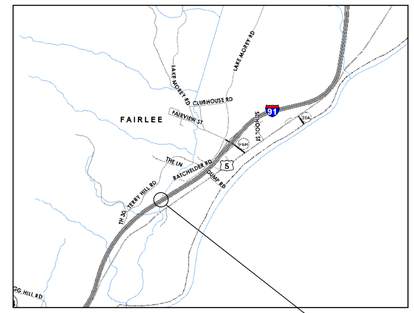
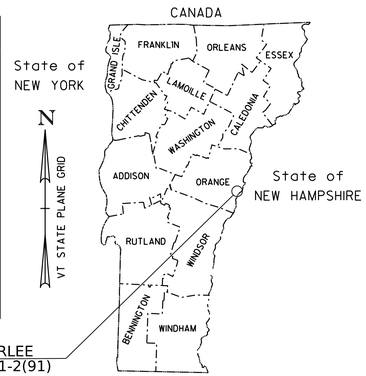
STATE OF VERMONT
AGENCY OF TRANSPORTATION



LOCATION MAP
SCALE 1"=1/2 MILE



PROPOSED IMPROVEMENT

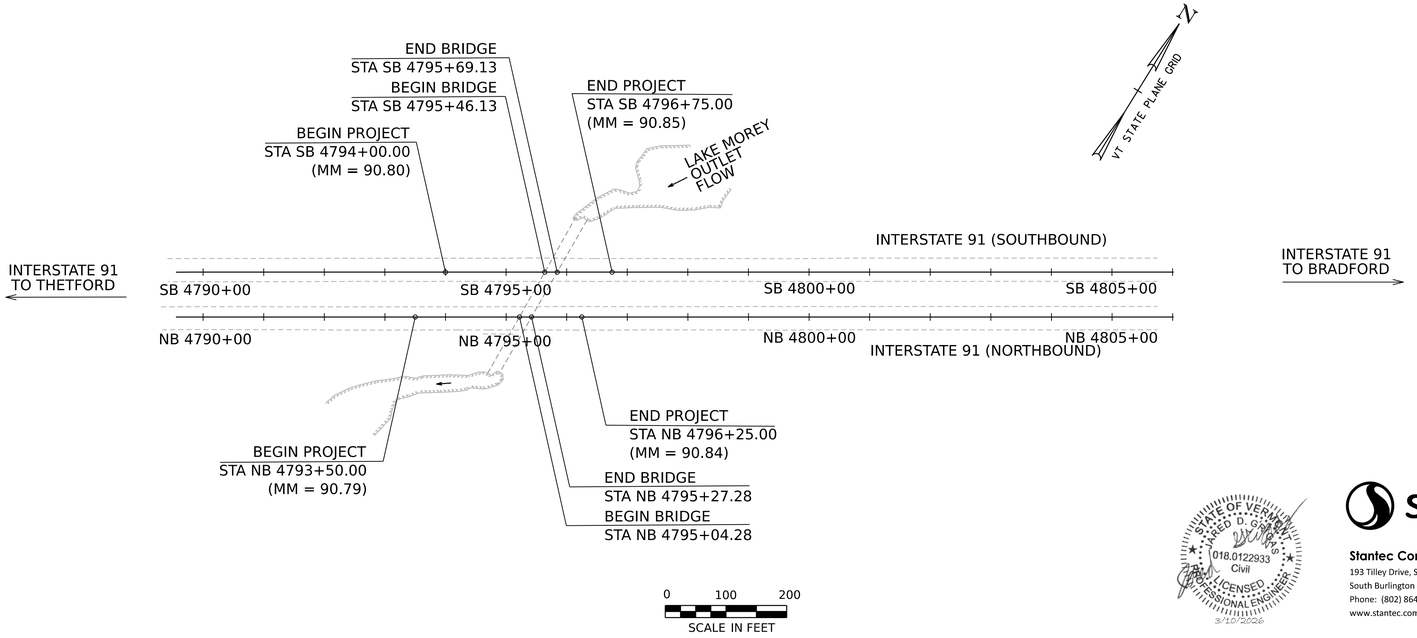
BRIDGE PROJECT

TOWN OF FAIRLEE
COUNTY OF ORANGE
ROUTE NO: I-91 BRIDGES 55-2 & 55-3
(I-91 PRINCIPLE ARTERIAL - NHS)

PROJECT LOCATION : BRIDGES 55-2 AND 55-3 ARE LOCATED APPROXIMATELY 0.6 MILES SOUTH OF EXIT 15 ALONG INTERSTATE 91 (I-91).

PROJECT DESCRIPTION : REPLACEMENT OF BRIDGES 55-2 AND 55-3 WITH A PRECAST CONCRETE STRUCTURE AND CONSTRUCTION OF TEMPORARY CROSSOVERS, ALONG WITH RELATED APPROACH ROADWAY AND CHANNEL WORK. SURFACE PREPARATION, MILLING, AND PAVING I-91 SOUTHBOUND BETWEEN MILE MARKERS 89.852 AND 91.513.

BRIDGE 55-2 SOUTHBOUND		BRIDGE 55-2 NORTHBOUND		TOTAL	
LENGTH OF STRUCTURE :	23 FEET	LENGTH OF STRUCTURE :	23 FEET	LENGTH OF STRUCTURE :	46 FEET
LENGTH OF ROADWAY :	252 FEET	LENGTH OF ROADWAY :	252 FEET	LENGTH OF ROADWAY :	504 FEET
LENGTH OF PROJECT :	275 FEET	LENGTH OF PROJECT :	275 FEET	LENGTH OF PROJECT :	550 FEET



CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2024, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 27, 2023 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 1

SURVEYED BY : R. GILMAN
SURVEYED DATE : 06/13/2022

DATUM
VERTICAL NAVD88
HORIZONTAL NAD 83 (2011)

Stantec
Stantec Consulting Services Inc.
193 Tilley Drive, Suite 1
South Burlington VT U.S.A. 05403
Phone: (802) 864-0223
www.stantec.com

HIGHWAY DIVISION, CHIEF ENGINEER
APPROVED Erin Sisson, P.E. DATE Mar. 16, 2026

PROJECT MANAGER : ADAM GOUDREAU, P.E.

PROJECT NAME : FAIRLEE
PROJECT NUMBER : IM 091-2(91)

SHEET 1 OF 161 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET (CULVERT)

Version
LRFD

INDEX OF SHEETS

PLAN SHEETS

1	TITLE SHEET
2	PRELIMINARY INFORMATION SHEET
3	CONVENTIONAL SYMBOLOGY LEGEND SHEET
4 - 8	TYPICAL SECTION SHEETS
9	EXCAVATION TYPICAL SECTIONS
10 - 11	MISCELLANEOUS DETAILS SHEETS 1-2
12	PROJECT NOTES SHEET
13 - 14	GUARDRAIL REPLACEMENT GUIDELINES SHEETS 1-2
15 - 17	QUANTITY SHEETS
18	TIE SHEET
19	PAVING SCHEMATIC SHEET
20 - 23	LAYOUT PLAN SHEETS
24	EXIT 15 PAVING PLAN
25	NB PROFILE SHEET
26	SB PROFILE SHEET
27	CULVERT PROFILE SHEET
28 - 29	CONSTRUCTION APPROACH SIGNING SHEETS 1-2
30	INTERCHANGE APPROACH SIGNING SHEET
31	TRAFFIC CONTROL NOTES AND TYPICALS
32 - 46	CROSSOVER NB PLAN SHEETS
47 - 49	I91 NB CROSSOVER PROFILE SHEETS
50 - 55	I91 NB CROSSOVER XS SHEETS
56 - 73	CROSSOVER SB PLAN SHEETS
74 - 76	I91 SB CROSSOVER PROFILE SHEETS
77 - 82	I91 SB CROSSOVER XS SHEETS
83	SIGNS & PAVEMENT MARKINGS SHEET
84	TRAFFIC SIGN SUMMARY SHEET
85 - 86	GUARDRAIL PLAN SHEETS
87	GUARDRAIL QUANTITY SHEET
88	BORING LAYOUT SHEET
89 - 100	BORING LOG SHEETS
101	BOX CULVERT PLAN AND ELEVATION
102 - 103	BOX CULVERT DETAILS SHEETS
104 - 107	I91 NB XS SHEETS
108 - 110	I91 SB XS SHEETS
111 - 116	CHANNEL XS SHEETS
117 - 118	EPSC - NARRATIVE SHEETS
119 - 130	EPSC - EXISTING CONDITIONS PLAN SHEETS
131 - 142	EPSC - CONSTRUCTION PLAN SHEETS
143 - 154	EPSC - FINAL CONDITIONS PLAN SHEETS
155 - 156	EPSC - DETAIL SHEETS
157 - 161	LANDSCAPE SHEETS

STANDARDS LIST

D-6	REINFORCED CONCRETE DROP INLET W/GRATE (DITCHES)	06-25-2024
D-8	REINFORCED CONCRETE DROP INLET WITH PRECAST COVER & GRATE	06-25-2024
D-11	STEEL OR IRON GRATES & COVERS (TYPE A)	06-01-1994
D-15	PRECAST REINF CONC. MH-GRATES, CAST IRON GRATE WITH FRAME, TYPE D & E	06-01-1994
E-2	SHRUB PLANTING DETAILS	06-25-2024
E-10	ROLLED EROSION CONTROL PRODUCT, TYPE I	04-07-2020
E-11	CHECK DAM, TYPE I	06-25-2024
E-12	STABILIZED CONSTRUCTION ENTRANCE	04-07-2020
E-13	INLET PROTECTION DEVICE, TYPE I	04-07-2020
E-14	INLET PROTECTION DEVICE, TYPE III	04-07-2020
E-15	SILT FENCE	04-07-2020
F-1	WOVEN WIRE FENCE DETAILS	06-25-2024
G-1	STEEL BEAM GUARDRAIL WITH STEEL & WOOD POSTS	06-24-2024
G-1D	STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)	06-24-2024
S-500	CONCRETE DETAILS AND NOTES	02-15-2023
S-501	CONCRETE DETAILS AND NOTES	02-15-2023
T-1	TEMPORARY TRAFFIC CONTROL GENERAL NOTES	06-24-2024
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	06-24-2024
T-11	CONSTRUCTION APPROACH SIGNING DIVIDED HIGHWAY ONE LANE CLOSED	06-24-2024
T-12	TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	06-24-2024
T-13	TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	06-24-2024
T-14	TRAFFIC CONTROL DIVIDED HIGHWAY ONE ROADWAY CLOSED	06-24-2024
T-15	TRAFFIC CONTROL DIVIDED HIGHWAY ONE ROADWAY CLOSED	06-24-2024
T-16	TRAFFIC CONTROL FOR U-TURN USE ON DIVIDED HIGHWAY	06-24-2024
T-22	TRAFFIC CONTROL FOR PAVEMENT MARKING ON DIVIDED HIGHWAY	06-24-2024
T-23	TRAFFIC CONTROL FOR PAVEMENT MARKING ON DIVIDED HIGHWAY	06-24-2024
T-28	CONSTRUCTION SIGN DETAILS	06-24-2024
T-29	CONSTRUCTION SIGN DETAILS	06-24-2024
T-30	CONSTRUCTION SIGN DETAILS	02-17-2022
T-31	CONSTRUCTION SIGN DETAILS	06-24-2024
T-35	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS	06-24-2024
T-36	CONSTRUCTION ZONE LONGITUDINAL DROP-OFFS FOR PAVING	06-24-2024
T-40	DELINEATORS AND MILEPOSTS	06-24-2024
T-42	BRIDGE NUMBER PLAQUE	06-24-2024
T-43	FREEWAY - EXPRESSWAY DELINEATOR PLACEMENT	06-24-2024
T-45	SQUARE TUBE SIGN POST AND ANCHOR	06-24-2024
T-55	SIGN PLACEMENT EXPRESSWAY & FREEWAY	06-24-2024
T-130	EXTRUDED ALUMINUM GUIDE SIGN ATTACHMENT DETAILS	06-24-2025
T-161	W-SHAPED STEEL BEAM SIGN POST	06-24-2025
T-190	PAVEMENT MARKING DETAILS	06-24-2025

DETAIL SHEETS

HSD 213.01	MILLED RUMBLE STRIPS (SHOULDER)	2/27/2017
HSD 400.01	SAFETY EDGE DETAILS	1/5/2018
HSD 621.06	MISCELLANEOUS GUARDRAIL DETAILS	2/27/2017
HSD 621.07A	MIDWEST GUARDRAIL SYSTEM (MGS)	1/4/2021
HSD 621.07B	W-BEAM GUARDRAIL COMPONENTS	4/17/2019
HSD 621.07C	MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR	4/17/2019
HSD 621.07D	MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS	4/17/2019
HSD 621.07E	MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS	4/17/2019
HSD 621.07F	MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION	1/4/2021

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date: 9/8/2025

DRAINAGE AREA : 8.4 square miles
CHARACTER OF TERRAIN : Mixed forested and open land with Lake Morey just upstream
STREAM CHARACTERISTICS : Meandering low gradient valley bottom stream
NATURE OF STREAMBED : Silt, sand and gravel

PEAK FLOW DATA - ANNUAL EXCEEDANCE PROBABILITY (AEP)

50% =	14 cfs	2% =	261 cfs
10% =	95 cfs	1% =	357 cfs
4% =	182 cfs	0.2% =	693 cfs

NATURAL STREAM VELOCITY : N/A
IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? Yes - D/S
IF YES, DESCRIBE: Tailwater conditions due to the mild gradient and US5 Bridge 90: 7-ft by 7-ft RCB constriction.

WATERSHED STORAGE: 10.8%
HEADWATERS:
UNIFORM:
IMMEDIATELY ABOVE SITE: Lake Morey

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE: (2) 7-ft CGMPP
YEAR BUILT: 1971
CLEAR SPAN(NORMAL TO STREAM): 2 @ 7-ft diameter
VERTICAL CLEARANCE ABOVE STREAMBED: -
WATERWAY OF FULL OPENING: Total = 77 sqft
DISPOSITION OF STRUCTURE: Replacement
TYPE OF MATERIAL UNDER SUBSTRUCTURE: Unknown

WATER SURFACE ELEVATIONS AT:

50% AEP =	404.0 ft.	VELOCITY =	0.1 fps
10% AEP =	405.9 ft.	"	0.6 fps
4% AEP =	406.2 ft.	"	1.1 fps
2% AEP =	407.9 ft.	"	1.3 fps
1% AEP =	410.2 ft.	"	1.5 fps

LONG TERM STREAMBED CHANGES: No

IS THE EXISTING BRIDGE ON THE VTRANS SCOUR CRITICAL LIST? N/A

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No
FREQUENCY: > 1%AEP
RELIEF ELEVATION: 431 ft +/- on both NB and SB lanes
DISCHARGE OVER ROAD @ 1% AEP: None
BRIDGE LOW CHORD ELEVATION: N/A

UPSTREAM STRUCTURE

TOWN: Fairlee — DISTANCE: 1000 ft
HIGHWAY # : TH-14 — STRUCTURE #: Culv ID 3
CLEAR SPAN: 6-ft — CLEAR HEIGHT: 6-ft
YEAR BUILT: unknown — FULL WATERWAY: 28.3 sqft
STRUCTURE TYPE: 6-ft corrugated metal pipe

DOWNSTRUCTURE STRUCTURE

TOWN: Fairlee — DISTANCE: 450 ft
HIGHWAY # : US5 — STRUCTURE #: Bridge 90
CLEAR SPAN: 7-ft — CLEAR HEIGHT: 7-ft
YEAR BUILT: 1939 — FULL WATERWAY: 49 sqft
STRUCTURE TYPE: Reinforced Concrete Box

ADDITIONAL INFORMATION

PROPOSED STRUCTURE

STRUCTURE TYPE: Reinforced Concrete Box

CLEAR SPAN(NORMAL TO STREAM): 18.0 ft
VERTICAL CLEARANCE ABOVE STREAMBED: 11.0 ft. (13.0 ft height embedded 2 ft)
WATERWAY OF FULL OPENING: 198 sq. ft.

WATER SURFACE ELEVATIONS AT:

50% AEP =	404.0 ft.	VELOCITY=	0.1 fps
10% AEP =	404.7 ft.	"	0.7 fps
4% AEP =	405.8 ft.	"	1.1 fps
2% AEP =	406.9 ft.	"	1.3 fps
1% AEP =	408.2 ft.	"	1.5 fps

IS THE ROADWAY OVERTOPPED BELOW 1% AEP: No
FREQUENCY: > 0.2%AEP
RELIEF ELEVATION: 431 ft +/- on both NB and SB lanes
DISCHARGE OVER ROAD @ 1% AEP: None

BRIDGE LOW CHORD ELEVATION: 409.51 ft. **
FREEBOARD: 1.31 ft. ***

SCOUR: N/A the proposed is a reinforced concrete box culvert

REQUIRED CHANNEL PROTECTION: E-Stone Type II-streambed;Stone Fill Type II-banks

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE: N/A
CLEAR SPAN (NORMAL TO STREAM): -
VERTICAL CLEARANCE ABOVE STREAMBED: -
WATERWAY AREA OF FULL OPENING: -

ADDITIONAL INFORMATION

*Design Flows were determined using the SCS Curve Number method in conjunction with a Flood Routing model developed in HEC-HMS
** Low Chord Reported is located at outlet due to the freeboard being less than the inlet
*** Tailwater Elevation of 408.0 ft was used to determine freeboard

CALCULATIONS BY: JAD
CHECKED BY:

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:	TABLE TO BE COMPLETED BY CONTRACTOR'S DESIGNER						

CULVERT DESIGN CRITERIA

1. PROPOSED CULVERT IS A PRECAST CONCRETE STRUCTURE (18'-0" X 13'-0" X 292'-0" BOX).
2. CULVERT ENDS ARE NOT SKEWED.
3. CULVERT WILL BE SET AT A SLOPE OF 0.60 IN. ON 10 FT.
4. CULVERT WILL REQUIRE FISH PASSAGE ACCOMODATIONS
5. CULVERT CONSTRUCTION WILL REQUIRE A TEMPORARY PIPE

DESIGN VALUES

1. DESIGN LIVE LOAD		HL-93
2. FUTURE PAVEMENT	d_P:	0.0 INCH
3. CULVERT OPENING	D:	18.00 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	Δ:	---
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:	---
9. HIGH PERFORMANCE CONCRETE, CLASS PCS	f'_c:	---
10. CONCRETE HIGH PERFORMANCE, CLASS SCC	f'_c:	---
11. CONCRETE, CLASS C	f'_c:	---
12. REINFORCING STEEL	f_y:	60 KSI
13. STRUCTURAL STEEL AASHTO M270	f_y:	---
14. NOMINAL BEARING RESISTANCE OF SOIL	q_n:	---
15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
16. NOMINAL BEARING RESISTANCE OF ROCK	q_n:	---
17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	ϕ:	---
18. PILE RESISTANCE FACTOR	ϕ:	---
19. LATERAL PILE DEFLECTION	Δ:	---
20. BASIC WIND SPEED	$V3s$:	---
21. MINIMUM GROUND SNOW LOAD	Pg:	---
22. SEISMIC DATA — PGA: ---	Ss:	---
	$S1$:	---
23.		
24.		---
25.		---
26.		---

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
2025	5300	880	0	4.2	100
2045	5900	980	0	5.8	600

20 year ESAL for flexible pavement from 2025 to 2045 :
40 year ESAL for flexible pavement from 2025 to 2065 :
Design Speed : 70 mph

AS BUILT "REBAR" DETAIL

LEVEL I	LEVEL II	LEVEL III
TYPE:	TYPE:	TYPE:
GRADE:	GRADE:	GRADE:

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024PI.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
PRELIMINARY INFORMATION SHEET

PLOT DATE: 3/13/2026
DRAWN BY: P. ARMATA
CHECKED BY: J. GRIGAS
SHEET 2 OF 161

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

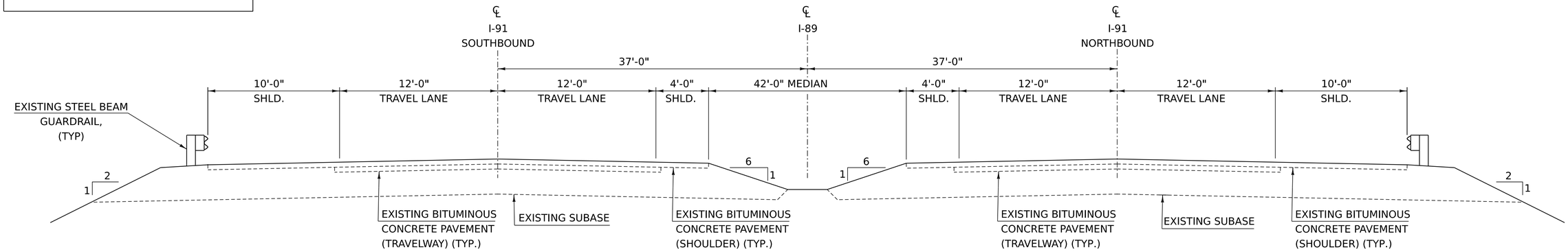
- ROAD EDGE PAVEMENT
- ROAD EDGE GRAVEL
- DRIVEWAY EDGE
- DITCH
- FOUNDATION
- FENCE (EXISTING)
- FENCE WOOD POST
- FENCE STEEL POST
- GARDEN
- ROAD GUARDRAIL
- RAILROAD TRACKS
- CULVERT (EXISTING)
- STONE WALL
- WALL
- WOOD LINE
- BRUSH LINE
- HEDGE
- BODY OF WATER EDGE
- LEDGE EXPOSED

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024symb.dgn	PLOT DATE: 3/13/2026
PROJECT LEADER: VTrans	DRAWN BY: VTrans
DESIGNED BY: VTrans	CHECKED BY: VTrans
CONVENTIONAL SYMBOLOGY LEGEND SHEET	SHEET 3 OF 161

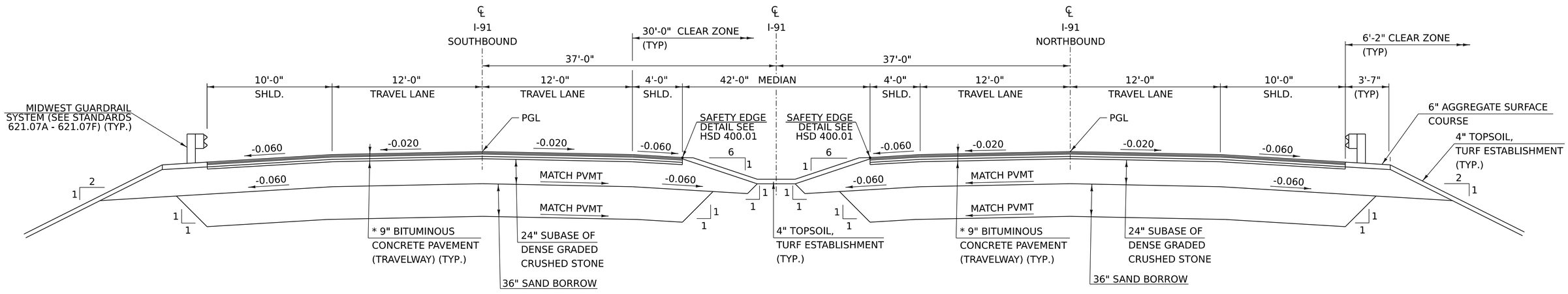
MATERIAL TOLERANCES
(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- ¼"
SUBBASE	+/- 1"



EXISTING ROADWAY TYPICAL SECTION

NOT TO SCALE



PROPOSED ROADWAY TYPICAL SECTION

NOT TO SCALE

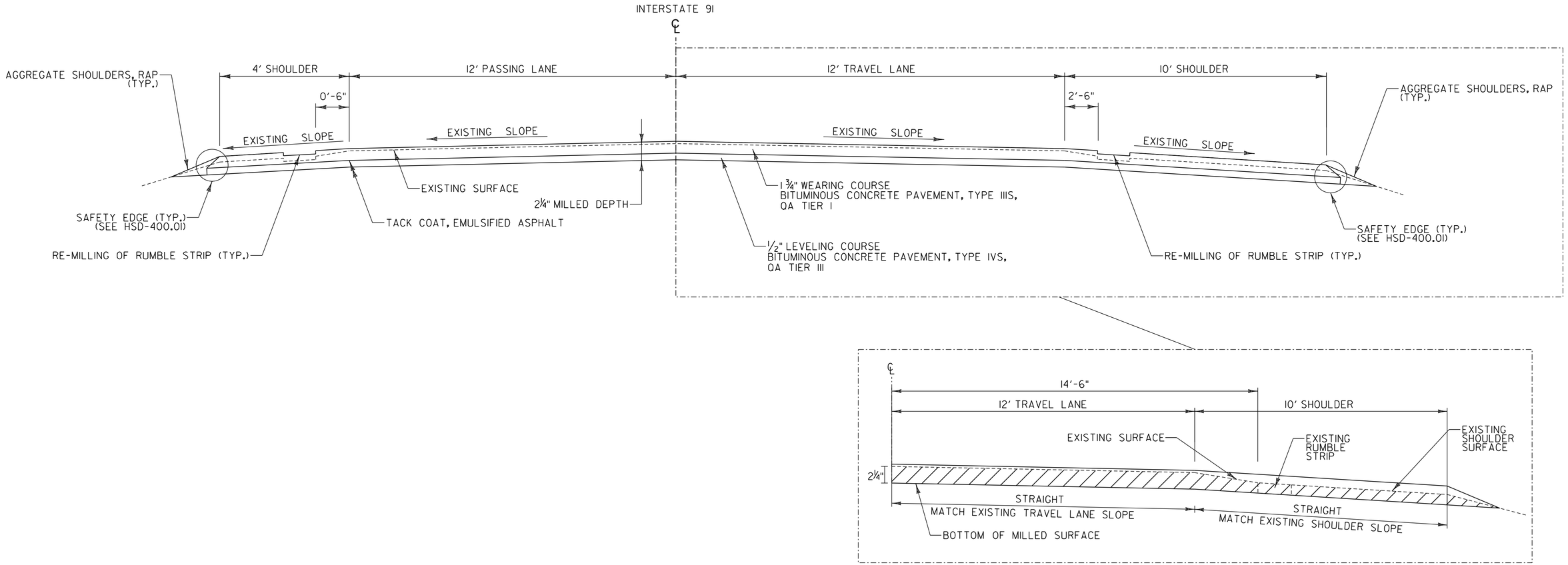
* PAVEMENT
1¾" TYPE IIIS OVER
1¾" TYPE IIIS OVER
2¾" TYPE IIS OVER
2¾" OF TYPE IIS

NOTES:
1. RUMBLE STRIPS TO BE INSTALLED ON ALL SHOULDERS PER HIGHWAY SAFETY & DESIGN DETAIL HSD-213.01

BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESALS	5,596,000
DESIGN NUMBER OF GYRATIONS	80
PERFORMANCE GRADE ASPHALT BINDER - PAVER PLACED	58E-28

Stantec

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024typ.dgn	PLOT DATE:	3/13/2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P. ARMATA
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
TYPICAL SECTION SHEET 1		SHEET	4 OF 161



SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TYPE IVS
TYPICAL SECTION

(NOT TO SCALE)

SOUTHBOUND
STA. SB 4744+21.00 - STA. SB 4793+12.50
STA. SB 4797+62.50 - STA. SB 4831+90.00

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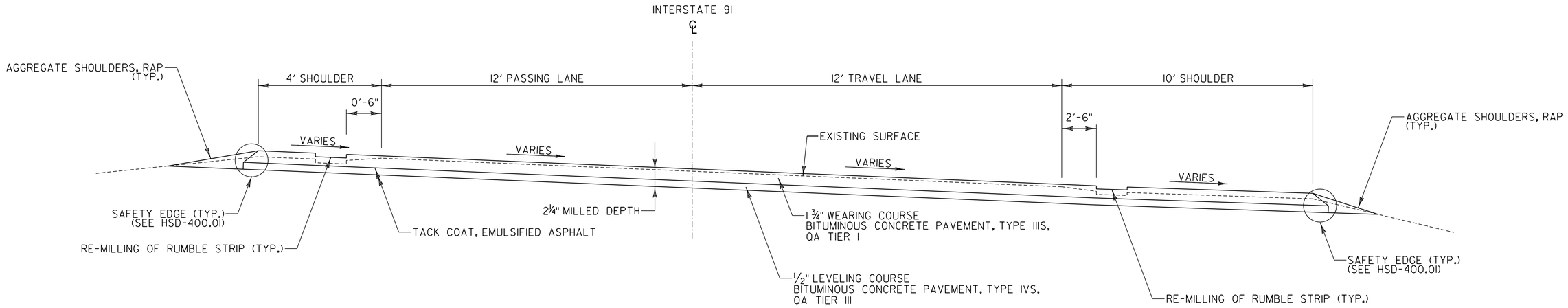
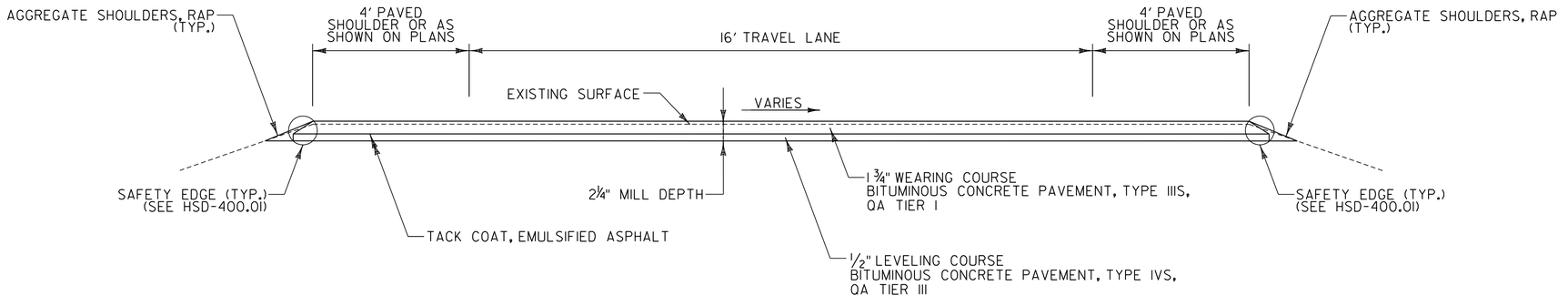
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024typ.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
TYPICAL SECTION SHEET 2	SHEET 5 OF 161



TYPICAL BANKED SECTION

(NOT TO SCALE)
SOUTHBOUND
STA. SB 4744+21.00 - STA. SB 4793+12.50
STA. SB 4797+62.50 - STA. SB 4831+90.00

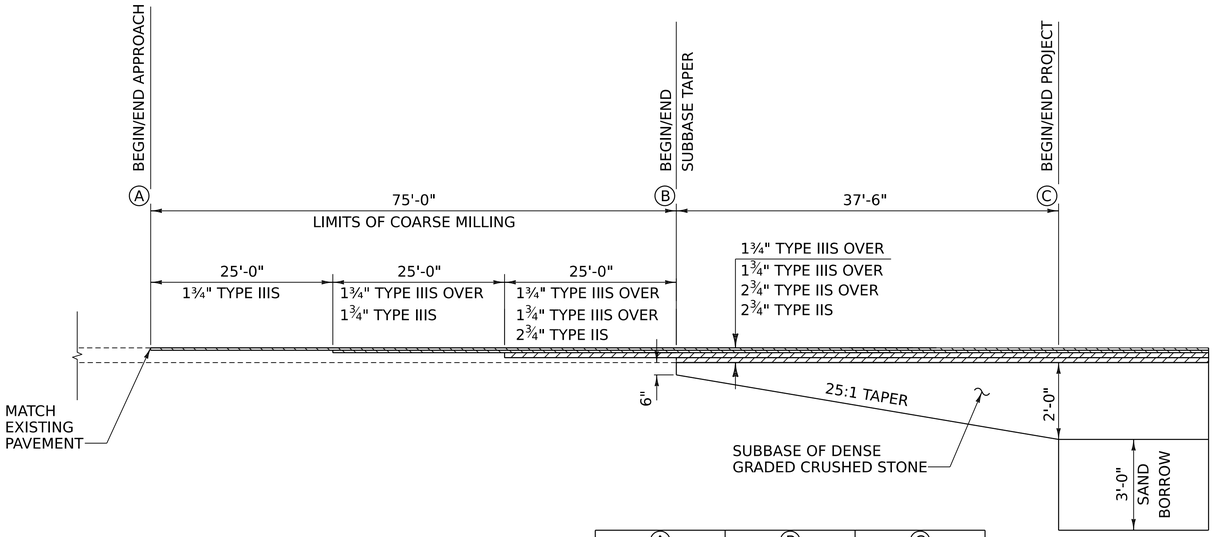


TYPICAL RAMP SECTION

(NOT TO SCALE)

Stantec

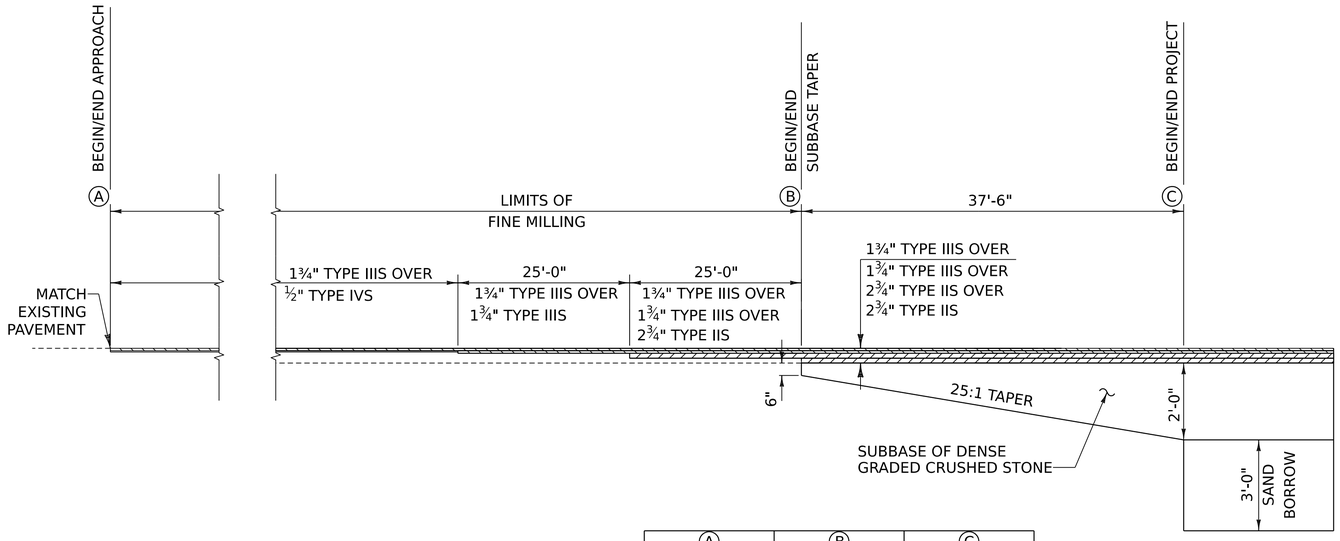
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024typ.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
TYPICAL SECTION SHEET 3	SHEET 6 OF 161



	A	B	C
NORTHBOUND			
SOUTH APPROACH	4792+37.50	4793+12.50	4793+50.00
NORTH APPROACH	4797+37.50	4796+62.50	4796+25.00

NORTHBOUND MATERIAL TRANSITION

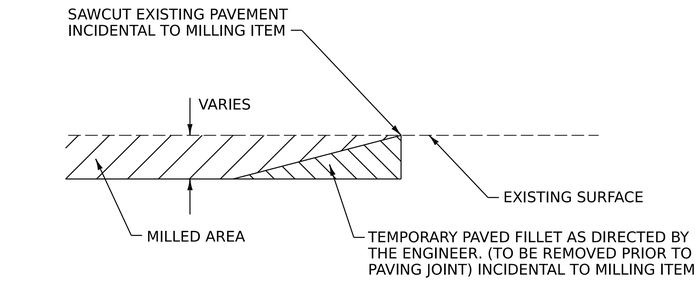
NOT TO SCALE



	A	B	C
SOUTHBOUND			
SOUTH APPROACH	4744+21.00	4793+62.50	4794+00.00
NORTH APPROACH	4831+90.00	4797+12.50	4796+75.00

SOUTHBOUND MATERIAL TRANSITION

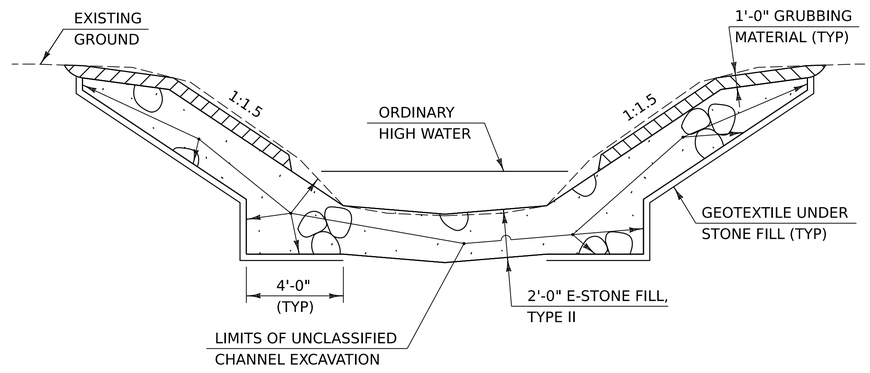
NOT TO SCALE



NOTE: THIS DETAIL SHALL BE USED AT THE LOCATIONS SHOWN ABOVE AS DIRECTED BY THE ENGINEER.

DETAIL AT VERTICAL MILLING JOINTS

NOT TO SCALE



TYPICAL CHANNEL SECTION

(NOT TO SCALE)

1. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.
2. THE CONTRACTOR SHALL CREATE A LOW FLOW CHANNEL IN THE STREAM BED MATERIAL AS DIRECTED BY THE ENGINEER.

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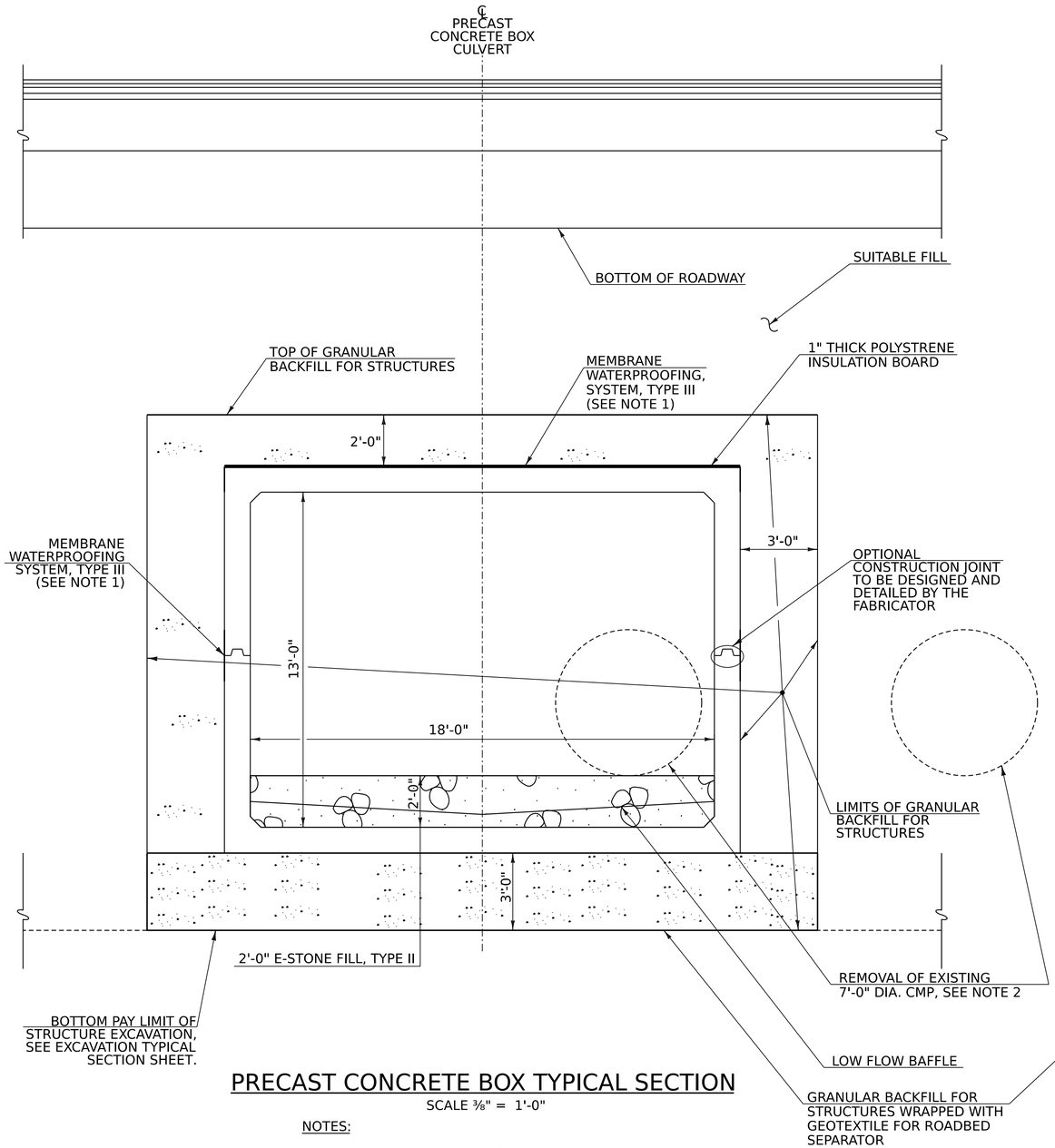
PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024typ.dgn	PLOT DATE:	3/13/2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	P. ARMATA
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
TYPICAL SECTION SHEET 4		SHEET	7 OF 161



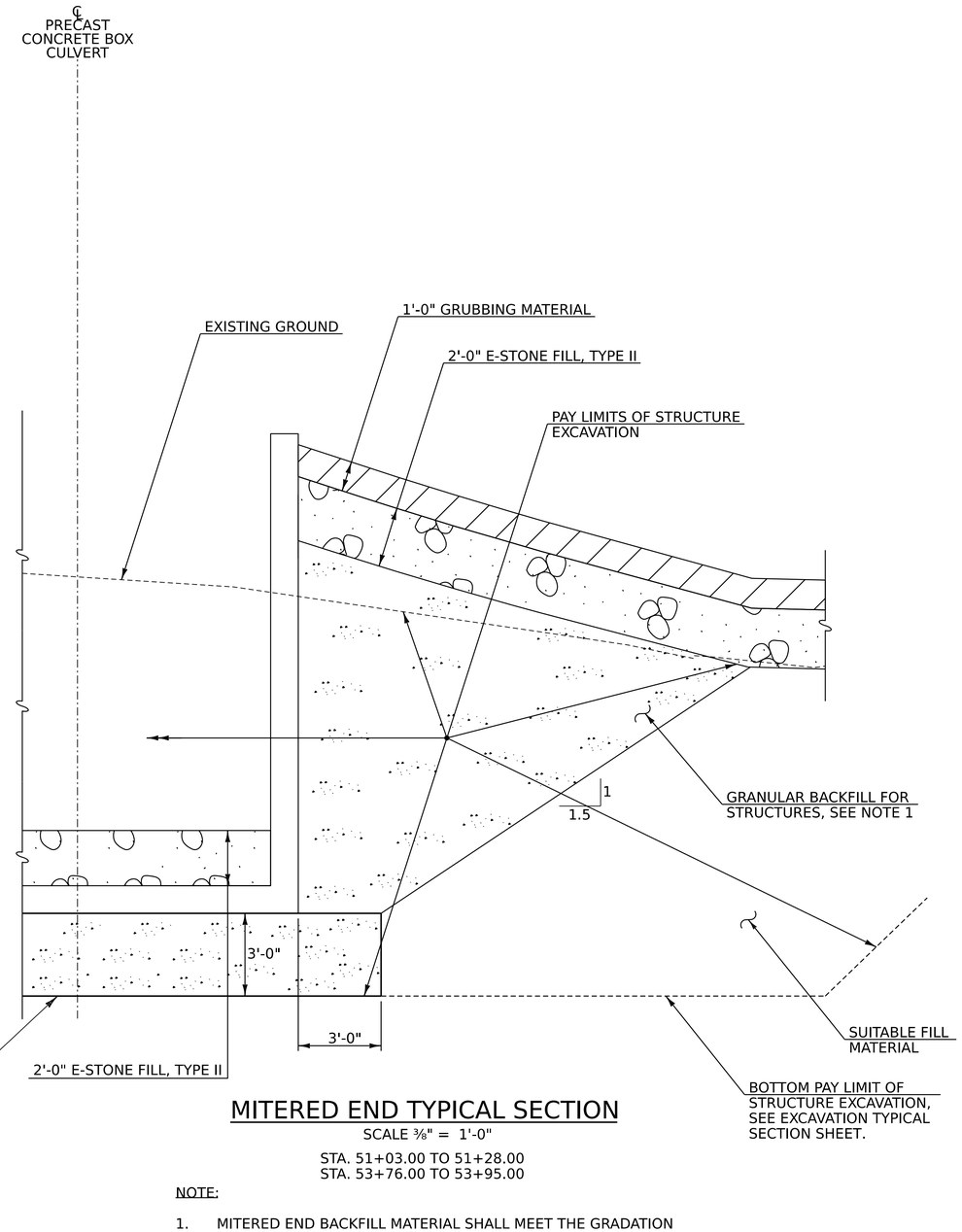
PRECAST CONCRETE BOX TYPICAL SECTION

SCALE ⅜" = 1'-0"

NOTES:

1. MEMBRANE WATERPROOFING SYSTEM, TYPE III SHALL BE APPLIED ACROSS THE TOP OF THE BOX, 1'-0" DOWN EACH SIDE, AND 2'-0" ACROSS EACH HORIZONTAL AND VERTICAL JOINT. SHINGLE ANY JOINTS IN THE MEMBRANE WITH AN OVERLAP OF ONE FOOT.

2. REMOVAL OF EXISTING PIPES TO BE PAID FOR UNDER REMOVAL OF STRUCTURE. VOLUME OF PIPES WITHIN THE LIMITS OF STRUCTURE EXCAVATION IS TO BE DEDUCTED FROM STRUCTURE EXCAVATION.



MITERED END TYPICAL SECTION

SCALE ⅜" = 1'-0"

STA. 51+03.00 TO 51+28.00
STA. 53+76.00 TO 53+95.00

NOTE:

1. MITERED END BACKFILL MATERIAL SHALL MEET THE GRADATION REQUIREMENTS OF TABLE 704.16A

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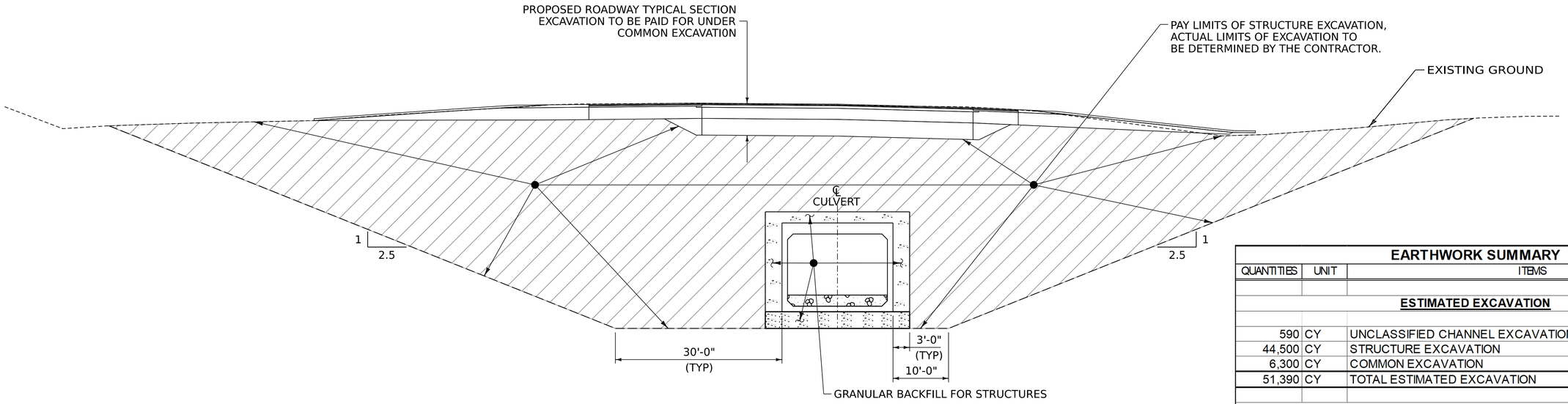
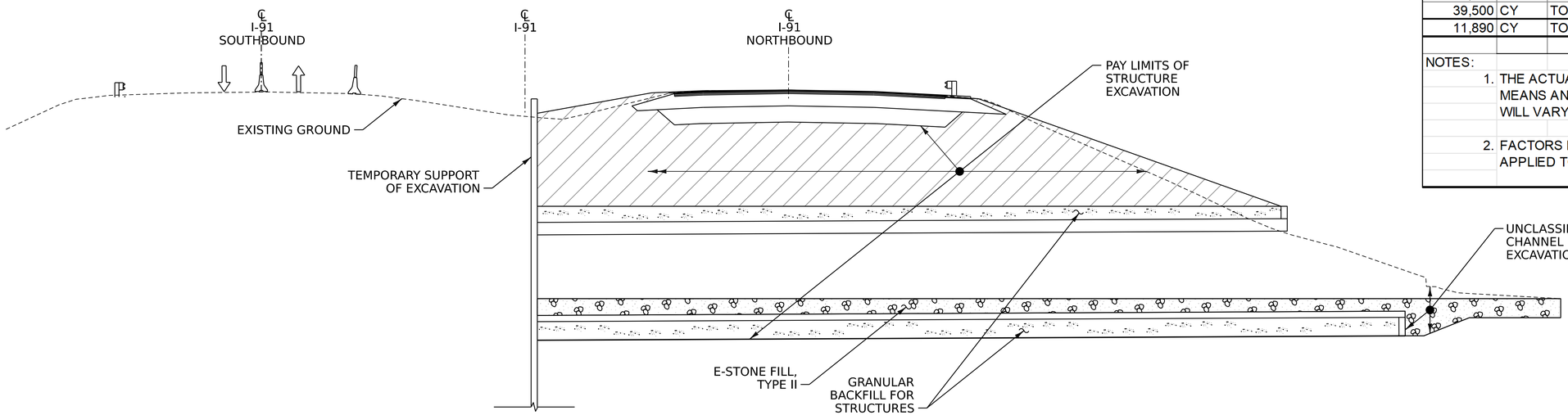
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024typ.dgn	PLOT DATE: 3/13/2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: P. ARMATA
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
TYPICAL SECTION SHEET 5	SHEET 8 OF 161



CULVERT EARTHWORKS TYPICAL

(FACING UPSTREAM)
NOT TO SCALE



LONGITUDINAL CULVERT EARTHWORKS SECTION

(NORTHBOUND PHASE SHOWN, SOUTHBOUND PHASE SIMILAR)
NOT TO SCALE

EARTHWORK SUMMARY

QUANTITIES	UNIT	ITEMS
		ESTIMATED EXCAVATION
590	CY	UNCLASSIFIED CHANNEL EXCAVATION
44,500	CY	STRUCTURE EXCAVATION
6,300	CY	COMMON EXCAVATION
51,390	CY	TOTAL ESTIMATED EXCAVATION
		ESTIMATED FILL
39,500	CY	SUITABLE FILL
39,500	CY	TOTAL ESTIMATED FILL TO BE RE-USED
		ESTIMATED WASTE MATERIAL
51,390	CY	TOTAL ESTIMATED EXCAVATION
39,500	CY	TOTAL ESTIMATED FILL TO BE RE-USED
11,890	CY	TOTAL ESTIMATED WASTE

NOTES:

1. THE ACTUAL SLOPE LINES SHALL BE BASED ON THE CONTRACTORS MEANS AND METHODS AND QUANTITIES OUTSIDE OF THE PAY LIMITS WILL VARY ACCORDINGLY.
2. FACTORS FOR SWELL AND SHRINKAGE OF MATERIAL HAVE NOT BEEN APPLIED TO THE EARTHWORKS SUMMARY.

CULVERT EARTHWORK NOTES:

1. SEE TYPICAL SECTION SHEET 5 FOR ADDITIONAL DETAILS.
2. EXISTING STRUCTURE NOT SHOWN FOR CLARITY.
3. SUITABLE EXCAVATED MATERIAL SHOWN ORIGINATES FROM EXCAVATED EXISTING SOIL THAT IS CONSIDERED ACCEPTABLE FOR RE-USE BY THE ENGINEER. TOPSOIL, VEGETATION, ORGANIC MATERIALS, AND OVERLY SATURATED MATERIALS SHALL BE SEGREGATED AND NOT RE-USED AS BACKFILL MATERIAL. EXCAVATED MATERIALS DEEMED ACCEPTABLE FOR REUSE SHALL BE STOCKPILED AND IMMEDIATELY COVERED TO PREVENT FLUCTUATIONS IN MOISTURE CONTENT.
4. COMPACTION OF SUITABILE FILL MATERIAL SHALL BE IN ACCORDANCE WITH SUBSECTION 203.11.
5. STOCKPILED MATERIAL SHALL NOT BE LOCATED CLOSER THAN 50' FROM THE EDGE OF THE EMBANKMENT SLOPES.

LEGEND

SUITABLE FILL MATERIAL

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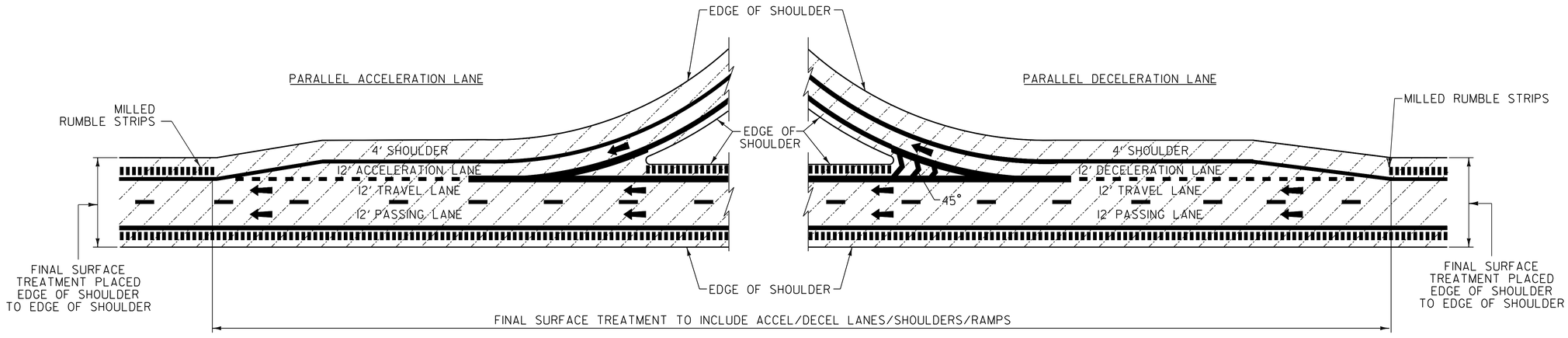
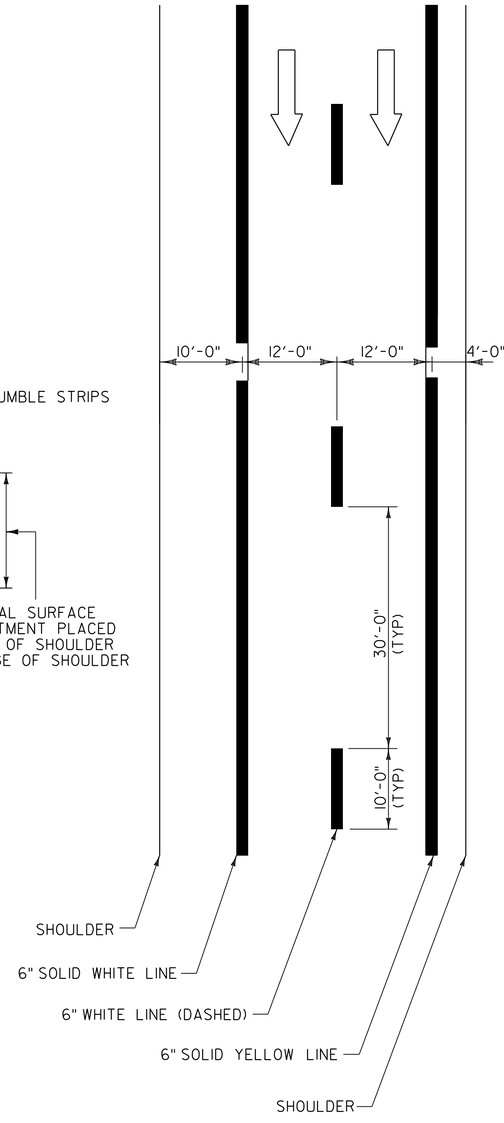
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024emb.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
EXCAVATION TYPICAL SECTIONS

PLOT DATE: 13-MAR-2026
DRAWN BY: J. GRIGAS
CHECKED BY: T. KNIGHT
SHEET 9 OF 161

TYPICAL INTERCHANGE CONSTRUCTION DETAILS





TYPICAL MAINLINE MARKING PLAN

LEGEND

DIRECTION OF TRAFFIC FLOW

NOTE

LINE STRIPING SHOWN FOR REFERENCE ONLY.

LEGEND

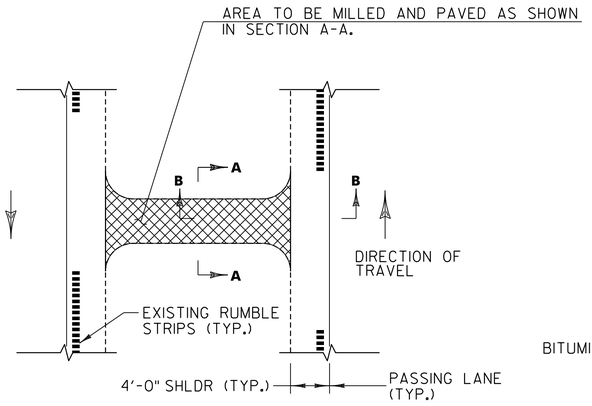
FINAL SURFACE TREATMENT

DIRECTION OF TRAFFIC FLOW

MILLED RUMBLE STRIPS

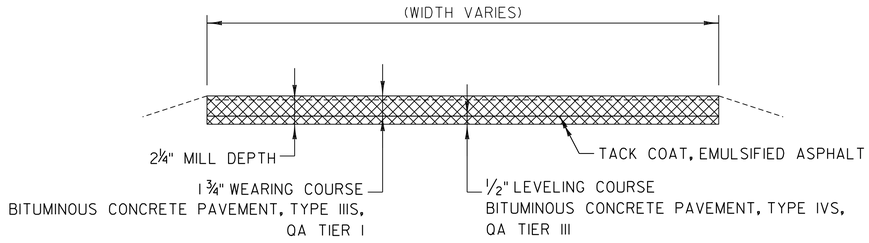
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024det.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
MISCELLANEOUS DETAILS SHEET 1	SHEET 10 OF 161

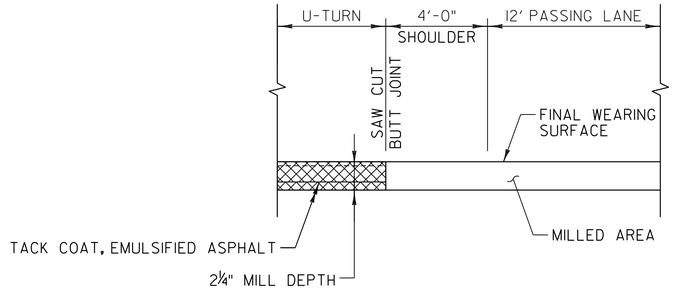


U-TURN MILLING DETAIL

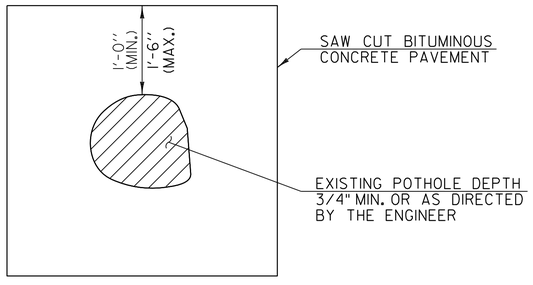
STA. SB 4810+25



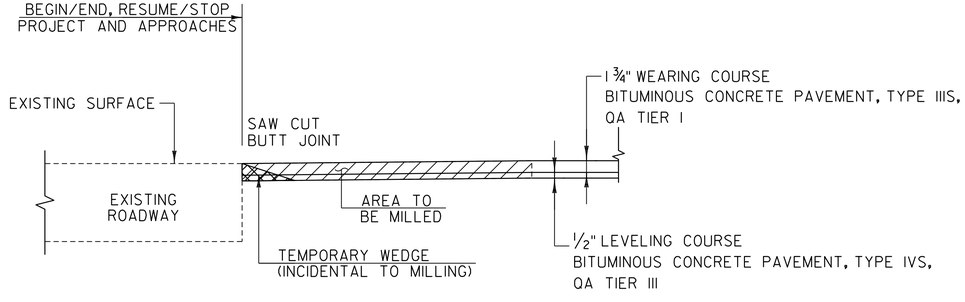
SECTION A-A



SECTION B-B



TYPICAL POTHOLE REPAIR DETAIL



TYPICAL APPROACH AREA DETAIL MAINLINE & RAMPS

NOTES

1. TACK COAT, EMULSIFIED ASPHALT SHALL BE APPLIED AT ALL PATCH INTERFACES AT A RATE OF 0.25 - 0.50 GAL/SY. EMULSIFIED ASPHALT SHALL MEET THE REQUIREMENTS OF SECTION 404 AND WILL BE CONSIDERED INCIDENTAL TO ITEM 406.2400 BITUMINOUS CONCRETE PAVEMENT, SURFACE PREPARATION, TYPE IVS.
2. SAWCUT AND REMOVAL OF BITUMINOUS CONCRETE PAVEMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 406.2400 BITUMINOUS CONCRETE PAVEMENT, SURFACE PREPARATION, TYPE IVS.

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DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
MISCELLANEOUS DETAILS SHEET 2	SHEET 11 OF 161

GENERAL:

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2024 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 9" EDITION, DATED 2020 AND ITS LATEST REVISIONS.

2. ALL DIMENSIONS SHOWN IN THE PLANS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 68 DEGREES FAHRENHEIT, UNLESS NOTED OTHERWISE.

3. ALL WORK SHALL TAKE PLACE WITHIN THE STATE-HIGHWAY RIGHT-OF-WAY.

4. THE CONTRACTOR SHALL PROVIDE A SITE SPECIFIC EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLAN IN ACCORDANCE WITH SECTION 653 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

5. LIMITED SURVEY HAS BEEN AQUIRED FOR THIS PROJECT. LIDAR AND TOPOGRAPHIC IMAGERY WAS USED TO SUPPLEMENT THE SURVEY FOR THE DESIGN OF THE CROSSOVERS. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF ANY CRITICAL EXISTING FEATURES AND NOTIFTY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.

TRAFFIC CONTROL:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION. THE PLAN SHALL CLEARLY DETAIL HOW TRAFFIC WILL BE MAINTAINED. THE PLAN SHALL SPECIFY ALL CONSTRUCITON ACTIVITIES REQUIRING LANE OR SHOULDER CLOSURES, RELATE THOSE ACTIVITIES TO THE CONSTRUCTION SCHEDULE, AND SHOW APPROPRIATE TEMPORARY TRAFFIC CONTROL. ALL COSTS WILL BE INCLUDED IN ITEM 641.1100, "TRAFFIC CONTROL, ALL-INCLUSIVE".

2. A CROSSOVER PLAN FOR THE NORTHBOUND AND SOUTHBOUND INTERSTATE BARRELS HAS BEEN DESIGNED AND IS PROVIDED WITHIN THE CONTRACT DOCUMENTS TO BE USED AS PART OF THE CONTRACTOR'S TRAFFIC CONTROL PLAN. THE CONTRACTOR MAY MODIFY THIS PLAN TO FIT THEIR SPECIFIC OPERATION. ANY MODIFICATIONS TO THE CROSSOVER PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL AND WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE 240.0100004, "DIVIDED HIGHWAY CROSSOVER" ITEM.

3. PAVEMENT MARKINGS AS PART OF THE CROSSOVERS WILL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE 240.0100004, "DIVIDED HIGHWAY CROSSOVER" ITEM. TEMPORARY PAVEMENT MARKINGS STRIPING NEEDED FOR THE PAVING OF THE SOUTHBOUND INTERSTATE BARREL WILL BE PAID FOR SEPARATELY UNDER THE APPROPRIATE TEMPORARY PAVEMENT MARKING ITEMS.

4. TWO LANE, ONE-WAY TRAFFIC SHALL BE RESTORED TO EACH INTERSTATE BARREL PRIOR TO THE WINTER SHUTDOWN.

5. THE CROSSOVERS SHALL BE REMOVED AND RESTORED TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF THE PROJECT.

EARTHWORKS:

1. THE REMOVAL OF BRIDGES 55-2 AND 55-3 WILL BE PAID FOR WITH ITEM 529.1500, "REMOVAL OF STRUCTURE". THIS WORK SHALL INCLUDE THE REMOVAL OF THE ENTIRTY OF THE EXISTING CULVERTS, AND THEIR CUTOFF WALLS OUTSIDE OF THE LIMITS OF STRUCTURE EXCAVATION OR UNCLASSIFIED CHANNEL EXCAVATION.

2. ALL WORK MUST BE DONE IN THE DRY AND ALL CULVERT SECTIONS AND E-STONE SHALL BE COMPLETELY INSTALLED BEFORE THE STREAM IS ALLOWED TO FLOW THROUGH THEM. THE CONTRACTOR SHALL PREPARE AND SUBMIT A TEMPORARY STREAM DIVERSION PLAN TO CONVEY THE STREAM DURING CONSTRUCTION. THE PLAN SHALL DEPICT MEASURES PROPOSED TO PREVENT EROSION AND SEDIMENTIATION AND MAINTAIN STREAM WATER QUALITY. THE STREAM DIVERSION, INCLUDING ANY TEMPORARY PIPING OR DEWATERING, SHALL BE IN ACCORDANCE WITH ITEM 614.1000, "TEMPORARY RELOCATION OF STREAM."

3. PERMITS HAVE BEEN OBTAINED FOR THE CONCEPTUAL ACCESS ROADS AND STAGING AREAS AS PART OF THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND CONSTRUCTING THE TEMPORARY ACCESS ROADS IN ACCORDANCE WITH ITEM 240.0100, "TEMPORARY ACCESS ROAD".

4. THE CULVERT, WINGWALLS, AND EMBANKMENT OUTSIDE OF THE LIMITS OF ITEM 204.3000, "GRANULAR BACKFILL FOR STRUCTURES", SHALL BE BACKFILLED WITH SUITABLE EXCAVATED MATERIAL CONFORMING TO SUBSECTIONS 703.02, "EARTH BORROW" OR 703.04, "GRANULAR BORROW". PLACEMENT OF THE SUITABLE EXCAVATED MATERIAL SHALL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 204.2500, "STRUCTURE EXCAVATION". MATERIAL REMOVED AND NOT SUITABLE FOR RE-USE SHALL BE DISPOSED PER SECTION 204.

5. THE CONTRACTOR SHALL SUBMIT CONSTRUCTION DRAWINGS IN ACCORDANCE WITH SUBSECTION 204.03 FOR THE ACTUAL EXCAVATED SLOPES FOR STRUCTURE EXCAVATION. PRIOR TO THE START OF STRUCTURE EXCAVATION.

6. AN ESTIMATED QUANTITY FOR ITEMS 203.3000, "EARTH BORROW" AND 203.3200, "GRANULAR BORROW" HAVE BEEN INCLUDED IN THE CONTRACT TO BE USED WITHIN THE LIMITS OF SUITABLE FILL TO ACCOUNT FOR THE POTENTIAL OF SHRINKAGE AND UNSUITABLE FILL MATERIAL.

TEMPORARY SUPPORT OF EXCAVATION:

1. THE CONTRACTOR SHALL SUBMIT A GLOBAL STABILITY ANALYSIS AS PART OF THE TEMPORARY SUPPORT OF EXCAVATION SUBMITTAL.

2. SETTLEMENT OF THE ROADWAY SHALL NOT EXCEED 2" OVER 100 FEET AND THE TOTAL SETTLEMENT SHALL NOT EXCEED 2 ½".

PRECAST CONCRETE:

1. THE LUMP SUM COST FOR ITEM 540.1000, "PRECAST CONCRETE STRUCTURE (18FTx13FTx292FT PRECAST BOX CULVERT)" SHALL INCLUDE THE PRECAST CONCRETE BOX CULVERT, PRECAST HEADWALLS, BAFFLES, CUT OFF WALLS, AND WINGWALLS. THESE ELEMENTS ARE TO BE DESIGNED BY THE CONTRACTOR. THE CULVERT SHALL BE LOAD RATED IN ACCORDANCE WITH SECTION 540 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

2. PRECAST BOX CULVERT DESIGN PARAMETERS:

   DESIGN LIVE LOAD: AASHTO HL-93 Load

   BOX CULVERT RETAINED SOIL PARAMETERS
   UNIT WEIGHT: 140 PCF
   FRICTION ANGLE: 34 DEGREES
   LATERAL EARTH
   PRESSURE COEFFICIENTS, K0: 0.44
   Ka: 0.36

3. ALL CORNERS OF CONCRETE SHALL BE CHAMFERED 1", UNLESS NOTED OTHERWISE.

4. REINFORCING STEEL IN THE PRECAST BOX CULVERT AND WINGWALLS SHALL MEET THE REQUIREMENTS OF SECTION 507, "REINFORCING STEEL, LEVEL II".

5. THE MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE 2", EXCEPT THE CLEAR COVER ON UNDERSIDE OF THE CULVERT ROOF MAY BE REDUCED TO 1½".

6. ALL BOX CULVERT JOINTS SHALL BE STRENGTHENED WITH DRAW CONNECTORS. ALL DRAW CONNECTOR HARDWARE COMPONENTS, LIFTING ATTACHMENTS, AND OTHER EMBEDS SHALL BE GALVANIZED.

7. A BRIDGE PLAQUE FURNISHED BY THE AGENCY SHALL BE CAST INTO WINGWALL 1. SEE STD S-501 FOR FURTHER DETAILS.

8. AFTER THE PRECAST CONCRETE UNITS ARE IN THEIR FINAL LOCATIONS, ALL HOLES OR BLOCKOUTS USED FOR LIFTING THE PRECAST ELEMENTS SHALL HAVE A BONDING AGENT APPLIED TO THE CONCRETE SURFACE AND SHALL BE FILLED WITH A MORTAR, TYPE IV OR CONCRETE REPAIR MATERIAL, TYPE I AS APPROPRIATE. PAYMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 540.1000, "PRECAST CONCRETE STRUCTURE (18FTx13FTx292FT PRECAST BOX CULVERT)."

9. ALL MORTAR AND GROUT SHALL BE CURED PER THE MANUFACTURER'S RECOMMENDATIONS.

10. THE TOP PORTION OF THE MITERED END SECTIONS MAY BE CAST-IN-PLACE IN THE FIELD TO FACILITATE SHIPPING AND HANDLING OF THE PRECAST CULVERT. IF THE CONTRACTOR ELECTS TO CAST THESE PORTIONS IN THE FIELD, THE CONCRETE SHALL MEET THE REQUIREMENTS OF ITEM 501.3800, "PERFORMANCE-BASED CONCRETE, CLASS PCS". PAYMENT FOR THE CAST-IN-PLACE PORTION OF THE END SECTIONS WILL BE CONSIDERED INCIDENTAL TO ITEM 540.1000, "PRECAST CONCRETE STRUCTURE (18FTx13FTx292FT PRECAST BOX CULVERT)".

11. BACKFILLING THE BOX CULVERT IS NOT ALLOWED UNTIL THE GROUT HAS CURED FOR A MINIMUM OF 24 HOURS.

12. ITEM 514.1000, "WATER REPELLENT, SILANE" SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE INSIDE OF THE BOX.

13. A WATERPROOFING MEMBRANE SYSTEM, TYPE III MEETING THE REQUIREMENTS OF SUBSECTION 726.08(c) SHALL BE APPLIED IN A 2'-0" WIDE STRIP AT ALL VERTICAL AND HORIZONTAL CONSTRUCTION JOINTS AND ACROSS THE ENTIRETY OF THE ROOF AND 1'-0" DOWN THE SIDES OF THE BOX CULVERT FRAME. OVERLAPPING OF MATERIAL SHALL BE DONE IN A SHINGLE STYLE WITH A MINIMUM OVERLAP OF 1'-0". PAYMENT FOR THIS WILL BE CONSIDERED INCIDENTAL TO ITEM 540.1000, "PRECAST CONCRETE STRUCTURE (18FTx13FTx292FT PRECAST BOX CULVERT)."

14. A 1" THICK POLYSTRENE ISULATION BOARD MEETING THE REQUIREMENTS OF 735.01 SHALL BE PLACED ACROSS THE TOP OF THE BOX CULVERT OVER THE MEMBRANE PRIOR TO BACKFILLING. PAYMENT WILL BE CONSIDERED INCIDENTAL TO ITEM 540.1000, "PRECAST CONCRETE STRUCTURE (18FTx13FTx292FT PRECAST BOX CULVERT)."

SOUTHBOUND PAVING:

1. ALL BITUMINOUS CONCRETE PAVEMENT TOLERANCE =1/4" +/- (TOTAL THICKNESS EXCLUDING LEVELING COURSE).

2. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POT HOLE REPAIR AND RAVELING REPAIRS SHALL BE PERFORMED FOLLOWING MILLING AND PRIOR TO PAVING. THE PATCHING OF ALL CRACKS GREATER THAN ONE INCH AND POT HOLE REPAIR SHALL BE COMPLETED WITH ITEM 406.2400 - BITUMINOUS CONCRETE PAVEMENT, SURFACE PREPARATION, TYPE IVS. AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN INCLUDED.

3. THE CONTRACTOR SHALL LOCATE AND MAINTAIN THE GEOMETRIC CENTERLINE OF THE ROADWAY THROUGHOUT CONSTRUCTION.

4. ALL LANE DELINEATION IS TO BE MAINTAINED DURING CONSTRUCTION. ALL TEMPORARY MARKINGS PLACED ON MILLED SURFACES SHALL BE 6 INCH TEMPORARY PAINT. TEMPORARY EDGELINE MARKINGS ON THE WEARING SURFACE SHALL BE LINE STRIPING TARGETS. TEMPORARY CENTERLINE DASHES ON THE WEARING SURFACE SHALL BE 6 INCH TEMPORARY TAPE MADE OF 3 FOOT SECTIONS EVERY 40 FEET AND PAID FOR UNDER ITEM 646.6212 - TEMPORARY 6 INCH WHITE LINE, TYPE C TAPE.

5. EDGES OF PAVEMENT SHALL INCLUDE A SAFETY EDGE. SEE SAFETY EDGE DETAILS (HIGHWAY SAFETY & DESIGN DETAIL HSD-400.01). ALL EDGES OF PAVEMENT SHALL BE BACKED UP TO FULL HEIGHT WITH AGGREGATE SHOULDERS, RAP AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID UNDER ITEM 402.1300 - AGGREGATE SHOULDERS, RAP.

6. GUARDRAIL RUNS HAVE BEEN LISTED ON THE ITEM DETAIL SHEET. REPAIR ITEM QUANTITIES HAVE BEEN ESTIMATED.

SOUTHBOUND PAVING CONT.:

7. THE ENGINEER WILL INSPECT AND EVALUATE ALL W-BEAM GUARDRAIL AND REPAIR OR REPLACE POST AND BEAM ASSEMBLIES AS NEEDED UNDER ITEMS 621.0220 - ADJUST HEIGHT OF GUARDRAIL, 621.0300 - REPLACE GUARDRAIL BEAM UNIT, W-BEAM, 621.0360 - REPLACE GUARDRAIL POST ASSEMBLY, W-BEAM WITH 6 FOOT POSTS, AND 621.1500 - STEEL BEAM GUARDRAIL OFFSET BLOCK.

8. ESTIMATED QUANTITIES FOR ITEMS 621.0100 - REMOVAL OF GUARDRAIL, 621.1060 - STEEL BEAM GUARDRAIL, 621.1530 - ANCHOR FOR STEEL BEAM GUARDRAIL, MGS, , AND 621.3130 - MTS, MGS, FLARED, TL-3 HAVE BEEN INCLUDED FOR REPLACEMENT OF TERMINAL SECTIONS AS DIRECTED BY THE ENGINEER. NEW SECTIONS SHALL CONFORM TO MIDWEST GUARDRAIL SYSTEM (MGS) HSD DETAILS 621.07A THROUGH 621.07F.

9. ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR ITEMS 621.1560 - TRAFFIC BARRIER DELINEATOR, 676.1000 - DELINEATOR WITH STEEL POST, AND 676.1200 - REMOVAL OF EXISTING DELINEATOR AND POST. THESE QUANTITIES HAVE BEEN INCLUDED WITH THE INTENTION THAT ALL EXISTING DELINEATORS WITHIN THE PROJECT LIMITS BE REPLACED. QUANTITY FOR ITEM 621.1560 - TRAFFIC BARRIER DELINEATOR HAS BEEN CALCULATED TO COVER ALL EXISTING GUARDRAIL NOT BEING REPLACED.

10. ALL HIGHWAY SAFETY HARDWARE ASSOCIATED WITH THE REPLACEMENT / INSTALLATION OF GUARDRAIL, INCLUDING ITEM 621.3130 - MTS, MGS, FLARED, TL-3, SHALL BE MASH COMPLIANT. FOR FURTHER GUIDANCE, REFER TO THE LATEST VERSION OF THE APPROVED PRODUCTS LIST. ALL NEW RUNS OF GUARDRAIL WILL UTILIZE MGS, AND THE TRAILING END TERMINAL SHALL BE AN MGS ANCHOR IN ACCORDANCE WITH HSD 621.07 A THROUGH F, AND WILL BE PAID FOR UNDER ITEM 621.1530, ANCHOR FOR STEEL BEAM GUARDRAIL, MGS. LEADING END TERMINALS WILL BE AS INDICATED IN THE GUARDRAIL QUANTITY SHEETS.

11. IF THE CONTRACTOR DETERMINES THAT RAMPS NEED TO BE CLOSED DURING CONSTRUCTION, THE WORK SHALL TAKE PLACE AT NIGHT. PAYMENT FOR THE CLOSURE AND ALL APPLICABLE PLANS, TRAFFIC CONTROL, AND LIGHTING SHALL BE PAID FOR UNDER ITEM 641.1100 - TRAFFIC CONTROL, ALL-INCLUSIVE.

12. URBAN BACKGROUND SOIL AREAS ARE IDENTIFIED FROM MM 91.366 TO MM 92.426 AND AT MM 98.394. THE SCOPE OF THE PROJECT DOES NOT ANTICIPATE CREATING EXCESS SOILS FOR DISPOSAL IN THE URBAN BACKGROUND SOIL AREAS. THERE ARE NO LOCATIONS IDENTIFIED IN THE PLANS FOR WASTE SITES. IF SOIL IS EXCAVATED IN THESE AREAS, THE CONTRACTOR SHALL SCATTER EXCESS SOILS ON ADJACENT SLOPES.

13. PAVING OF THE SOUTHBOUND BARREL OF THE INTERSTATE SHALL NOT OCCUR UNTIL ALL MATERIAL STOCKPILED ON THE SOUTHBOUND BARREL IS REMOVED.

14. ESTIMATED QUANTITES OF ITEMS 608.1500 - POWER GRADER RENTAL, 608.2501 - ALL-PURPOSE EXCAVATOR RENTAL, TYPE I AND 608.3700 - TRUCK RENTAL HAVE BEEN INCLUDED FOR REMOVAL OF BUILT UP SAND, SOD, ETC. ADJACENT TO THE SHOULDER, IN NON-GUARDRAIL AREAS, TO ALLOW FREE DRAINAGE OFF THE SHOULDER AS DIRECTED BY THE ENGINEER.

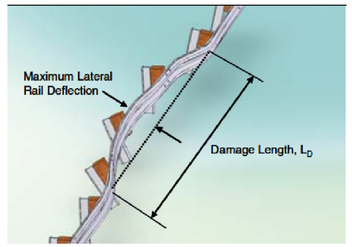
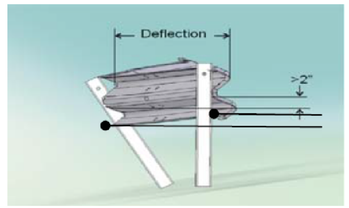
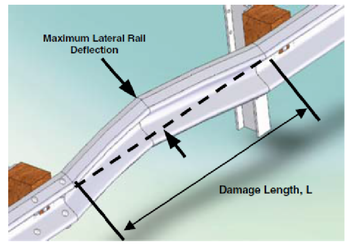
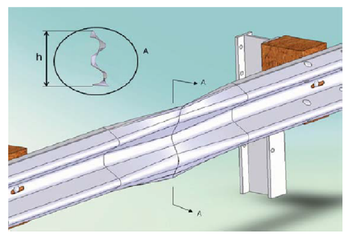
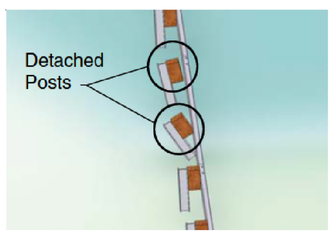
Stantec

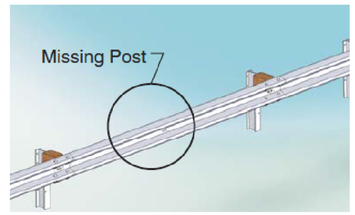
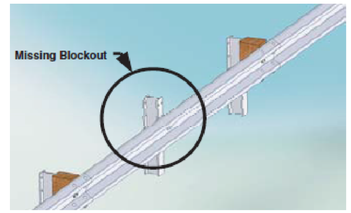
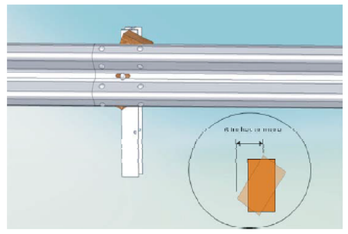
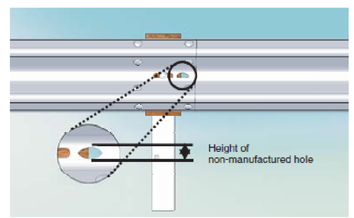
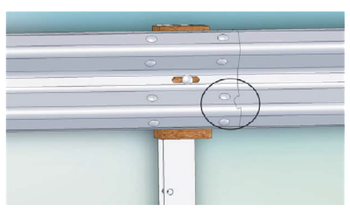
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024gen notes.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
PROJECT NOTES SHEET

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: T. KNIGHT

GUARDRAIL REPLACEMENT GUIDELINES

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
POST AND RAIL DEFLECTION	ONE OR MORE OF THE FOLLOWING THRESHOLDS: • MORE THAN 9 INCHES LATERAL DEFLECTION ANYWHERE OVER A 25 FOOT LENGTH OF RAILTOP OF RAIL • HEIGHT 2 OR MORE INCHES LOWER THAN ORIGINAL TOP OF RAIL HEIGHT	HIGH	
	6-9 INCHES LATERAL DEFLECTION ANYWHERE OVER A 25 FOOT LENGTH OF RAIL	MEDIUM	
	LESS THAN 6 INCHES OF LATERAL DEFLECTION OVER A 25 FOOT LENGTH OF RAIL	LOW	 (WEAK POST W-BEAM SHOWN ONLY FOR CLARITY. EACH MEASUREMENT TAKEN AT THE RAIL'S MIDDLE FOLD)
RAIL DEFLECTION ONLY	6-9 INCHES OF LATERAL DEFLECTION BETWEEN ANY TWO ADJACENT POSTS NOTE: FOR DEFLECTION OVER 9 INCHES, USE POST/RAIL DEFLECTION GUIDELINES	MEDIUM	
	LESS THAN 6 INCHES OF LATERAL DEFLECTION BETWEEN ANY TWO ADJACENT POSTS	LOW	
RAIL FLATTENING	ONE OR MORE OF THE FOLLOWING THRESHOLDS: • RAIL CROSS SECTION HEIGHT GREATER THAN 17 INCHES (SUCH AS MAY OCCUR IF RAIL IS FLATTENED) • RAIL CROSS SECTION HEIGHT LESS THAN 9 INCHES (SUCH AS A DENT TO TOP EDGE)	MEDIUM	
	RAIL CROSS SECTION HEIGHT BETWEEN 9 AND 17 INCHES	LOW	
POSTS SEPARATED FROM RAIL	• 2 OR MORE POSTS WITH BLOCKOUT ATTACHED WITH POST/RAIL SEPARATION LESS THAN 3 INCHES • ONE OR MORE POSTS WITH POST/RAIL SEPARATION WHICH EXCEEDS 3 INCHES	MEDIUM	 NOTE: 1. IF THE BLOCKOUT IS NOT FIRMLY ATTACHED TO THE POST USE THE MISSING BLOCKOUT GUIDELINES 2. DAMAGE SHOULD ALSO BE EVALUATED AGAINST POST/RAIL DEFLECTION GUIDELINES
	• ONE POST, WITH BLOCKOUT ATTACHED, WITH POST/RAIL SEPARATION LESS THAN 3 INCHES	LOW	

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
POST AND RAIL DEFLECTION	ONE OR MORE POSTS: • MISSING • CRACKED ACROSS THE GRAIN • BROKEN • ROTTED • WITH METAL TEARS	HIGH	
MISSING BLOCKOUT	ANY BLOCKOUTS: • MISSING • CRACKED ACROSS THE GRAIN • CRACKED FROM TOP OR BOTTOM OF BLOCKOUT • ROTTED	MEDIUM	
TWISTED BLOCKOUTS	ANY MISALIGNED BLOCKOUTS, TOP EDGE OF BLOCK 6 INCHES OR MORE FROM BOTTOM EDGE NOTE: REPAIRS OF TWISTED BLOCKOUT ARE RELATIVELY QUICK AND INEXPENSIVE	LOW	
DAMAGE AT A RAIL SPLICE	MORE THAN ONE SPLICE BOLT: • MISSING • DAMAGED • VISIBLY MISSING ANY UNDERLYING RAIL • ROTTED	HIGH	
	ONE SPLICE BOLT: • MISSING • DAMAGED • VISIBLY MISSING ANY UNDERLYING RAIL • TORN THROUGH RAIL	MEDIUM	
	• MORE THAN 2 HOLES LESS THAN ONE INCH IN HEIGHT IN A 12.5 FOOT LENGTH OF RAIL • ANY HOLES GREATER THAN ONE INCH IN HEIGHT • ANY HOLE WHICH INTERSECTS EITHER THE TOP OR BOTTOM EDGE OF THE RAIL	HIGH	
	1-2 HOLES LESS THAN ONE INCH IN HEIGHT IN A 12.5 FOOT LENGTH OF RAIL	MEDIUM	

NOTES

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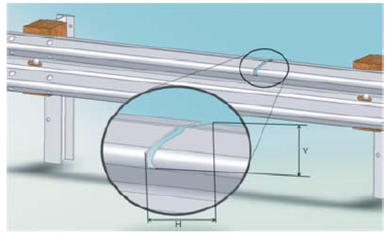
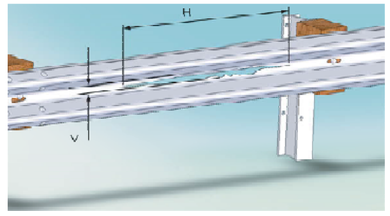
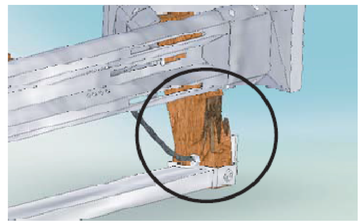
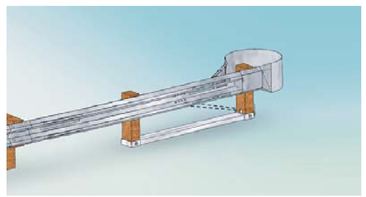
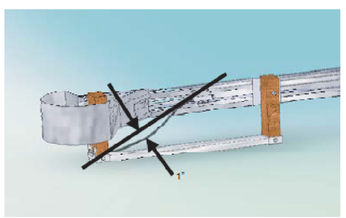
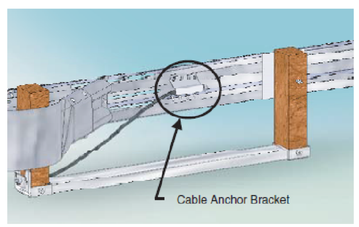
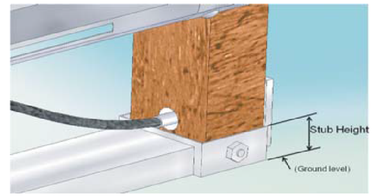
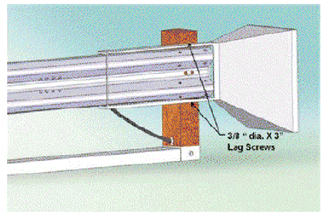
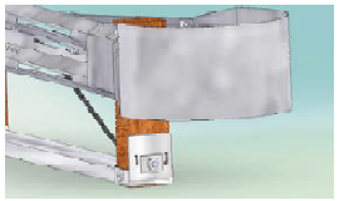
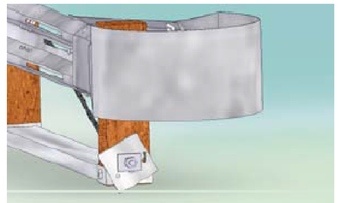
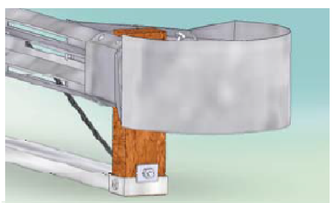
3. WHEN GUARDRAIL IS TO BE REMOVED AND RESET, PANELS WITH A RAIL CROSS SECTION HEIGHT OF 15 INCHES OR GREATER SHALL BE REPLACED.

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(99)
FILE NAME: z21a024grdet.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: VTRANS
DESIGNED BY: VTRANS	CHECKED BY: VTRANS
GUARDRAIL REPLACEMENT GUIDELINES SHEET 1	SHEET 13 OF 161

GUARDRAIL REPLACEMENT GUIDELINES

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
VERTICAL TEAR	ANY LENGTH VERTICAL (TRANSVERSE) TEAR	HIGH	
HORIZONTAL TEAR	HORIZONTAL (LONGITUDINAL) TEAR GREATER THAN 12 INCHES LONG AND GREATER THAN 0.5 INCH WIDE NOTE: FOR HORIZONTAL TEARS LESS THAN 12 INCHES IN LENGTH OR LESS THAN 0.5 INCH IN HEIGHT, USE THE NON-MANUFACTURED HOLES GUIDELINES	MEDIUM	
DAMAGED END POST	NOT FUNCTIONAL (SHEARED, ROTTED, CRACKED ACROSS THE GRAIN)	HIGH	
ANCHOR CABLE	MISSING	HIGH	
ANCHOR CABLE	LOOSE - MORE THAN ONE INCH OF MOVEMENT WHEN PUSHED DOWN BY HAND	MEDIUM	
CABLE ANCHOR BRACKET	LOOSE OR NOT FIRMLY SEATED IN RAIL	MEDIUM	

DAMAGE TYPE	REPAIR THRESHOLD	RELATIVE PRIORITY	MEASURMENT
STUB HEIGHT	HEIGHT WHICH EXCEEDS 4 INCHES	MEDIUM	
LAG SCREWS (ENERGY ABSORBING TERMINALS ONLY)	HEIGHT WHICH EXCEEDS 4 INCHES	MEDIUM	
BEARING PLATE	LOOSE OR MISALIGNED	MEDIUM	 (CORRECT BEARING PLATE)  (MISALIGNED BEARING PLATE)
MISSING BEARING PLATE		HIGH	 (MISSING BEARING PLATE)

NOTES

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3. WHEN GUARDRAIL IS TO BE REMOVED AND RESET, PANELS WITH A RAIL CROSS SECTION HEIGHT OF 15 INCHES OR GREATER SHALL BE REPLACED.

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(99)

FILE NAME: z21a024grdet.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: VTRANS
PLOT DATE: 13-MAR-2026
DRAWN BY: VTRANS
CHECKED BY: VTRANS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
					1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
					1						1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.1000				BITUMINOUS CONCRETE PAVEMENT, TYPE IIS, QA TIER III
					6300						6300		CY	COMMON EXCAVATION	203.1500		512.5	TON	NORTHBOUND MAINLINE
																	512.5	TON	SOUTHBOUND MAINLINE
								590			590		CY	UNCLASSIFIED CHANNEL EXCAVATION	203.2700		1025	TON	TOTAL
					800						800		CY	EARTH BORROW	203.3000				
					2500						2500		CY	SAND BORROW	203.3100				BITUMINOUS CONCRETE PAVEMENT, TYPE IIIS, QA TIER I
					800						800		CY	GRANULAR BORROW	203.3200		425	TON	NORTHBOUND MAINLINE
																	4025	TON	SOUTHBOUND MAINLINE
					1						1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.2200		485	TON	SOUTHBOUND ON RAMP
																	15	TON	SOUTHBOUND U-TURN
								44500			44500		CY	STRUCTURE EXCAVATION	204.2500		4950	TON	TOTAL
								2700			2700		CY	GRANULAR BACKFILL FOR STRUCTURES	204.3000				
					650						650		SY	COARSE-MILLING, BITUMINOUS PAVEMENT	210.1000				BITUMINOUS CONCRETE PAVEMENT, TYPE IVS, QA TIER III
					40300						40300		SY	FINE-MILLING, BITUMINOUS PAVEMENT	210.1200		610	TON	SOUTHBOUND MAINLINE
																	135	TON	SOUTHBOUND ON RAMP
					18800						18800		LF	MILLED RUMBLE STRIPS, SHOULDER	213.2010		5	TON	SOUTHBOUND U-TURN
								1			1		LS	TEMPORARY SUPPORT OF EXCAVATION	225.0500001		750	TON	TOTAL
					1						1		LS	TEMPORARY ACCESS ROAD (NORTHBOUND ACCESS)	240.0100				
																			MATERIAL TRANSFER VEHICLE
					1						1		LS	TEMPORARY ACCESS ROAD (SOUTHBOUND ACCESS)	240.0100		1030	TON	BASE COURSE TYPE IIS
					1						1		LS	DIVIDED HIGHWAY CROSSOVER (NORTHBOUND CROSSOVER)	240.0100004		4920	TON	WEARING COURSE TYPE IIIS
																	750	TON	LEVELING COURSE TYPE IVS
					1						1		LS	DIVIDED HIGHWAY CROSSOVER (SOUTHBOUND CROSSOVER)	240.0100004				
					3150						3150		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.3500		6700	TON	TOTAL
					50						50		CY	AGGREGATE SURFACE COURSE	401.1000				
					275						275		TON	AGGREGATE SHOULDERS, RAP	402.1300				
					600						600		CWT	TACK COAT, EMULSIFIED ASPHALT	404.1100				
					1025						1025		TON	BITUMINOUS CONCRETE PAVEMENT, TYPE IIS, QA TIER III	406.0230				
					4950						4950		TON	BITUMINOUS CONCRETE PAVEMENT, TYPE IIIS, QA TIER I	406.0310				
					750						750		TON	BITUMINOUS CONCRETE PAVEMENT, TYPE IVS, QA TIER III	406.0430				
					10						10		TON	BITUMINOUS CONCRETE PAVEMENT, SURFACE PREPARATION, TYPE IVS	406.2400				
					1						1		DL	PAY ADJUSTMENT, BCP, MIXTURE PROPERTIES (N.A.B.I.)	406.9100				
					1						1		DL	PAY ADJUSTMENT, BCP, MAT DENSITY (N.A.B.I.)	406.9200				
					1						1		DL	PAY ADJUSTMENT, BCP, LONGITUDINAL JOINT DENSITY (N.A.B.I.)	406.9300				
					1						1		DL	PAY ADJUSTMENT, BCP, PAVEMENT ROUGHNESS (N.A.B.I.)	406.9400				
					6700						6700		TON	MATERIAL TRANSFER VEHICLE	410.1000				
									10		10		GAL	WATER REPELLENT, SILANE	514.1000				
									2		2		EACH	REMOVAL OF STRUCTURE (7FT DIA X 290FT LENGTH CMP)	529.1500				
									1		1		LS	PRECAST CONCRETE STRUCTURE (18FT X13FT X292FT PRECAST BOX CULVERT)	540.1000				
					5						5		CY	FLOWABLE FILL	541.4500				
					1						1		EACH	DECOMMISSION DROP INLET	604.6500				
					10						10		HR	POWER GRADER RENTAL	608.1500				
					10						10		HR	ALL-PURPOSE EXCAVATOR RENTAL, TYPE I	608.2501				
					100						100		HR	POWER BROOM RENTAL, TYPE I	608.3001				
					100						100		HR	POWER BROOM RENTAL, TYPE II	608.3002				
					10						10		HR	TRUCK RENTAL	608.3700				

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_frm.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. CILWIK
QUANTITY SHEET 1	SHEET 15 OF 161

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES									TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
	1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
				800			800		CY	E-STONE FILL, TYPE II	613.0602				
				1			1		EACH	TEMPORARY RELOCATION OF STREAM	614.1000				
	780						780		LF	WOVEN WIRE FENCE WITH STEEL POSTS	620.2500				
	12						12		EACH	STEEL BRACE FOR WOVEN WIRE FENCE	620.4000				
	840						840		LF	REMOVAL OF EXISTING FENCE	620.5500				
	600						600		LF	REMOVAL OF GUARDRAIL	621.0100				
	200						200		LF	REMOVE AND RESET GUARDRAIL	621.0210				
	175						175		LF	ADJUST HEIGHT OF GUARDRAIL	621.0220				
	15						15		EACH	REPLACE GUARDRAIL BEAM UNIT, W-BEAM	621.0300				
	30						30		EACH	REPLACE GUARDRAIL POST ASSEMBLY, W-BEAM WITH 6 FOOT POSTS	621.0360				
	675						675		LF	STEEL BEAM GUARDRAIL	621.1060				
	30						30		EACH	STEEL BEAM GUARDRAIL OFFSET BLOCK	621.1500				
	4						4		EACH	ANCHOR FOR STEEL BEAM GUARDRAIL, MGS	621.1530				
	100						100		EACH	TRAFFIC BARRIER DELINEATOR	621.1560				
	1						1		EACH	MTS, MGS, FLARED, TL-3	621.3130				
	800						800		HR	UNIFORMED TRAFFIC OFFICERS	630.1000				
	150						150		HR	FLAGGERS	630.1500				
					1		1		LS	FIELD OFFICE, ENGINEER'S	631.1000				
					1		1		LS	TESTING EQUIPMENT, CONCRETE	631.1600				
					1		1		LS	TESTING EQUIPMENT, BITUMINOUS	631.1700				
					1		1		LS	TESTING EQUIPMENT, GROUT	631.1900				
					6000		6000		DL	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	631.2600				
					13		13		EACH	CPM SCHEDULE	633.1000				
	1						1		LS	MOBILIZATION/DEMOBILIZATION	635.1100				
	1						1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE (NORTHBOUND BARREL AND CROSSOVER)	641.1100				
	1						1		LS	TRAFFIC CONTROL, ALL-INCLUSIVE (SOUTHBOUND BARREL AND CROSSOVER)	641.1100				
	4						4		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.1500				
	4						4		EACH	PORTABLE ARROW BOARD	641.1600				
	25750						25750		LF	TEMPORARY 6 INCH WHITE LINE	646.6200				
	700						700		LF	TEMPORARY 6 INCH WHITE LINE, TYPE C TAPE	646.6212				
	20000						20000		LF	TEMPORARY 6 INCH YELLOW LINE	646.6300				
	650						650		LF	TEMPORARY 12 INCH WHITE LINE	646.6600				
	4800						4800		EACH	LINE STRIPING TARGETS	646.7600				
				1965			1965		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.1100				
				550			550		SY	GEOTEXTILE UNDER STONE FILL	649.3100				
			38100				38100		SY	TURF ESTABLISHMENT, GENERAL SEED	651.1500				
		15500					15500		SY	TURF ESTABLISHMENT, SPECIALTY SEED (DRY MIX)	651.1600				
		1000					1000		SY	TURF ESTABLISHMENT, SPECIALTY SEED (WET MIX)	651.1600				
			700				700		CY	TOPSOIL	651.3500				
				400			400		SY	GRUBBING MATERIAL, 12 INCH	651.4012				

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_frm.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. CILWIK
QUANTITY SHEET 2	SHEET 16 OF 161

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES											TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
					1011 - ROADWAY	1041 - LANDSCAPING	1051 - EROSION CONTROL	1211 - BRIDGE NO. 1	1999 - FULL C.E. ITEMS	OPTION	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							1				1		LS	EPSC PLAN	653.0100				
							120				120		HR	MONITORING EPSC PLAN	653.0200				
							3000				3000		DL	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	653.0300				
							18				18		TON	HAY MULCH	653.1000				
						3					3		TON	STRAW MULCH	653.1200				
							16050				16050		SY	ROLLED EROSION CONTROL PRODUCT, TYPE I	653.2001				
							150				150		CY	CHECK DAM, TYPE I	653.2501				
							210				210		CY	STABILIZED CONSTRUCTION ENTRANCE	653.3500				
							21				21		EACH	INLET PROTECTION DEVICE, TYPE I	653.4001				
							1				1		EACH	INLET PROTECTION DEVICE, TYPE II	653.4002				
							40				40		CY	INLET PROTECTION DEVICE, TYPE III	653.4003				
							4				4		EACH	FILTER BAG	653.4500				
							1160				1160		LF	SILT FENCE, TYPE I	653.4701				
							1000				1000		LF	SILT FENCE, TYPE II	653.4702				
							700				700		LF	BARRIER FENCE	653.5000				
							1700				1700		LF	PROJECT DEMARCATION FENCE	653.5500				
							2600				2600		LF	EROSION LOG	653.6000				
						80					80		EACH	TUBELINGS	656.1200				
						12					12		MGAL	LANDSCAPE WATERING	656.6500				
						31					31		CY	LANDSCAPE BACKFILL, TRUCK MEASUREMENT	656.8000				
					8.84						8.84		SF	TRAFFIC SIGN, FLAT SHEET ALUMINUM	675.2000				
					1060						1060		LB	W-SHAPE STEEL SIGN POST	675.3100				
					2						2		EACH	FOUNDATION FOR W-SHAPE STEEL POST, 24 INCH DIAMETER	675.4100				
					6						6		EACH	SIGN REMOVAL, FLAT SHEET ALUMINUM	675.5000				
					3						3		EACH	SIGN REMOVAL, EXTRUDED ALUMINUM	675.5100				
					3						3		EACH	RESETTING SIGNS	675.6000				
					7						7		EACH	DELINEATOR WITH STEEL POST	676.1000				
					7						7		EACH	REMOVAL OF EXISTING DELINEATOR AND POST	676.1200				
					1						1		DL	PRICE ADJUSTMENT, ASPHALT (N.A.B.I.)	690.0300				
					1						1		DL	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.0400				
														BEGIN OPTION EPOXY PAINT ITEMS					
										13500	13500		LF	DURABLE 6 INCH WHITE LINE, EPOXY PAINT	646.4230				
										10500	10500		LF	DURABLE 6 INCH YELLOW LINE, EPOXY PAINT	646.4330				
										325	325		LF	DURABLE 12 INCH WHITE LINE, EPOXY PAINT	646.4630				
														END OPTION EPOXY PAINT ITEMS					
														BEGIN OPTION POLYUREA ITEMS					
										13500	13500		LF	DURABLE 6 INCH WHITE LINE, POLYUREA	646.4240				
										10500	10500		LF	DURABLE 6 INCH YELLOW LINE, POLYUREA	646.4340				
										325	325		LF	DURABLE 12 INCH WHITE LINE, POLYUREA	646.4640				
														END OPTION POLYUREA ITEMS					

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_frm.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. CILWIK
QUANTITY SHEET 3	SHEET 17 OF 161

GPS CONTROL POINTS

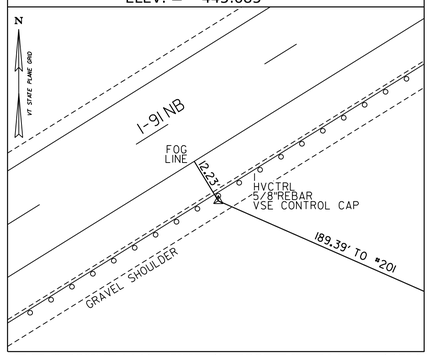
BRADFORD CORS ARP

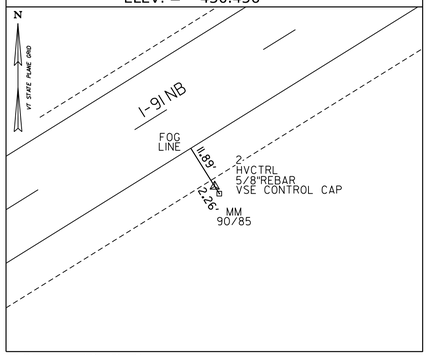
PID DJ8957
N = 549808.851
E = 1741884.597
ELLIP HEIGHT = 414.756

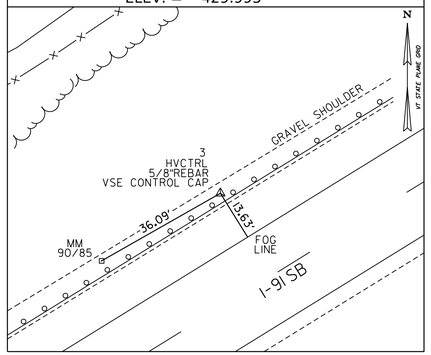
STATION IS A GPS CONTINOUSLY OPERATING REFERENCE STATION. STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA. THE ANTENNA IS MOUNTED ON THE ROOF OF OXBOW HIGH SCHOOL IN BRADFORD, VERMONT. THE ANTENNA IS ATTACHED TO THE TWO STORY CONCRETE/BRICK BUILDING WITH A 6 FT CONCRETE FOUNDATION BUILT IN 1972. THE MAST IS A 1.75 INCH DIA GALV PIPE THAT IS 108 INCHES LONG. THE MAST IS ATTACHED TO A STEEL MOUNTING FRAME WITH THREE ATTACHMENTS CONSISTING OF 3/8 INCH SS THROUGH BOLTS. THE MOUNTING FRAME IS ATTACHED TO THE BUILDING USING 8 ATTACHMENT POINTS. THE TOP 4 ARE 1/2 INCH SS BOLTS SECURED TO THE BRICK OR CONC WITH LEAD ANCHORS. THE BOTTOM 4 ATTACHMENTS ARE TROUGH BOLTED AND CONSIST OF 1/2 INCH SS THREADED ROD AND NUTS.

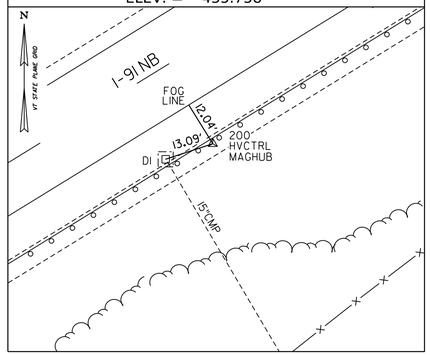
TRAVERSE TIES

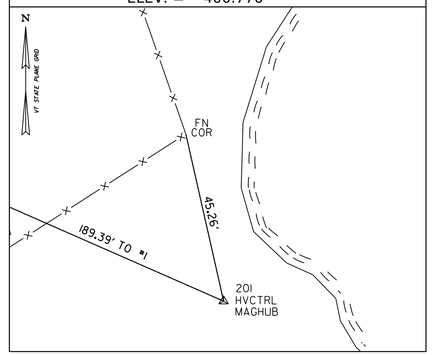
HVCTRL #1	HVCTRL #2	HVCTRL #3	HVCTRL #200	HVCTRL #201
NORTH = 509670.405	NORTH = 509998.337	NORTH = 510121.394	NORTH = 509828.374	NORTH = 509594.214
EAST = 1728836.080	EAST = 1729365.920	EAST = 1729331.160	EAST = 1729091.854	EAST = 1729009.470
ELEV. = 445.685	ELEV. = 430.456	ELEV. = 429.993	ELEV. = 435.758	ELEV. = 400.770







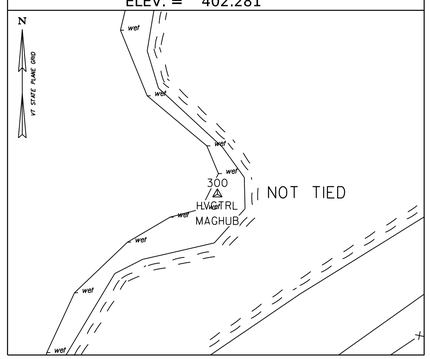


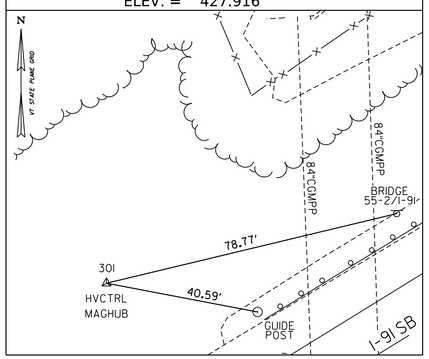


SURVEY COMPLETED: MAY 19, 2021 BY VSE, A. SCARZELLO-PC, J. KOVANIC

TRAVERSE TIES

HVCTRL #300	HVCTRL #301			
NORTH = 510213.552	NORTH = 510045.432	NORTH =	NORTH =	NORTH =
EAST = 1729261.193	EAST = 1729154.757	EAST =	EAST =	EAST =
ELEV. = 402.281	ELEV. = 427.916	ELEV. =	ELEV. =	ELEV. =





DATUM

VERTICAL NAVD88
HORIZONTAL NAD83(2011)
ADJUSTMENT LSQ

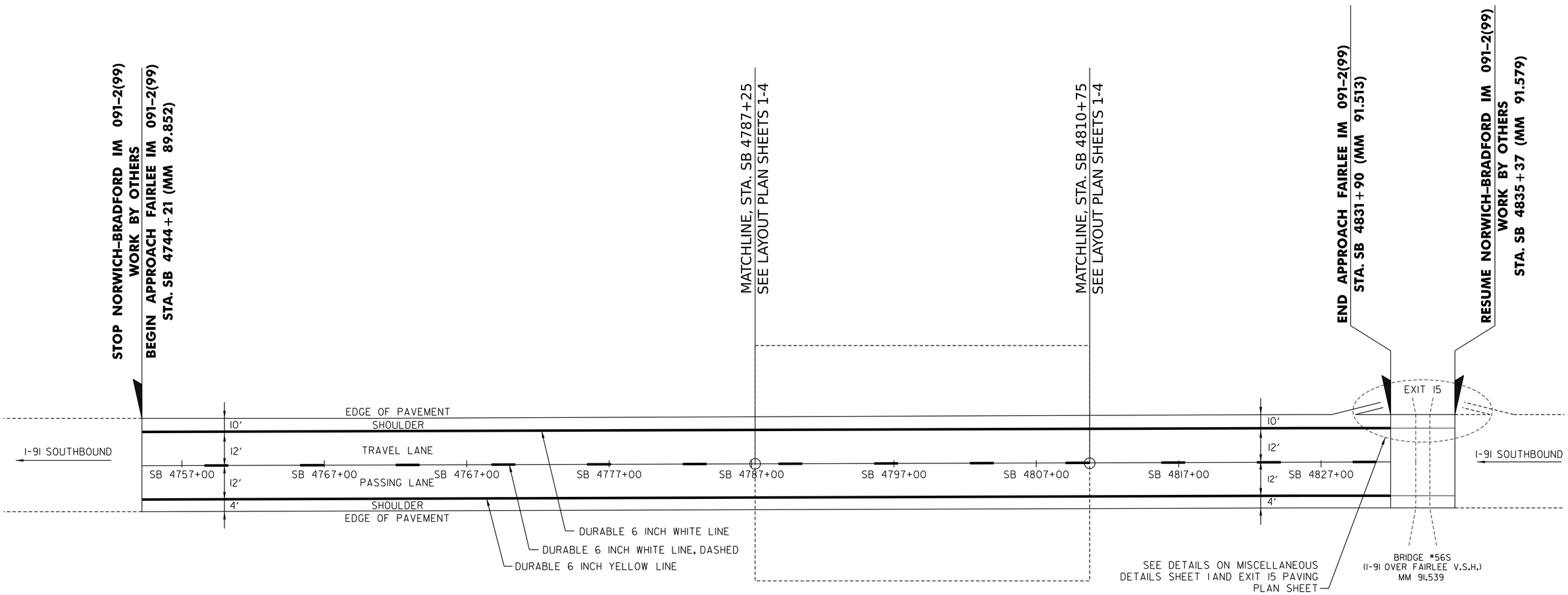
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024ti.dgn
PROJECT LEADER:
DESIGNED BY:
TIE SHEET

PLOT DATE: 13-MAR-2026
DRAWN BY: M. BACKMAN
CHECKED BY:A. McQUEENEY
SHEET 18 OF 161

DURABLE 6 INCH WHITE LINE, (OPTION BID ITEM)
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4744+21 - SB 4831+90 (SOLID LT)
STA. SB 4744+21 - SB 4831+90 (DASHED)

DURABLE 6 INCH YELLOW LINE, (OPTION BID ITEM)
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4744+21 - SB 4831+90 (SOLID RT)



PAVING SCHEMATIC
NOT TO SCALE

Stantec

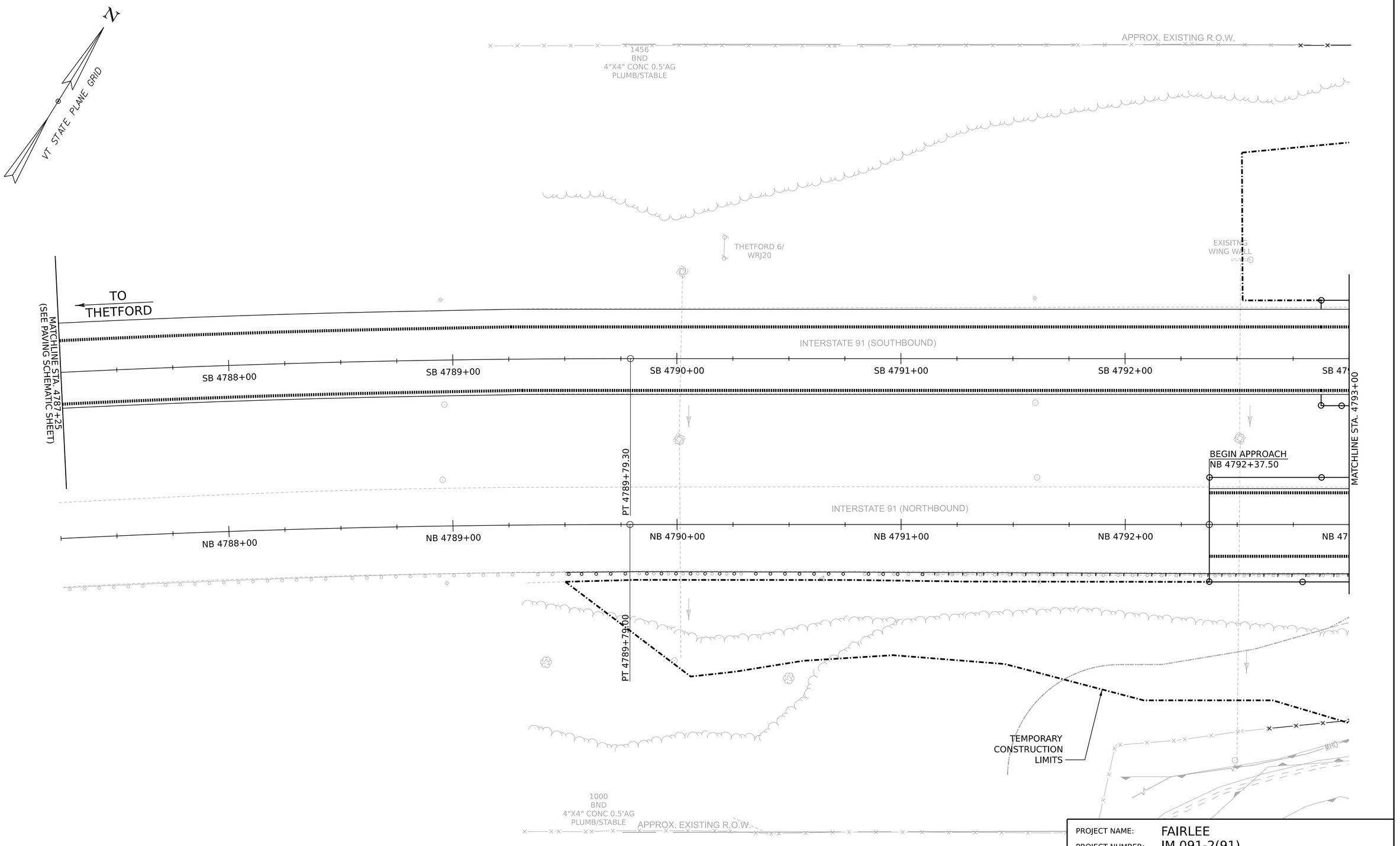
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_bdr_paving plan.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
PAVING SCHEMATIC SHEET	SHEET 19 OF 161

MILLED RUMBLE STRIPS, SHOULDER
STA. NB 4792+37.5 TO NB 4793+00.0, LT & RT
STA. SB 4787+25.0 TO SB 4793+00.0, LT & RT

REMOVAL OF EXISTING FENCE
STA. NB 4792+62.5 TO NB 4793+00.0, RT
STA. SB 4792+77.0 TO SB 4793+00.0, LT

WOVEN WIRE FENCE WITH STEEL POSTS
STA. NB 4792+62.5 TO NB 4793+00.0, RT
STA. SB 4792+77.0 TO SB 4793+00.0, LT

STEEL BRACE FOR WOVEN WIRE FENCE
STA. NB 4792+62.5, RT
STA. SB 4792+77.0, LT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_gen.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
LAYOUT PLAN SHEET 1

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 20 OF 161

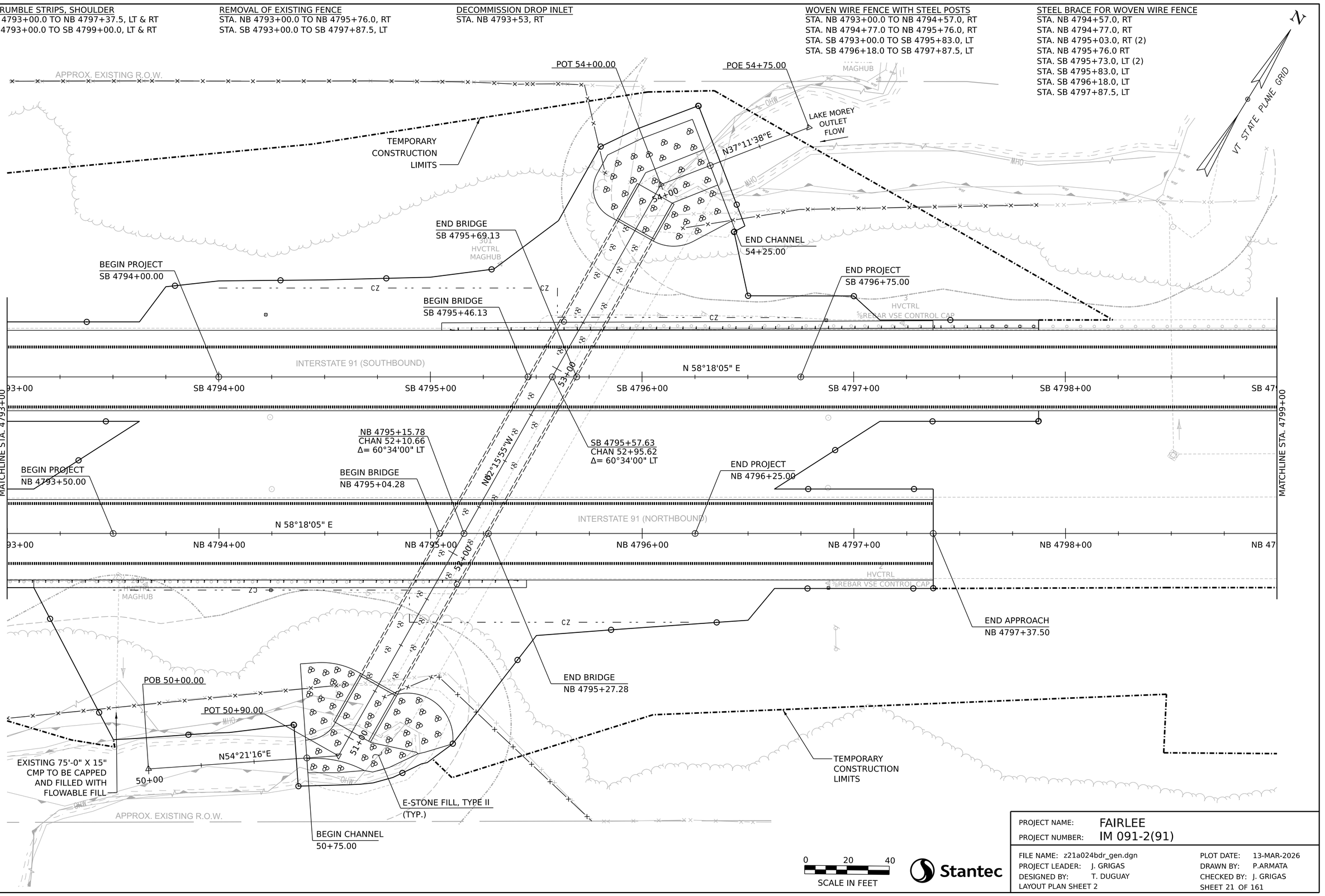
MILLED RUMBLE STRIPS, SHOULDER
STA. NB 4793+00.0 TO NB 4797+37.5, LT & RT
STA. SB 4793+00.0 TO SB 4799+00.0, LT & RT

REMOVAL OF EXISTING FENCE
STA. NB 4793+00.0 TO NB 4795+76.0, RT
STA. SB 4793+00.0 TO SB 4797+87.5, LT

DECOMMISSION DROP INLET
STA. NB 4793+53, RT

WOVEN WIRE FENCE WITH STEEL POSTS
STA. NB 4793+00.0 TO NB 4794+57.0, RT
STA. NB 4794+77.0 TO NB 4795+76.0, RT
STA. SB 4793+00.0 TO SB 4795+83.0, LT
STA. SB 4796+18.0 TO SB 4797+87.5, LT

STEEL BRACE FOR WOVEN WIRE FENCE
STA. NB 4794+57.0, RT
STA. NB 4794+77.0, RT
STA. NB 4795+03.0, RT (2)
STA. NB 4795+76.0 RT
STA. SB 4795+73.0, LT (2)
STA. SB 4795+83.0, LT
STA. SB 4796+18.0, LT
STA. SB 4797+87.5, LT

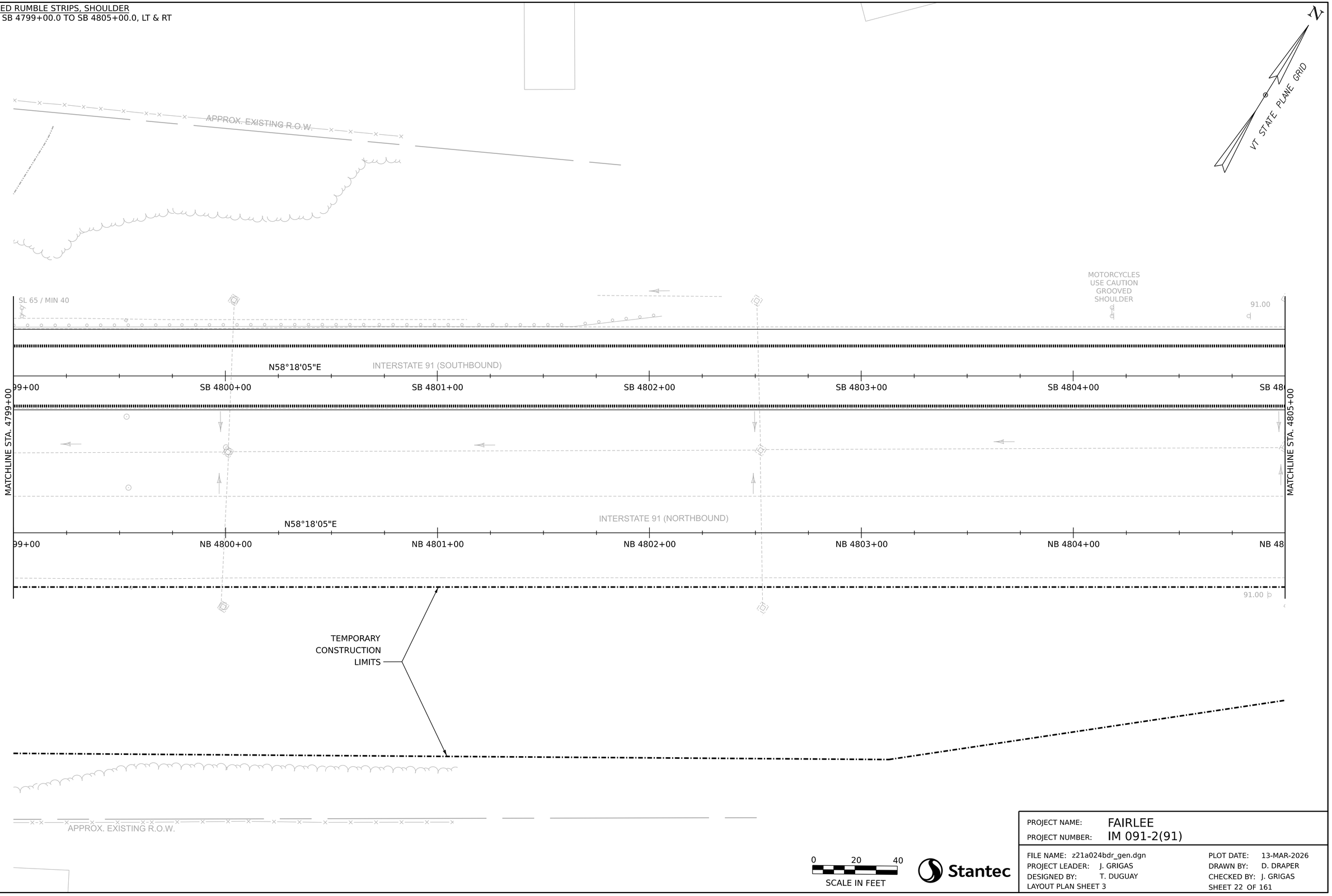


0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_gen.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: P.ARMATA
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
LAYOUT PLAN SHEET 2	SHEET 21 OF 161

MILLED RUMBLE STRIPS, SHOULDER
STA. SB 4799+00.0 TO SB 4805+00.0, LT & RT



0 20 40
SCALE IN FEET

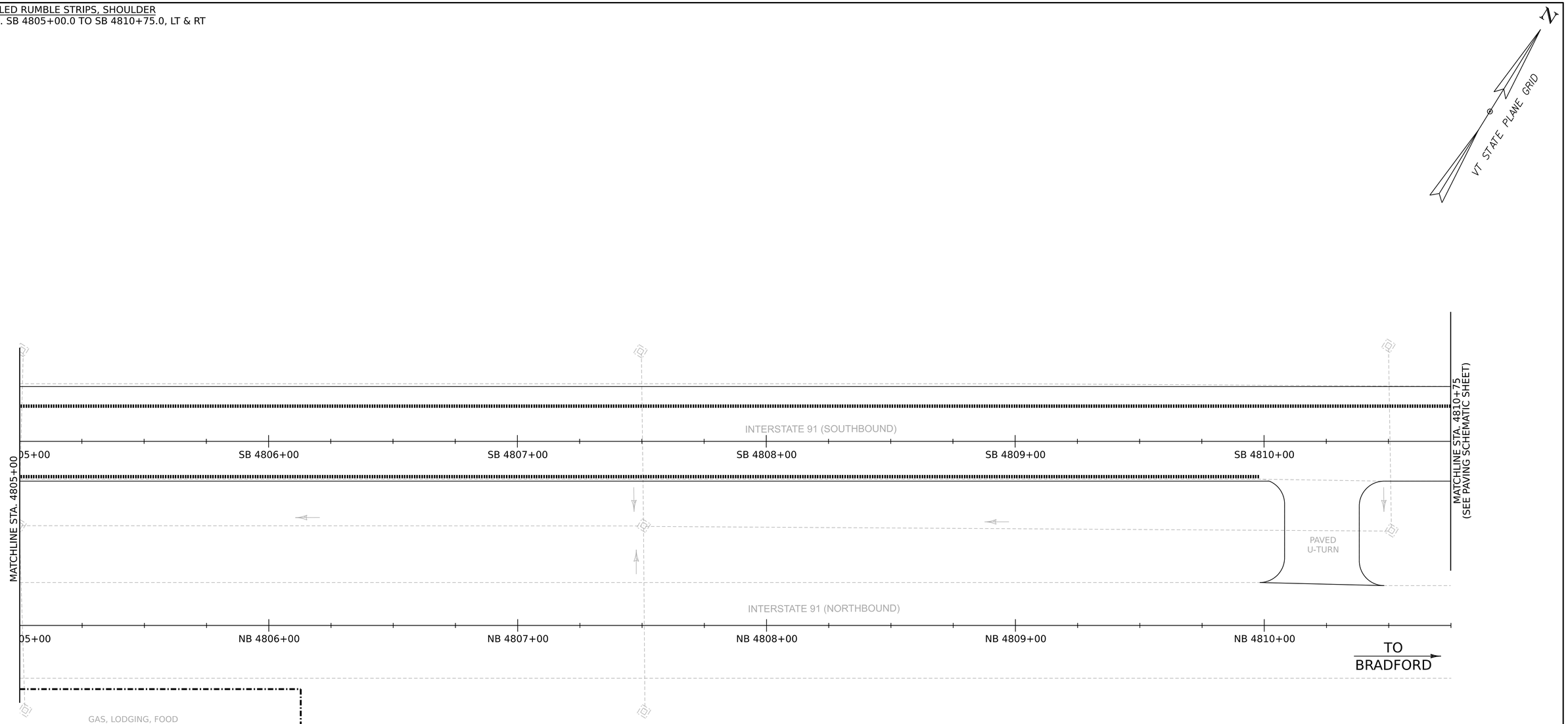
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME: z21a024bdr_gen.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
LAYOUT PLAN SHEET 3

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

MILLED RUMBLE STRIPS, SHOULDER
STA. SB 4805+00.0 TO SB 4810+75.0, LT & RT



0 20 40
SCALE IN FEET

Stantec

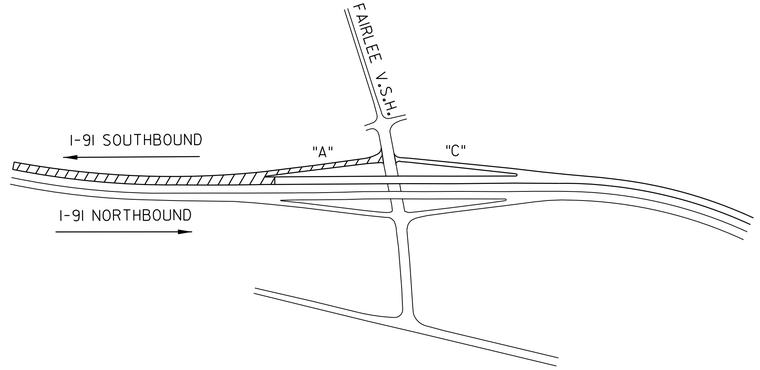
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

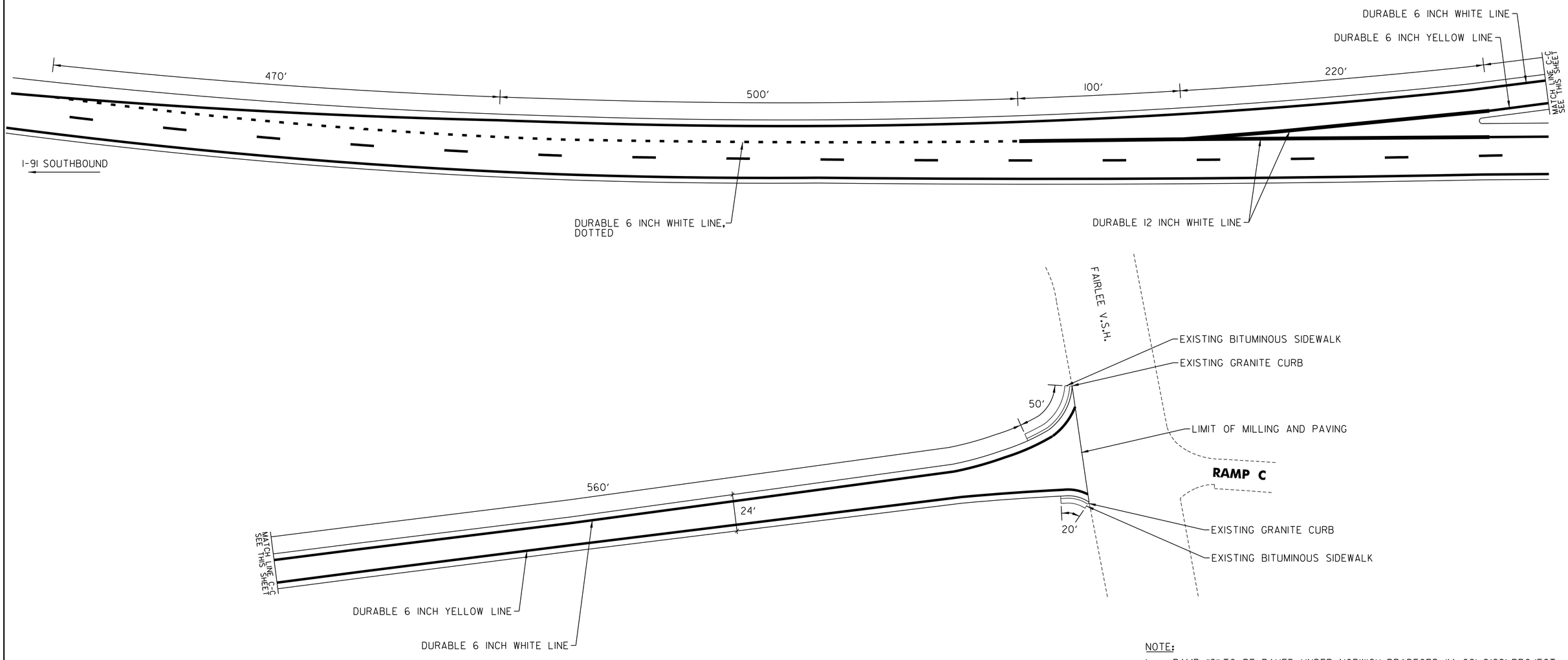
FILE NAME:	z21a024bdr_gen.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
LAYOUT PLAN SHEET 4		SHEET 23 OF 161	

DURABLE 6 INCH WHITE LINE, (OPTION BID ITEM)
TEMPORARY 6 INCH WHITE LINE, PAINT
EXIT 15
SOUTHBOUND ON RAMP A — SOLID RT EDGE LINE
SOUTHBOUND INTERSTATE 91 — DOTTED RT LANE LINE

DURABLE 6 INCH YELLOW LINE, (OPTION BID ITEM)
TEMPORARY 6 INCH YELLOW LINE, PAINT
EXIT 15
SOUTHBOUND ON RAMP A — SOLID LT EDGE LINE

DURABLE 12 INCH WHITE LINE, (OPTION BID ITEM)
TEMPORARY 12 INCH WHITE LINE, PAINT
EXIT 15
SOUTHBOUND ON RAMP A — SOLID LT GORE AREA



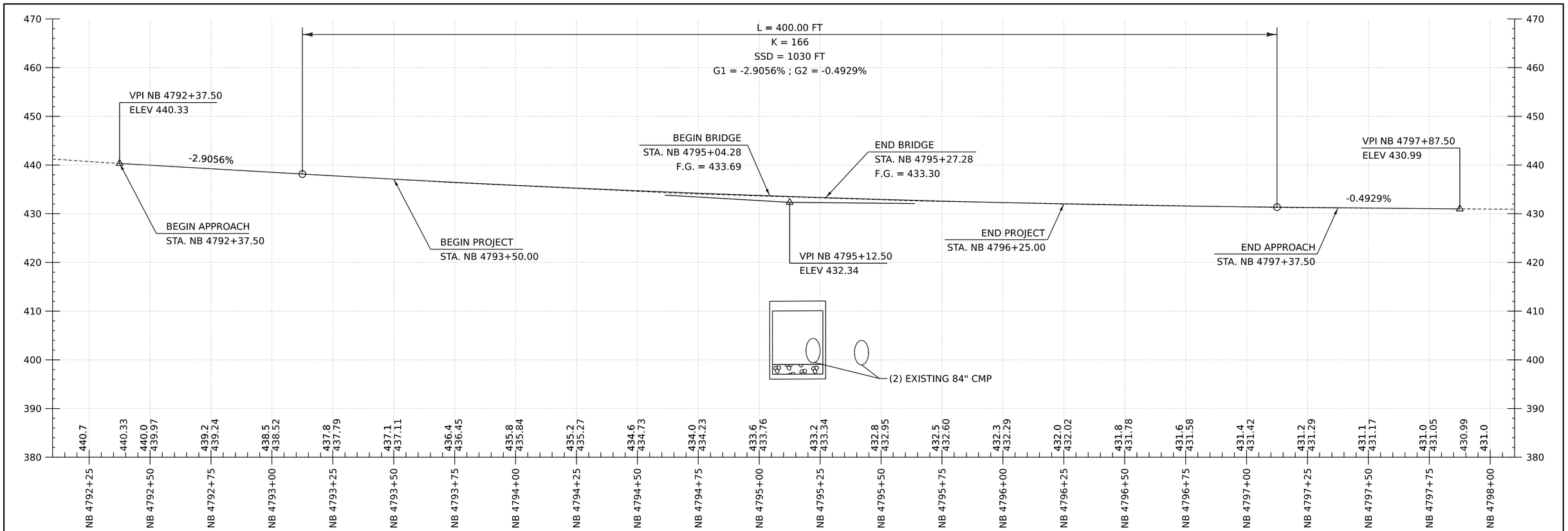


NOTE:
1. RAMP "C" TO BE PAVED UNDER NORWICH-BRADFORD IM 091-2(99) PROJECT.

NOT TO SCALE

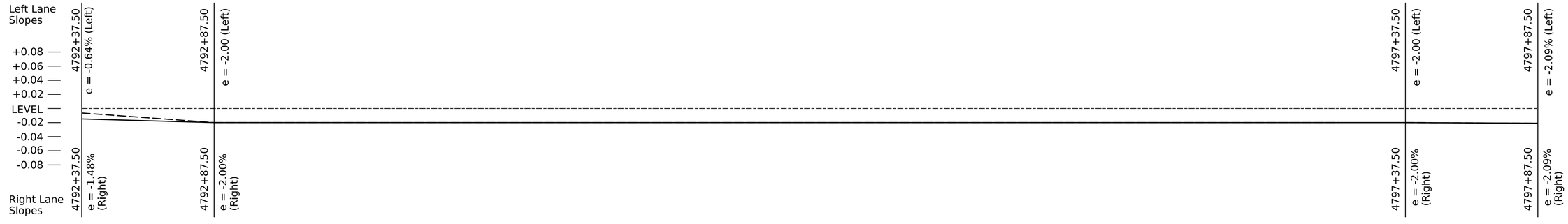
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_bdr_paving plan.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
EXIT 15 PAVING PLAN	SHEET 24 OF 161



I-91 NORTHBOUND PROPOSED PROFILE

SCALE:1"=20' H
1"=10' V



I-91 NORTHBOUND PROPOSED BANKING DIAGRAM

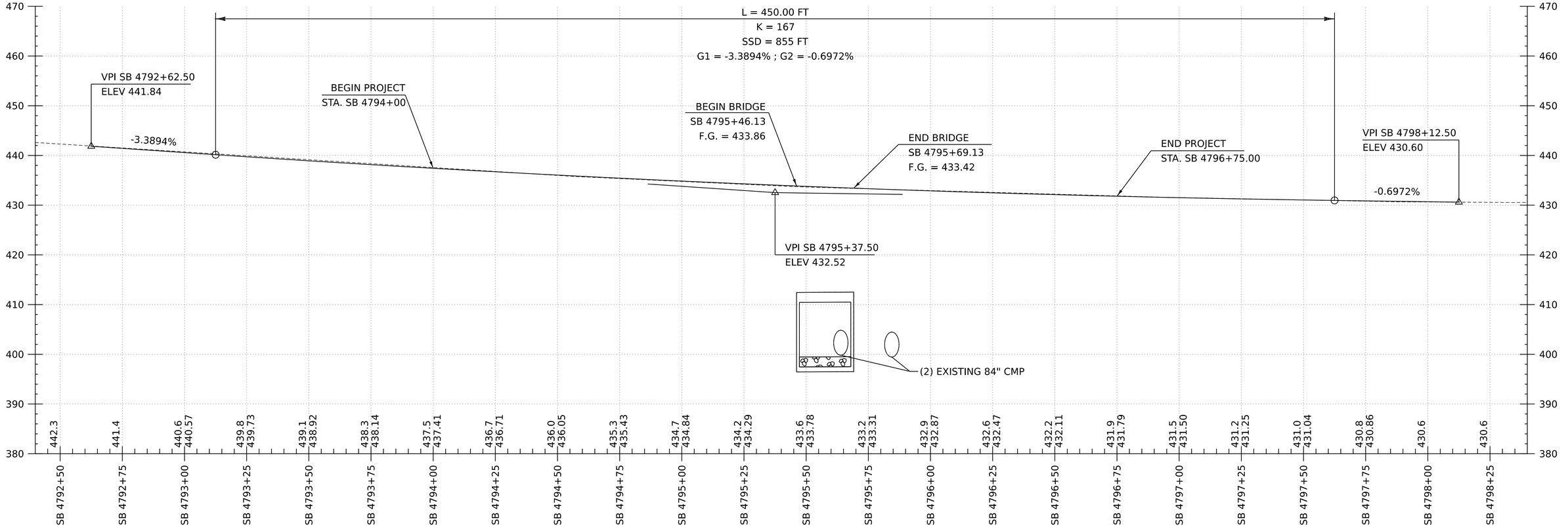
SCALE:1"=20' H

NOTES:
1. THE GRADES SHOWN TO THE TENTH ARE THE EXISTING GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

2. THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

Stantec

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_pro_I91_NB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	T. DUGUAY
DESIGNED BY:	T. DUGUAY	CHECKED BY:	I. MAYNARD
NB PROFILE SHEET		SHEET	25 OF 161



I-91 SOUTHBOUND PROPOSED PROFILE

SCALE:1"=20' H
1"=10' V



I-91 SOUTHBOUND PROPOSED BANKING DIAGRAM

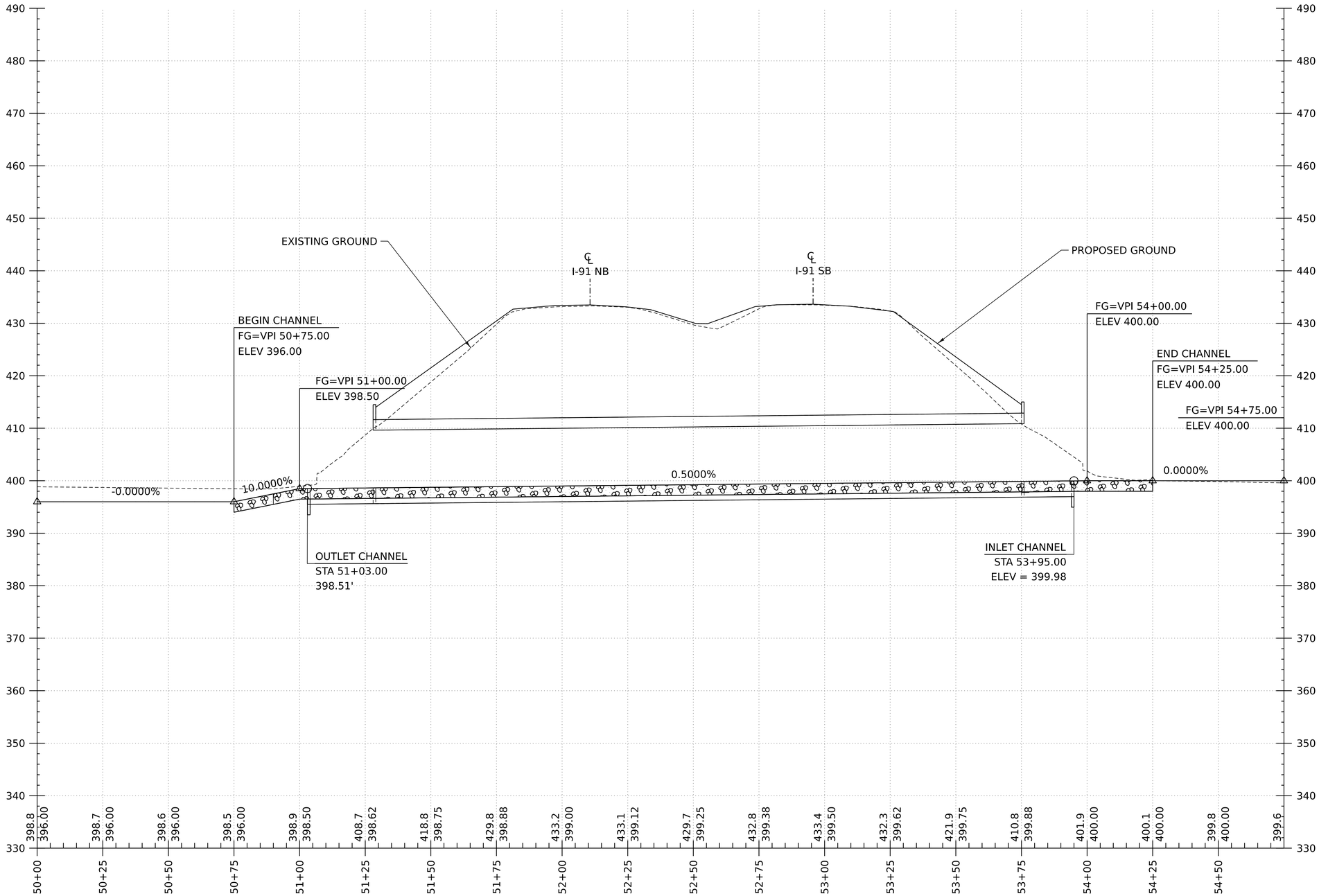
SCALE:1"=20' H

NOTES:

1. THE GRADES SHOWN TO THE TENTH ARE THE EXISTING GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.
2. THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_pro_I91_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
SB PROFILE SHEET	SHEET 26 OF 161



NOTES:

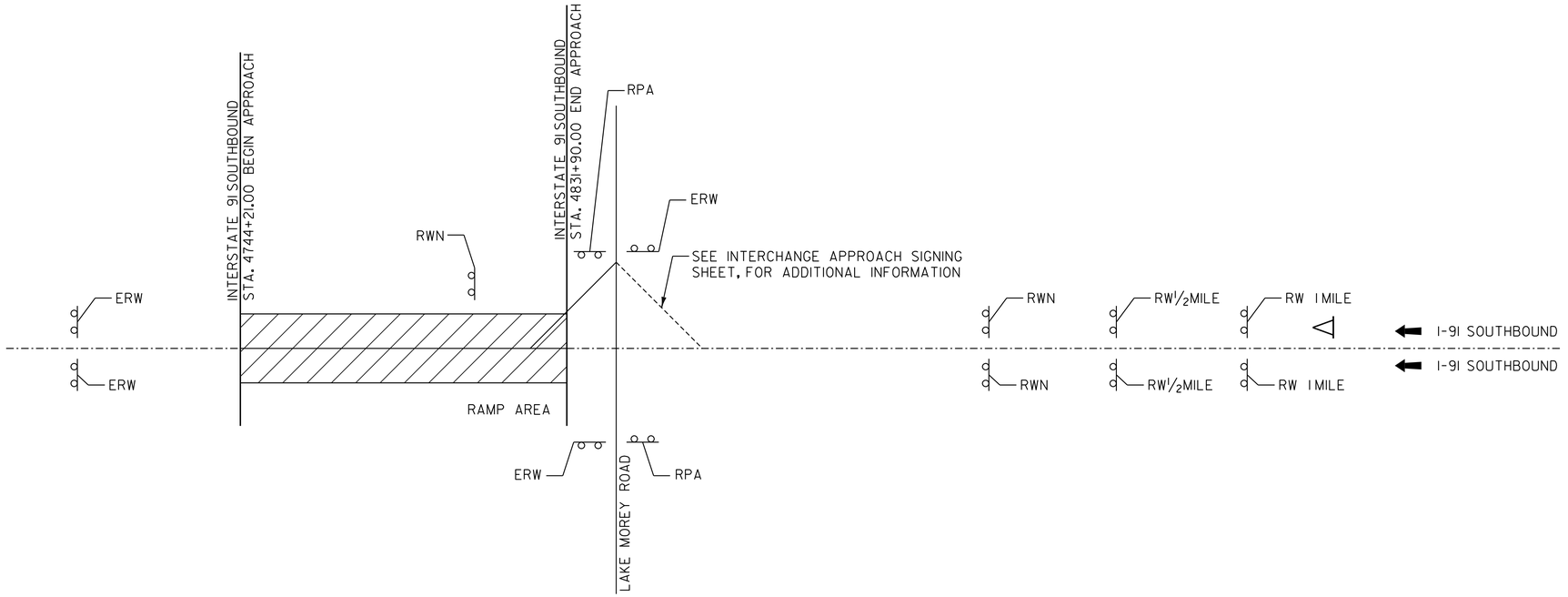
1. THE GRADES SHOWN TO THE TENTH ARE THE EXISTING GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.
2. THE GRADES SHOWN THE NEAREST HUNDREDTH ARE THE FINISH GRADES ALONG THE PROPOSED ALIGNMENT.
3. THE PROPOSED CHANNEL AT STA 50+75.00 SHALL BE CUT TO BE 2'-6" LOWER THAN THE EXISTING CHANNEL. THIS AREA WILL BE FILLED THROUGH NATURAL SEDIMENTATION.
4. BAFFLES NOT SHOWN FOR CLARITY.

PROPOSED CULVERT PROFILE

SCALE:1"=20' H
1"=10' V

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_alg_culv.dgn	PLOT DATE: 3/13/2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
CULVERT PROFILE SHEET	SHEET 27 OF 161



TRAFFIC CONTROL NOTES

1. EXISTING SIGNS AND MARKINGS SHALL BE VALID UNTIL SUCH TIME AS THEY ARE REPLACED OR RECONSTRUCTED.

2. CONSTRUCTION ZONE SIGN LAYOUT SHALL BE IN ACCORDANCE WITH SECTION 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND VERMONT STATE STANDARDS.

3. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PROVIDED FOR USE ALONG THIS PROJECT AND ARE TO BE USED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL POSITION PORTABLE CHANGEABLE MESSAGE SIGNS WARNING MOTORISTS OF THE EXPECTED ROADWAY CONDITIONS AHEAD. THE MESSAGE TO BE DISPLAYED SHALL BE SUBMITTED TO THE ENGINEER IN ADVANCE FOR APPROVAL. MESSAGES SHOULD AVOID REPEATING THOSE COVERED BY STATIC SIGNS AND SHOULD BE UPDATED PERIODICALLY TO DESCRIBE THE WORK ACTIVITY OCCURRING SO THAT THE PCMS CONTINUES TO COMMAND THE ATTENTION OF MOTORISTS. THE COST FOR PROVIDING THESE MESSAGE SIGNS SHALL BE PAID UNDER ITEM 641.1500 PORTABLE CHANGEABLE MESSAGE SIGN.

4. INSTALLATION OF THE PCMS NETWORK SHALL BE DONE SEVEN CALENDAR DAYS BEFORE WORK MAY BEGIN. ELEMENTS OF THE PLAN SHALL INCLUDE BUT WILL NOT BE LIMITED TO THE LOCATION OF PCMS AND ASSOCIATED MESSAGES, ANY OTHER NECESSARY SIGNAGE, LOCATIONS FOR DEPLOYMENT OF UNIFORMED TRAFFIC OFFICERS AND FLAGGERS, AND SEQUENCING AND DURATION OF CLOSURE FOR EACH RAMP WITHIN THE RESPECTIVE INTERCHANGE. NO MORE THAN ONE INTERCHANGE PER WORK PERIOD MAY HAVE RAMP CLOSURES. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE. A TEMPORARY DETOUR PLAN SHALL BE CONSIDERED FOR ANY CLOSURE GREATER THAN THREE DAYS IN DURATION.

5. CONSTRUCTION SIGNS SHALL BE IN NEW OR LIKE NEW CONDITION PER VTRANS STANDARDS. REFER TO VTRANS STANDARDS, SPECIAL PROVISIONS, THE SHSM HANDBOOK, AND THE MUTCD FOR TEMPORARY TRAFFIC CONTROL SIGN DIMENSIONS AND COLORS.

6. NO CONSTRUCTION SIGNS SHALL BE INSTALLED SO TO INTERFERE WITH OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCES, OR CORNER SIGHT DISTANCES FROM DRIVES AND INTERSECTING HIGHWAYS.

7. ALL PERMANENT SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED, THE PAYMENT FOR WHICH WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE. THE SIGN COVERING SHALL NOT DAMAGE THE RETRO REFLECTIVITY OF THE SIGN FACE AND THE SIGN COVER SHALL NOT BE ALLOWED TO DETERIORATE FOR THE DURATION THAT THE SIGN NEEDS COVERING.

8. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VTRANS STANDARDS. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE. ADD G20-5ap "WORK ZONE" PLAQUE AND R2-6ap "FINES DOUBLED" PLAQUE TO SPEED LIMIT SIGNS. OMIT VR-355 "FINES DOUBLED FOR SPEEDING IN WORK ZONE" SIGN. IF LANE CLOSURES ARE USED, THEY SHOULD NOT EXCEED THREE MILES AT ANY GIVEN PERIOD OF TIME.

9. EXISTING SPEED LIMIT SIGNS SHALL BE COVERED WHEN REDUCED SPEED SIGNS ARE POSTED. KEEP RECORDS WHEN POSTING THE WORK ZONE SPEED LIMIT FOR LEGAL PURPOSES DOCUMENTING DATES, TIMES AND LOCATIONS OF SIGNS. WHEN WORK ZONE SPEED LIMIT IS NOT IN USE, ALL ASSOCIATED SIGNS SHALL BE COVERED, TURNED, OR LAID FLAT SO THAT THE MOTORING PUBLIC CANNOT READ THESE SIGNS.

10. IF FLAGGERS ARE TO BE USED ON RAMPS, ADDITIONAL ADVANCE WARNING CONSTRUCTION SIGNS (FLAGGER SYMBOL, BE PREPARED TO STOP, ETC.) SHALL BE REQUIRED. AS THE PAVING OPERATION MOVES, FLAGGER SIGNS SHALL BE MOVED ACCORDINGLY. FLAGGER SIGNS SHALL BE COVERED OR TURNED AWAY FROM TRAFFIC WHEN FLAGGING OPERATIONS CEASE FOR LONGER THAN 30 MINUTES.

11. THE CONTRACTOR SHALL PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES AT ALL TIMES OR COORDINATE EMERGENCY ROUTES PRIOR TO THE START OF CONSTRUCTION.

12. IF LANE WIDTHS ARE REDUCED TO LESS THAN 11 FEET FOR ANY UNFORSEEN REASON, THE DMV SHALL BE NOTIFIED TO REROUTE SUPER LOADS PERMITS. IT SHOULD BE NOTED THAT ONCE A PERMIT IS ISSUED, THE APPLICANT/HAULER HAS 10 DAYS TO MOVE THEIR LOAD. THIS REQUIRES ADDITIONAL NOTICE TIME TO CAPTURE THAT 10-DAY WINDOW. WITH THE NARROWING OF LANES TO LESS THAN 11 FEET IT IS RECOMMENDED THAT FLAGGER PERSONNEL HOLD RIDERS TO THE END OF THE QUEUE, SO THEY ARE NOT COMPETING FOR LANE SPACE TO ENSURE THEIR SAFETY.

13. WHEN MILLED BITUMINOUS PAVEMENT IS OPEN TO TRAFFIC, A "MOTORCYCLES USE CAUTION" SIGN, AS PER VTRANS STANDARD T-17, SHALL BE PROVIDED.

14. IF LONGITUDINAL DROP-OFFS ARE TO BE LEFT DURING THE OVERNIGHT HOURS, THEY SHALL BE CONSTRUCTED USING THE HSD-400.01 SAFETY EDGE DETAIL AND CONFORM TO VTRANS STANDARD T-36.

15. THE TEMPORARY SPEED LIMIT SHALL BE CLEARLY IDENTIFIED ON RAMP APPROACHES BEFORE MOTORISTS ENTER MAINLINE TRAFFIC FLOW.

16. IN ADVANCE OF ANY PROPOSED INTERCHANGE RAMP CLOSURES, THE CONTRACTOR SHALL SUBMIT A PLAN THAT WILL DEPICT HOW ADVANCED WARNING TO THE TRAVELLING PUBLIC WILL BE ACCOMODATED DURING THE CLOSURE. ADVANCED WARNING SHALL BE DEFINED AS PROVIDING ADVANCED WARNING SIGNS, BOTH STATIC AND PCMS, THAT PROVIDE INFORMATION FOR MOTORISTS TO SAFELY UTILIZE THE REGIONALLY ACCEPTABLE OPPORTUNITIES FOR SEEKING AN ALTERNATIVE ROUTE PRIOR TO APPROACHING THE INTERCHANGE INVOLVING RAMP CLOSURES. THE PLAN WILL NEED TO BE SUBMITTED FOR REVIEW IN ACCORDANCE WITH SECTION 105.

LEGEND

RW ½MILE	=	ROAD WORK IN ½ MILE
RW 1MILE	=	ROAD WORK IN 1MILE
RWN	=	ROAD WORK NEXT (XX MILES)
RWA	=	ROAD WORK AHEAD
RPA	=	RAMP PAVING AHEAD
ERW	=	END ROAD WORK
SRWA	=	SIDE ROAD WORK AHEAD
RW500	=	ROAD WORK 500 FEET
RW1000	=	ROAD WORK 1000 FEET
SRW500	=	SIDE ROAD WORK 500 FEET
△	=	PORTABLE CHANGEABLE MESSAGE SIGN
▨	=	WORK AREA
⬅	=	DIRECTION OF TRAFFIC FLOW

Stantec

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME: z21a024_bdr_cas plan.dgn		PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	J. GRIGAS	CHECKED BY:	J. GRIGAS
CONSTRUCTION APPROACH SIGNING SHEET 1		SHEET	28 OF 161

PEDESTRIAN TEMPORARY TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) FOR REVIEW AND WRITTEN APPROVAL BY THE AGENCY AS PER SUBSECTION 105.06. THIS PLAN SHALL DETAIL THE CONSTRUCTION PHASING AND SCHEDULE AND THE SPECIFIC METHODS OF MAINTAINING SAFE PEDESTRIAN ACCESS THROUGHOUT THE CONSTRUCTION AREA. THIS PLAN SHALL PROVIDE THE LOCATION AND DETAILS OF TEMPORARY CONSTRUCTION SIGNING, MARKINGS, BARRICADES, CHANNELIZING DEVICES, TPARS AND METHODS TO MAINTAIN ACCESS TO ADJACENT PROPERTIES, BUSINESSES, RESIDENCES, ETC.

2. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN THROUGH MOVEMENTS FROM ONE END OF THE CONSTRUCTION AREA TO THE OTHER, ON AT LEAST ONE SIDE OF THE STREET DURING CONSTRUCTION. ANY SIDEWALK CLOSURES SHALL MEET THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), PART 6.

3. PEDESTRIAN ACCESS SHALL BE PROVIDED TO ALL ADJACENT PROPERTIES, BUILDINGS, RESIDENCES, COMMERCIAL PROPERTIES AND TRANSIT STOPS. THIS MAY INCLUDE TEMPORARY WALKWAYS SPANNING THE CONSTRUCTION AREA.

4. IF SIDEWALKS ARE CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED ON THE SAME SIDE OF THE ROAD AS THE CLOSED SIDEWALK, IF POSSIBLE. SIGNS AND BARRICADES SHALL BE USED TO PROVIDE ADVANCE NOTICE OF THE CLOSURE AND THE ROUTE OF ANY PEDESTRIAN DETOURS. THE TPAR SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4 FEET. IF THE TPAR IS LESS THAN 5 FEET IN WIDTH, A 5 FOOT BY 5 FOOT PASSING SPACE MUST BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL BE FIRM, STABLE AND SLIP-RESISTANT AND CONTINUOUS WITH A MINIMUM 80 INCHES OVERHEAD CLEARANCE FOR THE LENGTH OF THE TPAR. THE TPAR SHALL MAINTAIN THE SAME LEVEL OF ACCESSIBILITY AND DETECTABILITY AS THE FACILITY THAT IS BEING CLOSED. THE TPAR SHALL NOT LEAD PEDESTRIANS INTO CONFLICTS WITH VEHICLES, EQUIPMENT, OR CONSTRUCTION OPERATIONS.

5. WHEN TEMPORARY CROSSWALKS ARE UTILIZED FOR THE TPAR, TEMPORARY DETECTABLE WARNINGS SHALL BE PLACED AT EACH END OF THE TEMPORARY CROSSWALKS. THE TEMPORARY CROSSWALK SHALL BE DELINEATED WITH TEMPORARY PAVEMENT MARKINGS OR TAPE. THE MARKINGS SHALL BE PARALLEL 12-INCH-WIDE WHITE LINES PLACED 7 FEET ON CENTER APART. IT SHOULD BE NOTED THAT CURB PARKING SHALL BE PROHIBITED FOR AT LEAST 20 FEET IN ADVANCE OF MIDBLOCK CROSSWALKS. TEMPORARY CROSSWALK SIGNS SHALL BE PROVIDED FOR THE CROSSWALK.

6. IF THERE IS WORK OCCURRING OVER AN OPEN SIDEWALK, PROTECTIVE OVERHEAD COVERING MUST BE PROVIDED AS NECESSARY TO ENSURE PROTECTION FROM FALLING OBJECTS AND DRIPPING FROM OVERHEAD STRUCTURES. COVERED WALKWAYS SHALL BE STURDILY CONSTRUCTED AND ADEQUATELY LIGHTED FOR NIGHTTIME USE.

7. PEDESTRIAN CHANNELIZING DEVICES SHALL INCLUDE CONTINUOUSLY DETECTABLE BOTTOM AND TOP EDGE THROUGHOUT THE LENGTH OF THE FACILITY SUCH THAT IT CAN BE FOLLOWED BY PEDESTRIANS USING LONG CANES FOR GUIDANCE. CHANNELIZING DEVICES ON BOTH SIDES OF THE TPAR SHALL INCLUDE A CONTINUOUS SOLID TOP AND BOTTOM RAILS. THE TOP EDGE OF THE TOP RAIL SHALL BE BETWEEN 32 INCHES AND 38 INCHES ABOVE THE GROUND LEVEL. THE BOTTOM RAIL SHALL BE AT LEAST 6 INCHES WIDE, WITH THE BOTTOM EDGE OF THE BOTTOM RAIL SURFACE NO HIGHER THAN 2 INCHES ABOVE THE GROUND.

8. IF THE TPAR IS ADJACENT TO MOVING TRAFFIC, CONSTRUCTION OPERATIONS/EQUIPMENT, OR DROPOFFS, THEN CRASHWORTHY CHANNELIZING DEVICES THAT MEET THE REQUIREMENTS OF THE MUTCD SHALL BE USED.

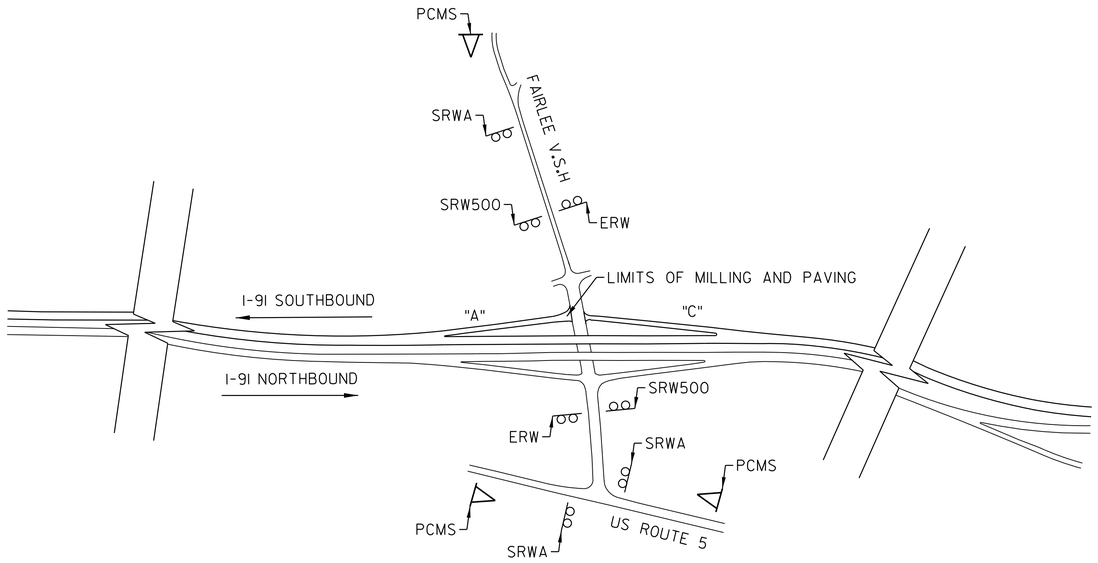
9. THE CONTRACTOR SHALL NOT STORE OR PLACE ANY CONSTRUCTION MATERIALS, EQUIPMENT OR SIGNS IN THE PEDESTRIAN PATH OF TRAVEL.

10. THE COST OF THE TPAR AND ALL ITS ELEMENTS, INCLUDING BUT NOT LIMITED TO SIGNS, CHANNELIZING DEVICES, BARRICADES, TEMPORARY CURB RAMPS, TEMPORARY PAVEMENT MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHALL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE.

11. THE CONTRACTOR SHALL REVIEW AND USE THE "VERMONT BICYCLE AND PEDESTRIAN WORK ZONE TRAFFIC CONTROL GUIDE," AVAILABLE ON VTRANS WEBSITE TO DESIGN AND IMPLEMENT TRAFFIC CONTROL FOR BICYCLE AND PEDESTRIAN INTO THEIR SITE-SPECIFIC TRAFFIC CONTROL PLAN FOR ALL STAGES OF CONSTRUCTION.

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_bdr_cas plan.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
CONSTRUCTION APPROACH SIGNING SHEET 2	SHEET 29 OF 161



INTERCHANGE 15

SEE STD. T-10, T-11, T-12, T-13, T-23, T-28, T-29, T-30 FOR SIGN PLACEMENT.

NOTES

1. ADDITIONAL RAMP SIGNING MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
2. SEE CONSTRUCTION APPROACH SIGNING SHEETS FOR CONSTRUCTION APPROACH SIGNING NOTES.
3. COORDINATE OVERLAPPING SIGN PACKAGES WITH CONCURRENT PROJECTS LISTED IN SPECIAL PROVISIONS.
4. WHEN FLAGGERS ARE USED ADDITIONAL APPROACH SIGNS WILL BE REQUIRED FOR RAMP WORK.

LEGEND

RW ½MILE	=	ROAD WORK IN ½ MILE
RW 1MILE	=	ROAD WORK IN 1MILE
RWN	=	ROAD WORK NEXT (XX MILES)
RWA	=	ROAD WORK AHEAD
RPA	=	RAMP PAVING AHEAD
ERW	=	END ROAD WORK
SRWA	=	SIDE ROAD WORK AHEAD
RW500	=	ROAD WORK 500 FEET
RW1000	=	ROAD WORK 1000 FEET
SRW500	=	SIDE ROAD WORK 500 FEET
△	=	PORTABLE CHANGEABLE MESSAGE SIGN

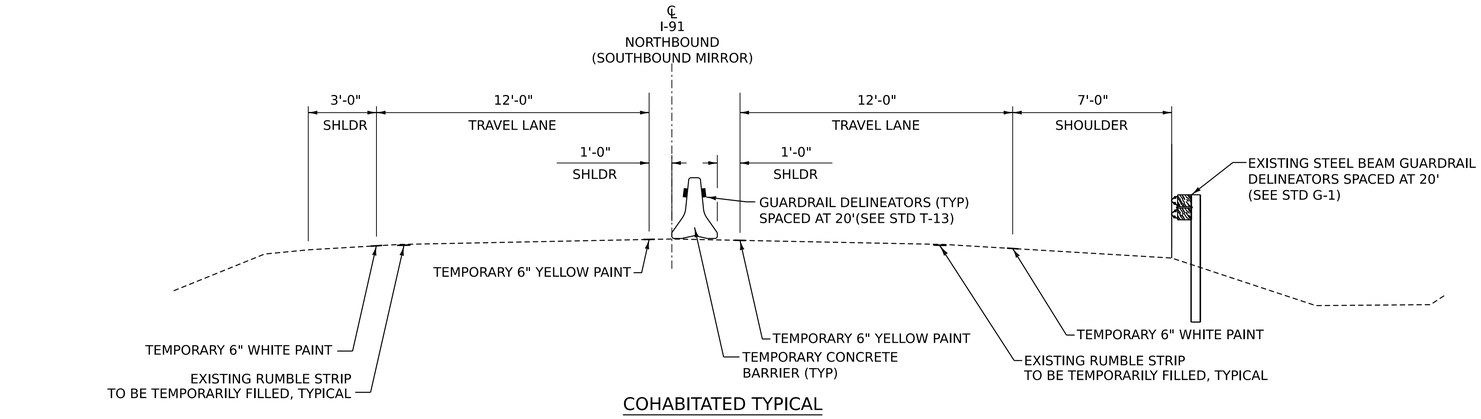
NOT TO SCALE

Stantec

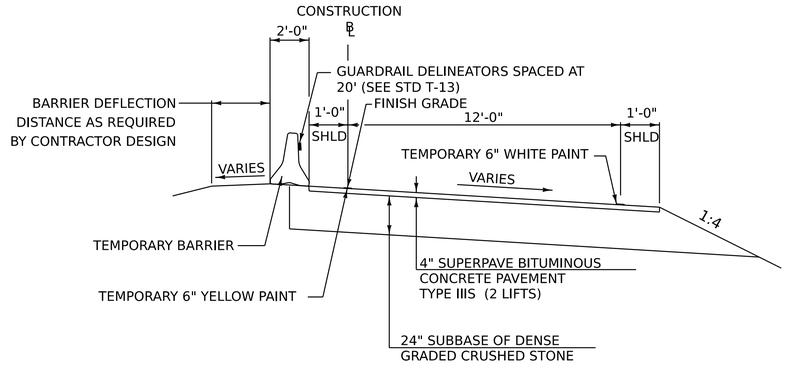
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024_bdr_cas plan.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

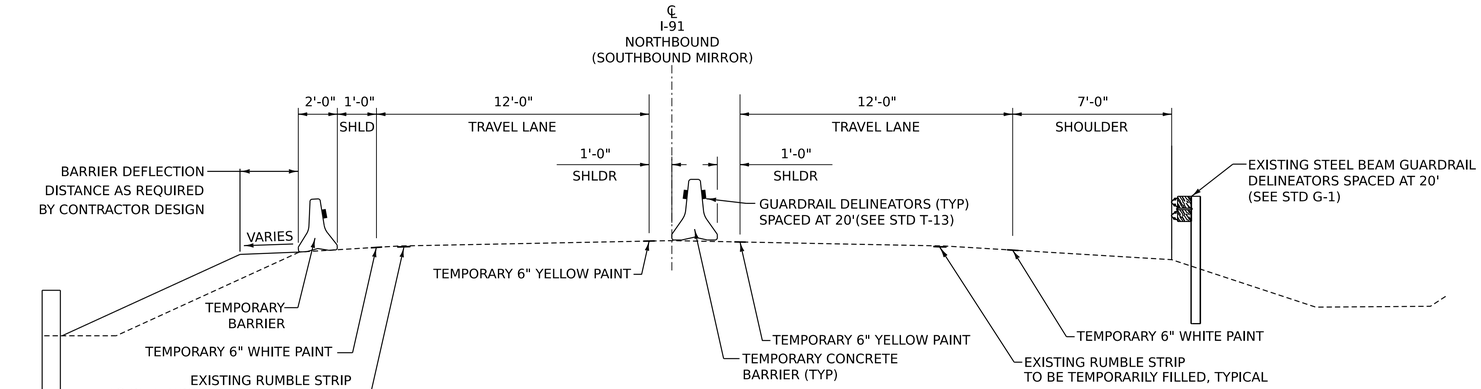
INTERCHANGE APPROACH SIGNING SHEET



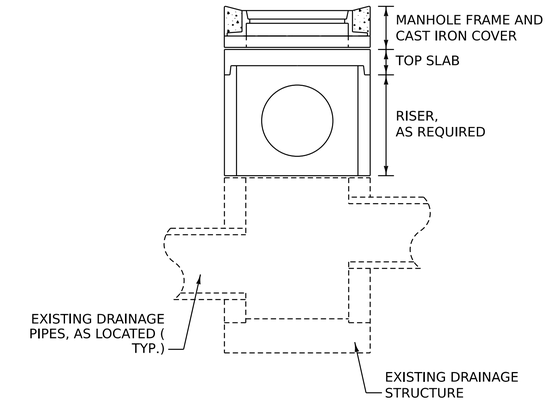
COHABITATED TYPICAL



MEDIAN CROSSOVER TYPICAL

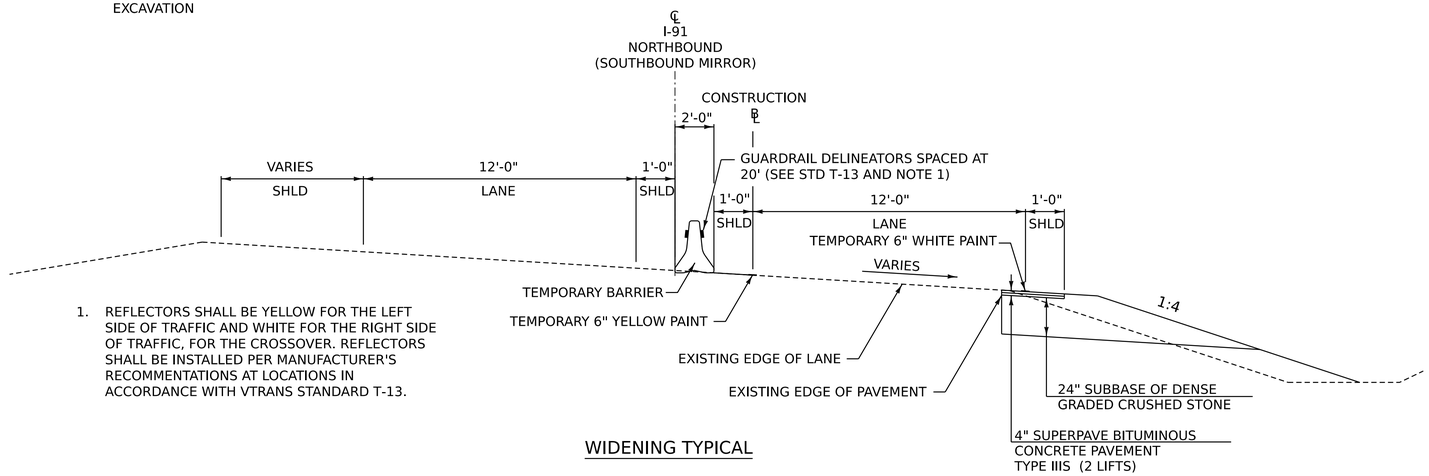


COHABITATED TYPICAL WITH BARRIER



NEW TEMPORARY DRAINAGE MANHOLE

NOT TO SCALE



1. REFLECTORS SHALL BE YELLOW FOR THE LEFT SIDE OF TRAFFIC AND WHITE FOR THE RIGHT SIDE OF TRAFFIC, FOR THE CROSSOVER. REFLECTORS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENTATIONS AT LOCATIONS IN ACCORDANCE WITH VTRANS STANDARD T-13.

WIDENING TYPICAL

TEMPORARY CROSSOVER TYPICAL SECTIONS

NOT TO SCALE

TEMPORARY DRAINAGE NOTES:

1. REFER TO VTRANS STANDARDS D-6, D-8, D-11 AND D-15 FOR ADDITIONAL DETAILS.
2. ALL DRAINAGE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 604 OF THE STANDARD SPECIFICATIONS.
3. ALL WORK ASSOCIATED WITH THE CONTROL OF DRAINAGE DURING CONSTRUCTION WILL BE PAID FOR UNDER ITEM 240.0100004 DIVIDED HIGHWAY CROSSOVER. THIS INCLUDES, BUT MAY NOT BE LIMITED TO ANY FIELD ENGINEERING AND ADJUSTING AS EXISTING CONDITIONS, OR CONSTRUCTION OPERATIONS MANDATE, PROPOSED DRAINAGE STRUCTURE, RISER(S), SLAB(S), FRAME(S), CAST IRON COVER(S), DRAINAGE PIPE(S), END SECTION(S), AND ANY REESTABLISHMENT OF EXISTING CONDITIONS AFTER THE TEMPORARY DRAINAGE IS NO LONGER REQUIRED, AS DETERMINED BY THE ENGINEER.
4. AT THE TIME THE ENGINEER DETERMINES THE TEMPORARY DRAINAGE IS NO LONGER REQUIRED, THE CONTRACTOR SHALL REMOVE ALL NEW PIPES, RISERS, FRAMES, COVERS, ETC, AND REHABILITATE THE EXISTING DRAINAGE STRUCTURE. REHABILITATION OF THE EXISTING DRAINAGE STRUCTURE WILL BE PAID FOR UNDER ITEM 240.0100004 DIVIDED HIGHWAY CROSSOVER.
5. CONTRACTOR SHALL FIELD VERIFY ALL DRAINAGE STRUCTURE LOCATIONS AND ELEVATIONS PRIOR TO ORDERING AND PRECASTING ANY NEW DRAINAGE APPURTENANCES.
6. ALL JOINTS SHALL BE WATERTIGHT.
7. FITTING FRAME TO FINAL GRADE ADJUSTMENTS (12" MAXIMUM) MAY BE COMPLETED WITH GRADE RINGS OR BUILDING BRICK.
8. NO EXISTING DRAINAGE PIPES SHALL BE AFFECTED BY THE CONSTRUCTION OF ANY RISER. SHOULD THE EXISTING STRUCTURE BE AFFECTED AT THE FAULT OF THE CONTRACTOR, THE REPAIR THE STRUCTURE, AS REQUIRED, AT NO ADDITIONAL COST TO THE PROJECT.

GENERAL TRAFFIC CONTROL NOTES:

1. THE EXISTING SPEED LIMIT ON I-91 IS 65 MPH. THE SPEED LIMIT WILL BE REDUCED TO 55 MPH DURING CROSSOVER UTILIZATION. ANY EXISTING SPEED LIMIT SIGNS WITHIN THE SPEED REDUCTION AREA SHALL BE COMPLETELY COVERED. SIGN COVERING SHALL NOT DAMAGE THE RETRO-REFLECTIVITY OF THE SIGN FACE. THE SIGN COVER SHALL BE A MATERIAL THAT WILL NOT DETERIORATE FOR THE DURATION THAT THE SIGN IS COVERED. ALL OTHER EXISTING SIGNS IN CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL CONDITIONS SHALL BE REMOVED OR COMPLETELY COVERED. A RESUMED SPEED LIMIT SHALL BE POSTED AT THE END OF THE WORK ZONE.

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024typ.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	G. BURGMEIER
DESIGNED BY:	G. BURGMEIER	CHECKED BY:	I. MAYNARD
TRAFFIC CONTROL NOTES AND TYPICALS		SHEET	31 OF 161

LEGEND

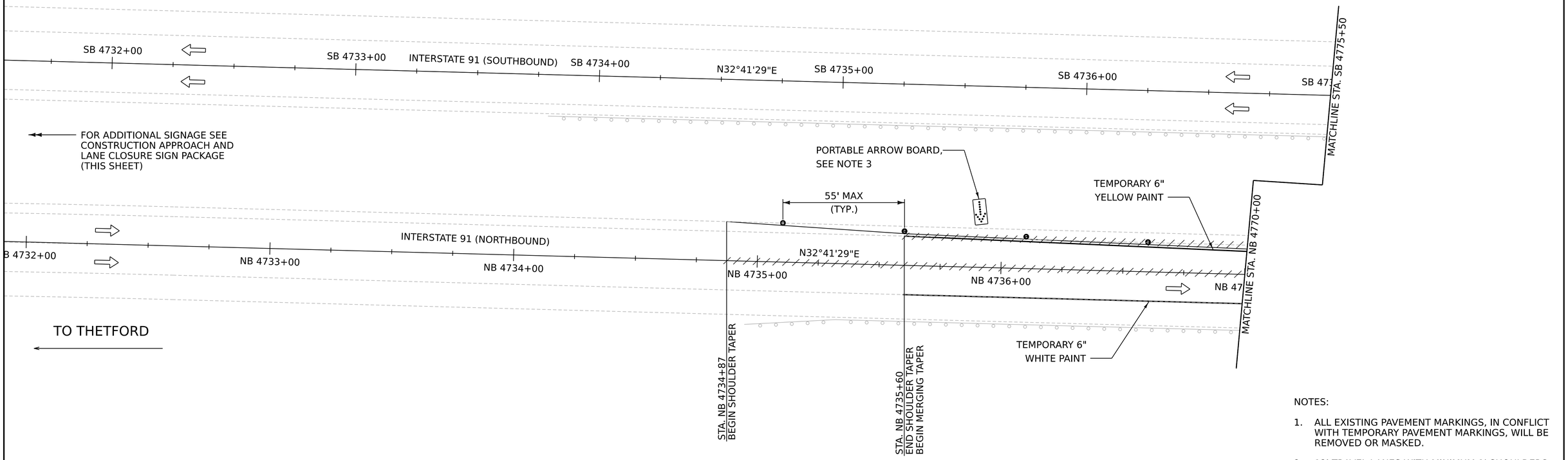
- PLASTIC DRUM
- DIRECTION OF TRAFFIC
- TRAFFIC DELINEATOR (YELLOW)
- TRAFFIC DELINEATOR (WHITE)
- PORTABLE ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- TYPE III BARRACADE WITH ROAD CLOSED SIGN
- TYPE III BARRACADE
- TEMPORARY TRAFFIC BARRIER
- REMOVAL OR MASKING OF EXISTING PAVEMENT MARKINGS
- ENERGY ABSORBTION ATTENUATOR

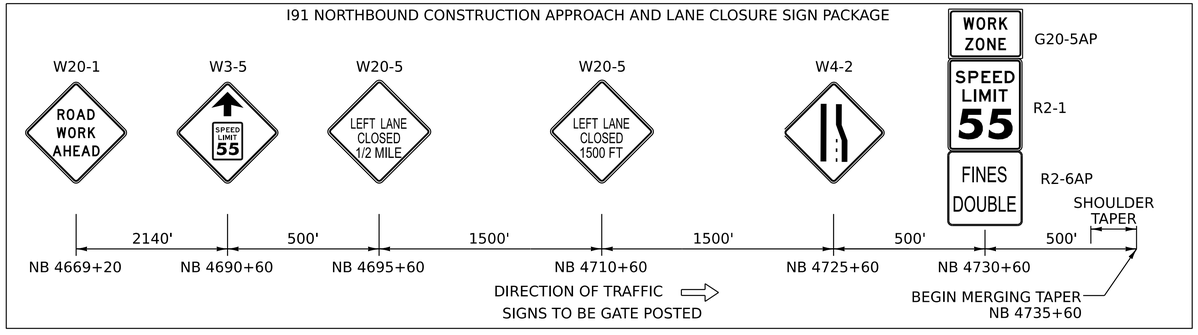
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4735+60 TO STA. NB 4737+00, LT

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4735+60 TO STA. NB 4737+00, RT

PAVEMENT MARKING MASK
STA. NB 4734+87 TO STA. NB 4737+00, DASHED CL
STA. NB 4735+60 TO STA. NB 4737+00, SOLID LT

VT STATE PLANE GRID





NOTES:

1. ALL EXISTING PAVEMENT MARKINGS, IN CONFLICT WITH TEMPORARY PAVEMENT MARKINGS, WILL BE REMOVED OR MASKED.
2. 12' TRAVEL LANES WITH MINIMUM 1' SHOULDERS.
3. PORTABLE ARROW BOARDS SHALL BE PLACED ON THE ON ROADWAY SHOULDER AS CLOSE TO BEGINNING OF TAPER AS PRACTICAL. PAYMENT FOR THE ARROW BOARD WILL BE MADE UNDER ITEM 641.1600 PORTABLE ARROW BOARD.
4. ADVANCED PORTABLE CHANGEABLE MESSAGE BOARD(S) SHALL BE INSTALLED IN ACCORDANCE WITH VTRANS STANDARD T-10. PAYMENT WILL BE UNDER ITEM 641.1500 PORTABLE CHANGEABLE MESSAGE SIGN.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

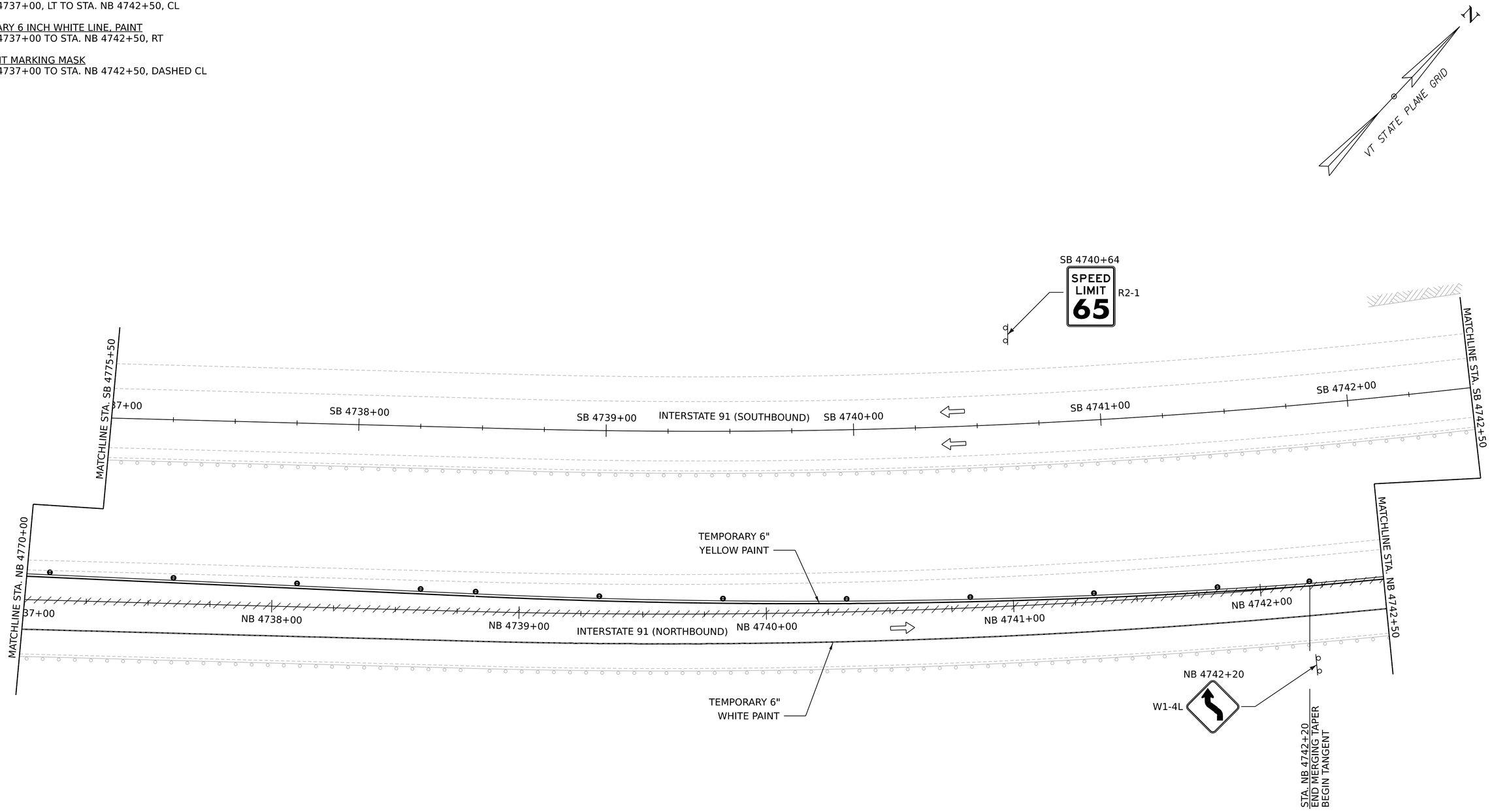
FILE NAME: z21a024bdr_tcp_NB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T.DUGUAY
CROSSOVER NB PLAN SHEET 1

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 32 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4737+00, LT TO STA. NB 4742+50, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4737+00 TO STA. NB 4742+50, RT

PAVEMENT MARKING MASK
STA. NB 4737+00 TO STA. NB 4742+50, DASHED CL



0 20 40
SCALE IN FEET

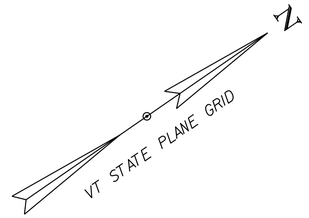
Stantec

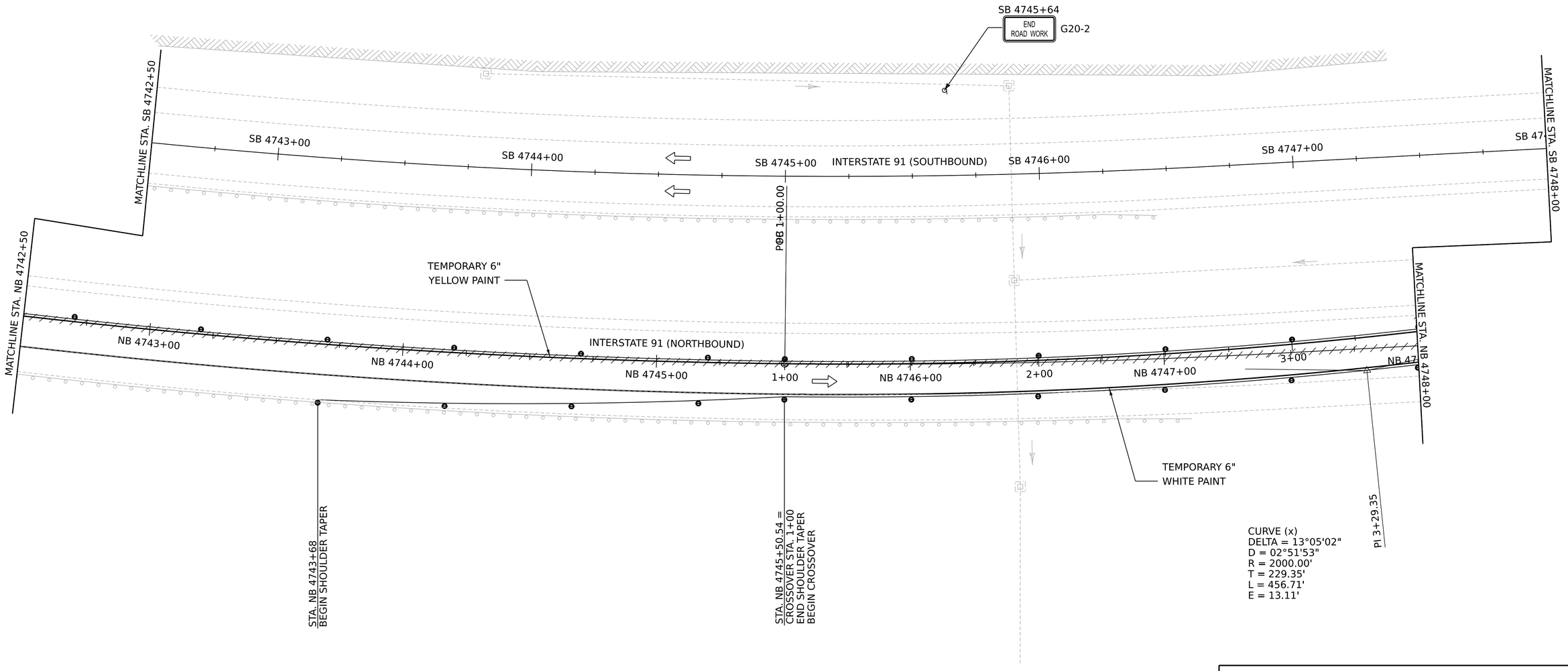
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER NB PLAN SHEET 2	SHEET 33 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4742+50 TO STA. NB 4745+51, CL
STA. 1+00 TO STA. 3+49, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4742+50 TO STA. NB 4745+51, RT
STA. 1+00 TO STA. 3+49, RT

PAVEMENT MARKING MASK
STA. NB 4742+50 TO STA. NB 4748+00, DASHED CL





0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER NB PLAN SHEET 3	SHEET 34 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. 3+49 TO STA. 9+32, CL
STA. SB 4749+82, CL TO STA. SB 4753+25, LT

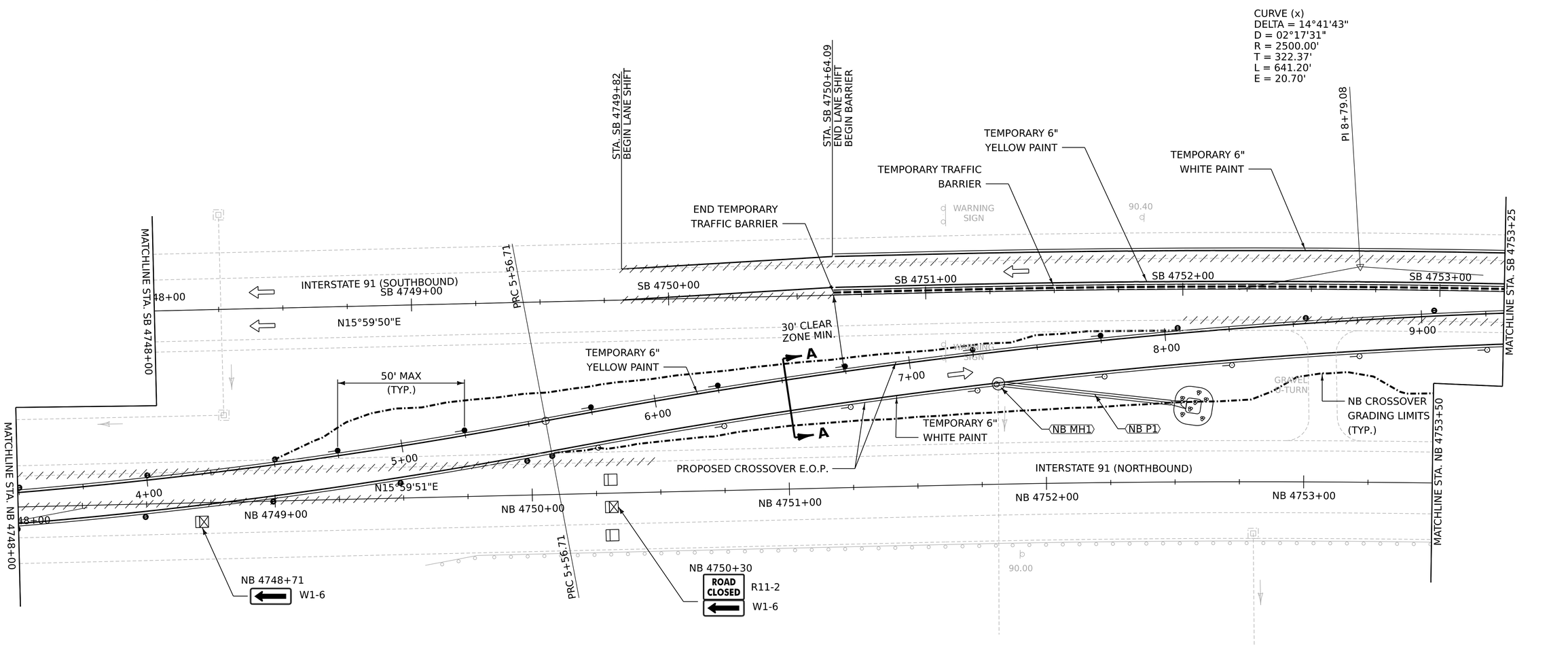
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. 3+49 TO STA. 9+32, RT
STA. SB 4749+82, CL TO STA. SB 4753+25, LT

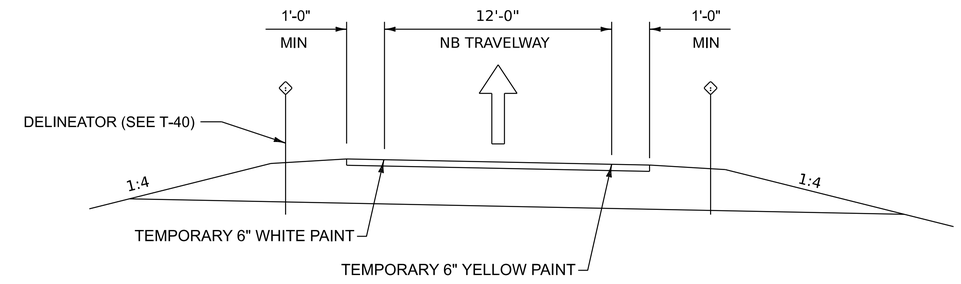
PAVEMENT MARKING MASK
STA. NB 4748+00 TO STA. NB 4750+50, SOLID LT
STA. NB 4748+00 TO STA. NB 4749+50, DASHED CL
STA. SB 4749+82 TO STA. SB 4753+25, SOLID LT
STA. SB 4749+82 TO STA. SB 4750+64, DASHED CL
STA. SB 4752+00 TO STA. SB 4753+25, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. SB 4750+64 TO STA. SB 4753+25, CL

VT STATE PLANE GRID

CURVE (x)
DELTA = 14°41'43"
D = 02°17'31"
R = 2500.00'
T = 322.37'
L = 641.20'
E = 20.70'





NB CROSSOVER SECTION A-A
NOT TO SCALE

PROPOSED DRAINAGE

NB MH1 STA. NB 4751+28, LT
CONSTRUCT NEW PRECAST CONCRETE MANHOLE RISER WITH CAST IRON COVER (PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE)
RIM = 485.15 ±
NEW RISER SHALL BE PLACED ON EXISTING CATCH BASIN
INV. IN (N) = 481.00 ±

NB P1 STA. NB 4751+28, LT TO STA. NB 4752+49, LT
INSTALL 18" x 68' RCP CLASS III
INSTALL 18" RCPES CLASS III AT INLET
INV. @ ES = 482.00' ±
INSTALL CULVERT END PROTECTION AT INLET WITH STONE FILL TYPE I

EXISTING INTERSTATE U-TURN NOTE:
1. UPON COMPLETION OF CONSTRUCTION AND REMOVAL OF THE INTERSTATE CROSSOVERS, THE CONTRACTOR SHALL REESTABLISH THE EXISTING INTERSTATE U-TURN. THE U-TURN SHALL CONSIST OF 4" AGGREGATE SURFACE COURSE, ON 24" OF SUBBASE OF DENSE GRADED CRUSHED STONE. WORK TO REESTABLISH THE EXISTING U-TURN WILL BE PAID AS ITEM 204.0100004 DIVIDED HIGHWAY CROSSOVER.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_tcp_NB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER NB PLAN SHEET 4

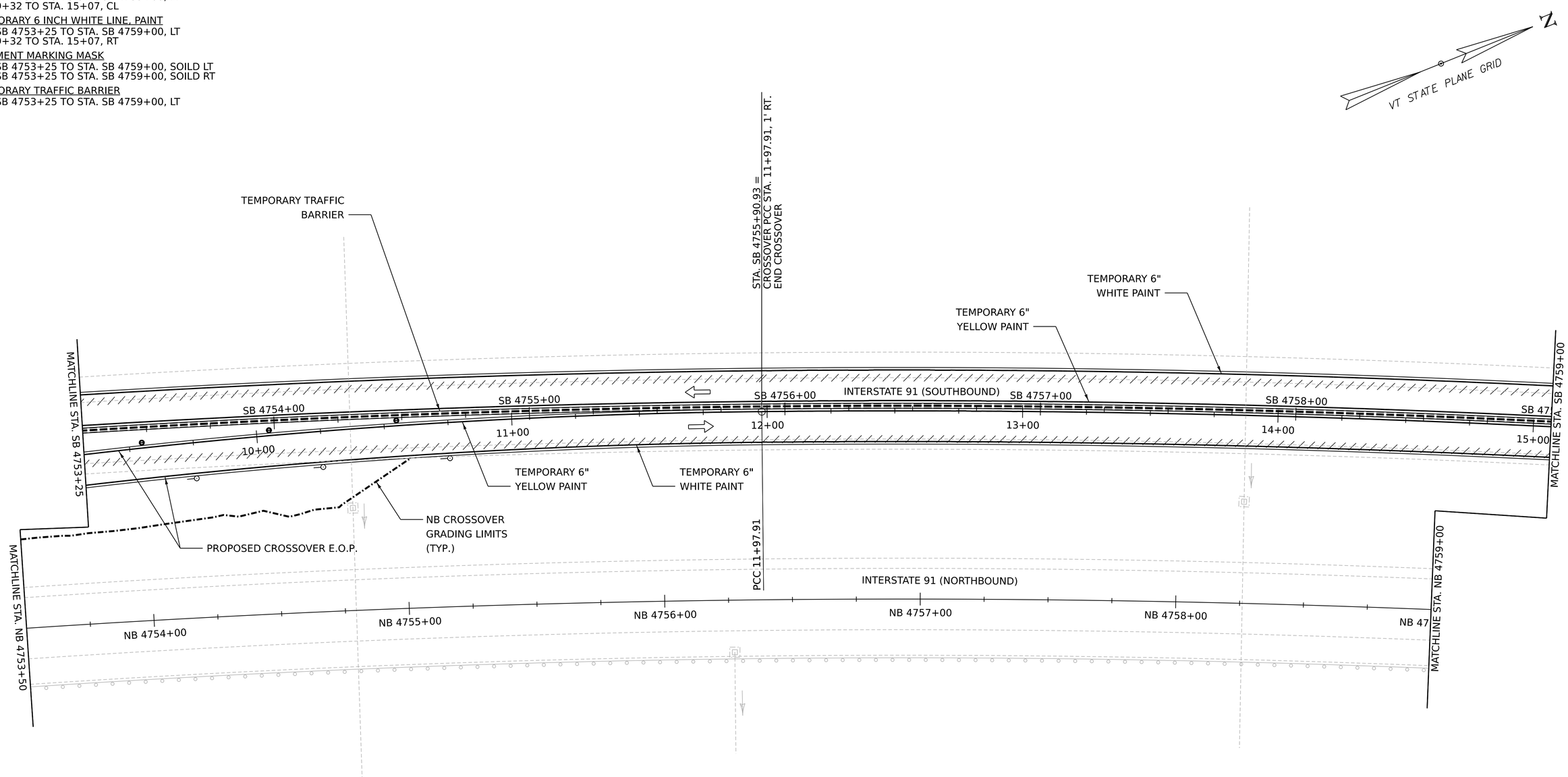
PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 35 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4753+25 TO STA. SB 4759+00, LT
STA. 9+32 TO STA. 15+07, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4753+25 TO STA. SB 4759+00, LT
STA. 9+32 TO STA. 15+07, RT

PAVEMENT MARKING MASK
STA. SB 4753+25 TO STA. SB 4759+00, SOILD LT
STA. SB 4753+25 TO STA. SB 4759+00, SOILD RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4753+25 TO STA. SB 4759+00, LT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

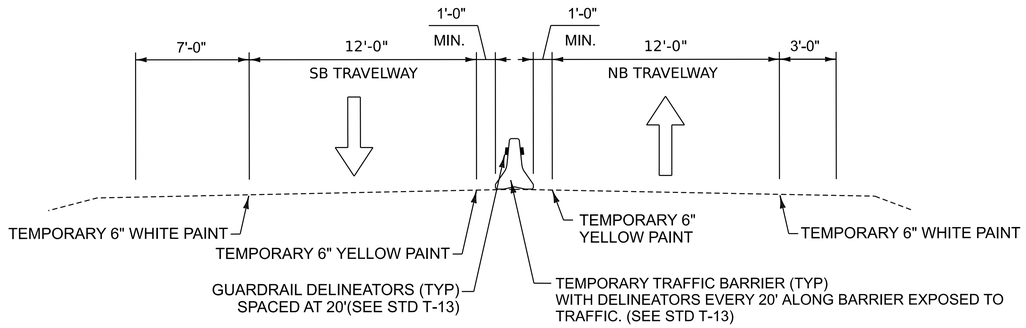
FILE NAME:	z21a024bdr_tcp_NB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER NB PLAN SHEET 5		SHEET 36 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4759+00 TO STA. SB 4764+50, LT
STA. 15+07 TO STA. 20+57, CL

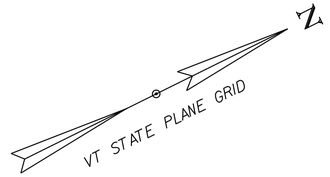
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4759+00 TO STA. SB 4764+50, LT
STA. 15+07 TO STA. 20+57, RT

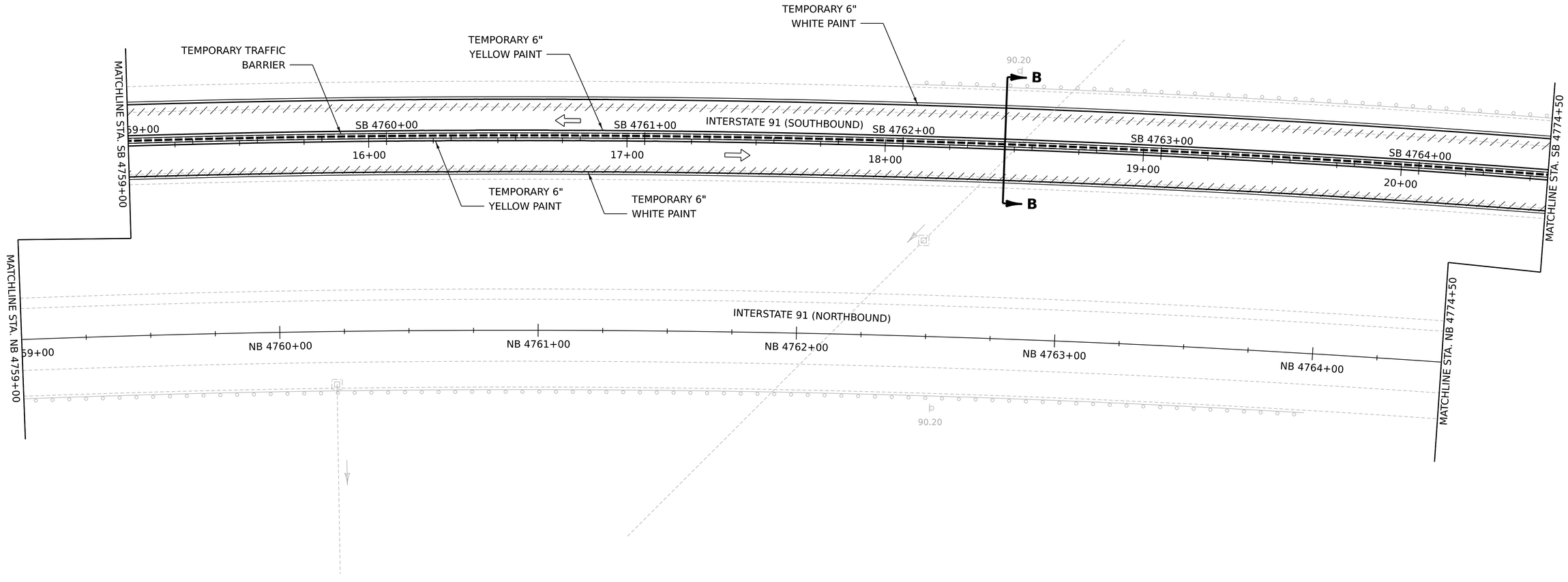
PAVEMENT MARKING MASK
STA. SB 4759+00 TO STA. SB 4764+50, SOILD LT
STA. SB 4759+00 TO STA. SB 4764+50, SOILD RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4759+00 TO STA. SB 4764+50, LT



NB CROSSOVER SECTION B-B
NOT TO SCALE





0 20 40
SCALE IN FEET

Stantec

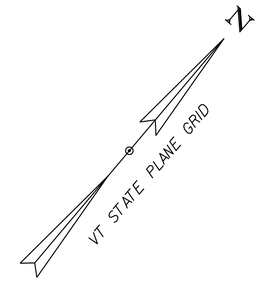
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER NB PLAN SHEET 6	SHEET 37 OF 161

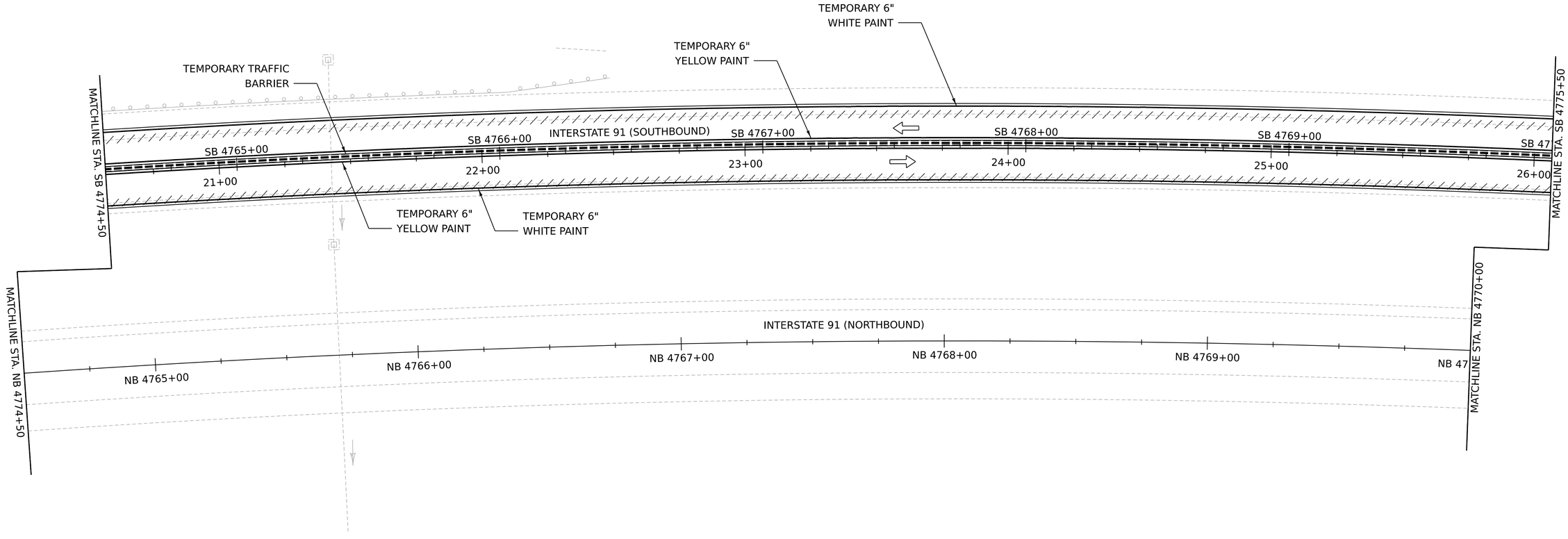
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4764+50 TO STA. SB 4770+00, LT
STA. 20+57 TO STA. 26+07, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4764+50 TO STA. SB 4770+00, LT
STA. 20+57 TO STA. 26+07, RT

PAVEMENT MARKING MASK
STA. SB 4764+50 TO STA. SB 4770+00, SOILD LT
STA. SB 4764+50 TO STA. SB 4770+00, SOILD RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4764+50 TO STA. SB 4770+00, LT





0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

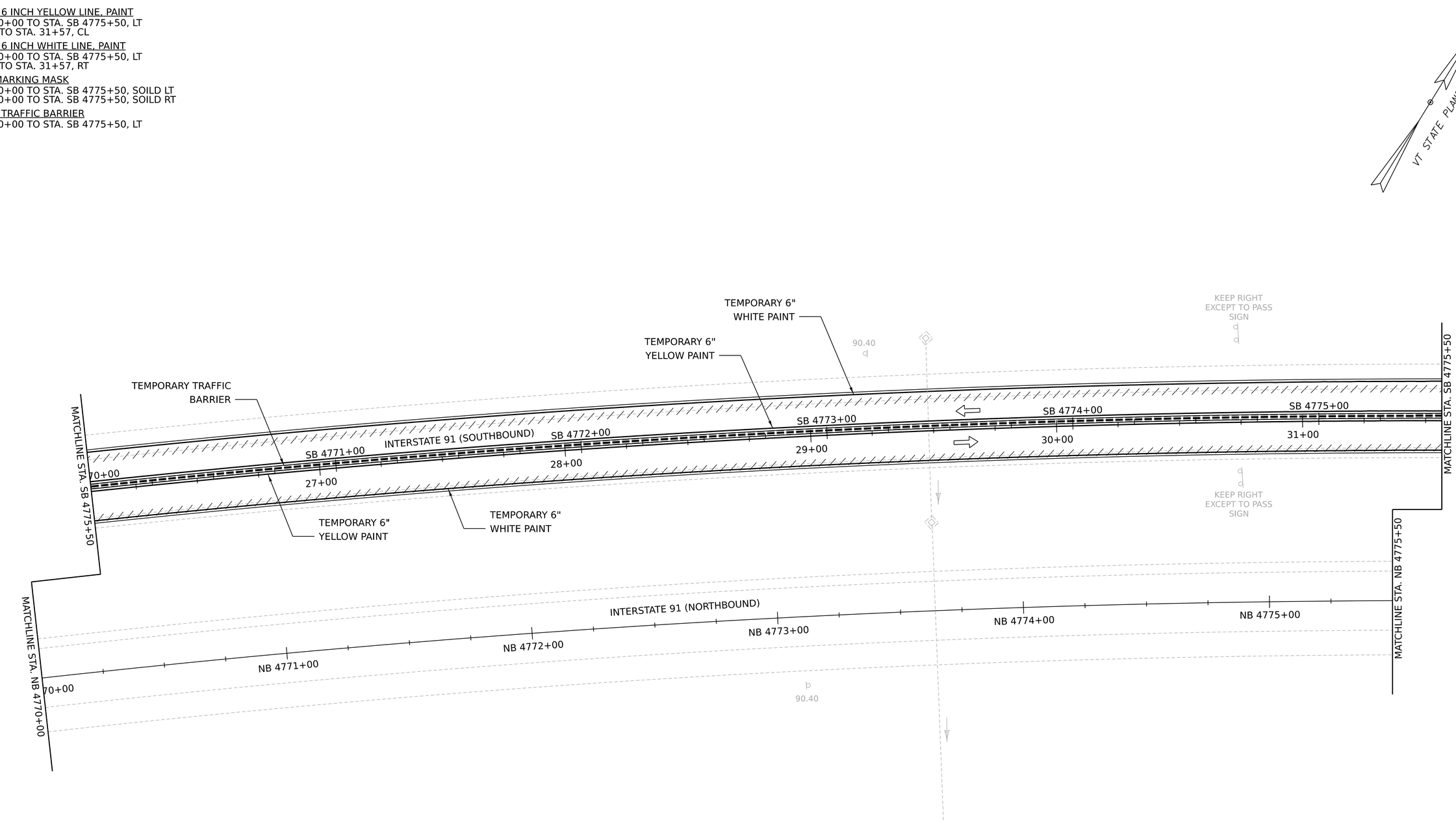
FILE NAME:	z21a024bdr_tcp_NB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER NB PLAN SHEET 7		SHEET 38 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4770+00 TO STA. SB 4775+50, LT
STA. 26+07 TO STA. 31+57, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4770+00 TO STA. SB 4775+50, LT
STA. 26+07 TO STA. 31+57, RT

PAVEMENT MARKING MASK
STA. SB 4770+00 TO STA. SB 4775+50, SOILD LT
STA. SB 4770+00 TO STA. SB 4775+50, SOILD RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4770+00 TO STA. SB 4775+50, LT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

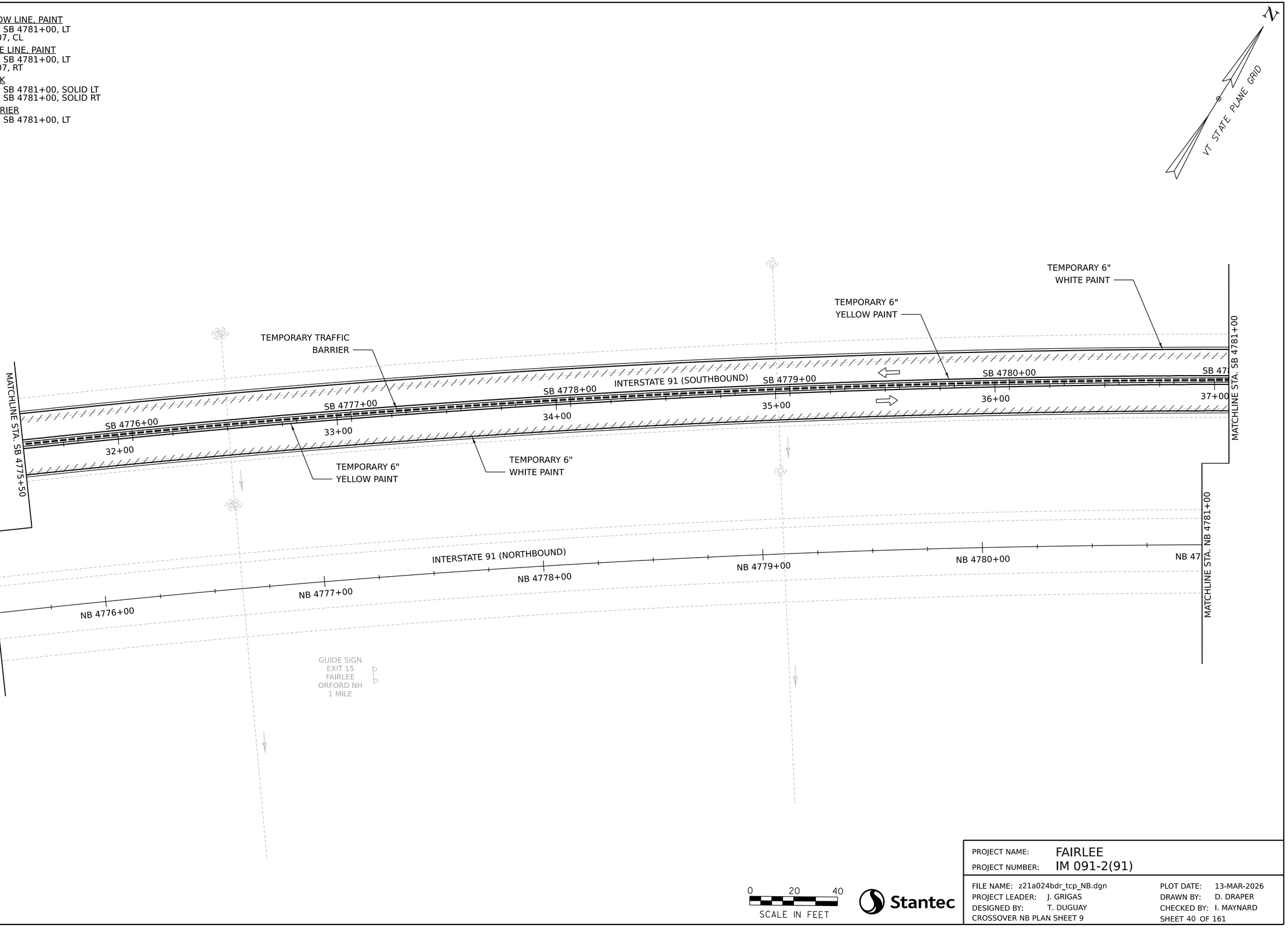
FILE NAME:	z21a024bdr_tcp_NB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	I. MAYNARD
CROSSOVER NB PLAN SHEET 8		SHEET 39 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4775+50 TO STA. SB 4781+00, LT
STA. 31+57 TO STA. 37+07, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4775+50 TO STA. SB 4781+00, LT
STA. 31+57 TO STA. 37+07, RT

PAVEMENT MARKING MASK
STA. SB 4775+50 TO STA. SB 4781+00, SOLID LT
STA. SB 4775+50 TO STA. SB 4781+00, SOLID RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4775+50 TO STA. SB 4781+00, LT



0 20 40
SCALE IN FEET

Stantec

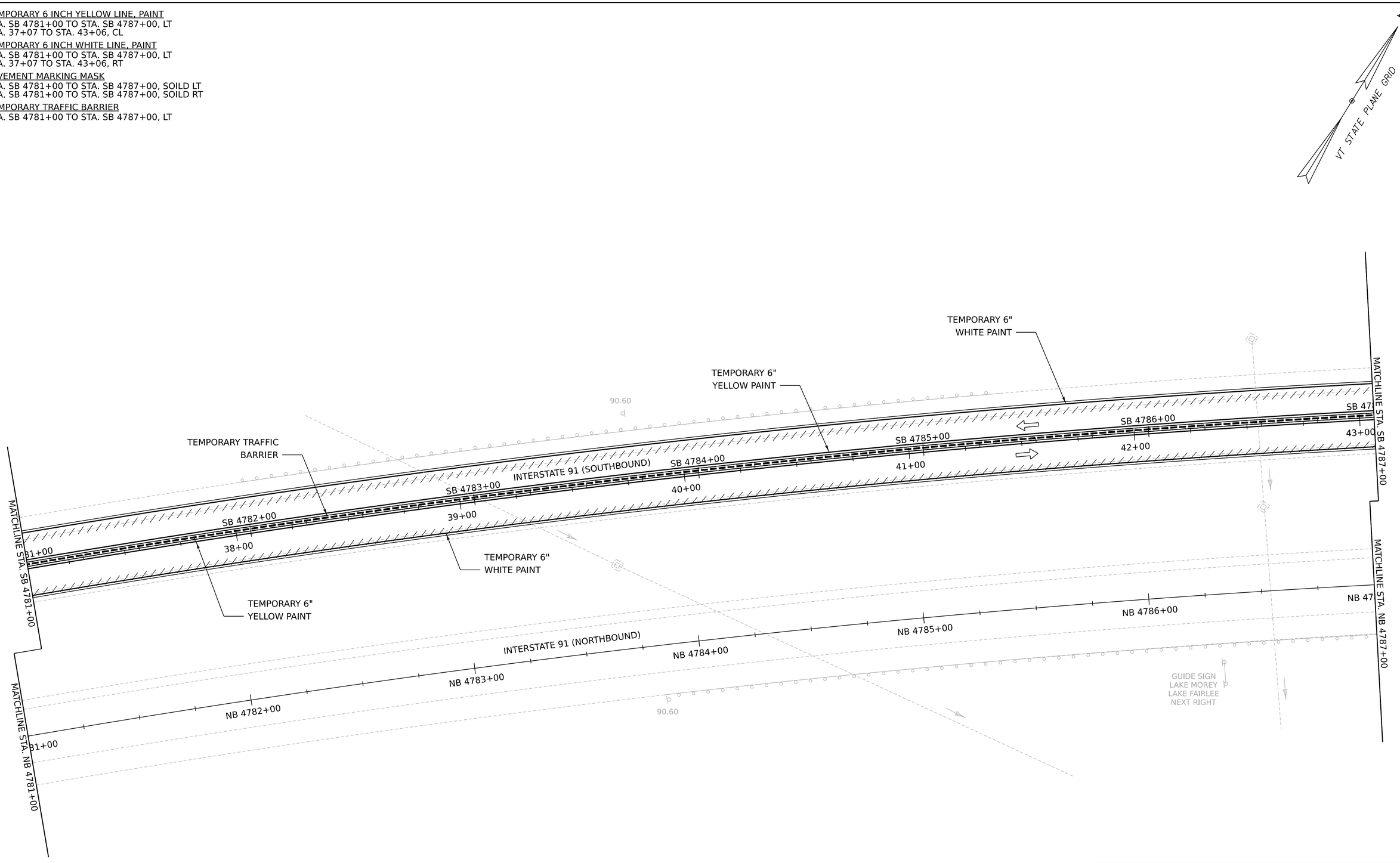
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
CROSSOVER NB PLAN SHEET 9	SHEET 40 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4781+00 TO STA. SB 4787+00, LT
STA. 37+07 TO STA. 43+06, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4781+00 TO STA. SB 4787+00, LT
STA. 37+07 TO STA. 43+06, RT

PAVEMENT MARKING MASK
STA. SB 4781+00 TO STA. SB 4787+00, SOILD LT
STA. SB 4781+00 TO STA. SB 4787+00, SOILD RT

TEMPORARY TRAFFIC BARRIER
STA. SB 4781+00 TO STA. SB 4787+00, LT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024bdr_tcp_NB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER NB PLAN SHEET 10		SHEET 41 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4787+00 TO STA. SB 4793+00, LT
STA. 43+06 TO STA. 49+06, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4787+00 TO STA. SB 4793+00, LT
STA. 43+06 TO STA. 49+06, RT

PAVEMENT MARKING MASK
STA. SB 4787+00 TO STA. SB 4793+00, SOILD LT
STA. SB 4787+00 TO STA. SB 4793+00, SOILD LT

TEMPORARY TRAFFIC BARRIER
STA. SB 4787+00 TO STA. SB 4793+00, LT
STA. SB 4792+62 TO STA. SB 4793+00, RT

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

1456
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

APPROXIMATE TOPOGRAPHY FROM LIDAR

LIMIT OF SURVEY

THETFORD 6/
WRJ20

EXISITNG
WING WALL

TEMPORARY 6"
WHITE PAINT

TEMPORARY 6"
YELLOW PAINT

TEMPORARY TRAFFIC
BARRIER

MATCHLINE STA. SB 4787+00

SB 4788+00

SB 4789+00

INTERSTATE 91 (SOUTHBOUND)

SB 4790+00

SB 4791+00

SB 4792+00

SB 47

87+00

44+00

45+00

46+00

47+00

48+00

49+00

MATCHLINE STA. SB 4793+00

TEMPORARY 6"
YELLOW PAINT

TEMPORARY 6"
WHITE PAINT

TEMPORARY
ATTENUATION DEVICE

TEMPORARY TRAFFIC
BARRIER

MATCHLINE STA. NB 4787+00

PT 45+85.63

INTERSTATE 91 (NORTHBOUND)

NB 4788+00

NB 4789+00

NB 4790+00

NB 4791+00

NB 4792+00

NB 47

87+00

MATCHLINE STA. NB 4793+00

APPROXIMATE TOPOGRAPHY FROM LIDAR

LIMIT OF SURVEY

1000
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

APPROX. EXISTING R.O.W.

MH0

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

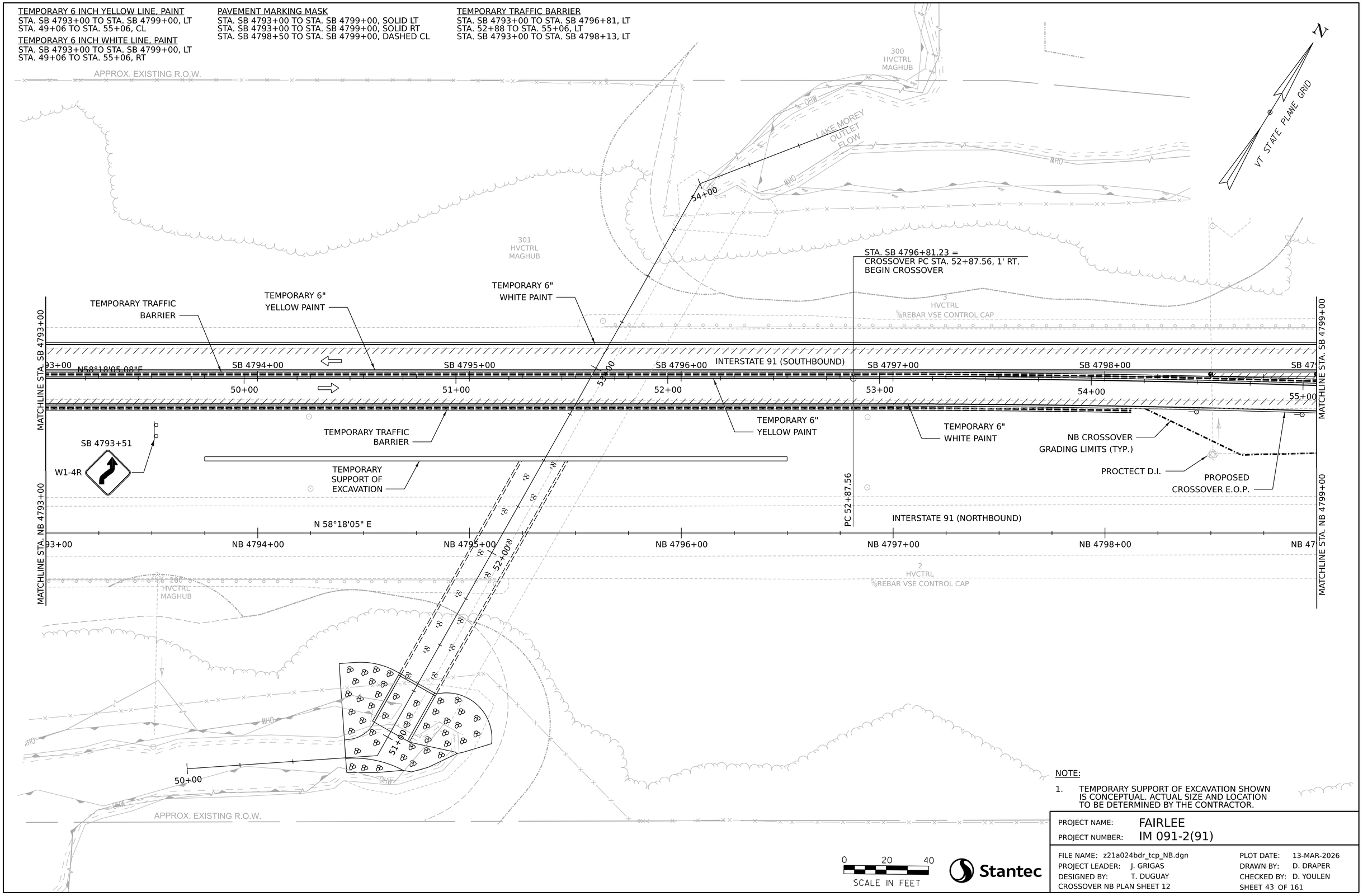
FILE NAME:	z21a024bdr_tcp_NB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER NB PLAN SHEET 11		SHEET 42 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4793+00 TO STA. SB 4799+00, LT
STA. 49+06 TO STA. 55+06, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4793+00 TO STA. SB 4799+00, LT
STA. 49+06 TO STA. 55+06, RT

PAVEMENT MARKING MASK
STA. SB 4793+00 TO STA. SB 4799+00, SOLID LT
STA. SB 4793+00 TO STA. SB 4799+00, SOLID RT
STA. SB 4798+50 TO STA. SB 4799+00, DASHED CL

TEMPORARY TRAFFIC BARRIER
STA. SB 4793+00 TO STA. SB 4796+81, LT
STA. 52+88 TO STA. 55+06, LT
STA. SB 4793+00 TO STA. SB 4798+13, LT



NOTE:

1. TEMPORARY SUPPORT OF EXCAVATION SHOWN IS CONCEPTUAL. ACTUAL SIZE AND LOCATION TO BE DETERMINED BY THE CONTRACTOR.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

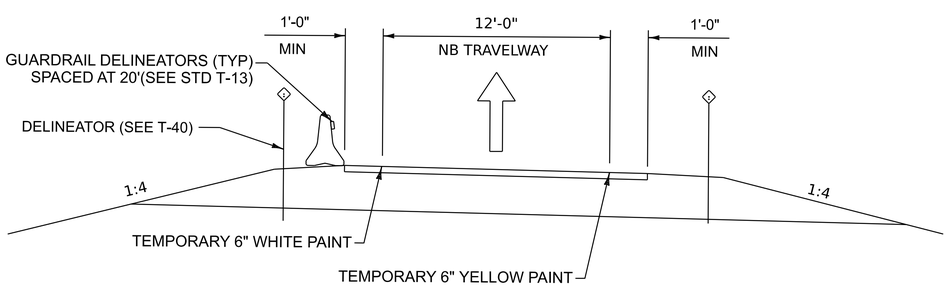
FILE NAME:	z21a024bdr_tcp_NB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER NB PLAN SHEET 12		SHEET 43 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4799+00 TO STA. SB 4805+00, LT
STA. 55+06 TO STA. 61+08, CL

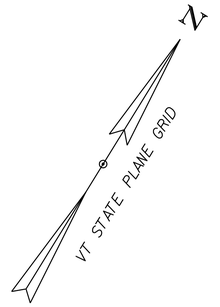
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4799+00 TO STA. SB 4805+00, LT
STA. 55+06 TO STA. 61+08, RT

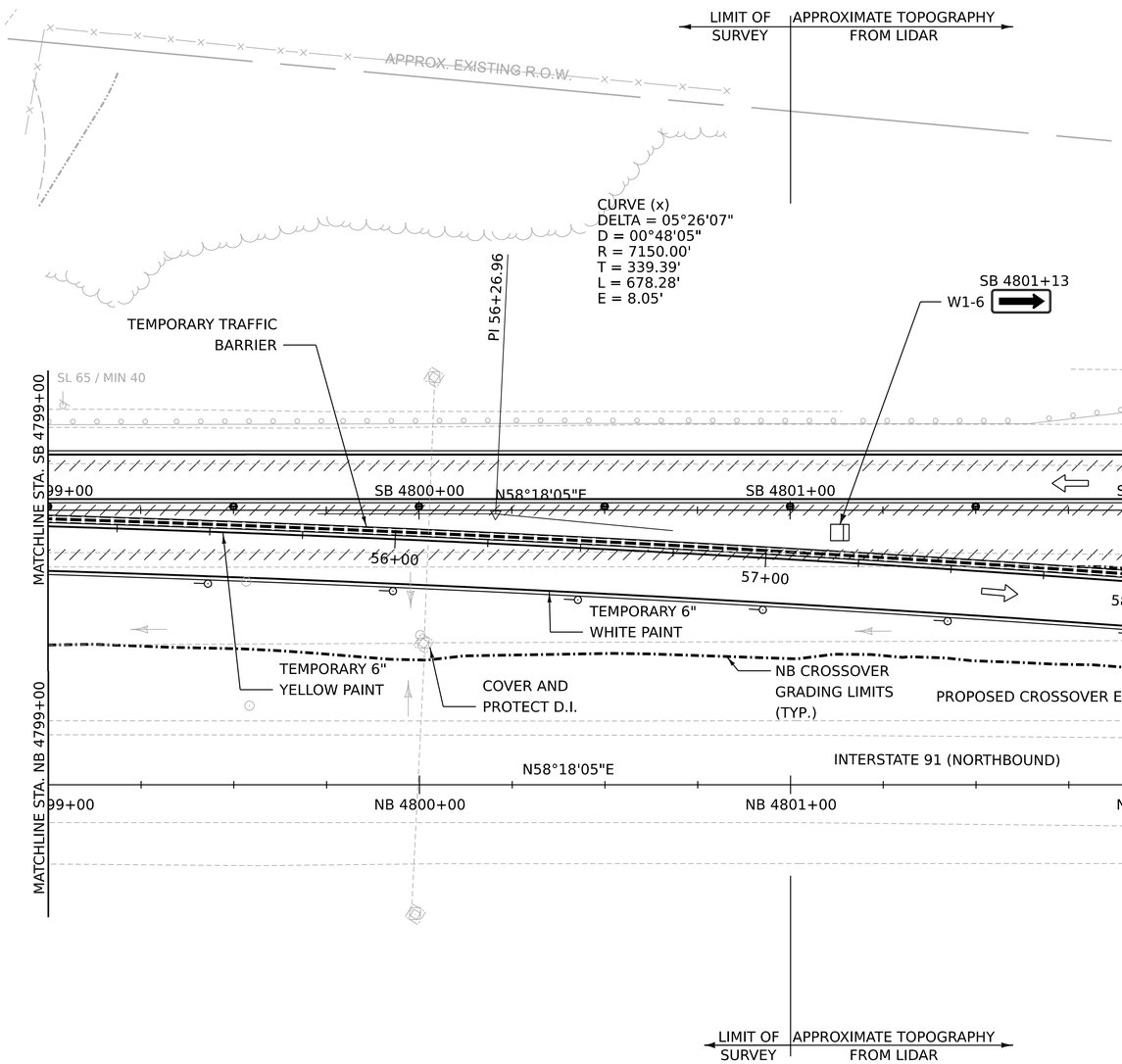
PAVEMENT MARKING MASK
STA. SB 4799+00 TO STA. SB 4805+00, SOLID LT
STA. SB 4799+00 TO STA. SB 4802+00, SOLID RT
STA. SB 4799+00 TO STA. SB 4805+00, DASHED CL
STA. NB 4804+75 TO STA. NB 4805+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. 55+06 TO STA. 59+32, LT



NB CROSSOVER SECTION C-C
NOT TO SCALE





PROPOSED DRAINAGE

NB MH2
STA. 4802+53, LT
CONSTRUCT NEW PRECAST CONCRETE MANHOLE WITH CAST IRON COVER (PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIV
RIM = 433.25 ±
NEW RISER SHALL BE PLACED ON EXISTING CATCH BASIN
INV. IN (N) = 429.00 ±

NB P2
STA. 4802+53, LT TO STA. 4804+33, LT
INSTALL 18" x 181' RCP CLASS III
INSTALL 18" RCPES CLASS III AT INLET
INV. @ ES = 432.00' ±
INSTALL CULVERT END PROTECTION AT INLET WITH STONE FILL TYPE I

0 20 40
SCALE IN FEET

Stantec

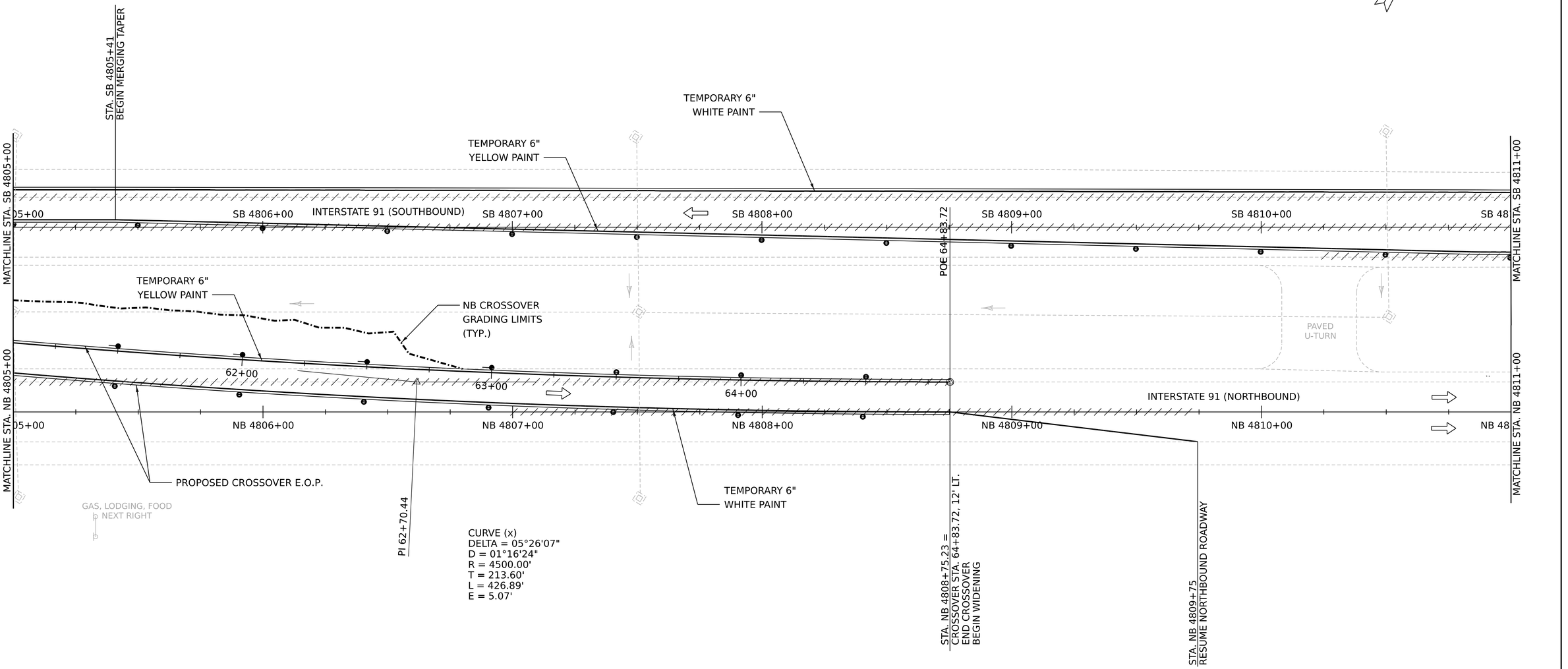
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024bdr_tcp_NB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER NB PLAN SHEET 13		SHEET 44 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4805+00, LT TO STA. SB 4811+00, RT
STA. 61+08 TO STA. 64+84, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4805+00 TO STA. SB 4811+00, LT
STA. 61+08 TO STA. 64+84, RT
STA. NB 4808+75, CL TO STA. NB 4809+75, RT

PAVEMENT MARKING MASK
STA. SB 4805+00 TO STA. SB 4811+00, SOLID LT
STA. SB 4805+00 TO STA. SB 4811+00, DASHED CL
STA. NB 4808+75 TO STA. NB 4811+00, SOLID LT
STA. NB 4807+00 TO STA. NB 4809+75, DASHED CL
STA. SB 4810+25 TO STA. SB 4811+00, SOLID RT



0 20 40
SCALE IN FEET

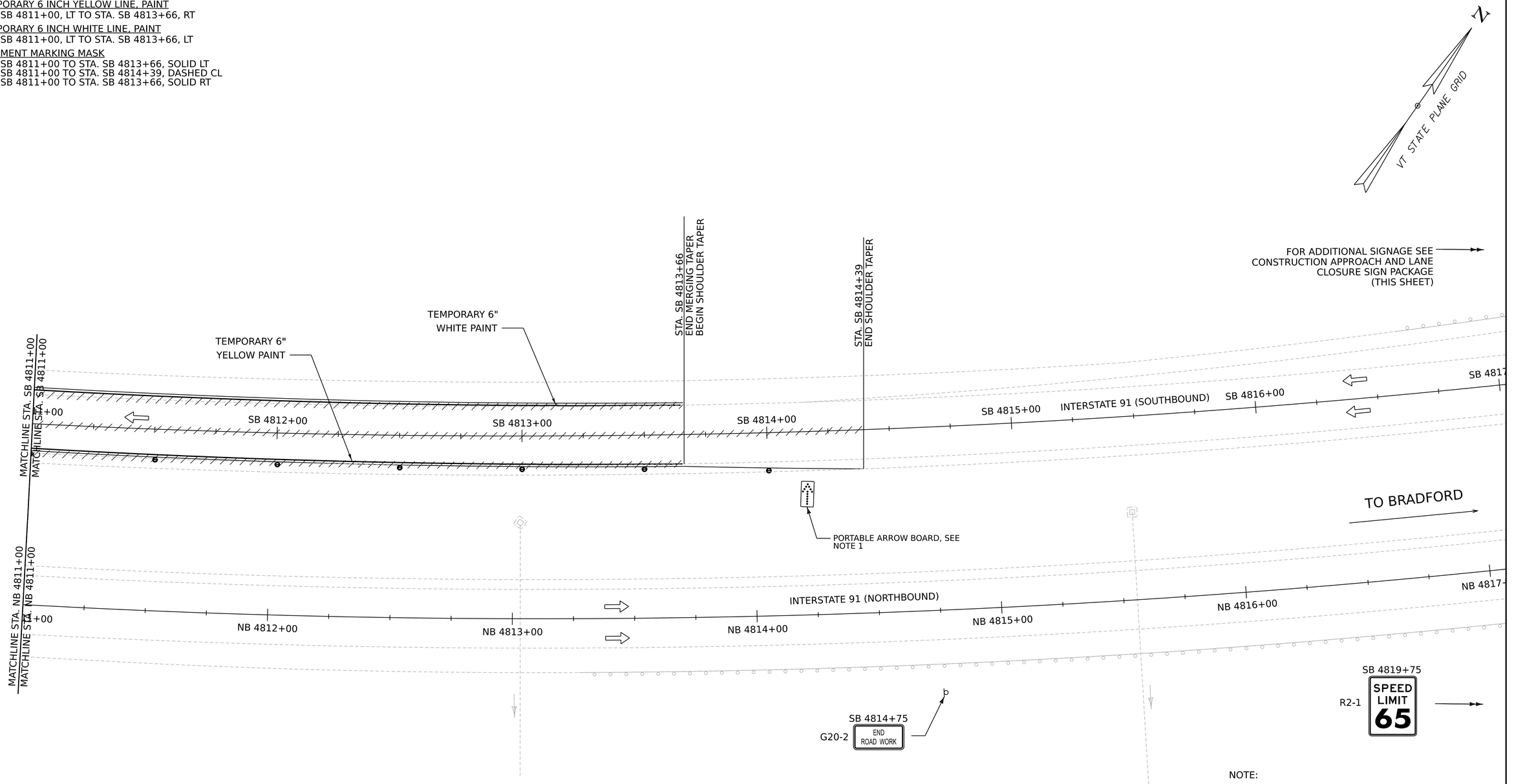
Stantec

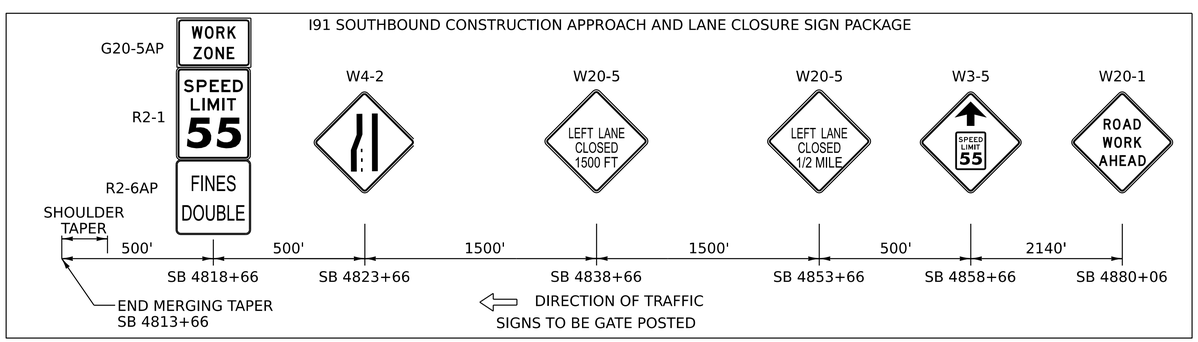
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_NB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER NB PLAN SHEET 14	SHEET 45 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4811+00, LT TO STA. SB 4813+66, RT

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4811+00, LT TO STA. SB 4813+66, LT

PAVEMENT MARKING MASK
STA. SB 4811+00 TO STA. SB 4813+66, SOLID LT
STA. SB 4811+00 TO STA. SB 4814+39, DASHED CL
STA. SB 4811+00 TO STA. SB 4813+66, SOLID RT





NOTE:

1. PORTABLE ARROW BOARDS SHALL BE PLACED ON THE ON ROADWAY SHOULDER AS CLOSE TO BEGINNING OF TAPER AS PRACTICAL. PAYMENT FOR THE ARROW BOARD WILL BE MADE UNDER ITEM 641.1600 PORTABLE ARROW BOARD.
2. ADVANCED PORTABLE CHANGEABLE MESSAGE BOARD(S) SHALL BE INSTALLED IN ACCORDANCE WITH VTRANS STANDARD T-10. PAYMENT WILL BE PAID UNDER ITEM 641.1500 PORTABLE CHANGEABLE MESSAGE SIGN.

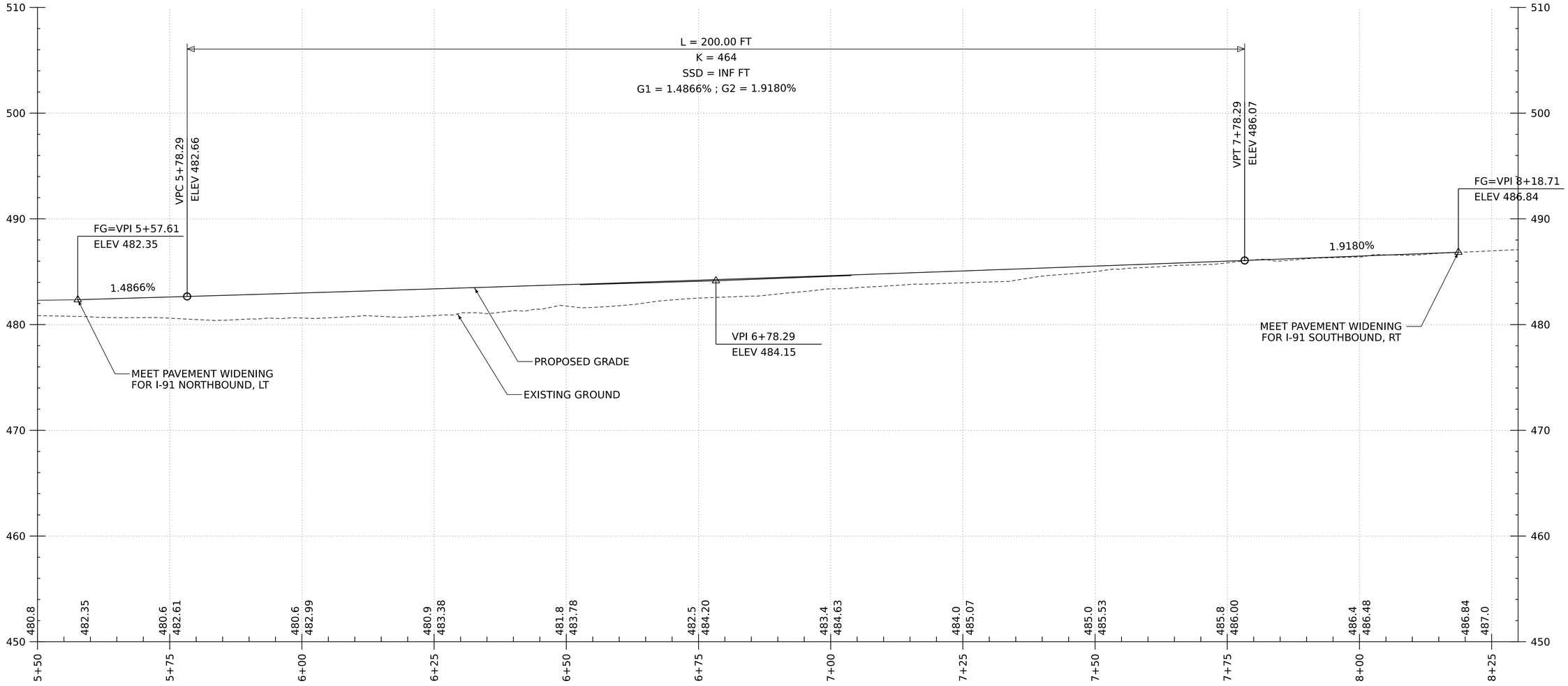
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_tcp_NB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER NB PLAN SHEET 15

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN

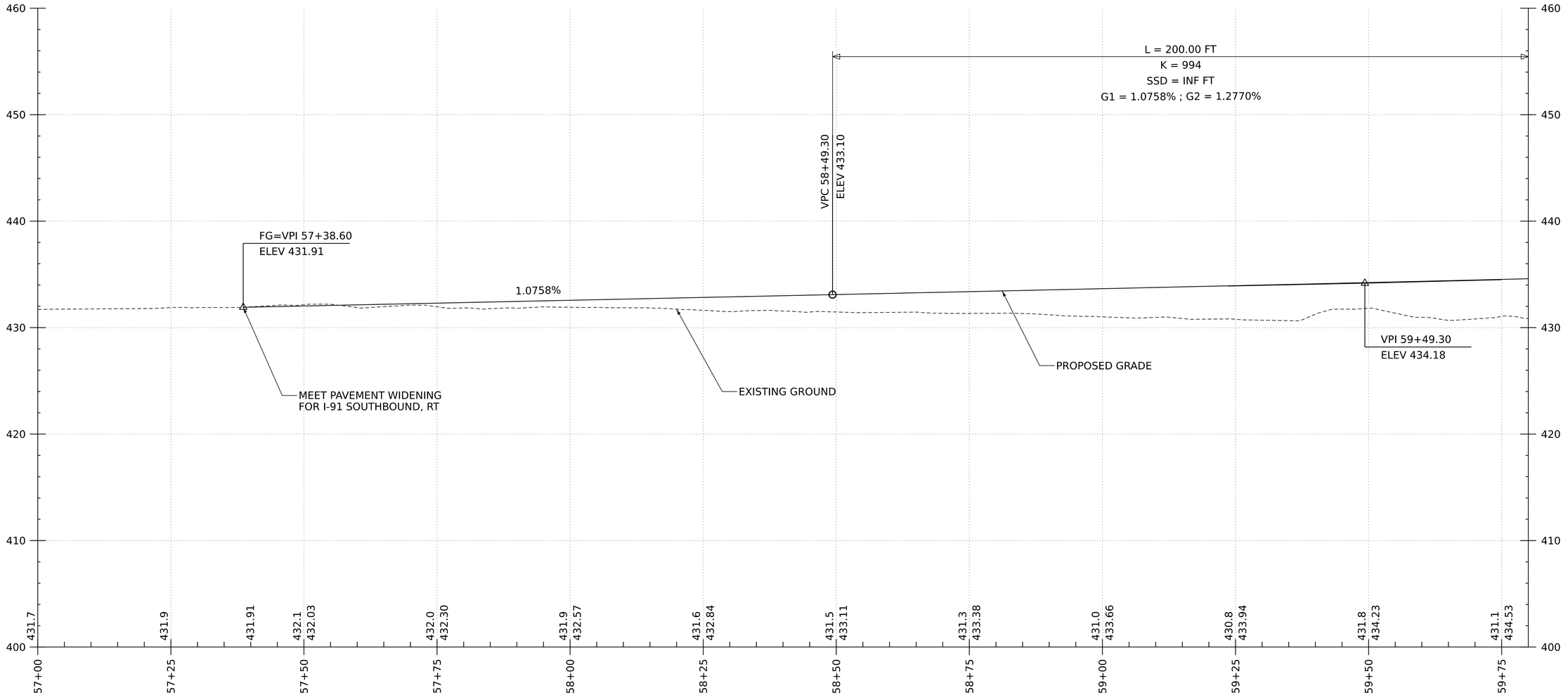


I-91 NORTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_NB_crossover_SouthPlot.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER PROFILE SHEET 1		SHEET 47 OF 161	

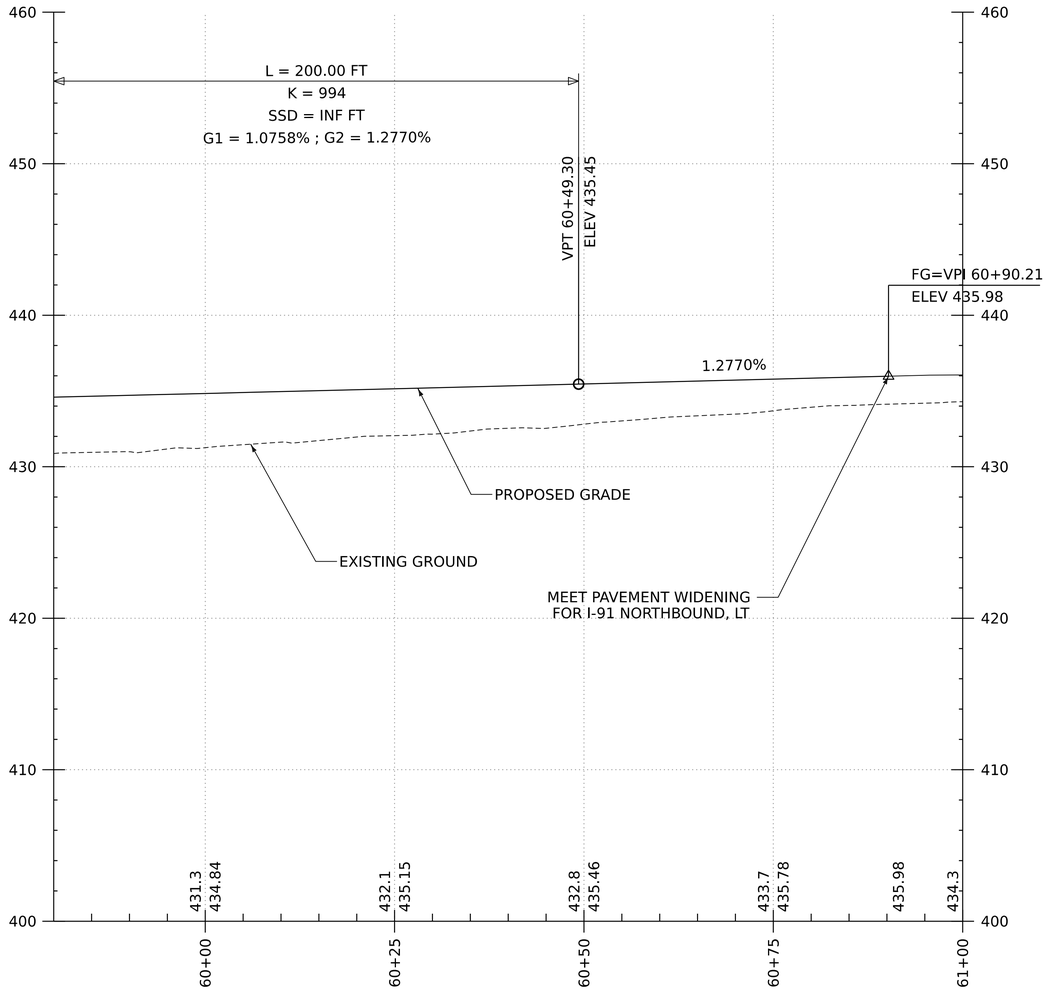


I-91 NORTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_NB_crossover_NorthPoint.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER PROFILE SHEET 2		SHEET 48	OF 161

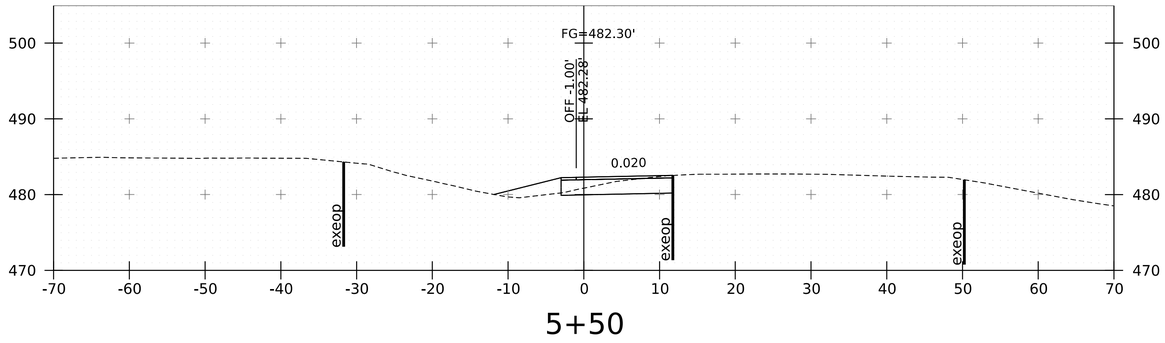


I-91 NORTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_NB_crossover_NorthPave.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER PROFILE SHEET 3		SHEET 49 OF 161	



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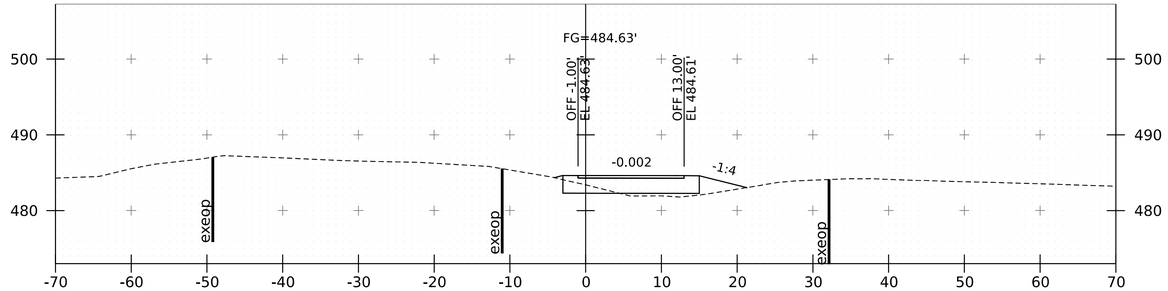

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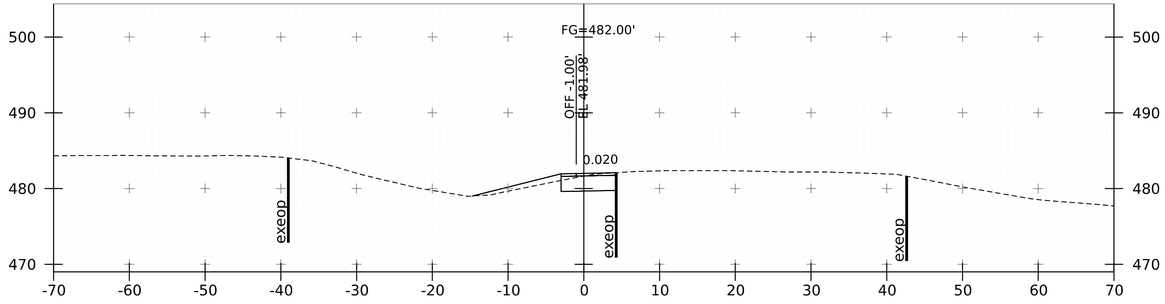

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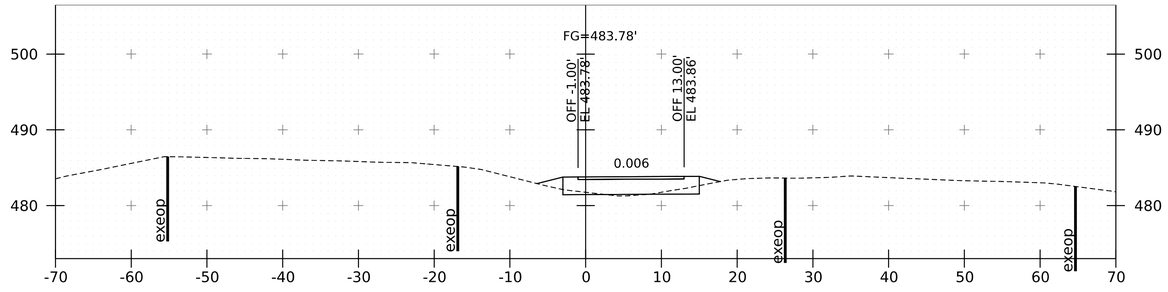

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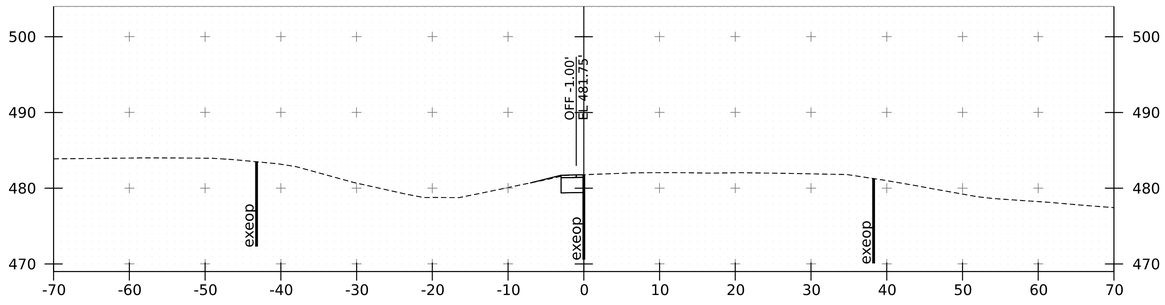

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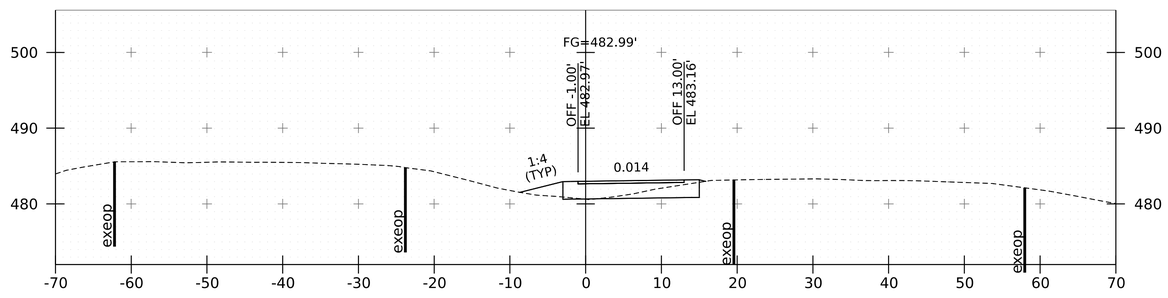
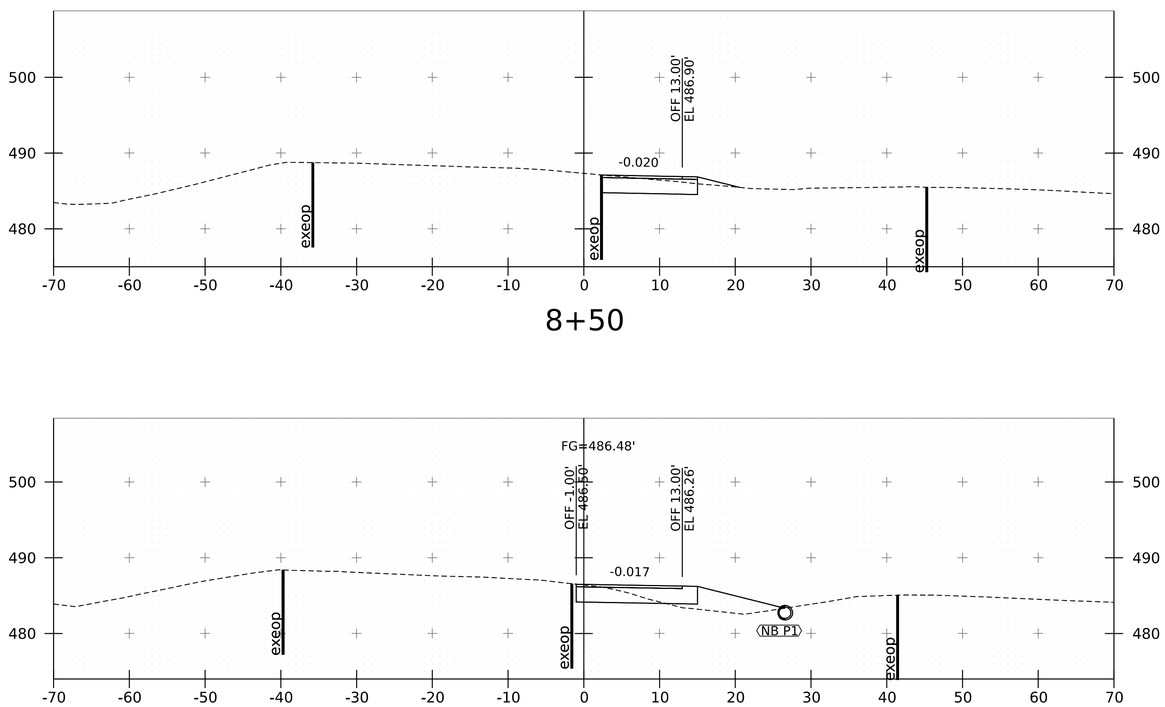


6+00

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_NB_crossover_South.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 NB CROSSOVER XS SHEET 1	SHEET 50 OF 161

Stantec



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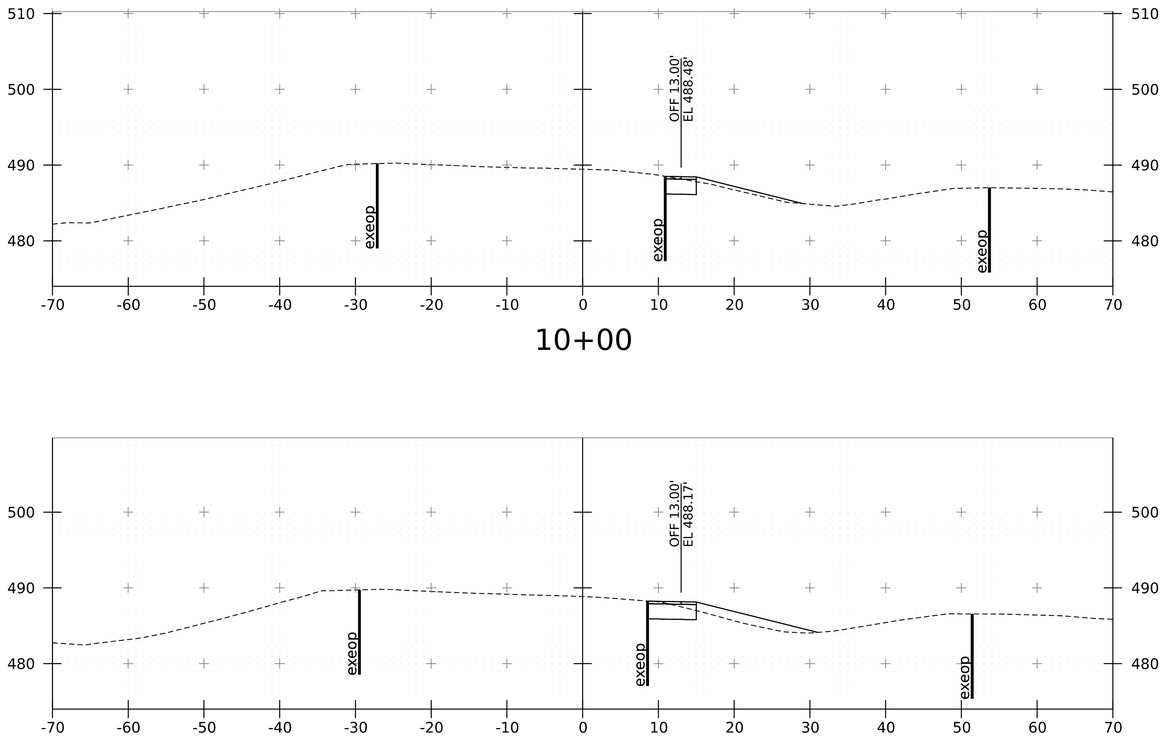


10+00

8+00

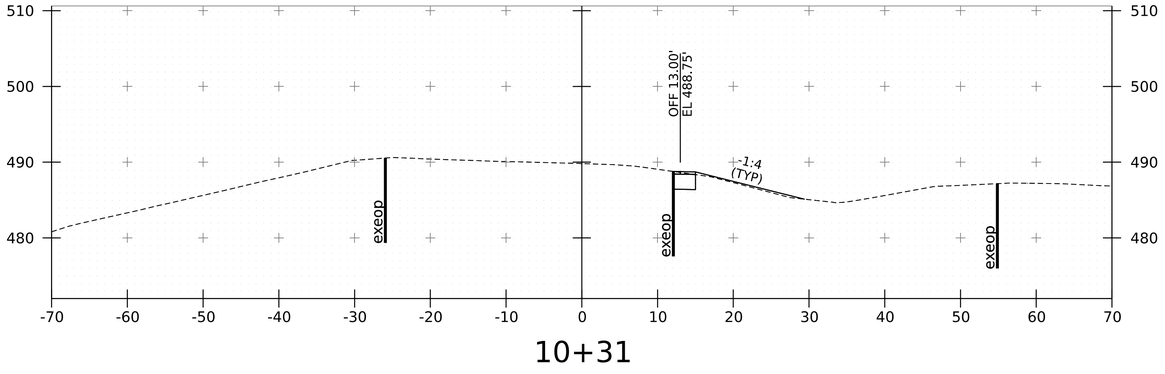
9+50

7+50

9+00

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_NB_crossover_South.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 NB CROSSOVER XS SHEET 2	SHEET 51 OF 161

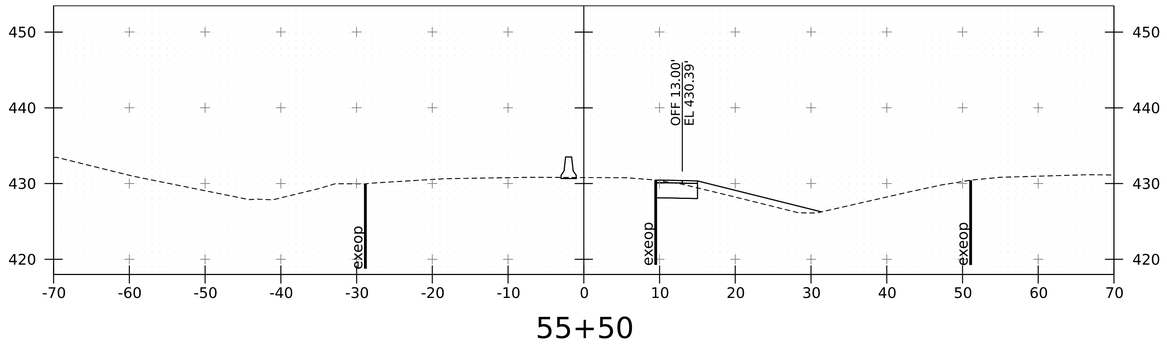
Stantec



10+31

Stantec

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_xs_I91_NB_crossover_South.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER XS SHEET 3		SHEET	52 OF 161



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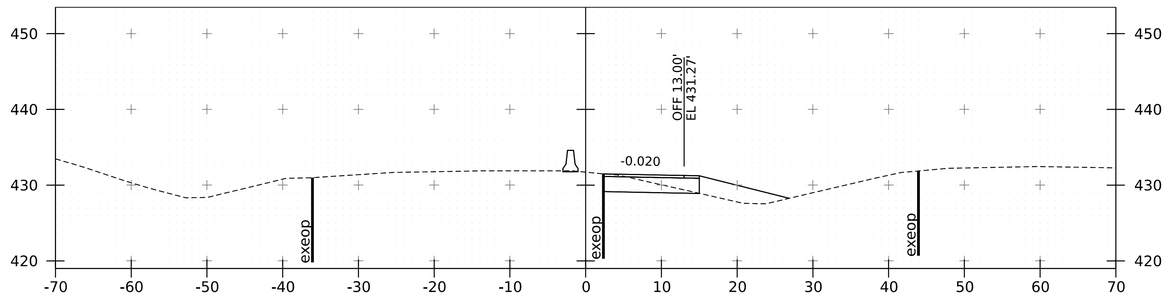

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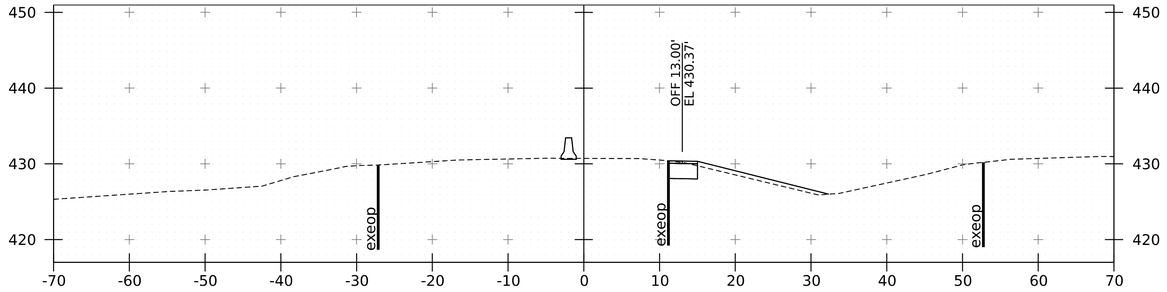

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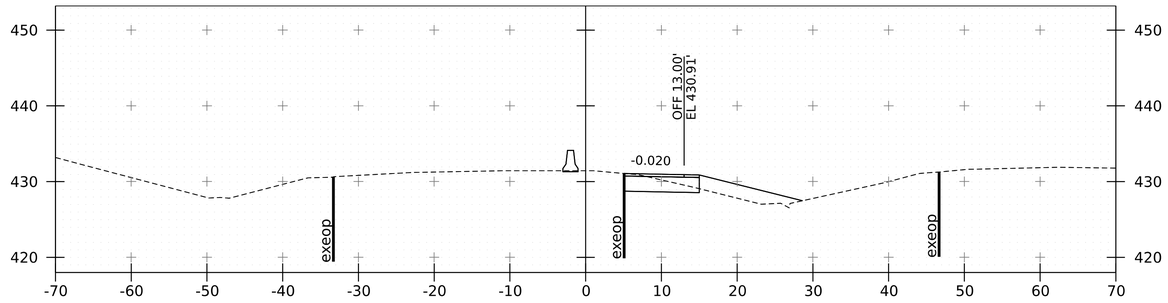

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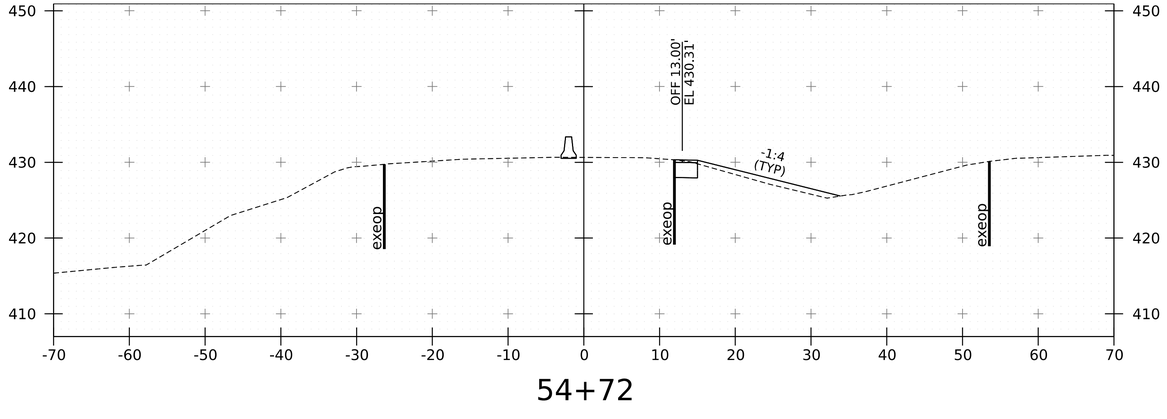

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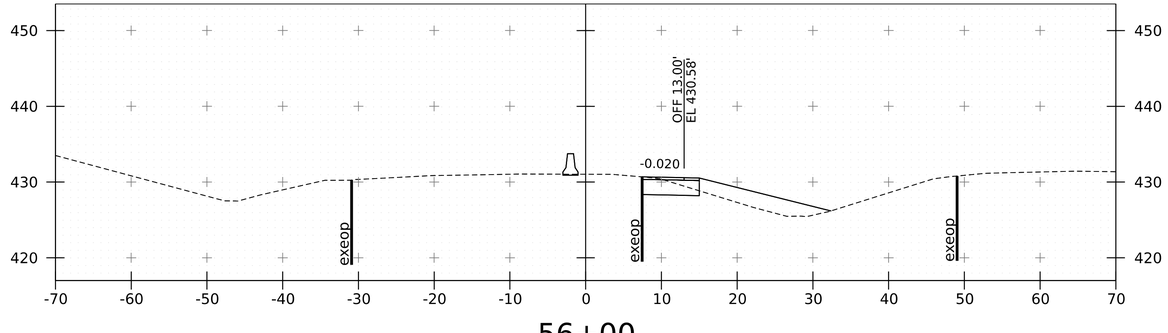
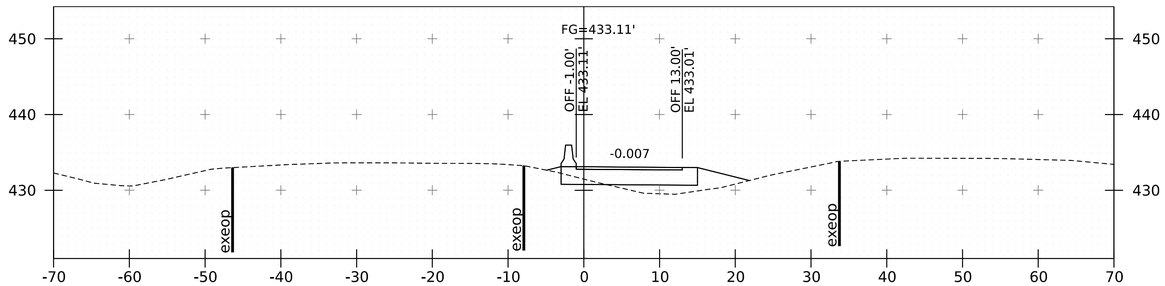


56+00

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_NB_crossover_North.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 NB CROSSOVER XS SHEET 4	SHEET 53 OF 161

Stantec



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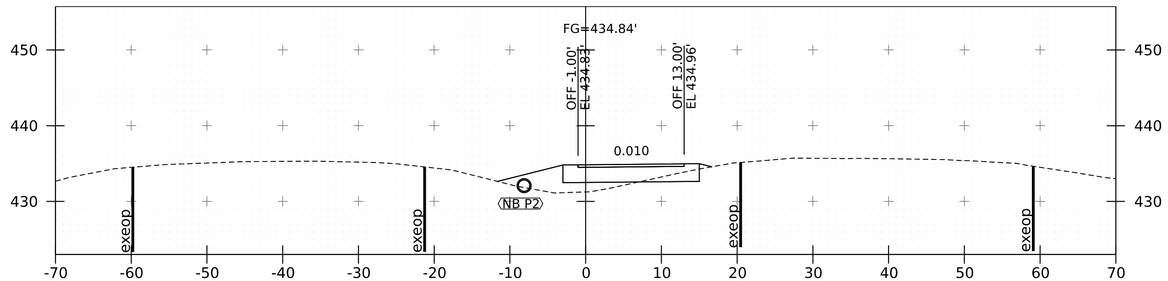

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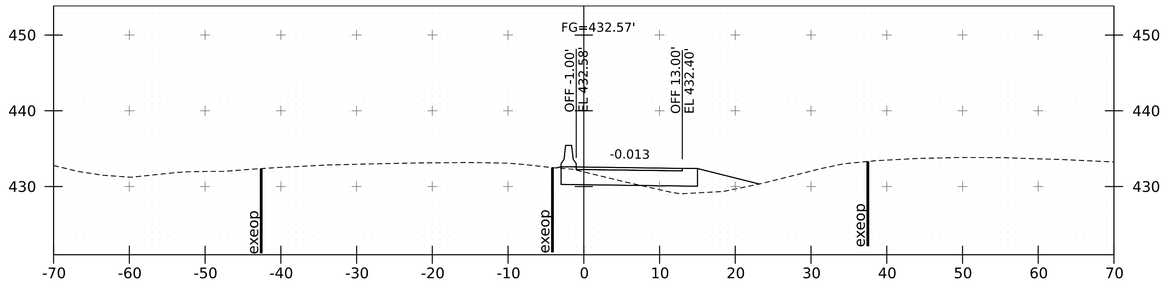

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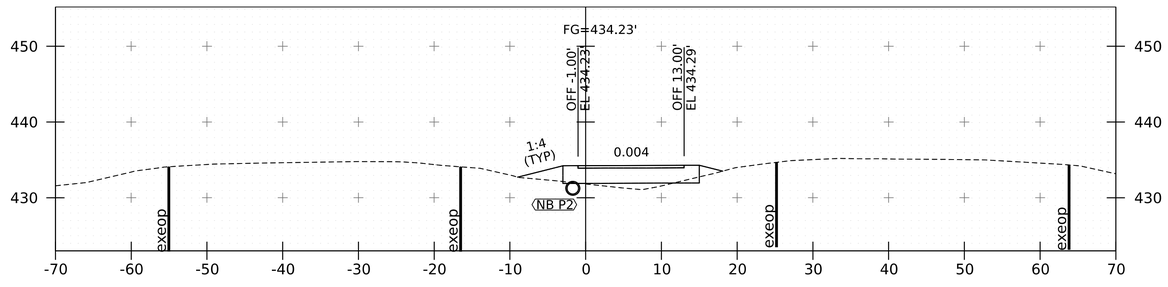

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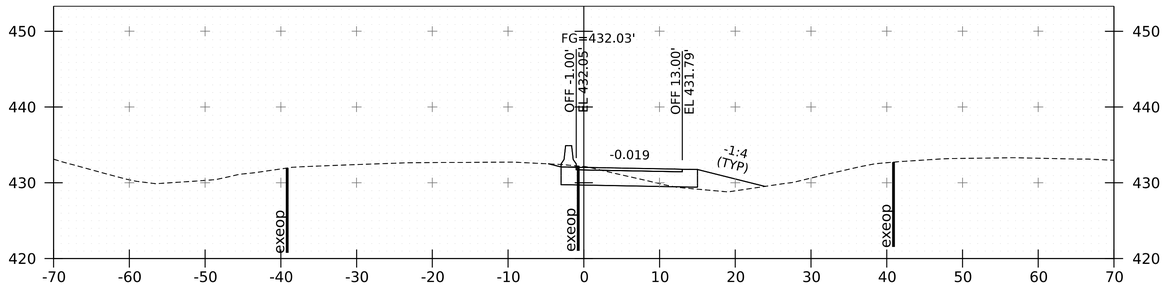

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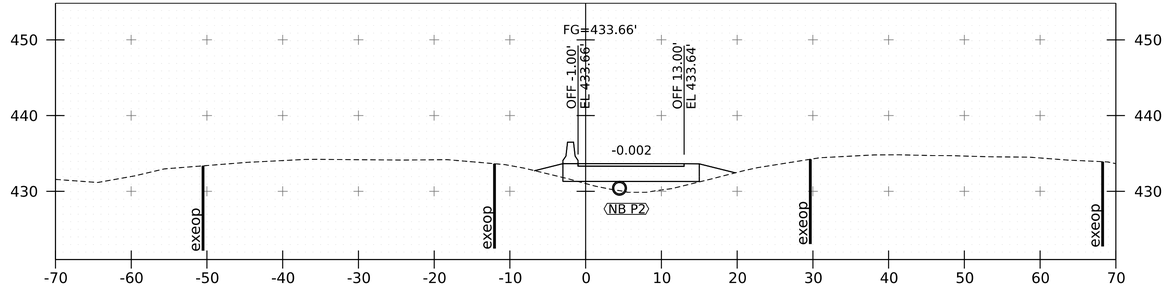
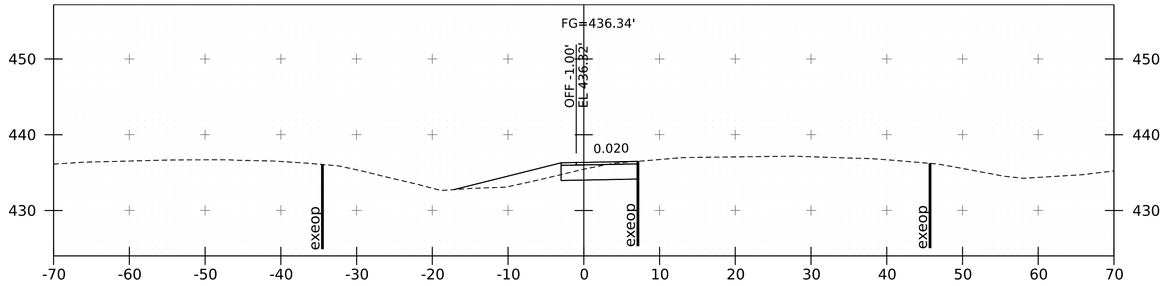


59+00

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024_xs_I91_NB_crossover_North.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER XS		SHEET	54 OF 161

Stantec



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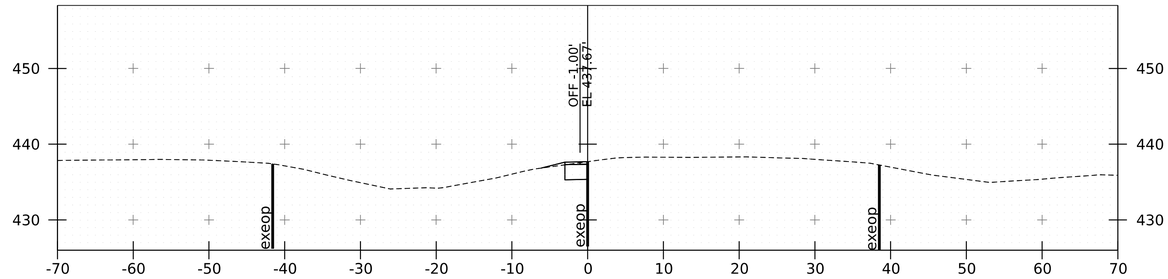

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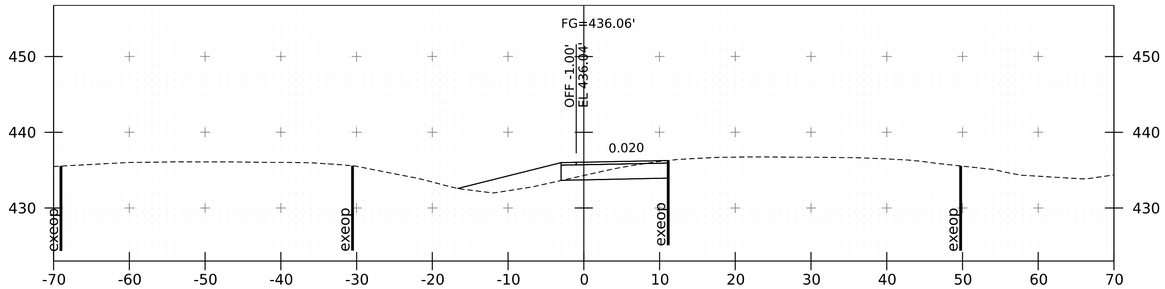

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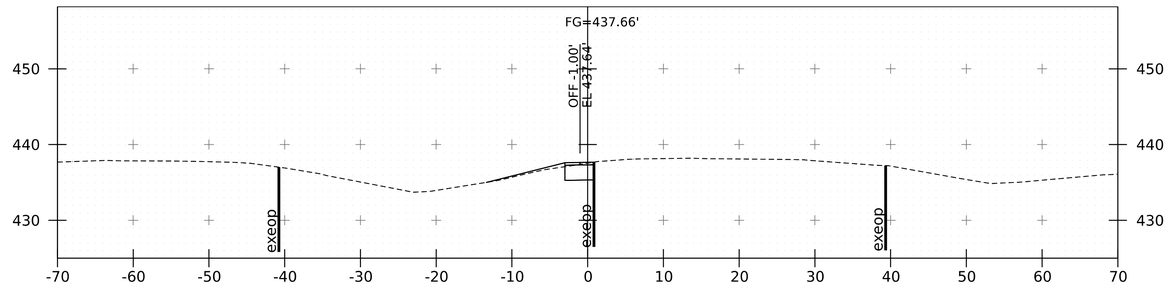

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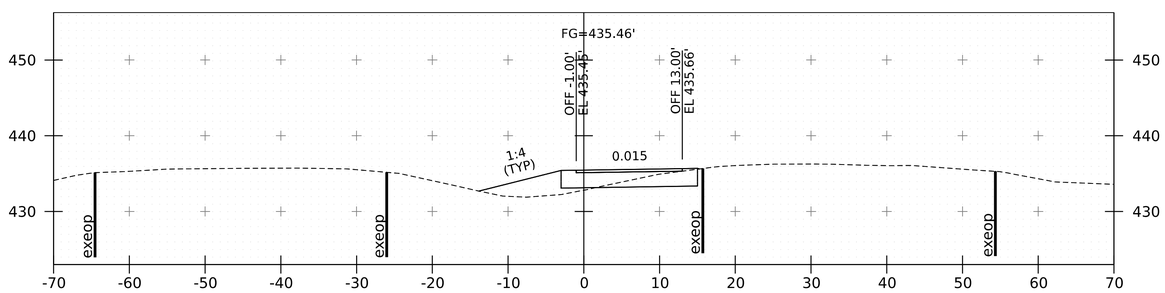

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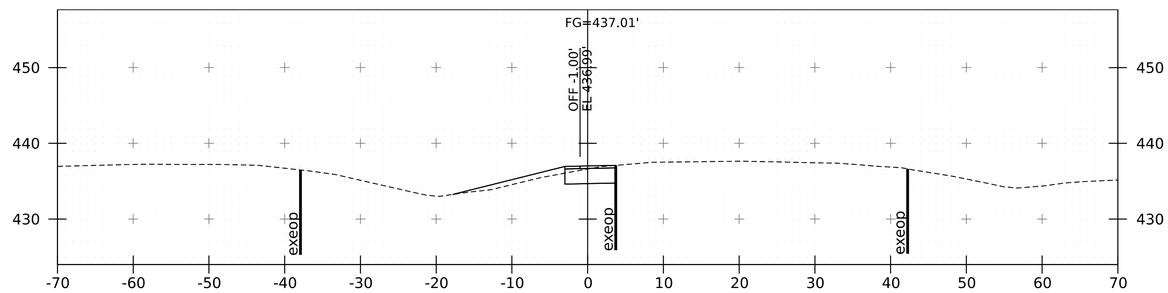


62+00

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024_xs_I91_NB_crossover_North.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 NB CROSSOVER XS SHEET 6		SHEET	55 OF 161

Stantec

LEGEND

- PLASTIC DRUM
- DIRECTION OF TRAFFIC
- TRAFFIC DELINEATOR (YELLOW)
- TRAFFIC DELINEATOR (WHITE)
- PORTABLE ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- TYPE III BARRACADE WITH ROAD CLOSED SIGN
- TYPE III BARRACADE
- TEMPORARY TRAFFIC BARRIER
- REMOVAL OR MASKING OF EXISTING PAVEMENT MARKINGS
- ENERGY ABSORBTION ATTENUATOR

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4738+79 TO STA. NB 4742+50, LT

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4738+79 TO STA. NB 4742+50, RT

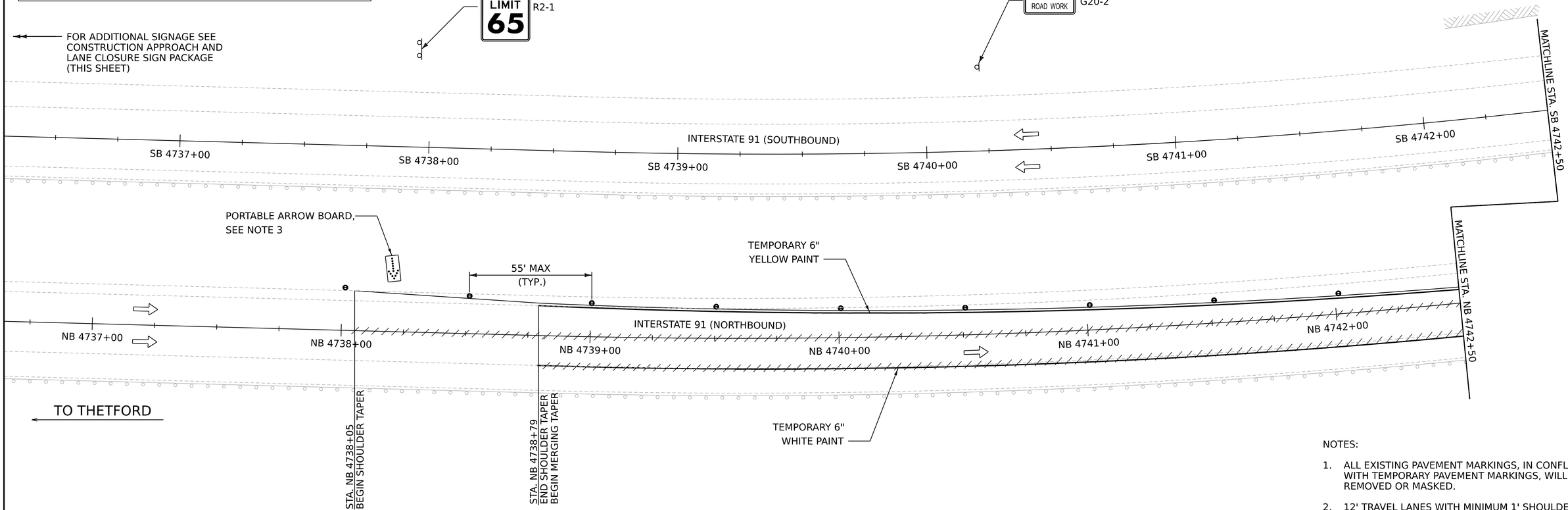
PAVEMENT MARKING MASK
STA. NB 4738+05 TO STA. NB 4742+50, DASHED CL
STA. NB 4738+79 TO STA. NB 4742+50, SOLID RT

VT STATE PLANE GRID

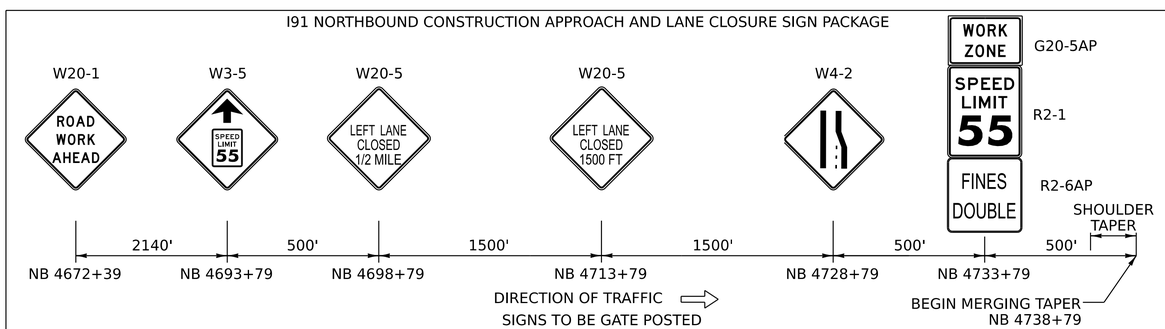
FOR ADDITIONAL SIGNAGE SEE CONSTRUCTION APPROACH AND LANE CLOSURE SIGN PACKAGE (THIS SHEET)

SB 4735+22 — SPEED LIMIT 65 — R2-1

SB 4740+22 — END ROAD WORK — G20-2



I91 NORTHBOUND CONSTRUCTION APPROACH AND LANE CLOSURE SIGN PACKAGE



NOTES:

1. ALL EXISTING PAVEMENT MARKINGS, IN CONFLICT WITH TEMPORARY PAVEMENT MARKINGS, WILL BE REMOVED OR MASKED.
2. 12' TRAVEL LANES WITH MINIMUM 1' SHOULDERS.
3. PORTABLE ARROW BOARDS SHALL BE PLACED ON THE ON ROADWAY SHOULDER AS CLOSE TO BEGINNING OF TAPER AS PRACTICAL. PAYMENT FOR THE ARROW BOARD WILL BE MADE UNDER ITEM 641.1600 PORTABLE ARROW BOARD.
4. ADVANCED PORTABLE CHANGEABLE MESSAGE BOARD(S) SHALL BE INSTALLED IN ACCORDANCE WITH VTRANS STANDARD T-10. PAYMENT WILL BE PAID UNDER ITEM 641.1500 PORTABLE CHANGEABLE MESSAGE SIGN.

SCALE IN FEET: 0 20 40

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

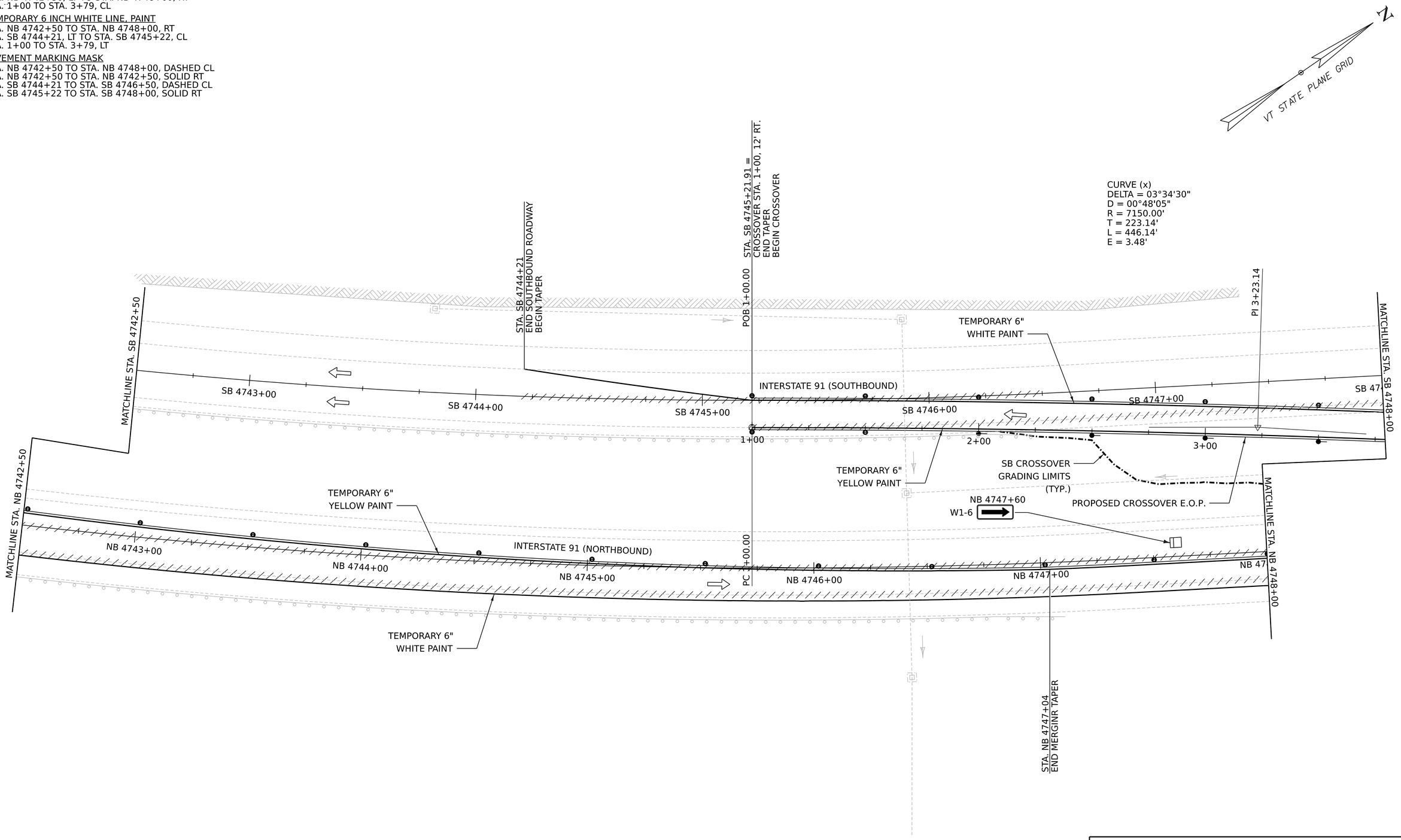
FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 1

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4742+50, LT TO STA. NB 4748+00, RT
STA. 1+00 TO STA. 3+79, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4742+50 TO STA. NB 4748+00, RT
STA. SB 4744+21, LT TO STA. SB 4745+22, CL
STA. 1+00 TO STA. 3+79, LT

PAVEMENT MARKING MASK
STA. NB 4742+50 TO STA. NB 4748+00, DASHED CL
STA. NB 4742+50 TO STA. NB 4742+50, SOLID RT
STA. SB 4744+21 TO STA. SB 4746+50, DASHED CL
STA. SB 4745+22 TO STA. SB 4748+00, SOLID RT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

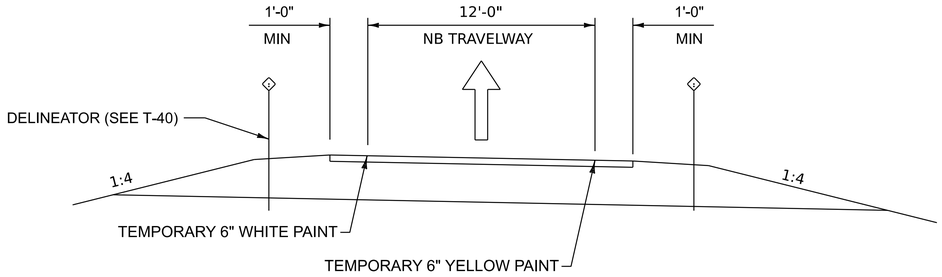
FILE NAME:	z21a024bdr_tcp_SB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER SB PLAN SHEET 2		SHEET 57 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4748+00 TO STA. NB 4753+50, RT
STA. 3+79 TO STA. 8+77, CL

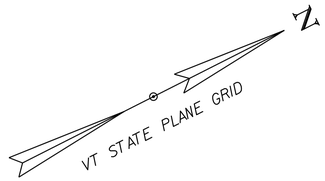
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4748+00 TO STA. NB 4753+50, RT
STA. 3+79 TO STA. 8+77, LT

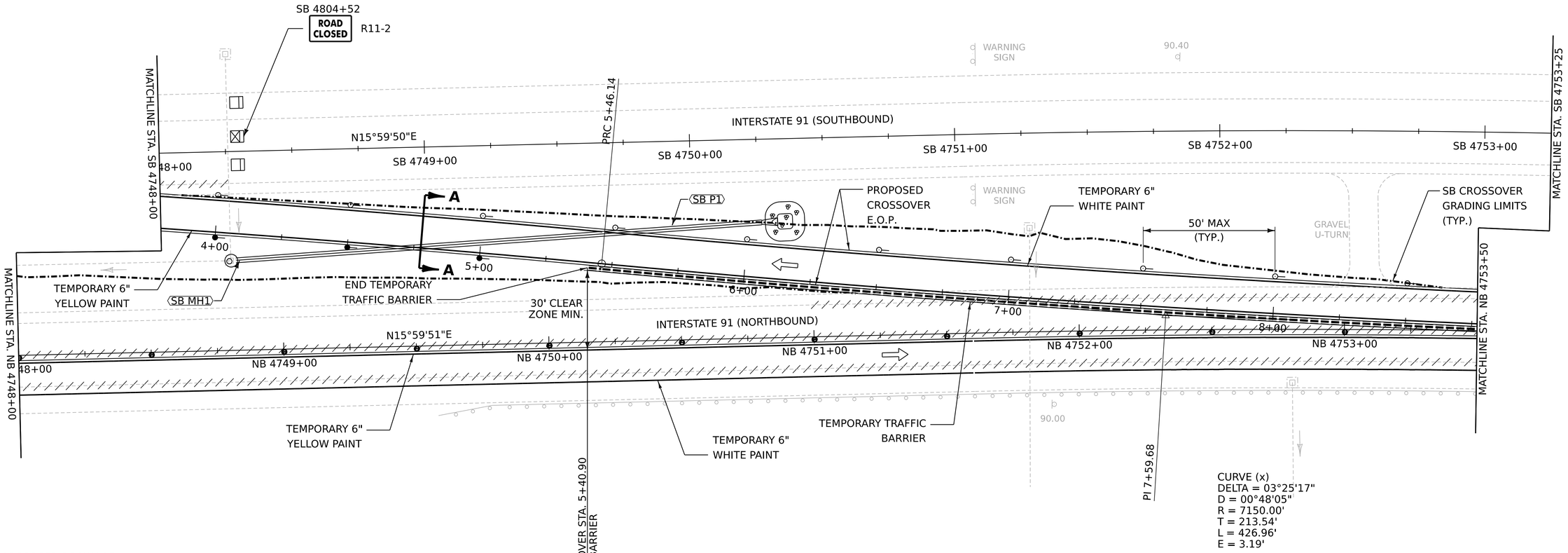
PAVEMENT MARKING MASK
STA. NB 4748+00 TO STA. NB 4753+50, DASHED CL
STA. NB 4748+00 TO STA. NB 4753+50, SOLID RT
STA. SB 4748+00 TO STA. SB 4748+25, SOLID RT
STA. NB 4751+00 TO STA. NB 4753+50, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. 5+41 TO STA. 8+77, RT



SB CROSSOVER SECTION A-A
NOT TO SCALE





PROPOSED DRAINAGE

SB MH1 — STA. NB 4748+85, LT
CONSTRUCT NEW PRECAST CONCRETE MANHOLE WITH CAST IRON COVER
(PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE)
RIM = 481.50 ±
NEW RISER SHALL BE PLACED ON EXISTING CATCH BASIN
INV. IN (N) = 478.00 ±

SB P1 — STA. NB 4748+85, LT TO STA. NB 4750+814, LT
INSTALL 18" x 196' RCP CLASS III
INSTALL 18" RCPES CLASS III AT INLET
INV. @ ES = 480.00' ±
INSTALL CULVERT END PROTECTION AT INLET WITH STONE FILL TYPE I

EXISTING INTERSTATE U-TURN NOTE:
1. UPON COMPLETION OF CONSTRUCTION AND REMOVAL OF THE INTERSTATE CROSSOVERS, THE CONTRACTOR SHALL REESTABLISH THE EXISTING INTERSTATE U-TURN. THE U-TURN SHALL CONSIST OF 4" AGGREGATE SURFACE COURSE, ON 24" OF SUBBASE OF DENSE GRADED CRUSHED STONE. WORK TO REESTABLISH THE EXISTING U-TURN WILL BE PAID AS ITEM 204.0100004 DIVIDED HIGHWAY CROSSOVER.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 3

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 58 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4753+50 TO STA. NB 4759+00, RT
STA. 8+77 TO STA. 14+27, CL

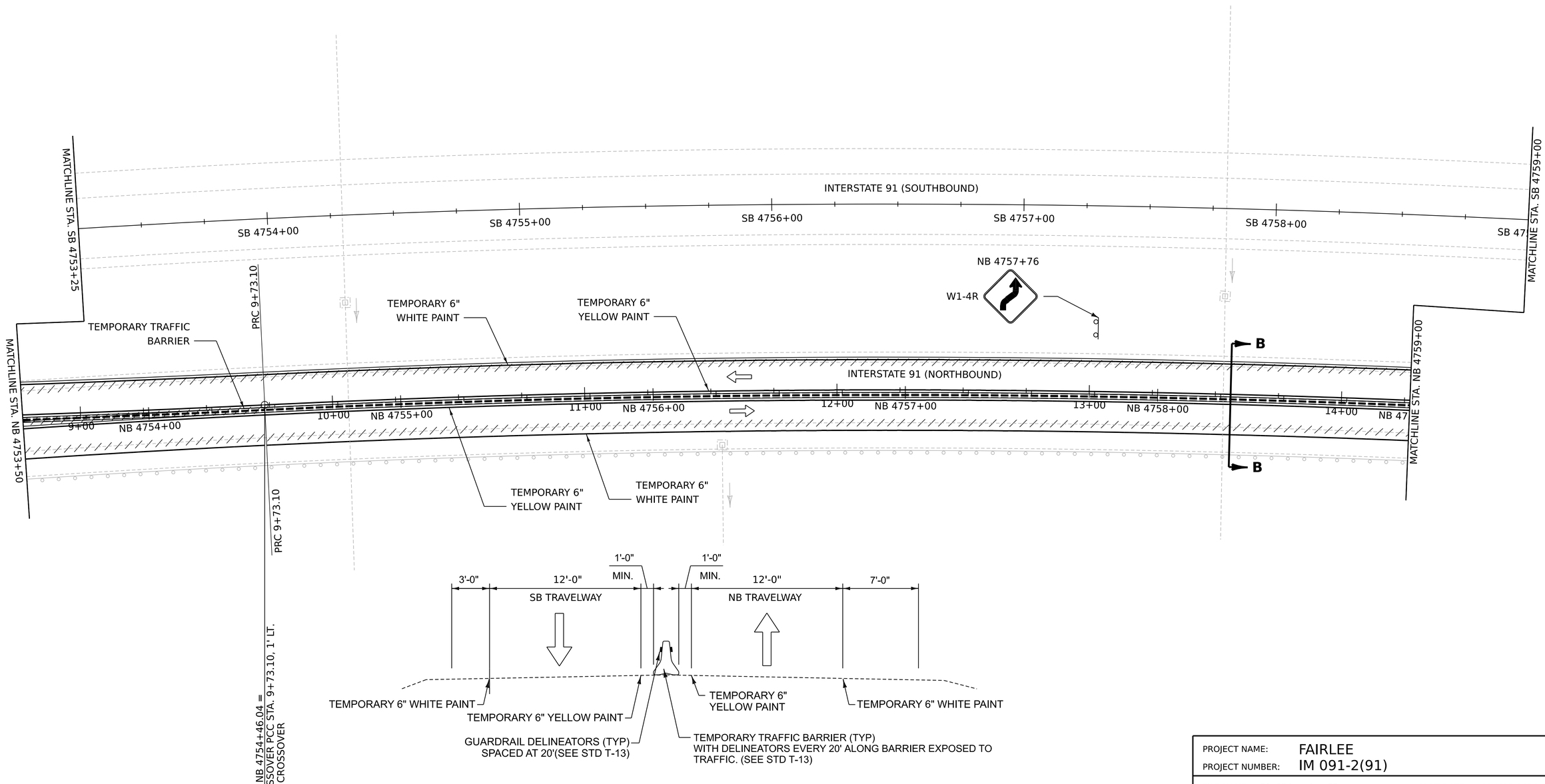
TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4753+50 TO STA. NB 4759+00, RT
STA. 8+77 TO STA. 14+27, LT

PAVEMENT MARKING MASK
STA. NB 4753+50 TO STA. NB 4754+46, DASHED CL
STA. NB 4753+50 TO STA. NB 4759+00, SOLID RT
STA. NB 4753+50 TO STA. NB 4759+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. 8+77 TO STA. 9+73, RT
STA. NB 4754+46 TO STA. NB 4759+00, RT

N

VT STATE PLANE GRID



SB CROSSOVER SECTION B-B
NOT TO SCALE

0 20 40
SCALE IN FEET

Stantec

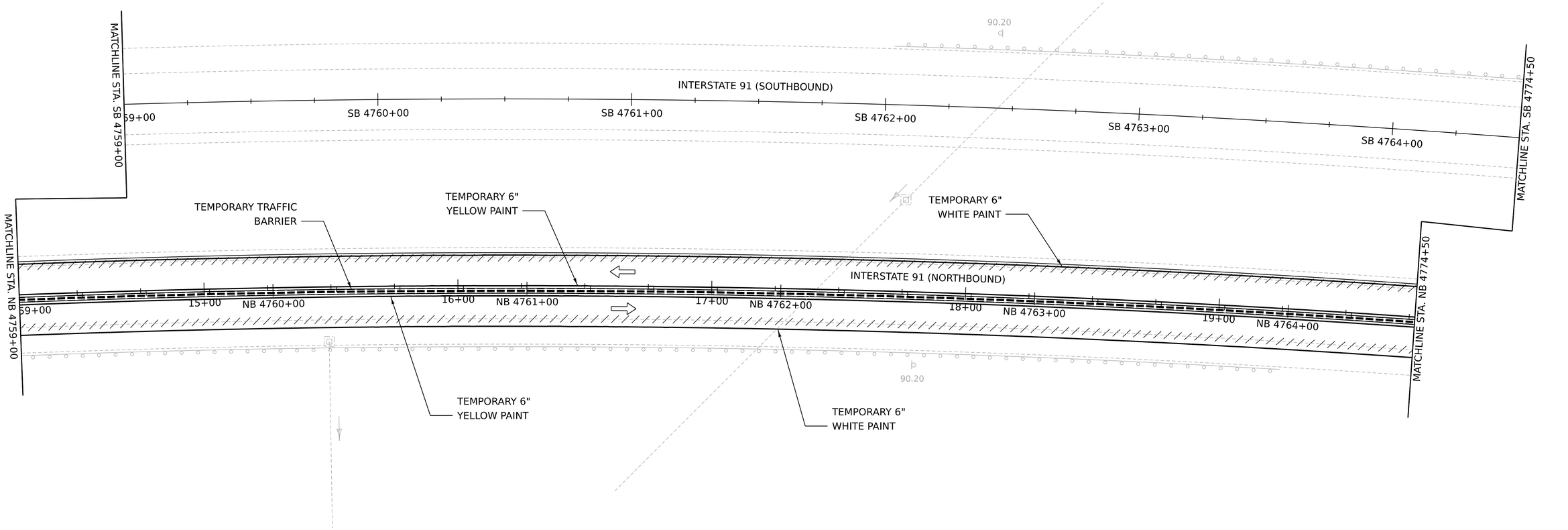
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 4	SHEET 59 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4759+00 TO STA. NB 4764+50, RT
STA. 14+27 TO STA. 19+77, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4759+00 TO STA. NB 4764+50, RT
STA. 14+27 TO STA. 19+77, LT

PAVEMENT MARKING MASK
STA. NB 4759+00 TO STA. NB 4764+50, SOLID RT
STA. NB 4759+00 TO STA. NB 4764+50, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4759+00 TO STA. NB 4764+50, RT



0 20 40
SCALE IN FEET

Stantec

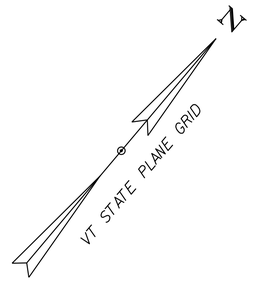
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 5	SHEET 60 OF 161

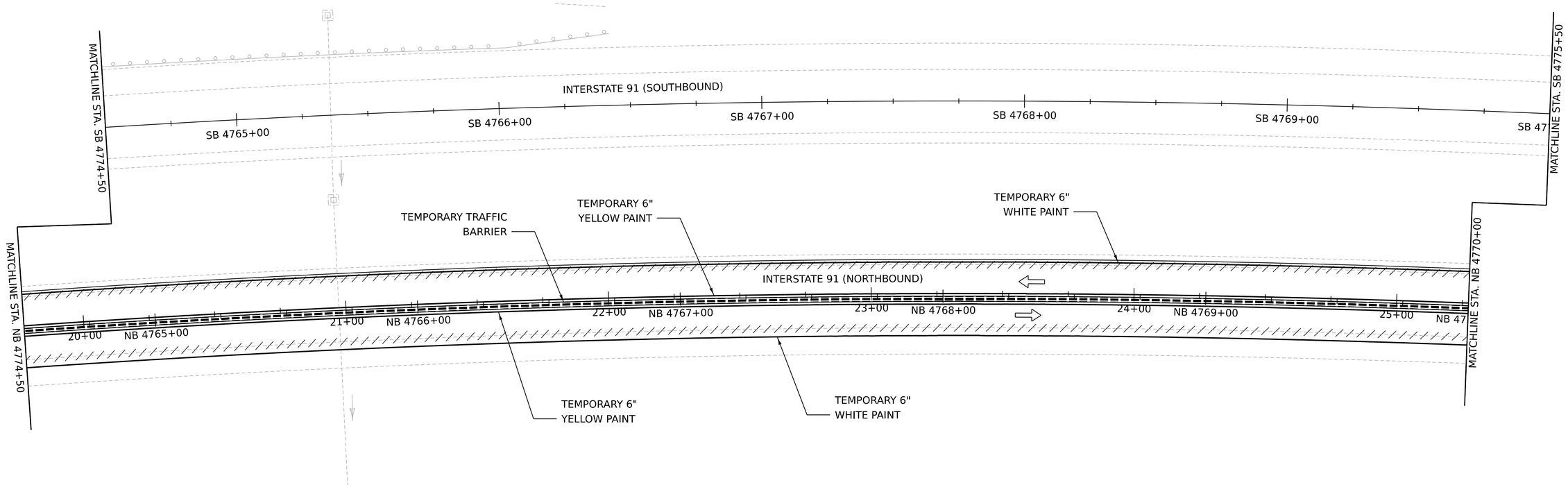
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4764+50 TO STA. NB 4770+00, RT
STA. 19+77 TO STA. 25+27, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4764+50 TO STA. NB 4770+00, RT
STA. 19+77 TO STA. 25+27, LT

PAVEMENT MARKING MASK
STA. NB 4764+50 TO STA. NB 4770+00, SOLID RT
STA. NB 4764+50 TO STA. NB 4770+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4764+50 TO STA. NB 4770+00, RT





0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

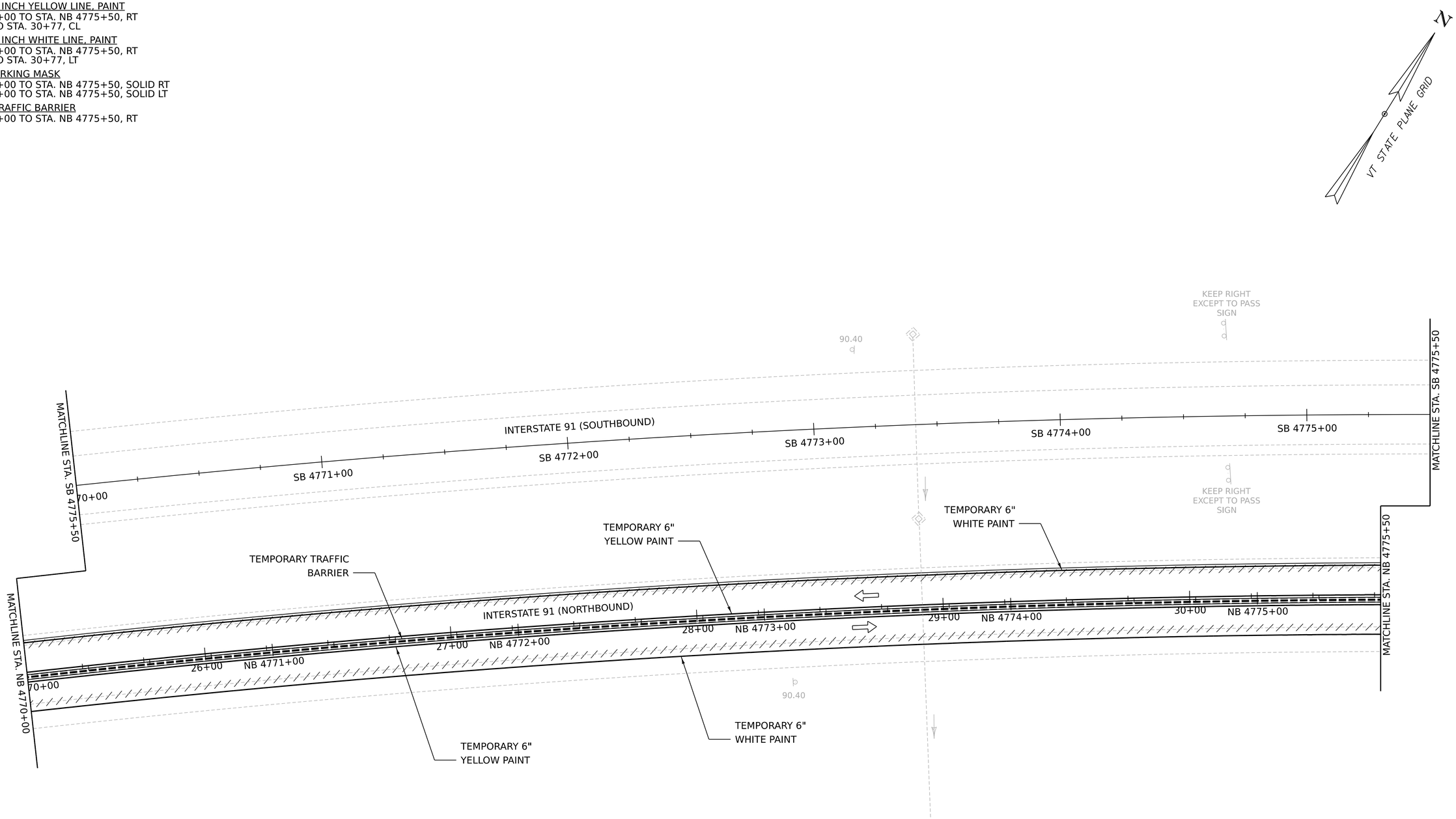
FILE NAME:	z21a024bdr_tcp_SB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER SB PLAN SHEET 6		SHEET 61 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4770+00 TO STA. NB 4775+50, RT
STA. 25+27 TO STA. 30+77, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4770+00 TO STA. NB 4775+50, RT
STA. 25+27 TO STA. 30+77, LT

PAVEMENT MARKING MASK
STA. NB 4770+00 TO STA. NB 4775+50, SOLID RT
STA. NB 4770+00 TO STA. NB 4775+50, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4770+00 TO STA. NB 4775+50, RT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

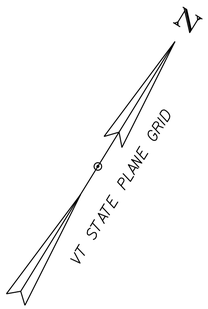
FILE NAME:	z21a024bdr_tcp_SB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	I. MAYNARD
CROSSOVER SB PLAN SHEET 7		SHEET 62 OF 161	

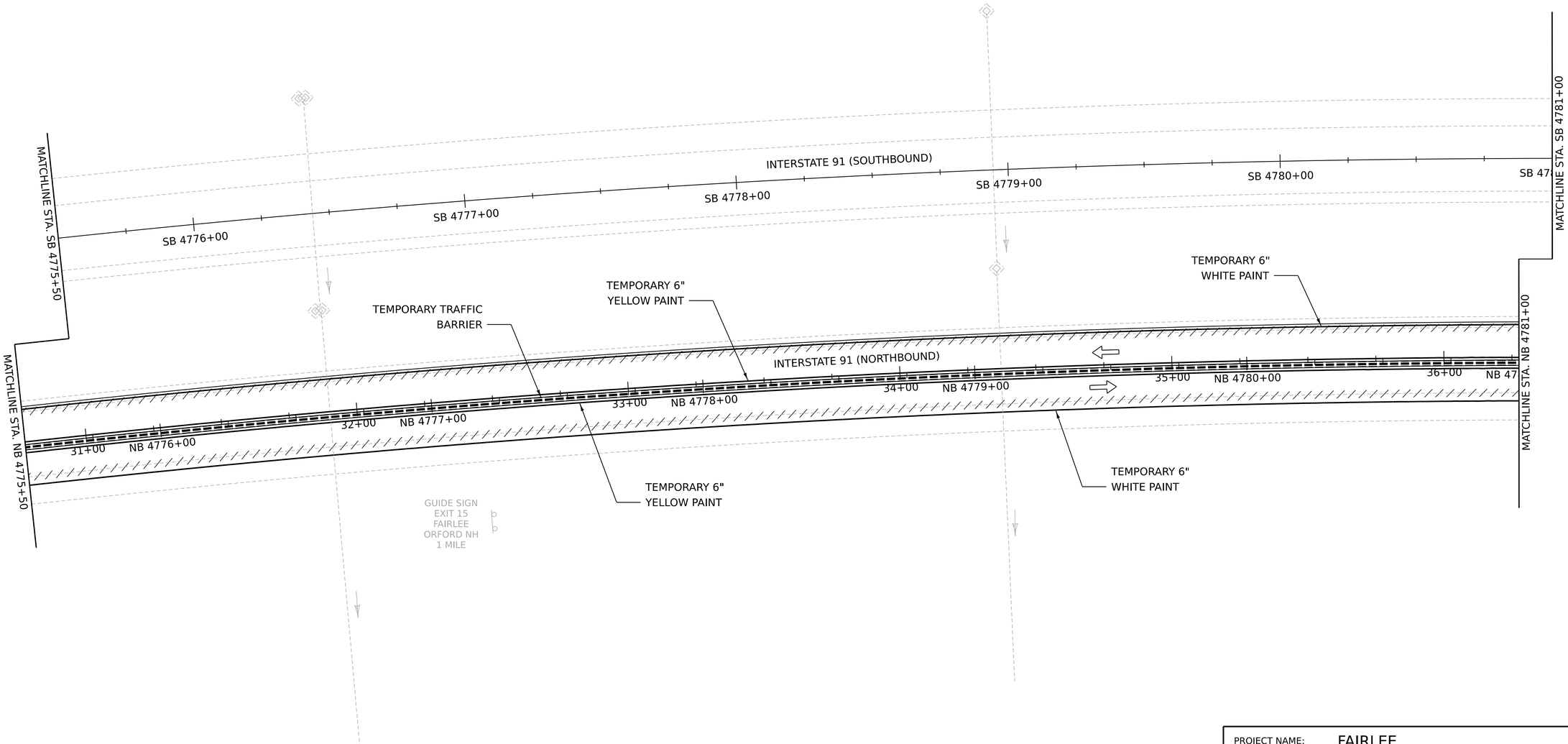
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4775+50 TO STA. NB 4781+00, RT
STA. 30+77 TO STA. 36+28, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4775+50 TO STA. NB 4781+00, RT
STA. 30+77 TO STA. 36+28, LT

PAVEMENT MARKING MASK
STA. NB 4775+50 TO STA. NB 4781+00, SOLID RT
STA. NB 4775+50 TO STA. NB 4781+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4775+50 TO STA. NB 4781+00, RT





0 20 40
SCALE IN FEET

Stantec

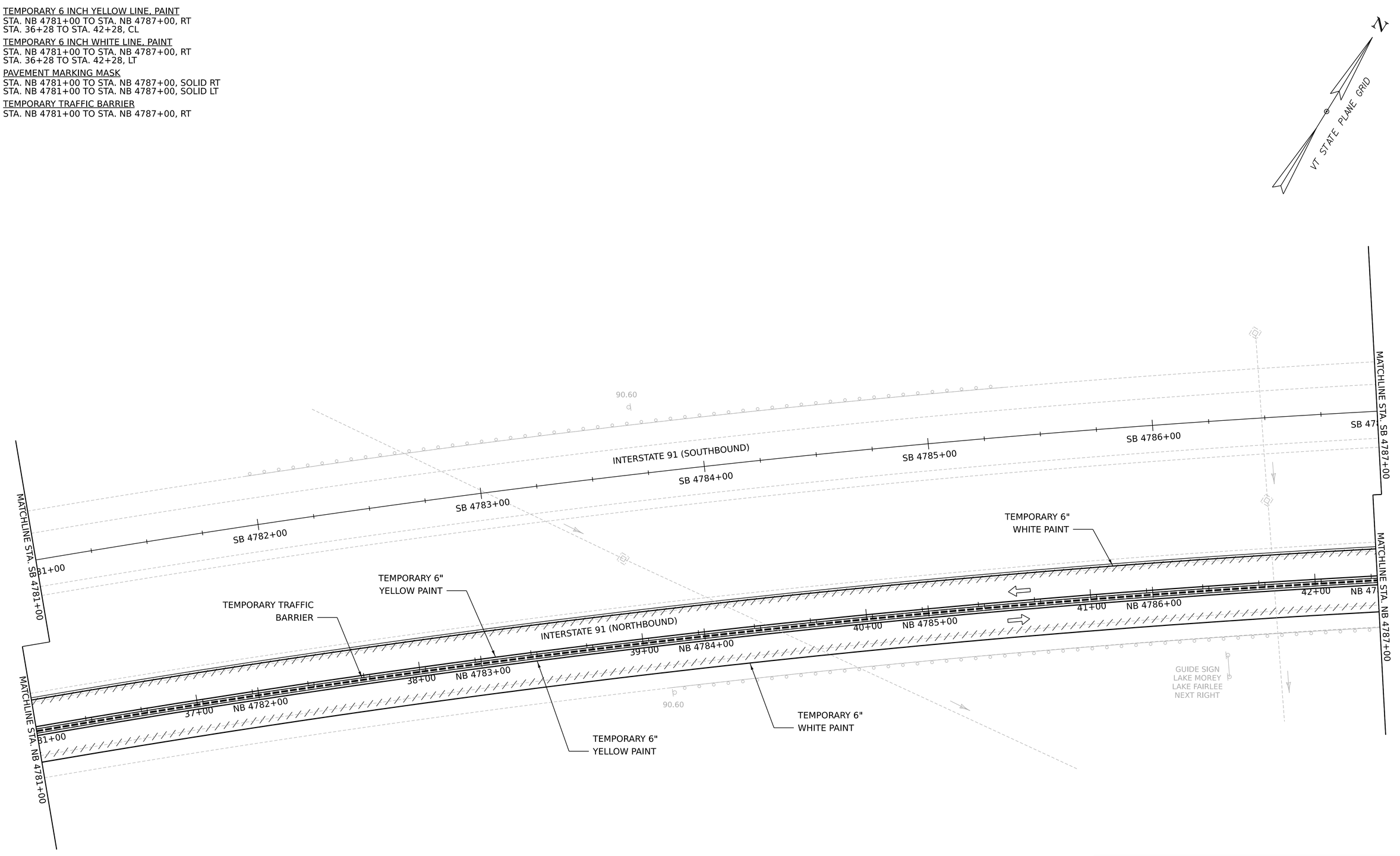
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
CROSSOVER SB PLAN SHEET 8	SHEET 63 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4781+00 TO STA. NB 4787+00, RT
STA. 36+28 TO STA. 42+28, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4781+00 TO STA. NB 4787+00, RT
STA. 36+28 TO STA. 42+28, LT

PAVEMENT MARKING MASK
STA. NB 4781+00 TO STA. NB 4787+00, SOLID RT
STA. NB 4781+00 TO STA. NB 4787+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4781+00 TO STA. NB 4787+00, RT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024bdr_tcp_SB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER SB PLAN SHEET 9		SHEET 64 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4787+00 TO STA. NB 4793+00, RT
STA. 42+28 TO STA. 48+28, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4787+00 TO STA. NB 4793+00, RT
STA. 42+28 TO STA. 48+28, LT

PAVEMENT MARKING MASK
STA. NB 4787+00 TO STA. NB 4793+00, SOLID RT
STA. NB 4787+00 TO STA. NB 4793+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4787+00 TO STA. NB 4793+00, RT
STA. NB 4792+37 TO STA. NB 4793+00, LT

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

1456
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

APPROXIMATE TOPOGRAPHY FROM LIDAR

LIMIT OF SURVEY

THETFORD 6/
WRJ20

EXISITNG
WING WALL

MATCHLINE STA. SB 4787+00

INTERSTATE 91 (SOUTHBOUND)

SB 4788+00

SB 4789+00

SB 4790+00

SB 4791+00

SB 4792+00

MATCHLINE STA. SB 4793+00

TEMPORARY 6"
YELLOW PAINT

TEMPORARY 6"
WHITE PAINT

TEMPORARY TRAFFIC
BARRIER

TEMPORARY TRAFFIC
BARRIER

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. NB 4787+00

43+00 NB 4788+00

44+00 NB 4789+00

45+00 NB 4790+00

46+00 NB 4791+00

47+00 NB 4792+00

48+00 NB 47

MATCHLINE STA. NB 4793+00

TEMPORARY 6"
YELLOW PAINT

TEMPORARY 6"
WHITE PAINT

PT 45+06.74

APPROXIMATE TOPOGRAPHY FROM LIDAR

LIMIT OF SURVEY

1000
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

APPROX. EXISTING R.O.W.

MH0

0 20 40
SCALE IN FEET

Stantec

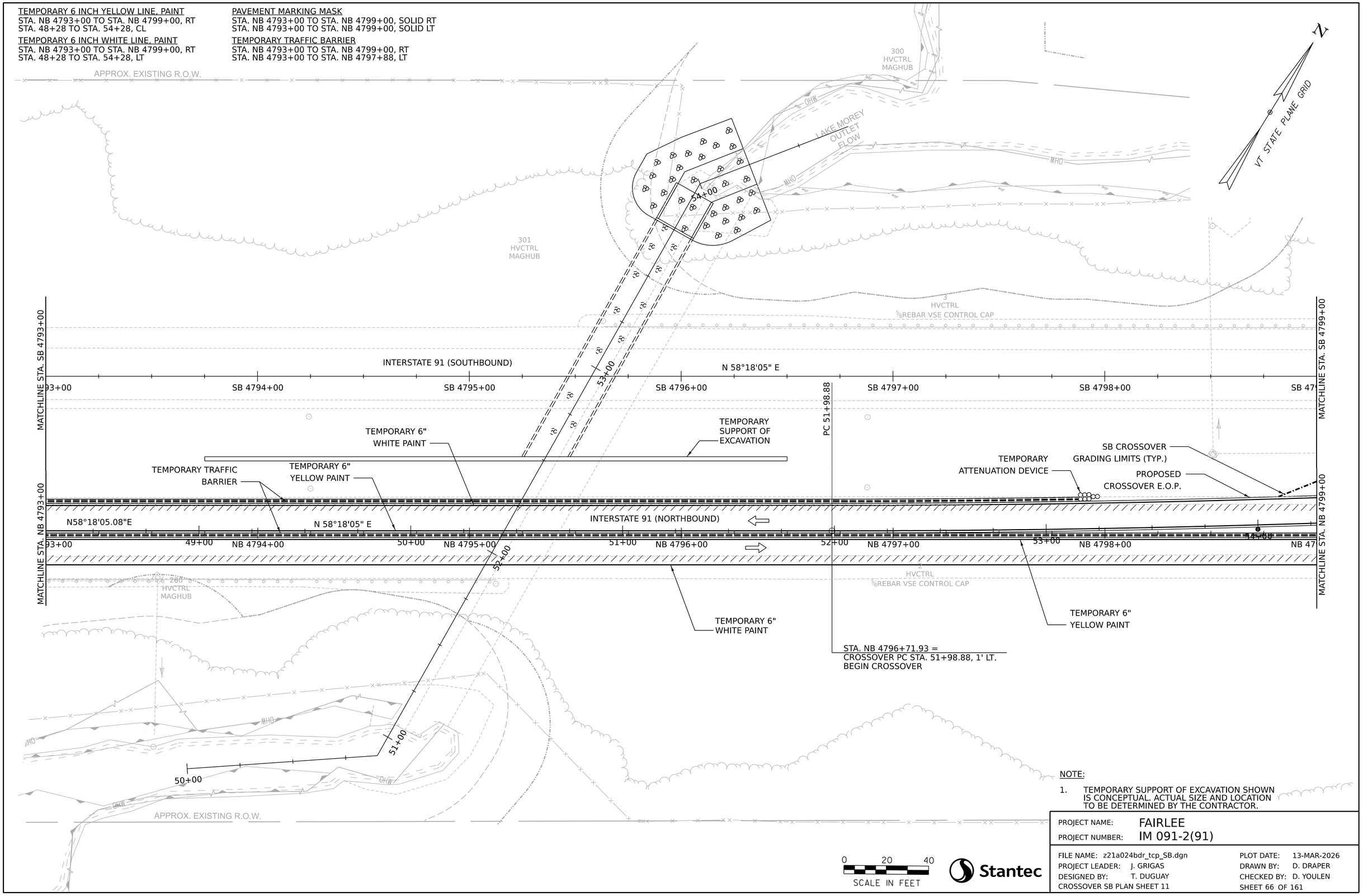
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 10	SHEET 65 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4793+00 TO STA. NB 4799+00, RT
STA. 48+28 TO STA. 54+28, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4793+00 TO STA. NB 4799+00, RT
STA. 48+28 TO STA. 54+28, LT

PAVEMENT MARKING MASK
STA. NB 4793+00 TO STA. NB 4799+00, SOLID RT
STA. NB 4793+00 TO STA. NB 4799+00, SOLID LT

TEMPORARY TRAFFIC BARRIER
STA. NB 4793+00 TO STA. NB 4799+00, RT
STA. NB 4793+00 TO STA. NB 4797+88, LT



STA. NB 4796+71.93 =
CROSSOVER PC STA. 51+98.88, 1' LT.
BEGIN CROSSOVER

NOTE:

1. TEMPORARY SUPPORT OF EXCAVATION SHOWN IS CONCEPTUAL. ACTUAL SIZE AND LOCATION TO BE DETERMINED BY THE CONTRACTOR.

SCALE IN FEET 0 20 40

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 11

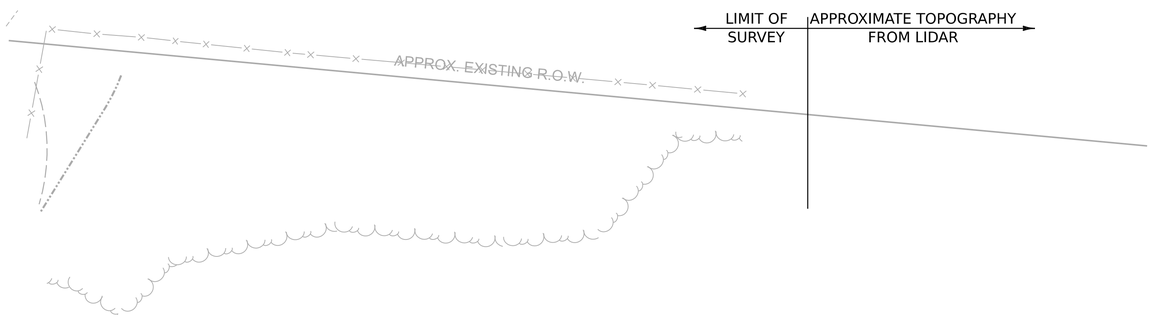
PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN

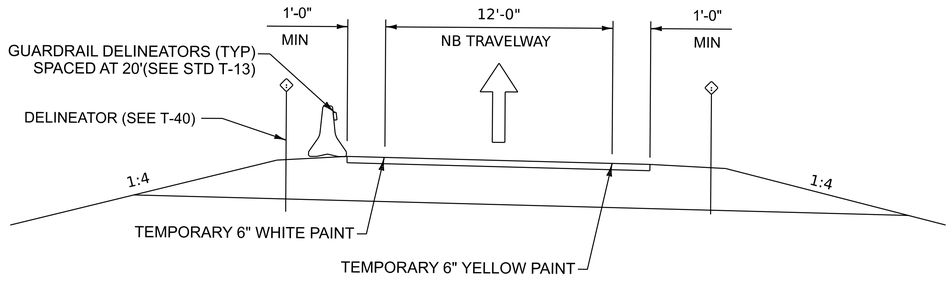
TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. NB 4799+00 TO STA. NB 4805+00, RT
STA. 54+28 TO STA. 60+29, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. NB 4799+00 TO STA. NB 4805+00, RT
STA. 54+28 TO STA. 60+29, LT

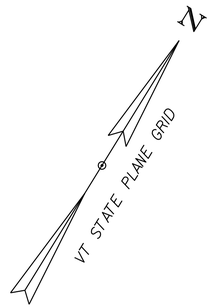
PAVEMENT MARKING MASK
STA. NB 4799+00 TO STA. NB 4801+50, SOLID LT
STA. NB 4799+00 TO STA. NB 4803+99, SOLID RT
STA. NB 4803+16 TO STA. NB 4803+99, DASHED CL
STA. SB 4804+75 TO STA. SB 4805+00, SOLID RT

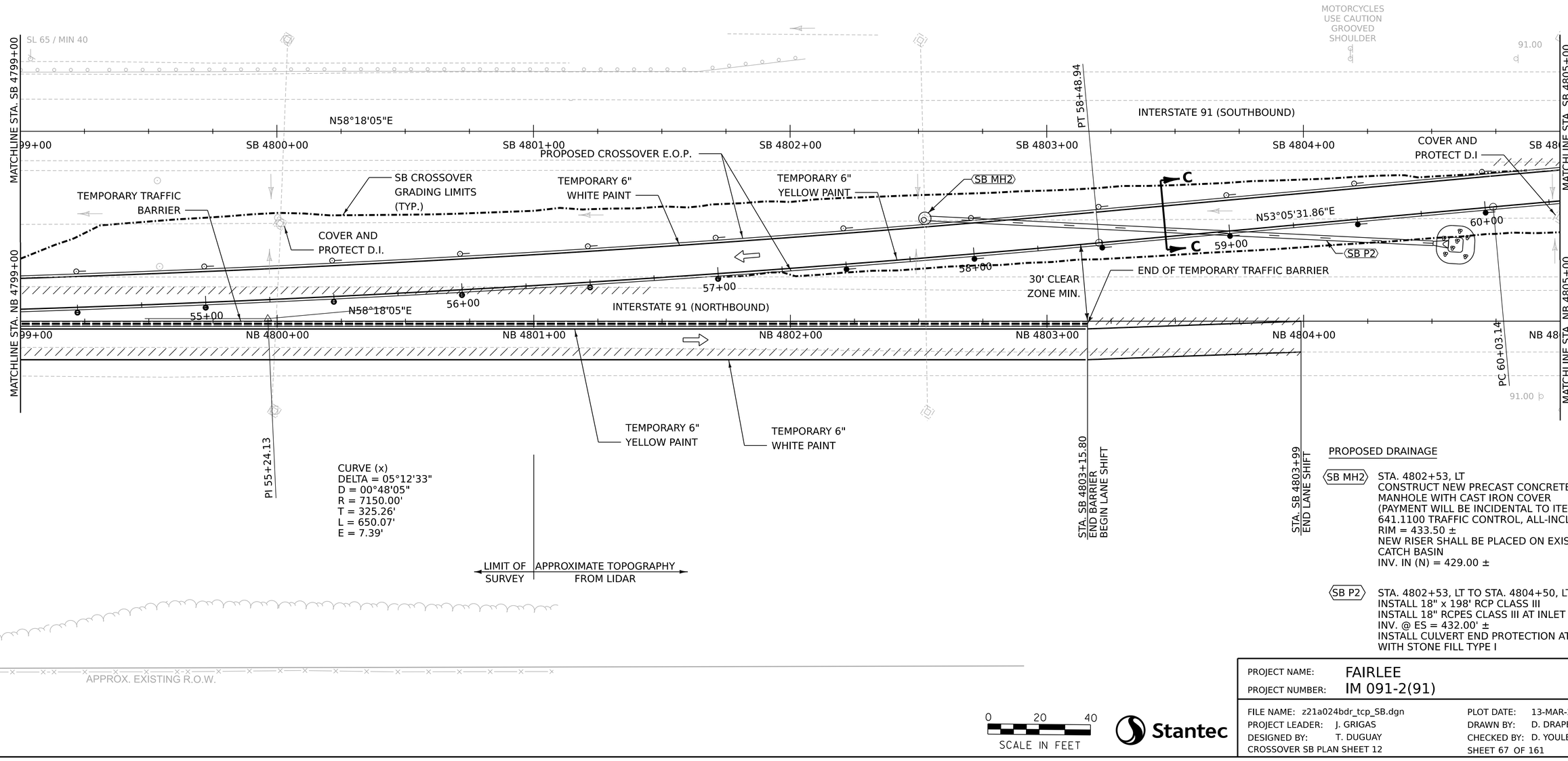
TEMPORARY TRAFFIC BARRIER
STA. NB 4799+00 TO STA. NB 4803+16, RT





SB CROSSOVER SECTION C-C
NOT TO SCALE





CURVE (x)
DELTA = 05°12'33"
D = 00°48'05"
R = 7150.00'
T = 325.26'
L = 650.07'
E = 7.39'

PROPOSED DRAINAGE

SB MH2
STA. 4802+53, LT
CONSTRUCT NEW PRECAST CONCRETE MANHOLE WITH CAST IRON COVER (PAYMENT WILL BE INCIDENTAL TO ITEM 641.1100 TRAFFIC CONTROL, ALL-INCLUSIVE)
RIM = 433.50 ±
NEW RISER SHALL BE PLACED ON EXISTING CATCH BASIN
INV. IN (N) = 429.00 ±

SB P2
STA. 4802+53, LT TO STA. 4804+50, LT
INSTALL 18" x 198' RCP CLASS III
INSTALL 18" RCPES CLASS III AT INLET
INV. @ ES = 432.00' ±
INSTALL CULVERT END PROTECTION AT INLET WITH STONE FILL TYPE I

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

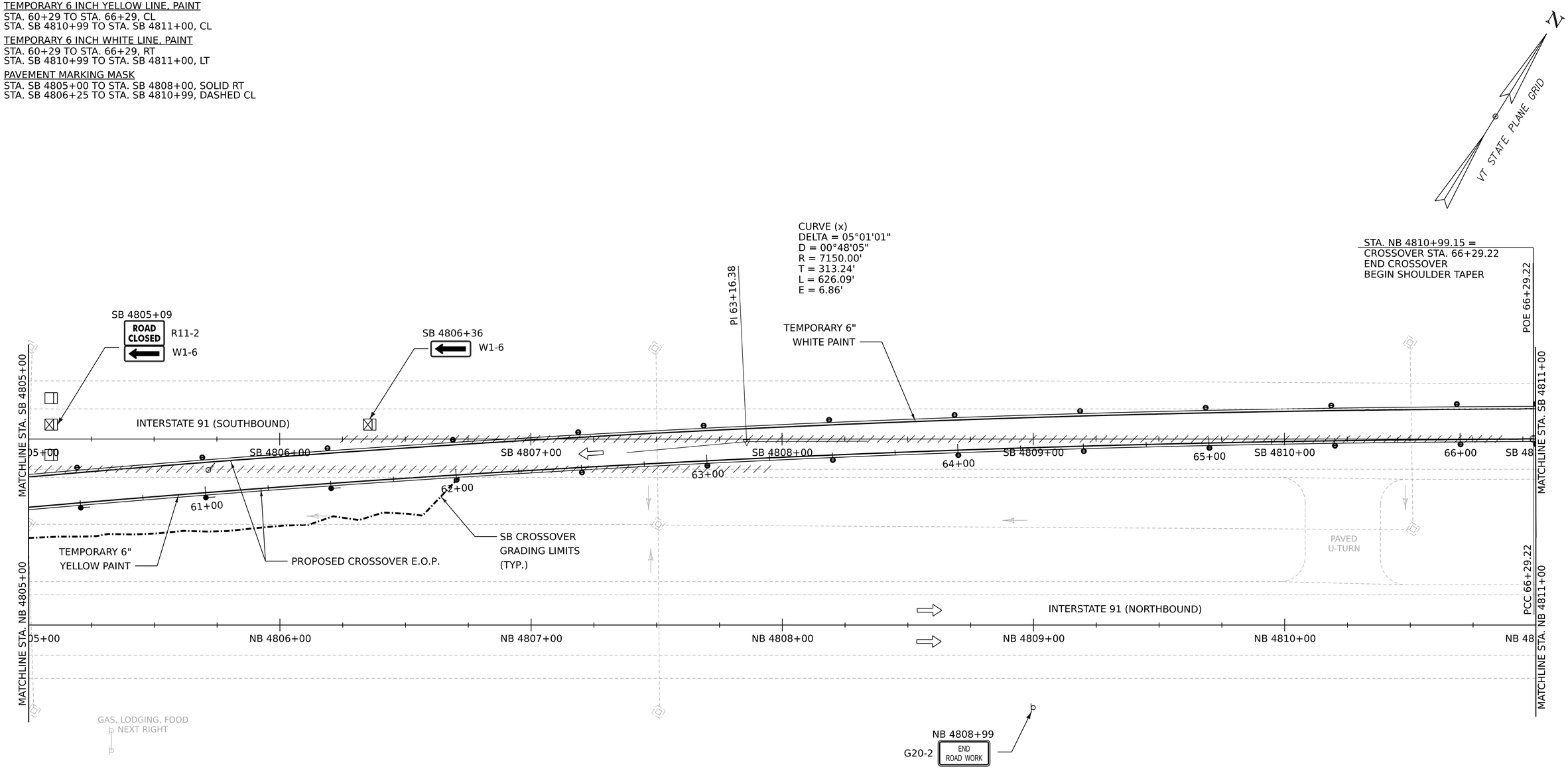
FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 12

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. 60+29 TO STA. 66+29, CL
STA. SB 4810+99 TO STA. SB 4811+00, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. 60+29 TO STA. 66+29, RT
STA. SB 4810+99 TO STA. SB 4811+00, LT

PAVEMENT MARKING MASK
STA. SB 4805+00 TO STA. SB 4808+00, SOLID RT
STA. SB 4806+25 TO STA. SB 4810+99, DASHED CL



0 20 40
SCALE IN FEET

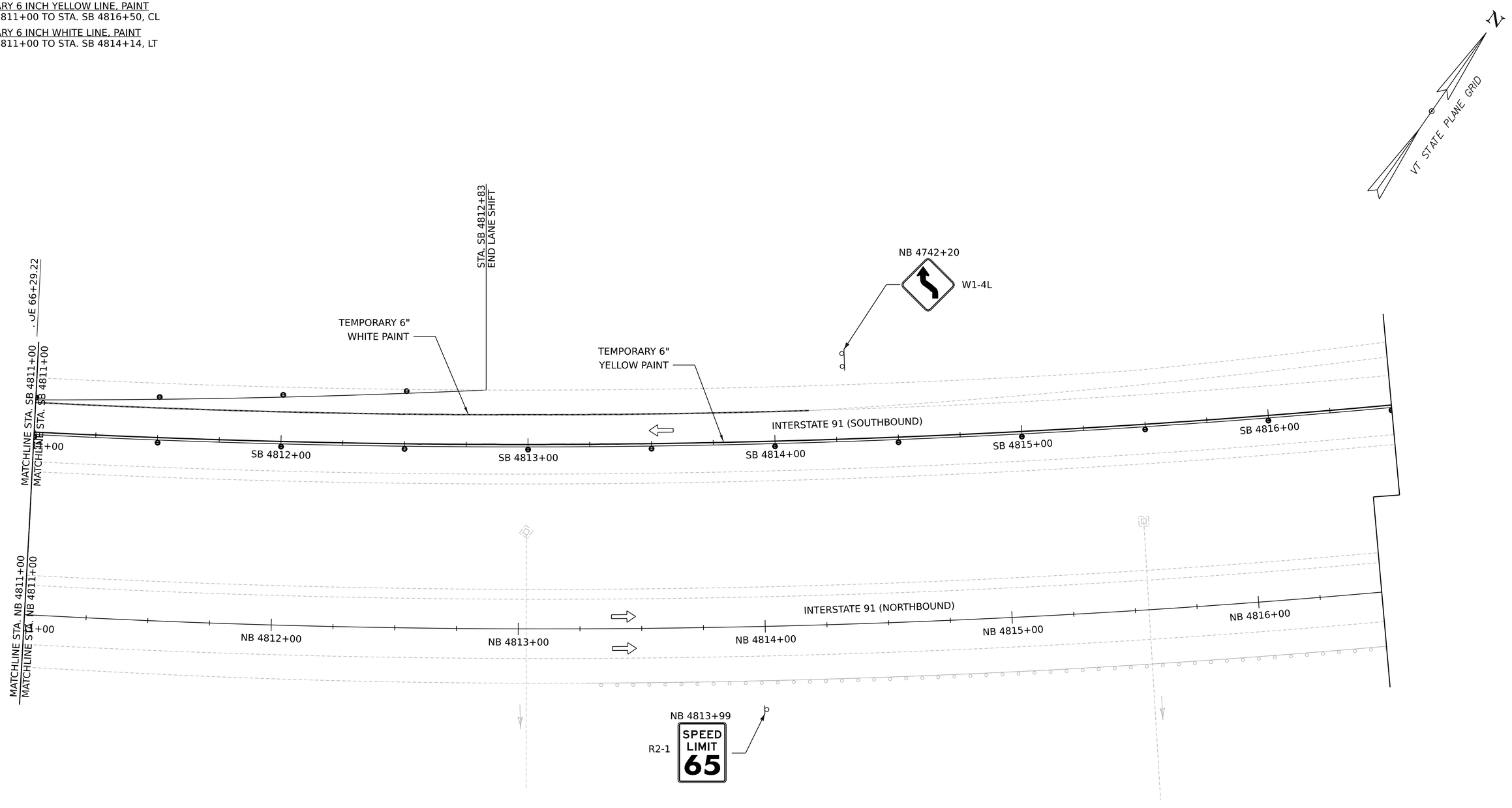
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024bdr_tcp_SB.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
CROSSOVER SB PLAN SHEET 13		SHEET 68 OF 161	

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4811+00 TO STA. SB 4816+50, CL

TEMPORARY 6 INCH WHITE LINE, PAINT
STA. SB 4811+00 TO STA. SB 4814+14, LT

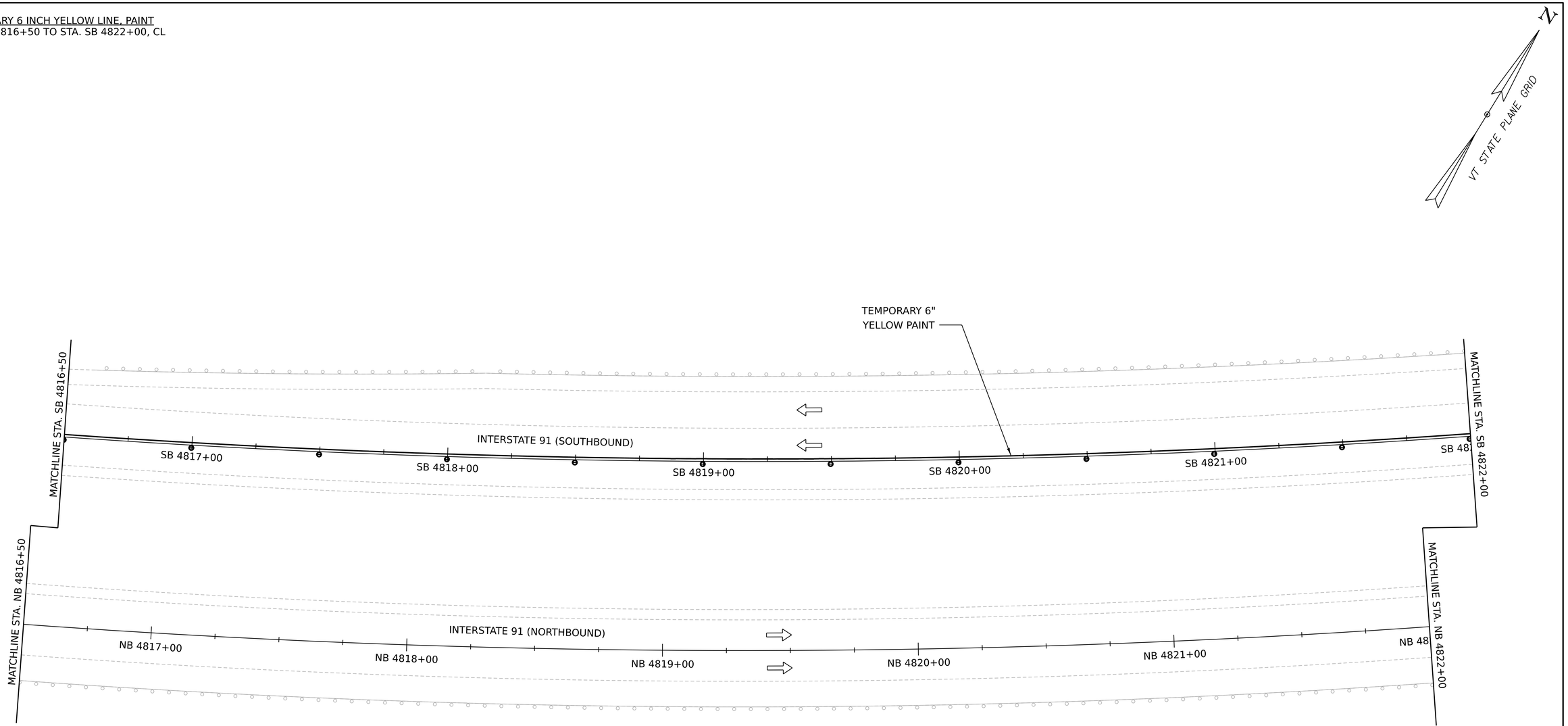


0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 14	SHEET 69 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4816+50 TO STA. SB 4822+00, CL

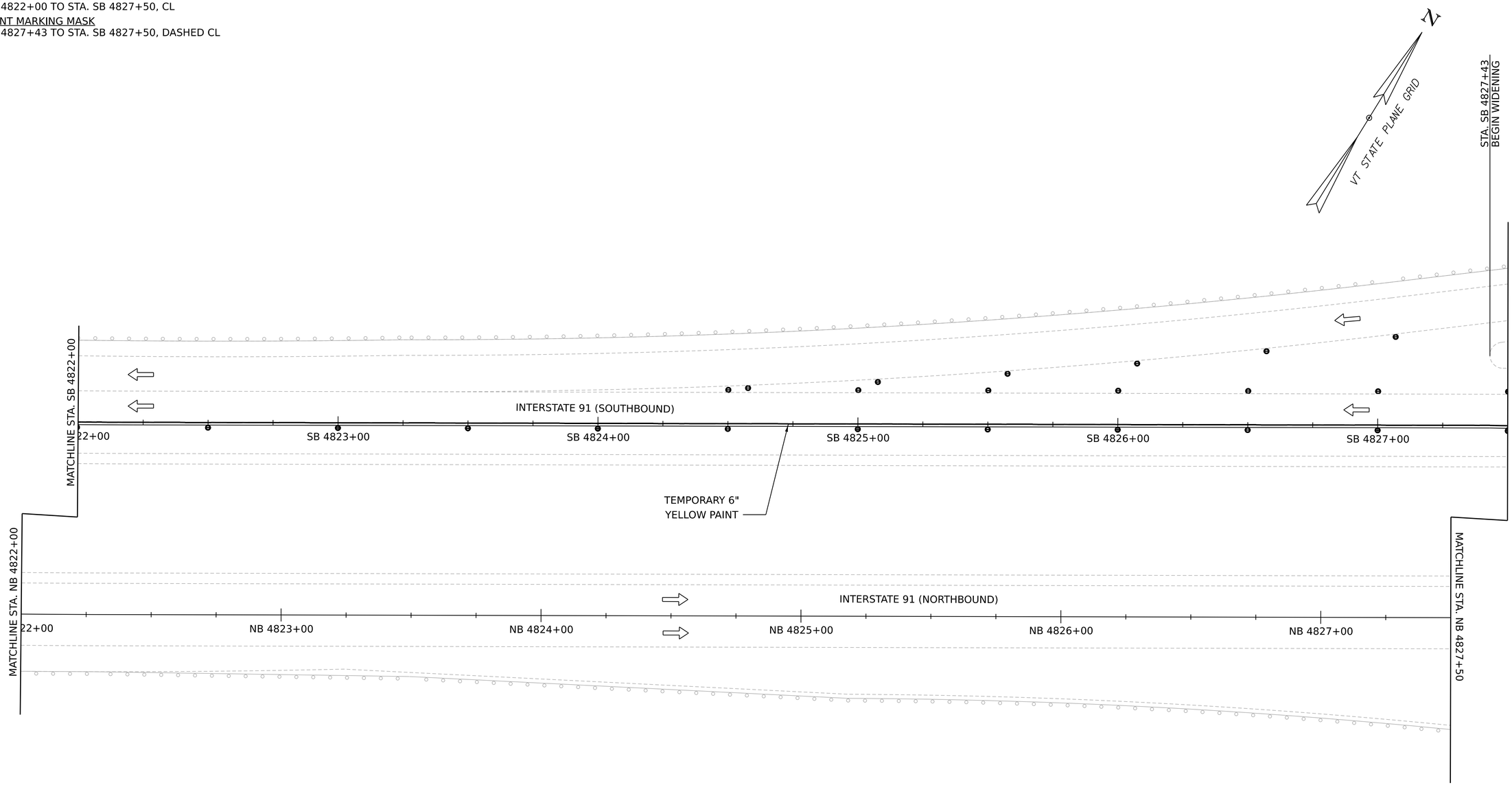


0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 15	SHEET 70 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4822+00 TO STA. SB 4827+50, CL
PAVEMENT MARKING MASK
STA. SB 4827+43 TO STA. SB 4827+50, DASHED CL

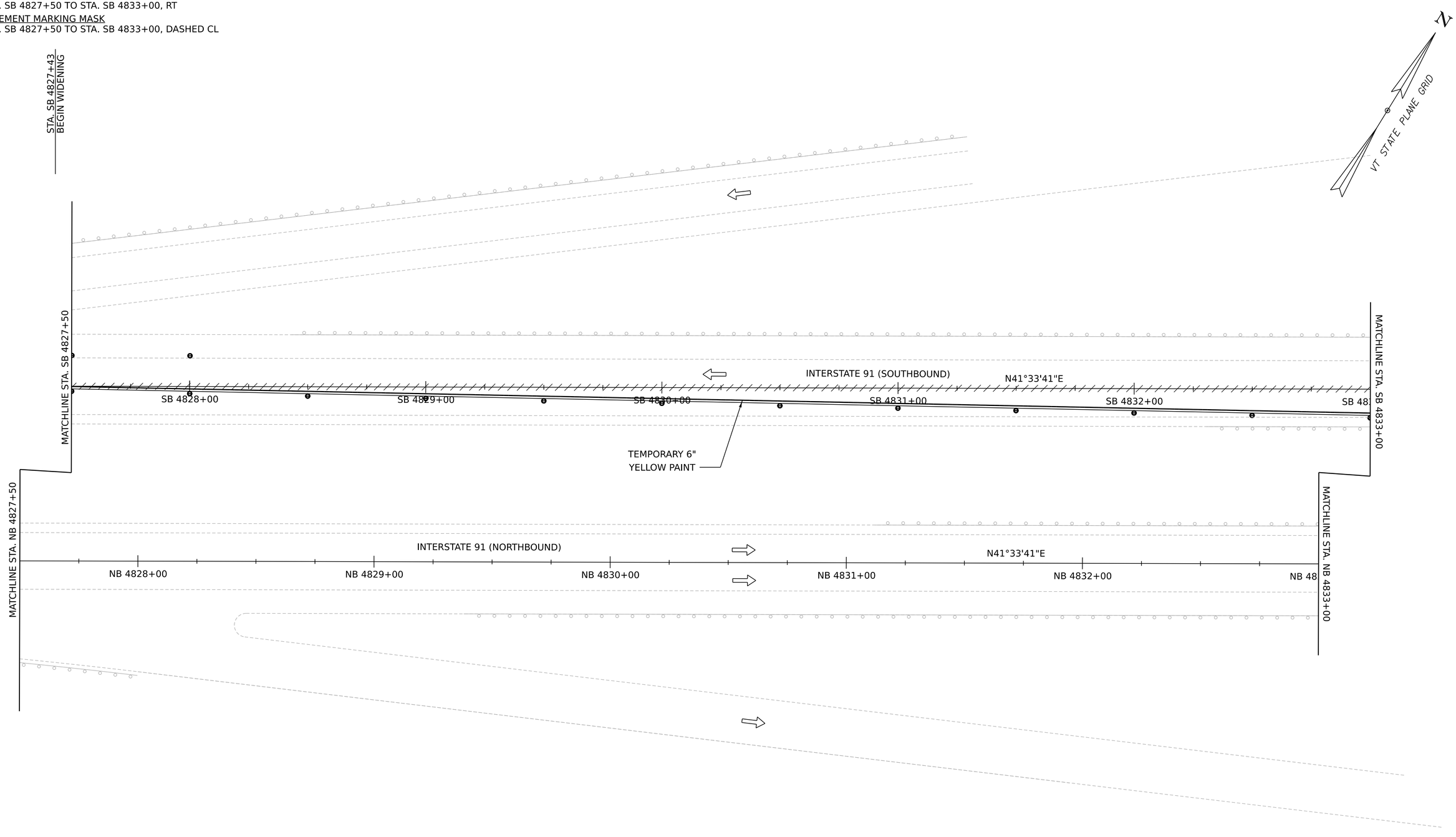


0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 16	SHEET 71 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4827+50 TO STA. SB 4833+00, RT
PAVEMENT MARKING MASK
STA. SB 4827+50 TO STA. SB 4833+00, DASHED CL

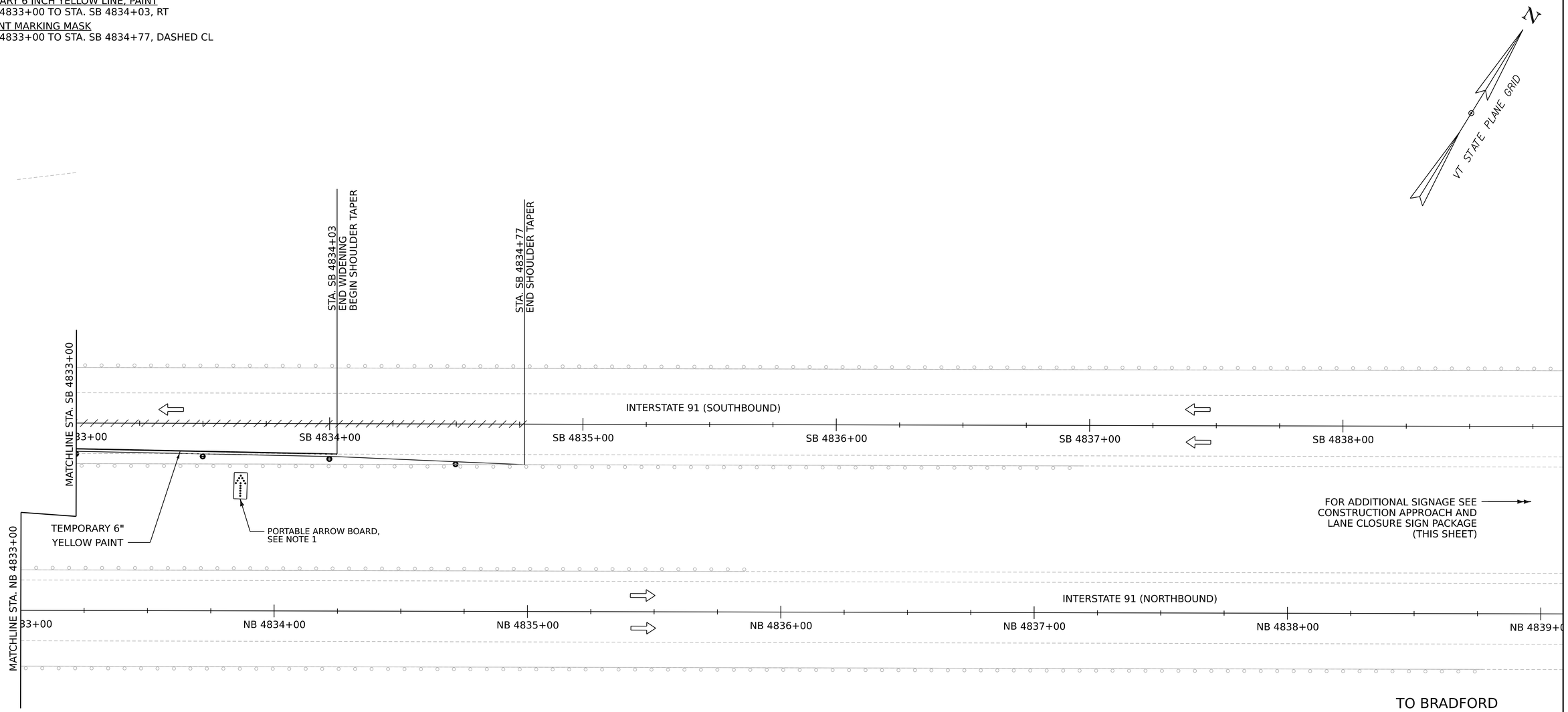


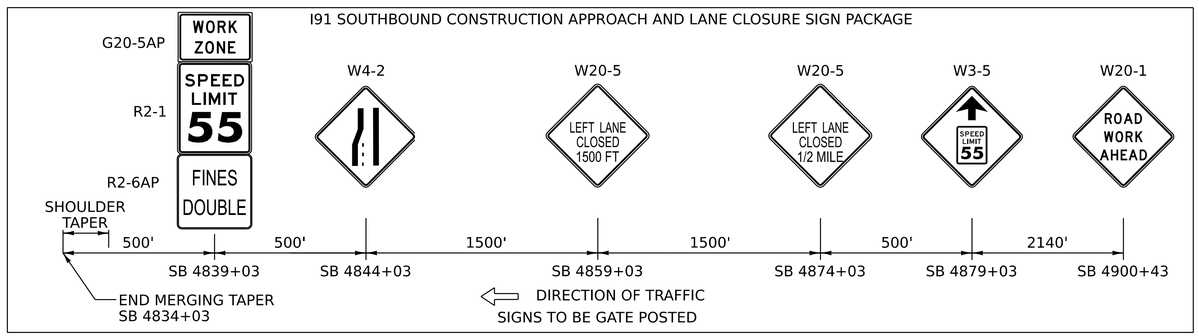
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_tcp_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
CROSSOVER SB PLAN SHEET 17	SHEET 72 OF 161

TEMPORARY 6 INCH YELLOW LINE, PAINT
STA. SB 4833+00 TO STA. SB 4834+03, RT
PAVEMENT MARKING MASK
STA. SB 4833+00 TO STA. SB 4834+77, DASHED CL





NOTE:

1. PORTABLE ARROW BOARDS SHALL BE PLACED ON THE ON ROADWAY SHOULDER AS CLOSE TO BEGINNING OF TAPER AS PRACTICAL. PAYMENT FOR THE ARROW BOARD WILL BE MADE UNDER ITEM 641.1600 PORTABLE ARROW BOARD.
2. ADVANCED PORTABLE CHANGEABLE MESSAGE BOARD(S) SHALL BE INSTALLED IN ACCORDANCE WITH VTRANS STANDARD T-10. PAYMENT WILL BE UNDER ITEM 641.1500 PORTABLE CHANGEABLE MESSAGE SIGN.

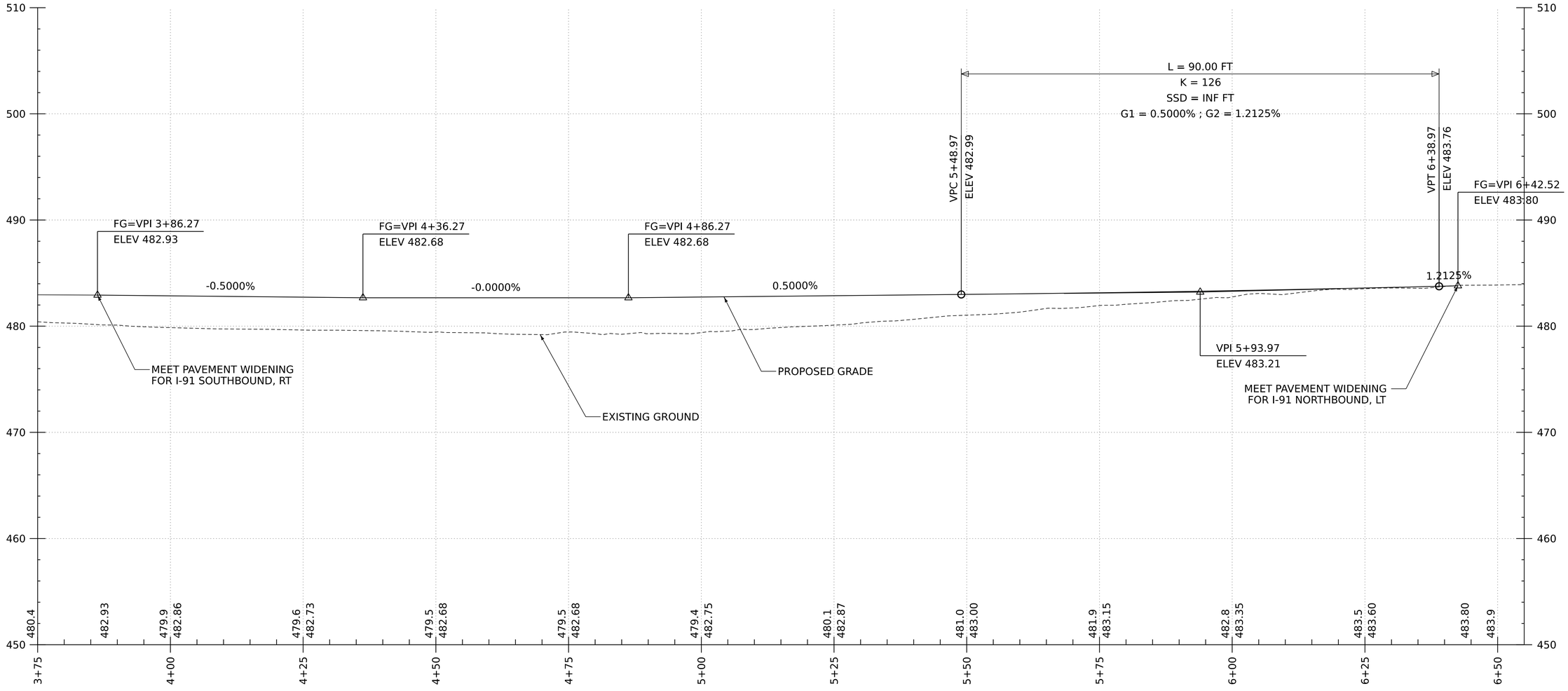
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_tcp_SB.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
CROSSOVER SB PLAN SHEET 18

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: D. YOULEN
SHEET 73 OF 161

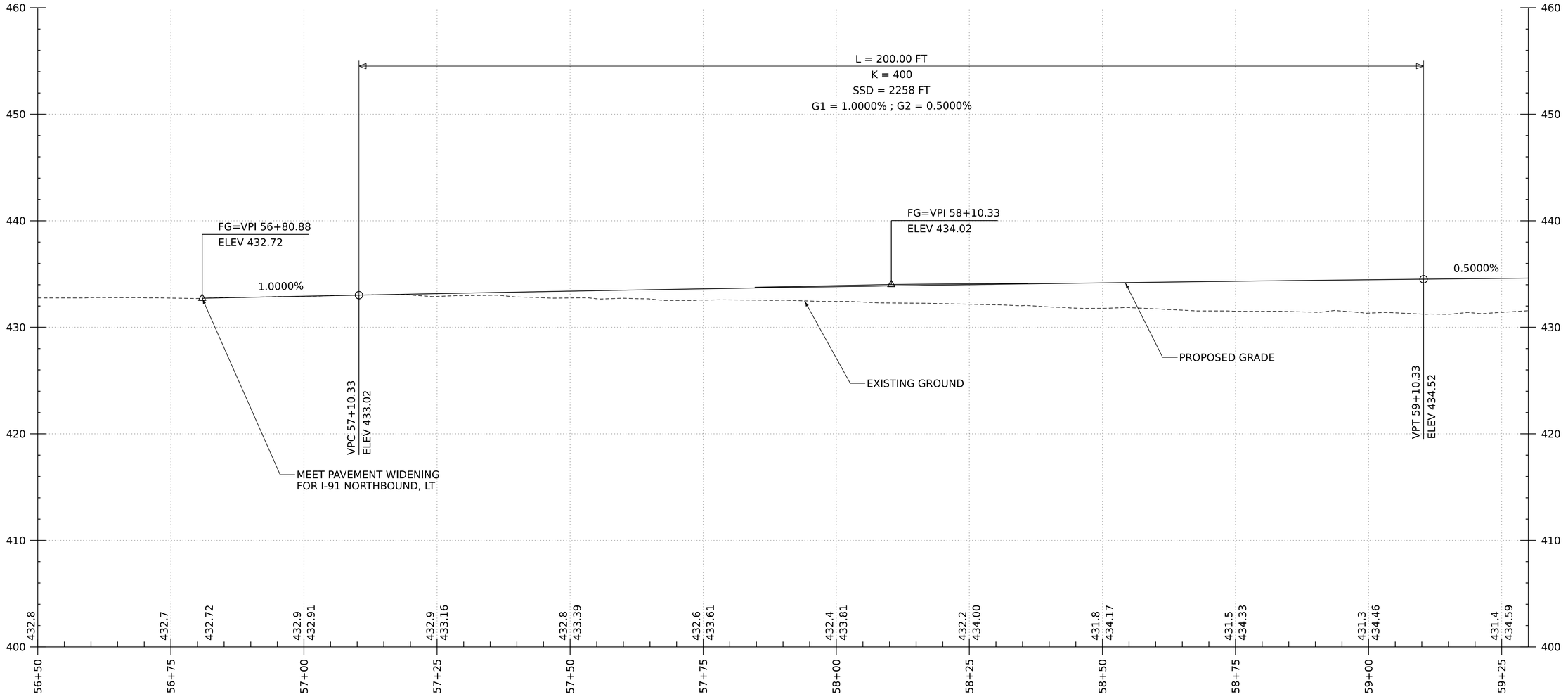


I-91 SOUTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_SB_crossover_SouthProfile.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER PROFILE SHEET 1		SHEET	74 OF 161

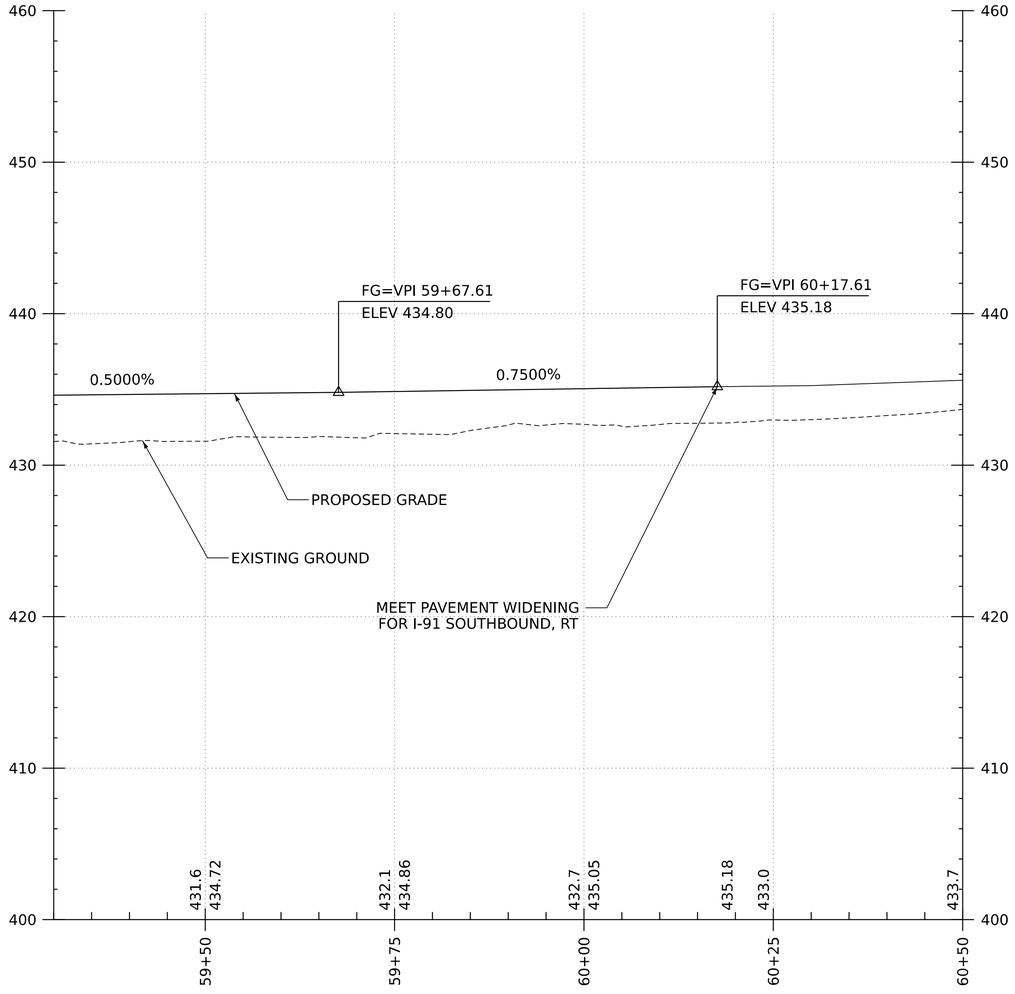


I-91 SOUTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_SB_crossover_NorthProfile.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER PROFILE SHEET 2		SHEET	75 OF 161

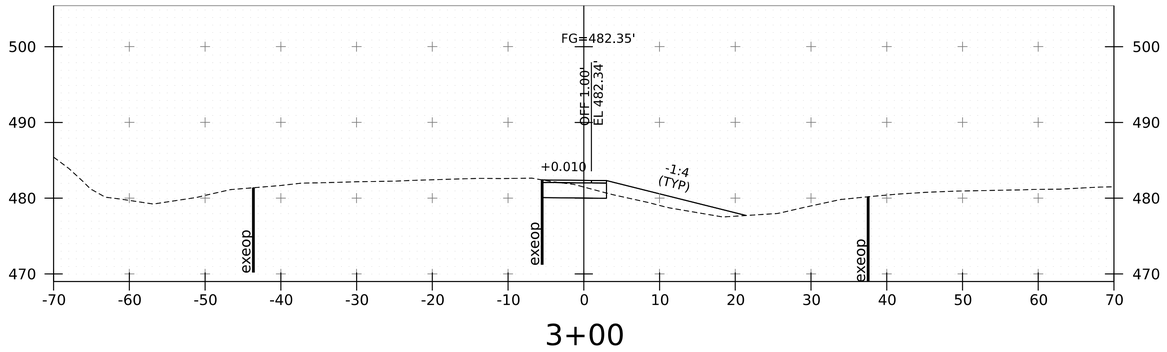


I-91 SOUTHBOUND CROSSOVER PROFILE

SCALE: 1"=20' H
1" = 10' V

NOTES:
1. EXISTING TOPOGRAPHY IS BASED ON LIDAR INFORMATION.
2. ALL STATIONS AND ELEVATIONS ARE SHOWN IN FEET.
3. GRADES SHOWN TO THE NEAREST TENTH OF A FOOT ARE EXISTING ELEVATIONS ALONG THE CENTERLINE. GRADES SHOWN TO THE NEAREST HUNDRETH OF A FOOT ARE FINISHED GRADE ELEVATIONS ALONG THE CENTERLINE.

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_alg_I91_SB_crossover_NorthPrint.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER PROFILE SHEET 3		SHEET 76 OF 161	



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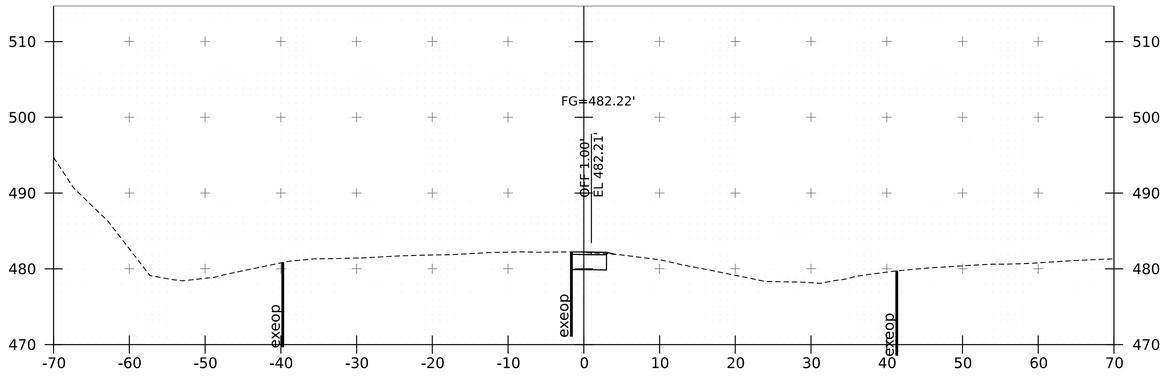

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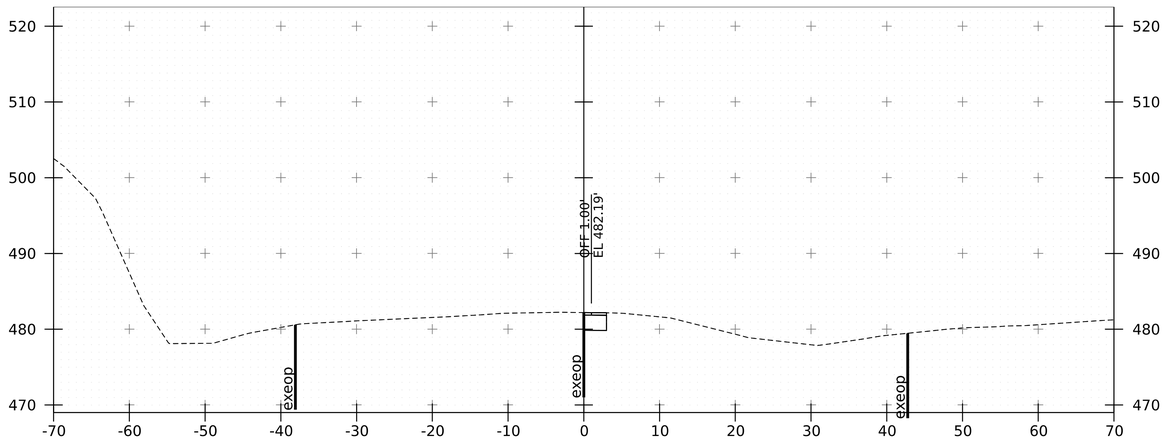
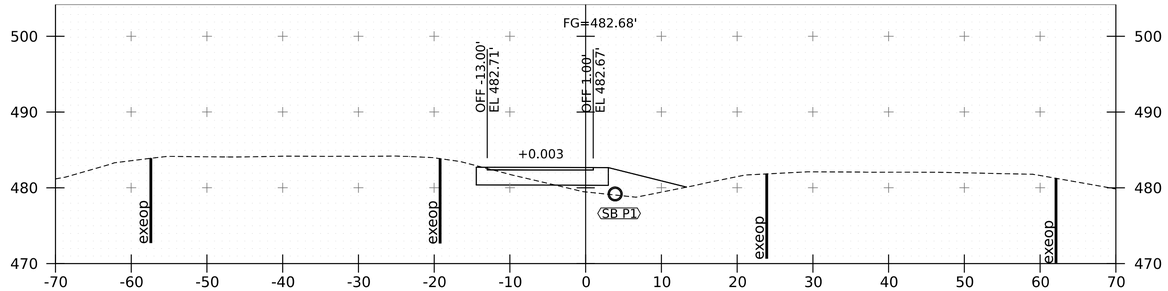
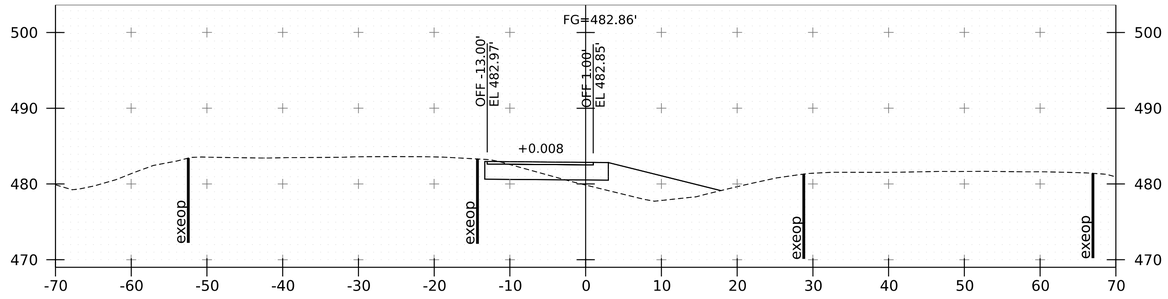


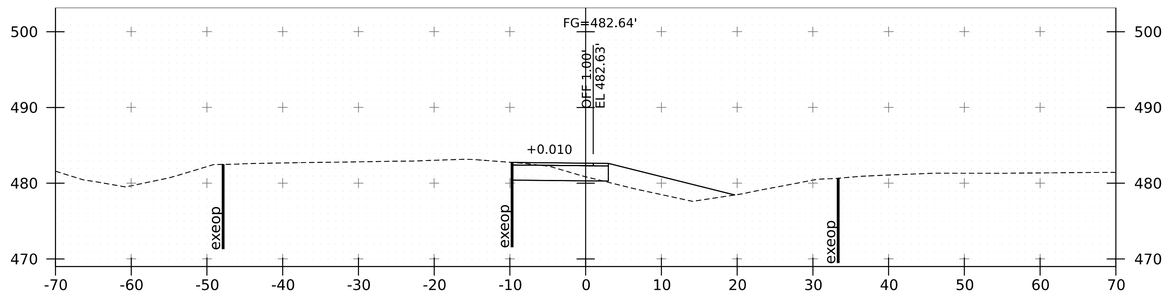
2+26



4+50



4+00

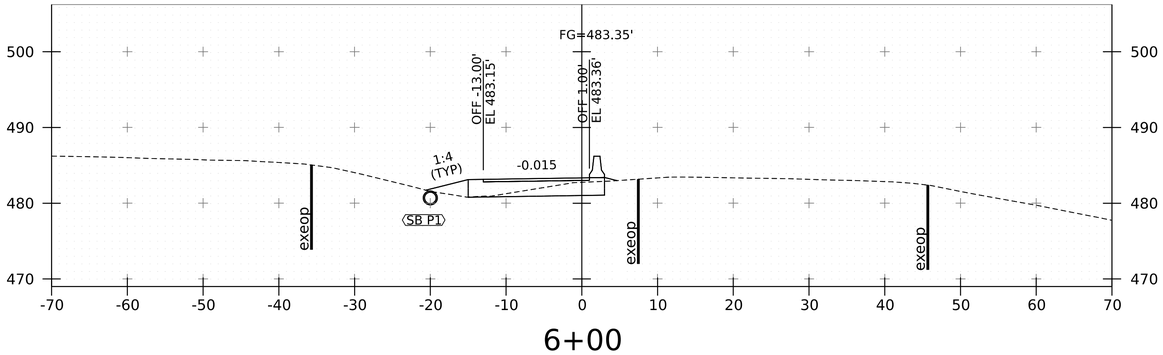


3+50

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024_xs_I91_SB_crossover_South.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER XS SHEET 1		SHEET	77 OF 161

Stantec



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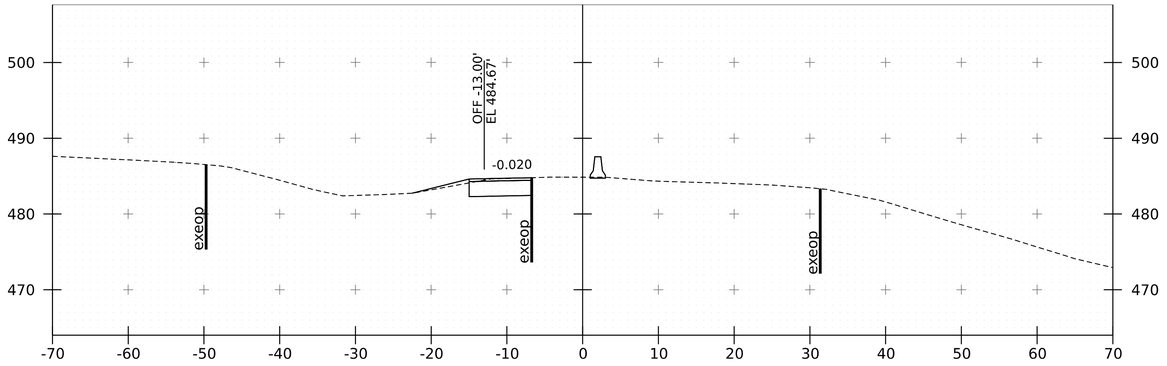

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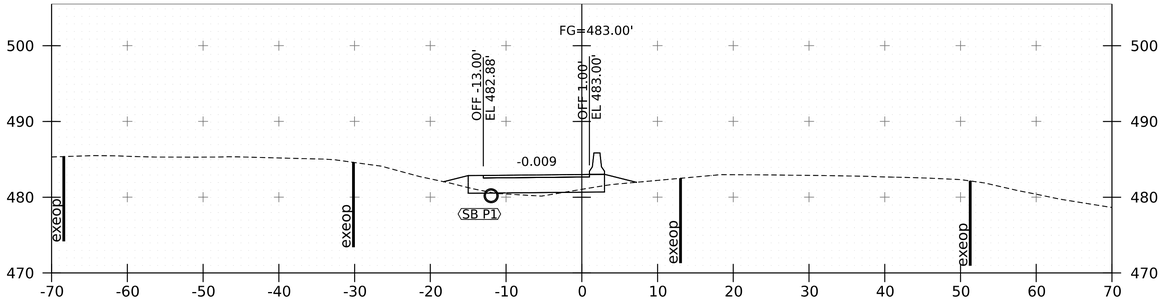

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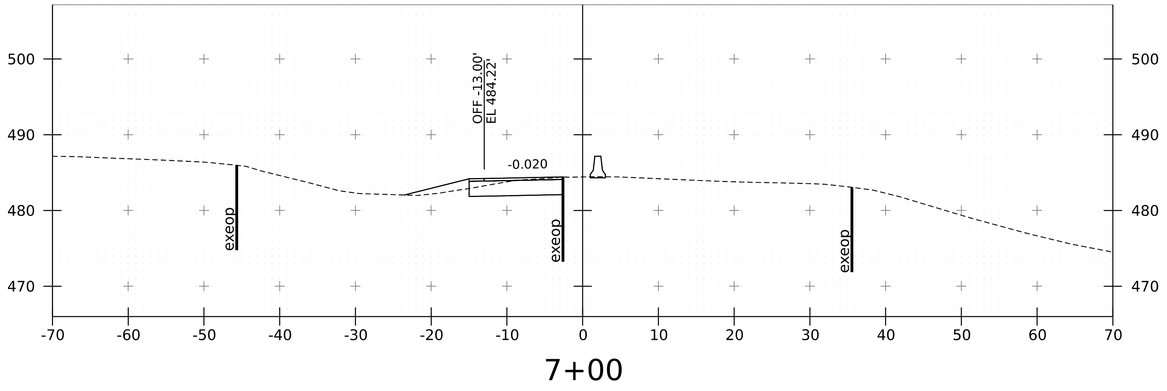
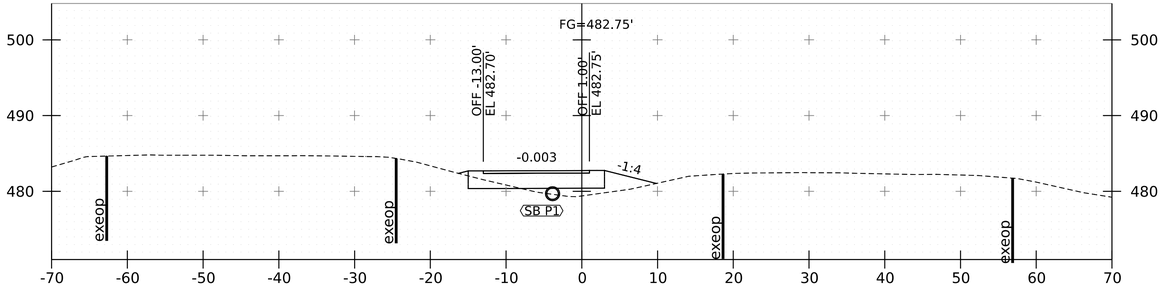


7+00



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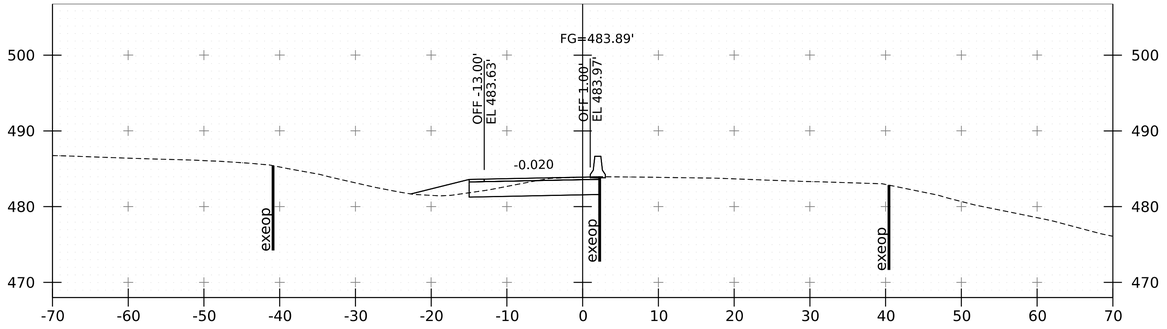
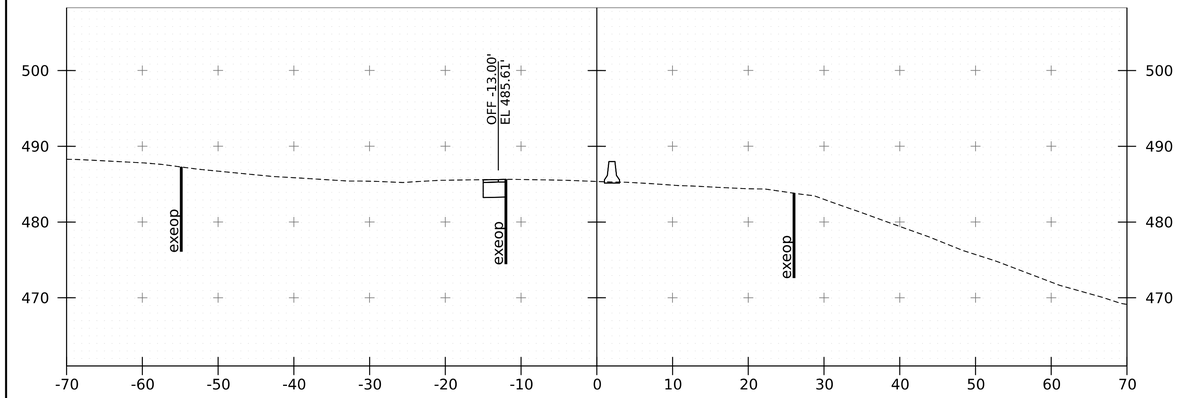


6+50

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_SB_crossover_South.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 SB CROSSOVER XS SHEET 2	SHEET 78 OF 161

Stantec



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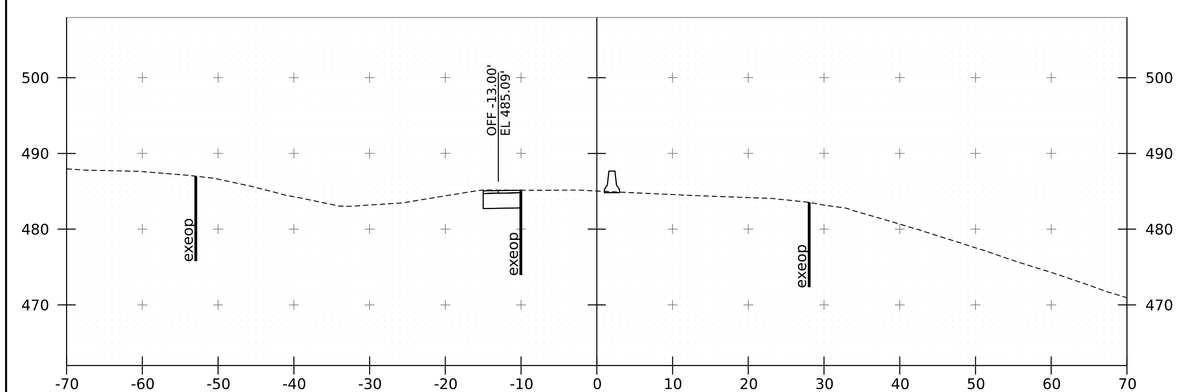
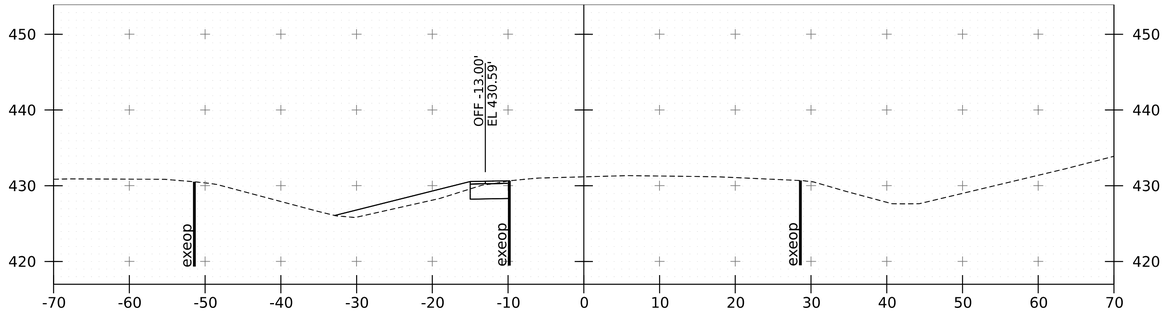


8+00

Stantec

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	z21a024_xs_I91_SB_crossover_South.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER XS SHEET 3		SHEET 79	OF 161



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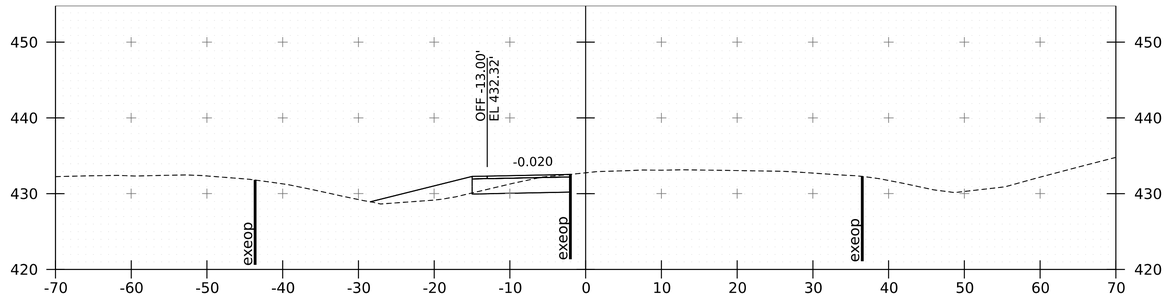

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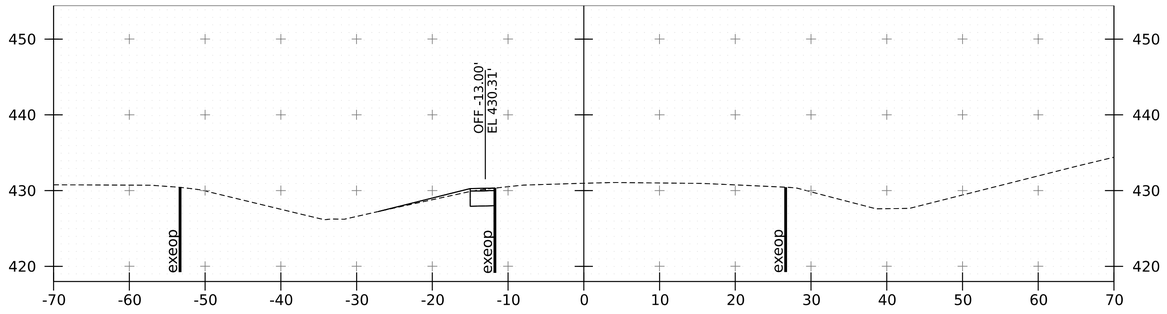

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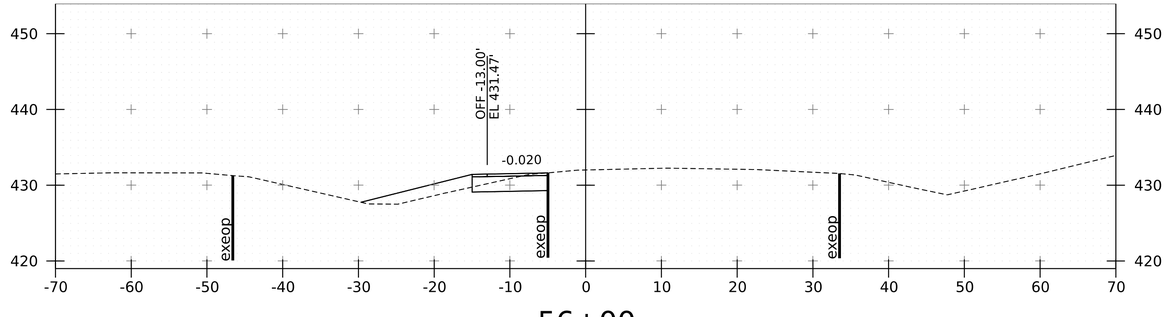

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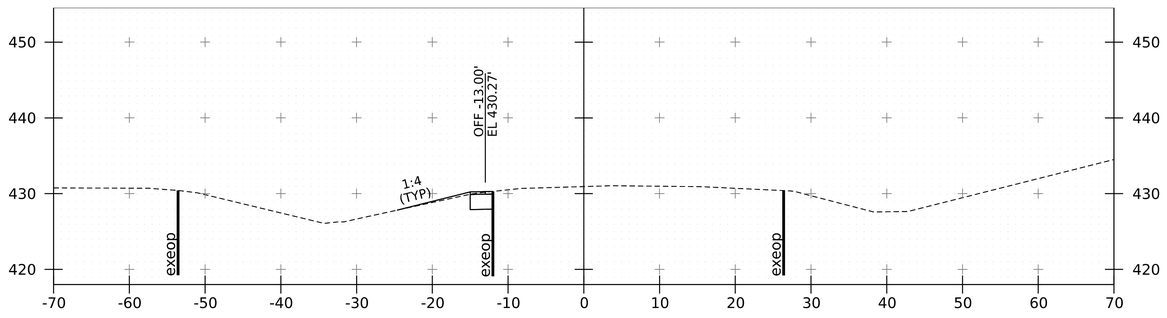

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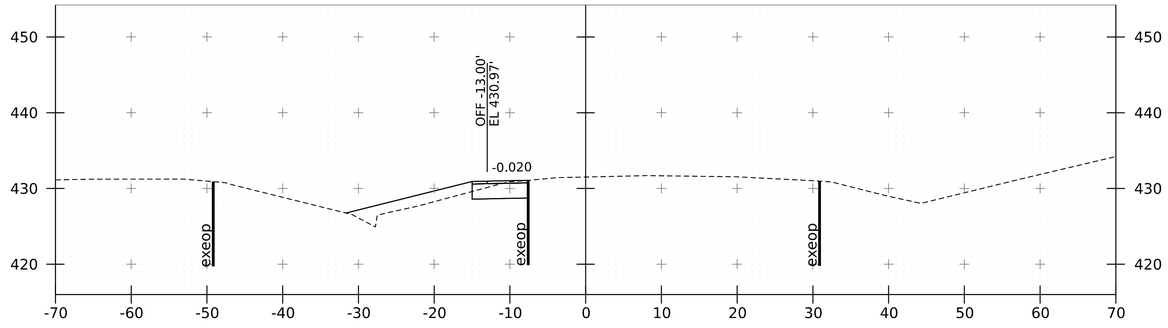

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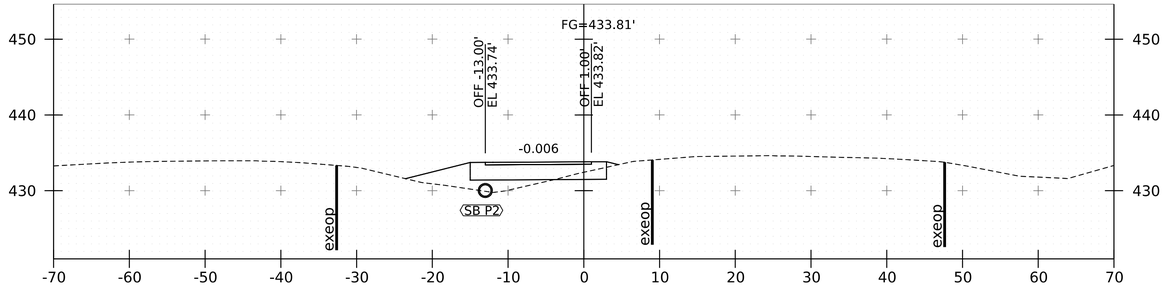
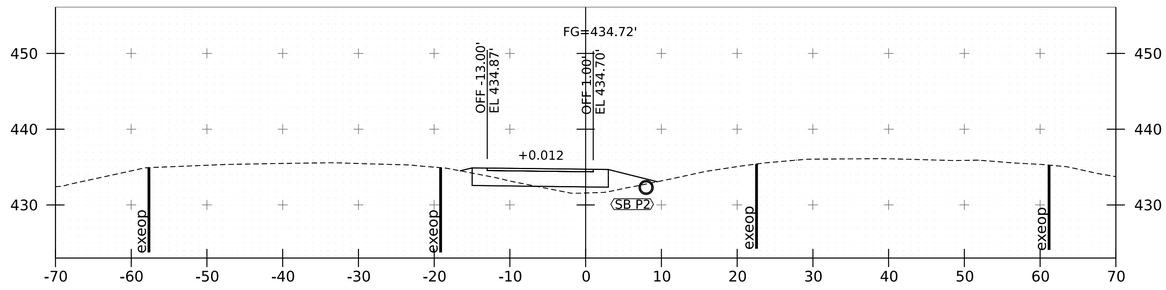
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024_xs_I91_SB_crossover_North.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER XS SHEET 4		SHEET	80 OF 161

Stantec



58+00



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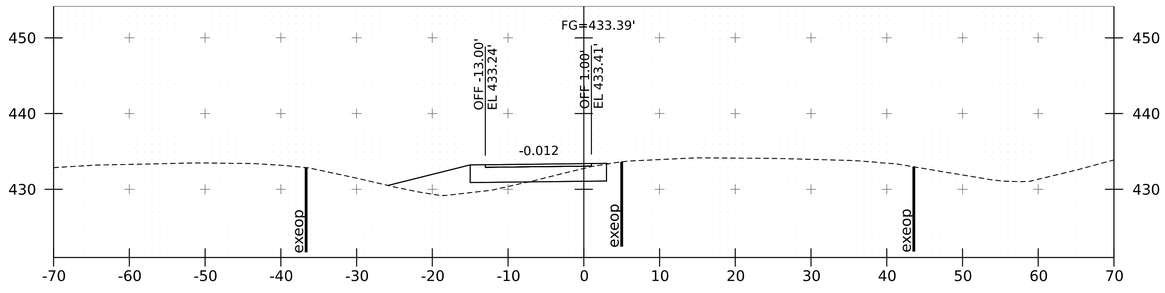

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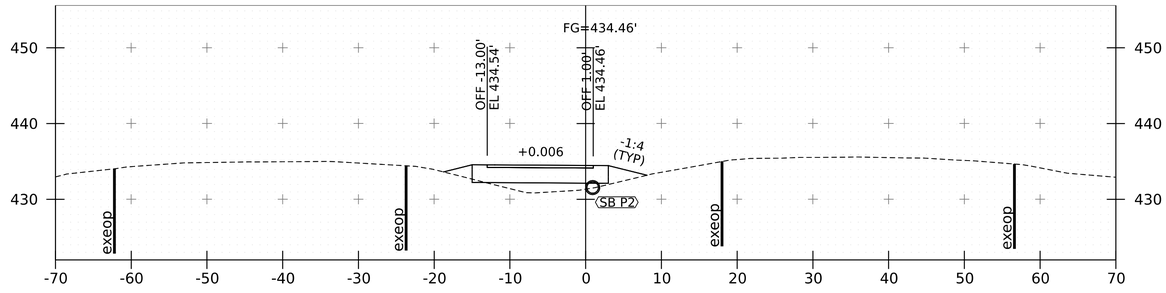

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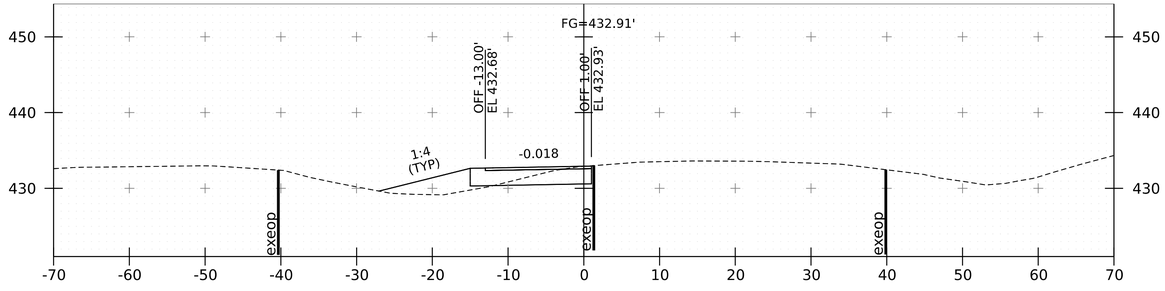

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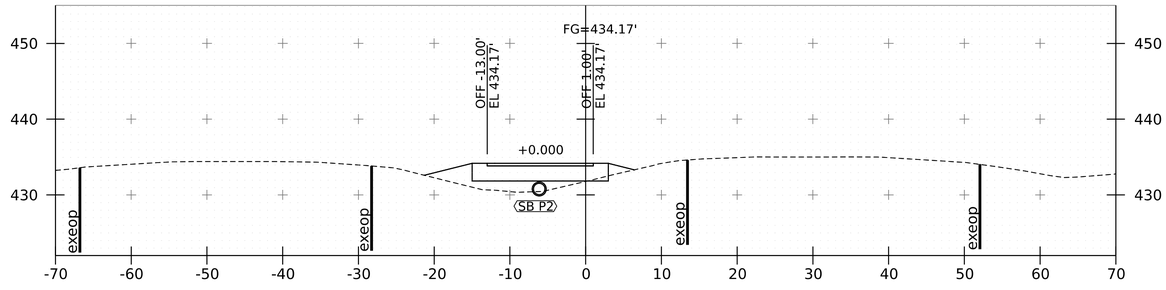
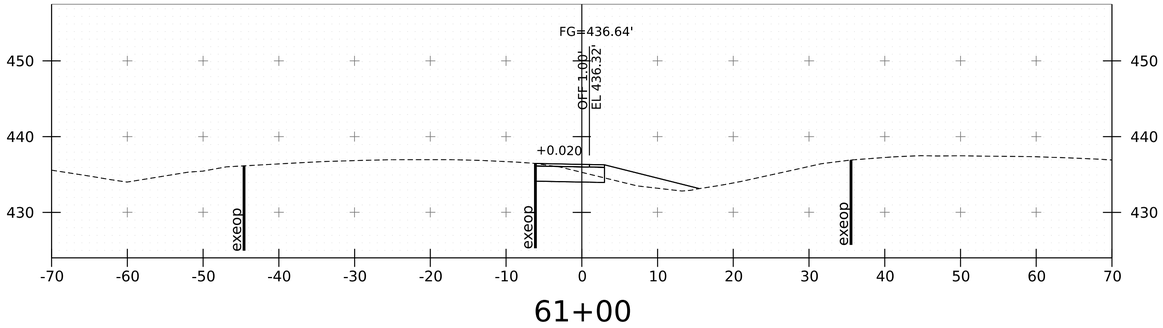


58+50

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_xs_I91_SB_crossover_North.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: D. YOULEN
I91 SB CROSSOVER XS SHEET 5	SHEET 81 OF 161



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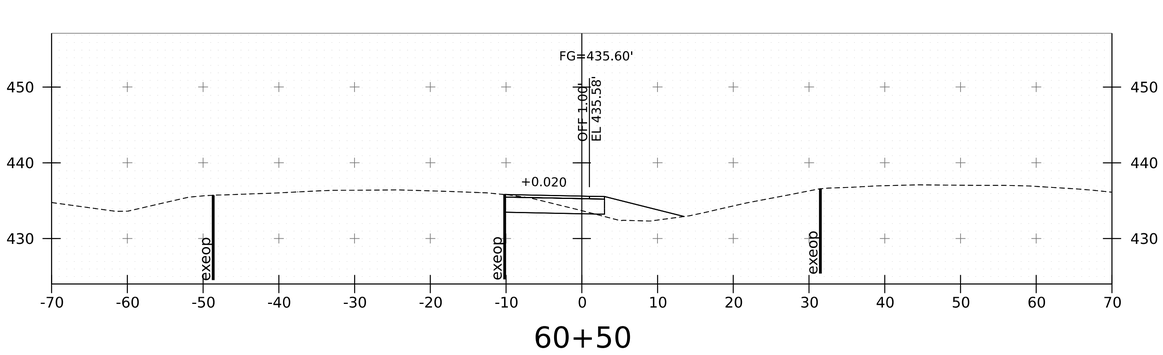

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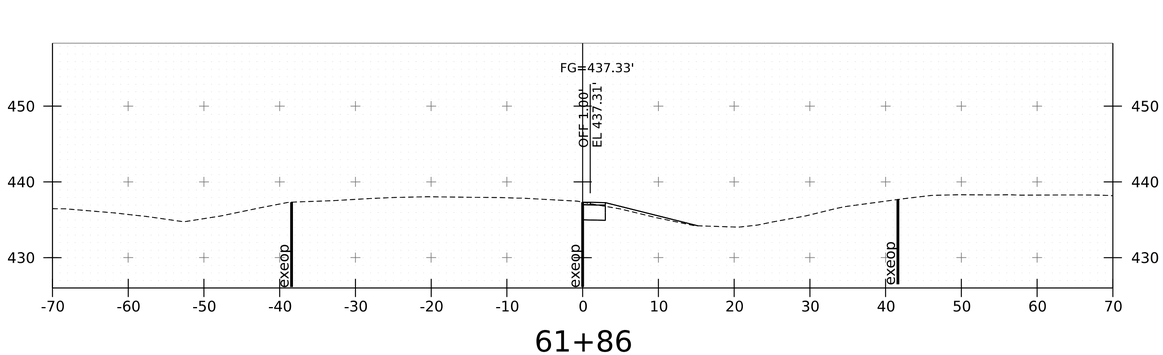

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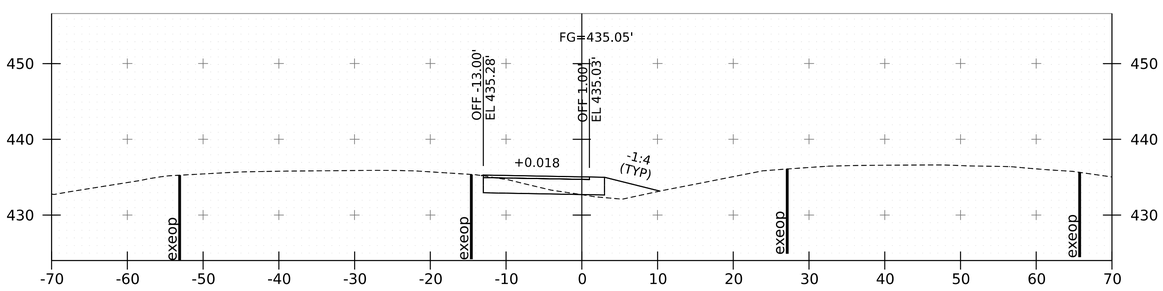
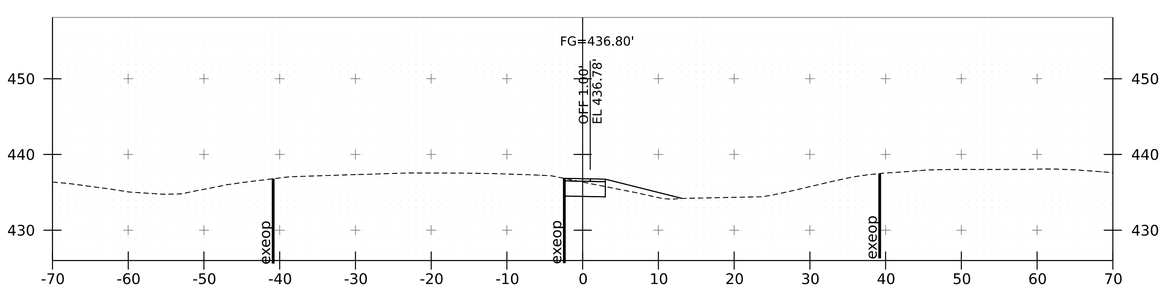


60+00



61+50

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024_xs_I91_SB_crossover_North.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	D. YOULEN
I91 SB CROSSOVER XS SHEET 6		SHEET	82 OF 161

Stantec

DURABLE 6 INCH WHITE LINE, (OPTION BID ITEM)
STA. NB 4792+37.50 TO NB 4797+37.50, SOLID RT
STA. NB 4792+37.50 TO NB 4797+37.50, DASHED CL
STA. SB 4792+75.00 TO SB 4798+25.00, SOLID LT
STA. SB 4792+75.00 TO SB 4798+25.00, DASHED CL

DURABLE 6 INCH YELLOW LINE, (OPTION BID ITEM)
STA. NB 4792+37.50 TO NB 4797+37.50, SOLID LT
STA. SB 4792+75.00 TO SB 4798+25.00, SOLID RT

TRAFFIC SIGN, FLAT SHEET ALUMINUM
STA. SB 4794+22, LT (D10-2a)
STA. NB 4794+25, RT (D10-2a)
STA. NB 4794+84, RT (VD-701)
STA. SB 4795+89, LT (VD-701)

FOUNDATION FOR W-SHAPE STEEL POST, 24 INCH DIAMETER
STA. NB 4796+91, RT (2)

SIGN REMOVAL, FLAT SHEET ALUMINUM
STA. SB 4794+22, LT (D10-2a)
STA. NB 4794+25, RT (D10-2a)
STA. NB 4794+70, RT (VD-701)
STA. NB 4794+84, RT (VD-701)
STA. SB 4796+08, LT (VD-701)
STA. SB 4796+29, LT (VD-701)

W-SHAPE STEEL SIGN POST
STA. NB 4796+91, RT
W8X21 (2) (SEE STD. T-161)

RESETTING SIGNS
STA. NB 4796+91, RT (3)

DELINEATOR WITH STEEL POST
STA. SB 4794+24, RT (TYPE I YELLOW)
STA. NB 4794+25, LT (TYPE I YELLOW)
STA. NB 4796+87, LT (TYPE I YELLOW)
STA. SB 4796+87, LT (TYPE I WHITE & INTERSTATE MILEPOST PLAQUE)
STA. SB 4796+88, RT (TYPE I YELLOW)
STA. NB 4796+88, RT (TYPE I WHITE & INTERSTATE MILEPOST PLAQUE)

REMOVAL OF EXISTING DELINEATOR AND POST
STA. SB 4794+24, RT (TYPE I YELLOW)
STA. NB 4794+25, LT (TYPE I YELLOW)
STA. NB 4796+87, LT (TYPE I YELLOW)
STA. SB 4796+87, LT (TYPE I WHITE & INTERSTATE MILEPOST PLAQUE)
STA. SB 4796+88, RT (TYPE I YELLOW)
STA. NB 4796+88, RT (TYPE I WHITE & INTERSTATE MILEPOST PLAQUE)

N
VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

BEGIN CHANNEL
54+25.00

LAKE MOREY OUTLET FLOW

STA. SB 4795+89, LT
STA. SB 4796+08, LT
STA. SB 4796+29, LT
STA. SB 4794+22, LT
STA. SB 4796+87, LT

BEGIN PROJECT
SB 4794+00.00

END BRIDGE
SB 4795+69.13

BEGIN BRIDGE
SB 4795+46.13

END PROJECT
SB 4796+75.00

TO THETFORD

MATCHLINE STA. 4792+75
(SEE PAVING SCHEMATIC SHEET)

INTERSTATE 91 (SOUTHBOUND)

SB 4793+00 SB 4794+00 SB 4795+00 SB 4796+00 SB 4797+00 SB 4798+00

MATCHLINE STA. 4798+25
(SEE PAVING SCHEMATIC SHEET)

BEGIN PROJECT
NB 4793+50.00

BEGIN APPROACH
NB 4792+37.50

NB 4795+15.78
CHAN 52+10.66
Δ= 60°34'00" LT

SB 4795+57.63
CHAN 52+95.62
Δ= 60°34'00" LT

BEGIN BRIDGE
NB 4795+04.28

END PROJECT
NB 4796+25.00

END APPROACH
NB 4797+37.50

TO BRADFORD

INTERSTATE 91 (NORTHBOUND)

NB 4793+00 NB 4794+00 NB 4795+00 NB 4796+00 NB 4797+00 NB 4798+00

STA. NB 4794+25, RT
STA. NB 4794+70, RT
STA. NB 4794+84, RT
STA. NB 4796+88, RT
STA. NB 4796+91, RT

END BRIDGE
NB 4795+27.28

END CHANNEL
50+75.00

E-STONE FILL, TYPE II (TYP.)

APPROX. EXISTING R.O.W.

SIGN LEGEND
N = NEW
R = REMOVE
R&RES = REMOVE & RESETTING
RES = RESETTING SIGN
RET = RETAIN
B-B = BACK TO BACK

NOTE:
1. ADJUST NEW CENTERLINE AND EDGE LINES TO MATCH EXISTING LINES AT BEGIN/END APPROACH

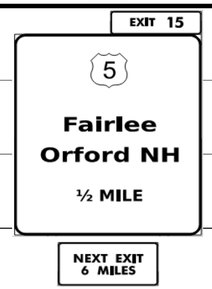
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bdr_signs_markings.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: D. DRAPER
SIGNS & PAVEMENT MARKINGS SHEET

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: T. DUGUAY
SHEET 83 OF 161

ROUTE	STATION	POSITION	SIGN CODE	WIDTH (IN)	HEIGHT (IN)	SHEETING REMARKS	SIGN LEGEND	NEW SIGNS: FLAT SHEET ALUM.	NEW SIGNS: EXTRUDED ALUM.	EXISTING SIGNS: RETAIN	EXISTING SIGNS: RESETTING FROM	EXISTING SIGNS: RESETTING TO	EXISTING SIGNS: SIGN REMOVAL	EXIST POST: RETAIN	EXIST POST: SALVAGE	NUMBER OF NEW POSTS	SQUARE STEEL (IN) (LB / FT): 1.75 / 1.88	SQUARE STEEL (IN) (LB / FT): 2.00 / 2.42	SQUARE STEEL (IN) (LB / FT): 2.50 / 3.35	FOUNDATION	TUBULAR STEEL Ø (IN) (LB / FT): 3.00 / 7.60	TUBULAR STEEL Ø (IN) (LB / FT): 3.50 / 9.00	TUBULAR STEEL Ø (IN) (LB / FT): 4.00 / 10.80	TUBULAR STEEL Ø (IN) (LB / FT): 5.00 / 14.60	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL LOCATION: SHSM	SIGN DETAIL LOCATION: PROJECT SHEET #	SIGN DETAIL LOCATION: STANDARD SHEET #
I-91							FY-FLUORESCENT YELLOW FYG-FLUORESCENT YELLOW GREEN																				"SHSM"-STANDARD HIGHWAY SIGNS AND MARKINGS			
FAIRLEE																													
	SB 4794+22, LT		D10-2a	12	48	WHT GRN		4.00								1		X									X		
	NB 4794+25, RT		D10-2a	12	48	WHT GRN		4.00								1		X									X		
	NB 4794+84, RT		VD-701	6	10			0.42								1	X											T-42
	SB 4795+89, LT		VD-701	6	10			0.42								1	X											T-42
	NB 4796+91, RT										1	1				2				2						MOUNT SALVAGED SIGNS ON NEW POSTS AND ON NEW FOUNDATIONS FOR W-SHAPE STEEL POST, 24 INCH DIAMETER INSTALL (2) W-SHAPE STEEL SIGN POST, SEE SIGNS AND PAVEMENT MARKINGS SHEET AND 191 NB XS SHEET 3			T-55 T-130 T-161
											1	1																	
											1	1																	
SIGN SUMMARY SHEET							SHEET TOTALS	8.84	0.00	0	3	3	0	0	0	6		90.0		2	0.0	0.0	0.0	0.0					
								SF	SF	EA	EA	EA	EA	EA	EA	EA		FT		EA	LB	LB	LB	LB					
VERMONT AGENCY OF TRANSPORTATION							TOWN DIRECTIONAL TOTALS	8.8	0.0	0	3	3	0	0	0	6		90.0		2			0.0						

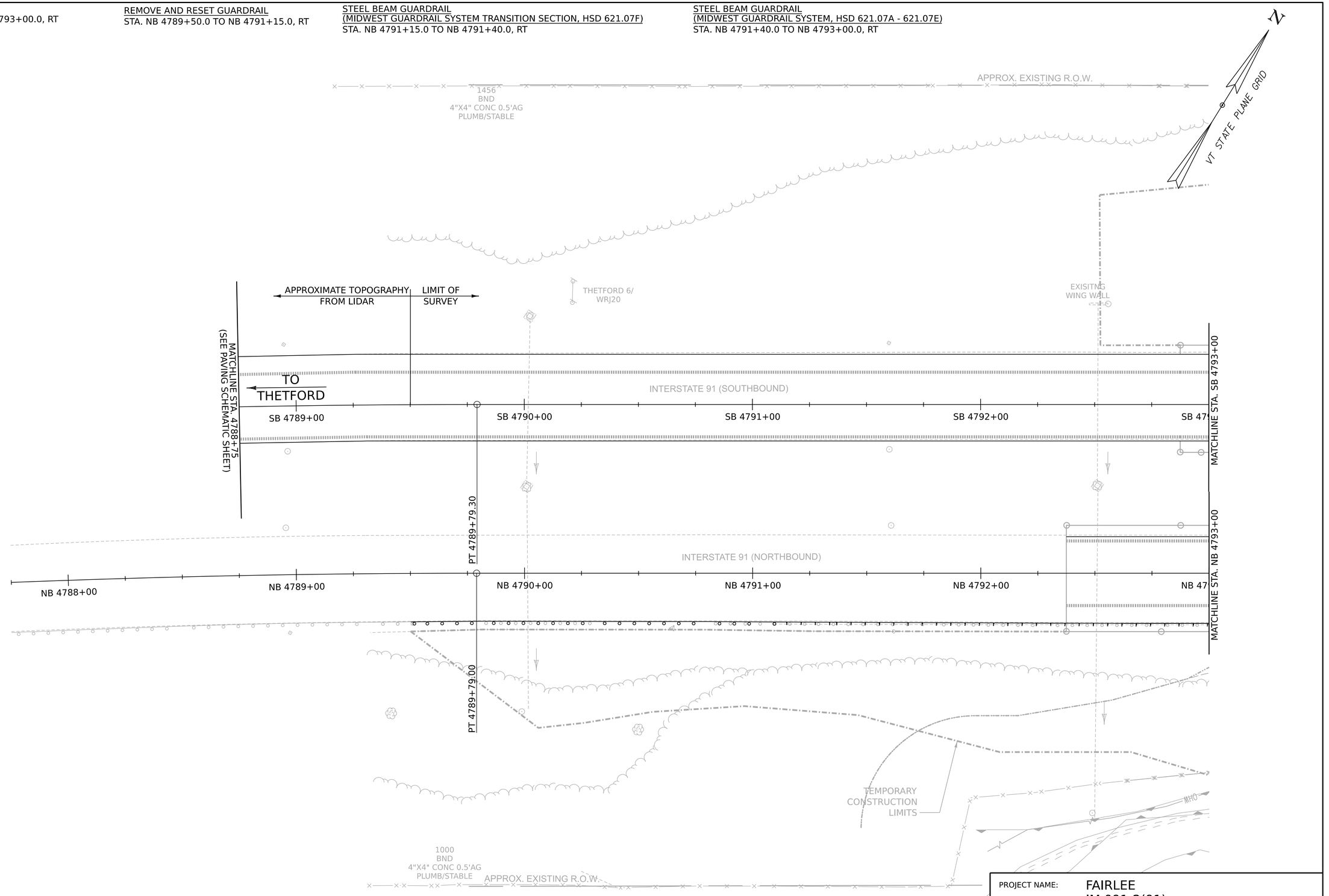
PROJECT NAME: **FAIRLEE**
PROJECT NUMBER: **IM 091-2(91)**
FILE NAME: **z21a024 tsss.dan**
PROJECT MANAGER: **J. GRIGAS**
DESIGNED BY: **D. DRAPER**
PLOT DATE: **2/25/2026**
DRAWN BY: **D. DRAPER**
CHECKED **J. GRIGAS**
TRAFFIC SIGN SUMMARY SHEET
SHEET **84** OF **161**

REMOVAL OF GUARDRAIL
STA. NB 4791+15.0 TO NB 4793+00.0, RT

REMOVE AND RESET GUARDRAIL
STA. NB 4789+50.0 TO NB 4791+15.0, RT

STEEL BEAM GUARDRAIL
(MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION, HSD 621.07F)
STA. NB 4791+15.0 TO NB 4791+40.0, RT

STEEL BEAM GUARDRAIL
(MIDWEST GUARDRAIL SYSTEM, HSD 621.07A - 621.07E)
STA. NB 4791+40.0 TO NB 4793+00.0, RT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024bdr_guardrail.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	J. GRIGAS	CHECKED BY:	J. GRIGAS
GUARDRAIL PLAN SHEET 1		SHEET 85 OF 161	

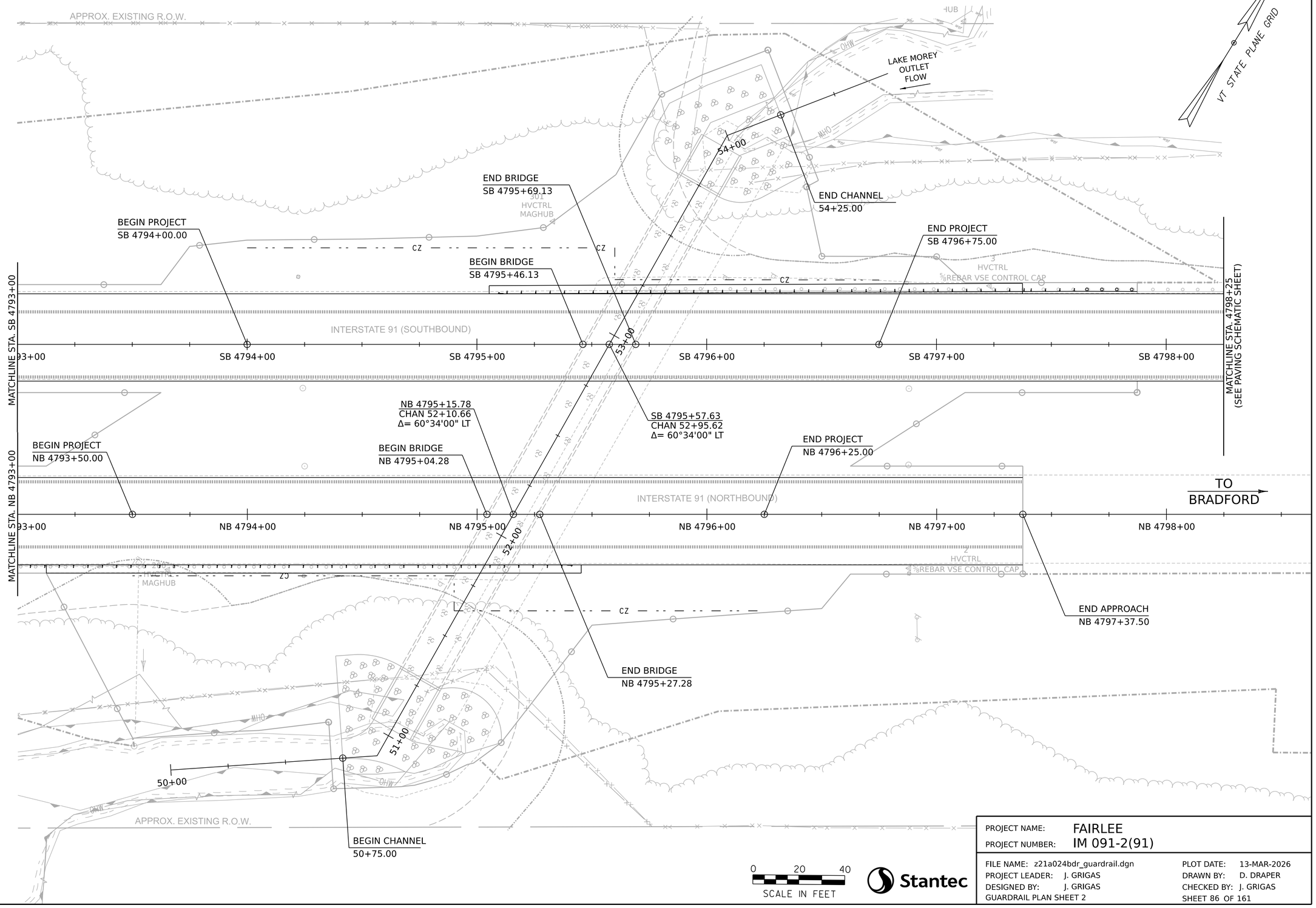
REMOVAL OF GUARDRAIL
STA. NB 4793+00.0 TO NB 4795+13.0, RT
STA. SB 4795+63.5 TO SB 4797+60.0, LT

REMOVE AND RESET GUARDRAIL
STA. SB 4797+60.0 TO SB 4797+85.0, LT

STEEL BEAM GUARDRAIL
(MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION, HSD 621.07F)
STA. SB 4797+35.0 TO SB 4797+60.0, LT

STEEL BEAM GUARDRAIL
(MIDWEST GUARDRAIL SYSTEM, HSD 621.07A - 621.07E)
STA. NB 4793+00.0 TO NB 4795+40.0, RT
STA. SB 4795+10.0 TO SB 4797+35.0, LT

ANCHOR FOR STEEL BEAM GUARDRAIL, MGS
STA. NB 4795+40.0, RT
STA. SB 4795+10.0, LT



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024bdr_guardrail.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
GUARDRAIL PLAN SHEET 2	SHEET 86 OF 161

GUARDRAIL QUANTITY SHEET 1

LOCATION				203.3000	613.1001	616.3101	616.3500	616.4100	621.0100	621.0210	621.0220	621.0300	621.0360	621.1060	621.1500	621.1510	621.1520	621.1530	621.1560	621.3030	621.3130	649.3100	676.1000	676.1200	REMARKS
BEGIN STA.	END STA.	POS.	LOCATION	EARTH BORROW	STONE FILL, TYPE I	BITUM. CONCRETE CURB, TYPE A	TREATED TIMBER CURB	REMOVAL OF EXISTING CURB	REMOVAL OF GUARDRAIL	REMOVE AND RESET GUARDRAIL	ADJUST HEIGHT OF GUARDRAIL	REPLACE GUARDRAIL BEAM UNIT, W-BEAM	REPLACE GUARDRAIL POST ASSEMBLY, W-BEAM WITH 6 FOOT	STEEL BEAM GUARDRAIL	STEEL BEAM GUARDRAIL OFFSET BLOCK	TERMINAL CONNECTOR FOR STEEL BEAM GUARDRAIL	ANCHOR FOR STEEL BEAM GUARDRAIL	ANCHOR FOR STEEL BEAM GUARDRAIL, MGS	TRAFFIC BARRIER DELIN.	MTS, MGS, TANGENT, TL-3	MTS, MGS, FLARED, TL-3	GEOTEXT. UNDER STONE FILL	DELIN. W/STEEL POST	REMOVAL OF EXIST. DELIN. AND POST	
				CY	CY	LF	LF	LF	LF	LF	LF	EACH	EACH	LF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	SY	EACH	EACH	
I-91 SB																									
4761+92	4766+46	LT																					2	2	
4782+20	4785+63	LT																					2	2	
4795+10	4802+68	LT							196.5	25				250.00				1					2	2	
I-91 NB																									
4789+50	4795+40	RT							398	165				425.00				1					1	1	
GUARDRAIL QUANTITY SHEET 1 SUBTOTAL				0.0	0.0	0.0	0.0	0.0	594.5	190.0	175.0	15.0	30.0	675.0	30.0	0.0	0.0	2.0	100.0	0.0	1.0	0.0	7	7	
ROUNDING				-	-	-	-	-	-	-	EST.	EST.	EST.	-	EST.	-	-	EST.	EST.	-	EST.	-	-	-	
TOTAL				0.0	0.0	0.0	0.0	0.0	594.5	190.0	175.0	15.0	30.0	675.0	30.0	0.0	0.0	4.0	100.0	0.0	1.0	0.0	7	7	

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024_frm.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
GUARDRAIL QUANTITY SHEET

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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 ⅜" 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 ⅛"
BX	Core Size 1 ⅝"
NX	Core Size 2 ⅛"
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		

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.

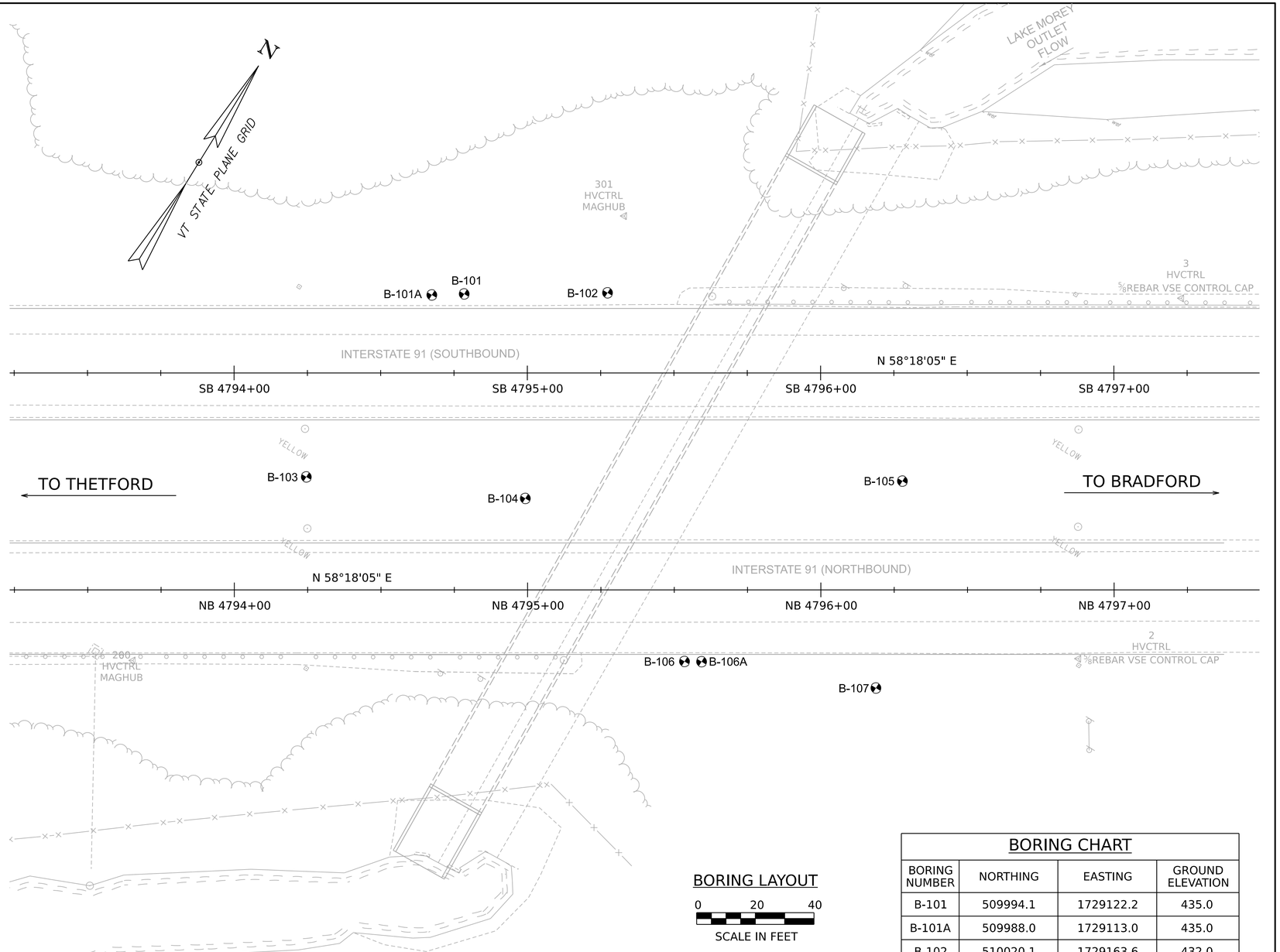
MUCK - Soft organic soil (containing > 10% organic material.

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.



BORING LAYOUT

0 20 40

SCALE IN FEET

BORING CHART

BORING NUMBER	NORTHING	EASTING	GROUND ELEVATION
B-101	509994.1	1729122.2	435.0
B-101A	509988.0	1729113.0	435.0
B-102	510020.1	1729163.6	432.0
B-103	509912.7	1729109.2	434.0
B-104	509945.7	1729176.6	433.0
B-105	510018.3	1729282.9	432.0
B-106	509926.9	1729252.0	431.0
B-106A	509929.9	1729257.0	430.0
B-107	509953.5	1729312.3	430.0

GENERAL NOTES

1. The subsurface explorations shown herein were made between March 4th and April 17th, 2024 by New England Boring Contractors of Derry New Hampshire.
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
3. boring or sample locations.

   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.

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LAYOUT SHEET

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-101
Page No.: 1 of 1
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Debojit Sarker
Date Started: 3/05/24 Date Finished: 3/05/24
VTSPG NAD83: N 509994.10 ft E 1729122.20 ft
Station: 4794+25 Offset: 27.0 LT
Ground Elevation: 435.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	TRUCK GT-8	CE = 1.45

Groundwater Observations		
Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Visual Class:, A-1-b; cmf SAND, litle Silt, trace cmf Gravel, Dk/gry-blk, MTD, Rec. = 1.08 ft, Topsoil, roots, and grass present	2-3-4-5 (7)				
		Visual Class:, A-1-b; cmf (+) SAND, little mf Gravel, trace Silt, brn-gry, MTD, Rec. = 1.42 ft	6-7-13-14 (20)				
5		Visual Class:, A-2-4; cmf SAND, some Clayey Silt, trace cmf Gravel, gry, Moist, Rec. = 1.17 ft, Silt and Clay in spoon tip	13-21-19-13 (40)				
		Visual Class:, A-2-4; cmf SAND, some Silt, trace cmf Gravel, gry-brn, Moist, Rec. = 1.33 ft	13-26-29-27 (55)				
		Hole stopped @ 8.0 ft					
10		Remarks: 1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.					
15							
20							
25							
30							

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-101A
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/27/24 Date Finished: 3/28/24
VTSPG NAD83: N 509988.00 ft E 1729113.00 ft
Station: 4795+99 Offset: 26.6 LT
Ground Elevation: 435.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
03/28/24	12.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, grass/topsoil, brn, Dry, Rec. = 1.0 ft	3-5-7-9 (12)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, Shale Fill, brn, Dry, Rec. = 1.25 ft	2-12-19-22 (31)						
5		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn, Moist, Rec. = 1.17 ft	21-14-8-10 (22)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn, Moist, Rec. = 1.5 ft	21-30-28-25 (58)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, Lt/brn, Moist, Rec. = 1.25 ft, c Gravel/Boulder encountered from 8-9 ft	13-14-16-26 (30)						
10		Visual Class:, A-1-b; cmf SAND, little mf Gravel, layers of Shale Fill, Lt/brn, Moist, Rec. = 2.0 ft, Boulder encountered from 11.5-12 ft Slight rig chatter throughout, Shale cuttings	33-50-50-35 (100)						
15		Visual Class:, Top 1.5': A-1-b; cmf SAND, Bot 0.5': Shale Fill, brn, Moist, Rec. = 0.75 ft	6-6-5-11 (11)						
20		Visual Class:, Top 1.0': A-1-a; mf GRAVEL, Bot 1.0': A-1-b; mf SAND, Lt/brn-gry, Moist, Rec. = 0.92 ft	4-10-12-13 (22)						
25		Visual Class:, A-1-b; cmf SAND, some (+) mf Gravel and Shale Fill, gry-brn, Moist, Rec. = 0.92 ft	8-9-9-11 (18)						
30		Visual Class:, A-1-b; cmf SAND, brn, Moist, Rec. = 1.08 ft	2-2-4-10 (6)						

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 1

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-101A
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/27/24 Date Finished: 3/28/24
VTSPG NAD83: N 509988.00 ft E 1729113.00 ft
Station: 4795+99 Offset: 26.6 LT
Ground Elevation: 435.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
03/28/24	12.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Classification:, *A-4; SILT, little mf SAND, brn, Moist, Rec. = 1.42 ft	5-6-7-8 (13)		1.0	15.0	84.0		
40		Classification:, *A-6; Silty CLAY, gry/grn, Moist, Rec. = 1.75 ft	5-7-7-7 (14)				92.4	24	4
45		Visual Class:, A-2-4; f SAND with bands of Clayey Silt, Lt/brn, Moist, Rec. = 1.17 ft	5-6-7-11 (13)						
50		Classification:, *A-4; SILT, gry, Moist, Rec. = 1.5 ft, pp: 0.25 tsf; tv: 1.0 tsf	4-7-7-9 (14)	31.8				NP	NP
55		Visual Class:, A-4; Clayey SILT, gry-brn, MTW, Rec. = 1.58 ft, pp: 1.25 tsf; tv: 2.0 tsf	4-4-5-6 (9)						
60		Visual Class:, A-2-4; mf SAND, little Clayey Silt, brn, MTW, Rec. = 1.67 ft, Silt ended 0.16 ft into spoon (60')	6-3-6-7 (9)						
65		Visual Class:, A-2-4; f SAND, some Silt, trace Clay, brn, MTW, Rec. = 1.58 ft	5-5-5-6 (10)						
		Hole stopped @ 67.0 ft							

Remarks:

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-101A
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/27/24 Date Finished: 3/28/24
VTSPG NAD83: N 509988.00 ft E 1729113.00 ft
Station: 4795+99 Offset: 26.6 LT
Ground Elevation: 435.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
03/28/24	12.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.							
75									
80									
85									
90									
95									
100									

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 2

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-102
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/28/24 Date Finished: 4/01/24
VTSPG NAD83: N 510020.10 ft E 1729163.60 ft
Station: 4796+28 Offset: 27.3 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
04/01/24	26.0	Measured at 0815

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Class:, A-1-b; cmf SAND, some mf Gravel and Shale, gry-brn, Dry, Rec. = 1.17 ft, Grass/topsoil the first 1.0'	9-7-7-7 (14)						
		Visual Class:, Top 0.88': A-1-b; cmf SAND, some (+) mf Gravel, Bot 0.12': Boulder encountered, brn, Dry, Rec. = 1.58 ft	9-20-23-30 (43)						
5		Visual Class:, A-1-b; cmf SAND, some (+) mf Gravel and broken up Shale, brn, MTD, Rec. = 1.17 ft	20-21-12-25 (33)						
		Visual Class:, A-1-b; cmf SAND, some (+) mf Gravel and broken up Shale, brn, Moist, Rec. = 1.33 ft	20-20-13-17 (33)						
		Visual Class:, A-1-a; mf Sand and Gravel w/ intermittent Shale/rock, gry-brn, Moist, Rec. = 1.33 ft, More Shale/rock present at the bottom of the sample	9-15-20-40 (35)						
10		Visual Class:, Same as above, gry-brn, Moist, Rec. = 1.67 ft, More Shale/rock present at the top of the sample Blows on casing were larger than 100/6"; Roller bit used for 0.5'	96-37-27-30 (64)						
15		Visual Class:, Top 1.0': A-1-b; mf SAND, Bot 1.0': A-1-a; mf Gravel and Shale, brn-gry, Moist, Rec. = 1.25 ft, Roller bit used from 19.5'-20.5'; Shale rock cuttings	20-27-32-24 (59)						
20		Visual Class:, A-1-b; mf SAND (compact), some mf Gravel and Shale, brn, Moist, Rec. = 1.25 ft	12-16-18-24 (34)						
25		Visual Class:, A-1-a; cmf Gravel and Shale, gry-blk, Moist, Rec. = 1.0 ft	13-18-23-20 (41)						
30		Visual Class:, A-1-a; cmf Gravel and Shale, some cmf Sand, gry-blk, Moist, Rec. = 1.17 ft	14-14-30-32 (44)						

Notes:
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4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-102
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/28/24 Date Finished: 4/01/24
VTSPG NAD83: N 510020.10 ft E 1729163.60 ft
Station: 4796+28 Offset: 27.3 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
04/01/24	26.0	Measured at 0815

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Class:, A-1-a; cmf Gravel and Shale, gry-blk, MTW, Rec. = 0.92 ft	11-14-15-11 (29)						
40		Visual Class:, Top 0.5': PEAT, Mid 1.0': A-1-b; cmf SAND, some mf Gravel, Bot 0.5': A-4; SILT, some (+) f Sand, gry-brn, MTW, Rec. = 1.67 ft	8-13-14-14 (27)						
45		Visual Class:, A-2-4; mf SAND, some Silt, brn, Moist, Rec. = 1.67 ft	6-8-7-9 (15)						
50		Classification:, *A-6; CLAY, gry, Moist, Rec. = 1.0 ft, pp: 0.25 tsf; tv: 2.0 tsf	WOR-WOR-WOH-WOH (WOR/WOH)	31.5				35	18
55		Visual Class:, A-6; Silty CLAY, gry-brn, Moist, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.5 tsf Visual Class:, A-6; Silty CLAY, gry-brn, Moist, Shelby Tube Sample	WOR-WOR-WOR-WOH (WOR) P-U-S-H						
60		Classification:, *A-4; SILT, gry, Moist, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.0 tsf	3-2-4-4 (6)	37.4					
65		Visual Class:, A-6; CLAY and SILT, gry-brn, Wet, Rec. = 1.92 ft, pp: 0.15 tsf; tv: 0.5 tsf	3-3-2-3 (5)						

Notes:
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4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 3

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-102
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/28/24 Date Finished: 4/01/24
VTSPG NAD83: N 510020.10 ft E 1729163.60 ft
Station: 4796+28 Offset: 27.3 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
04/01/24	26.0	Measured at 0815

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
75		Visual Class:, A-5; SILT and CLAY, gry-brn, Wet, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 0.5 tsf	3-2-3-3 (5)						
		Visual Class:, A-5; SILT and CLAY, gry-brn, Wet, Rec. = 2.0 ft	2-4-3-3 (7)						
80		Visual Class:, A-4; Clayey SILT, gry-brn, Wet, Rec. = 0.42 ft, Drill rig chatter at 84.5'	2-1-2-3 (3)						
85		Visual Class:, Top 1.0': A-1-a; mf GRAVEL, Bot: 1.0' Weathered Bedrock, gry-blk, MTW, Rec. = 1.25 ft	29-28-32-28 (60)						
90		Visual Class:, Weathered Bedrock, gry-blk, MTW, Rec. = 0.67 ft	16-24-16-25 (40)						
		Hole stopped @ 92.0 ft							
95		Remarks: 1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.							
100									

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BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-103
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/09/24 Date Finished: 4/10/24
VTSPG NAD83: N 509912.70 ft E 1729109.20 ft
Station: 4794+25 Offset: 38.5 LT
Ground Elevation: 434.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
5		Visual Class:, A-1-b; cmf SAND, some mf Gravel, grass/topsoil, brn-gry, Dry, Rec. = 1.25 ft	WOH-3-11-18 (14)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, layers of Shale Fill, brn-gry, Dry, Rec. = 1.67 ft	13-21-21-20 (42)						
		Visual Class:, A-1-b; c(-)mf SAND, some mf Gravel, layers of Shale Fill, brn-gry, Dry, Rec. = 1.0 ft	7-6-7-12 (13)						
10		Visual Class:, A-1-a; Shale/Phyllite FILL, some c(-)mf Sand, gry-blk, Dry, Rec. = 1.42 ft	20-28-35-36 (63)						
		Visual Class:, A-1-a; Shale FILL, some c(-)mf Sand, gry-blk, Moist, Rec. = 1.58 ft	25-47-36-31 (83)						
15		Visual Class:, A-1-b; mf SAND, some mf Gravel, layers of Shale Fill, gry-brn, Moist, Rec. = 1.42 ft	16-16-15-29 (31)						
20		Visual Class:, A-1-a; Shale FILL, little c(-)mf Sand, gry-blk, Moist, Rec. = 1.17 ft	25-11-17-12 (28)						
25		Visual Class:, A-1-a; Shale FILL and mf Gravel, little c(-)mf Sand, gry-blk, Moist, Rec. = 1.0 ft	19-30-30-26 (60)						
30		Visual Class:, A-1-a; Shale FILL and mf Gravel, gry-blk, Moist, Rec. = 1.17 ft, Void w/ water loss at 29.5'	11-21-26-18 (47)						
		Visual Class:, A-1-b; cmf SAND, little mf Gravel, brn, Moist, Rec. = 1.17 ft	17-15-11-11						

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5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 4

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-103
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/09/24 Date Finished: 4/10/24
VTSPG NAD83: N 509912.70 ft E 1729109.20 ft
Station: 4794+25 Offset: 38.5 LT
Ground Elevation: 434.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations		
Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
			(26)						
40		Visual Class:, A-2-4; mf SAND, some Silt, brn, MTW, Rec. = 1.67 ft	4-6-6-9 (12)						
45		Visual Class:, A-4; SILT, some Br mf Sand, gry-brn, MTW, Rec. = 1.67 ft	6-6-5-7 (11)						
50		Classification:, *A-6; CLAY, gry, Moist, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.5 tsf	2-3-3-11 (6)	32.0			80.2	33	12
55		Visual Class:, A-1-a; mf GRAVEL, some Shale Fill, gry-brn, Moist, Rec. = 1.08 ft	8-8-9-8 (17)						
60		Classification:, *A-6; CLAY with Gravel, gry, Moist, Rec. = 1.0 ft, pp: 0.5 tsf; tv: 1.0 tsf	WOH-WOH-WOH-6 (WOH)	40.1				51	26
65		Visual Class:, A-4; Clayey SILT, gry, Moist, Rec. = 1.58 ft, pp: 1.0 tsf; tv: 1.5 tsf	5-6-6-7 (12)						
		Visual Class:, A-4; Clayey SILT, gry, Moist, Rec. = 1.33 ft	4-4-9-10 (13)						

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5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-103
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/09/24 Date Finished: 4/10/24
VTSPG NAD83: N 509912.70 ft E 1729109.20 ft
Station: 4794+25 Offset: 38.5 LT
Ground Elevation: 434.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations		
Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
75		Classification:, *A-4; SILT, gry, Moist, Rec. = 1.58 ft	5-6-6-6 (12)	32.0					
80		Visual Class:, A-4; SILT, gry, Wet, Rec. = 0.92 ft	6-6-6-10 (12)						
		Hole stopped @ 81.0 ft							
85		Remarks: 1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.							
90									
95									
100									

Notes:
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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.
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5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 5

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-104
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/11/24 Date Finished: 4/16/24
VTSPG NAD83: N 509945.70 ft E 1729176.60 ft
Station: 4794+99 Offset: 31.2 LT
Ground Elevation: 433.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/16/24	21.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, grass/topsoil, brn-gry, Dry, Rec. = 1.08 ft	3-4-7-8 (11)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn-gry, Dry, Rec. = 2.0 ft	15-14-20-24 (34)						
5		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn-gry, Dry, Rec. = 1.42 ft	20-23-23-23 (46)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn-gry, Dry, Rec. = 1.75 ft	11-19-37-55 (56)						
10		Visual Class:, A-1-b; mf SAND, some mf Gravel and Fill, brn-gry, MTD, Rec. = 1.33 ft, 0.5' Boulder caused split spoon refusal	52-65-100/4" (165)						
		Visual Class:, A-1-a; Gravel and Shale FILL, some mf Sand, gry-blk, MTD, Rec. = 1.08 ft	20-17-16-24 (33)						
15		Visual Class:, A-1-b; mf SAND, little mf Gravel and Shale Fill, brn-gry, MTD, Rec. = 1.25 ft	8-11-15-14 (26)						
20		Visual Class:, A-1-a; Gravel and Shale FILL, little mf Sand, gry-blk, Moist, Rec. = 1.33 ft, Moderate drill chatter at 23'	19-23-21-19 (44)						
25		Visual Class:, A-1-a; Gravel and Shale FILL, gry-blk, Moist, Rec. = 1.0 ft, Moderate drill chatter from 27'-28'	11-10-11-15 (21)						
30		Visual Class:, Top 1.0': A-1-a; mf Gravel and Shale FILL, Bot 1.0': Boulder, gry-blk, Moist, Rec. = 0.83 ft, Roller bit through boulder	23-100/6" (100)						
		Visual Class:, A-1-a; Gravel and Shale FILL, gry-blk, Moist, Rec. = 0.75 ft	16-12-10-9						

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5. Strata column graphic indicates AASHTO soil classification system.

VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24
BORING LOG

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-104
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/11/24 Date Finished: 4/16/24
VTSPG NAD83: N 509945.70 ft E 1729176.60 ft
Station: 4794+99 Offset: 31.2 LT
Ground Elevation: 433.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/16/24	21.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
			(22)						
40		Visual Class:, Top 1.5': A-1-a; Gravel and Shale Fill, Bot 0.5': A-1-b; cmf SAND, some f Gravel, gry-blk, Moist, Rec. = 1.33 ft	16-15-14-14 (29)						
45		Visual Class:, A-4; Clayey SILT, gry, Moist, Rec. = 1.33 ft	5-3-5-4 (8)						
50		Visual Class:, A-4; Clayey SILT, gry, Moist, Rec. = 1.42 ft	5-5-7-8 (12)						
55		Visual Class:, A-4; Clayey SILT, gry, Moist, Rec. = 0.33 ft	2-2-2-1 (4)						
60		Classification:, *A-6; CLAY, gry, Moist, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 1.5 tsf	WOR-WOH-WOH-3 (WOH)	34.5				39	16
65		Visual Class:, A-5; SILT and CLAY, gry, Moist, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 1.5 tsf	WOR-WOH-WOH-3 (WOH)						
		Visual Class:, A-5; SILT and CLAY, gry, Moist, Rec. = 2.0 ft, pp: 0.5 tsf; tv:	WOR-WOR-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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24
BORING LOG

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 6

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-104
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brandon Gomm, Josef Bourgeois
Date Started: 4/11/24 Date Finished: 4/16/24
VTSPG NAD83: N 509945.70 ft E 1729176.60 ft
Station: 4794+99 Offset: 31.2 LT
Ground Elevation: 433.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/16/24	21.0	Measured at 0830

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		1.5 tsf	(4)						
75		Classification:, *A-4; SILT, gry, Moist, Rec. = 1.83 ft, pp: 0.5 tsf; tv: 1.5 tsf	WOH-WOH-4-3 (4)	34.9					
80		Visual Class:, A-4; Clayey SILT, gry, Wet, Rec. = 1.67 ft	WOH-4-4-8 (8)						
85		Visual Class:, A-4; SILT, gry, Wet, Rec. = 1.42 ft	2-5-6-8 (11)						
90		Visual Class:, A-4; SILT, gry, Wet, Rec. = 2.0 ft	2-4-5-8 (9)						
95		Visual Class:, A-4; SILT, some weathered Bedrock, gry, Wet, Rec. = 1.0 ft	6-13-20-32 (33)						
100		Hole stopped @ 96.0 ft							

Remarks:
1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-105
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brad Enos, Josef Bourgeois
Date Started: 4/16/24 Date Finished: 4/17/24
VTSPG NAD83: N 510018.30 ft E 1729282.90 ft
Station: 4796+28 Offset: 37.1 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/17/24	19.0	Measured at 0820

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Visual Class:, A-1-b; cmf SAND, some topsoil/grass, brn, Dry, Rec. = 1.25 ft	WOH-1-4-7 (5)				
		Visual Class:, A-1-b; cmf SAND, some Shale Fill, brn, Dry, Rec. = 0.67 ft, Shale boulder caused split spoon refusal	75-100/4" (100)				
5		Visual Class:, A-1-a; Shale FILL, some cmf Sand, gry-blk, Moist, Rec. = 1.17 ft	11-7-6-11 (13)				
		Visual Class:, A-1-a; cmf SAND, some mf Gravel and Shale Fill, brn, Dry, Rec. = 1.5 ft	12-15-18-17 (33)				
10		Visual Class:, A-1-b; c(-)mf SAND, little mf Gravel, brn, Dry, Rec. = 1.25 ft	11-12-13-12 (25)				
		Visual Class:, A-1-b; mf SAND, some mf Gravel, brn, MTD, Rec. = 1.17 ft	9-17-18-22 (35)				
15		Visual Class:, A-1-b; mf SAND, little mf Gravel, brn, Moist, Rec. = 1.0 ft, One 1.5" rock at 14'	21-17-15-15 (32)				
20		Classification:, *A-4; SILT, gry/grn, Moist, Rec. = 1.42 ft	4-3-3-4 (6)				97.6
25		Visual Class:, A-4; SILT, gry/grn, Moist, Rec. = 1.75 ft, pp: 0.5 tsf; tv: 0.5 tsf	2-2-3-2 (5)				
30		Visual Class:, A-4; SILT, gry/grn, MTW, Rec. = 1.25 ft, pp: 1.25 tsf; tv: 1.0 tsf	4-5-7-8 (12)				
		Visual Class:, A-4; SILT, gry, MTW, Rec. = 1.58 ft, pp: 0.25 tsf; tv: 1.0 tsf	1-2-3-5 (5)				

Notes:
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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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 7

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-105
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brad Enos, Josef Bourgeois
Date Started: 4/16/24 Date Finished: 4/17/24
VTSPG NAD83: N 510018.30 ft E 1729282.90 ft
Station: 4796+28 Offset: 37.1 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/17/24	19.0	Measured at 0820

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
40		Visual Class:, A-4; SILT, some f Sand, gry, Wet, Rec. = 1.25 ft	6-7-7-9 (14)				
45		Visual Class:, A-4; SILT, little f Sand, gry, Wet, Rec. = 1.42 ft	3-5-5-6 (10)				
50		Visual Class:, A-4; SILT, gry, Wet, Rec. = 2.0 ft	1-3-3-3 (6)				
55		Visual Class:, A-4; SILT, some f Sand, gry, Wet, Rec. = 1.42 ft	4-6-7-10 (13)				
60		Visual Class:, A-4; Clayey SILT, gry, Wet, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.0 tsf	WOH-WOH-1-1 (2)				
65		Visual Class:, A-5; CLAY and SILT, gry, Wet, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.0 tsf	WOR-WOR-WOH-2 (WOR/WOH)				
		Visual Class:, A-5; CLAY and SILT, gry, Wet, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.5 tsf	WOR-WOH-				

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-105
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Brad Enos, Josef Bourgeois
Date Started: 4/16/24 Date Finished: 4/17/24
VTSPG NAD83: N 510018.30 ft E 1729282.90 ft
Station: 4796+28 Offset: 37.1 LT
Ground Elevation: 432.0 ft

	Casing	Sampler
Type:	WB	SS
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	MOBILE 23 TRACK	CE = 1.27

Groundwater Observations

Date	Depth (ft)	Notes
04/17/24	19.0	Measured at 0820

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
			WOH-3 (WOH)				
75		Visual Class:, A-5; CLAY and SILT, gry, Wet, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.5 tsf	WOR-WOR-WOH-WOH (WOR/WOH)				
80		Visual Class:, A-5; CLAY and SILT, gry, Wet, Rec. = 2.0 ft, pp: 0.75 tsf; tv: 2.5 tsf	WOH-WOH-WOH-WOH (WOH)				
85		Visual Class:, A-5; CLAY and SILT, gry, Wet, Rec. = 1.83 ft, pp: 0.75 tsf; tv: 2.5 tsf	WOH-2-6-6 (8)				
90		Visual Class:, A-4; Clayey SILT, gry, Wet, Rec. = 1.5 ft, pp: 0.5 tsf; tv: 1.5 tsf	4-3-5-6 (8)				
95		Visual Class:, A-4; SILT, gry, Wet, Rec. = 1.17 ft	10-16-16-18 (32)				
		Hole stopped @ 96.0 ft					
100		Remarks: 1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.					

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 8

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-106
Page No.: 1 of 2
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Debojit Sarker
Date Started: 3/04/24 Date Finished: 3/04/24
VTSPG NAD83: N 509926.90 ft E 1729252.00 ft
Station: 4795+54 Offset: 24.4 RT
Ground Elevation: 431.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	TRUCK GT-8	CE = 1.45

Groundwater Observations

Date	Depth (ft)	Notes
03/04/24	31.65	Measured at 1440

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		Visual Class:, A-1-b; cmf SAND, some cmf Gravel, little Silt, trace organics, top soil, grass, roots, gry-Lt/brn-blk, Dry, Rec. = 1.33 ft	5-5-4-4 (9)				
		Visual Class:, A-1-b; cmf(+) SAND, some cmf Gravel, little Silt, brn-gry, Moist, Rec. = 1.42 ft	3-4-6-11 (10)				
5		Visual Class:, A-4; Clayey SILT, some cmf Gravel, little cmf Sand, brn-Dk/gry-blk, MTW, Rec. = 0.83 ft	8-9-9-5 (18)				
		Visual Class:, A-1-a; cmf Gravel and cmf Sand, trace Clayey Silt, Dk/gry-blk, MTW, Rec. = 1.5 ft	15-10-6-5 (16)				
		Visual Class:, No Recovery, Rec. = 0.0 ft	11-10-6-4 (16)				
10		Visual Class:, A-1-b; cmf(+) SAND, little Clayey Silt, trace mf Gravel, brn-Dk/gry, MTW, Rec. = 1.17 ft, 0.17' Clayey Silt pocket Roller bit through boulder at 13.5'	4-3-5-7 (8)				
15		Visual Class:, A-1-a; cmf Gravel and cmf Sand, trace (-) Clayey Silt, Dk/gry-brn, MTW, Rec. = 1.08 ft, Clayey Silt at tip of split spoon	23-17-11-7 (28)				
20		Visual Class:, Top 0.58': A-1-b; mf(+) SAND, trace Silt, Bot 0.58': A-1-b; cmf SAND, some cmf Gravel, trace Silt, blk-gry, Moist, Rec. = 1.17 ft	18-19-15-19 (34)				
25		Visual Class:, A-1-b; mf(+) SAND, little Silt, brn, Moist, Rec. = 1.17 ft	8-9-11-14 (20)				
30		Visual Class:, Top 0.17': A-1-a; cmf Sand and cmf Gravel, Mid 0.58': A-1-b; cmf(+) SAND, trace Silt, Bot 0.5': A-1-b; cmf SAND, some cmf Gravel, little Silt, Dk/gry-brn-blk, MTW, Rec. = 1.25 ft, Observed three layers in split spoon	21-20-20-20 (40)				
		Visual Class:, A-1-a; cmf Gravel, trace cmf Sand, some wood fragments, brn-Dk/gry,	6-5-3-5 (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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-106
Page No.: 2 of 2
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Debojit Sarker
Date Started: 3/04/24 Date Finished: 3/04/24
VTSPG NAD83: N 509926.90 ft E 1729252.00 ft
Station: 4795+54 Offset: 24.4 RT
Ground Elevation: 431.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	TRUCK GT-8	CE = 1.45

Groundwater Observations

Date	Depth (ft)	Notes
03/04/24	31.65	Measured at 1440

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %
		MTW, Rec. = 0.33 ft, Spoon tip filled with wood pieces					
40		Visual Class:, A-2-4; mf(+) SAND, some Silt, one piece of m Gravel, brn-gry, Moist, Rec. = 0.83 ft	23-10-8-8 (18)				
45		Visual Class:, A-4; Clayey SILT, some (+) f Sand, gry, Moist, Rec. = 1.67 ft	3-3-3-4 (6)				
		Hole stopped @ 46.0 ft					
50		Remarks: 1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.					
55							
60							
65							

Notes:
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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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 9

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 97 OF 161

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-106A
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Chris Testa/Josef Bourgeois
Date Started: 3/12/24 Date Finished: 3/21/24
VTSPG NAD83: N 509929.90 ft E 1729257.00 ft
Station: 4795+59 Offset: 24.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
03/22/24	24.0	Measured at 0930
03/25/24	26.0	Meas. daily to 3/29
04/17/24	26.0	Well removed

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
		Visual Class:, SEE BORING B-106 for 0 - 40'							
5									
10									
15									
20									
25									
30									

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-106A
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Chris Testa/Josef Bourgeois
Date Started: 3/12/24 Date Finished: 3/21/24
VTSPG NAD83: N 509929.90 ft E 1729257.00 ft
Station: 4795+59 Offset: 24.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
03/22/24	24.0	Measured at 0930
03/25/24	26.0	Meas. daily to 3/29
04/17/24	26.0	Well removed

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
40		Visual Class:, A-2-4; mf(+) SAND, some Silt, gry-brn, Moist, Rec. = 1.0 ft	12-14-19-30 (33)						
45		Visual Class:, A-4; Clayey SILT, some f Sand, gry-brn, Moist, Rec. = 1.33 ft, pp: 0.5 tsf; tv: 1.0 tsf	5-5-7-11 (12)						
50		Visual Class:, A-4; Clayey SILT, gry-brn, Moist, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 1.0 tsf	WOH-4-8-6 (12)						
55		Visual Class:, A-5; SILT and CLAY, gry-brn, Moist, Rec. = 1.25 ft, pp: 0.25 tsf; tv: 1.0 tsf	4-6-6-10 (12)						
60		Classification:, *A-6; CLAY, gry, Moist, Rec. = 1.92 ft, pp: 0.25 tsf; tv: 1.0 tsf	1-1-2-3 (3)	34.3				38	18
		Visual Class:, A-5; CLAY and SILT, gry-brn, MTW, Shelby Tube Sample	P-U-S-H						
65		Visual Class:, A-6; Silty CLAY, some mf Gravel, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.0 tsf	1-1-6-5 (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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 10

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-106A
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Chris Testa/Josef Bourgeois
Date Started: 3/12/24 Date Finished: 3/21/24
VTSPG NAD83: N 509929.90 ft E 1729257.00 ft
Station: 4795+59 Offset: 24.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
03/22/24	24.0	Measured at 0930
03/25/24	26.0	Meas. daily to 3/29
04/17/24	26.0	Well removed

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
75		Visual Class:, A-6; Silty CLAY, gry-brn, Moist, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.0 tsf	1-2-5-4 (7)						
		Visual Class:, A-6; CLAY, gry-brn, Wet, Rec. = 1.83 ft, pp: 0.25 tsf; tv: 2.0 tsf	3-7-4-5 (11)						
80		Visual Class:, A-6; CLAY, gry-brn, Wet, Rec. = 1.83 ft, pp: 0.25 tsf	4-4-6-7 (10)						
		Hole stopped @ 82.0 ft							
85		Remarks: 1. Installed temporary water well after completing hole. 2. When Fairlee boring work was completed, temporary well PVC and steel well cover were removed. 3. Boring backfilled with spoils and sand until reaching firm, non-yielding state.							
90									
95									
100									

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-107
Page No.: 1 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/22/24 Date Finished: 3/26/24
VTSPG NAD83: N 509953.50 ft E 1729312.30 ft
Station: 4796+19 Offset: 33.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:	Auto	
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations		
Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
5		Visual Class:, A-1-b; cmf SAND, some mf Gravel, brn-gry, Dry, Rec. = 1.0 ft	2-4-9-10 (13)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, layers of Shale, brn-gry, Dry, Rec. = 1.25 ft	7-7-8-10 (15)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, layers of Shale, brn-gry, Moist, Rec. = 1.0 ft	8-10-8-7 (18)						
10		Visual Class:, A-1-b; cmf SAND, some mf Gravel, layers of Shale, brn-gry, Moist, Rec. = 1.0 ft	8-7-16-11 (23)						
		Visual Class:, A-1-b; cmf SAND, some mf Gravel, layers of Shale, brn-gry, Moist, Rec. = 0.75 ft	6-5-5-5 (10)						
		Visual Class:, A-1-b; mf SAND, little mf Gravel, trace Silt, Lt/brn, Moist, Rec. = 1.25 ft, Roller bit through boulder at 14'	5-10-10-20 (20)						
15		Visual Class:, A-2-4; mf SAND, little Silt, Lt/brn, MTD, Rec. = 0.75 ft	9-8-7-7 (15)						
20		Visual Class:, A-4; Clayey SILT, some (+) f Sand, brn, Moist, Rec. = 1.17 ft	3-3-3-3 (6)						
25		Visual Class:, A-5; SILT and CLAY, some f Sand, brn, Moist, Rec. = 1.42 ft	2-3-3-3 (6)						
30		Classification:, *A-6; Silty CLAY, gry, Moist, Rec. = 1.5 ft	2-3-3-4 (6)	26.6				26	4
		Visual Class:, A-2-4; mf SAND, some Silt, brn-gry, Moist, Rec. = 1.25 ft	5-4-5-7 (9)						

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 11

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-107
Page No.: 2 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/22/24 Date Finished: 3/26/24
VTSPG NAD83: N 509953.50 ft E 1729312.30 ft
Station: 4796+19 Offset: 33.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
40		Visual Class:, A-4; Clayey SILT, some f Sand, gry-brn, MTW, Rec. = 1.42 ft	4-3-5-7 (8)						
45		Visual Class:, A-4; Clayey SILT, some (+) f Sand, gry-brn, MTW, Rec. = 1.5 ft	4-4-6-7 (10)						
50		Visual Class:, A-5; SILT and CLAY, little f Sand, gry-brn, MTW, Rec. = 2.0 ft	3-3-3-3 (6)						
55		Classification:, *A-2-4; Silty SAND, gry, MTW, Rec. = 1.25 ft	4-5-7-7 (12)				78.7		
60		Visual Class:, A-5; CLAY and SILT, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 2.0 tsf	2-1-1-1 (2)						
		Visual Class:, A-6; Silty CLAY, gry-brn, MTW, Shelby Tube Sample	P-U-S-H						
65		Visual Class:, A-6; Silty CLAY, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 2.0 tsf	WOH-5-5-7 (10)						

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

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

BORING LOG

Fairlee IM 091-2(91)
Bridge 55-2 and 55-3 I-89 NB and SB
Fairlee, Vermont 78773

Boring No.: B-107
Page No.: 3 of 3
Pin No.: 21a024
Checked By: CHD

Boring Crew: Kenneth Smith, Josef Bourgeois
Date Started: 3/22/24 Date Finished: 3/26/24
VTSPG NAD83: N 509953.50 ft E 1729312.30 ft
Station: 4796+19 Offset: 33.5 RT
Ground Elevation: 430.0 ft

	Casing	Sampler
Type:	WB	SS & TUBE
I.D.:	4 in	1.38 in
Hammer Wt:	140 lb.	140 lb.
Hammer Fall:	30 in.	30 in.
Hammer/Rod Type:		Auto
Rig:	GEFCO SS-5	CE = 1.33

Groundwater Observations

Date	Depth (ft)	Notes
		Not Measured

Depth (ft)	Strata (1)	CLASSIFICATION OF MATERIALS (Description)	Blows/6" (N Value)	Moisture Content %	Gravel %	Sand %	Fines %	LL %	PI %
75		Visual Class:, A-6; Silty CLAY, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.25 tsf; tv: 2.0 tsf	WOR-WOR-WOH-5 (WOR/WOH)						
		Visual Class:, A-6; Silty CLAY, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.0 tsf	WOH-3-11-7 (14)						
80		Visual Class:, A-6; Silty CLAY, gry-brn, MTW, Rec. = 2.0 ft, pp: 0.5 tsf; tv: 2.0 tsf	4-4-5-7 (9)						
		Hole stopped @ 82.0 ft							
85									
90									
95									
100									

Remarks:
1. Boring backfilled with spoils and sand until reaching a firm, non-yielding state.

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.
4. * Indicates that soil description has been verified based upon laboratory results.
5. Strata column graphic indicates AASHTO soil classification system.

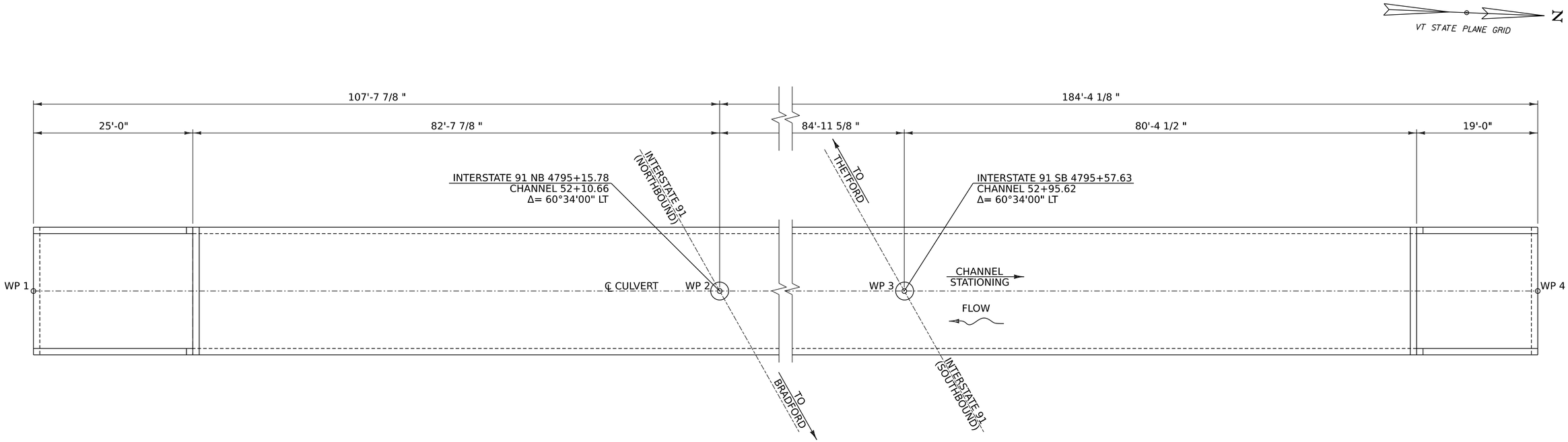
BORING LOG VTRANS FAIRLEE.GPJ VERMONT AOT.GDT 7/23/24

Stantec

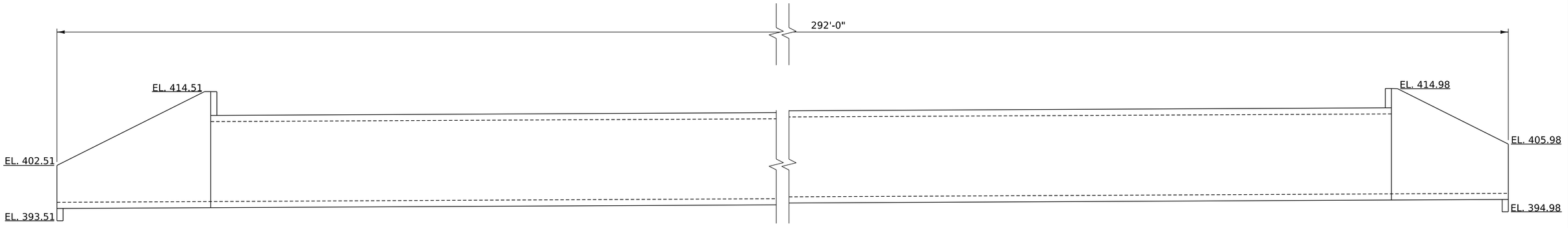
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024bor.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
BORING LOG SHEET 12

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 100OF 161



BOX CULVERT PLAN
SCALE ⅛" = 1'-0"



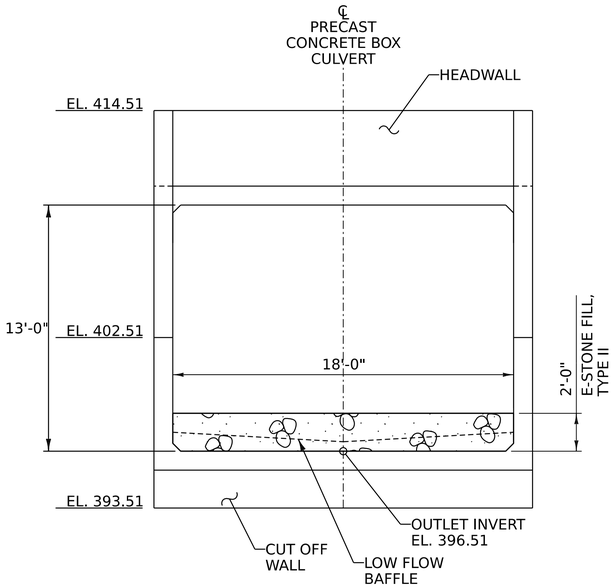
BOX CULVERT ELEVATION
SCALE ⅛" = 1'-0"

NOTES:

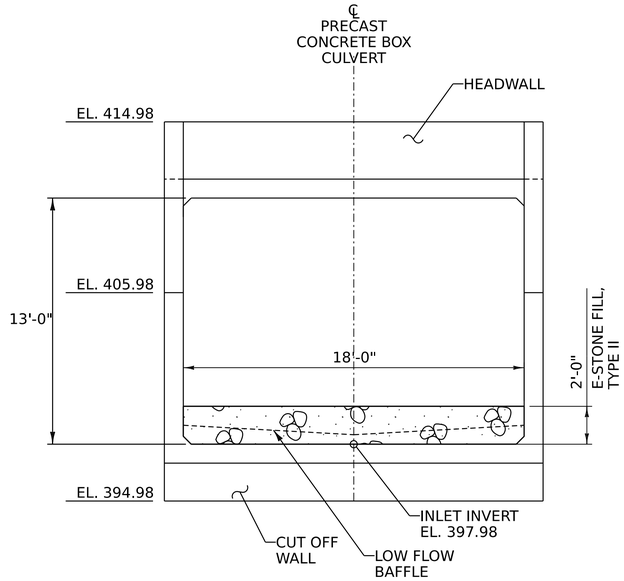
1. BAFFLES AND CONSTRUCTION JOINTS NOT SHOWN FOR CLARITY.
2. BOX CULVERT WALL THICKNESS SHOWN AS 1'-0". FINAL THICKNESS TO BE DETERMINED BY THE FABRICATOR.
3. THE LENGTH OF EACH CULVERT SEGMENT SHALL BE DETERMINED BY THE CONTRACTOR. THE PRECAST BOX CULVERT SEGMENT LENGTH MUST BE COMPATIBLE WITH THE STAGING REQUIREMENTS AND ADEQUATE SPACE SHALL BE PROVIDED FOR THE JOINING AND SEALING OF THE ADJACENT PRECAST UNITS AT THE STAGE LINE.

Stantec

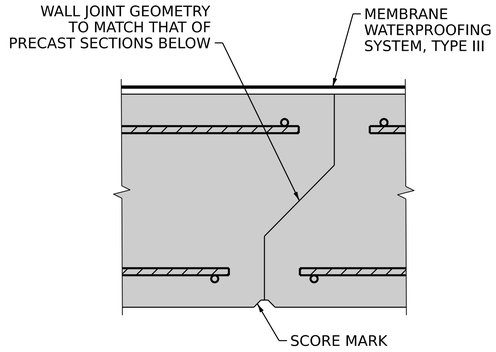
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_box layout.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
BOX CULVERT PLAN AND ELEVATION	SHEET 101 OF 161



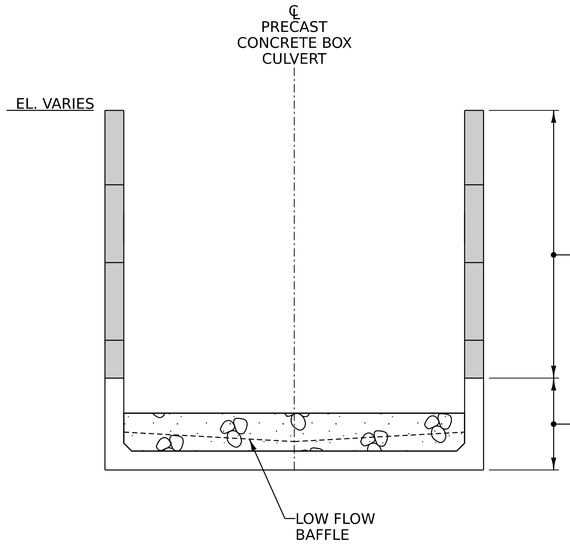
OUTLET ELEVATION
SCALE ¼" = 1'-0"



INLET ELEVATION
SCALE ¼" = 1'-0"

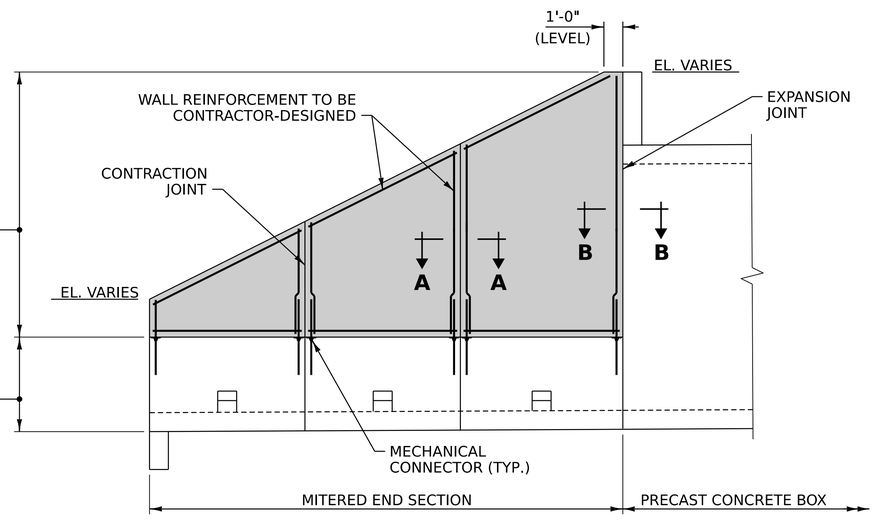


SECTION A-A
NOT TO SCALE

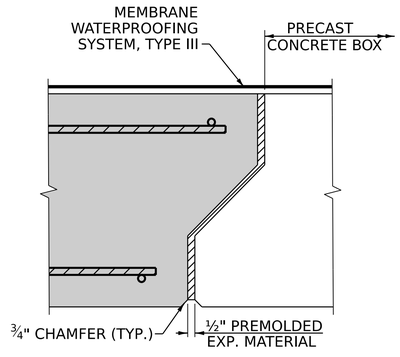


NOTE:
REINFORCING NOT SHOWN FOR CLARITY.

MITERED END SECTION
SCALE ¼" = 1'-0"



MITERED END ELEVATION ALONG CHANNEL LINE
SCALE ¼" = 1'-0"

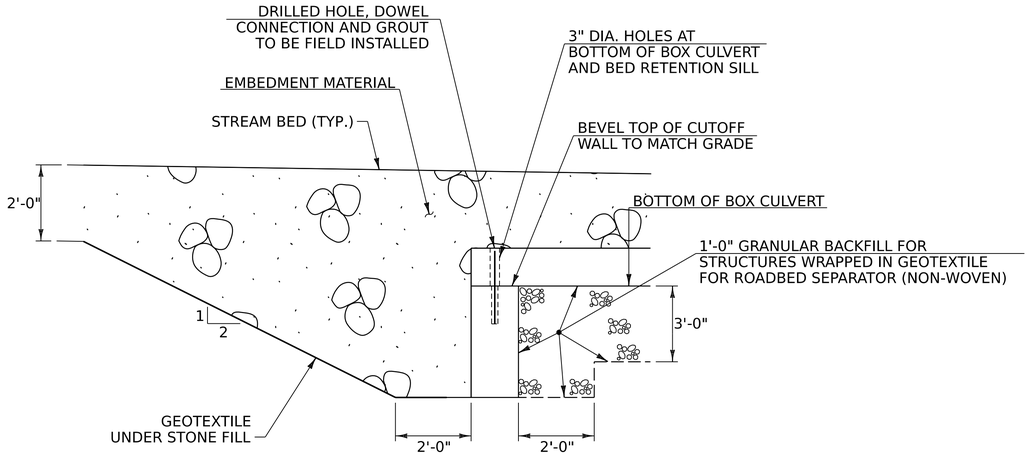


SECTION B-B
NOT TO SCALE

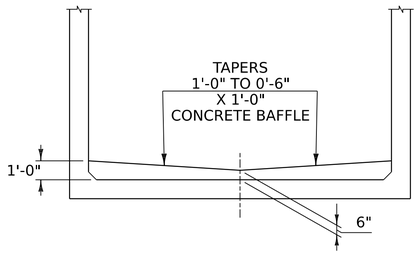
NOTES:
1. ACTUAL CULVERT WALL, TOP SLAB AND BOTTOM SLAB THICKNESSES, REINFORCEMENT SIZE AND SPACINGS TO BE DETERMINED BY CONTRACTOR
2. METHOD OF ATTACHING CUTOFF WALLS AND HEADWALLS AND LOW FLOW BAFFLES TO THE PRECAST CONCRETE BOX CULVERT SHALL BE DETERMINED BY THE CONTRACTOR.
3. THE TOP PORTION OF THE MITERED END SECTIONS MAY BE PRECAST OR CAST-IN-PLACE, REFER TO PROJECT NOTES SHEET FOR ADDITIONAL INFORMATION.

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_box culv det.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
BOX CULVERT DETAILS SHEET 1	SHEET 102 OF 161

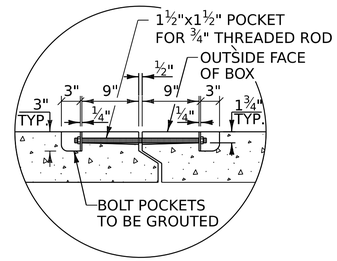


CUTOFF WALL DETAIL
NOT TO SCALE



LOW FLOW BAFFLE DETAIL
NOT TO SCALE

NOTES:
1. BAFFLES TO BE SPACED A MAXIMUM OF EVERY 8'-0".
2. FABRICATOR TO DETAIL BAFFLE CONNECTION.



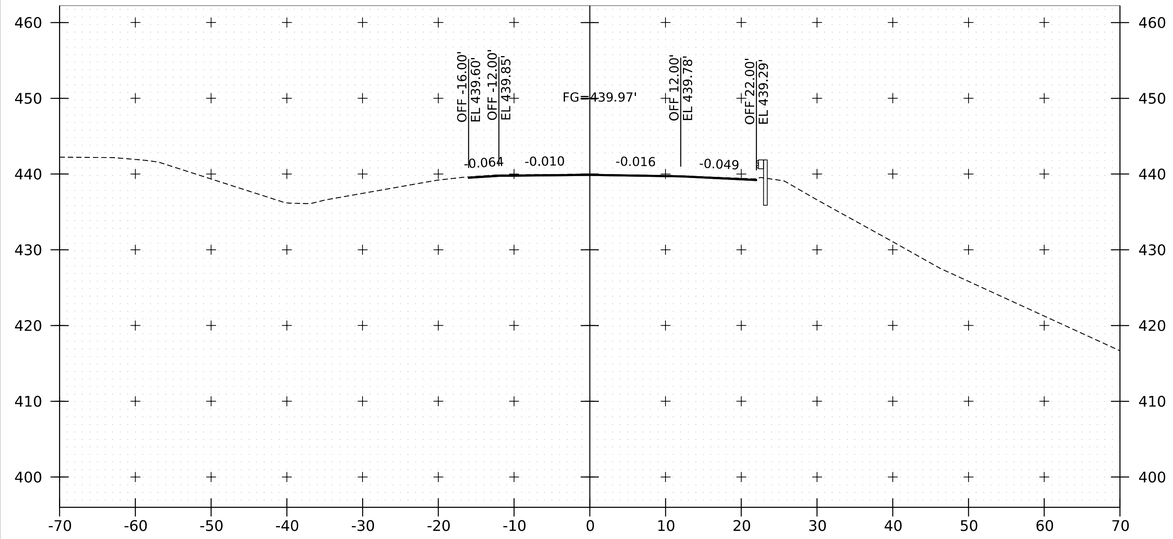
4 LOCATIONS PER JOINT
2 PER WALL, EXACT
LOCATION PER FABRICATOR

PERMANENT CLOSURE DETAIL
NOT TO SCALE

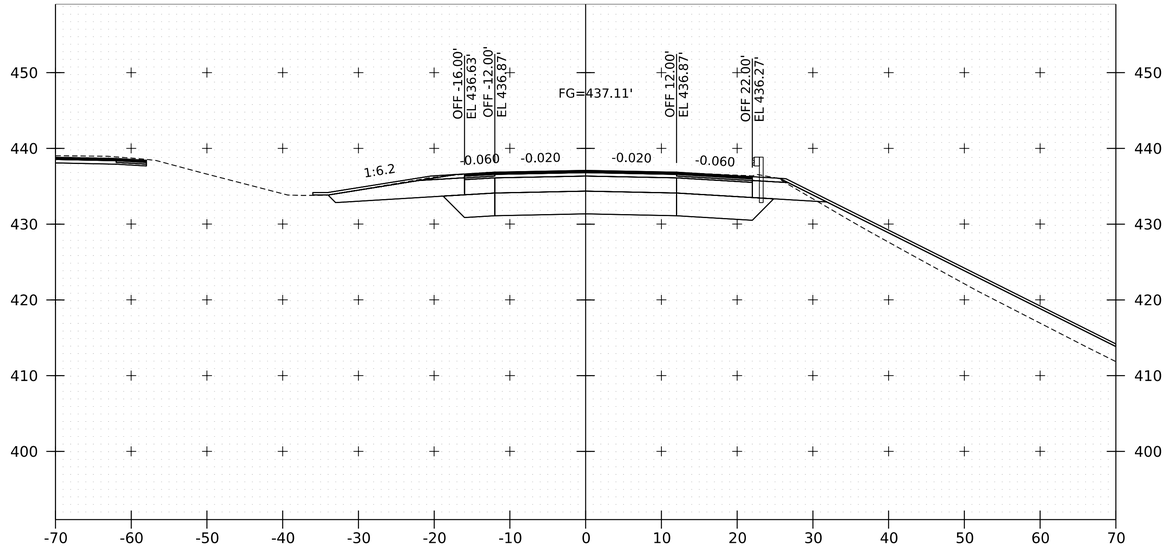
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024_box culv det.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	J. GRIGAS	CHECKED BY:	J. GRIGAS
BOX CULVERT DETAILS SHEET 2		SHEET	103 OF 161

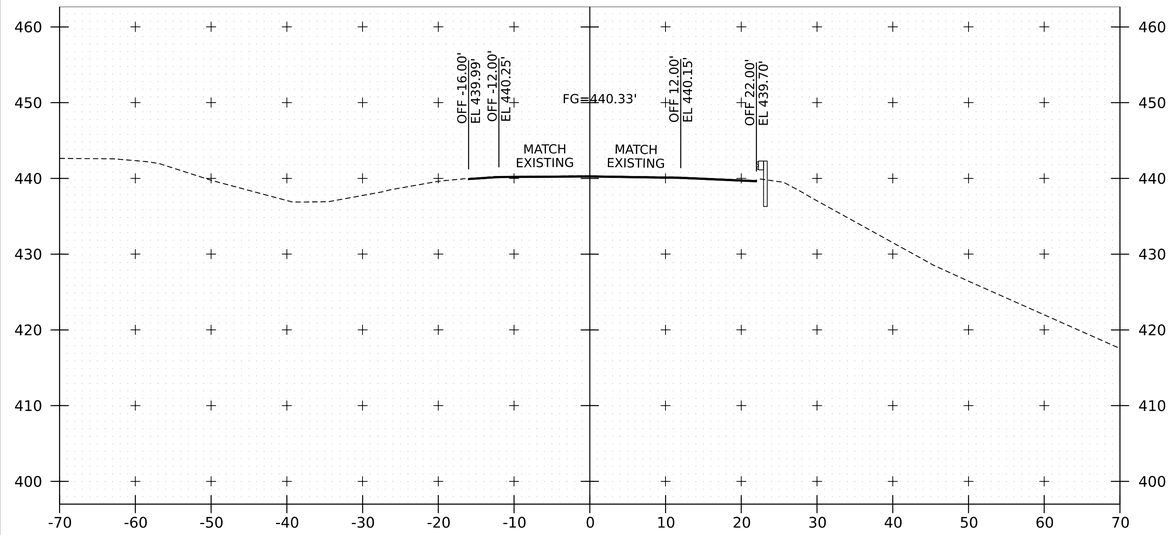


NB 4792+50



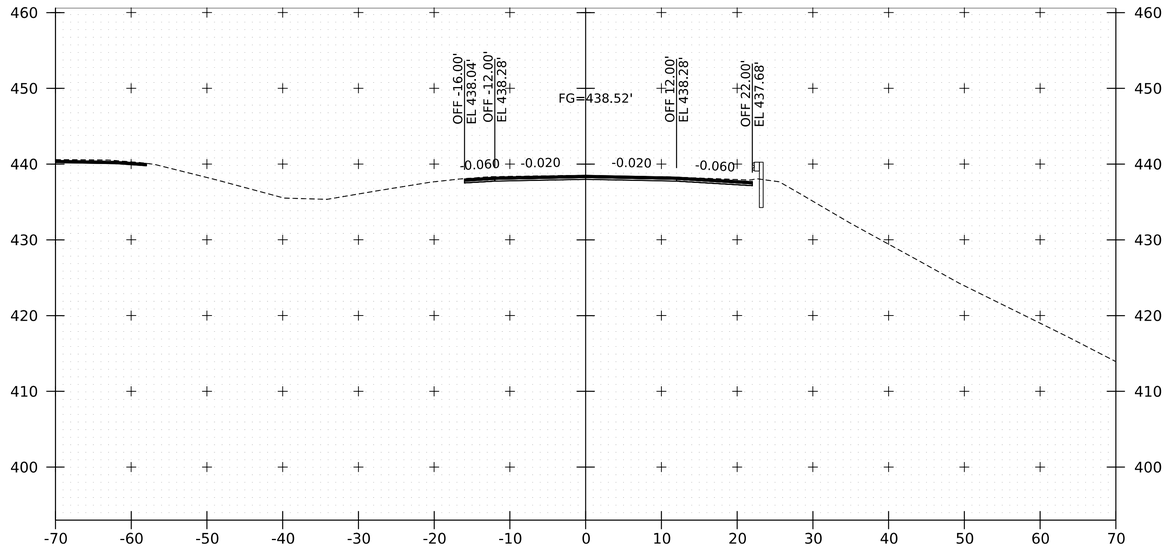
NB 4793+50

BEGIN PROJECT



NB 4792+37.50

BEGIN APPROACH



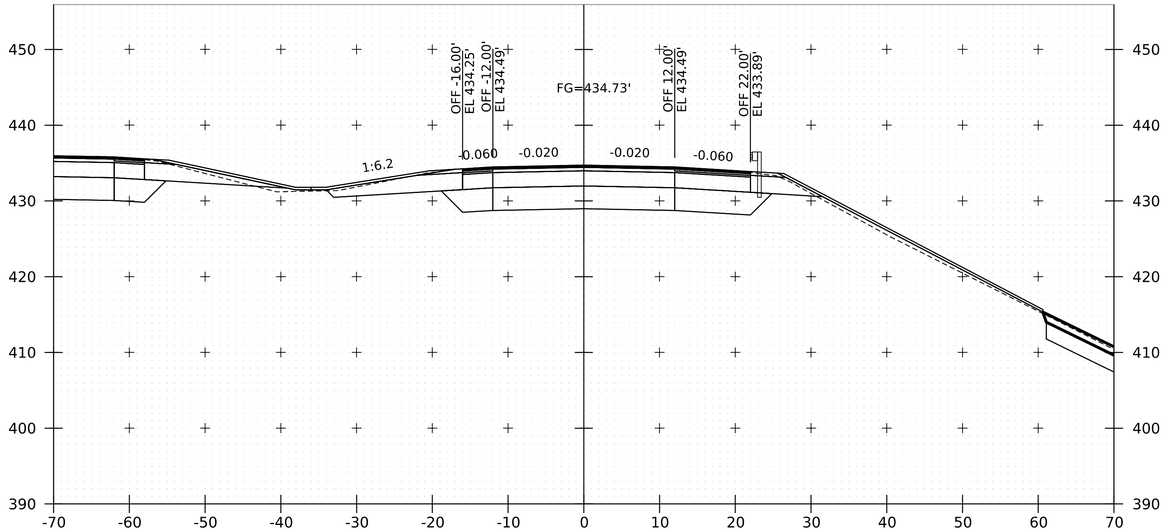
NB 4793+00

0 10 20

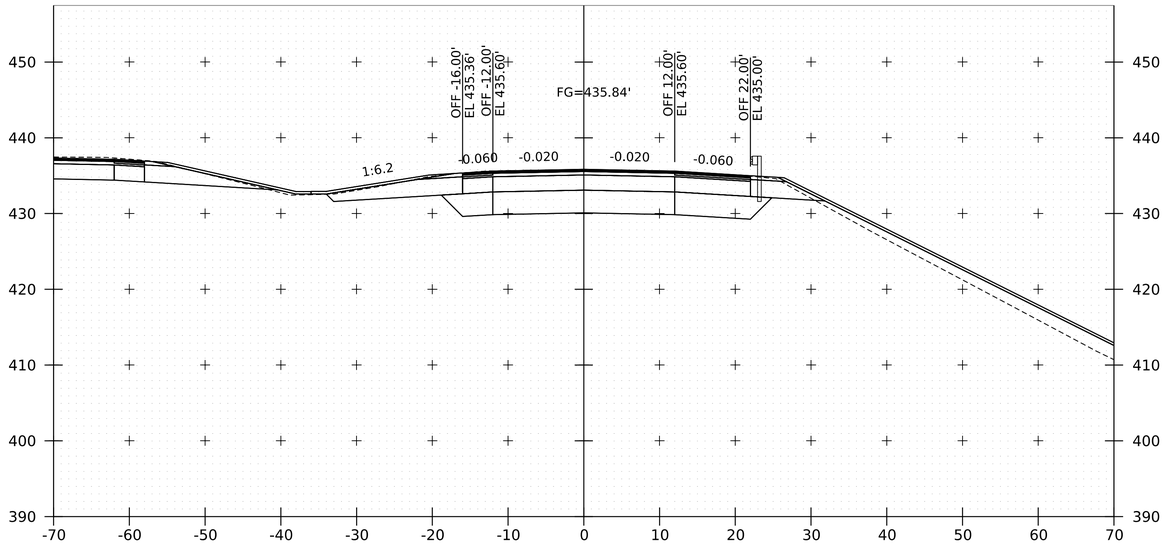
SCALE IN FEET

Stantec

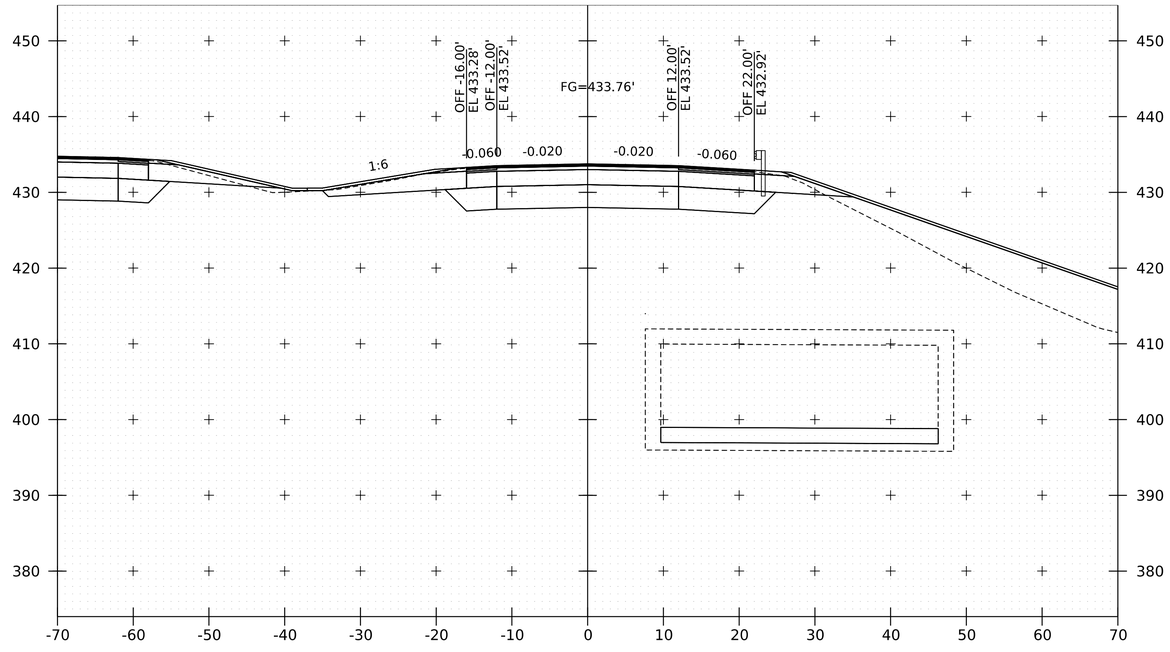
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_NB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
I91 NB XS SHEET 1	SHEET 104 OF 161



NB 4794+50



NB 4794+00

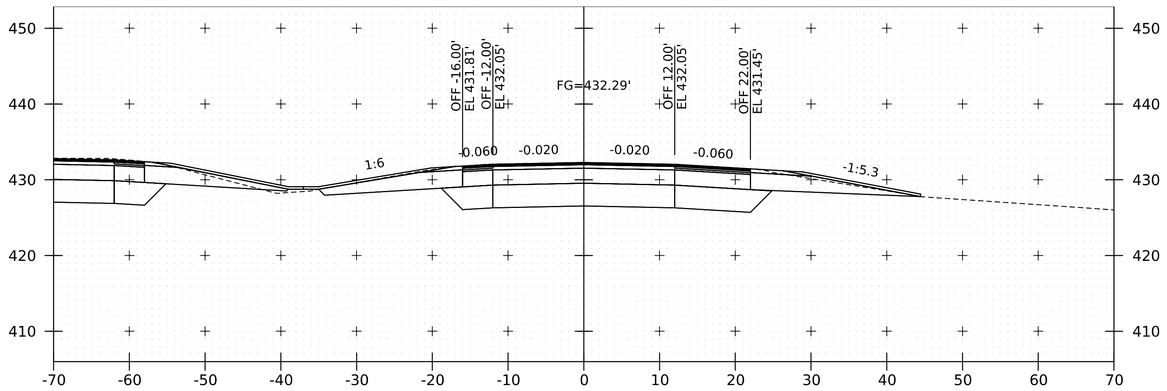


NB 4795+00

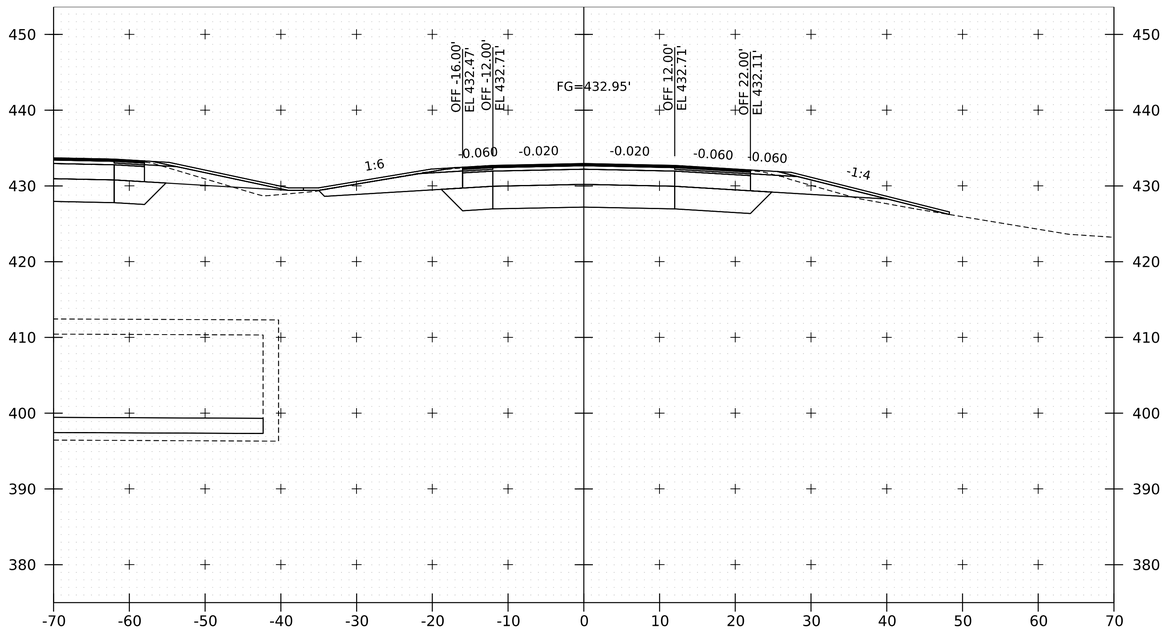
0 10 20
SCALE IN FEET

Stantec

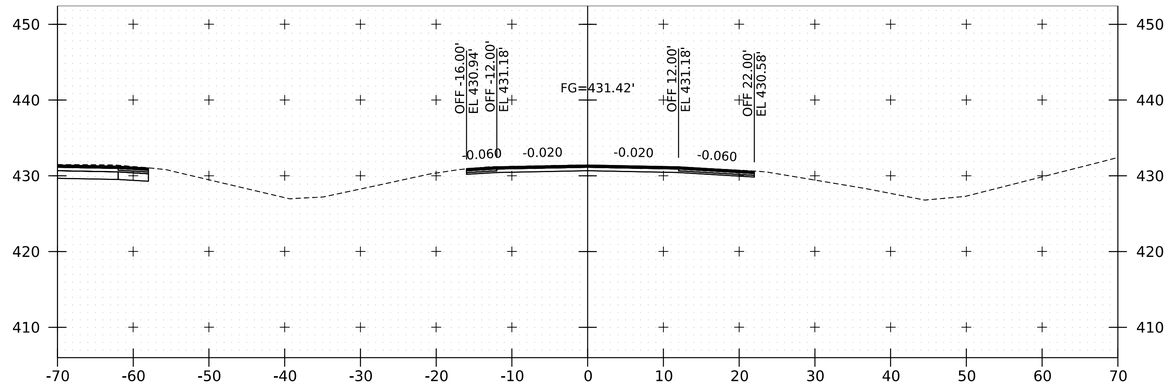
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_NB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
I91 NB XS SHEET 2	SHEET 105 OF 161



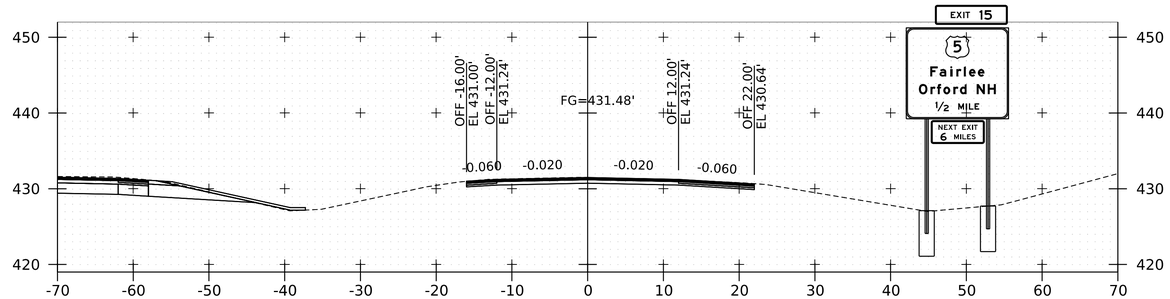
NB 4796+00



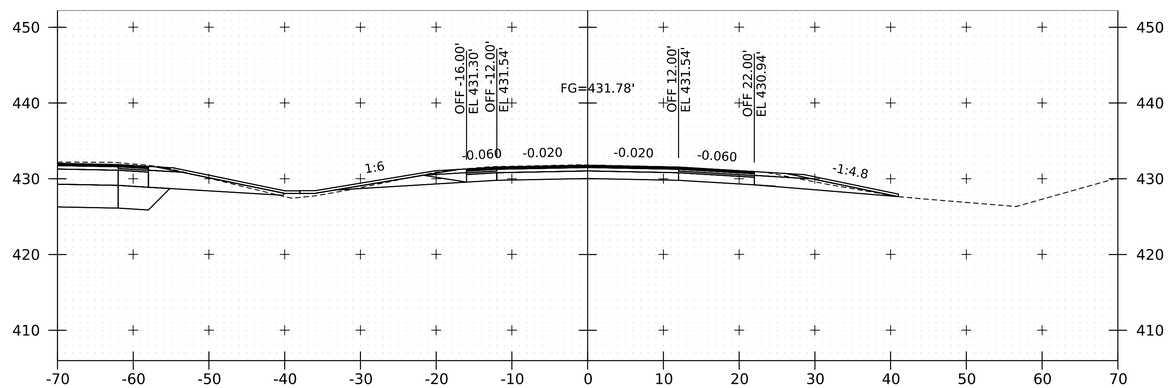
NB 4795+50



NB 4797+00



NB 4796+91



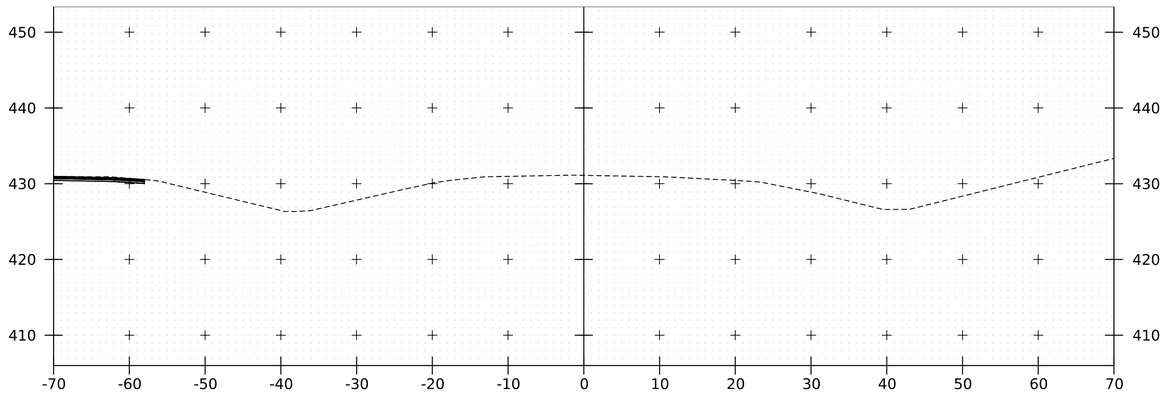
NB 4796+50

END PROJECT - NB 4796+25

SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_NB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
I91 NB XS SHEET 3	SHEET 106 OF 161



NB 4797+50

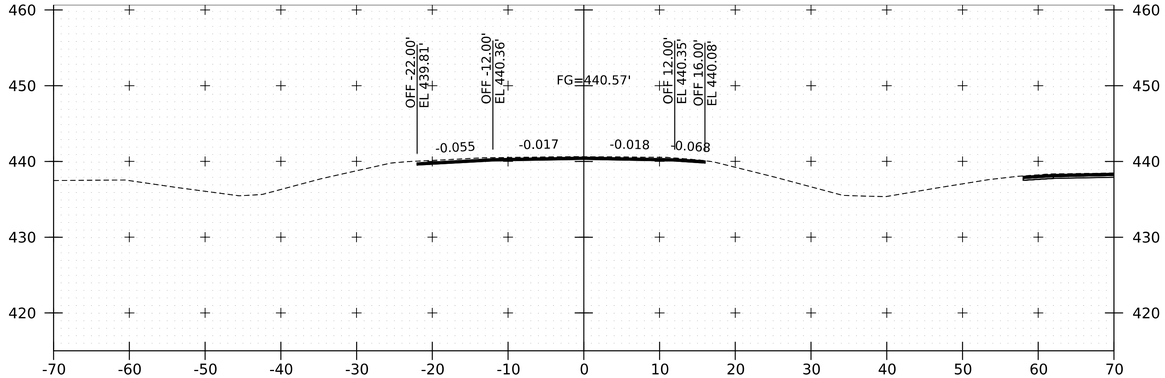
END APPROACH- NB 4797+37.5

0 10 20

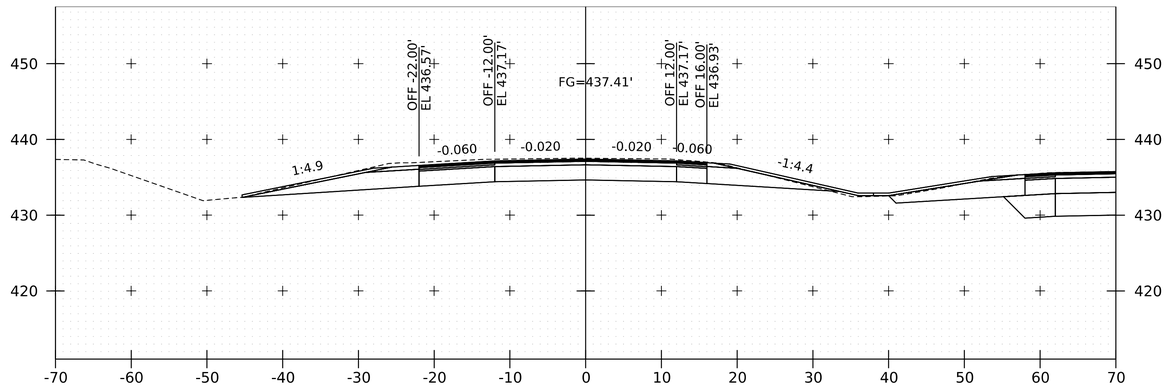
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME: z21a024xs_NB.dgn		PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	T. DUGUAY
DESIGNED BY:	T. DUGUAY	CHECKED BY:	I. MAYNARD
I91 NB XS SHEET 4		SHEET	107 OF 161



SB 4793+00



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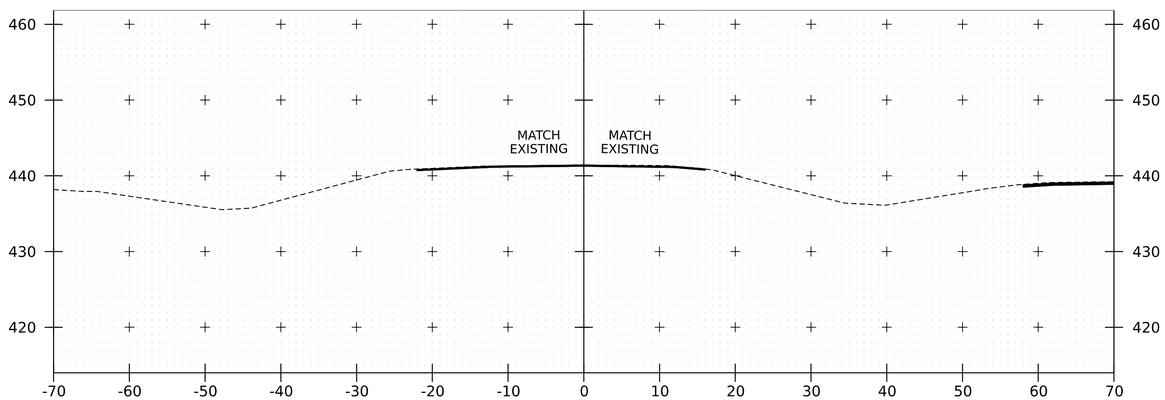

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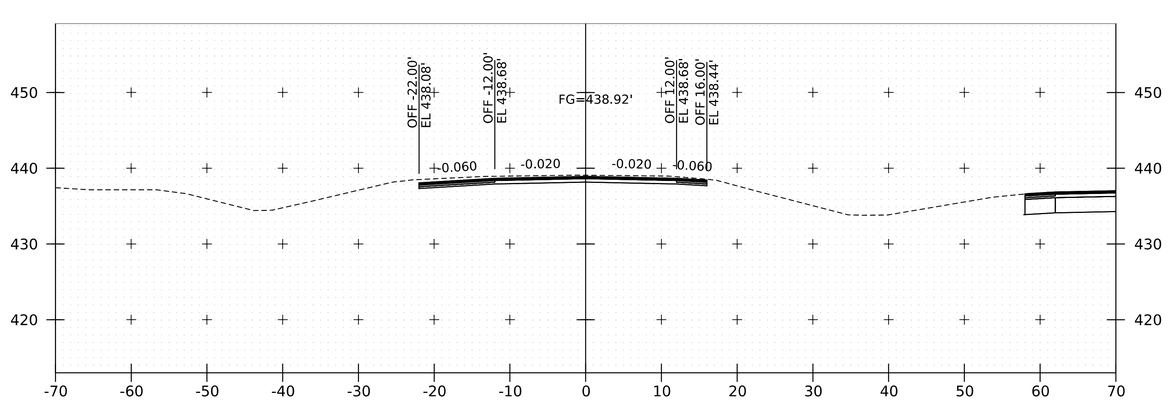
BEGIN APPROACH - 4744+21.00

(MM 89.852)



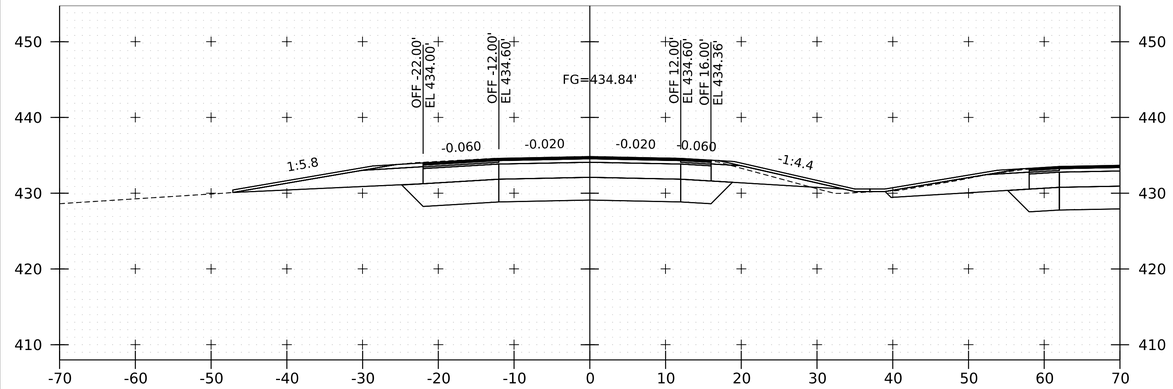
SB 4793+50

0 10 20

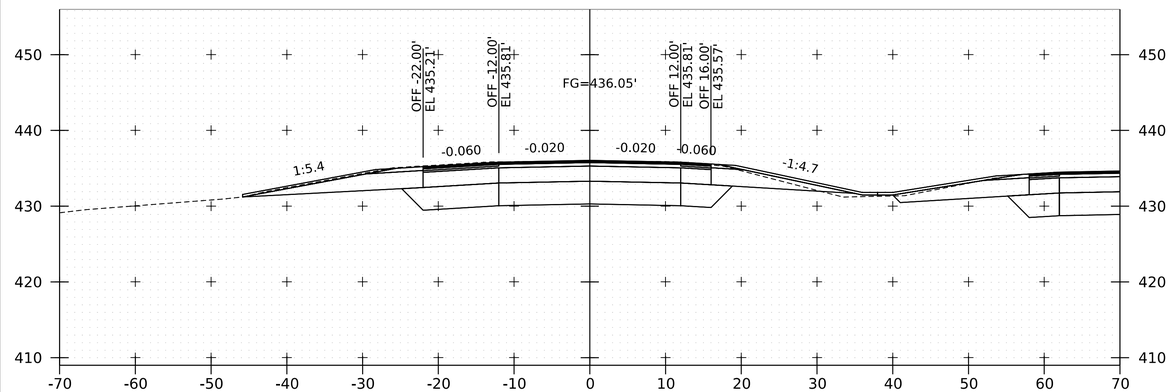
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
I91 SB XS SHEET 1	SHEET 108 OF 161



SB 4795+00



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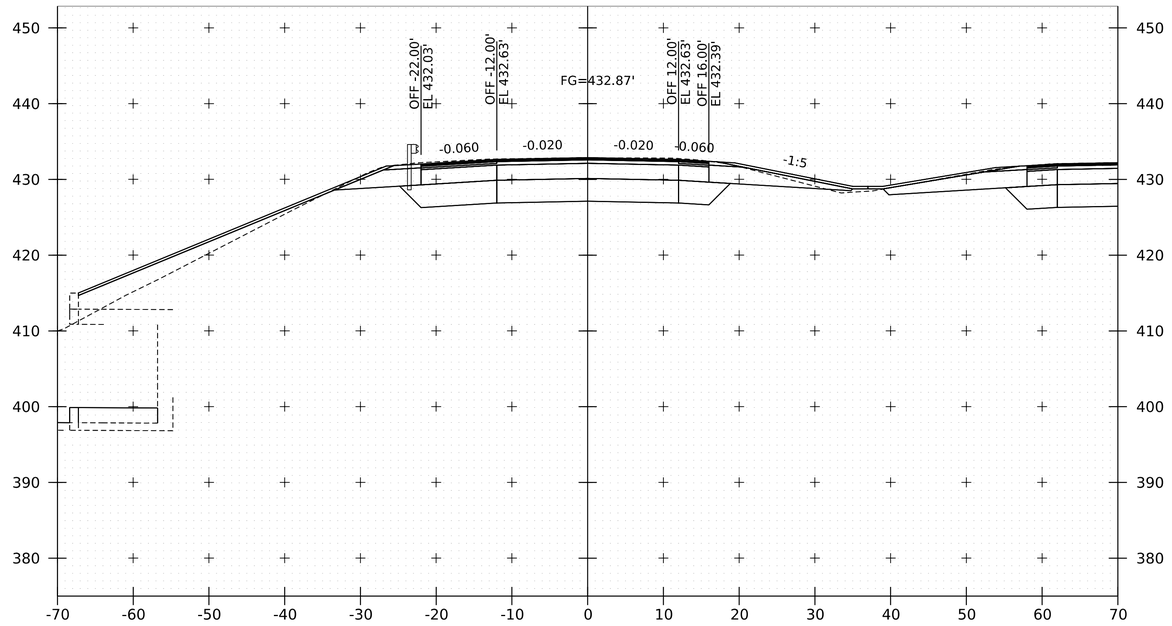

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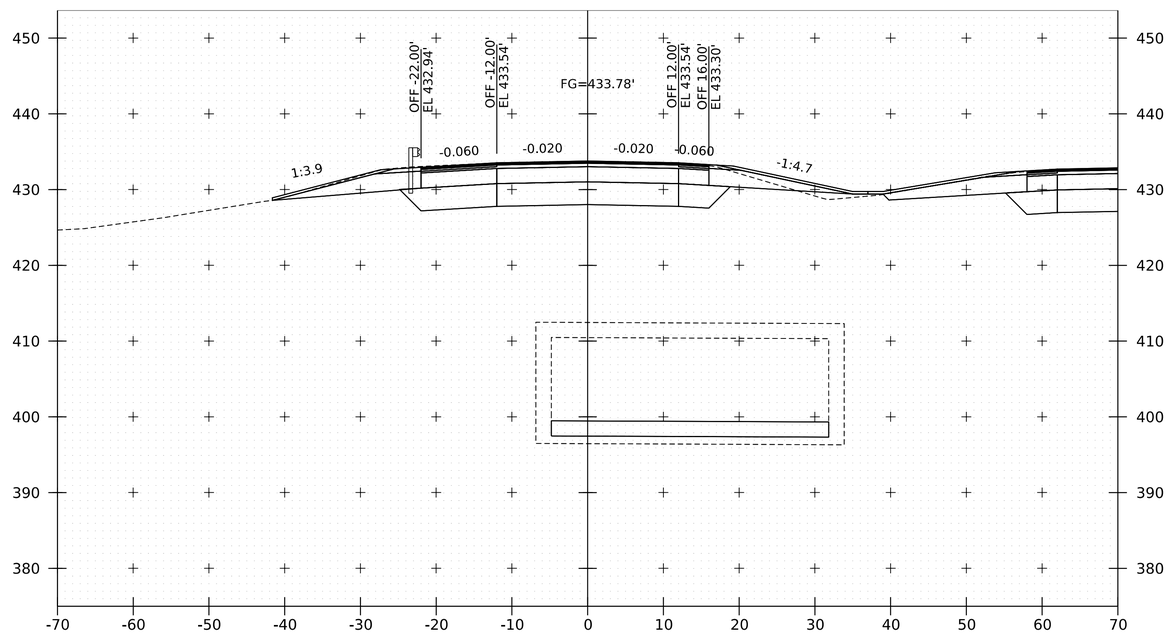


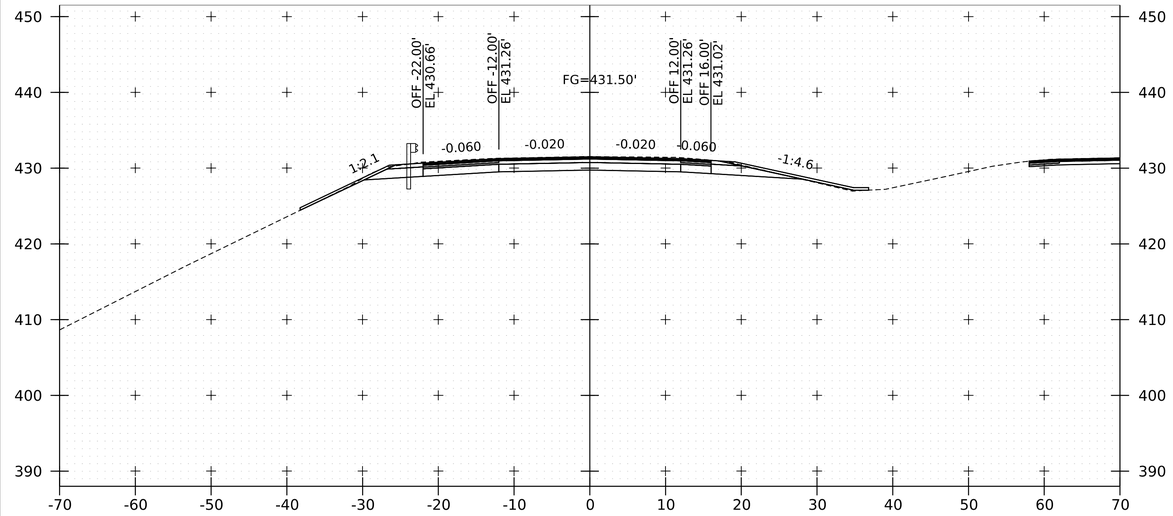
SB 4795+50

0 10 20

SCALE IN FEET

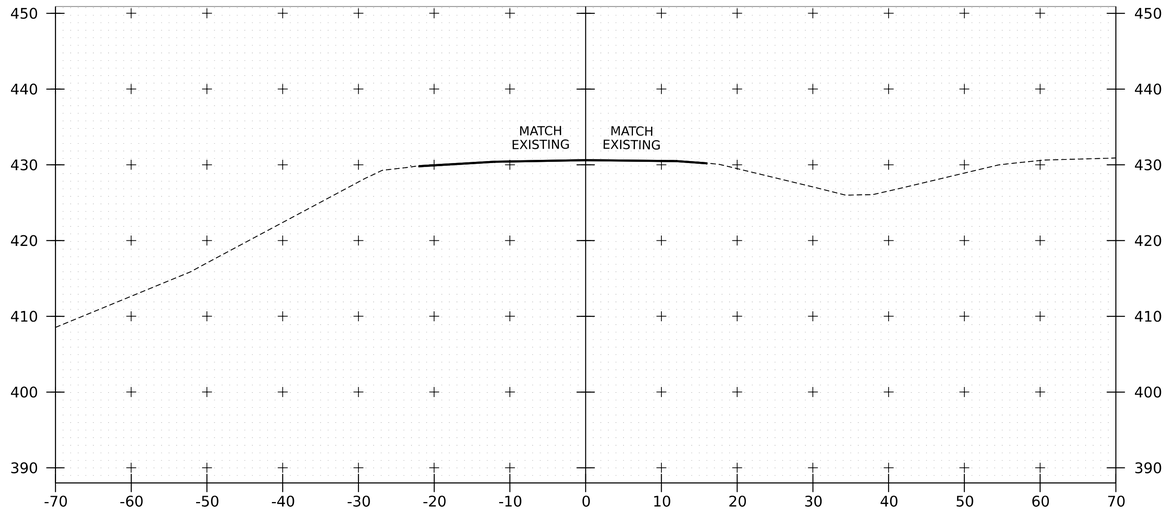
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
I91 SB XS SHEET 2	SHEET 109 OF 161



SB 4797+00

END PROJECT - SB 4796+75



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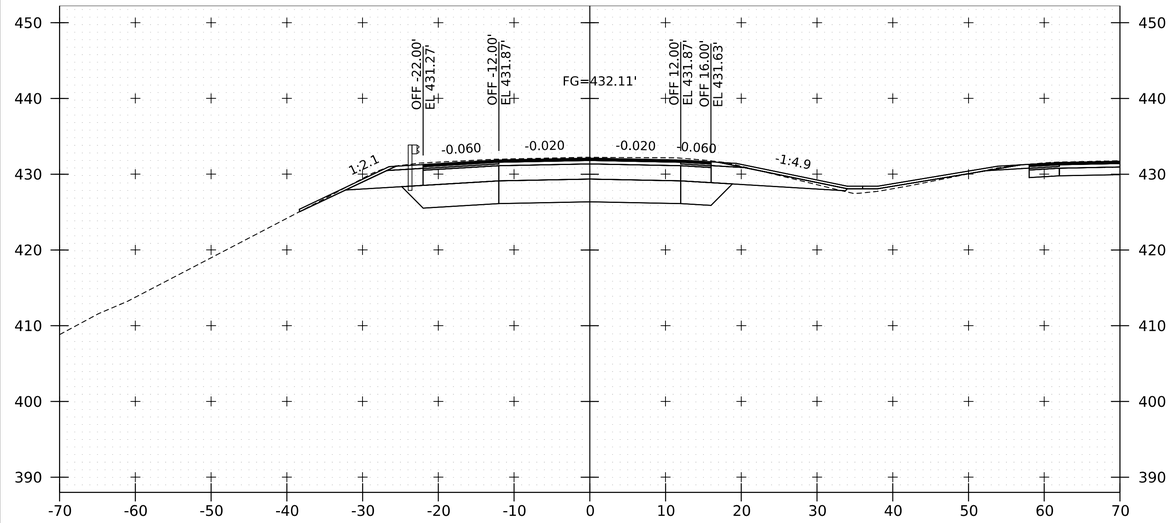
(MM 91.513)



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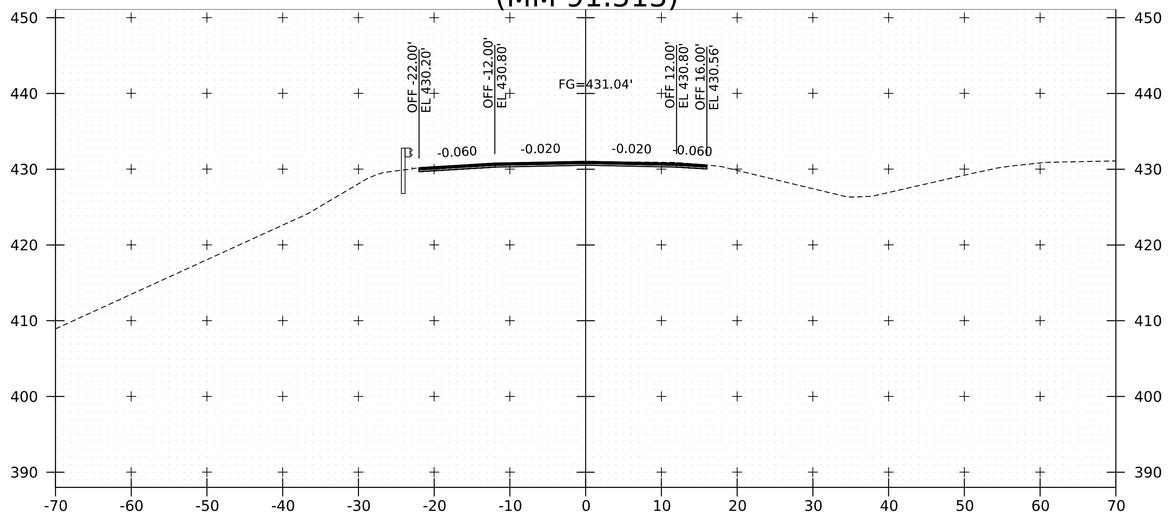


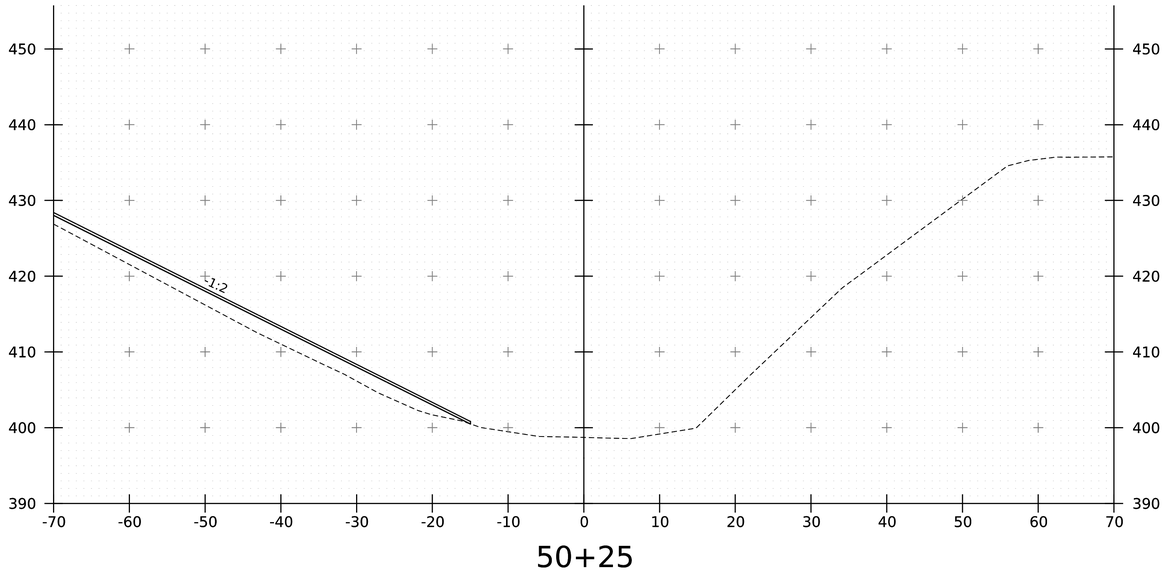
SB 4797+50

0 10 20

SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024xs_SB.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: T. DUGUAY
DESIGNED BY: T. DUGUAY	CHECKED BY: I. MAYNARD
I91 SB XS SHEET 3	SHEET 110 OF 161



50+25

STA 50+75.00 LT
BEGIN
UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
E-STONE FILL, TYPE II
GRUBBING MATERIAL, 12 IN

STA 50+75.00 RT
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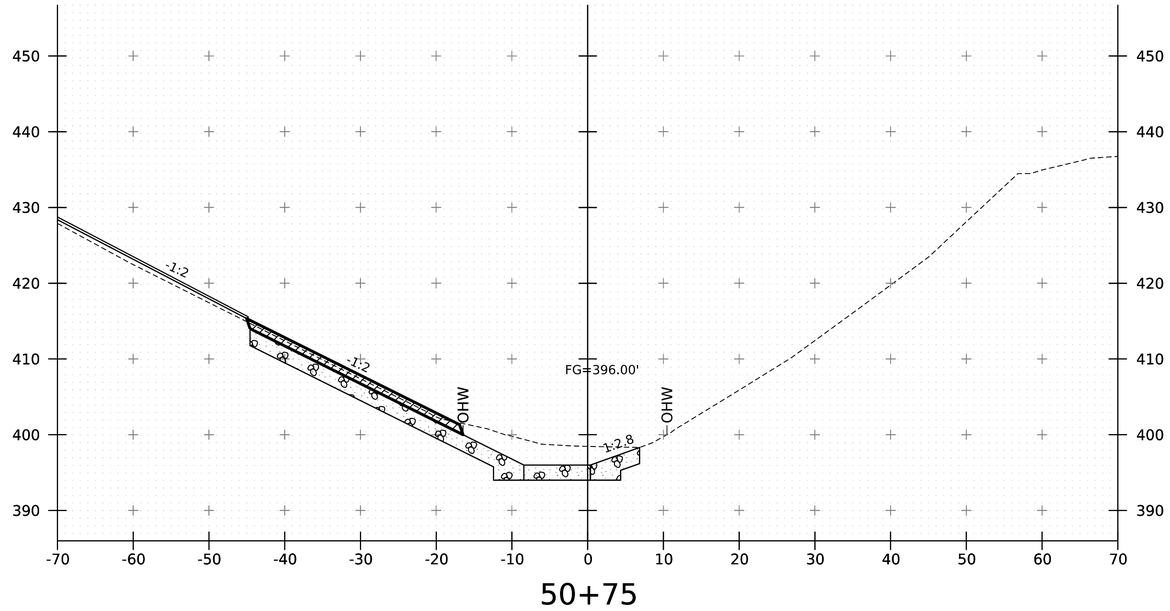
UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
E-STONE FILL, TYPE II



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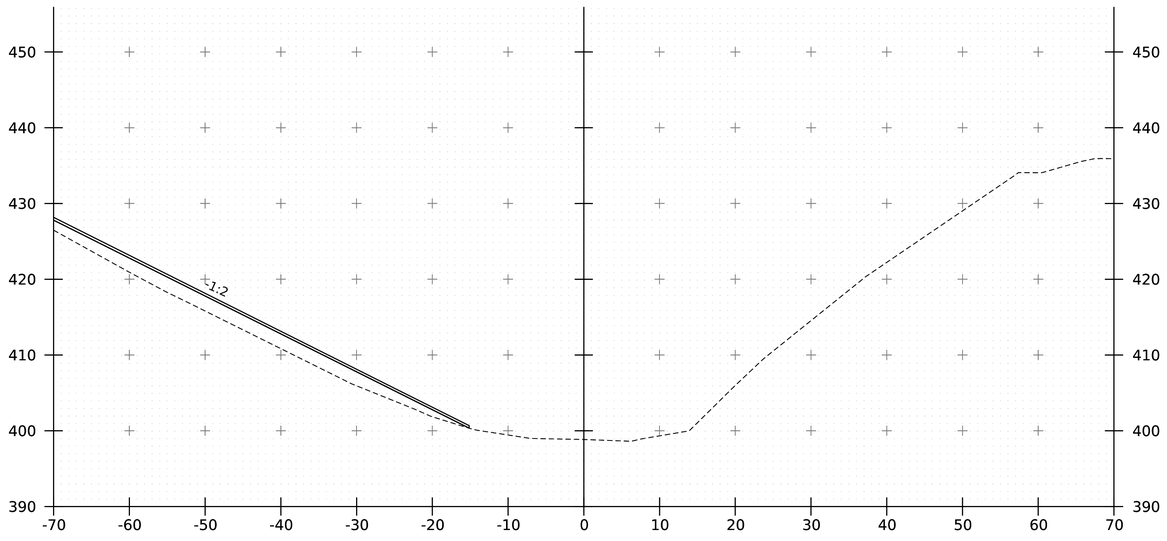

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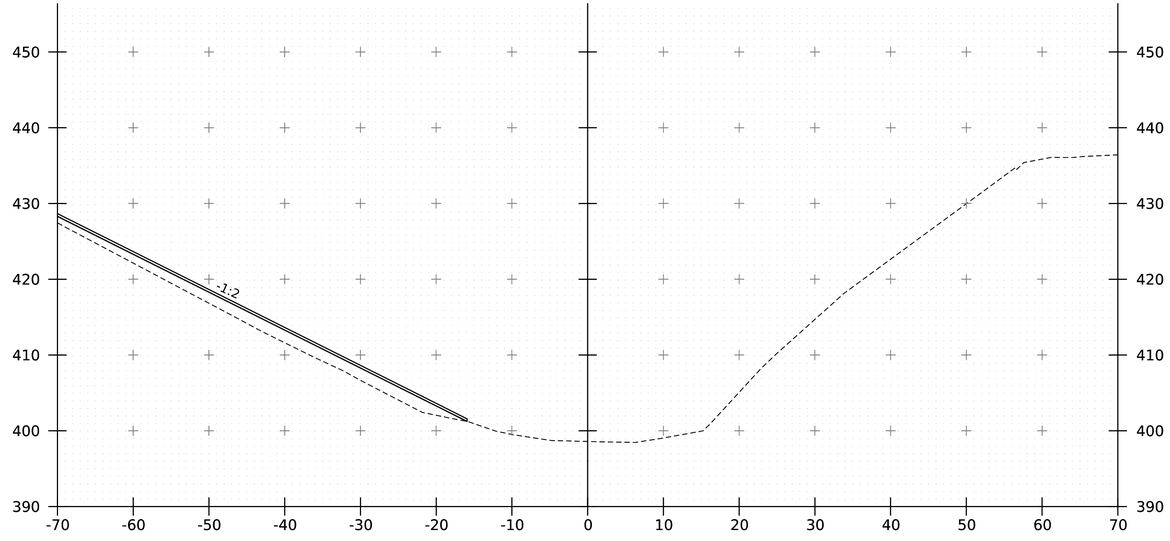

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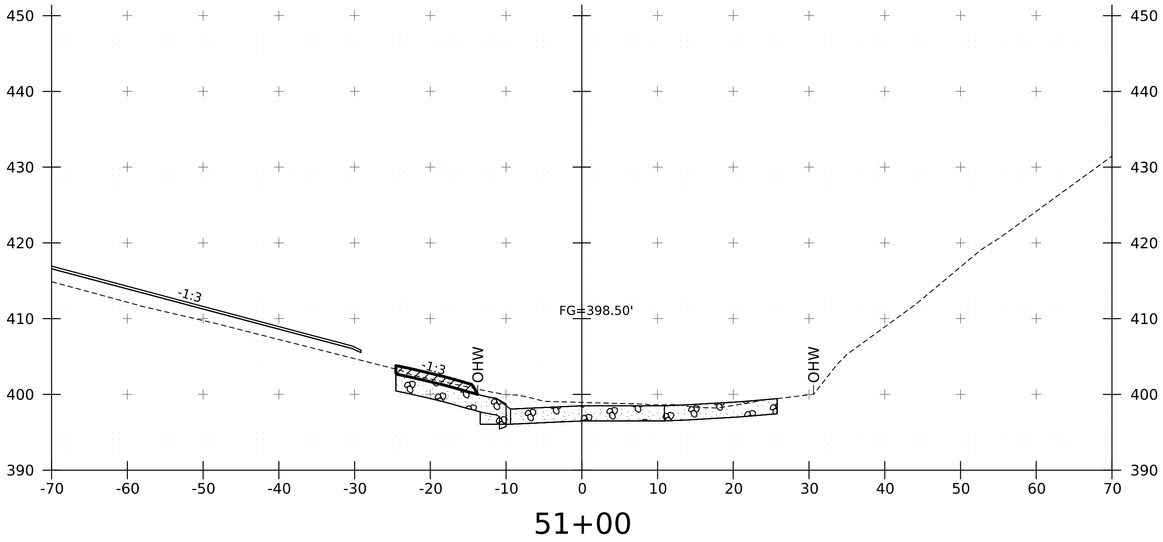
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: 21a024_xs_Channel.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: S. WINES
CHANNEL XS SHEET 1	SHEET 111 OF 161

STA 51+03.00 RT
BEGIN
GEOTEXTILE UNDER STONE FILL
GRUBBING MATERIAL, 12 IN



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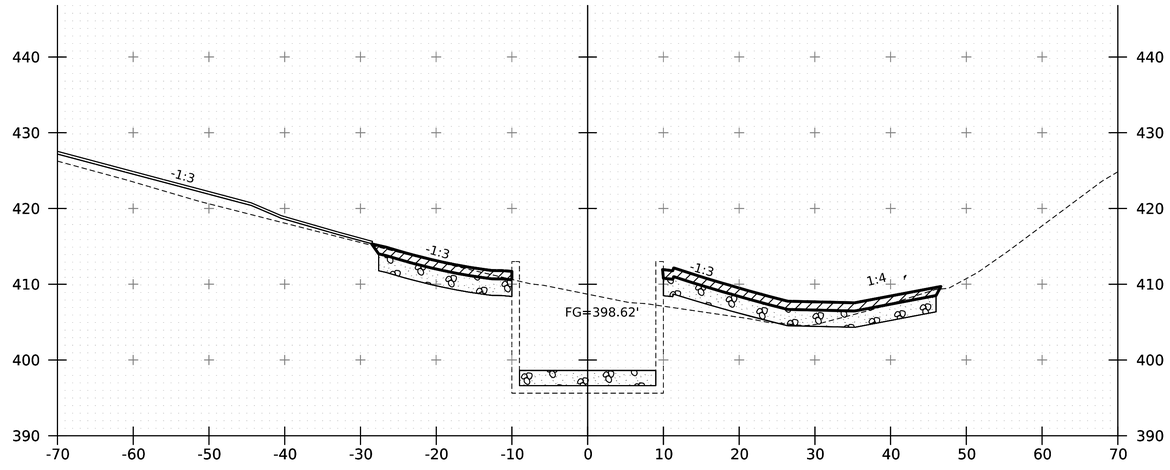
E-STONE FILL, TYPE II
GRUBBING MATERIAL, 12 IN



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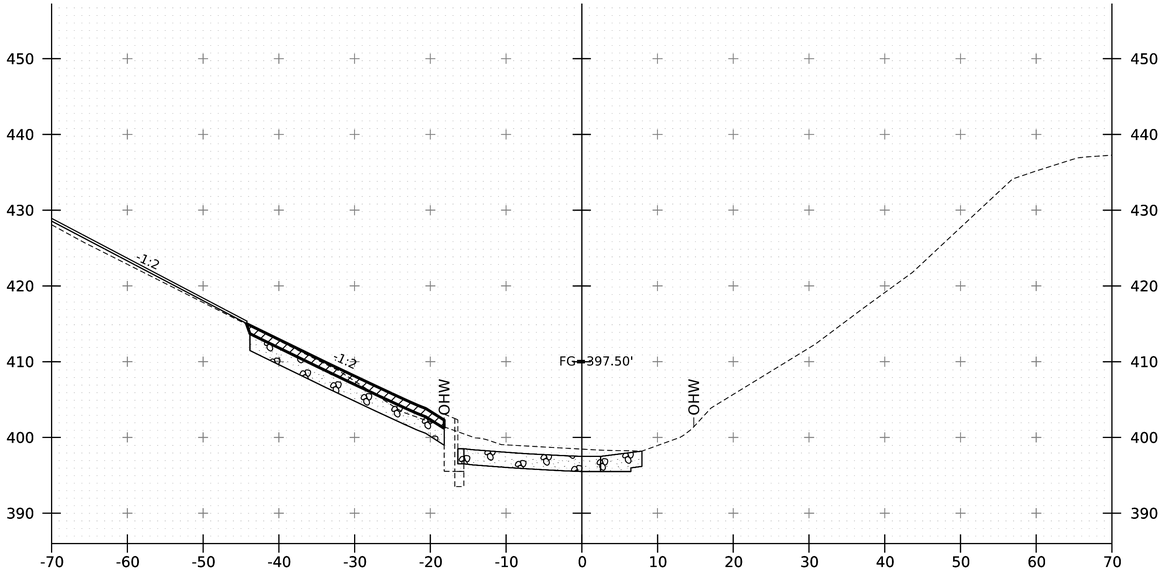

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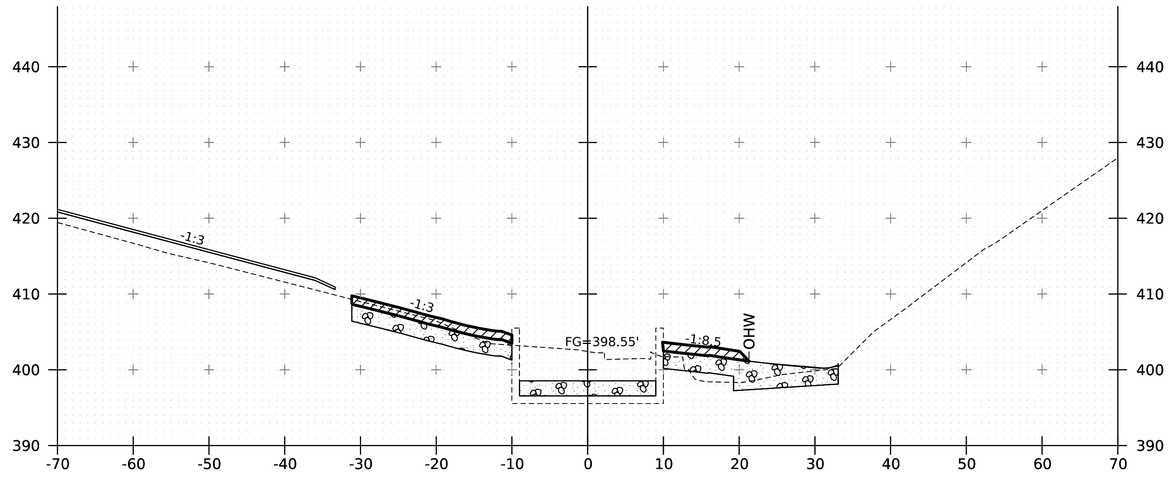

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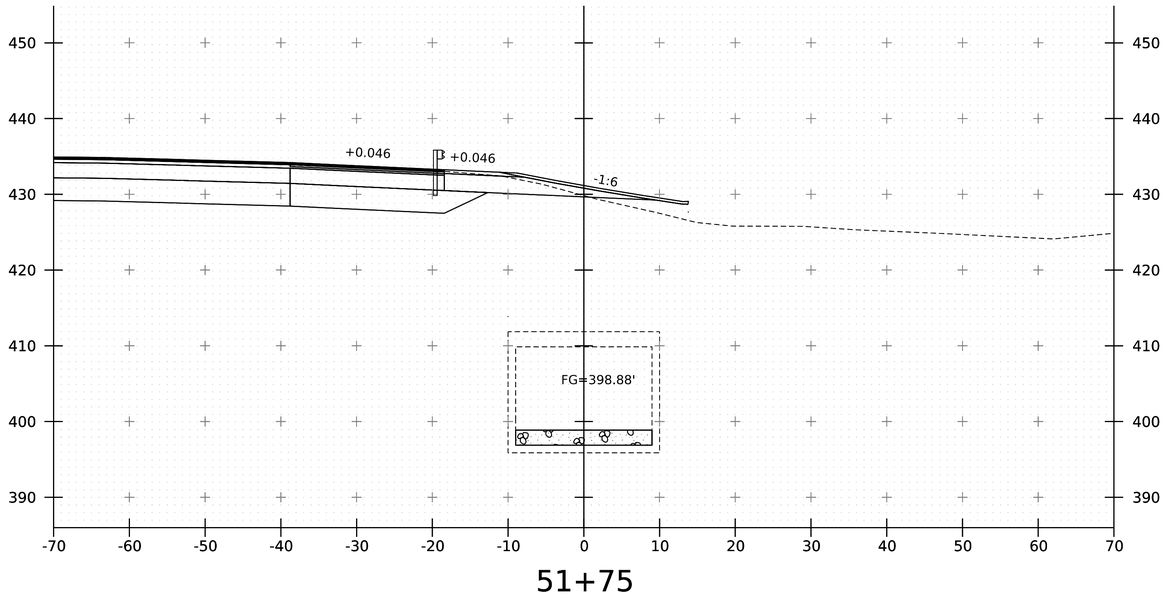
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: 21a024_xs_Channel.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: S. WINES
CHANNEL XS SHEET 2	SHEET 112 OF 161



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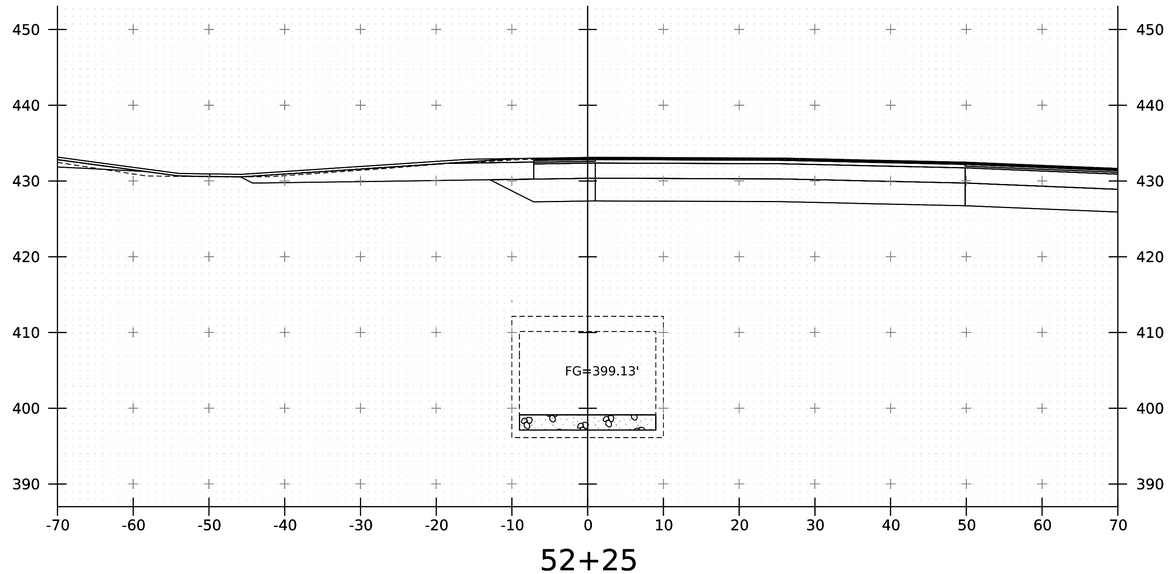

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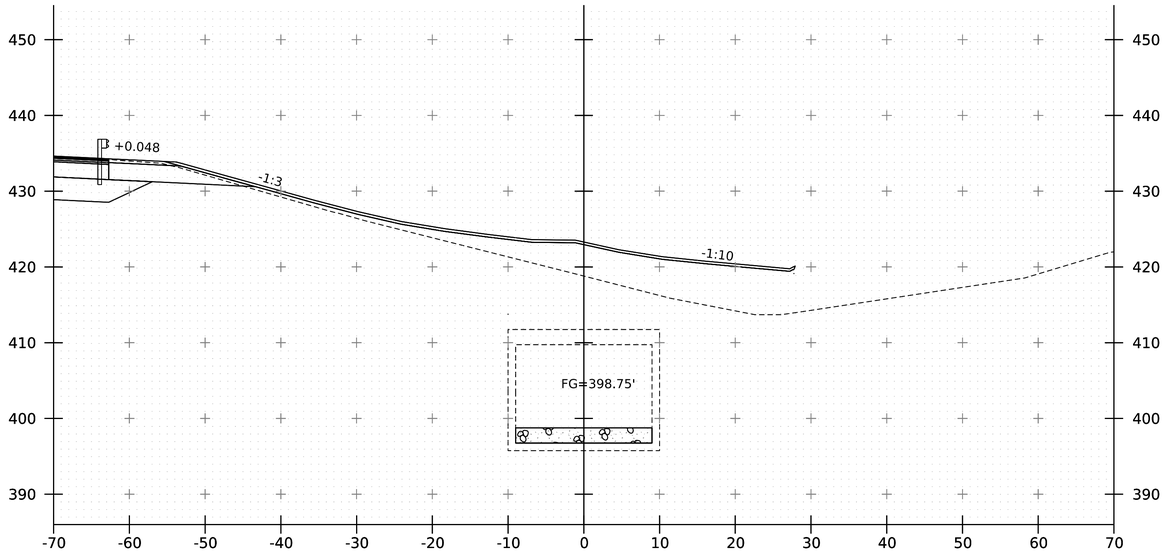

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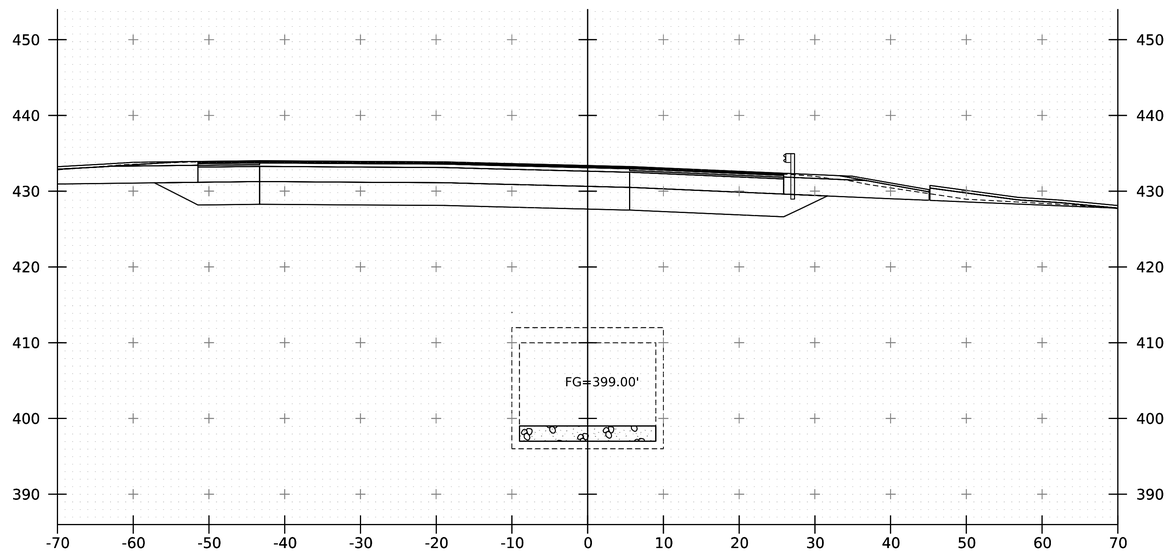

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0 10 20
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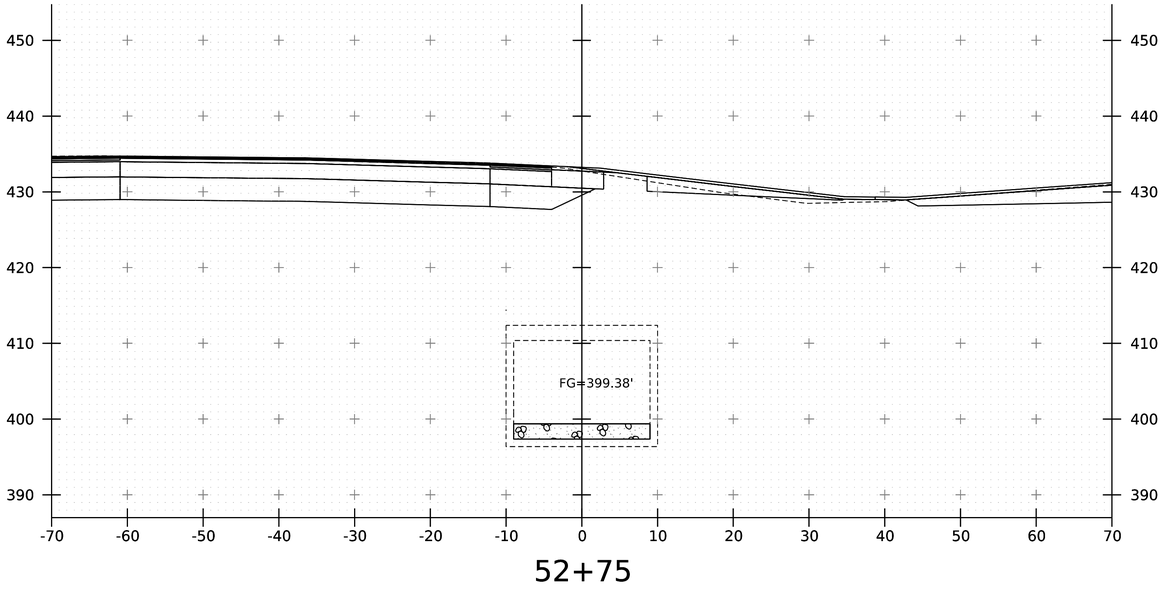
Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: 21a024_xs_Channel.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: S. WINES
CHANNEL XS SHEET 3	SHEET 113 OF 161



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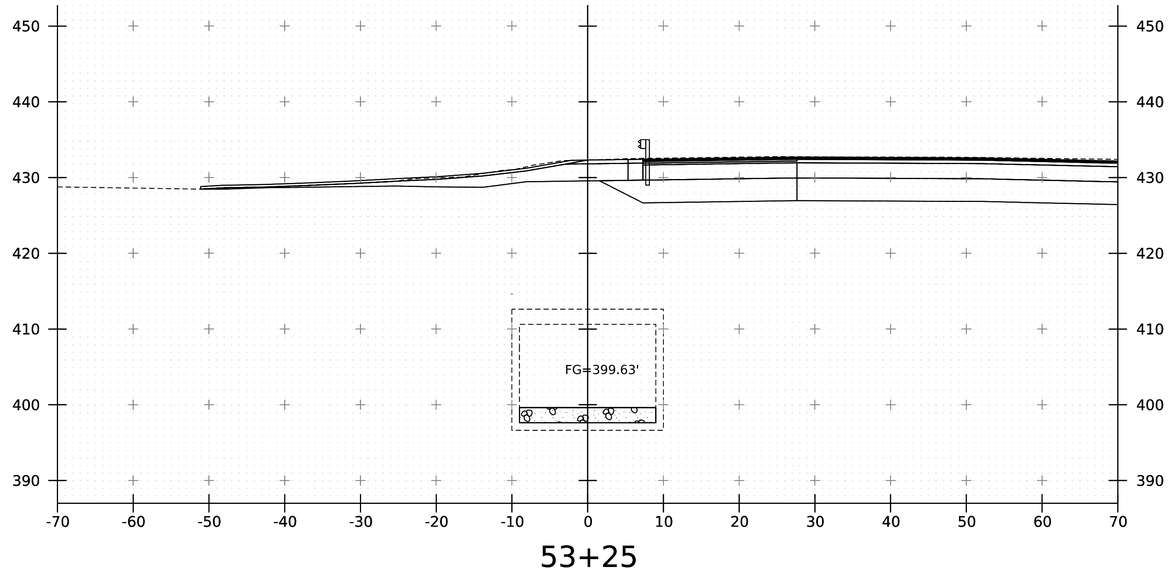

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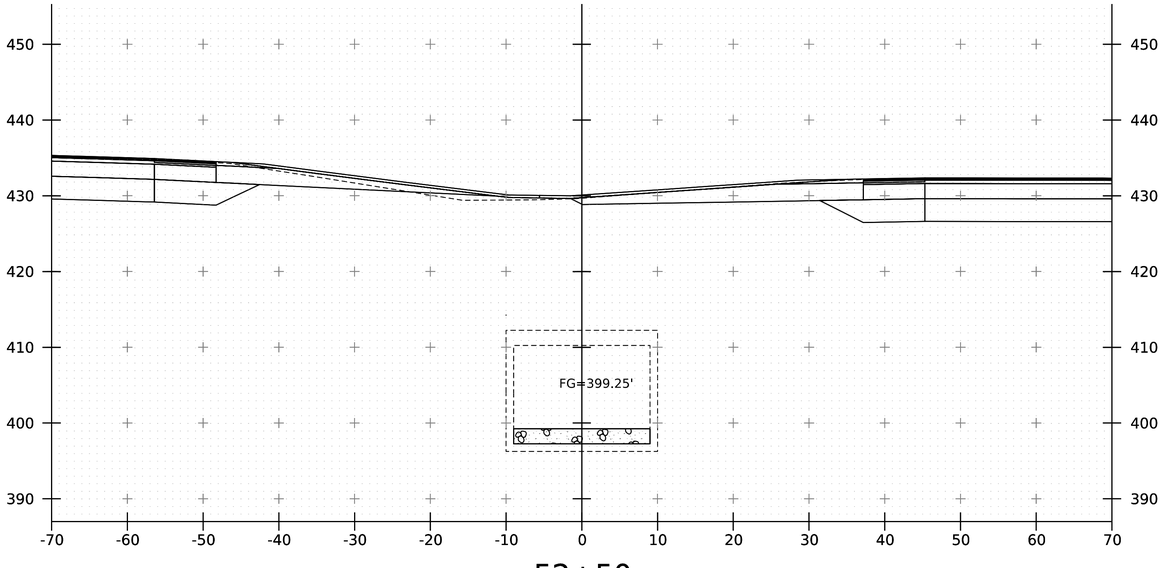

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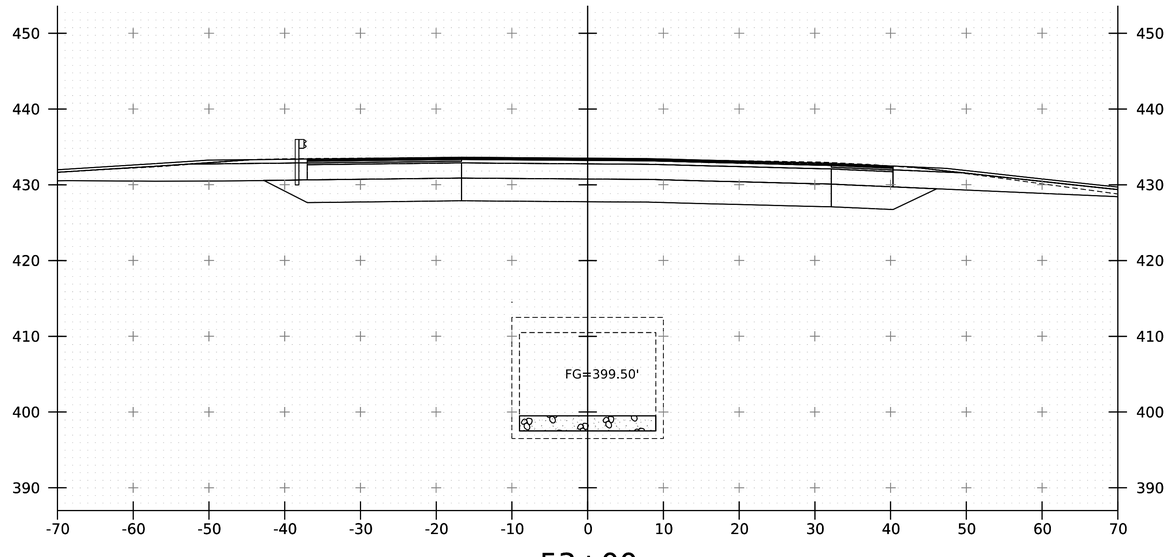

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SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	21a024_xs_Channel.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	J. GRIGAS	CHECKED BY:	S. WINES
CHANNEL XS SHEET 4		SHEET	114 OF 161

STA 53+75.00 LT/RT
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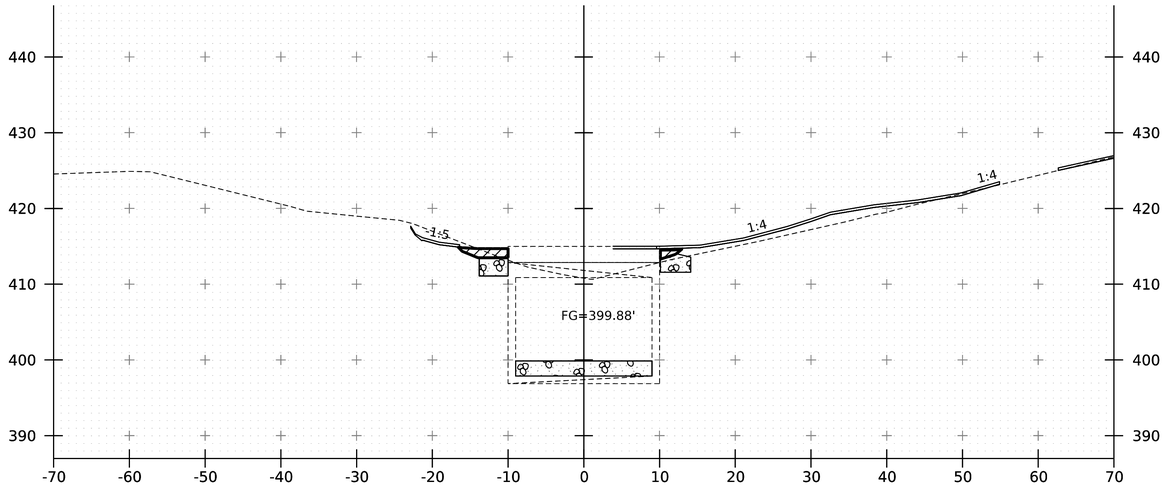
UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
E- STONE FILL, TYPE II
GRUBBING MATERIAL, 12 IN



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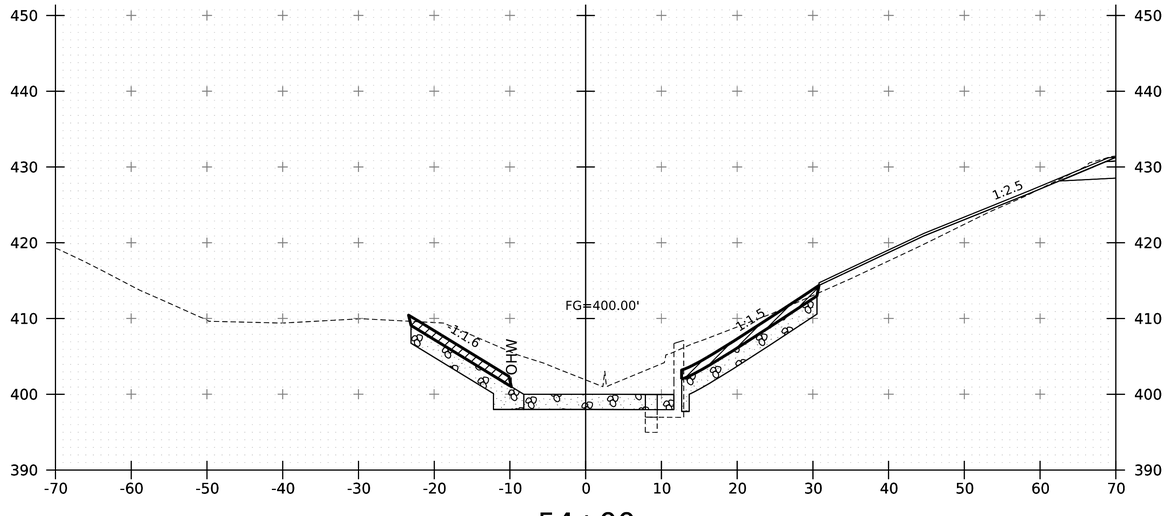

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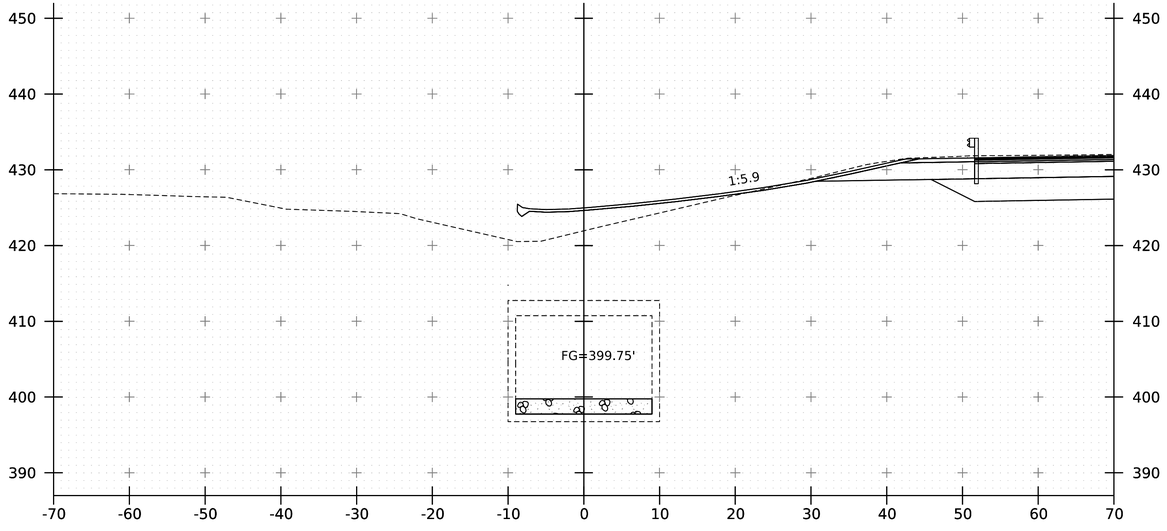

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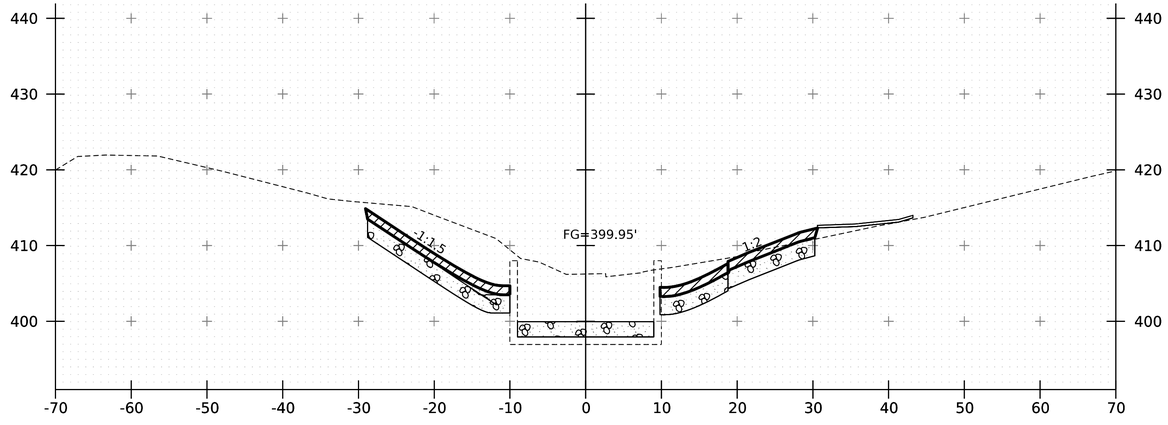

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SCALE IN FEET

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PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	21a024_xs_Channel.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	J. GRIGAS	CHECKED BY:	S. WINES
CHANNEL XS SHEET 5		SHEET	115 OF 161

STA 54+25.00 LT/RT
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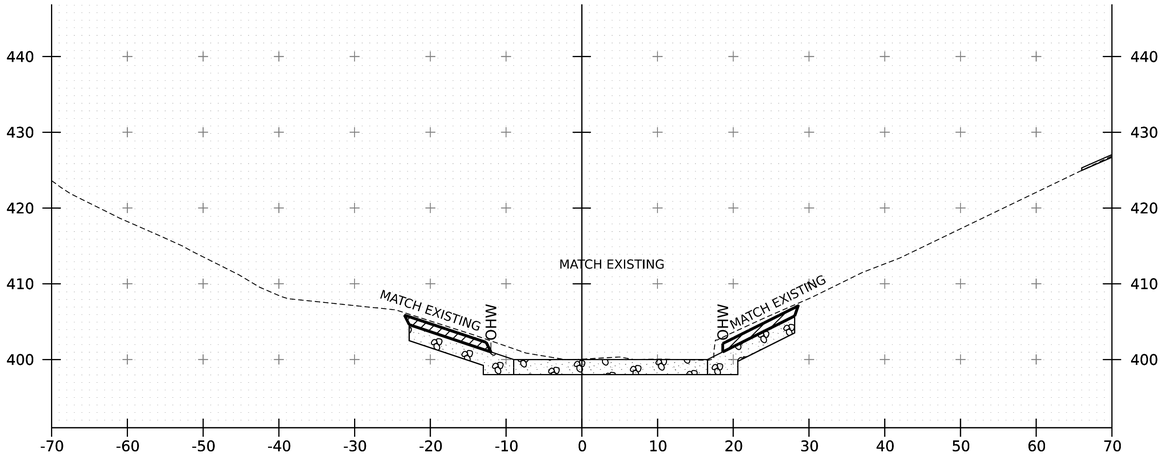
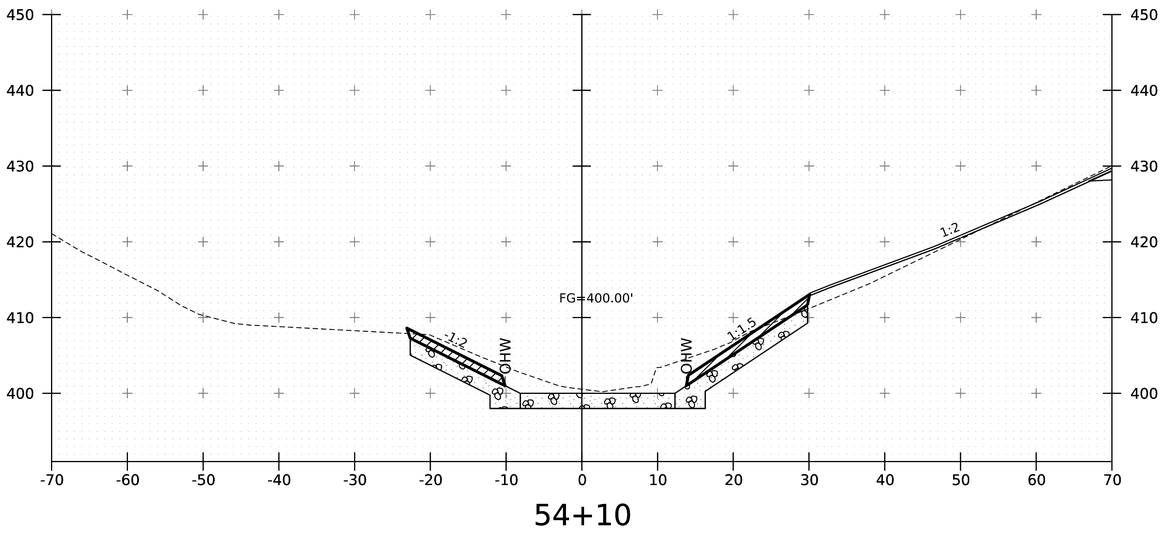
UNCLASSIFIED CHANNEL EXCAVATION
GEOTEXTILE UNDER STONE FILL
E-STONE FILL, TYPE II
GRUBBING MATERIAL, 12 IN



54+25



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SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: 21a024_xs_Channel.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: S. WINES
CHANNEL XS SHEET 6	SHEET 116 OF 161

EPSC PLAN NARRATIVE

1. PROJECT DESCRIPTION

THIS PROJECT INVOLVES REPLACEMENT OF BRIDGES 55-2 AND 55-3 WITH A PRECAST CONCRETE STRUCTURE AND CONSTRUCTION OF TEMPORARY CROSSOVERS, ALONG WITH RELATED APPROACH ROADWAY AND CHANNEL WORK.

IT IS ANTICIPATED THAT CONSTRUCTION WILL LAST 36 MONTHS.

2. AMOUNT OF DISTURBANCE AND RISK EVALUATION

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 9.94 ACRES.

THE MAXIMUM CONCURRENT EARTH DISTURBANCE USED TO SCORE THIS PROJECT IN THE APPENDIX A RISK ASSESSMENT IS 5.0 ACRES OR LESS.

THIS PROJECT REQUIRES AN INDIVIDUAL PERMIT FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES.

ANY MODIFICATIONS TO THE PROJECT THAT INCREASE THE RISK TO ENVIRONMENTAL RESOURCES SHALL BE EVALUATED IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

3. MAJOR COMPONENTS AND SEQUENCING

THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION ACTIVITIES TO MINIMIZE THE EXTENT OF DISTURBED SOILS LEFT OPEN TO EROSION AT ANY GIVEN TIME.

THE MAJOR COMPONENTS OF THE PROJECT AND A PROPOSED GENERAL SEQUENCE IS AS FOLLOWS:

PHASE 1 (0.87 ACRES)
- ESTABLISH PERIMETER CONTROLS AND MARK PROJECT BOUNDARIES
- INSTALL SEDIMENT CONTROL MEASURES
- CONSTRUCT EMBANKMENT FOR NORTHBOUND CROSSOVERS
- PAVE NORTHBOUND CROSSOVERS
- SWITCH NORTHBOUND TRAFFIC ONTO NORTHBOUND CROSSOVERS AND SOUTHBOUND ROADWAY

PHASE 2 (1.60 ACRES)
- ESTABLISH PERIMETER CONTROLS AND MARK PROJECT BOUNDARIES, AS NECESSARY
- INSTALL SEDIMENT CONTROL MEASURES
- CONSTRUCT TEMPORARY STAGING AND ACCESS ROAD TO CULVERT OUTLET

PHASE 3 (1.38 - 5.0 ACRES)
- ESTABLISH PERIMETER CONTROLS AND MARK PROJECT BOUNDARIES, AS NECESSARY
- INSTALL SEDIMENT CONTROL MEASURES
- EXCAVATE NORTHBOUND
- STOCKPILE AND STABILIZE EXCAVATED MATERIALS IN INTERSTATE MEDIAN SUCH THAT NO MORE THAN 2 ACRES OF EARTH IS DISTURBED AT A TIME
- INSTALL OUTLET PORTION OF THE NEW CULVERT
- BACKFILL TO ORIGINAL GRADES
- FINAL PAVING AND STABILIZATION OF NORTHBOUND

PHASE 4 (0.72 ACRES)
- ESTABLISH PERIMETER CONTROLS AND MARK PROJECT BOUNDARIES, AS NECESSARY
- INSTALL SEDIMENT CONTROL MEASURES
- REMOVE NORTHBOUND CROSSOVERS
- REMOVE TEMPORARY STAGING AREA AND OUTLET ACCESS ROAD
- CONSTRUCT EMBANKMENT FOR SOUTHBOUND CROSSOVERS
- PAVE SOUTHBOUND CROSSOVERS
- SWITCH TRAFFIC ONTO SOUTHBOUND CROSSOVERS AND NORTHBOUND ROADWAY

PHASE 5 (1.56 - 5.0 ACRES)
- ESTABLISH PERMITER CONTROLS AND MARK PROJECT BOUNDARIES, AS NECESSARY
- INSTALL SEDIMENT CONTROL MEASURES
- EXCAVATE SOUTHBOUND
- STOCKPILE AND STABILIZE EXCAVATED MATERIALS IN INTERSTATE MEDIAN SUCH THAT NO MORE THAN 2 ACRES OF EARTH IS DISTURBED AT A TIME
- INSTALL INLET PORTION OF THE NEW CULVERT
- BACKFILL TO ORIGINAL GRADES
- FINAL PAVING AND STABILIZATION OF SOUTHBOUND
- REMOVE SOUTHBOUND CROSSOVERS
- FINAL PERMANENT STABILIZATON MEASURES

4. SITE DESCRIPTION

4.1 VEGETATED BUFFERS

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS, OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE IMPLEMENTED WHEREVER POSSIBLE.

THIS PROJECT DOES NOT RELY ON VEGETATED BUFFERS AS A MITIGATING RISK FACTOR.

4.2 STREAM CROSSINGS

THIS PROJECT INCLUDES 1 STREAM CROSSING, AS DESCRIBED IN SECTION 5.1 BELOW. WORK WITHIN THE WATER IS BEING CONSULTED THROUGH THE VANR DEC RIVER MANAGEMENT PROGRAM AND AUTHORIZED THROUGH THE US ARMY CORPS OF ENGINEERS

4.3 WETLANDS

THE PROJECT INVOLVES 1,600 SF OF WETLAND AND 17,920 SF OF WETLAND BUFFER. THIS WORK WITHIN THESE AREAS IS BEING AUTHORIZED THROUGH THE VANR WETLANDS OFFICE AND/ OR THE US ARMY CORPS OF ENGINEERS.

4.4 TOPOGRAPHY

THE TOPOGRAPHY OF THE PROJECT AREA IS GENERALLY INTERSTATE HIGHWAY. THE PROJECT AREA AROUND THE CULVERT CONSISTS OF STEEP SLOPES WITH WETLANDS LOCATED NEAR THE CULVERT'S INLET AND OUTLET. A FEW RESIDENCES AND I-91 EXIT 15 ARE ADJACENT TO THE PROJECT AREA.

4.5 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF GRASSES, AND WOOODED AREAS. THE IMPACT TO VEGETATION WILL BE LIMITED TO WHAT IS DIRECTLY AFFECTED BY THE PROJECT. UPON COMPLETION, THE DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES AS DESCRIBED IN THE TURF ESTABLISHMENT DETAIL AND LANDSCAPING PLAN, UNLESS NOTED OTHERWISE.

4.6 SOILS

SOIL EROSION DATA FROM THE U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE INDICATES THAT SOILS ON THE PROJECT SITE INCLUDE:

AGAWAM FINE SANDY LOAM, 3% TO 8% SLOPES, "K FACTOR" = 0.37
BELGRADE SILT LOAM, 0% TO 8% SLOPES, "K FACTOR" = 0.43
BELGRADE SILT LOAM, 8% TO 15% SLOPES, "K FACTOR" = 0.43
COLTRAIN VERY STONY FINE SANDY LOAM, 25% TO 50% SLOPES, "K FACTOR" = 0.24
COLTRAIN STONY FINE SANDY LOAM, 15% TO 25% SLOPES, "K FACTOR" = 0.24
RAYNHAM VARIANT SILT LOAM, 0% TO 3% SLOPES, "K FACTOR" = 0.37
TUNBRIDGE-WOODSTOCK COMPLEX, 25% TO 50% SLOPES, "K FACTOR" = 0.24
WALPOLE FINE SANDY LOAM, "K FACTOR" = 0.28
WINDSOR LOAMY SAND, 8% TO 25% SLOPES, "K FACTOR" = 0.15

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:
0.0-0.23 = LOW EROSION POTENTIAL
0.24-0.36 = MODERATE EROSION POTENTIAL
0.37 AND HIGHER = HIGH EROSION POTENTIAL

4.7 OTHER SENSITIVE RESOURCES

RARE, THREATENED AND ENDANGERED (RTE) SPECIES HAVE BEEN IDENTIFIED WITHIN A ONE-MILE RADIUS OF THE PROJECT AREA:

- NORTHERN LONG-EARED BAT
- WHORLED WATER-MILFOIL (MYRIOPHYLLUM VERTICILLATUM)
- RIVERINE CLUBTAIL (STYLURUS AMNICOLA)
- COBRA CLUBTAIL (GOMPHURUS VASTUS)
- RAPIDS CLUBTAIL (PHANOGOMPHUS QUADRICOLOR)

5. DRAINAGE

5.1 RECEIVING WATERS

THE LAKE MOREY OUTFLOW IS THE ONLY WATER SOURCE ON THE PROJECT SITE. RESIDENCES AND BUSINESSES WATER SUPPLIES ARE FROM MUNICIPAL WATER. THE OUTFLOW IS CLASSIFIED AS MEANDERING LOW GRADIENT VALLEY BOTTOM STREAM. THE STREAM BED CONSISTS OF SILT, SAND, AND GRAVEL. THE TRIBUTARY AREA IS 8.4 SQUARE MILES.

5.2 DISCHARGE POINTS

THERE ARE THREE DISCHARGE POINTS NEAR THE PROJECT AREA. THESE ARE OUTFALLS FROM INTERSTATE STORMWATER COLLECTION STRUCTURES. THE DISCHARGE POINTS WILL NOT BE IMPACTED BY CONSTRUCTION AND THE INLETS WILL BE COVERED WITH FILTER FIBER DURING CONSTRUCTION. DROP INLETS WITHIN THE SLOPE LIMITS OF THE CROSSOVERS WILL BE COVERED AND PROTECTED DURING CONSTRUCTION. TEMPORARY CULVERTS WILL BE INSTALLED TO CONVEY DRAINAGE WHILE THE CROSSOVERS ARE CONSTRUCTED. SEE VTRANS STANDARDS E-13 AND E-14.

5.3 CONVEYANCE/ FLOW PATH FROM PROJECT TO WATERS

THE MAJORITY OF THE PROJECT IS NOT CURBED AND RUNOFF DRAINS OVERLAND ACROSS ADJACENT VEGETATED SIDE SLOPES BEFORE REACHING THE RECEIVING WATER. THERE ARE ALSO NUMEROUS DROP INLETS ON SITE THAT COLLECT ROADWAY RUNOFF AND DRAIN TO STONE LINED OUTFALLS BEFORE FLOWING TO THE LAKE MOREY OUTFLOW.

6. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES

THE MEASURES INCLUDED IN THIS PLAN ARE PROVIDED AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. IT IS EXPECTED THAT THE CONTRACTORS MAY USE THIS PLAN, WITH ADJUSTMENTS AS NECESSARY, BASED ON THEIR SPECIFIC MEANS AND METHODS OF CONSTRUCTION.

REFER TO THE DETAILS INCLUDED IN THESE PLANS AND FLOW CHART FIGURES 3.1, 3.2, AND 3.3 IN THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION'S VERMONT STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION AND SEDIMENT CONTROL FOR SPECIFIC GUIDANCE.

APPLYING THESE MEASURES THROUGHOUT CONSTRUCTION IS CRITICAL TO THEIR SUCCESS IN MINIMIZING SEDIMENT TRANSPORT TO THE RECEIVING WATERS.

6.1 IDENTIFY LIMITS OF DISTURBANCE

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES. BARRIER FENCE SHALL BE USED INSTEAD OF PROJECT DEMARCATION FENCE WITHIN 100 FEET OF A WATER RESOURCE (STREAM, BROOK, LAKE, POND, WETLAND, ETC).

6.2 LIMIT CONCURRENT DISTURBANCE

LIMITING THE AMOUNT OF SOIL EXPOSED AT ONE TIME REDUCES THE POTENTIAL EROSION ON SITE. CONCURRENT EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY DISTIRBING EARTH AS NECESSARY AND EMPLOYING STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE.

6.3 STABILIZE DISTURBED AREAS

6.3.1 ACCESS POINTS/ ENTRANCE/ EXITS

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTORS PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES ARE ANTICIPATED ON THIS PROJECT AND SHALL BE LOCATED AS SHOWN ON THIS EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES. SEE VTRANS STANDARD E-12.

6.3.2 TEMPORARY MEASURES FOR EXPOSED AREAS DURING CONSTRUCTION

ALL AREAS OF EARTH DISTURBANCE MUST HAVE STABILIZATION IN PLACE WITHIN 14 DAYS OF INITIAL DISTURBANCE AND DISTURBED AREAS MUST BE STABILIZED IN ADVANCE OF ANY RUNOFF PRODUCING EVENT.

SURFACE ROUGHENING OF EXPOSED SLOPES, SEEDING OF TEMPORARY SLOPES AND STOCKPILES, AND STANDARD MULCHING PRACTICES DESCRIBED IN SPECIFICATION SECTION 653.07 SHALL BE UTILIZED TO TEMPORARILY STABILIZE DISTURBED AREAS.

Stantec

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PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024_frm.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
EPSC - NARRATIVE SHEET 1

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 117 OF 161

6.3.3 PERMANENT STABILIZATION AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

TURF ESTABLISHMENT MEASURES PER SECTION 651 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, ROLLED EROSION CONTROL PRODUCT, TYPE I SHALL BE USED INSTEAD OF MULCH. SEE VTRANS STANDARD E-10.

6.4 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

THE PROJECT AREA IS RELATIVELY FLAT. RUNOFF FROM OUTSIDE OF THE PROJECT AREA IS NOT ANTICIPATED.

6.5 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED ON THE DOWNHILL SIDE OF CONSTRUCTION ACTIVITIES, PRIOR TO ANY UP-SLOPE WORK.

SILT FENCE WILL BE INSTALLED ALONG THE CONTOURS AND AS PROPOSED ON THE EPSC PLAN. SILT FENCE, TYPE II SHALL BE USED WITHIN 100 FEET UPSLOPE OF RECEIVING WATERS.

6.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSIVE POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

IT IS ANTICIPATED THAT TEMPORARY STONE CHECK DAMS WILL BE REQUIRED FOR THIS PROJECT. SEE VTRANS STANDARD E-11.

7. CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

PERMANENT STORMWATER TREATMENT DEVICES ARE NOT ANTICIPATED TO BE NEEDED AS DESIGNED.

8. DEWATERING

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS FROM THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS. DEWATERED STORMWATER OR GROUNDWATER MUST BE FILTERED AND ROUTED IN A MANNER THAT DOES NOT RESULT IN VISIBLY TURBID DISCHARGES TO WATERS.

GENERAL SITE INSPECTIONS SHALL BE CONDUCTED IN ACORDANCE WITH SUBPART 2.2.1 OF THE GENERAL PERMIT FOR ALL AREAS THAT HAVE BEEN DISTURBED AND ARE NOT YET FINALLY STABILIZED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS, IMMEDIATELY BEFORE ANY STORMWATER RUNOFF PRODUCING EVENT, AND DAILY DURING THE WINTER CONSTRUCTION PERIOD (OCTOBER 15 THROUGH APRIL 15). UPON INSPECTION, ANY EROSION PREVENTION AND SEDIMENT CONTROL MEASURE THAT IS NOT INSTALLED PROPERLY, IN NEED OF MAINTENANCE, OR NOT EFFECTIVELY PREVENTING SEDIMENT LADEN DISCHARGES SHALL BE CORRECTED BEFORE THE NEXT RUNOFF PRODUCING EVENT. IN ADDITION:

- IN ACCORDANCE WITH SUBPART 2.2.3 OR THE THE GENERAL PERMIT, IF DEWATERING ACTIVITIES ARE OCCURRING, THE PERMITTEE SHALL DAILY DURING DEWATERING ACTIVITIES INSPECT THE DEWATERING DEVICE TO ENSURE PROPER SEDIMENT CONTROL AND THE PERMITTEE SHALL COMPLETE DAILY SAMPLING REQUIREMENTS, USING A TURBIDITY METER, AT ALL POINTS WHERE DEWATERING WATER IS DISCHARGED
- IF VISIBLY DISCOLORED STORMWATER RUNS OFF THE CONSTRUCTION SITE OR DISCHARGES TO WATERS OF THE STATE, THE PERMITTEE SHALL TAKE IMMEDIATE CORRECTIVE ACTION TO INSPECT AND MAINTAIN EXISTING BEST MANAGEMENT PRACTICES (BMPS), AND TO INSTALL SUPPLEMENTAL BMPS NECESSARY TO MINIMIZE AND PREVENT THE DISCHARGE.
    - AFTER COMPLETION OF THE CORRECTIVE ACTION, THERE CONTINUES TO BE A DISCHARGE OF DISCOLORED STORMWATER FROM THE CONSTRUCTION SITE TO WATERS OF THE STATE, THE PERMITTEE SHALL NOTIFY DEC BY SUBMITTING A DISCHARGE REPORT IN ACCORDANCE WITH SUBPART 2.2.2 OF THE CGP WITHIN 24 HOURS OF DISCOVERING THE DISCHARGE

THE PERMITTEE IS REQUIRED TO CONTINUE PERFORMING ALL GENERAL AND DISCHARGE INSPECTIONS UNTIL COVERAGE UNDER THIS PERMIT IS TERMINATED IN ACCORDANCE WITH SUBPART 5.5 OR EXPIRED.

DEWATERING OF SURFACE WATER WITHIN THE LIMITS OF TEMPORARY RELOCATION OF STREAM IS ANTICIPATED. THE FILTER BAG DETAIL AND PAY ITEM HAVE BEEN INCLUDED AS A POTENTIAL TREATMENT MEASURE FOR THIS PURPOSE, HOWEVER, THE SPECIFIC MEANS FOR TREATMENT OF DISCHARGE SHALL BE PROVIDED BY THE CONTRACTOR. ALL COSTS FOR TREATMENT OF DISCHARGE SHALL BE PAID FOR UNDER CONTRACT ITEM 653.4500.

9. OFF-SITE AREAS

OFF-SITE WASTE AND BORROW AREAS HAVE NOT BEEN IDENTIFIED FOR THIS PROJECT. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND PERMIT, AS NECESSARY, ANY OFF-SITE AREAS THAT ARE NEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 105.25 - 105.28. AS THIS PROJECT HAS AN INDIVIDUAL PERMIT, ALL OFF-SITE AREAS MAY BE SUBJECT TO REVIEW BY THE VANR DEC STORMWATER PROGRAM.

ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES NECESSARY FOR WASTE, BORROW, AND STAGING AREAS OUTSIDE THE PROJECT LIMITS SHALL BE PAID FOR PER 105.28 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

VEHICLE AND EQUIPMENT STORAGE AREAS OR AREAS ADJACENT TO CONSTRUCTION TRAILERS OR OTHER HIGH TRAFFIC AREAS SHALL BE COVERED WITH GEOTEXTILE FABRIC AND 12" OF GRAVEL. FOLLOWING COMPLETION OF CONSTRUCTION, ALL NON-NATIVE MATERIALS SHALL BE REMOVED FROM THE STAGING AREA. COMPACTED, RUTTED, OR OTHERWISE DISTURBED SOILS SHALL BE TILLED, RAKED, SEEDED, AND MULCHED.

ERODIBLE MATERIALS STOCKPILED WITHIN THE MATERIAL STORAGE AREAS SHALL BE ISOLATED WITH SILT FENCE OR OTHER ACCEPTABLE SEDIMENT BARRIER. SOIL STOCKPILED ON THE SITE SHALL BE SEEDED AND MULCHED.

10. WINTER CONSTRUCTION

IF CONSTRUCTION ACTIVITIES ARE TAKING PLACE BETWEEN OCTOBER 15 AND APRIL 15, THE CONTRACTOR SHALL FOLLOW REQUIREMENTS FOR WINTER CONSTRUCTION, AS DEFINED IN SPECIFIC PERMIT CONDITIONS AND AS FOLLOWS:

- ENLARGED ACCESS POINTS, STABILIZED TO PROVIDE FOR SNOW STOCKPILING.
- LIMITS OF DISTURBANCE MOVED OR REPLACED TO REFLECT BOUNDARY OF WINTER WORK.
- DEVELOPMENT OF A SNOW MANAGEMENT PLAN THAT INCLUDES:
    - ADEQUATE STORAGE AND CONTROL OF MELT-WATER
    - STORAGE OF CLEARED SNOW TO BE PLACED DOWN SLOPE OF DISTURBED AREAS AND OUT OF STORMWATER TREATMENT STRUCTURES
- AREAS OF DISTURBANCE WITHIN 100 FT OF A WATERBODY MUST HAVE REINFORCED (WOVEN WIRE) SILT FENCE INSTALLED ACROSS THE SLOPE, DOWNGRADIENT OF THE EARTH DISTURBANCE. ALTERNATIVELY, REGULAR, NON-WOVEN WIRE SILT FENCE MAY BE USED IF COMBINED WITH EROSION CONTROL BERM, EROSION LOG, OR STRAW WATTLE.
- DRAINAGE STRUCTURES MUST BE KEPT OPEN AND FREE OF SNOW AND ICE DAMS.
- SILT FENCE AND OTHER PRACTICES REQUIRING EARTH DISTURBANCE MUST BE INSTALLED PRIOR TO FROZEN GROUND.
- MULCH TO BE APPLIED AT A MINIMUM OF 2 INCHES DEPTH WITH 80-90% COVERAGE.
- AREAS OF DISTURBED SOILS MUST BE STABILIZED PRIOR TO ANY RUNOFF-PRODUCING EVENT, WITH THE FOLLOWING EXCEPTION:
    - STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION WITH NO OUTLET AND A DEPTH OF 2 FT OR GREATER (OPEN UTILITY TRENCHES), PROVIDED THAT ANY DEWATERING, IF NECESSARY, IS CONDUCTED AS REQUIRED.
- PRIOR TO STABILIZATION, SNOW OR ICE MUST BE REMOVED TO LESS THAN 1" THICKNESS.
- USE STONE TO STABILIZE AREAS WHERE CONSTRUCTION VEHICLE TRAFFIC IS ANTICIPATED.

NO EARTH DISTURBANCE ACTIVITIES ARE ANTICIPATED TO OCCUR DURING THE WINTER CONSTRUCTION PERIOD.

11. INSPECTION AND MAINTENANCE

INSPECTION AND MONITORING OF THE PROJECT'S EPSC MEASURES SHALL BE CONDUCTED IN ACCORDANCE WITH STANDARD SPECIFICATION 653.04 MONITORING EROSION PREVENTION AND SEDIMENT CONTROL PLAN, ALONG WITH PERMIT SPECIFIC INSPECTION REQUIREMENTS. INSPECTIONS OF EPSC MEASURES SHALL BE CONDUCTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND IMMEDIATELY BEFORE ANY STORMWATER RUNOFF PRODUCING EVENT.

DURING DEWATERING OPERATIONS, INSPECTIONS OF THE DEWATERING DISCHARGE SHALL BE CONDUCTED ONCE PER DAY. SAMPLES SHALL BE TAKEN AT ALL POINTS WHERE DEWATERING WATER IS DISHCARGED AND MUST BE TAKEN AFTER THE DEWATERING WATER HAS BEEN TREATED BY INSTALLED TREATMENT DEVICES AND PRIOR TO DISCHARGE OFF SITE INTO A RECEIVING WATER, CONSTRUCTED OR NATURAL SITE DRAINAGE FEATURE, OR STORM DRAIN INLET. SAMPLES MUST BE MEASURED USING A TURBIDITY METER (NTUS), CALIBRATED PRIOR TO EACH DAY'S USE.

CONTRACTORS SHALL PROVIDE A COPY OF THEIR INSPECTION FORM AS PART OF THEIR EPSC PLAN.

ALL EPSC MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

12. BORROW AND WASTE MATERIAL

BORROW AND WASTE MATERIALS TO BE PERMITTED UNDER A SEPARATE NOI.

ESTIMATED BORROW
- 2,500 CY OF SAND BORROW
- 2,700 CY OF GRANULAR BACKFILL FOR STRUCTURES
- 3,150 CY OF SUBBASE OF DENSE GRADED CRUSHED STONE
- 50 CY OF AGGREGATE SHOULDERS
- 800 CY OF E-STONE FILL, TYPE II
- 1,000 CY OF TOPSOIL
- 115 CY OF GRUBBING MATERIAL

ESTIMATED WASTE
- 51,390 CY OF EXCAVATION
- 39,500 CY TO BE RE-USED ON SITE
- 11,890 CY OF WASTE MATERIAL

WASTE MATERIALS ARE ANTICIPATED TO BE SILTY CLAY SOILS MEETING AASHTO CLASSIFICATIONS A-4, A-5, A-6, A-7.

13. ADDITIONAL NOTES

1. POLLUTION CONTROL SHALL BE IN ACCORDANCE WITH SUBSECTION 105.24 OF THE STANDARD SPECIFICATION 653.04.
2. SEEDING SHALL BE COMPLETED AFTER APRIL 15 AND BEFORE SEPTEMBER 15, UNLESS NOTED OTHERWISE.
3. ALL TEMPORARY EPSC PRACTICES SHALL BE REMOVED WITHIN 30 DAYS OF ACHIEVING FINAL STABILITATION.

A NOTICE OF TERMINATION SHALL BE SUBMITTED ONCE FINAL STABILIZATION IS MET.

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024_frm.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: J. GRIGAS	CHECKED BY: J. GRIGAS
EPSC- NARRATIVE SHEET 2	SHEET 118 OF 161

VT STATE PLANE GRID

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK VERY ROCKY FINE SANDY LOAM
8%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

TO THETFORD

PT 4746+66.48

SB 4742+00
SB 4743+00
SB 4744+00
SB 4745+00
SB 4746+00
SB 4747+00
SB 4748+00

MATCHLINE STA. 4748+00

PT 4747+41.75

NB 4743+00
NB 4744+00
NB 4745+00
NB 4746+00
NB 4747+00
NB 4748+00

PI 4742+68.71

CURVE (x)
DELTA = 16°41'38"
D = 02°05'01"
R = 2750.00'
T = 403.48'
L = 801.25'
E = 29.44'

PI 4743+15.05

CURVE (x)
DELTA = 16°41'38"
D = 01°56'32"
R = 2950.00'
T = 432.83'
L = 859.52'
E = 31.58'

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 1

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY:
SHEET 119OF 161

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

VT STATE PLANE GRID

MATCHLINE STA. 4748+00

N15°59'50"E

SB 4748+00
SB 4749+00
SB 4750+00
SB 4751+00
SB 4752+00
SB 4753+00

MATCHLINE STA. 4753+25

WARNING SIGN
WARNING SIGN
GRAVEL U-TURN

90.40

PC 4751+02.99

MATCHLINE STA. 4748+00

N15°59'51"E

NB 4748+00
NB 4749+00
NB 4750+00
NB 4751+00
NB 4752+00
NB 4753+00

MATCHLINE STA. 4753+50

90.00

PC 4751+60.29

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

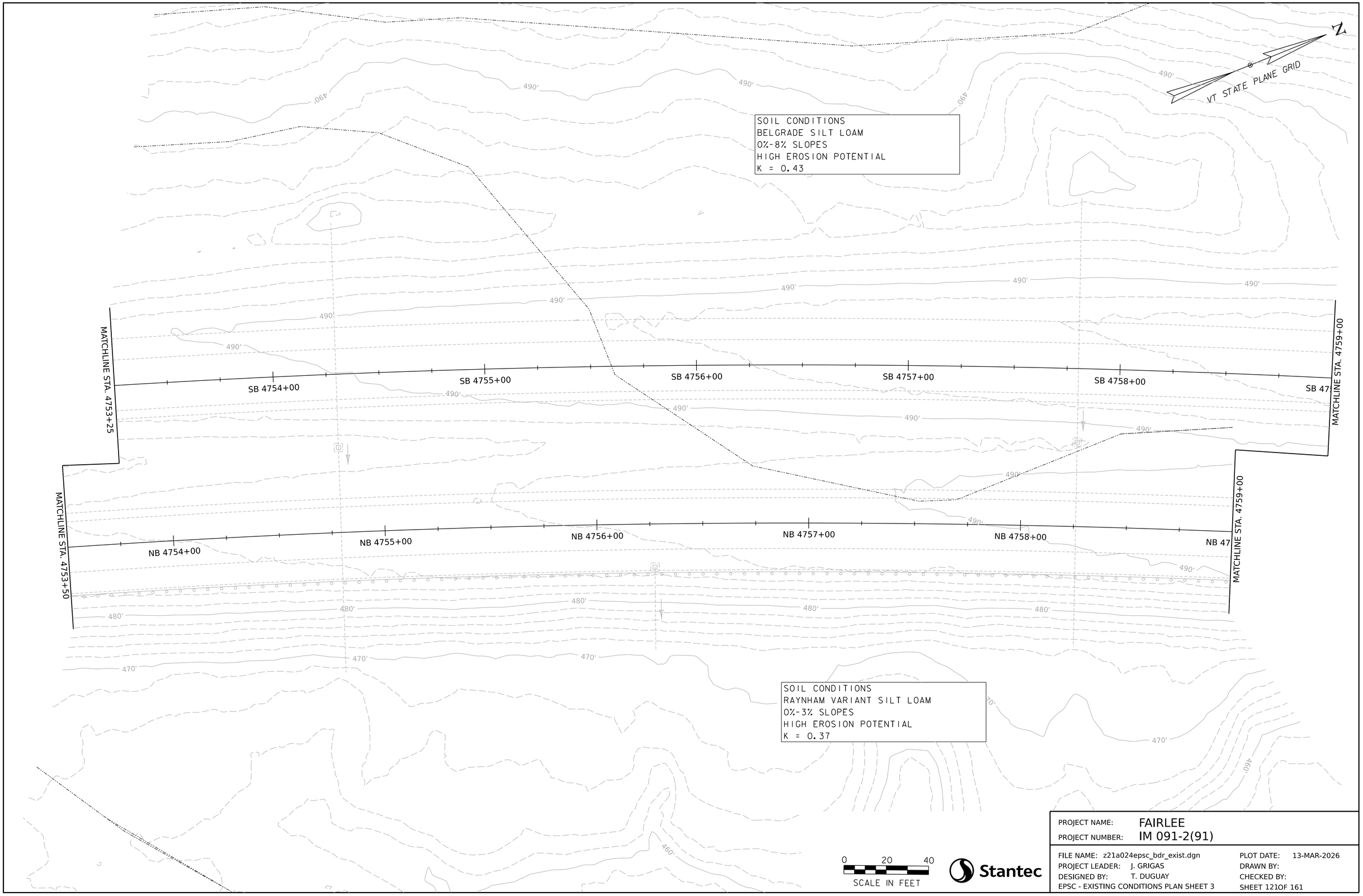
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 2

PLOT DATE: 13-MAR-2026
DRAWN BY:
CHECKED BY:
SHEET 120OF 161



PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_exist.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY:
DESIGNED BY: T. DUGUAY	CHECKED BY:
EPSC - EXISTING CONDITIONS PLAN SHEET 3	SHEET 121OF 161

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

N

VT STATE PLANE GRID

MATCHLINE STA. 4759+00

59+00 SB 4760+00 SB 4761+00 SB 4762+00 SB 4763+00 SB 4764+00

MATCHLINE STA. 4764+50

MATCHLINE STA. 4759+00

59+00 NB 4760+00 NB 4761+00 NB 4762+00 NB 4763+00 NB 4764+00

MATCHLINE STA. 4764+50

SOIL CONDITIONS
RAYNHAM VARIANT SILT LOAM
0%-3% SLOPES
HIGH EROSION POTENTIAL
K = 0.37

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 4

PLOT DATE: 13-MAR-2026
DRAWN BY:
CHECKED BY:
SHEET 122OF 161

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

VT STATE PLANE GRID

MATCHLINE STA. 4764+50

SB 4765+00 SB 4766+00 SB 4767+00 SB 4768+00 SB 4769+00 SB 47

MATCHLINE STA. 4770+00

NB 4765+00 NB 4766+00 NB 4767+00 NB 4768+00 NB 4769+00 NB 47

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 5

PLOT DATE: 13-MAR-2026
DRAWN BY:
CHECKED BY:
SHEET 123OF 161

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK COMPLEX
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

SB 4770+00

SB 4771+00

SB 4772+00

SB 4773+00

SB 4774+00

SB 4775+00

MATCHLINE STA. 4770+00

MATCHLINE STA. 4775+50

INTERSTATE 91 (NORTHBOUND)

NB 4770+00

NB 4771+00

NB 4772+00

NB 4773+00

NB 4774+00

NB 4775+00

MATCHLINE STA. 4770+00

MATCHLINE STA. 4775+50

KEEP RIGHT EXCEPT TO PASS SIGN

KEEP RIGHT EXCEPT TO PASS SIGN

90.40

90.40

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 6

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 124OF 161

N

VT STATE PLANE GRID

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. 4775+50

SB 4776+00

SB 4777+00

SB 4778+00

SB 4779+00

SB 4780+00

SB 47

MATCHLINE STA. 4781+00

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. 4775+50

NB 4776+00

NB 4777+00

NB 4778+00

NB 4779+00

NB 4780+00

NB 47

MATCHLINE STA. 4781+00

GUIDE SIGN
EXIT 15
FAIRLEE
ORFORD NH
1 MILE

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 7

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 125OF 161

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

SB 4781+00
SB 4782+00
SB 4783+00
SB 4784+00
SB 4785+00
SB 4786+00
SB 4787+00

INTERSTATE 91 (NORTHBOUND)

NB 4781+00
NB 4782+00
NB 4783+00
NB 4784+00
NB 4785+00
NB 4786+00
NB 4787+00

MATCHLINE STA. 4781+00
MATCHLINE STA. 4787+00

TO THETFORD

GUIDE SIGN
LAKE MOREY
LAKE FAIRLEE
NEXT RIGHT

90.60

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 8

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 126OF 161

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK COMPLEX
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
AGAWAM FINE SANDY LOAM
3%-8% SLOPES
MODERATE EROSION POTENTIAL
K = 0.37

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOIL CONDITIONS
WALPOLE FINE SANDY LOAM

MODERATE EROSION POTENTIAL
K = 0.28

APPROX. EXISTING R.O.W.

1456
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

VT STATE PLANE GRID

APPROXIMATE TOPOGRAPHY FROM LIDAR

LIMIT OF SURVEY

THETFORD 6/ WRJ20

EXISITNG WING WALL

INTERSTATE 91 (SOUTHBOUND)

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. 4787+00

SB 4788+00

SB 4789+00

SB 4790+00

SB 4791+00

SB 4792+00

SB 47

MATCHLINE STA. 4793+00

PT 4789+79.30

PT 4789+79.00

NB 4788+00

NB 4789+00

NB 4790+00

NB 4791+00

NB 4792+00

NB 47

1000
BND
4"X4" CONC 0/5'AG
PLUMB/STABLE

APPROX. EXISTING R.O.W.

SCALE IN FEET
0 20 40

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_exist.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - EXISTING CONDITIONS PLAN SHEET 9	SHEET 127OF 161

SOIL CONDITIONS
WINDSOR LOAMY SAND
8%-25% SLOPES
LOW EROSION POTENTIAL
K = 0.15

APPROX. EXISTING R.O.W.

300
HVCTRL
MAGHUB

LAKE MOREY
OUTLET
FLOW

OHW

MHO

301
HVCTRL
MAGHUB

3
HVCTRL
⅝REBAR VSE CONTROL CAP

INTERSTATE 91 (SOUTHBOUND)

N 58°18'05" E

SB 4794+00 | SB 4795+00 | SB 4796+00 | SB 4797+00 | SB 4798+00

MATCHLINE STA. 4793+00

MATCHLINE STA. 4799+00

SOIL CONDITIONS
WALPOLE FINE SANDY LOAM

MODERATE EROSION POTENTIAL
K = 0.28

INTERSTATE 91 (NORTHBOUND)

N 58°18'05" E

NB 4794+00 | NB 4795+00 | NB 4796+00 | NB 4797+00 | NB 4798+00

2
HVCTRL
⅝REBAR VSE CONTROL CAP

200
HVCTRL
MAGHUB

APPROX. EXISTING R.O.W.

SOIL CONDITIONS
AGAWAM FINE SANDY LOAM
3%-8% SLOPES
MODERATE EROSION POTENTIAL
K = 0.37

N

VT STATE PLANE GRID

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 10

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 128OF 161

SOIL CONDITIONS
WALPOLE FINE SANDY LOAM

MODERATE EROSION POTENTIAL
K = 0.28

SOIL CONDITIONS
AGAWAM FINE SANDY LOAM
3%-8% SLOPES
MODERATE EROSION POTENTIAL
K = 0.37

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

LIMIT OF SURVEY

APPROXIMATE TOPOGRAPHY FROM LIDAR

MOTORCYCLES USE CAUTION GROOVED SHOULDER

SL 65 / MIN 40

91.00

INTERSTATE 91 (SOUTHBOUND)

N58°18'05"E

99+00 | SB 4800+00 | SB 4801+00 | SB 4802+00 | SB 4803+00 | SB 4804+00 | SB 48

MATCHLINE STA. 4799+00

MATCHLINE STA. 4805+00

INTERSTATE 91 (NORTHBOUND)

N58°18'05"E

99+00 | NB 4800+00 | NB 4801+00 | NB 4802+00 | NB 4803+00 | NB 4804+00 | NB 48

91.00 b

LIMIT OF SURVEY

APPROXIMATE TOPOGRAPHY FROM LIDAR

APPROX. EXISTING R.O.W.

430' 420'

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_exist.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - EXISTING CONDITIONS PLAN SHEET 11	SHEET 129 OF 161

N

VT STATE PLANE GRID

SOIL CONDITIONS
AGAWAM FINE SANDY LOAM
3%-8% SLOPES
MODERATE EROSION POTENTIAL
K = 0.37

INTERSTATE 91 (SOUTHBOUND)

05+00 SB 4806+00 SB 4807+00 SB 4808+00 SB 4809+00 SB 4810+00

MATCHLINE STA. 4805+00

440'

PAVED
U-TURN

INTERSTATE 91 (NORTHBOUND)

05+00 NB 4806+00 NB 4807+00 NB 4808+00 NB 4809+00 NB 4810+00

TO BRADFORD

GAS, LODGING, FOOD
NEXT RIGHT

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_exist.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - EXISTING CONDITIONS PLAN SHEET 12

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 130OF 161

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK VERY ROCKY FINE SANDY LOAM
8%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

VT STATE PLANE GRID

TO THETFORD

SB 4742+00
SB 4743+00
SB 4744+00
SB 4745+00
SB 4746+00
SB 4747+00
SB 47

MATCHLINE STA. 4748+00

PDF

PDF

MATCHLINE STA. 4748+00

NB 4743+00
NB 4744+00
NB 4745+00
NB 4746+00
NB 4747+00
NB 47

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 1

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 131OF 161

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK VERY ROCKY FINE SANDY LOAM
8%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

N

VT STATE PLANE GRID

WARNING SIGN

90.40

MATCHLINE STA. 4748+00

N15°59'50"E

SB 4749+00

SB 4750+00

SB 4751+00

SB 4752+00

SB 4753+00

MATCHLINE STA. 4753+25

GRAVEL U-TURN

PC 4751+02.99

MATCHLINE STA. 4753+50

N15°59'51"E

NB 4749+00

NB 4750+00

NB 4751+00

NB 4752+00

NB 4753+00

MATCHLINE STA. 4748+00

90.00

PC 4751+60.29

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOUTHBOUND PHASE PROPOSED STOCKPILE AREA

NORTHBOUND PHASE PROPOSED STOCKPILE AREA

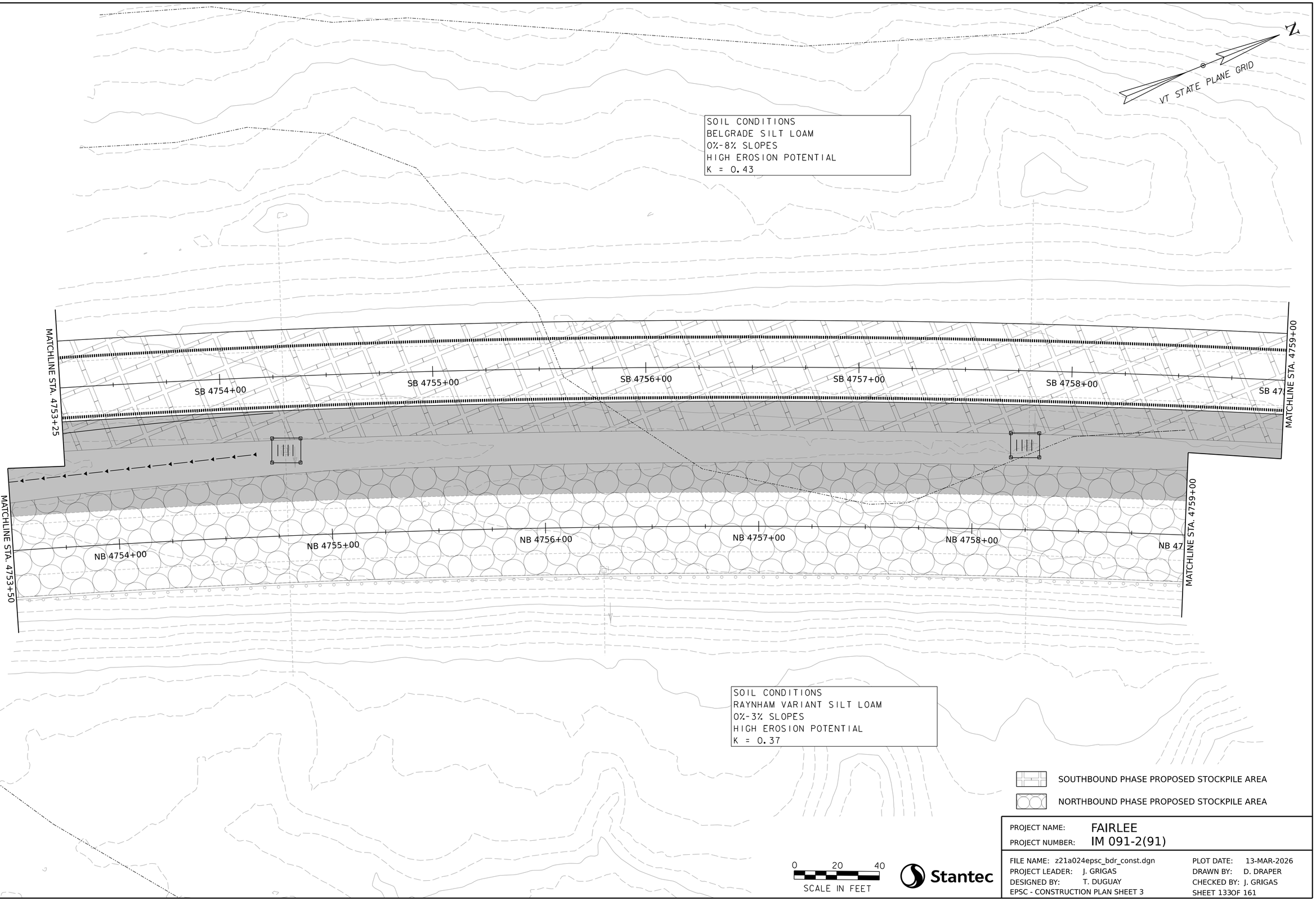
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 2

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 132OF 161



PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 3

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 133OF 161

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

N

VT STATE PLANE GRID

MATCHLINE STA. 4759+00

59+00

SB 4760+00

SB 4761+00

SB 4762+00

SB 4763+00

SB 4764+00

MATCHLINE STA. 4764+50

90.20

MATCHLINE STA. 4759+00

59+00

NB 4760+00

NB 4761+00

NB 4762+00

NB 4763+00

NB 4764+00

MATCHLINE STA. 4764+50

90.20

SOIL CONDITIONS
RAYNHAM VARIANT SILT LOAM
0%-3% SLOPES
HIGH EROSION POTENTIAL
K = 0.37

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOUTHBOUND PHASE PROPOSED STOCKPILE AREA

NORTHBOUND PHASE PROPOSED STOCKPILE AREA

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 4

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 134OF 161

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

N

VT STATE PLANE GRID

MATCHLINE STA. 4764+50

SB 4765+00

SB 4766+00

SB 4767+00

SB 4768+00

SB 4769+00

SB 47

MATCHLINE STA. 4770+00

MATCHLINE STA. 4764+50

NB 4765+00

NB 4766+00

NB 4767+00

NB 4768+00

NB 4769+00

NB 47

MATCHLINE STA. 4770+00

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOUTHBOUND PHASE PROPOSED STOCKPILE AREA

NORTHBOUND PHASE PROPOSED STOCKPILE AREA

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 5

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 135OF 161

SOIL CONDITIONS
TUNBRIDGE-WOODSTOCK COMPLEX
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

N

VT STATE PLANE GRID

90.40

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. 4770+00

SB 4771+00

SB 4772+00

SB 4773+00

SB 4774+00

SB 4775+00

MATCHLINE STA. 4775+50

KEEP RIGHT
EXCEPT TO PASS
SIGN

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. 4770+00

NB 4771+00

NB 4772+00

NB 4773+00

NB 4774+00

NB 4775+00

MATCHLINE STA. 4775+50

90.40

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOUTHBOUND PHASE PROPOSED STOCKPILE AREA

NORTHBOUND PHASE PROPOSED STOCKPILE AREA

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 6

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 136OF 161

N

VT STATE PLANE GRID

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

INTERSTATE 91 (SOUTHBOUND)

SB 4776+00
SB 4777+00
SB 4778+00
SB 4779+00
SB 4780+00
SB 47

MATCHLINE STA. 4775+50
MATCHLINE STA. 4781+00

INTERSTATE 91 (NORTHBOUND)

NB 4776+00
NB 4777+00
NB 4778+00
NB 4779+00
NB 4780+00
NB 47

MATCHLINE STA. 4775+50
MATCHLINE STA. 4781+00

GUIDE SIGN
EXIT 15
FAIRLEE
ORFORD NH
1 MILE

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOUTHBOUND PHASE PROPOSED STOCKPILE AREA

NORTHBOUND PHASE PROPOSED STOCKPILE AREA

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 7

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 137OF 161

SOIL CONDITIONS
COLRAIN STONY FINE SANDY LOAM
15%-25% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
COLRAIN VERY STONY FINE SANDY LOAM
25%-50% SLOPES
MODERATE EROSION POTENTIAL
K = 0.24

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

SOIL CONDITIONS
BELGRADE SILT LOAM
0%-8% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

N

VT STATE PLANE GRID

MATCHLINE STA. 4781+00

MATCHLINE STA. 4787+00

INTERSTATE 91 (SOUTHBOUND)

SB 4781+00
SB 4782+00
SB 4783+00
SB 4784+00
SB 4785+00
SB 4786+00
SB 47

INTERSTATE 91 (NORTHBOUND)

NB 4781+00
NB 4782+00
NB 4783+00
NB 4784+00
NB 4785+00
NB 4786+00
NB 47

90.60

GUIDE SIGN
LAKE MOREY
LAKE FAIRLEE
NEXT RIGHT

SOUTHBOUND PHASE PROPOSED STOCKPILE AREA

NORTHBOUND PHASE PROPOSED STOCKPILE AREA

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 8

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 138OF 161

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

1456
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

THETFORD 6/
WRJ20

EXISITING
WING WALL

PDF

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. 4787+00

SB 4788+00

SB 4789+00

SB 4790+00

PROTECT AND COVER
DROP INLET

SB 4791+00

SB 4792+00

MATCHLINE STA. 4793+00

PT 4789+79.30

INTERSTATE 91 (NORTHBOUND)

NB 4788+00

NB 4789+00

NB 4790+00

NB 4791+00

NB 4792+00

PT 4789+79.00

BF

CONCEPTUAL ACCESS ROAD
AND STAGING AREA

SOIL CONDITIONS
BELGRADE SILT LOAM
8%-15% SLOPES
HIGH EROSION POTENTIAL
K = 0.43

1000
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

APPROX. EXISTING R.O.W.

SOUTHBOUND PHASE PROPOSED STOCKPILE AREA

NORTHBOUND PHASE PROPOSED STOCKPILE AREA

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 9

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 139OF 161

APPROX. EXISTING R.O.W.

CONCEPTUAL ACCESS ROAD AND STAGING AREA

PDF

BF

OHW

MHO

300 HVCTRL MAGHUB

301 HVCTRL MAGHUB

3 HVCTRL ⅝REBAR VSE CONTROL CAP

LAKE MOREY OUTLET FLOW

N37°11'38"E

54+00

53+00

51+00

50+00

N24°15'55"W

N54°21'16"E

N 58°18'05" E

INTERSTATE 91 (SOUTHBOUND)

INTERSTATE 91 (NORTHBOUND)

SB 4794+00

SB 4795+00

SB 4796+00

SB 4797+00

SB 4798+00

NB 4794+00

NB 4795+00

NB 4796+00

NB 4797+00

NB 4798+00

MATCHLINE STA. 4793+00

MATCHLINE STA. 4799+00

N

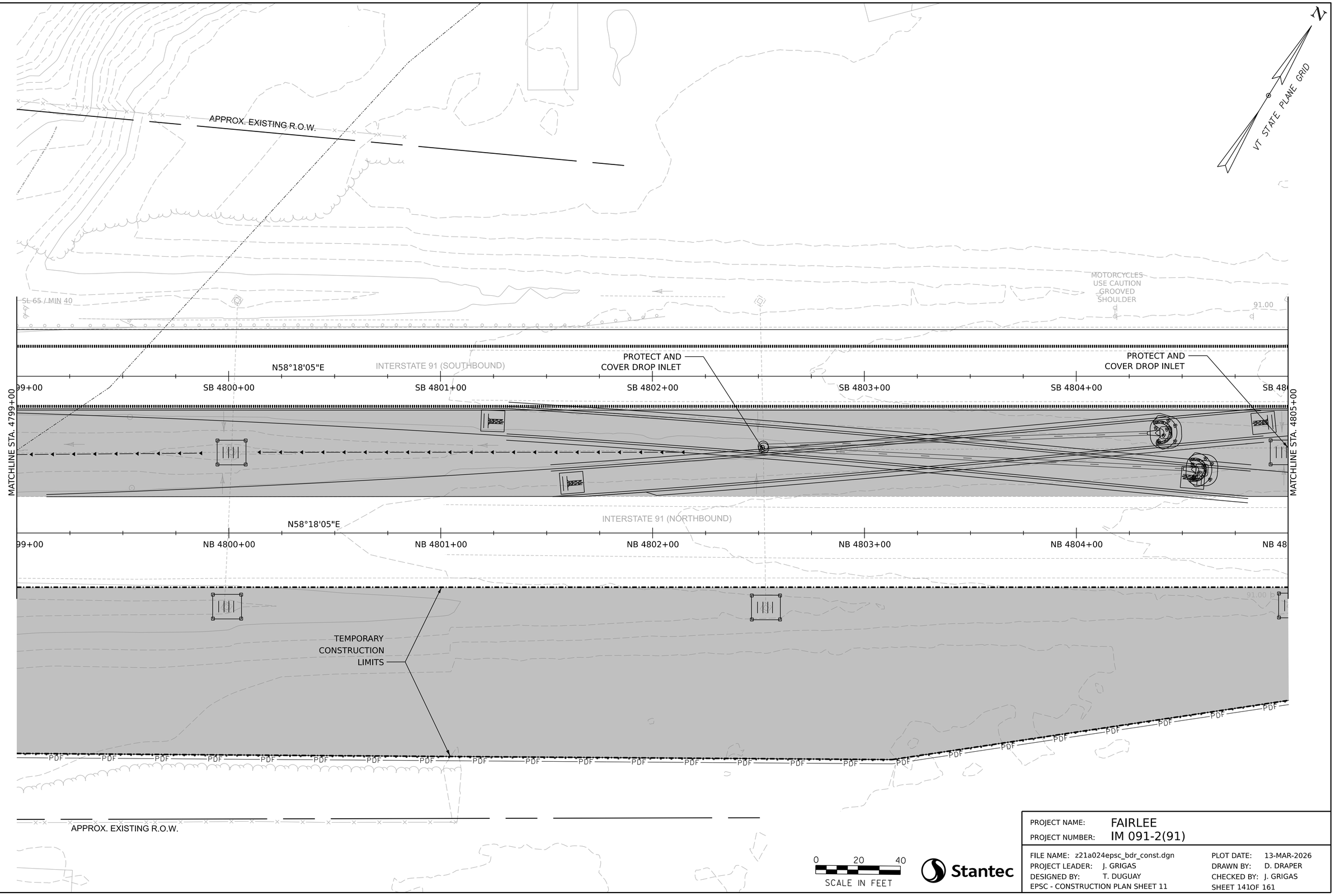
VT STATE PLANE GRID

SCALE IN FEET

0 20 40

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME:	z21a024epsc_bdr_const.dgn
PROJECT LEADER:	J. GRIGAS
DESIGNED BY:	T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 10	
PLOT DATE:	13-MAR-2026
DRAWN BY:	D. DRAPER
CHECKED BY:	J. GRIGAS
SHEET 140OF 161	



0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_const.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
EPSC - CONSTRUCTION PLAN SHEET 11		SHEET 141OF 161	

SOIL CONDITIONS
AGAWAM FINE SANDY LOAM
3%-8% SLOPES
MODERATE EROSION POTENTIAL
K = 0.37

N

VT STATE PLANE GRID

PC 4810+86.12

INTERSTATE 91 (SOUTHBOUND)

05+00 SB 4806+00 SB 4807+00 SB 4808+00 SB 4809+00 SB 4810+00 SB 4811+00

MATCHLINE STA. 4805+00

PDF

PAVED
U-TURN

PC 4811+01.00

INTERSTATE 91 (NORTHBOUND)

05+00 NB 4806+00 NB 4807+00 NB 4808+00 NB 4809+00 NB 4810+00 NB 4811+00

TO BRADFORD

GAS, LODGING, FOOD
NEXT RIGHT

PDF PDF PDF PDF PDF PDF

TEMPORARY
CONSTRUCTION
LIMITS

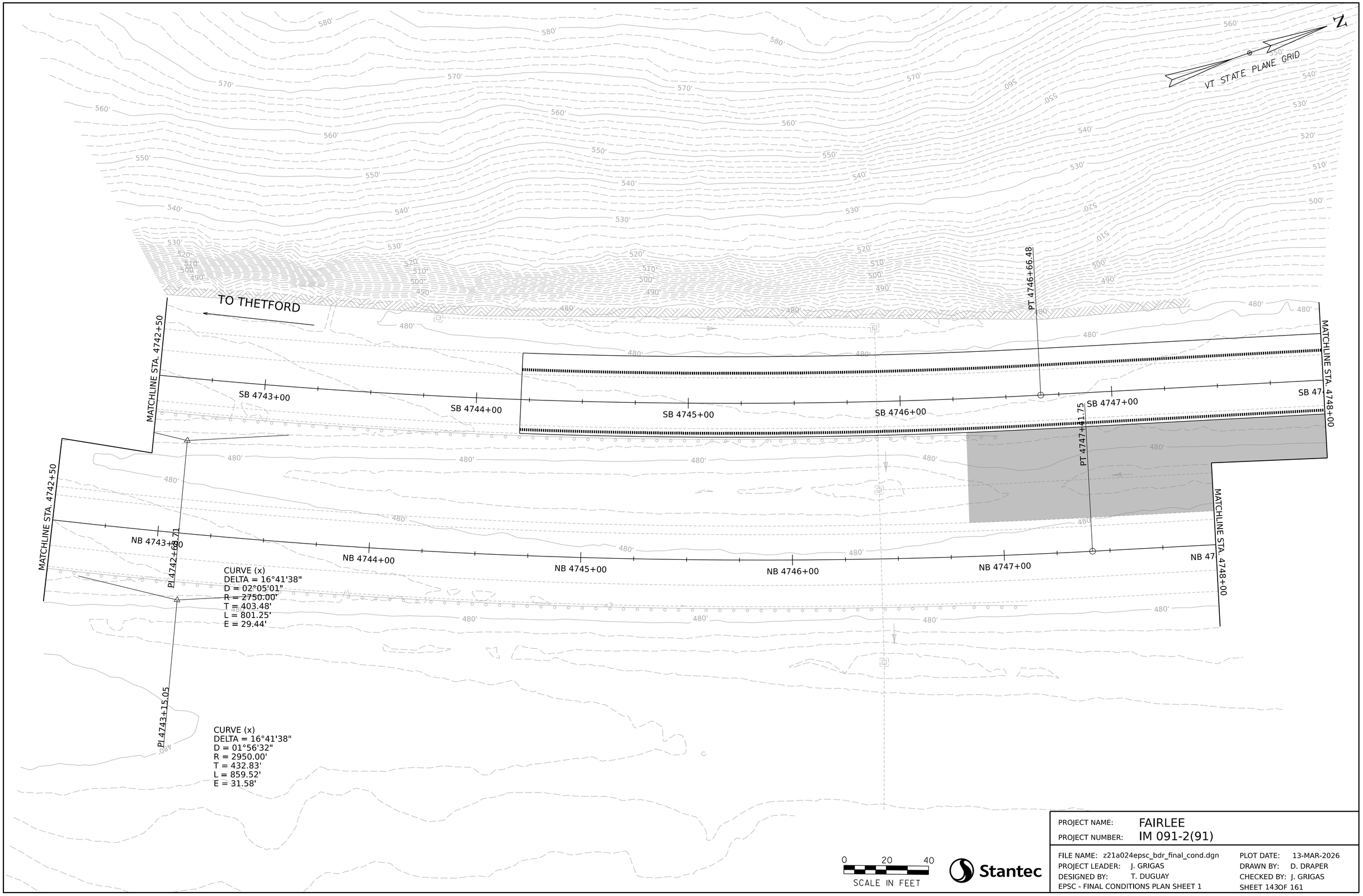
0 20 40
SCALE IN FEET

Stantec

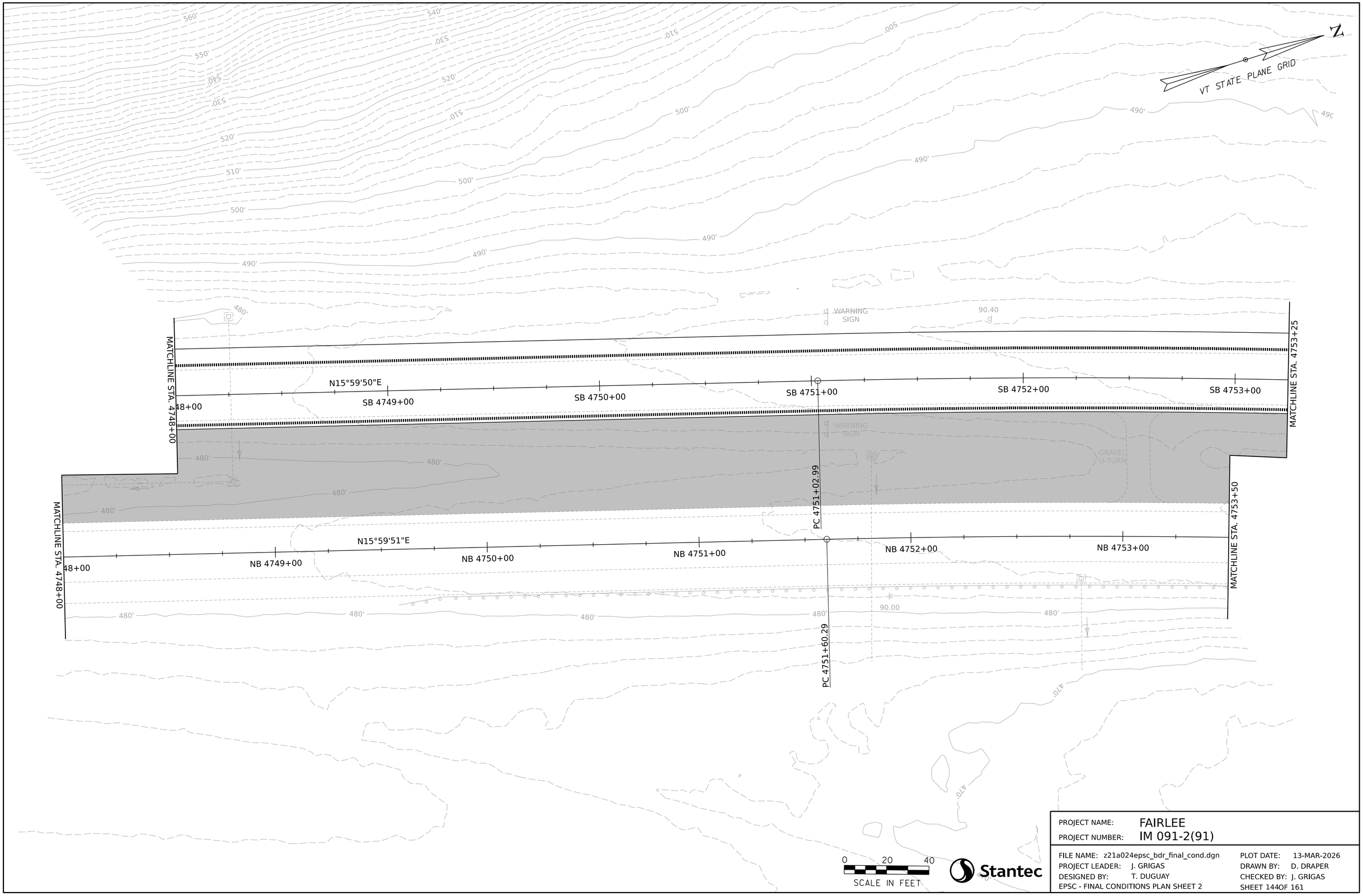
PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_bdr_const.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - CONSTRUCTION PLAN SHEET 12

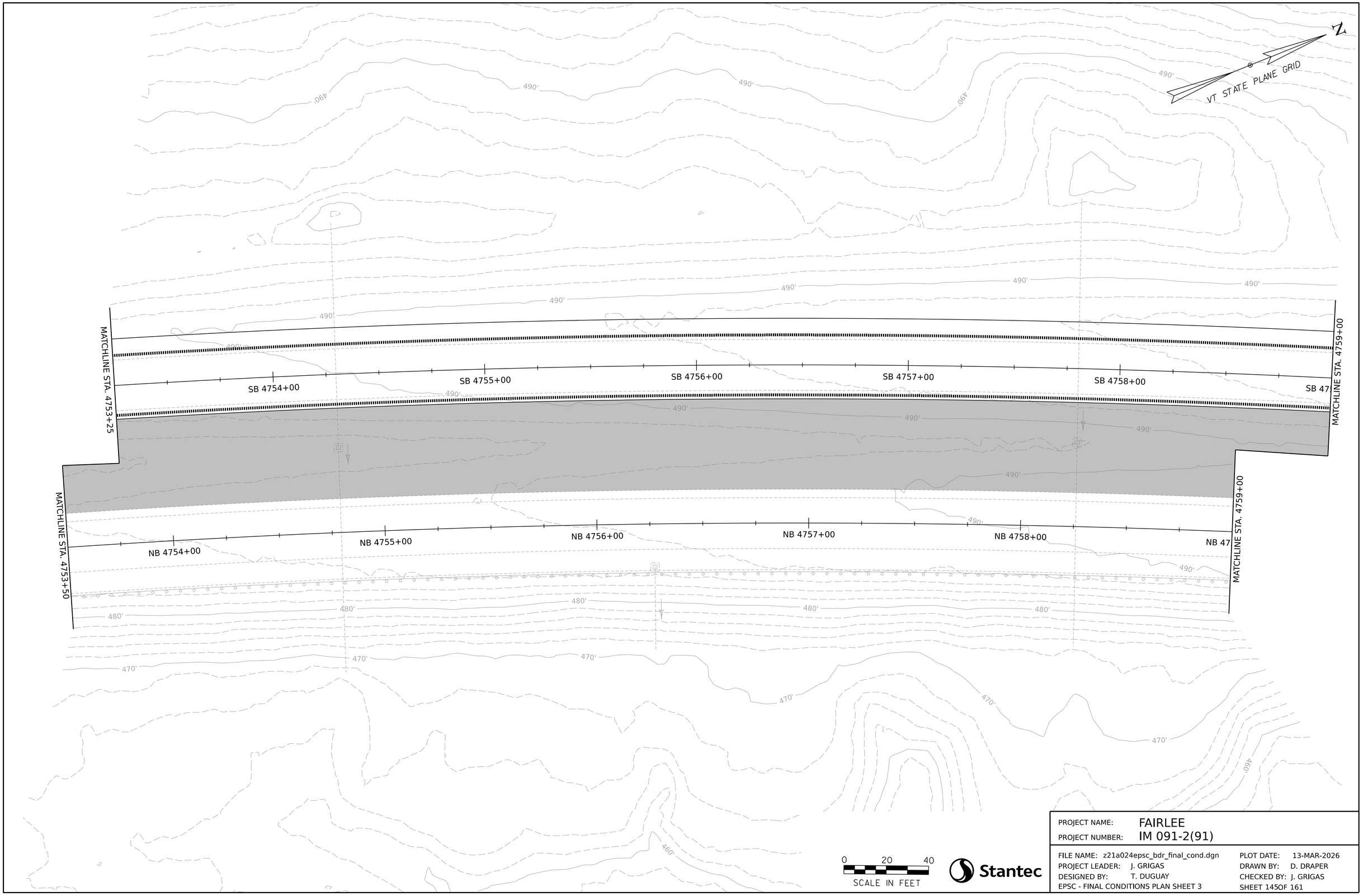
PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 142OF 161



PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_final_cond.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 1	SHEET 143OF 161



PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_final_cond.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 2	SHEET 144OF 161



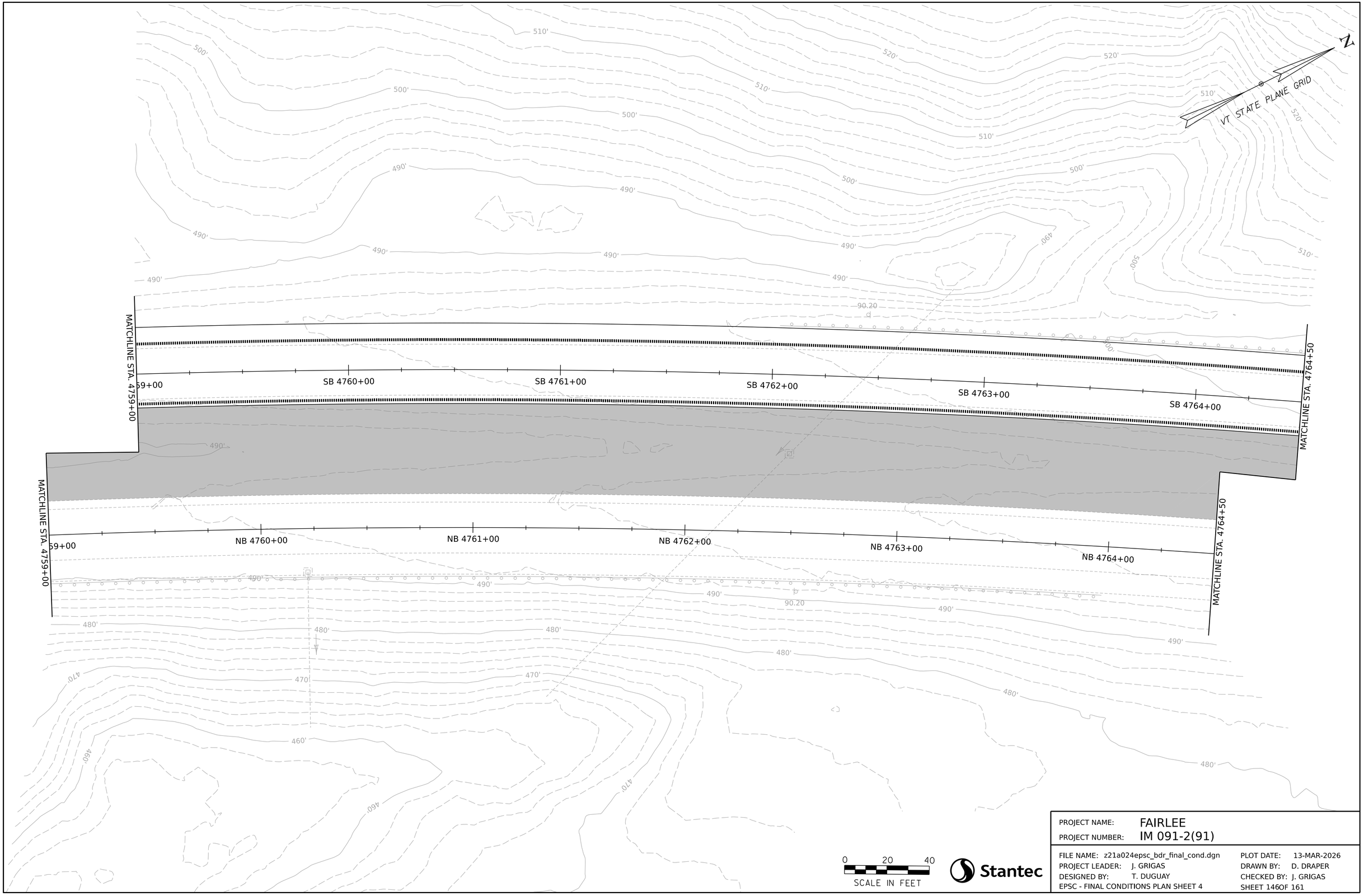
0 20 40
SCALE IN FEET

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

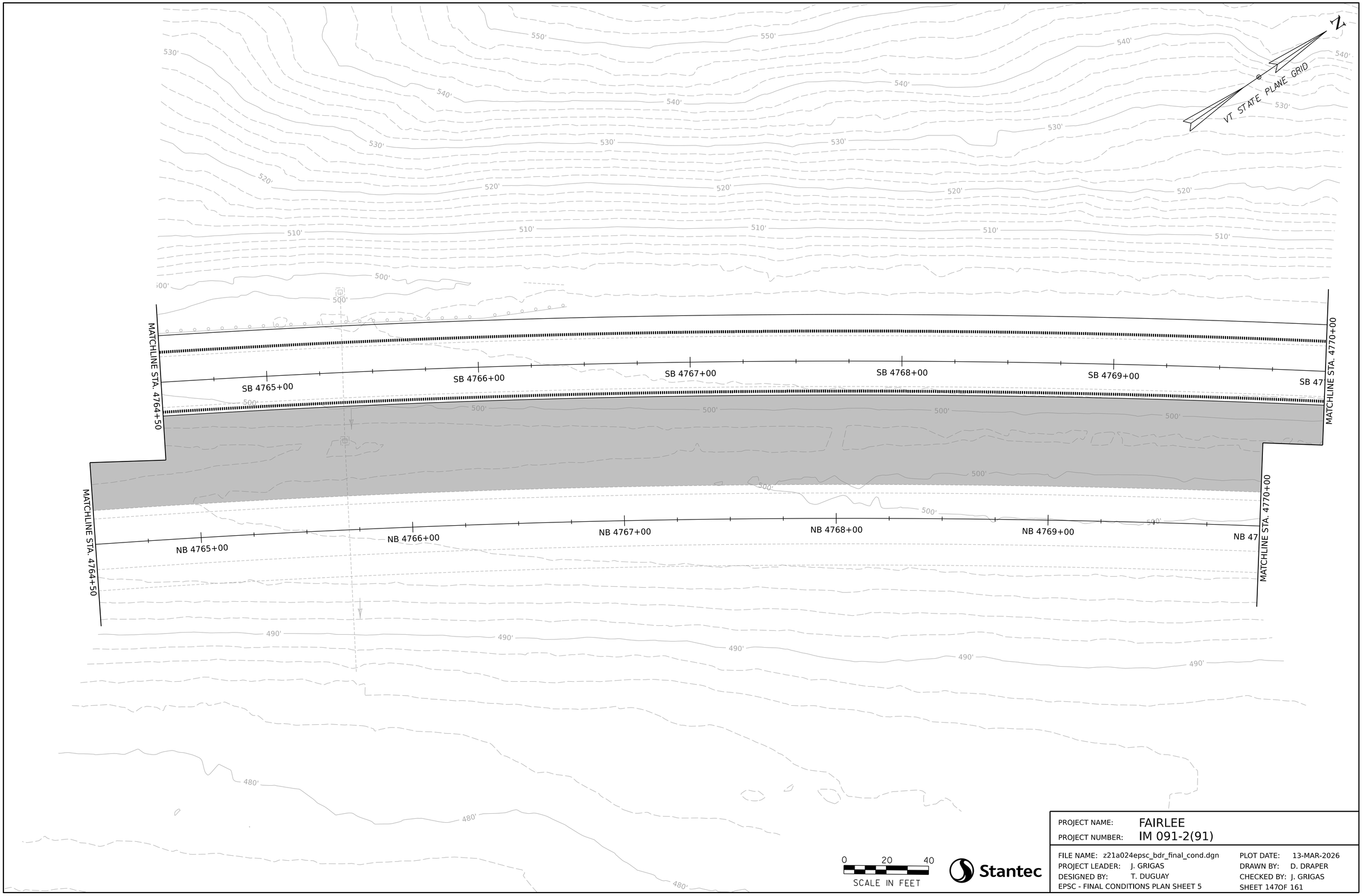
FILE NAME: z21a024epsc_bdr_final_cond.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: T. DUGUAY
EPSC - FINAL CONDITIONS PLAN SHEET 3

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 145OF 161



Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_final_cond.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 4	SHEET 146OF 161



Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_final_cond.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 5		SHEET 147OF 161	

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. 4770+00

MATCHLINE STA. 4775+50

SB 4770+00
SB 4771+00
SB 4772+00
SB 4773+00
SB 4774+00
SB 4775+00

NB 4770+00
NB 4771+00
NB 4772+00
NB 4773+00
NB 4774+00
NB 4775+00

KEEP RIGHT
EXCEPT TO PASS
SIGN

90.40

560' 550' 540' 530' 520' 510' 500' 490' 480' 470'

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_final_cond.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 6	SHEET 148OF 161

N

VT STATE PLANE GRID

INTERSTATE 91 (SOUTHBOUND)

SB 4776+00

SB 4777+00

SB 4778+00

SB 4779+00

SB 4780+00

SB 47

MATCHLINE STA. 4775+50

MATCHLINE STA. 4781+00

INTERSTATE 91 (NORTHBOUND)

NB 4776+00

NB 4777+00

NB 4778+00

NB 4779+00

NB 4780+00

NB 47

MATCHLINE STA. 4775+50

MATCHLINE STA. 4781+00

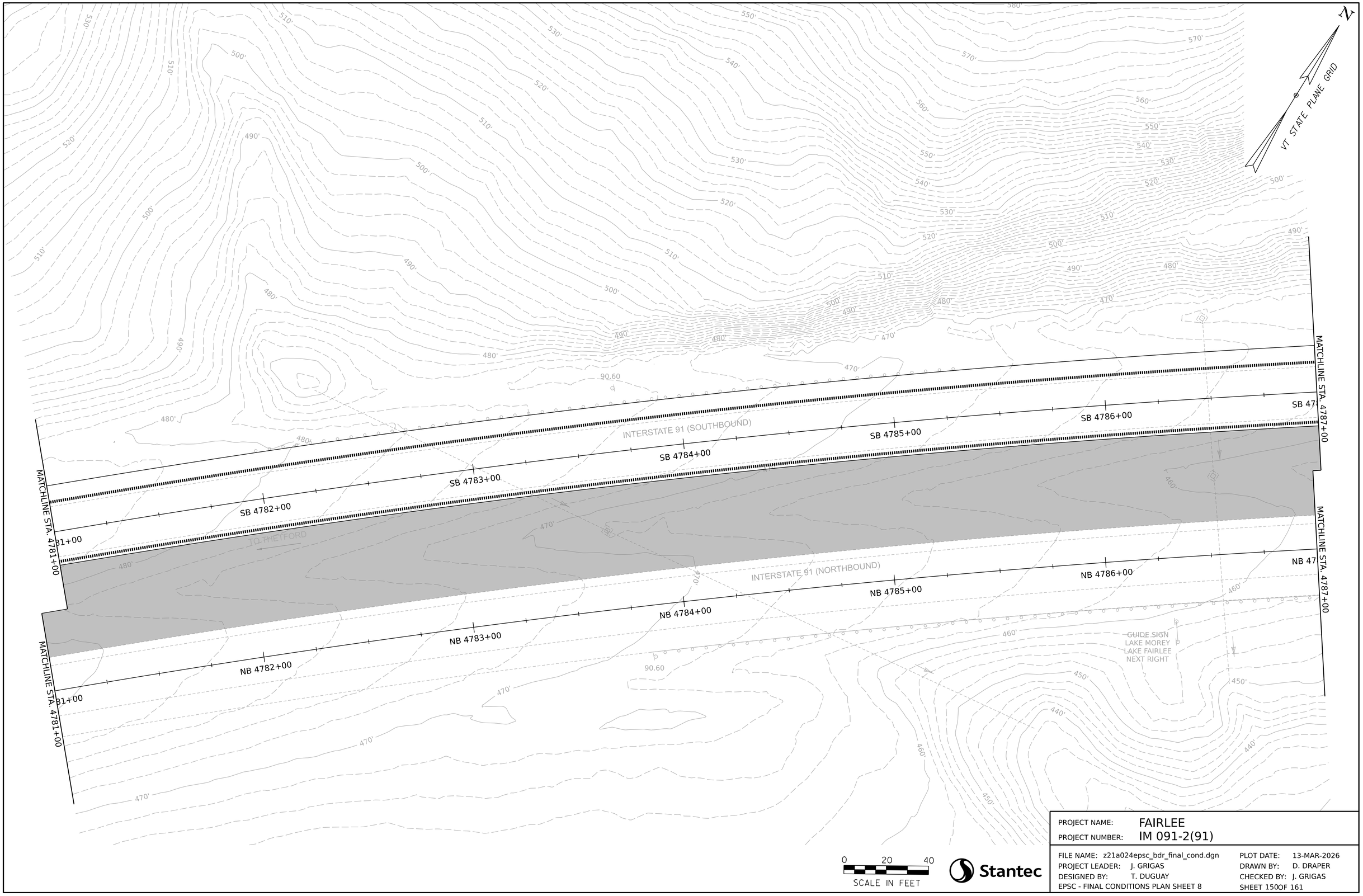
GUIDE SIGN
EXIT 15
FAIRLEE
ORFORD NH
1 MILE

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_final_cond.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 7		SHEET 149OF 161	



PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_final_cond.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 8		SHEET 150OF 161	

N

VT STATE PLANE GRID

APPROX. EXISTING R.O.W.

1456
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

THETFORD 6/
WRJ20

EXISITN
WING WA

INTERSTATE 91 (SOUTHBOUND)

MATCHLINE STA. 4787+00

SB 4788+00

SB 4789+00

SB 4790+00

SB 4791+00

SB 4792+00

SB 47

PT 4789+79.30

MATCHLINE STA. 4793+00

INTERSTATE 91 (NORTHBOUND)

MATCHLINE STA. 4787+00

NB 4788+00

NB 4789+00

NB 4790+00

NB 4791+00

NB 4792+00

NB 47

PT 4789+79.00

FR

TEMPORARY
CONSTRUCTION
LIMITS

1000
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

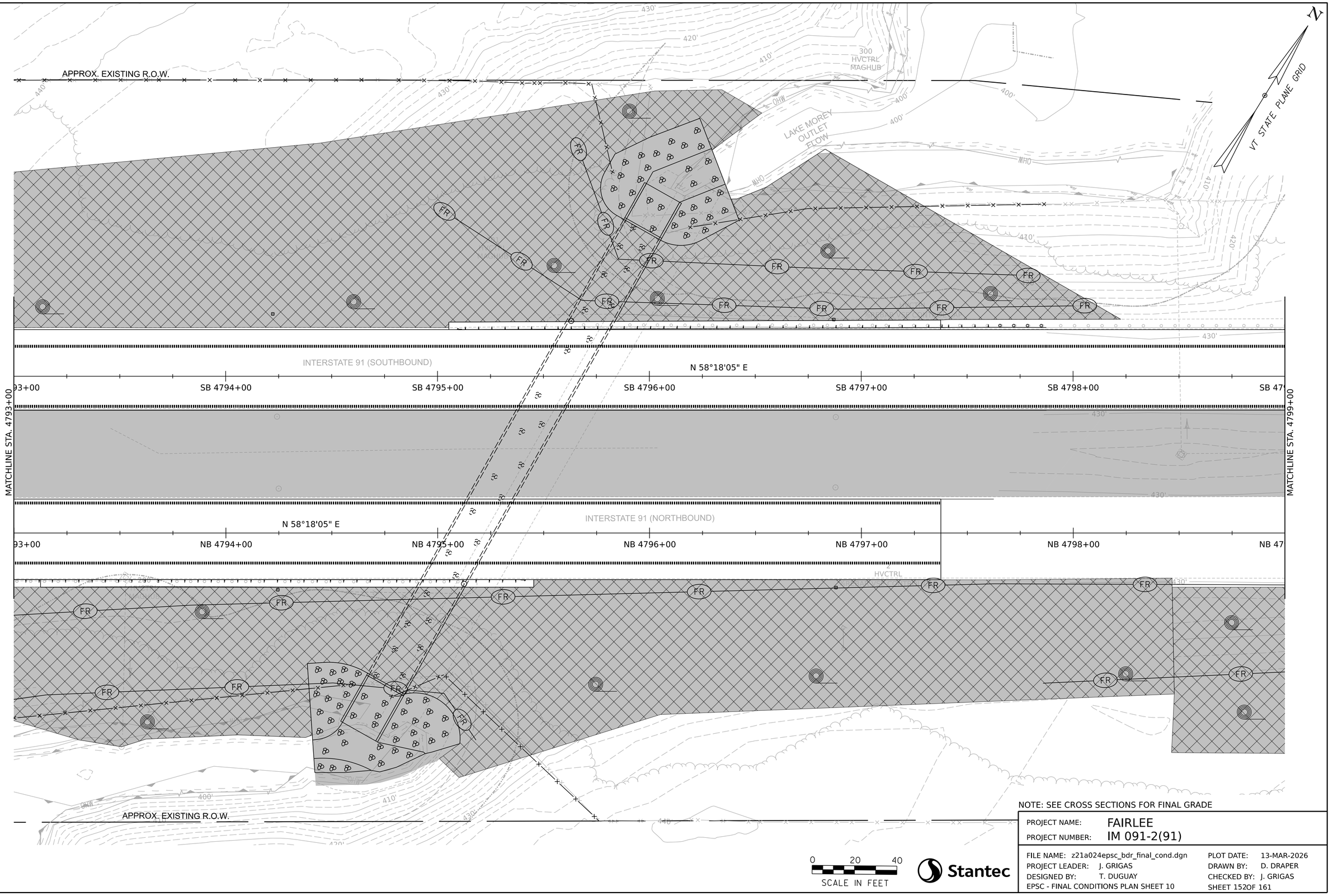
APPROX. EXISTING R.O.W.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_final_cond.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 9		SHEET 151OF 161	



PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_final_cond.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 10		SHEET 152OF 161	

APPROX. EXISTING R.O.W.

N

VT STATE PLANE GRID

420'

430'

SL 65 / MIN 40

MOTORCYCLES
USE CAUTION
GROOVED
SHOULDER

91.00

N58°18'05"E

INTERSTATE 91 (SOUTHBOUND)

99+00 | SB 4800+00 | SB 4801+00 | SB 4802+00 | SB 4803+00 | SB 4804+00 | SB 48

MATCHLINE STA. 4799+00

MATCHLINE STA. 4805+00

N58°18'05"E

INTERSTATE 91 (NORTHBOUND)

99+00 | NB 4800+00 | NB 4801+00 | NB 4802+00 | NB 4803+00 | NB 4804+00 | NB 48

FR

TEMPORARY
CONSTRUCTION
LIMITS

APPROX. EXISTING R.O.W.

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: z21a024epsc_bdr_final_cond.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: J. GRIGAS	DRAWN BY: D. DRAPER
DESIGNED BY: T. DUGUAY	CHECKED BY: J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 11	SHEET 153OF 161

N

VT STATE PLANE GRID

PC 4810+86.12

PC 4811+01.00

440'

INTERSTATE 91 (SOUTHBOUND)

05+00 | SB 4806+00 | SB 4807+00 | SB 4808+00 | SB 4809+00 | SB 4810+00 | SB 4811+00

MATCHLINE STA. 4805+00

PAVED
U-TURN

INTERSTATE 91 (NORTHBOUND)

05+00 | NB 4806+00 | NB 4807+00 | NB 4808+00 | NB 4809+00 | NB 4810+00 | NB 4811+00

TO BRADFORD

TEMPORARY
CONSTRUCTION
LIMITS

0 20 40
SCALE IN FEET

Stantec

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	z21a024epsc_bdr_final_cond.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	J. GRIGAS	DRAWN BY:	D. DRAPER
DESIGNED BY:	T. DUGUAY	CHECKED BY:	J. GRIGAS
EPSC - FINAL CONDITIONS PLAN SHEET 12		SHEET 154OF 161	

VAOT POLLINATOR DRY

% OF MIX	LATIN NAME	COMMON NAME	CULTIVAR/ECOTYPE
6	AGROSTIS PERENNANS	AUTUMN BENTGRASS,	NORTHEAST ECOTYPE
25.2	ANDROPOGON GERARDII	BIG BLUESTEM	NORTHEAST ECOTYPE
0.5	ASCLEPIAS SYRIACA	COMMON MILKWEED	NORTHEAST ECOTYPE
0.8	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	NORTHEAST ECOTYPE
25	ELYMUS VIRGINICUS	VIRGINIA WILDRYE	NORTHEAST ECOTYPE
0.6	MONARDA FISTULOSA	WILD BERGAMOT	NORTHEAST ECOTYPE
20	PANICUM CLANDESTINUM	DEERTONGUE	NORTHEAST ECOTYPE
1.5	RUDBECKIA HIRTA	BLACK EYED SUSAN	NORTHEAST ECOTYPE
20	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	NORTHEAST ECOTYPE
0.2	SOLIDAGO JUNCEA	EARLY GOLDENROD	NORTHEAST ECOTYPE
0.2	SOLIDAGO RUGOSA	WRINKLE LEAF GOLDENROD	NORTHEAST ECOTYPE
100%			

SEED RATE: 60 LBS/ACRE PURE LIVE SEED (PLS)
30 LBS/ACRE OF NURSE CROP
30 LBS/ACRE OF BULKING AGENT

*PREFERRED SEEDING PERIOD FOR POLLINATOR SEED MIX IS BEFORE MAY 1 (AFTER SNOWMELT) AND AFTER SEPTEMBER 15 (BEFORE SNOWPACK). IF SEEDING OCCURS DURING THE PREFERRED PERIOD, SEEDING RATE SHALL BE REDUCED BY 30%. NO ADJUSTMENT IS REQUIRED FOR NURSE CROPS OR BULKING AGENTS).

DESIGN GUIDANCE

1. THIS SEED MIX SHALL BE USED IN AREAS THAT WILL NATURALIZE, RECEIVING MOWING ONCE EVERY 3 YEARS OR LESS.
2. USE SEED MIX FOR AREAS THAT ARE SLOPED OR FLAT, WITH NORMAL TO DRY CONDITIONS, OR AS INDICATED IN THE PLANS.

CONSTRUCTION GUIDANCE

1. SEE VAOT POLLINATOR SEED CONSTRUCTION GUIDANCE DETAIL FOR MORE INFORMATION ON INSTALLATION AND BULKING AGENT.

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1600 TURF ESTABLISHMENT, SPECIALTY SEED)

REVISIONS
JANUARY 29, 2025 BKD

VAOT POLLINATOR WET

% OF MIX	LATIN NAME	COMMON NAME	CULTIVAR/ECOTYPE
2	AGROSTIS PERENNANS	AUTUMN BENTGRASS	NORTHEAST ECOTYPE
2	ASCLEPIAS INCARNATA	SWAMP MILKWEED	NORTHEAST ECOTYPE
0.6	ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	NORTHEAST ECOTYPE
0.2	ASTER PUNICEUS	PURPLE STEMMED ASTER	NORTHEAST ECOTYPE
0.2	ASTER UMBELLATUS	WHITE FLAT-TOPPED ASTER	NORTHEAST ECOTYPE
1	BIDENS CERNUA	NODDING BUR MARIGOLD	NORTHEAST ECOTYPE
30	CAREX VULPINOIDEA	FOX SEDGE	NORTHEAST ECOTYPE
0.3	CHELONE GLABRA	TURTLEHEAD	NORTHEAST ECOTYPE
20	ELYMUS VIRGINICUS	VIRGINIA WILDRYE	NORTHEAST ECOTYPE
1	EUPATORIUM PERFOLIATUM	BONESET	NORTHEAST ECOTYPE
3.9	JUNCUS EFFUSUS	SOFT RUSH	NORTHEAST ECOTYPE
3.8	JUNCUS TENUIS	PATH RUSH	NORTHEAST ECOTYPE
30	PANICUM CLANDESTINUM	DEERTONGUE	NORTHEAST ECOTYPE
4	VERBENA HASTATA	BLUE VERVAIN	NORTHEAST ECOTYPE
1	ZIZIA AUREA	GOLDEN ALEXANDERS	NORTHEAST ECOTYPE
100%			

SEED RATE: 15 LBS/ACRE PURE LIVE SEED (PLS)
30 LBS/ACRE OF NURSE CROP.
60 LBS/ACRE OF BULKING AGENT

*PREFERRED SEEDING PERIOD FOR POLLINATOR SEED MIX IS BEFORE MAY 1 (AFTER SNOWMELT) AND AFTER SEPTEMBER 15 (BEFORE SNOWPACK). IF SEEDING OCCURS DURING THE PREFERRED PERIOD, SEEDING RATE SHALL BE REDUCED BY 30%. NO ADJUSTMENT IS REQUIRED FOR NURSE CROPS OR BULKING AGENTS).

DESIGN GUIDANCE

1. THIS SEED MIX SHALL BE USED IN AREAS THAT WILL NATURALIZE, RECEIVING MOWING ONCE EVERY 3 YEARS OR LESS.
2. USE SEED MIX FOR AREAS THAT EXPERIENCE OCCASIONAL INNUNDATION OF WATER (EX. DETENTION BASINS OR SWALES), OR AS INDICATED IN THE PLANS.

CONSTRUCTION GUIDANCE

1. SEE VAOT POLLINATOR SEED CONSTRUCTION GUIDANCE DETAIL FOR MORE INFORMATION ON INSTALLATION AND BULKING AGENT.

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1600 TURF ESTABLISHMENT, SPECIALTY SEED)

REVISIONS
JANUARY 29, 2025 BKD

VAOT POLLINATOR SEED CONSTRUCTION GUIDANCE

1. PREPARE SOIL FOR POLLINATOR SEED MIX APPLICATION SITES IN ACCORDANCE WITH VTRANS SUBSECTION 651.04 & 651.05 FOR TURF ESTABLISHMENT.
2. APPLY SOIL AMENDMENTS PER SOIL TEST RESULTS.
3. MIX POLLINATOR SEED, NURSE CROP SEEDS, AND BULKING AGENT PRIOR TO APPLICATION. ENSURE THAT THE MATERIALS ARE EVENLY DISTRIBUTED THROUGHOUT THE MIX.
   A. NURSE CROP: USE GRAIN OATS (AVENA SATIVA) AS A NURSE CROP IF PLANTING BETWEEN JANUARY 1 AND JULY 31 OR USE WINTER RYE (SECALE CEREALE) IF PLANTING BETWEEN AUGUST 1 AND DECEMBER 31.
   B. BULKING AGENT: ADD AN INERT CARRIER AND BULKING AGENT SUCH AS GRANULAR SODIUM BENTONITE CLAY, NON-CLUMPING & NON-SCENTED KITTY LITTER, OR APPROVED EQUIVALENT TO ALLOW FOR EVEN SEED DISTRIBUTION AND AS A VISUAL AID OF COVERAGE DURING THE SEED INSTALLATION. BULKING AGENTS SHALL BE MIXED WITH THE SEED MIX AND NURSE CROP AT THE RATES SPECIFIED ON THE POLLINATOR SEED MIX DETAILS. PAYMENT FOR BULKING AGENT AND NURSE CROP SHALL BE INCIDENTAL TO THE CORRESPONDING SEED PAY ITEMS.
4. APPLY POLLINATOR SEED MIXES, NURSE CROP SEEDS, AND BULKING AGENT CONCURRENTLY IN ACCORDANCE WITH THE RATES SHOWN ON THE POLLINATOR SEED MIX TABLES. DO NOT EXCEED THE RECOMMENDED NURSE CROP SEEDING RATES TO AVOID SMOTHERING THE POLLINATOR SEED MIX AND PREVENTING GERMINATION.
5. SPREAD SEED BY HAND OR USE BROADCAST SEEDING EQUIPMENT WITH AN INTERNAL AGITATOR AND AN ADJUSTABLE FLOW GATE TO CREATE A SLOW, STEADY SEED FLOW, ALLOWING FOR EVEN DISTRIBUTION OF THE SMALLER SEEDS.
6. USE A LANDSCAPE-TYPE ROLLER, CULTIPACKER, OR LEAF RAKE TO LIGHTLY PRESS SEED INTO SOIL BED AFTER BROADCAST SPREADING. THIS PROMOTES ADEQUATE SEED TO SOIL CONTACT. DO NOT TILL OR COVER SEED WITH SOIL.
7. MULCH WITH A LIGHT COVER OF WEED-FREE OAT STRAW AT A RATE OF 3,000 LB./ACRE.
8. IF HYDROSEEDING, A TWO-STEP PROCESS SHALL BE USED. FIRST PASS: APPLY SEED WITH 1/3 THE NORMAL RATE OF HYDRAULIC MULCH. SECOND PASS: APPLY REMAINDER OF HYDRAULIC MULCH. RATE OF HYDROSEED SHALL BE PER MANUFACTURERS RECOMMENDATIONS. NO BULKING AGENT SHALL BE USED.

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1600 TURF ESTABLISHMENT, SPECIALTY SEED)

REVISIONS
JUNE 21, 2023 BKD

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_detail.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
EPSC - DETAIL SHEET 1

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 155 OF 161

VAOT NATURALIZED AREA TYPE I				
WEIGHT	NAME	LATIN NAME	GERM	PURITY
38%	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	90%	98%
29%	HARD FESCUE	FESTUCA LONGIFOLIA	85%	95%
15%	CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA	87%	95%
15%	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90%	95%
3%	INERTS			
100%				

VAOT NATURALIZED AREA TYPE II				
WEIGHT	NAME	LATIN NAME	GERM	PURITY
37.5%	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
37.5%	TALL FESCUE	FESTUCA ARUNDINACEA	90%	95%
5.0%	RED TOP	AGROSTIS GIGANTEA	90%	95%
15.0%	WHITE FIELD CLOVER	TRIFOLIUM REPENS	85%	98%
5.0%	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%				

SEED RATE: BROADCAST: 75 LBS/ACRE
HYDROSEED: PER MANUFACTURER'S RECOMMENDATIONS

APPLY AMENDMENTS PER SOIL TEST RESULTS

FERTILIZER (755.06):
IF NO SOIL TEST IS PERFORMED, A SLOW OR CONTROLLED RELEASE FERTILIZER SHALL BE APPLIED AT A RATIO OF 1:1:1 (N:P:K). NITROGEN AND PHOSPHORUS SHALL BE APPLIED AT NO MORE THAN 1 LB. PER 1,000 SQ.FT.

LIMESTONE (755.08 & 755.09):
IF NO SOIL TEST IS PERFORMED, APPLY LIMESTONE PER MANUFACTURER'S RECOMMENDATIONS.

COMPOST (755.05):
COMPOST MAY BE APPLIED PER SOIL TEST RESULTS.

CONSTRUCTION GUIDANCE

1. THESE SEED MIXES SHALL BE USED IN AREAS THAT WILL NATURALIZE, RECEIVING LIMITED ANNUAL MOWING THROUGH THE GROWING SEASON.
2. USE SEED MIX AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON-WETLAND) AREAS DISTURBED BY THE CONTRACTOR. IF THE PLANS DO NOT SPECIFY A SEED TYPE, NATURALIZED AREA TYPE I OR TYPE II SHALL BE USED.
3. SEED MIXES SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. 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.
5. FERTILIZER SHOULD NOT BE APPLIED WITHIN 2 WEEKS OF APPLYING LIMESTONE.
6. FOR BEST ESTABLISHMENT, REAPPLY FERTILIZER 2-3 WEEKS AFTER GERMINATION.

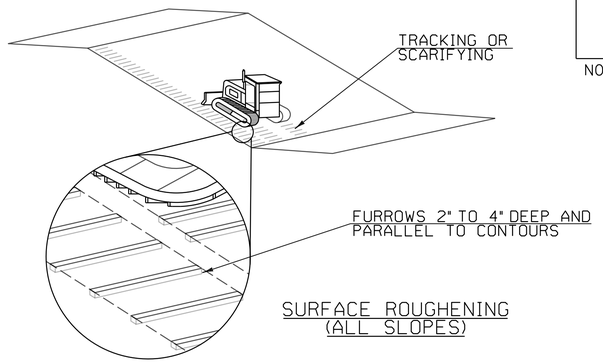
TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651 FOR SEED (PAY ITEM 651.1500 TURF ESTABLISHMENT, GENERAL SEED)

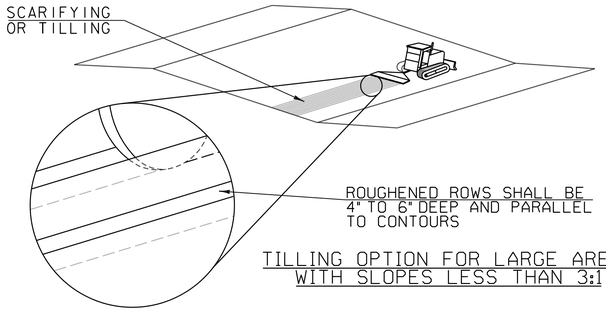
REVISIONS	
JANUARY 12, 2015	WHF
JUNE 15, 2023	BKD

SYMBOL

NOT TO SCALE



SURFACE ROUGHENING (ALL SLOPES)



TILLING OPTION FOR LARGE AREAS WITH SLOPES LESS THAN 3:1

NOTES:

1. GROOVES MAY BE MADE WITH ANY APPROPRIATE PIECE OF EQUIPMENT THAT CAN BE SAFELY OPERATED ON, OR ADJACENT TO, THE SLOPE. SURFACE ROUGHENING SHALL BE ACCOMPLISHED IN A MANNER THAT LIMITS SOIL COMPACTION AND PROMOTES TURF ESTABLISHMENT.
2. FOR AREAS THAT WILL BE MOWED, SURFACE ROUGHENING SHOULD CONSIST OF GROOVES CREATED BY NORMAL TILLING, DISKING, HARROWING, OR USE OF A CULTIPACKER SEEDER. SURFACE ROUGHENING SHALL NOT CREATE A SURFACE THAT CAN NOT BE MOWED.

ADAPTED FROM DETAILS DEVELOPED BY:
VERMONT DEPARTMENT OF CONSERVATION

MILE HIGH FLOOD DISTRICT STORMWATER BEST MANAGEMENT PRACTICES

SURFACE ROUGHENING

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

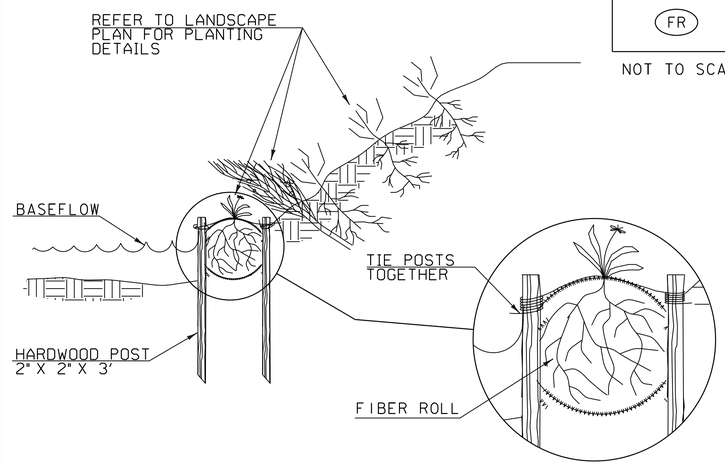
THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ALL OTHER CONTRACT ITEMS.

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF
NOVEMBER 25, 2024	CMMJ

SYMBOL

FR

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. EXCAVATE A 2" TO 3" TRENCH SLIGHTLY BELOW BASEFLOW. BASEFLOW ELEVATION SHALL BE PROVIDED ON THE PLANS.
2. PLACE THE ROLL IN THE TRENCH AND ANCHOR WITH 2"X2" POSTS PLACED ON BOTH SIDES OF THE ROLL AND SPACED LATERALLY ON 2' TO 4' CENTERS. TRIM THE TOP OF THE POSTS EVEN WITH THE EDGE OF THE ROLL, IF NECESSARY.
3. NOTCH THE POSTS AND TIE TOGETHER, ACROSS THE ROLL, WITH WIRE OR ROPE. ALL NON-BIODEGRADABLE COMPONENTS SHALL BE REMOVED ONCE FINAL VEGETATION IS ESTABLISHED.
4. PLACE SOIL EXCAVATED FROM THE TRENCH UP SLOPE OF THE ROLL AND HAND TAMP. PLANT SUITABLE HERBACEOUS OR WOODY VEGETATION AS SPECIFIED IN THE IN THE LANDSCAPE PLAN. IF SPECIFIED, VEGETATION SHALL BE PLACED IMMEDIATELY ADJACENT TO, OR DIRECTLY IN, THE ROLL TO PROMOTE ROOT GROWTH INTO THE FIBER.

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

FIBER ROLL

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

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 651, 653, AND 656.

REVISIONS	
MARCH 21, 2008	WHF
JANUARY 13, 2009	WHF
NOVEMBER 25, 2024	CMMJ

Stantec

PROJECT NAME: FAIRLEE
PROJECT NUMBER: IM 091-2(91)

FILE NAME: z21a024epsc_detail.dgn
PROJECT LEADER: J. GRIGAS
DESIGNED BY: J. GRIGAS
EPSC - DETAIL SHEET 2

PLOT DATE: 13-MAR-2026
DRAWN BY: D. DRAPER
CHECKED BY: J. GRIGAS
SHEET 156 OF 161

LEGEND:

VAOT POLLINATOR DRY

TUBELINGS W/ WET AREA SEED

N

VT STATE PLANE GRID

1456
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

APPROX. EXISTING R.O.W.

THETFORD 6/
WRJ20

EXISITNG
WING WALL

INTERSTATE 91 (SOUTHBOUND)

37+00 SB 4788+00 SB 4789+00 SB 4790+00 SB 4791+00 SB 4792+00 SB 47

MATCHLINE STA. 4793+00

INTERSTATE 91 (NORTHBOUND)

37+00 NB 4788+00 NB 4789+00 NB 4790+00 NB 4791+00 NB 4792+00 NB 47

1000
BND
4"X4" CONC 0.5'AG
PLUMB/STABLE

APPROX. EXISTING R.O.W.

0 20 40
SCALE IN FEET

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	w21a024bdr_lds.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	A. GOUDREAU	DRAWN BY:	B. DONAHUE
DESIGNED BY:	B. DONAHUE	CHECKED BY:	A. GOUDREAU
LANDSCAPE SHEET 1		SHEET	157 OF 161

DUANE & CHRISTOPHER COOK

(22) TUBELINGS.
SPECIES MIXED
EVENLY, SEE PLANT
LAYOUT DETAIL.

APPROX. EXISTING R.O.W.

300
HVCTRL
MAGHUB

LEGEND:

VAOT POLLINATOR DRY

TUBELINGS W/ WET AREA SEED

N

VT STATE PLANE GRID

MRO

54+00

(24) TUBELINGS.
SPECIES MIXED
EVENLY, SEE PLANT
LAYOUT DETAIL.

301
HVCTRL
MAGHUB

CZ

3
HVCTRL
REBAR VSE CONTROL CAP

INTERSTATE 91 (SOUTHBOUND)

93+00 SB 4794+00 SB 4795+00 SB 4796+00 SB 4797+00 SB 4798+00 SB 47

MATCHLINE STA. 4793+00

MATCHLINE STA. 4799+00

53+00

INTERSTATE 91 (NORTHBOUND)

93+00 NB 4794+00 NB 4795+00 NB 4796+00 NB 4797+00 NB 4798+00 NB 47

52+00

HVCTRL
MAGHUB

HVCTRL
REBAR VSE CONTROL CAP

51+00

50+00

APPROX. EXISTING R.O.W.

(24) TUBELINGS.
SPECIES MIXED
EVENLY, SEE PLANT
LAYOUT DETAIL.

(10) TUBELINGS.
SPECIES MIXED
EVENLY, SEE PLANT
LAYOUT DETAIL.

0 20 40
SCALE IN FEET

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	w21a024bdr_lds.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	A. GOUDREAU	DRAWN BY:	B. DONAHUE
DESIGNED BY:	B. DONAHUE	CHECKED BY:	A. GOUDREAU
LANDSCAPE SHEET 2		SHEET	158 OF 161

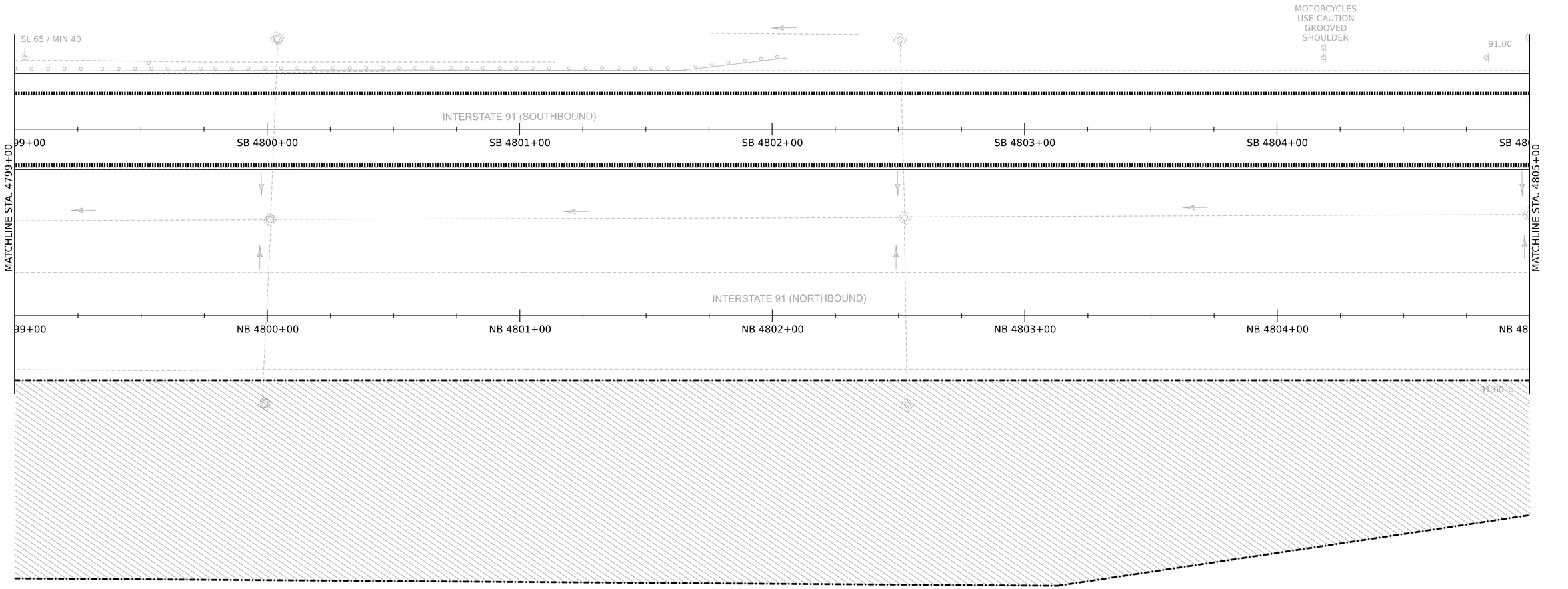
LEGEND:

VAOT POLLINATOR DRY

TUBELINGS W/ WET AREA SEED

N

VT STATE PLANE GRID



0 20 40

SCALE IN FEET

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)

FILE NAME:	w21a024bdr_lds.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	A. GOUDREAU	DRAWN BY:	B. DONAHUE
DESIGNED BY:	B. DONAHUE	CHECKED BY:	A. GOUDREAU
LANDSCAPE SHEET 3		SHEET	159 OF 161

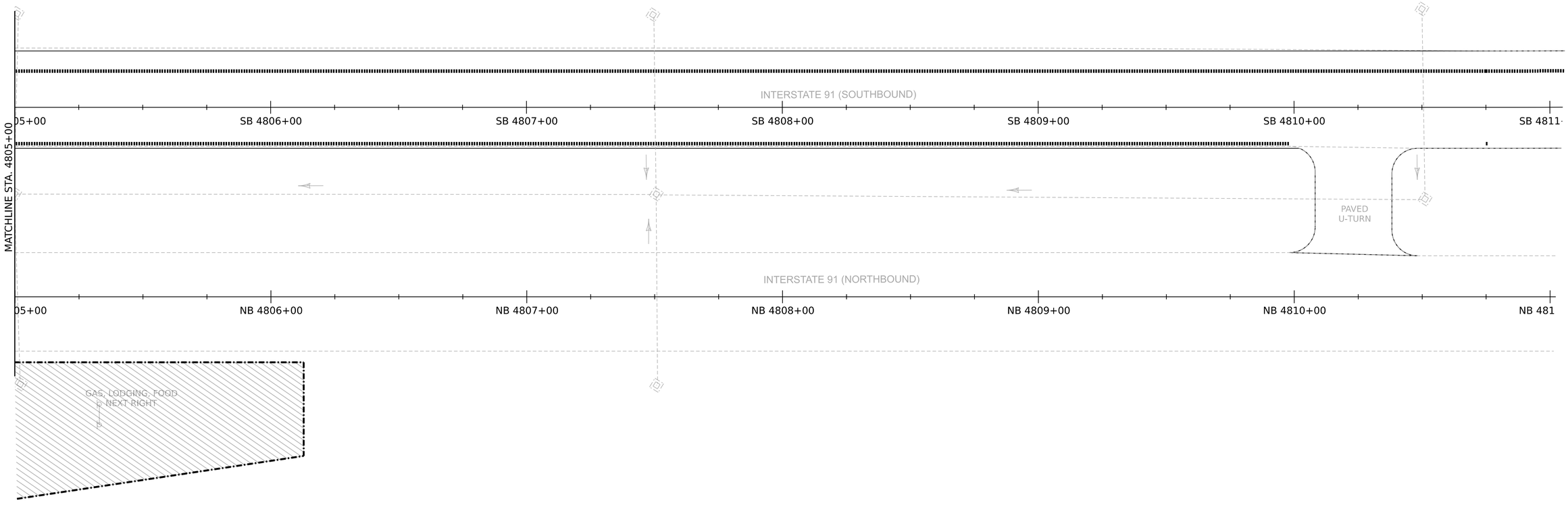
LEGEND:

VAOT POLLINATOR DRY

TUBELINGS W/ WET AREA SEED

N

VT STATE PLANE GRID



0 20 40

SCALE IN FEET

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	IM 091-2(91)
FILE NAME: w21a024bdr_lds.dgn	PLOT DATE: 13-MAR-2026
PROJECT LEADER: A. GOUDREAU	DRAWN BY: B. DONAHUE
DESIGNED BY: B. DONAHUE	CHECKED BY: A. GOUDREAU
LANDSCAPE SHEET 4	SHEET 160 OF 161

KEY	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	CONTAINER	SPACING (ON CENTER)	NOTES
TUBELINGS							
AC	8	*Acer rubrum*	Red maple	2-3' HEIGHT	TUBELING	8' O.C.	Straight species only. No cultivars.
AL	8	*Alnus rugosa*	Speckled Alder	2-3' HEIGHT	TUBELING	8' O.C.	Straight species only. No cultivars.
CR	8	*Cornus racemosa*	Gray dogwood	2-3' HEIGHT	TUBELING	8' O.C.	Straight species only. No cultivars.
CS	8	*Cornus sericea*	Red twig dogwood	2-3' HEIGHT	TUBELING	8' O.C.	Straight species only. No cultivars.
RT	8	*Rhus typhina*	Staghorn sumac	2-3' HEIGHT	TUBELING	8' O.C.	Straight species only. No cultivars.
SC	8	*Sambucus canadensis*	Elderberry	2-3' HEIGHT	TUBELING	8' O.C.	Straight species only. No cultivars.
SD	8	*Salix discolor*	Common pussy willow	2-3' HEIGHT	TUBELING	8' O.C.	Straight species only. No cultivars.
SE	8	*Salix eriocephala*	Wooly headed willow	2-3' HEIGHT	TUBELING	8' O.C.	Straight species only. No cultivars.
SS	8	*Salix sericea*	Silky willow	2-3' HEIGHT	TUBELING	8' O.C.	Straight species only. No cultivars.
VL	8	*Viburnum lentago*	Nannyberry	2-3' HEIGHT	TUBELING	8' O.C.	Straight species only. No cultivars.

NOTES:

1. A LANDSCAPE-SPECIFIC COORDINATION MEETING WILL BE HELD AT LEAST 30 CALENDAR DAYS PRIOR TO LANDSCAPE INSTALLATION WITH THE LANDSCAPE SUBCONTRACTOR, PRIME CONTRACTOR, ENGINEER, AOT CONSTRUCTION ENVIRONMENTAL ENGINEER, AND EITHER THE AOT LANDSCAPE ARCHITECT OR THE CONSTRUCTION LANDSCAPE INSPECTOR

2. THE AOT LANDSCAPE ARCHITECT OR CONSTRUCTION LANDSCAPE INSPECTOR SHALL BE ON SITE TO CONFIRM PLANT SPECIES AND HEALTH, APPROVE PLANT LAYOUT, AND OBSERVE INSTALLATION. NOTIFY THE AOT LANDSCAPE ARCHITECT OR CONSTRUCTION LANDSCAPE INSPECTOR AT LEAST 7 CALENDAR DAYS PRIOR TO INSTALLATION. FAILURE TO INCLUDE THE AOT LANDSCAPE ARCHITECT OR CONSTRUCTION LANDSCAPE INSPECTOR MAY RESULT IN THE REJECTION OF PLANT MATERIAL AFTER INSTALLATION. NOTE: THE ENGINEER MAY EXERCISE THEIR AUTHORITY TO SUSPEND PLANT INSTALLATION UNTIL THE AOT LANDSCAPE ARCHITECT OR CONSTRUCTION LANDSCAPE INSPECTOR IS PRESENT, PER SUBSECTION 105.01(B).

3. SEEDED AREAS SHALL BE PROTECTED IN ACCORDANCE WITH SPECIFICATION SUBSECTION 651.07 PROTECTION.WHERE WETLANDS OR WETLAND BUFFERS ARE PRESENT, STRAW MULCH SHALL BE USED INSTEAD OF HAY MULCH.

4. IF AREAS WITHIN PDF OR BARRIER FENCE ARE NOT DISTURBED, THEY SHOULD REMAIN VEGETATED, AND ADDITIONAL REVEGETATION IS NOT REQUIRED.

5. PROVIDING SUFFICIENT MOISTURE IS CRITICAL DURING THE ENTIRE PLANT ESTABLISHMENT PERIOD. WATERING TO BE PAID FOR UNDER 656.6500 LANDSCAPE WATERING.

6. FOR WETLAND AREAS RECEIVING WET AREA SEED, NO TOPSOIL OR GRUBBINGS SHALL BE ADDED. SCARIFY SOIL SURFACE TO LOOSEN SOIL FOR BETTER SEED-SOIL CONTACT. FOR TREES AND SHRUBS IN WETLAND AREAS, LANDSCAPE BACKFILL SHALL BE USED PER VTRANS STANDARD E-1 TREE PLANTING AND E-2 SHRUB PLANTING.

7. IN AREAS RECEIVING PLANTINGS ON STONE FILL, THE CONTRACTOR SHALL VERIFY THAT THE GRUBBING LAYER, AFTER PLACEMENT, STILL MEETS THE SPECIFIED DEPTH AND HAS NOT DISAPPEARED INTO GAPS. TOP LAYER OF STONE FILL MAY BE BROKEN DOWN INTO SMALLER PIECES TO PREVENT SOIL LOSS AS DIRECTED BY THE ENGINEER.

8. RIPARIAN TREES SHALL NOT BE PLANTED WITHIN 15' OF OVERHEAD POWER LINES.

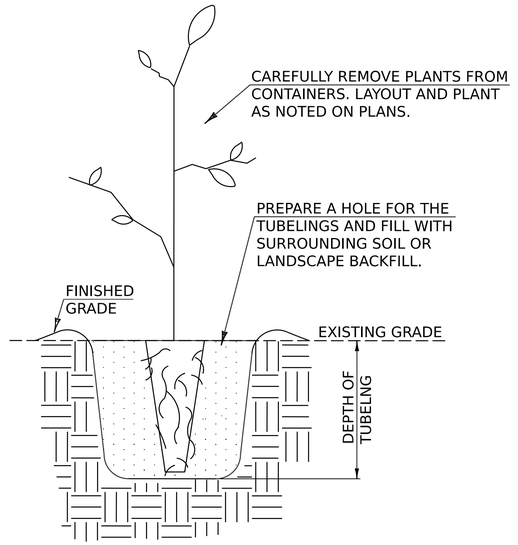
WET AREA SEED (WETLAND)

WET AREA SEED (WETLAND) TO BE PAID FOR UNDER 651.1600 SPECIALTY SEED. APPLICATION RATES VARY BY SEED MIX. WET AREA SEED TO BE ONE OF THE FOLLOWING, OR APPROVED EQUAL:

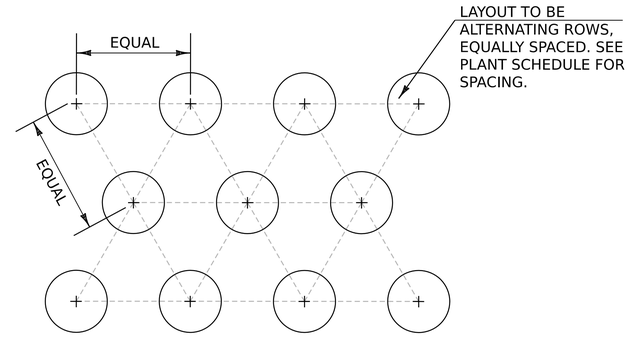
- VERMONT WET MEADOW & DETENTION BASIN MIX
  SUPPLIER: VERMONT WETLAND PLANT SUPPLY. APPLICATION RATE: 35 LBS/ACRE.

- NEW ENGLAND WET MIX (WETLAND SEED MIX)
  SUPPLIER: NEW ENGLAND WETLAND PLANTS, INC. APPLICATION RATE: 18 LBS/ACRE.

- PA NEW ENGLAND PROVINCE FACW MIX
  SUPPLIER: ERNST CONSERVATION SEEDS, INC. APPLICATION RATE: 20 LBS/ACRE WITH A COVER CROP (GRAIN RYE (1 SEP TO 30 APR; 30 LBS/ACRE). JAPANESE MILLET OR BARNYARD GRASS (1 MAY TO 31 AUG; 10 LBS/ACRE)).

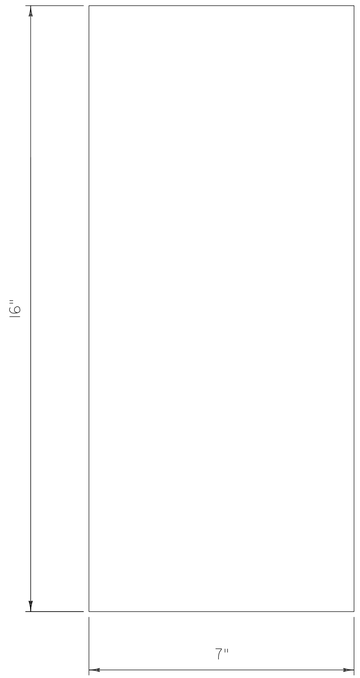


TUBELING PLANTING DETAIL

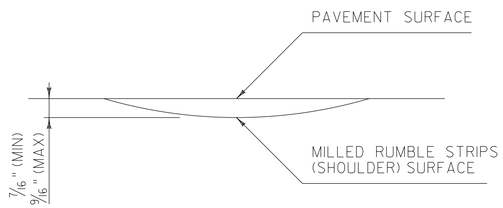


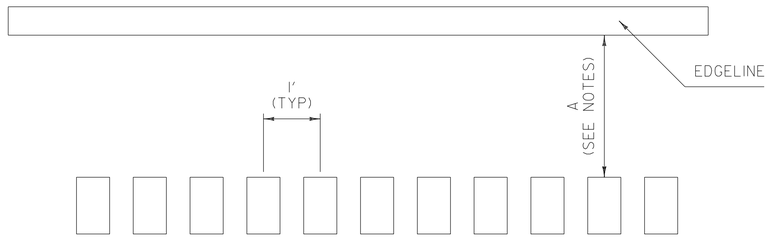
PLANT LAYOUT DETAIL

PROJECT NAME:	FAIRLEE		
PROJECT NUMBER:	IM 091-2(91)		
FILE NAME:	w21a024bdr_lds.dgn	PLOT DATE:	13-MAR-2026
PROJECT LEADER:	A. GOUDREAU	DRAWN BY:	B. DONAHUE
DESIGNED BY:	B. DONAHUE	CHECKED BY:	A. GOUDREAU
LANDSCAPE SHEET 5		SHEET	161 OF 161



RUMBLE STRIP DETAIL

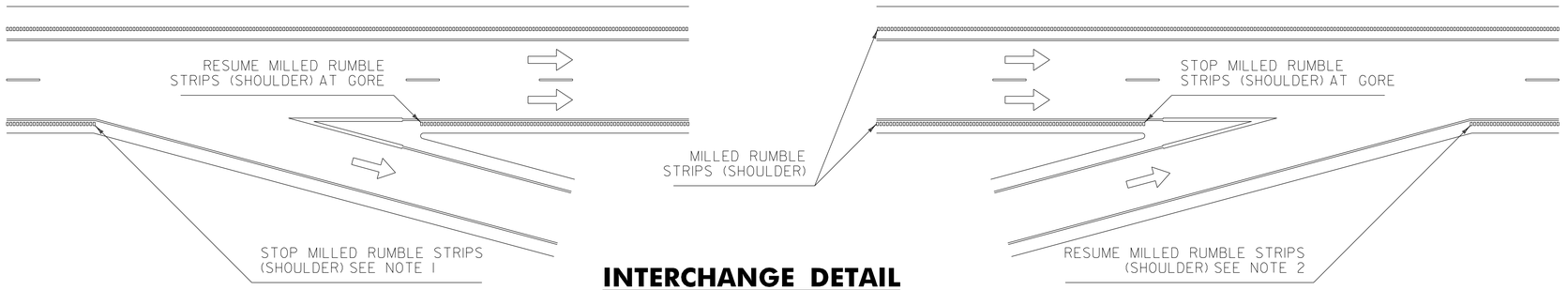




RUMBLE STRIP LAYOUT DETAIL

NOTES:

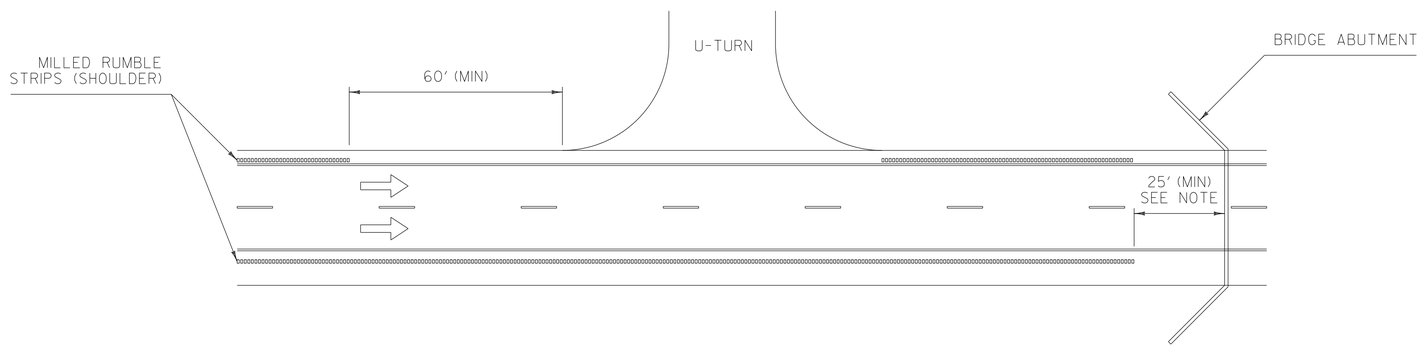
1. DIMENSION "A" SHALL BE 30 INCHES FOR SHOULDERS WITH A WIDTH OF SIX FEET OR GREATER.
2. DIMENSION "A" SHALL BE SIX INCHES FOR SHOULDERS WITH A WIDTH OF LESS THAN SIX FEET, WITHOUT GUARDRAIL.
3. MILLED RUMBLE STRIPS (SHOULDER) SHALL BE INSTALLED WITH A LATERAL TOLERANCE OF +/- TWO INCHES.
4. MILLED RUMBLE STRIPS (SHOULDER) SHALL BE STOPPED WHEN THE FACE OF GUARDRAIL IS PRESENT WITHIN FOUR FEET OF THE EDGE OF TRAVELLED WAY.



INTERCHANGE DETAIL

NOTES:

1. DETAIL IS SHOWN FOR A TAPERED DECELERATION LANE, FOR PARALLEL DECELERATION LANES MILLED RUMBLE STRIPS (SHOULDER) SHALL STOP AT THE BEGINNING OF THE DECELERATION LANE TAPER.
2. DETAIL IS SHOWN FOR A TAPERED ACCELERATOIN LANE, FOR PARALLEL ACCELERATION LANES MILLED RUMBLE STRIPS (SHOULDER) SHALL STOP AT THE END OF THE ACCELERATION LANE TAPER.



NOTE:

1. MILLED RUMBLE STRIPS (SHOULDER) SHALL STOP A MINIMUM OF 25 FEET PRIOR TO BRIDGE ABUTMENT AND RESUME A MINIMUM OF 25 FEET AFTER THE TRAILING ABUTMENT. THIS DISTANCE MAY BE INCREASED TO MEET THE REQUIREMENTS OF THE RUMBLE STRIP LAYOUT DETAIL NOTE 4 ON THIS SHEET. MILLED RUMBLE STRIPS (SHOULDER) SHALL ALSO STOP PRIOR TO AND RESUME AFTER ALL APPROACH SLABS.

MISCELLANEOUS DETAILS

REV.	DATE	DESCRIPTION
0	NOV. 3, 2015	ORIGINAL APPROVAL
1	FEB. 4, 2016	ADDED LATERAL TOLERANCE NOTE
2	FEB. 27, 2017	UPDATED LATERAL TOLERANCE NOTE

OTHER DETAILS REQUIRED: NONE

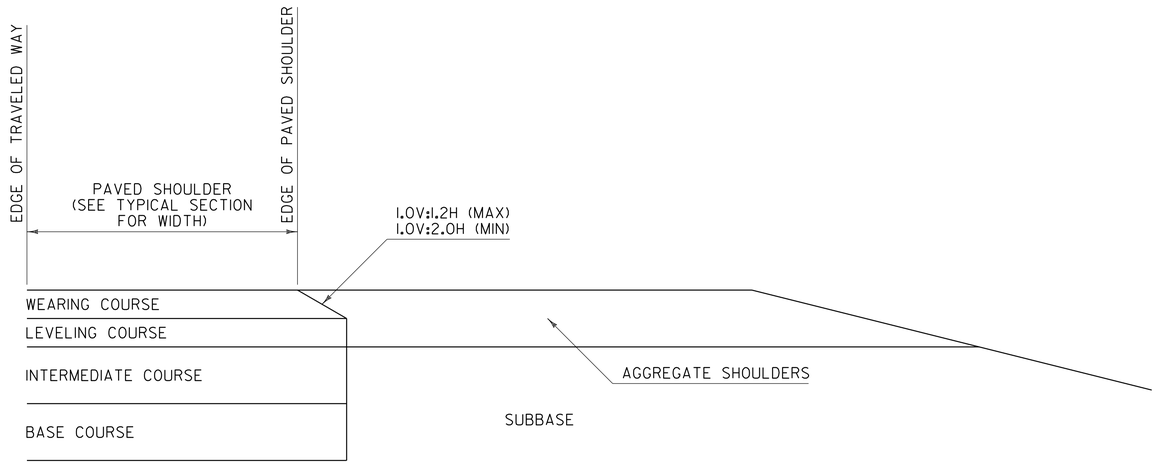
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MILLED RUMBLE STRIPS (SHOULDER)

VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

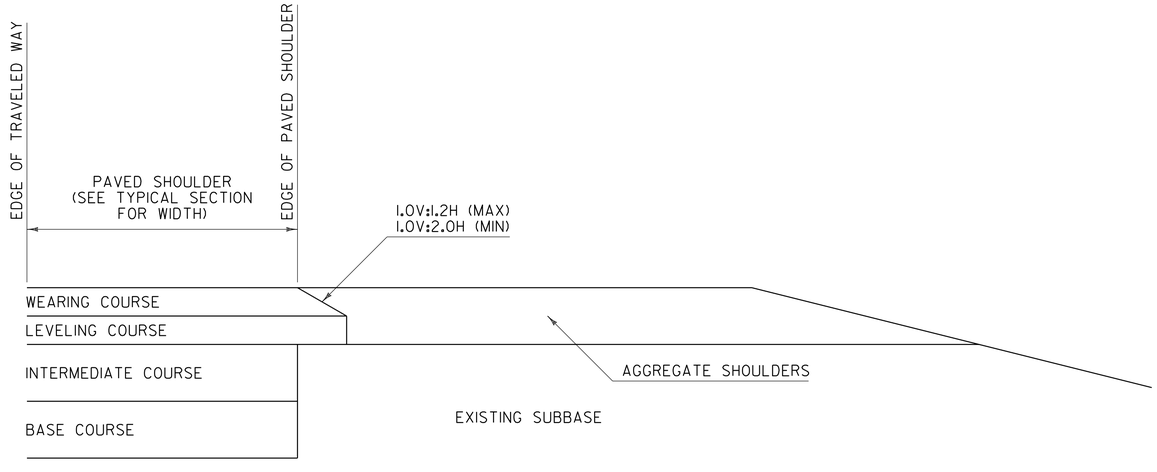
HSD-213.01



SAFETY EDGE DETAIL
FOR PAVING BELOW WEARING COURSE

NOTES:

1. THIS DETAIL IS INTENDED FOR WHEN PAVING EXTENDS BELOW THE WEARING COURSE.
2. PRIOR TO PLACEMENT OF THE LEVELING AND/OR WEARING COURSE, THE SUBBASE LOCATED BENEATH THE AGGREGATE SHOULDERS SHALL BE PREPARED FLUSH WITH THE BOTTOM OF THE LEVELING COURSE.
3. BASE COURSE LIMITS MAY VARY, SEE TYPICAL SECTIONS FOR WIDTH.



SAFETY EDGE DETAIL
FOR PAVING WEARING COURSE ONLY

NOTES:

1. THIS DETAIL IS INTENDED FOR WHEN ONLY THE LEVELING AND/OR WEARING COURSE IS TO BE PLACED.
2. PAVEMENT COURSES MAY VARY, SEE TYPICAL SECTIONS FOR ACTUAL PAVEMENT COURSES REQUIRED.

SAFETY EDGE WIDTH BASED ON WEARING COURSE THICKNESS AND A 1V:1.6H SLOPE	
WEARING COURSE THICKNESS (INCHES)	NOMINAL SAFETY EDGE WIDTH (INCHES)
1.25	2.000
1.50	2.375
1.75	2.750
2.00	3.125
2.25	3.500
2.50	4.000

GENERAL NOTES:

1. PLACEMENT OF THE WEARING COURSE SHALL INCLUDE THE SAFETY EDGE, UNLESS THE FOLLOWING APPLIES:
   - A. THE ADJACENT SLOPE IS STEEPER THAN THE SAFETY EDGE.
   - B. THE EDGE OF PAVEMENT BEING PLACED ABUTS BOUND MATERIAL.
   - C. VEHICLES ARE RESTRICTED FROM LEAVING THE PAVED SURFACE (EXAMPLE: GUARDRAIL).
2. THE SAFETY EDGE SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE SLOPE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.
3. THE SAFETY EDGE SHALL NOT BE CONSIDERED PART OF THE PAVED SHOULDER.
4. THIS WORK SHALL BE INCIDENTAL TO THE RESPECTIVE BITUMINOUS CONCRETE PAVEMENT ITEM.

REV.	DATE	DESCRIPTION
0	MAR. 29, 2016	ORIGINAL APPROVAL
1	JAN. 5, 2018	ANNOTATION CORRECTIONS

OTHER DETAILS REQUIRED: NONE

DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

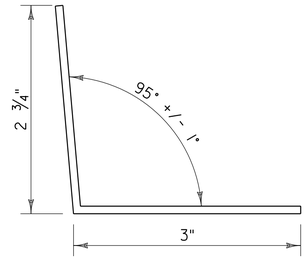
SAFETY EDGE DETAILS

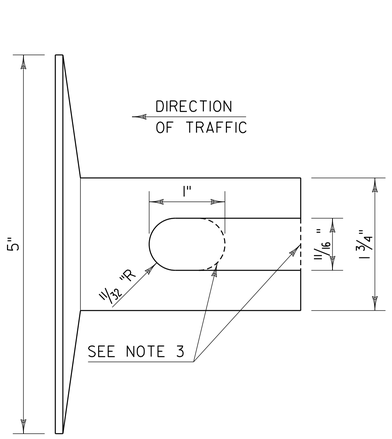
VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

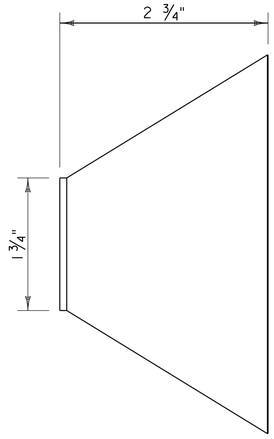
HIGHWAY SAFETY & DESIGN DETAIL

HSD-400.01

GUARDRAIL DELINEATOR DETAIL







NOTES:

1. GUARDRAIL DELINEATOR BASE MATERIAL SHALL BE 0.10 INCH THICK ALUMINUM IN ACCORDANCE WITH SUBSECTION 728.04 DELINEATION DEVICES.
2. GUARDRAIL DELINEATORS SHALL HAVE WHITE RETROREFLECTIVE SHEETING, EQUAL TO OR EXCEEDING TYPE III IN ACCORDANCE WITH SUBSECTION 750.08(B)(3) ON THE RIGHT SIDE OF THE TRAVELED WAY AND YELLOW RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING TYPE VII IN ACCORDANCE WITH SUBSECTION 750.08(B)(7) ON THE LEFT SIDE OF THE TRAVELED WAY IN RESPECT TO APPROACHING TRAFFIC. ON ONE DIRECTIONAL ROADWAYS RETROREFLECTIVE SHEETING MAY BE OMITTED ON FACES WHERE THERE WILL BE NO APPROACHING TRAFFIC.
3. HOLE MAY BE USED IN PLACE OF SLOT.

GUARDRAIL TERMINAL LABEL DETAIL



NOTES:

1. LINE ONE SHALL INDICATE THE INSTALLATION YEAR (YYYY).
2. LINE TWO SHALL INDICATE THE MODEL AS IDENTIFIED ON THE APPROVED PRODUCTS LIST. FOR GENERIC INSTALLATIONS THE STANDARD DRAWING DESIGNATION OR NAME AS IDENTIFIED IN THE FHWA ELIGIBILITY LETTER SHALL BE USED.
3. LINE THREE SHALL SHALL INDICATE ADDITIONAL MODEL INFORMATION IF NECESSARY.
4. LINE FOUR SHALL INDICATE FLARED (FLRD) OR TANGENT (TANG).
5. LEGEND SHALL BE SIZE 3/4 INCH ARIEL FONT.
6. LEGEND SHALL BE BLACK ON A WHITE BACKGROUND, LEGEND AND BACKGROUND SHALL NOT BE REFLECTIVE.
7. SUITABLE MATERIAL SHALL BE USED SO AS TO NOT DETERIORATE DURING EXPOSURE TO WEATHER.
8. LABELS SHALL BE APPLIED IN SUCH A WAY THAT THEY REMAIN INTACT DURING THE LIFE OF THE TERMINAL.
9. FOR W-BEAM GUARDRAIL, LABEL SHALL BE PLACED ON THE TOP OF POST ONE FACING AWAY FROM TRAFFIC.
10. FOR BOX BEAM GUARDRAIL, LABEL SHALL BE PLACED ON THE BOX BEAM ADJACENT TO POST ONE FACING AWAY FROM TRAFFIC.
11. PAYMENT SHALL BE INCIDENTAL TO OTHER TRAFFIC BARRIER ITEMS.

REV.	DATE	DESCRIPTION
0	NOV. 3, 2015	ORIGINAL APPROVAL
1	FEB. 27, 2017	UPDATED NAME, MINOR CORRECTIONS AND ADDED GUARDRAIL DELINEATOR DETAIL

OTHER DETAILS REQUIRED: NONE

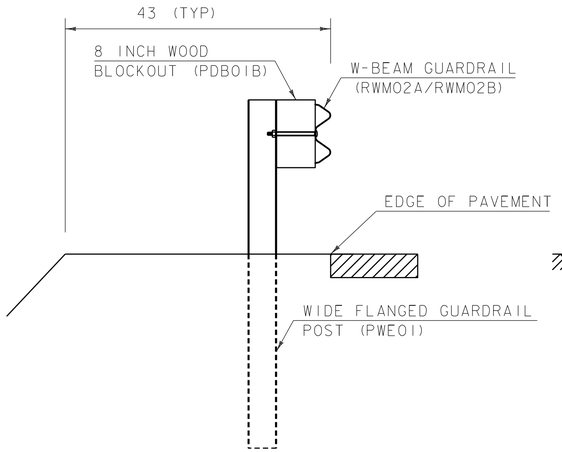
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MISCELLANEOUS GUARDRAIL DETAILS

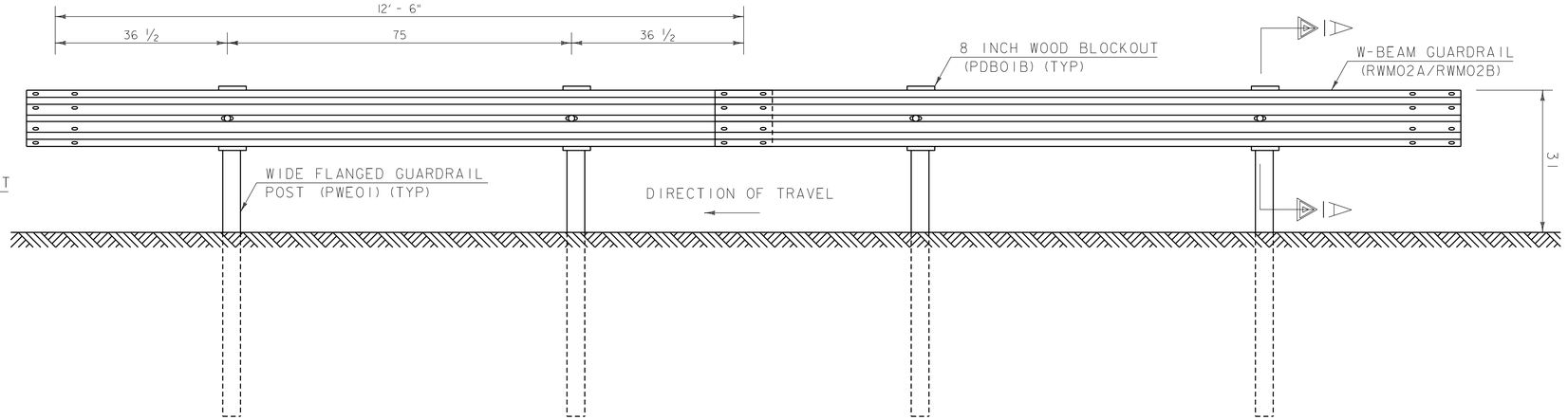
VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

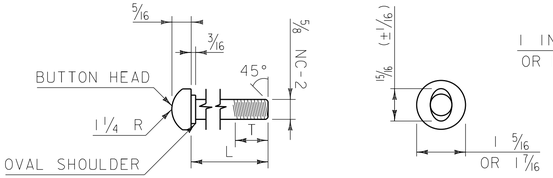
HSD-621.06



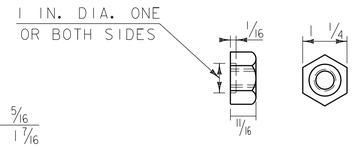
TYPICAL GUARDRAIL DETAIL
SECTION A-A



GUARDRAIL ELEVATION

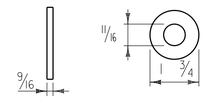


GUARDRAIL BOLT



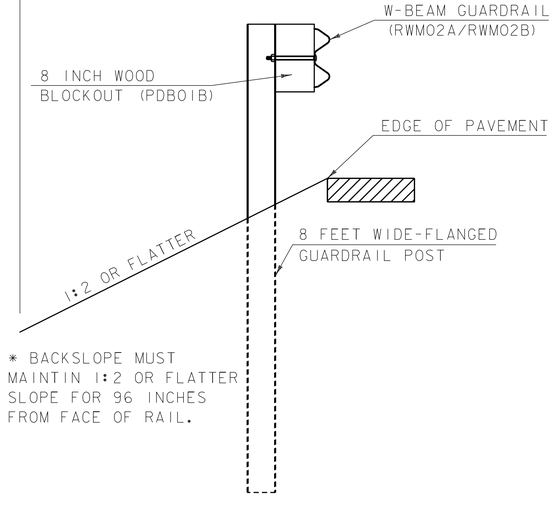
RECESSED NUT FOR GUARDRAIL BOLT

NOTE: WASHER IS USED UNDER RECESSED NUT WHERE GUARDRAIL BOLT IS USED WITH WOOD POSTS.

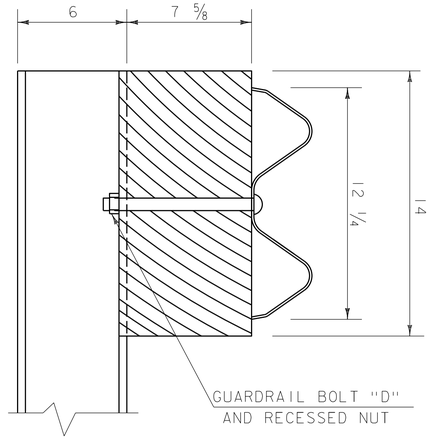


WASHER FOR 5/8" BOLTS
ARTBA F-13-73

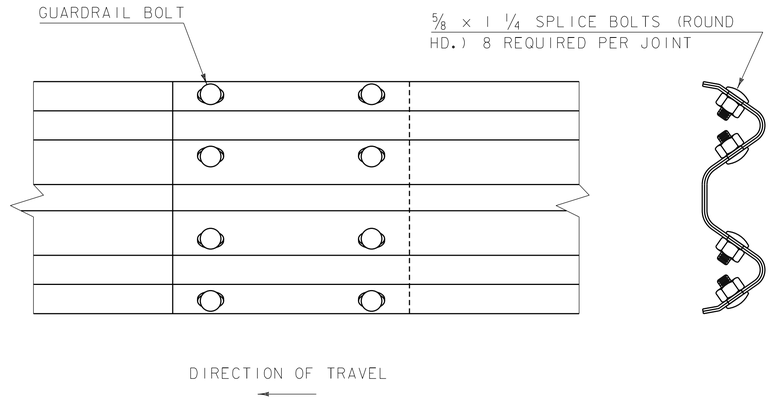
GUARDRAIL BOLTS				FASTENER USED IN	
BOLT DES.	ARTBA REF. NO.	L	T (MIN.)	STEEL POSTS	WOOD POSTS
"A"	F-3[1 1/4]-76	1 1/4"	1"	X	X
"C"	F-3[9 1/2]-76	9 1/2"	1 3/4"	X	
"D"	F-3[18]-76	18"	2 1/2"		X
"F"	F-3[25]-76	25"	2"		X



8 FEET POSTS GUARDRAIL DETAIL
SECTION A-A



POST ATTATCHMENT DETAIL



SPLICE DETAIL

GENERAL NOTES

1. DESIGNATIONS ARE AS IDENTIFIED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" AS PUBLISHED BY THE "AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS" (AASHTO), "ASSOCIATED GENERAL CONTRACTORS OF AMERICA" (AGC) AND THE "AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION" (ARTBA).
2. MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 728 OF THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AS APPLICABLE.
3. WHEN W-BEAM GUARDRAIL, 8 FEET POSTS IS SPECIFIED ON THE PLANS, WIDE FLANGED GUARDRAIL POST (PWE01) SHALL BE INCREASED FROM 72 INCHES TO 96 INCHES, SEE DETAIL HSD-621.07B.
4. THE DYNAMIC DEFLECTION DISTANCE OF 57 INCHES FOR W BEAM GUARDRAIL SHALL BE MAINTAINED CLEAR OF OBSTACLES, TO BE MEASURED FROM THE BACK OF POST.
5. FOR TEST LEVEL 3 APPLICATIONS, AS APPROVED IN THE FEDERAL HIGHWAY ADMINISTRATION'S ELIGIBILITY LETTER, HSST/B-240, DATED NOVEMBER 8, 2012.
6. ALL DIMENSION IN INCHES, UNLESS OTHERWISE NOTED.

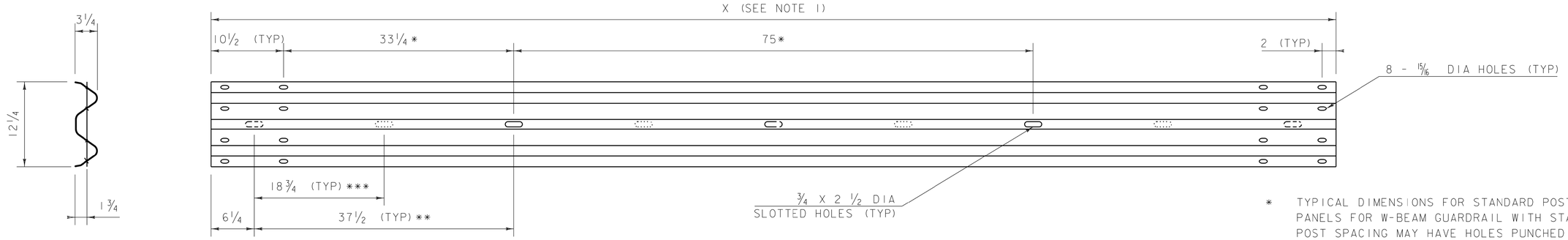
REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
1	JAN. 4, 2021	CORRECTED REFERENCE IN NOTE 3

OTHER DETAILS REQUIRED: 621.07B
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MIDWEST GUARDRAIL SYSTEM (MGS)

VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL
HSD-621.07A



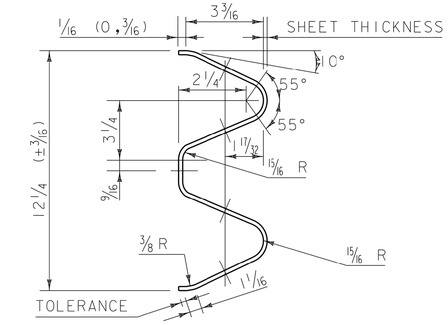
1. TANGENT W-BEAM RAIL LENGTHS SHALL BE 13'-6 1/2" OR 26'-1/2", UNLESS OTHERWISE SPECIFIED.
2. W-BEAM THICKNESS SHALL BE 1/8" FOR STANDARD W-BEAM GUARDRAIL (RWM02A) AND 5/64" FOR HEAVY DUTY GUARDRAIL (RWM02B).

* TYPICAL DIMENSIONS FOR STANDARD POST SPACING. PANELS FOR W-BEAM GUARDRAIL WITH STANDARD POST SPACING MAY HAVE HOLES PUNCHED AT ONE-HALF POST SPACING FOR INVENTORY PURPOSES.
** TYPICAL DIMENSION FOR ONE-HALF POST SPACING.
*** TYPICAL DIMENSION FOR ONE-QUARTER POST SPACING.

W-BEAM GUARDRAIL (RWM02A/ RWM02B)

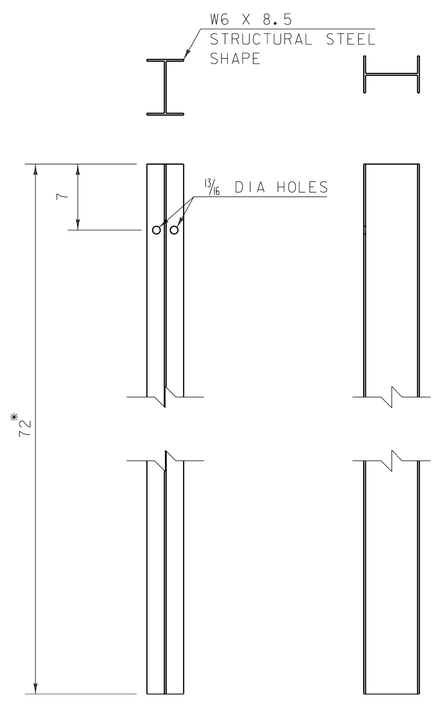
NOTES:

1. BLOCKS SHALL BE MADE OF TIMBER WITH A STRESS GRADE OF 1200 PSI OR MORE. TESTING SHALL BE IN ACCORDANCE WITH WEST COAST LUMBER INSPECTION BUREAU, SOUTHERN PINE INSPECTION BUREAU OR OTHER APPROPRIATE ASSOCIATION. TIMBER FOR BLOCKS SHALL BE ROUGH SAWN (UNPLANED) WITH DIMENSIONS INDICATED. THE SIZE TOLERANCE OF ROUGH SAWN BLOCKS IN THE DIRECTION OF THE BOLT HOLES SHALL BE NOT MORE THAN +/- 1/4".
2. SUPPLY WOOD BLOCKS PER AASHTO M 168.
3. TREAT WITH PRESERVATIVE PER AASHTO M 133.
4. BLOCKOUTS MAY ALSO BE MADE OF APPROVED ALTERNATIVE MATERIAL.



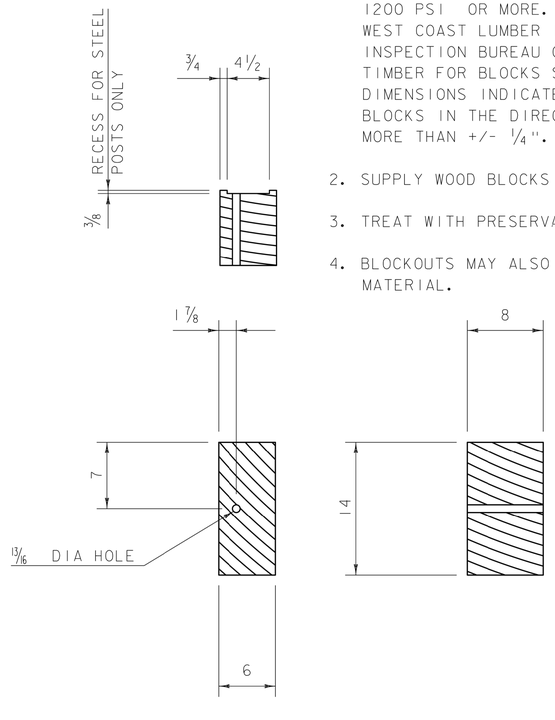
ARTBA RE-3(2@6'-3"=12'-6" CLASS A, TYPE 1)-73

TYPICAL GUARDRAIL SECTION



WIDE FLANGED GUARDRAIL POST (PWE01)

* POST LENGTH SHALL BE INCREASED TO 96 INCHES WHEN W BEAM GUARDRAIL, 8 FEET POSTS IS SPECIFIED.



8 INCH WOOD BLOCKOUT (PDB01B)

GENERAL NOTES

1. DESIGNATIONS ARE AS IDENTIFIED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE" AS PUBLISHED BY THE "AMERICAN ASSOCIATION OF STATE AND HIGHWAY TRANSPORTATION OFFICIALS" (AASHTO), "ASSOCIATED GENERAL CONTRACTORS OF AMERICA" (AGC) AND THE "AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION" (ARTBA).
2. MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 728 OF THE CURRENT STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AS APPLICABLE.
3. ALL DIMENSION IN INCHES, UNLESS OTHERWISE NOTED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: NONE

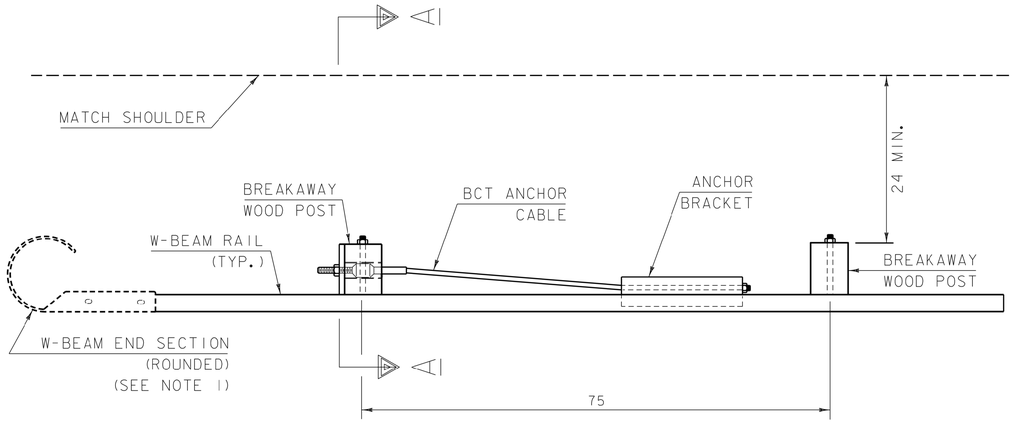
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

W-BEAM GUARDRAIL COMPONENTS

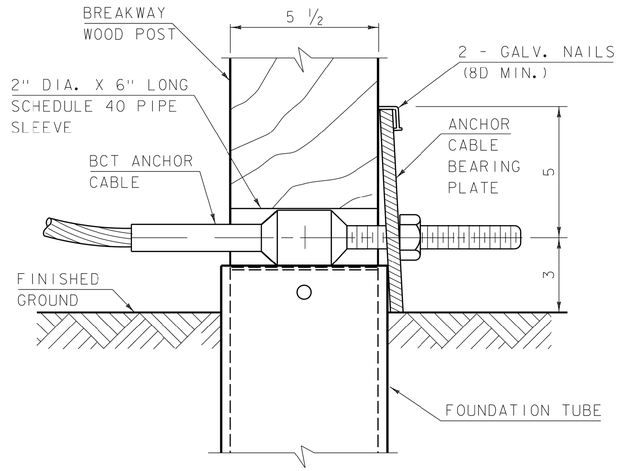
VTrans Working to Get You There — VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

HSD-621.07B

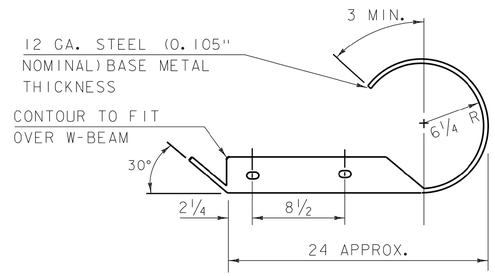


PLAN VIEW

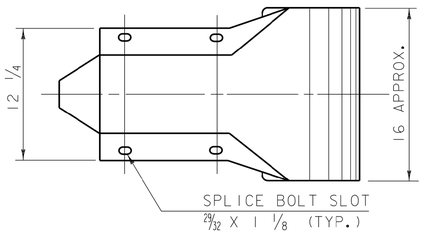


DETAIL A

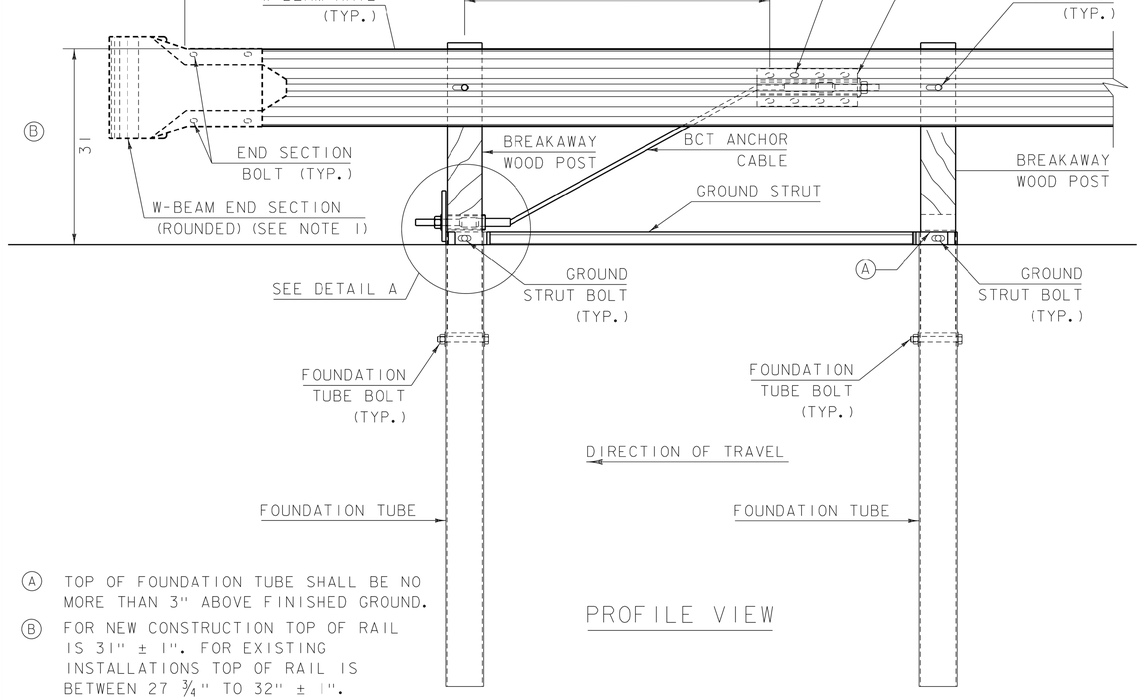
POST NO. 1
GROUND STRUT NOT SHOWN FOR CLARITY.



PLAN VIEW



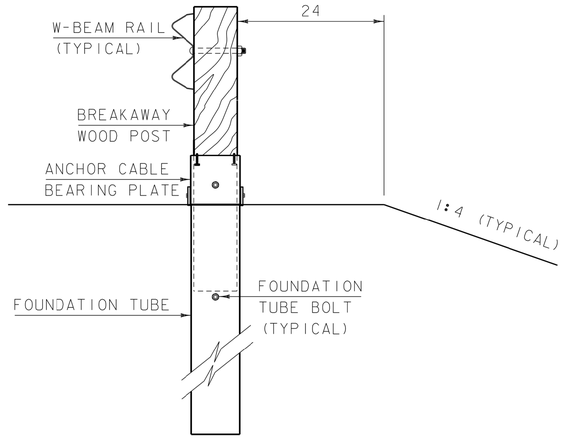
PROFILE VIEW
W-BEAM END SECTION (ROUNDED)



Ⓐ TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

Ⓑ FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1". FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27 ¾" TO 32" ± 1".

PROFILE VIEW



SECTION A-A

GENERAL NOTES

1. WHEN AN ANCHOR IS USED IN THE MIDDLE OF A GUARDRAIL RUN A STANDARD W-BEAM MID-SPLICE CONNECTION SHALL BE UTILIZED.
2. END SECTION SHALL ONLY BE INSTALLED AS TRAILING END ON ONE-WAY TRAFFIC ROADS.
3. W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.
4. END SECTION BOLTS AND NUTS HAVE THE SAME MATERIAL REQUIREMENTS AS SPLICE BOLTS.
5. FOUNDATION TUBE BOLTS ARE ⅞" DIAMETER ASTM A307 HEX HEAD BOLT. FOUNDATION TUBE BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅞" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.
6. ANCHOR BRACKET AND GROUND STRUT BOLTS ARE A ⅝" DIAMETER ASTM A307 HEX HEAD BOLT. ANCHOR BRACKET BOLTS REQUIRE ASTM A563 A NUT AND TWO ASTM F844 ⅝" DIAMETER FLAT WASHERS. INSTALL ONE WASHER UNDER BOLT HEAD AND ONE WASHER UNDER NUT.
7. W-BEAM END SECTION (ROUNDED) AND W-BEAM RAIL SHALL BE PAID FOR UNDER ITEM 621.20 STEEL BEAM GUARDRAIL GALVANIZED. ALL OTHER COMPONENTS SHALL BE PAID FOR UNDER ITEM 621.60 ANCHOR FOR STEEL BEAM RAIL.
8. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: HSD-621.07D, HSD-621.07E

DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR

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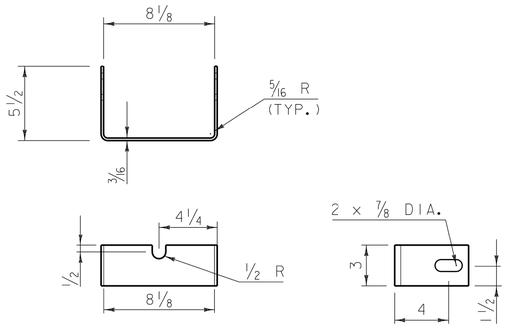
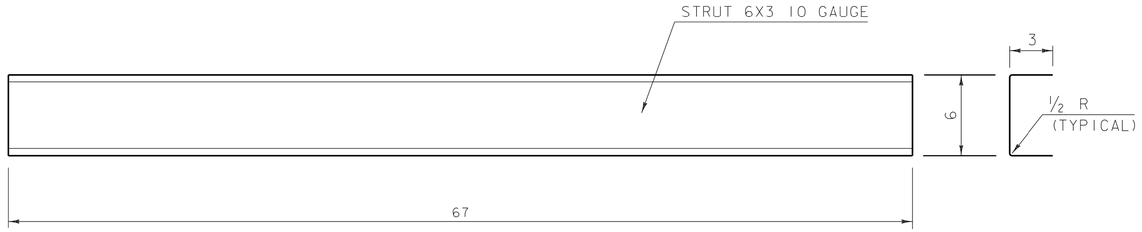
HIGHWAY SAFETY & DESIGN DETAIL

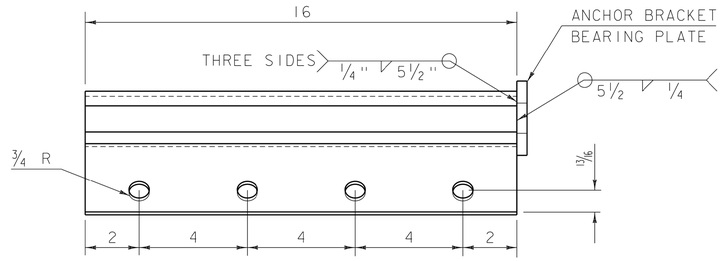
HSD-621.07C

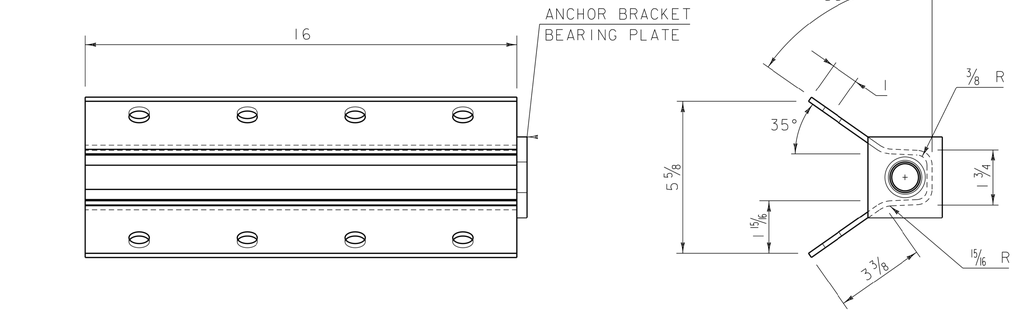


YOKE DETAIL

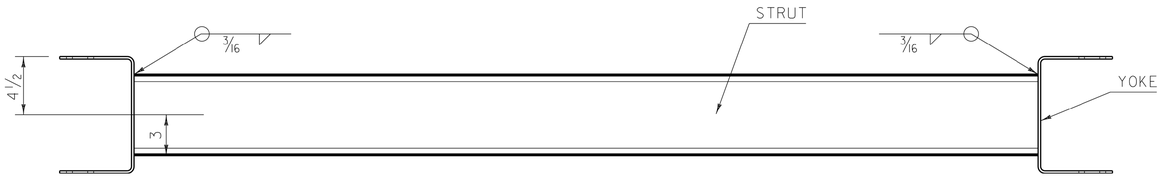


STRUT DETAIL

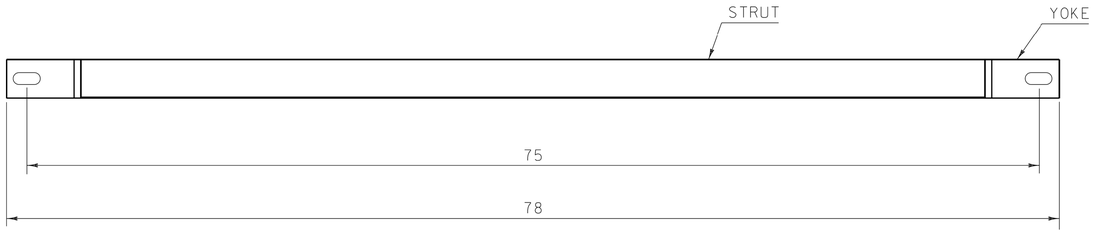




ANCHOR BRACKET

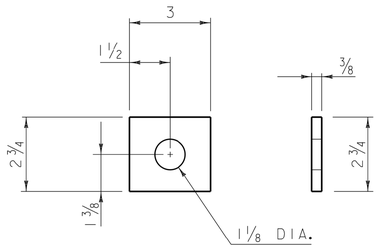


PLAN VIEW



PROFILE VIEW

GROUND STRUT DETAIL



ANCHOR BRACKET
BEARING PLATE

GENERAL NOTES

1. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: HSD-621.07C, HSD-621.07E

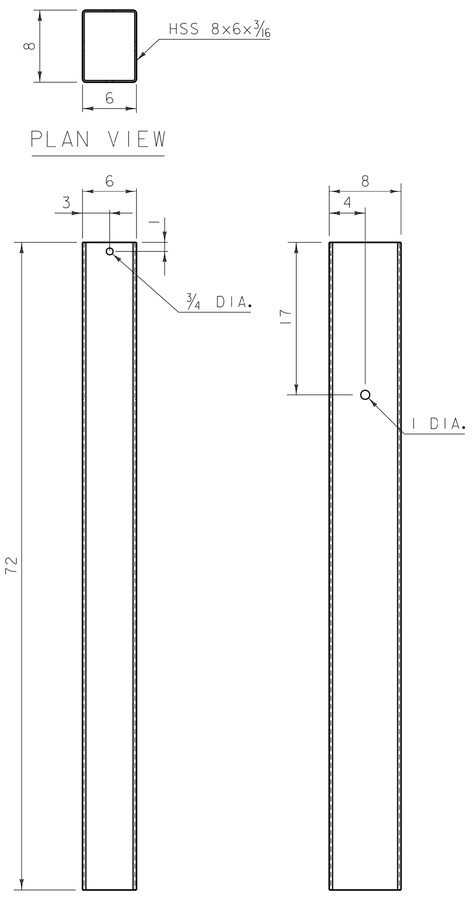
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS

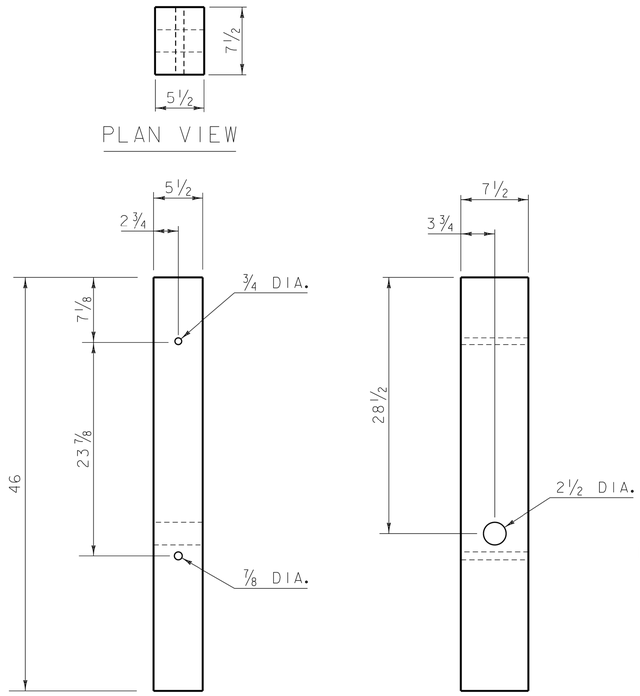
VTrans Working to Get You There VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

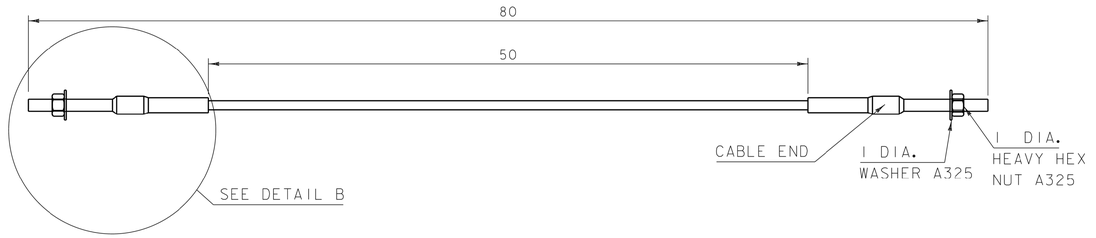
HSD-621.07D



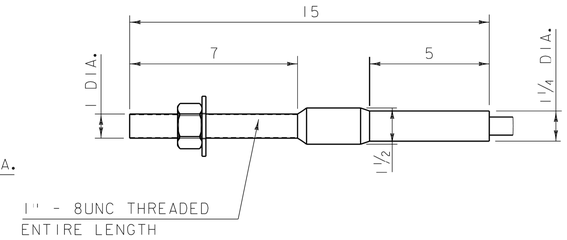
FOUNDATION TUBE



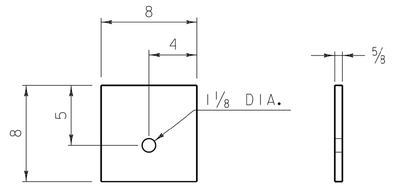
BREAKAWAY WOOD POST



BCT ANCHOR CABLE



DETAIL B



ANCHOR CABLE
BEARING PLATE

GENERAL NOTES

1. BCT ANCHOR CABLE IS A 3/4" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED.
2. END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123.
3. TREADED STUD SHALL CONFORM TO ASTM A325 OR SAE GRADE 5.
4. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB.
5. WIRE ROPE IS TO BE TAUT.
6. ALL MEASUREMENTS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL

OTHER DETAILS REQUIRED: HSD-621.07C, HSD-621.07D

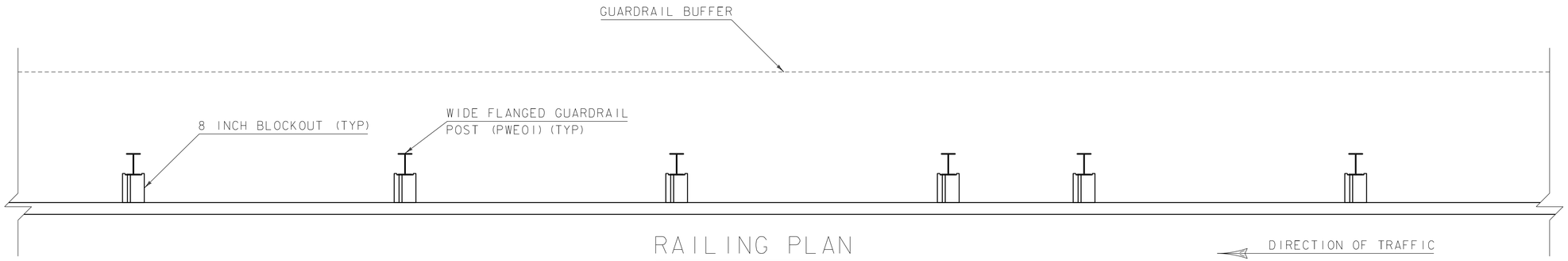
DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MIDWEST GUARDRAIL SYSTEM (MGS) ANCHOR COMPONENTS

VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

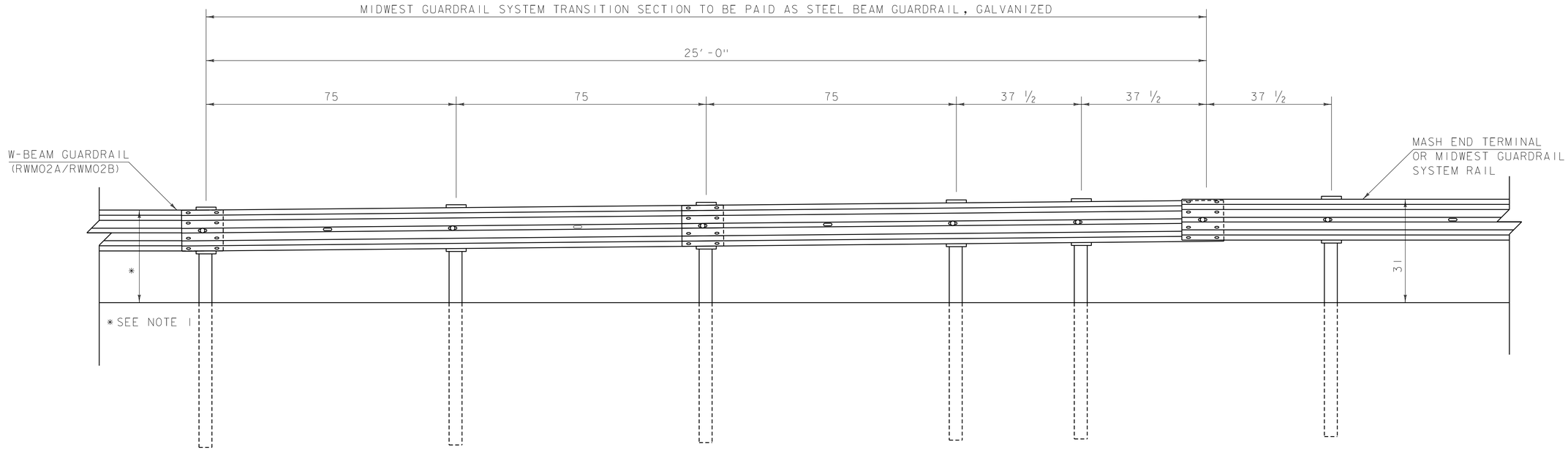
HIGHWAY SAFETY & DESIGN DETAIL

HSD-621.07E



RAILING PLAN

DIRECTION OF TRAFFIC



RAILING ELEVATION

GENERAL NOTES

1. THE HEIGHT OF RAIL AT THE END OF THIS TRANSITION SHALL MATCH THE DESIGN FOR THE APPLICABLE GUARDRAIL SYSTEM.
2. TRANSITIONS FROM 31 INCH HIGH MIDWEST GUARDRAIL SYSTEM TO OTHER RAIL SYSTEMS SHALL BE ACCOMPLISHED WITH 2 STANDARD 12½ FOOT SECTIONS OF W-BEAM RAIL.
3. POSTS, BLOCKOUTS AND SPLICES SHALL BE IN ACCORDANCE WITH DETAILS HSD-621.07A AND HSD-621.07B AND LOCATED AS SHOWN IN THE DETAILS ABOVE.
4. STANDARD 6 FOOT POSTS SHALL BE USED UNLESS OTHERWISE NOTED ON PLANS.
5. END TERMINAL SHALL BE A VTRANS APPROVED PRODUCT MEETING MASH TESTING CRITERIA. ANY TERMINAL USED SHALL BE FROM THE VTRANS APPROVED PRODUCTS LIST.
6. ALL MEASURMENTS ARE IN INCHES UNLESS OTHERWISE NOTED.

REV.	DATE	DESCRIPTION
--	APR. 17, 2019	ORIGINAL APPROVAL
1	JAN. 4, 2021	CORRECTED NOTE 3 REFERENCES

OTHER DETAILS REQUIRED: HSD-621.07A, HSD-621.07B

DETAILS APPROVED FOR USE BY HIGHWAY SAFETY & DESIGN

MIDWEST GUARDRAIL SYSTEM TRANSITION SECTION

VTrans Working to Get You There
VERMONT AGENCY OF TRANSPORTATION

HIGHWAY SAFETY & DESIGN DETAIL

HSD-621.07F