 13 × ½ | 1 | 6 | do | | |
| 1 | pab | PR 11⅜ × ½ | 1 | 4¾ | do | | |
| 1 | pac | PR 13 × ½ | 1 | 6 | do | | |
| 1 | pad | PR 11⅜ × ½ | 1 | 4¾ | do | 536 | |
| 6 | na | ¾"ø HEADED STUDS | | 6 | STK. PART OF ITEM | 54 | 590 |

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VT.

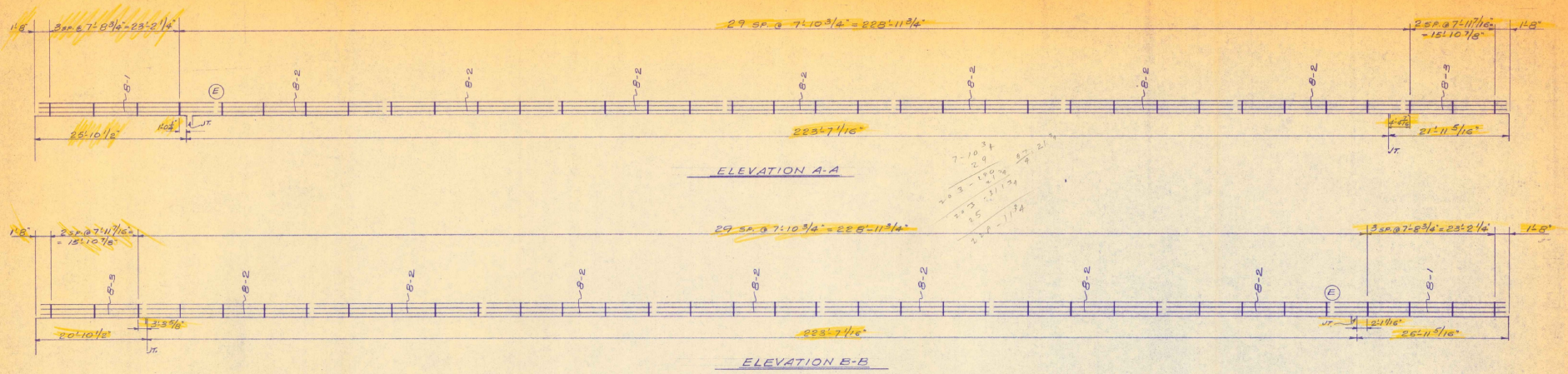
7502

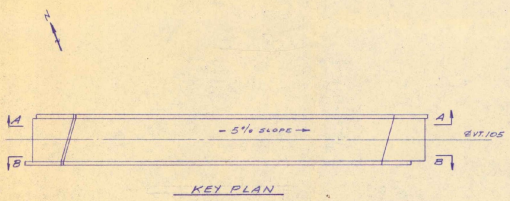
| | | DATE |
|---|---|---|
| DRAWN BY | | |
| CK'D BY | JE | |
| HOLES | NOTED | |
| BOLTS | do | |
| PAINT | R.L. (VT. SPECS) | |

PROJECT VT 105 OVER I-89
LOCATION ST. ALBANS · SWANTON
CUSTOMER
ARCHITECT
JOB NO. 66-1176.200 SHEET NO. 8

| PRINT RECORD | | |
|---|---|---|
| NO. | FOR | DATE |
| 3 | APP | 8-11 |
| 3 | APP | 9-12 |
| 40 | SHOP | 9-28 |
| 2 | STATE | 9-28 |
| 1 | J.T.L. | 10-17 |

SM 1063 QCP



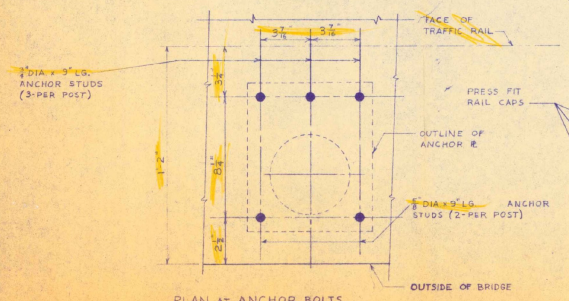

## BILL OF MATERIAL

WW "736" DWG. # BR-168

| 4 3/8" x 14" SEMI-ELLIPTICAL TUBE (6061-T6) | | | 4" x 3 1/8 SEMI-ELLIPTICAL TUBE (6061-T6) | |
|---|---|---|---|---|
| MK. | QUAN. | LGTH. | QUAN. | LGTH. |
| B-1 | 4 | 31'-3 3/16" | 2 | 31'-3 3/16" |
| B-2 | 28 | 31'-6 11/16" | 14 | 31'-6 11/16" |
| B-3 | 4 | 18'-3 15/16" | 2 | 18'-3 15/16" |
| 70 | POST "VT3 WITH CLAMP BARS | | | |
| 70 | ANCHOR ASSEMBLIES | | | |
| 4 | HAND RAIL END CAPS | | | |
| 8 | BARRIER RAIL END CAPS | | | |
| 16 | HAND RAIL SPLICE BARS | | | |
| 32 | BARRIER RAIL SPLICE BARS | | | |
| 70 | POST PAD SETS | | | |

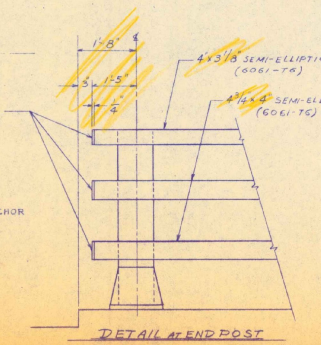
OFFICE COPY

RECEIVED APR 3 1967 CK'D BY AJC OK'D BY HWB
RESUBMIT ____ APPROVED ____
BY HWB DATE 4/7/67

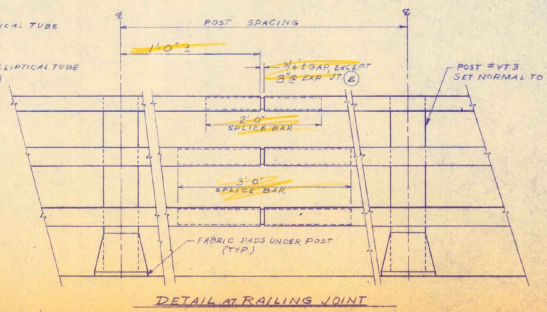



PLAN AT ANCHOR BOLTS

BOLTS SHALL PROJECT 2 3/8 ABOVE FINAL POUR




DETAIL AT END POST




DETAIL AT RAILING JOINT

## NOTES

1. FOR NOTES, RAILING DETAILS & ANCHORAGE DETAILS SEE SHEETS 2 & 3
2. ONE SET OF 1/8 THICK "NEW-COR" PADS SHALL BE PLACED UNDER EA. POST.
3. ALL DIM'S ARE HORIZONTAL, UNLESS NOTED.

| ISSUE | DATE | DESCRIPTION | BY | CH. |
|---|---|---|---|---|
| 1 | 4/3/67 | FOR APPROVAL | DR. H.P. | |

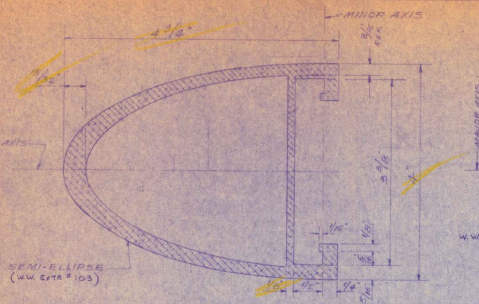
WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
ST. ALBANS - SWANTON I-89-3(36)
VT. 105 OVER I-89
ALUMINUM BRIDGE RAILING

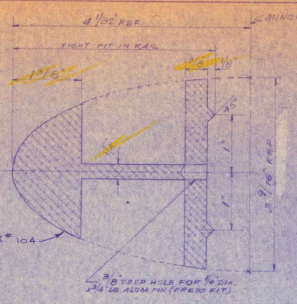
CONTRACTOR: O.T. O'NEILL

SCALE: WW # 736 — BR-168

SHT. 1 OF 3

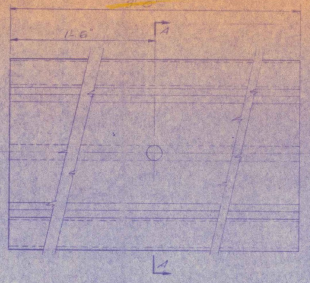


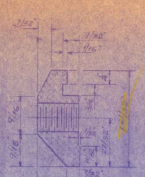

BARRIER RAIL SECTION
N.T.S.



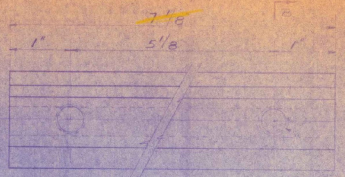

SECTION A-A

BARRIER RAIL SPLICE DETAIL
N.T.S.

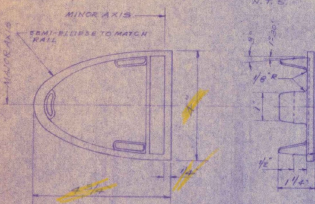




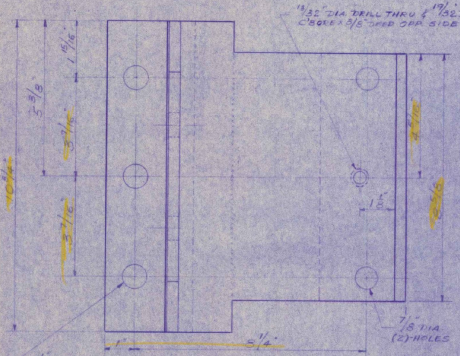
SECTION B-B

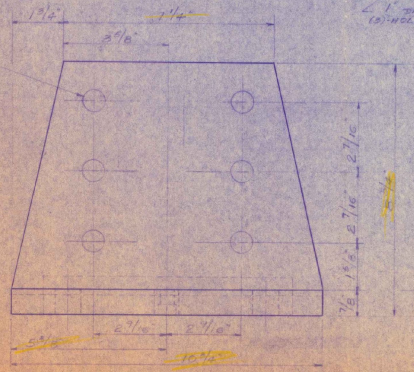


BARRIER RAIL CLAMP BAR DETAIL
FULL SIZE

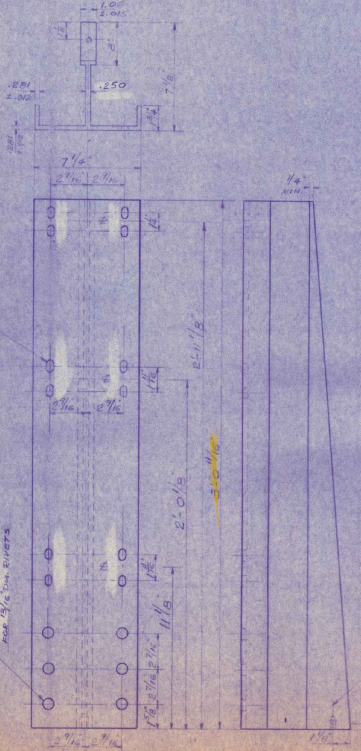



BARRIER RAIL CAP DETAIL
6"=1'-0"




POST BASE DETAILS
3"=1'-0"




POST STEM DETAILS
3"=1'-0"

## GENERAL NOTES:

1. MATERIAL FOR ANCHOR BOLTS SHALL CONFORM TO ASTM-A276 TYPE 430 STAINLESS STEEL
2. MATERIAL FOR CLAMP BAR SCREWS TO BE S.S.A. STN TYPE 430
3. MATERIAL FOR ANCHOR BOLTS NUTS TO BE A.S.T.M. A7
4. EXPOSED ENDS OF RAIL TUBE SHALL BE CLOSED WITH CENTER TYPE RAIL END CAPS. CAPS SHALL BE ALUMINUM ALLOY SAND MOLD CASTINGS CONFORMING TO A.S.T.M. SPEC. B26 ALLOY 43 TO A
5. ALL WELDING SHALL BE METAL INERT GAS PROCESS
6. RAILING SYSTEM SHALL BE CONTINUOUS WITH RAIL BRACKETS ATTACHED TO A MINIMUM OF THREE POSTS, WHERE POSSIBLE EACH JOINT IN RAIL SHALL BE SPLICED.
7. ANCHOR BOLTS ARE TO BE PRESET IN CONCRETE BY ERECTOR TEMPLATES BY THE CONTRACTOR
8. MATERIAL FOR ALUMINUM WASHERS SHALL BE A.S.T.M. B-209 ALLOY ALCLAD 2024-T4, MATERIAL FOR RIVETS SHALL BE A.S.T.M. B-211 ALLOY 6061-T6 OR 6053-T6, RIVETS SHALL BE BRAZIER HEAD CONE POINT AND COLD DRIVEN.
9. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE COAT OF ZINC CHROMATE PAINT.
10. FABRIC AND SHALL BE PREFORMED RADIUS IN ACCORDANCE WITH A.A.S.H.O. SPEC. 2.10.3 (K)
11. MATERIAL FOR POSTS, BASES, OFFICE FABRICATION AND CLAMP BARS TO BE ALUM. EXTRUSIONS 6061-T6 TEMPER. TUBULAR RAIL ALSO 6061-T6
12. WELD FILLER WIRE SHALL BE ASTM B285 ALLOY 5356

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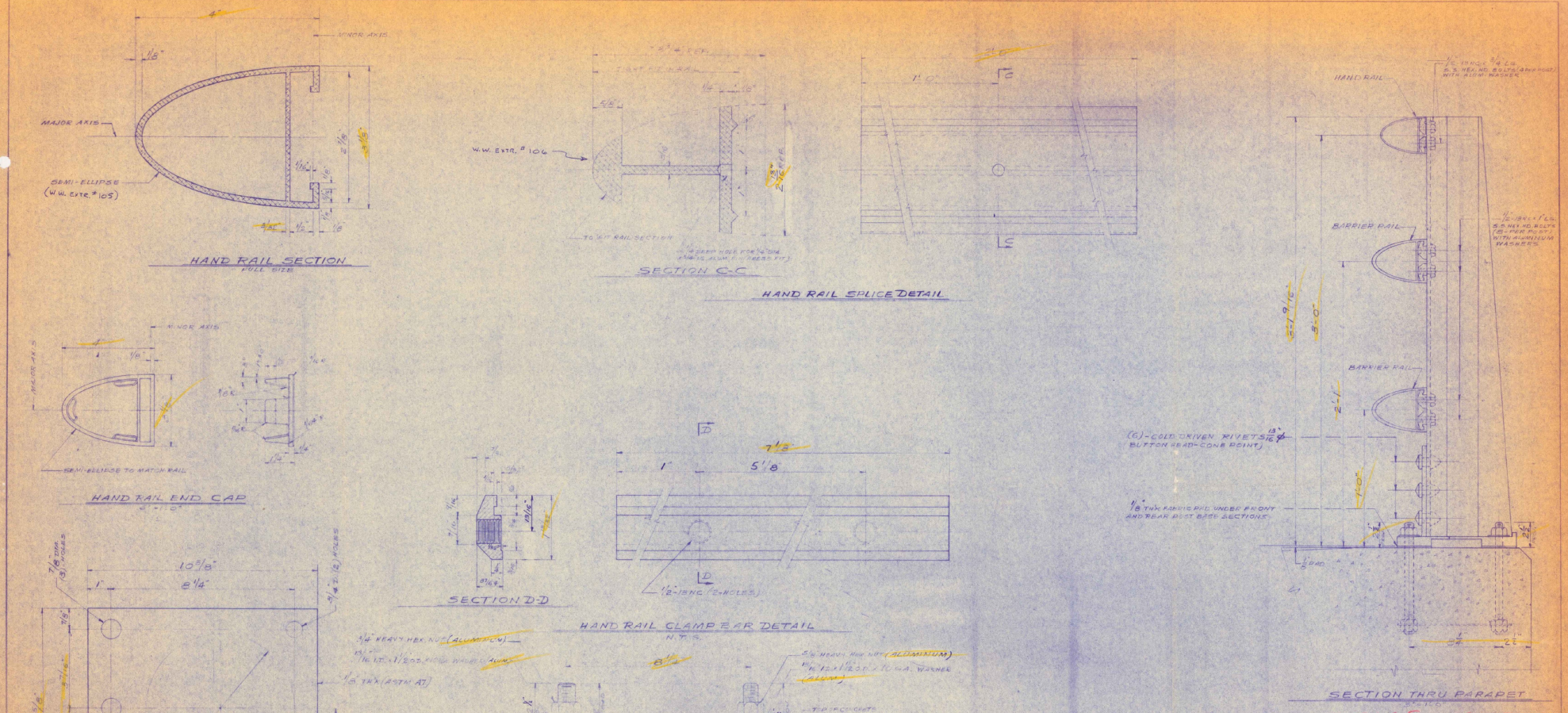
RECEIVED APR 3 1967
CKD. BY ARM OK'D BY HWB
SUBMIT APPROVED
BY HWB DATE 4/4/67

| NO. | ISSUE | REVISION |
|---|---|---|
| 3 | 11-1-67 | SPLICE PLATE DETAILS |
| 2 | 10-1-67 | REVISED & CHANGED |
| 1 | 7-1-67 | FOR APPROVAL |
| ISSUE | DATE | DESCRIPTION |

WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS

DRAWN H.R. SCALE
JOB NO. 736 BR-168
SHT. 2 OF 3

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RECEIVED APR 3 1967
CK'D BY A.J.C. CK'D BY HWB
RESUBMIT APPROVED
BY HWB DATE 4/3/67

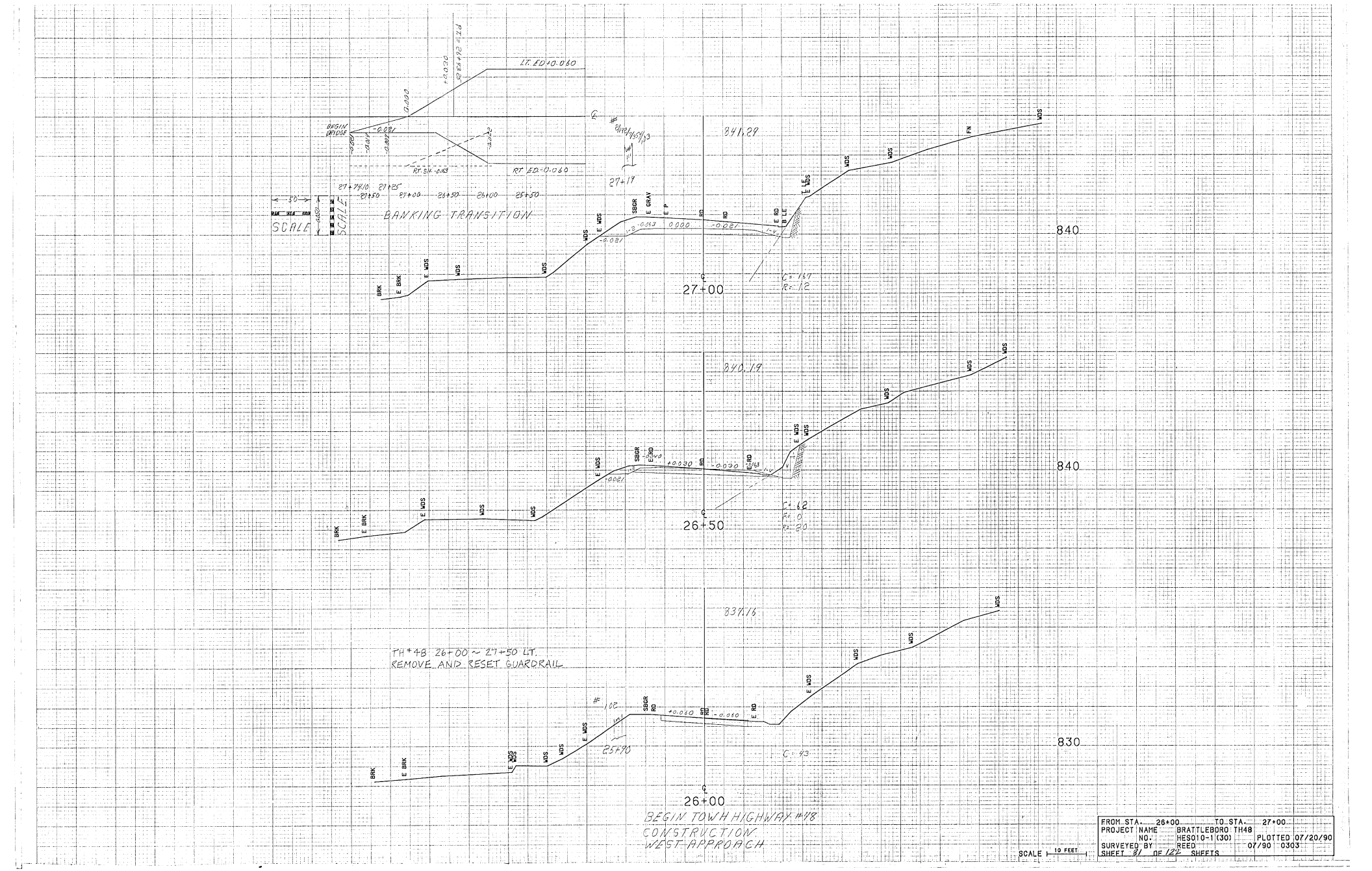
WARD WELLER CO., INC.
215 OAK STREET
NATICK, MASSACHUSETTS

VERMONT DEPARTMENT OF HIGHWAYS
STANDARD DETAILS
FOR
3-RAIL ALUMINUM RAILING

| | | | |
|---|---|---|---|
| DR. H.R. | SCALE: | | BR-168 |
| CK. | W.W. #736 | | |

VT3

SH 3 OF 3




| | | | |
|---|---|---|---|
| FROM STA. 26+00 | TO STA. 27+00 | | |
| PROJECT NAME | BRATTLEBORO TH48 | | |
| NO. | HES010-1(30) | PLOTTED | 07/20/90 |
| SURVEYED BY | REED | 07/90 | 0303 |
| SHEET 81 OF 124 SHEETS | | | |

St. Albans - Swanton
I-89-3 (36) C/1

Vermont Agency of
Transportation
PHASE 1-INTERSTATE
#122302-01

INITIALS **HANGER 212** DONE

Vermont Agency of
Transportation
PHASE 1-INTERSTATE
#122302-01

INITIALS **HANGER 210** DONE

Date In: January 3, 2003 Batch 1 (HANGER 1 of

BR 91
BR 92N
BR 89

~~BR 100~~ ~~BR 102~~
~~BR 101~~
~~BR 100~~

ST. Albans - Swanton

*19 66
67

I-89-3 (36) C/1

19 66
67

Vermont Agency of
Transportation
PHASE 1-INTERSTATE
#122302-01

INITIALS HANGER 242 DONE

*1966 Shop Drawings
67

ST. Albans - Swanton
I-89-3 (36) C/1

1966
67