REVIEWER NOTES:

1. A 45-DAY CLOSURE IS ANTICIPATED. TRAFFIC IS EXPECTED TO BE HANDLED WITH AN OFFSITE DETOUR. DETOUR SIGNAGE WILL BE THE RESPONSIBILITY OF THE TOWN.

2. EXISTING UTILITY LINE IS INACTIVE. WE PLAN TO REPLACE ACROSS THE BRIDGE FOR FUTURE USE.

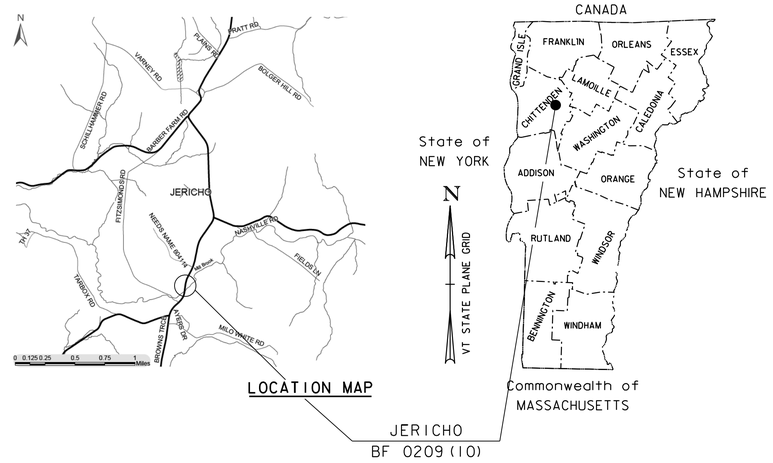
3. ANY STRUCTURAL ELEMENTS SHOWN IN THE PLANS ARE CONCEPTUAL IN NATURE AND HAVE NOT BEEN FULLY DESIGNED.

4. THIS PROJECT WILL UTILIZE THE VT DEC LOW RISK SITE HANDBOOK FOR EPSC. NO SITE-SPECIFIC EPSC PLAN IS INCLUDED. THE CONTRACTOR SHALL SUBMIT A SITE-SPECIFIC EPSC PLAN TO VTRANS UPON CONTRACT AWARD IN ACCORDANCE WITH THEIR MEANS AND METHODS.

5. IT IS ANTICIPATED THAT RIGHT-OF-WAY AQUISTION WILL BE NECESSARY.

6. ADDITIONAL BORINGS ARE BEING TAKEN AND WILL BE ADDED AT FINAL PLANS.

# STATE OF VERMONT
# AGENCY OF TRANSPORTATION




# PROPOSED IMPROVEMENT
# BRIDGE PROJECT

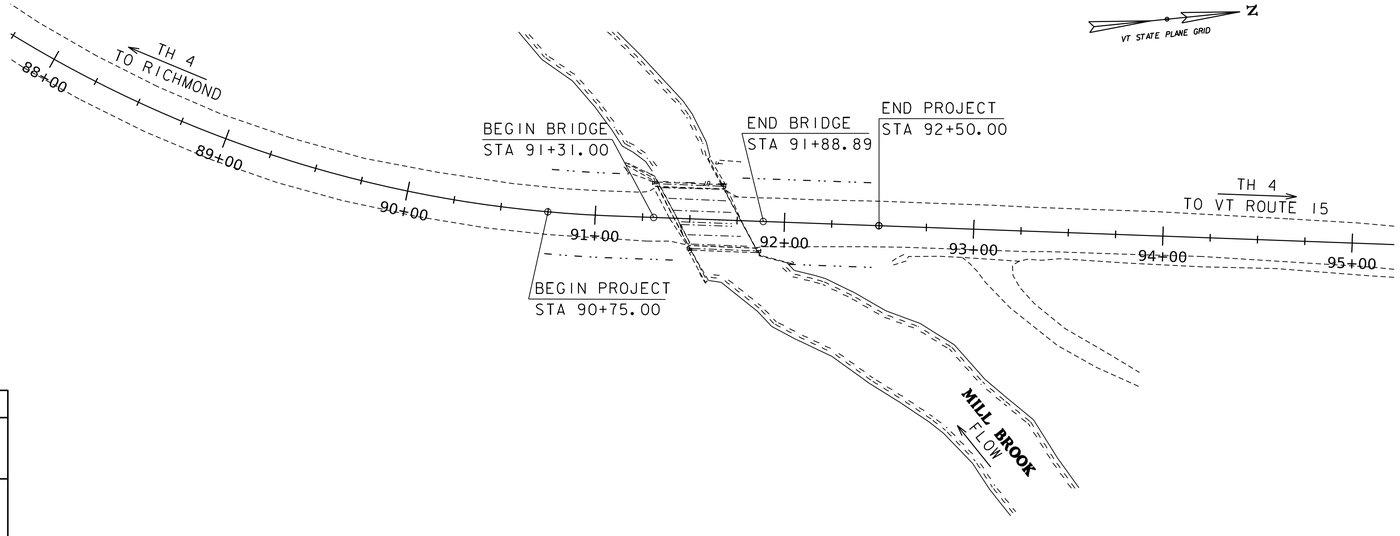
## TOWN OF JERICHO
## COUNTY OF CHITTENDEN

ROUTE NO : FAS ROUTE 209 (TH4/BROWNS TRACE RD.)  BRIDGE NO : 15

PROJECT LOCATION : TOWN OF JERICHO ON TH 4 (BROWNS TRACE ROAD) APPROXIMATELY 0.12 MILES NORTH OF FITZSIMONDS ROAD.

PROJECT DESCRIPTION : REPLACEMENT OF BRIDGE NO. 15 ON TH 4 (BROWNS TRACE RD.) IN JERICHO, OVER MILL BROOK.

LENGTH OF STRUCTURE : 57.89 FEET.
LENGTH OF ROADWAY : 117.11 FEET.
LENGTH OF PROJECT : 175.00 FEET.




CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2018, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON APRIL 13, 2018 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

| |
|---|
| QUALITY ASSURANCE PROGRAM : LEVEL 2 |
| SURVEYED BY : VTRANS<br>SURVEYED DATE : 5.17.2021 |
| DATUM<br>VERTICAL NAVD 88<br>HORIZONTAL NAD 83 (2011) |

40 0 40
SCALE: 1" = 40'-0"

**PRELIMINARY PLANS**
**17-JUL-2023**

| |
|---|
| HIGHWAY DIVISION, CHIEF ENGINEER<br>APPROVED _____ DATE _____ |
| PROJECT MANAGER : R. YOUNG |
| PROJECT NAME : JERICHO<br>PROJECT NUMBER : BF 0209(10)<br>SHEET 1 OF 23 SHEETS |

STATE OF VERMONT
AGENCY OF TRANSPORTATION

# PRELIMINARY INFORMATION SHEET (BRIDGE)

Version
LRFD

## INDEX OF SHEETS

### PLAN SHEETS



### DETAIL SHEETS



### STANDARDS LIST



## FINAL HYDRAULIC REPORT

### TRAFFIC DATA

| YEAR | ADT | DHV | % D | % T |
|---|---|---|---|---|
| 2025 | 3200 | 480 | 59 | 5.2 |
| 2045 | 3500 | 520 | 59 | 8.3 |

20 year ESAL for flexible pavement from 2025 to 2045 : 948000

40 year ESAL for flexible pavement from 2025 to 2065 : 2249000

Design Speed : 35 mph

### AS BUILT "REBAR" DETAIL

| LEVEL I | LEVEL II | LEVEL III |
|---|---|---|
| TYPE: | TYPE: | TYPE: |
| GRADE: | GRADE: | GRADE: |

### LRFR LOAD RATING FACTORS

| LOADING LEVELS | TRUCK | | | | | | |
|---|---|---|---|---|---|---|---|
| | H-20 | HL-93 | 3S2 | 6 AXLE | 3A STR. | 4A STR. | 5A SEMI |
| TONNAGE | 20 | 36 | 36 | 66 | 30 | 34.5 | 38 |
| INVENTORY | | | | | | | |
| POSTING | | | | | | | |
| OPERATING | | | | | | | |
| COMMENTS: | | | | | | | |

### TRAFFIC MAINTENANCE NOTES

1. MAINTAIN TRAFFIC ON AN OFF SITE DETOUR.
2. TRAFFIC SIGNALS ARE NOT NECESSARY.
3. SIDEWALKS ARE NOT NECESSARY

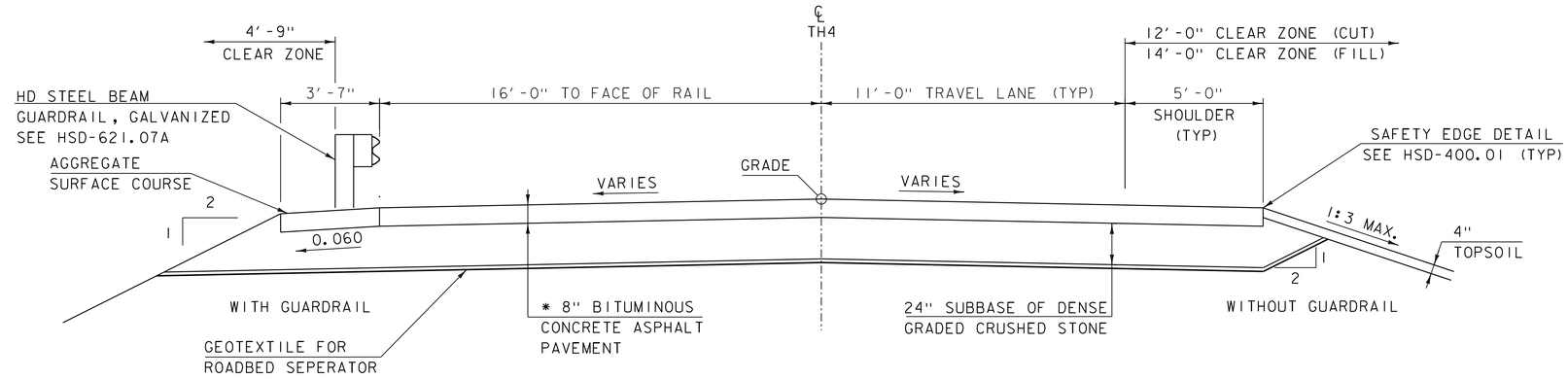
### DESIGN VALUES

| | | |
|---|---|---|
| 1. DESIGN LIVE LOAD | | HL-93 |
| 2. FUTURE PAVEMENT | $d_p$: | 0.0 INCH |
| 3. DESIGN SPAN | $L$: | 55.00 FT |
| 4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS) | $\Delta$: | --- |
| 5. PRESTRESSING STRAND | $f_y$: | --- |
| 6. PRESTRESSED CONCRETE STRENGTH | $f'_c$: | --- |
| 7. PRESTRESSED CONCRETE RELEASE STRENGTH | $f'_{ci}$: | --- |
| 8. HIGH PERFORMANCE CONCRETE, CLASS PCD | $f'_c$: | 4.0 KSI |
| 9. HIGH PERFORMANCE CONCRETE, CLASS PCS | $f'_c$: | 3.5 KSI |
| 10. CONCRETE HIGH PERFORMANCE, CLASS SCC | $f'_c$: | 4.0 KSI |
| 11. CONCRETE, CLASS C | $f'_c$: | 3.0 KSI |
| 12. REINFORCING STEEL | $f_y$: | 60 KSI |
| 13. STRUCTURAL STEEL AASHTO M270 (WEATHERING) | $f_y$: | 50 KSI |
| 14. NOMINAL BEARING RESISTANCE OF SOIL | $q_n$: | --- |
| 15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD) | $\phi$: | --- |
| 16. NOMINAL BEARING RESISTANCE OF ROCK | $q_n$: | --- |
| 17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD) | $\phi$: | --- |
| 18. PILE RESISTANCE FACTOR | $\phi$: | --- |
| 19. LATERAL PILE DEFLECTION | $\Delta$: | --- |
| 20. BASIC WIND SPEED | $V_{3s}$: | --- |
| 21. MINIMUM GROUND SNOW LOAD | $p_g$: | --- |
| 22. SEISMIC DATA $PGA$: --- | $S_s$: | --- |
| | $S_1$: | --- |
| 23. | | |
| 24. | | --- |
| 25. | | --- |
| 26. | | --- |

PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209(10)

FILE NAME: sl2j634forms.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: F. BARROWS
PRELIMINARY INFORMATION SHEET

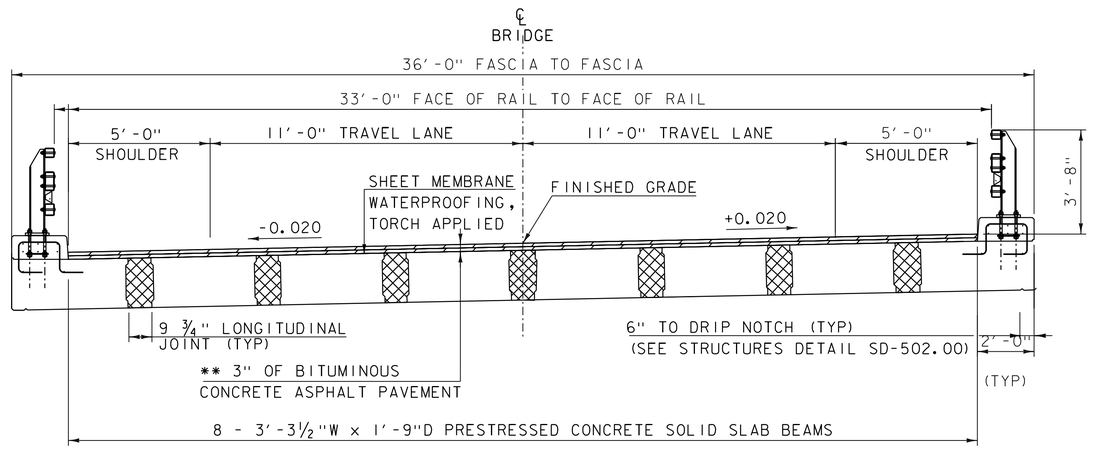
PLOT DATE: 17-JUL-2023
DRAWN BY: A. MANN
CHECKED BY: F. BARROWS
SHEET 2 OF 23




## TH4 TYPICAL SECTION

SCALE 3/8" = 1'-0"

* 1½" TYPE IVB
1½" TYPE IVB
2½" TYPE IIS
2½" TYPE IIS




## BRIDGE TYPICAL SECTION

SCALE 3/8" = 1'-0"

** 1½" TYPE IVB
1½" TYPE IVB

### PAVEMENT SPECIFICATIONS

| | |
|---|---|
| DESIGN LANE/DESIGN LIFE ESALS | 559,320 |
| PERFORMANCE GRADE ASPHALT BINDER | 70-28 |
| DESIGN NUMBER OF GYRATIONS | 65 |

EMULSION SHALL BE APPLIED PER THE APPLICATION RATES IN TABLE 406.12A OF THE STARDARD SPECIFICATIONS.

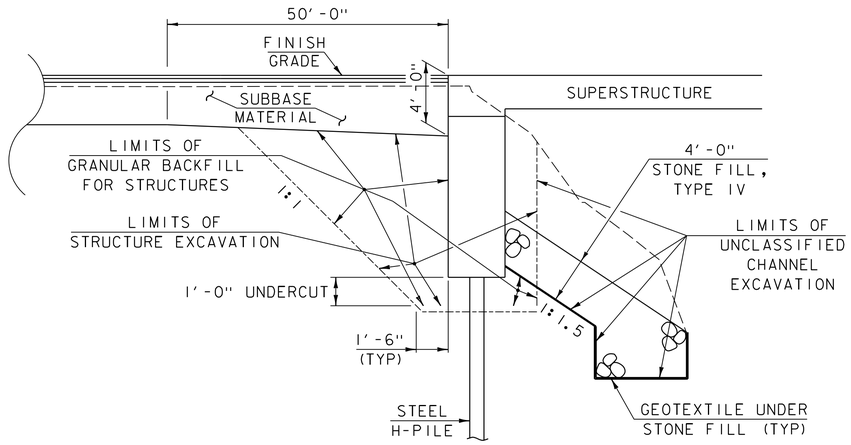
### MATERIAL TOLERANCES
(IF USED ON PROJECT)

| | |
|---|---|
| SURFACE | |
| - PAVEMENT (TOTAL THICKNESS) | +/- ¼" |
| - AGGREGATE SURFACE COURSE | +/- ½" |
| SUBBASE | +/- 1" |
| SAND BORROW | +/- 1" |

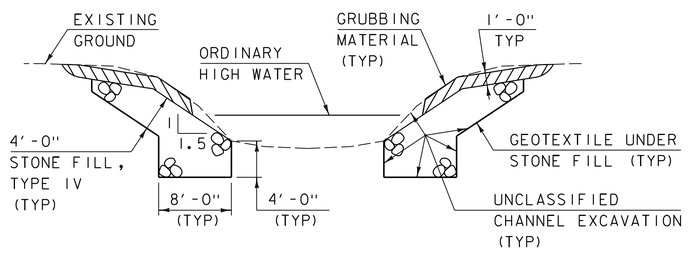
PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209(10)

FILE NAME: sl2j634typ.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: F. BARROWS
TYPICAL SECTIONS 1

PLOT DATE: 17-JUL-2023
DRAWN BY: A. MANN
CHECKED BY: F. BARROWS



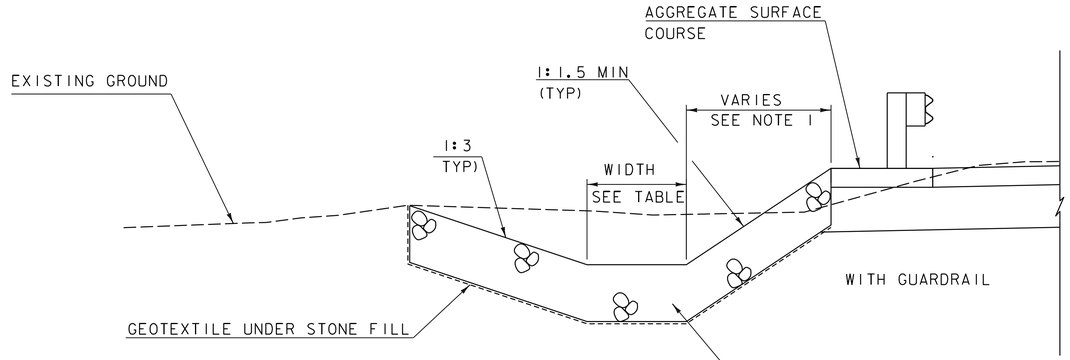

ABUTMENT EARTHWORK TYPICAL SECTION




CHANNEL TYPICAL SECTION

1. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.

2. GRUBBING MATERIAL SHALL BE PLACED UNDERNEATH STRUCTURES WHERE THERE IS MORE THAN 6 FEET VERTICALLY FROM ORDINARY HIGH WATER (OHW) TO THE BOTTOM OF SUPERSTRUCTURE AND MORE THAN 6 FEET HORIZONTALLY FROM OHW LINE TO FRONT FACE OF ABUTMENT. THIS MATERIAL SHALL START JUST ABOVE THE OHW ELEVATION AND TERMINATE 3 FEET HORIZONTALLY FROM THE FRONT FACE OF THE ABUTMENT. THIS MATERIAL SHALL NOT BE PLACED IN AREAS THAT WILL SEE CONCENTRATED FLOWS RESULTING FROM SURFACE WATER RUNOFF. GRUBBING MATERIAL MAY BE OMITTED IF LESS THAN 3 FEET IN WIDTH BENEATH A STRUCTURE. SEE CHANNEL SECTIONS FOR ADDITIONAL DETAILING.




NOTES:
1. WIDTH OF DITCH FORESLOPE VARIES, SEE CROSS SECTIONS

| | | |
|---|---|---|
| STA | 90+00 TO 91+30 RT | WIDTH OF 2.5' |
| STA | 91+80 TO 93+50 LT | WIDTH OF 3.5 |

STONE LINED DITCH TYPICAL

| | |
|---|---|
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |
| FILE NAME: sl2j634typ.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R. YOUNG | DRAWN BY: A. MANN |
| DESIGNED BY: F. BARROWS | CHECKED BY: F. BARROWS |
| TYPICAL SECTIONS 2 | SHEET 4 OF 23 |

## GENERAL INFORMATION

### SYMBOLOGY LEGEND NOTE

THE SYMBOLOGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLOGY. THE SYMBOLOGY IS USED FOR EXISTING & PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROJECT ANNOTATION, AS NOTED ON PROJECT PLAN SHEETS. THIS LEGEND SHEET COVERS THE BASICS. SYMBOLOGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

## R.O.W. ABBREVIATIONS (CODES) & SYMBOLS

| POINT | CODE | DESCRIPTION |
|---|---|---|
| | BF | BARRIER FENCE |
| | CH | CHANNEL EASEMENT |
| | CONST | CONSTRUCTION EASEMENT |
| | CUL | CULVERT EASEMENT |
| | D&C | DISCONNECT & CONNECT |
| | DIT | DITCH EASEMENT |
| | DR | DRAINAGE EASEMENT |
| | DRIVE | DRIVEWAY EASEMENT |
| | EC | EROSION CONTROL |
| | HWY | HIGHWAY EASEMENT |
| | I&M | INSTALL & MAINTAIN EASEMENT |
| | LAND | LANDSCAPE EASEMENT |
| | PDF | PROJECT DEMARCATION FENCE |
| | R&RES | REMOVE & RESET |
| | R&REP | REMOVE & REPLACE |
| | R.T.& I. | RIGHT, TITLE, AND INTEREST |
| | SR | SLOPE RIGHT |
| | UE | UTILITY EASEMENT |
| | (P) | PERMANENT EASEMENT |
| | (T) | TEMPORARY EASEMENT |
| ■ | BNDNS | BOUND SET |
| ⧈ | BNDNS | BOUND TO BE SET |
| ◎ | IPNF | IRON PIN FOUND |
| ● | IPNS | IRON PIN TO BE SET |
| ⊠ | CALC | EXISTING ROW POINT |
| ○ | PROW | PROPOSED ROW POINT |
| [LENGTH] | | LENGTH CARRIED ON NEXT SHEET |

## COMMON TOPOGRAPHIC POINT SYMBOLS

| POINT | CODE | DESCRIPTION |
|---|---|---|
| | APL | BOUND APPARENT LOCATION |
| | BM | BENCHMARK |
| | BND | BOUND |
| | CB | CATCH BASIN |
| | COMB | COMBINATION POLE |
| | DITHR | DROP INLET THROATED DNC |
| | EL | ELECTRIC POWER POLE |
| | FPOLE | FLAGPOLE |
| | GASFIL | GAS FILLER |
| | GP | GUIDE POST |
| | GSO | GAS SHUT OFF |
| | GUY | GUY POLE |
| | GUYW | GUY WIRE |
| | GV | GATE VALVE |
| | H | TREE HARDWOOD |
| | HCTRL | CONTROL HORIZONTAL |
| | HVCTRL | CONTROL HORIZ.& VERTICAL |
| | HYD | HYDRANT |
| | IP | IRON PIN |
| | IPIPE | IRON PIPE |
| | LI | LIGHT - STREET OR YARD |
| | MB | MAILBOX |
| | MH | MANHOLE (MH) |
| | MM | MILE MARKER |
| | PM | PARKING METER |
| | PMK | PROJECT MARKER |
| | POST | POST STONE/WOOD |
| | RRSIG | RAILROAD SIGNAL |
| | RRSL | RAILROAD SWITCH LEVER |
| | S | TREE SOFTWOOD |
| | SAT | SATELLITE DISH |
| | SHRUB | SHRUB |
| | SIGN | SIGN |
| | STUMP | STUMP |
| | TEL | TELEPHONE POLE |
| | TIE | TIE |
| | TSIGN | SIGN W/DOUBLE POST |
| | VCTRL | CONTROL VERTICAL |
| | WELL | WELL |
| | WSO | WATER SHUT OFF |

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

## PROPOSED GEOMETRY CODES

| CODE | DESCRIPTION |
|---|---|
| PC | POINT OF CURVATURE |
| PI | POINT OF INTERSECTION |
| CC | CENTER OF CURVE |
| PT | POINT OF TANGENCY |
| PCC | POINT OF COMPOUND CURVE |
| PRC | POINT OF REVERSE CURVE |
| POB | POINT OF BEGINNING |
| POE | POINT OF ENDING |
| STA | STATION PREFIX |
| AH | AHEAD STATION SUFFIX |
| BK | BACK STATION SUFFIX |
| D | CURVE DEGREE OF (100FT) |
| R | CURVE RADIUS OF |
| T | CURVE TANGENT LENGTH |
| L | CURVE LENGTH OF |
| E | CURVE EXTERNAL DISTANCE |
| CB | CHORD BEARING |

## UTILITY SYMBOLOGY

### UNDERGROUND UTILITIES

- UGU — UTILITY (GENERIC-UNKNOWN)
- UT — TELEPHONE
- UE — ELECTRIC
- UC — CABLE (TV)
- UEC — ELECTRIC+CABLE
- UET — ELECTRIC+TELEPHONE
- UCT — CABLE+TELEPHONE
- UECT — ELECTRIC+CABLE+TELEPHONE
- G — GAS LINE
- W — WATER LINE
- S — SANITARY SEWER (SEPTIC)

### ABOVE GROUND UTILITIES (AERIAL)

- AGU — UTILITY (GENERIC-UNKNOWN)
- T — TELEPHONE
- E — ELECTRIC
- C — CABLE (TV)
- EC — ELECTRIC+CABLE
- ET — ELECTRIC+TELEPHONE
- AER E&T — ELECTRIC+TELEPHONE
- CT — CABLE+TELEPHONE
- ECT — ELECTRIC+CABLE+TELEPHONE
- UTILITY POLE GUY WIRE

## PROJECT CONSTRUCTION SYMBOLOGY

### PROJECT DESIGN & LAYOUT SYMBOLOGY

- CZ — CLEAR ZONE
- PLAN LAYOUT MATCHLINE

### PROJECT CONSTRUCTION FEATURES

- TOP OF CUT SLOPE
- TOE OF FILL SLOPE
- STONE FILL
- BOTTOM OF DITCH ℄
- CULVERT PROPOSED
- STRUCTURE SUBSURFACE
- PDF — PDF — PROJECT DEMARCATION FENCE
- BF — BF — BARRIER FENCE
- TREE PROTECTION ZONE (TPZ)
- STRIPING LINE REMOVAL
- SHEET PILES

## CONVENTIONAL BOUNDARY SYMBOLOGY

### BOUNDARY LINES

- TOWN LINE — TOWN BOUNDARY LINE
- COUNTY LINE — COUNTY BOUNDARY LINE
- STATE LINE — STATE BOUNDARY LINE
- PROPOSED STATE R.O.W. (LIMITED ACCESS)
- PROPOSED STATE R.O.W.
- STATE ROW (LIMITED ACCESS)
- STATE ROW
- TOWN ROW
- PERMANENT EASEMENT LINE (P)
- TEMPORARY EASEMENT LINE (T)
- SURVEY LINE
- P/L — PROPERTY LINE (P/L)
- SR SR SR — SLOPE RIGHTS
- 6f — 6f — 6F PROPERTY BOUNDARY
- 4f — 4f — 4F PROPERTY BOUNDARY
- HAZ — HAZ — HAZARDOUS WASTE

## EPSC LAYOUT PLAN SYMBOLOGY

### EPSC MEASURES

- FILTER CURTAIN
- SILT FENCE
- SILT FENCE WOVEN WIRE
- CHECK DAM
- DISTURBED AREAS REQUIRING RE-VEGETATION
- EROSION MATTING

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOGY

### ENVIRONMENTAL RESOURCES

- WETLAND BOUNDARY
- RIPARIAN BUFFER ZONE
- WETLAND BUFFER ZONE
- SOIL TYPE BOUNDARY
- T&E — THREATENED & ENDANGERED SPECIES
- HAZ — HAZ — HAZARDOUS WASTE AREA
- AG — AGRICULTURAL LAND
- HABITAT — FISH & WILDLIFE HABITAT
- FLOOD PLAIN — FLOOD PLAIN
- OHW — ORDINARY HIGH WATER (OHW)
- STORM WATER
- USDA FOREST SERVICE LANDS
- WILDLIFE HABITAT SUIT/CONN

### ARCHEOLOGICAL & HISTORIC

- ARCH — ARCHEOLOGICAL BOUNDARY
- HISTORIC DIST — HISTORIC DISTRICT BOUNDARY
- HISTORIC — HISTORIC AREA
- (H) HISTORIC STRUCTURE

## CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

### EXISTING FEATURES

- ROAD EDGE PAVEMENT
- ROAD EDGE GRAVEL
- DRIVEWAY EDGE
- DITCH
- FOUNDATION
- FENCE (EXISTING)
- FENCE WOOD POST
- FENCE STEEL POST
- GARDEN
- ROAD GUARDRAIL
- RAILROAD TRACKS
- CULVERT (EXISTING)
- STONE WALL
- WALL
- WOOD LINE
- BRUSH LINE
- HEDGE
- BODY OF WATER EDGE
- LEDGE EXPOSED

PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209(10)

FILE NAME: sl2J634legend.dgn
PROJECT LEADER: R.YOUNG
DESIGNED BY: F.BARROWS
CONVENTIONAL SYMBOLOGY LEGEND

PLOT DATE: 17-JUL-2023
DRAWN BY: A.MANN
CHECKED BY: F.BARROWS
SHEET 5 OF 23

## PRIMARY CONTROL

HVCTRL #1
NORTH = 710853.6320
EAST = 1515771.3680
ELEV. = 668.6900

TO REACH FROM THE INTERSECTION OF ROUTE 2, JERICHO ROAD, AND BRIDGE ST IN RICHMOND VILLAGE, GO NORTHERLY ALONG JERICHO ROAD (LATER BECOMING BROWNS TRACE ROAD) FOR 3.55 MI (5.71 KM) TO THE INTERSECTION OF JERICHO HIGHWAY DEPARTMENT ROAD ON THE LEFT. TURN LEFT AND GO WEST ALONG JERICHO HIGHWAY DEPARTMENT ROAD FOR 0.2 MI (0.3 KM) TO THE ENTRANCE DRIVEWAY TO THE JERICHO HIGHWAY DEPARTMENT GARAGE AND THE SITE OF THE MARK ON THE LEFT IN A LAWN.
IT IS 10.1 METERS SOUTHWEST CENTER LINE ROAD TO JERICHO HIGHWAY DEPARTMENT. 12.8 METERS SOUTHEAST CENTERLINE OF GRAVEL DRIVE. 17.4 METERS SOUTH SOUTH WEST OF POLE #30/105X4.7.8 METERS NORTH NORTHWEST OF A SPRUCE TREE.

HVCTRL #2
NORTH = 710600.1630
EAST = 1516660.5390
ELEV. = 640.6600

TO REACH FROM THE INTERSECTION OF ROUTE 2, JERICHO ROAD, AND BRIDGE ST IN RICHMOND VILLAGE, GO NORTHERLY ALONG JERICHO ROAD (LATER BECOMING BROWNS TRACE ROAD) FOR 3.55 MI (5.71 KM) TO THE INTERSECTION OF JERICHO HIGHWAY DEPARTMENT ROAD ON THE LEFT AND THE SITE OF THE MARK ON THE LEFT ABOUT 100 FT (30.5 M) NORTH OF THE INTERSECTION.

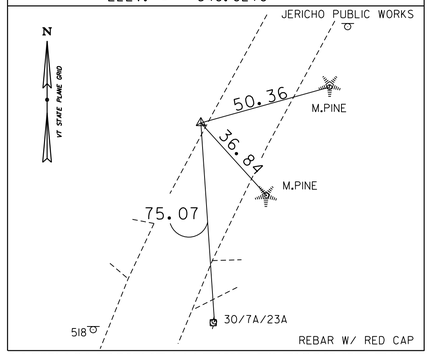
THE MARK IS A .75 INCH (19 MM) REBAR WITH RED PLASTIC CAP SET 0.2 FT (6 CM) BELOW GROUND SURFACE.

IT IS 4.8 METERS NORTHWEST OF CENTERLINE OF BROWNS TRACE ROAD. 27.8 NORTHEAST CENTERLINE JERICHO HIGHWAY DEPARTMENT ROAD. 14.0SOUTH OF POLE #30/105.

## SECONDARY CONTROL

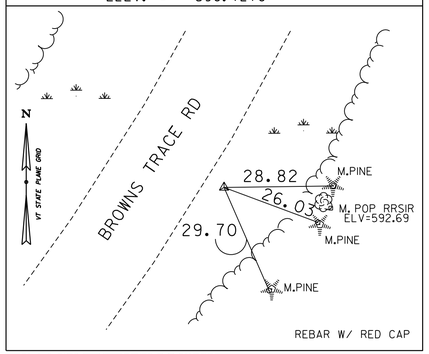
### HVCTRL #3

NORTH = 710105.0973
EAST = 1516421.4290
ELEV. = 640.0210




### HVCTRL #4

NORTH = 709144.6086
EAST = 1516205.1858
ELEV. = 590.1270




NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

*TRAVERSE COMPLETED ON 5/17/2021 BY R.GILMAN, B. HERRING & H.MCGOWAN

## ALIGNMENT TIES

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

DATUM

VERTICAL NAVD 88
HORIZONTAL NAD83 (2011)
ADJUSTMENT COMPASS

PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209 (10)

FILE NAME: X12J634TI.DGN
PROJECT LEADER: L.STONE
DESIGNED BY: VTRANS
TIE SHEET

PLOT DATE: 17-JUL-2023
DRAWN BY: H.MCGOWAN
CHECKED BY: R. GILMAN
SHEET 6 OF 23

DUANE/DEERFIELF
0% TO 5% SLOPES
K=0.17/0.17

COLTON
12% TO 20% SLOPES
GRAVELLY LOAMY SAND
K=0.17

RIPARIAN BUFFER

N/F
MUNNS, MARY H. &
MATTHEW E.

N/F
DOWIE, GRAHAM &
UNDERCOFFLER, MARY P.

Class II Wetland

WETLAND BUFFER

VT STATE PLANE GRID

WETLAND BUFFER

TH4
TO RICHMOND

EDGE OF EXISTING
ROADWAY PRISM

APPROX. EXISTING TOWN R.O.W.

CONST(T)

EDGE OF EXISTING
ROADWAY PRISM

90+00

91+00

92+00

93+00

94+00

N07°54'00.00"E

TH4
TO VT ROUTE 15

MAILBOX
521

GRAVEL
DRIVE

APPROX. EXISTING TOWN R.O.W.

BENCHMARK
RAILROAD SPIKE
IN ROOT
ELEV.=592.69

N/F
BERNSTEIN, RICHARD A. &
ELIZEBETH R.

Class II Wetland

N/F
GARNER, BRETT A.

MILL BROOK
FLOW

WETLAND BUFFER

RIPARIAN BUFFER

AGAWAM
0% TO 5% SLOPES
FINE SANDY LOAM
K=0.28

COLTON/STETSON
30% TO 60% SLOPES
K=0.17/0.17

MARLOW LOW FINE SANDY LOAM
5% to 20% SLOPES
VERY STONY
K=0.24

SCALE 1" = 20'-0"
20 0 20

PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209(10)

FILE NAME: STR/sl2j634epsc.dgn
PROJECT LEADER: R.YOUNG
DESIGNED BY: F.BARROWS
EXISTING CONDITIONS

PLOT DATE: 17-JUL-2023
DRAWN BY: G.ROKES
CHECKED BY: F.BARROWS
SHEET 7 OF 23

COARSE MILLING, BITUMINOUS PAVEMENT
STA. 89+75.00 TO 90+25.00
STA. 93+00.00 TO 93+50.00

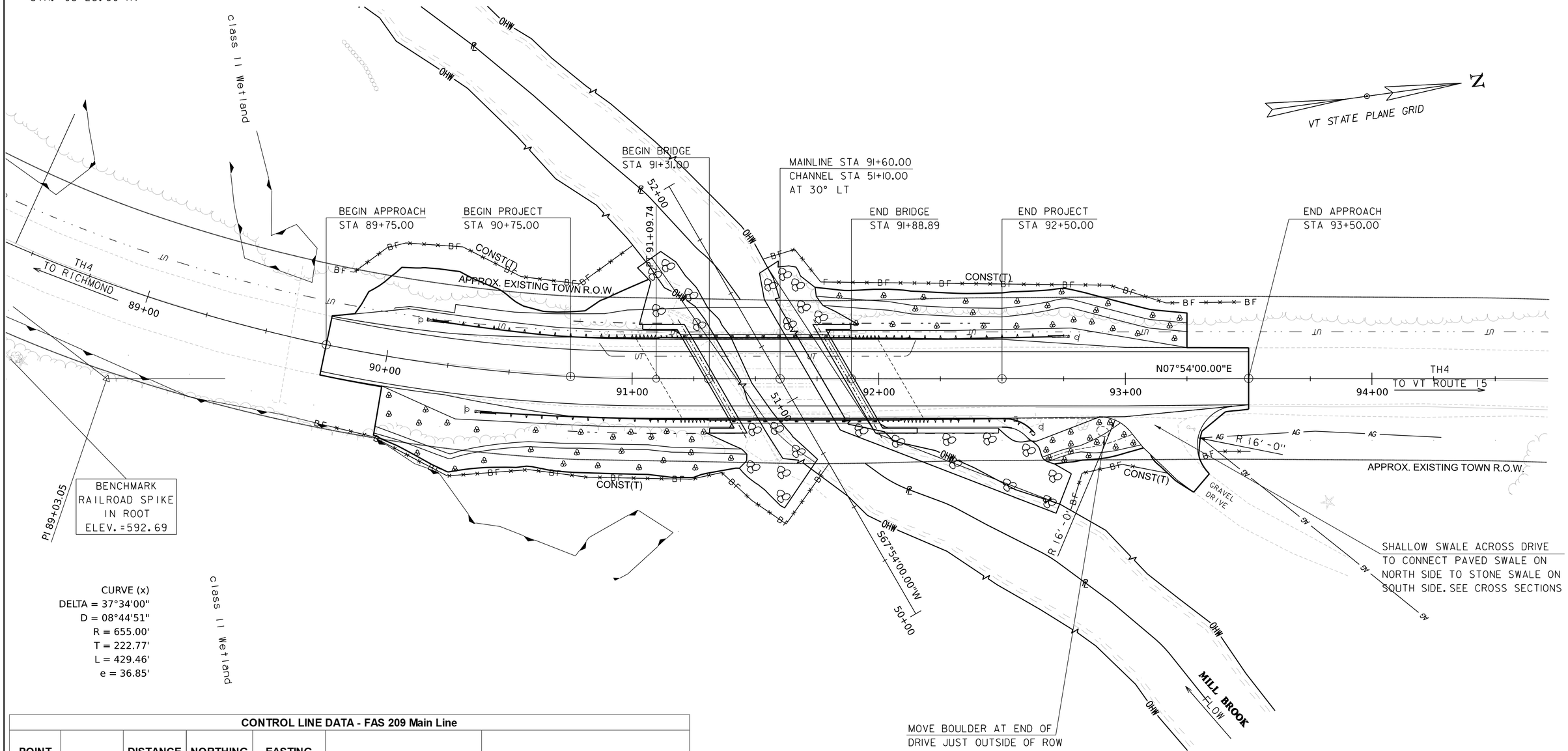
CONSTRUCT DRIVEWAY APRON W/ 2" PAVEMENT, 12" SUBBASE
STA. 93+00.00 - 93+25.00 RT

REMOVE AND RESET MAILBOX, SINGLE SUPPORT
STA. 93+25.60 RT

STONE LINED DITCH
STA. 90+00 TO 91+40 RT
STA. 91+80 TO 92+73 LT

STONE LINED SWALE
STA. 92+63 TO 92+99 RT

SPECIAL PROVISION (CONCRETE RETAINING WALL)
STA. 92+15.60 TO 92+45.00 RT




**CONTROL LINE DATA - FAS 209 Main Line**

| POINT ID | BEARING | DISTANCE (FEET) | NORTHING (Y) | EASTING (X) | PC | PI | PT | DELTA | R | L | T |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | N45.467°E | 80.285 ' | 708965.959 | 1516029.725 | | 8600 | | | | | |
| | N7.900°E | 683.120 ' | 709178.497 | 1516245.754 | 8680.285 | 8903.052 | 9109.743 | 37.567° | 655.000 ' | 429.459 ' | 222.768 ' |
| | | | 709855.134 | 1516339.645 | | 9570.096 | | | | | |

EXISTING BRIDGE INFORMATION
SINGLE SPAN CONCRETE T-BEAM
BUILT 1927, RECONSTRUCTED 1962
MAX SPAN = 38'

SCALE 1" = 20'-0"
20 0 20

PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209(10)

FILE NAME: STR/sl2j634bdr.dgn
PROJECT LEADER: R.YOUNG
DESIGNED BY: F.BARROWS
PLAN LAYOUT

PLOT DATE: 17-JUL-2023
DRAWN BY: G.ROKES
CHECKED BY: F.BARROWS
SHEET 8 OF 23

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 90+80.00 - 91+20.00 LT
STA. 90+80.00 - 91+20.00 RT
STA. 90+80.00 - 91+20.00 LT
STA. 90+80.00 - 91+20.00 RT

HD, STEEL BEAM GUARDRAIL, GALVANIZED
STA. 90+64.49 TO 90+90.16 LT
STA. 90+86.09 TO 91+10.51 RT
STA. 92+09.40 TO 92+28.14 LT
STA. 92+29.23 TO 92+61.32 RT

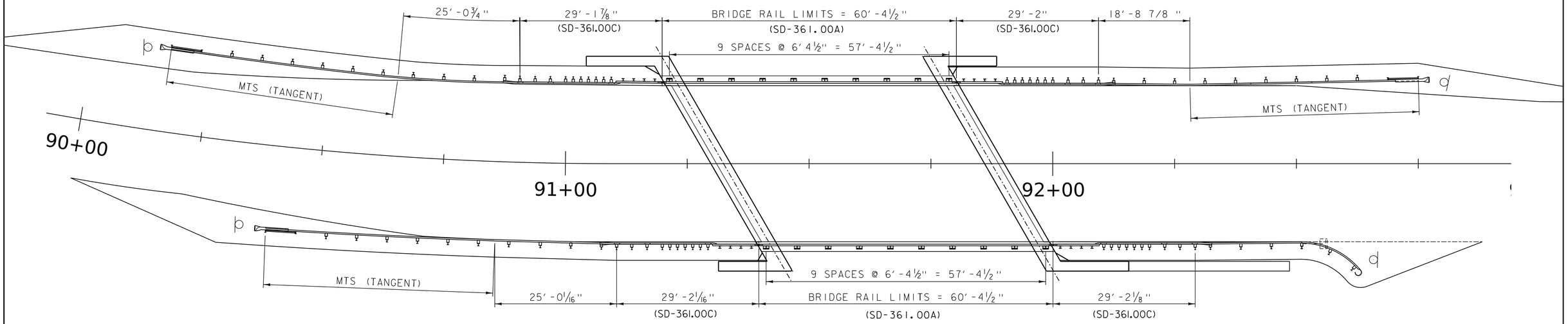
ANCHOR FOR STEEL BEAM GUARDRAIL
STA. 92+55.46 RT

BRIDGE RAILING, GALVANIZED 3 RAIL BOX BEAM
STA. 91+19.84 TO 91+80.22 LT
STA. 91+39.68 TO 92+00.05 RT

GUARDRAIL APPROACH SECTION, GALVANIZED 3 RAIL BOX BEAM
STA. 90+90.16 TO 91+19.94 LT
STA. 91+10.51 TO 91+39.68 RT
STA. 91+80.22 TO 92+09.39 LT
STA. 92+00.05 TO 92+29.23 RT

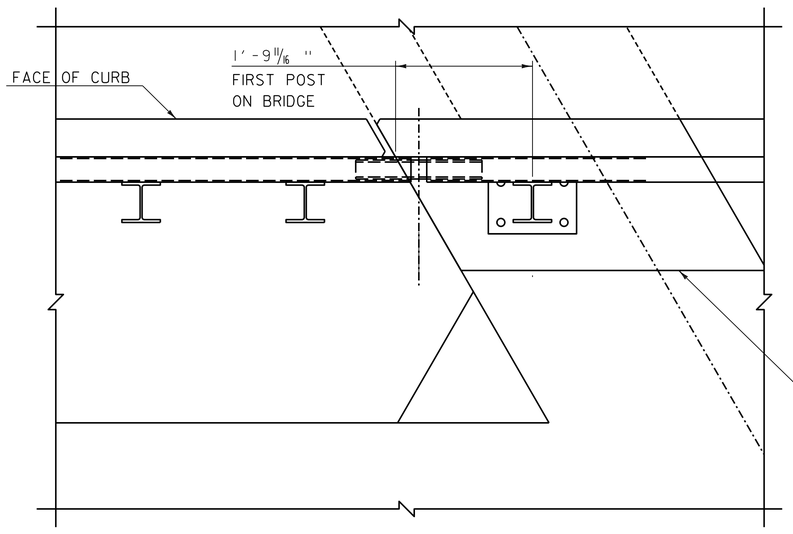
MANUFACTURED TERMINAL SECTION, TANGENT
STA. 90+16.41 TO 90+64.49 LT
STA. 90+40.18 TO 90+86.09 RT
STA. 92+28.13 TO 92+75.00 LT

DELINEATOR WITH STEEL POST
STA. 90+10 (GREEN) LT
STA. 90+35 (BLUE) RT
STA. 92+65 (GREEN) RT
STA. 92+80 (BLUE) LT



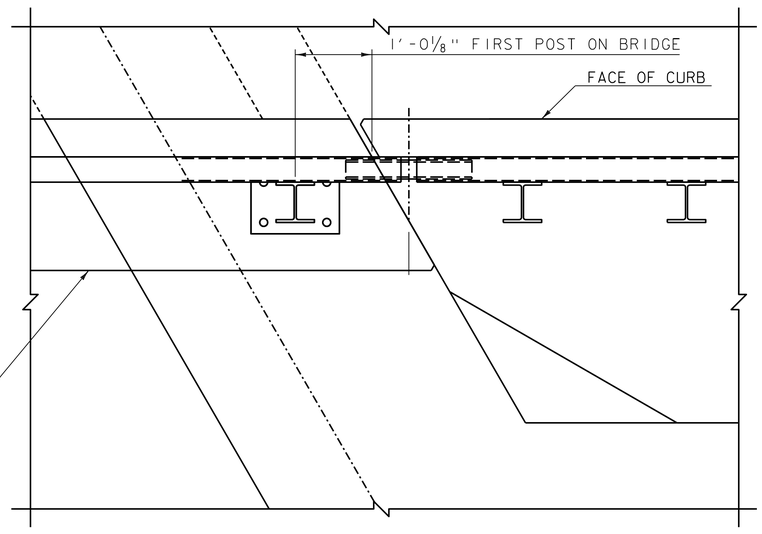

## GUARDRAIL LAYOUT

SCALE 1" = 10'-0"




## ACUTE CORNER BRIDGE END

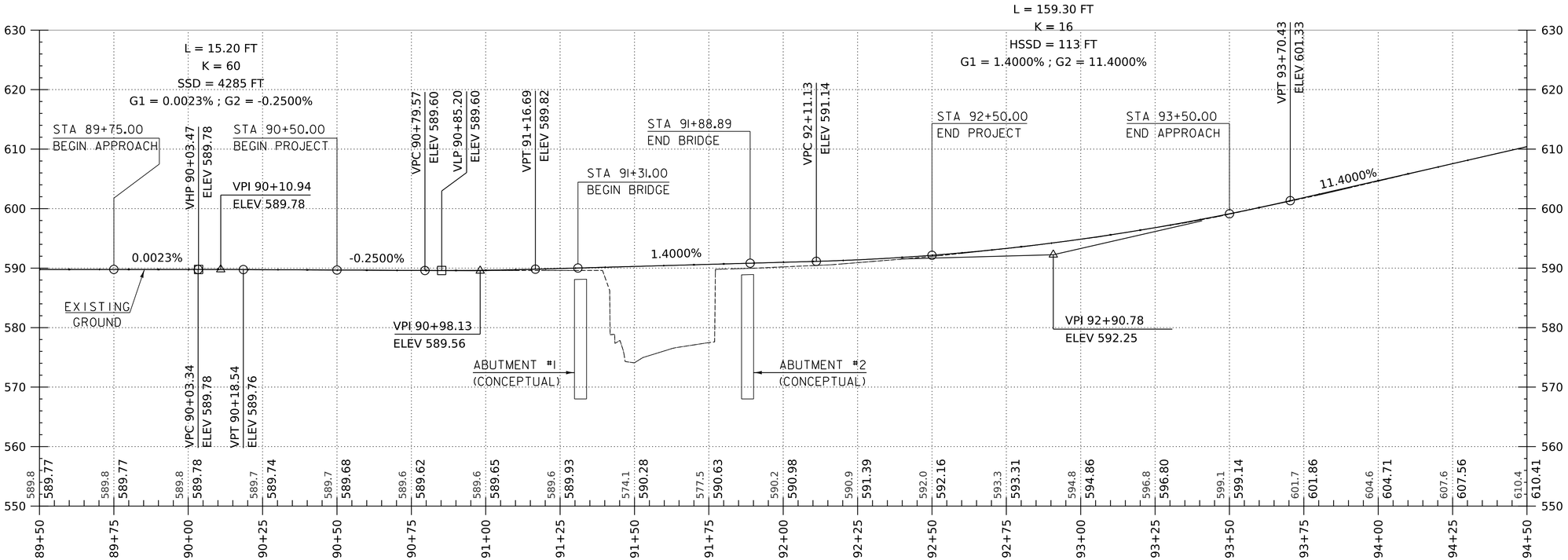
SCALE 1" = 2'-0"




## OBTUSE CORNER BRIDGE END

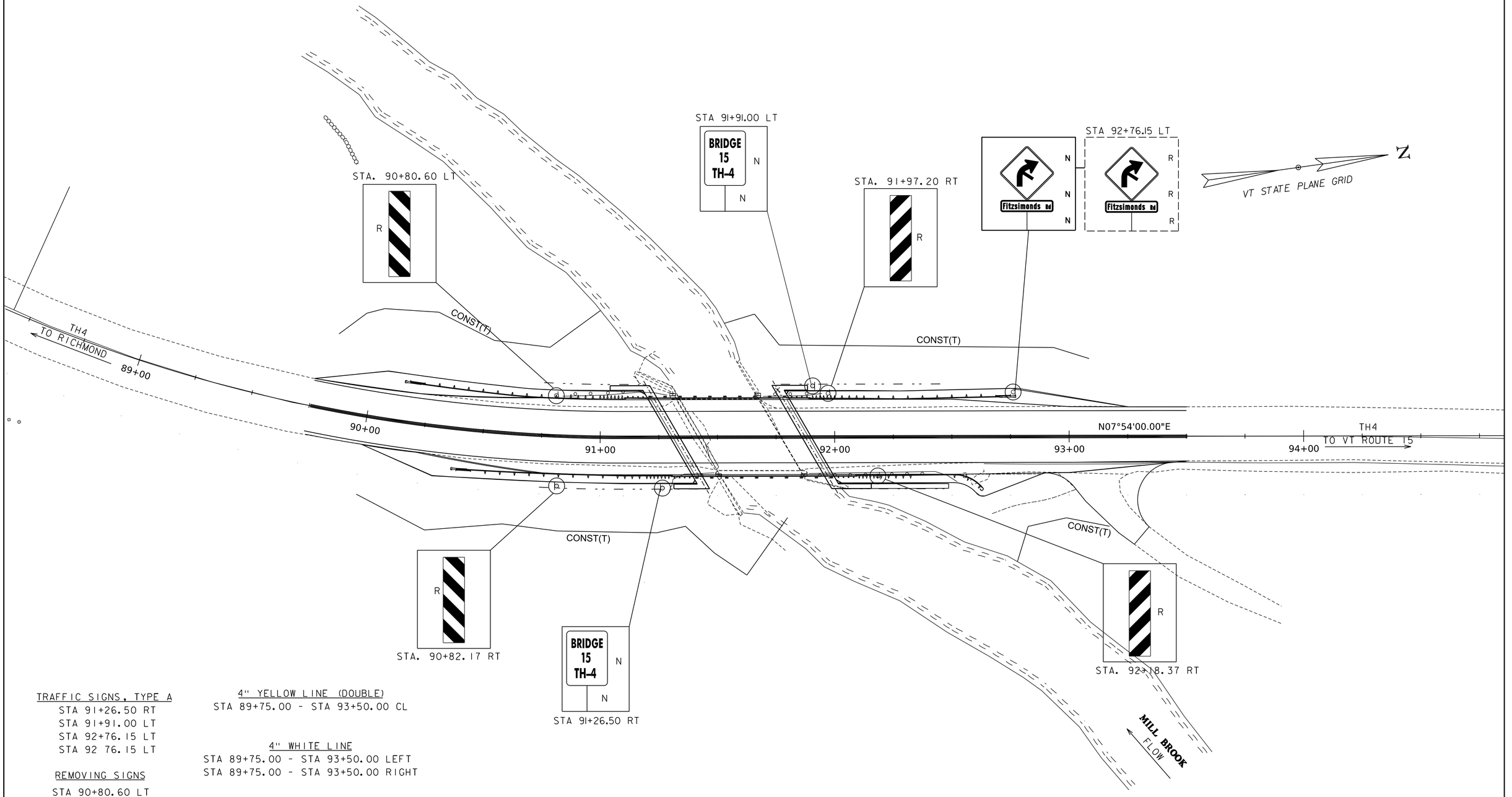
SCALE 1" = 2'-0"

| | |
|---|---|
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |
| FILE NAME: ppms*/Section/------.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R. YOUNG | DRAWN BY: F. BARROWS |
| DESIGNED BY: A. MANN | CHECKED BY: A. MANN |
| GUARDRAIL LAYOUT | SHEET 9 OF 23 |




# FAS ROUTE 209 PROFILE

| | |
|---|---|
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |
| FILE NAME: sl2j634pro.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R. YOUNG | DRAWN BY: G. ROKES |
| DESIGNED BY: G. ROKES | CHECKED BY: F. BARROWS |
| PROFILE | SHEET 10 OF 23 |




TRAFFIC SIGNS, TYPE A

STA 91+26.50 RT
STA 91+91.00 LT
STA 92+76.15 LT
STA 92 76.15 LT

REMOVING SIGNS

STA 90+80.60 LT
STA 90+82.17 RT
STA 91+97.20 LT
STA 92+18.37 RT
STA 92+76.15 LT

4" YELLOW LINE (DOUBLE)

STA 89+75.00 - STA 93+50.00 CL

4" WHITE LINE

STA 89+75.00 - STA 93+50.00 LEFT
STA 89+75.00 - STA 93+50.00 RIGHT

SIGNING LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
S = SALVAGE
N = NEW

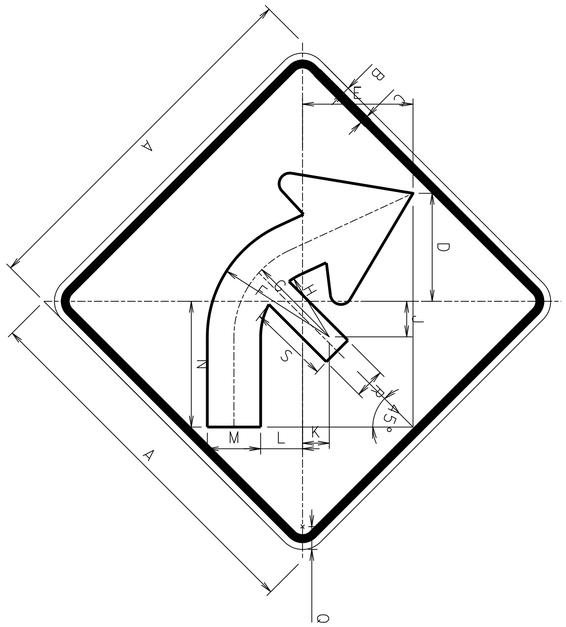
| | |
|---|---|
| PROJECT NAME: JERICHO | |
| PROJECT NUMBER: BF 0209 (10) | |
| FILE NAME: sl2j634signs.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R. YOUNG | DRAWN BY: A. MANN |
| DESIGNED BY: A. MANN | CHECKED BY: F. BARROWS |
| SIGN LAYOUT | SHEET 11 OF 23 |

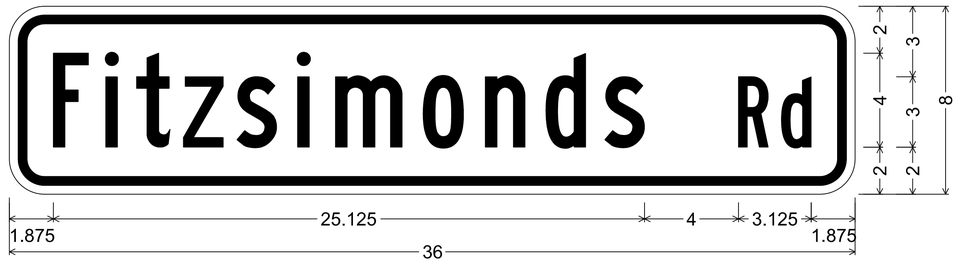
STATE OF VERMONT
AGENCY OF TRANSPORTATION

# TRAFFIC SIGN SUMMARY SHEET

| MILEMARKER, STATION, OR SIGN NUMBER | SIGN LEGEND | SIGN DIMENSIONS | | | NEW & SALVAGED SIGNS | | | | EXIST POST | | NEW SIGN POSTS | | | | | | | | | | | | | | | | REMARKS | SIGN DETAIL | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | EA | WIDTH (in) | HEIGHT (in) | "A" | "B" | SALV SIGN | SALV TIS | RETAIN | SALVAGE | NO. OF POSTS | SQUARE STEEL (in) | | | ANCHOR | SLEEVE | TUBULAR ALUMINUM Ø (in) | | | FOUND-ATION | TUBULAR STEEL Ø (in) | | | | W-SHAPE STEEL | | | | SIGN REQUIRED | | STD. SHEET NUMBER | DETAIL ON SHEET NUMBER | MUTCD/ SHSM |
| | | | | | | | | | | | | 1.75 | 2.0 | 2.5 | | | 3.0 | 4.0 | 4.0 MOD | | 3.0 | 3.5 | 4.0 | 5.0 | FTG. SIZE 24" | FTG. SIZE 30" | WEIGHT | POST SIZE | | | | |
| | | | | | | | | | | | | lb/ft | | | | | lb/ft | | | | lb/ft | | | | | | | | | | | |
| | | | | | | | | | | | | 1.88 | 2.42 | 3.35 | | | 1.3 | 1.7 | 1.7 | | 7.6 | 9.0 | 10.8 | 14.6 | | | | | | | | |
| STA 91+22.82 RT<br>STA 91+97.20 LT | BRIDGE 15 TH-4 | 1 | 6 | 10 | 0.42<br>0.42 | | | | | | 1<br>1 | 8<br>8 | | | X<br>X | | | | | | | | | | | | | | | VD-701 | T-42 | | |
| STA 92+76.15 LT |  | 1 | 30 | 30 | 6.25 | | | | | | 1 | | 12 | | X | | | | | | | | | | | | | | | SEE DETAIL | | | |
| STA 92+76.15 LT | Fitzsimonds Rd | 1 | 36 | 8 | 2.00 | | | | | | - | | - | | - | | | | | | | | | | | | | | | SEE DETAIL | | | |
| | | | | | | | | | | | | FT<br>16 | FT<br>12 | FT | | EA | LB | LB | LB | | LB | LB | LB | LB | | | | | | | | |
| **TOTALS** | | SF<br>9.04 | SF | EA. | SF | | | | | | | FT<br>28 | | | | | LB | | | EA. | LB | | | | EA. | EA. | LB | | | | |

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."




1.500" Radius, 0.375" Border, 0.375" Indent, Black on Yellow;
"Fitzsimonds Rd", B;

| A | B | C | D | E | F | G | H | J | K | L | M | N | Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | 0.5 | 0.75 | 8.875 | 9.063 | 10 | 7.813 | 5.625 | 2.938 | 2.188 | 3.438 | 4.375 | 10.313 | 2.25 |

| R | S |
|---|---|
| 3 | 8 |

COLORS: LEDGEND, BORDER - BLACK
BACKGROUND - YELLOW (RETROREFLECTIVE)

PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209 (10)

FILE NAME: s12j634signs.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: A. MANN
TRAFFIC SIGN SUMMARY

PLOT DATE: 17-JUL-2023
DRAWN BY: A. MANN
CHECKED BY: F. BARROWS
SHEET 12 OF 23

## SOIL CLASSIFICATION

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

## ROCK QUALITY DESIGNATION

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

## SHEAR STRENGTH

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

## CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

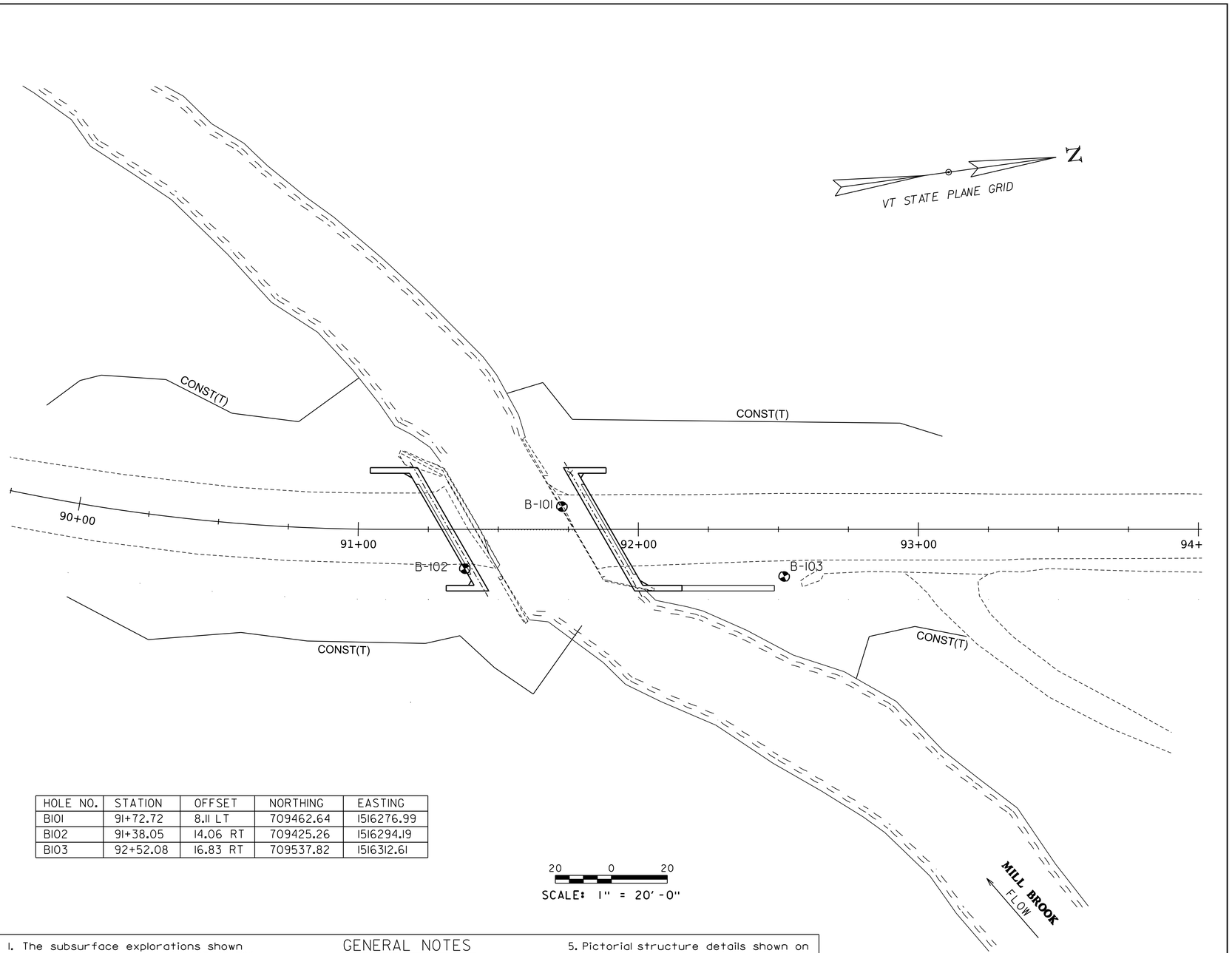
| DENSITY (GRANULAR SOILS) | | CONSISTENCY (COHESIVE SOILS) | |
|---|---|---|---|
| N | DESCRIPTIVE TERM | N | DESCRIPTIVE TERM |
| <5 | Very Loose | <2 | Very Soft |
| 5-10 | Loose | 2-4 | Soft |
| 11-24 | Med. Dense | 5-8 | Med. Stiff |
| 25-50 | Dense | 9-15 | Stiff |
| >50 | Very Dense | 16-30 |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

## COMMONLY USED SYMBOLS

| | |
|---|---|
| ▼ | Water Elevation |
| ⊕ | Standard Penetration Boring |
| ⊕ | Auger Boring |
| ⊙ | Rod Sounding |
| S | Sample |
| N | Standard Penetration Test Blow Count Per Foot For: 2" O.D. Sampler 1 3/8" I.D. Sampler Hammer Weight Of 140 Lbs. Hammer Fall Of 30" |
| VS | Field Vane Shear Test |
| US | Undisturbed Soil Sample |
| B | Blast |
| DC | Diamond Core |
| MD | Mud Drill |
| WA | Wash Ahead |
| HSA | Hollow Stem Auger |
| AX | Core Size 1 1/8" |
| BX | Core Size 1 5/8" |
| NX | Core Size 2 1/8" |
| M | Double Tube Core Barrel Used |
| LL | Liquid Limit |
| PL | Plastic Limit |
| PI | Plasticity Index |
| NP | Non Plastic |
| w | Moisture Content (Dry Wgt. Basis) |
| D | Dry |
| M | Moist |
| MTW | Moist To Wet |
| W | Wet |
| Sat | Saturated |
| Bo | Boulder |
| Gr | Gravel |
| Sa | Sand |
| Si | Silt |
| Cl | Clay |
| HP | Hardpan |
| Le | Ledge |
| NLTD | No Ledge To Depth |
| CNPF | Can Not Penetrate Further |
| TLOB | Top of Ledge Or Boulder |
| NR | No Recovery |
| Rec. | Recovery |
| %Rec. | Percent Recovery |
| ROD | Rock Quality Designation |
| CBR | California Bearing Ratio |
| < | Less Than |
| > | Greater Than |
| R | Refusal (N > 100) |
| VTSPG | NAD83 - See Note 7 |

### COLOR

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




| HOLE NO. | STATION | OFFSET | NORTHING | EASTING |
|---|---|---|---|---|
| B101 | 91+72.72 | 8.11 LT | 709462.64 | 1516276.99 |
| B102 | 91+38.05 | 14.06 RT | 709425.26 | 1516294.19 |
| B103 | 92+52.08 | 16.83 RT | 709537.82 | 1516312.61 |

## DEFINITIONS (AASHTO)

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

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

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

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

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

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

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

VARVED - Alternate layers of silt and clay.

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

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

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

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

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

DIP - Inclination of bed with a horizontal plane.

1. The subsurface explorations shown herein were made between 07/07/2021 and 07/17/2021 and between 02/15/2023 and 03/02/2023 by the Agency.

2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.

3. Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.

## GENERAL NOTES

4. Engineering judgment was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgment by the Contractor.

5. Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.

6. Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.

7. Northing and Easting coordinates are shown in Vermont State Plane Grid North American Datum 1983 in meters and survey feet.

PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209(10)

FILE NAME: s12j634bor.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: A. MANN
BORING INFORMATION SHEET

PLOT DATE: 17-JUL-2023
DRAWN BY: A. MANN
CHECKED BY: F. BARROWS
SHEET 13 OF 23

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

# BORING LOG

Jericho
BF 0209(10)
FAS 209 Bridge No. 15

Boring No.: B-101
Page No.: 1 of 3
Pin No.: 12J634
Checked By: AJA

Boring Crew: Judkins, Emerson, Arles
Date Started: 7/07/21 Date Finished: 7/13/21
VTSPG NAD83: N 709462.64 ft E 1516276.99 ft
Station: 91+73 Offset: 8.1 LT
Ground Elevation: 589.67 ft

| | Casing | Sampler |
|---|---|---|
| Type: | WB | SS |
| I.D.: | 4 in | 1.5 in |
| Hammer Wt: | N.A. | 140 lb. |
| Hammer Fall: | N.A. | 30 in. |
| Hammer/Rod Type: | Auto/AWJ | |
| Rig: | CME 55 TRACK | CE = 1.52 |

| Groundwater Observations | | |
|---|---|---|
| Date | Depth (ft) | Notes |
| 07/07/21 | 1.8 | WT After Drilling |
| 07/12/21 | 0.4 | WT Before Drilling |
| 07/13/21 | 6.4 | WT After Drilling |

ABUT 1 BOT ELEV 579.00

| Depth (ft) | Strata (1) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. % (RQD %) | Drill Rate minutes/ft | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | Visual Description:, Asphalt 0.0'–0.95' | | | | | | | | |
| | | Visual Description:, GrSa, brn, Moist, Rec. = 1.1 ft, Field Note: NXDC Cleanout 4.0'–5.0' | | | | 9-10-9-8 (19) | | | | |
| 5 | | Field Note, No Recovery. Gravel in end of sampler, Rollercone Cleanout 9.1'–10.0' | | | | 6-4-4-6 (8) | | | | |
| 10 | | Visual Description:, SiSa w/ gravel, gry, Moist, Rec. = 0.3 ft, Field Note: Refusal @ 11.3' 50 blows/6". NXDC Cleanout 13.3'–15.0' | | | | 4-9-R@4" (R) | | | | |
| 15 | | Visual Description:, Si, gry, Moist, Rec. = 1.1 ft, Field Note: Rollercone Cleanout 19.7'–20.0' | | | | 8-8-12-16 (20) | | | | |
| 20 | | Visual Description:, Si, Lt/brn, Moist, Rec. = 1.5 ft, Field Note: NXDC Cleanout 24.7'–25.0' | | | | 11-19-20-23 (39) | | | | |
| 25 | | Visual Description:, Si, gry, Moist, Rec. = 1.5 ft, Field Note: Apparent Boulder 27.0'–29.0'. NXDC Cleanout 28.8'–30.0' | | | | 5-21-34-38 (55) | | | | |
| 30 | | A-4, Si, gry, Moist, Rec. = 1.7 ft, Field Note: Rollercone Cleanout 33.5'–35.0' | | | | 15-18-30-31 (48) | 24.7 | 0.1 | 2.5 | 97.4 |
| 35 | | Visual Description:, ClSi, gry, Moist, Rec. = 1.4 ft, Field Note: Refusal @ 36.8' 100 blows. Rollercone Cleanout 39.3'–40.0' | | | | 13-25-39-R@4" (64) | | | | |
| 40 | | A-4, Si, Lt/brn, Moist, Rec. = 1.5 ft, Field Note: Refusal @ 41.8' 100 blows. | | | | 12-23-32-R@4" (55) | 23.7 | 1.0 | 17.5 | 81.5 |
| 45 | | Visual Description:, Si, brn, Moist, Rec. = 1.2 ft, Field Note: Refusal @ 46.8' 100 blows | | | | 10-20-48-R@4" (68) | | | | |

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG JERICHO BF 0209(10).GPJ VERMONT ADT.GDT 9/14/21

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Jericho
BF 0209(10)
FAS 209 Bridge No. 15

Boring No.: B-101
Page No.: 2 of 3
Pin No.: 12J634
Checked By: AJA

Boring Crew: Judkins, Emerson, Arles
Date Started: 7/07/21 Date Finished: 7/13/21
VTSPG NAD83: N 709462.64 ft E 1516276.99 ft
Station: 91+73 Offset: 8.1 LT
Ground Elevation: 589.67 ft

| | Casing | Sampler |
|---|---|---|
| Type: | WB | SS |
| I.D.: | 4 in | 1.5 in |
| Hammer Wt: | N.A. | 140 lb. |
| Hammer Fall: | N.A. | 30 in. |
| Hammer/Rod Type: | Auto/AWJ | |
| Rig: | CME 55 TRACK | CE = 1.52 |

| Groundwater Observations | | |
|---|---|---|
| Date | Depth (ft) | Notes |
| 07/07/21 | 1.8 | WT After Drilling |
| 07/12/21 | 0.4 | WT Before Drilling |
| 07/13/21 | 6.4 | WT After Drilling |

EST PILE TIP ELEV 479.57

| Depth (ft) | Strata (1) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. % (RQD %) | Drill Rate minutes/ft | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | | Visual Description:, SaSi, gry, Moist, Rec. = 0.2 ft, Field Note: Refusal @ 50.2 10 blows no movement. NXDC Cleanout 59.3'–60.0' | | | | R@2" (R) | | | | |
| 60 | | A-4, Si, gry, Moist, Rec. = 0.3 ft, Field Note: Refusal @ 61.3' 100 blows. NXDC Cleanout 69.0'–70.0' | | | | 25-42-R@3" (R) | 24.5 | 1.9 | 10.5 | 87.6 |
| 65 | | | | | | | | | | |
| 70 | | Visual Description:, Si, gry, Moist, Rec. = 0.8 ft, Field Note: Refusal @ 70.8' 50 blows per 6". NXDC Cleanout 77.7'–80.0' | | | | 26-R@4" (R) | | | | |
| 75 | | | | | | | | | | |
| 80 | | A-4, SaSi, Lt/brn, Moist, Rec. = 1.4 ft, Field Note: Refusal @ 81.8' 100 blows. NXDC Cleanout 88.8'–90.0' | | | | 19-26-36-R@4" (42) | 17.9 | 19.3 | 27.5 | 53.2 |
| 85 | | | | | | | | | | |
| 90 | | A-4, SaSi, Lt/brn, Moist, Rec. = 1.5 ft, Field Note: NXDC Cleanout 98.0'–100.0' | | | | 11-21-27-32 (48) | 27.2 | 3.3 | 37.9 | 58.8 |
| 95 | | | | | | | | | | |

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG JERICHO BF 0209(10).GPJ VERMONT ADT.GDT 9/14/21

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Jericho
BF 0209(10)
FAS 209 Bridge No. 15

Boring No.: B-101
Page No.: 3 of 3
Pin No.: 12J634
Checked By: AJA

Boring Crew: Judkins, Emerson, Arles
Date Started: 7/07/21 Date Finished: 7/13/21
VTSPG NAD83: N 709462.64 ft E 1516276.99 ft
Station: 91+73 Offset: 8.1 LT
Ground Elevation: 589.67 ft

| | Casing | Sampler |
|---|---|---|
| Type: | WB | SS |
| I.D.: | 4 in | 1.5 in |
| Hammer Wt: | N.A. | 140 lb. |
| Hammer Fall: | N.A. | 30 in. |
| Hammer/Rod Type: | Auto/AWJ | |
| Rig: | CME 55 TRACK | CE = 1.52 |

| Groundwater Observations | | |
|---|---|---|
| Date | Depth (ft) | Notes |
| 07/07/21 | 1.8 | WT After Drilling |
| 07/12/21 | 0.4 | WT Before Drilling |
| 07/13/21 | 6.4 | WT After Drilling |

| Depth (ft) | Strata (1) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. % (RQD %) | Drill Rate minutes/ft | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % |
|---|---|---|---|---|---|---|---|---|---|---|
| 105 | | Visual Description:, Si, Lt/brn, Moist, Rec. = 1.4 ft, Field Note: Refusal @ 101.7' 100 blows. NXDC Cleanout 108.5'–110.0' | | | | 10-22-35-R@2" (57) | | | | |
| 110 | | Visual Description:, Si Broken Rock, Lt/brn, Moist, Rec. = 0.1 ft, Field Note: Refusal @ 110.1' 10 blows no movement | R-1 | 0 | 3 | R@1" (R) Top of Bedrock @ 110.1 ft | | | | |
| | | 110.1 ft – 115.0 ft, NXMDC 110'–115'. No Recovery. NXMDC | | | 3 3 3 4 | | | | | |
| 115 | | 115.0 ft – 120.0 ft, NXMDC 115'–120'. No Recovery. NXMDC | R-2 | 0 | 5 5 5 4 4 | | | | | |
| 120 | | Visual Description:, Si Broken Rock, Lt/brn, Moist, Rec. = 0.3 ft, Field Note: Refusal @ 120' no movement | | | | R@4" (R) | | | | |
| | | Hole stopped @ 120.1 ft | | | | | | | | |
| 125 | | Remarks: Hole Collapsed @ 32.9' | | | | | | | | |
| 130 | | | | | | | | | | |
| 135 | | | | | | | | | | |
| 140 | | | | | | | | | | |
| 145 | | | | | | | | | | |

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG JERICHO BF 0209(10).GPJ VERMONT ADT.GDT 9/14/21

PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209 (10)

FILE NAME: s12j634bor.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: A. MANN
BORING LOGS 1

PLOT DATE: 17-JUL-2023
DRAWN BY: A. MANN
CHECKED BY: F. BARROWS
SHEET 14 OF 23

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

# BORING LOG

Jericho
BF 0209(10)
FAS 209 Bridge No. 15

Boring No.: B-102
Page No.: 1 of 3
Pin No.: 12j634
Checked By: AJA

Boring Crew: Judkins, Brochu, Emerson
Date Started: 7/13/21 Date Finished: 7/17/21
VTSPG NAD83: N 709425.26 ft E 1516294.19 ft
Station: 91+38 Offset: 14.1 RT
Ground Elevation: 589.64 ft

| | Casing | Sampler |
|---|---|---|
| Type: | WB | SS |
| I.D.: | 4 in | 1.5 in |
| Hammer Wt: | N.A. | 140 lb. |
| Hammer Fall: | N.A. | 30 in. |
| Hammer/Rod Type: | Auto/AWJ | |
| Rig: | CME 55 TRACK | CE = 1.52 |

| Groundwater Observations | | |
|---|---|---|
| Date | Depth (ft) | Notes |
| 07/13/21 | 1.5 | WT After Drilling |
| 07/14/21 | 1.0 | WT Before Drilling |
| 07/17/21 | 4.8 | WT After Drilling |

ABUT 2 BOT ELEV 579.00

| Depth (ft) | Strata (1) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. % (ROD %) | Drill Rate minutes/ft | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0.0 ft - 1.1 ft, Field Note: Asphalt 0.0'-1.1' | | | | | | | | |
| | | Visual Description:, SaGr, brn, Moist, Rec. = 0.7 ft, Field Note: 1'-2' Asphalt grindings. Rollercone Cleanout 3.9'-5.0' | | | | 15-18-12-10 (30) | | | | |
| 5 | | Visual Description:, GrSa, brn, Moist, Rec. = 1.0 ft, Field Note: Rollercone Cleanout 8.1'-10.0' | | | | 5-7-8-6 (15) | | | | |
| 10 | | Visual Description:, SaGr, brn, Moist, Rec. = 0.6 ft, Field Note: NXDC Cleanout 11.7'-15.0'. Apparent Concrete 14.0'-18.0' | | | | 15-17-13-8 (30) | | | | |
| 15 | | | | | | | | | | |
| 20 | | A-4, Si, brn, Moist, Rec. = 1.3 ft | | | | 8-12-14-17 (26) | 20.4 | 1.5 | | 98.5 |
| 25 | | A-2-4, SiSa, brn, Moist, Rec. = 1.7 ft, Field Note: Refusal @ 26.8' 100 blows. NXDC Cleanout 29.0'-30.0' | | | | 14-24-30-R@4" (54) | 20.8 | 4.1 | 66.9 | 29.0 |
| 30 | | A-4, SaSi, brn, Moist, Rec. = 1.3 ft, Field Note: Refusal @ 31.6' 100 blows. Rollercone Cleanout 34.3'-35.0' | | | | 19-30-45-R@1" (75) | 16.6 | 15.0 | 36.7 | 48.3 |
| 35 | | A-4, Si, brn, Moist, Rec. = 1.1 ft, Field Note: Refusal @ 36.2' 10 blows no movement. Rollercone Cleanout 36.5'-40.0' | | | | 10-30-R@2" (R) | 24.3 | 1.7 | 12.9 | 85.4 |
| 40 | | Visual Description:, Si, brn, Moist, Rec. = 0.9 ft, Field Note: Refusal @ 40.9' 50 blows per 6". NXDC Cleanout 48.8'-50.0' | | | | 25-R@5" (R) | | | | |
| 45 | | | | | | | | | | |

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG JERICHO BF 0209(10).GPJ VERMONT AOT.GDT 9/14/21

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Jericho
BF 0209(10)
FAS 209 Bridge No. 15

Boring No.: B-102
Page No.: 2 of 3
Pin No.: 12j634
Checked By: AJA

Boring Crew: Judkins, Brochu, Emerson
Date Started: 7/13/21 Date Finished: 7/17/21
VTSPG NAD83: N 709425.26 ft E 1516294.19 ft
Station: 91+38 Offset: 14.1 RT
Ground Elevation: 589.64 ft

| | Casing | Sampler |
|---|---|---|
| Type: | WB | SS |
| I.D.: | 4 in | 1.5 in |
| Hammer Wt: | N.A. | 140 lb. |
| Hammer Fall: | N.A. | 30 in. |
| Hammer/Rod Type: | Auto/AWJ | |
| Rig: | CME 55 TRACK | CE = 1.52 |

| Groundwater Observations | | |
|---|---|---|
| Date | Depth (ft) | Notes |
| 07/13/21 | 1.5 | WT After Drilling |
| 07/14/21 | 1.0 | WT Before Drilling |
| 07/17/21 | 4.8 | WT After Drilling |

| Depth (ft) | Strata (1) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. % (ROD %) | Drill Rate minutes/ft | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Visual Description:, GrSa, brn, Moist, Rec. = 0.7 ft, Field Note: Refusal @ 50.7' 50 blows per 6". NXDC Cleanout 59.2-60.0' | | | | 41-R@5" (R) | | | | |
| 60 | | A-4, Si, brn, Moist, Rec. = 0.8 ft, Field Note: Refusal @ 60.8' 50 blows per 6". NXDC Cleanout 67.2'-70.0' | | | | 32-R@4" (R) | 23.6 | 1.3 | 17.5 | 81.2 |
| 65 | | | | | | | | | | |
| 70 | | Visual Description:, Si, brn, Moist, Rec. = 1.2 ft, Field Note: Refusal @ 71.2'. Rollercone Cleanout 78.2'-80.0' | | | | 30-35-R@2" (R) | | | | |
| 75 | | | | | | | | | | |
| 80 | | Visual Description:, Si, Lt/brn, Moist, Rec. = 1.0 ft, Field Note: Refusal @ 81.7' 100 blows. Rollercone Cleanout 88.5'-90.0' | | | | 14-29-36-R@3" (35) | | | | |
| 85 | | | | | | | | | | |
| 90 | | A-4, GrSaSi, Lt/brn, Moist, Rec. = 1.0 ft, Field Note: Refusal @ 91.3' 100 blows. | | | | 31-40-R@3" (R) | 16.3 | 26.5 | 37.7 | 35.8 |
| 95 | | Field Note, Drilling was advanced from 91.3 to top of bedrock without sampling. | | | | | | | | |

EST PILE TIP ELEV 469.64

Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG JERICHO BF 0209(10).GPJ VERMONT AOT.GDT 9/14/21

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CONSTRUCTION AND
MATERIALS BUREAU
CENTRAL LABORATORY

BORING LOG

Jericho
BF 0209(10)
FAS 209 Bridge No. 15

Boring No.: B-102
Page No.: 3 of 3
Pin No.: 12j634
Checked By: AJA

Boring Crew: Judkins, Brochu, Emerson
Date Started: 7/13/21 Date Finished: 7/17/21
VTSPG NAD83: N 709425.26 ft E 1516294.19 ft
Station: 91+38 Offset: 14.1 RT
Ground Elevation: 589.64 ft

| | Casing | Sampler |
|---|---|---|
| Type: | WB | SS |
| I.D.: | 4 in | 1.5 in |
| Hammer Wt: | N.A. | 140 lb. |
| Hammer Fall: | N.A. | 30 in. |
| Hammer/Rod Type: | Auto/AWJ | |
| Rig: | CME 55 TRACK | CE = 1.52 |

| Groundwater Observations | | |
|---|---|---|
| Date | Depth (ft) | Notes |
| 07/13/21 | 1.5 | WT After Drilling |
| 07/14/21 | 1.0 | WT Before Drilling |
| 07/17/21 | 4.8 | WT After Drilling |

| Depth (ft) | Strata (1) | CLASSIFICATION OF MATERIALS (Description) | Run (Dip deg.) | Core Rec. % (ROD %) | Drill Rate minutes/ft | Blows/6" (N Value) | Moisture Content % | Gravel % | Sand % | Fines % |
|---|---|---|---|---|---|---|---|---|---|---|
| 105 | | | | | | | | | | |
| 110 | | | | | | | | | | |
| 115 | | | | | | | | | | |
| 120 | | 120.0 ft - 125.0 ft, NXMDC 120'-125'. Recovered rock was not examined for description. Based on quality of sample recovered, the rock is extremely weathered.. NXMDC | R-1 | 20 | 1 1 2 6 9 | | | | | |
| 125 | | 125.0 ft - 130.0 ft, NXMDC 125'-130'. Recovered rock was not examined for description. Based on quality of sample recovered, the rock is extremely weathered.. NXMDC | R-2 | 20 | 7 9 9 7 6 | | | | | |
| 130 | | Hole stopped @ 130.0 ft | | | | | | | | |
| 135 | | | | | | | | | | |
| 140 | | | | | | | | | | |
| 145 | | | | | | | | | | |

Top of Bedrock @ 120.0 ft

Remarks:
Hole Collapsed @ 4.8'

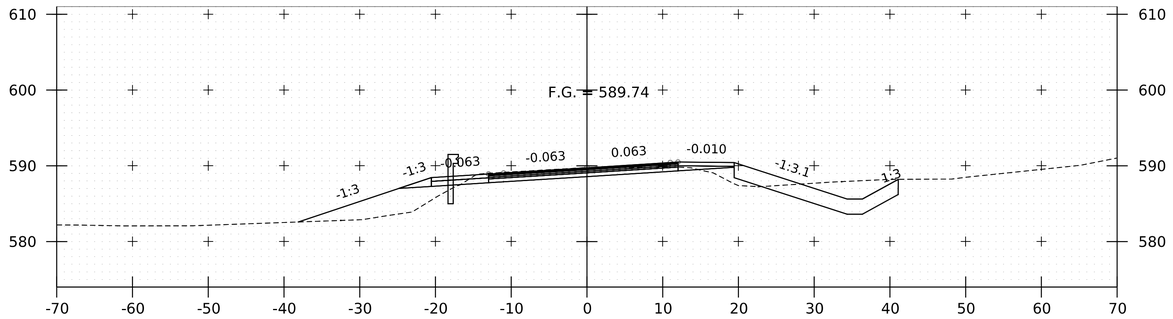
Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations may occur due to other factors than those present at the time measurements were made.

BORING LOG JERICHO BF 0209(10).GPJ VERMONT AOT.GDT 9/14/21

PROJECT NAME: JERICHO
PROJECT NUMBER: BF 0209 (10)

FILE NAME: s12j634bor.dgn
PROJECT LEADER: R. YOUNG
DESIGNED BY: A. MANN
BORING LOGS 2

PLOT DATE: 17-JUL-2023
DRAWN BY: A. MANN
CHECKED BY: F. BARROWS
SHEET 15 OF 23

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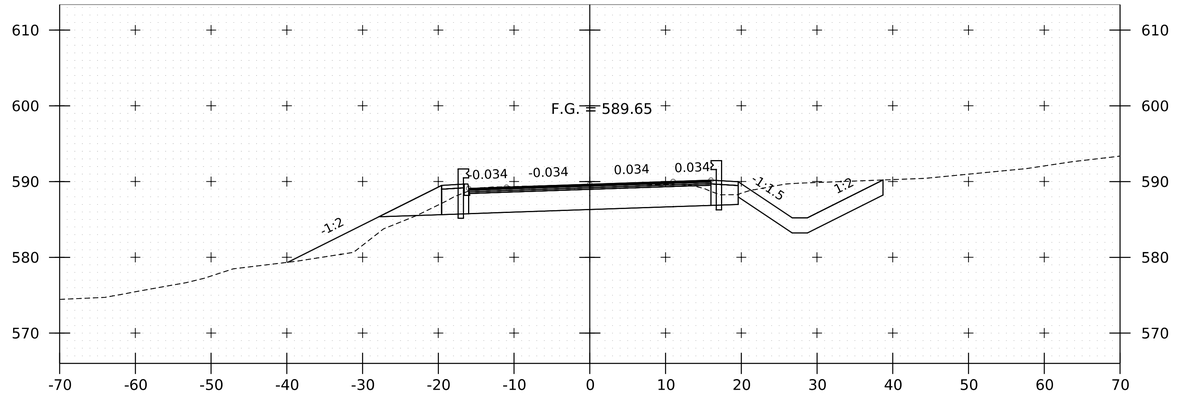


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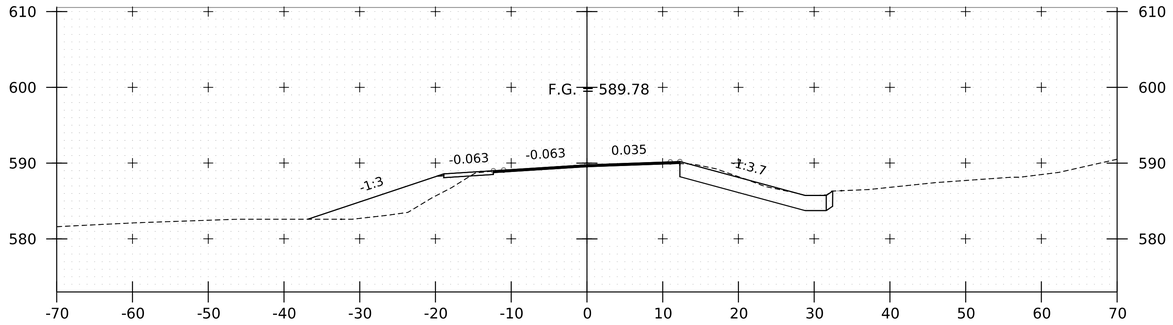


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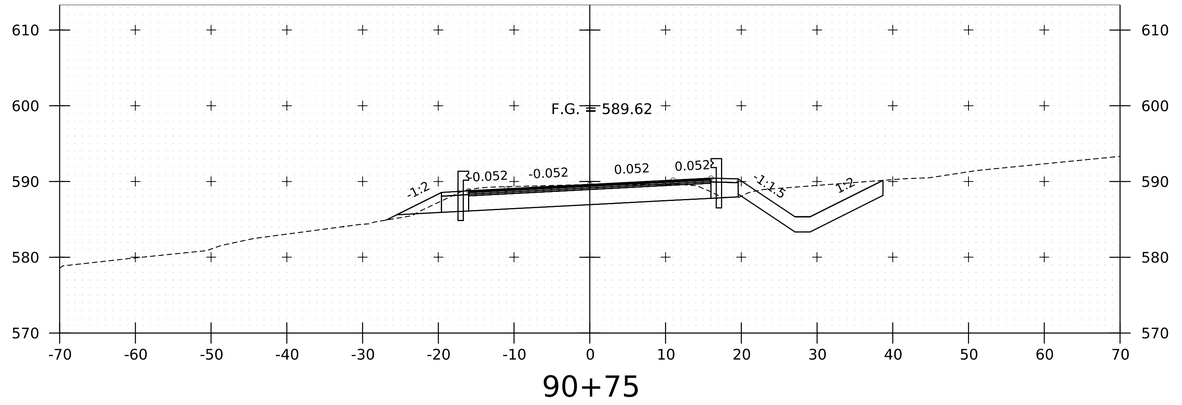


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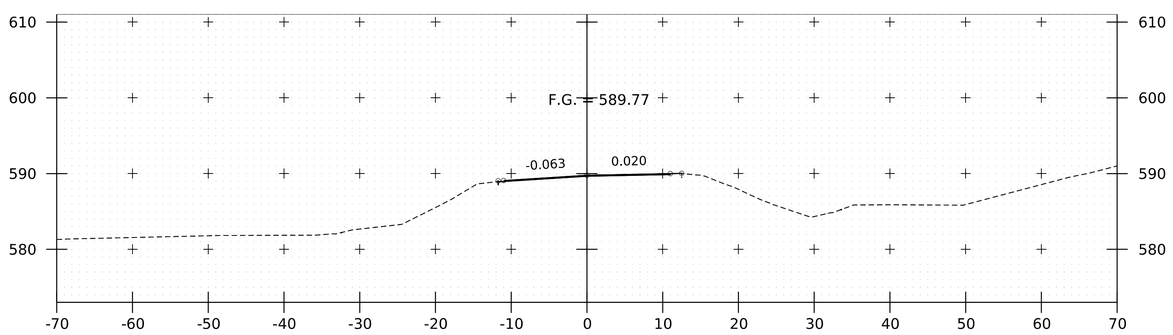


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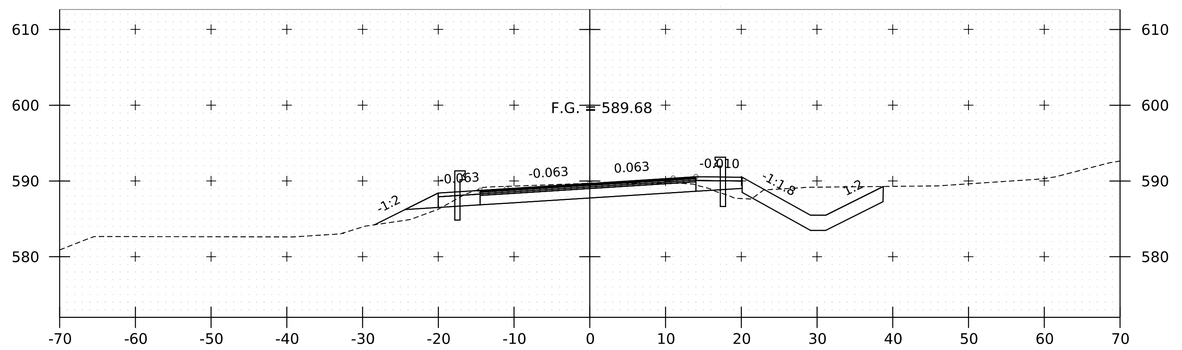
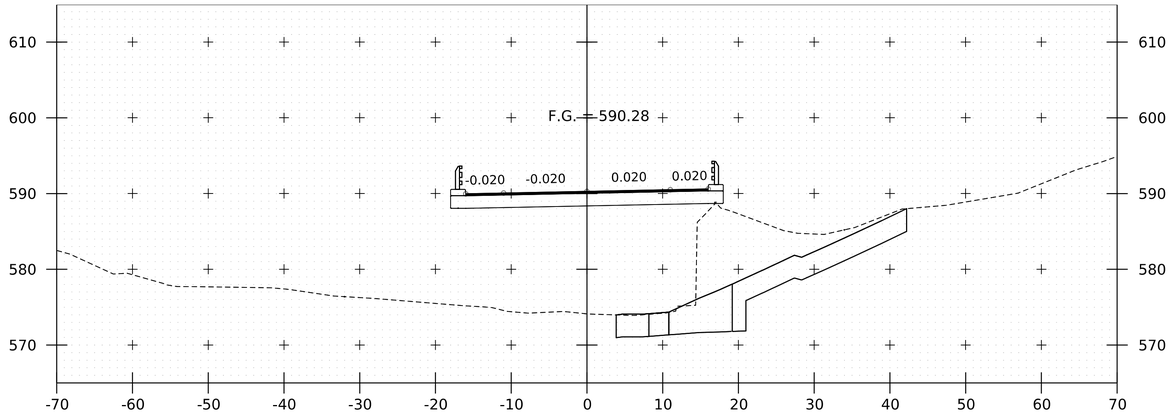



90+50

| | |
|---|---|
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |
| FILE NAME: 12j634/STR/sl2j634xs.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R. YOUNG | DRAWN BY: G. ROKES |
| DESIGNED BY: G. ROKES | CHECKED BY: F. BARROWS |
| MAINLINE SECTIONS SHEET 1 | SHEET 16 OF 23 |

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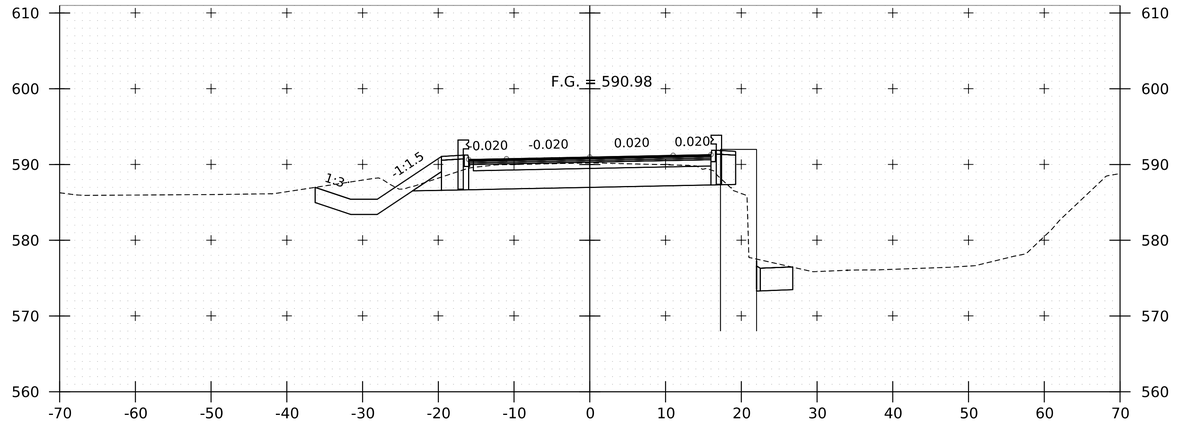


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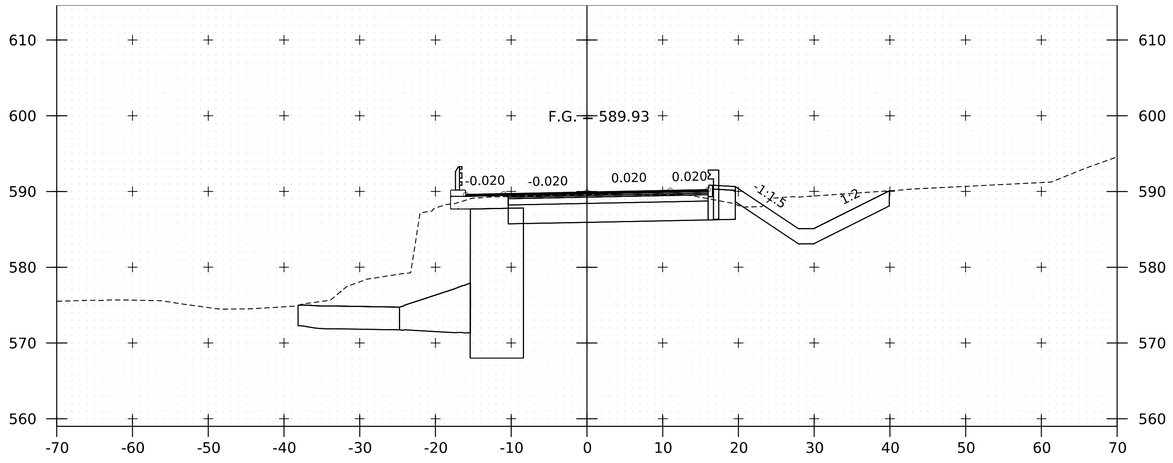


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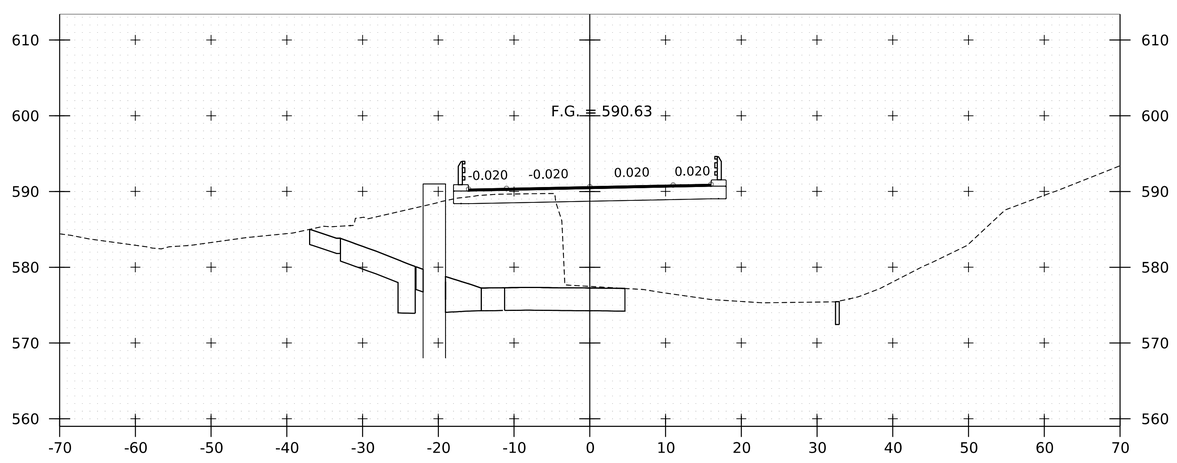
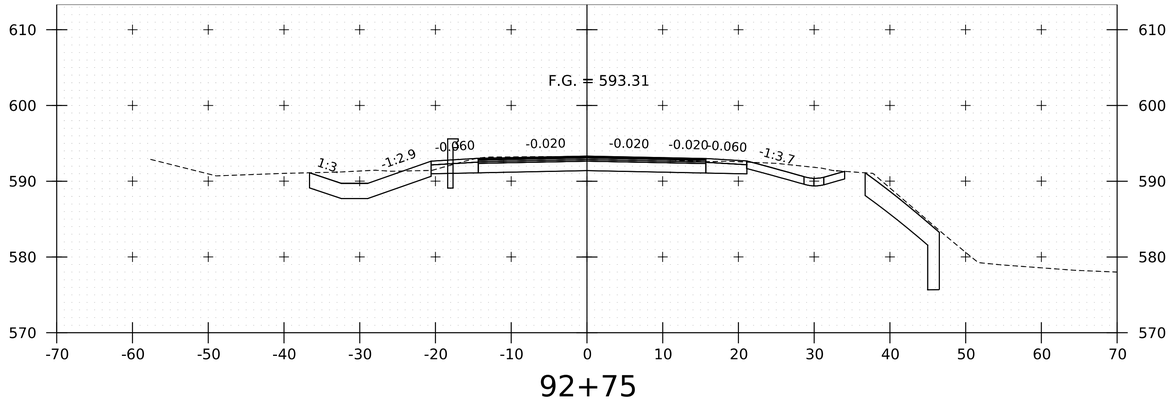
BEGIN BRIDGE 91+30.00




91+75
END BRIDGE 91+88.89

| | |
|---|---|
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |

| | |
|---|---|
| FILE NAME: 12j634/STR/sl2j634xs.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R. YOUNG | DRAWN BY: G. ROKES |
| DESIGNED BY: G. ROKES | CHECKED BY: F. BARROWS |
| MAINLINE SECTIONS SHEET 2 | SHEET 17 OF 23 |

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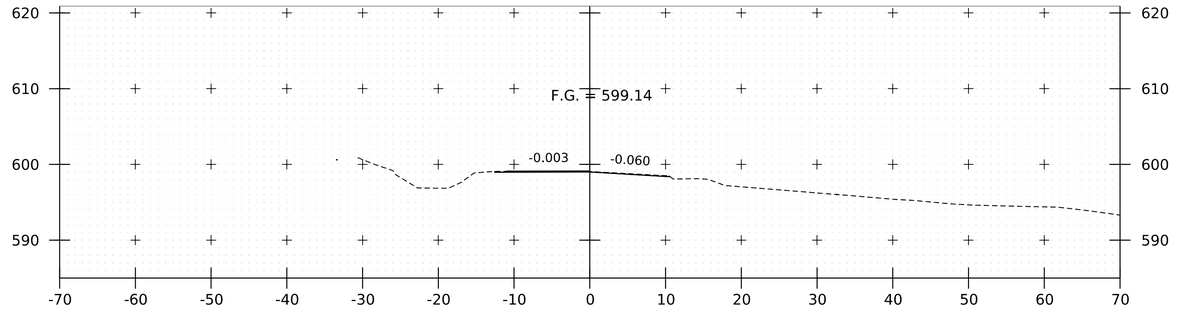


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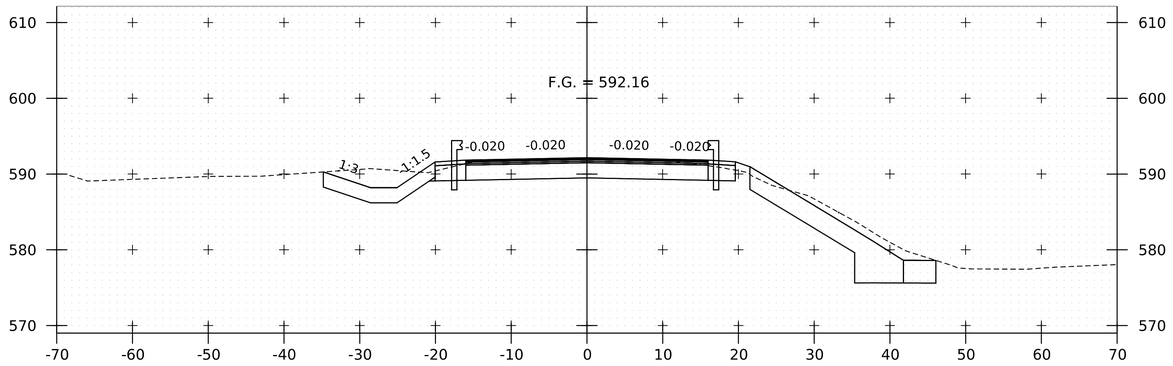


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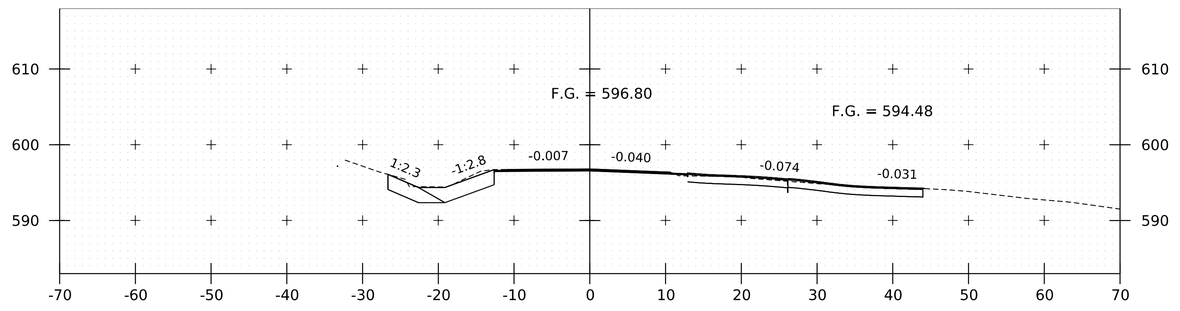


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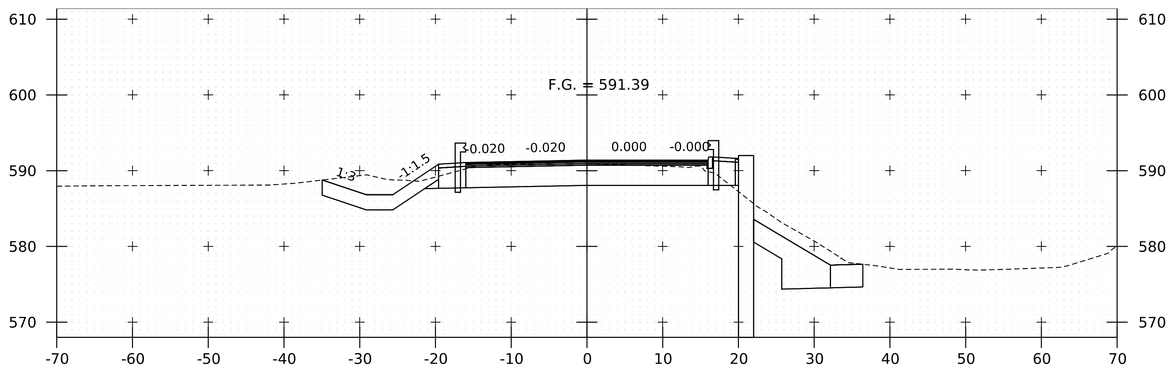


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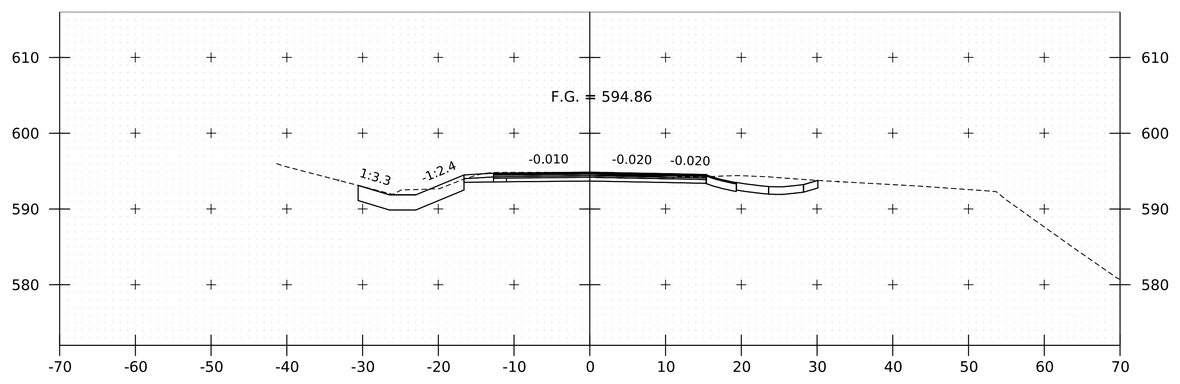
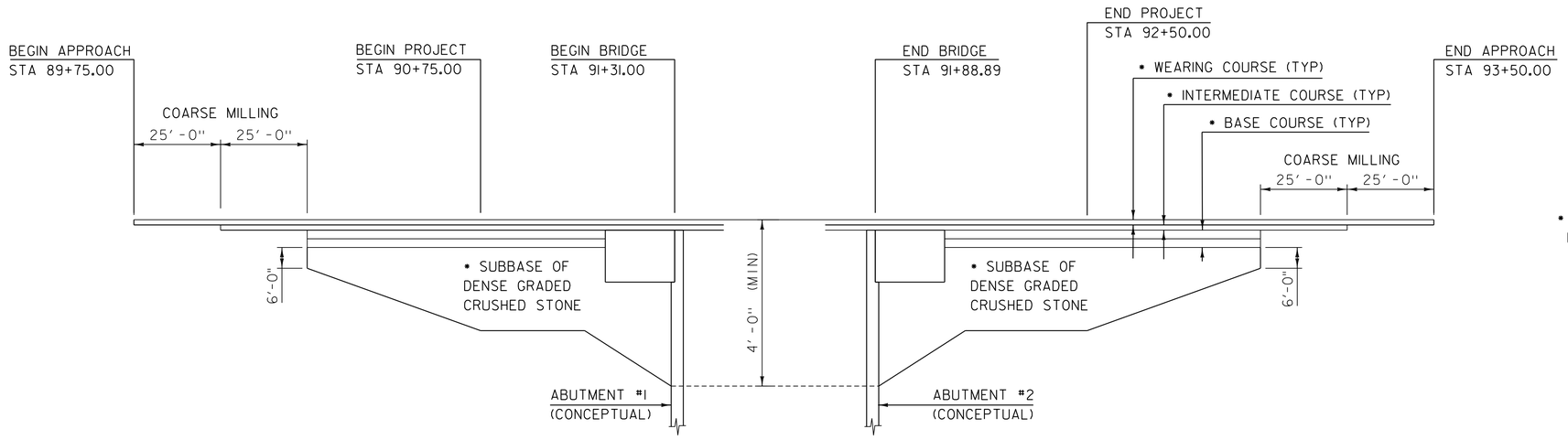



93+00

| | |
|---|---|
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |

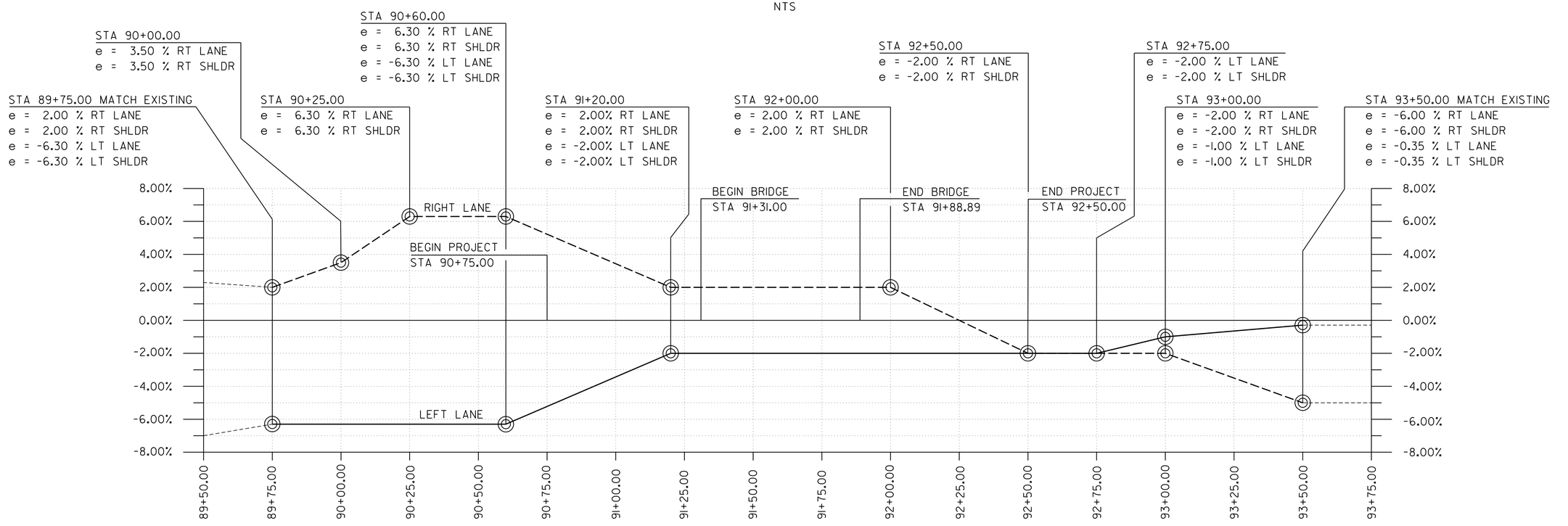
| | |
|---|---|
| FILE NAME: 12j634/STR/sl2j634xs.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R. YOUNG | DRAWN BY: G.ROKES |
| DESIGNED BY: G. ROKES | CHECKED BY: F. BARROWS |
| MAINLINE SECTIONS SHEET 3 | SHEET 18 OF 23 |




• SEE TYPICALS SHEET FOR MATERIAL DEPTHS/THICKNESS

## MATERIAL TRANSITION

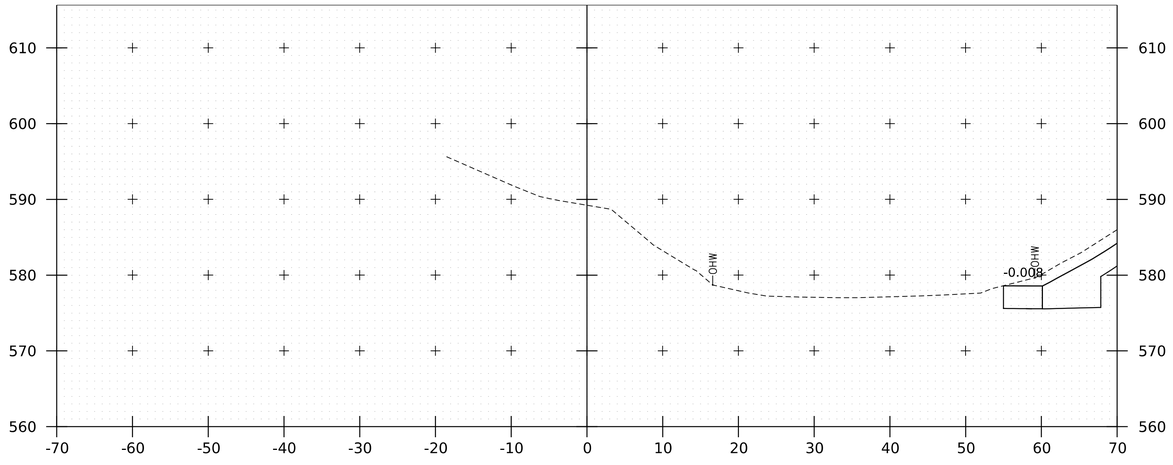
NTS



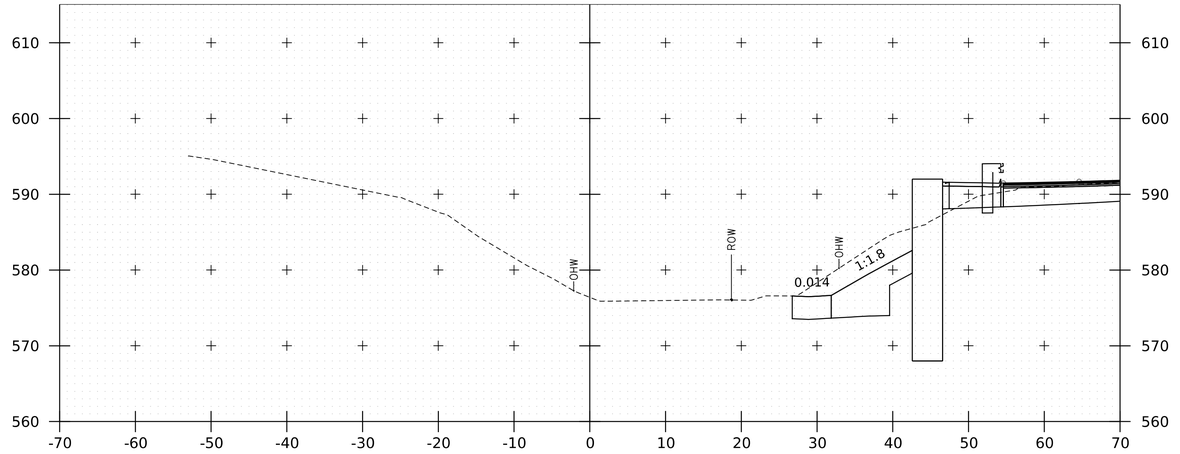

## BANKING DIAGRAM

SCALE : HORIZONTAL 1" =20'-0"
VERTICAL NTS

| | |
|---|---|
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |
| FILE NAME: s12j634\STR\12j634pro.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R. YOUNG | DRAWN BY: G. ROKES |
| DESIGNED BY: F. BARROWS | CHECKED BY: F. BARROWS |
| MATERIAL TRANSITION AND SUPER ELEVATION | SHEET 19 OF 23 |




50+25

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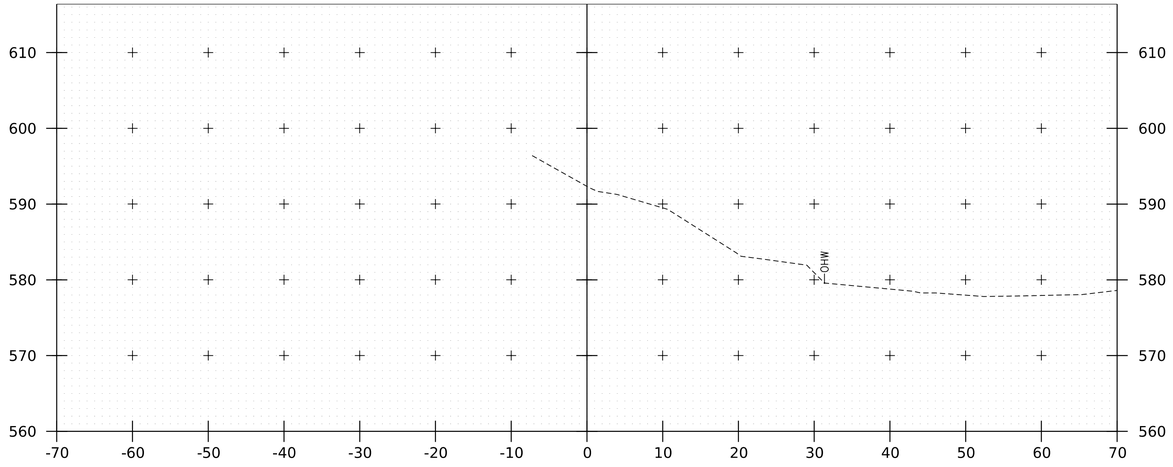


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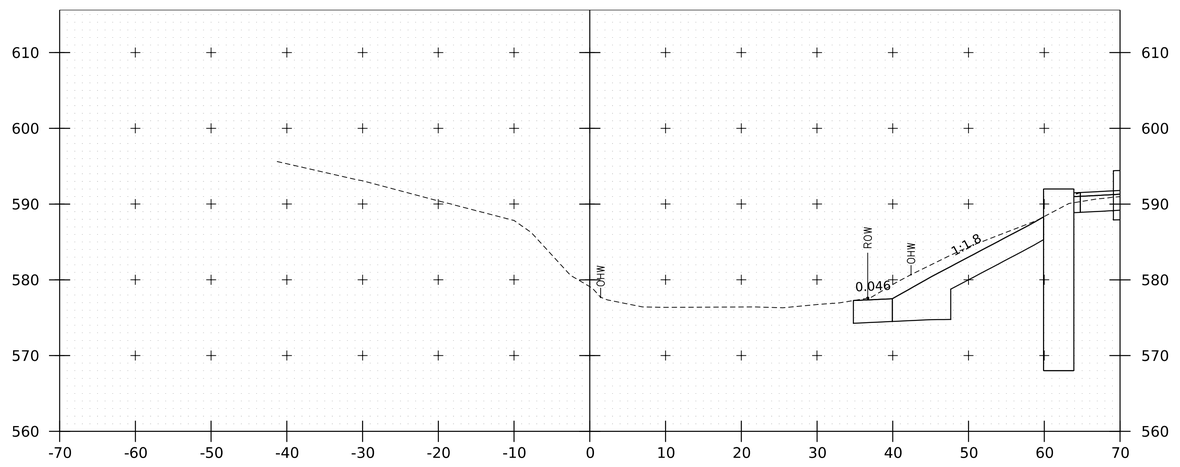


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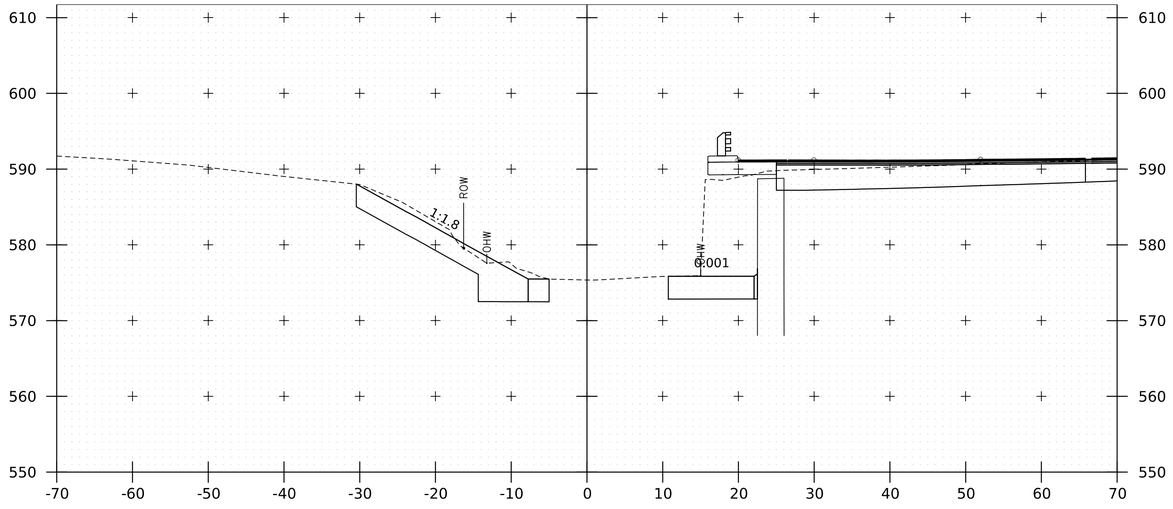
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |
| FILE NAME: 12j634/STR/12j634chxs.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R.YOUNG | DRAWN BY: G.ROKES |
| DESIGNED BY: G.ROKES | CHECKED BY: F.BARROWS |
| CHANNEL SECTIONS SHEET 1 | SHEET 20 OF 23 |

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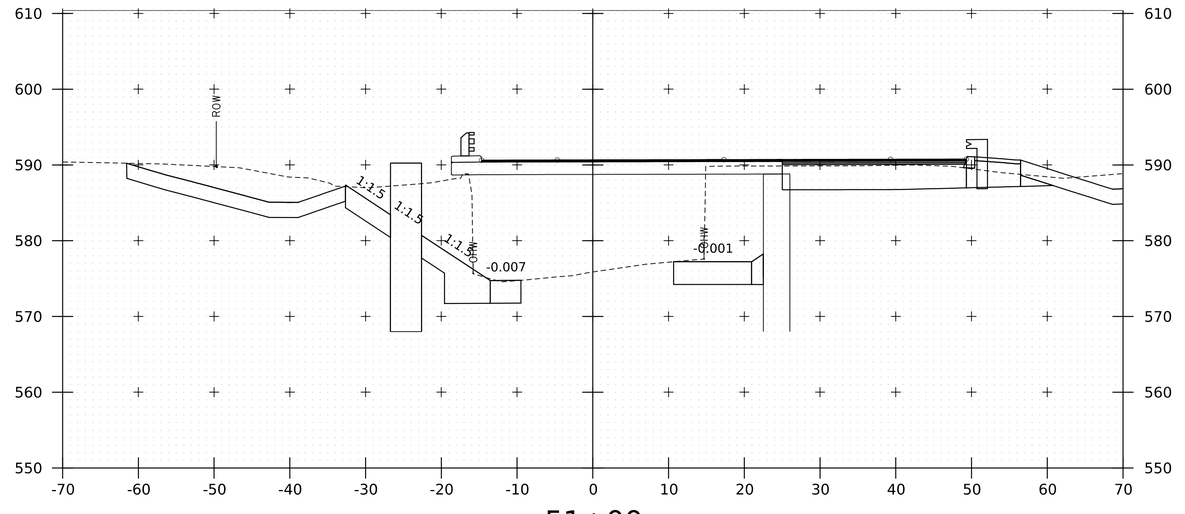


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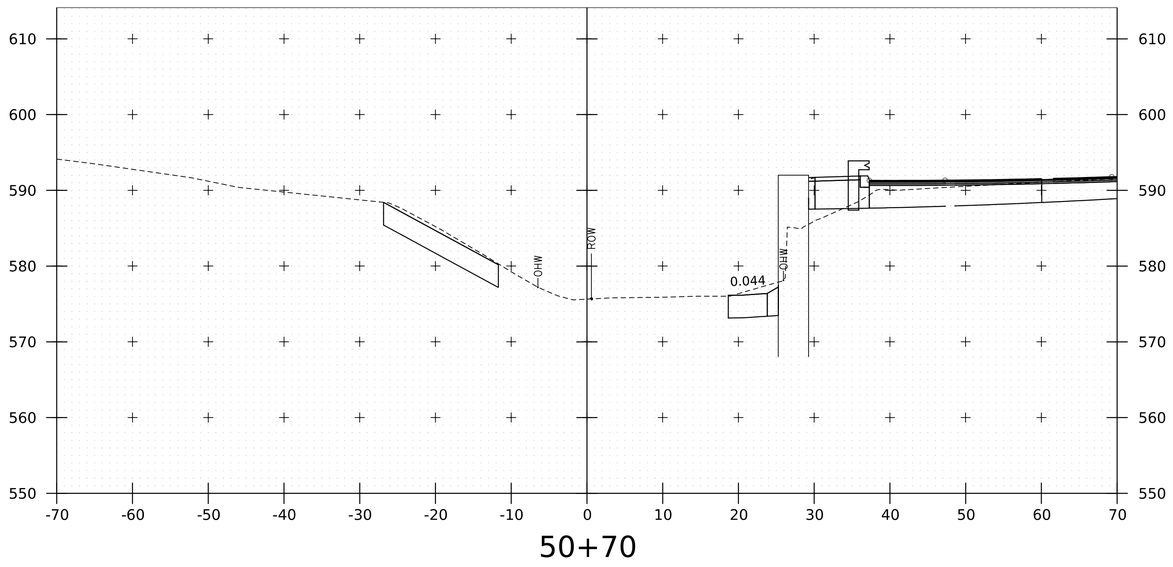


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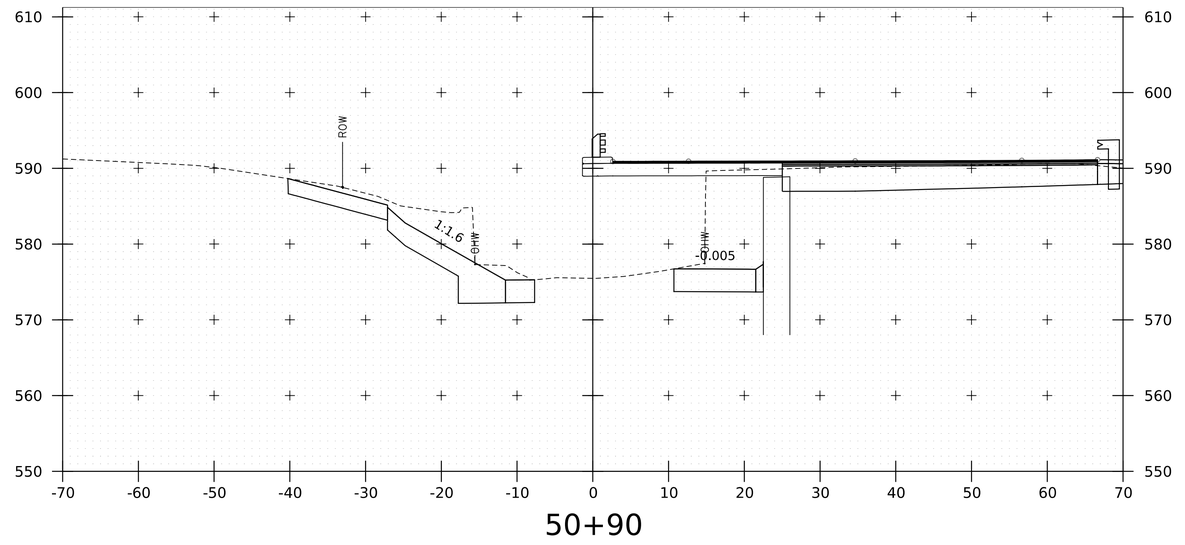


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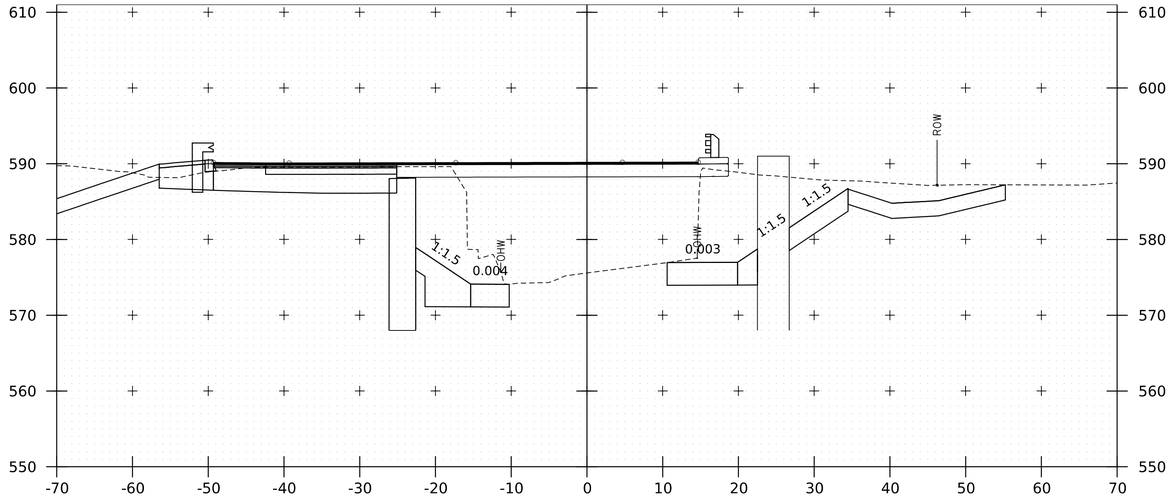
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |
| FILE NAME: I2j634/STR/I2j634chxs.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R.YOUNG | DRAWN BY: G.ROKES |
| DESIGNED BY: G.ROKES | CHECKED BY: F.BARROWS |
| CHANNEL SECTIONS SHEET 2 | SHEET 21 OF 23 |

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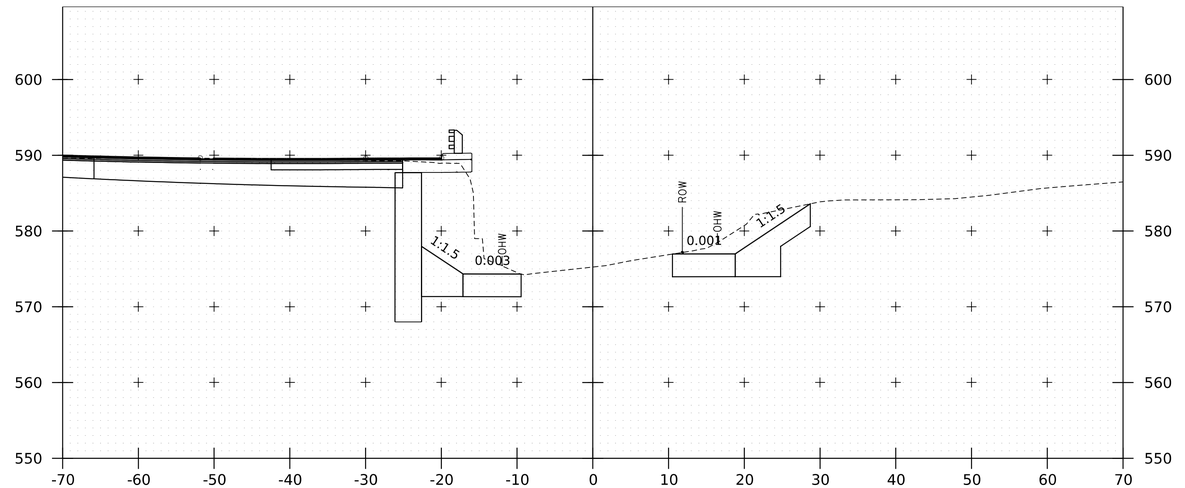


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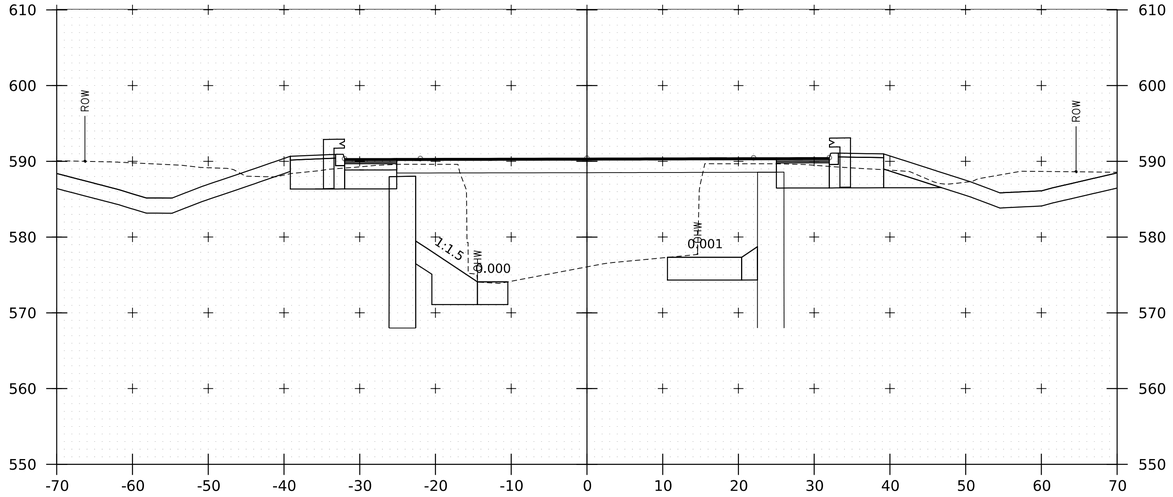


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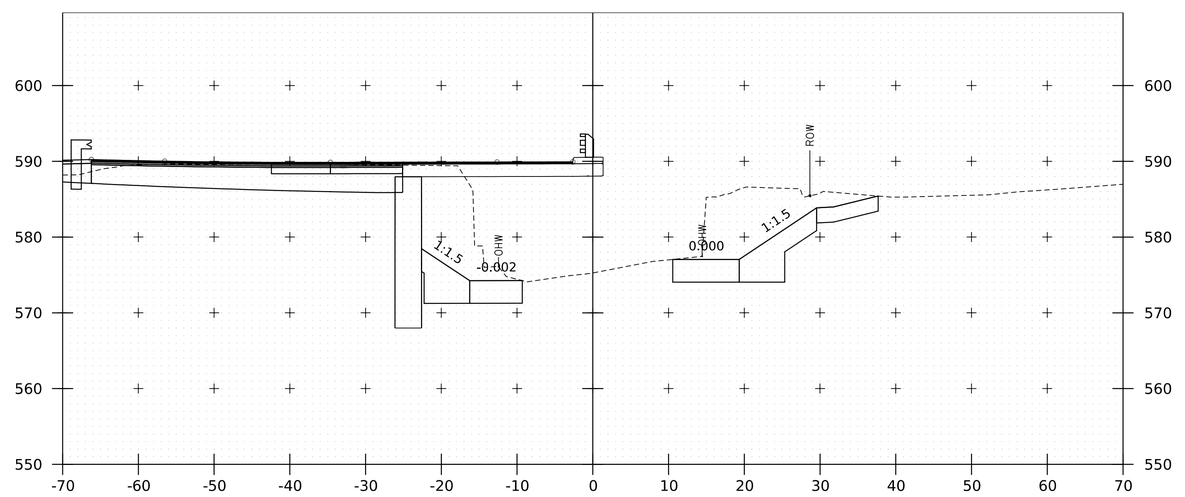


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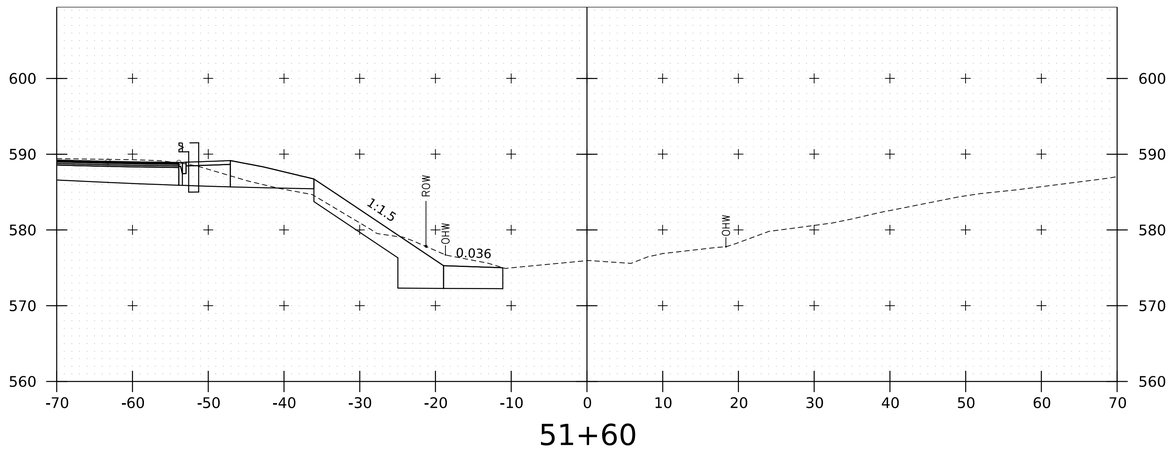
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |
| FILE NAME: | I2J634/STR/I2J634chxs.dgn |
| PROJECT LEADER: | R.YOUNG |
| DESIGNED BY: | G.ROKES |
| CHANNEL SECTIONS SHEET 3 | |
| PLOT DATE: | 17-JUL-2023 |
| DRAWN BY: | G.ROKES |
| CHECKED BY: | F.BARROWS |
| SHEET | 22 OF 23 |

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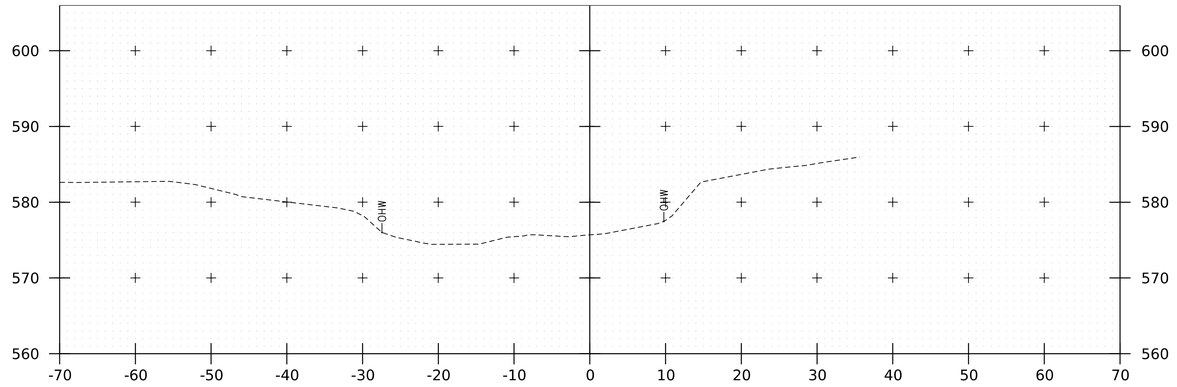


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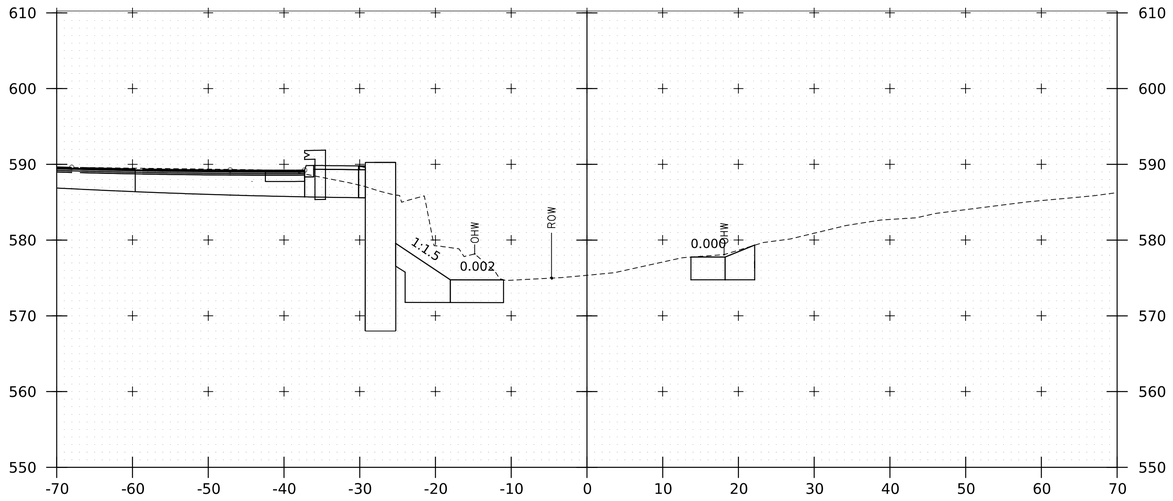


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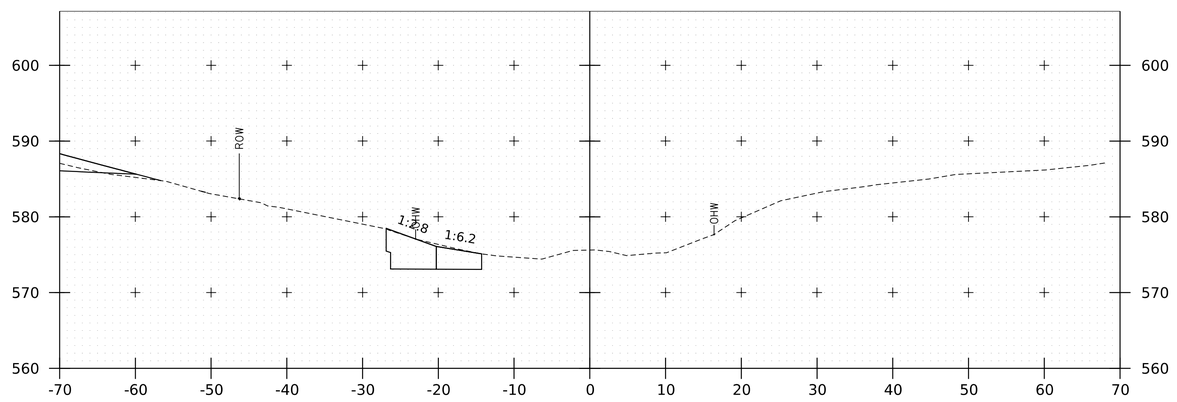


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|---|---|
| PROJECT NAME: | JERICHO |
| PROJECT NUMBER: | BF 0209(10) |

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|---|---|
| FILE NAME: I2J634/STR/I2J634chxs.dgn | PLOT DATE: 17-JUL-2023 |
| PROJECT LEADER: R.YOUNG | DRAWN BY: G.ROKES |
| DESIGNED BY: G.ROKES | CHECKED BY: F.BARROWS |
| CHANNEL SECTIONS SEET 4 | SHEET 23 OF 23 |