REVIEWER NOTES:

1. BRIDGE HAS FAILED AND IS NO LONGER OPEN TO TRAFFIC. TRAFFIC WILL CONTINUE TO USE LOCAL DETOURS DURING CONSTRUCTION.

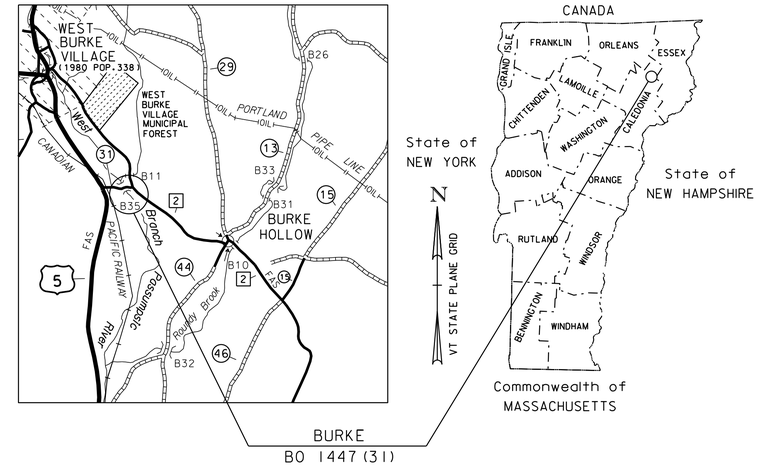
2. ANY STRUCTURAL ELEMENTS SHOWN IN THE PLANS ARE CONCEPTUAL IN NATURE AND HAVE NOT BEEN FULLY DESIGNED.

3. IMPACTS TO WETLANDS ARE ANTICIPATED AND AN ATTEMPT TO MINIMIZE THESE IMPACTS HAS BEEN MADE.

4. THE TOWN HAS REQUESTED THAT THE NEW BRIDGE BE DESIGNED FOR VEHICULAR TRAFFIC AS WELL AS PROVIDE SEASONAL / TEMPORARY BICYCLE AND PEDESTRIAN ACCOMODATION. THE BRIDGE WILL BE CONSTRUCTED AS A TWO-LANE BRIDGE WITH 9 FOOT TRAVEL LANES AND 2 FOOT SHOULDERS, HOWEVER IT WILL BE LINE-STRIPED FOR ONE 10 FOOT TRAVEL LANE AND (2) 6-FOOT SHOULDERS. SEE TYPICAL SECTIONS SHEET 1 FOR MORE INFORMATION.

5. FINAL HYDRAULICS HAS BEEN REQUESTED BUT NOT INCLUDED ON THE PI SHEET IN THIS REVIEW PERIOD.

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

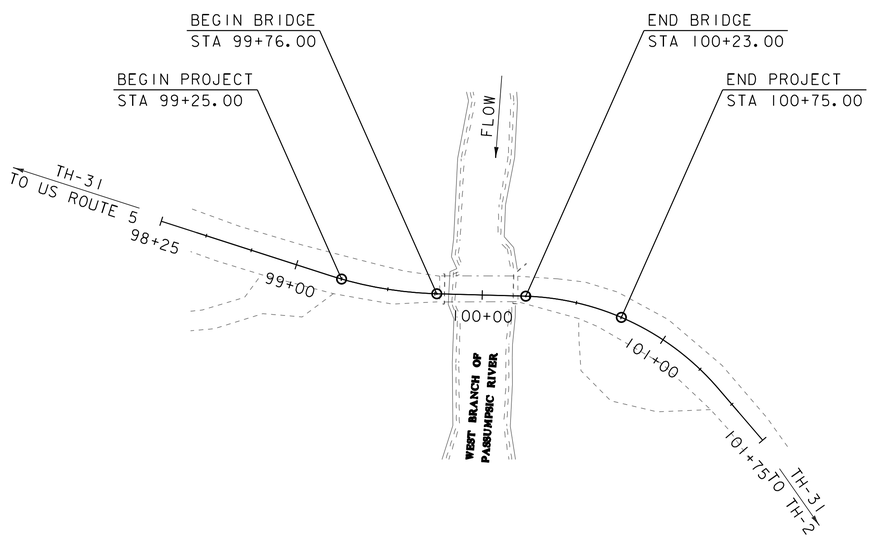
TOWN OF BURKE
COUNTY OF CALEDONIA

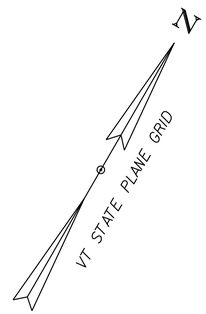
ROUTE NO : TOWN HIGHWAY 31 (HAYDEN CROSSING ROAD), CLASS 3

PROJECT LOCATION: LOCATED ON TH 31, BRIDGE 35 OVER THE WEST BRANCH OF THE PASSUMPSIC RIVER, APPROXIMATELY 0.20 MILES EAST OF THE JUNCTION WITH US 5.

PROJECT DESCRIPTION: REPLACEMENT OF THE EXISTING BRIDGE WITH A NEW SIMPLE SPAN BRIDGE ALONG WITH RELATED ROADWAY AND CHANNEL WORK.

LENGTH OF STRUCTURE:	47.00 FEET (ALONG STATIONING)
LENGTH OF ROADWAY:	103.00 FEET
LENGTH OF PROJECT:	150.00 FEET





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

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
SURVEYED DATE :	05/2017
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83 (2011)

PRELIMINARY PLANS
19-SEP-2019

HIGHWAY DIVISION, CHIEF ENGINEER
APPROVED _____ DATE _____

PROJECT MANAGER : CAROLYN COTA, P.E.

PROJECT NAME : BURKE
PROJECT NUMBER : BO 1447(31)

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	ADTT
2018	390	75	58	7.7	30
2038	430	80	58	9.7	45

20 year ESAL for flexible pavement from 2018 to 2038 : 82000

40 year ESAL for flexible pavement from 2018 to 2058 : 170000

Design Speed : 25 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. SEM
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

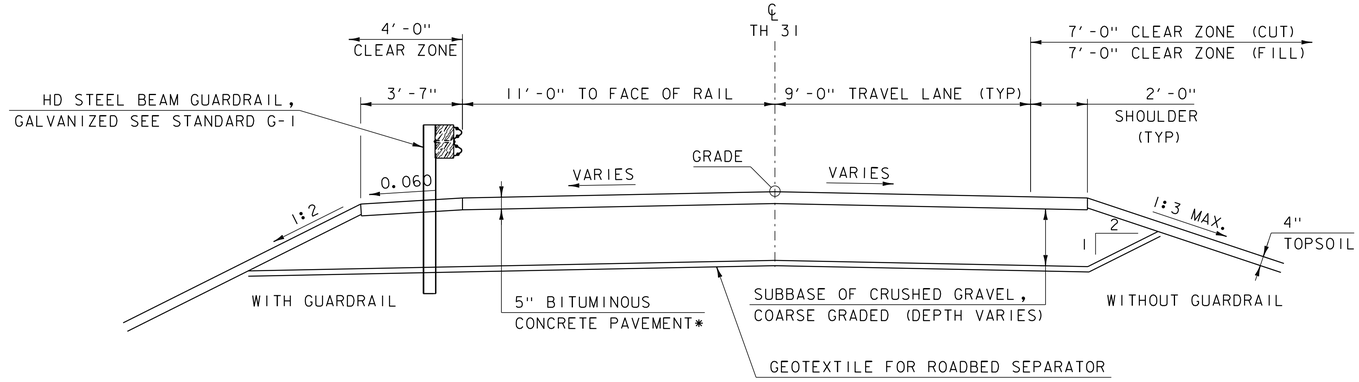
1. DESIGN LIVE LOAD		HL-93
2. FUTURE PAVEMENT	d_p:	0.0 INCH
3. DESIGN SPAN	L:	42.33 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ:	---
5. PRESTRESSING STRAND (0.60 INCH DIAMETER - LOW RELAX)	f_y:	270 KSI
6. PRESTRESSED CONCRETE STRENGTH	f'_c:	6.0 KSI
7. PRESTRESSED CONCRETE RELEASE STRENGTH	f'_{ci}:	5.0 KSI
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 PSS	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	f_y:	---
14. NOMINAL BEARING RESISTANCE OF SOIL	q_n:	4.0 KSF
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
16. NOMINAL BEARING RESISTANCE OF ROCK	q_n:	10.0 KSF
17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
18. PILE RESISTANCE FACTOR	ϕ:	---
19. LATERAL PILE DEFLECTION	Δ:	---
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: **BURKE**

PROJECT NUMBER: **BO 1447(31)**

FILE NAME: **s12j610pi.xls**
PROJECT LEADER: **C. COTA**
DESIGNED BY: **D. PETERSON**
PRELIMINARY INFORMATION SHEET 1

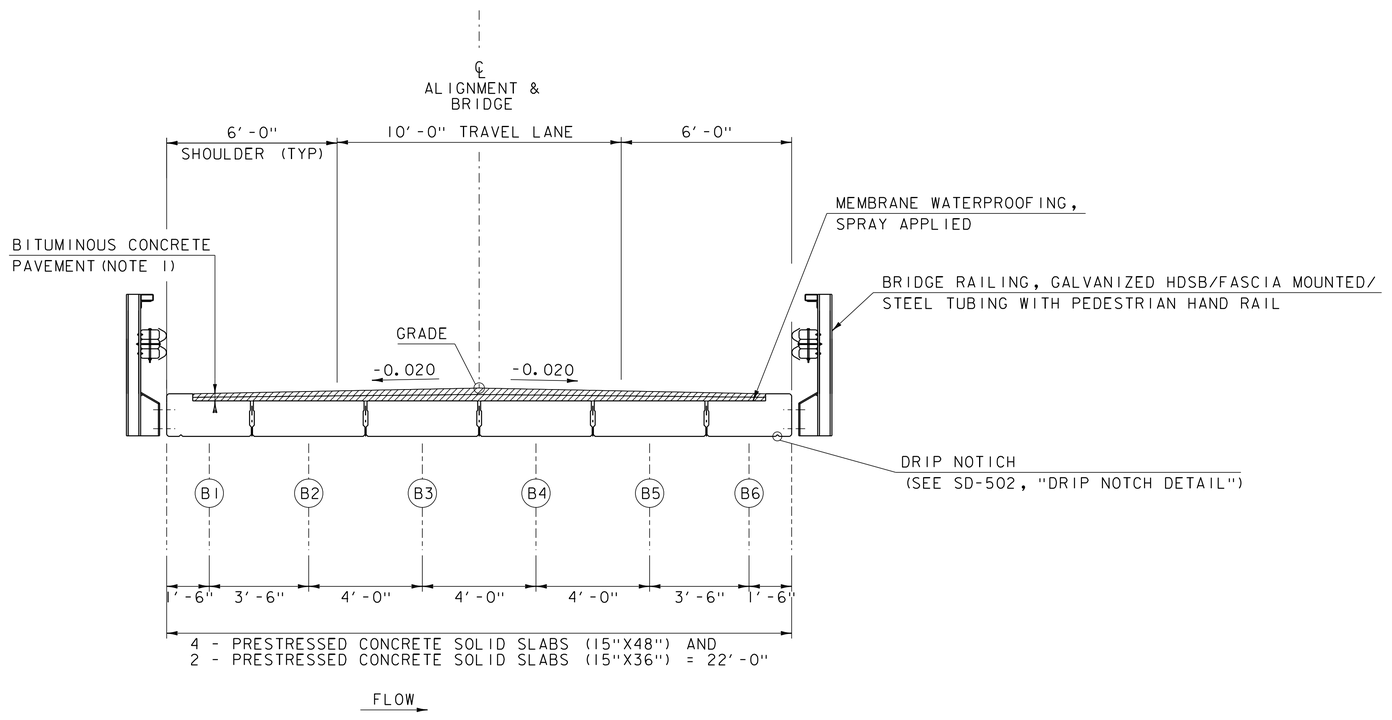
PLOT DATE: 9/18/2019
DRAWN BY: **R. PELLETT**
CHECKED BY: **D. PETERSON**
SHEET 2 OF 23



*SPECIAL PROVISION
(BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY):
1½" WEARING COURSE, TYPE IVB
1½" BINDER COURSE, TYPE IVB
2" BASE COURSE, TYPE IIIS

TH 31 TYPICAL SECTION

SCALE ⅜" = 1'-0"



BRIDGE TYPICAL SECTION

SCALE ⅜" = 1'-0"

NOTES:
1. PAVEMENT THICKNESS VARIES ACROSS THE BRIDGE WIDTH. FINAL THICKNESS SHALL BE 3 INCHES AT PAVEMENT EDGE AND 4.75 INCHES AT CENTERLINE OF ALIGNMENT, TO CREATE THE SPECIFIED CROSS SLOPES.

2. BRIDGE HAS BEEN DESIGNED TO ACCOMODATE TWO LANES OF VEHICULAR TRAVEL WITH (2) 9-FOOT TRAVEL LANES AND (2) 2-FOOT SHOULDERS. BRIDGE SHALL BE LINE-STRIPED FOR ONE-WAY TRAVEL AS SHOWN IN TYPICAL BRIDGE SECTION.

3. EMULSIFIED ASPHALT SHALL BE APPLIED PER THE APPLICATION RATES IN TABLE 406.12A OF THE STANDARD SPECIFICATIONS.

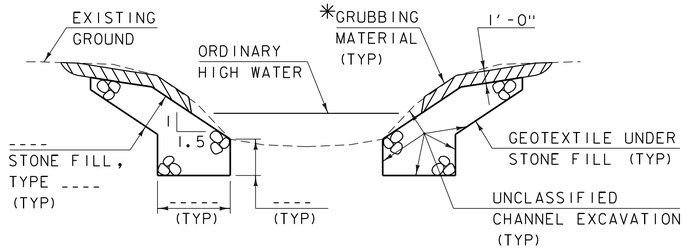
MATERIAL TOLERANCES
(IF USED ON PROJECT)

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

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610typ.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
TYPICAL SECTIONS SHEET 1

PLOT DATE: 19-SEP-2019
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 3 OF 23

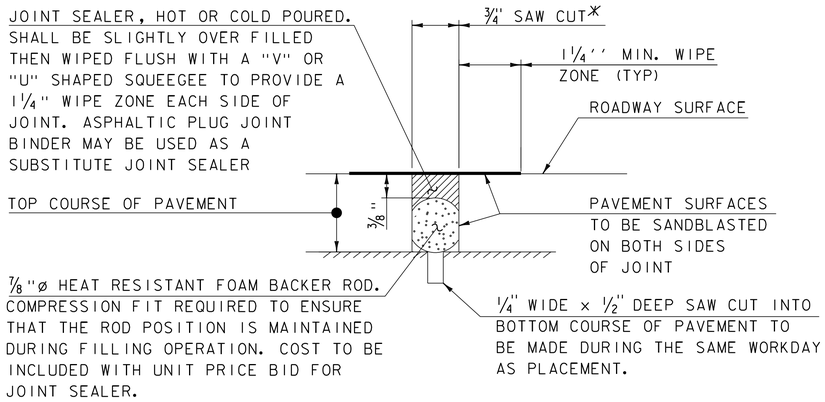


TYPICAL CHANNEL SECTION

(NOT TO SCALE)

1) 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 UNDERNEATH DOWNSPOUTS. SEE THE CHANNEL SECTIONS FOR ADDITIONAL DETAILING.

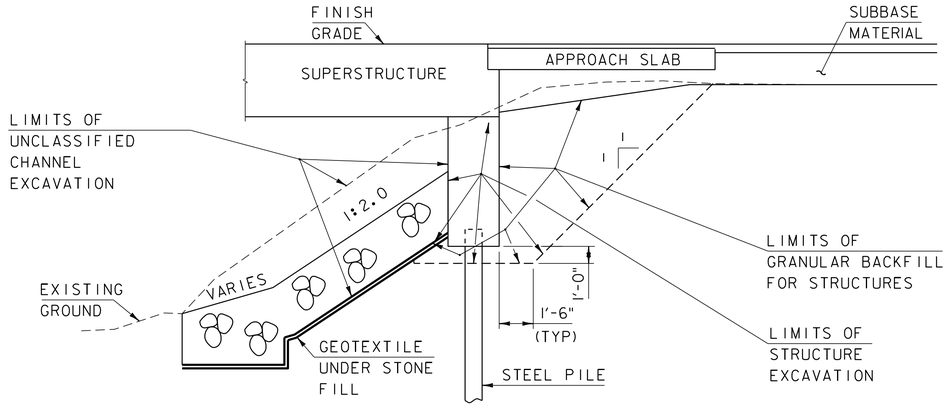
2) WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.



SAWED PAVEMENT JOINT DETAIL

(NOT TO SCALE)

*JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING, OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF CONCRETE DECK. JOINT SHALL BE CUT DRY IN A SINGLE PASS AND BE SEALED WITHIN 24 HOURS OR PRIOR TO EXPOSURE TO TRAFFIC. JOINT SHALL BE CLEANED PRIOR TO APPLYING THE JOINT SEALER.



ABUTMENT EARTHWORK TYPICAL SECTION

NOT TO SCALE

PROJECT NAME: BURKE	
PROJECT NUMBER: BO 1447(31)	
FILE NAME: sl2j610typ.dgn	PLOT DATE: 19-SEP-2019
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
TYPICAL SECTIONS SHEET 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: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610frm.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
SYMBOLOGY LEGEND SHEET

PLOT DATE: 19-SEP-2019
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 5 OF 23

NETWORK CONTROL

HVCTRL #1
PATOINE
NORTH =777156.1020
EAST = 1777564.9800
ELEV. = 905.3800

GENERAL LOCATION, BURKE VT

THE MARK IS SET 1 INCH BELOW GROUND SURFACE IN THE TOP OF A FENO STYLE MONUMENT DRIVEN IN A BERM COMPRISED OF BALLAST AND EARTH. IT IS 36.7 FT WEST OF AND 1.3 FT HIGHER THAN THE CENTERLINE OF US ROUTE 5, 20.3 FT SW OF THE WASHINGTON COUNTY RAILROAD SW RAIL, 16.7 FT NORTH OF THE EASTERLY POST FOR THE WEST BURKE GRAVEL PIT SIGN, 90.2 FT NNW OF THE CENTERLINE OF A GATED GRAVEL DRIVE LEADING TO THE GRAVEL PIT, AND 0.7 FT SW OF A FIBERGLASS WITNESS POST.

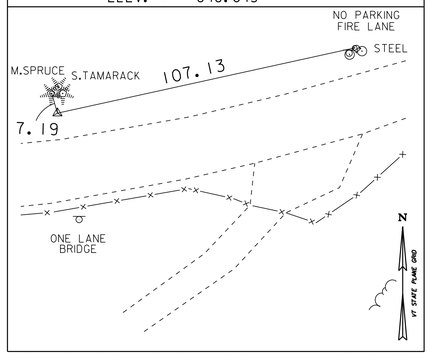
HVCTRL #2
PATOINE AZ MK
NORTH = 776311.5140
EAST = 1778805.7100
ELEV. = 877.8720

GENERAL LOCATION, BURKE VT

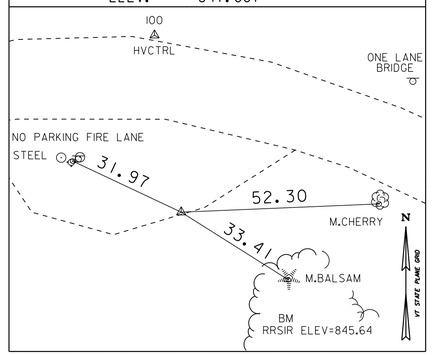
THE MARK IS SET 3 INCHES BELOW GROUND SURFACE IN THE TOP OF A FENO STYLE MONUMENT. IT IS 14.8 FT SOUTH OF AND 0.3 FT HIGHER THAN THE CENTERLINE OF HAYDEN CROSSING ROAD, 49.2 FT NNE OF THE NORTHEAST CORNER OF A 3BAY GARAGE, 54.1 FT SOUTHWEST OF AND ACROSS THE ROAD FROM POLE NO 5/5/48/3, 34.4 FT SOUTH OF AND ACROSS THE ROAD FROM THE EAST POST OF A GATE LEADING TO A HORSE THE PASTURE AND 4.6 FT OF A WOODEN FENCE POST AND A FIBERGLASS WITNESS POST.

LOCAL CONTROL

HVCTRL #3
NORTH = 776339.0630
EAST = 1779066.6237
ELEV. = 848.043



HVCTRL #4
NORTH = 776361.9493
EAST = 1779347.0344
ELEV. = 847.007



NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

*TRAVERSE COMPLETED 5/16/2017 BY R. GILMAN P.C. H.MCGOWAN & B. HERRING

MAINLINE ALIGNMENT

POINT	STATIONING (ft)	NORTHING (ft)	EASTING (ft)	ELEMENT	LENGTH (ft)	WCB (0°00'00") (STRAIGHT)	WCB (0°00'00") (R=STARTING ANGLE)	WCB (0°00'00") (R=END ANGLE)
POB	98+25.00	776319.4606	1779076.2100					
PC	99+18.07	776339.0536	1779167.1944	STRAIGHT	93.07	N 77°50'49.95" E		
PT	99+76.43	776359.2373	1779221.7362	R = -205.00 STRAIGHT	58.35 45.73	N 61°32'16.52" E	N 77°50'49.95" E	N 61°32'16.52" E
PC	100+22.16	776381.0332	1779264.9426	R = +140.00	116.83		N 61°32'16.52" E	S 70°3901.07" E
PT	101+38.99	776390.0465	1779375.0500	STRAIGHT	36.02	S 70°39'01.07" E		
POE	101+75.00	776378.1134	1779409.0310					

CHANNEL ALIGNMENT

POINT	STATIONING (ft)	NORTHING (ft)	EASTING (ft)	ELEMENT	LENGTH (ft)	WCB (0°00'00") (STRAIGHT)	WCB (0°00'00") (R=STARTING ANGLE)	WCB (0°00'00") (R=END ANGLE
POB	4+00.00	776458.3854	1779194.8031					
				STRAIGHT	200.00	S 28o27'43.48" E		
POE	6+00.00	776282.5588	1779290.1185					

DATUM
VERTICAL NAVD88
HORIZONTAL NAD83(2011)
ADJUSTMENT COMPASS

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610frm.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
TIE SHEET

PLOT DATE: 19-SEP-2019
DRAWN BY: C. CYR
CHECKED BY: G. HITCHCOCK
SHEET 6 OF 23

SOIL INFORMATION:
Rumney fine sandy loam,
0 to 3 percent slopes, frequently flooded
K-FACTOR = 0.28
HYDROLOGICAL SOIL GROUP: B/D

SOIL INFORMATION:
Croghan loamy fine sand,
3 to 8 percent slopes
K-FACTOR = 0.17
HYDROLOGICAL SOIL GROUP: A/D

SOIL INFORMATION:
Wonsqueak and Pondicherry mucks,
0 to 2 percent slopes
K-FACTOR = Not Reported
HYDROLOGICAL SOIL GROUP: A/D

TIMOTHY ROBERTS

NICHOLAS NICHELSON

TIMOTHY ROBERTS

BURKE TOWN SCHOOL DISTRICT

RIPARIAN BUFFER

RIPARIAN BUFFER

EXISTING TOWN R.O.W.

EXISTING TOWN R.O.W.

TH-31 TO US ROUTE 5

TH-31 TO TH-2

WEST BRANCH OF PASSUMPSIC RIVER FLOW

BENCHMARK
RAIL ROAD SPIK
IN ROOT
ELEV.=845.64'

N

VT STATE PLANE GRID

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

PROJECT NAME: BURKE	
PROJECT NUMBER: BO 1447(31)	
FILE NAME: s12j610rsc-bdr.dgn	PLOT DATE: 19-SEP-2019
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
EXISTING CONDITIONS SHEET	SHEET 7 OF 23

REMOVING SIGNS
STA 99+25.3 LT (NO PARKING FIRE LANE)
STA 99+70.7 LT (OBJECT MARKER)
STA 99+72.1 RT (OBJECT MARKER)
STA 100+22.5 LT (OBJECT MARKER)
STA 100+23.8 RT (OBJECT MARKER)

RESETTING SIGNS
STA 99+27.1 LT (NO PARKING FIRE LANE)

TRAFFIC SIGNS, TYPE A
STA 99+72.3 RT (BRIDGE 35)
STA 100+27.7 LT (BRIDGE 35)

COARSE-MILLING, BITUMINOUS PAVEMENT
STA 98+25.0 - 98+75.0
STA 101+25.0 - 101+75.0

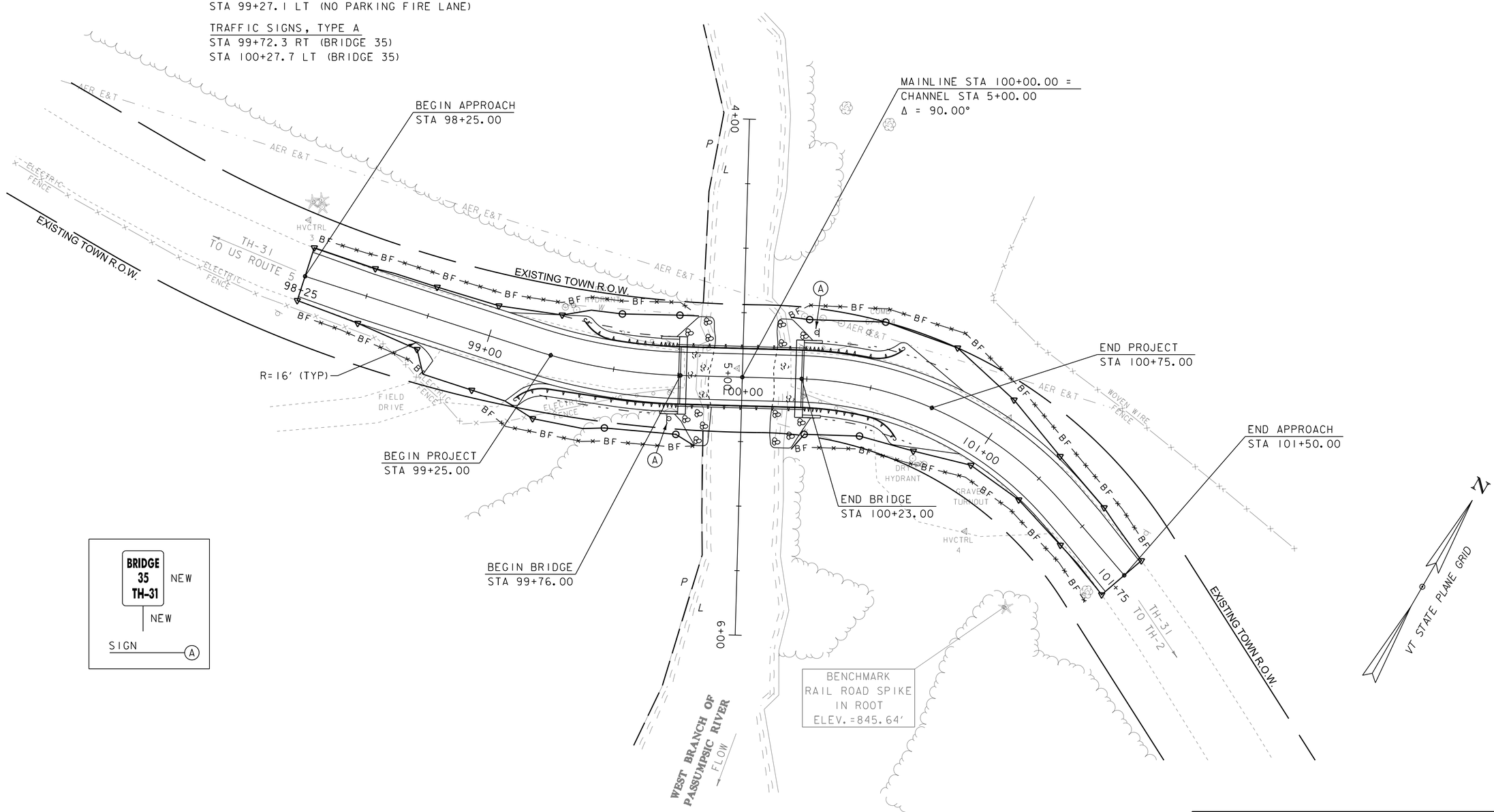
CONSTRUCT 11 FT. WIDE PAVED APRON
STA 98+70.6 - 99+28.5 RT

4" WHITE LINE (EDGE LINE)
STA 98+25.0 - 101+75.0 LT (350 LF)
STA 98+25.0 - 101+75.0 RT (350 LF)

4" YELLOW LINE (DOUBLE CENTERLINE)
STA 98+25.0 - 101+75.0 (350 LF)

REMOVING AND RESETTING FENCE
STA 99+20.8 - 99+53.4 RT (50 LF)

REMOVAL AND DISPOSAL OF GUIDE POSTS
STA 100+23.0 - 100+36.0 LT (3 POSTS)



BRIDGE 35 TH-31
NEW
NEW
SIGN (A)

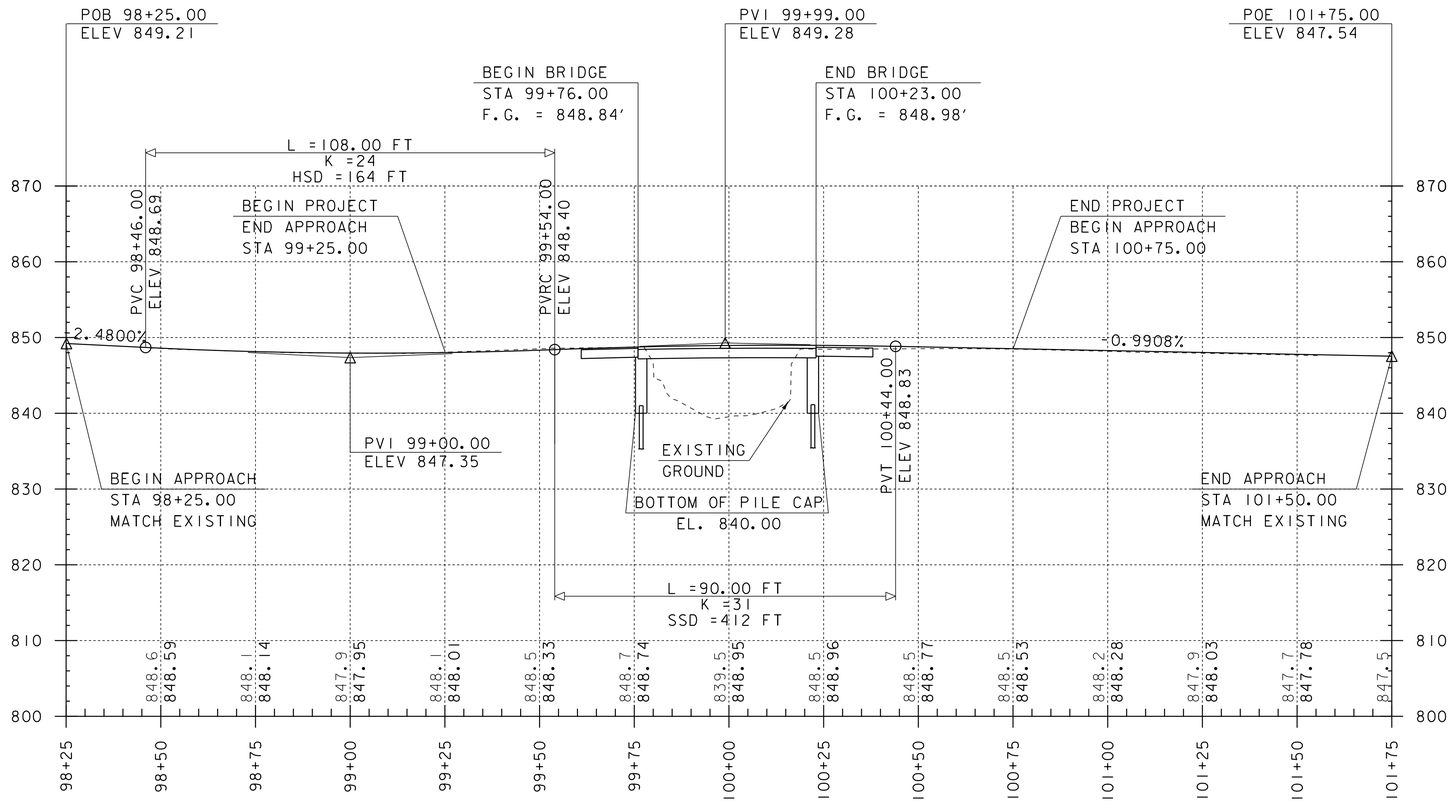
EXISTING BRIDGE INFORMATION
42' SPAN ROLLED THRU BEAM
CAST IN PLACE DECK
BUILT 1919, RECONSTRUCTED 1951
CLOSED 2013
DUE TO FLOORBEAM FAILURES

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

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: sl2j610bdr.dgn
PROJECT LEADER: C. CARLSON
DESIGNED BY: A. FLINN
PLAN SHEET

PLOT DATE: 19-SEP-2019
DRAWN BY: A. FLINN
CHECKED BY: D. PETERSON
SHEET 8 OF 23



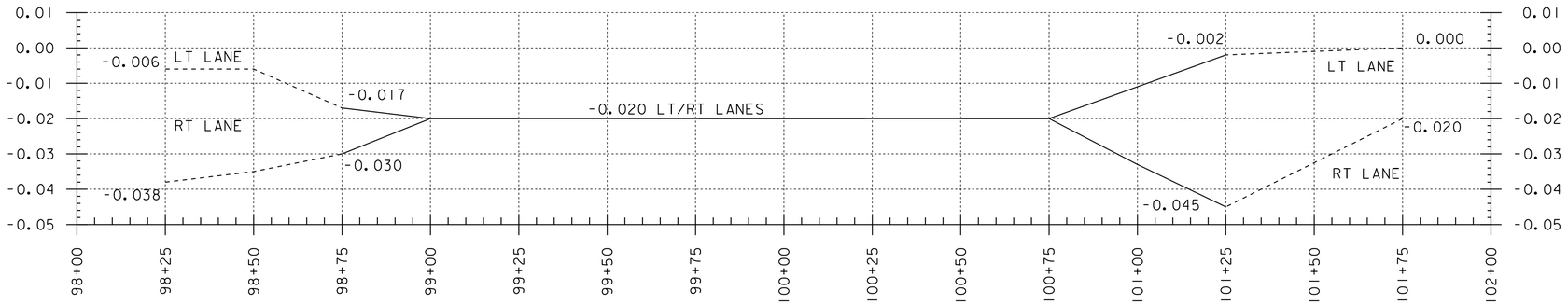
BURKE TH-31 PROFILE

SCALE: HORIZONTAL 1"=20'-0"
VERTICAL 1"=10'-0"

NOTE:
GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG ℄

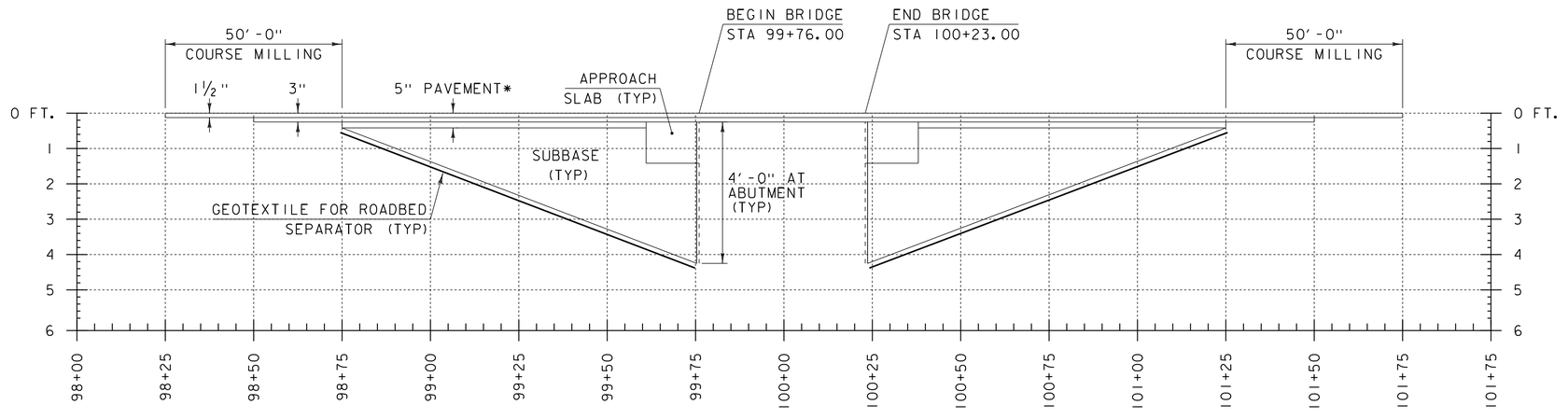
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADE ALONG ℄

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: sl2j610profile.dgn	PLOT DATE: 19-SEP-2019
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
PROFILE SHEET	SHEET 9 OF 23



BANKING DIAGRAM

SCALE: HORIZONTAL 1"=20'-0"
VERTICAL 1"=2.0%

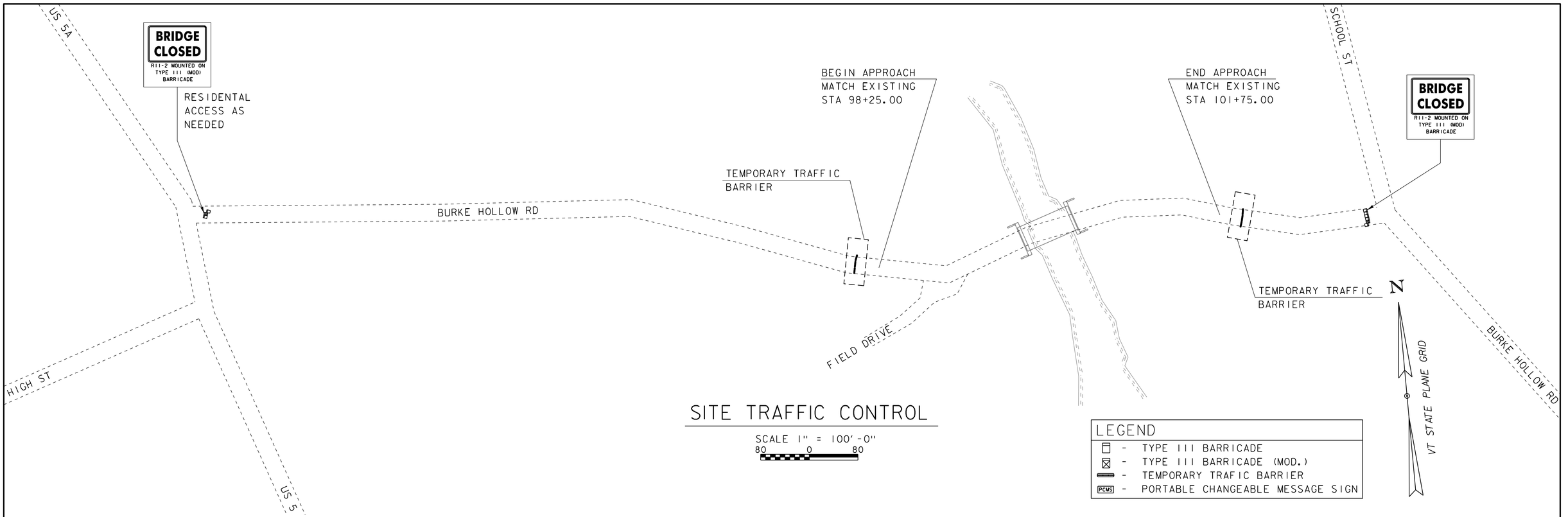


MATERIAL TRANSITION DIAGRAM

SCALE: HORIZONTAL 1"=20'-0"
VERTICAL 1"=2'-0"

* PAVEMENT:
(2) 1½" LIFTS OF TYPE IVB
(1) 2" LIFT OF TYPE IIIS

PROJECT NAME: BURKE	
PROJECT NUMBER: BO 1447(31)	
FILE NAME: sl2j610profile.dgn	PLOT DATE: 19-SEP-2019
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
BANKING & MATERIAL TRANSITION SHEET	SHEET 10 OF 23



SITE TRAFFIC CONTROL

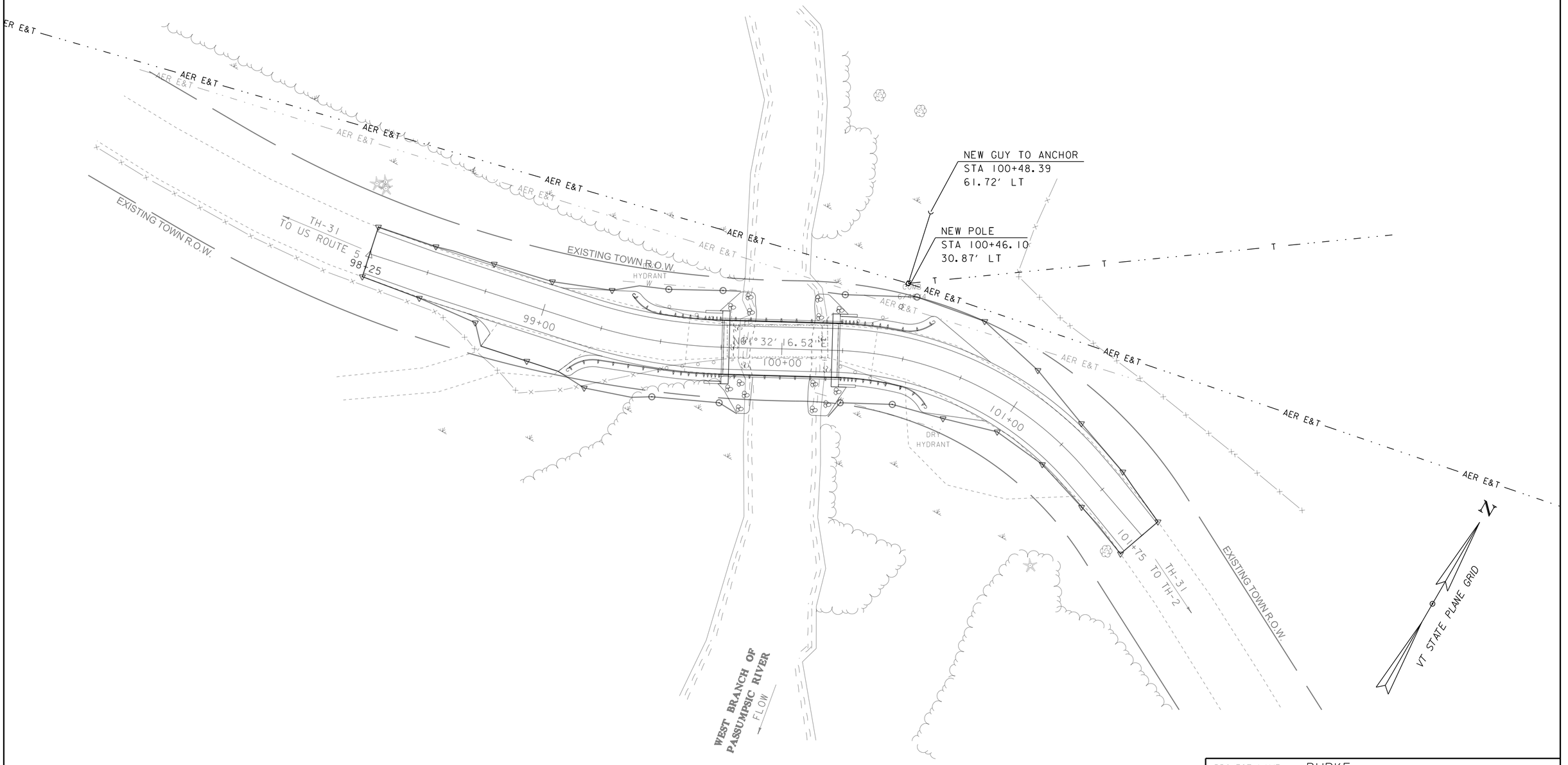
SCALE 1" = 100'-0"

80 0 80

LEGEND

- ☐ - TYPE III BARRICADE
- ☒ - TYPE III BARRICADE (MOD.)
- ═ - TEMPORARY TRAFIC BARRIER
- PCMS - PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: sl2j610tcs.dgn	PLOT DATE: 19-SEP-2019
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
SITE TRAFFIC CONTROL	SHEET 11 OF 23



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

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)

FILE NAME: s12j610utl.dgn	PLOT DATE: 19-SEP-2019
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
UTILITY LAYOUT SHEET	SHEET 12 OF 23

REMOVAL AND DISPOSAL OF GUARDRAIL
STA 99+45.1 - 99+77.2 LT
STA 99+53.6 - 99+77.4 RT
STA 100+19.2 - 100+41.4 LT
STA 100+24.0 - 100+50.8 RT

ANCHOR FOR STEEL BEAM GUARDRAIL
STA 99+23.6 RT
STA 99+43.7 LT
STA 100+51.2 LT
STA 100+56.2 RT

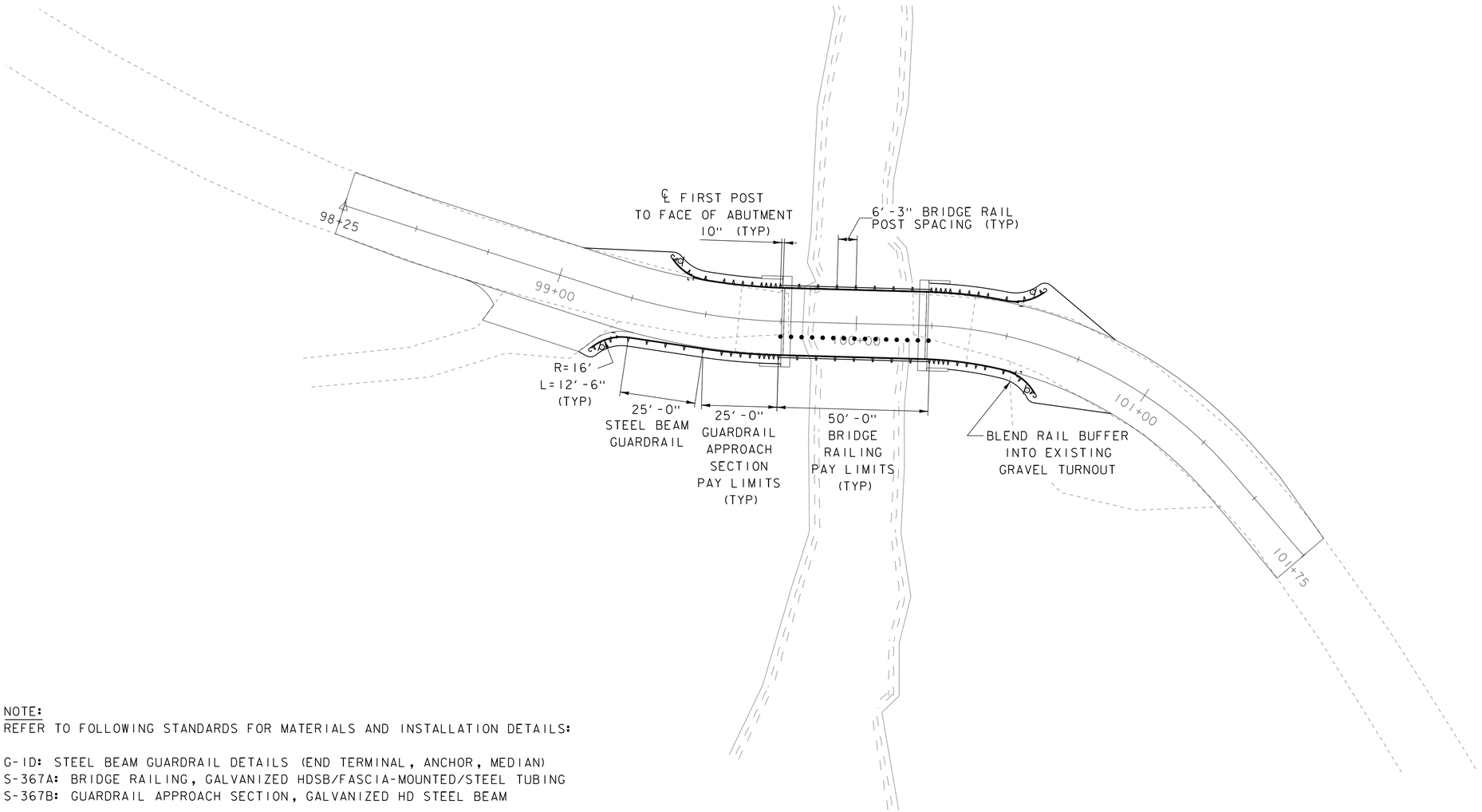
BRIDGE RAILING, GALVANIZED HDSB/ FASCIA-MOUNTED/STEEL TUBING W/ HANDRAIL
STA 99+74.4 - 100+24.3 LT
STA 99+74.6 - 100+24.7 RT

BOLLARDS (PEDESTIAN MARKERS)
STA 99+75.0 - 100+24.0 LT @ 3'-6"

HD STEEL BEAM GUARDRAIL, GALVANIZED
STA 99+16.9 - 99+50.9 RT
STA 99+34.8 - 99+48.0 LT
STA 100+47.5 - 100+58.2 LT
STA 100+51.8 - 100+65.5 RT

GUARDRAIL APPROACH SECTION, GALVANIZED HD STEEL BEAM
STA 99+48.0 - 99+74.4 LT
STA 99+50.9 - 99+74.6 RT
STA 100+24.3 - 100+47.5 LT
STA 100+24.7 - 100+51.8 RT

TRAFFIC BARRIER DELINEATOR
STA 99+20.6 RT
STA 99+37.3 LT
STA 100+55.9 LT
STA 100+63.8 RT



NOTE:
REFER TO FOLLOWING STANDARDS FOR MATERIALS AND INSTALLATION DETAILS:

G-ID: STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)
S-367A: BRIDGE RAILING, GALVANIZED HDSB/FASCIA-MOUNTED/STEEL TUBING
S-367B: GUARDRAIL APPROACH SECTION, GALVANIZED HD STEEL BEAM

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

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610rail.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
RAILING LAYOUT SHEET

PLOT DATE: 19-SEP-2019
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 13 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

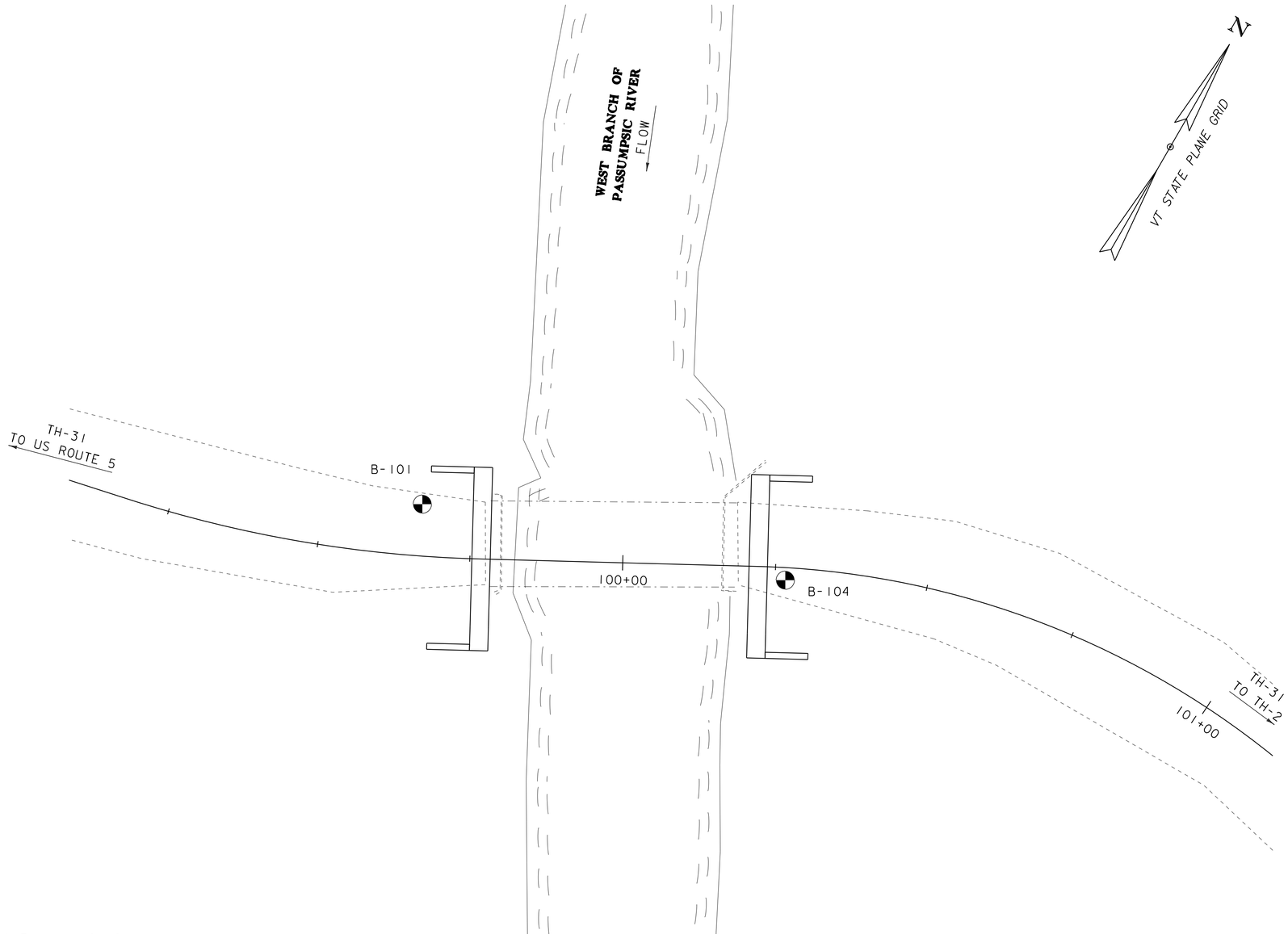
CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

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
RQD	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		



SCALE 1" = 10'-0"
10 0 10

BORING LOCATION PLAN

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.

GENERAL NOTES

1. The subsurface explorations shown herein were made between 01/16/2019 and 02/07/2019 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.
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.

BORING CHART

HOLE NO.	SURV. STATION	OFFSET	GROUND ELEV.	ELEV. TLOB
B-101	99+66.59	8.48 L	848.0	779.4
B-104	100+26.71	2.06 R	848.5	778.9

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610bor.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
BORING INFORMATION SHEET

PLOT DATE: 19-SEP-2019
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 14 OF 23

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

BORING LOG

Burke
BO 1447(31)
TH 31

Boring No.: B-101
Page No.: 1 of 2
Pin No.: 12J610
Checked By: SPM

Boring Crew: Emerson, Brochu, Gonyaw
Date Started: 1/29/19 Date Finished: 2/07/19
VTSPG NAD83: N 776362.40 ft E 1779209.30 ft
Station: 99+67 Offset: 8.5 LT
Ground Elevation: 848.0 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 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
02/05/19	6.3	W.T. before drilling
02/05/19	0.0	W.T. after drilling
02/06/19	4.9	W.T. before 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 %
		Asphalt Pavement, 0.0 ft – 0.7 ft								
		Visual Description:, GrSiSa, brn, Moist, Rec. = 1.2 ft				25-14-7-9 (21)				
		Visual Description:, GrSiSa, brn, Moist, Rec. = 0.5 ft				6-8-5-3 (13)				
5		Field Note:, No Recovery, rock in end of sampler				3-2-2-2 (4)				
		A-1-b, GrSa, brn, MTW, Rec. = 0.5 ft, Field Note: NXDC, Cleaned out casing 8.1-9.0 feet				4-3-7-8 (10)	25.4	31.2	54.8	14.0
10		Visual Description:, SiSa, brn, MTW, Rec. = 0.3 ft, Field Note: NXDC, Cleaned out casing 10.4-11.0 feet. Broken rock was within sample				3-5-9-9 (14)				
		Field Note:, No Recovery, NXDC, Cleaned out casing 12.2-13.0 feet				4-8-8-4 (16)				
		Visual Description:, Sa, brn, Moist, Rec. = 0.8 ft, Lab Note: Similar to sample from 15.0-17.0 feet				7-3-4-4 (7)				
15		A-2-4, SiSa, brn, Moist, Rec. = 0.9 ft, Field Note: NXDC, Cleaned out casing 16.7-17.0 feet				5-3-4-4 (7)	27.2	2.3	67.5	30.2
		Visual Description:, Sa, brn, Moist, Rec. = 0.9 ft, Lab Note: Similar to sample from 15.0-17.0 feet				4-3-3-3 (6)				
20		Field Note:, No Recovery, NXDC, Cleaned out casing 24.7-25.0 feet				5-4-4-5 (8)				
25		Visual Description:, Sa, brn, Moist, Rec. = 0.2 ft, Field Note: NXDC, Cleaned out casing 29.4-30.0 feet. Rock in end of sampler				3-4-5-5 (9)				
30		Field Note:, No Recovery, rock in end of sampler, NXDC, Cleaned out casing 34.5-35.0 feet				12-6-5-6 (11)				
35		Visual Description:, Sa, brn, Moist, Rec. = 1.0 ft, Lab Note: Similar to sample from 50.0-52.0 feet				5-5-3-4 (8)				
40		Field Note:, No Recovery, rock in end of sampler, NXDC, Cleaned out casing 44.6-45.0 feet				3-3-4-4 (7)				

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.

BOTTOM OF PILE CAP
ABUTMENT 1
ELEV. = 840.00'

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

BORING LOG

Burke
BO 1447(31)
TH 31

Boring No.: B-101
Page No.: 2 of 2
Pin No.: 12J610
Checked By: SPM

Boring Crew: Emerson, Brochu, Gonyaw
Date Started: 1/29/19 Date Finished: 2/07/19
VTSPG NAD83: N 776362.40 ft E 1779209.30 ft
Station: 99+67 Offset: 8.5 LT
Ground Elevation: 848.0 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 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
02/05/19	6.3	W.T. before drilling
02/05/19	0.0	W.T. after drilling
02/06/19	4.9	W.T. before 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 %
		Visual Description:, Sa, brn, Moist, Rec. = 0.6 ft, Field Note: NXDC, Cleaned out casing 49.6-50.0 feet. Lab Note: Similar to sample from 50.0-52.0 feet				4-4-5-5 (9)				
50		A-4, SiSa, brn, Moist, Rec. = 1.0 ft, Field Note: NXDC, Cleaned out casing 59.6-60.0 feet				4-4-4-5 (8)	20.7	3.5	55.7	40.8
55										
60		Visual Description:, Sa, brn, Moist, Rec. = 0.5 ft, Lab Note: Similar to sample from 50.0-52.0 feet				15-R@1"				
65										
70		68.6 ft – 73.6 ft, Gray, Interbedded micaceous quartz-rich Meta-Limestone, and gray/dark gray sulfidic slightly calcareous PHYLLITE. Massive quartz vein at 72.4 ft to 72.6 ft. Secondary calcification along joints and gray/green staining with some rusty splotches in phyllitic layers. Moderately hard, Slightly weathered, Fair rock, NXMDC, RMR=57	1 (5 to 30)	88 (66)	3 2 4 3 4	Top of Bedrock @ 68.6 ft				
75		73.6 ft – 78.6 ft, Gray, Interbedded micaceous quartz-rich Meta-Limestone, and gray/dark gray sulfidic slightly calcareous PHYLLITE. Joints have gray/green staining. Moderately hard, Slightly weathered, Good rock, NXMDC, RMR=61	2 (5 to 30)	94 (89)	3 3 4 4 3					
80		Hole stopped @ 78.6 ft								
85		Remarks: Hole collapsed at 11.1 feet. Used bentonite to drill from 25 feet.								

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.

ESTIMATED PILE TIP
ABUTMENT 1
ELEV. = 779.40'

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610bor.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
BORING LOGS SHEET 1

PLOT DATE: 19-SEP-2019
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 15 OF 23

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

BORING LOG

Burke
BO 1447(31)
TH 31

Boring No.: B-104
Page No.: 1 of 2
Pin No.: 12j610
Checked By: SPM

Boring Crew: Gonyaw, Brochu, Emerson
Date Started: 1/16/19 Date Finished: 1/25/19
VTSPG NAD83: N 776381.30 ft E 1779266.90 ft
Station: 100+27 Offset: 2.1 RT
Ground Elevation: 848.5 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 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
01/16/19	6.0	W.T. during drilling
01/25/19	3.6	W.T. before drilling
01/25/19	6.0	W.T. during 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 %
		Asphalt Pavement, 0.0 ft – 0.5 ft				8-6-9 (15)				
		Visual Description:, SaGr, brn, Moist, Rec. = 1.0 ft				6-8-9-6 (17)				
		Visual Description:, GrSa, brn, Moist, Rec. = 0.8 ft								
5		A-2-4, Sa, brn, Moist, Rec. = 1.5 ft, Field Note: Wood was within sample				4-3-5-6 (8)	27.4	14.6	69.2	16.2
		Visual Description:, SiSa, brn, Moist, Rec. = 1.2 ft, Field Note: NXDC, Cleaned out casing 7.1-8.0 feet. Wood was within sample. Lab Note: Similar to sample from 4.0-6.0 feet				2-3-2-2 (5)				
						1-3-9-9 (12)				
10		Visual Description:, GrSiSa, brn, Moist, Rec. = 0.3 ft, Field Note: NXDC, Cleaned out casing 9.3-10.0 feet. Wood was within sample				9-7-5-5 (12)				
		Visual Description:, GrSiSa, brn, MTW, Rec. = 0.3 ft, Field Note: NXDC, Cleaned out casing 11.1-12.0 feet. Wood was within sample				7-12-13-7 (25)				
		Visual Description:, GrSiSa, brn, MTW, Rec. = 0.3 ft, Field Note: NXDC, Cleaned out casing 13.4-14.0 feet				5-6-4-4 (10)				
15		Field Note:, No Recovery, rock in end of sampler. NXDC, Cleaned out casing 15.4-16.0 feet				3-1-1-1 (2)				
		Field Note:, No Recovery				3-1-1-2 (2)				
		Visual Description:, SiSa, brn, MTW, Rec. = 0.9 ft, Lab Note: Similar to sample from 20.0-22.0 feet				3-2-3-2 (5)	19.2	18.6	52.3	29.1
20		A-2-4, SiSa, brn, MTW, Rec. = 0.7 ft								
						4-3-2-5 (5)				
25		Visual Description:, SiSa, brn, MTW, Rec. = 0.7 ft, Lab Note: Similar to sample from 20.0-22.0 feet								
						4-2-3-4 (5)				
30		Visual Description:, GrSa, brn, MTW, Rec. = 0.9 ft								
						5-4-5-4 (9)				
35		Field Note:, No Recovery, rock in end of sampler, Lab Note: Similar to sample from 40.0-42.0 feet								
						5-4-4-5 (8)	17.5	24.7	71.2	4.1
40		A-1-b, GrSa, brn, MTW, Rec. = 1.0 ft								

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.

BOTTOM OF PILE CAP
ABUTMENT 2
ELEV. = 840.00'

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

BORING LOG

Burke
BO 1447(31)
TH 31

Boring No.: B-104
Page No.: 2 of 2
Pin No.: 12j610
Checked By: SPM

Boring Crew: Gonyaw, Brochu, Emerson
Date Started: 1/16/19 Date Finished: 1/25/19
VTSPG NAD83: N 776381.30 ft E 1779266.90 ft
Station: 100+27 Offset: 2.1 RT
Ground Elevation: 848.5 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 45C SKID	CE = 1.56

Groundwater Observations

Date	Depth (ft)	Notes
01/16/19	6.0	W.T. during drilling
01/25/19	3.6	W.T. before drilling
01/25/19	6.0	W.T. during 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 %
		Visual Description:, GrSa, brn, MTW, Rec. = 0.7 ft, Lab Note: Similar to sample from 40.0-42.0 feet				7-5-5-8 (10)				
50		Visual Description:, SiSa, brn, MTW, Rec. = 1.2 ft				9-9-10-14 (19)				
55										
60		Visual Description:, GrSa, brn, MTW, Rec. = 0.6 ft, Field Note: NXDC, Cleaned out casing 67.9-67.6 feet. Broken rock was within sample				44-22-12-12 (34)				
65										
70		69.6 ft – 74.6 ft, Gray, Interbedded micaceous quartz-rich Meta-Limestone, and gray/dark gray sulfidic slightly calcareous PHYLLITE. Massive quartz vein at 73.9 ft to 74.3 ft. Gray/green staining and occasional rust splotches on joints. Moderately hard, Slightly weathered, Fair rock, NXMDC, RMR=53	1 (5 to 20)	98 (90)	4 5 6 4 7	Top of Bedrock @ 69.6 ft				
75		74.6 ft – 79.6 ft, Gray, Micaceous quartz-rich Meta-Limestone, with occasional gray/dark gray sulfidic slightly calcareous PHYLLITE interbeds. Joints are fresh. Moderately hard, Unweathered, Good rock, NXMDC, RMR=61	2 (5 to 20)	96 (83)	6 4 4 3 3					
80		Hole stopped @ 79.6 ft								
		Remarks: Hole collapsed at 15.5 feet. Used bentonite to drill from 27 feet.								
85										

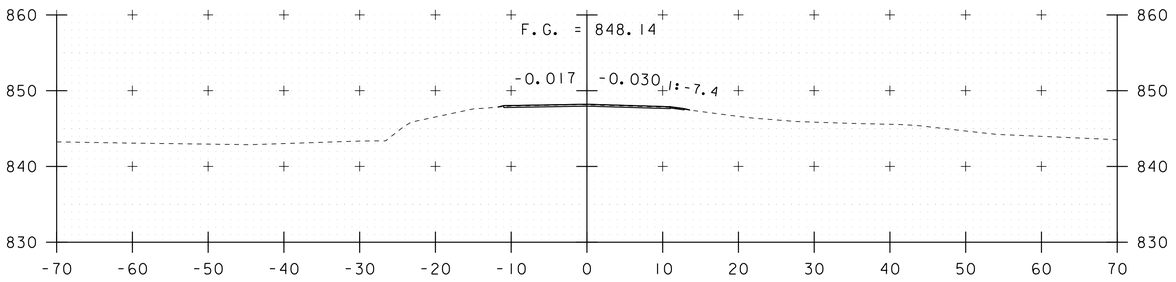
Notes:
1. Stratification lines represent approximate boundary between material types. Transition may be gradual.
2. N Values have not been corrected for hammer energy. CE is the hammer energy correction factor.
3. Water level readings have been made at times and under conditions stated. Fluctuations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

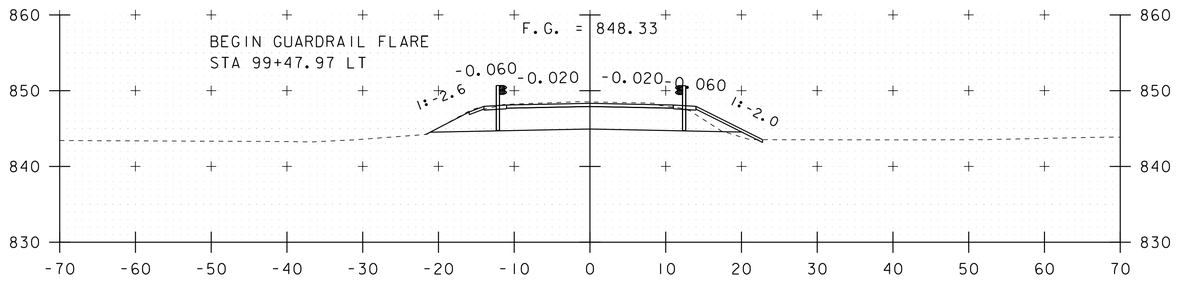
ESTIMATED PILE TIP
ABUTMENT 2
ELEV. = 778.90'

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

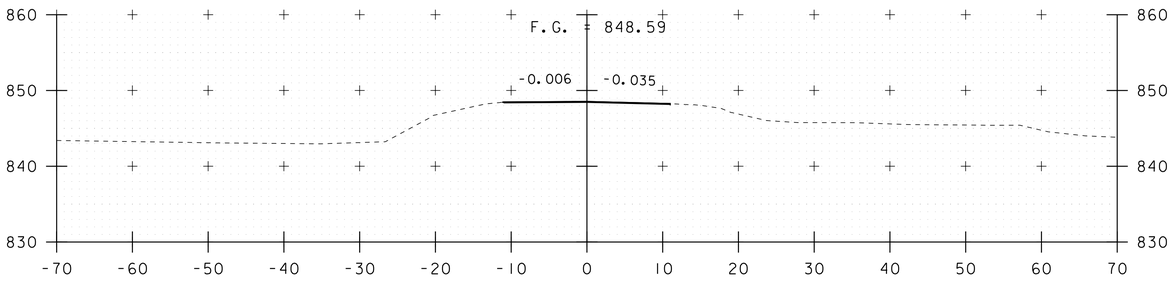
FILE NAME: s12j610bor.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
BORING LOGS SHEET 2

PLOT DATE: 19-SEP-2019
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON

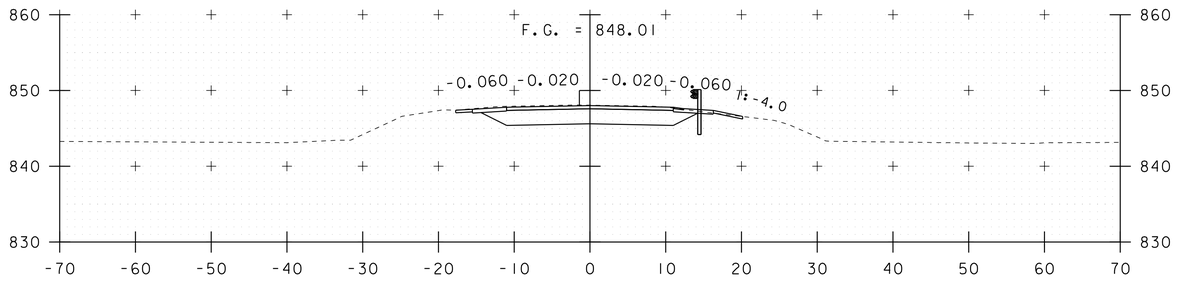




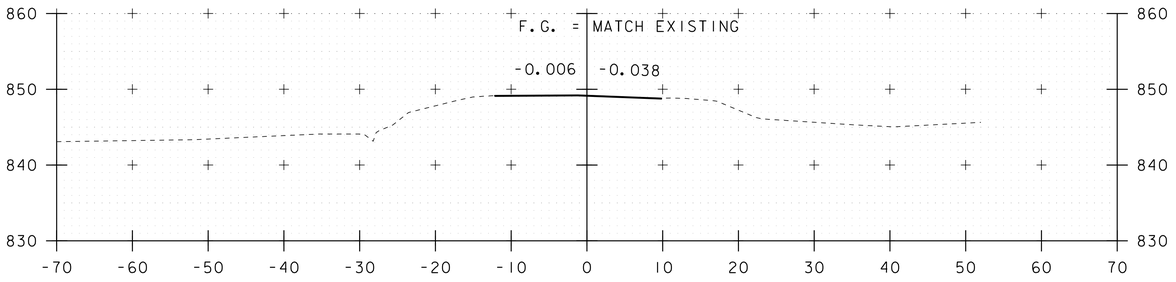
98+75



99+50

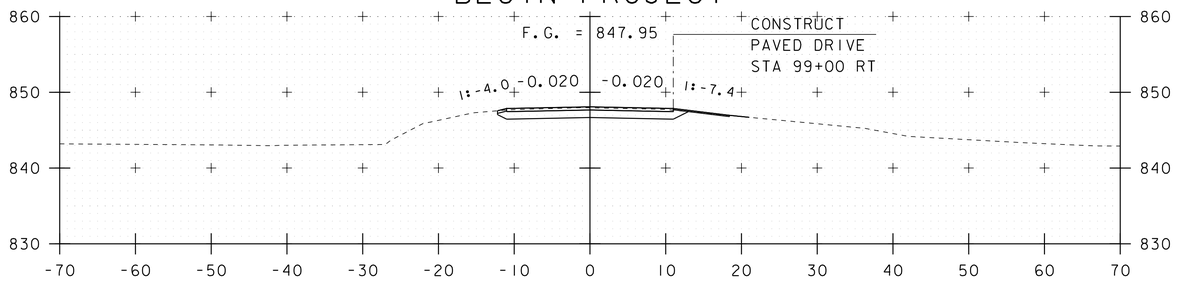


98+50



98+25
BEGIN APPROACH

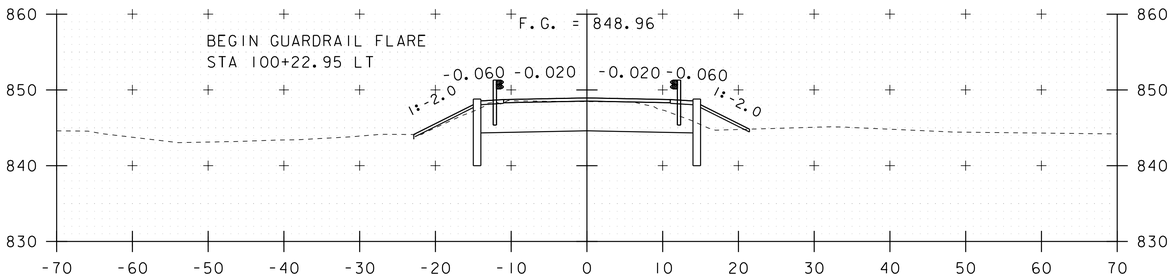
99+25
BEGIN PROJECT



99+00

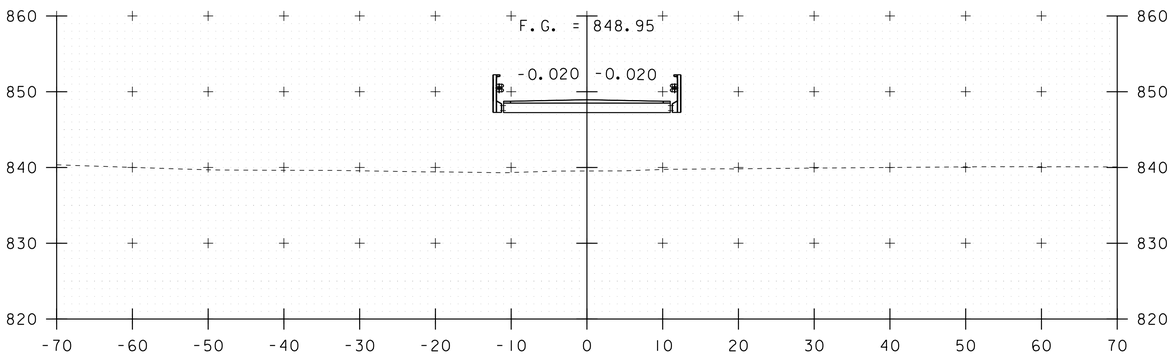
STA. 98+25 TO STA. 98+25

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: s12j610xs.dgn	PLOT DATE: 19-SEP-2019
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
ROADWAY CROSS SECTIONS SHEET 1	SHEET 17 OF 23

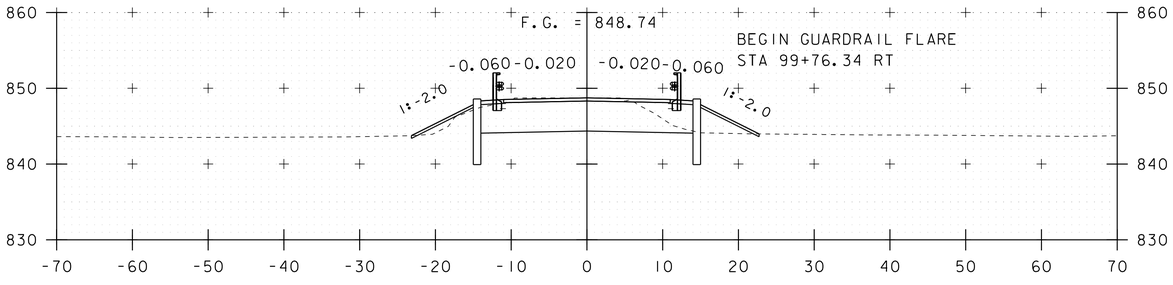


STA 100+23.00
END BRIDGE

100+25

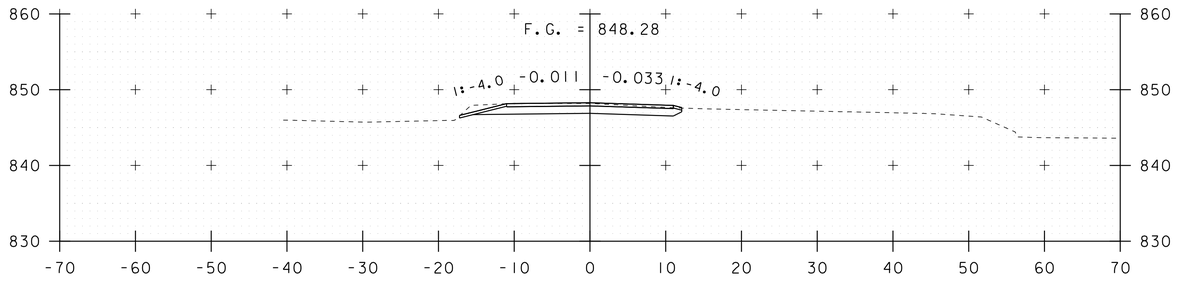


100+00

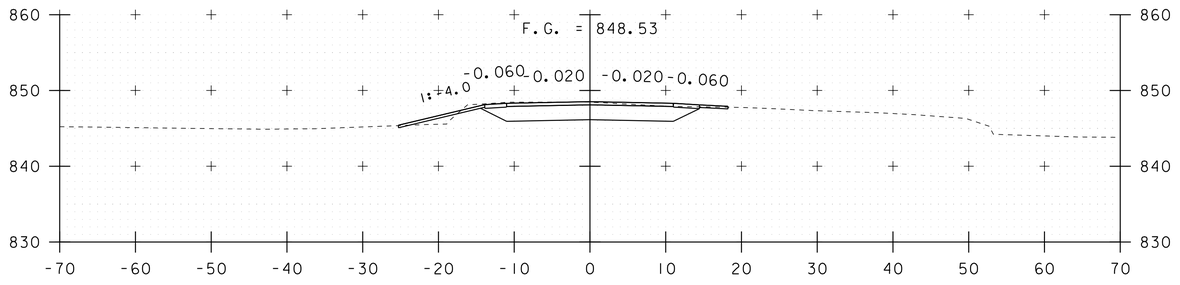


STA 99+76.00
BEGIN BRIDGE

99+75



101+00



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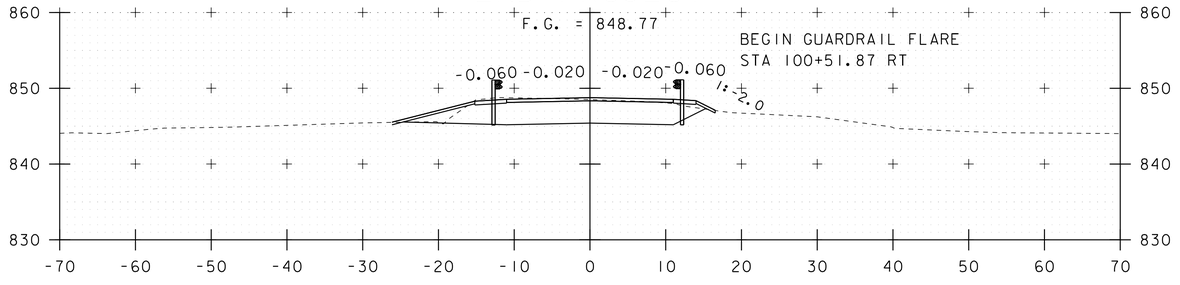
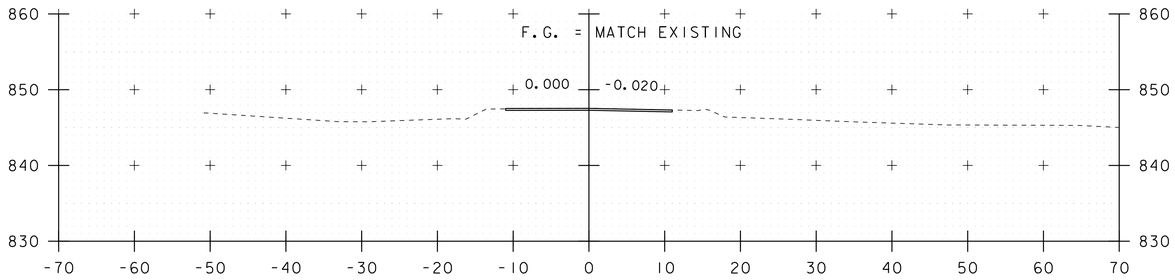
END PROJECT



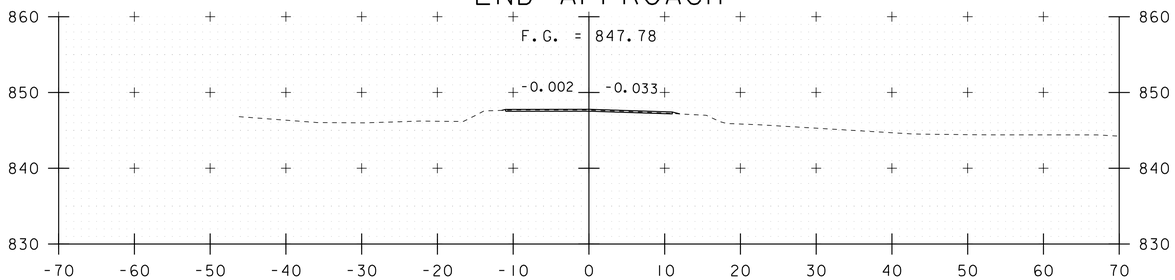
100+50

STA. 99+75 TO STA. 101+00

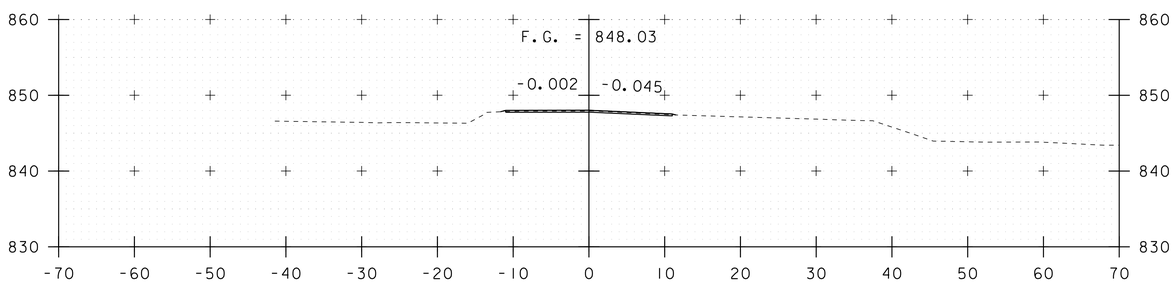
PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: sl2j610xs.dgn	PLOT DATE: 19-SEP-2019
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
ROADWAY CROSS SECTIONS SHEET 2	SHEET 18 OF 23



101+75
END APPROACH



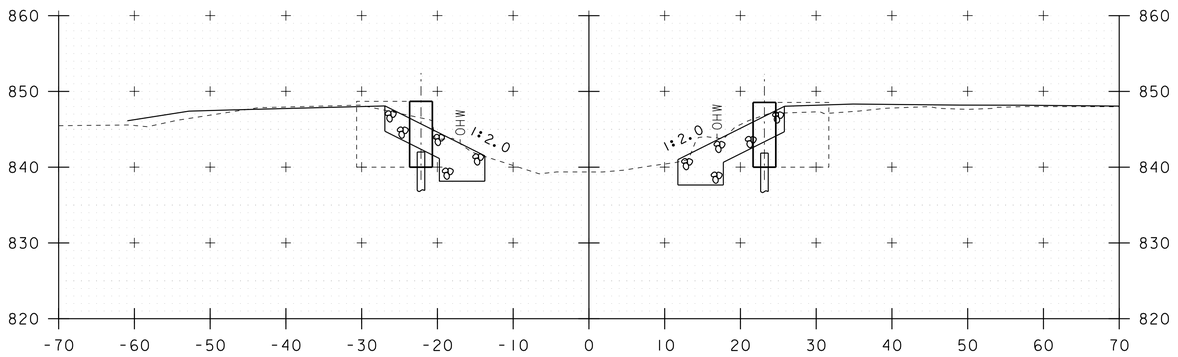
101+50

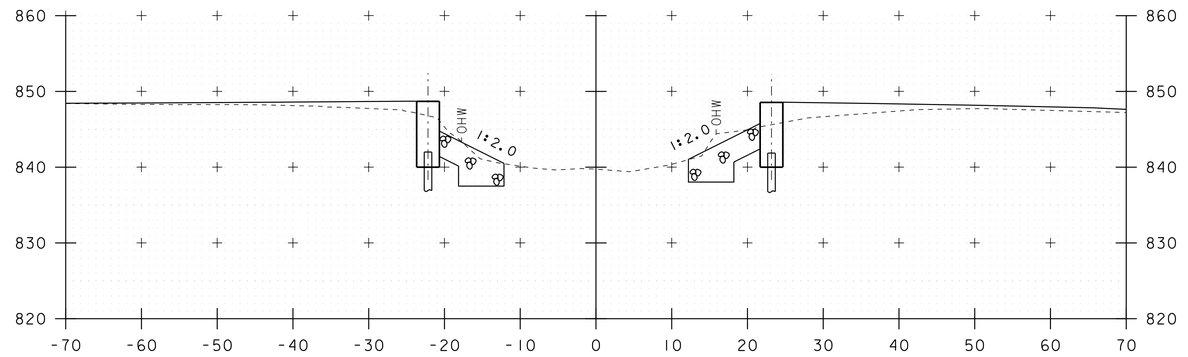


101+25

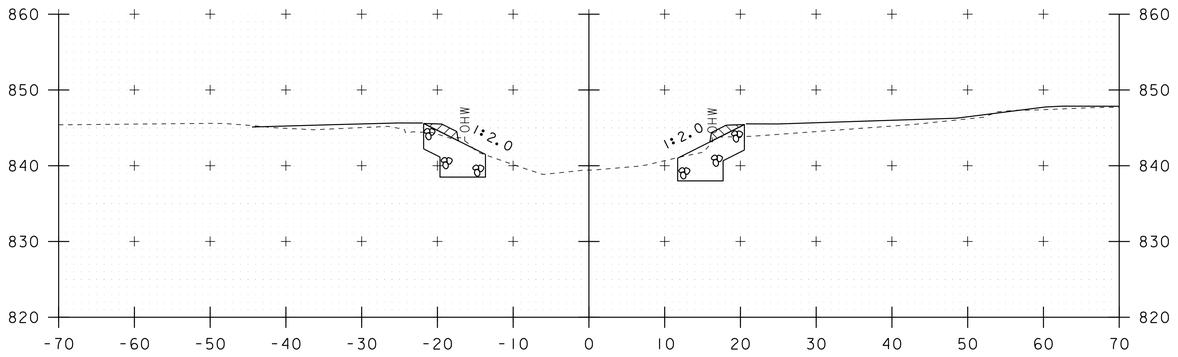
STA. 101+25 TO STA. 101+75

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)
FILE NAME: s12j610xs.dgn	PLOT DATE: 19-SEP-2019
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
ROADWAY CROSS SECTIONS SHEET 3	SHEET 19 OF 23

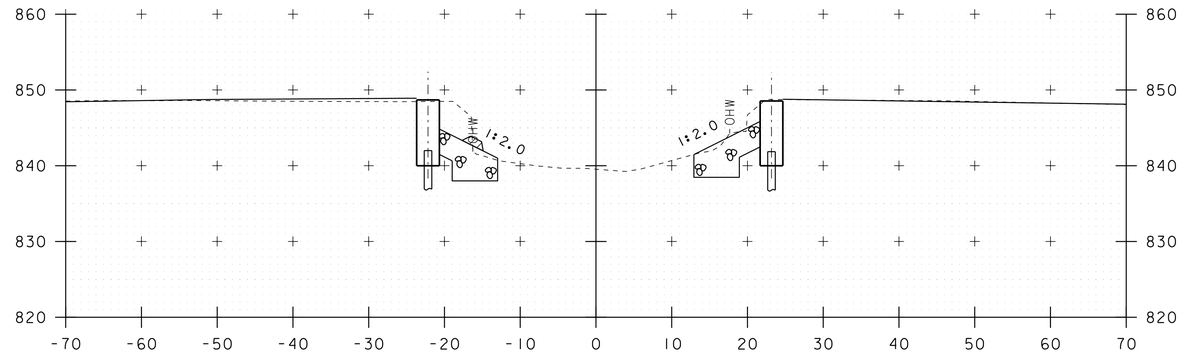




4+85



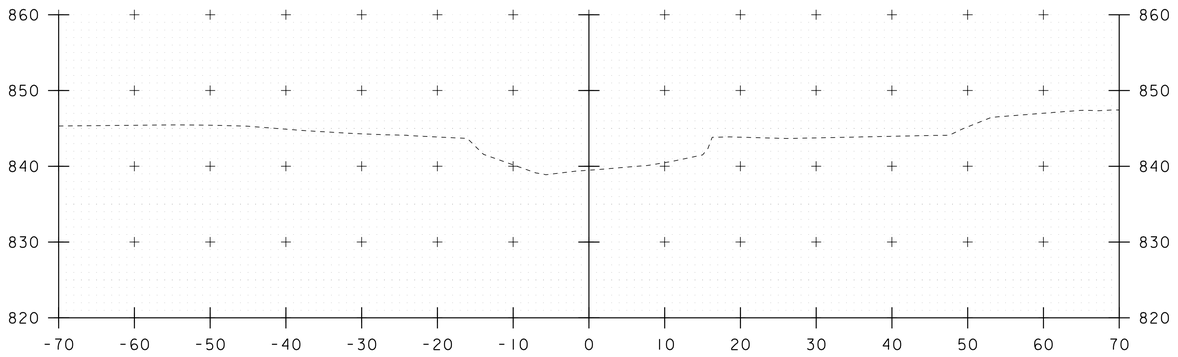
5+10



STA 4+77.00 BEGIN ITEMS LEFT
MATCH EXISTING GROUND AND TRANSITION
UNCLASSIFIED CHANNEL EXCAVATION
STONE FILL, TYPE III
GEOTEXTILE UNDER STONE FILL

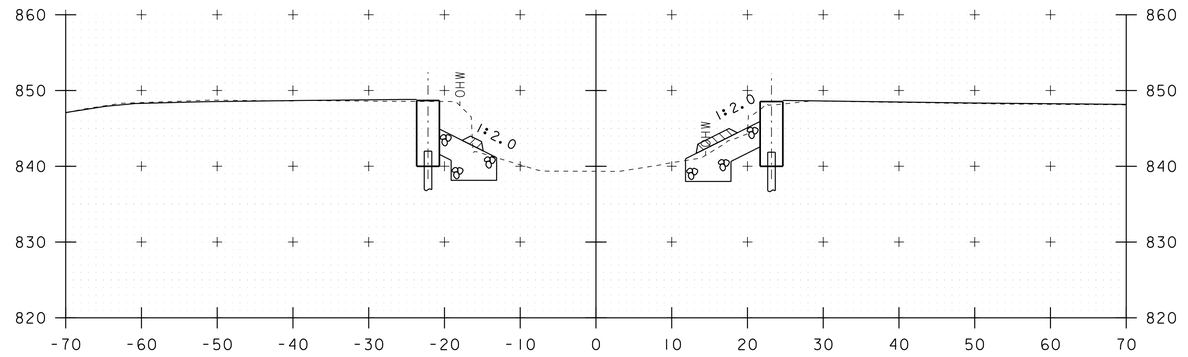
4+80

STA 4+77.00 BEGIN ITEMS RIGHT
MATCH EXISTING GROUND AND TRANSITION
UNCLASSIFIED CHANNEL EXCAVATION
STONE FILL, TYPE III
GEOTEXTILE UNDER STONE FILL



4+75

5+00

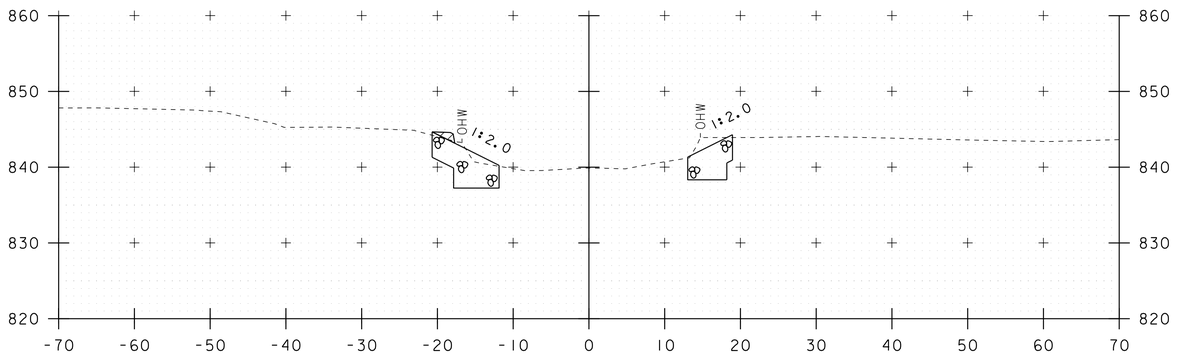


4+90

PROJECT NAME:	BURKE
PROJECT NUMBER:	BO 1447(31)

FILE NAME: s12j610xs.dgn	PLOT DATE: 19-SEP-2019
PROJECT LEADER: C. COTA	DRAWN BY: R. PELLETT
DESIGNED BY: D. PETERSON	CHECKED BY: D. PETERSON
CHANNEL CROSS SECTIONS SHEET 1	SHEET 20 OF 23

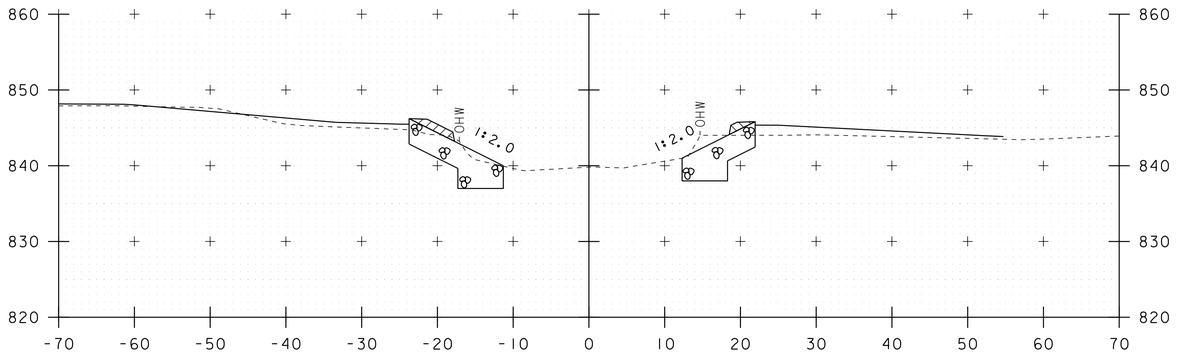
STA. 4+75 TO STA. 5+10



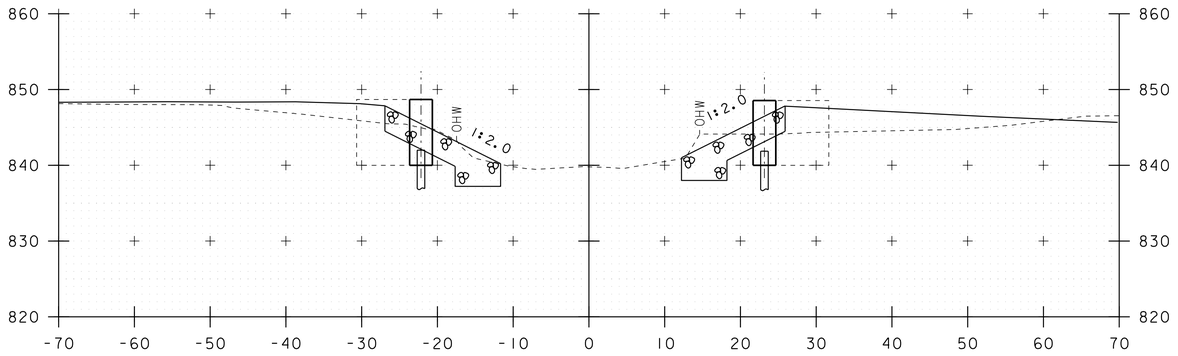
STA 5+27.00 END ITEMS LEFT
MATCH EXISTING GROUND AND TRANSITION
UNCLASSIFIED CHANNEL EXCAVATION
STONE FILL, TYPE III
GEOTEXTILE UNDER STONE FILL

5+25

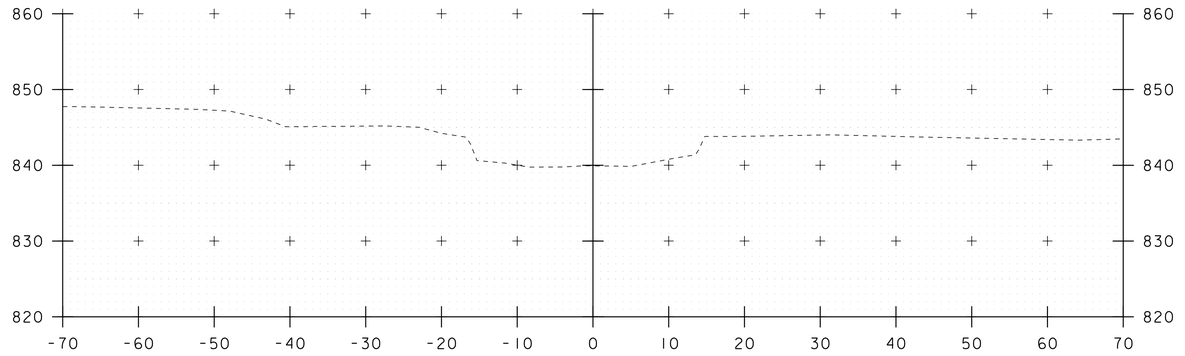
STA 5+27.00 END ITEMS RIGHT
MATCH EXISTING GROUND AND TRANSITION
UNCLASSIFIED CHANNEL EXCAVATION
STONE FILL, TYPE III
GEOTEXTILE UNDER STONE FILL



5+20



5+15



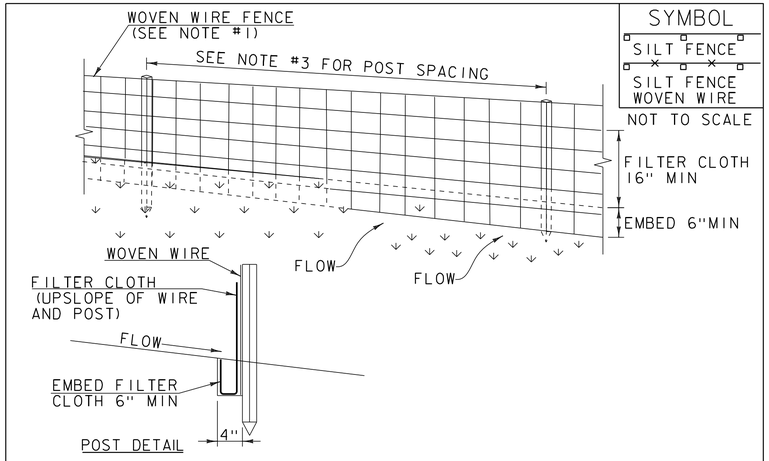
5+30

STA. 5+15 TO STA. 5+30

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610xs.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
CHANNEL CROSS SECTIONS SHEET 2

PLOT DATE: 19-SEP-2019
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 21 OF 23



SYMBOL

SILT FENCE

SILT FENCE WOVEN WIRE

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF

VAOT LOW GROW/FINE FESCUE MIX

	LBS/AC					
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
38%	57	95	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	90%	98%
29%	43.5	72.5	HARD FESCUE	FESTUCA LONGIFOLIA	85%	95%
15%	22.5	37.5	CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA	87%	95%
15%	22.5	37.5	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90%	95%
3%	4.5	7.5	INERTS			
100%	150	250				

VAOT RURAL AREA MIX

	LBS/AC					
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
37.5%	22.5	45	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
37.5%	22.5	45	TALL FESCUE	FESTUCA ARUNDINACEA	90%	95%
5.0%	3	6	RED TOP	AGROSTIS GIGANTEA	90%	95%
15.0%	9	18	WHITE FIELD CLOVER	TRIFOLIUM REPENS	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%	60	120				

GENERAL AMENDMENT GUIDANCE		
FERTILIZER	LIME	
10/20/10	AG LIME	PELLITIZED
500 LBS/AC	2 TONS/AC	1 TONS/AC

CONSTRUCTION GUIDANCE

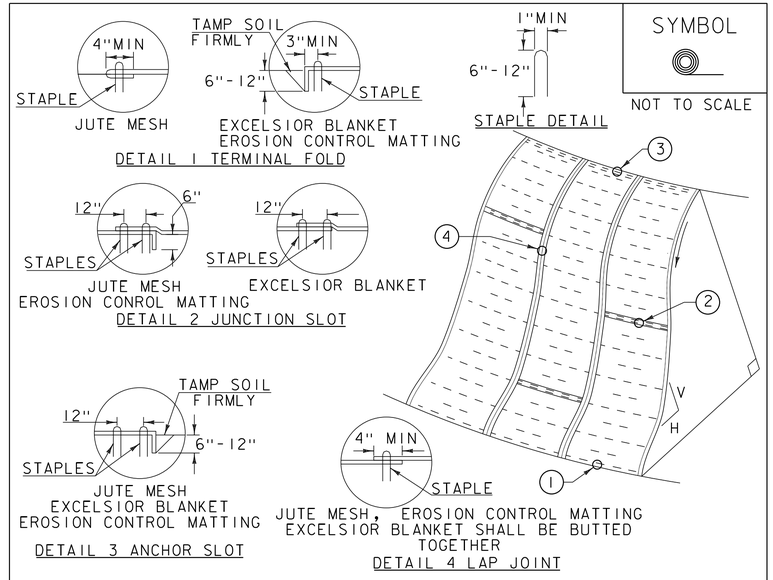
1. SEED MIX: THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER ON WHICH SEED MIX TO USE.
2. SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER.
5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
6. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED PROPOSED FOR USE WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED.
7. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.15)

REVISIONS	
JANUARY 12, 2015	WHF



SYMBOL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF

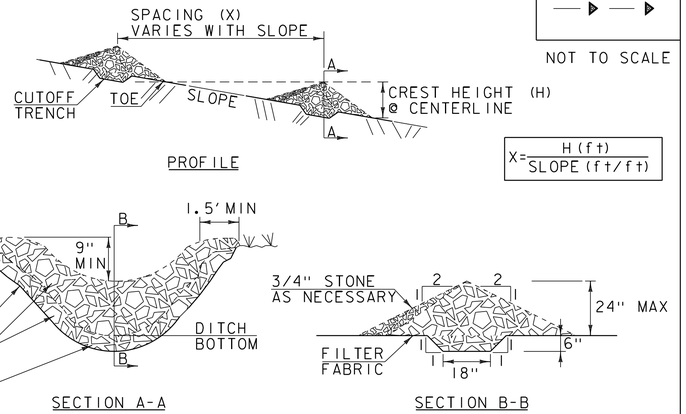
PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610frm.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
EPSC DETAILS 1

PLOT DATE: 19-SEP-2019
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 22 OF 23

SYMBOL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. 3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
4. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
7. MAXIMUM DRAINAGE AREA 2 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION	CHECK DAM

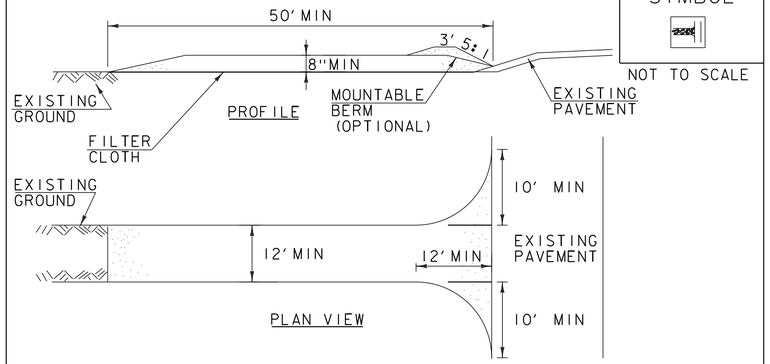
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR TEMPORARY STONE CHECK DAM, TYPE I (PAY ITEM 653.25)

REVISIONS	
MARCH 21, 2008	WHF
JANUARY 8, 2009	WHF

SYMBOL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE- USE 1-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
3. THICKNESS- NOT LESS THAN 8".
4. WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION	STABILIZED CONSTRUCTION ENTRANCE

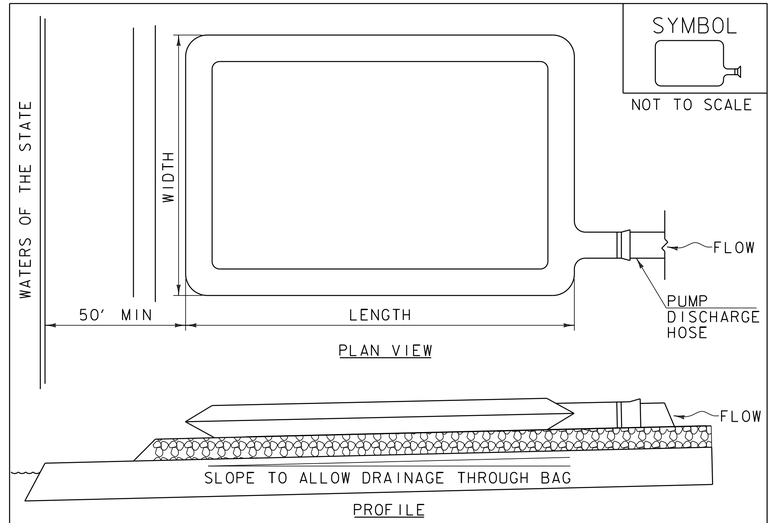
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR VEHICLE TRACKING PAD (PAY ITEM 653.35) OR AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF

SYMBOL

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. THE PRIMARY PURPOSE OF FILTER BAG IS TO RETAIN SILT, SAND, AND FINES DURING DEWATERING OPERATIONS.
2. FILTER BAGS SHALL BE INSTALLED ON A VEGETATED SLOPE GRADED TO ALLOW INCOMING WATER TO FLOW THROUGH THE BAG.
3. FILTER BAGS MAY ALSO BE PLACED ON COARSE AGGREGATE, STONE, OR HAYBALES TO INCREASE FILTRATION EFFICIENCY.
4. FILTER BAGS SHALL BE LOCATED A MINIMUM OF 50' FROM WATERS OF THE STATE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. THE NECK OF THE FILTER BAG SHALL BE STRAPPED TIGHTLY TO THE DISCHARGE HOSE.
6. A FILTER BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR ALLOW WATER TO PASS AT A REASONABLE RATE.
7. FILTER BAG SHALL BE DISPOSED OF AS APPROVED IN THE EPSC PLAN OR AS DIRECTED BY THE ENGINEER.

	FILTER BAG

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR FILTER BAG (PAY ITEM 653.45) AND AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF

PROJECT NAME: BURKE
PROJECT NUMBER: BO 1447(31)

FILE NAME: s12j610frm.dgn
PROJECT LEADER: C. COTA
DESIGNED BY: D. PETERSON
EPSC DETAILS 2

PLOT DATE: 19-SEP-2019
DRAWN BY: R. PELLETT
CHECKED BY: D. PETERSON
SHEET 23 OF 23