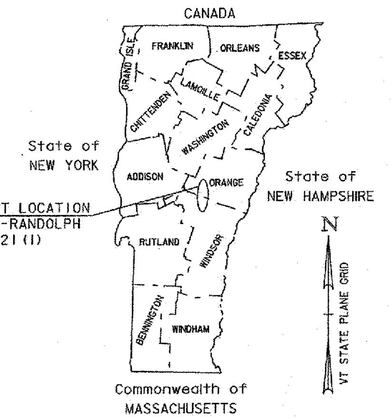
STATE OF VERMONT
AGENCY OF TRANSPORTATION





PROJECT LOCATION
BETHEL-RANDOLPH
STP 2921(I)

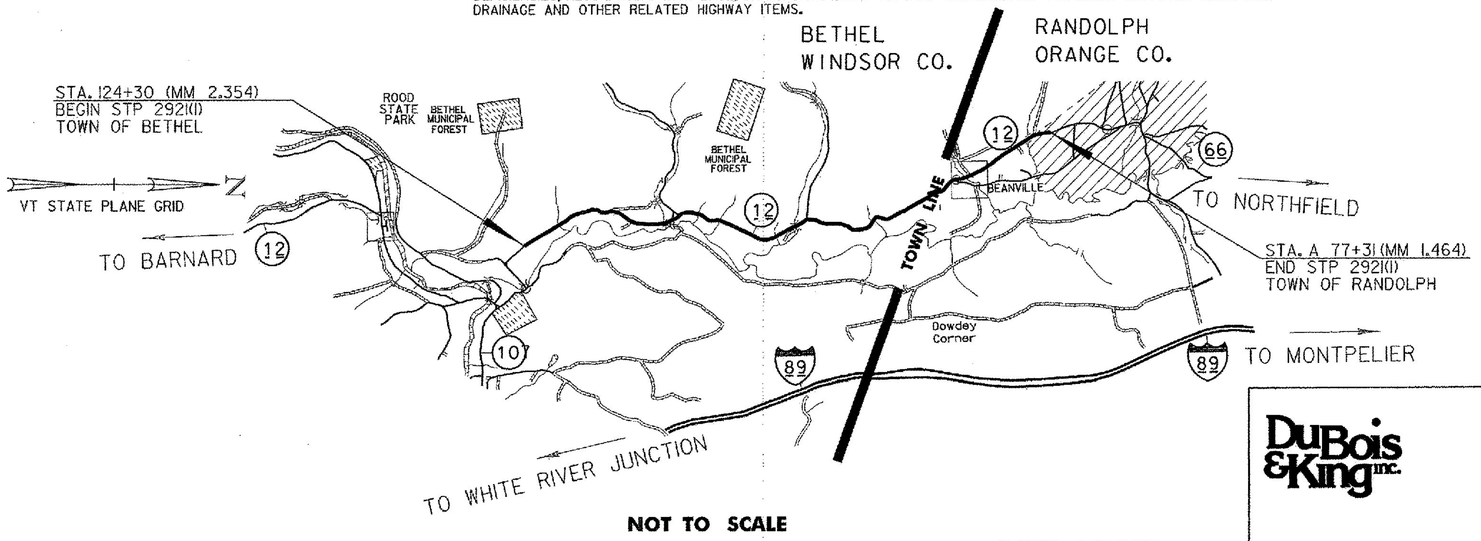
PROPOSED IMPROVEMENT

TOWNS OF BETHEL AND RANDOLPH
COUNTIES OF WINDSOR AND ORANGE
VT ROUTE 12 (MAJOR COLLECTOR)

BEGINNING AT A POINT, ON VT ROUTE 12, IN THE TOWN OF BETHEL, AT STA. 124+30.00= MM 2.354
AND EXTENDING NORTH ALONG VT ROUTE 12 FOR A DISTANCE OF APPROXIMATELY 32,342 FEET (6.125 MILES)
TO A POINT AT STA. A 77+31.00 = MM 1.464 IN THE TOWN OF RANDOLPH.

STATION TO STATION DATA	LENGTH (FEET)	(MILES)
TOWN OF BETHEL STA. 124+30.00 TO STA. 370+41.00 (MM 2.354 TO MM 7.015)	24611.00	4.661
TOWN OF RANDOLPH STA. A 0+00.00 TO STA. A 77+31.00 (MM 0.000 TO MM 1.464)	7731.00	1.464
TOTAL ROADWAY LENGTH =	32342.00	6.125
TOTAL PROJECT LENGTH =	32342.00	6.125

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING, RECLAIMING, CORRECTING SUPERELEVATION DEFICIENCIES, RESURFACING WITH BASE, INTERMEDIATE, AND WEARING COURSES, NEW PAVEMENT MARKINGS, GUARDRAIL, DRAINAGE AND OTHER RELATED HIGHWAY ITEMS.



NOT TO SCALE

STATIONING PREFACE DESIGNATION:
NO DESIGNATION = BETHEL
A = RANDOLPH

RECORD PLANS

CONTRACTOR: PIKE INDUSTRIES, INC. – BERLIN, VT

RESIDENT ENGINEER: CHRIS BARKER

CONSTRUCTION BEGAN: AUGUST 24, 2015

CONSTRUCTION COMPLETE: AUGUST 25, 2016

RECORD PLANS BY: CHRIS BARKER & JESSE IVES

I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY _____ RESIDENT ENGINEER

DATE 03/14/17

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found by contacting Vtrans Records Management.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 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 3

SURVEYED BY : 2011

SURVEYED DATE :

DATUM
VERTICAL NAD 83 CORS
HORIZONTAL COMPASS

PLOTTED: 4/23/2015

DuBois & King inc.

DIRECTOR OF PROJECT DELIVERY
APPROVED _____ DATE 4/27/2015

PROJECT MANAGER : JONATHAN HARRINGTON, P.E.

PROJECT NAME : BETHEL-RANDOLPH
PROJECT NUMBER : STP 2921(I)

SHEET 1 OF 211 SHEETS

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7-12	PROJECT TYPICAL SHEETS (1-6)
13-15B	QUANTITY SHEETS (1-4)
16-19	ITEM DETAIL SHEETS (1-4)
20-21	GUARDRAIL DETAIL SHEETS (1-2)
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25	UNDERDRAIN DETAIL SHEET
26	DITCH CLEANING DETAIL SHEET
27-85	PLAN SHEETS (1-59)
86-114	TRAFFIC SIGN SUMMARY SHEETS (1-29)
115	BLANK
116-117	TRAFFIC SIGN DETAIL SHEETS (1-2)
118	CENTERLINE RUMBLESTRIP DETAIL SHEET
119	BLANK
120-122	BANKING SHEETS (1-3)
123-125	HORIZONTAL ALIGNMENT TABLE SHEETS (1-3)
126-130	VERTICAL ALIGNMENT TABLE SHEETS (1-5)
131-132	BORING LOG SHEETS (1-2)
133-134	BLANK (1-2)
135-199	CROSS SECTION SHEETS (1-65)
200-206	CULVERT CROSS SECTION SHEETS (1-7)
207	TRAFFIC CONTROL NOTES
208	CONSTRUCTION APPROACH SIGNING SHEET
209-211	EPSC DETAIL SHEETS (1-3)

STRUCTURES DETAIL SHEET

SD-516.10 BRIDGE JOINT ASPHALTIC PLUG	05/07/10

VAOT STANDARDS

B-71	07/08/05
C-10	02/11/08
D-15	06/01/94
D-30	08/13/07
D-33	03/12/07
E-121	08/08/95
E-124	08/08/95
E-128A	08/08/95
E-128B	08/08/95
E-136B	08/08/95
E-136C	08/08/95
E-141	09/20/95
E-144	03/29/99
E-145A	12/23/94
E-150	05/01/04
E-151	05/01/04
E-154	05/01/04
E-193	08/18/95
G-1	02/10/94
G-1BM	06/13/97
G-1D	02/10/94
T-1	08/06/12
T-10	08/06/12
T-17	08/06/12
T-24	08/06/12
T-28	08/06/12
T-29	08/06/12
T-30	08/06/12
T-31	08/06/12
T-35	08/06/12
T-36	08/06/12
T-42	04/09/14
T-44	04/09/14
T-45	01/02/13
J-3	08/07/95

BITUMINOUS CONCRETE SUPERPAVE MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESAL	779,000
DESIGN NUMBER OF GYRATIONS	65
PERFORMANCE GRADED ASPHALT BINDER:	SEE SUBSECTION 490.03B

TRAFFIC DATA

HIGHWAY SECTION	AADT		DHV		%T		%D		CUM. ESALS	CUM. ESALS
	2015	2025	2015	2025	2015	2025	2015	2025	(2015-2025)	(2017-2035)
BEGIN PROJECT TO END PROJECT	4200	4300	470	480	6.5	7.8	53	53	808,000	1,753,000

POSTED SPEED	POSTED SPEED
STA. 124+05 - STA. 138+00	35 MPH
STA. 138+00 - STA. A 51+82	50 MPH
STA. A 51+82 - STA. A 77+56	40 MPH

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244idx.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
INDEX OF SHEETS

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 2 OF 211

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
	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
	I&M	INSTALL & MAINTAIN EASEMENT
	LAND	LANDSCAPE EASEMENT
	R&RES	REMOVE & RESET
	R&REP	REMOVE & REPLACE
	SR	SLOPE RIGHT
	UE	UTILITY EASEMENT
	(P)	PERMANENT EASEMENT
	(T)	TEMPORARY EASEMENT
■	BNDNS	BOUND SET
⊡	BNDNS	BOUND TO BE SET
●	IPNS	IRON PIN SET
◎	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	BENCH MARK
	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 VALUE
	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 RADUIS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE

UTILITY SYMBOLOGY

UNDERGROUND UTILITIES

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

ABOVE GROUND UTILITIES (AERIAL)

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

PROJECT CONSTRUCTION SYMBOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOGY

- CLEAR ZONE
- PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

- TOP OF CUT SLOPE
- TOE OF FILL SLOPE
- STONE FILL
- BOTTOM OF DITCH 'L'
- CULVERT PROPOSED
- STRUCTURE SUBSURFACE
- PROJECT DEMARCATION FENCE (PDF)
- BARRIER FENCE (BF)
- 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
- PROPERTY LINE (P/L)
- SR SR SR — SLOPE RIGHTS
- 6F — 6F PROPERTY BOUNDARY
- 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

ENVIRONMENTAL RESOURCES

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

ARCHEOLOGICAL & HISTORIC

- ARCHEOLOGICAL BOUNDARY
- HISTORIC DISTRICT BOUNDARY
- HISTORIC AREA
- (H) HISTORIC STRUCTURE

CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

EXISTING FEATURES

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

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c2441dx.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CONVENTIONAL SYMBOLOGY LEGEND SHEET	SHEET 3 OF 211

GPS CONTROL POINTS

HVCTRL #92

B01007

NORTH = 501884.171
EAST = 1601312.154
ELEV. = 775.674

HVCTRL #93

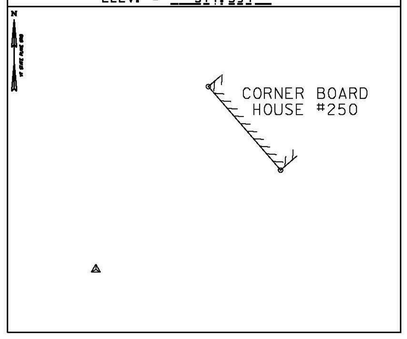
RAND 9

NORTH = 514934.710
EAST = 1596771.144
ELEV. = 822.027

TRAVERSE TIES

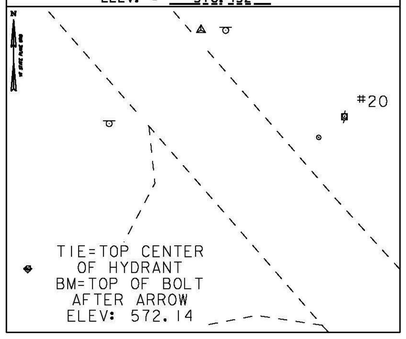
HVCTRL #1

NORTH = 485821.686
EAST = 1603066.721
ELEV. = 571.594



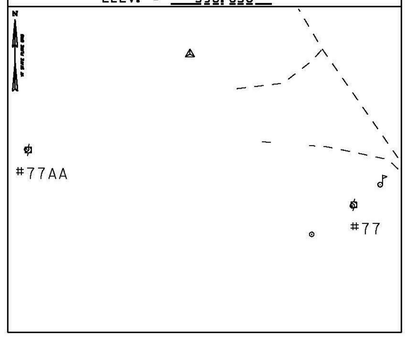
HVCTRL #2

NORTH = 487150.993
EAST = 1601900.497
ELEV. = 570.432



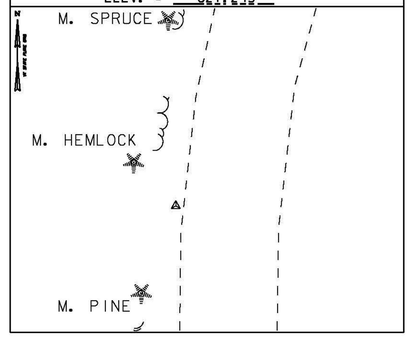
HVCTRL #3

NORTH = 488161.783
EAST = 1601041.352
ELEV. = 596.630



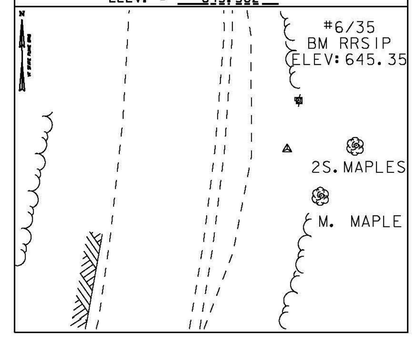
HVCTRL #4

NORTH = 489516.733
EAST = 1600834.017
ELEV. = 627.245



HVCTRL #5

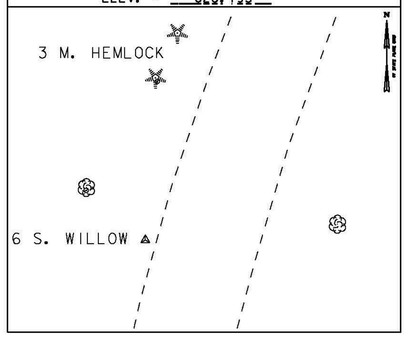
NORTH = 490130.013
EAST = 1601132.478
ELEV. = 643.582



TRAVERSE TIES

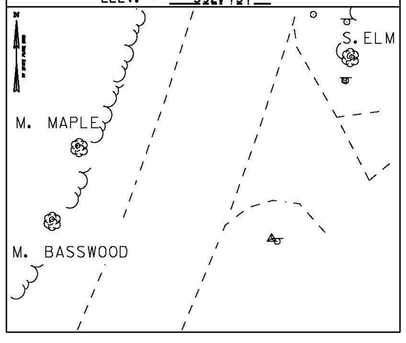
HVCTRL #6

NORTH = 490654.634
EAST = 1601070.130
ELEV. = 628.193



HVCTRL #7

NORTH = 491569.009
EAST = 1601578.449
ELEV. = 592.151



GPS CONTROL POINTS

HVCTRL #90

B01004

NORTH = 492740.238
EAST = 1601668.364
ELEV. = 578.191

DATUM

VERTICAL NAVD 88
HORIZONTAL NAD 83 CORS
ADJUSTMENT COMPASS

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tie.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TIE SHEET 1

PLOT DATE: 4/23/2015
DRAWN BY: R. BULLOCK
CHECKED BY: C. LATHROP
SHEET 4 OF 211

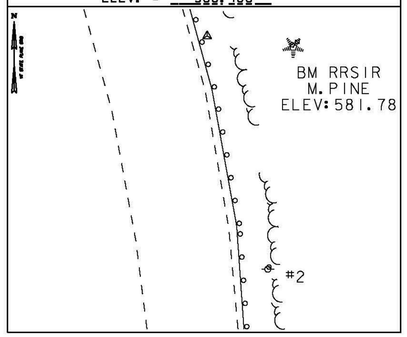
GPS CONTROL POINTS

HVCTRL #91
CAMP BROOK
NORTH = 493981.782
EAST = 1601243.685
ELEV. = 586.961

HVCTRL #10
CAMP BROOK AZ MK
NORTH = 496407.591
EAST = 1601365.627
ELEV. = 656.059

TRAVERSE TIES

HVCTRL #95
NORTH = 493620.178
EAST = 1601650.738
ELEV. = 588.486



HVCTRL #11
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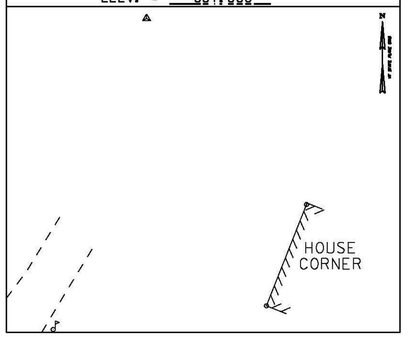
EAST = 1602495.078
ELEV. = 681.860



HVCTRL #12
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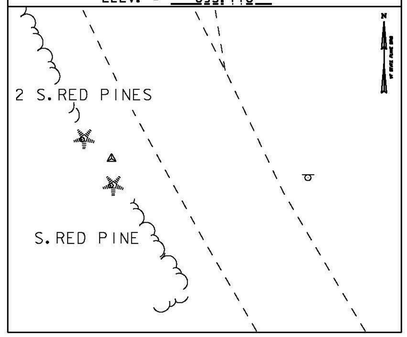
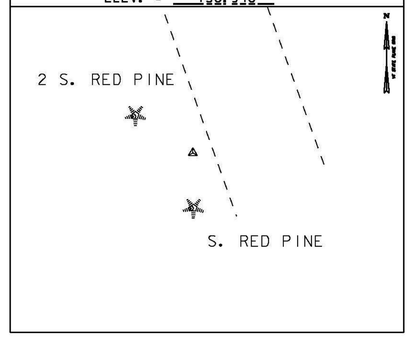
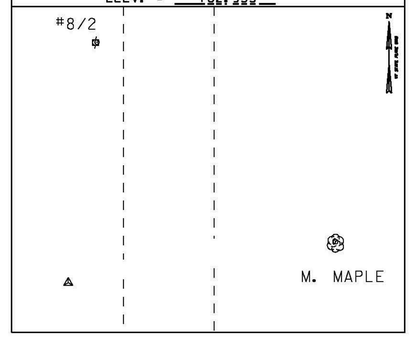
EAST = 1601782.376
ELEV. = 695.110



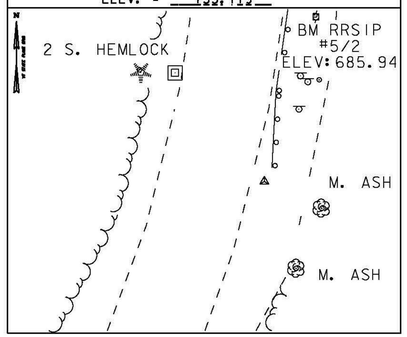
HVCTRL #13
NORTH = 501272.222
EAST = 1601430.583
ELEV. = 730.940



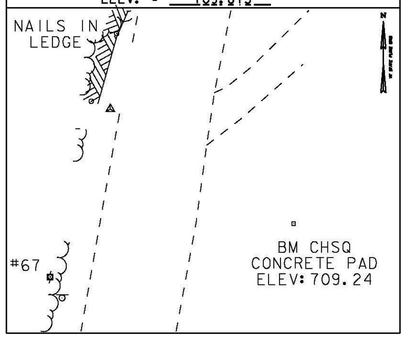
HVCTRL #14
NORTH = 501752.933
EAST = 1601538.580
ELEV. = 762.935



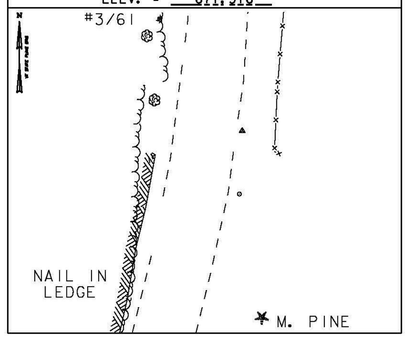
HVCTRL #15
NORTH = 502275.668
EAST = 1601780.124
ELEV. = 735.179



HVCTRL #16
NORTH = 503066.449
EAST = 1601764.436
ELEV. = 709.813



HVCTRL #17
NORTH = 504039.029
EAST = 1602201.738
ELEV. = 677.376



HVCTRL #18
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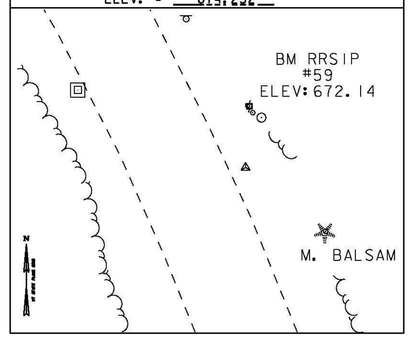
EAST = 1602135.395
ELEV. = 674.232



HVCTRL #19
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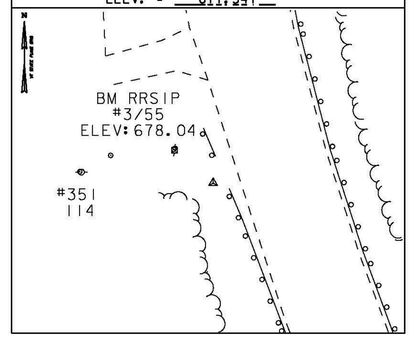
EAST = 1601732.735
ELEV. = 677.541



DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 CORS
ADJUSTMENT COMPASS

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

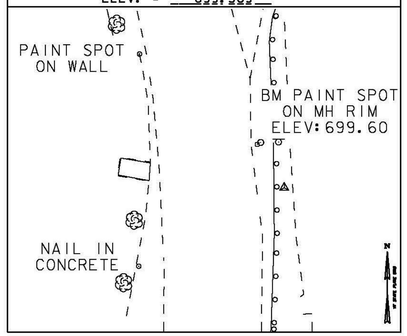
FILE NAME: z10c244tie.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TIE SHEET 2

PLOT DATE: 4/23/2015
DRAWN BY: R. BULLOCK
CHECKED BY: C. LATHROP
SHEET 5 OF 211

TRAVERSE TIES

HVCTRL #20

NORTH = 505751.716
EAST = 1601754.972
ELEV. = 699.309



HVCTRL #21

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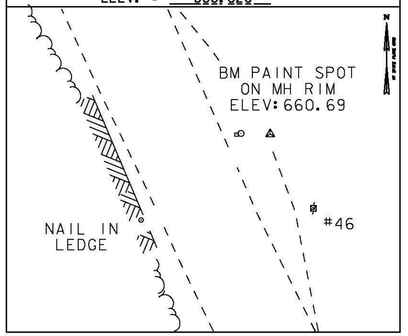
ELEV. = 660.020



HVCTRL #22

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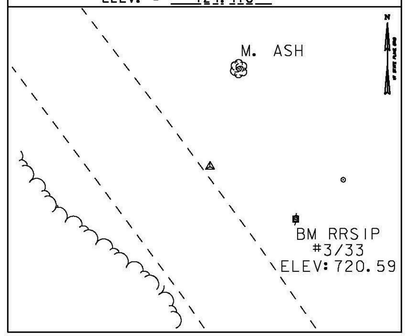

HVCTRL #23

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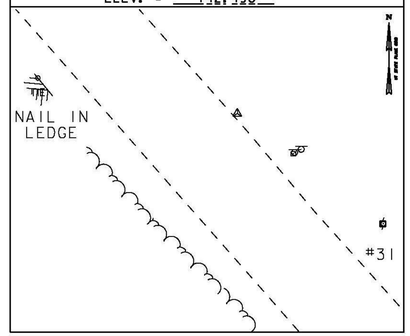

HVCTRL #24

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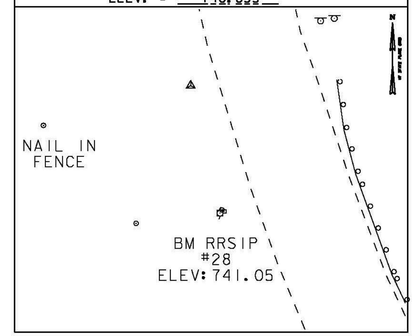

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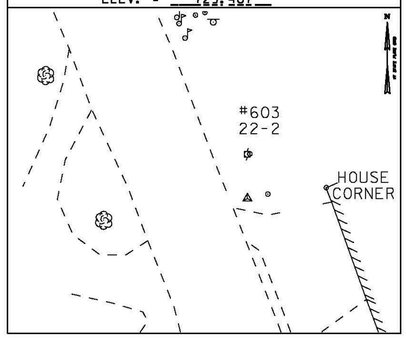

HVCTRL #26

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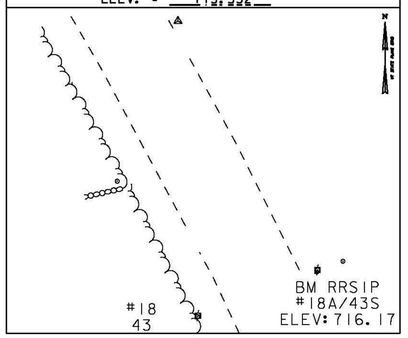

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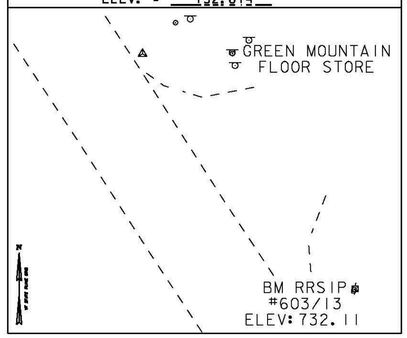

HVCTRL #28

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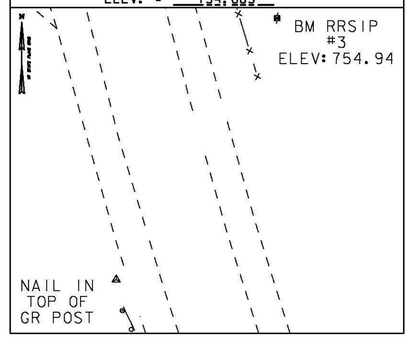

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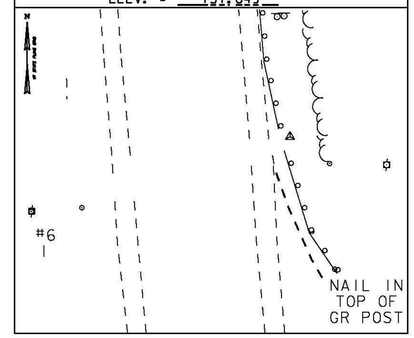


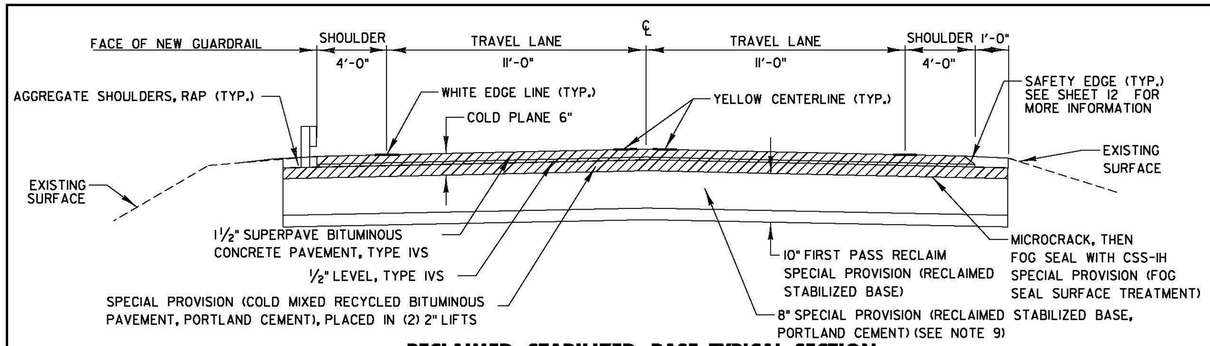
ALIGNMENT COORD

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 CORS
ADJUSTMENT COMPASS

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tie.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TIE SHEET 3

PLOT DATE: 4/23/2015
DRAWN BY: R. BULLOCK
CHECKED BY: C. LATHROP
SHEET 6 OF 211

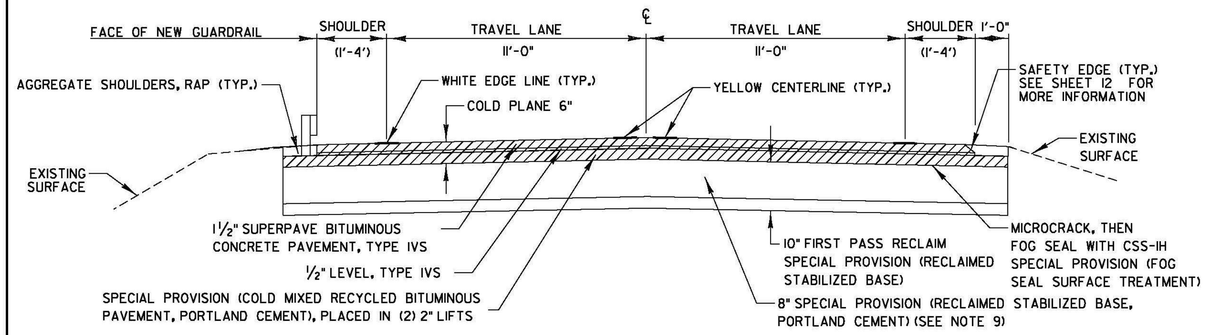


RECLAIMED STABILIZED BASE TYPICAL SECTION

BETHEL
STA. 124+30 TO STA. 139+00
STA. 145+25 TO STA. 149+50
STA. 151+25 TO STA. 167+00
STA. 170+50 TO STA. 202+75
STA. 208+50 TO STA. 226+25
STA. 227+75 TO STA. 268+50

BETHEL
STA. 271+00 TO STA. 282+00
STA. 289+50 TO STA. 316+00
STA. 319+00 TO STA. 337+25
STA. 340+50 TO STA. 351+00
STA. 359+50 TO STA. 362+25
STA. 363+75 TO STA. 370+41

RANDOLPH
STA. A 0+00 TO STA. A 1+00
STA. A 5+00 TO STA. A 7+00
STA. A 15+25 TO STA. A 30+00
STA. A 33+00 TO STA. A 35+00
STA. A 37+50 TO STA. A 54+35

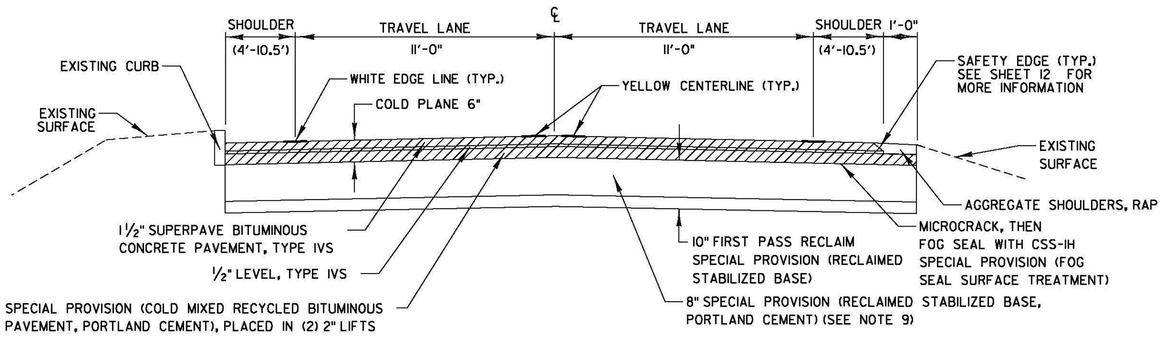


RECLAIMED STABILIZED BASE REDUCED SHOULDER TYPICAL SECTION

BETHEL
STA. 139+00 TO STA. 145+25 (SHOULDERS VARY, SEE PLANS)
STA. 149+50 TO STA. 151+25 (3-11-11-4)
STA. 167+00 TO STA. 170+50 (4-11-11-3)
STA. 202+75 TO STA. 208+50 (INCLUDES BRIDGE 34, SEE PLANS)
STA. 226+25 TO STA. 227+75 (INCLUDES BRIDGE 35, SEE PLANS)
STA. 268+50 TO STA. 271+00 (2-11-11-4)
STA. 282+00 TO STA. 289+50 (INCLUDES BRIDGE 38, SEE PLANS)
STA. 316+00 TO STA. 319+00 (3-11-11-3)
STA. 337+25 TO STA. 340+50 (2-11-11-4)

BETHEL
STA. 351+00 TO STA. 359+50 (3-11-11-3)
STA. 362+25 TO STA. 363+75 (3-11-11-4)

RANDOLPH
STA. A 1+00 TO STA. A 5+00 (4-11-11-2)
STA. A 7+00 TO STA. A 15+25 (2-11-11-4)
STA. A 30+00 TO STA. A 33+00 (4-11-11-2)
STA. A 35+00 TO STA. A 37+50 (2-11-11-4)



RECLAIMED STABILIZED BASE TYPICAL SECTION

RANDOLPH
STA. A 54+35 TO STA. A 77+31

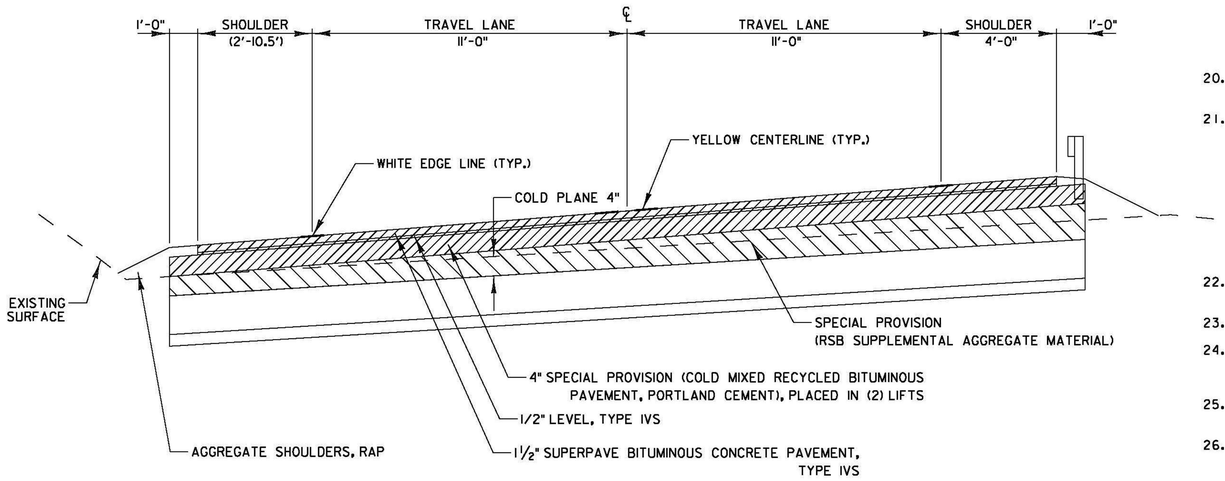
NOTES:

1. APPROXIMATE WETLAND AND OTHER RESOURCE LOCATIONS HAVE BEEN IDENTIFIED. SEE PROJECT LAYOUT SHEETS FOR LOCATIONS. THE PROJECT SHALL BE CONSTRUCTED AS DESIGNED AND WITHIN THE LIMITS ESTABLISHED BY THE CROSS SECTIONS. IF IT IS DEEMED NECESSARY BY THE CONTRACTOR TO WORK BEYOND THOSE LIMITS IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE THE NECESSARY STATE AND FEDERAL PERMITS.
2. ITEM 201.10 "CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS" HAS BEEN INCLUDED TO REMOVE ANY VEGETATION, PARTIAL AND FULL TREE REMOVAL, THINNING AND TRIMMING FOR SIGNS, AND ANY ASSOCIATED GRUBBING WITHIN THE ASSUMED 3 ROD R.O.W, OR GREATER IF NECESSARY WHEN R.O.W HAS BEEN CONFIRMED BEYOND THE ASSUMED 3 RODS. THE ENGINEER MAY EXCLUDE REMOVAL IN SOME AREAS WHERE DEEMED NECESSARY AND APPROPRIATE OR NECESSITATED BY PERMIT REQUIREMENTS PER THE CONSTRUCTION ENVIRONMENTAL ENGINEER'S RECOMMENDATIONS. THINNING AND TRIMMING SHALL BE PERFORMED IN ACCORDANCE WITH THE DETAIL ON SHEET 12 AND SECTION 201. ADDITIONALLY ITEM 201.16 "REMOVING LARGE TREES' HAS BEEN INCLUDED FOR REMOVAL OF INDIVIDUAL LARGE TREES TO BE REMOVED AS INDENTIFIED IN THE PLANS.
3. ALL BORINGS WERE TAKEN IN THE CENTER OF THE TRAVEL LANE AND THEREFORE MAY NOT BE REPRESENTATIVE OF FOOTPRINT.
4. ADDITIONAL QUANTITIES FOR ITEMS 203.15 "COMMON EXCAVATION", 900.680 "SPECIAL PROVISION (RSB SUPPLEMENTAL AGGREGATE MATERIAL)", 301.35 "SUBBASE OF DENSE GRADED CRUSHED STONE", AND 649.11 "GEOTEXTILE FOR ROADBED SEPARATOR" HAVE BEEN ESTIMATED TO ADDRESS POSSIBLE UNSUITABLE SUBBASE MATERIAL ENCOUNTERED WITHIN THE PROJECT. REFER TO DETAIL ON SHEET 11.
5. A QUANTITY OF ITEM 204.21 "TRENCH EXCAVATION OF ROCK" HAS BEEN INCLUDED IN THE EVENT LEDGE IS ENCOUNTERED DURING THE INSTALLATION OF UNDERDRAIN OUTSIDE AREAS OF SOLID ROCK EXCAVATION AS DETAILED ON SHEET 11.
6. COLD PLANING SHALL BE COMPLETED ACCORDING TO THE TYPICAL OR AS OTHERWISE NOTED ON THE PLANS. SEE BORING LOG SHEET 2 FOR CHARACTERISTICS OF EXISTING PAVEMENT TO DETERMINE POTENTIAL MAINTENANCE EFFORT TO REASONABLY SERVICE TRAFFIC PRIOR TO THE FIRST RECLAIM PASS. A FULL DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT THE BEGINNING AND END OF THE PROJECT AND SIDE ROAD APPROACHES AS DENOTED ON THE PROJECT PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER. SAWCUTTING WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE PAID INCIDENTAL TO ITEM 210.10 "COLD PLANING, BITUMINOUS PAVEMENT". PRIOR TO RECLAIMING, ANY EXISTING SHOULDER MATERIAL DEEMED UNSUITABLE BY THE ENGINEER WILL BE EXCAVATED TO THE DEPTH OF RECLAIMING OR AS DIRECTED BY THE ENGINEER. EXCAVATED MATERIAL WILL BE SPREAD ON THE ADJACENT SLOPES OR REMOVED FROM THE PROJECT AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR USING THE APPROPRIATE RENTAL ITEMS. THE METHOD OF REMOVAL AND THE USE OF RENTAL ITEMS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY WORK BEING DONE. MATERIAL REMOVED SHALL BE REPLACED WITH ITEM 900.680 "SPECIAL PROVISION (RSB SUPPLEMENTAL AGGREGATE MATERIAL)".
7. AN ADDITIONAL QUANTITY OF ITEM 900.680 "SPECIAL PROVISION (RSB SUPPLEMENTAL AGGREGATE MATERIAL)" HAS BEEN INCLUDED TO CORRECT SUPERELEVATION AND GRADATION DEFICIENCIES WITHIN THE RECLAIMED SECTION. FOR EXISTING SHOULDER RECONSTRUCTION DETAIL SEE SHEET 10.
8. ITEM 900.683 "SPECIAL PROVISION (FOG SEAL SURFACE TREATMENT)" SHALL BE APPLIED ON THE SURFACE OF THE RECLAIMED STABILIZED BASE, PORTLAND CEMENT AT THE RATE OF 0.15 GAL/SY OR AS DIRECTED BY THE ENGINEER.
9. THE FIRST RECLAIM PASS SHALL BE PERFORMED FROM TOP OF BANK TO TOP OF BANK WHERE FULL WIDTH IS NOT ACHIEVABLE. THE FIRST RECLAIM PASS SHALL BE PAID UNDER ITEM 900.675 "SPECIAL PROVISION (RECLAIMED STABILIZED BASE)". THE SECOND RECLAIM PASS SHALL BE PERFORMED FULL WIDTH PER THE TYPICAL SECTION. THE SECOND RECLAIM PASS SHALL BE PAID UNDER ITEM 900.675 "SPECIAL PROVISION (RECLAIMED STABILIZED BASE, PORTLAND CEMENT)".
10. ALL EDGES OF PAVEMENT SHALL BE BACKED UP TO FULL HEIGHT WITH AGGREGATE SHOULDER MATERIAL AS DIRECTED BY THE ENGINEER AND WILL BE PAID UNDER ITEM 402.13 "AGGREGATE SHOULDERS, RAP".
11. FOR THE PURPOSES OF QUANTITY CALCULATION IT HAS BEEN ASSUMED ITEM 900.675 "SPECIAL PROVISION (COLD MIXED RECYCLED BITUMINOUS PAVEMENT,PORTLAND CEMENT)" WILL REQUIRE 3% BY WEIGHT OF ITEM 900.683 SPECIAL PROVISION (EMULSIFIED ASPHALT, COLD MIX WITH CEMENT). FOR THE SAME PURPOSE IT HAS ALSO BEEN ASSUMED 1% BY WEIGHT OF PORTLAND CEMENT WILL BE REQUIRED BY MIX DESIGN. ITEM 900.680 "SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE, COLD MIX)" HAS BEEN ESTIMATED USING A UNIT WEIGHT OF 2 TONS/CY. THE AVERAGE BULK SPECIFIC GRAVITY DETERMINED IN THE MIX DESIGN SHALL BE USED FOR ACTUAL PAYMENT QUANTITY.
12. ITEM 900.683 "SPECIAL PROVISION (EMULSIFIED ASPHALT) (TYPE RS-1H OR CRS-1H)" SHALL BE APPLIED AS A TACK COAT ON ALL EXISTING PAVEMENT SURFACES OR COLD PLANED PAVEMENT SURFACES AT THE RATE OF 0.080 GAL/SY, AT THE RATE OF 0.040 TO 0.060 GAL/SY ON ALL COLD MIX PAVEMENT SURFACES, AND BETWEEN ALL COURSE OF BITUMINOUS CONCRETE PAVEMENT AT THE RATE OF 0.025 TO 0.040 GAL/SY. PAYMENT WILL BE MADE UNDER ITEM 900.683 "SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-1H OR CRS-1H)".
13. THE WEARING AND LEVELING COURSES SHALL BE TYPE IVS SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, AND THE BASE COURSE SHALL BE SPECIAL PROVISION (COLD MIXED RECYCLED BITUMINOUS PAVEMENT, PORTLAND CEMENT). ALL ASPHALT CEMENT USED IN THE SUPERPAVE BITUMINOUS CONCRETE PAVEMENT SHALL BE AS SPECIFIED IN SUBSECTION 490.03B.
14. ALL PAVED AND GRAVEL DRIVES SHALL RECEIVE A PAVED APRON OF 4' AND ALL FIELD AND WOODS DRIVES SHALL RECEIVE A 2' PAVED APRON UNLESS OTHERWISE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER. ANY AND ALL REQUIRED EXCAVATION AND ASSOCIATED DRIVE GRADING IN DRIVE AREAS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE NEW BITUMINOUS SURFACE AND ASSOCIATED DRIVE GRADING SHALL BE CONSTRUCTED AS DIRECTED AND WILL BE PAID FOR UNDER ITEM 900.675 "SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)". ALL OTHER BITUMINOUS MATERIAL PLACED WITHIN THE PROJECT LIMITS WHETHER BY HAND OR MECHANICAL METHODS WILL BE PAID AS ITEM 490.30 "SUPERPAVE BITUMINOUS CONCRETE PAVEMENT".
15. SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE = +/- ¼ INCH (TOTAL PAVEMENT THICKNESS). COLD MIXED RECYCLED BITUMINOUS BASE COURSE TOLERANCE = +/- ¼ INCH, SPECIAL PROVISION (RSB SUPPLEMENTAL AGGREGATE MATERIAL) TOLERANCE = +/- 1 INCH (TOTAL SUBBASE THICKNESS).
16. EDGES OF PAVEMENT SHALL INCLUDE A SAFETY EDGE AS SHOWN ON SHEET 12.
17. A QUANTITY FOR ITEM 604.412, "REHAB DI, CB OR MH CLASS I" HAS BEEN INCLUDED IN THE QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER WITHIN THE ROADAY AREA. AN ADDITIONAL QUANTITY FOR ITEM 604.412 AS BEEN PROVIDED FOR DI'S OUTSIDE THE ROADWAY TO BE USED AT THE ENGINEERS DISCRECTION. ALL DI'S SHALL BE RAISED OR REHABILITATED SUCH THAT THE NEW GRATE ELEVATION IS LEVEL WITH THE SURROUNDING TERRAIN.
18. DAMAGE TO ANY DI'S, CROSS CULVERTS OR OTHER DRAINAGE FEATURES DUE DIRECTLY TO THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.
19. ITEM 613.10 "STONE FILL, TYPE I"; ITEM 651.40 "GRUBBING MATERIAL"; ITEM 653.20 "TEMPORARY EROSION MATTING" AND ITEM 608.25 "ALL PURPOSE EXCAVATOR RENTAL, TYPE I" HAVE BEEN INCLUDED FOR AREAS WITH PROPOSED SIDE SLOPES STEEPER THAN 1:1.5, AND TO PROVIDE FOR REPAIR OF EXISTING STONE LINED DRAINAGE OUTLETS OR WASHOUTS LOCATED ALONG THE ROADWAY SIDE SLOPES AS DIRECTED BY THE ENGINEER.

NOTES CONTINUED ON NEXT SHEET

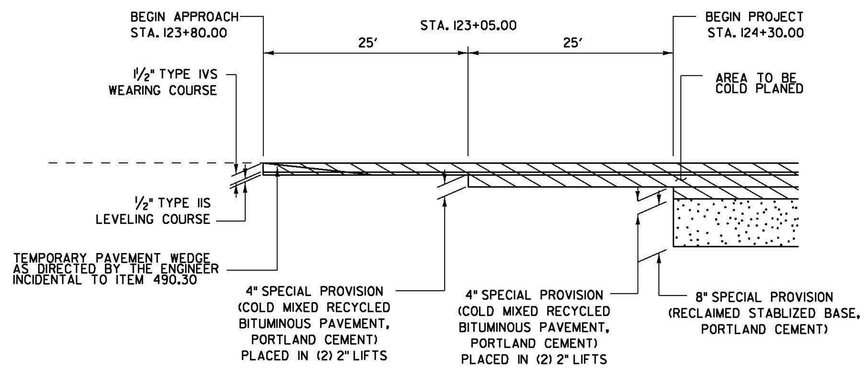
NOT TO SCALE

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244typ.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PROJECT TYPICAL SHEET 1	SHEET 7 OF 211

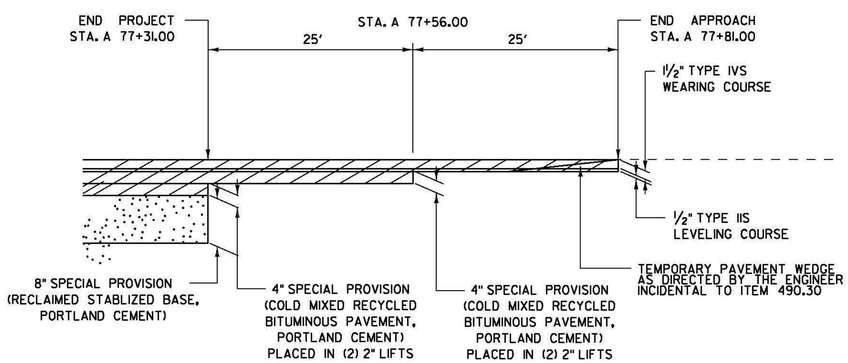


RECLAIMED STABILIZED BASE SUPERELEVATED TYPICAL SECTION

SEE PLANS, BANKING SHEETS, AND CROSS SECTIONS FOR SUPERELEVATED LOCATIONS



APPROACH AREA DETAIL (BEGIN PROJECT)



APPROACH AREA DETAIL (END PROJECT)

NOTES CONTINUED:

20. A QUANTITY HAS BEEN ESTIMATED FOR ITEM 617.10 "RELOCATE MAILBOX, SINGLE SUPPORT", TO BE USED AS DETERMINED BY THE ENGINEER.

21. QUANTITIES OF ITEMS 608.25, "ALL PURPOSE EXCAVATOR RENTAL, TYPE I", 608.37, "TRUCK RENTAL", AND 608.40,"LOADER RENTAL, TYPE I" HAVE BEEN INCLUDED FOR THE PROVISION OF CONSTRUCTING GUARDRAIL END TERMINAL AREAS WITH EXCAVATED DITCHING MATERIAL AND THE REMOVAL OF BUILT UP EXCESS SHOULDER MATERIAL IN NON-GUARDRAIL LOCATIONS. AN ESTIMATED QUANTITY OF ITEM 203.30, "EARTH BORROW" HAS BEEN INCLUDED FOR USE WITH THE GUARDRAIL END TERMINAL AREAS. 25 CY OF ITEM 203.30, "EARTH BORROW" HAS BEEN ESTIMATED FOR EACH NEW END SECTION. GUARDRAIL END TERMINALS SHALL BE CAPPED WITH AN ESTIMATED 3 INCH DEPTH OF ITEM 651.35, "TOPSOIL" UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE QUANTITIES INCLUDED REFLECT 5 CY OF ITEM 651.35, "TOPSOIL" FOR EACH NEW GUARDRAIL END TERMINAL. ITEM 653.20, "TEMPORARY EROSION MATTING" SHALL BE PLACED ON SLOPES GREATER THAN 1:6 CREATED BY THE GUARDRAIL END TERMINAL. THE QUANTITIES INCLUDED REFLECT 25 SY OF ITEM 653.20, "TEMPORARY EROSION MATTING" FOR EACH NEW GUARDRAIL END TERMINAL. PRIOR TO THE PLACEMENT OF TEMPORARY EROSION MATTING, THE AREA SHALL BE TOPSOILED AND SEEDED USING ITEM 651.35, "TOPSOIL", ITEM 651.15 "SEED", ITEM 651.18 "FERTILIZER" AND ITEM 651.20 "AGRICULTURAL LIMESTONE".

22. AN ESTIMATED QUANTITY FOR ITEM 619.17 "YIELDING MARKER POSTS" HAS BEEN INCLUDED TO DELINEATE PIPE INLETS, PIPE OUTLETS AND DROP INLETS LOCATED OUTSIDE THE PAVEMENT SURFACES OR AS DIRECTED BY THE ENGINEER.

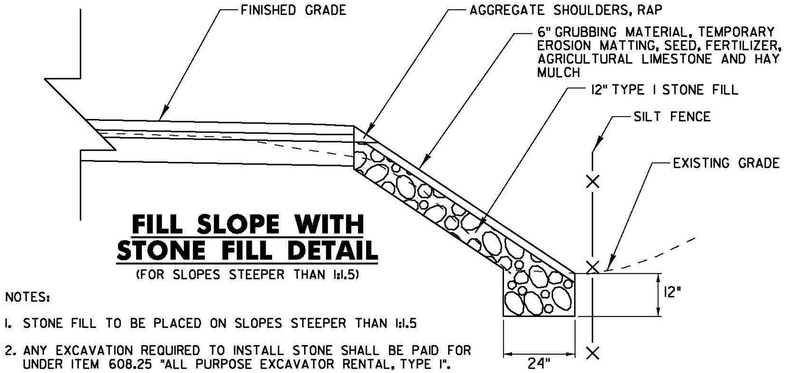
23. BOX BEAM GUARDRAIL WITH 7' POSTS AND STEEL BEAM GUARDRAIL SHALL BE USED ON THIS PROJECT.

24. ADDITIONAL QUANTITIES FOR PAY ITEMS 651.15 "SEED", 651.18 "FERTILIZER", 651.20 "AGRICULTURAL LIMESTONE", ITEM 653.20, "TEMPORARY EROSION MATTING" AND 651.25 "HAY MULCH" HAVE BEEN INCLUDED TO BE PLACED ON GRUBBING MATERIAL FOR STONE FILL SLOPE STABILIZATION AREAS.

25. AN ESTIMATED QUANTITY OF ITEM 653.20 "TEMPORARY EROSION MATTING" HAS BEEN INCLUDED FOR AREAS WITH PROPOSED SLOPES BETWEEN 1:2 AND 1:1.5 AS DIRECTED BY THE ENGINEER.

26. QUANTITIES FOR ITEM 653.50 "BARRIER FENCE" AND ITEM 653.60 "EROSION LOG" HAVE BEEN INCLUDED FOR USE ADJACENT TO THE ENVIRONMENTALLY SENSITIVE AREAS IDENTIFIED IN THE PLANS AND AS DIRECTED BY THE ENGINEER. INSTALLATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

27. WHEN FINISHED GRADE HAS BEEN MET, THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL SIGNS BEING RETAINED ARE IN CONFORMANCE WITH VTRANS STANDARD E-121 AS DIRECTED BY THE ENGINEER.

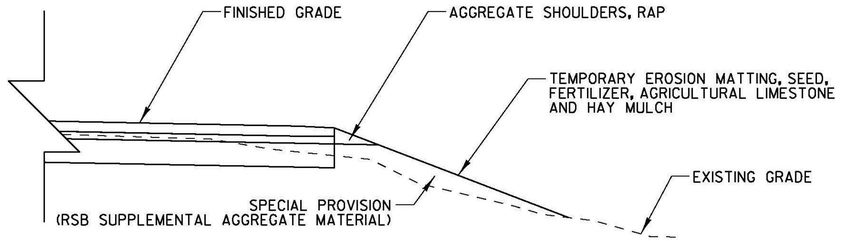


FILL SLOPE WITH STONE FILL DETAIL

(FOR SLOPES STEEPER THAN 1:1.5)

NOTES:

1. STONE FILL TO BE PLACED ON SLOPES STEEPER THAN 1:1.5
2. ANY EXCAVATION REQUIRED TO INSTALL STONE SHALL BE PAID FOR UNDER ITEM 608.25 "ALL PURPOSE EXCAVATOR RENTAL, TYPE I".



FILL SLOPE DETAIL

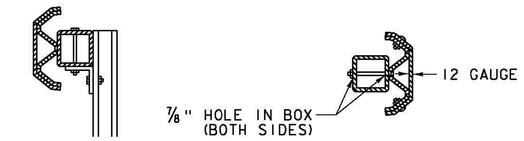
(FOR SLOPES 1:1.5 OR FLATTER)

NOTE: IF DUE TO GROWING SEASON TIME CONSTRAINTS IT IS DEEMED NECESSARY BY THE CONSTRUCTION ENVIRONMENTAL ENGINEER THAT A MORE RAPID VEGETATION ESTABLISHMENT IS REQUIRED, 2" OF GRUBBING MATERIAL SHALL BE PLACED ON THE SLOPE PRIOR TO PLACEMENT OF SEED, FERTILIZER, TEMPORARY EROSION MATTING, AND AGRICULTURAL LIMESTONE. PLACEMENT OF THE GRUBBING MATERIAL WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD OF ITEM 651.40 GRUBBING MATERIAL (2").

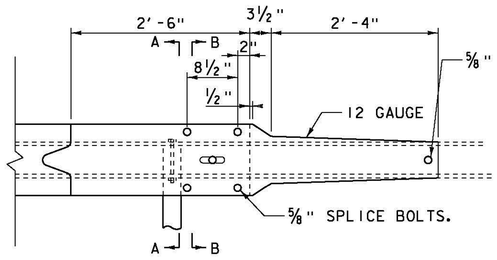
NOT TO SCALE

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)

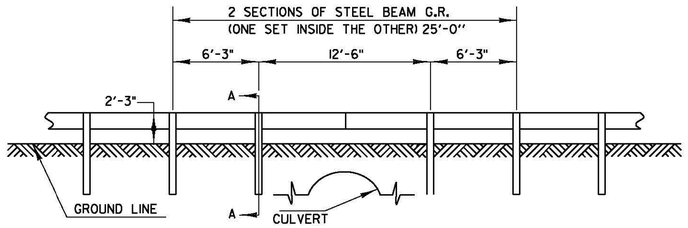
FILE NAME: z10c244typ.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PROJECT TYPICAL SHEET 2	SHEET 8 OF 211



SECTION A–A **SECTION B–B**



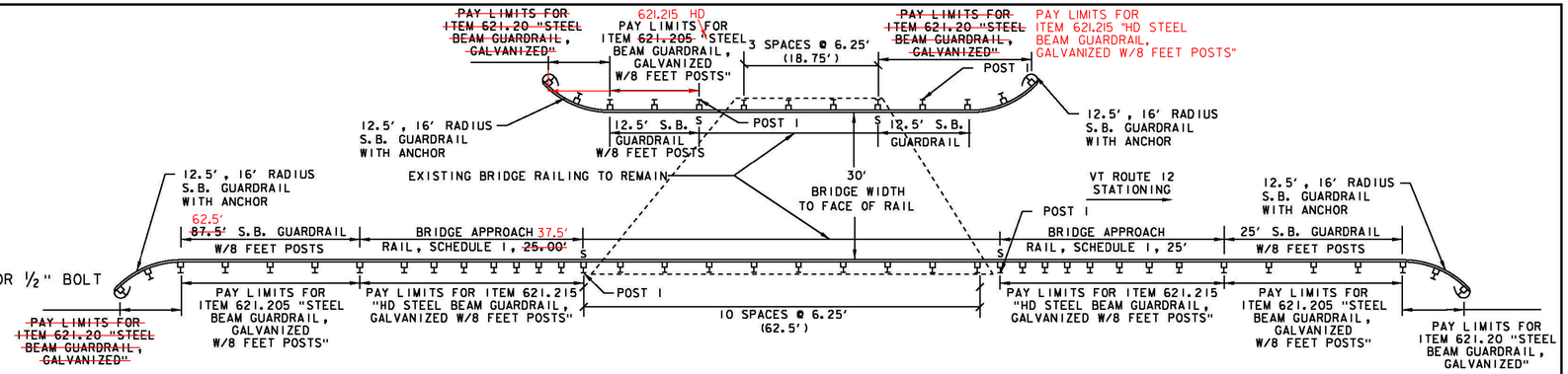
BOX BEAM TO W-BEAM TRANSITION DETAIL



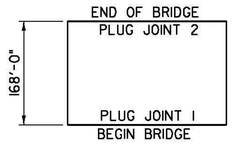
DETAIL OF STEEL BEAM GUARDRAIL AT SMALL CULVERTS

TO BE PAID UNDER ITEM 621.207 "STEEL BEAM GUARDRAIL, GALVANIZED/NESTED W/8 FEET POST

BETHEL
STA. 143+43 LT
STA. 143+45 RT
STA. 226+87 RT



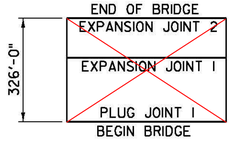
RANDOLPH BRIDGE #40
STA. A 26+13 – MM 0.495



JOINT	STATION	LENGTH
1	205+34	20' - 0"
2	205+77	20' - 0"
	BRIDGE #34	40' - 0"

TOTAL LENGTH OF JOINT

BETHEL BRIDGE #34
STA. 205+21 (MM 3.887)
COLD PLANE AND PAVE



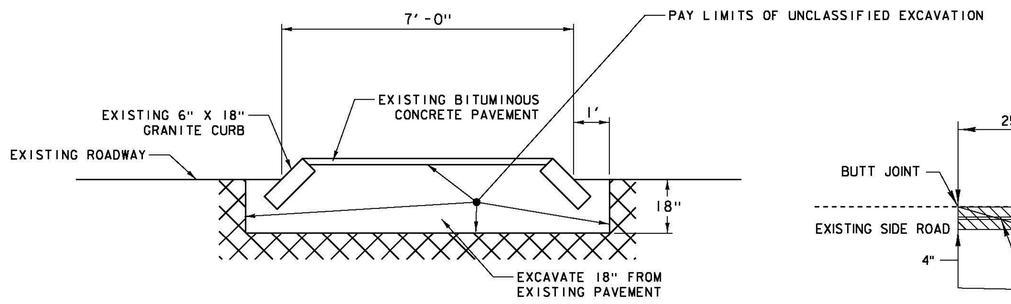
JOINT	STATION	LENGTH
1	284+12	24' - 0"
2	285+65	24' - 0"
3	287+37	24' - 0"
	BRIDGE #38	72' - 0"

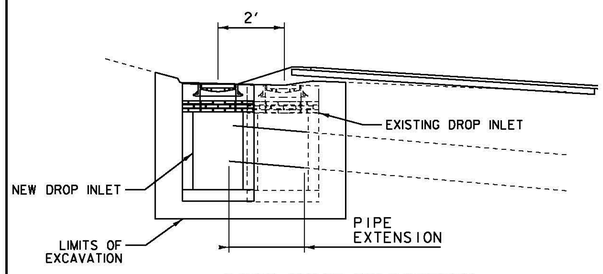
TOTAL LENGTH OF JOINT

BETHEL BRIDGE #38
STA. 284+12 (MM 5.381)
COLD PLANE AND PAVE

BRIDGE #	516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	580.20 RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE
	LF	CF
BETHEL 34	40	50
~~BETHEL 38~~	~~72~~	~~50~~
RANDOLPH 40	65	
SUBTOTAL	112	100
ROUNDING	3	-
TOTAL	115	100

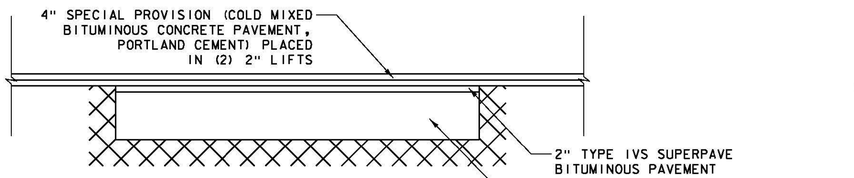
NOTE: REFER TO BRIDGE JOINT ASPHALTIC PLUG - STRUCTURES DETAIL SD-516.10





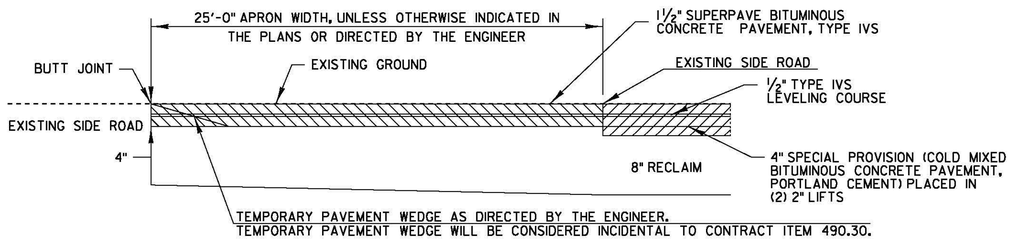
DROP INLET RELOCATION

SEE LAYOUT SHEETS FOR LOCATIONS OF ALL SIDE ROADS



EXISTING GRANITE CURB ISLAND REMOVAL

RANDOLPH
STA. A 60+18 LT



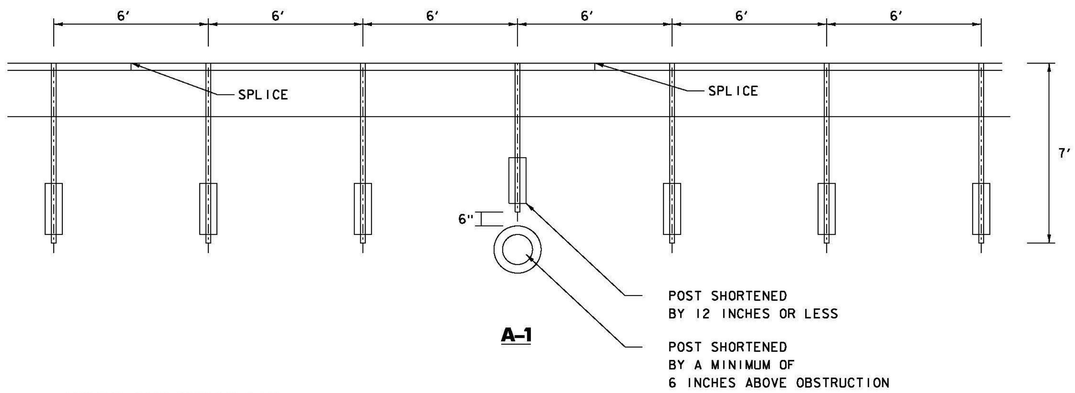
TRANSITION AREA FOR SIDE ROADS

FULL WIDTH OF TOWN HIGHWAY
SEE LAYOUT SHEETS FOR LOCATIONS OF ALL SIDE ROADS

NOT TO SCALE

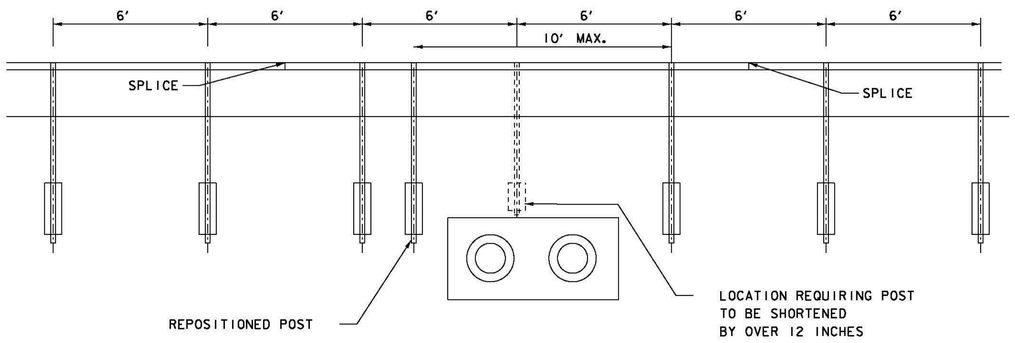
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: zl0c244typ.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PROJECT TYPICAL SHEET 3	SHEET 9 OF 211

TYPICAL POST SPACING 6 FT



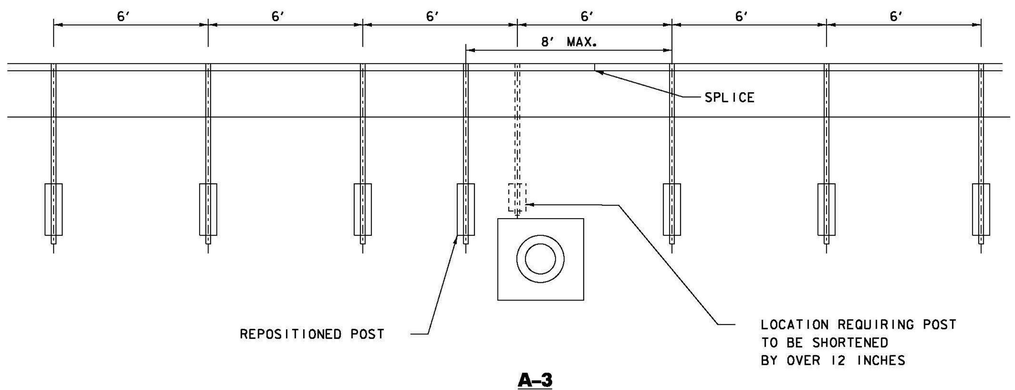
A-1

TYPICAL POST SPACING 6 FT

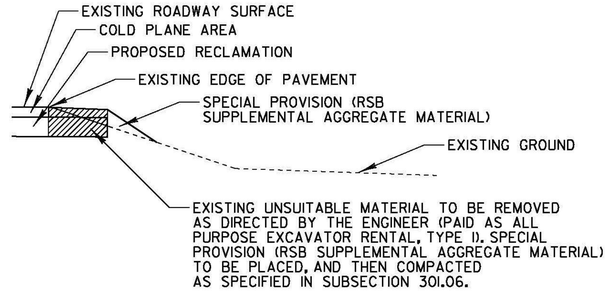


A-2

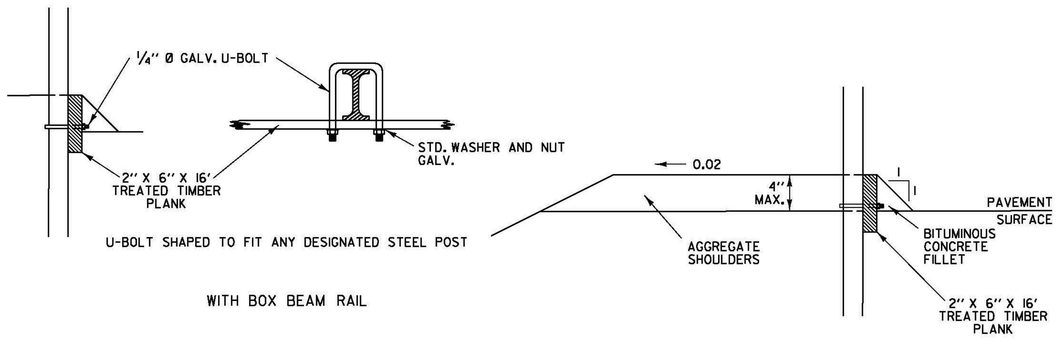
TYPICAL POST SPACING 6 FT



A-3



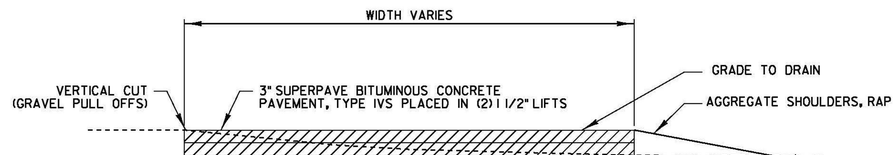
EXISTING SHOULDER RECONSTRUCTION DETAIL



TREATED TIMBER CURB INSTALLATION

1. THE REMOVAL OF TREATED TIMBER CURBING, INCLUDING THE BITUMINOUS CONCRETE FILLET, FROM INSTALLATIONS WHERE EXISTING GUARDRAIL IS REMOVED WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCIDENTAL TO REMOVE AND RESET GUARDRAIL OR REMOVAL AND DISPOSAL OF GUARDRAIL.

2. INSTALLATION OF NEW TREATED TIMBER CURB SHALL BE AS SHOWN IN THE "TREATED TIMBER CURB INSTALLATION" DETAIL. INSTALLATION OF THE NEW TREATED TIMBER CURB SHALL BE PAID FOR UNDER ITEM 616.35, "TREATED TIMBER CURB". THE NEW BITUMINOUS CONCRETE FILLET SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF THE NEW TREATED TIMBER CURB. AGGREGATE SHOULDERS RAP MATERIAL SHALL BE PLACED BEHIND NEW TREATED TIMBER CURB. THE AGGREGATE SHOULDERS RAP SHALL BE CONSIDERED INCIDENTAL TO ITEM 616.35 "TREATED TIMBER CURB"



PULL OFF AREA DETAIL

BETHEL	RANDOLPH
STA. 156+40 RT	STA. A 14+00 RT
STA. 171+25 RT	
STA. 198+25 RT	
STA. 279+50 RT	
STA. 351+50 RT	

NOTE: ANY EXCAVATION REQUIRED IN THE PULLOFF AREAS PRIOR TO PAVING SHALL BE PAID FOR UNDER ITEM 608.25 "ALL PURPOSE EXCAVATOR RENTAL, TYPE I" AND ITEM 608.37 "TRUCK RENTAL".

BOX BEAM GUARD RAIL OVER SHALLOW OBSTRUCTIONS DETAIL

ITEM 900.640 SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)

NOTES:

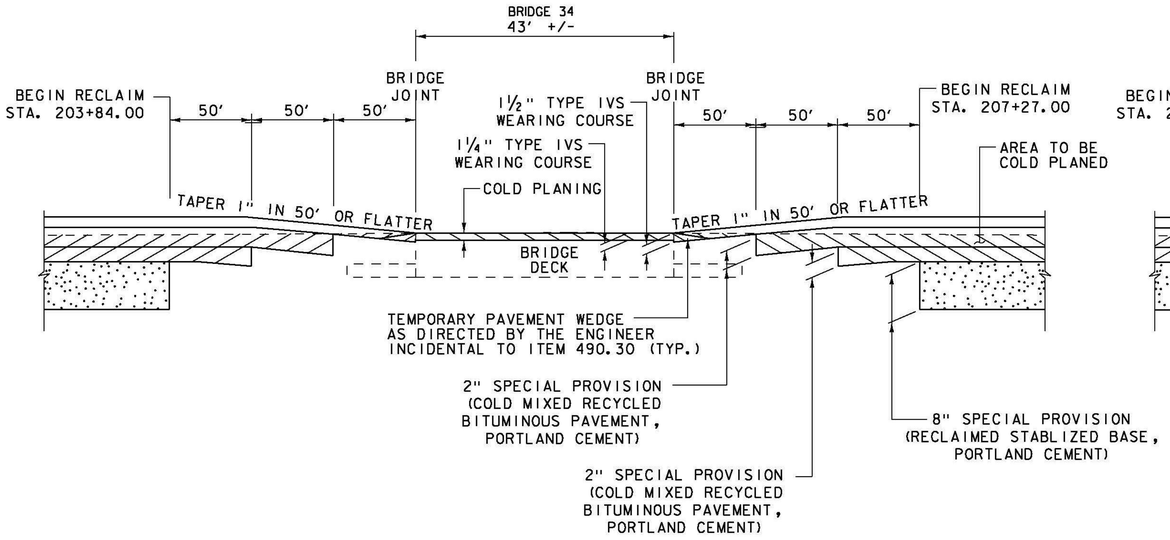
1. NO ADDITIONAL COMPENSATION WILL BE GIVEN SHOULD THE CONTRACTOR BE DIRECTED BY THE ENGINEER TO SHORTEN, REPOSITION, OR ADD ADDITIONAL GUARDRAIL POSTS AT LOCATIONS OF SHALLOW OBSTRUCTIONS.

2. SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS

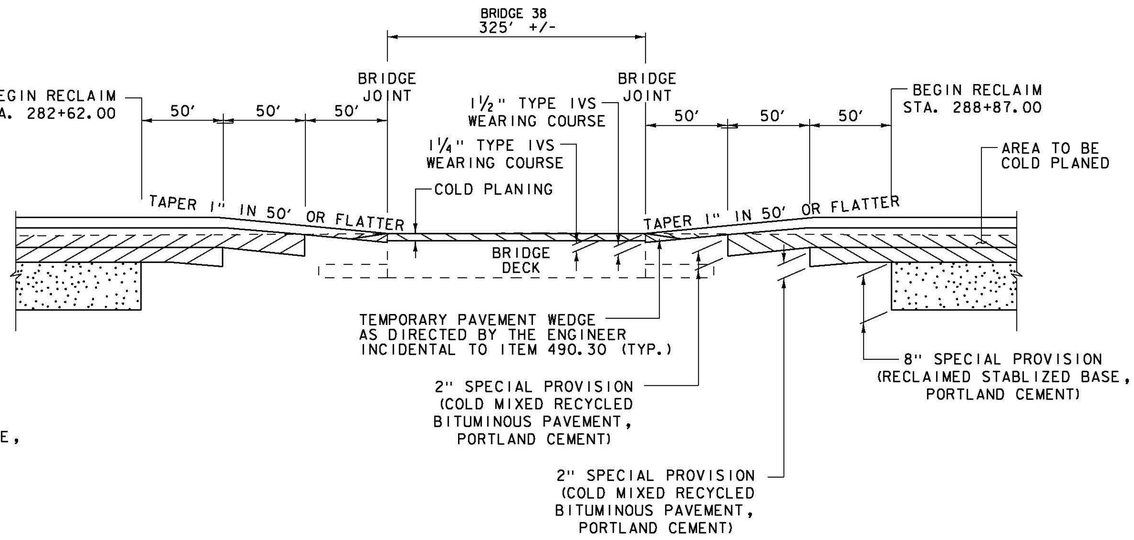
NOT TO SCALE

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)

FILE NAME: z10c244typ.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PROJECT TYPICAL SHEET 4	SHEET 10 OF 211

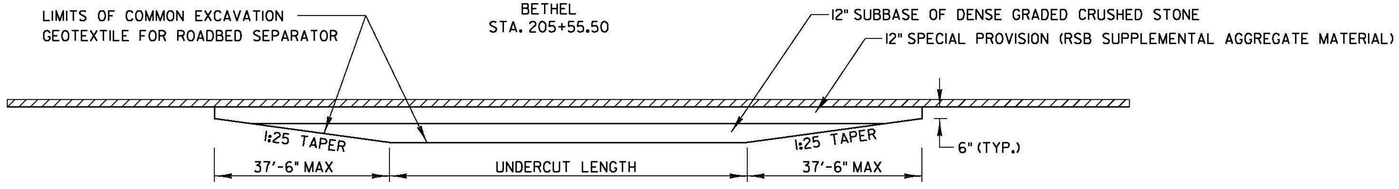


BRIDGE TRANSITION DETAIL



BRIDGE TRANSITION DETAIL

BETHEL
STA. 205+55.50

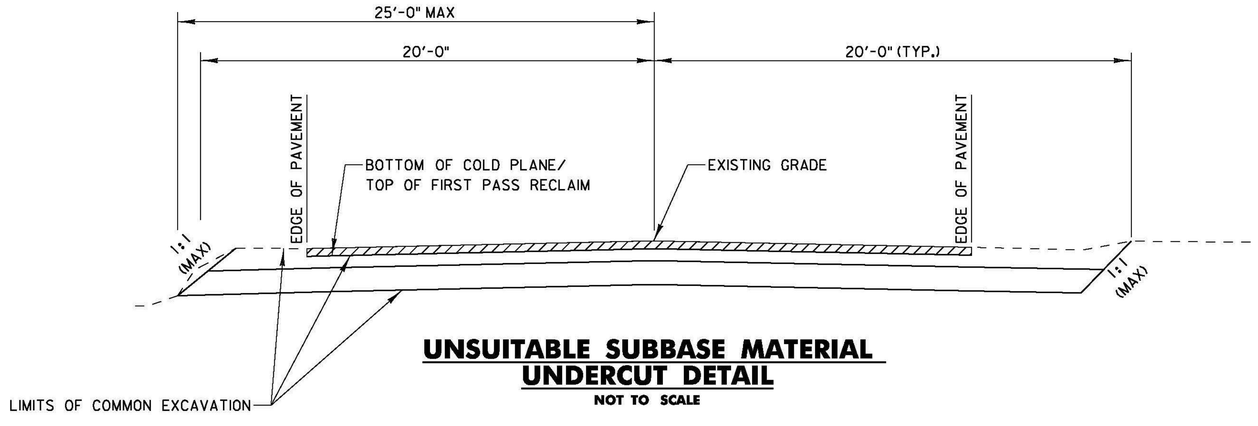


NOTES: 1. UNDERCUT CANDIDATE AREAS ENCOUNTERED DURING CONSTRUCTION SHALL BE REVIEWED BY THE VTRANS CONSTRUCTION PAVING ENGINEER AND APPROVED BY THE PROJECT MANAGER PRIOR TO TREATMENT.

2. ALL UNDERCUTS SHALL BE FULL WIDTH.

UNSUITABLE SUBBASE MATERIAL TRANSITION DETAIL

NOT TO SCALE

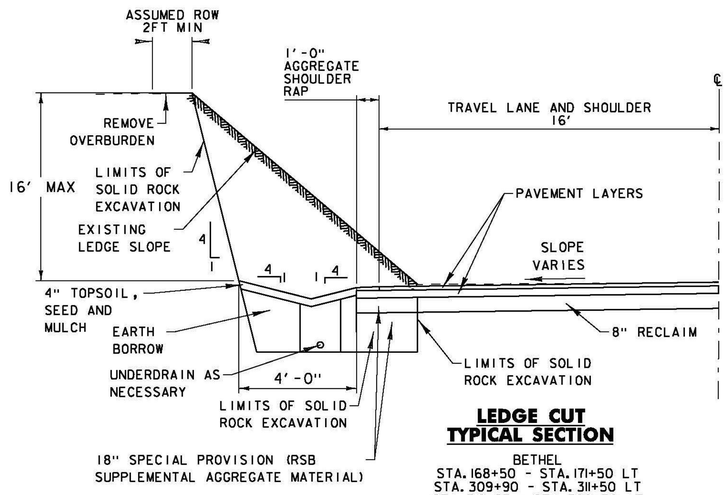


UNSUITABLE SUBBASE MATERIAL UNDERCUT DETAIL

NOT TO SCALE

BRIDGE TRANSITION DETAIL

BETHEL
STA. 285+74.50



LEDGE CUT TYPICAL SECTION

BETHEL
STA. 168+50 - STA. 171+50 LT
STA. 309+90 - STA. 311+50 LT
STA. 318+25 - STA. 320+50 LT
STA. 351+00 - STA. 357+50 LT
STA. 369+40 - STA. 370+41LT

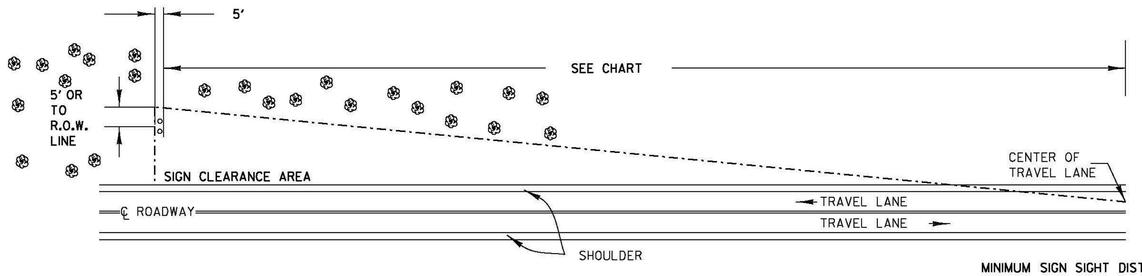
RANDOLPH
STA. A 0+00 - STA. A 1+15 LT
STA. A 5+00 - STA. A 6+50 LT

NOT TO SCALE

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244typ.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PROJECT TYPICAL SHEET 5	SHEET 11 OF 211

STATION	SIZE (IN)	TYPE	COVER (FT) LEFT	COVER (FT) RIGHT	CONDITION
BETHEL					
124+44	24	CMP	3.40	8.10	GOOD
134+94	18	RCP	5.80	6.60	GOOD
140+22	15	RCP	7.30	7.70	GOOD
143+46	8'X2'	CONC.	12.40	3.80	GOOD
145+56	24	CMP			GOOD
150+40					BURIED
152+50	15	RCP	6.10	11.00	GOOD
154+22	24	CPEP	6.00	11.40	GOOD
155+75	24	RCP	6.80	9.40	FAIR
163+06	30	CMP	10.50	18.90	GOOD
180+45	6'X5'	CONC.	7.10	11.20	GOOD
185+40	15	RCP	2.80	4.20	GOOD
191+67	18	RCP	5.90	6.90	GOOD
209+81	18	RCP	2.70		FAIR
214+37	15	CMP	5.60	4.30	POOR
215+70			1.90	4.50	POOR
217+37	24	CMP	4.43	2.74	FAIR
218+70	18	CMP	3.80	3.10	GOOD
220+49	15	RCP	5.40	4.00	POOR
226+98	3'X4'	CONC.	7.20	7.90	GOOD
238+71	7'X4'	CONC.			GOOD
242+29					GOOD
264+76	15	CMP	2.80	6.20	GOOD
269+66	5'X6'	CONC.	6.60	7.10	GOOD
295+07	15	RCP	3.80	3.30	GOOD
300+14	18	CMP	5.90	2.60	GOOD
302+43	15	RCP	4.90		FAIR
307+40	3'X3'	CONC.	10.00	12.00	GOOD
311+90	15	RCP	4.70		GOOD
316+69	3'x4'	CONC.	13.00		GOOD
317+86	18	RCP	4.30	8.00	GOOD
321+54	18	CMP	3.70	4.40	GOOD
325+81	12	CMP	4.20	8.00	FAIR
344+94	18	RCP	5.00	11.50	GOOD
349+73	15	RCP	6.20		GOOD
350+32	18	RCP			GOOD
353+16	18	RCP	3.40		GOOD
355+64	18	RCP	6.50	18.20	GOOD
358+65			4.40	12.20	
366+02	4'X4'	CONC.	7.00		GOOD
RANDOLPH					
A 3+57	2.5'X6'	CONC.	11.20	23.90	GOOD
A 8+20	15	RCP	5.20	6.50	GOOD
A 11+95	15	RCP	4.00	10.20	GOOD
A 14+00	15	RCP	3.80	6.20	
A 16+26	24	RCP	7.10	19.20	POOR
A 32+51	15	RCP	2.80	3.90	GOOD
A 40+63	30	RCP	7.20	15.20	POOR
A 50+07	24	RCP	10.80	12.70	GOOD
A 54+27	24	RCP	5.00	5.50	GOOD
A 64+90	84	CMP			GOOD
A 73+78	18	CMP	8.10	24.50	GOOD
A 76+78	18	CMP	8.44		GOOD

EXISTING CULVERT INVENTORY



THE CONTRACTOR SHALL REMOVE ALL WOODY STEMMED GROWTH INCLUDING BRUSH, SAPLINGS AND TREE LIMBS GROWING WITHIN OR PROJECTING INTO THE CLEARANCE AREA AND DOWN TO GROUND LEVEL OR AT LEAST 10 FT BELOW THE BOTTOM OF THE SIGN. PAYMENT WILL BE INCLUDED IN THE UNIT BID PRICE FOR CONTRACT ITEM 201.10 CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS. NO CHEMICALS (POISONS OR DEFOLIANTS) ALLOWED.

THINNING AND TRIMMING FOR SIGNS DETAIL

MINIMUM SIGN SIGHT DISTANCE CHART

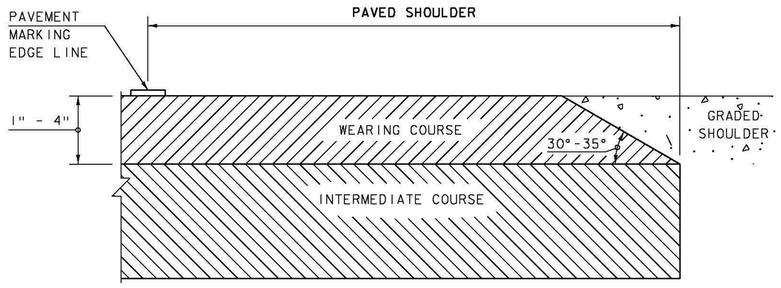
APPROACH SPEED (mph)	SIGHT DISTANCE (feet)
30 OR LESS	300
35	350
40	400
45	450
50	500
55	550

RECOMMENDED ORDER OF OPERATIONS FOR RECLAIMED STABILIZED BASE WITH PORTLAND CEMENT PAVEMENT REHABILITATION

STEP	DESCRIPTION	PAYMENT ITEM(S)
1	INSTALL 6 INCH UNDERDRAIN PIPE, DRAINAGE PIPES AND STRUCTURES	ITEM 605.10 "6 INCH UNDERDRAIN PIPE" MISC DRAINAGE PIPE AND STRUCTURE ITEMS PER PLANS
2	CONSTRUCT SIDE SLOPES	ITEM 900.680 "SPECIAL PROVISION (RSB SUPPLEMENTAL AGGREGATE MATERIAL)" ITEM 613.10 "STONE FILL, TYPE I"
3	COLD PLANE EXISTING BITUMINOUS CONCRETE PAVEMENT 6 INCHES	ITEM 210.10 "COLD PLANING, BITUMINOUS PAVEMENT"
4	RECONSTRUCT SHOULDERS AS DIRECTED BY THE ENGINEER	ITEM 900.680 "SPECIAL PROVISION (RSB SUPPLEMENTAL AGGREGATE MATERIAL)"
5	RECLAIM EXISTING ROADBED 10" FROM TOP OF SLOPE TO TOP OF SLOPE USING WATER FOR STABILIZATION AND COMPACTION AND COMPLETE UNDERCUT AREAS AS DIRECTED BY THE ENGINEER	ITEM 203.15 "COMMON EXCAVATION" ITEM 900.680 SPECIAL PROVISION (RSB SUPPLEMENTAL AGGREGATE MATERIAL) ITEM 301.35 "SUBBASE OF DENSE GRADED CRUSHED STONE" ITEM 900.675 "SPECIAL PROVISION (RECLAIMED STABILIZED BASE)" ITEM 649.11 "GEOTEXTILE FOR ROADBED SEPARATOR"
6	CORRECT SUPERELEVATION DEFICIENCIES	ITEM 900.680 "SPECIAL PROVISION (RSB SUPPLEMENTAL AGGREGATE MATERIAL)" SEE NOTE 7 ON SHEET 7
7	PLACE PORTLAND CEMENT ON ROADBED SURFACE AND RECLAIM ROADBED 8", CURE, MICROCRACK, AND APPLY FOG SEAL SURFACE TREATMENT	ITEM 900.675 "SPECIAL PROVISION (RECLAIMED STABILIZED BASE, PORTLAND CEMENT)", ITEM 900.680 "SPECIAL PROVISION (PORTLAND CEMENT FOR BASE STABILIZATION)" AND ITEM 900.683 "SPECIAL PROVISION (FOG SEAL SURFACE TREATMENT)"
8	PLACE 4" COLD MIX RECYCLED BITUMINOUS PAVEMENT, PORTLAND CEMENT IN TWO LIFTS AND USE EMULSIFIED ASPHALT AS A LIQUID BINDER	ITEM 900.680 "SPECIAL PROVISION (AGGREGATE TO MEET COLD MIXED GRADATION)" ITEM 900.675 "SPECIAL PROVISION (COLD MIXED RECYCLED BITUMINOUS PAVEMENT, PORTLAND CEMENT)" ITEM 900.680 "SPECIAL PROVISION (PORTLAND CEMENT FOR COLD MIXED RECYCLING)" ITEM 900.683 "SPECIAL PROVISION (EMULSIFIED ASPHALT, COLD MIX WITH CEMENT)"
9	PLACE ½" TYPE IVS LEVELING COURSE	ITEM 490.30 "SUPERPAVE BITUMINOUS CONCRETE PAVEMENT"
10	PLACE 1 ½" TYPE IVS WEARING COURSE	ITEM 490.30 "SUPERPAVE BITUMINOUS CONCRETE PAVEMENT"

NOTES:

1. THIS LIST OF PROCEDURES FOR REHABILITATING THE EXISTING ROADBED IS PRESENTED FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL PREPARE THEIR OWN SCHEDULE OF OPERATIONS TO COMPLETE THE PROPOSED WORK IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS WHILE UTILIZING THE APPROPRIATE PAY ITEMS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
2. DEPTH OF SHOULDER PAVEMENTS ARE NOT CERTAIN FOR THE LENGTH OF THE PROJECT, AS THE BORINGS ARE TAKEN IN THE CENTER OF THE TRAVEL LANES.



SAFETY EDGE DETAIL

NOTE:

1. LEVELING COURSE MAY INCLUDE THE "SAFETY EDGE" AT THE CONTRACTOR'S CHOICE.
2. THE EDGE OF PAVEMENT SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE 30 TO 35 DEGREE ANGLE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.
3. THE PAVED SHOULDER EXTENDS FROM THE EDGE OF TRAVELED WAY TO THE EDGE OF THE WEARING COURSE, INCLUDING THE "SAFETY EDGE".

NOT TO SCALE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244typ.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PROJECT TYPICAL SHEET 6

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 12 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	TRAINING	BRIDGE	FULL C.E. ITEMS	GOV'T NON PARTIC.	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND
1					1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-
1					1		EACH	REMOVING LARGE TREES	201.16	-
9800					9800		CY	COMMON EXCAVATION	203.15	EST.
1700					1700		CY	SOLID ROCK EXCAVATION	203.16	EST.
40					40		CY	UNCLASSIFIED EXCAVATION	203.17	1.7
1750					1750		CY	EARTH BORROW	203.30	EST.
4400					4400		CY	TRENCH EXCAVATION OF EARTH	204.20	48.7
1050					1050		CY	TRENCH EXCAVATION OF ROCK	204.21	12.9
100					100		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-
200					200		CY	GRANULAR BACKFILL FOR STRUCTURES	204.30	31
99800					99800		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	999
15500					15500		LF	MILLED RUMBLE STRIPS	213.10	184
5000					5000		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	EST.
1700					1700		TON	AGGREGATE SHOULDERS, RAP	402.13	EST.
1					1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-
13500					13500		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	490.30	139
1					1		LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	490.31	-
1					1		LU	MAT DENSITY PAY ADJUSTMENT (N.A.B.I.)	490.32	-
1					1		LU	SURFACE TOLERANCE PAY ADJUSTMENT (N.A.B.I.)	490.33	-
1					1		LU	LONGITUDINAL JOINT COMPACTION PAY ADJUSTMENT (N.A.B.I.)	490.34	-
		115			115		LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	3
1					1		LS	PRECAST CONCRETE STRUCTURE (HEADWALL)	540.10	
		100			100		CF	RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE	580.20	-
60					60		LF	12" CSP .064 (2-2/3 X 1/2)	601.0005	-
6					6		LF	24" CSP .064 (2-2/3 X 1/2)	601.0025	-
24					24		LF	15" RCP CLASS IV	601.0811	-
110					110		LF	18" CPEP(SL)	601.2615	3.5
6					6		LF	24" CPEP(SL)	601.2620	-
7					7		EACH	PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE	604.18	-
3					3		EACH	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	604.20	-
19					19		EACH	REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	-
				1	1		EACH	CHANGING ELEVATION OF SEWER MANHOLES	604.42	-
13400					13400		LF	6 INCH UNDERDRAIN PIPE	605.10	210.5
50					50		HR	POWER GRADER RENTAL	608.15	EST.
700					700		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.
35					35		HR	POWER BROOM RENTAL, TYPE I	608.30	EST.
900					900		HR	TRUCK RENTAL	608.37	EST.
30					30		HR	LOADER RENTAL, TYPE I	608.40	EST.
1600					1600		CY	STONE FILL, TYPE I	613.10	30
100					100		CY	STONE FILL, TYPE II	613.11	-

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		COLD PLANING, BITUMINOUS PAVEMENT
97016	SY	MAINLINE
1785	SY	SIDEROAD APRONS
999	SY	ROUNDING
99800	SY	TOTAL
		SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE IVS)
		WEARING COURSE
9661	TON	TYPE IVS
		LEVELING COURSE
3335	TON	TYPE IVS
		SIDEROADS
208	TON	TYPE IVS
		PULLOFFS
157	TON	TYPE IVS
139	TON	ROUNDING
13500	TON	TOTAL
		TRENCH EXCAVATION OF EARTH
169	CY	ITEM DETAIL SHEET 4
4182.3	CY	UNDERDRAIN DETAIL SHEET
48.7	CY	ROUNDING
4400	CY	TOTAL
		STONE FILL , TYPE I
1120	CY	ITEM DETAIL SHEET 4
450	CY	DRAINAGE DETAIL SHEET
30	CY	ROUNDING
1600	CY	TOTAL

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244quant.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
QUANTITY SHEET 1

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 13 OF 21

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	TRAINING	BRIDGE	FULL C.E. ITEMS	GOV'T NON PARTIC.	TOTALS GRAND TOTAL	TOTALS FINAL	UNIT	DESCRIPTIONS ITEMS	ITEM NUMBER	ROUND
815					815		LF	TREATED TIMBER CURB	616.35	10
20					20		EACH	RELOCATE MAILBOX, SINGLE SUPPORT	617.10	EST.
200					200		EACH	YIELDING MARKER POSTS	619.17	10
200					200		LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	12.5
1375					1375		LF	STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS	621.205	20
75					75		LF	STEEL BEAM GUARDRAIL, GALVANIZED/NESTED W/8 FEET POSTS	621.207	-
165					165		LF	HD STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS	621.215	-
10					10		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-
9700					9700		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	37
				4	4		EACH	ADJUST ELEVATION OF VALVE BOX	629.20	-
1230					1230		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.
10000					10000		HR	FLAGGERS	630.15	EST.
			1		1		LS	FIELD OFFICE, ENGINEERS	631.10	-
			1		1		LS	FIELD OFFICE, SOILS AND MATERIALS	631.11	-
			1		1		LS	TESTING EQUIPMENT, CONCRETE	631.16	-
			1		1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-
			3000		3000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26	-
	520				520		HR	EMPLOYEE TRAINEESHIP	634.10	-
1					1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-
1					1		LS	TRAFFIC CONTROL	641.10	-
3					3		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-
								BEGIN OPTION AA		
65000					65000		LF	DURABLE 4 INCH WHITE LINE, THERMOPLASTIC	646.402	266
65000					65000		LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404	266
								END OPTION AA		
60000					60000		LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414	350
								BEGIN OPTION BB		
500					500		LF	DURABLE 8 INCH YELLOW LINE, THERMOPLASTIC	646.452	3
500					500		LF	DURABLE 8 INCH YELLOW LINE, POLYUREA	646.454	3
								END OPTION BB		
								BEGIN OPTION CC		
420					420		LF	DURABLE 24 INCH STOP BAR, THERMOPLASTIC	646.482	7
420					420		LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.484	7
								END OPTION CC		
								BEGIN OPTION DD		
67					67		EACH	DURABLE LETTER OR SYMBOL, THERMOPLASTIC	646.492	-
67					67		EACH	DURABLE LETTER OR SYMBOL, POLYUREA	646.494	-
								END OPTION DD		
195000					195000		LF	TEMPORARY 4 INCH WHITE LINE, PAINT	646.602	798
176500					176500		LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	777

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		YIELDING MARKER POST
111	EA	ITEM DETAIL SHEET 4
79	EA	UNDERDRAIN DETAIL SHEET
10	EA	ROUNDING
200	EA	TOTAL

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244quant.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
QUANTITY SHEET 2

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 14 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 3

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	TRAINING	BRIDGE	FULL C.E. ITEMS	GOV'T NON PARTIC.
1550				
1250				
210				
12500				
14500				
2025				
1540				
3100				
13				
13				
470				
36500				
2700				
6650				
4500				
4500				
330				
2669				
183				
92				
70				
68				
1				
3				
5				
1				
5225				
12540				
1				
1				
1				
118000				
3550				
102000				
118000				
4200				
13500				
28000				
2725				
270				

TOTALS

GRAND TOTAL	FINAL
1550	
1250	
210	
12500	
14500	
2025	
1540	
3100	
13	
13	
470	
36500	
2700	
6650	
4500	
4500	
330	
2669	
183	
92	
70	
68	
1	
3	
5	
1	
5225	
12540	
1	
1	
1	
118000	
3550	
102000	
118000	
4200	
13500	
28000	
2725	
270	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
LF	TEMPORARY 8 INCH YELLOW LINE, PAINT	646.652	59
LF	TEMPORARY 24 INCH STOP BAR, PAINT	646.682	11
EACH	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	9
EACH	LINE STRIPING TARGETS	646.76	62
SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	EST.
SY	GEOTEXTILE FOR SILT FENCE	649.51	49
LB	SEED	651.15	EST.
LB	FERTILIZER	651.18	EST.
TON	AGRICULTURAL LIMESTONE	651.20	EST.
TON	HAY MULCH	651.25	EST.
CY	TOPSOIL	651.35	EST.
SY	GRUBBING MATERIAL (2")	651.40	259
SY	GRUBBING MATERIAL (6")	651.40	78
SY	TEMPORARY EROSION MATTING	653.20	154
LF	BARRIER FENCE	653.50	92
LF	EROSION LOG	653.60	92
SF	TRAFFIC SIGNS, TYPE A	675.20	12.89
LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	EST.
EACH	REMOVING SIGNS	675.50	-
EACH	ERECTING SALVAGED SIGNS	675.60	-
EACH	DELINEATOR WITH STEEL POST	676.10	-
EACH	REMOVAL OF EXISTING DELINEATOR	676.12	-
LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-
EACH	SPECIAL PROVISION (CORING CONCRETE)	900.620	-
EACH	SPECIAL PROVISION (CPM SCHEDULE)	900.620	-
EACH	SPECIAL PROVISION (GNSS CONSTRUCTION INSPECTION EQUIPMENT)	900.620	
LF	SPECIAL PROVISION (BARRIER FOR TEMPORARY BARRIER PROTECTION)	900.640	-
LF	SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)	900.640	
LS	SPECIAL PROVISION (GPS MACHINE CONTROL GRADING)	900.645	-
LS	SPECIAL PROVISION (INTELLIGENT COMPACTION FOR BITUMINOUS CONCRETE)	900.645	-
LS	SPECIAL PROVISION (INTELLIGENT COMPACTION FOR SUBBASE/RSB)	900.645	-
SY	SPECIAL PROVISION (COLD MIXED RECYCLED BITUMINOUS PAVEMENT, PORTLAND CEMENT)	900.675	527
SY	SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)	900.675	40.5
SY	SPECIAL PROVISION (RECLAIMED STABILIZED BASE)	900.675	1380
SY	SPECIAL PROVISION (RECLAIMED STABILIZED BASE, PORTLAND CEMENT)	900.675	527
TON	SPECIAL PROVISION (AGGREGATE TO MEET COLD MIXED GRADATION)	900.680	94
TON	SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE)	900.680	139
TON	SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE, COLD MIX)	900.680	627
TON	SPECIAL PROVISION (PORTLAND CEMENT FOR BASE STABILIZATION)	900.680	29
TON	SPECIAL PROVISION (PORTLAND CEMENT FOR COLD MIXED RECYCLING)	900.680	6

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		TOPSOIL
110	SY	ITEM DETAIL SHEET 4
350	SY	GUARDRAIL DETAIL SHEET 2
10	SY	ROUNDING
470	SY	TOTAL
		TEMPORARY EROSION MATTING
2622	SY	ITEM DETAIL SHEET 4
2124	SY	DITCH CLEANING DETAIL SHEET
1750	SY	GUARDRAIL DETAIL SHEET 2
154	SY	ROUNDING
6650	SY	TOTAL
		SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE)
9661	TON	MAINLINE
3335	TON	LEVELING
208	TON	SIDE ROADS
157	TON	PULL OFFS
139	TON	ROUNDING
13500	TON	TOTAL

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244quant.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
QUANTITY SHEET 3

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 15A OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 4

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	TRAINING	BRIDGE	FULL C.E. ITEMS	GOV'T NON PARTIC.
53000				
760				
15500				
1500				

TOTALS

GRAND TOTAL	FINAL
53000	
760	
15500	
1500	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
TON	SPECIAL PROVISION (RSB SUPPLEMENTAL AGGREGATE MATERIAL)	900.680	982
CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT)(RS-IH OR CRS-IH)	900.683	18.6
CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT, COLD MIX WITH CEMENT)	900.683	167
CWT	SPECIAL PROVISION (FOG SEAL SURFACE TREATMENT)	900.683	19.8

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		SPECIAL PROVISION (RSB SUPPLEMENTAL AGGREGATE MATERIAL)
39541	TON	RESHAPE ROADWAY
3405	TON	UNSUITABLE SHOULDER MATERIAL
9072	TON	UNSUITABLE SUBBASE MATERIAL
982	TON	ROUNDING
53000	TON	TOTAL

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244quant.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
QUANTITY SHEET 4

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 15B OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SHEET 1

BEGIN STATION	END STATION	POS.	203.15 COMMON EXCAVATION	203.16 SOLID ROCK EXCAVATION	204.20 TRENCH EXCAV. OF EARTH	204.30 GRAN. BACKFILL FOR STRUCTURES	402.13 AGG. SHOULD. RAP	540.10 PRECAST CONCRETE STRUCTURE	601.0005 12" CSP .064 (2-⅔X1/2)	601.0025 24" CSP .064 (2-⅔X1/2)	601.0811 15" RCP CLASS IV	601.2615 18" CPEP (SL)	601.2620 24" CPEP (SL)	604.18 PRECAST CONC. DI W/CAST GRATE	604.20 PRECAST CONC. CB W/CAST GRATE	604.412 REHAB. D. I. CLASS I	613.10 STONE FILL, TYPE I	619.17 YIELDING MARKER POSTS	651.35 TOPSOIL	651.40 GRUBBING MATERIAL (2")	651.40 GRUBBING MATERIAL (6")	653.20 TEMP. EROSION MATTING	REMARKS
			CY	CY	CY	CY	TON	LS	LF	LF	LF	LF	LF	EACH	EACH	EACH	CY	EACH	CY	SY	SY	SY	
BETHEL																							
124+05	370+41	LT&RT	7290				513									8		83	84	29110			
134+90	134+95	RT															2				4	4	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
140+00	141+10	RT															22				48	48	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
141+40	141+60	RT															5				12	12	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
141+75	142+10	RT															12				29	29	PLACE STONE FILL ON SLOPES GREATER
										2.25													THAN 1:1.5 FOR SLOPE STABILIZATION
145+54		LT			15	15				~~6~~				1									REMOVE EXISTING DROP INLET. INSTALL CONCRETE REINFORCED
											9.80												DROP INLET WITH CAST IRON GRATE. RIM EL. = 576.40
150+34		LT			15	15					~~6~~			1									REMOVE EXISTING DROP INLET. INSTALL CONCRETE REINFORCED
																							DROP INLET WITH CAST IRON GRATE. RIM EL. = 591.53
150+90	151+60	RT															12				24	24	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
152+40	152+49	RT															1				2	2	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
153+00	154+40	RT															27				58	58	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
154+21		LT			16	16					7.00		~~6~~	1									REMOVE EXISTING DROP INLET. INSTALL CONCRETE REINFORCED
																							DROP INLET WITH CAST IRON GRATE. RIM EL. = 584.87
163+30	163+50	LT															2				3	3	PLACE STONE FILL ON SLOPES GREATER
168+50				848.81																			THAN 1:1.5 FOR SLOPE STABILIZATION
~~166+50~~	171+50	LT		~~508.5~~																			
167+75		LT									7.00			1									
168+25	168+50	RT															3				6	6	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
168+30	168+40	LT															2				4	4	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
169+20	169+70	RT															9				18	18	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
171+30	171+60	LT															8				18	28	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
173+80	174+50	RT															13				26	26	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
177+00	177+10	RT															3				7	7	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
180+00	180+40	LT															11				27	27	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
180+10	180+70	RT															19				46	46	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
180+90	181+00	RT															3				8	8	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
189+20	189+44	RT															3				5	5	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
213+80	214+00	RT															3				6	6	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
SUBTOTAL			7290	~~508.5~~ 848.81	46	46	513	-	-	~~6~~ 2.25	~~6~~ 23.80	-	~~6~~	~~3~~ 4	-	8	160	83	84	29110	351	351	

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
ITEM DETAIL SHEET I

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 16 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SHEET 2

BEGIN STATION	END STATION	POS.	203.15 COMMON EXCAVATION	203.16 SOLID ROCK EXCAVATION	204.20 TRENCH EXCAV. OF EARTH	204.30 GRAN. BACKFILL FOR STRUCTURES	402.13 AGG. SHOULD. RAP	540.10 PRECAST CONCRETE STRUCTURE	601.0005 12" CSP .064 (2-⅔X1/2)	601.0025 24" CSP .064 (2-⅔X1/2)	601.0811 15" RCP CLASS IV	601.2615 18" CPEP (SL)	601.2620 24" CPEP (SL)	604.18 PRECAST CONC. DI W/CAST GRATE	604.20 PRECAST CONC. CB W/CAST GRATE	604.412 REHAB. D. I. CLASS I	613.10 STONE FILL, TYPE I	619.17 YIELDING MARKER POSTS	651.35 TOPSOIL	651.40 GRUBBING MATERIAL (2")	651.40 GRUBBING MATERIAL (6")	653.20 TEMP. EROSION MATTING	REMARKS
			CY	CY	CY	CY	TON	LS	LF	LF	LF	LF	LF	EACH	EACH	EACH	CY	EACH	CY	SY	SY	SY	
220+25	220+30	LT															1				1	1	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
220+40	220+60	LT															2				2	2	PLACE STONE FILL ON SLOPES GREATER
	220+43	RT							4.00			6.00											THAN 1:1.5 FOR SLOPE STABILIZATION
232+21		LT			15	15			~~6~~					1									REMOVE EXISTING DROP INLET. INSTALL CONCRETE REINFORCED
																							DROP INLET WITH CAST IRON GRATE. RIM EL. = 624.59
233+30	234+40	LT															16				29	29	PLACE STONE FILL ON SLOPES GREATER
	237+63											53.00		1									THAN 1:1.5 FOR SLOPE STABILIZATION
238+60	239+00	RT															8				16	16	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
288+90	289+90	LT															26				62	62	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
289+40	290+40	RT															21				48	48	PLACE STONE FILL ON SLOPES GREATER
												118.90											THAN 1:1.5 FOR SLOPE STABILIZATION
294+38	295+38	LT			52	52			21			~~106.5~~			2								REMOVE EXISTING CATCH BASINS. INSTALL CONCRETE REINFORCED
																							CATCH BASINS WITH CAST IRON GRATE. RIM EL. = 757.82
																							STA. 295+16 RIM EL. = 759.23
299+80	301+40	RT															44				105	105	PLACE STONE FILL ON SLOPES GREATER
	300+14	L/R									5.25	49.00											THAN 1:1.5 FOR SLOPE STABILIZATION
302+26		LT			15	15					~~6~~			1									REMOVE EXISTING DROP INLET. INSTALL CONCRETE REINFORCED
																							DROP INLET WITH CAST IRON GRATE. RIM EL. = 731.57
303+10	303+95	RT															17				35	35	PLACE STONE FILL ON SLOPES GREATER
309+50	311+50			280.85																			THAN 1:1.5 FOR SLOPE STABILIZATION
~~309+90~~	~~311+00~~	LT		~~122.3~~																			
	308+75	LT										30.00											
311+80	312+50	RT															15				35	35	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
316+50	316+80	LT															10				26	26	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
316+80	317+90	RT															34				84	84	PLACE STONE FILL ON SLOPES GREATER
318+00	320+00			420.62																			THAN 1:1.5 FOR SLOPE STABILIZATION
~~318+25~~	~~320+50~~	LT		~~279.7~~																			
320+80	321+60	RT															21				51	51	PLACE STONE FILL ON SLOPES GREATER
									30.00														THAN 1:1.5 FOR SLOPE STABILIZATION
325+69	325+90	LT			10	10			~~33~~						1								REMOVE EXISTING DROP INLET. INSTALL CONCRETE REINFORCED
	325+91	LT										1.50											DROP INLET WITH CAST IRON GRATE. RIM EL. 673.23
330+90	332+30	LT															27				58	58	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
333+30	332+50	RT															2				2	2	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
335+10	336+20	RT															23				50	50	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
									55.00														
SUBTOTAL			-	~~402~~ 701.47	92	92	-	-	~~60~~	-	~~6~~ 5.25	~~106.5~~ 258.40	-	~~2~~ 3	3	-	267	-	-	-	604	604	

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)

FILE NAME: z10c244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
ITEM DETAIL SHEET 2	SHEET 17 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SHEET 3

BEGIN STATION	END STATION	POS.	203.15 COMMON EXCAVATION	203.16 SOLID ROCK EXCAVATION	204.20 TRENCH EXCAV. OF EARTH	204.30 GRAN. BACKFILL FOR STRUCTURES	402.13 AGG. SHOULD. RAP	540.10 PRECAST CONCRETE STRUCTURE	601.0005 12" CSP .064 (2-⅔X1/2)	601.0025 24" CSP .064 (2-⅔X1/2)	601.0811 15" RCP CLASS IV	601.2615 18" CPEP (SL)	601.2620 24" CPEP (SL)	604.18 PRECAST CONC. DI W/CAST GRATE	604.20 PRECAST CONC. CB W/CAST GRATE	604.412 REHAB. D. I. CLASS I	613.10 STONE FILL, TYPE I	619.17 YIELDING MARKER POSTS	651.35 TOPSOIL	651.40 GRUBBING MATERIAL (2")	651.40 GRUBBING MATERIAL (6")	653.20 TEMP. EROSION MATTING	REMARKS
			CY	CY	CY	CY	TON	LS	LF	LF	LF	LF	LF	EACH	EACH	EACH	CY	EACH	CY	SY	SY	SY	
336+95	338+50	RT															61				158	158	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
340+10	340+20	RT															2				3	3	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
340+70	344+60	RT															99				231	231	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
344+80	345+60	RT															18				40	40	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
345+80	347+70	LT															56				138	138	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
348+00	350+50	RT															66				156	156	PLACE STONE FILL ON SLOPES GREATER
350+70	357+00			739.99																			THAN 1:1.5 FOR SLOPE STABILIZATION
~~351+00~~	~~357+60~~	LT		~~367.3~~																			
352+40	353+90	RT															36				82	82	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
353+90	354+20	LT															15				41	41	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
354+60	355+10	RT															5				7	7	PLACE STONE FILL ON SLOPES GREATER
358+00																							THAN 1:1.5 FOR SLOPE STABILIZATION
~~348+00~~	359+40	RT															39				95	95	PLACE STONE FILL ON SLOPES GREATER
											7.50												THAN 1:1.5 FOR SLOPE STABILIZATION
358+65		LT			15	15					~~6~~			1									REMOVE EXISTING DROP INLET. INSTALL CONCRETE REINFORCED
																							DROP INLET WITH CAST IRON GRATE. RIM EL. = 275.26
360+10	360+20	LT															5				12	12	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
367+40	367+60	RT															4				10	10	PLACE STONE FILL ON SLOPES GREATER
369+40	A1+15			305.24																			THAN 1:1.5 FOR SLOPE STABILIZATION
~~369+40~~	~~370+41~~	LT		~~67.4~~																			
370+30	370+41	RT															2				5	5	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
RANDOLPH																							
A 0+00	A 77+56	LT&RT	2290				161									11		28	26	7131			
A 0+00	A 1+15	LT		~~83.1~~																			
A 0+00	A 0+07	RT															2				8	8	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
A 2+60	A 4+80	RT															55				129	129	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
A 3+70	A 3+80	LT															2				3	3	PLACE STONE FILL ON SLOPES GREATER
				405.60																			THAN 1:1.5 FOR SLOPE STABILIZATION
A 5+00	A 6+50	LT		~~246.1~~																			
A 5+10	A 5+20	LT															4				11	11	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
SUBTOTAL			2290	~~763.9~~	15	15	161	-	-	-	~~6~~	-	-	1	-	11	471	28	26	7131	1129	1129	
				1,450.83							7.50												

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
ITEM DETAIL SHEET 3

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 18 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SHEET 4

BEGIN STATION	END STATION	POS.	203.15 COMMON EXCAVATION	203.16 SOLID ROCK EXCAVATION	204.20 TRENCH EXCAV. OF EARTH	204.30 GRAN. BACKFILL FOR STRUCTURES	402.13 AGG. SHOULD. RAP	540.10 PRECAST CONCRETE STRUCTURE	601.0005 12" CSP .064 (2-⅔X1/2)	601.0025 24" CSP .064 (2-⅔X1/2)	601.0811 15" RCP CLASS IV	601.2615 18" CPEP (SL)	601.2620 24" CPEP (SL)	604.18 PRECAST CONC. DI W/CAST GRATE	604.20 PRECAST CONC. CB W/CAST GRATE	604.412 REHAB. D.I. CLASS I	613.10 STONE FILL, TYPE I	619.17 YIELDING MARKER POSTS	651.35 TOPSOIL	651.40 GRUBBING MATERIAL (2")	651.40 GRUBBING MATERIAL (6")	653.20 TEMP. EROSION MATTING	REMARKS
			CY	CY	CY	CY	TON	LS	LF	LF	LF	LF	LF	EACH	EACH	EACH	CY	EACH	CY	SY	SY	SY	
A 10+80	A 12+60	RT															47				109	109	PLACE STONE FILL ON SLOPES GREATER
											5.50												THAN 1:1.5 FOR SLOPE STABILIZATION
A 11+96		LT			16	16					~~6~~			1									REMOVE EXISTING DROP INLET. INSTALL CONCRETE REINFORCED
																							DROP INLET WITH CAST IRON GRATE. RIM EL. = 743.16
A 15+50	A 16+60	RT															32				78	78	PLACE STONE FILL ON SLOPES GREATER
	A 32+65	RT										4.00											THAN 1:1.5 FOR SLOPE STABILIZATION
A 25+90	A 26+30	RT															15				38	38	PLACE STONE FILL ON SLOPES GREATER
	A 32+50											40.00											THAN 1:1.5 FOR SLOPE STABILIZATION
A 36+18		LT						1				2.50											INSTALL PRECAST CONCRETE HEADWALL
																							PIPE INV. = 711.71, TOP OF HEADWALL EL. = 714.73
A 40+40	A 40+90	RT															12				27	27	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
A 41+80	A 43+35	RT															44				107	107	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
A 49+00	A 50+40	RT															54				140	140	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
A 49+30	A 50+40	LT															18				39	39	PLACE STONE FILL ON SLOPES GREATER
																							THAN 1:1.5 FOR SLOPE STABILIZATION
	A 32+65	RT						1															
SUBTOTAL THIS SHEET			-	-	16	16	-	1	-	-	~~6~~	46.50	-	1	-	-	222	-	-	-	538	538	
SUBTOTAL SHEET 1			7290	508.5	46	46	513	-	-	~~6~~	~~6~~	-	~~6~~	~~3~~ 4	-	8	160	83	84	29110	351	351	
SUBTOTAL SHEET 2			-	402.0	92	92	-	-	~~60~~	-	~~6~~	~~106.5~~ 258.40	-	~~2~~ 4	3	-	267	-	-	-	604	604	
SUBTOTAL SHEET 3			2290	763.9	15	15	161	-	-	-	~~6~~		-	1	-	11	471	28	26	7131	1129	1129	
ROUNDING			220	25.6	-	31	26	-	-	-	-	3.5	-	-	-	-	-	-	-	259	78	-	
TOTAL			9800	1700	169	200	700	1	~~60~~ 55.00	~~6~~ 2.25	~~24~~ 42.05	~~110~~ 304.90	~~6~~ 0.0	~~7~~ 10.00	3	19	1120	111	110	36500	2700	2622	

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)

FILE NAME: z10c244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
ITEM DETAIL SHEET 4	SHEET 19 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

GUARDRAIL DETAIL SHEET 1

BEGIN STATION	END STATION	POS.	203.30 EARTH BORROW CY	616.35 TREATED TIMBER CURB LF	621.20 S.B. G.R. GALV LF	621.205 STEEL BEAM G.R. GALV W/8FT POSTS LF	621.207 STEEL BEAM G.R. GALV/NEST W/8 FT POSTS LF	621.215 HD S.B. G.R. GALV. W/8 FT POSTS LF	621.60 ANCHOR FOR S.B. G.R. EACH	621.80 REMOVE & DISP. OF G.R. LF	651.35 TOPSOIL CY	653.20 TEMP. EROSION MATTING SY	676.10 DELINE. WITH STEEL POSTS EACH	676.12 REMOVAL OF EXIST. DELINE. EACH	900.640 BOX BEAM GUARDRAIL W/7 FEET POSTS LF	REMARKS
142+93 BETHEL						25				62.5						
~~142+43~~	143+68	LT	50		25	~~75~~	25		2	~~69~~	10	50	2	2		SEE VTRANS STANDARD G-ID
										62.5						
143+19.5	144+44.5	RT	50		25	75	25		2	~~69~~	10	50	2	2		SEE VTRANS STANDARD G-ID
150+00	155+98									162.5					548	
~~148+90~~	~~152+92~~	RT	50							~~156~~	10	50	2	2	~~402~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
162+44	165+54														310	
~~162+08~~	~~165+38~~	LT	50							175	10	50	2	2	~~330~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS 162+44 BURY IN BACKSLOPE
										125					296	
161+21	164+15	RT	50							~~94~~	10	50	2	2	~~294~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
										375					389	
167+00	170+78	RT	50							~~369~~	10	50	2	2	~~378~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
										150					303	
178+20.5	181+14.5	RT	50							~~144~~	10	50	2	2	~~294~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS 178+20 BURY IN BACKSLOPE
179+98	180+98									150						
~~178+98~~	~~182+22~~	LT	50		54	100			2	~~144~~	10	50	2	2	~~324~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
204+83	205+39									50						
~~204+14~~	~~205+22~~	RT	25		14.5	12.5		25	1	~~25~~	5	25	1	1	~~108~~	CONNECT BOX BEAM TO FIRST 12.5'LONG PANEL AND
204+84	205+34									37.5						SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
204+86	~~205+22~~	LT	25		39.5			12.5	1	~~25~~	5	25	1	1	~~36~~	CONNECT BOX BEAM TO FIRST 12.5'LONG PANEL AND
205+99	209+55									337.5					357	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
~~205+90~~	~~209+26~~	RT	25							~~338~~	5	25	1	1	~~336~~	CONNECT BOX BEAM TO FIRST 12.5'LONG PANEL AND
205+97	207+60														163	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
~~205+90~~	~~207+70~~	LT	25							50	5	25	1	1	~~180~~	CONNECT BOX BEAM TO FIRST 12.5'LONG PANEL AND
224+57	227+07					225		12.5								SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
~~224+62.5~~	~~227+12.5~~	RT	50		25	~~200~~	~~25~~		2	100	10	50	2	2		SEE VTRANS STANDARD G-ID
	235+16			228						325					560	
229+56	~~235+50~~	LT	50	~~255~~						~~331~~	10	50	2	2	~~594~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	240+32									162.5					391	
236+41	~~240+13~~	RT	50							~~169~~	10	50	2	2	~~372~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
										112.5					290	
267+95	270+83	RT	50							~~88~~	10	50	2	2	~~288~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	271+18									100					248	
268+70.5	~~271+40.5~~	LT	50							~~75~~	10	50	2	2	~~270~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
282+24	282+62				39.5					37.5						
~~282+20.5~~	~~283+95.5~~	RT	25		~~12.5~~	~~137.5~~		~~25~~	1	~~172~~	5	25	1	1		SEE VTRANS STANDARD G-ID
282+86.5	283+99	LT	25		~~12.5~~	~~75~~		~~25~~		~~113~~	5	25	1	1		SEE VTRANS STANDARD G-ID
290+36	290+86				52					50						
~~287+51~~	~~290+87~~	RT	25		~~12.5~~	~~300~~		~~25~~	1	~~336~~	5	25	1	1		SEE VTRANS STANDARD G-ID
287+51	291+53	LT	25		~~12.5~~	~~367.5~~		~~25~~		~~400~~	5	25	1	1		SEE VTRANS STANDARD G-ID
	305+26														574	
299+52	~~304+98~~	RT	50							300	10	50	2	2	~~546~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
SUBTOTAL			900	~~255~~ 228	125	1230	75	100	6	3742	180	900	36	36	4752	
					197.5	437.5	50	50	12	2925					4429	

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: zl0c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
GUARDRAIL DETAIL SHEET I

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 20 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

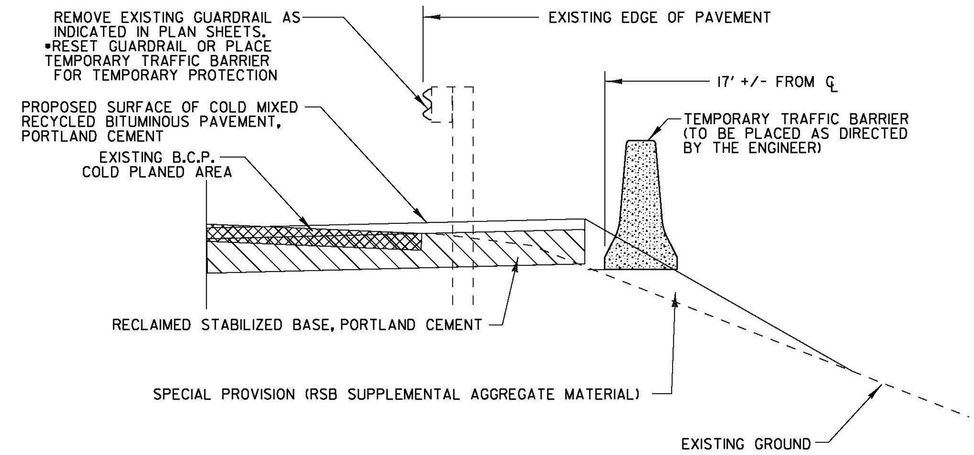
GUARDRAIL DETAIL SHEET 2

BEGIN STATION	END STATION	POS.	203.30 EARTH BORROW	616.35 TREATED TIMBER CURB	621.20 S.B. G.R. GALV	621.205 STEEL BEAM G.R. GALV W/8FT POSTS	621.207 STEEL BEAM G.R. GALV/NEST W/8 FT POSTS	621.215 HD S.B. G.R. GALV. W/8 FT POSTS	621.60 ANCHOR FOR S.B. G.R.	621.80 REMOVE & DISP. OF G.R.	651.35 TOPSOIL	653.20 TEMP. EROSION MATTING	676.10 DELINE. WITH STEEL POSTS	676.12 REMOVAL OF EXIST. DELINE.	900.640 BOX BEAM GUARDRAIL W/7 FEET POSTS	REMARKS
	308+06		CY	LF	LF	LF	LF	LF	EACH	LF	CY	SY	EACH	EACH	LF	
305+34	~~308+04~~	RT	50							~~225~~ 337.5	10	50	2	2	~~270~~ 272	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	308+66															
305+70	~~308+52~~	LT	50							~~156~~ 193.5	10	50	2	2	~~282~~ 285	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
310+76	313+70	RT	50							~~144~~ 162.5	10	50	2	2	~~294~~ 296	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	314+47															
~~314+89~~	319+03	RT	50							~~190~~ 212.5	10	50	2	2	~~414~~ 418	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	318+24															
316+10	~~318+20~~	LT	50							~~113~~ 137.5	10	50	2	2	~~210~~ 214	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	330+32			558												
~~330+00~~	339+48	RT	50	~~550~~						~~888~~ 887.5	10	50	2	2	~~948~~ 946	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	330+02															
~~330+10~~	332+80	LT	50							~~250~~ 212.5	10	50	2	2	~~270~~ 278	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	339+85															
~~339+89~~	350+87	RT	50							~~1100~~ 1167	10	50	2	2	~~1098~~ 1102	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	363+82															
351+86	~~363+68~~	RT	50							~~694~~ 725	10	50	2	2	1182 1138	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
362+67.5	364+12.5															
~~361+75~~	~~365+05~~	LT	50		50	75	25		2		10	50	2		~~330~~	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
366+12	370+41	RT	25							~~431~~ 412.5	5	25	1	1	~~429~~ 427	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
RANDOLPH																
	A 6+13															
A 0+00	~~A 6+09~~	RT	25							~~407~~ 325	5	25	1	1	~~609~~ 613	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
A 14+70	A 17+28	RT	50							~~192~~ 187.5	10	50	2	2	~~258~~ 260	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	A 24+95				14.5	62.5										
~~A 24+57~~	A 25+82	RT	25		~~12.5~~	~~87.5~~		~~32.5~~ 50	1	~~31~~ 25	5	25	1	1		SEE VTRANS STANDARD G-ID
					2											
A 25+70.5	A 25+95.5	LT	25		~~12.5~~	~~12.5~~		30	1	25	5	25	1	1		SEE VTRANS STANDARD G-ID
					14.5											
A 26+25	A 26+45.5	LT	25		~~25~~			12.5	1	25	5	25	1	1		SEE VTRANS STANDARD G-ID
					14.5											
A 26+49.5	A 27+12	RT	25		~~12.5~~	25		32.5	1	~~31~~ 62.5	5	25	1	1		SEE VTRANS STANDARD G-ID
A 60+63	A 65+37	RT	50							~~475~~ 487.5	10	50	2	2	~~474~~ 487.5	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	A 67+06															
A 62+93	~~A 67+55~~	LT	50							~~369~~ 362.5	10	50	2	2	~~462~~ 416	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
	A 75+39															
A 72+73	~~A 75+25~~	RT	50							175	10	50	2	2	~~252~~ 266	SEE VTRANS STANDARD G-IBM FOR END SECTION DETAILS
				558												
SUBTOTAL THIS SHEET			850	550	62.5	~~125~~ 162.5	25	~~65~~ 123	~~46~~ 46	~~5921~~ 6082	170	850	34	32	~~7762~~ 7777.5	
SUBTOTAL SHEET 1			900	~~255~~ 228	~~125~~ 214.5	~~1230~~ 1437.5	~~75~~ 50	~~100~~ 241	~~6~~ 12	~~3742~~ 3923	180	900	36	36	~~4752~~ 4963	
ROUNDING			-	10	12.5	20	-	-	-	37	-	-	-	-	6	
TOTAL			1750	~~815~~ 786	~~200~~ 370	~~1375~~ 600	75	~~165~~ 175	~~10~~ 18	~~9700~~ 9017	350	1750	70	68	~~12540~~ 11906.5	

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
GUARDRAIL DETAIL SHEET 2	SHEET 21 OF 211

CONSTRUCTION OPERATIONS TRAFFIC PROTECTION PLAN

EXISTING GUARDRAIL INVENTORY								PROTECTION PLAN	
BEGIN STA.	END STA.	OFFSET	LENGTH (LF)	RETAIN/REPLACE (Y/N)	APPROX. OFFSET DISTANCE FROM PROPOSED CENTERLINE TO FACE OF EXISTING RAIL (LF)	EXISTING RAIL TYPE (POST AND BARRIER)	ASSESSED CONDITION (GOOD/FAIR/POOR)	CONSTRUCTION CONDITION	900.640 BARRIER FOR TEMPORARY TRAFFIC PROTECTION (LF)
BETHEL - ROUTE 12									
14305	14366	LT	61	N	14.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
14324	14385	RT	61	N	12	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
15023	15190	RT	167	N	14.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
16250	16337.5	RT	87.5	N	16.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
16250	16425	LT	175	N	14-15	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
16703	17071	RT	368	N	15-16.5	STEEL W-BEAM	POOR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
17960	18100	LT	140	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	150
17981	18117	RT	136	N	13	STEEL W-BEAM	POOR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	150
20498	20925	RT	427	N	10	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	425
20499	20640	LT	141	N	10.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	150
22607	22707	RT	100	N	11.5	STEEL W-BEAM	GOOD	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
23183	23511	LT	328	N	11.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
23777	23942	RT	165	N	13	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
26926	27015	RT	89	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	100
26926	27002.5	LT	76.5	N	12.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	75
28224	28408	RT	N/A	N	13.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	75
28287	28412	LT	125	N	12	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	125



TEMPORARY PROTECTION AND DELINEATION DETAILS FOR ROADSIDE HAZARDS DURING CONSTRUCTION

NOT TO SCALE

•• PAYMENT FOR THIS WORK WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244det.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: J. GOODALL
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CONST. OPER. TRF. PROT. PLAN SHEET 1	SHEET 22 OF 211

28738	29156	LT	418	N	12.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	425
28738	29090	RT	352	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	350
30208	30498	RT	290	N	13-16.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
30534	30762	RT	228	N	13.5-14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	50
30669	30819	LT	150	N	14-15	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
31145	31286	RT	141	N	12.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
31611	31727	LT	116	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
31640	31827	RT	187	N	15	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	200
33030	33278	LT	248	N	13.5	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
33057	33947	RT	890	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	900
33989	35085	RT	1096	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	1100
35192	35618	RT	426	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	425
36097	36361	RT	264	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
36609	37041	RT	432	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
Randolph - Route 12									
A+STA.									
0	82	RT	82	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
210	535	RT	325	N	14	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	325
2553	2678.5	RT	125.5	N	15	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	125
2570.5	2645.5	LT	75	N	16	STEEL W-BEAM	FAIR	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS. INSTALL TEMPORARY GUARDRAIL IMMEDIATELY AFTER CONSTRUTION OF SLOPES.	75
6077	6539	RT	462	N	22.5	STEEL W-BEAM	GOOD	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
6327	6687	LT	360	N	22	STEEL W-BEAM	GOOD	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
7272	7447	RT	175	N	17	STEEL W-BEAM	GOOD	REMOVE BEFORE CONSTRUCTING SIDE SLOPES AND DELINEATE WITH BARRELS	
								TOTAL =	**5225**

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244det.dgn
PROJECT LEADER:
DESIGNED BY:
CONST. OPER. TRF. PROT. PLAN SHEET 2

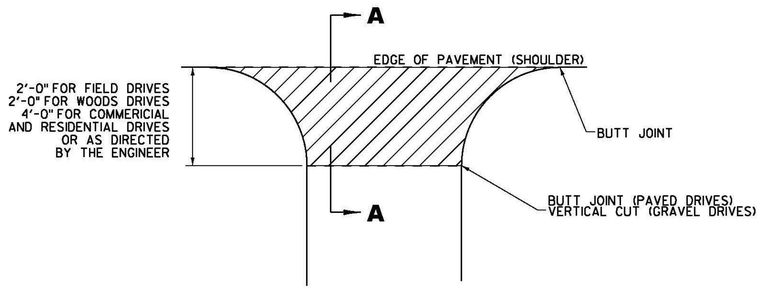
PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 23 OF 211

STATION	POSITION	TYPE	QUANTITY (SY)
BETHEL			
124+56	RT	GRAVEL	48.7
125+64	RT	GRAVEL	70.9
126+63	LT	PAVED	50.5
127+16	RT	GRAVEL	17.4
127+75	LT	GRAVEL	8.9
129+06	LT	GRAVEL	14.1
129+50	RT	GRAVEL	11.2
130+31	LT	GRAVEL	28.7
131+12	LT	GRAVEL	6.3
132+02	LT	GRAVEL	24.4
133+28	LT	GRAVEL	9.8
133+87	LT	GRAVEL	14.8
137+32	LT	PAVED	28.5
143+08	RT	FIELD	21.9
143+83	LT	GRAVEL	11.7
145+33	LT	GRAVEL	17.0
146+95	LT	GRAVEL	23.8
148+51	RT	PAVED	24.5
149+48	LT	PAVED	8.8
150+66	LT	PAVED	33.0
156+37	RT	GRAVEL	65.7
157+08	LT	WOODS	1.7
166+60	RT	PAVED	34.3
171+30	RT	GRAVEL	81.0
172+53	RT	PAVED	11.7
175+10	RT	PAVED	10.8
181+24	RT	FIELD	2.5
183+43	LT	GRAVEL	22.1
198+25	RT	GRAVEL	61.7
204+68	LT	GRAVEL	16.0
209+58	LT	GRAVEL	10.7

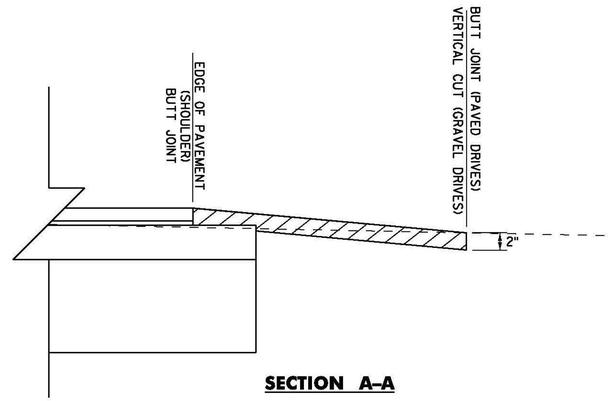
STATION	POSITION	TYPE	QUANTITY (SY)
214+43	RT	FIELD	10.9
214+93	LT	GRAVEL	19.0
215+98	LT	FIELD	24.2
219+54	LT	GRAVEL	21.6
226+80	LT	GRAVEL	22.3
227+19	RT	FIELD	2.7
233+04	RT	PAVED	84.7
234+42	RT	FIELD	3.6
236+16	LT	PAVED	42.2
237+86	LT	FIELD	11.3
238+02	LT	WOODS	14.9
240+28	LT	FIELD	4.2
241+26	RT	GRAVEL	26.3
241+37	LT	PAVED	9.5
243+75	RT	FIELD	12.3
245+91	RT	GRAVEL	8.3
246+14	LT	GRAVEL	12.9
246+86	LT	PAVED	71.8
246+94	RT	GRAVEL	11.4
247+54	RT	GRAVEL	20.2
247+75	LT	PAVED	32.4
252+81	LT	FIELD	16.0
254+88	LT	GRAVEL	19.6
256+17	RT	FIELD	14.4
257+48	LT	FIELD	3.2
263+28	RT	FIELD	11.6
264+59	RT	GRAVEL	29.8
267+34	RT	GRAVEL	32.2
275+27	RT	GRAVEL	60.6
276+84	LT	GRAVEL	11.9
279+75	RT	GRAVEL	338.9

STATION	POSITION	TYPE	QUANTITY (SY)
281+89	RT	PAVED	50.0
281+99	LT	PAVED	22.4
291+13	RT	PAVED	15.1
294+63	RT	GRAVEL	34.9
294+91	LT	GRAVEL	14.2
299+07	RT	GRAVEL	21.6
305+29	RT	FIELD	21.3
308+25	RT	GRAVEL	9.0
308+82	LT	GRAVEL	11.9
309+08	RT	GRAVEL	17.9
310+02	RT	FIELD	13.6
310+59	RT	FIELD	10.7
315+35	LT	PAVED	62.1
324+16	RT	PAVED	32.3
328+33	RT	GRAVEL	57.3
329+66	RT	GRAVEL	17.2
329+81	LT	WOODS	37.4
333+00	LT	PAVED	6.2
333+38	LT	GRAVEL	86.7
336+52	LT	GRAVEL	24.9
339+44	RT	GRAVEL	28.3
349+94	LT	WOODS	11.8
351+42	RT	GRAVEL	36.8
365+19	RT	GRAVEL	136.7
RANDOLPH			
A 13+97	RT	GRAVEL	63.6
A 20+29	LT	GRAVEL	59.2
A 22+38	LT	GRAVEL	15.9
A 22+62	RT	GRAVEL	107.8

STATION	POSITION	TYPE	QUANTITY (SY)
A 23+03	LT	GRAVEL	15.8
A 23+67	LT	GRAVEL	6.6
A 24+19	RT	GRAVEL	17.9
A 25+03	LT	PAVED	104.4
A 26+63	LT	GRAVEL	34.3
A 28+38	RT	GRAVEL	49.2
A 29+13	RT	PAVED	13.8
A 31+73	LT	PAVED	20.4
A 34+25	RT	PAVED	28.8
A 39+78	LT	GRAVEL	52.0
A 46+19	LT	GRAVEL	43.3
A 50+85	LT	GRAVEL	14.6
A 52+39	RT	PAVED	37.2
A 53+51	RT	PAVED	16.9
A 54+84	LT	PAVED	26.6
A 57+17	LT	GRAVEL	25.2
A 58+42	LT	PAVED	22.8
A 58+65	RT	PAVED	17.1
A 59+15	LT	PAVED	19.0
A 59+68	RT	PAVED	18.0
A 65+55	RT	PAVED	25.8
A 70+97	LT	GRAVEL	9.9
A 72+32	RT	PAVED	60.1
A 75+56	RT	WOODS	5.0
		SUBTOTAL	3509.5
		ROUNDING	40.5
		TOTAL	3550.0



PLAN



SECTION A–A

HANDWORK DETAILS FOR DRIVES

VT ROUTE 12

NOTES:

1. PAVING LIFT NOT TO EXCEED 2".
2. THE COST OF PLACING SUBBASE MATERIAL, CLEANING EXISTING PAVED SURFACES, INCLUDING POWER EQUIPMENT, AND FOR FILLING JOINTS, CRACKS AND HOLES WILL NOT BE PAID DIRECTLY BUT WILL BE INCIDENTAL TO ITEM 900.675 "SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)".
3. EXCAVATION OR FILL NEEDED TO ACHIEVE PROPER DRIVE SLOPES WILL NOT BE PAID DIRECTLY BUT WILL BE INCIDENTAL TO ITEM 900.675 "SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)".

LEGEND

BITUMINOUS PAVEMENT, 900.675 "SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)"

DETAILS ARE NOT TO SCALE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

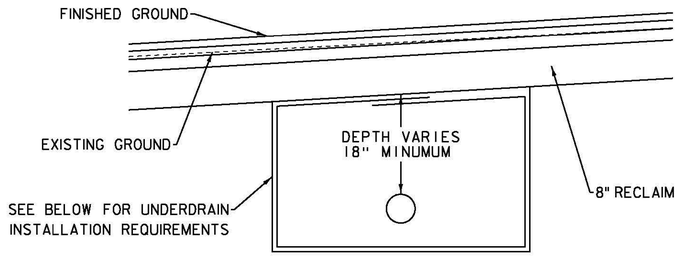
FILE NAME: z10c244det.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
HANDWORK DETAILS FOR DRIVES

PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 24 OF 211

LOCATION						MISC. ITEMS						REMARKS
SITE	STATION	STATION	POS.	605.10	*	*	204.20	204.21	*	619.17	* ITEMS TO BE PAID AS PART OF ITEM	
				6 INCH	DRAINAGE	GEOTEXTILE	TRENCH	TRENCH	SUBBASE OF CRUSHED	YIELDING	605.10 "6 INCH UNDERDRAIN PIPE"	
				UD PIPE	AGGREGATE	FOR TRENCH	EXCAVATION	EXC.OF ROCK	GRAVEL, FINE GRADED	MARKER POSTS		
				LF	CY	SY	CY	CY	CY	EA		
1	153+25	154+20	LT	95.0	35.2	147.8	29.9	5.3	13.2	2		
2	154+25	155+75	LT	150.0	55.6	233.3	47.3	8.3	20.8	2		
3	158+75	162+75	LT	400.0	148.1	622.2	125.9	22.2	55.6	2		
4	164+00	167+70 ~~168+00~~	LT	380 ~~400.0~~	148.1	622.2	125.9	22.2	55.6	2		
5	168+00	171+82 ~~171+75~~	LT	380 ~~375.0~~	138.9	583.3	118.1	20.8	52.1	2	BRING UNDERDRAIN ACROSS ROAD	
6	172+00	175+32	LT	340 ~~332.0~~	123.0	516.4	104.6	18.5	46.1	1	OUTLET ON RT. AT EL. = 632.25' CONNECT UNDERDRAIN TO CATCH	
7	178+00 ~~178+05~~	179+80 ~~180+00~~	RT	180 ~~195.0~~	72.2	303.3	61.4	10.8	27.1	2	BASIN (SP. PROV. "CORING CONCRETE")	
8	186+75	189+25	LT	250.0	92.6	388.9	78.7	13.9	34.7	2		
9	227+50	232+50	RT	500.0	185.2	777.8	157.4	27.8	69.4	2		
11	239+10 ~~239+25~~	240+70 ~~240+75~~	RT	160 ~~150.0~~	55.6	233.3	47.3	8.3	20.8	2	OUTLET ON LT. AT EL. = 636.50'	
12	262+00	264+00	LT	200.0	74.1	311.1	63.0	11.1	27.8	2		
13	265+50	269+00	LT	350.0	129.6	544.4	110.2	19.4	48.6	2		
14	278+00	283+00 ~~283+10~~	LT	500 ~~510.0~~	188.9	793.3	160.6	28.3	70.8	2		
15	291+49 ~~291+00~~	293+89 ~~294+25~~	LT	240 ~~325.0~~	120.4	505.6	102.3	18.1	45.1	2		
16	293+00	294+50	LT	150.0	55.6	233.3	47.3	8.3	20.8	2		
17	295+02 ~~295+04~~	296+52 ~~298+50~~	RT	150 ~~346.0~~	128.1	538.2	108.9	19.2	48.1	1	CONNECT UNDERDRAIN TO CATCH BASIN (SP. PROV. "CORING CONCRETE")	
18	296+75	300+08	LT	333.0	123.3	518.0	104.8	18.5	46.3	2	OUTLET UNDERDRAIN TO CROSS PIPE	
19	300+25	302+25	LT	200.0	74.1	311.1	63.0	11.1	27.8	1	CONNECT UNDERDRAIN TO CATCH BASIN (SP. PROV. "CORING CONCRETE")	
20	302+50	305+75	LT	325.0	120.4	505.6	102.3	18.1	45.1	2		
21	308+97 ~~309+00~~	311+85	LT	288 ~~285.0~~	105.6	443.3	89.8	15.8	39.6	2	OUTLET UNDERDRAIN TO CROSS PIPE	
22	312+00	316+25	LT	425.0	157.4	661.1	133.8	23.6	59.0	2		
23	314+25	315+53 ~~315+50~~	RT	128 ~~125.0~~	46.3	194.4	39.4	6.9	17.4	2		
24	318+00	321+50	LT	350.0	129.6	544.4	110.2	129.6	48.6	2	OUTLET UNDERDRAIN TO CROSS PIPE	
26	342+50 ~~341+50~~	345+00 ~~344+90~~	LT	340.0	125.9	528.9	107.0	18.9	47.2	2		
27	345+25	349+79 ~~349+50~~	LT	450 ~~425.0~~	157.4	661.1	133.8	23.6	59.0	2		
28	350+58 ~~350+70~~	352+98 ~~353+00~~	LT	240 ~~230.0~~	85.2	357.8	72.4	12.8	31.9	2		
29	353+16	355+50	LT	234.0	86.7	364.0	73.7	13.0	32.5	2		
30	355+67	358+50	LT	283.0	104.8	440.2	89.1	15.7	39.3	2		
31	358+65	360+00	LT	135.0	50.0	210.0	42.5	7.5	18.8	1	CONNECT UNDERDRAIN TO CATCH	
32	360+00	362+95 ~~363+00~~	LT	295 ~~300.0~~	111.1	466.7	94.4	16.7	41.7	2	BASIN (SP. PROV. "CORING CONCRETE") OUTLET UNDERDRAIN TO CROSS PIPE	
33	363+25 ~~363+00~~	365+25 ~~367+75~~	LT	200 ~~475.0~~	175.9	738.9	149.5	26.4	66.0	2	OUTLET UNDERDRAIN TO CROSS PIPE	
34	366+60 ~~367+50~~	A 3+50	LT	730 ~~641.5~~	237.6	997.9	202.0	35.6	96.0	2	BRING UNDERDRAIN ACROSS ROAD OUTLET ON RT. AT EL. = 679.25'	
35	A 4+20 ~~4+25~~	A 8+00	LT	380 ~~375.0~~	138.9	583.3	118.1	20.8	52.1	2		
36	A 8+20	A 11+80 ~~11+50~~	LT	360 ~~330.0~~	122.2	513.3	103.9	18.3	45.8	1	CONNECT UNDERDRAIN TO CATCH BASIN (SP. PROV. "CORING CONCRETE")	
37	A 12+00	A 14+00 ~~13+96~~	LT	200 ~~196.0~~	72.6	304.9	61.7	10.9	27.2	1	CONNECT UNDERDRAIN TO CATCH BASIN (SP. PROV. "CORING CONCRETE")	
38	A 28+50	A 31+20 ~~31+25~~	LT	270 ~~275.0~~	101.9	427.8	86.6	15.3	38.2	2		
39	A 33+00	A 36+18	LT	318.0	117.8	494.7	100.1	17.7	44.2	2		
40	A 40+75 ~~40+80~~	A 45+25	LT	450 ~~456.0~~	168.9	709.3	143.6	25.3	63.3	2		
41	A 46+50	A 49+00	LT	250.0	92.6	388.9	78.7	13.9	34.7	2		
42	A 51+05 ~~50+50~~	A 54+29 ~~54+00~~	LT	324 ~~350.0~~	129.6	544.4	110.2	19.4	48.6	2		
	SUBTOTAL			**13189.5**	**4920.3**	**20664.4**	**4182.3**	**1037.1**	**1851.9**	**79.0**		
	ROUNDING			**210.5**	-	-	`	**12.9**	-	-		
	TOTAL			**13400.0**	**4920.3**	**20664.4**	**	**1050.0**	**1851.9**	**	** SEE QUANTITY SHEETS FOR TOTAL QUANTITIES.	

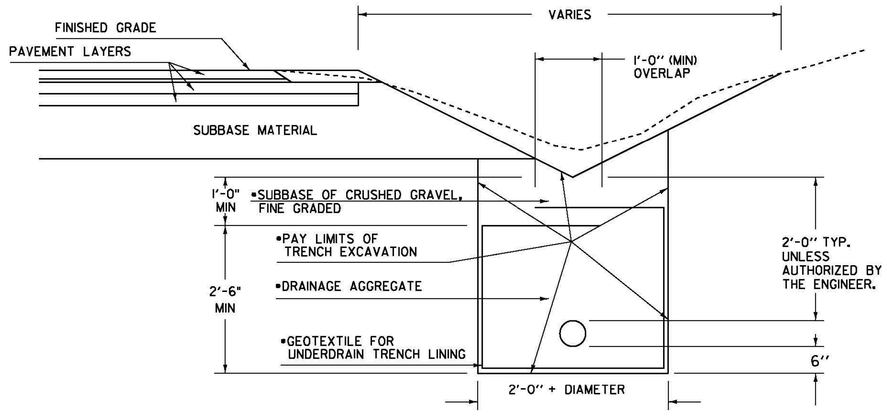
RUN WAS INSTALLED AT NEW STATIONS

~~RUN~~ = RUN ELIMINATED



UNDERDRAIN ROAD CROSSING DETAIL

NOT TO SCALE



DRAINAGE AGGREGATE SHALL MEET THE REQUIREMENTS OF SUBSECTION 704.16.

• MATERIALS INCLUDED IN THE UNIT PRICE BID FOR PAY ITEM 605.10 "6 INCH UNDERDRAIN PIPE"

UNDERDRAIN DETAIL

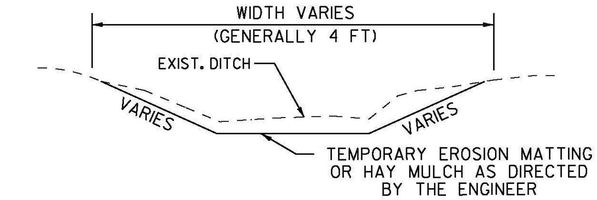
NOTE: GEOTEXTILE FOR UNDERDRAIN TRENCH LINING SHALL NOT BE PLACED AROUND UNDERDRAIN WHEN COVER ABOVE UNDERDRAIN IS LESS THAN 1 FOOT.

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244det.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
UNDERDRAIN DETAIL SHEET	SHEET 25 OF 211

LOCATION				FEET OF DITCHING		MISC. ITEMS 653.20	MISC. ITEMS 613.10		REMARKS
SITE	STA.	STA.	POS.	PERCENT GRADE 0-2.5	PERCENT GRADE 2.5-10	TEMP. EROS. MATT.	STONE FILL TYP. I		
VT 12						SY	CY		
BETHEL									
1	159+50	162+75	LT	325		145			
2	171+50	173+50	LT	200		89			
3	188+00	189+00	LT	100		45			
4	227+50	230+00	RT		250		37		
5	235+00	237+50	RT		250		37		
6	235+50	238+00	LT		250		37		
7	239+50	241+00	RT	150		67			
8	264+00	268+00	LT	400		178			
9	280+00	281+50	LT		150		22		
10	297+00	298+50	RT	150		67			
11	300+50	305+00	LT		450		67		
12	309+50	311+00	LT	150		67			
13	318+00	320+50	RT		450		67		
14	324+50	330+00	LT	550		244			
15	339+00	340+00	LT		100		15		
16	345+50	348+50	LT		300		44		
17	351+00	362+50	LT	1150		511			
18	369+50	370+41	LT		91		13		
RANDOLPH									
19	A 0+00	A 2+50	LT		250		37		
20	A 5+00	A 10+00	LT		500		74		
21	A 10+00	A 15+00	LT	500		222			
22	A 28+50	A 30+50	LT	200		89			
23	A 33+00	A 40+00	LT	700		311			
24	A 46+50	A 48+50	LT	200		89			
25									
BETHEL				3175	2291	1413	339		
RANDOLPH				1600	750	711	111		
		SUBTOTAL		4775	3041	2124	450		
		ROUNDING		-	-	-	-		
		TOTAL		-	-	-	-		

LOCATION				FEET OF DITCHING		MISC. ITEMS 653.20	MISC. ITEMS 613.10	MISC. ITEMS 649.31	REMARKS
SITE	STA.	STA.	POS.	PERCENT GRADE 0-2.5	PERCENT GRADE 2.5-10	TEMP. EROS. MATT.	STONE FILL TYP. I	GEOT. UNDER STONE FILL	
						SY	CY	SY	

LOCATION				FEET OF DITCHING		MISC. ITEMS 653.20	MISC. ITEMS 613.10	MISC. ITEMS 649.31	REMARKS
SITE	STA.	STA.	POS.	PERCENT GRADE 0-2.5	PERCENT GRADE 2.5-10	TEMP. EROS. MATT.	STONE FILL TYP. I	GEOT. UNDER STONE FILL	
						SY	CY	SY	



DITCH DETAIL < 2.5 PERCENT GRADE

DITCH DETAIL
2.5 PERCENT TO 10 PERCENT GRADE

NOTES:

1. GRADES BETWEEN 0 AND 2.5 PERCENT SHALL USE ITEM 651.25, HAY MULCH OR ITEM 653.20, TEMPORARY EROSION MATTING AS DIRECTED BY THE ENGINEER.
2. GRADES FROM 2.5 PERCENT TO 10 PERCENT SHALL USE ITEM 613.10, STONE FILL, TYPE I AS DIRECTED BY THE ENGINEER.
3. ANY GRADE GREATER THAN 10 PERCENT SHALL USE ITEM 613.11, STONE FILL, TYPE II AS DIRECTED BY THE ENGINEER.
4. PIPE INLET AND OUTLET AREAS, AND DITCH CLEANING THROUGHOUT THE PROJECT SHALL BE PERFORMED AT LOCATIONS IDENTIFIED ON THIS SHEET AND AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE UNDER THE APPLICABLE RENTAL ITEM(S).

NOT TO SCALE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244det.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
DITCH CLEANING DETAIL SHEET

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 26 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 124+05 - STA. 129+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 124+05 - STA. 129+25 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 7

ERECTING SALVAGED SIGNS
AS SHOWN - 5

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 124+05 - STA. 129+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 124+05 - STA. 129+25 (CENTERLINE)

REHAB. DROP INLET/MANHOLE
STA. 124+40 LT

VT STATE PLANE GRID

CURVE #1
DELTA = 0°26'38"
D = 0°34'23"
R = 10000.00'
T = 38.73'
L = 77.46'
E = 0.08'
BANKING NORMAL CROWN
DESIGN SPEED 35 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

STA. 124+32 LT

STA. 128+89 LT

STA. 128+66 LT

POB STA 124+00.00

PI STA 127+11.85

MATCHLINE STA. 129+25 SEE NEXT SHEET

TO BARNARD

VT ROUTE 12 ← SOUTHBOUND

BETHEL NORTHBOUND →

CURVE #1

N42° 45' 20"W

4'-11'-11'-4'

INV. 563.27

INV. 563.89

INV. 563.81

18" CMP

PAVED

GRAVEL

EXISTING PAVEMENT WIDTH 28'

STA. 124+44
24" CMP

BORING, B-101

COMBO #13/13

COMBO #14

COMBO #5

GARDEN

GARDEN GUY

GUY

MAPLE

IP 1¼" UP 2"

BEGIN PROJECT
STA. 124+30 = MM 2.354

BEGIN APPROACH
STA. 123+80 = MM 2.345

INV. 561.02

STA. 124+30 RT

ABANDON EXISTING FIBEROPTIC CABLE FROM PB 12-2 TO PB 12-4
RELOCATE FIBEROPTIC CABLE TO EXISTING POLE LINE. WORK TO BE PERFORMED BY OTHERS

STA. 126+72 RT

ABANDONED WATERLINE

PC STA 126+73.12

PT STA 127+50.58

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 1	SHEET 27 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 129+25 - STA. 134+75 (SOLID LT & RT)

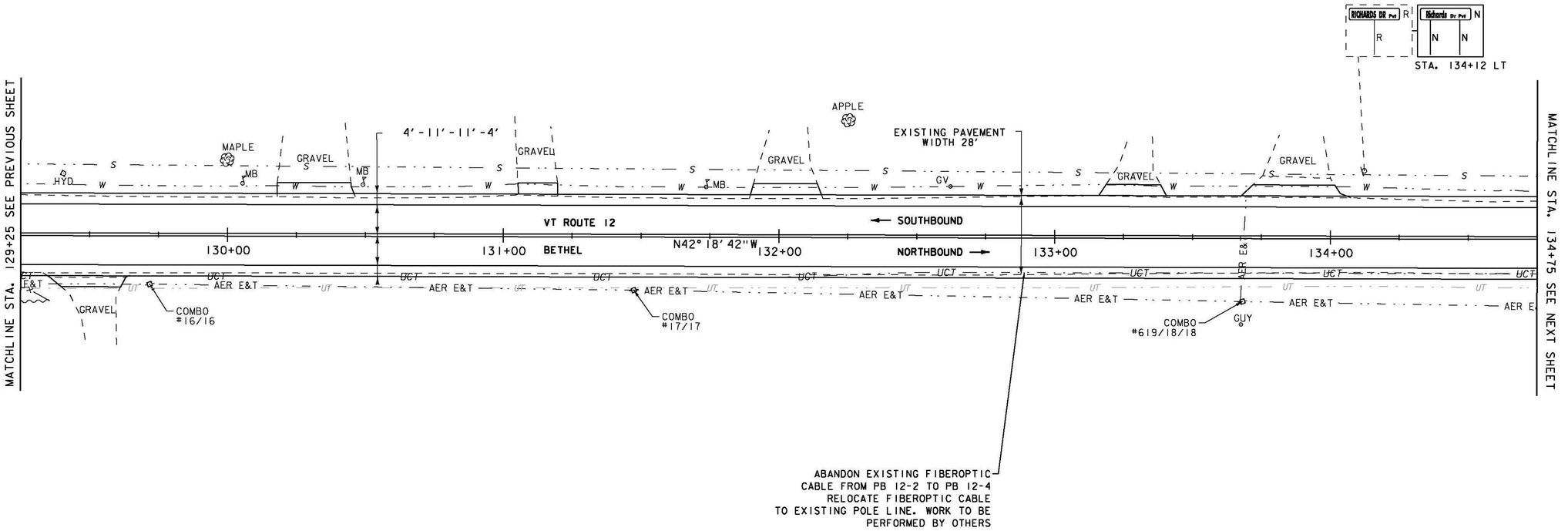
DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 129+25 - STA. 134+75 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 1

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 129+25 - STA. 134+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 129+25 - STA. 134+75 (CENTERLINE)

VT STATE PLANE GRID



SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
—— = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 2

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 28 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 134+75 - STA. 140+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 134+75 - STA. 140+50 (CENTERLINE)

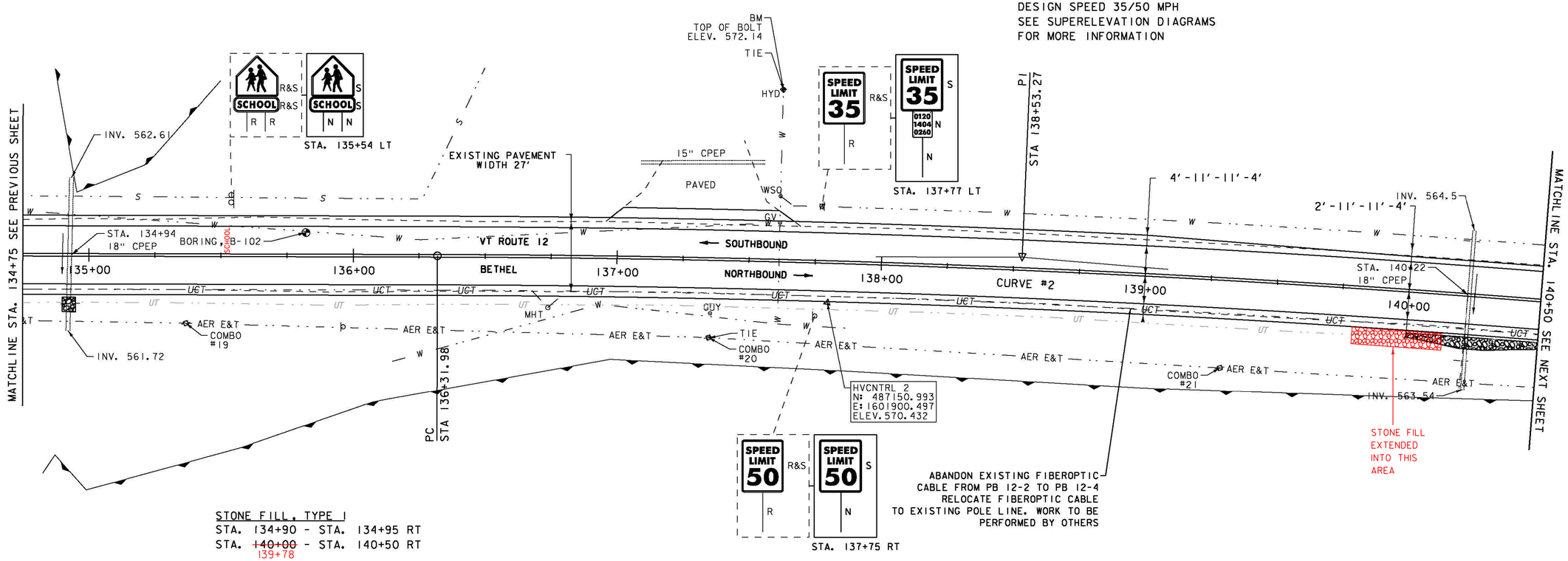
DURABLE LETTER OR SYMBOL, POLYUREA
STA. 135+54 LT ("SCHOOL")

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 134+75 - STA. 140+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 134+75 - STA. 140+50 (CENTERLINE)

CURVE #2
DELTA = 4°36'29"
D = 1°02'30"
R = 5500.00'
T = 221.29'
L = 442.34'
E = 4.45'
BANKING 0.022 FT/FT
DESIGN SPEED 35/50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

VT STATE PLANE GRID N



STONE FILL, TYPE I
STA. 134+90 - STA. 134+95 RT
STA. ~~140+00~~ 139+78 - STA. 140+50 RT

GEOTEXTILE FOR SILT FENCE
STA. 134+90 - STA. 134+95 RT
STA. 140+00 - STA. 140+50 RT

GRUBBING MATERIAL (6")
STA. 134+90 - STA. 134+95 RT
STA. 140+00 - STA. 140+50 RT

REMOVING SIGNS
AS SHOWN - 4

ERECTING SALVAGED SIGNS
AS SHOWN - 4

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
1.	STA. 134+75 - STA. 140+50	RT	-
1A.	STA. 134+87 - STA. 135+50	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 3

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 29 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 140+50 - STA. 146+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 140+50 - STA. 146+25 (CENTERLINE)

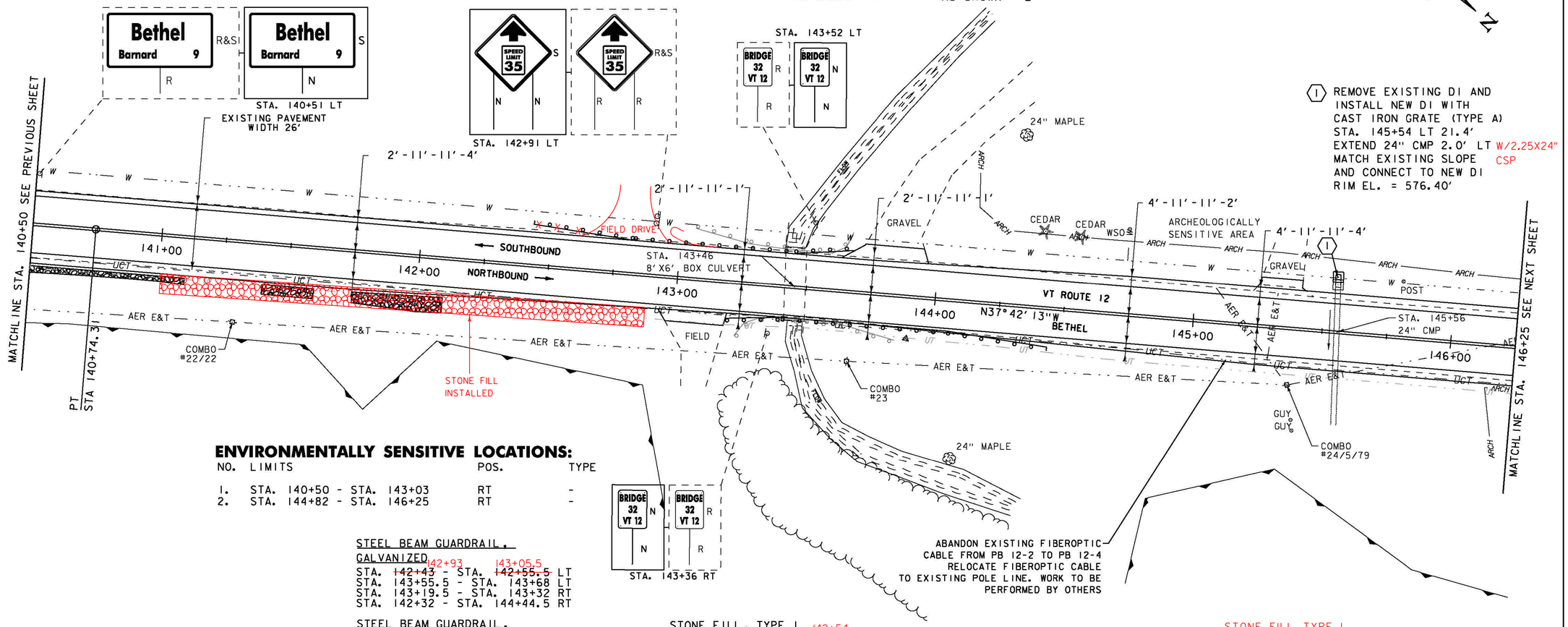
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 140+50 - STA. 146+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 140+50 - STA. 146+25 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 4

ERECTING SALVAGED SIGNS
AS SHOWN - 2

VT STATE PLANE GRID



(1) REMOVE EXISTING DI AND INSTALL NEW DI WITH CAST IRON GRATE (TYPE A)
STA. 145+54 LT 21.4'
EXTEND 24" CMP 2.0' LT W/2.25X24" CSP
MATCH EXISTING SLOPE
AND CONNECT TO NEW DI
RIM EL. = 576.40'

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
1.	STA. 140+50 - STA. 143+03	RT	-
2.	STA. 144+82 - STA. 146+25	RT	-

STEEL BEAM GUARDRAIL,
GALVANIZED
~~142+93~~ ~~143+05.5~~
~~STA. 142+43 - STA. 142+55.5 LT~~
STA. 143+55.5 - STA. 143+68 LT
STA. 143+19.5 - STA. 143+32 RT
STA. 142+32 - STA. 144+44.5 RT

STEEL BEAM GUARDRAIL,
GALVANIZED W/8 FEET POSTS
~~STA. 142+55.5 - STA. 143+30.5 LT~~
STA. 143+57 - STA. 144+32 RT
STA. 143+05.5 - STA. 143+30.5 LT

STEEL BEAM GUARDRAIL,
GALVANIZED/NESTED W/8 FEET POSTS
STA. 143+30.5 - STA. 143+55.5 LT
STA. 143+32 - STA. 143+57 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 143+05.5 - STA. 143+66.5 LT
STA. 143+23.5 - STA. 143+85.5 RT

ANCHOR FOR STEEL BEAM RAIL
(SEE STANDARD G-1d)

STONE FILL, TYPE I
~~142+54~~
STA. 140+50 - STA. ~~141+10~~ RT
~~STA. 141+40 - STA. 141+60 RT~~
~~STA. 141+75 - STA. 142+10 RT~~

GEOTEXTILE FOR SILT FENCE
STA. 140+50 - STA. 141+10 RT
STA. 141+40 - STA. 141+60 RT
STA. 141+75 - STA. 142+10 RT

GRUBBING MATERIAL (6")
STA. 140+50 - STA. 141+10 RT
STA. 141+40 - STA. 141+60 RT
STA. 141+75 - STA. 142+10 RT

PRECAST REINFORCED CONCRETE
DROP INLET WITH CAST IRON GRATE
STA. 145+54 LT

24" CSP .064 (2-2/3 X 1/2)
STA. 145+54 LT ~~3.0'~~
2.25'

STONE FILL, TYPE I
STA. 140+50 - STA. 141+00 RT
STA. 141+00 - STA. 142+84 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 4

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 30 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 146+25 - STA. 151+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 146+25 - STA. 151+50 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 3

ERECTING SALVAGED SIGNS
AS SHOWN - 1

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 146+25 - STA. 151+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 146+25 - STA. 151+50 (CENTERLINE)

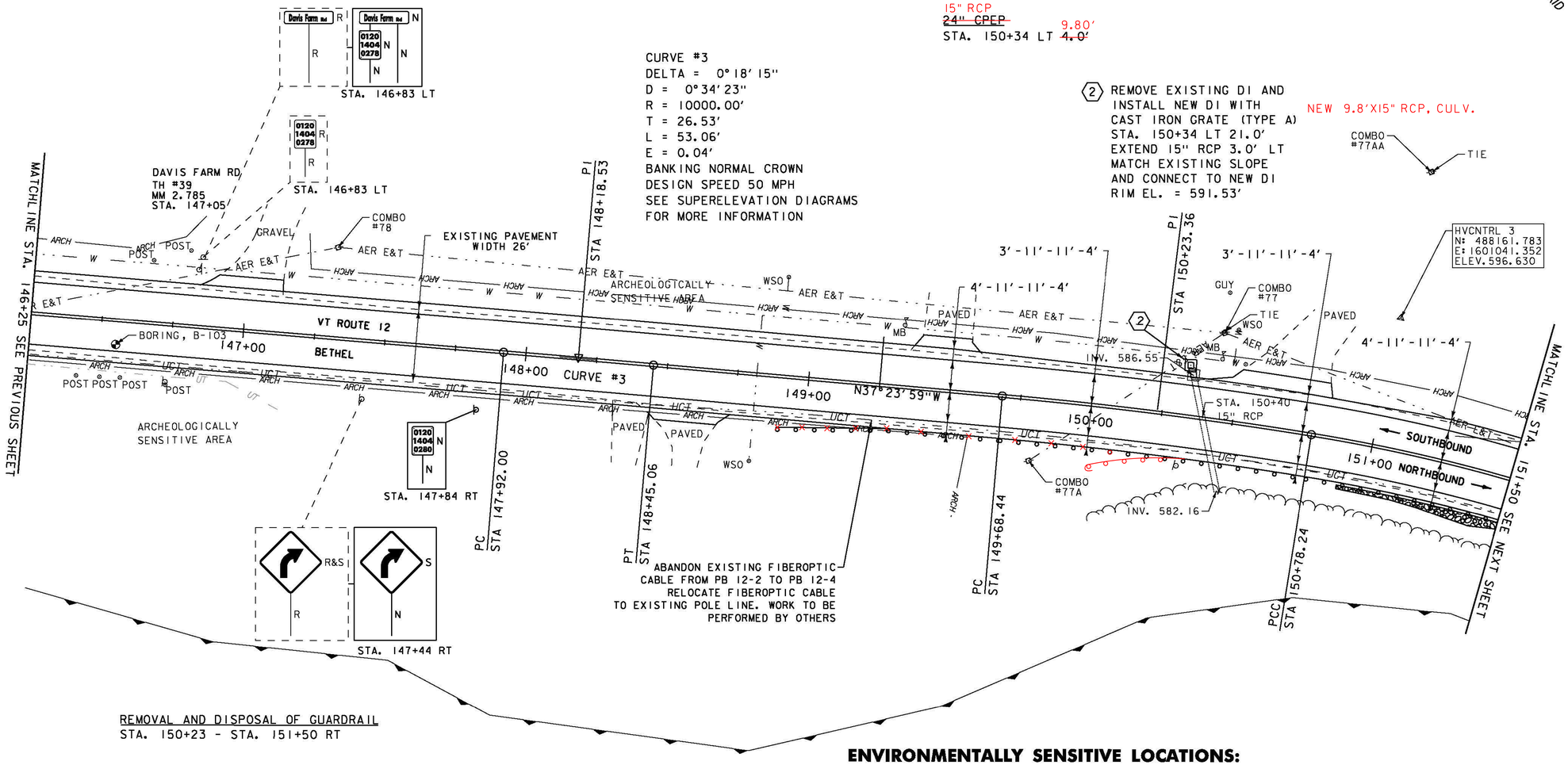
PRECAST REINFORCED CONCRETE
DROP INLET WITH CAST IRON GRATE
STA. 150+34 LT

15" RCP
~~24" CPEP~~ 9.80'
STA. 150+34 LT ~~4.0'~~

VT STATE PLANE GRID

CURVE #3
DELTA = 0°18'15"
D = 0°34'23"
R = 10000.00'
T = 26.53'
L = 53.06'
E = 0.04'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

(2) REMOVE EXISTING DI AND INSTALL NEW DI WITH CAST IRON GRATE (TYPE A)
STA. 150+34 LT 21.0'
EXTEND 15" RCP 3.0' LT
MATCH EXISTING SLOPE
AND CONNECT TO NEW DI
RIM EL. = 591.53'
NEW 9.8'X15" RCP, CULV.



REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 150+23 - STA. 151+50 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. ~~148+90~~ 150+00 - STA. 151+50 RT

STONE FILL, TYPE I
STA. 150+90 - STA. 151+50 RT

GEOTEXTILE FOR SILT FENCE
STA. 150+90 - STA. 151+50 RT

GRUBBING MATERIAL (6")
STA. 150+90 - STA. 151+50 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
2.	STA. 146+25 - STA. 151+50	RT	-

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 5

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 31 OF 211

REMOVING SIGNS
AS SHOWN - 2

ERECTING SALVAGED SIGNS
AS SHOWN - 2

PRECAST REINFORCED CONCRETE
DROP INLET WITH CAST IRON GRATE
STA. 154+21 LT

15" RCP
~~24" CPEP (SL)~~ 7.0'
STA. 154+21 LT ~~3.0~~

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 151+50 - STA. 156+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 151+50 - STA. 156+75 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 153+25 - STA. 154+20 LT
STA. 154+25 - STA. 155+75 LT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 151+50 - STA. 156+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 151+50 - STA. 156+75 (CENTERLINE)

VT STATE PLANE GRID N

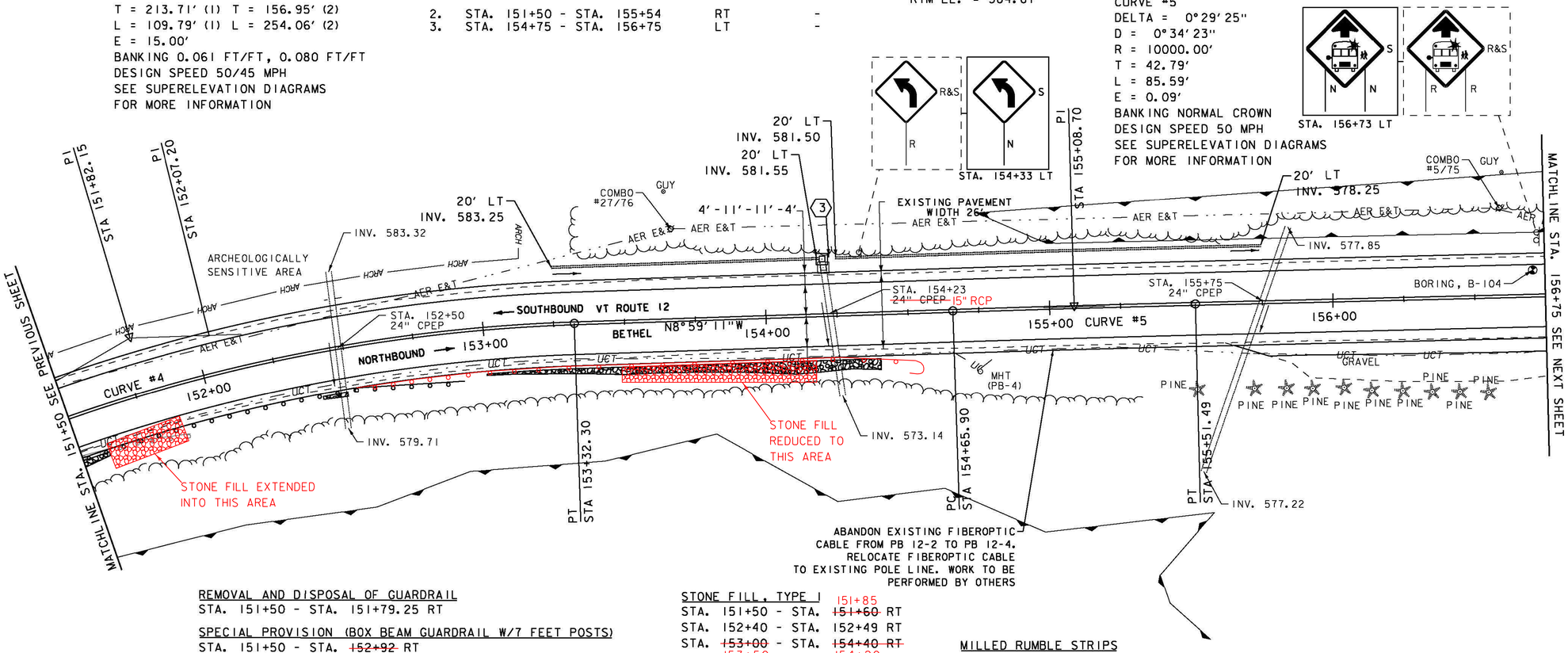
CURVE #4
DELTA = 28°24'48"
D = 3°46'55" (1) D = 9°32'57" (2)
R = 1515.00' (1) R = 600.00' (2)
T = 213.71' (1) T = 156.95' (2)
L = 109.79' (1) L = 254.06' (2)
E = 15.00'
BANKING 0.061 FT/FT, 0.080 FT/FT
DESIGN SPEED 50/45 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
2.	STA. 151+50 - STA. 155+54	RT	-
3.	STA. 154+75 - STA. 156+75	LT	-

(3) REMOVE EXISTING DI AND
INSTALL NEW DI WITH
CAST IRON GRATE (TYPE A)
STA. 154+21 LT 19.8'
EXTEND ~~24" CPEP (SL)~~ 15" RCP 3.0' LT
MATCH EXISTING SLOPE
AND CONNECT TO NEW DI NEW 7.0'X15" RCP, CULV.
RIM EL. = 584.87'

CURVE #5
DELTA = 0°29'25"
D = 0°34'23"
R = 10000.00'
T = 42.79'
L = 85.59'
E = 0.09'
BANKING NORMAL CROSSOWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



ABANDON EXISTING FIBEROPTIC CABLE FROM PB 12-2 TO PB 12-4. RELOCATE FIBEROPTIC CABLE TO EXISTING POLE LINE. WORK TO BE PERFORMED BY OTHERS

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 151+50 - STA. 151+79.25 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 151+50 - STA. ~~152+92~~ RT
155+48

STONE FILL, TYPE I 151+85
STA. 151+50 - STA. ~~151+60~~ RT
STA. 152+40 - STA. 152+49 RT
STA. ~~153+00~~ - STA. ~~154+40~~ RT
153+50 154+20

GEOTEXTILE FOR SILT FENCE
STA. 151+50 - STA. 151+60 RT
STA. 152+40 - STA. 152+49 RT
STA. 153+00 - STA. 154+40 RT

GRUBBING MATERIAL (6")
STA. 151+50 - STA. 151+60 RT
STA. 152+40 - STA. 152+49 RT
STA. 153+00 - STA. 154+40 RT

MILLED RUMBLE STRIPS
STA. 153+00 - STA. 156+75 (CENTERLINE)

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 6

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 32 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 156+75 - STA. 162+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 156+75 - STA. 162+50 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 156+75 - STA. 162+50 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 4

ERECTING SALVAGED SIGNS
AS SHOWN - 3

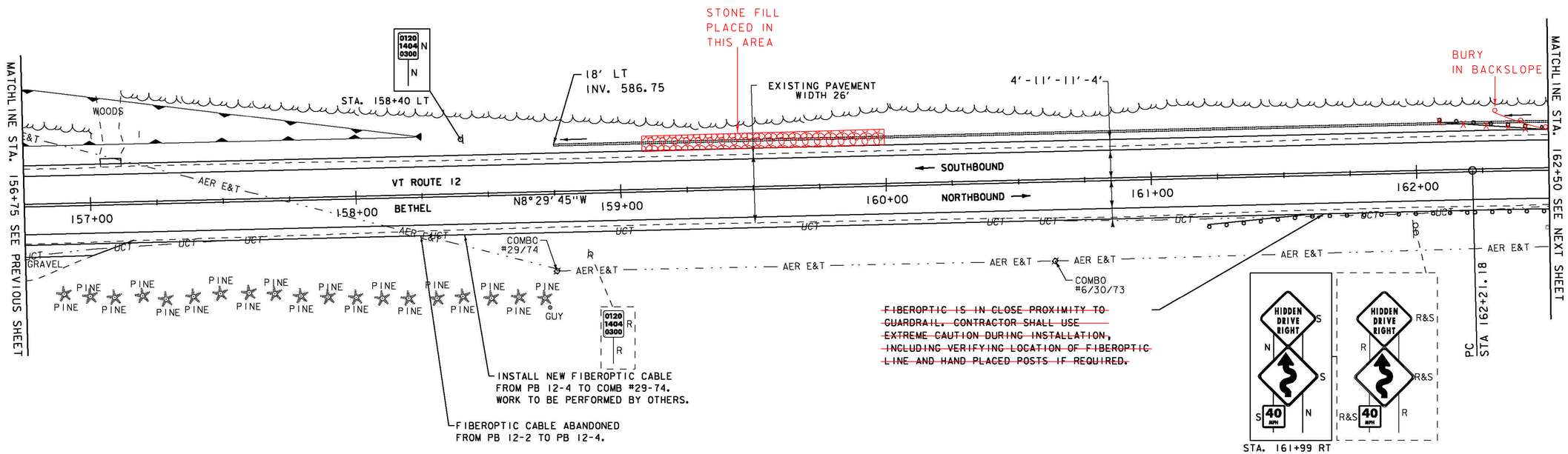
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 156+75 - STA. 162+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 156+75 - STA. 162+50 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 158+75 - STA. 162+50 LT

STONE FILL, TYPE I
STA. 159+09 - STA. 160+00 LT

VT STATE PLANE GRID N



REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 162+46.25 - STA. 162+50 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 161+21 - STA. 162+50 RT
STA. ~~162+08~~ - STA. 162+50 LT
162+44
(BURIED IN BACKSLOPE)

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
3.	STA. 156+75 - STA. 158+25	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 7

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 33 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 162+50 - STA. 167+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 162+50 - STA. 167+75 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 162+50 - STA. 164+00 (CENTERLINE)
STA. 167+00 - STA. 167+75 (CENTERLINE)

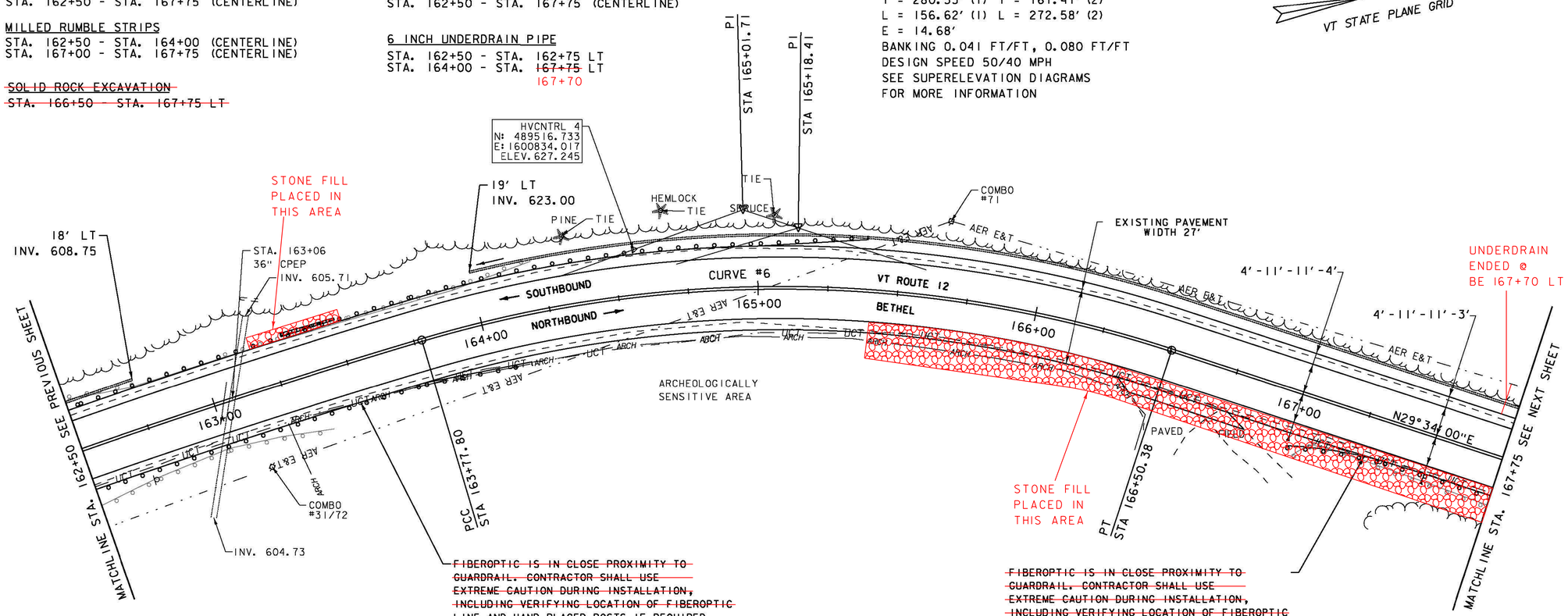
~~SOLID ROCK EXCAVATION~~
~~STA. 166+50 - STA. 167+75 LT~~

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 162+50 - STA. 167+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 162+50 - STA. 167+75 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 162+50 - STA. 162+75 LT
STA. 164+00 - STA. ~~167+75~~ LT
167+70

CURVE #6
DELTA = 38°03'45"
D = 2°08'37" (1) D = 12°43'57" (2)
R = 2673.00' (1) R = 450.00' (2)
T = 280.53' (1) T = 161.41' (2)
L = 156.62' (1) L = 272.58' (2)
E = 14.68'
BANKING 0.041 FT/FT, 0.080 FT/FT
DESIGN SPEED 50/40 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



~~FIBEROPTIC IS IN CLOSE PROXIMITY TO GUARDRAIL. CONTRACTOR SHALL USE EXTREME CAUTION DURING INSTALLATION, INCLUDING VERIFYING LOCATION OF FIBEROPTIC LINE AND HAND PLACED POSTS IF REQUIRED.~~

~~FIBEROPTIC IS IN CLOSE PROXIMITY TO GUARDRAIL. CONTRACTOR SHALL USE EXTREME CAUTION DURING INSTALLATION, INCLUDING VERIFYING LOCATION OF FIBEROPTIC LINE AND HAND PLACED POSTS IF REQUIRED.~~

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 162+50 - STA. 163+40 RT
STA. 162+51 - STA. 164+21.5 LT
STA. 167+03 - STA. 167+75 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 162+50 - STA. 164+15 RT
STA. 162+50 - STA. ~~165+38~~ LT 165+54
STA. 167+00 - STA. 167+75 RT

~~STONE FILL, TYPE I~~
~~STA. 163+30 - STA. 163+50 LT~~

GEOTEXTILE FOR SILT FENCE
STA. 163+30 - STA. 163+50 LT

GRUBBING MATERIAL (6")
STA. 163+30 - STA. 163+50 LT

STONE FILL, TYPE I
STA. 163+16 - STA. 163+50 LT
STA. 165+35 - STA. 167+75 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 8
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 34 OF 211

SOLID ROCK EXCAVATION
STA. 167+75 - STA. 171+50 LT

REMOVING LARGE TREES
STA. 172+90 LT

REMOVING SIGNS
AS SHOWN - 2

ERECTING SALVAGED SIGNS
AS SHOWN - 1

~~STONE FILL, TYPE I~~
~~STA. 168+25 - STA. 168+50 RT~~
~~STA. 168+30 - STA. 168+40 LT~~
~~STA. 169+10 - STA. 169+70 RT~~
~~STA. 171+30 - STA. 171+60 LT~~

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 167+75 - STA. 173+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 167+75 - STA. 173+25 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 167+75 - STA. 172+00 (CENTERLINE)

GEOTEXTILE FOR SILT FENCE
STA. 168+25 - STA. 168+50 RT
STA. 168+30 - STA. 168+40 LT
STA. 169+10 - STA. 169+70 RT
STA. 171+30 - STA. 171+60 LT

PRECAST REINFORCED CONCRETE DROP INLET
STA. 167+75 LT

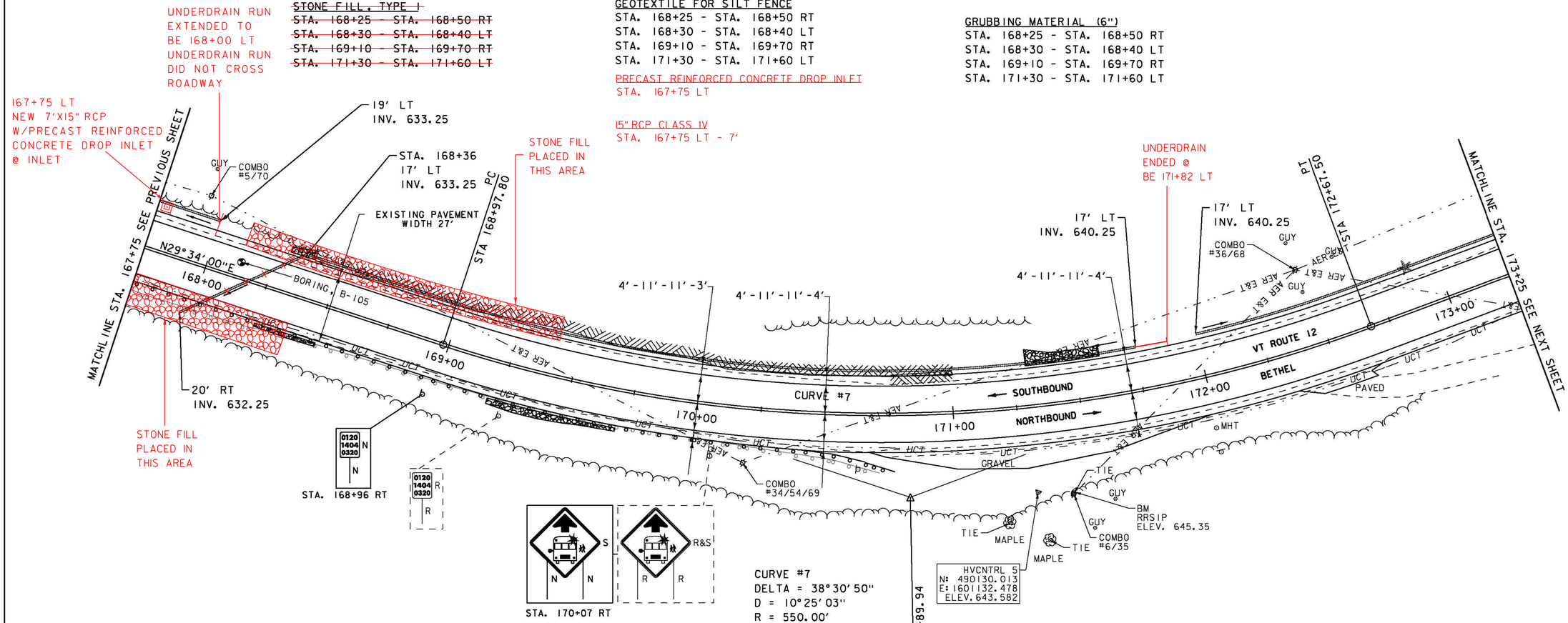
15" RCP CLASS IV
STA. 167+75 LT - 7'

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 167+75 - STA. 173+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 167+75 - STA. 173+25 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
~~STA. 167+75 - STA. 168+00 LT~~
STA. 168+00 ~~RT~~ LT STA. ~~171+75~~ LT 171+82
STA. 172+00 - STA. 173+25 LT

GRUBBING MATERIAL (6")
STA. 168+25 - STA. 168+50 RT
STA. 168+30 - STA. 168+40 LT
STA. 169+10 - STA. 169+70 RT
STA. 171+30 - STA. 171+60 LT



VT STATE PLANE GRID

STONE FILL, TYPE I
STA. 168+16 - STA. 169+38 LT
STA. 167+75 - STA. 168+40 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 167+75 - STA. 170+71.75 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 167+75 - STA. 170+78 RT

CURVE #7
DELTA = 38°30'50"
D = 10°25'03"
R = 550.00'
T = 192.14'
L = 369.71'
E = 32.60'
BANKING 0.080 FT/FT
DESIGN SPEED 40 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 9	SHEET 35 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 173+25 - STA. 178+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#38)
STA. 175+73 LT (EDGE LINES AT TH#38)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 173+25 - STA. 178+75 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#38)
STA. 175+73 LT (CENTERLINE AT TH#38)

DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. 175+40 - STA. 175+68 LT

DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. 175+56 LT "STOP"

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 173+25 - STA. 178+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#38)
STA. 175+73 LT (EDGE LINES AT TH#38)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 173+25 - STA. 178+75 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#38)
STA. 175+73 LT (CENTERLINE AT TH#38)

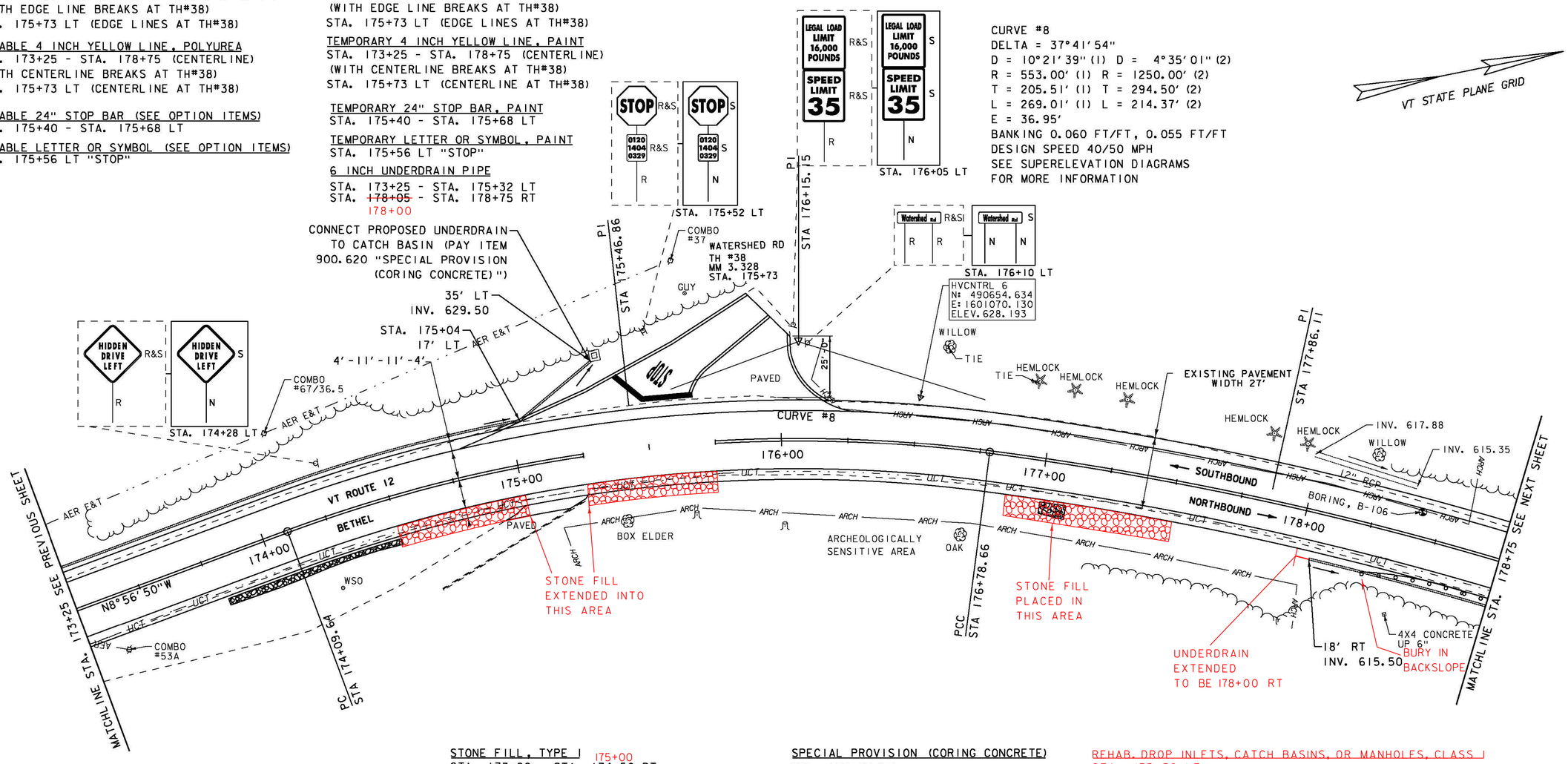
TEMPORARY 24" STOP BAR, PAINT
STA. 175+40 - STA. 175+68 LT

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 175+56 LT "STOP"

6 INCH UNDERDRAIN PIPE
STA. 173+25 - STA. 175+32 LT
STA. ~~178+05~~ - STA. 178+75 RT
178+00

CURVE #8
DELTA = 37°41'54"
D = 10°21'39" (1) D = 4°35'01" (2)
R = 553.00' (1) R = 1250.00' (2)
T = 205.51' (1) T = 294.50' (2)
L = 269.01' (1) L = 214.37' (2)
E = 36.95'
BANKING 0.060 FT/FT, 0.055 FT/FT
DESIGN SPEED 40/50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

VT STATE PLANE GRID



STONE FILL, TYPE I
STA. 173+80 - STA. ~~174+50~~ 175+00 RT
STA. ~~177+00~~ 176+88 - STA. ~~177+10~~ 177+50 RT
STA. 175+25 - STA. 175+75 RT

GEOTEXTILE FOR SILT FENCE
STA. 173+80 - STA. 174+50 RT
STA. 177+00 - STA. 177+10 RT

GRUBBING MATERIAL (6")
STA. 173+80 - STA. 174+50 RT
STA. 177+00 - STA. 177+10 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 178+20.50 - STA. 178+75 RT

SPECIAL PROVISION (CORING CONCRETE)
STA. 175+32 LT

REMOVING SIGNS
AS SHOWN - 6

ERECTING SALVAGED SIGNS
AS SHOWN - 6

REHAB, DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. 175+32 LT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 10	SHEET 36 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 178+75 - STA. 184+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 178+75 - STA. 184+25 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 179+25 - STA. 184+25 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 3

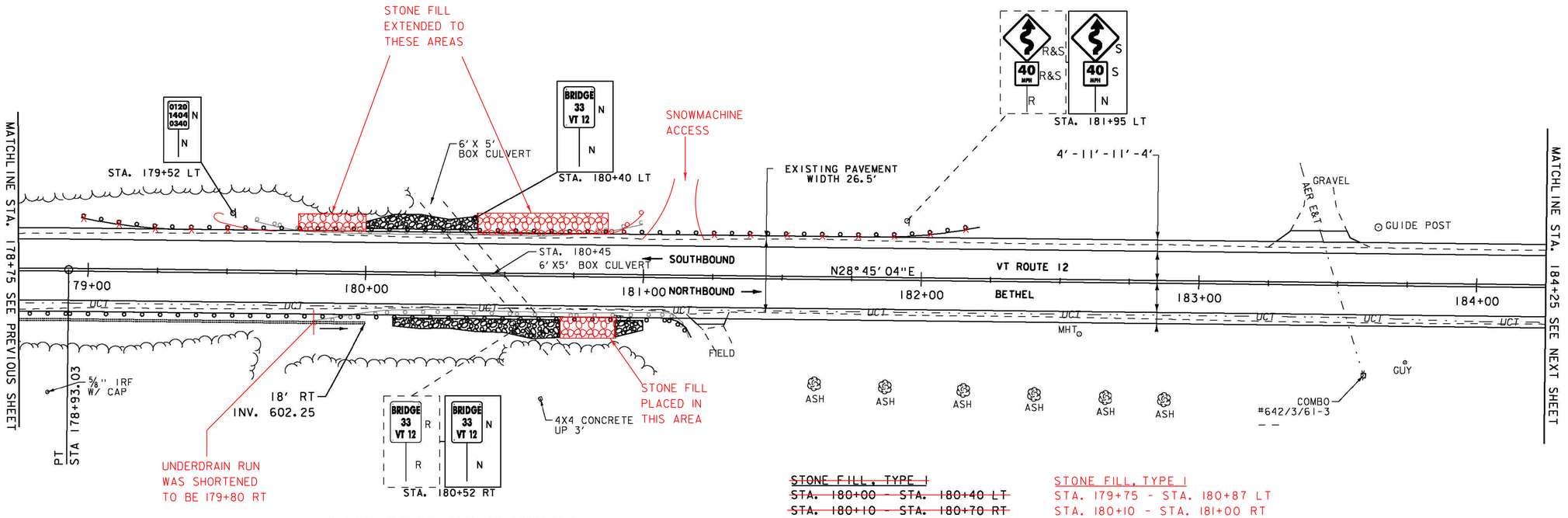
ERECTING SALVAGED SIGNS
AS SHOWN - 2

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 178+75 - STA. 184+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 178+75 - STA. 184+25 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 178+75 - STA. ~~180+00~~ RT
179+80

N
VT STATE PLANE GRID



REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 179+58 - STA. 181+01.75 LT
STA. 179+80 - STA. 181+17.5 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 178+75 - STA. 181+14.5 RT
~~STA. 178+98 - STA. 182+22 LT~~

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 179+48 - STA. 179+73 LT
STA. 180+73 - STA. 180+98 LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 179+73 - STA. 180+73 LT

ANCHOR FOR STEEL BEAM GUARDRAIL
STA. 179+48 LT
STA. 180+73 LT

~~STONE FILL, TYPE I~~
~~STA. 180+00 - STA. 180+40 LT~~
~~STA. 180+10 - STA. 180+70 RT~~
~~STA. 180+90 - STA. 181+00 RT~~

STONE FILL, TYPE I
STA. 179+75 - STA. 180+87 LT
STA. 180+10 - STA. 181+00 RT

GEOTEXTILE FOR SILT FENCE
STA. 180+00 - STA. 180+40 LT
STA. 180+10 - STA. 180+70 RT
STA. 180+90 - STA. 181+00 RT

GRUBBING MATERIAL (6")
STA. 180+00 - STA. 180+40 LT
STA. 180+10 - STA. 180+70 RT
STA. 180+90 - STA. 181+00 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 11	SHEET 37 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 184+25 - STA. 189+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#92)
STA. 187+22 RT (EDGE LINE AT TH#92)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 184+25 - STA. ~~188+05~~ (CENTERLINE) 189+75
~~STA. 188+05 - STA. 189+75 (SOLID LT, DASHED RT)~~
(WITH CENTERLINE BREAKS AT TH#92)
STA. 187+22 RT (CENTERLINE AT TH#92)

DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. 187+17 - STA. 187+37 RT

DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. 187+23 RT "STOP"

6 INCH UNDERDRAIN PIPE
STA. 186+75 - STA. 189+25 LT

REMOVING SIGNS
AS SHOWN - 4

ERECTING SALVAGED SIGNS
AS SHOWN - 4

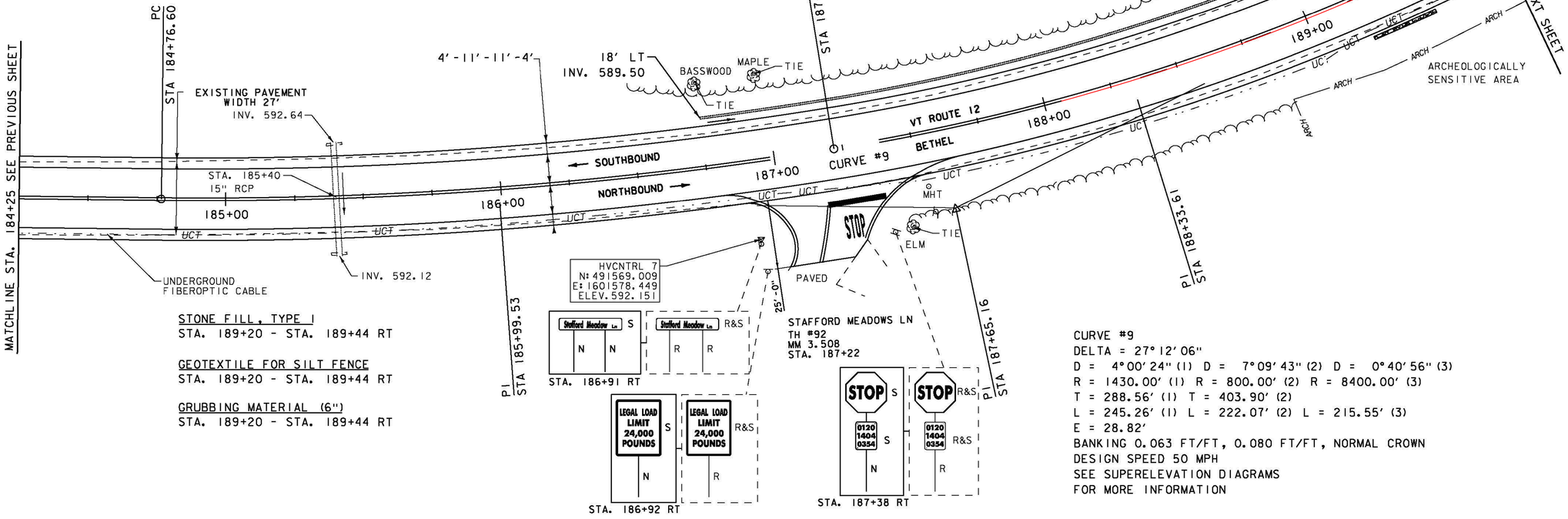
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 184+25 - STA. 189+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#92)
STA. 187+22 RT (EDGE LINE AT TH#92)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 184+25 - STA. 188+05 (CENTERLINE)
STA. 188+05 - STA. 189+75 (SOLID LT, DASHED RT)
(WITH CENTERLINE BREAKS AT TH#92)
STA. 187+22 RT (CENTERLINE AT TH#92)

TEMPORARY 24" STOP BAR, PAINT
STA. 187+17 - STA. 187+37 RT

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 187+23 RT "STOP"

MILLED RUMBLE STRIPS
STA. 184+25 - STA. 186+75 (CENTERLINE)
STA. 187+75 - STA. 189+75 (CENTERLINE)



CURVE #9
DELTA = 27°12'06"
D = 4°00'24" (1) D = 7°09'43" (2) D = 0°40'56" (3)
R = 1430.00' (1) R = 800.00' (2) R = 8400.00' (3)
T = 288.56' (1) T = 403.90' (2)
L = 245.26' (1) L = 222.07' (2) L = 215.55' (3)
E = 28.82'
BANKING 0.063 FT/FT, 0.080 FT/FT, NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

STONE FILL, TYPE I
STA. 189+20 - STA. 189+44 RT

GEOTEXTILE FOR SILT FENCE
STA. 189+20 - STA. 189+44 RT

GRUBBING MATERIAL (6")
STA. 189+20 - STA. 189+44 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 12
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 38 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 189+75 - STA. 195+25 (SOLID LT & RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 189+75 - STA. 195+25 (SOLID LT & RT)

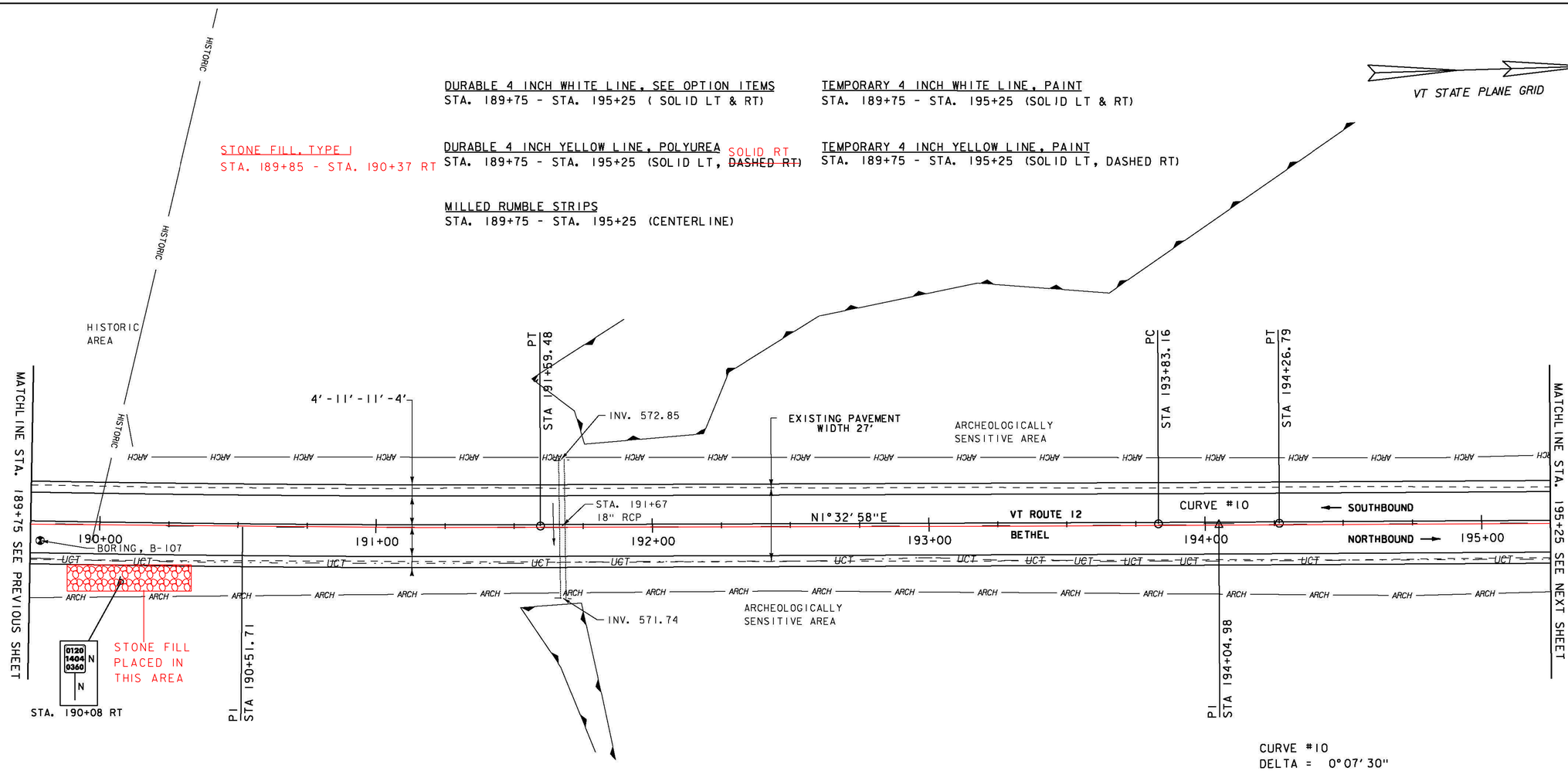
STONE FILL, TYPE I
STA. 189+85 - STA. 190+37 RT

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 189+75 - STA. 195+25 (SOLID LT, ~~DASHED RT~~) SOLID RT

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 189+75 - STA. 195+25 (SOLID LT, DASHED RT)

MILLED RUMBLE STRIPS
STA. 189+75 - STA. 195+25 (CENTERLINE)

N
VT STATE PLANE GRID



STONE FILL, TYPE I
STA. 189+85 - STA. 190+37 RT

CURVE #10
DELTA = 0°07'30"
D = 0°17'11"
R = 20000.00'
T = 21.82'
L = 43.63'
E = 0.01'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
4.	STA. 191+52 - STA. 191+74	RT	-
5.	STA. 191+56 - STA. 194+55	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 13

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 39 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 195+25 - STA. 200+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
~~STA. 195+25 - STA. 195+36 (SOLID LT, DASHED RT)~~
~~STA. 195+36 - STA. 196+95 (DASHED LT)~~
STA. ~~196+95~~ 195+25 - STA. 200+75 (~~DASHED~~ SOLID LT, SOLID RT)

MILLED RUMBLE STRIPS
STA. 195+25 - STA. 200+75 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 2

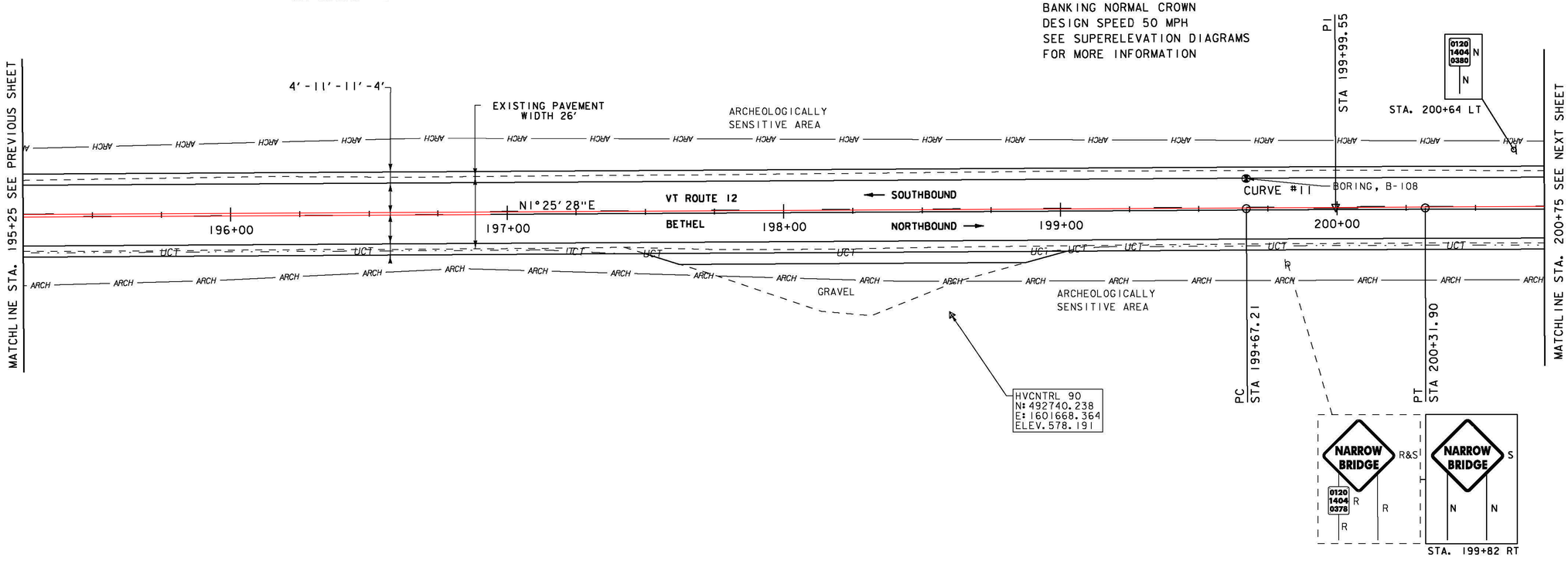
ERECTING SALVAGED SIGNS
AS SHOWN - 2

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 195+25 - STA. 200+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 195+25 - STA. 195+36 (SOLID LT, DASHED RT)
STA. 195+36 - STA. 196+95 (DASHED LT)
STA. 196+95 - STA. 200+75 (DASHED LT, SOLID RT)

VT STATE PLANE GRID

CURVE #11
DELTA = 0°11'07"
D = 0°17'11"
R = 20000.00'
T = 32.34'
L = 64.69'
E = 0.03'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 14

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 40 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 200+75 - STA. 206+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
~~STA. 200+75 - STA. 204+30 (DASHED LT. SOLID RT)~~
STA. ~~204+30~~ 200+75 - STA. 206+50 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 200+75 - STA. 204+25 (CENTERLINE)

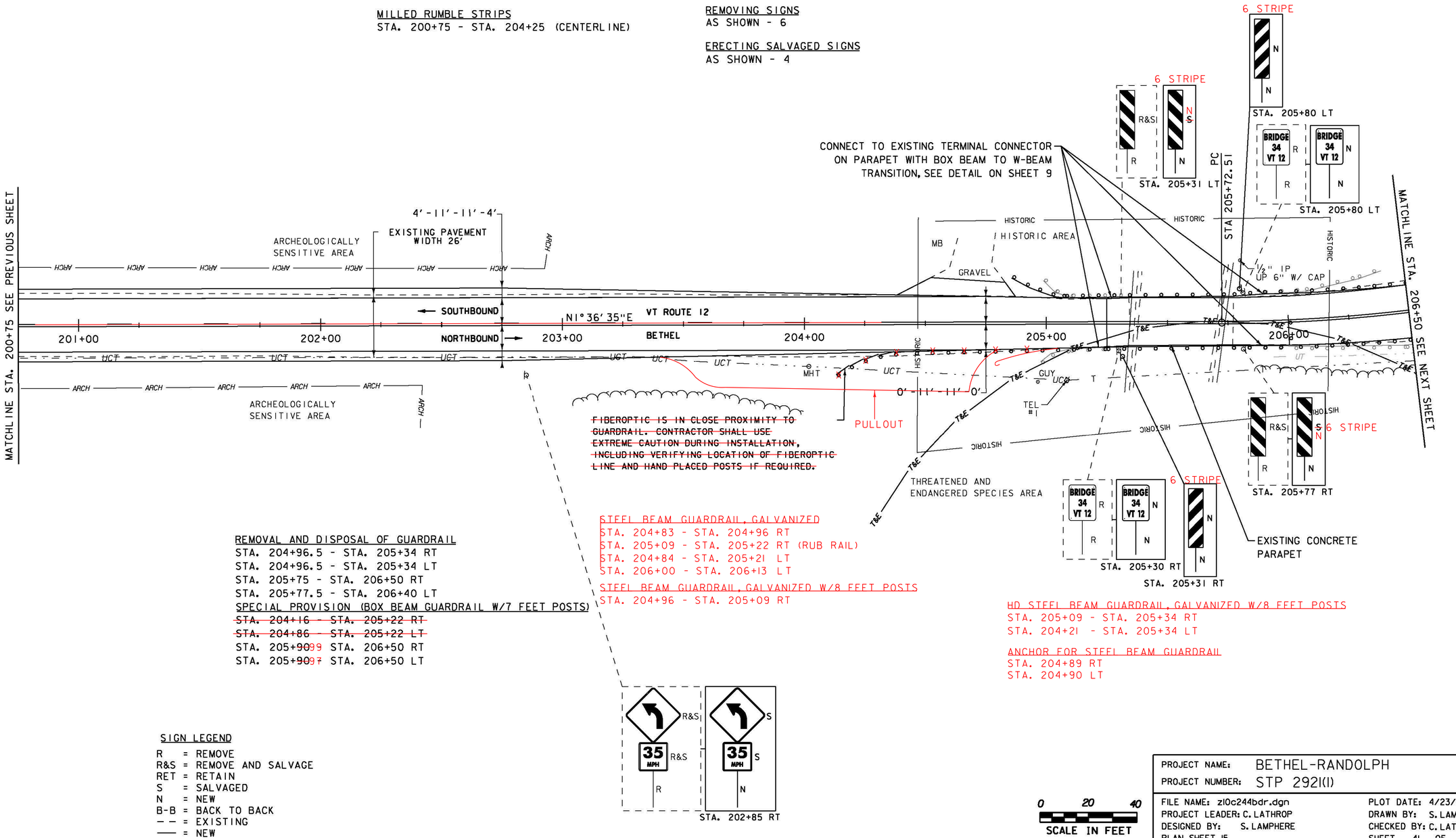
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 200+75 - STA. 206+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 200+75 - STA. 204+30 (DASHED LT. SOLID RT)
STA. 204+30 - STA. 206+50 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 6

ERECTING SALVAGED SIGNS
AS SHOWN - 4

N
VT STATE PLANE GRID



REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 204+96.5 - STA. 205+34 RT
STA. 204+96.5 - STA. 205+34 LT
STA. 205+75 - STA. 206+50 RT
STA. 205+77.5 - STA. 206+40 LT
SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
~~STA. 204+16 - STA. 205+22 RT~~
~~STA. 204+86 - STA. 205+22 LT~~
STA. 205+~~90~~99 STA. 206+50 RT
STA. 205+~~90~~97 STA. 206+50 LT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 204+83 - STA. 204+96 RT
STA. 205+09 - STA. 205+22 RT (RUB RAIL)
STA. 204+84 - STA. 205+21 LT
STA. 206+00 - STA. 206+13 LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 204+96 - STA. 205+09 RT

HD STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 205+09 - STA. 205+34 RT
STA. 204+21 - STA. 205+34 LT

ANCHOR FOR STEEL BEAM GUARDRAIL
STA. 204+89 RT
STA. 204+90 LT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 15	SHEET 41 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 206+50 - STA. 211+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#24)
STA. 210+28 RT (EDGE LINE AT TH#24)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 206+50 - STA. 211+75 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#24)
STA. 210+28 RT (CENTERLINE AT TH#24)

DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. 210+23 - STA. 210+41 RT

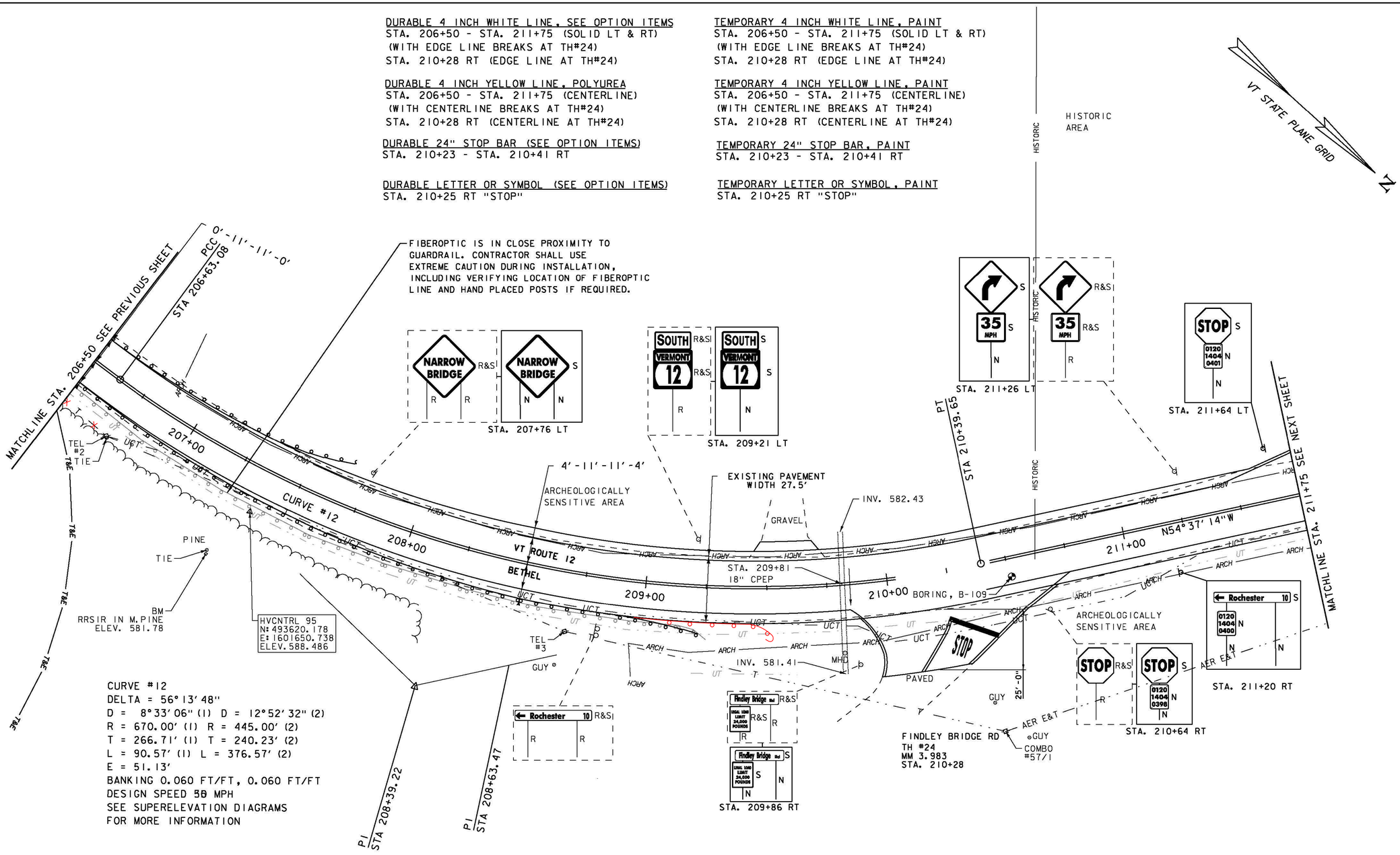
DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. 210+25 RT "STOP"

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 206+50 - STA. 211+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#24)
STA. 210+28 RT (EDGE LINE AT TH#24)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 206+50 - STA. 211+75 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#24)
STA. 210+28 RT (CENTERLINE AT TH#24)

TEMPORARY 24" STOP BAR, PAINT
STA. 210+23 - STA. 210+41 RT

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 210+25 RT "STOP"



CURVE #12
DELTA = 56°13'48"
D = 8°33'06" (1) D = 12°52'32" (2)
R = 670.00' (1) R = 445.00' (2)
T = 266.71' (1) T = 240.23' (2)
L = 90.57' (1) L = 376.57' (2)
E = 51.13'
BANKING 0.060 FT/FT, 0.060 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 206+50 - STA. 209+25 RT

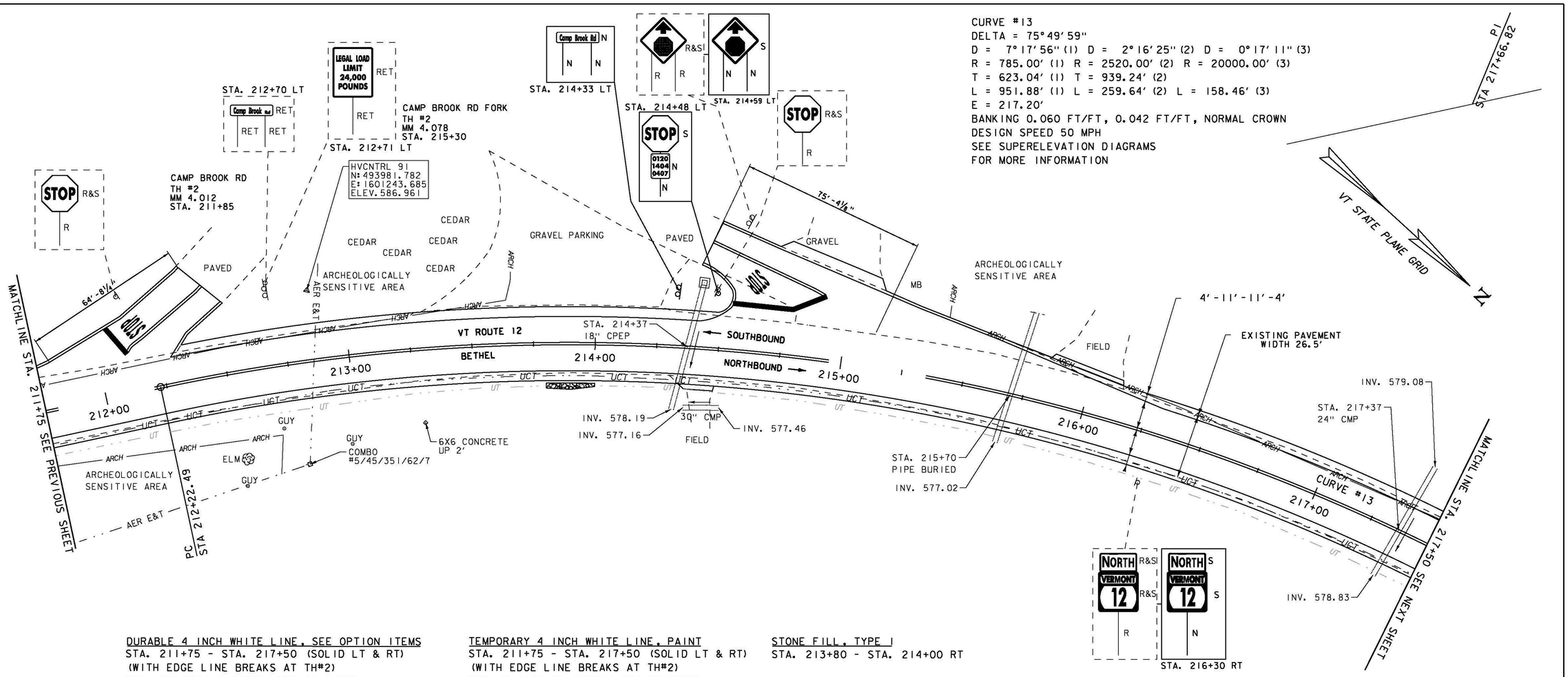
SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 206+50 - ~~STA. 207+70~~ LT 207+60
STA. 206+50 - ~~STA. 209+23.5~~ RT
209+55

REMOVING SIGNS
AS SHOWN - 9

ERECTING SALVAGED SIGNS
AS SHOWN - 10

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 16	SHEET 42 OF 211



DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 211+75 - STA. 217+50 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#2)
STA. 211+85 LT (EDGE LINE AT TH#2)
STA. 215+30 LT (EDGE LINE AT TH#2)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 211+75 - STA. 217+50 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#2 & TH#2)
STA. 211+85 LT (CENTERLINE AT TH#2)
STA. 215+30 LT (CENTERLINE AT TH#2)

DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. 212+05 - STA. 212+12 LT
STA. 214+54 - STA. 214+91 LT

DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. 212+16 LT "STOP"
STA. 214+63 LT "STOP"

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 211+75 - STA. 217+50 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#2)
STA. 211+85 LT (EDGE LINE AT TH#2)
STA. 215+30 LT (EDGE LINE AT TH#2)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 211+75 - STA. 217+50 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#2 & TH#2)
STA. 211+85 LT (CENTERLINE AT TH#2)
STA. 215+30 LT (CENTERLINE AT TH#2)

TEMPORARY 24" STOP BAR, PAINT
STA. 212+05 - STA. 212+12 LT
STA. 214+54 - STA. 214+91 LT

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 212+16 LT "STOP"
STA. 214+63 LT "STOP"

REMOVING SIGNS
AS SHOWN - 5

ERECTING SALVAGED SIGNS
AS SHOWN - 4

STONE FILL, TYPE I
STA. 213+80 - STA. 214+00 RT

GEOTEXTILE FOR SILT FENCE
STA. 213+80 - STA. 214+00 RT

GRUBBING MATERIAL (6")
STA. 213+80 - STA. 214+00 RT

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH	
PROJECT NUMBER: STP 2921(1)	
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 17	SHEET 43 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 217+50 - STA. 222+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 217+50 - STA. 222+75 (CENTERLINE)

REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. 220+45 LT

STONE FILL, TYPE I
STA. 220+25 - STA. 220+30 LT
STA. 220+40 - STA. 220+60 LT

GEOTEXTILE FOR SILT FENCE
STA. 220+25 - STA. 220+30 LT
STA. 220+40 - STA. 220+60 LT

GRUBBING MATERIAL (6")
STA. 220+25 - STA. 220+30 LT
STA. 220+40 - STA. 220+60 LT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 217+50 - STA. 222+75 (SOLID LT & RT)

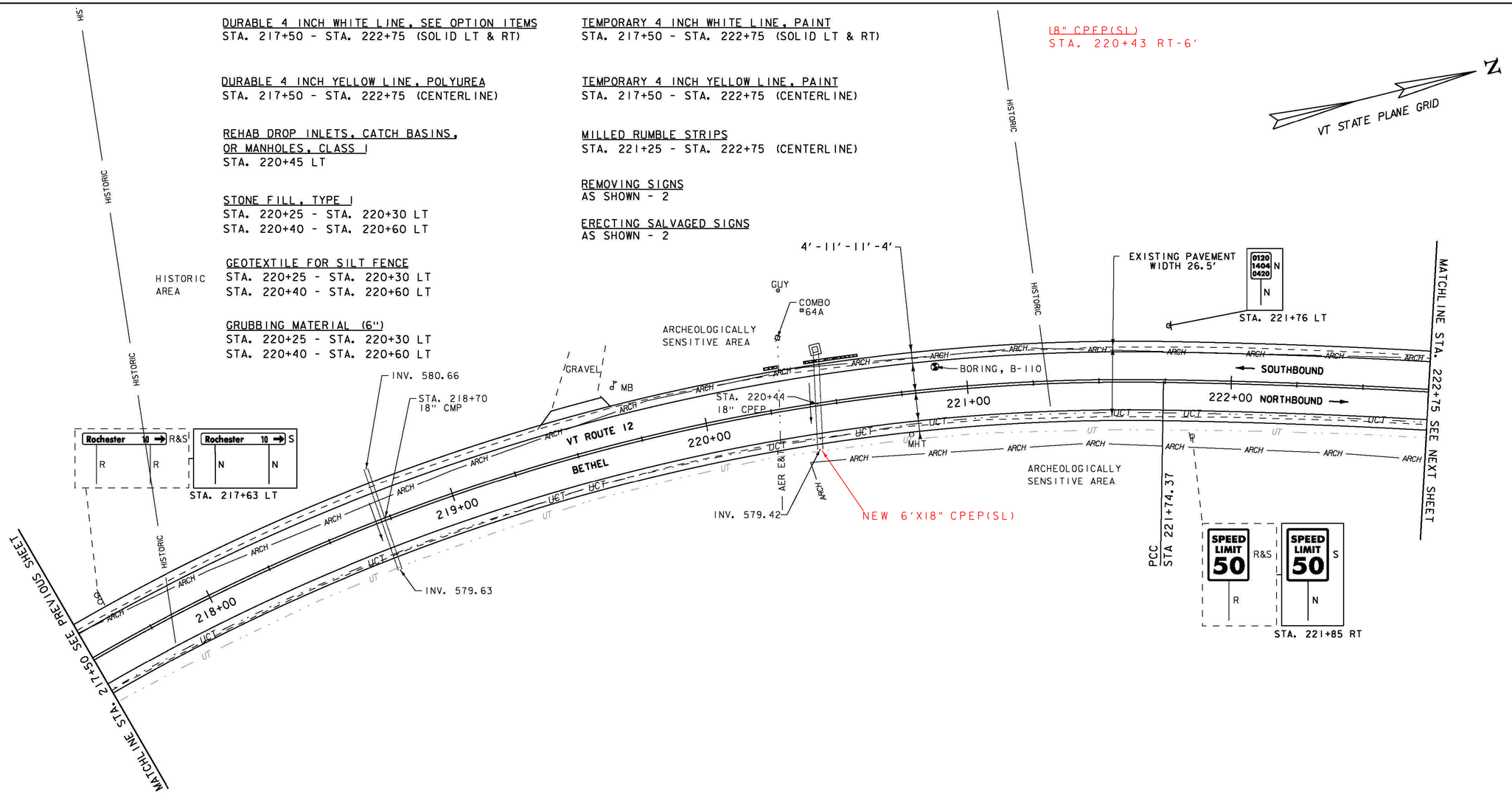
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 217+50 - STA. 222+75 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 221+25 - STA. 222+75 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 2

ERECTING SALVAGED SIGNS
AS SHOWN - 2

18" CPEP(SL)
STA. 220+43 RT-6'



SIGN LEGEND

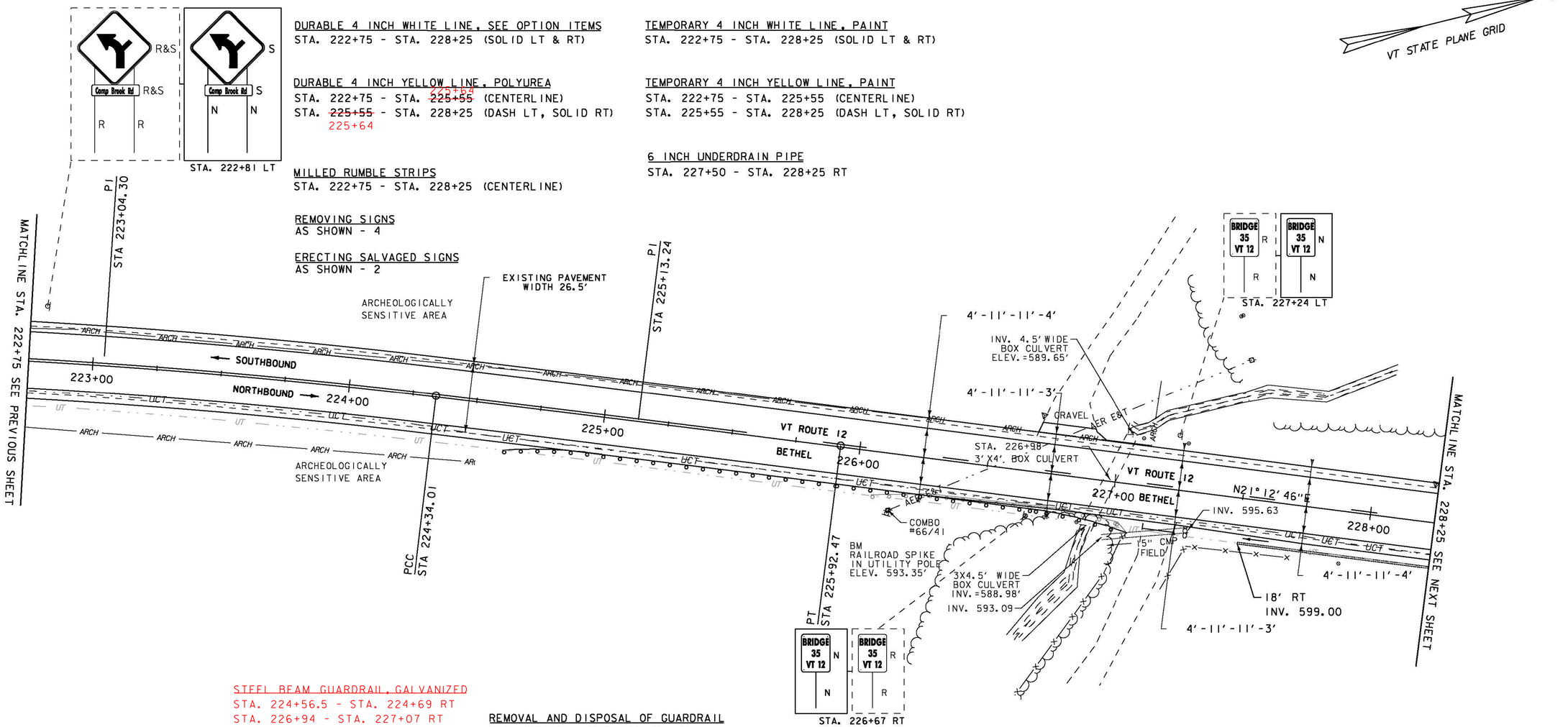
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 18

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 44 OF 211



~~STEEL BEAM GUARDRAIL, GALVANIZED~~
~~STA. 224+62.5 - STA. 224+75 RT~~
~~STA. 227+00 - STA. 227+12.5 RT~~

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 224+56.5 - STA. 224+69 RT
STA. 226+94 - STA. 227+07 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 226+07 - STA. 227+07 RT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. ~~224+75~~ 224+69 - STA. ~~226+75 RT~~ 226+94

~~STEEL BEAM GUARDRAIL, GALVANIZED/NESTED W/8 FEET POSTS~~
~~STA. 226+75 - STA. 227+00 RT~~

ANCHOR FOR STEEL BEAM RAIL
(SEE STANDARD G-1d)
STA. 224+69 RT
STA. 226+94 RT

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
6.	STA. 228+29 - STA. 228+50	LT	-

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 19

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 45 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 228+25 - STA. 234+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 228+25 - STA. ~~232+30~~ 232+44 (DASH LT, SOLID RT)
STA. ~~232+30~~ 232+44 - STA. 234+25 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 228+25 - STA. 232+25 (CENTERLINE)

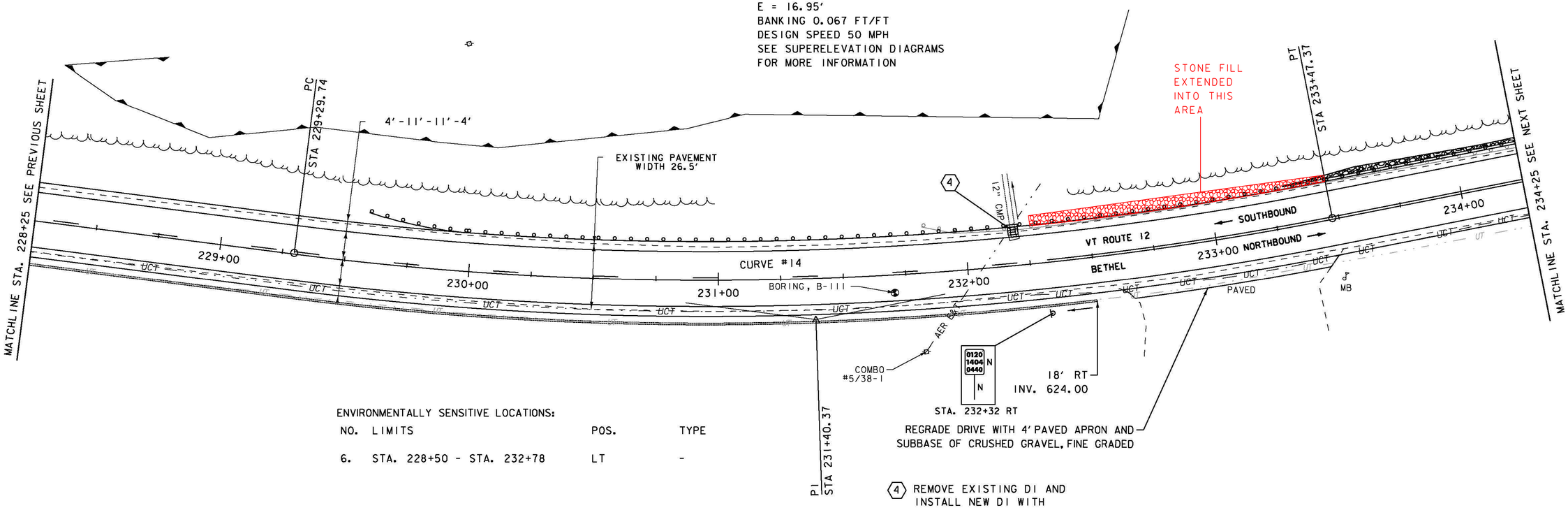
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 228+25 - STA. 234+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 228+25 - STA. 232+30 (DASH LT, SOLID RT)
STA. 232+30 - STA. 234+25 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 228+25 - STA. 232+50 RT

VT STATE PLANE GRID

CURVE #14
DELTA = 18°24'23"
D = 4°24'27"
R = 1300.00'
T = 210.63'
L = 417.63'
E = 16.95'
BANKING 0.067 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
6.	STA. 228+50 - STA. 232+78	LT	-

4 REMOVE EXISTING DI AND INSTALL NEW DI WITH CAST IRON GRATE (TYPE D)
STA. 232+21 LT 14.0' 4'X12" CSP
CONNECT PIPE TO NEW DI
RIM EL. = 624.59'

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

TREATED TIMBER CURB
STA. 232+20 - STA. ~~234+25~~ 234+48 LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 231+82.50 - STA. 234+25 LT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 229+56 - STA. 234+25 LT

STONE FILL, TYPE I
STA. ~~233+30~~ 232+25 - STA. 234+25 LT

GEOTEXTILE FOR SILT FENCE
STA. 233+30 - STA. 234+25 LT

GRUBBING MATERIAL (6")
STA. 233+30 - STA. 234+25 LT

12" CSP
STA. 232+19-4'

PRECAST REINFORCED CONCRETE
DROP INLET WITH CAST IRON GRATE
STA. 232+19 LT

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 20
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 46 OF 211

~~REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I~~
~~STA. 237+70 LT~~

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 234+25 - STA. 239+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 234+25 - STA. 239+25 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 3

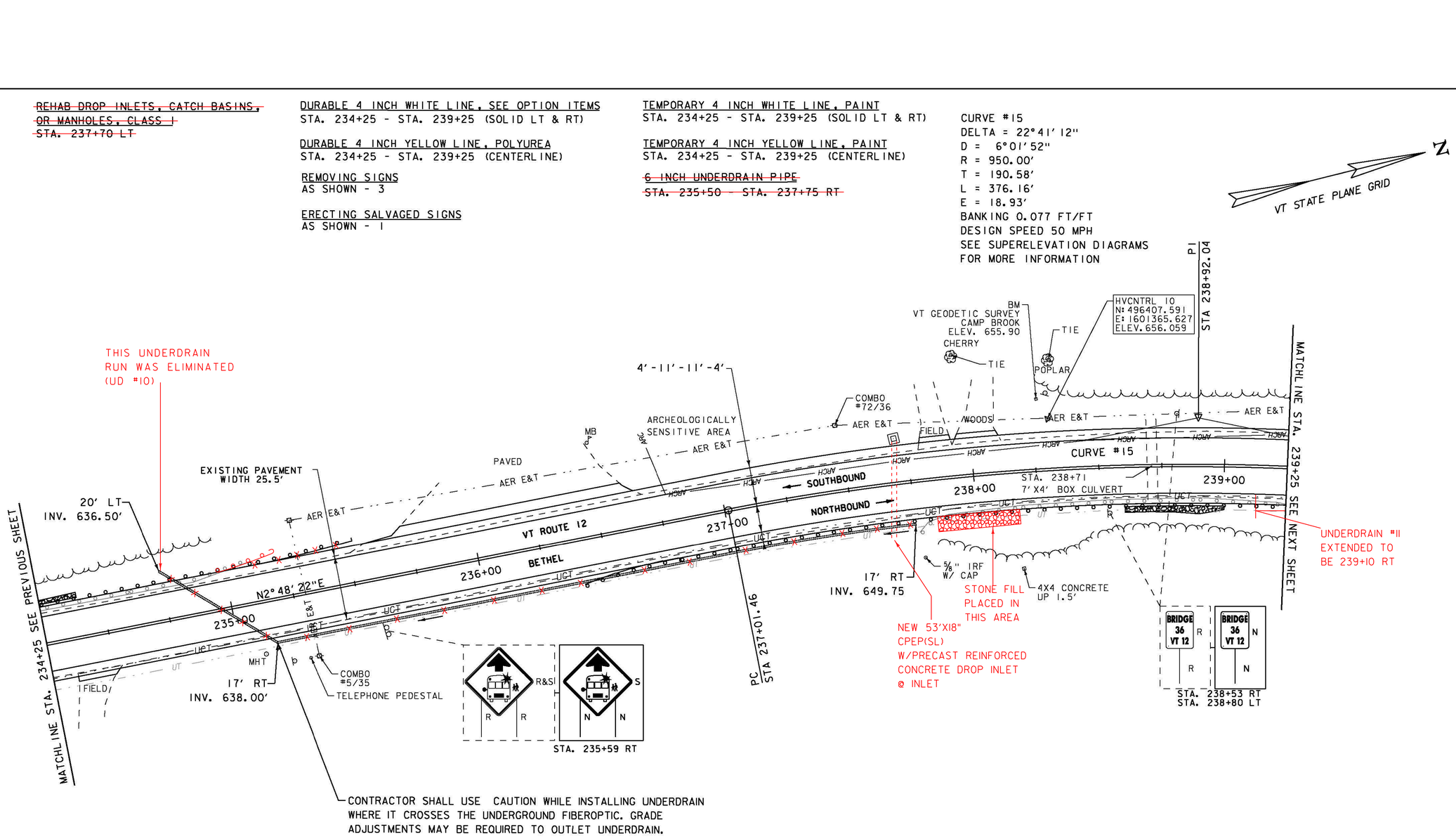
ERECTING SALVAGED SIGNS
AS SHOWN - 1

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 234+25 - STA. 239+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 234+25 - STA. 239+25 (CENTERLINE)

~~6 INCH UNDERDRAIN PIPE~~
~~STA. 235+50 - STA. 237+75 RT~~

CURVE #15
DELTA = 22°41'12"
D = 6°01'52"
R = 950.00'
T = 190.58'
L = 376.16'
E = 18.93'
BANKING 0.077 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



CONTRACTOR SHALL USE CAUTION WHILE INSTALLING UNDERDRAIN WHERE IT CROSSES THE UNDERGROUND FIBEROPTIC. GRADE ADJUSTMENTS MAY BE REQUIRED TO OUTLET UNDERDRAIN.

TREATED TIMBER CURB
STA. 234+25 - STA. 234+75 LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 234+25 - STA. 235+11 LT
STA. 236+00 - STA. 239+25 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 234+25 - STA. ~~235+50~~ LT 235+16
STA. 236+41 - STA. 239+25 RT

STONE FILL, TYPE I
STA. 234+25 - STA. 234+40 LT
STA. 238+60 - STA. 239+00 RT
STA. 237+83 - STA. 238+15 RT

GEOTEXTILE FOR SILT FENCE
STA. 234+25 - STA. 234+40 LT
STA. 238+60 - STA. 239+00 RT

GRUBBING MATERIAL (6")
STA. 234+25 - STA. 234+40 LT
STA. 238+60 - STA. 239+00 RT

PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE
STA. 237+70 LT

18" CPEP(SL)
STA. 237+70 LT/RT-53'

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 21

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 47 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 239+25 - STA. 245+25 (SOLID LT & RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 239+25 - STA. 245+25 (SOLID LT & RT)

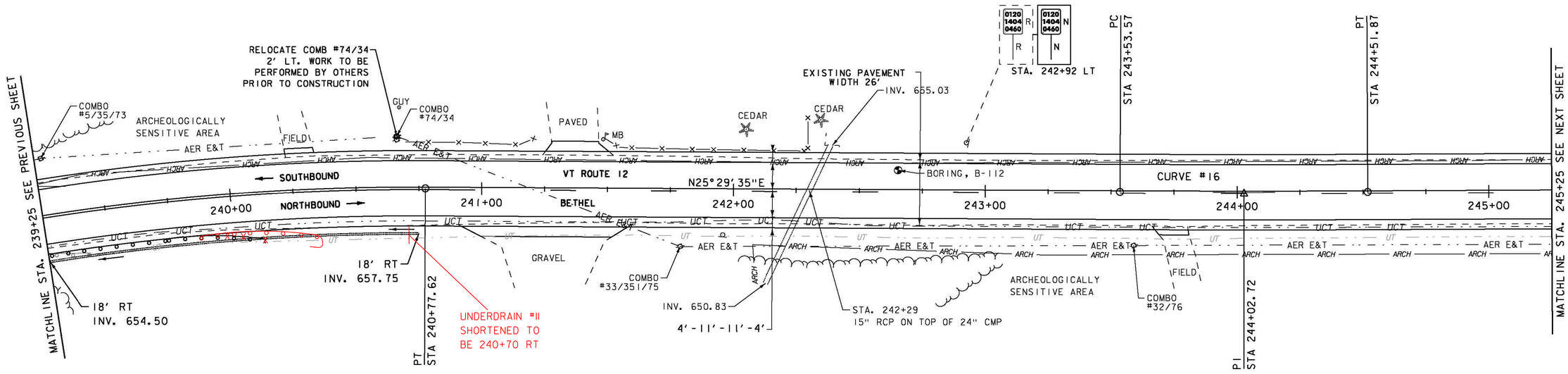
DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 239+25 - STA. ~~240+87~~ 240+95 (CENTERLINE)
STA. ~~240+87~~ 240+95 - STA. 245+25 (SOLID LT, DASHED RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 239+25 - STA. 240+87 (CENTERLINE)
STA. 240+87 - STA. 245+25 (SOLID LT, DASHED RT)

REMOVING SIGNS
AS SHOWN - 1

6 INCH UNDERDRAIN PIPE
STA. ~~239+25~~ 239+10 - STA. ~~240+75~~ 240+70 RT

VT STATE PLANE GRID



REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 239+25 RT - STA. 239+42 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 239+25 RT - STA. ~~240+13~~ 240+32 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 22

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 48 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 245+25 - STA. 250+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 245+25 - STA. 248+64 (SOLID LT, DASHED RT)
STA. 248+64 - STA. 250+75 (DASHED RT)

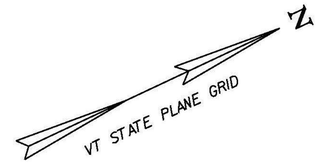
MILLED RUMBLE STRIPS
STA. 248+50 - STA. 250+75 (CENTERLINE)

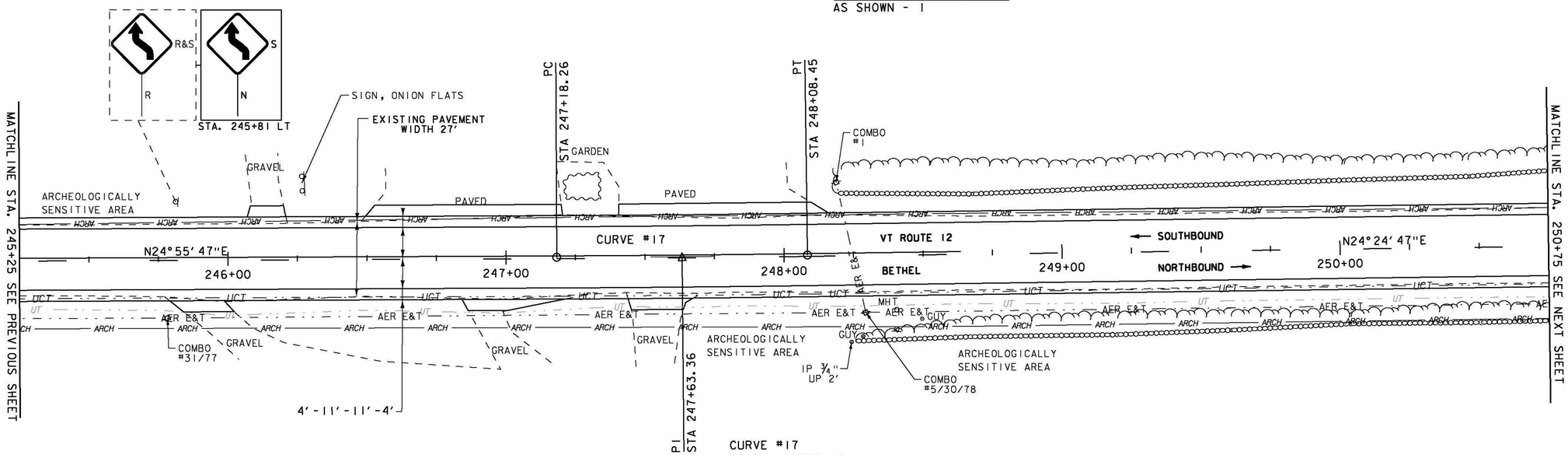
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 245+25 - STA. 250+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 245+25 - STA. 248+64 (SOLID LT, DASHED RT)
STA. 248+64 - STA. 250+75 (DASHED RT)

REMOVING SIGNS
AS SHOWN - 1

ERECTING SALVAGED SIGNS
AS SHOWN - 1





CURVE #17
DELTA = 0°31'00"
D = 0°34'23"
R = 10000.00'
T = 45.09'
L = 90.19'
E = 0.10'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 23

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 49 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 250+75 - STA. 256+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 250+75 - STA. ~~255+66~~ 255+57 (DASHED RT)
STA. ~~255+66~~ 255+57 - STA. 256+50 (DASHED LT, SOLID RT)

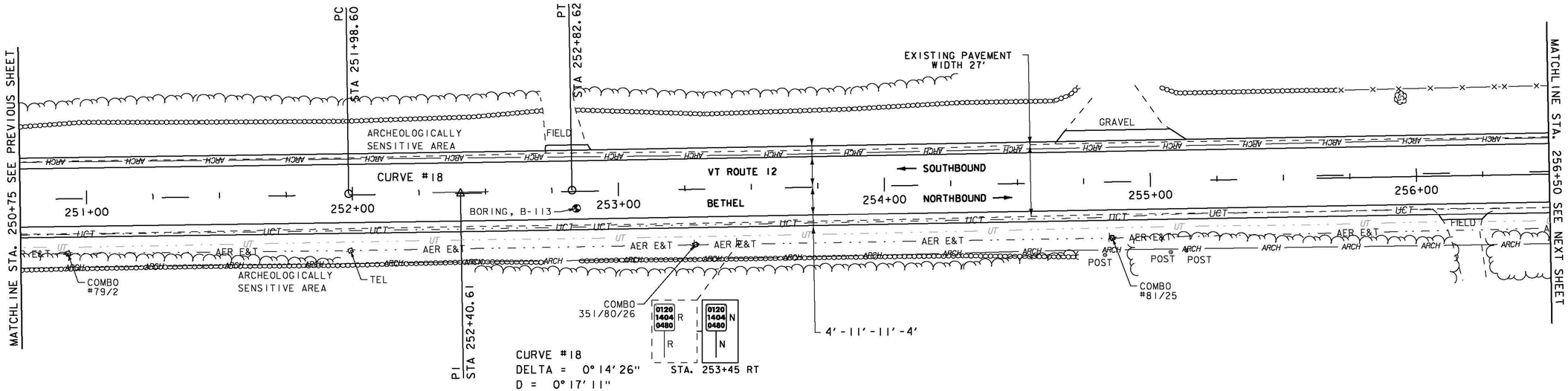
MILLED RUMBLE STRIPS
STA. 250+75 - STA. 254+50 (CENTERLINE)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 250+75 - STA. 256+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 250+75 - STA. 255+66 (DASHED RT)
STA. 255+66 - STA. 256+50 (DASHED LT, SOLID RT)

REMOVING SIGNS
AS SHOWN - 1

N
VT STATE PLANE GRID



CURVE #18
DELTA = 0° 14' 26" STA. 253+45 RT
D = 0° 17' 11"
R = 20000.00'
T = 42.01'
L = 84.01'
E = 0.04'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 24
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 50 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 256+50 - STA. 261+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 256+50 - STA. 261+75 (DASHED LT, SOLID RT)

MILLED RUMBLE STRIPS
STA. 257+75 - STA. 261+75 (CENTERLINE)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 256+50 - STA. 261+75 (SOLID LT & RT)

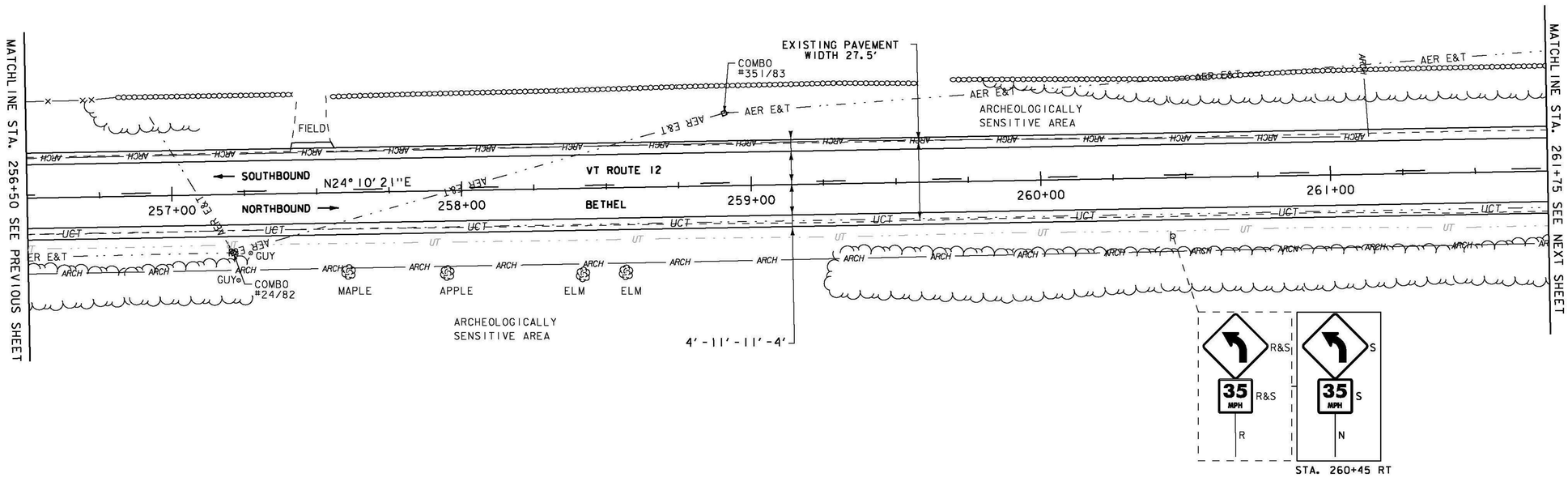
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 256+50 - STA. 261+75 (DASHED LT, SOLID RT)

REMOVING SIGNS
AS SHOWN - 2

ERECTING SALVAGED SIGNS
AS SHOWN - 2

N

VT STATE PLANE GRID



SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 25	SHEET 51 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 261+75 - STA. 266+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 261+75 - STA. ~~263+26~~ 263+30 (DASHED LT, SOLID RT)
STA. ~~263+26~~ 263+30 - STA. 266+75 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 261+75 - STA. ~~266+75~~ 264+00 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 3

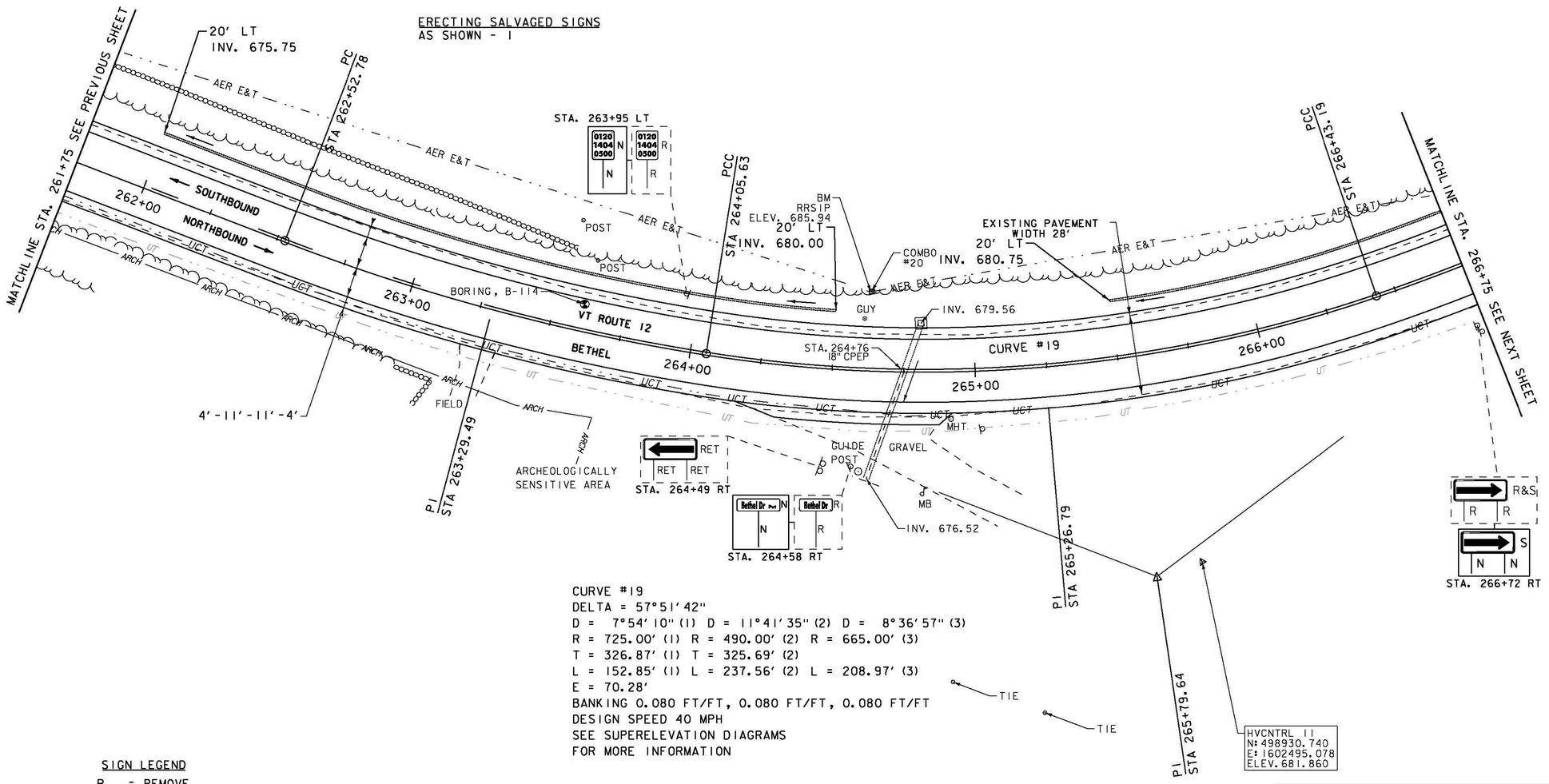
ERECTING SALVAGED SIGNS
AS SHOWN - 1

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 261+75 - STA. 266+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 261+75 - STA. 263+26 (DASHED LT, SOLID RT)
STA. 263+26 - STA. 266+75 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 262+00 - STA. ~~264+50~~ 264+00 LT
STA. 265+50 - STA. 266+75 LT

VT STATE PLANE GRID



CURVE #19
DELTA = 57°51'42"
D = 7°54'10" (1) D = 11°41'35" (2) D = 8°36'57" (3)
R = 725.00' (1) R = 490.00' (2) R = 665.00' (3)
T = 326.87' (1) T = 325.69' (2)
L = 152.85' (1) L = 237.56' (2) L = 208.97' (3)
E = 70.28'
BANKING 0.080 FT/FT, 0.080 FT/FT, 0.080 FT/FT
DESIGN SPEED 40 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 26
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 52 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 266+75 - STA. 272+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 266+75 - STA. 272+50 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. ~~266+75~~ 268+00 - STA. 272+50 (CENTERLINE)

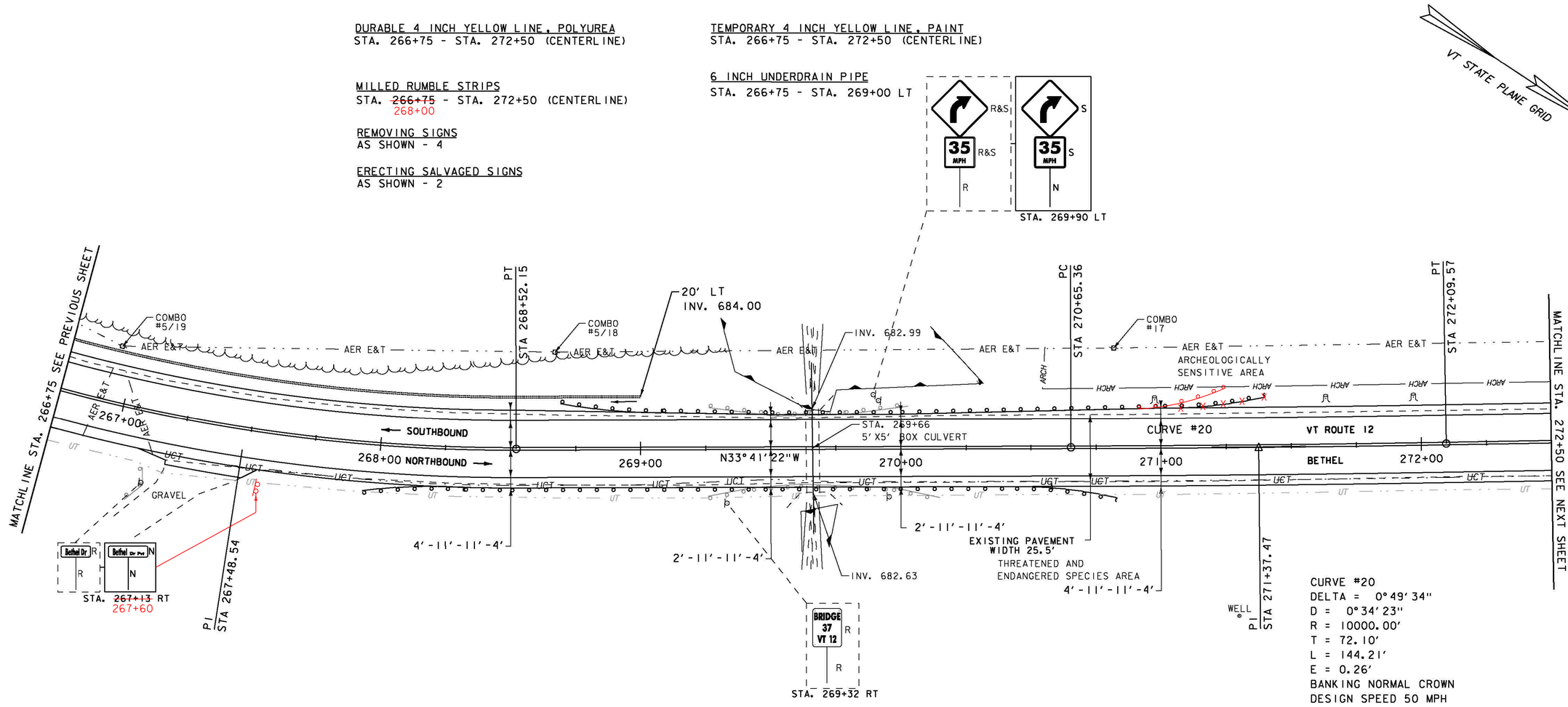
REMOVING SIGNS
AS SHOWN - 4

ERECTING SALVAGED SIGNS
AS SHOWN - 2

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 266+75 - STA. 272+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 266+75 - STA. 272+50 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 266+75 - STA. 269+00 LT



CURVE #20
DELTA = 0°49'34"
D = 0°34'23"
R = 10000.00'
T = 72.10'
L = 144.21'
E = 0.26'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 269+26 - STA. 270+15 RT
STA. 269+26 - STA. 270+02.5 LT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 267+95 - STA. 270+83 RT
STA. 268+70.5 - STA. ~~271+40.5~~ 271+18 LT

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
7.	STA. 269+31 - STA. 270+32	LT	-
8.	STA. 269+62 - STA. 269+76	RT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 27
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 53 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 272+50 - STA. 277+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 272+50 - STA. 277+75 (CENTERLINE)

STONE FILL, TYPE I
STA. 276+62 - STA. 277+00 RT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 272+50 - STA. 277+75 (SOLID LT & RT)

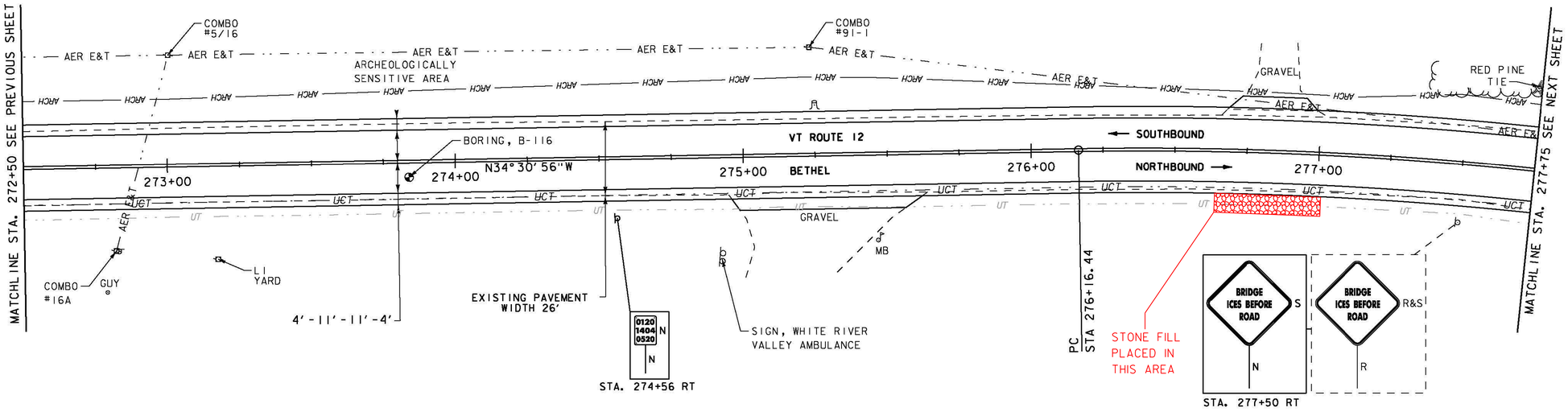
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 272+50 - STA. 277+75 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 272+50 - STA. 274+75 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 1

ERECTING SALVAGED SIGNS
AS SHOWN - 1

VT STATE PLANE GRID N



SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 28

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 54 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 277+75 - STA. 283+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 277+75 - STA. 283+50 (CENTERLINE)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 277+75 - STA. 283+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 277+75 - STA. 283+50 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 278+00 - STA. ~~283+10~~ LT
283+00

VT STATE PLANE GRID
N

REMOVING SIGNS
AS SHOWN - 2

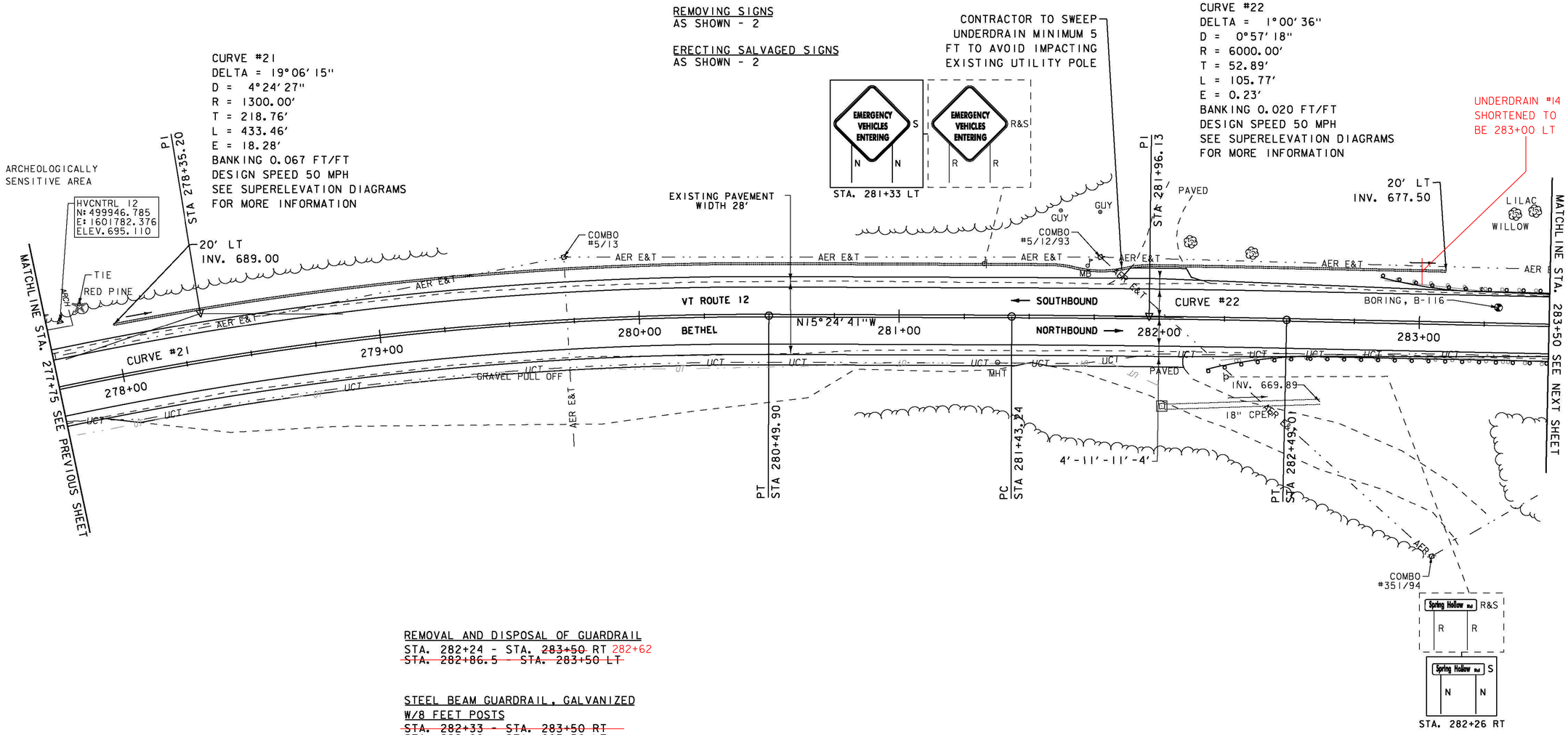
ERECTING SALVAGED SIGNS
AS SHOWN - 2

CONTRACTOR TO SWEEP UNDERDRAIN MINIMUM 5 FT TO AVOID IMPACTING EXISTING UTILITY POLE

CURVE #21
DELTA = 19°06'15"
D = 4°24'27"
R = 1300.00'
T = 218.76'
L = 433.46'
E = 18.28'
BANKING 0.067 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

CURVE #22
DELTA = 1°00'36"
D = 0°57'18"
R = 6000.00'
T = 52.89'
L = 105.77'
E = 0.23'
BANKING 0.020 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

UNDERDRAIN #14
SHORTENED TO
BE 283+00 LT



REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 282+24 - STA. ~~283+50~~ RT 282+62
~~STA. 282+86.5 - STA. 283+50 LT~~

STEEL BEAM GUARDRAIL, GALVANIZED
W/8 FEET POSTS
~~STA. 282+33 - STA. 283+50 RT~~
~~STA. 282+99 - STA. 283+50 LT~~

~~STEEL BEAM GUARDRAIL, GALVANIZED~~
~~STA. 282+20.5 - STA. 282+33 RT~~
~~STA. 282+86.5 - STA. 282+99 LT~~

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 282+24 - STA. 282+61.5 RT

ANCHOR FOR STEEL BEAM GUARDRIAL
STA. 282+36 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 29

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 55 OF 211

REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. 284+10 LT
STA. 284+10 RT

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 283+50 - STA. 288+75 (SOLID LT & RT)

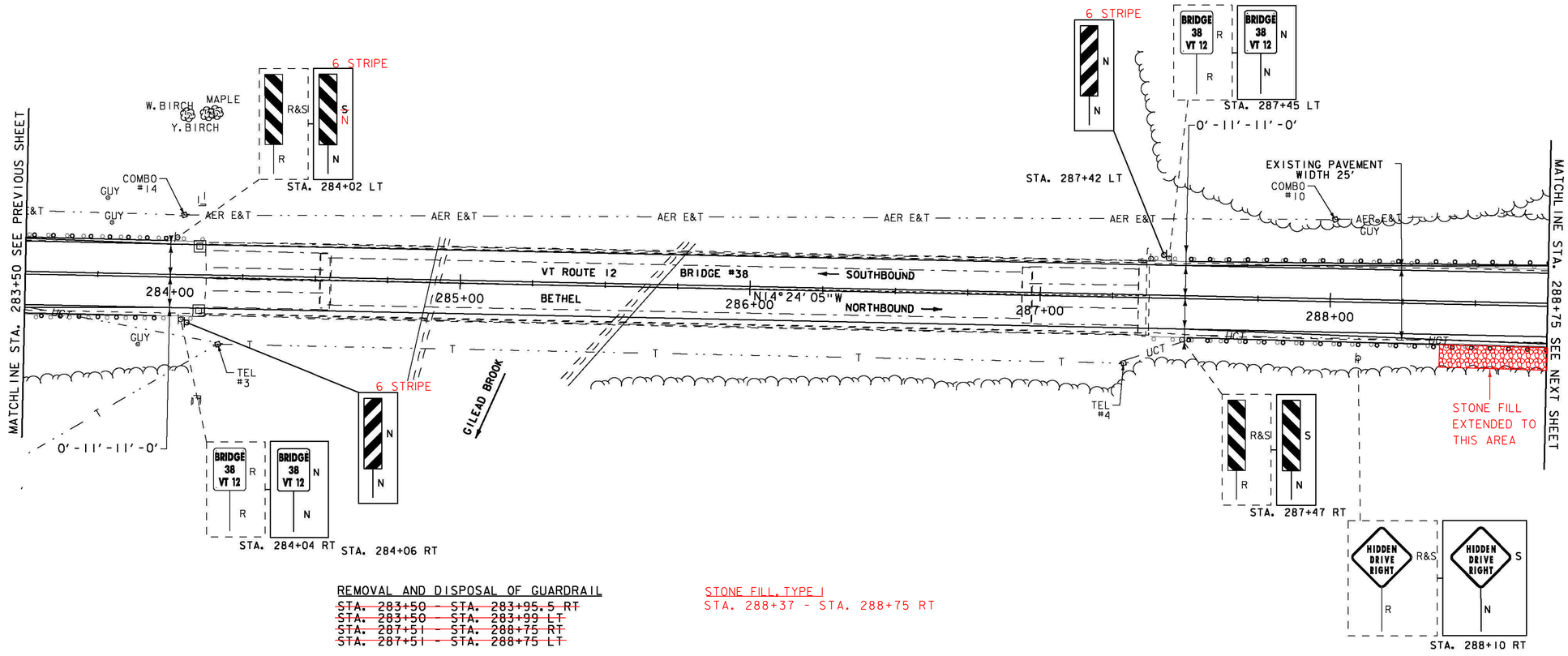
DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 283+50 - STA. 288+75 (CENTERLINE)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 283+50 - STA. 288+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 283+50 - STA. 288+75 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 5

ERECTING SALVAGED SIGNS
AS SHOWN - 3



REMOVAL AND DISPOSAL OF GUARDRAIL
~~STA. 283+50 - STA. 283+95.5 RT~~
~~STA. 283+50 - STA. 283+99 LT~~
~~STA. 287+51 - STA. 288+75 RT~~
~~STA. 287+51 - STA. 288+75 LT~~

HD STEEL BEAM GUARDRAIL, GALVANIZED
W/8 FEET POSTS
~~STA. 283+70.5 - STA. 283+95.5 RT~~
~~STA. 283+74 - STA. 283+99 LT~~
~~STA. 287+51 - STA. 287+76 RT~~
~~STA. 287+51 - STA. 287+76 LT~~

STEEL BEAM GUARDRAIL, GALVANIZED
W/8 FEET POSTS
~~STA. 283+50 - STA. 283+70.5 RT~~
~~STA. 283+50 - STA. 283+74 LT~~
~~STA. 287+76 - STA. 288+75 RT~~
~~STA. 287+76 - STA. 288+75 LT~~

STONE FILL, TYPE I
STA. 288+37 - STA. 288+75 RT

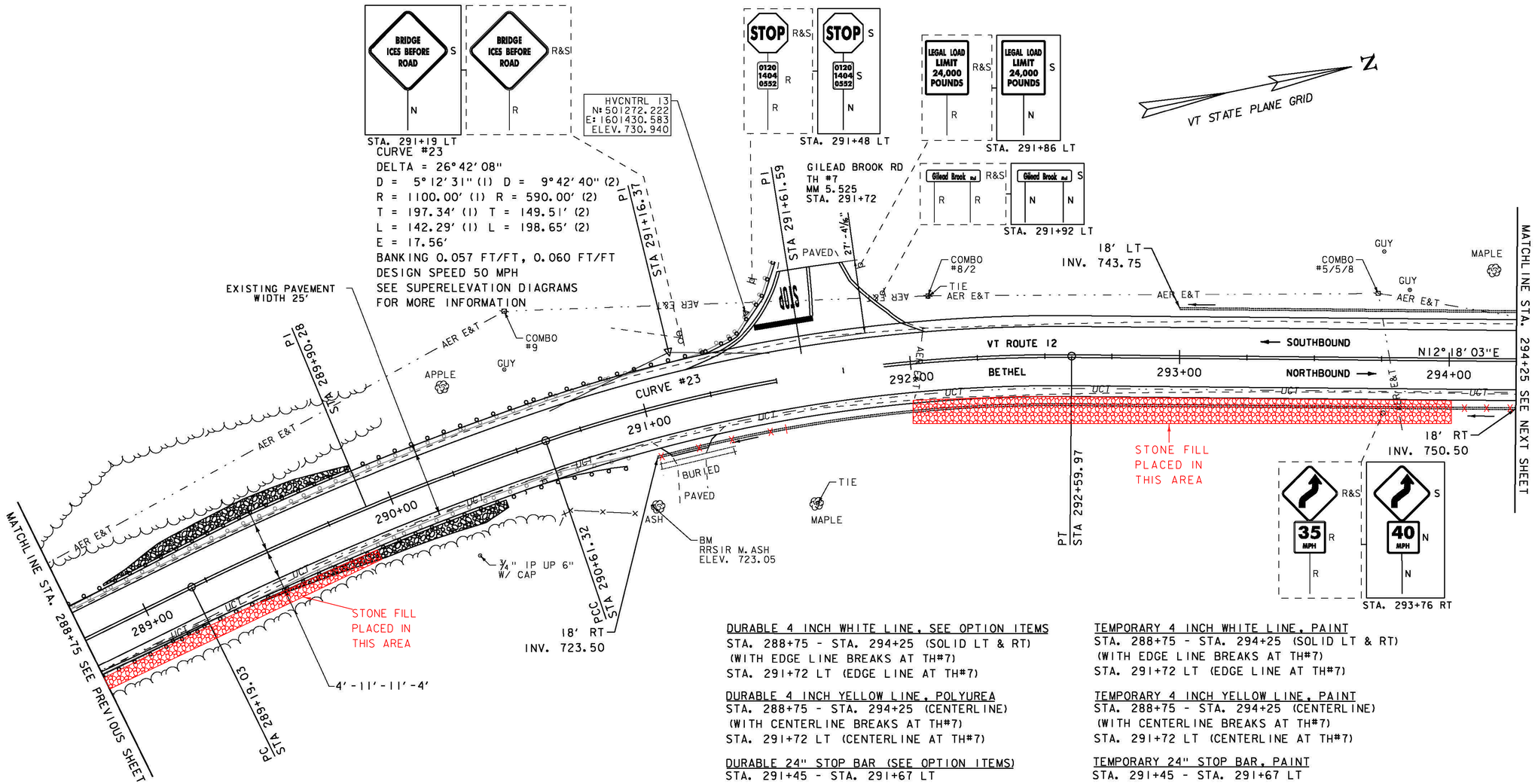
SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 30

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 56 OF 211



~~6 INCH UNDERDRAIN PIPE~~
~~STA. 291+00 - STA. 294+25 RT~~

REMOVAL AND DISPOSAL OF GUARDRAIL
~~STA. 288+75 - STA. 290+93 RT~~
~~STA. 288+75 - STA. 291+56 LT~~

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
~~STA. 288+75 - STA. 290+76 RT~~
~~STA. 288+75 - STA. 291+38.5 LT~~

STEEL BEAM GUARDRAIL, GALVANIZED
~~STA. 290+76 - STA. 290+88.5 RT~~
~~STA. 291+38.5 - STA. 291+51 LT~~
STA. 290+36 - STA. 290+86 RT

ANCHOR FOR STEEL BEAM GUARDRAIL
STA. 290+82 RT

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 288+75 - STA. 294+25 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#7)
STA. 291+72 LT (EDGE LINE AT TH#7)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 288+75 - STA. 294+25 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#7)
STA. 291+72 LT (CENTERLINE AT TH#7)

DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. 291+45 - STA. 291+67 LT

DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. 291+60 LT "STOP"

STONE FILL, TYPE I
STA. 288+90 - STA. 289+90 LT
STA. ~~289+40~~ 288+75 - STA. 290+40 RT
STA. 292+00 - STA. 294+00 RT

GEOTEXTILE FOR SILT FENCE
STA. 288+90 - STA. 289+90 LT
STA. 289+40 - STA. 290+40 RT

GRUBBING MATERIAL (6")
STA. 288+90 - STA. 289+90 LT
STA. 289+40 - STA. 290+40 RT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 288+75 - STA. 294+25 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#7)
STA. 291+72 LT (EDGE LINE AT TH#7)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 288+75 - STA. 294+25 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#7)
STA. 291+72 LT (CENTERLINE AT TH#7)

TEMPORARY 24" STOP BAR, PAINT
STA. 291+45 - STA. 291+67 LT

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 291+60 LT "STOP"

~~6 INCH UNDERDRAIN PIPE~~
~~STA. 293+00 - STA. 294+25 LT~~

6 INCH UNDERDRAIN PIPE
STA 292+50 - STA. 294+00 LT
STA. 291+49 - STA. 293+89 RT

REMOVING SIGNS
AS SHOWN - 7

ERECTING SALVAGED SIGNS
AS SHOWN - 6

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 31

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 57 OF 211

~~REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I~~
~~STA. 295+05 RT (MANHOLE COVER)~~

STONE FILL, TYPE I
STA. 299+53 - STA. 299+75 RT

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 294+25 - STA. 299+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 294+25 - STA. 299+75 (CENTERLINE)

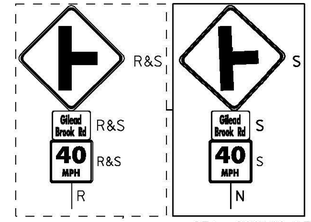
6 INCH UNDERDRAIN PIPE
~~STA. 294+25 - STA. 294+50 LT~~
STA. 295+05 - STA. ~~296+75~~ RT 296+52
~~STA. 296+75 - STA. 298+50 RT~~
STA. 296+75 - STA. 299+75 LT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 294+25 - STA. 299+75 (SOLID LT & RT)

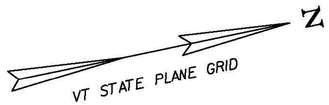
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 294+25 - STA. 299+75 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 5

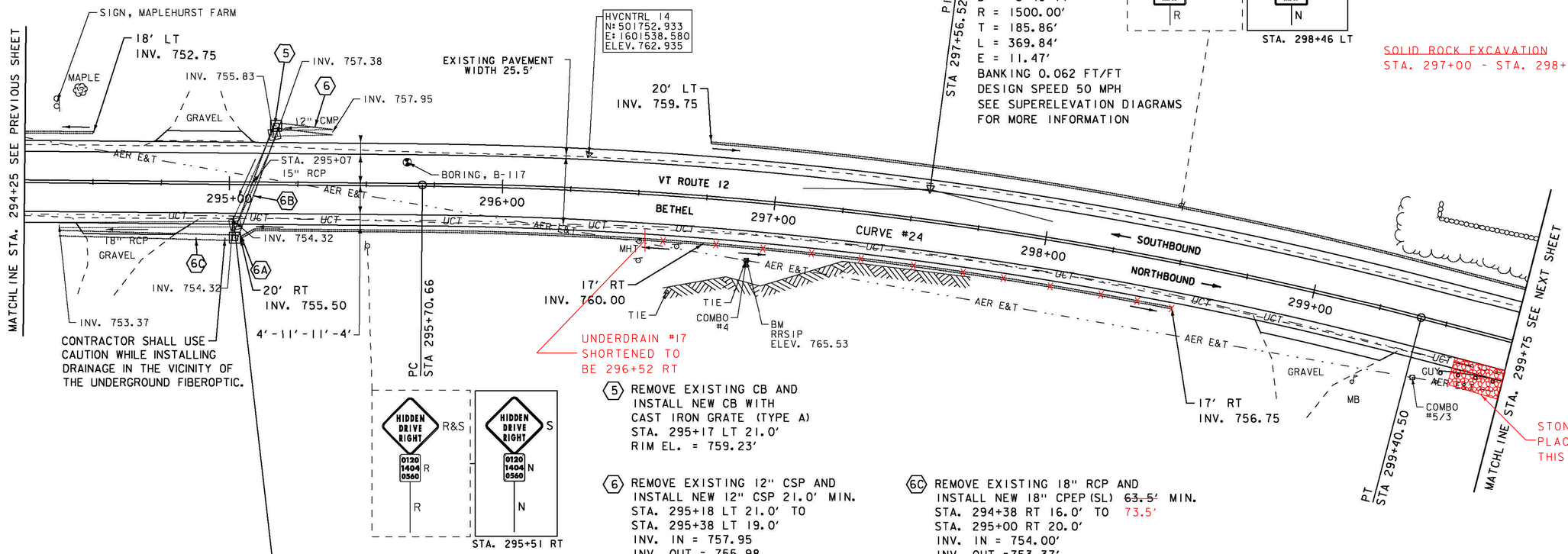
ERECTING SALVAGED SIGNS
AS SHOWN - 4



STA. 298+46 LT



SOLID ROCK EXCAVATION
STA. 297+00 - STA. 298+00 RT



CURVE #24
DELTA = 14°07'36"
D = 3°49'11"
R = 1500.00'
T = 185.86'
L = 369.84'
E = 11.47'
BANKING 0.062 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS FOR MORE INFORMATION

FIBEROPTIC IS IN CLOSE PROXIMITY TO 6A AND 6B. CONTRACTOR SHALL USE EXTREME CAUTION DURING REMOVAL AND INSTALLATION, INCLUDING VERIFYING LOCATION OF FIBEROPTIC LINE PRIOR TO REMOVAL OF CATCH BASIN AND PIPE.

(5) REMOVE EXISTING CB AND INSTALL NEW CB WITH CAST IRON GRATE (TYPE A)
STA. 295+17 LT 21.0'
RIM EL. = 759.23'

(6) REMOVE EXISTING 12" CSP AND INSTALL NEW 12" CSP 21.0' MIN.
STA. 295+18 LT 21.0' TO
STA. 295+38 LT 19.0'
INV. IN = 757.95
INV. OUT = 755.98
CONNECT TO NEW DI

(6A) REMOVE EXISTING CB AND INSTALL NEW CB WITH CAST IRON GRATE (TYPE A)
STA. 295+02 RT 20.0'
RIM EL. = 757.82'

(6C) REMOVE EXISTING 18" RCP AND INSTALL NEW 18" CPEP (SL) ~~63.5'~~ MIN.
STA. 294+38 RT 16.0' TO 73.5'
STA. 295+00 RT 20.0'
INV. IN = 754.00'
INV. OUT = 753.37'

(6B) REMOVE EXISTING 15" RCP AND INSTALL NEW 18" CPEP (SL) ~~43.0'~~ MIN.
STA. 295+02 RT 20.0' TO 40.4'
STA. 295+17 LT 19.0'
INV. IN = 755.58'
INV. OUT = 754.21'

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 299+52 - STA. 299+75 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

MILLED RUMBLE STRIPS
STA. 295+50 - STA. 299+75 (CENTERLINE)

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 32

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 58 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 299+75 - STA. 305+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 299+75 - STA. 305+75 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 299+75 - STA. 305+75 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 2

ERECTING SALVAGED SIGNS
AS SHOWN - 2

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 299+75 - STA. 305+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 299+75 - STA. 305+75 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 299+75 - STA. ~~300+08~~ 300+00 LT
STA. 300+25 - STA. 302+25 LT
STA. 302+50 - STA. 305+75 LT

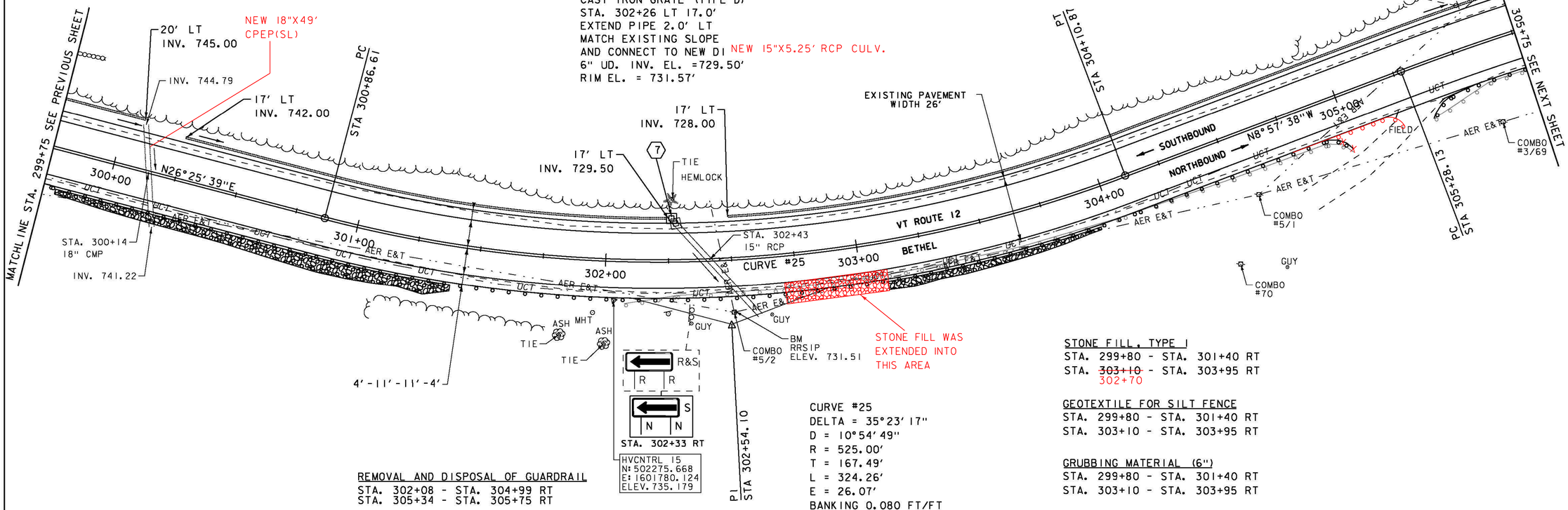
PRECAST REINFORCED CONCRETE
DROP INLET WITH CAST IRON GRATE
STA. 302+26 LT

15" RCP CLASS IV
STA. 302+26 LT ~~2.0'~~ 5.25'

18" CPEP (SL)
STA. 300+00 - STA. 300+14 RT-49'

(7) REMOVE EXISTING DI AND
INSTALL NEW DI WITH
CAST IRON GRATE (TYPE D)
STA. 302+26 LT 17.0'
EXTEND PIPE 2.0' LT
MATCH EXISTING SLOPE
AND CONNECT TO NEW DI
6" UD. INV. EL. =729.50'
RIM EL. = 731.57'

NEW 15"X5.25' RCP CULV.



REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 302+08 - STA. 304+99 RT
STA. 305+34 - STA. 305+75 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 299+75 - STA. ~~304+98~~ RT 305+26
STA. 305+34 - STA. 305+75 RT
STA. 305+70 - STA. 305+75 LT

CURVE #25
DELTA = 35°23'17"
D = 10°54'49"
R = 525.00'
T = 167.49'
L = 324.26'
E = 26.07'
BANKING 0.080 FT/FT
DESIGN SPEED 40 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

STONE FILL, TYPE I
STA. 299+80 - STA. 301+40 RT
STA. ~~303+10~~ 302+70 - STA. 303+95 RT

GEOTEXTILE FOR SILT FENCE
STA. 299+80 - STA. 301+40 RT
STA. 303+10 - STA. 303+95 RT

GRUBBING MATERIAL (6")
STA. 299+80 - STA. 301+40 RT
STA. 303+10 - STA. 303+95 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 33
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 59 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 305+75 - STA. 311+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 305+75 - STA. 311+25 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 305+75 - STA. 311+25 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 2

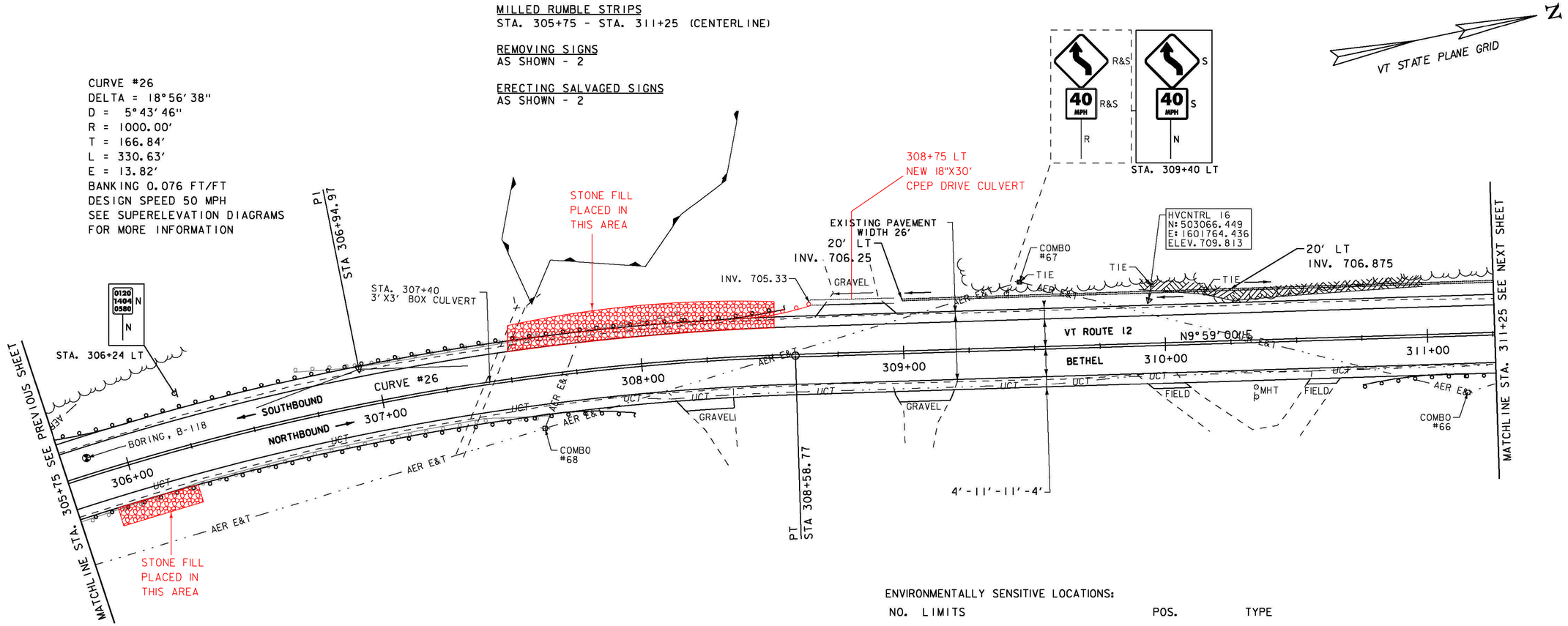
ERECTING SALVAGED SIGNS
AS SHOWN - 2

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 305+75 - STA. 311+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 305+75 - STA. 311+25 (CENTERLINE)

18" CPEP(SL)
STA. 308+60 - STA. 309+90 LT-30'

CURVE #26
DELTA = 18°56'38"
D = 5°43'46"
R = 1000.00'
T = 166.84'
L = 330.63'
E = 13.82'
BANKING 0.076 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
9.	STA. 307+54 - STA. 308+41	LT	-

SOLID ROCK EXCAVATION
STA. ~~309+90~~ 309+50 - STA. ~~311+00~~ 311+50 LT

STONE FILL, TYPE I
STA. 305+92 - STA. 306+24 RT
STA. 307+50 - STA. 308+50 LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 305+75 - STA. 307+63 RT
STA. 306+69.5 - STA. 308+20 LT

6 INCH UNDERDRAIN PIPE
STA. 309+00 - STA. 310+25 LT
STA. 310+25 - STA. 311+25 LT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 305+75 - STA. 308+04 RT
STA. 305+75 - STA. ~~308+52~~ 308+66 LT
STA. 310+76 - STA. 311+25 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 34

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 60 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 311+25 - STA. 316+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 311+25 - STA. 316+75 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 311+25 - STA. 316+75 (CENTERLINE)

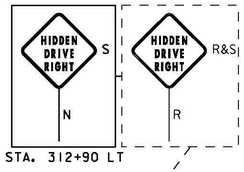
REMOVING SIGNS
AS SHOWN - 2

ERECTING SALVAGED SIGNS
AS SHOWN - 1

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 311+25 - STA. 316+75 (SOLID LT & RT)

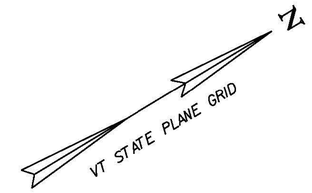
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 311+25 - STA. 316+75 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 311+25 - STA. 311+85 LT
STA. 312+00 - STA. 316+25 LT
STA. 314+25 - STA. 315+50 RT



STA. 312+90 LT

CURVE #27
DELTA = 25°47'25"
D = 6°37'26"
R = 865.00'
T = 198.03'
L = 389.36'
E = 22.38'
BANKING 0.079 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 311+45.5 - STA. 312+86.5 RT
STA. 316+12 - STA. 316+75 LT
STA. 316+40 - STA. 316+75 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 311+25 - STA. 313+70 RT
STA. 314+89 - STA. 316+75 RT
STA. 316+10 - STA. 316+75 LT

~~STONE FILL, TYPE I~~
~~STA. 311+80 - STA. 312+50 RT~~
~~STA. 316+50 - STA. 316+75 LT~~

GEOTEXTILE FOR SILT FENCE
STA. 311+80 - STA. 312+50 RT
STA. 316+50 - STA. 316+75 LT

GRUBBING MATERIAL (6")
STA. 311+80 - STA. 312+50 RT
STA. 316+50 - STA. 316+75 LT

STONE FILL, TYPE I
STA. 311+60 - STA. 312+60 LT
STA. 311+60 - STA. 312+60 RT
STA. 316+24 - STA. 316+75 LT
STA. 316+53 - STA. 316+75 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 35

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 61 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 316+75 - STA. 322+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 316+75 - STA. 322+50 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 316+75 - STA. 322+50 (CENTERLINE)

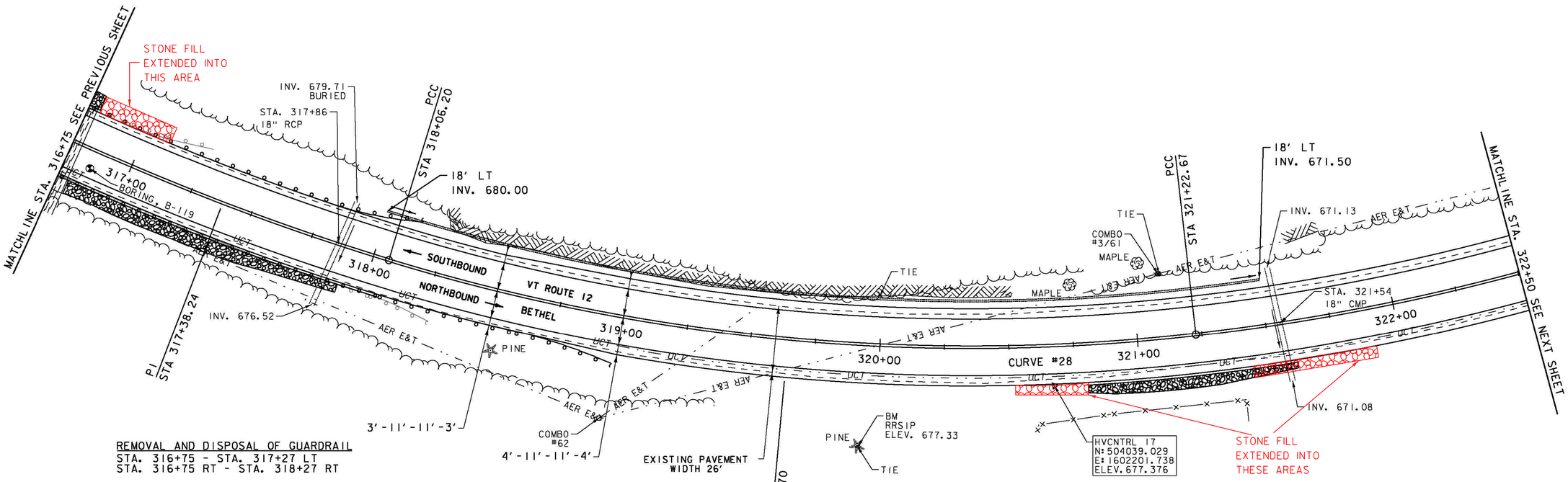
SOLID ROCK EXCAVATION
STA. 318+25 - STA. ~~320+50~~ 321+00 LT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 316+75 - STA. 322+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 316+75 - STA. 322+50 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 318+00 - STA. 321+50 LT

N
VT STATE PLANE GRID



REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 316+75 - STA. 317+27 LT
STA. 316+75 RT - STA. 318+27 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 316+75 - STA. ~~318+20~~ 318+24 LT
STA. 316+75 - STA. 319+03 RT

STONE FILL, TYPE I
STA. 316+75 - STA. 317+10 LT
STA. 316+80 - STA. 317+90 RT
STA. 320+53 - STA. 321+89 RT

~~STONE FILL, TYPE I~~
~~STA. 316+75 - STA. 316+80 LT~~
~~STA. 316+80 - STA. 317+90 RT~~
~~STA. 320+80 - STA. 321+60 RT~~

GEOTEXTILE FOR SILT FENCE
STA. 316+75 - STA. 316+80 LT
STA. 316+80 - STA. 317+90 RT
STA. 320+80 - STA. 321+60 RT

GRUBBING MATERIAL (6")
STA. 316+75 - STA. 316+80 LT
STA. 316+80 - STA. 317+90 RT
STA. 320+80 - STA. 321+60 RT

CURVE #28
DELTA = 72°25'49"
D = 5°43'46" (1) D = 7°26'28" (2) D = 6°44'26" (3) D = 6°21'58" (4)
R = 1000.00' (1) R = 770.00' (2) R = 850.00' (3) R = 900.00' (4)
T = 616.66' (1) T = 624.17' (2)
L = 136.13' (1) L = 316.47' (2) L = 399.55' (3) L = 222.26' (4)
E = 174.85'
BANKING 0.076 FT/FT, 0.080 FT/FT, 0.079 FT/FT, 0.078 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 36	SHEET 62 OF 211

PRECAST REINFORCED CONCRETE
DROP INLET WITH CAST IRON GRATE
STA. 325+91 LT

12" CSP .064 (2-2/3 X 1/2)
~~STA. 325+91 LT 2.0'~~
STA. 325+69 - STA. 325+90 LT ~~21.0'~~ 20.0'
STA. 325+92 - STA. 325+98 LT ~~6.0'~~ 10.0'

18" CPEP(SL)
STA. 325+91 LT -1.5'

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 322+50 - STA. 327+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 322+50 - STA. 327+75 (CENTERLINE)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 322+50 - STA. 327+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 322+50 - STA. 327+75 (CENTERLINE)

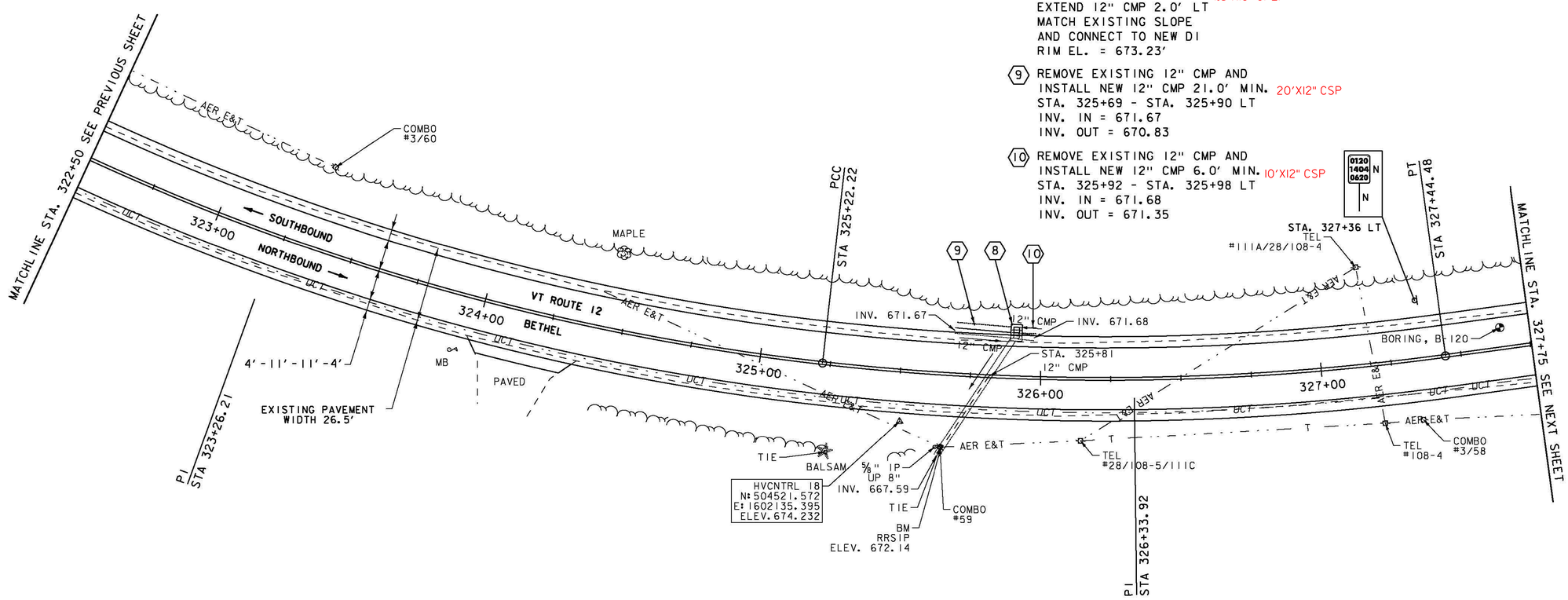
MILLED RUMBLE STRIPS
STA. 322+50 - STA. 323+00 (CENTERLINE)

VT STATE PLANE GRID N

(8) REMOVE EXISTING CB AND
INSTALL NEW CB WITH
CAST IRON GRATE (TYPE D)
STA. 325+91 LT 17.0' 1.5'X18" CPEP
EXTEND 12" CMP 2.0' LT
MATCH EXISTING SLOPE
AND CONNECT TO NEW DI
RIM EL. = 673.23'

(9) REMOVE EXISTING 12" CMP AND
INSTALL NEW 12" CMP 21.0' MIN. 20'X12" CSP
STA. 325+69 - STA. 325+90 LT
INV. IN = 671.67
INV. OUT = 670.83

(10) REMOVE EXISTING 12" CMP AND
INSTALL NEW 12" CMP 6.0' MIN. 10'X12" CSP
STA. 325+92 - STA. 325+98 LT
INV. IN = 671.68
INV. OUT = 671.35



SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 37
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 63 OF 211

REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. 330+92 RT

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 327+75 - STA. 333+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 327+75 - STA. 333+50 (CENTERLINE)

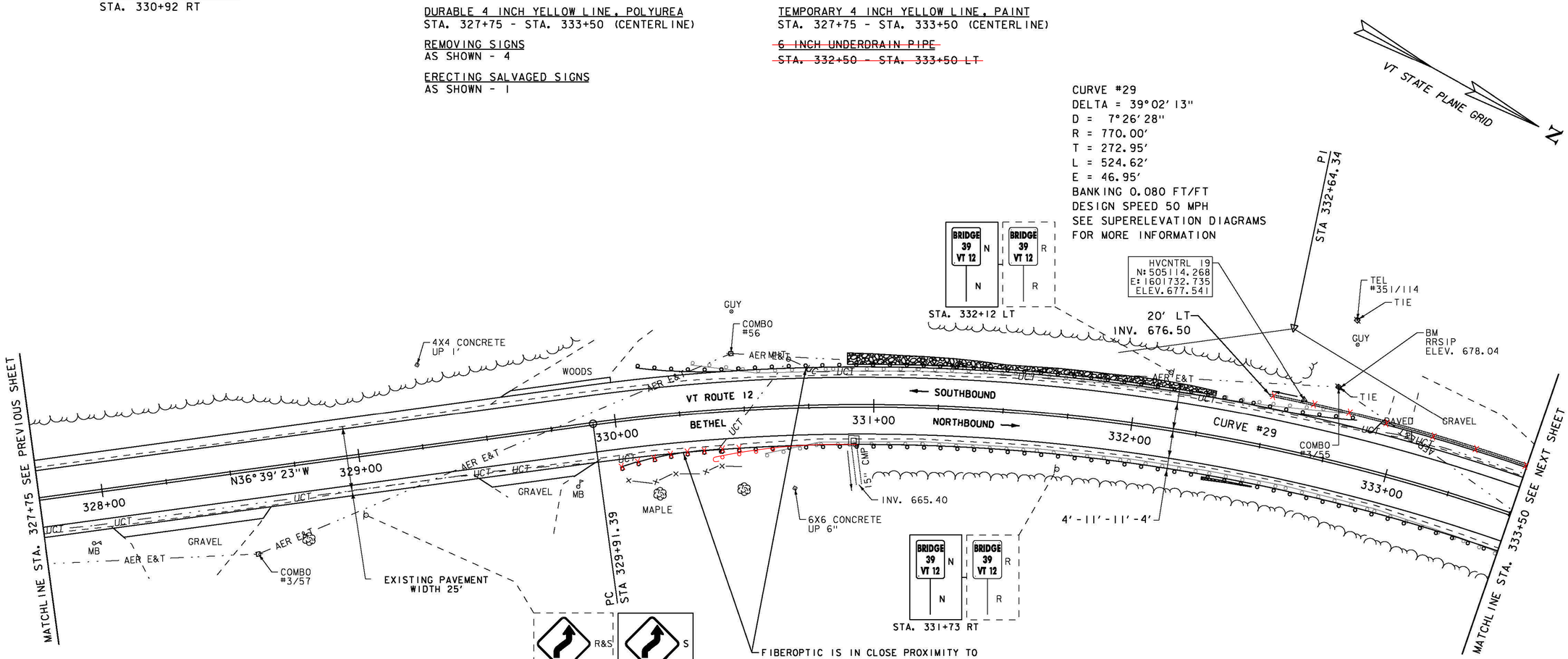
REMOVING SIGNS
AS SHOWN - 4

ERECTING SALVAGED SIGNS
AS SHOWN - 1

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 327+75 - STA. 333+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 327+75 - STA. 333+50 (CENTERLINE)

~~6 INCH UNDERDRAIN PIPE~~
~~STA. 332+50 - STA. 333+50 LT~~



FIBEROPTIC IS IN CLOSE PROXIMITY TO GUARDRAIL. CONTRACTOR SHALL USE EXTREME CAUTION DURING INSTALLATION, INCLUDING VERIFYING LOCATION OF FIBEROPTIC LINE AND HAND PLACED POSTS IF REQUIRED.

TREATED TIMBER CURB
STA. ~~330+00~~ 330+90 - STA. 333+50 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 330+31 - STA. 332+78 LT
STA. 330+57 - STA. 333+50 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. ~~330+00~~ 330+32 - STA. 333+50 RT
STA. ~~330+10~~ 330+02 - STA. 332+80 LT

STONE FILL, TYPE I
STA. 330+90 - STA. 332+30 LT
STA. 332+30 - STA. 332+50 RT

GEOTEXTILE FOR SILT FENCE
STA. 330+90 - STA. 332+30 LT
STA. 332+30 - STA. 332+50 RT

GRUBBING MATERIAL (6")
STA. 330+90 - STA. 332+30 LT
STA. 332+30 - STA. 332+50 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 38
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 64 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 333+50 - STA. 338+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 333+50 - STA. 338+75 (CENTERLINE)

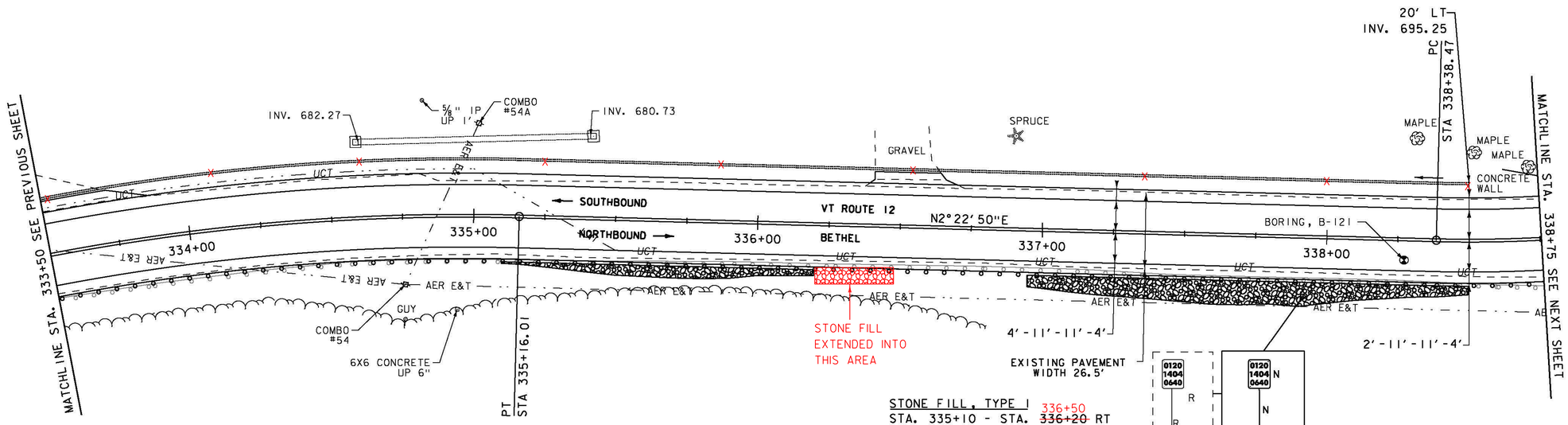
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 333+50 - STA. 338+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 333+50 - STA. 338+75 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - I

6 INCH UNDERDRAIN PIPE
~~STA. 333+50 - STA. 338+50 LT~~

N
VT STATE PLANE GRID



STONE FILL, TYPE I
STA. 335+10 - STA. ~~336+20~~ 336+50 RT
STA. 336+95 - STA. 338+50 RT

TREATED TIMBER CURB
STA. 333+50 - STA. ~~335+50~~ 336+48 RT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 333+50 - STA. 338+75 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 333+50 - STA. 338+75 RT

GEOTEXTILE FOR SILT FENCE
STA. 335+10 - STA. 336+20 RT
STA. 336+95 - STA. 338+50 RT

GRUBBING MATERIAL (6")
STA. 335+10 - STA. 336+20 RT
STA. 336+95 - STA. 338+50 RT

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 39

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 65 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 338+75 - STA. 344+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 338+75 - STA. ~~340+40~~ 344+25 (CENTERLINE)
~~STA. 340+40 - STA. 344+25 (SOLID LT, DASHED RT)~~

MILLED RUMBLE STRIPS
STA. 341+00 - STA. 344+25 (CENTERLINE)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 338+75 - STA. 344+25 (SOLID LT & RT)

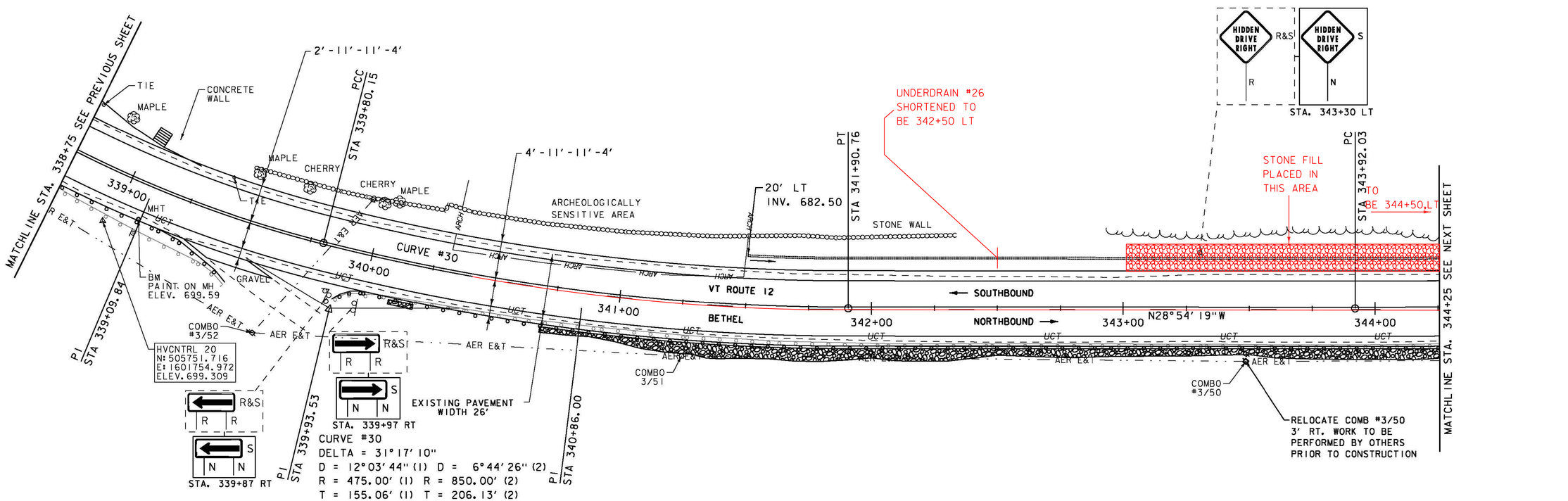
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 338+75 - STA. 340+40 (CENTERLINE)
STA. 340+40 - STA. 344+25 (SOLID LT, DASHED RT)

6 INCH UNDERDRAIN PIPE
STA. ~~341+50~~ 342+50 - STA. 344+25 LT

REMOVING SIGNS
AS SHOWN - 3

ERECTING SALVAGED SIGNS
AS SHOWN - 3

VT STATE PLANE GRID



CURVE #30
DELTA = 31°17'10"
D = 12°03'44" (1) D = 6°44'26" (2)
R = 475.00' (1) R = 850.00' (2)
T = 155.06' (1) T = 206.13' (2)
L = 141.68' (1) L = 210.61' (2)
E = 24.67'
BANKING 0.080 FT/FT, 0.080 FT/FT
DESIGN SPEED 40 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 338+75 - STA. 339+47 RT
STA. 339+89 - STA. 344+25 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 338+75 - STA. 339+48 RT
STA. ~~339+89~~ 339+85 - STA. 344+25 RT

STONE FILL, TYPE I
STA. 340+10 - STA. 340+20 RT
STA. 340+70 - STA. 344+25 RT
STA. 343+00 - STA. 344+25 LT

GEOTEXTILE FOR SILT FENCE
STA. 340+10 - STA. 340+20 RT
STA. 340+70 - STA. 344+25 RT

GRUBBING MATERIAL (6")
STA. 340+10 - STA. 340+20 RT
STA. 340+70 - STA. 344+25 RT

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 40

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 66 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 344+25 - STA. 350+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
~~STA. 344+25 - STA. 348+22 (SOLID LT, DASHED RT)~~
STA. ~~348+22~~ 344+25 - STA. 350+25 (~~DASHED RT~~ CENTERLINE)

MILLED RUMBLE STRIPS
STA. 344+25 - STA. 350+25 (CENTERLINE)

REMOVING SIGNS
AS SHOWN - 2

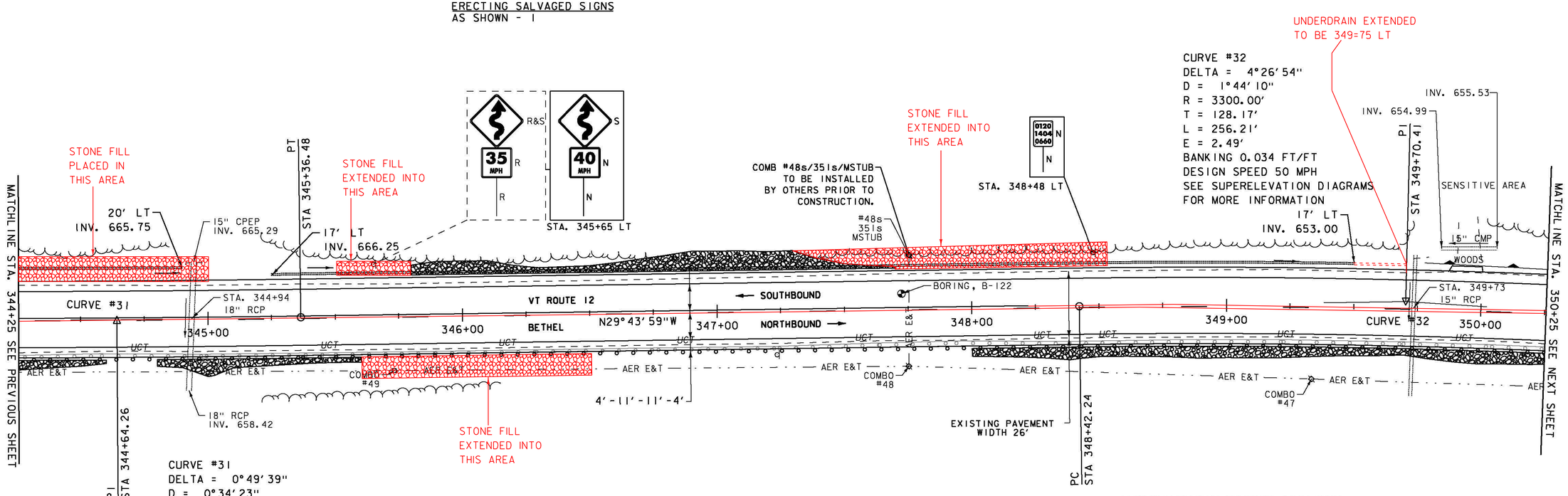
ERECTING SALVAGED SIGNS
AS SHOWN - 1

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 344+25 - STA. 350+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 344+25 - STA. 348+22 (SOLID LT, DASHED RT)
STA. 348+22- STA. 350+25 (DASHED RT)

6 INCH UNDERDRAIN PIPE
STA. 344+25 - STA. ~~344+90~~ 345+00 LT
STA. 345+25 - STA. ~~349+50~~ 349+75 LT

VT STATE PLANE GRID
N



CURVE #31
DELTA = 0°49'39"
D = 0°34'23"
R = 10000.00'
T = 72.23'
L = 144.45'
E = 0.26'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 344+25 - STA. 350+25 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 344+25 - STA. 350+25 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

STONE FILL, TYPE I
STA. 344+25 - STA. 344+60 RT
STA. 344+80 - STA. ~~345+60~~ 346+50 RT
STA. ~~345+80~~ 345+50 - STA. ~~347+70~~ 348+50 LT
STA. 348+00 - STA. 350+25 RT
STA. 344+25 - STA. 345+00 LT

GEOTEXTILE FOR SILT FENCE
STA. 344+25 - STA. 344+60 RT
STA. 344+80 - STA. 345+60 RT
STA. 345+75 - STA. 347+70 LT
STA. 347+95 - STA. 350+25 RT

GRUBBING MATERIAL (6")
STA. 344+25 - STA. 344+60 RT
STA. 344+80 - STA. 345+60 RT
STA. 345+75 - STA. 347+70 LT
STA. 347+95 - STA. 350+25 RT

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
8.	STA. 349+77 - STA. 350+25	LT	-

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 41

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 67 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 350+25 - STA. 355+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
~~STA. 350+25 - STA. 351+90 (DASHED RT)~~
STA. ~~351+90~~ 350+25 - STA. 355+50 ~~(DASHED LT, SOLID RT)~~ CENTERLINE

MILLED RUMBLE STRIPS
STA. 350+25 - STA. 355+50 (CENTERLINE)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 350+25 - STA. 355+50 (SOLID LT & RT)

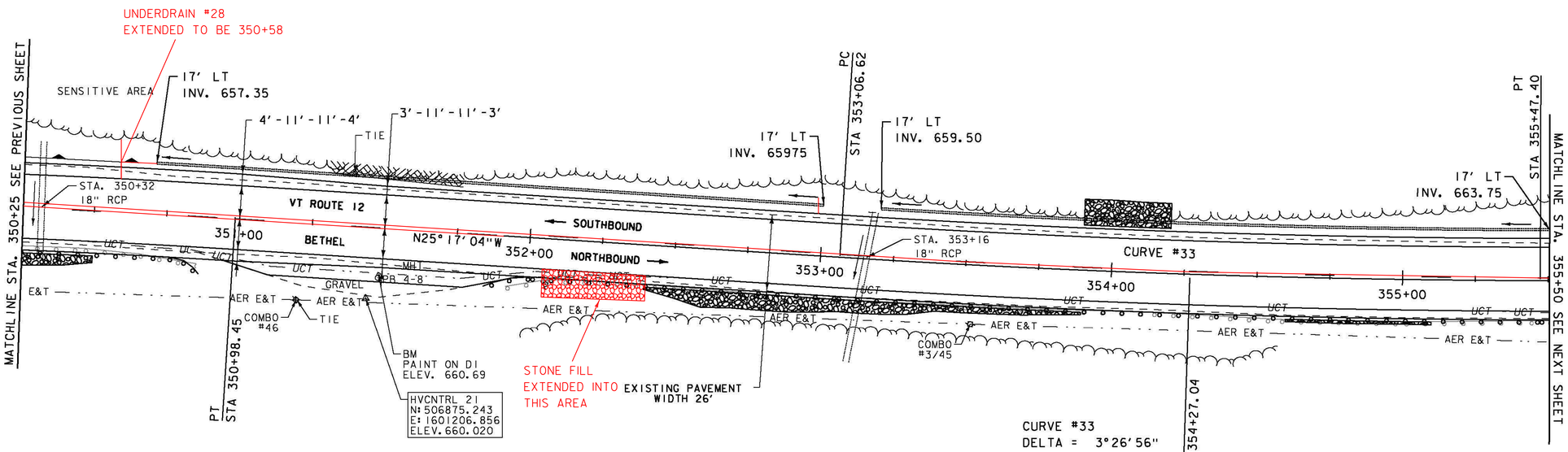
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 350+25 - STA. 351+90 (DASHED RT)
STA. 351+90 - STA. 355+50 (DASHED LT, SOLID RT)

6 INCH UNDERDRAIN PIPE
STA. ~~350+70~~ 350+58 - STA. 353+00 LT
STA. ~~353+16~~ 353+20 - STA. 355+50 LT

VT STATE PLANE GRID N

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
8.	STA. 350+25 - STA. 350+64	LT	-



CURVE #33
DELTA = 3°26'56"
D = 1°25'57"
R = 4000.00'
T = 120.43'
L = 240.78'
E = 1.81'
BANKING 0.029 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SOLID ROCK EXCAVATION
STA. ~~351+00~~ 350+70 - STA. 355+50 LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 350+25 - STA. 350+86 RT
STA. 351+92.5 - STA. 355+50 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 350+25 - STA. 350+86 RT
STA. 351+86 - STA. 355+50 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

STONE FILL, TYPE I
STA. 350+25 - STA. 350+50 RT
352+04 STA. ~~352+40~~ - STA. 353+90 RT
STA. 353+90 - STA. 354+20 LT
STA. 354+60 - STA. 355+10 RT

GEOTEXTILE FOR SILT FENCE
STA. 350+25 - STA. 350+50 RT
STA. 352+40 - STA. 353+90 RT
STA. 353+90 - STA. 354+20 LT
STA. 354+60 - STA. 355+10 RT

GRUBBING MATERIAL (6")
STA. 350+25 - STA. 350+50 RT
STA. 352+40 - STA. 353+90 RT
STA. 353+90 - STA. 354+20 LT
STA. 354+60 - STA. 355+10 RT

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 42

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 68 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 355+50 - STA. 361+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
~~STA. 355+50 - STA. 357+10 (DASHED LT, SOLID RT)~~
STA. ~~357+10~~ 355+50 - STA. 361+25 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 355+50 - STA. 361+25 (CENTERLINE)

SOLID ROCK EXCAVATION
STA. 355+50 - STA. 357+60 LT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 355+50 - STA. 361+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 355+50 - STA. 357+10 (DASHED LT, SOLID RT)
STA. 357+10 - STA. 361+25 (CENTERLINE)

VT STATE PLANE GRID
N

6 INCH UNDERDRAIN PIPE
STA. 355+67 - STA. 358+50 LT
STA. 358+65 - STA. 360+00 LT
STA. 360+00 - STA. 361+25 LT

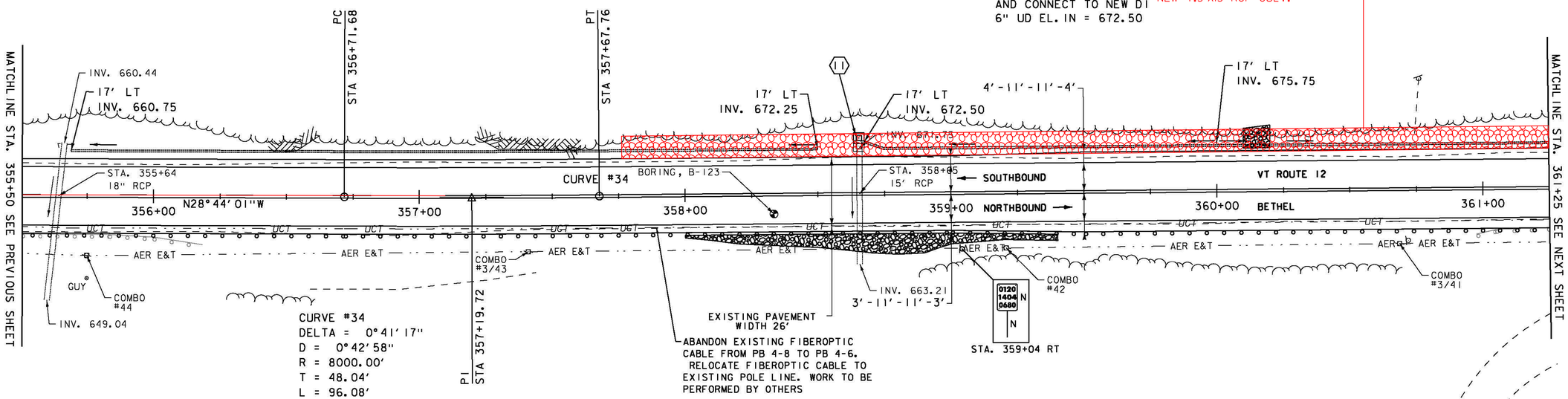
PRECAST REINFORCED CONCRETE
DROP INLET WITH CAST IRON GRATE
STA. 358+65 LT

15" RCP CLASS IV
STA. 358+65 LT ~~3.0'~~ 7.5'

(11) INSTALL NEW DI WITH
CAST IRON GRATE (TYPE A)
STA. 358+65 LT 21.0'
EXTEND 15" RCP 3.0' LT
MATCH EXISTING SLOPE
AND CONNECT TO NEW DI
6" UD EL. IN = 672.50

NEW 7.5'X15" RCP CULV.

STONE FILL PLACED IN THIS AREA



CURVE #34
DELTA = 0°41'17"
D = 0°42'58"
R = 8000.00'
T = 48.04'
L = 96.08'
E = 0.14'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

EXISTING PAVEMENT WIDTH 26'

ABANDON EXISTING FIBEROPTIC CABLE FROM PB 4-8 TO PB 4-6. RELOCATE FIBEROPTIC CABLE TO EXISTING POLE LINE. WORK TO BE PERFORMED BY OTHERS

STONE FILL, TYPE I
STA. 358+00 - STA. 359+40 RT
~~STA. 360+10 - STA. 360+20 LT~~
STA. 357+75 - STA. 361+25 LT

GEOTEXTILE FOR SILT FENCE
STA. 358+00 - STA. 359+40 RT
STA. 360+10 - STA. 360+20 LT

GRUBBING MATERIAL (6")
STA. 358+00 - STA. 359+40 RT
STA. 360+10 - STA. 360+20 LT

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 355+50 - STA. 356+18.5 RT
STA. 360+97.5 - STA. 361+25 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 355+50 - STA. 361+25 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 43

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 69 OF 211

STONE FILL, TYPE I
STA. 361+25 - STA. 361+70 LT
STA. 362+00 - STA. 363+00 LT

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 361+25 - STA. 366+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 361+25 - STA. 366+75 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. 361+25 - STA. 364+00 (CENTERLINE)

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 361+25 - STA. 363+61.5 RT
STA. 366+09 - STA. 366+75 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 361+25 - STA. ~~363+68~~ RT
~~STA. 261+75 - STA. 265+05 LT~~ 363+87
STA. 366+12 - STA. 366+75 RT

REHAB. DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. 366+63 LT

SPECIAL PROVISION (CORING CONCRETE)
STA. 366+63 (CORE INTO DROP INLET)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 361+25 - STA. 366+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 361+25 - STA. 366+75 (CENTERLINE)

6 INCH UNDERDRAIN PIPE 362+95
STA. 361+25 - STA. ~~363+00~~ LT
STA. ~~363+00~~ - STA. ~~366+75~~ LT
363+25 365+25
STA. 366+60 - STA. 366+75 LT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 362+62.5 - STA. 362+87.5 LT
STA. 363+87.5 - STA. 364+12.5 LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 363+62.5 - STA. 363+87.5 LT
STA. 362+87.5 - STA. 363+37.5 LT

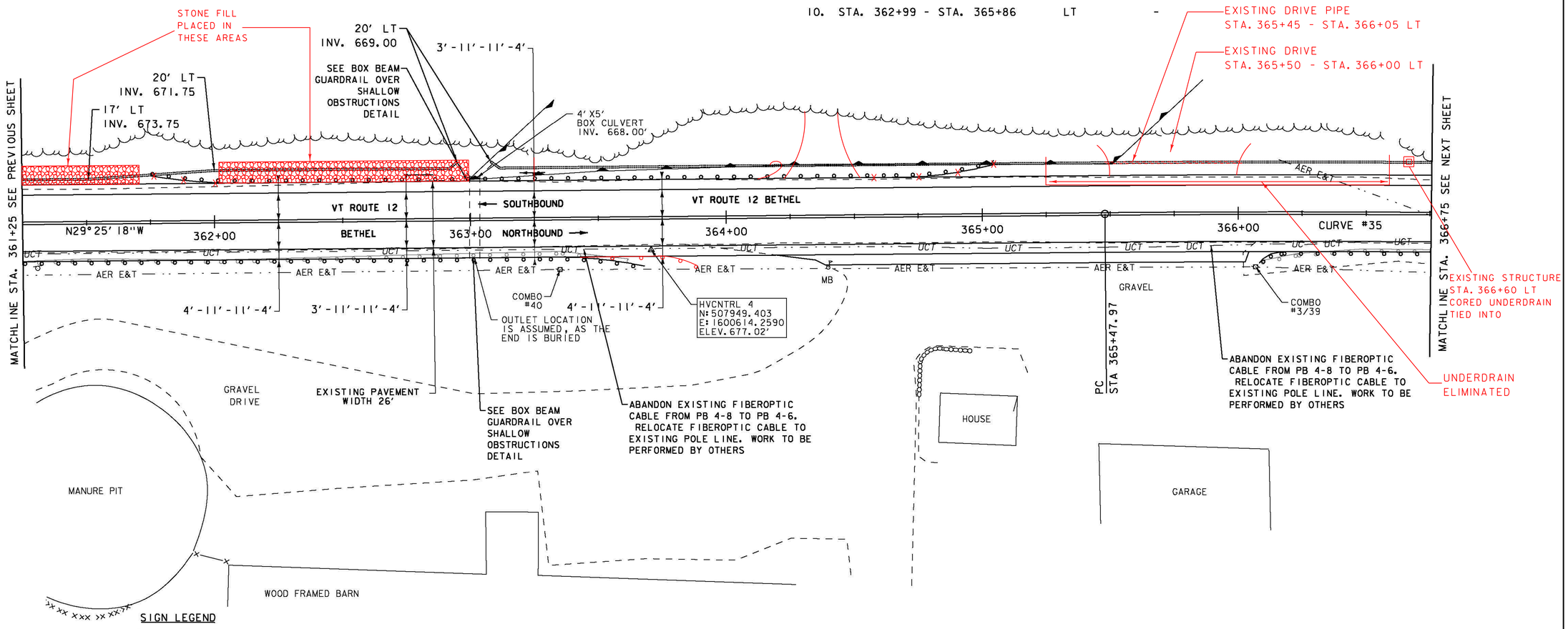
STEEL BEAM GUARDRAIL, NESTED W/8 FEET POSTS
STA. 363+37.5 - STA. 363+62.5 LT

ANCHOR FOR STEEL BEAM GUARDRAIL
STA. 362+75 LT
STA. 364+00 LT

VT STATE PLANE GRID
N

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
10.	STA. 362+99 - STA. 365+86	LT	-



SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 44

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 70 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. 366+75 - STA. 370+41 (SOLID LT & RT)
STA. A 0+00 - STA. A 2+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 366+75 - STA. 370+41 (CENTERLINE)
STA. A 0+00 - STA. A 2+25 (CENTERLINE)

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 366+75 - STA. 370+41 RT
STA. A 0+00 - STA. A 0+82 RT
STA. A 2+09.5 - STA. A 2+25 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. 366+75 - STA. 370+41 RT
STA. A 0+00 - STA. A 2+25 RT

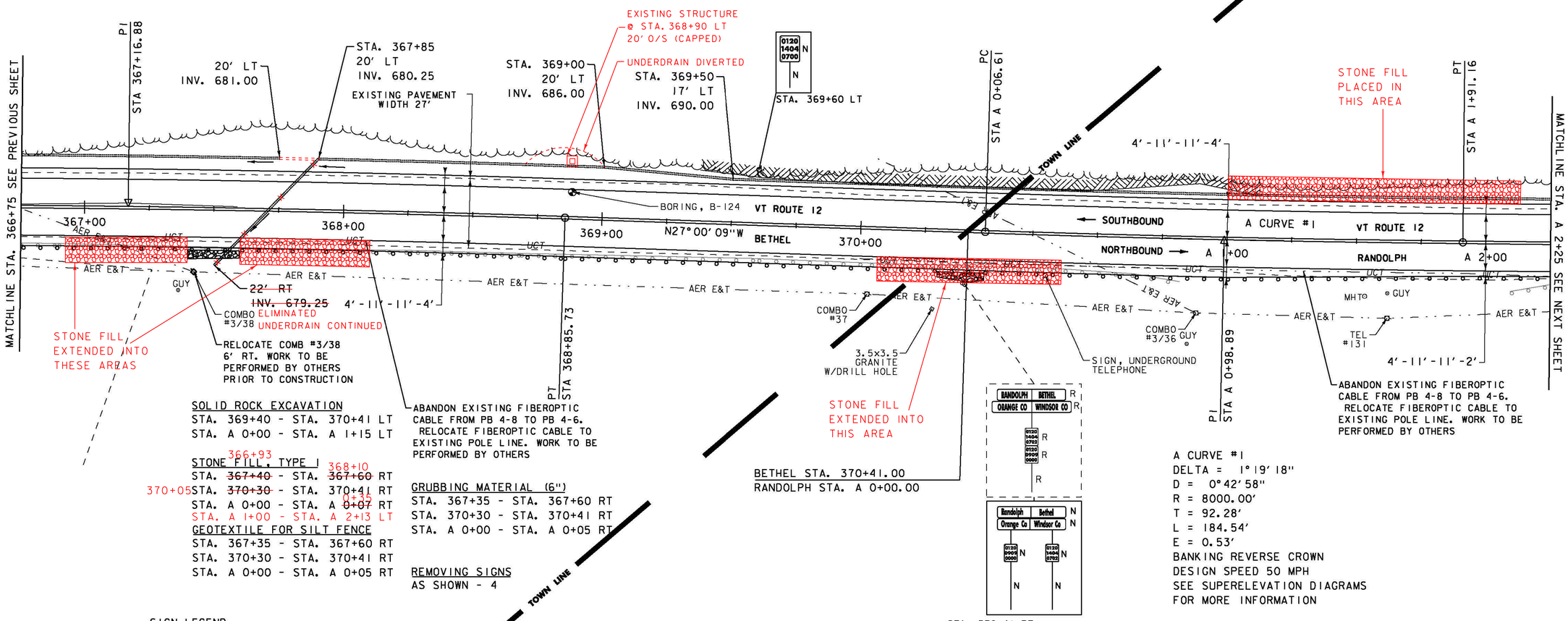
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 366+75 - STA. 370+41 (SOLID LT & RT)
STA. A 0+00 - STA. A 2+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 366+75 - STA. 370+41 (CENTERLINE)
STA. A 0+00 - STA. A 2+25 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. ~~367+00~~ 367+75 - STA. 370+41 (CENTERLINE)
STA. A 0+00 - STA. A 2+25 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. 366+75 - STA. ~~367+75~~ 370+41 LT
~~STA. 367+50 RT - STA. 370+41 LT~~
STA. A 0+00 - STA. A 2+25 LT

CURVE #35
DELTA = 2°25'09"
D = 0°42'58"
R = 8000.00'
T = 168.91'
L = 337.76'
E = 1.78'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



SOLID ROCK EXCAVATION
STA. 369+40 - STA. 370+41 LT
STA. A 0+00 - STA. A 1+15 LT

STONE FILL, TYPE I
366+93 368+10
STA. ~~367+40~~ - STA. ~~367+60~~ RT
370+05 STA. ~~370+30~~ - STA. 370+41 RT
STA. A 0+00 - STA. A ~~0+07~~ 0+35 RT
STA. A 1+00 - STA. A 2+13 LT

GEOTEXTILE FOR SILT FENCE
STA. 367+35 - STA. 367+60 RT
STA. 370+30 - STA. 370+41 RT
STA. A 0+00 - STA. A 0+05 RT

GRUBBING MATERIAL (6")
STA. 367+35 - STA. 367+60 RT
STA. 370+30 - STA. 370+41 RT
STA. A 0+00 - STA. A 0+05 RT

REMOVING SIGNS
AS SHOWN - 4

A CURVE #1
DELTA = 1°19'18"
D = 0°42'58"
R = 8000.00'
T = 92.28'
L = 184.54'
E = 0.53'
BANKING REVERSE CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(I)
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 45	SHEET 71 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 2+25 - STA. A 7+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 2+25 - STA. A 7+50 (CENTERLINE)

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. A 2+25 - STA. A 5+35 RT

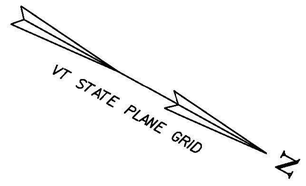
SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. A 2+25 - STA. A ~~6+09~~ 6+13 RT

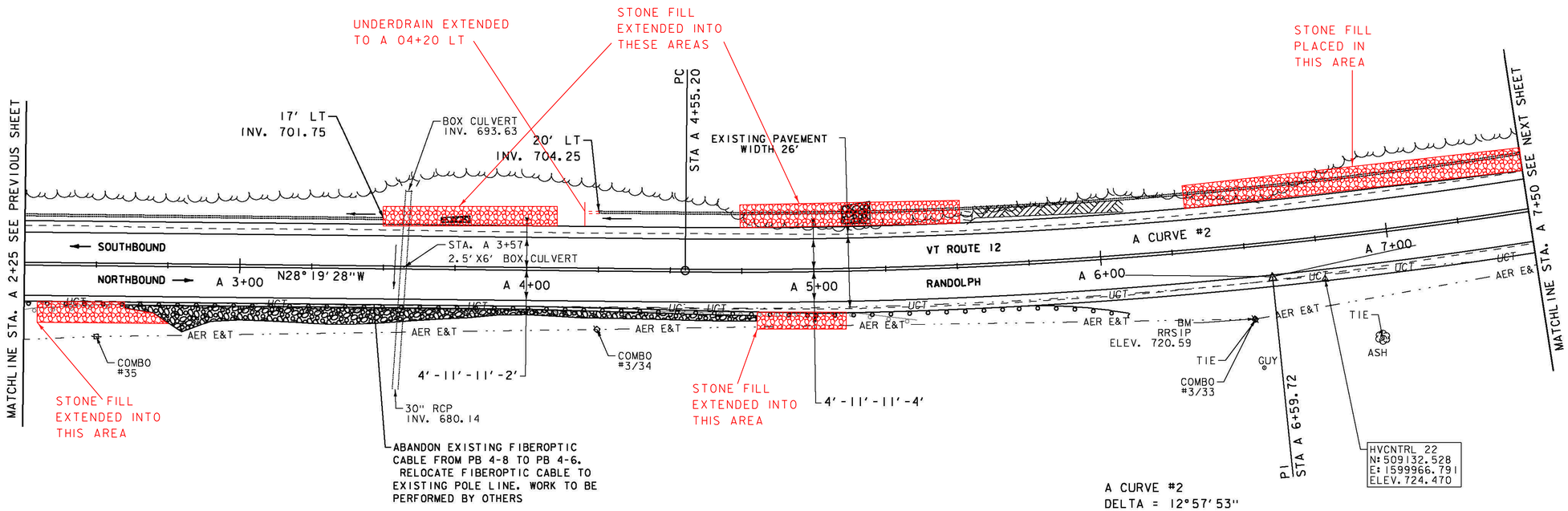
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 2+25 - STA. A 7+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 2+25 - STA. A 7+50 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. A 2+25 - STA. A 3+50 LT
STA. A ~~4+25~~ 4+20 - STA. A 7+50 LT

MILLED RUMBLE STRIPS
STA. A 2+25 - STA. A 7+50 (CENTERLINE)





SOLID ROCK EXCAVATION
STA. A 5+00 - STA. A 6+50 LT

STONE FILL, TYPE I
STA. A 2+60 - STA. A 4+80 RT
STA. A 3+70 - STA. A 3+80 LT
STA. A 5+10 - STA. A 5+20 LT

GEOTEXTILE FOR SILT FENCE
STA. A 2+60 - STA. A 4+80 RT
STA. A 3+70 - STA. A 3+80 LT
STA. A 5+10 - STA. A 5+20 LT

GRUBBING MATERIAL (6")
STA. A 2+60 - STA. A 4+80 RT
STA. A 3+70 - STA. A 3+80 LT
STA. A 5+10 - STA. A 5+20 LT

STONE FILL, TYPE I
STA. A 2+30 - STA. A 5+10 RT
STA. A 3+50 - STA. A 4+10 LT
STA. A 4+75 - STA. A 5+50 LT
STA. A 6+30 - STA. A 7+50 LT

A CURVE #2
DELTA = 12°57'53"
D = 3°10'59"
R = 1800.00'
T = 204.52'
L = 407.30'
E = 11.58'
BANKING 0.054 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 46
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 72 OF 211

REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. A 8+20 LT

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 7+50 - STA. A 13+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 7+50 - STA. A 13+25 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. A 7+50 - STA. A 13+25 (CENTERLINE)

SPECIAL PROVISION (CORING CONCRETE)
STA. A 8+20 LT

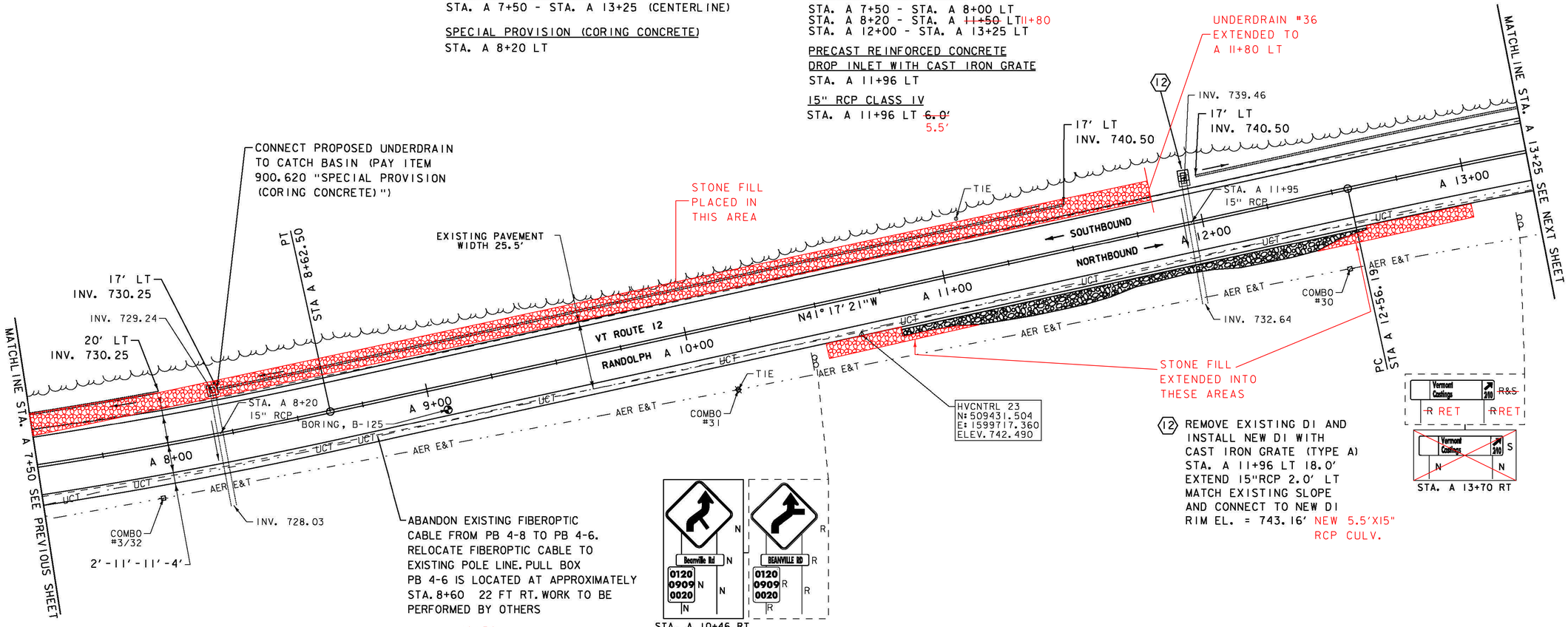
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 7+50 - STA. A 13+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 7+50 - STA. A 13+25 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. A 7+50 - STA. A 8+00 LT
STA. A 8+20 - STA. A ~~11+50~~ LT 11+80
STA. A 12+00 - STA. A 13+25 LT

PRECAST REINFORCED CONCRETE
DROP INLET WITH CAST IRON GRATE
STA. A 11+96 LT

15" RCP CLASS IV
STA. A 11+96 LT ~~6.0'~~ 5.5'



12 REMOVE EXISTING DI AND INSTALL NEW DI WITH CAST IRON GRATE (TYPE A)
STA. A 11+96 LT 18.0'
EXTEND 15"RCP 2.0' LT
MATCH EXISTING SLOPE AND CONNECT TO NEW DI
RIM EL. = 743.16' NEW 5.5'X15" RCP CULV.

ABANDON EXISTING FIBEROPTIC CABLE FROM PB 4-8 TO PB 4-6. RELOCATE FIBEROPTIC CABLE TO EXISTING POLE LINE. PULL BOX PB 4-6 IS LOCATED AT APPROXIMATELY STA. 8+60 22 FT RT. WORK TO BE PERFORMED BY OTHERS

STONE FILL, TYPE I
STA. A ~~10+80~~ 10+50 - STA. A ~~12+60~~ 13+00 RT
STA. A 7+50 - STA. A 11+80 LT

GEOTEXTILE FOR SILT FENCE
STA. A 10+80 - STA. A 12+60 RT

GRUBBING MATERIAL (6")
STA. A 10+80 - STA. A 12+60 RT

REMOVING SIGNS
AS SHOWN - 4

ERECTING SALVAGED SIGNS
AS SHOWN - 1

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 47

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 73 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 13+25 - STA. A 18+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 13+25 - STA. A 18+75 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. A 13+25 - STA. A 18+75 (CENTERLINE)

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. A 15+00 - STA. A 16+92 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. A 14+70 - STA. A 17+28 RT

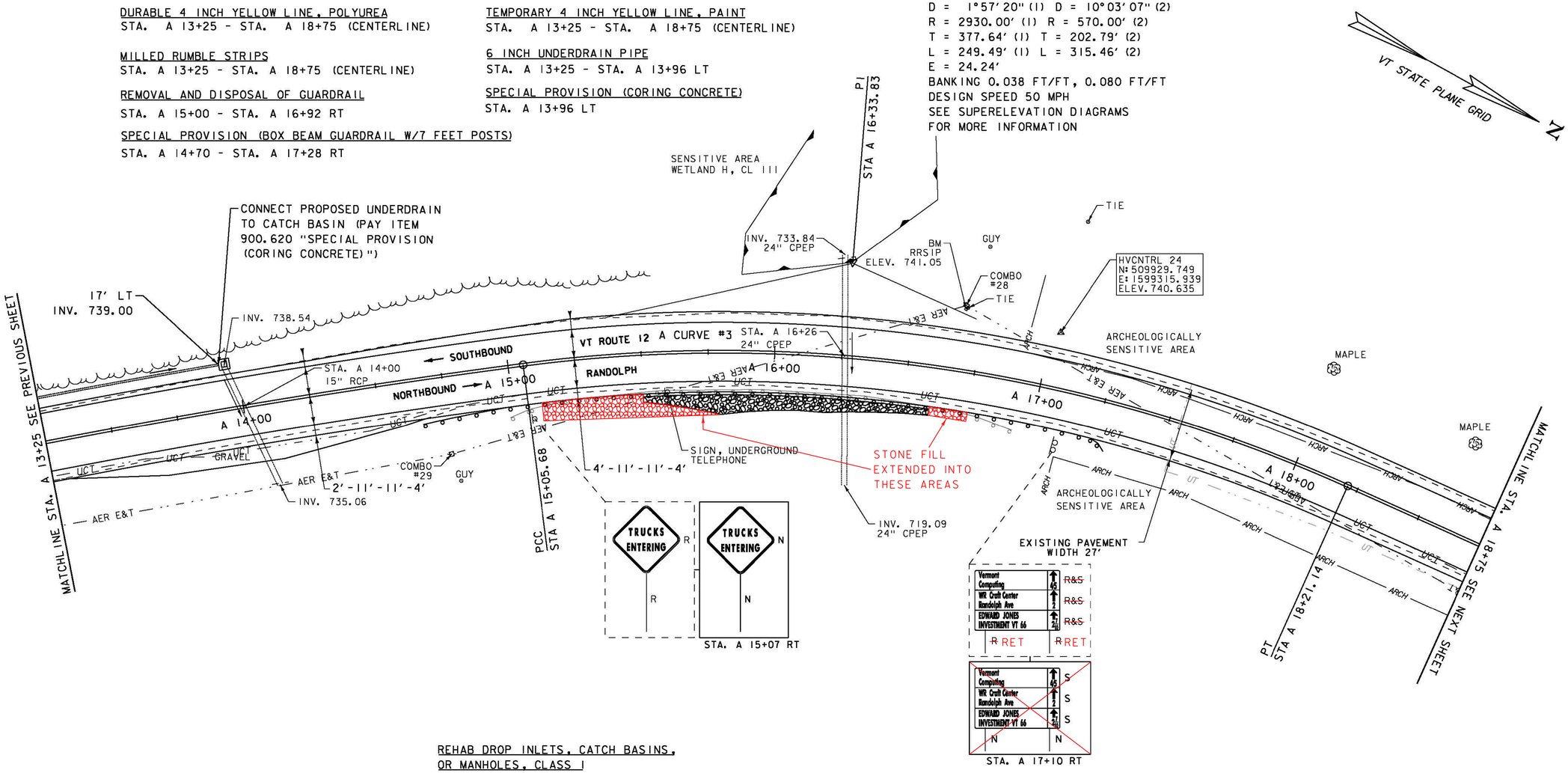
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 13+25 - STA. A 18+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 13+25 - STA. A 18+75 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. A 13+25 - STA. A 13+96 LT

SPECIAL PROVISION (CORING CONCRETE)
STA. A 13+96 LT

A CURVE #3
DELTA = 36°35'17"
D = 1°57'20" (1) D = 10°03'07" (2)
R = 2930.00' (1) R = 570.00' (2)
T = 377.64' (1) T = 202.79' (2)
L = 249.49' (1) L = 315.46' (2)
E = 24.24'
BANKING 0.038 FT/FT, 0.080 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. A 13+96 LT

STONE FILL, TYPE I
STA. A ~~15+50~~ 15+10 - STA. A ~~16+60~~ 16+75 RT

GEOTEXTILE FOR SILT FENCE
STA. A 15+50 - STA. A 16+60 RT

GRUBBING MATERIAL (6")
STA. A 15+50 - STA. A 16+60 RT

REMOVING SIGNS
AS SHOWN - 4

ERECTING SALVAGED SIGNS
AS SHOWN - 3

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
11.	STA. A 15+87 - STA. A 16+53	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 48
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 74 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 18+75 - STA. A 24+25 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#8)
STA. A 21+07 RT. (EDGE LINE AT TH#8)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 18+75 - STA. A 24+25 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#8)
STA. A 21+07 RT. (CENTERLINE AT TH#8)

DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. A 21+24 - STA. A 21+52 RT

DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. A 21+39 RT "STOP"

MILLED RUMBLE STRIPS
STA. A 18+75 - STA. A 19+75 (CENTERLINE)

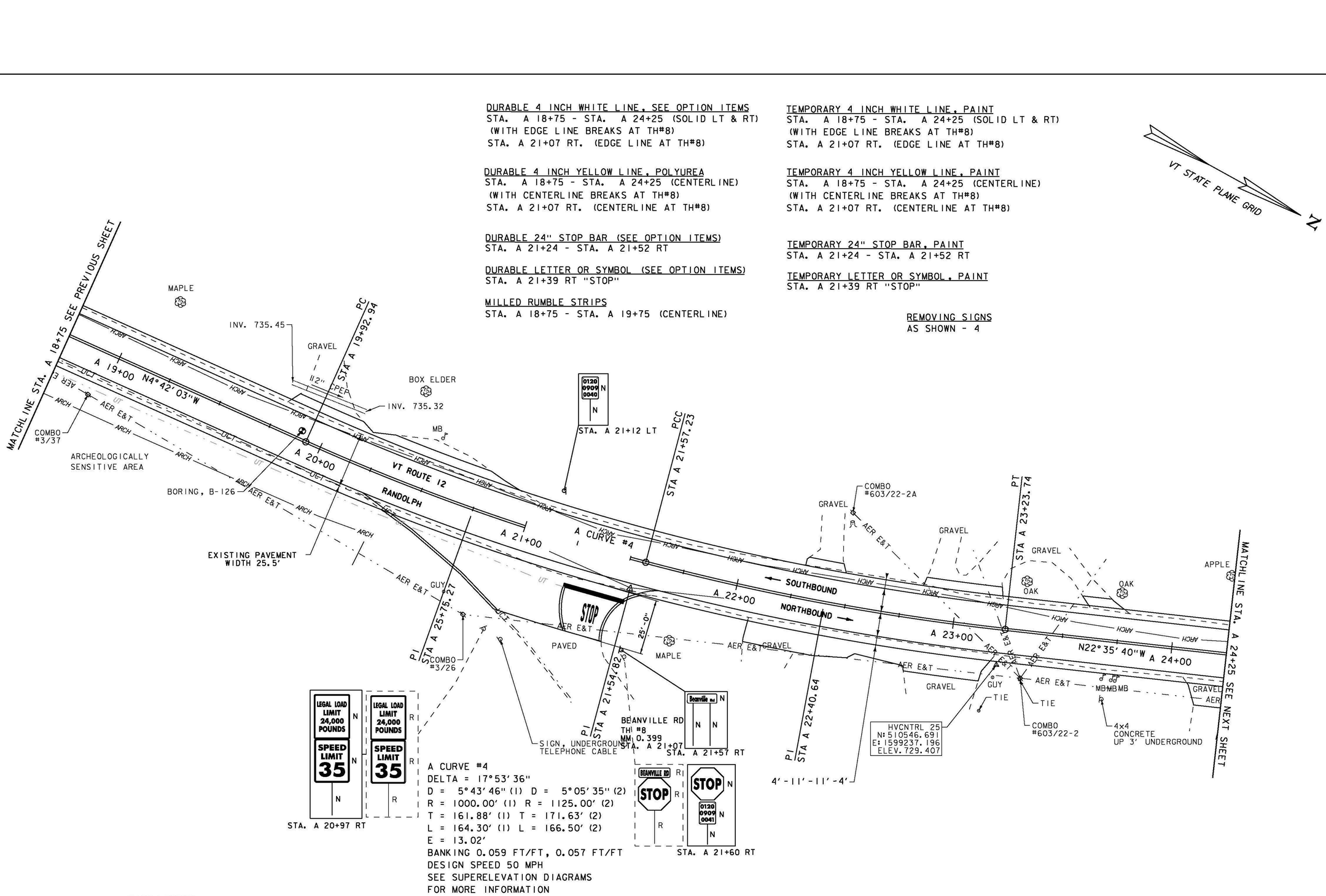
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 18+75 - STA. A 24+25 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#8)
STA. A 21+07 RT. (EDGE LINE AT TH#8)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 18+75 - STA. A 24+25 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#8)
STA. A 21+07 RT. (CENTERLINE AT TH#8)

TEMPORARY 24" STOP BAR, PAINT
STA. A 21+24 - STA. A 21+52 RT

TEMPORARY LETTER OR SYMBOL, PAINT
STA. A 21+39 RT "STOP"

REMOVING SIGNS
AS SHOWN - 4



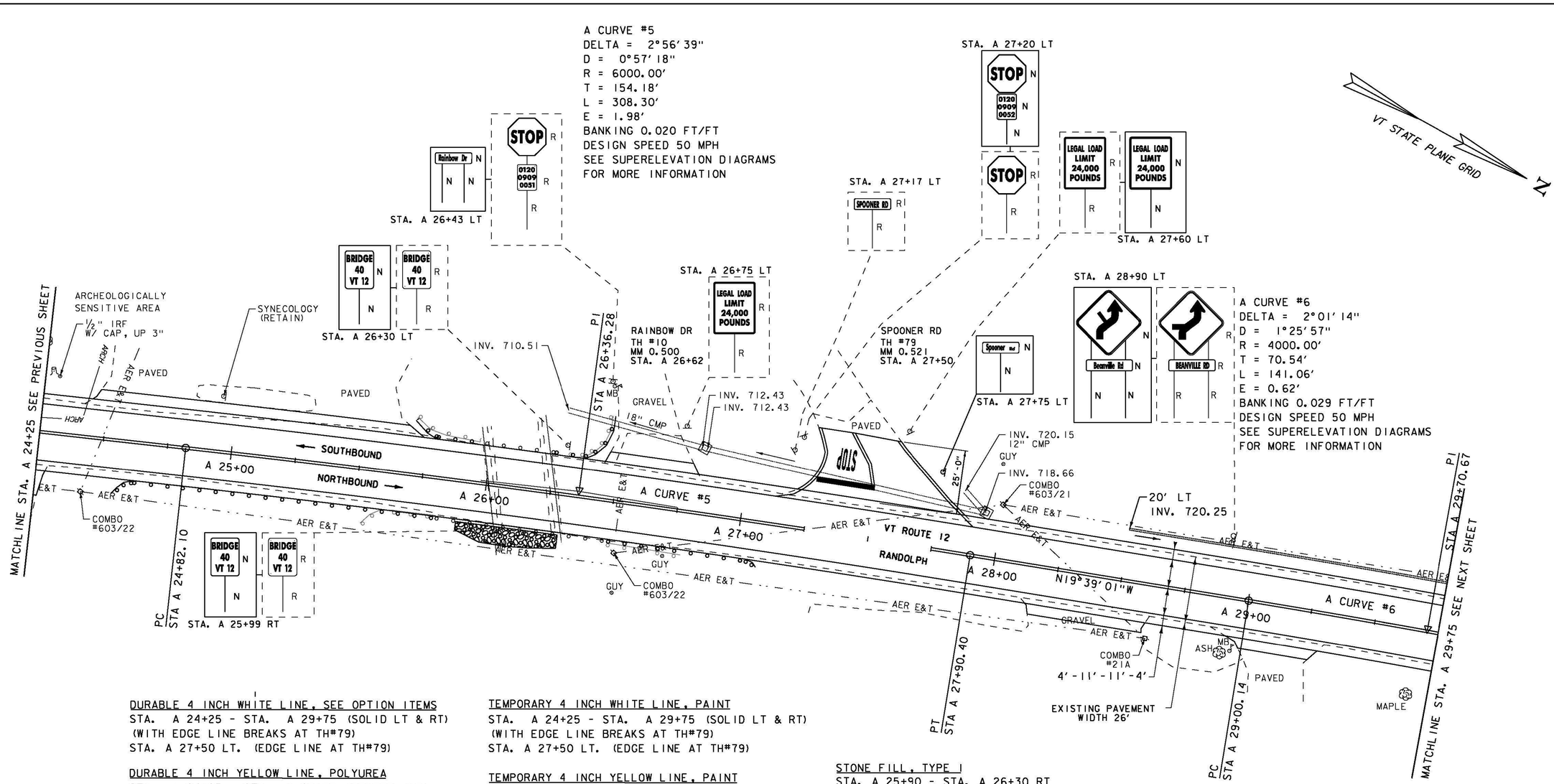
A CURVE #4
DELTA = 17°53'36"
D = 5°43'46" (1) D = 5°05'35" (2)
R = 1000.00' (1) R = 1125.00' (2)
T = 161.88' (1) T = 171.63' (2)
L = 164.30' (1) L = 166.50' (2)
E = 13.02'
BANKING 0.059 FT/FT, 0.057 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 49
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 75 OF 211



DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 24+25 - STA. A 29+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#79)
STA. A 27+50 LT. (EDGE LINE AT TH#79)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 24+25 - STA. A 29+75 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#79)
STA. A 27+50 LT. (CENTERLINE AT TH#79)

DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. A 27+27 - STA. A 27+49 LT

DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. A 27+37 LT "STOP"

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 24+25 - STA. A 29+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#79)
STA. A 27+50 LT. (EDGE LINE AT TH#79)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 24+25 - STA. A 29+75 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#79)
STA. A 27+50 LT. (CENTERLINE AT TH#79)

TEMPORARY 24" STOP BAR, PAINT
STA. A 27+27 - STA. A 27+49 LT

TEMPORARY LETTER OR SYMBOL, PAINT
STA. A 27+37 LT "STOP"

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. A 25+53 - STA. A 25+82 RT
STA. A 25+70.5 - STA. A 25+95.5 LT
STA. A 26+25 - STA. A 26+45.5 LT
STA. A 26+49.5 - STA. A 26+78.5 RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. A ~~24+57~~ 24+95 - STA. A ~~24+69.5~~ RT 25+07.5
~~STA. A 25+70.5 - STA. A 25+83 LT~~
~~STA. A 26+25 - STA. A 26+45.5 LT~~
STA. A 26+99.5 - STA. A 27+12 RT
STA. A 26+45.5 - STA. A 26+50 LT

STONE FILL, TYPE I
STA. A 25+90 - STA. A 26+30 RT

GEOTEXTILE FOR SILT FENCE
STA. A 25+90 - STA. A 26+30 RT

GRUBBING MATERIAL (6")
STA. A 25+90 - STA. A 26+30 RT

STEEL BEAM GUARDRAIL, GALVANIZED W/ 8 FEET POSTS
STA. A ~~24+69.5~~ - STA. A ~~25+57~~ RT 25+45
~~STA. A 25+83 - STA. A 25+95.5 LT~~
STA. A 26+74.5 - STA. A 26+99.5 RT

~~HD STEEL BEAM GUARDRAIL, W/8 FEET POSTS~~
~~STA. A 25+57 - STA. A 25+82 RT~~
~~STA. A 26+49.5 - STA. A 26+74.5 RT~~

ANCHOR FOR STEEL BEAM RAIL
(SEE STANDARD G-1d)

6 INCH UNDERDRAIN PIPE
STA. A 28+50 - STA. A 29+75 LT

REMOVING SIGNS
AS SHOWN - 10

HD STEEL BEAM GUARDRAIL, W/8 FEET POSTS
STA. A 25+45 - STA. A 25+82 RT
STA. A 26+49.5 - STA. A 26+74.5 RT
STA. A 25+70.5 - STA. A 25+95.5 LT
STA. A 26+25 - STA. A 26+45.5 LT

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(I)
FILE NAME:	z10c244bdr.dgn
PROJECT LEADER:	C. LATHROP
DESIGNED BY:	S. LAMPHERE
PLAN SHEET	50
PLOT DATE:	4/23/2015
DRAWN BY:	S. LAMPHERE
CHECKED BY:	C. LATHROP
SHEET	76 OF 211

REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. A 32+57 RT

STONE FILL, TYPE I
STA. A 31+50 - STA. A 32+50 LT

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 29+75 - STA. A 35+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 29+75 - STA. A 35+50 (CENTERLINE)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 29+75 - STA. A 35+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 29+75 - STA. A 35+50 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. A 29+75 - STA. A ~~31+25~~ 31+20 LT
STA. A 33+00 - STA. A 35+50 LT

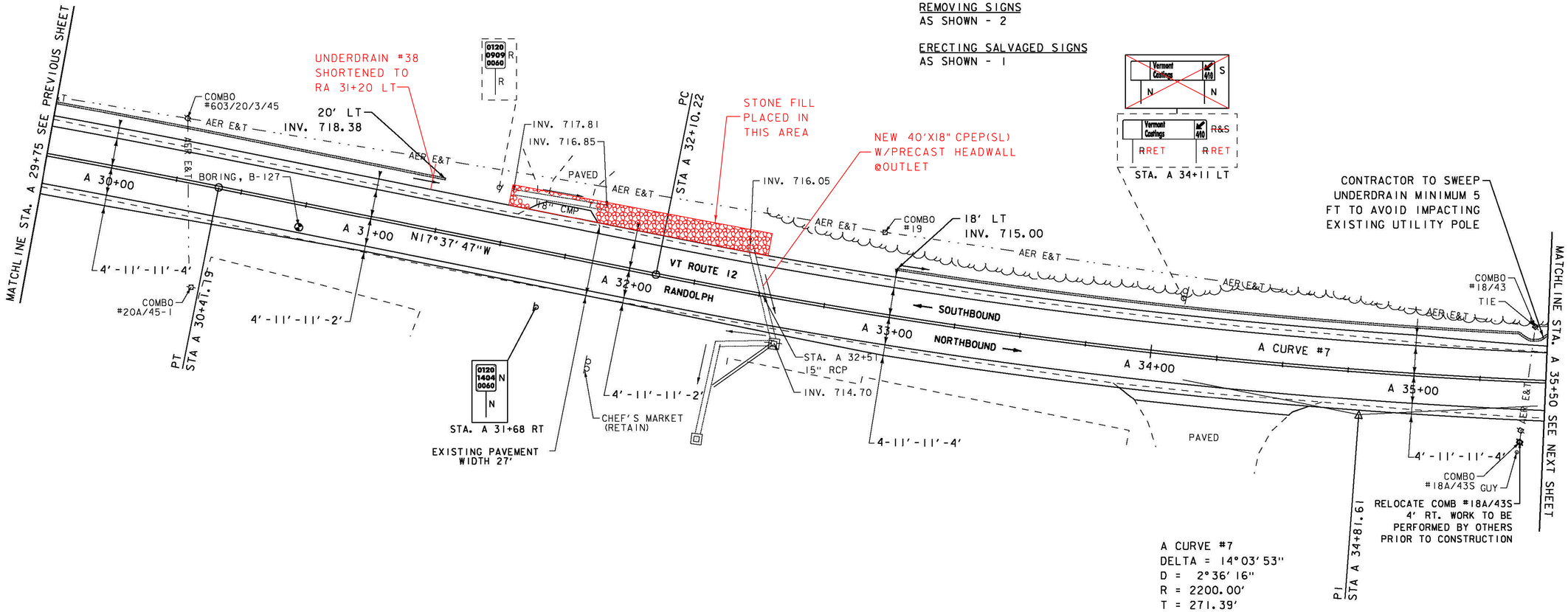
18" CPEP
STA. A 32+40 - STA. A 32+57 LT-RT-40'

PRECAST CONCRETE STRUCTURE (HEADWALL)
STA. A 32+57 RT

REMOVING SIGNS
AS SHOWN - 2

ERECTING SALVAGED SIGNS
AS SHOWN - 1

VT STATE PLANE GRID
N



A CURVE #7
DELTA = 14°03'53"
D = 2°36'16"
R = 2200.00'
T = 271.39'
L = 540.05'
E = 16.68'
BANKING 0.047 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 51
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 77 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 35+50 - STA. A 41+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 35+50 - STA. A 41+25 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. A 38+50 - STA. A 41+25 (CENTERLINE)

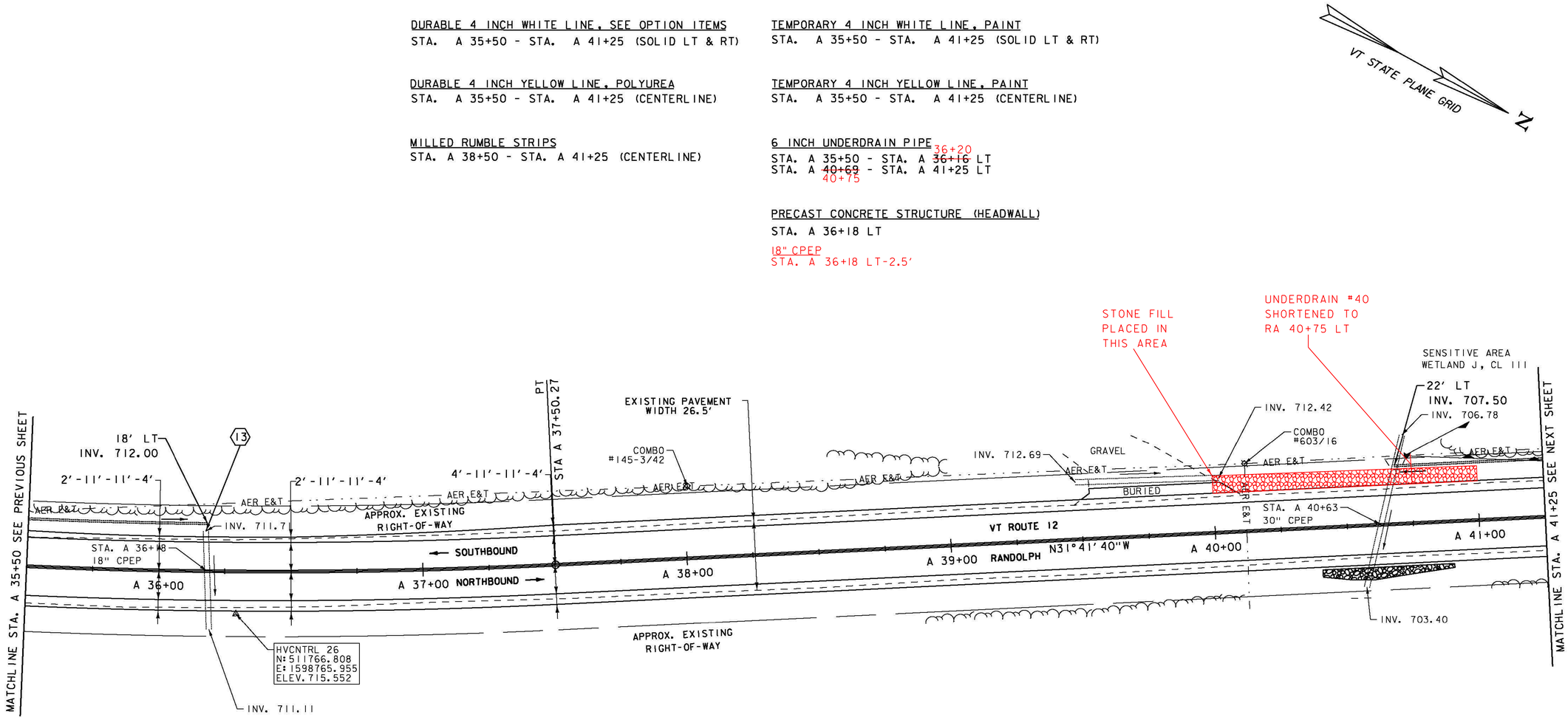
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 35+50 - STA. A 41+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 35+50 - STA. A 41+25 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. A 35+50 - STA. A ~~36+16~~ 36+20 LT
STA. A ~~40+69~~ 40+75 - STA. A 41+25 LT

PRECAST CONCRETE STRUCTURE (HEADWALL)
STA. A 36+18 LT

18" CPEP
STA. A 36+18 LT-2.5'



(13) INSTALL NEW PRECAST CONCRETE HEADWALL AT STA. A 36+18 LT. PIPE INV. = 711.71', TOP OF HEADWALL EL. = 714.73'

STONE FILL, TYPE I
STA. A 40+40 - STA. A 40+90 RT
STA. A 40+00 - STA. A 41+00 LT

GEOTEXTILE FOR SILT FENCE
STA. A 40+40 - STA. A 40+90 RT

GRUBBING MATERIAL (6")
STA. A 40+40 - STA. A 40+90 RT

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
11.	STA. A 40+73 - STA. A 41+25	LT	-

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 52

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 78 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 41+25 - STA. A 46+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 41+25 - STA. A 46+50 (CENTERLINE)

MILLED RUMBLE STRIPS
STA. A 41+25 - STA. A 44+00 (CENTERLINE)

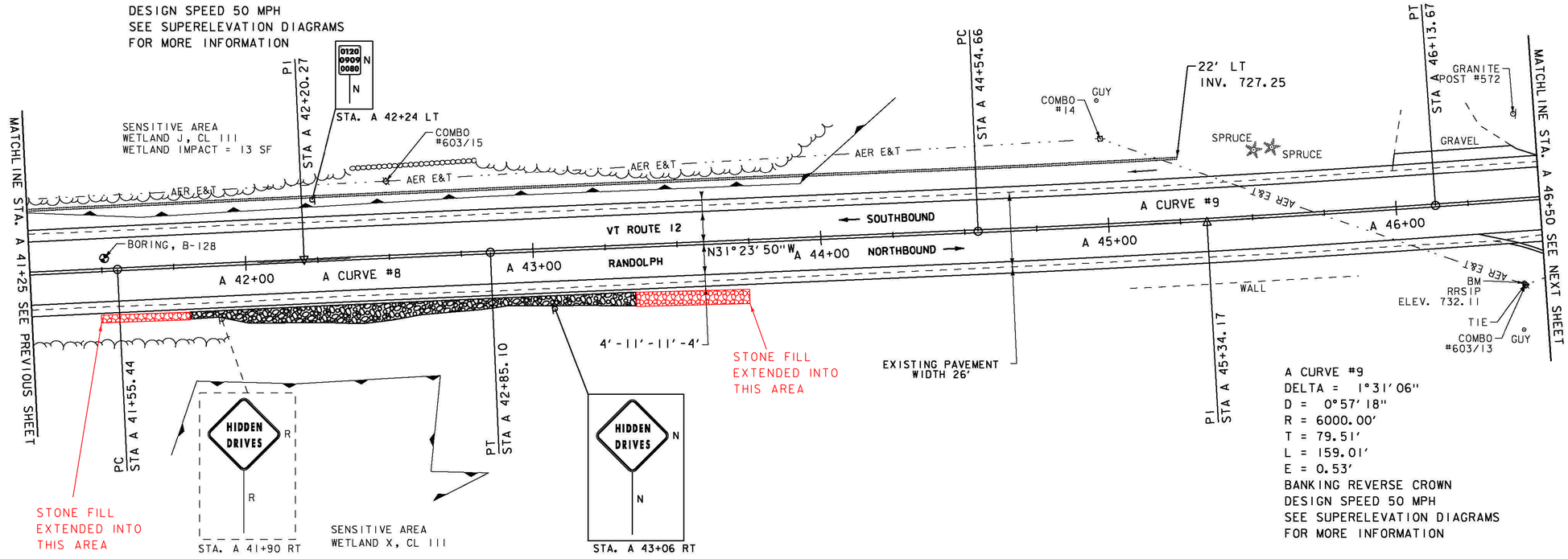
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 41+25 - STA. A 46+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 41+25 - STA. A 46+50 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. A 41+25 - STA. A 45+25 LT

VT STATE PLANE GRID

A CURVE #8
DELTA = 0° 17' 50"
D = 0° 13' 45"
R = 25000.00'
T = 64.83'
L = 129.65'
E = 0.08'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



A CURVE #9
DELTA = 1° 31' 06"
D = 0° 57' 18"
R = 6000.00'
T = 79.51'
L = 159.01'
E = 0.53'
BANKING REVERSE CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

STONE FILL, TYPE I
STA. A ~~41+80~~ 41+50 - STA. A ~~43+35~~ 43+75 RT

GEOTEXTILE FOR SILT FENCE
STA. A 41+80 - STA. A 43+35 RT

GRUBBING MATERIAL (6")
STA. A 41+80 - STA. A 43+35 RT

REMOVING SIGNS
AS SHOWN - 1

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
12.	STA. A 41+25 - STA. A 44+18	LT	-
13.	STA. A 41+71 - STA. A 42+81	RT	-

SIGN LEGEND

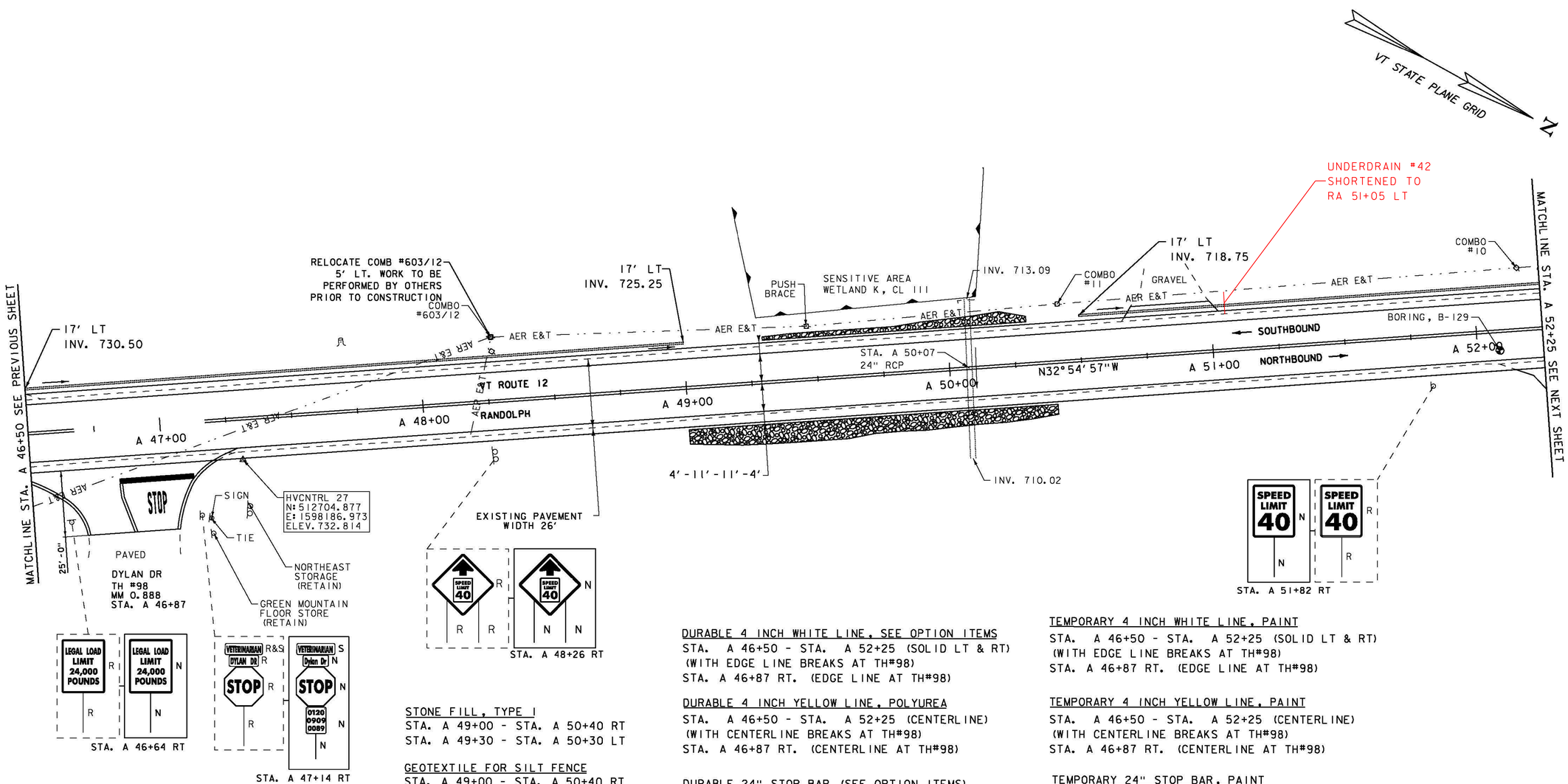
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 53

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 79 OF 211



STONE FILL, TYPE I
STA. A 49+00 - STA. A 50+40 RT
STA. A 49+30 - STA. A 50+30 LT

GEOTEXTILE FOR SILT FENCE
STA. A 49+00 - STA. A 50+40 RT
STA. A 49+30 - STA. A 50+30 LT

GRUBBING MATERIAL (6")
STA. A 49+00 - STA. A 50+40 RT
STA. A 49+30 - STA. A 50+30 LT

REMOVING SIGNS
AS SHOWN - 6

ERECTING SALVAGED SIGNS
AS SHOWN - 1

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 46+50 - STA. A 52+25 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#98)
STA. A 46+87 RT. (EDGE LINE AT TH#98)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 46+50 - STA. A 52+25 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#98)
STA. A 46+87 RT. (CENTERLINE AT TH#98)

DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. A 46+83 - STA. A 47+11 RT

DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. A 46+97 RT "STOP"

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 46+50 - STA. A 52+25 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#98)
STA. A 46+87 RT. (EDGE LINE AT TH#98)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 46+50 - STA. A 52+25 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#98)
STA. A 46+87 RT. (CENTERLINE AT TH#98)

TEMPORARY 24" STOP BAR, PAINT
STA. A 46+83 - STA. A 47+11 RT

TEMPORARY LETTER OR SYMBOL, PAINT
STA. A 46+97 RT "STOP"

6 INCH UNDERDRAIN PIPE
STA. A 46+50 - STA. A 49+00 LT
STA. A ~~50+50~~ 51+05 - STA. A 52+25 LT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
14.	STA. A 49+22 - STA. A 50+18	LT	-

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 54

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 80 OF 211

REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. A 55+15 LT
STA. A 57+46 LT

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 52+25 - STA. A 57+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 52+25 - STA. A 57+50 (CENTERLINE)

6 INCH UNDERDRAIN PIPE
STA. A 52+25 - STA. A ~~54+00~~ 54+29 LT

A CURVE #10
DELTA = 0°30'34"
D = 0°34'23"
R = 10000.00'
T = 44.47'
L = 88.94'
E = 0.10'
BANKING NORMAL CROWN
DESIGN SPEED 40 MPH
SEE SUPERELEVATION DIAGRAMS FOR MORE INFORMATION

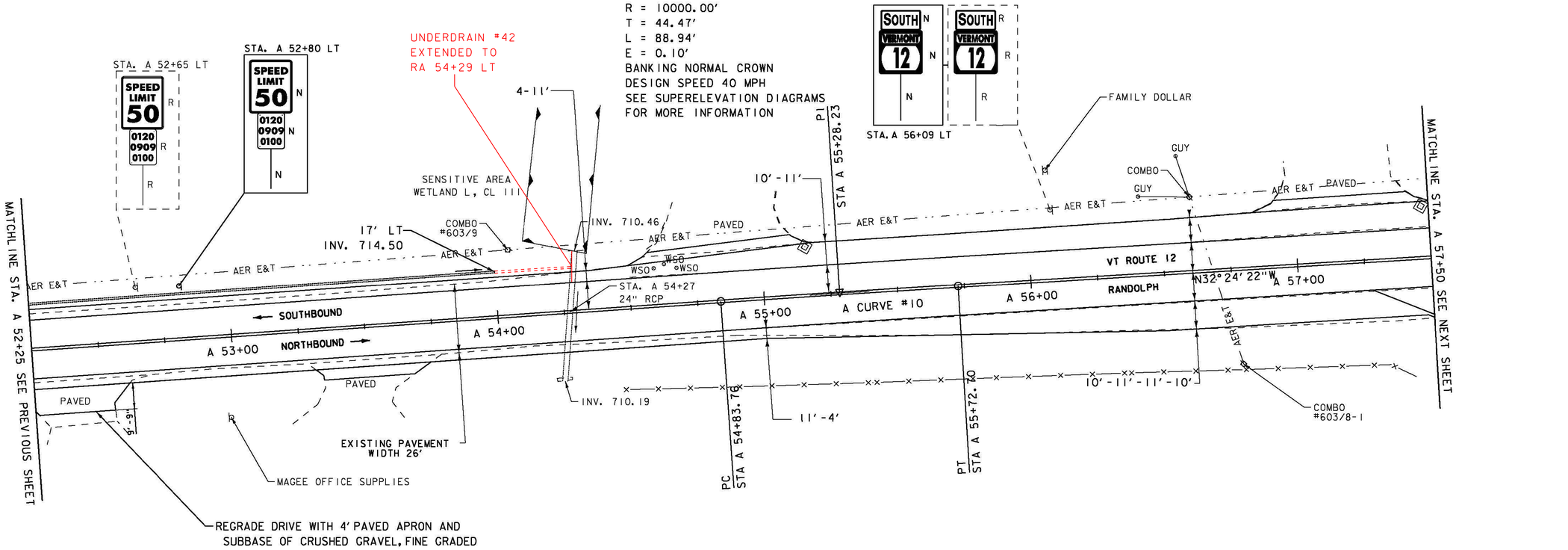
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 52+25 - STA. A 57+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 52+25 - STA. A 57+50 (CENTERLINE)

ADJUST ELEVATION OF VALVE BOX
STA. A 54+58 LT
STA. A 54+63 LT

REMOVING SIGNS
AS SHOWN - 4

VT STATE PLANE GRID N



SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

ENVIRONMENTALLY SENSITIVE LOCATIONS:

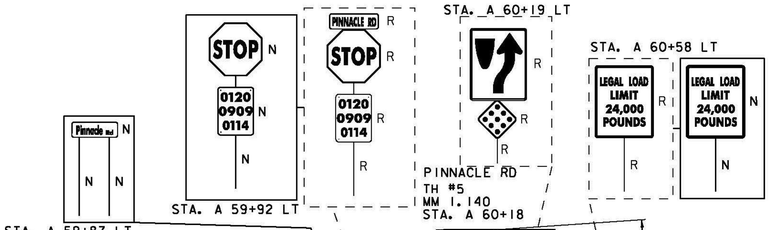
NO.	LIMITS	POS.	TYPE
15.	STA. A 54+11 - STA. A 54+44	LT	-

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 55
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 81 OF 211

A CURVE #11
DELTA = 0°24'38"
D = 0°34'23"
R = 10000.00'
T = 35.83'
L = 71.66'
E = 0.06'
BANKING NORMAL CROWN
DESIGN SPEED 40 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



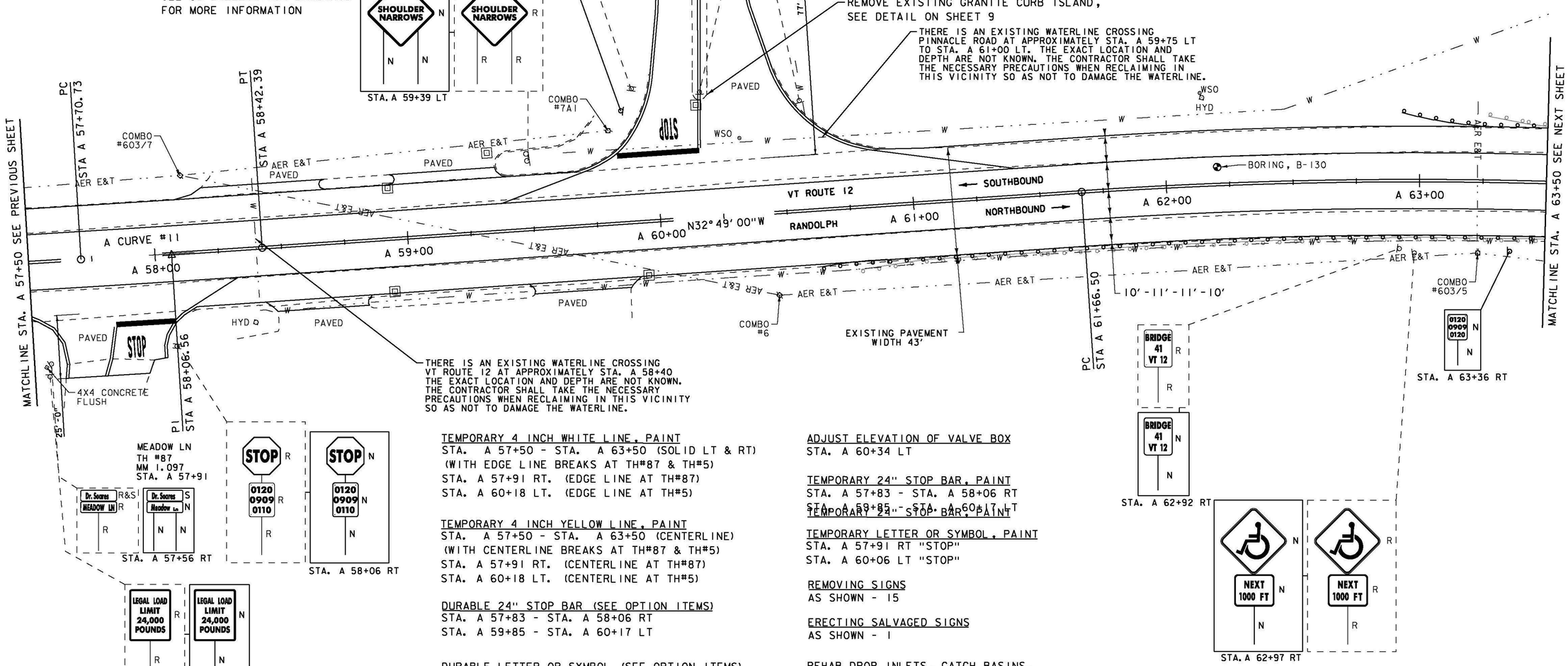
DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 57+50 - STA. A 63+50 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#87 & TH#5)
STA. A 57+91 RT. (EDGE LINE AT TH#87)
STA. A 60+18 LT. (EDGE LINE AT TH#5)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 57+50 - STA. A 63+50 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#87 & TH#5)
STA. A 57+91 RT. (CENTERLINE AT TH#87)
STA. A 60+18 LT. (CENTERLINE AT TH#5)

VT STATE PLANE GRID

REMOVE EXISTING GRANITE CURB ISLAND, SEE DETAIL ON SHEET 9

THERE IS AN EXISTING WATERLINE CROSSING PINNACLE ROAD AT APPROXIMATELY STA. A 59+75 LT TO STA. A 61+00 LT. THE EXACT LOCATION AND DEPTH ARE NOT KNOWN. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS WHEN RECLAIMING IN THIS VICINITY SO AS NOT TO DAMAGE THE WATERLINE.



THERE IS AN EXISTING WATERLINE CROSSING VT ROUTE 12 AT APPROXIMATELY STA. A 58+40 THE EXACT LOCATION AND DEPTH ARE NOT KNOWN. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS WHEN RECLAIMING IN THIS VICINITY SO AS NOT TO DAMAGE THE WATERLINE.

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 57+50 - STA. A 63+50 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#87 & TH#5)
STA. A 57+91 RT. (EDGE LINE AT TH#87)
STA. A 60+18 LT. (EDGE LINE AT TH#5)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 57+50 - STA. A 63+50 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#87 & TH#5)
STA. A 57+91 RT. (CENTERLINE AT TH#87)
STA. A 60+18 LT. (CENTERLINE AT TH#5)

DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. A 57+83 - STA. A 58+06 RT
STA. A 59+85 - STA. A 60+17 LT

DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. A 57+91 RT "STOP"
STA. A 60+06 LT "STOP"

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. A 60+77.5 - STA. A 63+50 RT
STA. A 63+26.5 - STA. A 63+50 LT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. A 60+63 - STA. A 63+50 RT
STA. A 62+93 - STA. A 63+50 LT

ADJUST ELEVATION OF VALVE BOX
STA. A 60+34 LT

TEMPORARY 24" STOP BAR, PAINT
STA. A 57+83 - STA. A 58+06 RT
STA. A 59+85 - STA. A 60+17 LT
TEMPORARY 24" STOP BAR, PAINT

TEMPORARY LETTER OR SYMBOL, PAINT
STA. A 57+91 RT "STOP"
STA. A 60+06 LT "STOP"

REMOVING SIGNS
AS SHOWN - 15

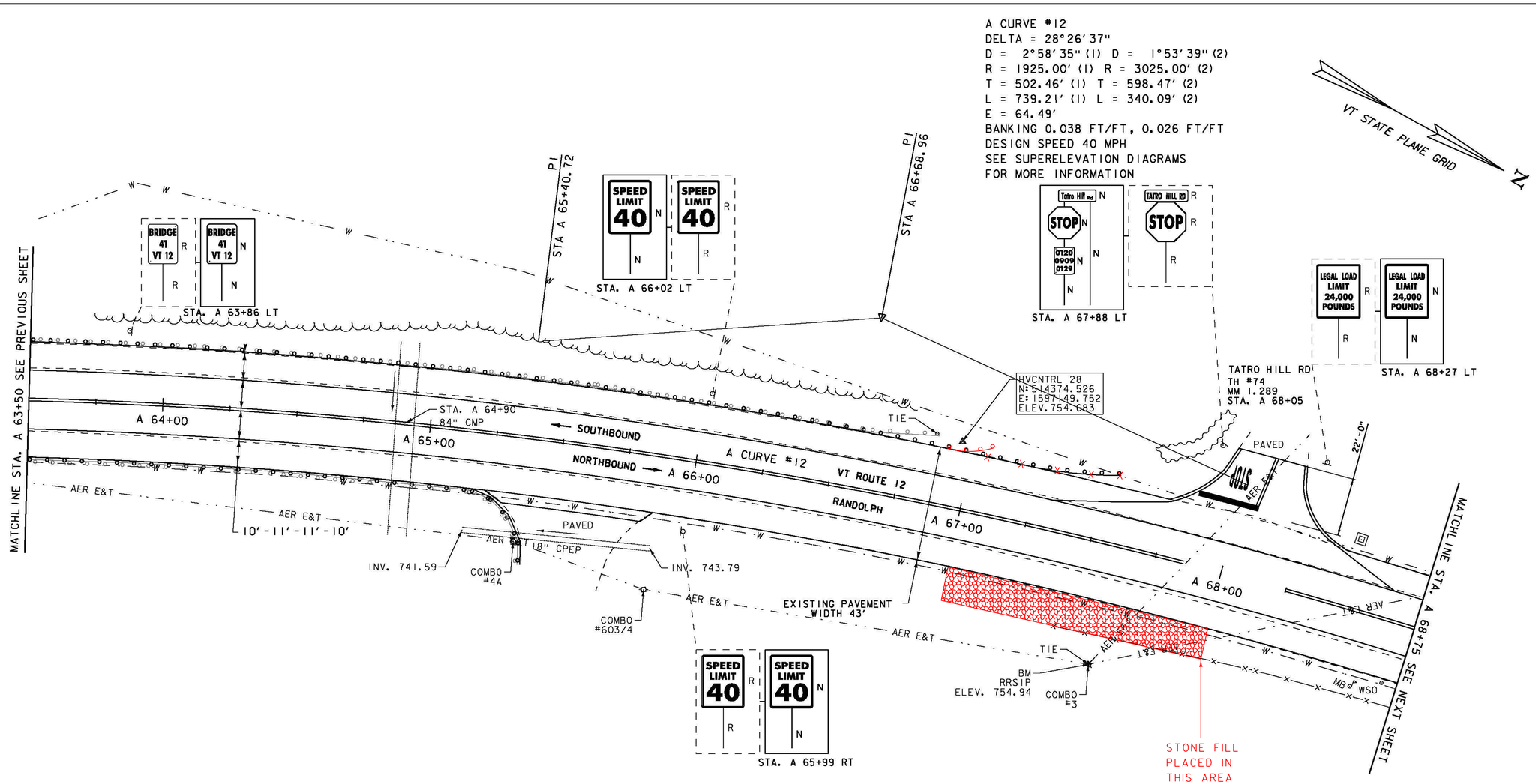
ERECTING SALVAGED SIGNS
AS SHOWN - 1

REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. A 58+92 LT
STA. A 58+95 RT
STA. A 59+95 RT
STA. A 60+17 LT (MAN HOLE COVER)

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244bdr.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
PLAN SHEET 56	SHEET 82 OF 211



DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. A 67+85 - STA. A 68+07 LT

DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. A 67+98 LT "STOP"

TEMPORARY 24" STOP BAR, PAINT
STA. A 67+85 - STA. A 68+07 LT

TEMPORARY LETTER OR SYMBOL, PAINT
STA. A 67+98 LT "STOP"

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. A 63+50 - STA. A 65+38.5 RT
STA. A 63+50 - STA. A 66+87 LT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. A 63+50 - STA. A 65+37 RT
STA. A 63+50 - STA. A ~~67+55~~ 67+06 LT

REMOVING SIGNS
AS SHOWN - 6

STONE FILL, TYPE I
STA. A 67+00 - STA. A 68+00 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
—— = EXISTING
—— = NEW

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 63+50 - STA. A 68+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#74)
STA. A 68+05 LT. (EDGE LINE AT TH#74)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 63+50 - STA. A 68+75 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#74)
STA. A 68+05 LT. (CENTERLINE AT TH#74)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 63+50 - STA. A 68+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS AT TH#74)
STA. A 68+05 LT. (EDGE LINE AT TH#74)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 63+50 - STA. A 68+75 (CENTERLINE)
(WITH CENTERLINE BREAKS AT TH#74)
STA. A 68+05 LT. (CENTERLINE AT TH#74)

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 57

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 83 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 68+75 - STA. A 74+25 (SOLID LT & RT)
STA. A 72+46 - STA. A 74+20 (SOLID LT)
STA. A 74+20 - STA. A 74+25 (DOTTED LT)
(WITH EDGE LINE BREAKS AT MARKET PLACE ENTRANCE)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 68+75 - STA. A 74+25 (CENTERLINE)
STA. A 70+05 - STA. A 71+85 (CENTERLINE LT)
(WITH CENTERLINE BREAKS AT MARKET PLACE ENTRANCE)

DURABLE 8 INCH YELLOW LINE (SEE OPTION ITEMS)
STA. A 70+05 - STA. A 71+85 (HATCH LT)

DURABLE 24" STOP BAR (SEE OPTION ITEMS)
STA. A 72+16 - STA. A 72+75 RT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 68+75 - STA. A 74+25 (SOLID LT & RT)
STA. A 72+46 - STA. A 74+20 (SOLID LT)
STA. A 74+20 - STA. A 74+25 (DOTTED LT)
(WITH EDGE LINE BREAKS AT MARKET PLACE ENTRANCE)

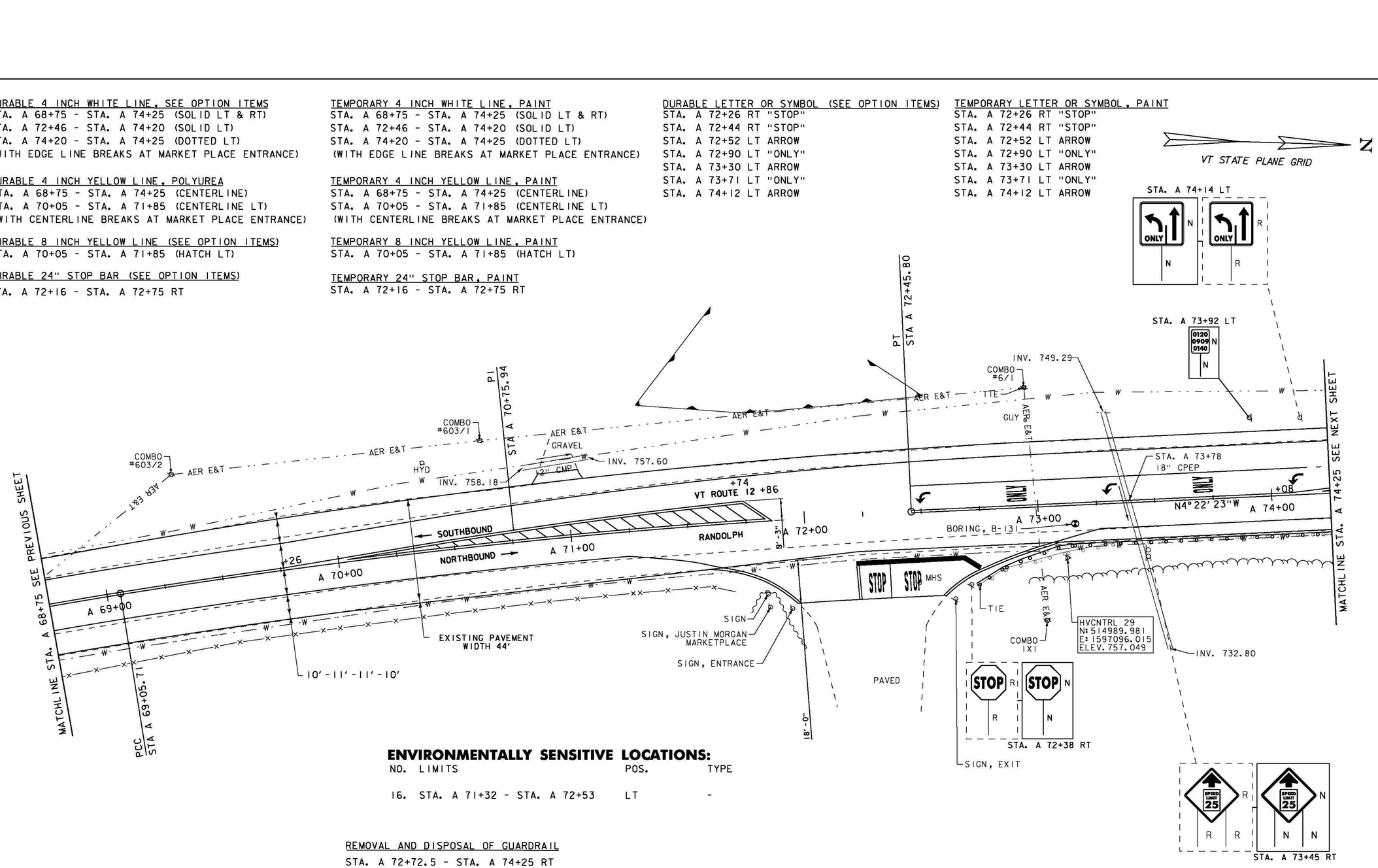
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 68+75 - STA. A 74+25 (CENTERLINE)
STA. A 70+05 - STA. A 71+85 (CENTERLINE LT)
(WITH CENTERLINE BREAKS AT MARKET PLACE ENTRANCE)

TEMPORARY 8 INCH YELLOW LINE, PAINT
STA. A 70+05 - STA. A 71+85 (HATCH LT)

TEMPORARY 24" STOP BAR, PAINT
STA. A 72+16 - STA. A 72+75 RT

DURABLE LETTER OR SYMBOL (SEE OPTION ITEMS)
STA. A 72+26 RT "STOP"
STA. A 72+44 RT "STOP"
STA. A 72+52 LT ARROW
STA. A 72+90 LT "ONLY"
STA. A 73+30 LT ARROW
STA. A 73+71 LT "ONLY"
STA. A 74+12 LT ARROW

TEMPORARY LETTER OR SYMBOL, PAINT
STA. A 72+26 RT "STOP"
STA. A 72+44 RT "STOP"
STA. A 72+52 LT ARROW
STA. A 72+90 LT "ONLY"
STA. A 73+30 LT ARROW
STA. A 73+71 LT "ONLY"
STA. A 74+12 LT ARROW



ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
16.	STA. A 71+32 - STA. A 72+53	LT	-

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. A 72+72.5 - STA. A 74+25 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. A 72+73 - STA. A 74+25 RT

REMOVING SIGNS
AS SHOWN - 3

CHANGING ELEVATION OF SEWER MANHOLES
STA. A 72+45 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 58

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 84 OF 211

DURABLE 4 INCH WHITE LINE, SEE OPTION ITEMS
STA. A 74+25 - STA. A 77+56 (SOLID LT & RT)
STA. A 74+25 - STA. A 75+48 (DOTTED LT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. A 74+25 - STA. A 77+56 (CENTERLINE)
STA. A 74+25 - STA. A 77+56 (CENTERLINE LT)
STA. A 74+25 - STA. A 77+56 (HATCH LT)

DURABLE 8 INCH YELLOW LINE (SEE OPTION ITEMS)
STA. A 74+25 - STA. A 77+56 (HATCH LT)

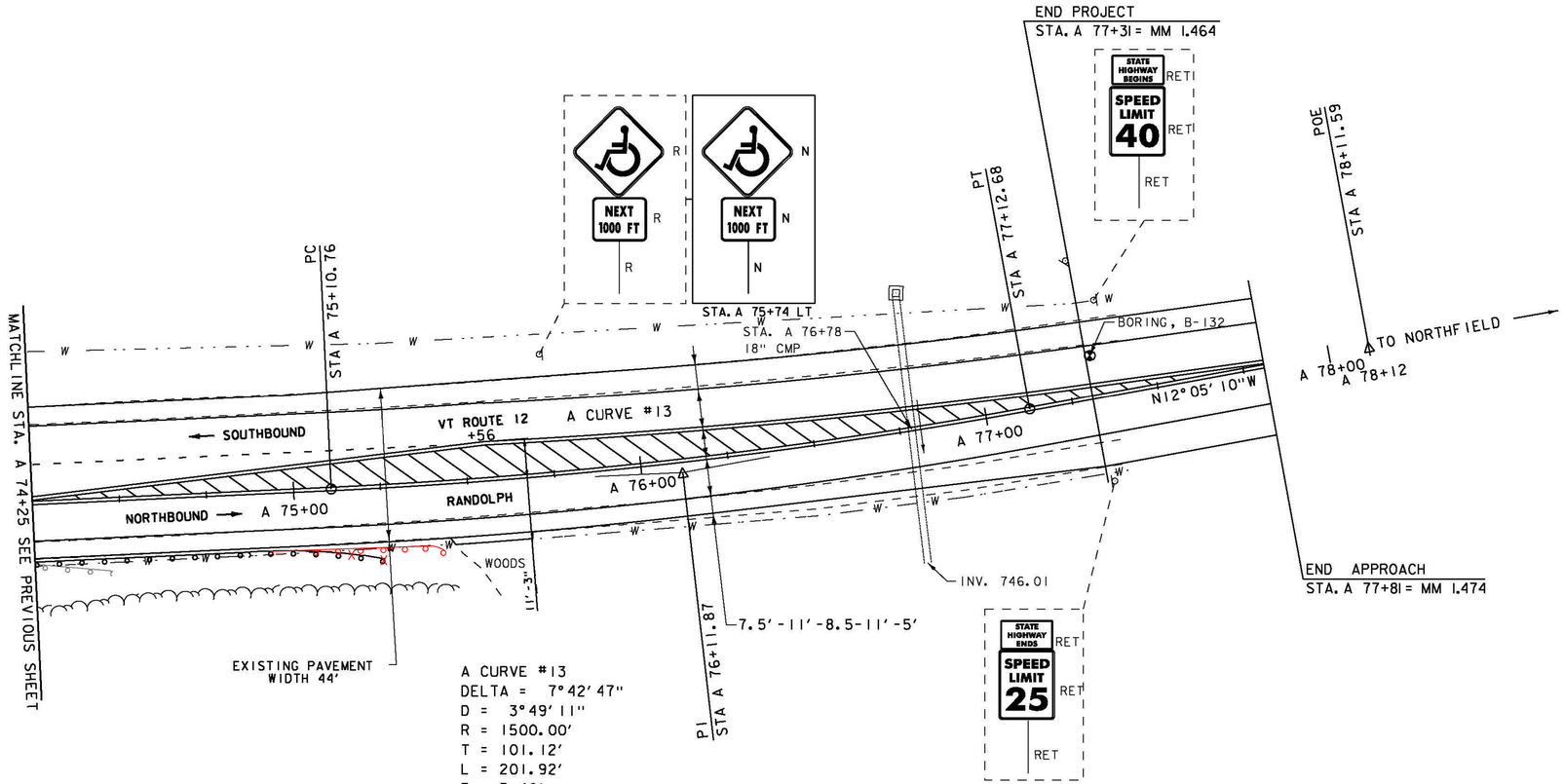
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. A 74+25 - STA. A 77+56 (SOLID LT & RT)
STA. A 74+25 - STA. A 75+48 (DOTTED LT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. A 74+25 - STA. A 77+56 (CENTERLINE)
STA. A 74+25 - STA. A 77+56 (CENTERLINE LT)
STA. A 74+25 - STA. A 77+56 (HATCH LT)

TEMPORARY 8 INCH YELLOW LINE, PAINT
STA. A 74+25 - STA. A 77+56 (HATCH LT)

REMOVING SIGNS
AS SHOWN - 2

N
VT STATE PLANE GRID



A CURVE #13
DELTA = 7°42'47"
D = 3°49'11"
R = 1500.00'
T = 101.12'
L = 201.92'
E = 3.40'
BANKING 0.046 FT/FT
DESIGN SPEED 40 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. A 74+25 - STA. A 74+47 RT

SPECIAL PROVISION (BOX BEAM GUARDRAIL W/7 FEET POSTS)
STA. A 74+25 - STA. A ~~75+25~~ 75+39 RT

STONE FILL, TYPE I
STA. A 76+85 - STA. A 77+10 RT

GEOTEXTILE FOR SILT FENCE
STA. A 76+85 - STA. A 77+10 RT

GRUBBING MATERIAL (6")
STA. A 76+85 - STA. A 77+10 RT

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244bdr.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLAN SHEET 59

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 85 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 1

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																		REMARKS	SIGN DETAIL		
		EA	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	NO. OF POSTS	FLANGED CHANNEL lb/ft			SQUARE STEEL (in) lb/ft			ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft			TUBULAR STEEL Ø (in)					W-SHAPE STEEL				SIGN REMOVED	RECLAIMED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
															1.75	2.0	2.5			3.0	4.0	4.0 MOD	FOUND-ATION	3.0	3.5	4.0	5.0	FTG. SIZE 24"	FTG. SIZE 30"	WEIGHT	POST SIZE						
												1.12	2.0	3.0	1.88	2.42	3.35			1.3	1.7	1.7		7.6	9.0	10.8	14.6									
STA. 124+30 RT BETHEL	STATE HIGHWAY BEGINS	1	24	18			1				1					X		X															VR-039			E-141
	SPEED LIMIT 35	1	24	30			1																											R2-1		
STA. 124+32 LT BETHEL	STATE HIGHWAY ENDS	1	24	18			1				1					X		X															VR-038			E-141
	SPEED LIMIT 25	1	24	30			1																											R2-1		
STA. 126+72 RT BETHEL	0120 1404 0240	1	6	10	0.42						1				X			X															VD-700			T-44
STA. 128+66 LT BETHEL	SPEED LIMIT 25	1	36	36			1				2					X		X																W3-5		
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 8	LF 60	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS	SF 0.42	SF		EA. 5	SF						LF			LF 68					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 1

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 86 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 2

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECLAIMED SIGN	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 128+89 LT BETHEL	James Place Pvt	1	66	12	5.50						2					X		X														D3-1		116	
STA. 134+12 LT BETHEL	Richards Dr Pvt	1	60	12	5.00						2					X		X														D3-1		116	
STA. 135+54 LT BETHEL		1	36	36			1				2					X		X																S1-1		
	SCHOOL	1	24	8			1																											S4-3P		
STA. 137+75 RT BETHEL	SPEED LIMIT 50	1	24	30			1				1					X		X																R2-1		
STA. 137+77 LT BETHEL	SPEED LIMIT 35	1	24	30			1				1					X		X																R2-1		
	0120 1404 0260	1	6	10	0.42																												VD-700			T-44
STA. 140+51 LT BETHEL	Bethel Barnard 9	1	30	18			1				1					X		X																VD-018			E-128
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF -	LF 135	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 10.92	SF	EA. 5	SF				LF			LF 135					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 2

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 87 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 3

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 142+91 LT BETHEL	SPEED LIMIT 35	1	36	36			1				2					X		X																W3-5		
STA. 143+36 RT BETHEL	BRIDGE 32 VT 12	1	6	10	0.42						1				X			X																VD-701			T-42
STA. 143+52 LT BETHEL	BRIDGE 32 VT 12	1	6	10	0.42						1				X			X																VD-701			T-42
STA. 146+83 LT BETHEL	Davis Farm Rd	1	60	12	5.00						2					X		X																D3-1		116	
	0120 1404 0278	1	6	10	0.42																													VD-700			T-44
STA. 147+44 RT BETHEL		1	30	30			1				1					X		X																	WI-2R		
STA. 147+84 RT BETHEL	0120 1404 0280	1	6	10	0.42						1				X			X																VD-700			T-44
STA. 154+33 LT BETHEL		1	30	30			1				1					X		X																	WI-2L		
											LF 24	LF	LF	LF	LF 90	LF	EA.		LB	LB	LB		LB	LB	LB	LB										
	TOTALS				SF 6.68	SF	EA. 3	SF			LF				LF 114				LB			EA. -	LB				EA.	EA.	LB							

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

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 3

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 88 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 4

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 156+73 LT BETHEL		1	36	36	9.00						2					X		X															S3-1		
STA. 158+40 LT BETHEL		1	6	10	0.42						1				X			X														VD-700			T-44
STA. 161+99 LT BETHEL		1	36	36			1				2					X		X														VW-054R			E-154
		1	36	36			1																										WI-5L		
		1	18	18			1																										WI3-1P		
STA. 168+96 RT BETHEL		1	6	10	0.42						1				X			X														VD-700			T-44
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 16	LF 60	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS	SF 9.84	SF	EA. 3	SF		LF								LF 76					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 4

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 89 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 5

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUNDATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 170+07 RT BETHEL		1	36	36			1				2					X		X															S3-1		
STA. 174+28 LT BETHEL		1	30	30			1				1					X		X														VW-133L			E-154
STA. 175+52 LT BETHEL		1	30	30			1				1					X		X															RI-1		
		1	6	10			1																									VD-700			T-44
STA. 176+05 LT BETHEL		1	24	30			1				1					X		X														VR-017			E-141
		1	24	30			1																									R2-1			
STA. 176+10 LT BETHEL		1	54	12			1				2					X		X														D3-1			
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF -	LF 105	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS	SF -		SF		EA. 7	SF		LF			LF 105			LB			EA. -	LB				EA.	EA.	LB										

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 5

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 90 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 6

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	FLANGED CHANNEL lb/ft 2.0	FLANGED CHANNEL lb/ft 3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	SQUARE STEEL (in) lb/ft 2.0 2.42	SQUARE STEEL (in) lb/ft 2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	TUBULAR ALUMINUM Ø (in) lb/ft 4.0 1.7	TUBULAR ALUMINUM Ø (in) lb/ft 4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUNDATION	TUBULAR STEEL Ø (in) lb/ft 3.0 7.6	TUBULAR STEEL Ø (in) lb/ft 3.5 9.0	TUBULAR STEEL Ø (in) lb/ft 4.0 10.8	TUBULAR STEEL Ø (in) lb/ft 5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	W-SHAPE STEEL FTG. SIZE 30"	W-SHAPE STEEL WEIGHT	W-SHAPE STEEL POST SIZE	RECYCLED SIGN	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	SIGN DETAIL DETAIL ON DWG. NUMBER	SIGN DETAIL STD. SHEET NUMBER
STA. 179+52 LT BETHEL	0120 1404 0340	1	6	10	0.42						1				X			X															VD-700			T-44
STA. 180+40 LT BETHEL	BRIDGE 33 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
STA. 180+52 RT BETHEL	BRIDGE 33 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
STA. 181+95 LT BETHEL		1	30	30			1				1					X		X															WI-5L			
	40 MPH	1	18	18			1																											WI3-1P			
STA. 186+91 RT BETHEL	Stafford Meadow Ln	1	66	12			1				2					X		X															D3-1			
STA. 186+92 RT BETHEL	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30			1				1					X		X															VR-017			E-141
												LF	LF	LF	LF 24	LF 60	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 1.26	SF	EA. 4	SF				LF			LF 84					LB			EA. -	LB				EA.	EA.	LB						

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

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 6

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 91 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 7

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																		REMARKS	SIGN DETAIL		
		EA	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	NO. OF POSTS	FLANGED CHANNEL lb/ft			SQUARE STEEL (in) lb/ft			ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft			FOUNDATION	TUBULAR STEEL Ø (in) lb/ft				W-SHAPE STEEL FTG. SIZE		WEIGHT	POST SIZE	RELOCATED SIGN	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
												1.12	2.0	3.0	1.75	2.0	2.5			3.0	4.0	4.0 MOD		3.0	3.5	4.0	5.0	24"	30"							
STA. 187+38 RT BETHEL	STOP	1	30	30			1				1					X		X															RI-1		
	0120 1404 0354	1	6	10			1																									VD-700			T-44
STA. 190+08 RT BETHEL	0120 1404 0360	1	6	10	0.42						1				X			X														VD-700			T-44
STA. 199+82 RT BETHEL	NARROW BRIDGE	1	36	36			1				2					X		X															W5-2		
STA. 200+64 LT BETHEL	0120 1404 0380	1	6	10	0.42						1				X			X														VD-700			T-44
STA. 202+85 RT BETHEL		1	30	30			1				1					X		X															W1-2L		
	35 MPH	1	18	18			1																										W13-1P		
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 16	LF 60	LF		EA.	LB	LB	LB		LB	LB	LB	LB								
	TOTALS	SF 0.84	SF		EA. 5	SF			LF						LF 76					LB			EA. -	LB				EA.	EA.	LB					

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 7

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 92 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 8

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUNDATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 205+30 RT BETHEL	BRIDGE 34 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
STA. 205+31 RT BETHEL		1	12	36	3.00						1					X		X																OM3-R		
STA. 205+31 LT BETHEL		1	12	36			1				1					X		X																OM3-L		
STA. 205+77 RT BETHEL		1	12	36			1				1					X		X																OM3-L		
STA. 205+80 LT BETHEL		1	12	36	3.00						1					X		X																OM3-R		
STA. 205+80 LT BETHEL	BRIDGE 34 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 16	LF 60	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 6.84	SF	EA. 2	SF				LF			LF 76					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 8

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 93 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 9

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUNDATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGN	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 207+76 LT BETHEL	NARROW BRIDGE	1	36	36			1				2					X		X																W5-2		
STA. 209+21 LT BETHEL	SOUTH	1	24	12			1				1					X		X																M3-3		
	VERMONT 12	1	24	24			1																										M1-5			E-136B
STA. 209+86 RT BETHEL	Findley Bridge Rd	1	66	12			1				2					X		X																D3-1		
	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30			1																										VR-017			E-141
STA. 210+64 RT BETHEL	STOP	1	30	30			1				1					X		X																	RI-1		
	0120 1404 0398	1	6	10	0.42																												VD-700			
STA. 211+20 RT BETHEL	Rochester 10	1	72	12			1				2					X		X																VD1-1A			
	0120 1404 0400	1	6	10	0.42																												VD-700			
												LF	LF	LF	LF -	LF 120	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS	SF 0.84	SF	EA. 7	SF							LF			LF 120					LB			EA. -	LB				EA.	EA.	LB						

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

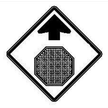
PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 9

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 94 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 10

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 211+26 LT BETHEL		1	30	30			1				1					X		X															WI-2R		
		1	18	18			1																										WI3-IP		
STA. 211+64 LT BETHEL		1	30	30			1				1					X		X															RI-1		
		1	6	10	0.42																												VD-700			T-44
STA. 214+33 LT BETHEL		1	60	12	5.00						2					X		X															D3-1		116	
STA. 214+48 LT BETHEL		1	30	30			1				1					X		X															RI-1		
		1	6	10	0.42																												VD-700			T-44
STA. 214+59 LT BETHEL		1	36	36			1				2					X		X															W3-1		
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF -	LF 105	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 5.84	SF	EA. 5	SF				LF			LF 105					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 10

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 95 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 11

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUNDATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 216+30 RT BETHEL	NORTH	1	24	12			1				1					X		X															M3-1		
	VERMONT 12	1	24	24			1																										M1-5			E-136B
STA. 217+63 LT BETHEL	Rochester 10 →	1	72	12			1				2					X		X															VD1-1A		117	
STA. 221+76 LT BETHEL	0120 1404 0420	1	6	10	0.42						1				X			X															VD-700			T-44
STA. 221+85 RT BETHEL	SPEED LIMIT 50	1	24	30			1				1					X		X															R2-1			
STA. 222+81 LT BETHEL		1	36	36			1				2					X		X															W1-10L			
	Camp Brook Rd	1	42	8			1																										W16-8P			
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 8	LF 90	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 0.42	SF	EA. 6	SF				LF			LF 98					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 11

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 96 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 12

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGN	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 226+67 RT BETHEL	BRIDGE 35 VT 12	1	6	10	0.42						1				X			X														VD-701			T-42
STA. 227+24 LT BETHEL	BRIDGE 35 VT 12	1	6	10	0.42						1				X			X														VD-701			T-42
STA. 232+32 RT BETHEL	0120 1404 0440	1	6	10	0.42						1				X			X														VD-700			T-44
STA. 235+59 RT BETHEL		1	36	36			1				2					X		X															S3-1		
STA. 238+53 RT BETHEL	BRIDGE 36 VT 12	1	6	10	0.42						1				X			X														VD-701			T-42
STA. 238+80 LT BETHEL	BRIDGE 36 VT 12	1	6	10	0.42						1				X			X														VD-701			T-42
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 40	LF 30	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 2.10	SF	EA. 1	SF				LF			LF 70					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 12

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 97 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 13

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																			REMARKS	SIGN DETAIL		
		EA	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	NO. OF POSTS	FLANGED CHANNEL lb/ft			SQUARE STEEL (in) lb/ft			ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft			FOUND-ATION	TUBULAR STEEL Ø (in) lb/ft				W-SHAPE STEEL FTG. SIZE		WEIGHT	POST SIZE	RECAIMED SIGNS	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
												1.12	2.0	3.0	1.75 1.88	2.0 2.42	2.5 3.35			3.0 1.3	4.0 1.7	4.0 MOD 1.7		3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	24"	30"							
STA. 242+92 LT BETHEL	0120 1404 0460	1	6	10	0.42						1				X			X														VD-700			T-44
STA. 245+81 LT BETHEL		1	30	30			1				1					X		X															WI-4L		
STA. 253+45 RT BETHEL	0120 1404 0480	1	6	10	0.42						1				X			X														VD-700			T-44
STA. 260+45 RT BETHEL		1	30	30			1				1					X		X															WI-2L		
	35 MPH	1	18	18			1																										WI3-1P		
STA. 263+95 LT BETHEL	0120 1404 0500	1	6	10	0.42						1				X			X														VD-700			T-44
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 24	LF 30	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 1.26	SF	EA. 3	SF				LF			LF 54					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 13

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 98 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 14

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUNDATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECAIMED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 264+58 RT BETHEL	Bethel Dr Pvt	1	54	12	4.50						2					X		X															D3-1		116	
STA. 266+72 RT BETHEL		1	48	24			1				2					X		X																WI-6R		
STA. 267+13 RT BETHEL	Bethel Dr Pvt	1	54	12	4.50						2					X		X															D3-1		116	
STA. 269+90 LT BETHEL		1	30	30			1				1					X		X																WI-2L		
	35 MPH	1	18	18			1																											WI3-1P		
STA. 274+56 RT BETHEL	0120 1404 0520	1	6	10	0.42						1					X		X															VD-700			T-44
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 8	LF 105	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 9.42	SF	EA. 3	SF				LF			LF 113					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 14

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 99 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 15

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGN	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 277+50 RT BETHEL	BRIDGE ICES BEFORE ROAD	1	30	30			1				1					X		X															W8-13		
STA. 281+33 LT BETHEL	EMERGENCY VEHICLES ENTERING	1	36	36			1				2					X		X															VW-544M			E-154
STA. 282+26 RT BETHEL	Spring Hollow Rd	1	66	12			1				2					X		X															D3-1			
STA. 284+02 LT BETHEL		1	12	36			1				1					X		X																OM3-L		
STA. 284+04 RT BETHEL	BRIDGE 38 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
STA. 284+06 RT BETHEL		1	12	36	3.00						1					X		X																OM3-R		
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 8	LF 105	LF 113		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 3.42	SF	EA. 4	SF				LF			LF					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 15

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 100 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 16

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	SIGN DIMENSIONS WIDTH (in)	SIGN DIMENSIONS HEIGHT (in)	NEW & SALVAGED SIGNS "A"	NEW & SALVAGED SIGNS "B"	NEW & SALVAGED SIGNS SALV SIGN	NEW & SALVAGED SIGNS SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	FLANGED CHANNEL lb/ft 2.0	FLANGED CHANNEL lb/ft 3.0	SQUARE STEEL (in) 1.75 lb/ft 1.88	SQUARE STEEL (in) 2.0 lb/ft 2.42	SQUARE STEEL (in) 2.5 lb/ft 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) 3.0 lb/ft 1.3	TUBULAR ALUMINUM Ø (in) 4.0 lb/ft 1.7	TUBULAR ALUMINUM Ø (in) 4.0 MOD lb/ft 1.7	FOUNDATION	TUBULAR STEEL Ø (in) 3.0 lb/ft 7.6	TUBULAR STEEL Ø (in) 3.5 lb/ft 9.0	TUBULAR STEEL Ø (in) 4.0 lb/ft 10.8	TUBULAR STEEL Ø (in) 5.0 lb/ft 14.6	W-SHAPE STEEL FTG. SIZE 24"	W-SHAPE STEEL FTG. SIZE 30"	W-SHAPE STEEL WEIGHT	W-SHAPE STEEL POST SIZE	SIGN FRAME REQUIRED	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	SIGN DETAIL DETAIL ON DWG. NUMBER	SIGN DETAIL STD. SHEET NUMBER
STA. 287+42 LT BETHEL		1	12	36	3.00						1					X		X																OM3-R		
STA. 287+45 LT BETHEL	BRIDGE 38 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
STA. 287+47 RT BETHEL		1	24	30			1				1					X		X																OM3-L		
STA. 288+10 RT BETHEL	HIDDEN DRIVE RIGHT	1	24	30			1				1					X		X															VW-054R			E-154
STA. 291+19 LT BETHEL	BRIDGE ICES BEFORE ROAD	1	24	30			1				1					X		X																W8-13		
STA. 291+48 LT BETHEL	STOP	1	24	30			1				1					X		X																R1-1		
	0120 1404 0552	1	24	30			1																										VD-700			T-44
STA. 291+86 LT BETHEL	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30			1				1					X		X															VR-017			E-141
STA. 291+92 LT BETHEL	Gilead Brook Rd	1	60	12			1				2					X		X															D3-1			
												LF	LF	LF	LF 8	LF 120	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
				TOTALS	SF 3.42	SF	EA. 7	SF				LF			LF 128					LB			EA. -	LB				EA.	EA.	LB						

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

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 16

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 101 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 17

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																				RECYCLED SIGN	REMARKS	SIGN DETAIL		
		EA	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	NO. OF POSTS	FLANGED CHANNEL lb/ft			SQUARE STEEL (in) lb/ft			ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft			FOUNDATION	TUBULAR STEEL Ø (in) lb/ft				W-SHAPE STEEL FTG. SIZE		WEIGHT	POST SIZE			DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
												1.12	2.0	3.0	1.75	2.0	2.5			3.0	4.0	4.0 MOD		3.0	3.5	4.0	5.0	24"	30"				SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK			
															1.88	2.42	3.35			1.3	1.7	1.7		7.6	9.0	10.8	14.6									
STA. 293+76 RT BETHEL		1	30	30			1				1					X		X																WI-4R		
		1	18	18	2.25																													WI3-1P		
STA. 295+51 RT BETHEL		1	30	30			1				1					X		X															VW-054R			E-154
		1	6	10	0.42																												VD-700			T-44
STA. 298+46 LT BETHEL		1	30	30			1				1					X		X																W2-2R		
		1	24	18			1																											WI6-8P		
		1	18	18			1																											WI3-1P		
STA. 302+33 RT BETHEL		1	48	24			1				2					X		X																WI-6L		
STA. 305+57 LT BETHEL		1	30	30			1				1					X		X															VW-060			E-154
												LF	LF	LF	LF -	LF 90	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 2.67	SF	EA. 7	SF				LF			LF 90					LB			EA. -	LB				EA.	EA.	LB						

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

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 17

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 102 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 18

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	FLANGED CHANNEL lb/ft 2.0	FLANGED CHANNEL lb/ft 3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	SQUARE STEEL (in) lb/ft 2.0 2.42	SQUARE STEEL (in) lb/ft 2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	TUBULAR ALUMINUM Ø (in) lb/ft 4.0 1.7	TUBULAR ALUMINUM Ø (in) lb/ft 4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	TUBULAR STEEL Ø (in) lb/ft 3.0 7.6	TUBULAR STEEL Ø (in) lb/ft 3.5 9.0	TUBULAR STEEL Ø (in) lb/ft 4.0 10.8	TUBULAR STEEL Ø (in) lb/ft 5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	W-SHAPE STEEL FTG. SIZE 30"	W-SHAPE STEEL WEIGHT	W-SHAPE STEEL POST SIZE	RELOCATED SIGN	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	SIGN DETAIL DETAIL ON DWG. NUMBER	SIGN DETAIL STD. SHEET NUMBER
STA. 306+24 LT BETHEL	0120 1404 0580	1	6	10	0.42						1				X			X															VD-700			T-44
STA. 309+40 LT BETHEL		1	30	30			1				1					X		X															WI-4L		
	40 MPH	1	18	18			1																										WI3-IP		
STA. 312+90 LT BETHEL	HIDDEN DRIVE RIGHT	1	30	30			1				1					X		X															VW-054R			E-154
STA. 316+68 RT BETHEL	0120 1404 0600	1	6	10	0.42						1				X			X															VD-700			T-44
STA. 327+36 LT BETHEL	0120 1404 0620	1	6	10	0.42						1				X			X															VD-700			T-44
STA. 329+00 RT BETHEL		1	30	30			1				1					X		X															WI-4R		
	40 MPH	1	18	18	2.25																												WI3-IP		
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 24	LF 45	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 3.51	SF	EA. 4	SF				LF			LF 69					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 18

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 103 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 19

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	SIGN DIMENSIONS WIDTH (in)	SIGN DIMENSIONS HEIGHT (in)	NEW & SALVAGED SIGNS "A"	NEW & SALVAGED SIGNS "B"	NEW & SALVAGED SIGNS SALV SIGN	NEW & SALVAGED SIGNS SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	FLANGED CHANNEL lb/ft 2.0	FLANGED CHANNEL lb/ft 3.0	SQUARE STEEL (in) 1.75 lb/ft 1.88	SQUARE STEEL (in) 2.0 lb/ft 2.42	SQUARE STEEL (in) 2.5 lb/ft 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) 3.0 lb/ft 1.3	TUBULAR ALUMINUM Ø (in) 4.0 lb/ft 1.7	TUBULAR ALUMINUM Ø (in) 4.0 MOD lb/ft 1.7	FOUNDATION	TUBULAR STEEL Ø (in) 3.0 lb/ft 7.6	TUBULAR STEEL Ø (in) 3.5 lb/ft 9.0	TUBULAR STEEL Ø (in) 4.0 lb/ft 10.8	TUBULAR STEEL Ø (in) 5.0 lb/ft 14.6	W-SHAPE STEEL FTG. SIZE 24"	W-SHAPE STEEL FTG. SIZE 30"	W-SHAPE STEEL WEIGHT	W-SHAPE STEEL POST SIZE	SIGN FRAME REQUIRED	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	SIGN DETAIL DETAIL ON DWG. NUMBER	SIGN DETAIL STD. SHEET NUMBER
STA. 331+73 RT BETHEL	BRIDGE 39 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
STA. 332+12 LT BETHEL	BRIDGE 39 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
STA. 337+92 RT BETHEL	0120 1404 0640	1	6	10	0.42						1				X			X															VD-700			T-44
STA. 339+87 RT BETHEL	←	1	48	24			1				2					X		X																WI-6L		
STA. 339+97 RT BETHEL	→	1	48	24			1				2					X		X																WI-6R		
STA. 343+30 LT BETHEL	HIDDEN DRIVE RIGHT	1	30	30			1				1					X		X															VW-054R			E-154
												LF	LF	LF	LF 24	LF 75	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
TOTALS					SF 1.26	SF	EA. 3	SF				LF			LF 99					LB			EA. -	LB				EA.	EA.	LB						

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

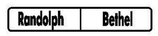
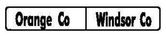
PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 19

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 104 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 20

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUNDATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. 345+65 LT RANDOLPH		1	30	30			1				1					X		X																	WI-5R		
		1	18	18	2.25																													WI3-IP		
STA. 348+48 LT BETHEL		1	6	10	0.42						1				X			X																VD-700			T-44
STA. 359+04 RT BETHEL		1	6	10	0.42						1				X			X																VD-700			T-44
STA. 369+60 LT BETHEL		1	6	10	0.42						1				X			X																VD-700			T-44
STA. 370+41 RT BETHEL STA. A 0+00 RT RANDOLPH		1	72	10	5.00						2					X		X																VD-024		117	
		1	72	10	5.00																												VD-024		117	
		1	6	10	0.42																												VD-700			T-44
		1	6	10	0.42																												VD-700			T-44
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 24	LF 45	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 14.35	SF	EA. 1	SF				LF			LF 69					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 20

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 105 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 21

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. A 10+46 RT RANDOLPH		1	36	36	9.00						2					X		X															WI-10dR		
	BEANVILLE RD	1	42	8	2.33																											W16-8P		116	
	0120 0909 0020	1	6	10	0.42																											VD-700			T-44
STA. A 13+70 RT RANDOLPH	Vermont Castings 210	1	72	24			1				2					X		X														VD-062			
STA. A 15+07 RT RANDOLPH	TRUCKS ENTERING	1	30	30	6.25						1					X		X														VW-202			E-144
STA. A 17+10 RT RANDOLPH	Vermont Computing 45	1	72	24			1				2					X		X														VD-062			
	WR Craft Center Randolph Ave 2	1	72	24			1																									VD-062			
	EDWARD JONES INVESTMENT VT 66 2 1/16	1	72	24			1																									VD-062			
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF -	LF 105	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 18.00	SF	EA. 4	SF				LF			LF 105					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 21

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 106 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 22

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	SIGN DIMENSIONS WIDTH (in)	SIGN DIMENSIONS HEIGHT (in)	NEW & SALVAGED SIGNS "A"	NEW & SALVAGED SIGNS "B"	NEW & SALVAGED SIGNS SALV SIGN	NEW & SALVAGED SIGNS SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	FLANGED CHANNEL lb/ft 2.0	FLANGED CHANNEL lb/ft 3.0	SQUARE STEEL (in) 1.75 lb/ft 1.88	SQUARE STEEL (in) 2.0 lb/ft 2.42	SQUARE STEEL (in) 2.5 lb/ft 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) 3.0 lb/ft 1.3	TUBULAR ALUMINUM Ø (in) 4.0 lb/ft 1.7	TUBULAR ALUMINUM Ø (in) 4.0 MOD lb/ft 1.7	TUBULAR STEEL Ø (in) FOUNDATION	TUBULAR STEEL Ø (in) 3.0 lb/ft 7.6	TUBULAR STEEL Ø (in) 3.5 lb/ft 9.0	TUBULAR STEEL Ø (in) 4.0 lb/ft 10.8	TUBULAR STEEL Ø (in) 5.0 lb/ft 14.6	W-SHAPE STEEL FTG. SIZE 24"	W-SHAPE STEEL FTG. SIZE 30"	W-SHAPE STEEL WEIGHT	W-SHAPE STEEL POST SIZE	RELOCATED SIGN	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	SIGN DETAIL DETAIL ON DWG. NUMBER	SIGN DETAIL STD. SHEET NUMBER
STA. A 20+97 RT RANDOLPH	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					X		X															VR-017			E-141
	SPEED LIMIT 35	1	24	30	5.00																												R2-1		
STA. A 21+12 LT RANDOLPH	0120 0909 0040	1	6	10	0.42						1				X			X															VD-700			T-44
STA. A 21+57 RT RANDOLPH	Beanville Rd	1	48	12	4.00						2					X		X															D3-1		116	
STA. A 21+60 RT RANDOLPH	STOP	1	30	30	6.25						1					X		X															R1-1			
	0120 0909 0041	1	6	10	0.42																												VD-700			T-44
STA. A 25+99 RT RANDOLPH	BRIDGE 40 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
STA. A 26+30 LT RANDOLPH	BRIDGE 40 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
												LF	LF	LF	LF 24	LF 60	LF		EA.	LB	LB	LB		LB	LB	LB	LB								
	TOTALS		SF 21.93	SF	EA. -	SF						LF			LF 84					LB			EA. -	LB				EA.	EA.	LB					

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

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 22

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 107 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 23

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECAIMED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. A 26+43 LT RANDOLPH	Rainbow Dr	1	48	12	4.00						2					X		X															D3-1		116	
STA. A 27+20 LT RANDOLPH	STOP	1	30	30	6.25						1					X		X																RI-1		
	0120 0909 0052	1	6	10	0.42																											VD-700			T-44
STA. A 27+60 LT RANDOLPH	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					X		X															VR-017			E-141
STA. A 27+75 LT RANDOLPH	Spooner Rd	1	42	12	3.50						1					X		X															D3-1		116	
STA. A 28+90 LT RANDOLPH		1	36	36	9.00						2					X		X																W1-10dL		
	BEANVILLE RD	1	42	8	2.33																											W16-8P		116	
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF -	LF 105	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 30.50	SF	EA. -	SF				LF			LF 105					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 23

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 108 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 24

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	SIGN DIMENSIONS WIDTH (in)	SIGN DIMENSIONS HEIGHT (in)	NEW & SALVAGED SIGNS "A"	NEW & SALVAGED SIGNS "B"	NEW & SALVAGED SIGNS SALV SIGN	NEW & SALVAGED SIGNS SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	FLANGED CHANNEL lb/ft 2.0	FLANGED CHANNEL lb/ft 3.0	SQUARE STEEL (in) 1.75 lb/ft 1.88	SQUARE STEEL (in) 2.0 lb/ft 2.42	SQUARE STEEL (in) 2.5 lb/ft 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) 3.0 lb/ft 1.3	TUBULAR ALUMINUM Ø (in) 4.0 lb/ft 1.7	TUBULAR ALUMINUM Ø (in) 4.0 MOD lb/ft 1.7	FOUNDATION	TUBULAR STEEL Ø (in) 3.0 lb/ft 7.6	TUBULAR STEEL Ø (in) 3.5 lb/ft 9.0	TUBULAR STEEL Ø (in) 4.0 lb/ft 10.8	TUBULAR STEEL Ø (in) 5.0 lb/ft 14.6	W-SHAPE STEEL FTG. SIZE 24"	W-SHAPE STEEL FTG. SIZE 30"	W-SHAPE STEEL WEIGHT	W-SHAPE STEEL POST SIZE	SIGN FRAME REQUIRED	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	SIGN DETAIL DETAIL ON DWG. NUMBER	SIGN DETAIL STD. SHEET NUMBER
STA. A 31+68 RT RANDOLPH	0120 0909 0060	1	6	10	0.42						1				X			X															VD-700			T-44
STA. A 34+11 LT RANDOLPH	Vermont Castings 4/10	1	72	24			1				2					X		X																		
STA. A 42+24 LT RANDOLPH	0120 0909 0080	1	6	10	0.42						1				X			X															VD-700			T-44
STA. A 43+06 RT RANDOLPH	HIDDEN DRIVES	1	30	30	6.25						1					X		X															VW-060			E-144
STA. A 46+64 RT RANDOLPH	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					X		X															VR-017			E-141
STA. A 47+14 RT RANDOLPH	VETERINARIAN	1	30	8			1				1					X		X																		
	Dylan Dr	1	36	12	3.00																												D3-1		116	
	STOP	1	30	30	6.25																													R1-1		
	0120 0909 0089	1	6	10	0.42																												VD-700			T-44
												LF	LF	LF	LF 16	LF 75	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
				TOTALS	SF 21.76	SF	EA. 2	SF				LF			LF 91					LB			EA. -	LB				EA.	EA.	LB						

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

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 24

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 109 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 25

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	FLANGED CHANNEL lb/ft 2.0	FLANGED CHANNEL lb/ft 3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	SQUARE STEEL (in) lb/ft 2.0 2.42	SQUARE STEEL (in) lb/ft 2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	TUBULAR ALUMINUM Ø (in) lb/ft 4.0 1.7	TUBULAR ALUMINUM Ø (in) lb/ft 4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUNDATION	TUBULAR STEEL Ø (in) lb/ft 3.0 7.6	TUBULAR STEEL Ø (in) lb/ft 3.5 9.0	TUBULAR STEEL Ø (in) lb/ft 4.0 10.8	TUBULAR STEEL Ø (in) lb/ft 5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	FTG. SIZE 30"	WEIGHT	POST SIZE	RECYCLED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. A 48+26 RT RANDOLPH	SPEED LIMIT 40	1	36	36	9.00						2					X		X																W3-5		
STA. A 51+82 RT RANDOLPH	SPEED LIMIT 40	1	30	36	7.50						1					X		X																R2-1		
STA. A 52+80 LT RANDOLPH	SPEED LIMIT 50	1	24	30	5.00						1					X		X																R2-1		
	0120 0909 0100	1	6	10	0.42																													VD-700			T-44
STA. A 56+09 LT RANDOLPH	SOUTH	1	24	12	2.00						1					X		X																GREEN ON WHITE	M3-3		
	VERMONT 12	1	24	24	4.00																													M1-5 GREEN ON WHITE			E-136B
STA. A 57+56 RT RANDOLPH	Dr. Soares		48	12			1				2					X		X																			
	Meadow Ln	1	48	12	4.00																													D3-1		116	
STA. A 57+56 RT RANDOLPH	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					X		X																VR-017			E-141
												LF	LF	LF	LF -	LF 120	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 36.92	SF	EA. 1	SF				LF			LF 120					LB			EA. -	LB				EA.	EA.	LB						

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

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 25

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 110 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 26

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. A 58+06 RT RANDOLPH	STOP	1	30	30	6.25						1					X		X																RI-1		
	0120 0909 0110	1	6	10	0.42																												VD-700			T-44
STA. A 59+39 LT RANDOLPH	SHOULDER NARROWS	1	36	36	9.00						2					X		X																VW-619			E-151
STA. A 59+87 LT RANDOLPH	Pinnacle Ln	1	48	12	4.00						2					X		X																D3-1		116	
STA. A 59+92 LT RANDOLPH	STOP	1	30	30	6.25						1					X		X																RI-1		
	0120 0909 0114	1	6	10	0.42																												VD-700			T-44
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF -	LF 90	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS	SF 26.34	SF	EA. -	SF		LF					LF 90			LB			EA. -	LB				EA.	EA.	LB											

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 26

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 111 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 27

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	RECYCLED SIGN	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. A 60+58 LT RANDOLPH	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					X		X															VR-017			E-141
STA. A 62+92 RT RANDOLPH	BRIDGE 41 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
STA. A 62+97 RT RANDOLPH		1	30	30	6.25						1					X		X																W11-9		
	NEXT 1000 FT	1	30	24	5.00																													W16-4P		
STA. A 63+36 RT RANDOLPH	0120 0909 0120	1	6	10	0.42						1				X			X															VD-700			T-44
STA. A 63+86 LT RANDOLPH	BRIDGE 41 VT 12	1	6	10	0.42						1				X			X															VD-701			T-42
STA. A 65+99 RT RANDOLPH	SPEED LIMIT 40	1	24	30	5.00						1					X		X																R2-1		
STA. A 66+02 LT RANDOLPH	SPEED LIMIT 40	1	24	30	5.00						1					X		X																R2-1		
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."												LF	LF	LF	LF 24	LF 60	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS	SF 27.51	SF	EA. -	SF							LF			LF 84					LB			EA. -	LB				EA.	EA.	LB						

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 27

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 112 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 28

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	FLANGED CHANNEL lb/ft 2.0	FLANGED CHANNEL lb/ft 3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	SQUARE STEEL (in) lb/ft 2.0 2.42	SQUARE STEEL (in) lb/ft 2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	TUBULAR ALUMINUM Ø (in) lb/ft 4.0 1.7	TUBULAR ALUMINUM Ø (in) lb/ft 4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUNDATION	TUBULAR STEEL Ø (in) lb/ft 3.0 7.6	TUBULAR STEEL Ø (in) lb/ft 3.5 9.0	TUBULAR STEEL Ø (in) lb/ft 4.0 10.8	TUBULAR STEEL Ø (in) lb/ft 5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	FTG. SIZE 30"	WEIGHT	POST SIZE	RECYCLED SIGNS	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
STA. A 67+88 LT RANDOLPH	Tatro Hill Rd	1	48	12	4.00						2					X		X															D3-1		116	
	STOP	1	30	30	6.25																													RI-1		
	0120 0909 0129	1	6	10	0.42																												VD-700			T-44
STA. A 68+27 LT RANDOLPH	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					X		X															VR-017			E-141
STA. A 72+38 RT RANDOLPH	STOP	1	30	30	6.25						1					X		X																RI-1		
STA. A 73+45 RT RANDOLPH	SPEED LIMIT 25	1	36	36	9.00						2					X		X																W3-5		
STA. A 73+92 LT RANDOLPH	0120 0909 0140	1	6	10	0.42						1				X			X															VD-700			T-44
STA. A 74+14 LT RANDOLPH	ONLY	1	30	30	6.25						1					X		X																			E-145A
STA. A 75+74 LT RANDOLPH		1	30	30	6.25						1					X		X																W11-9		
	NEXT 1000 FT	1	30	24	5.00																													W16-4P		
												LF	LF	LF	LF 8	LF 120	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
	TOTALS				SF 48.84	SF	EA. -	SF				LF			LF 128						LB			EA. -	LB				EA.	EA.	LB					

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

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 28

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 113 OF 211

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 29

MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (in)	HEIGHT (in)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL lb/ft 1.12	2.0	3.0	SQUARE STEEL (in) lb/ft 1.75 1.88	2.0 2.42	2.5 3.35	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in) lb/ft 3.0 1.3	4.0 1.7	4.0 MOD 1.7	TUBULAR STEEL Ø (in) FOUND-ATION	lb/ft 3.0 7.6	3.5 9.0	4.0 10.8	5.0 14.6	W-SHAPE STEEL FTG. SIZE 24"	30"	WEIGHT	POST SIZE	SIGN REMOVED	REMARKS SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	SIGN DETAIL DETAIL IN SHSM	DETAIL ON DWG. NUMBER	STD. SHEET NUMBER
	TSSS 1 TOTAL				0.42		5								8	60																					
	TSSS 2 TOTAL				10.92		5								-	135																					
	TSSS 3 TOTAL				6.68		3								24	90																					
	TSSS 4 TOTAL				9.84		3								16	60																					
	TSSS 5 TOTAL				-		7								-	105																					
	TSSS 6 TOTAL				1.26		4								24	60																					
	TSSS 7 TOTAL				0.84		5								16	60																					
	TSSS 8 TOTAL				6.84		2								16	60																					
	TSSS 9 TOTAL				0.84		7								-	120																					
	TSSS 10 TOTAL				5.84		5								-	105																					
	TSSS 11 TOTAL				0.42		6								8	90																					
	TSSS 12 TOTAL				2.10		1								40	30																					
	TSSS 13 TOTAL				1.26		3								24	30																					
	TSSS 14 TOTAL				9.42		3								8	105																					
	TSSS 15 TOTAL				3.42		4								8	105																					
	TSSS 16 TOTAL				3.42		7								8	120																					
	TSSS 17 TOTAL				2.67		7								-	90																					
	TSSS 18 TOTAL				3.51		4								24	45																					
	TSSS 19 TOTAL				1.26		3								24	75																					
	TSSS 20 TOTAL				14.35		1								24	45																					
	TSSS 21 TOTAL				18.00		4								-	105																					
	TSSS 22 TOTAL				21.93		-								24	60																					
	TSSS 23 TOTAL				30.50		-								-	105																					
	TSSS 24 TOTAL				21.76		2								16	75																					
	TSSS 25 TOTAL				36.92		1								-	120																					
	TSSS 26 TOTAL				26.34		-								-	90																					
	TSSS 27 TOTAL				27.51		-								24	60																					
	TSSS 28 TOTAL				48.84		-								8	120																					
												LF	LF	LF	LF	LF	LF		EA.	LB	LB	LB		LB	LB	LB	LB									
															344	2325																					
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."		SUBTOTAL			317.11																															
		ROUNDING			12.89																															
		TOTALS			SF 330.00	SF	EA. 92	SF				LF			LF 2669					LB			EA.	LB				EA.	EA.	LB						

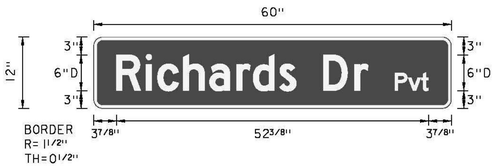
PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN SUMMARY SHEET 29

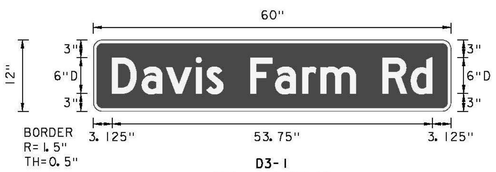
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 114 OF 211



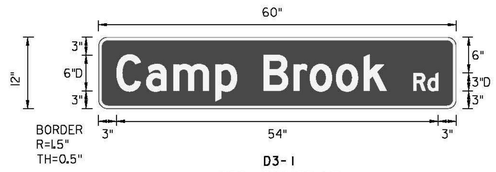
D3-1
STA. 128+89 LT
WHITE ON GREEN



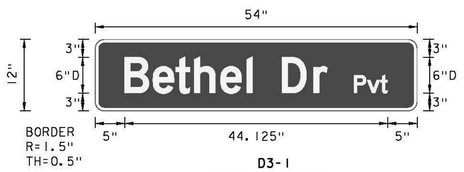
D3-1
STA. 134+12 LT
WHITE ON GREEN



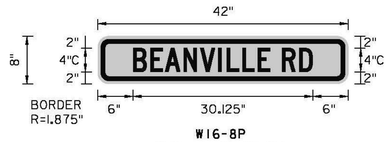
D3-1
STA. 146+83 LT
WHITE ON GREEN



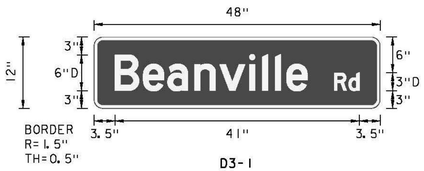
D3-1
STA. 214+33 LT
WHITE ON GREEN



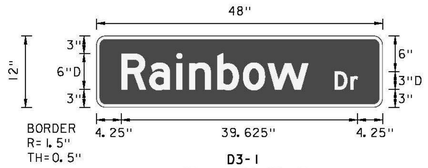
D3-1
STA. 264+58 RT
STA. 267+13 RT
WHITE ON GREEN



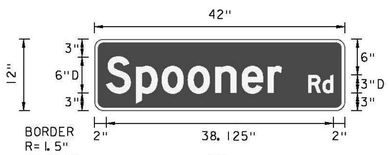
W16-8P
STA. A 10+46 RT
STA. A 28+90 LT
BLACK ON YELLOW



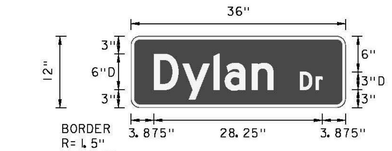
D3-1
STA. A 21+57 RT
WHITE ON GREEN



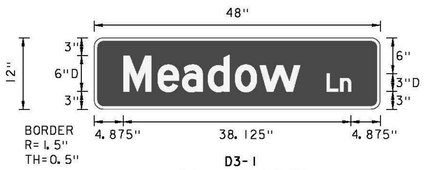
D3-1
STA. A 26+43 LT
WHITE ON GREEN



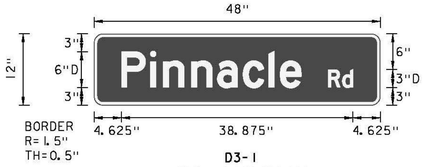
D3-1
STA. A 27+75 LT
WHITE ON GREEN



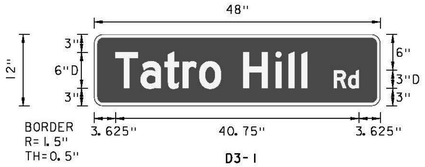
D3-1
STA. A 47+14 RT
WHITE ON GREEN



D3-1
STA. A 57+56 RT
WHITE ON GREEN



D3-1
STA. A 59+87 LT
WHITE ON GREEN



D3-1
STA. A 67+88 LT
WHITE ON GREEN

NOTE:
ALL STREET NAME SIGNS SHALL BE DOUBLE SIDED.

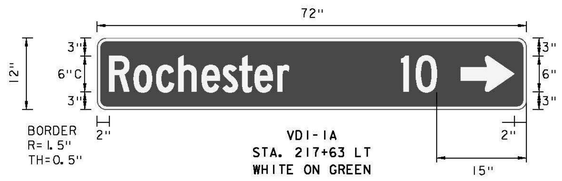
KEY
R = RADIUS
TH = THICKNESS
IND = INDENT

DETAILS ARE NOT TO SCALE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244tsss.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
TRAFFIC SIGN DETAIL SHEET 1

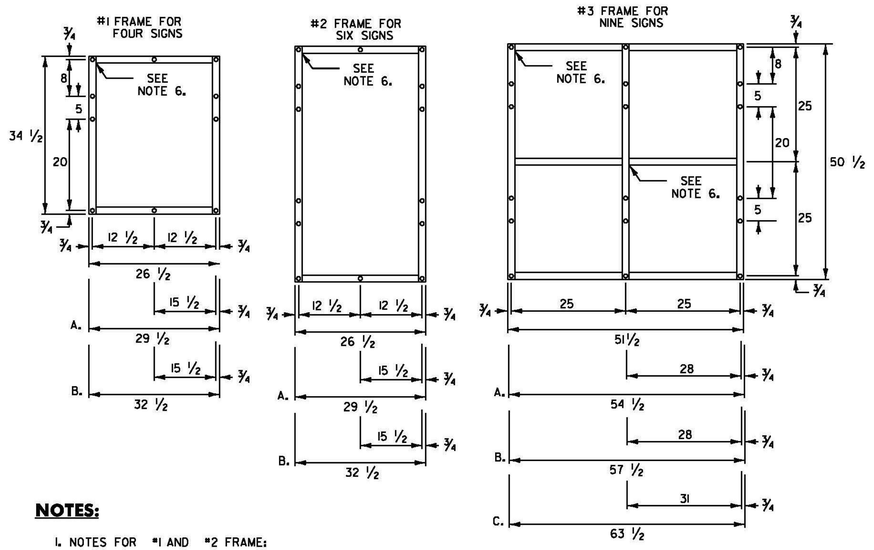
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 116 OF 211



1.) THE DESTINATION SIGN SHOWN ON THIS SHEET SHALL HAVE WHITE RETROREFLECTIVE ASTM TYPE III OR IV TEXT, ARROWS AND BORDERS ON A GREEN RETROREFLECTIVE ASTM D 4956 TYPE III OR IV BACKGROUND.

2.) USE THE LARGEST LETTER / THICKEST FONT AVAILABLE THAT WILL SATISFY THE MINIMUM SPACING REQUIREMENTS, AS SHOWN IN THE DETAILS ABOVE; I.E. IF A 6" SERIES C LETTER DOES NOT WORK, DUE TO THE LENGTH OF THE WORD, USE A 6" SERIES B LETTER. IF A 6" SERIES B LETTER DOES NOT WORK, USE A 5" SERIES C. IF A 5" SERIES C LETTER DOES NOT WORK, USE A 5" SERIES B. USE NO LESS THAN 80% KERNING.

ROUTE MARKER ASSEMBLY FRAMES



NOTES:

1. NOTES FOR #1 AND #2 FRAME:
   - A. WITH ONE 30 INCH THREE DIGIT SIGN
   - B. WITH TWO 30 INCH THREE DIGIT SIGNS

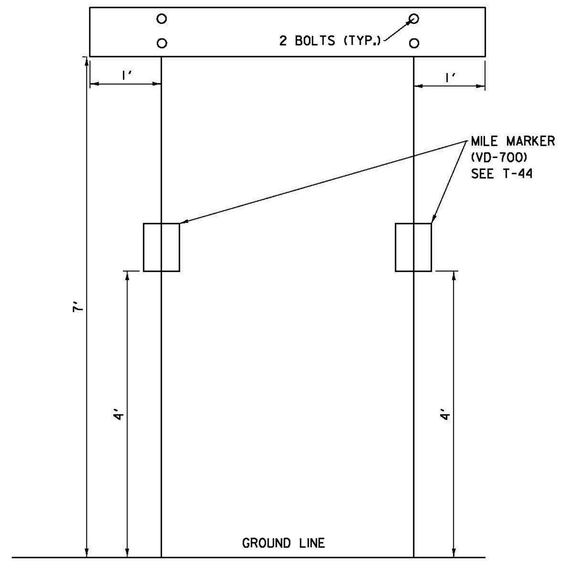
2. NOTES FOR #3 FRAME:
   - A. WITH ONE 30 INCH THREE DIGIT SIGN IN AN OUTSIDE POSITION.
   - B. WITH ONE 30 INCH THREE DIGIT SIGN IN THE CENTER POSITION OR TWO SUCH SIGNS IN THE OUTSIDE POSITIONS.
   - C. WITH THREE 30 INCH THREE DIGIT SIGNS.

3. ALL HOLES SHALL BE 7/16 INCH DIAMETER. FOR OTHER SIGN COMBINATIONS THAN ABOVE, THE FRAME DIMENSIONS AND HOLE SPACING SHALL BE MODIFIED AS NECESSARY. THE FRAME SHALL BE PAINTED WITH ONE COAT OF PRIMER AND A SECOND COAT OF BLACK PAINT. THE PAINT SHALL BE OF THE TYPE USED ON EXTERIOR METAL SURFACES TO PREVENT METAL CORROSION.

4. STANDARD FRAMES SHALL BE 5/16 INCH x 1 1/2 INCH WELDED A-36 STEEL.

5. ALL OVERLAPPED CONNECTIONS SHALL BE WELDED WITH TWO, 1/4 INCH WIDE FILLET WELDS, 1 1/2 INCHES LONG.

KEY
R = RADIUS
TH = THICKNESS
IND = INDENT



TOWN LINE SIGN PLACEMENT

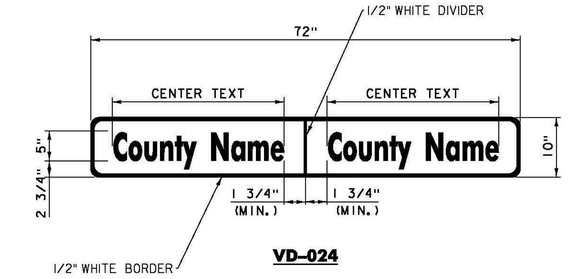
A - CARDINAL DIRECTION MARKER
B - ROUTE NUMBER
C - ADVANCE TURN ARROW OR DIRECTIONAL ARROW

* WHERE PARKING OR PEDESTRIAN TRAFFIC WILL OCCUR IN THE IMMEDIATE VICINITY OF THESE SIGNS MINIMUM VERTICAL CLEARANCE SHALL BE INCREASED TO SEVEN FEET

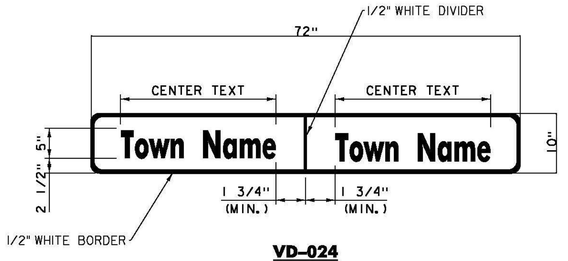
INSTALLATION SEQUENCE:

IN MULTIPLE HORIZONTAL MOUNTINGS PLACE A ROUTE MARKER ASSEMBLY INDICATING A LEFT TURN ON THE LEFT SIDE OF THE ASSEMBLY, RIGHT TURN ON THE RIGHT SIDE. FOR VERTICALLY STACKED MOUNTINGS PLACE THE STRAIGHT THROUGH MOVE INDICATION ON TOP, THE LEFT OR RIGHT TURNS AS APPROPRIATE BENEATH.

NOTE:
VERTICAL FRAME MEMBERS SHALL LINE UP WITH SIGN POST ON WHICH THEY ARE MOUNTED.



VD-024



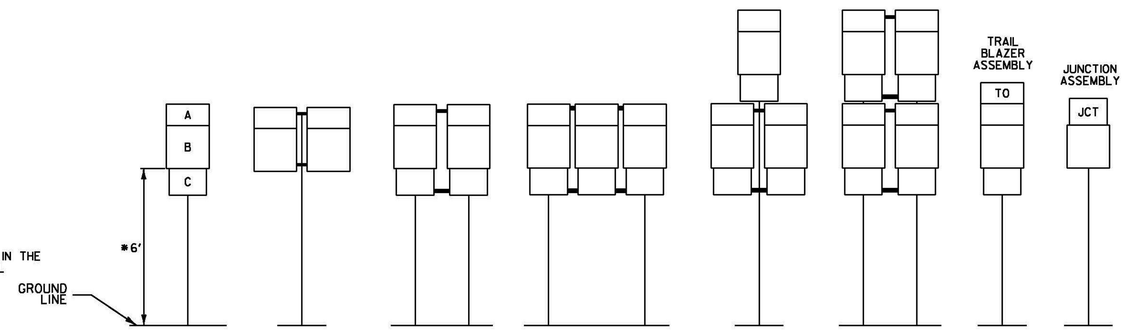
VD-024

1.) WORD TO WORD SPACING FOR COUNTIES AND TWO WORD TOWN NAMES ARE ADJUSTABLE TO ACCOMMODATE DIMENSION REQUIREMENT.

2.) FONT SPACING MAY BE ADJUSTED TO MEET DIMENSION REQUIREMENT.

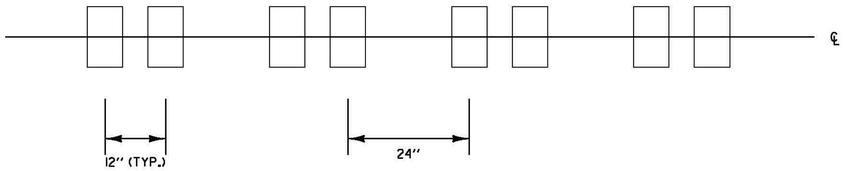
3.) DIMENSIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED SLIGHTLY TO ACCOMMODATE VARIOUS MANUFACTURER'S LETTER WIDTHS.

STANDARD MOUNTING OF ROUTE MARKER ASSEMBLIES

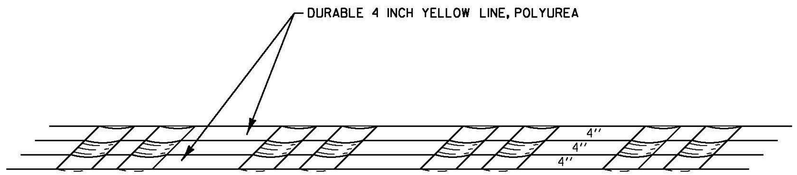


DETAILS ARE NOT TO SCALE

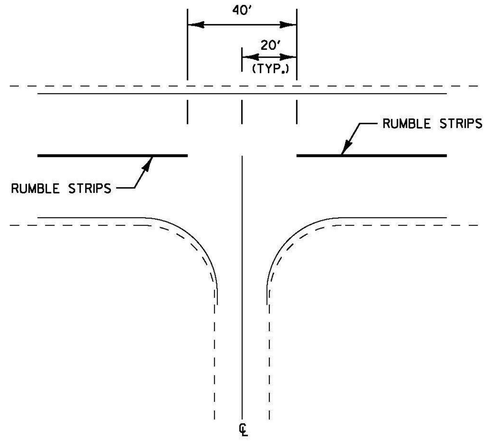
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244tsss.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
TRAFFIC SIGN DETAIL SHEET 2	SHEET 117 OF 211



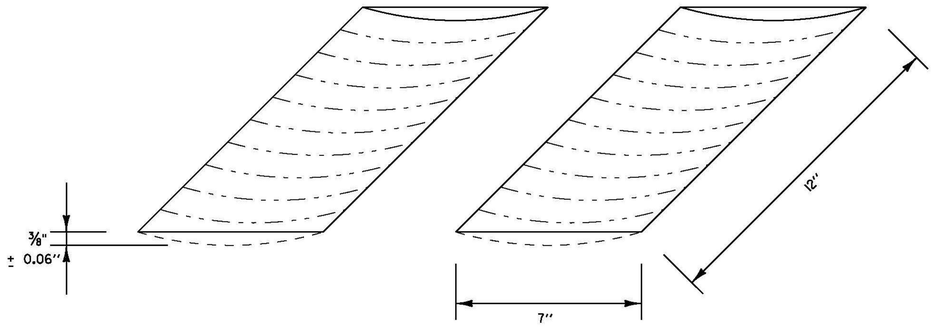
RUMBLE STRIP LAYOUT



PAVEMENT MARKINGS DETAIL



INTERSECTION DETAIL



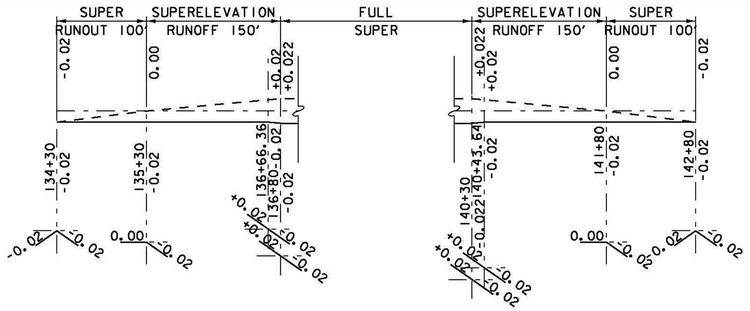
RUMBLE STRIP DETAIL

BETHEL
STA. 153+00 - STA. 164+00
STA. 167+00 - STA. 172+00
STA. 179+25 - STA. 186+75
STA. 187+75 - STA. 204+25
STA. 221+25 - STA. 232+25
STA. 248+50 - STA. 254+50
STA. 257+75 - STA. 274+75
STA. 295+50 - STA. 323+00
STA. 341+00 - STA. 364+00
STA. 367+00 - STA. 370+41
RANDOLPH
STA. A 0+00 - STA. A 19+75
STA. A 38+50 - STA. A 44+00

NOTES

1. CENTERLINE RUMBLE STRIPS NOT TO EXTEND BEYOND CENTERLINE WHEN CENTERLINE IS A DOUBLE YELLOW LINE, WITH OR WITHOUT A PASSING ZONE.
2. CENTERLINE RUMBLE STRIP TO BE PLACED ALONG CENTERLINE OF ROADWAY.
3. CENTERLINE RUMBLE STRIP TO STOP 20 FEET PRIOR TO THE CENTERLINE OF AN INTERSECTION.

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244tsss.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: VTRANS
DESIGNED BY: VTRANS	CHECKED BY: VTRANS
CENTERLINE RUMBLE STRIP DETAIL SHEET	SHEET 118 OF 211

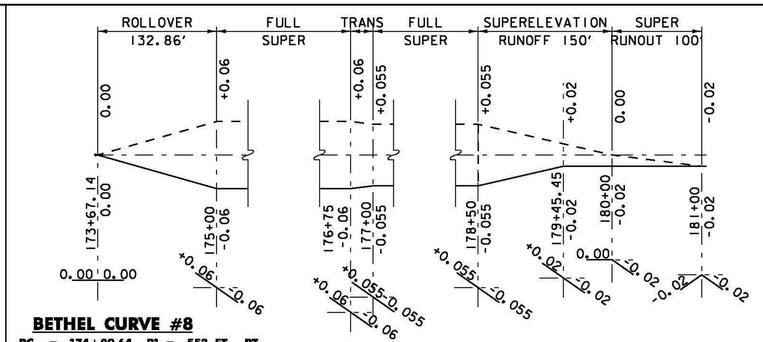


BETHEL CURVE #2

PC = 136+31.98 R = 5500 FT - RT
PT = 140+74.31 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

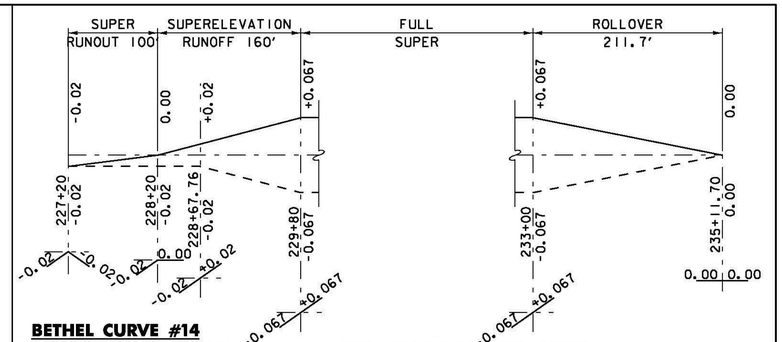


BETHEL CURVE #8

PC = 174+09.64 R1 = 553 FT - RT
PCC = 176+78.66 R2 = 1250 FT- RT
PT = 178+93.03 V = 40/50 MPH

SUPERELEVATION DIAGRAM

NTS

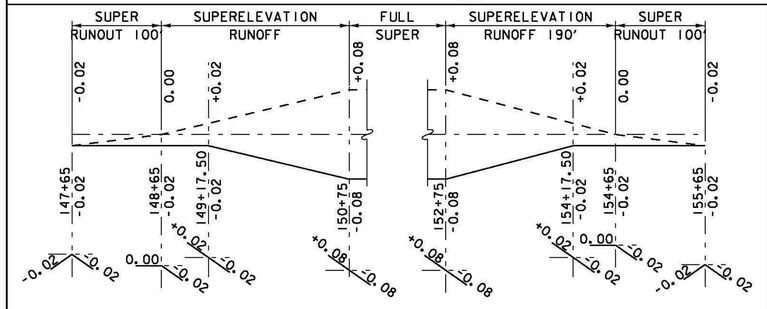


BETHEL CURVE #14

PC = 229+29.74 R = 1300 FT - LT
PT = 233+47.37 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

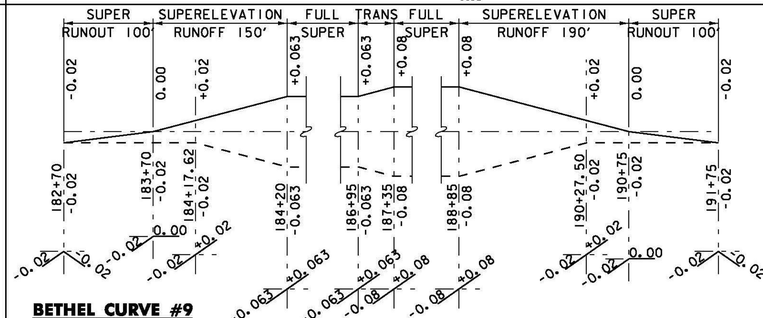


BETHEL CURVE #4

PC = 149+68.44 R1 = 1515 FT - RT
PCC = 150+78.24 R2 = 600 FT- RT
PT = 153+32.30 V = 50/45 MPH

SUPERELEVATION DIAGRAM

NTS

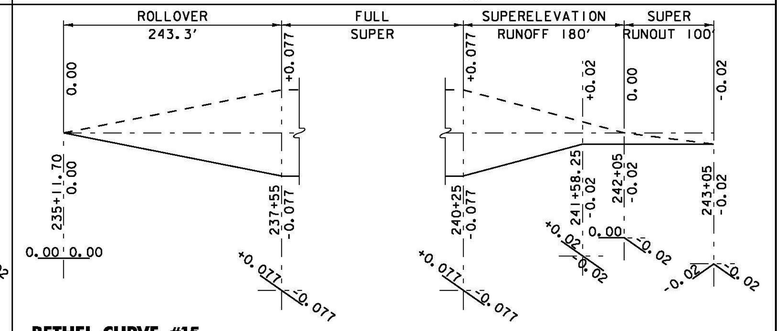


BETHEL CURVE #9

PC = 184+76.60 R1 = 1430 FT - RT
PCC = 187+21.86 R2 = 800 FT - RT
PCC = 189+43.93 R3 = 8400 FT - RT
PT = 191+59.48 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

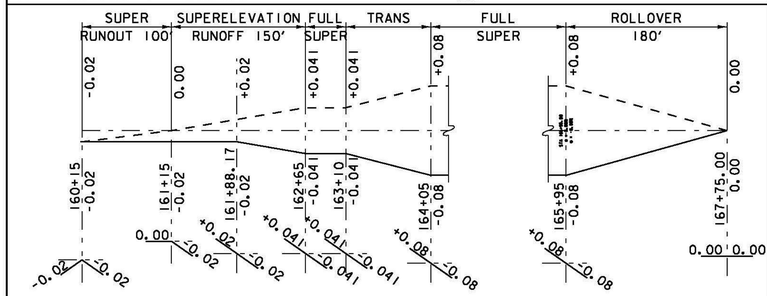


BETHEL CURVE #15

PC = 237+01.46 R = 950 FT - RT
PT = 240+77.62 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

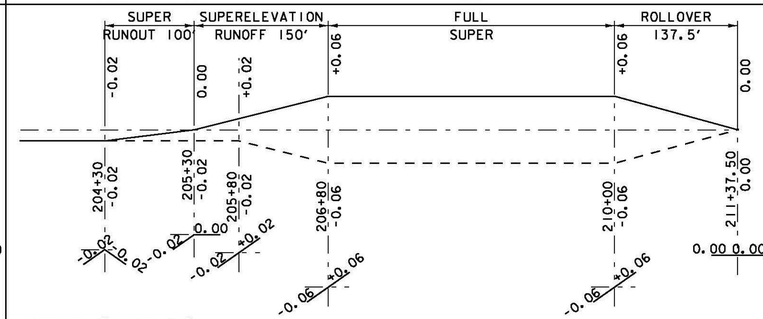


BETHEL CURVE #6

PC = 162+21.18 R1 = 2673 FT - RT
PCC = 163+77.80 R2 = 450 FT- RT
PT = 166+50.38 V = 50/40 MPH

SUPERELEVATION DIAGRAM

NTS

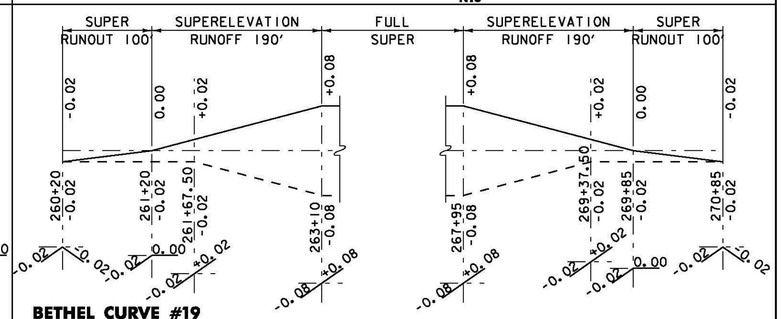


BETHEL CURVE #12

PC = 205+72.51 R1 = 670 FT - LT
PCC = 206+63.08 R2 = 445 FT- LT
PT = 210+39.65 V = 45/35 MPH

SUPERELEVATION DIAGRAM

NTS

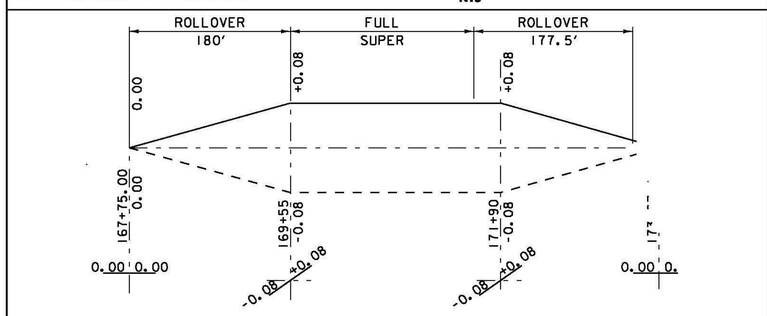


BETHEL CURVE #19

PC = 262+52.78 R1 = 725 FT - LT
PCC = 264+05.63 R2 = 490 FT - LT
PCC = 266+43.19 R3 = 665 FT - LT
PT = 268+52.15 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

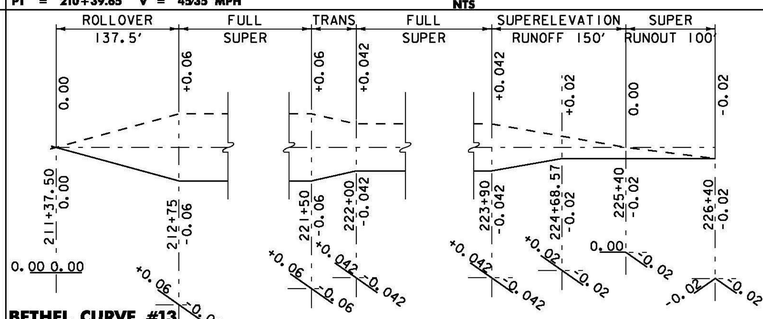


BETHEL CURVE #7

PC = 168+97.80 R = 550 FT - LT
PT = 172+67.50 V = 40 MPH

SUPERELEVATION DIAGRAM

NTS



BETHEL CURVE #13

PC = 212+22.49 R1 = 785 FT - RT
PCC = 221+74.37 R2 = 2520 FT - RT
PCC = 224+34.01 R3 = 20000 FT - RT
PT = 225+92.47 V = 45 MPH

SUPERELEVATION DIAGRAM

NTS

NOTES:

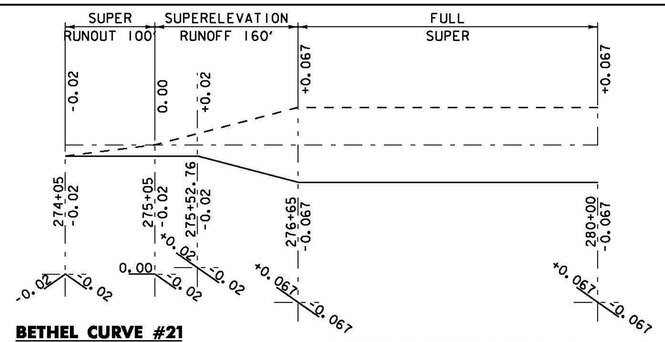
1. CURVES NOT SHOWN ON SUPERELEVATION BANKING DIAGRAM SHEETS DO NOT NEED TO BE SUPERELEVATED.

- - - - RIGHT EDGE

——— LEFT EDGE

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)

FILE NAME:	p10c244.dgn	PLOT DATE:	4/23/2015
PROJECT LEADER:	C. LATHROP	DRAWN BY:	B. BRESLEND
DESIGNED BY:	B. BRESLEND/S. LAMPHERE	CHECKED BY:	C. LATHROP
BANKING SHEET 1		SHEET	120 OF 211

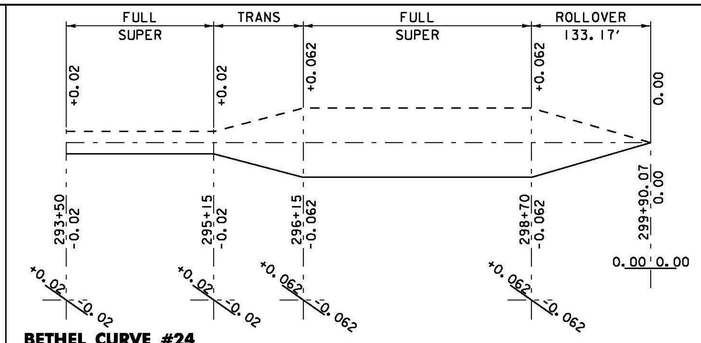


BETHEL CURVE #21

PC = 276+16.44 R = 1300 FT - RT
PT = 280+49.90 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

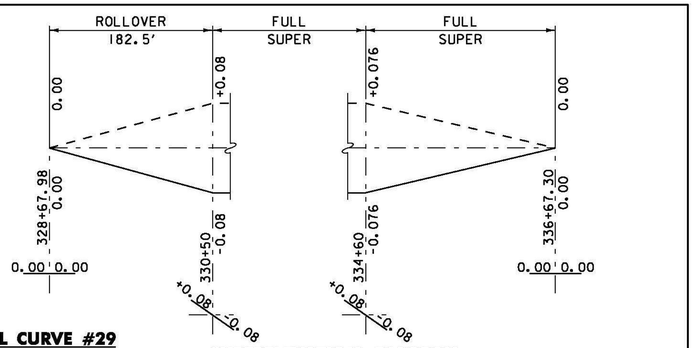


BETHEL CURVE #24

PC = 295+70.66 R = 1500 FT - RT
PT = 299+40.50 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

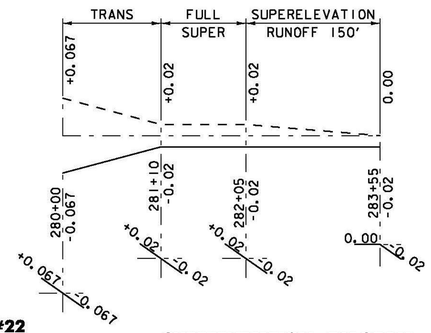


BETHEL CURVE #29

PC = 329+91.39 R = 770 FT - RT
PT = 335+16.01 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

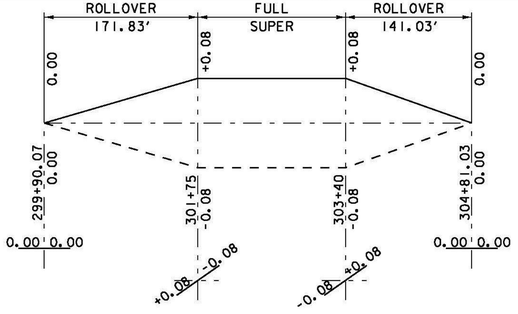


BETHEL CURVE #22

PC = 281+43.24 R = 6000 FT - RT
PT = 282+49.01 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

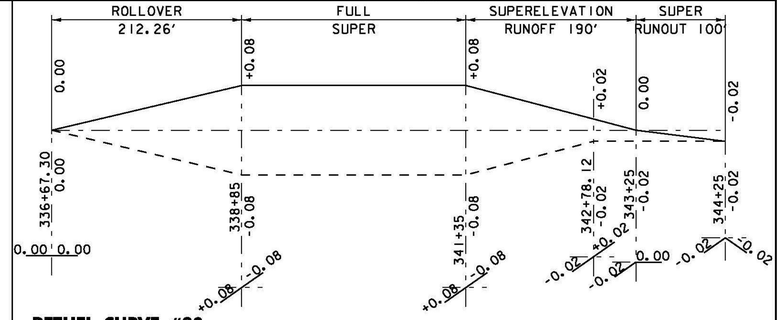


BETHEL CURVE #25

PC = 300+86.61 R = 525 FT - LT
PT = 304+10.87 V = 40 MPH

SUPERELEVATION DIAGRAM

NTS

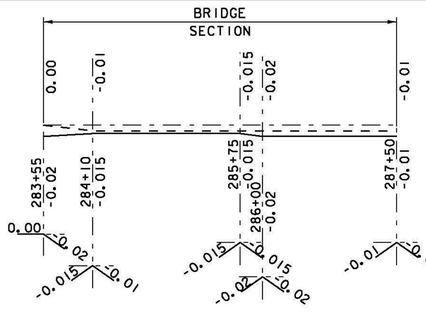


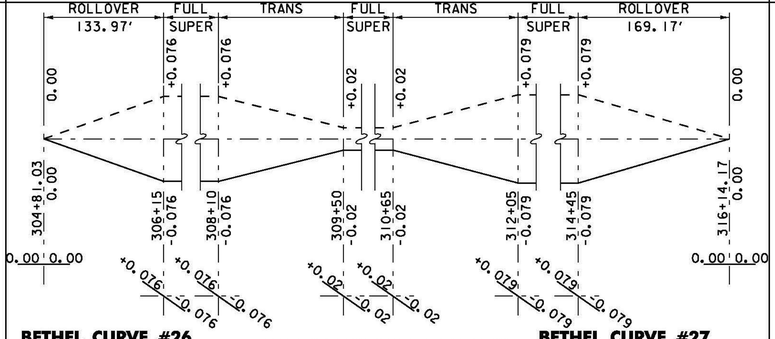
BETHEL CURVE #30

PC = 338+38.47 R1 = 475 FT - LT
PCC = 339+80.15 R2 = 850 FT - LT
PT = 341+90.76 V = 40/50 MPH

SUPERELEVATION DIAGRAM

NTS



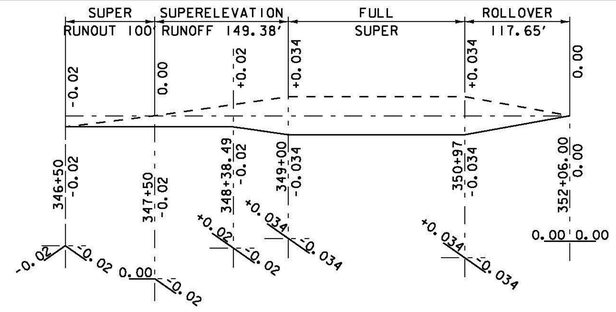


BETHEL CURVE #26

PC = 305+28.13 R = 1000 FT - RT
PT = 308+58.77 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

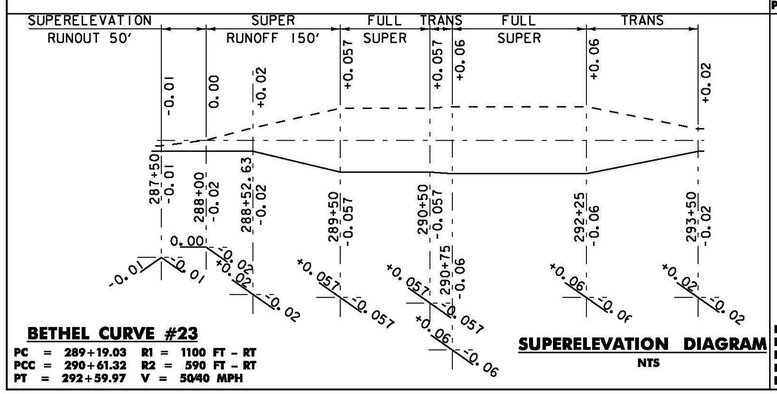


BETHEL CURVE #32

PC = 348+42.24 R = 3300 FT - RT
PT = 350+98.45 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

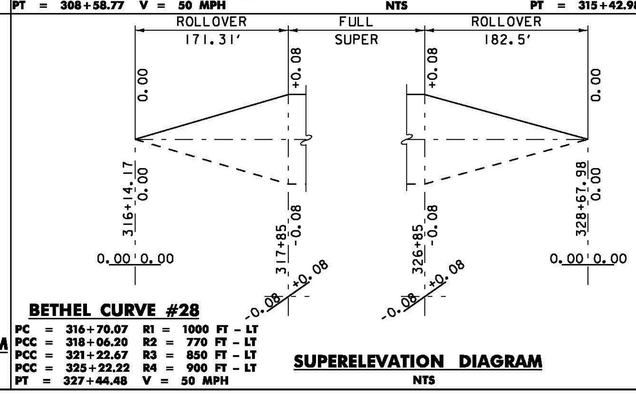


BETHEL CURVE #23

PC = 289+19.03 R1 = 1100 FT - RT
PCC = 290+61.32 R2 = 590 FT - RT
PT = 292+59.97 V = 50/40 MPH

SUPERELEVATION DIAGRAM

NTS



BETHEL CURVE #28

PC = 316+70.07 R1 = 1000 FT - LT
PCC = 318+06.20 R2 = 770 FT - LT
PCC = 321+22.67 R3 = 850 FT - LT
PCC = 325+22.22 R4 = 900 FT - LT
PT = 327+44.48 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

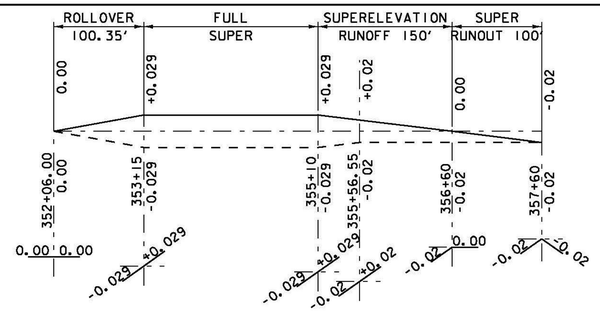
NOTES:

1. CURVES NOT SHOWN ON SUPERELEVATION BANKING DIAGRAM SHEETS DO NOT NEED TO BE SUPERELEVATED.

- - - - RIGHT EDGE

——— LEFT EDGE

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10c244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: B. BRESLEND
DESIGNED BY: B. BRESLEND/S. LAMPHERE	CHECKED BY: C. LATHROP
BANKING SHEET 2	SHEET 121 OF 211

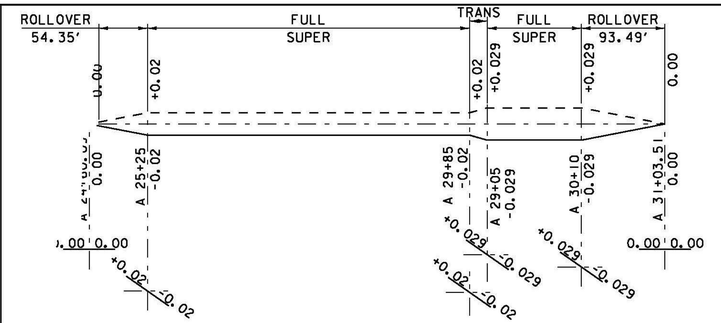


BETHEL CURVE #33

PC = 353+06.62 R = 4000 FT - LT
PT = 355+47.40 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS



RANDOLPH CURVE #5

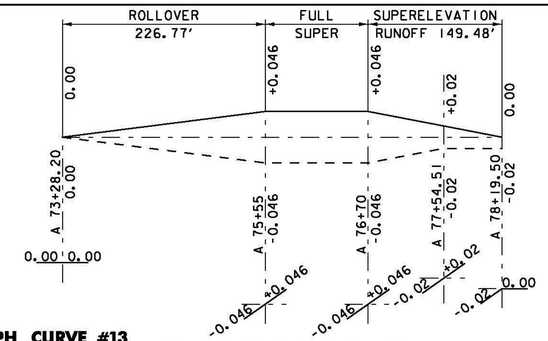
PC = A 24+82.10 R = 6000 FT - RT
PT = A 27+90.40 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

RANDOLPH CURVE #6

PC = A 29+00.14 R = 4000 FT - RT
PT = A 30+41.19 V = 50 MPH

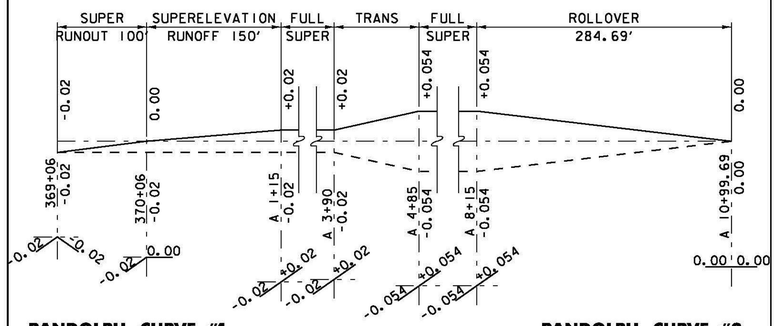


RANDOLPH CURVE #13

PC = A 75+10.76 R = 1500 FT - LT
PT = A 77+12.68 V = 40 MPH

SUPERELEVATION DIAGRAM

NTS



RANDOLPH CURVE #1

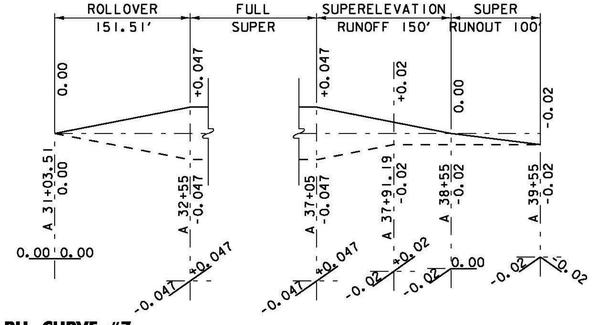
PC = A 0+06.61 R = 8000 FT - LT
PT = A 1+91.16 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

RANDOLPH CURVE #2

PC = A 4+55.20 R = 1800 FT - LT
PT = A 8+62.50 V = 50 MPH

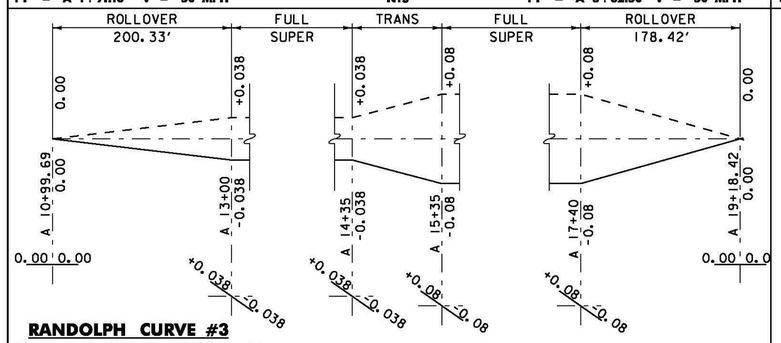


RANDOLPH CURVE #7

PC = A 32+10.22 R = 2200 FT - LT
PT = A 37+50.27 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

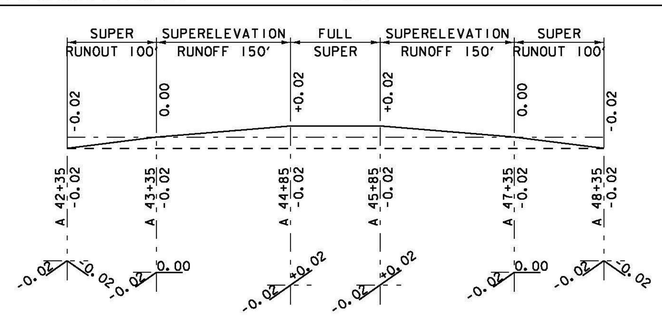


RANDOLPH CURVE #3

PC = A 12+56.19 R1 = 2930 FT - RT
PCC = A 15+05.68 R2 = 570 FT - RT
PT = A 18+21.14 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

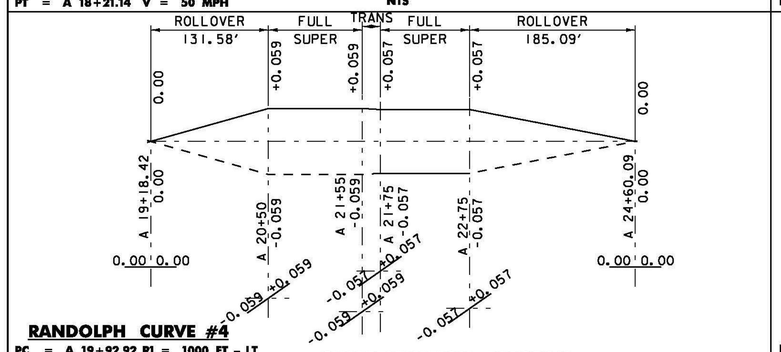


RANDOLPH CURVE #9

PC = A 44+54.66 R = 6000 FT - LT
PT = A 46+13.67 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

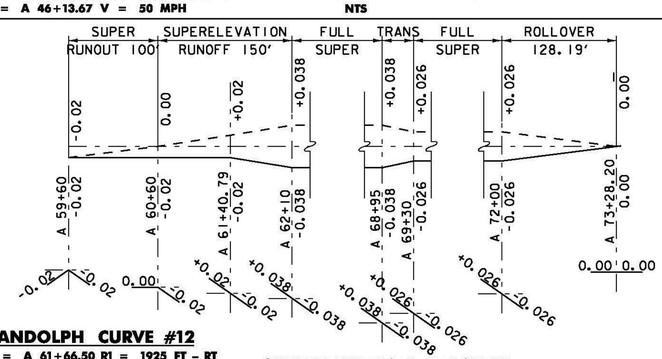


RANDOLPH CURVE #4

PC = A 19+92.92 R1 = 1000 FT - LT
PCC = A 21+57.23 R2 = 1125 FT - LT
PT = A 23+23.74 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS



RANDOLPH CURVE #12

PC = A 61+66.50 R1 = 1925 FT - RT
PCC = A 69+05.71 R2 = 3025 FT - RT
PT = A 72+45.80 V = 40 MPH

SUPERELEVATION DIAGRAM

NTS

NOTES:

1. CURVES NOT SHOWN ON SUPERELEVATION BANKING DIAGRAM SHEETS DO NOT NEED TO BE SUPERELEVATED.

- - - - RIGHT EDGE

——— LEFT EDGE

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(I)
FILE NAME: p10c244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: B. BRESLEND
DESIGNED BY: B. BRESLEND/S. LAMPHERE	CHECKED BY: C. LATHROP
BANKING SHEET 3	SHEET 122 OF 211

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction	Maximum Banking	Design Speed
Tangent	POB	124+00.00	486120.7514	1602818.086						
	PC	126+73.12	486321.2912	1602632.673						
Bethel Curve #1	PC	126+73.12	486321.2912	1602632.673	10000	77.46	0°26'37.76"	Right	NC	35
	PI	127+11.85	486349.7297	1602606.38						
	CC		493110.0044	1609975.246						
	PT	127+50.58	486378.371	1602580.308						
Tangent	PT	127+50.58	486378.371	1602580.308						
	PC	136+31.98	487030.1598	1601986.983						
Bethel Curve #2	PC	136+31.98	487030.1598	1601986.983	5500	442.34	4°36'28.76"	Right	0.022	50
	PI	138+53.27	487193.8	1601838.02						
	CC		490732.5582	1606054.199						
	PT	140+74.31	487368.8787	1601702.686						
Tangent	PT	140+74.31	487368.8787	1601702.686						
	PC	147+92.00	487936.6969	1601263.768						
Bethel Curve #3	PC	147+92.00	487936.6969	1601263.768	10000	53.06	0°18'14.52"	Right	NC	50/45
	PI	148+18.53	487957.6886	1601247.542						
	CC		494052.4777	1609175.609						
	PT	148+45.06	487978.7661	1601231.427						
Tangent	PT	148+45.06	487978.7661	1601231.427						
	PC	149+68.44	488076.7836	1601156.488						
Bethel Curve #4	PC	149+68.44	488076.7836	1601156.488	1515	109.79	4°09'08.25"	Right	0.061	50
	PI	150+23.36	488120.4138	1601123.13						
	CC		488996.9509	1602360.031						
	PCC	150+78.24	488166.3448	1601093.02						
Bethel Curve #4	PCC	150+78.24	488166.3448	1601093.02	600	254.05	24°15'39.80"	Right	0.08	45
	PI	152+07.20	488274.1983	1601022.315						
	CC		488495.2978	1601594.806						
	PT	153+32.30	488401.5786	1601002.171						
Tangent	PT	153+32.30	488401.5786	1601002.171						
	PC	154+65.90	488533.5417	1600981.302						
Bethel Curve #5	PC	154+65.90	488533.5417	1600981.302	10000	85.59	0°29'25.41"	Right	NC	50
	PI	155+08.70	488575.8114	1600974.618						
	CC		490095.5274	1610858.559						
	PT	155+51.49	488618.1367	1600968.295						
Tangent	PT	155+51.49	488618.1367	1600968.295						
	PC	162+21.18	489280.4827	1600869.355						
Bethel Curve #6	PC	162+21.18	489280.4827	1600869.355	2673	156.62	3°21'25.36"	Right	0.041	50/40
	PI	162+99.51	489357.9531	1600857.783						
	CC		489675.3892	1603513.023						
	PCC	163+77.80	489435.9682	1600850.767						
Bethel Curve #6	PCC	163+77.80	489435.9682	1600850.767	450	272.58	34°42'20.07"	Right	0.08	50/40
	PI	165+18.41	489576.0173	1600838.172						
	CC		489476.2748	1601298.958						
	PT	166+50.38	489698.3211	1600907.556						
Tangent	PT	166+50.38	489698.3211	1600907.556						
	PC	168+97.80	489913.5224	1601029.642						
Bethel Curve #7	PC	168+97.80	489913.5224	1601029.642	550	369.71	38°30'50.24"	Left	0.08	50/40
	PI	170+89.94	490080.6456	1601124.453						
	CC		490184.9124	1600551.262						
	PT	172+67.50	490270.4513	1601094.57						
Tangent	PT	172+67.50	490270.4513	1601094.57						
	PC	174+09.64	490410.8607	1601072.463						
Bethel Curve #8	PC	174+09.64	490410.8607	1601072.463	553	269.01	27°52'20.03"	Right	0.06	40/50
	PI	175+46.87	490546.4146	1601051.122						
	CC		490496.8661	1601618.734						
	PCC	176+78.66	490676.2205	1601095.627						
Bethel Curve #8	PCC	176+78.66	490676.2205	1601095.627	1250	214.37	9°49'33.95"	Right	0.055	40/50
	PI	177+86.11	490777.8617	1601130.476						
	CC		490270.8083	1602278.058						
	PT	178+93.03	490872.0647	1601182.16						

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction	Maximum Banking	Design Speed
Tangent	PT	178+93.03	490872.0647	1601182.16						
	PC	184+76.60	491383.69	1601462.86						
Bethel Curve #9	PC	184+76.60	491383.69	1601462.86	1430	245.26	9°49'36.31"	Left	0.063	50
	PI	185+99.53	491491.4654	1601521.99						
	CC		492071.5272	1600209.153						
	PCC	187+21.86	491607.7513	1601561.859						
Bethel Curve #9	PCC	187+21.86	491607.7513	1601561.859	800	222.07	15°54'17.01"	Left	0.08	50
	PI	188+33.61	491713.4651	1601598.103						
	CC		491867.2063	1600805.101						
	PCC	189+43.93	491825.0644	1601603.99						
Bethel Curve #9	PCC	189+43.93	491825.0644	1601603.99	8400	215.55	1°28'12.86"	Left	NC	50
	PI	190+51.71	491932.6949	1601609.667						
	CC		492267.5544	1593215.653						
	PT	191+59.48	492040.4356	1601612.582						
Tangent	PT	191+59.48	492040.4356	1601612.582						
	PC	193+83.16	492264.037	1601618.629						
Bethel Curve #10	PC	193+83.16	492264.037	1601618.629	20000	43.63	0°07'30.00"	Left	NC	50
	PI	194+04.98	492285.8455	1601619.219						
	CC		492804.7961	1581625.941						
	PT	194+26.79	492307.6553	1601619.762						
Tangent	PT	194+26.79	492307.6553	1601619.762						
	PC	199+67.21	492847.9063	1601633.195						
Bethel Curve #11	PC	199+67.21	492847.9063	1601633.195	20000	64.69	0°11'07.13"	Right	NC	50
	PI	199+99.55	492880.2398	1601633.999						
	CC		492350.7655	1621627.015						
	PT	200+31.90	492912.5706	1601634.907						
Tangent	PT	200+31.90	492912.5706	1601634.907						
	PC	205+72.51	493452.9704	1601650.093						
Bethel Curve #12	PC	205+72.51	493452.9704	1601650.093	670	90.57	7°44'43.59"	Left	0.06	45/35
	PI	206+17.87	493498.308	1601651.367						
	CC		493471.7908	1600980.358						
	PCC	206+63.08	493543.4037	1601646.52						
Bethel Curve #12	PCC	206+63.08	493543.4037	1601646.52	445	376.57	48°29'04.74"	Left	0.06	45/35
	PI	208+63.47	493742.642	1601625.101						
	CC		493495.84	1601204.069						
	PT	210+39.65	493858.6637	1601461.72						
Tangent	PT	210+39.65	493858.6637	1601461.72						
	PC	212+22.49	493964.5266	1601312.643						
Bethel Curve #13	PC	212+22.49	493964.5266	1601312.643	785	951.88	69°28'32.74"	Right	0.06	45
	PI	217+66.82	494279.6873	1600868.834						
	CC		494604.564	1601767.151						
	PCC	221+74.37	494805.8218	1601008.389						
Bethel Curve #13	PCC	221+74.37	494805.8218	1601008.389	2520	259.64	5°54'12.11"	Right	0.042	50
	PI	223+04.30	494931.4155	1601041.702						
	CC		494159.7458	1603444.161						
	PCC	224+34.01	495052.9169	1601087.756						
Bethel Curve #13	PCC	224+34.01	495052.9169	1601087.756	20000	158.46	0°27'14.20"	Right	NC	50
	PI	225+13.24	495127.0022	1601115.837						
	CC		487964.2572	1619789.384						
	PT	225+92.47	495200.8627	1601144.504						
Tangent	PT	225+92.47	495200.8627	1601144.504						
	PC	229+29.74	495515.2859	1601266.541						
Bethel Curve #14	PC	229+29.74	495515.2859	1601266.541	1300	417.63	18°24'23.02"	Left	0.067	50
	PI	231+40.37	495711.643	1601342.753						
	CC		495985.6652	1600054.624						
	PT	233+47.37	495922.019	1601353.065						

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction	Maximum Banking	Design Speed
Tangent	PT	233+47.37	495922.019	1601353.065						
	PC	237+01.46	496275.6867	1601370.401						
Bethel Curve #15	PC	237+01.46	496275.6867	1601370.401	950	376.16	22°41'12.45"	Right	0.077	50
	PI	238+92.04	496466.0352	1601379.731						
	CC		496229.1759	1602319.261						
	PT	240+77.62	496638.0573	1601461.756						
Tangent	PT	240+77.62	496638.0573	1601461.756						
	PC	243+53.57	496887.1359	1601580.523						
Bethel Curve #16	PC	243+53.57	496887.1359	1601580.523	10000	98.3	0°33'47.56"	Left	NC	50
	PI	244+02.72	496931.5005	1601601.677						
	CC		501191.1503	1592554.147						
	PT	244+51.87	496976.0709	1601622.394						
Tangent	PT	244+51.87	496976.0709	1601622.394						
	PC	247+18.26	497217.6435	1601734.681						
Bethel Curve #17	PC	247+18.26	497217.6435	1601734.681	10000	90.19	0°31'00.25"	Left	NC	50
	PI	247+63.36	497258.5359	1601753.689						
	CC		501432.723	1592666.434						
	PT	248+08.45	497299.5981	1601772.327						
Tangent	PT	248+08.45	497299.5981	1601772.327						
	PC	251+98.60	497654.8692	1601933.583						
Bethel Curve #18	PC	251+98.60	497654.8692	1601933.583	20000	84.01	0°14'26.45"	Left	NC	50
	PI	252+40.61	497693.1199	1601950.945						
	CC		505921.1189	1583721.798						
	PT	252+82.62	497731.4433	1601968.146						
Tangent	PT	252+82.62	497731.4433	1601968.146						
	PC	262+52.78	498616.5358	1602365.41						
Bethel Curve #19	PC	262+52.78	498616.5358	1602365.41	725	152.85	12°04'46.64"	Left	0.08	45
	PI	263+29.49	498686.5196	1602396.821						
	CC		498913.4115	1601703.98						
	PCC	264+05.63	498761.5273	1602412.892						
Bethel Curve #19	PCC	264+05.63	498761.5273	1602412.892	490	237.56	27°46'40.29"	Left	0.08	40
	PI	265+26.79	498880.0009	1602438.275						
	CC		498864.1801	1601933.765						
	PCC	266+43.19	498996.6513	1602405.518						
Bethel Curve #19	PCC	266+43.19	498996.6513	1602405.518	665	208.97	18°00'15.52"	Left	0.08	45
	PI	267+48.54	499098.0796	1602377.037						
	CC		498816.8689	1601765.282						
	PT	268+52.15	499185.7379	1602318.599						
Tangent	PT	268+52.15	499185.7379	1602318.599						
	PC	270+65.36	499363.1417	1602200.333						
Bethel Curve #20	PC	270+65.36	499363.1417	1602200.333	10000	144.21	0°49'34.46"	Left	NC	50
	PI	271+37.47	499423.1365	1602160.338						
	CC		493816.2395	1593879.764						
	PT	272+09.57	499482.5483	1602119.481						
Tangent	PT	272+09.57	499482.5483	1602119.481						
	PC	276+16.44	499817.7993	1601888.935						
Bethel Curve #21	PC	276+16.44	499817.7993	1601888.935	1300	433.46	19°06'14.74"	Right	0.067	50
	PI	278+35.20	499998.051	1601764.979						
	CC		500554.4195	1602960.098						
	PT	280+49.90	500208.9444	1601706.844						
Tangent	PT	280+49.90	500208.9444	1601706.844						
	PC	281+43.24	500298.9323	1601682.038						
Bethel Curve #22	PC	281+43.24	500298.9323	1601682.038	6000	105.77	1°00'36.14"	Right	0.02	50
	PI	281+96.13	500349.9174	1601667.983						
	CC		501893.4326	1607466.289						
	PT	282+49.01	500401.1424	1601654.829						

PC - POINT OF CURVATURE
PCC - POINT OF COMPOUND CURVE
PT - POINT OF TANGENCY
PI - POINT OF INTERSECTION
CC - RADIUS POINT

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
HORIZONTAL ALIGNMENT TABLE SHEET 1

PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 123 OF 211

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction	Maximum Banking	Design Speed
Tangent	PT	282+49.01	500401.1424	1601654.829						
	PC	289+19.03	501050.1064	1601488.186						
Bethel Curve #23	PC	289+19.03	501050.1064	1601488.186	1100	142.29	7°24'40.49"	Right	0.057	50
	PI	289+90.28	501119.11	1601470.467						
	CC		501323.6929	1602553.62						
	PCC	290+61.32	501189.8226	1601461.796						
Bethel Curve #23	PCC	290+61.32	501189.8226	1601461.796	590	198.65	19°17'27.82"	Right	0.06	40
	PI	291+61.59	501289.3506	1601449.593						
	CC		501261.6258	1602047.411						
	PT	292+59.97	501387.322	1601470.956						
Tangent	PT	292+59.97	501387.322	1601470.956						
	PC	295+70.66	501690.8854	1601537.148						
Bethel Curve #24	PC	295+70.66	501690.8854	1601537.148	1500	369.84	14°07'36.09"	Right	0.062	50
	PI	297+56.52	501872.4789	1601576.744						
	CC		501371.3188	1603002.712						
	PT	299+40.50	502038.9167	1601659.464						
Tangent	PT	299+40.50	502038.9167	1601659.464						
	PC	300+86.61	502169.7615	1601724.495						
Bethel Curve #25	PC	300+86.61	502169.7615	1601724.495	525	324.26	35°23'16.95"	Left	0.08	50
	PI	302+54.10	502319.7472	1601799.038						
	CC		502403.4208	1601254.358						
	PT	304+10.87	502485.1917	1601772.951						
Tangent	PT	304+10.87	502485.1917	1601772.951						
	PC	305+28.13	502601.0219	1601754.687						
Bethel Curve #26	PC	305+28.13	502601.0219	1601754.687	1000	330.63	18°56'38.19"	Right	0.076	50
	PI	306+94.97	502765.8255	1601728.701						
	CC		502756.7759	1602742.483						
	PT	308+58.77	502930.1389	1601757.625						
Tangent	PT	308+58.77	502930.1389	1601757.625						
	PC	311+53.62	503220.5298	1601808.742						
Bethel Curve #27	PC	311+53.62	503220.5298	1601808.742	865	389.36	25°47'25.26"	Right	0.079	50
	PI	313+51.66	503415.566	1601843.074						
	CC		503070.5708	1602660.644						
	PT	315+42.98	503576.2379	1601958.842						
Tangent	PT	315+42.98	503576.2379	1601958.842						
	PC	316+70.07	503679.3457	1602033.134						
Bethel Curve #28	PC	316+70.07	503679.3457	1602033.134	1000	136.13	7°47'59.06"	Left	0.076	50
	PI	317+38.24	503734.6549	1602072.986						
	CC		504263.9319	1601221.803						
	PCC	318+06.20	503794.8607	1602104.963						
Bethel Curve #28	PCC	318+06.20	503794.8607	1602104.963	770	316.47	23°32'55.73"	Left	0.08	50
	PI	319+66.70	503936.6101	1602180.25						
	CC		504156.0455	1601424.929						
	PCC	321+22.67	504096.6341	1602192.634						
Bethel Curve #28	PCC	321+22.67	504096.6341	1602192.634	850	399.55	26°55'55.64"	Left	0.079	50
	PI	323+26.21	504299.5619	1602208.338						
	CC		504162.2181	1601345.168						
	PCC	325+22.22	504487.5938	1602130.426						
Bethel Curve #28	PCC	325+22.22	504487.5938	1602130.426	900	222.26	14°08'58.11"	Left	0.078	50
	PI	326+33.92	504590.7842	1602087.669						
	CC		504143.0784	1601298.976						
	PT	327+44.48	504680.3916	1602020.984						
Tangent	PT	327+44.48	504680.3916	1602020.984						
	PC	329+91.39	504878.4723	1601873.573						
Bethel Curve #29	PC	329+91.39	504878.4723	1601873.573	770	524.62	39°02'13.47"	Right	0.08	50
	PI	332+64.34	505097.4424	1601710.617						
	CC		505338.1736	1602491.29						
	PT	335+16.01	505370.1585	1601721.955						

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction	Maximum Banking	Design Speed
Tangent	PT	335+16.01	505370.1585	1601721.955						
	PC	338+38.47	505692.3425	1601735.35						
Bethel Curve #30	PC	338+38.47	505692.3425	1601735.35	475	141.68	17°05'21.69"	Left	0.08	40
	PI	339+09.84	505763.6488	1601738.314						
	CC		505712.0734	1601260.76						
	PCC	339+80.15	505832.678	1601720.194						
Bethel Curve #30	PCC	339+80.15	505832.678	1601720.194	850	210.61	14°11'48.12"	Left	0.079	50
	PI	340+86.00	505935.0575	1601693.318						
	CC		505616.8593	1600898.049						
	PT	341+90.76	506027.7191	1601642.155						
Tangent	PT	341+90.76	506027.7191	1601642.155						
	PC	343+92.03	506203.9143	1601544.869						
Bethel Curve #31	PC	343+92.03	506203.9143	1601544.869	10000	144.45	0°49'39.49"	Left	NC	50
	PI	344+64.26	506267.1425	1601509.957						
	CC		501370.2694	1592790.677						
	PT	345+36.48	506329.8599	1601474.136						
Tangent	PT	345+36.48	506329.8599	1601474.136						
	PC	348+42.24	506595.3596	1601322.495						
Bethel Curve #32	PC	348+42.24	506595.3596	1601322.495	3300	256.21	4°26'54.43"	Right	0.034	50
	PI	349+70.41	506706.656	1601258.927						
	CC		508232.0245	1604188.036						
	PT	350+98.45	506822.5476	1601204.184						
Tangent	PT	350+98.45	506822.5476	1601204.184						
	PC	353+06.62	507010.7736	1601115.272						
Bethel Curve #33	PC	353+06.62	507010.7736	1601115.272	4000	240.78	3°26'56.26"	Left	0.029	50
	PI	354+27.04	507119.6641	1601063.835						
	CC		505302.3168	1597498.481						
	PT	355+47.40	507225.2631	1601005.941						
Tangent	PT	355+47.40	507225.2631	1601005.941						
	PC	356+71.68	507334.2368	1600946.197						
Bethel Curve #34	PC	356+71.68	507334.2368	1600946.197	8000	96.08	0°41'17.29"	Left	NC	50
	PI	357+19.72	507376.3628	1600923.102						
	CC		503488.3444	1593931.276						
	PT	357+67.76	507418.2083	1600899.502						
Tangent	PT	357+67.76	507418.2083	1600899.502						
	PC	365+47.97	508097.7972	1600516.235						
Bethel Curve #35	PC	365+47.97	508097.7972	1600516.235	8000	337.76	2°25'08.53"	Right	NC	50
	PI	367+16.88	508244.9188	1600433.263						
	CC		512027.6611	1607484.461						
	PT	368+85.73	508395.4114	1600356.574						
Tangent	PT	368+85.73	508395.4114	1600356.574						
Back Station		370+41.50	508534.1967	1600285.852						
Ahead Station		A 0+00.00								
Tangent	PC	A 0+06.61	508540.0902	1600282.849						
Randolph Curve #1	PC	A 0+06.61	508540.0902	1600282.849	8000	184.54	1°19'18.12"	Left	NC	50
	PI	A 0+98.89	508622.307	1600240.952						
	CC		504907.8405	1593154.962						
	PT	A 1+91.16	508703.5356	1600197.171						
Tangent	PT	A 1+91.16	508703.5356	1600197.171						
	PC	A 4+55.20	508935.9644	1600071.893						
Randolph Curve #2	PC	A 4+55.20	508935.9644	1600071.893	1800	407.3	12°57'53.19"	Left	0.054	50
	PI	A 6+59.72	509116.0016	1599974.855						
	CC		508081.933	1598487.396						
	PT	A 8+62.50	509269.6786	1599839.898						
Tangent	PT	A 8+62.50	509269.6786	1599839.898						
	PC	A 12+56.19	509565.4917	1599580.12						
Randolph Curve #3	PC	A 12+56.19	509565.4917	1599580.12	2930	249.49	4°52'43.46"	Right	0.038	50
	PI	A 13+81.01	509659.2804	1599497.756						
	CC		511498.8776	1601781.692						
	PCC	A 15+05.68	509759.7341	1599423.667						

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction	Maximum Banking	Design Speed
Randolph Curve #3	PCC	A 15+05.68	509759.7341	1599423.667	570	315.46	31°42'33.85"	Right	0.08	40
	PI	A 16+67.56	509890.0143	1599327.58						
	CC		510098.0658	1599882.395						
	PT	A 18+21.14	510051.3514	1599314.313						
Tangent	PT	A 18+21.14	510051.3514	1599314.313						
	PC	A 19+92.94	510222.5777	1599300.233						
Randolph Curve #4	PC	A 19+92.94	510222.5777	1599300.233	1000	164.3	9°24'48.36"	Left	0.059	50
	PI	A 20+75.27	510304.6337	1599293.485						
	CC		510140.6226	1598303.597						
	PCC	A 21+57.23	510384.4811	1599273.407						
Randolph Curve #4	PCC	A 21+57.23	510384.4811	1599273.407	1125	166.5	8°28'47.72"	Left	0.057	50
	PI	A 22+40.64	510465.367	1599253.069						
	CC		510110.1403	1598182.37						
	PT	A 23+23.74	510542.3694	1599221.025						
Tangent	PT	A 23+23.74	510542.3694	1599221.025						
	PC	A 24+82.10	510688.5751	1599160.182						
Randolph Curve #5	PC	A 24+82.10	510688.5751	1599160.182	6000	308.3	2°56'38.62"	Right	0.02	50
	PI	A 26+36.28	510830.9259	1599100.944						
	CC		512993.7968	1604699.672						
	PT	A 27+90.40	510976.1312	1599049.095						
Tangent	PT	A 27+90.40	510976.1312	1599049.095						
	PC	A 29+00.14	511079.4773	1599012.193						
Randolph Curve #6	PC	A 29+00.14	511079.4773	1599012.193	4000	141.06	2°01'13.78"	Right	0.029	50
	PI	A 29+70.67	511145.9054	1598988.473						
	CC		512424.5877	1602779.245						
	PT	A 30+41.19	511213.1285	1598967.11						
Tangent	PT	A 30+41.19	511213.1285	1598967.11						
	PC	A 32+10.22	511374.217	1598915.918						
Randolph Curve #7	PC	A 32+10.22	511374.217	1598915.918	2200	540.05	14°03'52.88"	Left	0.047	50
	PI	A 34+81.61	511632.8577	1598833.725						
	CC		510707.9144	1596819.244						
	PT	A 37+50.27	511863.7704	1598691.141						
Tangent	PT	A 37+50.27	511863.7704	1598691.141						
	PC	A 41+55.44	512208.5186	1598478.266						
Randolph Curve #8	PC	A 41+55.44	512208.5186	1598478.266	25000	129.65	0°17'49.72"	Right	NC	50
	PI	A 42+20.27	512263.6777	1598444.207						
	CC		525343.2458	1619749.819						
	PT	A 42+85.10	512319.0127	1598410.434						
Tangent	PT	A 42+85.10	512319.0127	1598410.434						
	PC	A 44+54.66	512463.7529	1598322.093						
Randolph Curve #9	PC	A 44+54.66	512463.7529	1598322.093	6000	159.01	1°31'06.31"	Left	0.02	50
	PI	A 45+34.17	512531.6196	1598280.672						
	CC		509337.9369	1593200.641						
	PT	A 46+13.67	512598.365	1598237.466						
Tangent	PT	A 46+13.67	512598.365	1598237.466						
	PC	A 54+83.76	513328.7781	1597764.657						
Randolph Curve #10	PC	A 54+83.76	513328.7781	1597764.657	10000	88.94	0°30'34.48"	Right	NC	40
	PI	A 55+28.23	513366.1088	1597740.492						
	CC		518762.8249	1606159.365						
	PT	A 55+72.70	513403.653	1597716.66						
Tangent	PT	A 55+72.70	513403.653	1597716.66						
	PC	A 57+70.73	513570.8489	1597610.529						
Randolph Curve #11	PC	A 57+70.73	513570.8489	1597610.529	10000	71.66	0°24'38.10"	Left	NC	40
	PI	A 58+06.56	513601.0995	1597591.327						
	CC		508211.677	1589167.823						
	PT	A 58+42.39	513631.2117	1597571.908						

PC - POINT OF CURVATURE
PCC - POINT OF COMPOUND CURVE
PT - POINT OF TANGENCY

PI - POINT OF INTERSECTION
CC - RADIUS POINT

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 292I(I)

FILE NAME: z10c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
HORIZONTAL ALIGNMENT TABLE SHEET 2

PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction	Maximum Banking	Design Speed
Tangent	PT	A 58+42.39	513631.2117	1597571.908						
	PC	A 61+66.50	513903.5915	1597396.259						
Randolph Curve #12	PC	A 61+66.50	513903.5915	1597396.259	1925	739.21	22°00'07.26"	Right	0.038	40
	PI	A 65+40.72	514218.0868	1597193.451						
	CC		514946.8519	1599014.045						
	PCC	A 69+05.71	514585.6576	1597123.235						
Randolph Curve #12	PCC	A 69+05.71	514585.6576	1597123.235	3025	340.09	6°26'29.45"	Right	0.026	40
	PI	A 70+75.94	514752.8574	1597091.296						
	CC		515153.2486	1600094.508						
	PT	A 72+45.80	514922.5848	1597078.316						
Tangent	PT	A 72+45.80	514922.5848	1597078.316						
	PC	A 75+10.76	515186.7716	1597058.112						
Randolph Curve #13	PC	A 75+10.76	515186.7716	1597058.112	1500	201.92	7°42'46.67"	Left	0.046	40
	PI	A 76+11.87	515287.5924	1597050.402						
	CC		515072.3929	1595562.479						
	PT	A 77+12.68	515386.4663	1597029.23						
Tangent	PT	A 77+12.68	515386.4663	1597029.23						
	POE	A 78+11.59	515483.1845	1597008.52						

PC - POINT OF CURVATURE
PCC - POINT OF COMPOUND CURVE
PT - POINT OF TANGENCY
PI - POINT OF INTERSECTION
CC - RADIUS POINT

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
HORIZONTAL ALIGNMENT TABLE SHEET 3

PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 125 OF 211

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Linear	POB	124+32.95	569.43	77.05	-0.80%				
	POVT	124+50.00	569.29						
	POVT	125+00.00	568.89						
	PVC	125+10.00	568.81						
Symmetrical Parabola	PVC	125+10.00	568.81	170	-0.80%	0.53%	128.5	0.28	
	POVC	125+50.00	568.56						
	PVI	125+95.00	568.14						
	POVC	126+00.00	568.41						
	VLOW	126+12.30	568.4						
	POVC	126+50.00	568.46						
	PVT	126+80.00	568.58						
Linear	PVT	126+80.00	568.58	185	0.53%				
	POVT	127+00.00	568.69						
	POVT	127+50.00	568.95						
	POVT	128+00.00	569.22						
	POVT	128+50.00	569.48						
	PVC	128+65.00	569.56						
Symmetrical Parabola	PVC	128+65.00	569.56	190	0.53%	-0.20%	259.6	-0.17	1569.71
	PVI	129+60.00	570.06						
	POVC	129+00.00	569.72						
	POVC	129+50.00	569.87						
	POVC	130+00.00	569.92						
	VHIGH	130+01.82	569.92						
	POVC	130+50.00	569.87						
	PVT	130+55.00	569.86						
Linear	PVT	130+55.00	569.86	390	-0.20%				
	POVT	131+00.00	569.77						
	POVT	131+50.00	569.67						
	POVT	132+00.00	569.57						
	POVT	132+50.00	569.46						
	POVT	133+00.00	569.36						
	POVT	133+50.00	569.26						
	POVT	134+00.00	569.16						
	PVC	134+45.00	569.07						
Symmetrical Parabola	PVC	134+45.00	569.07	140	-0.20%	0.84%	134.5	0.18	
	POVC	134+50.00	569.06						
	VLOW	134+72.55	569.04						
	POVC	135+00.00	569.07						
	PVI	135+15.00	568.92						
	POVC	135+50.00	569.26						
	PVT	135+85.00	569.51						
Linear	PVT	135+85.00	569.51	177.5	0.84%				
	POVT	136+00.00	569.63						
	POVT	136+50.00	570.05						
	POVT	137+00.00	570.47						
	POVT	137+50.00	570.89						
	PVC	137+62.50	570.99						
Symmetrical Parabola	PVC	137+62.50	570.99	155	0.84%	0.23%	255.7	-0.12	1857.83
	PVI	138+40.00	571.64						
	POVC	138+00.00	571.28						
	POVC	138+50.00	571.57						
	POVC	139+00.00	571.77						
	PVT	139+17.50	571.82						
Linear	PVT	139+17.50	571.82	137.5	0.23%				
	POVT	139+50.00	571.89						
	POVT	140+00.00	572.01						
	POVT	140+50.00	572.12						
	PVC	140+55.00	572.13						
Symmetrical Parabola	PVC	140+55.00	572.13	220	0.23%	1.17%	235.1	0.26	
	POVC	141+00.00	572.28						
	POVC	141+50.00	572.54						
	PVI	141+65.00	572.38						
	POVC	142+00.00	572.91						
	POVC	142+50.00	573.39						
	PVT	142+75.00	573.67						
Linear	PVT	142+75.00	573.67	110	1.17%				
	POVT	143+00.00	573.96						
	POVT	143+50.00	574.54						
	PVC	143+85.00	574.95						
Symmetrical Parabola	PVC	143+85.00	574.95	230	1.17%	4.22%	75.31	0.88	
	POVC	144+00.00	575.14						
	POVC	144+50.00	575.99						
	PVI	145+00.00	576.29						
	POVC	145+00.00	577.17						
	POVC	145+50.00	578.68						
	POVC	146+00.00	580.52						
	PVT	146+15.00	581.14						

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Linear	PVT	146+15.00	581.14	135	4.22%				
	POVT	146+50.00	582.62						
	POVT	147+00.00	584.73						
	PVC	147+50.00	586.84						
Symmetrical Parabola	PVC	147+50.00	586.84	330	4.22%	-1.73%	55.49	-2.45	346.47
	POVC	148+00.00	588.72						
	POVC	148+50.00	590.16						
	POVC	149+00.00	591.14						
	PVI	149+15.00	593.8						
	POVC	149+50.00	591.67						
	VHIGH	149+84.15	591.78						
	POVC	150+00.00	591.76						
	POVC	150+50.00	591.39						
	PVT	150+80.00	590.95						
Linear	PVT	150+80.00	590.95	235	-1.73%				
	POVT	151+00.00	590.6						
	POVT	151+50.00	589.74						
	POVT	152+00.00	588.88						
	POVT	152+50.00	588.01						
	POVT	153+00.00	587.15						
	PVC	153+15.00	586.89						
Symmetrical Parabola	PVC	153+15.00	586.89	300	-1.73%	0.72%	122.6	0.92	
	POVC	153+50.00	586.34						
	POVC	154+00.00	585.72						
	POVC	154+50.00	585.3						
	PVI	154+65.00	584.3						
	POVC	155+00.00	585.09						
	VLOW	155+26.84	585.06						
	POVC	155+50.00	585.08						
	POVC	156+00.00	585.28						
	PVT	156+15.00	585.38						
Linear	PVT	156+15.00	585.38	162.5	0.72%				
	POVT	156+50.00	585.63						
	POVT	157+00.00	585.99						
	POVT	157+50.00	586.35						
	PVC	157+77.50	586.55						
Symmetrical Parabola	PVC	157+77.50	586.55	385	0.72%	8.00%	52.89	3.5	
	POVC	158+00.00	586.76						
	POVC	158+50.00	587.56						
	POVC	159+00.00	588.85						
	POVC	159+50.00	590.6						
	PVI	159+70.00	587.93						
	POVC	160+00.00	592.83						
	POVC	160+50.00	595.53						
	POVC	161+00.00	598.7						
	POVC	161+50.00	602.34						
	PVT	161+62.50	603.33						
Linear	PVT	161+62.50	603.33	232.5	8.00%				
	POVT	162+00.00	606.33						
	POVT	162+50.00	610.33						
	POVT	163+00.00	614.32						
	POVT	163+50.00	618.32						
	PVC	163+95.00	621.92						
Symmetrical Parabola	PVC	163+95.00	621.92	350	8.00%	0.36%	45.84	-3.34	314.53
	POVC	164+00.00	622.32						
	POVC	164+50.00	625.99						
	POVC	165+00.00	629.12						
	POVC	165+50.00	631.7						
	PVI	165+70.00	635.92						
	POVC	166+00.00	633.74						
	POVC	166+50.00	635.23						
	POVC	167+00.00	636.17						
	PVT	167+45.00	636.55						
Linear	PVT	167+45.00	636.55	80	0.36%				
	POVT	167+50.00	636.57						
	POVT	168+00.00	636.75						
	PVC	168+25.00	636.84						
Symmetrical Parabola	PVC	168+25.00	636.84	180	0.36%	2.74%	75.64	0.54	
	POVC	168+50.00	636.98						
	POVC	169+00.00	637.49						
	PVI	169+15.00	637.17						
	POVC	169+50.00	638.33						
	POVC	170+00.00	639.5						
	PVT	170+05.00	639.64						
Linear	PVT	170+05.00	639.64	97.5	2.74%				
	POVT	170+50.00	640.87						
	POVT	171+00.00	642.24						
	PVC	171+02.50	642.31						

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVC	171+02.50	642.31	185	2.74%	-3.29%	30.65	-1.4	271.29
	POVC	171+50.00	643.25						
	VHIGH	171+86.56	643.47						
	PVI	171+95.00	644.85						
	POVC	172+00.00	643.44						
	POVC	172+50.00	642.81						
	PVT	172+87.50	641.8						
Linear	PVT	172+87.50	641.8	52.5	-3.29%				
	POVT	173+00.00	641.39						
	PVC	173+40.00	640.07						
Symmetrical Parabola	PVC	173+40.00	640.07	130	-3.29%	-4.00%	183.6	-0.12	1589.25
	POVC	173+50.00	639.74						
	POVC	174+00.00	638						
	PVI	174+05.00	637.93						
	POVC	174+50.00	636.12						
	PVT	174+70.00	635.33						
Linear	PVT	174+70.00	635.33	67.5	-4.00%				
	POVT	175+00.00	634.13						
	PVC	175+37.50	632.63						
Symmetrical Parabola	PVC	175+37.50	632.63	275	-4.00%	-6.81%	97.86	-0.97	521.53
	POVC	175+50.00	632.12						
	POVC	176+00.00	629.93						
	POVC	176+50.00	627.48						
	PVI	176+75.00	627.13						
	POVC	177+00.00	624.78						
	POVC	177+50.00	621.82						
	POVC	178+00.00	618.61						
	PVT	178+12.50	617.76						
Linear	PVT	178+12.50	617.76	142.5	-6.81%				
	POVT	178+50.00	615.21						
	POVT	179+00.00	611.8						
	POVT	179+50.00	608.4						
	PVC	179+55.00	608.06						
Symmetrical Parabola	PVC	179+55.00	608.06	310	-6.81%	-0.45%	48.75	2.46	
	POVC	180+00.00	605.2						
	POVC	180+50.00	602.51						
	POVC	181+00.00	600.34						
	PVI	181+10.00	597.5						
	POVC	181+50.00	598.68						
	POVC	182+00.00	597.53						
	POVC	182+50.00	596.89						
	PVT	182+65.00	596.8						
Linear	PVT	182+65.00	596.8	42.5	-0.45%				
	POVT	183+00.00	596.64						
	PVC	183+07.50	596.61						
Symmetrical Parabola	PVC	183+07.50	596.61	215	-0.45%	0.02%	456.2	0.13	
	POVC	183+50.00	596.43						
	POVC	184+00.00	596.28						
	PVI	184+15.00	596.12						
	POVC	184+50.00	596.18						
	POVC	185+00.00	596.14						
	VLOW	185+13.89	596.14						
	PVRC	185+22.50	596.14						
Symmetrical Parabola	PVRC	185+22.50	596.14	315	0.02%	-4.78%	65.6	-1.89	382.24
	VHIGH	185+23.74	596.14						
	POVC	185+50.00	596.09						
	POVC	186+00.00	595.7						
	POVC	186+50.00	594.93						
	PVI	186+80.00	596.17						
	POVC	187+00.00	593.77						
	POVC	187+50.00	592.24						
	POVC	188+00.00	590.32						
	PVT	188+37.50	588.64						
Linear	PVT	188+37.50	588.64	37.5	-4.78%				
	POVT	188+50.00	588.04						
	PVC	188+75.00	586.84						
Symmetrical Parabola	PVC	188+75.00	586.84	320	-4.78%	-0.02%	67.25	1.9	
	POVC	189+00.00	585.69						
	POVC	189+50.00	583.67						
	POVC	190+00.00	582.03						
	PVI	190+35.00	579.19						
	POVC	190+50.00	580.75						
	POVC	191+00.00	579.85						
	POVC	191+50.00	579.31						
	PVT	191+95.00	579.15						

PVC - POINT OF VERTICAL CURVATURE
PVT - POINT OF VERTICAL TANGENCY
PVI - POINT OF VERTICAL INTERSECTION
POVT - POINT ON VERTICAL TANGENT
POVT - POINT ON VERTICAL CURVE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
VERTICAL ALIGNMENT TABLE SHEET 1

PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Linear	PVT	191+95.00	579.15	160	-0.02%				
	POVT	192+00.00	579.15						
	POVT	192+50.00	579.14						
	POVT	193+00.00	579.13						
	POVT	193+50.00	579.11						
	PVC	193+55.00	579.11						
Symmetrical Parabola	PVC	193+55.00	579.11	350	-0.02%	0.20%	1538	0.1	
	VLOW	193+92.69	579.11						
	POVC	194+00.00	579.11						
	POVC	194+50.00	579.12						
	POVC	195+00.00	579.14						
	PVI	195+30.00	579.07						
	POVC	195+50.00	579.19						
	POVC	196+00.00	579.25						
	POVC	196+50.00	579.32						
	POVC	197+00.00	579.41						
	PVT	197+05.00	579.42						
Linear	PVT	197+05.00	579.42	0.5	0.20%				
	PVC	197+05.50	579.43						
Symmetrical Parabola	PVC	197+05.50	579.43	159	0.20%	0.45%	653.6	0.05	
	POVC	197+50.00	579.53						
	PVI	197+85.00	579.59						
	POVC	198+00.00	579.69						
	POVC	198+50.00	579.88						
	PVT	198+64.50	579.94						
Linear	PVT	198+64.50	579.94	250.5	0.45%				
	POVT	199+00.00	580.1						
	POVT	199+50.00	580.32						
	POVT	200+00.00	580.55						
	POVT	200+50.00	580.77						
	POVT	201+00.00	580.99						
	PVC	201+15.00	581.06						
Symmetrical Parabola	PVC	201+15.00	581.06	250	0.45%	1.69%	201.2	0.39	
	POVC	201+50.00	581.25						
	POVC	202+00.00	581.62						
	PVI	202+40.00	581.62						
	POVC	202+50.00	582.12						
	POVC	203+00.00	582.74						
	POVC	203+50.00	583.48						
	PVT	203+65.00	583.73						
Linear	PVT	203+65.00	583.73	127.5	1.69%				
	POVT	204+00.00	584.32						
	POVT	204+50.00	585.16						
	PVC	204+92.50	585.88						
Symmetrical Parabola	PVC	204+92.50	585.88	225	1.69%	-0.49%	103.4	-0.61	608.37
	POVC	205+00.00	586.01						
	POVC	205+50.00	586.69						
	POVC	206+00.00	587.14						
	PVI	206+05.00	587.78						
	POVC	206+50.00	587.34						
	VHIGH	206+67.13	587.36						
	POVC	207+00.00	587.31						
	PVT	207+17.50	587.23						
Linear	PVT	207+17.50	587.23	32.5	-0.49%				
	PVC	207+50.00	587.08						
Symmetrical Parabola	PVC	207+50.00	587.08	70	-0.49%	0.10%	118.3	0.05	
	PVI	207+85.00	586.91						
	POVC	208+00.00	586.94						
	VLOW	208+07.65	586.94						
	PVT	208+20.00	586.94						
Linear	PVT	208+20.00	586.94	310	0.10%				
	POVT	208+50.00	586.97						
	POVT	209+00.00	587.03						
	POVT	209+50.00	587.08						
	POVT	210+00.00	587.13						
	POVT	210+50.00	587.18						
	POVT	211+00.00	587.23						
	PVC	211+30.00	587.27						
Symmetrical Parabola	PVC	211+30.00	587.27	280	0.10%	-2.07%	128.5	-0.76	635.3
	VHIGH	211+43.41	587.27						
	POVC	211+50.00	587.27						
	POVC	212+00.00	587.15						
	POVC	212+50.00	586.83						
	PVI	212+70.00	587.41						
	POVC	213+00.00	586.32						
	POVC	213+50.00	585.61						
	POVC	214+00.00	584.71						
	PVRC	214+10.00	584.51						

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVRC	214+10.00	584.51	90	-2.07%	-0.88%	75.32	0.13	
	POVC	214+50.00	583.78						
	PVI	214+55.00	583.57						
	PVT	215+00.00	583.18						
Linear	PVT	215+00.00	583.18	80	-0.88%				
	POVT	215+50.00	582.74						
	PVC	215+80.00	582.47						
Symmetrical Parabola	PVC	215+80.00	582.47	100	-0.88%	0.74%	61.64	0.2	
	POVC	216+00.00	582.33						
	PVI	216+30.00	582.04						
	VLOW	216+34.22	582.24						
	POVC	216+50.00	582.26						
	PVT	216+80.00	582.41						
Linear	PVT	216+80.00	582.41	130	0.74%				
	POVT	217+00.00	582.56						
	POVT	217+50.00	582.93						
	POVT	218+00.00	583.3						
	PVC	218+10.00	583.37						
Symmetrical Parabola	PVC	218+10.00	583.37	180	0.74%	1.12%	473.1	0.09	
	POVC	218+50.00	583.69						
	PVI	219+00.00	584.04						
	POVC	219+00.00	584.13						
	POVC	219+50.00	584.62						
	PVT	219+90.00	585.05						
Linear	PVT	219+90.00	585.05	42.5	1.12%				
	POVT	220+00.00	585.16						
	PVC	220+32.50	585.53						
Symmetrical Parabola	PVC	220+32.50	585.53	75	1.12%	0.75%	203.2	-0.03	2961.67
	POVC	220+50.00	585.72						
	PVI	220+70.00	585.95						
	POVC	221+00.00	586.17						
	PVT	221+07.50	586.23						
Linear	PVT	221+07.50	586.23	60	0.75%				
	POVT	221+50.00	586.55						
	PVC	221+67.50	586.69						
Symmetrical Parabola	PVC	221+67.50	586.69	75	0.75%	1.00%	299.6	0.02	
	POVC	222+00.00	586.95						
	PVI	222+05.00	586.97						
	PVT	222+42.50	587.34						
Linear	PVT	222+42.50	587.34	177.5	1.00%				
	POVT	222+50.00	587.42						
	POVT	223+00.00	587.92						
	POVT	223+50.00	588.42						
	POVT	224+00.00	588.93						
	PVC	224+20.00	589.13						
Symmetrical Parabola	PVC	224+20.00	589.13	300	1.00%	5.25%	70.6	1.59	
	POVC	224+50.00	589.49						
	POVC	225+00.00	590.38						
	POVC	225+50.00	591.63						
	PVI	225+70.00	590.63						
	POVC	226+00.00	593.23						
	POVC	226+50.00	595.18						
	POVC	227+00.00	597.49						
	PVT	227+20.00	598.52						
Linear	PVT	227+20.00	598.52	45	5.25%				
	POVT	227+50.00	600.09						
	PVC	227+65.00	600.88						
Symmetrical Parabola	PVC	227+65.00	600.88	120	5.25%	5.87%	196.4	0.09	
	POVC	228+00.00	602.75						
	PVI	228+25.00	604.03						
	POVC	228+50.00	605.53						
	PVRC	228+85.00	607.55						
Symmetrical Parabola	PVRC	228+85.00	607.55	180	5.87%	5.19%	267	-0.15	1690.9
	POVC	229+00.00	608.43						
	POVC	229+50.00	611.28						
	PVI	229+75.00	612.83						
	POVC	230+00.00	614.05						
	POVC	230+50.00	616.72						
	PVT	230+65.00	617.5						
Linear	PVT	230+65.00	617.5	275	5.19%				
	POVT	231+00.00	619.32						
	POVT	231+50.00	621.91						
	POVT	232+00.00	624.51						
	POVT	232+50.00	627.11						
	POVT	233+00.00	629.7						
	PVC	233+40.00	631.78						

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVC	233+40.00	631.78	90	5.19%	5.61%	214.6	0.05	
	POVC	233+50.00	632.3						
	PVI	233+85.00	634.11						
	POVC	234+00.00	634.98						
	PVT	234+30.00	636.64						
Linear	PVT	234+30.00	636.64	182.5	5.61%				
	POVT	234+50.00	637.76						
	POVT	235+00.00	640.56						
	POVT	235+50.00	643.37						
	POVT	236+00.00	646.18						
	PVC	236+12.50	646.88						
Symmetrical Parabola	PVC	236+12.50	646.88	225	5.61%	2.11%	64.23	-0.99	420.54
	POVC	236+50.00	648.87						
	POVC	237+00.00	651.19						
	PVI	237+25.00	653.19						
	POVC	237+50.00	653.12						
	POVC	238+00.00	654.66						
	PVRC	238+37.50	655.56						
Symmetrical Parabola	PVRC	238+37.50	655.56	95	2.11%	3.09%	96.97	0.12	
	POVC	238+50.00	655.83						
	PVI	238+85.00	656.56						
	POVC	239+00.00	657.08						
	PVT	239+32.50	658.03						
Linear	PVT	239+32.50	658.03	72.5	3.09%				
	POVT	239+50.00	658.57						
	POVT	240+00.00	660.11						
	PVC	240+05.00	660.26						
Symmetrical Parabola	PVC	240+05.00	660.26	200	3.09%	-0.87%	50.6	-0.99	373
	POVC	240+50.00	661.45						
	POVC	241+00.00	662.3						
	PVI	241+05.00	663.35						
	POVC	241+50.00	662.66						
	VHIGH	241+61.17	662.67						
	POVC	242+00.00	662.52						
	PVT	242+05.00	662.48						
Linear	PVT	242+05.00	662.48	55	-0.87%				
	POVT	242+50.00	662.09						
	PVC	242+60.00	662.01						
Symmetrical Parabola	PVC	242+60.00	662.01	80	-0.87%	0.01%	91.71	0.09	
	PVI	243+00.00	661.66						
	POVC	243+00.00	661.75						
	VLOW	243+39.44	661.66						
	PVT	243+40.00	661.66						
Linear	PVT	243+40.00	661.66	130	0.01%				
	POVT	243+50.00	661.66						
	POVT	244+00.00	661.67						
	POVT	244+50.00	661.67						
	PVC	244+70.00	661.67						
Symmetrical Parabola	PVC	244+70.00	661.67	80	0.01%	0.27%	304.3	0.03	
	POVC	245+00.00	661.69						
	PVI	245+10.00	661.67						
	PVT	245+50.00	661.78						
Linear	PVT	245+50.00	661.78	175	0.27%				
	POVT	246+00.00	661.92						
	POVT	246+50.00	662.05						
	POVT	247+00.00	662.18						
	PVC	247+25.00	662.25						
Symmetrical Parabola	PVC	247+25.00	662.25	200	0.27%	0.80%	377.1	0.13	
	POVC	247+50.00	662.33						
	POVC	248+00.00	662.53						
	PVI	248+25.00	662.52						
	POVC	248+50.00	662.8						
	POVC	249+00.00	663.13						
	PVT	249+25.00	663.32						
Linear	PVT	249+25.00	663.32	75	0.80%				
	POVT	249+50.00	663.52						
	PVC	250+00.00	663.92						
	PVC	250+00.00	663.92						
Symmetrical Parabola	PVC	250+00.00	663.92	70	0.80%	0.44%	196.6	-0.03	3066.22
	PVI	250+35.00	664.2						
	POVC	250+50.00	664.26						
	PVRC	250+70.00	664.36						

PVC - POINT OF VERTICAL CURVATURE
PVT - POINT OF VERTICAL TANGENCY POVT - POINT ON VERTICAL TANGENT
PVI - POINT OF VERTICAL INTERSECTION POVT - POINT ON VERTICAL CURVE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244.dgn PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP DRAWN BY: J. GOODALL
DESIGNED BY: S. LAMPHERE CHECKED BY: C. LATHROP
VERTICAL ALIGNMENT TABLE SHEET 2 SHEET 127 OF 211

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVRC	250+70.00	664.36	300	0.44%	1.50%	284	0.4	
	POVC	251+00.00	664.5						
	POVC	251+50.00	664.82						
	POVC	252+00.00	665.23						
	PVI	252+20.00	665.02						
	POVC	252+50.00	665.72						
	POVC	253+00.00	666.31						
	POVC	253+50.00	666.98						
	PVT	253+70.00	667.27						
Linear	PVT	253+70.00	667.27	70	1.50%				
	POVT	254+00.00	667.72						
	PVC	254+40.00	668.32						
Symmetrical Parabola	PVC	254+40.00	668.32	180	1.50%	0.99%	354.7	-0.11	2216.52
	POVC	254+50.00	668.47						
	POVC	255+00.00	669.17						
	PVI	255+30.00	669.67						
	POVC	255+50.00	669.8						
	POVC	256+00.00	670.36						
	PVT	256+20.00	670.56						
Linear	PVT	256+20.00	670.56	110	0.99%				
	POVT	256+50.00	670.86						
	POVT	257+00.00	671.36						
	PVC	257+30.00	671.65						
Symmetrical Parabola	PVC	257+30.00	671.65	100	0.99%	1.41%	239.3	0.05	
	POVC	257+50.00	671.86						
	PVI	257+80.00	672.15						
	POVC	258+00.00	672.45						
	PVT	258+30.00	672.85						
Linear	PVT	258+30.00	672.85	70	1.41%				
	POVT	258+50.00	673.14						
	PVC	259+00.00	673.84						
Symmetrical Parabola	PVC	259+00.00	673.84	190	1.41%	1.75%	551.9	0.08	
	POVC	259+50.00	674.57						
	PVI	259+95.00	675.18						
	POVC	260+00.00	675.34						
	POVC	260+50.00	676.16						
	PVT	260+90.00	676.85						
Linear	PVT	260+90.00	676.85	105	1.75%				
	POVT	261+00.00	677.02						
	POVT	261+50.00	677.9						
	PVC	261+95.00	678.69						
Symmetrical Parabola	PVC	261+95.00	678.69	370	1.75%	1.21%	678.4	-0.25	2163.68
	POVC	262+00.00	678.78						
	POVC	262+50.00	679.63						
	POVC	263+00.00	680.45						
	POVC	263+50.00	681.23						
	PVI	263+80.00	681.94						
	POVC	264+00.00	681.98						
	POVC	264+50.00	682.68						
	POVC	265+00.00	683.36						
	POVC	265+50.00	683.99						
	PVT	265+65.00	684.17						
Linear	PVT	265+65.00	684.17	110	1.21%				
	POVT	266+00.00	684.6						
	POVT	266+50.00	685.2						
	PVC	266+75.00	685.5						
Symmetrical Parabola	PVC	266+75.00	685.5	110	1.21%	1.73%	209.3	0.07	
	POVC	267+00.00	685.82						
	PVI	267+30.00	686.17						
	POVC	267+50.00	686.54						
	PVT	267+85.00	687.12						
Linear	PVT	267+85.00	687.12	85	1.73%				
	POVT	268+00.00	687.38						
	POVT	268+50.00	688.25						
	PVC	268+70.00	688.6						
Symmetrical Parabola	PVC	268+70.00	688.6	110	1.73%	0.92%	134.8	-0.11	1376.97
	POVC	269+00.00	689.08						
	PVI	269+25.00	689.55						
	POVC	269+50.00	689.75						
	PVRC	269+80.00	690.06						
Symmetrical Parabola	PVRC	269+80.00	690.06	90	0.92%	1.40%	185.4	0.05	
	POVC	270+00.00	690.25						
	PVI	270+25.00	690.47						
	POVC	270+50.00	690.83						
	PVT	270+70.00	691.1						

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Linear	PVT	270+70.00	691.1	395	1.40%				
	POVT	271+00.00	691.52						
	POVT	271+50.00	692.22						
	POVT	272+00.00	692.92						
	POVT	272+50.00	693.63						
	POVT	273+00.00	694.33						
	POVT	273+50.00	695.03						
	POVT	274+00.00	695.73						
	POVT	274+50.00	696.43						
	PVC	274+65.00	696.64						
Symmetrical Parabola	PVC	274+65.00	696.64	300	1.40%	-3.58%	60.24	-1.87	366.69
	POVC	275+00.00	697.03						
	VHIGH	275+49.56	697.24						
	POVC	275+50.00	697.24						
	POVC	276+00.00	697.03						
	PVI	276+15.00	698.75						
	POVC	276+50.00	696.4						
	POVC	277+00.00	695.36						
	POVC	277+50.00	693.9						
	PVT	277+65.00	693.39						
Linear	PVT	277+65.00	693.39	120	-3.58%				
	POVT	278+00.00	692.13						
	POVT	278+50.00	690.35						
	PVC	278+85.00	689.09						
Symmetrical Parabola	PVC	278+85.00	689.09	210	-3.58%	-3.00%	362.9	0.15	
	POVC	279+00.00	688.56						
	POVC	279+50.00	686.83						
	PVI	279+90.00	685.34						
	POVC	280+00.00	685.16						
	POVC	280+50.00	683.57						
	PVT	280+95.00	682.19						
Linear	PVT	280+95.00	682.19	32.5	-3.00%				
	POVT	281+00.00	682.04						
	PVC	281+27.50	681.22						
Symmetrical Parabola	PVC	281+27.50	681.22	305	-3.00%	5.13%	37.51	3.1	
	POVC	281+50.00	680.61						
	POVC	282+00.00	679.74						
	VLOW	282+39.94	679.53						
	POVC	282+50.00	679.54						
	PVI	282+80.00	676.65						
	POVC	283+00.00	680.01						
	POVC	283+50.00	681.15						
	POVC	284+00.00	682.95						
	PVT	284+32.50	684.47						
Linear	PVT	284+32.50	684.47	302.5	5.13%				
	POVT	284+50.00	685.37						
	POVT	285+00.00	687.94						
	POVT	285+50.00	690.51						
	POVT	286+00.00	693.07						
	POVT	286+50.00	695.64						
	POVT	287+00.00	698.21						
	PVC	287+35.00	700.01						
Symmetrical Parabola	PVC	287+35.00	700.01	180	5.13%	8.32%	56.54	0.72	
	POVC	287+50.00	700.8						
	POVC	288+00.00	703.72						
	PVI	288+25.00	704.63						
	POVC	288+50.00	707.08						
	POVC	289+00.00	710.88						
	PVT	289+15.00	712.11						
Linear	PVT	289+15.00	712.11	482.5	8.32%				
	POVT	289+50.00	715.02						
	POVT	290+00.00	719.18						
	POVT	290+50.00	723.34						
	POVT	291+00.00	727.5						
	POVT	291+50.00	731.66						
	POVT	292+00.00	735.82						
	POVT	292+50.00	739.98						
	POVT	293+00.00	744.14						
	POVT	293+50.00	748.29						
	PVC	293+97.50	752.25						

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVC	293+97.50	752.25	475	8.32%	-6.51%	32.04	-8.8	262.95
	POVC	294+00.00	752.45						
	POVC	294+50.00	756.18						
	POVC	295+00.00	759.13						
	POVC	295+50.00	761.3						
	POVC	296+00.00	762.69						
	PVI	296+35.00	772						
	POVC	296+50.00	763.3						
	VHIGH	296+63.98	763.33						
	POVC	297+00.00	763.13						
	POVC	297+50.00	762.17						
	POVC	298+00.00	760.44						
	POVC	298+50.00	757.93						
	PVT	298+72.50	756.54						
Linear	PVT	298+72.50	756.54	72.5	-6.51%				
	POVT	299+00.00	754.75						
	PVC	299+45.00	751.82						
Symmetrical Parabola	PVC	299+45.00	751.82	250	-6.51%	-6.85%	737.9	-0.11	3310.11
	POVC	299+50.00	751.5						
	POVC	300+00.00	748.22						
	POVC	300+50.00	744.91						
	PVI	300+70.00	743.69						
	POVC	301+00.00	741.57						
	POVC	301+50.00	738.19						
	PVRC	301+95.00	735.13						
Symmetrical Parabola	PVRC	301+95.00	735.13	200	-6.85%	-6.32%	375.6	0.13	
	POVC	302+00.00	734.78						
	POVC	302+50.00	731.4						
	PVI	302+95.00	728.28						
	POVC	303+00.00	728.08						
	POVC	303+50.00	724.83						
	PVT	303+95.00	721.96						
Linear	PVT	303+95.00	721.96	155	-6.32%				
	POVT	304+00.00	721.65						
	POVT	304+50.00	718.49						
	POVT	305+00.00	715.33						
	PVC	305+50.00	712.18						
Symmetrical Parabola	PVC	305+50.00	712.18	270	-6.32%	2.02%	32.38	2.81	
	POVC	306+00.00	709.4						
	POVC	306+50.00	707.4						
	PVI	306+85.00	703.65						
	POVC	307+00.00	706.18						
	POVC	307+50.00	705.72						
	VLOW	307+54.45	705.72						
	POVC	308+00.00	706.04						
	PVT	308+20.00	706.38						
Linear	PVT	308+20.00	706.38	97.5	2.02%				
	POVT	308+50.00	706.99						
	POVT	309+00.00	708						
	PVC	309+17.50	708.36						
Symmetrical Parabola	PVC	309+17.50	708.36	285	2.02%	-3.53%	51.28	-1.98	336.68
	POVC	309+50.00	708.91						
	POVC	310+00.00	709.36						
	VHIGH	310+21.33	709.41						
	POVC	310+50.00	709.33						
	PVI	310+60.00	711.24						
	POVC	311+00.00	708.8						
	POVC	311+50.00	707.79						
	POVC	312+00.00	706.3						
	PVT	312+02.50	706.21						
Linear	PVT	312+02.50	706.21	632.5	-3.53%				
	POVT	312+50.00	704.53						
	POVT	313+00.00	702.76						
	POVT	313+50.00	701						
	POVT	314+00.00	699.23						
	POVT	314+50.00	697.46						
	POVT	315+00.00	695.7						
	POVT	315+50.00	693.93						
	POVT	316+00.00	692.16						
	POVT	316+50.00	690.4						
	POVT	317+00.00	688.63						
	POVT	317+50.00	686.87						
	POVT	318+00.00	685.1						
	PVC	318+35.00	683.86						

PVC - POINT OF VERTICAL CURVATURE
PVT - POINT OF VERTICAL TANGENCY
PVI - POINT OF VERTICAL INTERSECTION
POVT - POINT ON VERTICAL TANGENT
POVT - POINT ON VERTICAL CURVE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
VERTICAL ALIGNMENT TABLE SHEET 3

PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 128 OF 211

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVC	318+35.00	683.86	530	-3.53%	-0.04%	151.8	2.31	
	POVC	318+50.00	683.34						
	POVC	319+00.00	681.7						
	POVC	319+50.00	680.23						
	POVC	320+00.00	678.93						
	POVC	320+50.00	677.79						
	PVI	321+00.00	674.5						
	POVC	321+00.00	676.81						
	POVC	321+50.00	676						
	POVC	322+00.00	675.36						
	POVC	322+50.00	674.87						
	POVC	323+00.00	674.56						
	POVC	323+50.00	674.4						
	PVT	323+65.00	674.39						
Linear	PVT	323+65.00	674.39	145	-0.04%				
	POVT	324+00.00	674.38						
	POVT	324+50.00	674.36						
	POVT	325+00.00	674.34						
	PVC	325+10.00	674.33						
Symmetrical Parabola	PVC	325+10.00	674.33	150	-0.04%	0.38%	353.5	0.08	
	VLOW	325+24.58	674.33						
	POVC	325+50.00	674.34						
	PVI	325+85.00	674.3						
	POVC	326+00.00	674.41						
	POVC	326+50.00	674.55						
	PVT	326+60.00	674.59						
Linear	PVT	326+60.00	674.59	120	0.38%				
	POVT	327+00.00	674.74						
	POVT	327+50.00	674.93						
	PVC	327+80.00	675.05						
Symmetrical Parabola	PVC	327+80.00	675.05	220	0.38%	0.00%	567.3	-0.11	2892.88
	POVC	328+00.00	675.12						
	POVC	328+50.00	675.27						
	PVI	328+90.00	675.47						
	POVC	329+00.00	675.38						
	POVC	329+50.00	675.44						
	VHIGH	329+97.33	675.46						
	PVT	330+00.00	675.46						
Linear	PVT	330+00.00	675.46	65	0.00%				
	POVT	330+50.00	675.46						
	PVC	330+65.00	675.46						
Symmetrical Parabola	PVC	330+65.00	675.46	430	0.00%	4.90%	87.69	2.64	
	VLOW	330+65.41	675.46						
	POVC	331+00.00	675.53						
	POVC	331+50.00	675.87						
	POVC	332+00.00	676.49						
	POVC	332+50.00	677.4						
	PVI	332+80.00	675.45						
	POVC	333+00.00	678.6						
	POVC	333+50.00	680.08						
	POVC	334+00.00	681.84						
	POVC	334+50.00	683.89						
	PVT	334+95.00	685.98						
Linear	PVT	334+95.00	685.98	200	4.90%				
	POVT	335+00.00	686.23						
	POVT	335+50.00	688.68						
	POVT	336+00.00	691.13						
	POVT	336+50.00	693.58						
	PVC	336+95.00	695.78						
Symmetrical Parabola	PVC	336+95.00	695.78	360	4.90%	-5.87%	33.41	-4.85	268.55
	POVC	337+00.00	696.02						
	POVC	337+50.00	698.02						
	POVC	338+00.00	699.28						
	POVC	338+50.00	699.78						
	VHIGH	338+58.70	699.79						
	PVI	338+75.00	704.6						
	POVC	339+00.00	699.54						
	POVC	339+50.00	698.54						
	POVC	340+00.00	696.8						
	POVC	340+50.00	694.32						
	PVT	340+55.00	694.03						
Linear	PVT	340+55.00	694.03	262.5	-5.87%				
	POVT	341+00.00	691.38						
	POVT	341+50.00	688.44						
	POVT	342+00.00	685.51						
	POVT	342+50.00	682.57						
	POVT	343+00.00	679.63						
	PVC	343+17.50	678.6						

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVC	343+17.50	678.6	185	-5.87%	-2.91%	62.42	0.69	
	POVC	343+50.00	676.78						
	POVC	344+00.00	674.3						
	PVI	344+10.00	673.17						
	POVC	344+50.00	672.23						
	POVC	345+00.00	670.55						
	PVT	345+02.50	670.48						
Linear	PVT	345+02.50	670.48	347.5	-2.91%				
	POVT	345+50.00	669.09						
	POVT	346+00.00	667.64						
	POVT	346+50.00	666.18						
	POVT	347+00.00	664.73						
	POVT	347+50.00	663.27						
	POVT	348+00.00	661.82						
	PVC	348+50.00	660.36						
Symmetrical Parabola	PVC	348+50.00	660.36	200	-2.91%	1.72%	43.21	1.16	
	POVC	349+00.00	659.19						
	PVI	349+50.00	657.45						
	POVC	349+50.00	658.61						
	VLOW	349+75.79	658.53						
	POVC	350+00.00	658.6						
	PVT	350+50.00	659.17						
Linear	PVT	350+50.00	659.17	40	1.72%				
	PVC	350+90.00	659.85						
Symmetrical Parabola	PVC	350+90.00	659.85	180	1.72%	1.59%	1467	-0.03	8883.27
	POVC	351+00.00	660.03						
	POVC	351+50.00	660.87						
	PVI	351+80.00	661.4						
	POVC	352+00.00	661.7						
	POVC	352+50.00	662.51						
	PVT	352+70.00	662.84						
Linear	PVT	352+70.00	662.84	230	1.59%				
	POVT	353+00.00	663.31						
	POVT	353+50.00	664.11						
	POVT	354+00.00	664.91						
	POVT	354+50.00	665.71						
	PVC	355+00.00	666.5						
Symmetrical Parabola	PVC	355+00.00	666.5	110	1.59%	2.89%	85.12	0.18	
	POVC	355+50.00	667.45						
	PVI	355+55.00	667.38						
	POVC	356+00.00	668.68						
	PVT	356+10.00	668.97						
Linear	PVT	356+10.00	668.97	285	2.89%				
	POVT	356+50.00	670.12						
	POVT	357+00.00	671.57						
	POVT	357+50.00	673.01						
	POVT	358+00.00	674.45						
	POVT	358+50.00	675.9						
	PVC	358+95.00	677.2						
Symmetrical Parabola	PVC	358+95.00	677.2	190	2.89%	-1.91%	39.65	-1.14	320.2
	POVC	359+00.00	677.34						
	POVC	359+50.00	678.4						
	PVI	359+90.00	679.94						
	POVC	360+00.00	678.84						
	VHIGH	360+09.47	678.85						
	POVC	360+50.00	678.64						
	PVT	360+85.00	678.13						
Linear	PVT	360+85.00	678.13	75	-1.91%				
	POVT	361+00.00	677.84						
	POVT	361+50.00	676.89						
	PVC	361+60.00	676.7						
Symmetrical Parabola	PVC	361+60.00	676.7	190	-1.91%	1.98%	48.86	0.92	
	POVC	362+00.00	676.1						
	POVC	362+50.00	675.81						
	VLOW	362+53.07	675.81						
	PVI	362+55.00	674.89						
	POVC	363+00.00	676.04						
	PVT	363+50.00	676.77						
Linear	PVT	363+50.00	676.77	325	1.98%				
	POVT	364+00.00	677.77						
	POVT	364+50.00	678.76						
	POVT	365+00.00	679.75						
	POVT	365+50.00	680.74						
	POVT	366+00.00	681.73						
	POVT	366+50.00	682.73						
	PVC	366+75.00	683.22						

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVC	366+75.00	683.22	270	1.98%	5.26%	82.52	1.1	
	POVC	367+00.00	683.76						
	POVC	367+50.00	685.05						
	POVC	368+00.00	686.65						
	PVI	368+10.00	685.9						
	POVC	368+50.00	688.55						
	POVC	369+00.00	690.75						
	PVT	369+45.00	693						
Linear	PVT	369+45.00	693	96.5	5.26%				
	POVT	369+50.00	693.26						
	POVT	370+00.00	695.89						
	PVC	370+41.50	698.07						
Symmetrical Parabola /EQNBK/EQNAHD	PVC	370+41.50	698.07	260	5.26%	-0.10%	48.53	-1.74	331.42
		370+41.50							
		A 0+00.00							
	PVI	A 1+30.00	704.9						
	POVC	A 0+50.00	700.44						
	POVC	A 1+00.00	702.29						
	POVC	A 1+50.00	703.63						
	POVC	A 2+00.00	704.46						
	POVC	A 2+50.00	704.77						
	VHIGH	A 2+55.06	704.77						
	PVT	A 2+60.00	704.77						
Linear	PVT	A 2+60.00	704.77	22.5	-0.10%				
	PVC	A 2+82.50	704.74						
Symmetrical Parabola	PVC	A 2+82.50	704.74	285	-0.10%	8.01%	35.12	2.89	
	VLOW	A 2+86.07	704.74						
	POVC	A 3+00.00	704.77						
	POVC	A 3+50.00	705.32						
	POVC	A 4+00.00	706.59						
	PVI	A 4+25.00	704.6						
	POVC	A 4+50.00	708.57						
	POVC	A 5+00.00	711.26						
	POVC	A 5+50.00	714.66						
	PVT	A 5+67.50	716.02						
Linear	PVT	A 5+67.50	716.02	122.5	8.01%				
	POVT	A 6+00.00	718.62						
	POVT	A 6+50.00	722.63						
	PVC	A 6+90.00	725.84						
Symmetrical Parabola	PVC	A 6+90.00	725.84	490	8.01%	-0.68%	56.36	-5.33	348.77
	POVC	A 7+00.00	726.63						
	POVC	A 7+50.00	730.33						
	POVC	A 8+00.00	733.58						
	POVC	A 8+50.00	736.39						
	POVC	A 9+00.00	738.75						
	PVI	A 9+35.00	745.47						
	POVC	A 9+50.00	740.67						
	POVC	A 10+00.00	742.15						
	POVC	A 10+50.00	743.19						
	POVC	A 11+00.00	743.78						
	VHIGH	A 11+41.65	743.93						
	POVC	A 11+50.00	743.93						
	PVT	A 11+80.00	743.8						
Linear	PVT	A 11+80.00	743.8	110	-0.68%				
	POVT	A 12+00.00	743.67						
	POVT	A 12+50.00	743.33						
	PVC	A 12+90.00	743.05						
Symmetrical Parabola	PVC	A 12+90.00	743.05	120	-0.68%	-1.16%	251.1	-0.07	2318.08
	POVC	A 13+00.00	742.98						
	PVI	A 13+50.00	742.65						
	POVC	A 13+50.00	742.57						
	POVC	A 14+00.00	742.07						
	PVT	A 14+10.00	741.95						
Linear	PVT	A 14+10.00	741.95	120	-1.16%				
	POVT	A 14+50.00	741.49						
	POVT	A 15+00.00	740.91						
	PVC	A 15+30.00	740.56						
Symmetrical Parabola	PVC	A 15+30.00	740.56	150	-1.16%	0.06%	123.4	0.23	
	POVC	A 15+50.00	740.35						
	POVC	A 16+00.00	739.95						
	PVI	A 16+05.00	739.69						
	POVC	A 16+50.00	739.75						
	VLOW	A 16+72.93	739.73						
	PVRC	A 16+80.00	739.74						

PVC - POINT OF VERTICAL CURVATURE
PVT - POINT OF VERTICAL TANGENCY POVT - POINT ON VERTICAL TANGENT
PVI - POINT OF VERTICAL INTERSECTION POVT - POINT ON VERTICAL CURVE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244.dgn PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP DRAWN BY: J. GOODALL
DESIGNED BY: S. LAMPHERE CHECKED BY: C. LATHROP
VERTICAL ALIGNMENT TABLE SHEET 4 SHEET 129 OF 211

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVRC	A 16+80.00	739.74	100	0.06%	-0.77%	121.4	-0.1	1359.93
	VHIGH	A 16+86.96	739.74						
	POVC	A 17+00.00	739.73						
	PVI	A 17+30.00	739.76						
	POVC	A 17+50.00	739.57						
	PVT	A 17+80.00	739.38						
Linear	PVT	A 17+80.00	739.38	215	-0.77%				
	PVC	A 19+95.00	737.73						
	POVT	A 18+00.00	739.23						
	POVT	A 18+50.00	738.84						
	POVT	A 19+00.00	738.46						
	POVT	A 19+50.00	738.08						
Symmetrical Parabola	PVC	A 19+95.00	737.73	400	-0.77%	-4.56%	105.6	-1.89	484.85
	PVI	A 21+95.00	736.2						
	PVT	A 23+95.00	727.09						
	POVC	A 20+00.00	737.69						
	POVC	A 20+50.00	737.17						
	POVC	A 21+00.00	736.41						
	POVC	A 21+50.00	735.41						
	POVC	A 22+00.00	734.17						
	POVC	A 22+50.00	732.7						
	POVC	A 23+00.00	730.99						
	POVC	A 23+50.00	729.04						
Linear	PVT	A 23+95.00	727.09	65	-4.56%				
	PVC	A 24+60.00	724.13						
	POVT	A 24+00.00	726.86						
	POVT	A 24+50.00	724.58						
Symmetrical Parabola	PVC	A 24+60.00	724.13	270	-4.56%	2.44%	38.59	2.36	
	POVC	A 25+00.00	722.51						
	POVC	A 25+50.00	721.08						
	PVI	A 25+95.00	717.98						
	POVC	A 26+00.00	720.29						
	VLOW	A 26+35.78	720.13						
	POVC	A 26+50.00	720.15						
	POVC	A 27+00.00	720.66						
	PVT	A 27+30.00	721.28						
Linear	PVT	A 27+30.00	721.28	55	2.44%				
	POVT	A 27+50.00	721.76						
	PVC	A 27+85.00	722.62						
Symmetrical Parabola	PVC	A 27+85.00	722.62	150	2.44%	-1.39%	39.11	-0.72	356.36
	PVI	A 28+60.00	724.45						
	PVT	A 29+35.00	723.4						
	VHIGH	A 28+80.48	723.78						
	POVC	A 28+00.00	722.96						
	POVC	A 28+50.00	723.67						
	POVC	A 29+00.00	723.74						
Linear	PVT	A 29+35.00	723.4	205	-1.39%				
	PVC	A 31+40.00	720.55						
	POVT	A 29+50.00	723.2						
	POVT	A 30+00.00	722.5						
	POVT	A 30+50.00	721.8						
	POVT	A 31+00.00	721.1						
Symmetrical Parabola	PVC	A 31+40.00	720.55	100	-1.39%	-1.38%	10792	0	
	POVC	A 31+50.00	720.41						
	PVI	A 31+90.00	719.85						
	POVC	A 32+00.00	719.71						
	PVRC	A 32+40.00	719.16						
Symmetrical Parabola	PVRC	A 32+40.00	719.16	110	-1.38%	-1.47%	1346	-0.01	13260.14
	POVC	A 32+50.00	719.02						
	PVI	A 32+95.00	718.4						
	POVC	A 33+00.00	718.31						
	PVT	A 33+50.00	717.59						
Linear	PVT	A 33+50.00	717.59	70	-1.47%				
	POVT	A 34+00.00	716.86						
	PVC	A 34+20.00	716.56						
Symmetrical Parabola	PVC	A 34+20.00	716.56	100	-1.47%	-0.30%	85.93	0.15	
	POVC	A 34+50.00	716.18						
	PVI	A 34+70.00	715.83						
	POVC	A 35+00.00	715.76						
	PVT	A 35+20.00	715.68						
Linear	PVT	A 35+20.00	715.68	170	-0.30%				
	POVT	A 35+50.00	715.59						
	POVT	A 36+00.00	715.44						
	POVT	A 36+50.00	715.29						
	PVC	A 36+90.00	715.16						
Symmetrical Parabola	PVC	A 36+90.00	715.16	100	-0.30%	-0.46%	651.9	-0.02	7084.84
	POVC	A 37+00.00	715.13						
	PVI	A 37+40.00	715.01						
	POVC	A 37+50.00	714.95						
	PVT	A 37+90.00	714.78						

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Linear	PVT	A 37+90.00	714.78	180	-0.46%				
	POVT	A 38+00.00	714.74						
	POVT	A 38+50.00	714.51						
	POVT	A 39+00.00	714.28						
	POVT	A 39+50.00	714.06						
	PVC	A 39+70.00	713.96						
Symmetrical Parabola	PVC	A 39+70.00	713.96	300	-0.46%	4.42%	61.57	1.83	
	VLOW	A 39+98.08	713.9						
	POVC	A 40+00.00	713.9						
	POVC	A 40+50.00	714.12						
	POVC	A 41+00.00	714.74						
	PVI	A 41+20.00	713.28						
	POVC	A 41+50.00	715.77						
	POVC	A 42+00.00	717.21						
	POVC	A 42+50.00	719.05						
	PVT	A 42+70.00	719.9						
Linear	PVT	A 42+70.00	719.9	240	4.42%				
	POVT	A 43+00.00	721.23						
	POVT	A 43+50.00	723.44						
	POVT	A 44+00.00	725.65						
	POVT	A 44+50.00	727.85						
	POVT	A 45+00.00	730.06						
	PVC	A 45+10.00	730.5						
Symmetrical Parabola	PVC	A 45+10.00	730.5	310	4.42%	-4.03%	36.7	-3.27	281.46
	POVC	A 45+50.00	732.05						
	POVC	A 46+00.00	733.38						
	POVC	A 46+50.00	734.02						
	PVI	A 46+65.00	737.35						
	VHIGH	A 46+72.11	734.08						
	POVC	A 47+00.00	733.98						
	POVC	A 47+50.00	733.26						
	POVC	A 48+00.00	731.86						
	PVT	A 48+20.00	731.1						
Linear	PVT	A 48+20.00	731.1	85	-4.03%				
	POVT	A 48+50.00	729.9						
	POVT	A 49+00.00	727.88						
	PVC	A 49+05.00	727.68						
	PVC	A 49+05.00	727.68						
Symmetrical Parabola	PVC	A 49+05.00	727.68	270	-4.03%	-1.66%	114	0.8	
	POVC	A 49+50.00	725.96						
	POVC	A 50+00.00	724.25						
	PVI	A 50+40.00	722.24						
	POVC	A 50+50.00	722.76						
	POVC	A 51+00.00	721.49						
	POVC	A 51+50.00	720.44						
	PVT	A 51+75.00	720						
Linear	PVT	A 51+75.00	720	177.5	-1.66%				
	POVT	A 52+00.00	719.58						
	POVT	A 52+50.00	718.75						
	POVT	A 53+00.00	717.92						
	POVT	A 53+50.00	717.09						
	PVC	A 53+52.50	717.05						
Symmetrical Parabola	PVC	A 53+52.50	717.05	275	-1.66%	3.20%	56.59	1.67	
	POVC	A 54+00.00	716.46						
	VLOW	A 54+46.43	716.27						
	POVC	A 54+50.00	716.27						
	PVI	A 54+90.00	714.77						
	POVC	A 55+00.00	716.53						
	POVC	A 55+50.00	717.22						
	POVC	A 56+00.00	718.36						
	PVT	A 56+27.50	719.17						
Linear	PVT	A 56+27.50	719.17	217.5	3.20%				
	POVT	A 56+50.00	719.89						
	POVT	A 57+00.00	721.49						
	POVT	A 57+50.00	723.09						
	POVT	A 58+00.00	724.69						
	PVC	A 58+45.00	726.13						
Symmetrical Parabola	PVC	A 58+45.00	726.13	400	3.20%	3.25%	7778	0.03	
	POVC	A 58+50.00	726.29						
	POVC	A 59+00.00	727.89						
	POVC	A 59+50.00	729.5						
	POVC	A 60+00.00	731.1						
	PVI	A 60+45.00	732.53						
	POVC	A 60+50.00	732.72						
	POVC	A 61+00.00	734.33						
	POVC	A 61+50.00	735.95						
	POVC	A 62+00.00	737.57						
	PVT	A 62+45.00	739.03						

Element		Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Linear	PVT	A 62+45.00	739.03	465	3.25%				
	POVT	A 62+50.00	739.19						
	POVT	A 63+00.00	740.82						
	POVT	A 63+50.00	742.45						
	POVT	A 64+00.00	744.07						
	POVT	A 64+50.00	745.7						
	POVT	A 65+00.00	747.32						
	POVT	A 65+50.00	748.95						
	POVT	A 66+00.00	750.57						
	POVT	A 66+50.00	752.2						
	POVT	A 67+00.00	753.82						
	PVC	A 67+10.00	754.15						
Symmetrical Parabola	PVC	A 67+10.00	754.15	480	3.25%	-1.05%	111.7	-2.58	491.07
	POVC	A 67+50.00	755.38						
	POVC	A 68+00.00	756.71						
	POVC	A 68+50.00	757.82						
	POVC	A 69+00.00	758.71						
	PVI	A 69+50.00	761.95						
	POVC	A 69+50.00	759.37						
	POVC	A 70+00.00	759.81						
	POVC	A 70+50.00	760.03						
	VHIGH	A 70+73.07	760.05						
	POVC	A 71+00.00	760.02						
	POVC	A 71+50.00	759.79						
	PVT	A 71+90.00	759.44						
Linear	PVT	A 71+90.00	759.44	95	-1.05%				
	POVT	A 72+00.00	759.33						
	POVT	A 72+50.00	758.81						
	PVC	A 72+85.00	758.44						
Symmetrical Parabola	PVC	A 72+85.00	758.44	190	-1.05%	-0.59%	418.1	0.11	
	POVC	A 73+00.00	758.29						
	POVC	A 73+50.00	757.81						
	PVI	A 73+80.00	757.45						
	POVC	A 74+00.00	757.4						
	POVC	A 74+50.00	757.04						
	PVT	A 74+75.00	756.89						
Linear	PVT	A 74+75.00	756.89	105	-0.59%				
	POVT	A 75+00.00	756.74						
	POVT	A 75+50.00	756.44						
	PVC	A 75+80.00	756.26						
Symmetrical Parabola	PVC	A 75+80.00	756.26	140	-0.59%	-2.48%	74.2	-0.33	641.98
	POVC	A 76+00.00	756.12						
	PVI	A 76+50.00	755.85						
	POVC	A 76+50.00	755.52						
	POVC	A 77+00.00	754.58						
	PVT	A 77+20.00	754.11						
Linear	PVT	A 77+20.00	754.11	21.59	-2.48%				
	POE	A 77+41.59	753.58						

PVC - POINT OF VERTICAL CURVATURE
PVT - POINT OF VERTICAL TANGENCY POVT - POINT ON VERTICAL TANGENT
PVI - POINT OF VERTICAL INTERSECTION POVT - POINT ON VERTICAL CURVE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244.dgn PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE CHECKED BY: C. LATHROP
VERTICAL ALIGNMENT TABLE SHEET 5 SHEET 130 OF 211

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 kPa	CONSISTENCY
<12	Very Soft
12-24	Soft
24-48	Med. Stiff
48-96	Stiff
96-192	Very Stiff
>192	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 300 mm For: 50.8 mm O.D. Sampler 35.0 mm I.D. Sampler Hammer Weight Of 63.5 kg. Hammer Fall Of 762 mm
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 30.1mm
BX	Core Size 42.0 mm
NX	Core Size 54.7 mm
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	To 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)
OW	Indicates a temporary observation well installed

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 > 304.8 mm.

COBBLE - Rock fragments with an average dimension between 76.2 and 304.8 mm.

GRAVEL - Rounded particles of rock < 76.2 mm and > 2 mm (#10 sieve).

SAND - Particles of rock < 2 mm (#10 sieve) and > 75 μm (#200 sieve).

SILT - Soil < 75 μm (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

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

VARVED - Alternate layers of silt and clay.

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

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

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

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

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

DIP - Inclination of bed with a horizontal plane.

GENERAL NOTES

1. The test borings shown herein were drilled by the Agency between the period from 05/14/12 through 05/15/12.

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

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

4. Engineering judgement 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 judgement 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.

SEE PROJECT LAYOUT SHEETS FOR THE LOCATIONS OF BORE HOLES

PROJECT NAME: RANDOLPH
PROJECT NUMBER: STP 2932(1)

FILE NAME: z10c244boring.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: B. BRESLEND
BORING LOG SHEET 1

PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 131 OF 211

CHA
11 Winners Circle, PO Box 5269 • Albany, NY • 12205-0269
phn: (518) 453-4500 • www.chacompanies.com

Bethel-Randolph STP 2921(1)
Client: Vermont Agency of Transportation
Contractor: Platform Environmental Drilling
Driller: C. Aldrich / Inspector: K. Owens

VT State Route 12
Pavement Rehabilitation
CHA No. 24150
Auger Probe Log

BORING NO.	DATE DRILLED	MILE MARKER	OFFSET (FT)	DEPTH (FT) T	DEPTH (FT) B	SAMPLE TYPE	FIELD DESCRIPTION: SOIL TYPE, COLOR, MOISTURE	LAB: % MOISTURE	LAB: AASHTO CLASS.	LAB: ASTM CLASS.	LAB: % GRAVEL	LAB: % SAND	LAB: % FINES	LAB: LIQUID LIMIT	LAB: PLASTIC LIMIT	DRILLING NOTES: (LAT, LONG - Decimal Degrees)
B-101	5/10/2012	2.30	5.5	0.0	1.17		Asphalt Pavement									Auger grinding to 3.0 ft.
				1.2	1.8		Subbase									
				1.8	3.0	Auger	f.m.c. SAND, l. silt, t. f.c. gravel, d. brn, moist		A-4	SM						
				3	5.0	Auger	f. SAND, S. Silt, t. m.c. sand, t. f.c. gravel, brn, moist		A-4	SM						
							End of Boring @ 5.0 feet									(-72.6426970956, 43.83388005566)
B-102	5/10/2012	2.50	7.5	0.0	1.33		Asphalt Pavement									Auger grinding to 3.0 ft.
				1.3	2.0		Subbase									
				2.0	3.0	Auger	f.m.c. SAND, l. f.c. gravel, t. silt, brn, moist	15.1	A-4	SM	17.1	42.0	40.9			
				3.0	5.0	Auger	f. SAND, S. Silt, t. m.c. sand, t. f.c. gravel, brn, moist	10.8	A-4	SM	0.7	58.2	41.1			
							End of Boring @ 5.0 feet									(-72.6455550086, 43.8360406977)
B-103	5/10/2012	2.70	5.5	0.0	1.17		Asphalt Pavement - 10" Top Coat, 4" Decomposed Base									Auger grinding full depth.
				1.2	1.8		Subbase									
				1.8	5.0	Auger	f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
							End of Boring @ 5.0 feet									(-72.6480491377, 43.83836628573)
B-104	5/11/2012	2.90	7	0.0	1.33		Asphalt Pavement - 3" Top Coat, 13" Decomposed Base									Auger grinding 3.0 ft to 5.0 ft.
				1.3	2.3	Auger	Subbase - f.c. GRAVEL and f.m.c. SAND, l. silt, brn, moist	4.0	A-1-b	SM	42.1	39.1	18.8			
				2.3	5.0	Auger	SILT, l. f.m.c. sand, t. f.c. gravel, brn/gry, moist	30.7	A-4	ML	2.4	15.4	82.2			
							End of Boring @ 5.0 feet									(-72.6496312868, 43.8408287531)
B-105	5/11/2012	3.10	6	0.0	1.0		Asphalt Pavement - 3" Top Coat, 9" Decomposed Base									Boring advanced adj. to rock
				1.0	2.0	Auger	Subbase - f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						outcrop and on top of slope.
				2.0	5.0	Auger	SILT, l. f.m.c. sand, t. f.c. gravel, brn/gry, moist		A-4	ML						Drilling resistance dec. at 2.7 ft.
							End of Boring @ 5.0 feet									(-72.649582022, 43.84391841143)
B-106	5/11/2012	3.30	6.5	0.0	1.25		Asphalt Pavement - 3" Top Coat, 12" Decomposed Base									
				1.3	3.5	Auger	Subbase - f.m.c. SAND, l. silt, f.c. gravel, brn, moist		A-4	SM						
				3.5	5.0	Auger	grades to f.m. sand		A-4	SM						
							End of Boring @ 5.0 feet									(-72.6488555639, 43.84658227354)
B-107	5/11/2012	3.50	6	0.0	1.0		Asphalt Pavement - 3" Top Coat, 9" Decomposed Base									
				1.0	3.0	Auger	Subbase - f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				3.0	5.0	Auger	grades to f.m. sand, t. f.c. gravel		A-4	SM						
							End of Boring @ 5.0 feet									(-72.6470794637, 43.84940222105)
B-108	5/11/2012	3.70	5.5	0.0	1.0		Asphalt Pavement - 3" Top Coat, 9" Decomposed Base									
				1.0	4.0	Auger	Subbase - f.m.c. SAND, S. Silt, S f.c. Gravel, brn, moist	5.3	A-2-b	SM	23.3	49.2	27.6			
				4.0	5.0	Auger	f.m. SAND, l. silt, brn, moist	8.0	A-2-4	SM	0.0	71.8	28.2			
							End of Boring @ 5.0 feet									(-72.6470783645, 43.852116458488)

BORING NO.	DATE DRILLED	MILE MARKER	OFFSET (FT)	DEPTH (FT) T	DEPTH (FT) B	SAMPLE TYPE	FIELD DESCRIPTION: SOIL TYPE, COLOR, MOISTURE	LAB: % MOISTURE	LAB: AASHTO CLASS.	LAB: ASTM CLASS.	LAB: % GRAVEL	LAB: % SAND	LAB: % FINES	LAB: LIQUID LIMIT	LAB: PLASTIC LIMIT	DRILLING NOTES: (LAT, LONG - Decimal Degrees)
B-117A	5/11/2012	5.50	6.5	0.0	0.8		Asphalt Pavement - Decomposed									Auger grinding entire depth.
				0.8	4.5	Auger	f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				4.5	5.0		becomes d. brn/gry		A-4	SM						
							End of Boring @ 5.0'									(-72.6474970905, 43.876364395108)
B-118	5/11/2012	5.70	5.5	0.0	1.2		Asphalt Pavement - 6" Top Coat, 8" Decomposed Base									Auger grinding entire depth.
				1.2	2.0	Auger	Subbase - f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				2.0	5.0		becomes gry		A-4	SM						
							End of Boring @ 5.0'									(-72.64669668, 43.87902647438)
B-119	5/11/2012	5.90	5	0.0	1.5		Asphalt Pavement - 3" Top Coat, 15" Decomposed Base									
				1.5	3.0	Auger	f.c. GRAVEL & f.m.c. SAND, S. silt, brn, moist	2.4	A-1-b	SM	45.7	38.0	16.3			
				3.0	5.0	Auger	SILT, S. f.m.c. Sand, l. f.c. gravel, brn/d. brn/orng, moist	11.2	A-4	ML	12.5	33.6	54.0			
							End of Boring @ 5.0'									(-72.6455185492, 43.88184492546)
B-120	5/11/2012	6.10	6	0.0	1.5		Asphalt Pavement - 3" Top, 15" Decomposed Base									
				1.5	2.5	Auger	Subbase - f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				2.5	5.0	Auger	becomes d. brn/orng mottled		A-4	SM						
							End of Boring @ 5.0'									(-72.6457066944, 43.8845956204)
B-121	5/11/2012	6.30	5	0.0	1.3		Asphalt Pavement - 3" Top Coat, 13" Decomposed Base									No bedrock outcrops visible
				1.3	4.5	Auger	f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						at the ground surface adj.
																to boring location, possible
							Auger refusal @ 4.5'									refusal on boulder.
B-122	5/11/2012	6.50	5.5	0.0	1.1		Asphalt Pavement - 3" Top Coat, 10" Decomposed Base									(-72.6466782074, 43.88731805176)
				1.1	5.0	Auger	f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
							Auger refusal @ 4.3'									(-72.6481972464, 43.88965399783)
B-123	5/11/2012	6.70	6	0.0	1.2		Asphalt Pavement - 3" Top Coat, 11" Decomposed Base									
				1.2	2.2	Auger	Subbase - f.m.c. SAND & Silt, S. f.c. Gravel, brn, moist	10.0	A-4	SM	23.3	41.0	35.7			
				2.2	5.0	Auger	SILT & f.m.c. Sand, l. f.c. gravel, d. brn, moist	22.7	A-4	SM	16.5	35.6	47.9			
							End of Boring @ 5.0'									(-72.6499959884, 43.8922601782)
B-124	5/11/2012	6.90	6	0.0	1.5		Asphalt Pavement - 3" Top Coat, 15" Decomposed Base									Auger grinding full depth.
				1.5	3.5	Auger	f.m.c. SAND, l. silt, l. f. gravel, brn, moist		A-4	SM						
				3.5	5.0	Auger	turns d. brn		A-4	SM						
							End of Boring @ 5.0'									(-72.6520241145, 43.89475501465)

BORING NO.	DATE DRILLED	MILE MARKER	OFFSET (FT)	DEPTH (FT) T	DEPTH (FT) B	SAMPLE TYPE	FIELD DESCRIPTION: SOIL TYPE, COLOR, MOISTURE	LAB: % MOISTURE	LAB: AASHTO CLASS.	LAB: ASTM CLASS.	LAB: % GRAVEL	LAB: % SAND	LAB: % FINES	LAB: LIQUID LIMIT	LAB: PLASTIC LIMIT	DRILLING NOTES: (LAT, LONG - Decimal Degrees)
B-109	5/11/2012	3.90	6	0.0	0.92		Asphalt Pavement - 4" Top Coat, 7" Decomposed Base									Drilling resistance dec. at 3.0 ft.
				0.9	3.0	Auger	Subbase - f.c. GRAVEL & f.m.c. SAND, S. Silt, brn, moist	3.7	A-1-b	SM	42.2	37.4	20.4			
				3.0	5.0	Auger	SILT, S. f. Sand, d. brn, moist	26.3	A-4	ML	0.8	37.2	62.0			
							End of Boring @ 5.0'									(-72.647696654, 43.85494676265)
B-110	5/11/2012	4.10	6	0.0	1.0		Asphalt Pavement - 3" Top Coat, 3" Base, 6" Decom. Base									Auger grinding to 2.5 ft.
				1.0	2.5	Auger	Subbase - f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				2.5	5.0	Auger	SILT, l. f. sand, d. brn/gry, moist		A-4	ML						
							End of Boring @ 5.0'									(-72.6495186653, 43.8572569141)
B-111	5/11/2012	4.30	5	0.0	1.17		Asphalt Pavement - 3" Top Coat, 11" Base									Drilling difficulty dec. at 2.5 ft.
				1.2	2.5	Auger	Subbase - f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				2.5	5.0	Auger	f.m. SAND, S. f.c. Gravel, l. silt, brn, moist		A-4	SM						
							End of Boring @ 5.0'									(-72.6481424541, 43.860058757)
B-112	5/11/2012	4.50	6.5	0.0	1.08		Asphalt Pavement - 3" Top Coat, 10" Decomposed Base									Drilling difficult dec. at 4.0 ft.
				1.1	4.0	Auger	Subbase - f.c. GRAVEL, S. f.m.c. sand, l. silt, brn, moist	2.4	A-1-b	SM	50.7	32.8	16.5			
				4.0	5.0	Auger	SILT & f.m.c. SAND, t. f.c. gravel, brn/d. brn/orng, moist	18.3	A-4	SM	7.5	45.9	46.7			
							End of Boring @ 5.0'									(-72.647436622, 43.86298753545)
B-113	5/11/2012	4.70	5	0.0	1.0		Asphalt Pavement - 3" Top Coat, 9" Decomposed Base									Auger grinding 4.0 ft to 5.0 ft.
				1.0	2.5	Auger	Subbase - f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				2.5	4.0		f. SAND, S. Silt, brn/orng, moist		A-4	SM						
				4.0	5.0		f.m. SAND, l. silt, l. f.c. gravel, l. brn, moist		A-4	SM						
							End of Boring @ 5.0'									(-72.6457488864, 43.865502915502)
B-114	5/11/2012	4.90	6.5	0.0	0.92		Asphalt Pavement - 3" Top Coat, 8" Decomposed Base									
				0.9	5.0	Auger	f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
							End of Boring @ 5.0'									(-72.6441953624, 43.86822900313)
B-115	5/11/2012	5.10	5	0.0	0.92		Asphalt Pavement - 4" Top Coat, 7" Decomposed Base									
				0.9	3.5	Auger	f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				3.5	5.0	Auger	becomes d. brn		A-4	SM						
							End of Boring @ 5.0'									(-72.6455684766, 43.87073803072)
B-116	5/11/2012	5.30	5	0.0	0.83		Asphalt Pavement - 4" Top Coat, 6" Decomposed Base									Difficult drilling entire depth.
				0.8	5.0	Auger	f.c. GRAVEL & f.m.c. SAND, S. silt, brn, moist	5.5	A-1-b	SM	40.2	38.7	21.2			
							End of Boring @ 5.0'									(-72.6471080789, 43.8730487505)

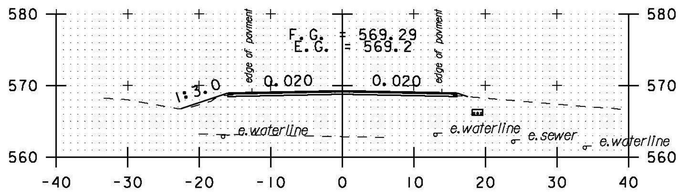
BORING NO.	DATE DRILLED	MILE MARKER	OFFSET (FT)	DEPTH (FT) T	DEPTH (FT) B	SAMPLE TYPE	FIELD DESCRIPTION: SOIL TYPE, COLOR, MOISTURE	LAB: % MOISTURE	LAB: AASHTO CLASS.	LAB: ASTM CLASS.	LAB: % GRAVEL	LAB: % SAND	LAB: % FINES	LAB: LIQUID LIMIT	LAB: PLASTIC LIMIT	DRILLING NOTES: (LAT, LONG - Decimal Degrees)
B-125	5/11/2012	0.20	6	0.0	1.0		Asphalt Pavement - 3" Top Coat, 9" Decomposed Base									Boulders visible at ground surf.
				1.0	4.0	Auger	f.m.c. SAND, l. silt, l. f. gravel, brn, moist		A-4	SM						
																Very diff. augering entire depth.
							Auger refusal @ 4.0'									(-72.6540123954, 43.897278612354)
B-126	5/11/2012	0.40	6	0.0	1.4		Asphalt Pavement - 3" Top Coat, 14" Decomposed Base									Auger grinding to 2.5 ft.
				1.4	2.5	Auger	Subbase - f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				2.5	5.0	Auger	SILT, l. f.m.c. sand, t. f.c. gravel, d. brn, moist		A-4	ML						
							End of Boring @ 5.0'									(-72.6560204523, 43.89975795857)
B-127	5/14/2012	0.60	5	0.0	1.0		Asphalt Pavement - 6" Top Coat, 6" Decomposed Base									
				1.0	3.0	Auger	f.m.c. SAND, l. silt, l. f. gravel, brn, moist		A-4	SM						
				3.0	5.0		becomes d. brn		A-4	SM						
							End of Boring @ 5.0'									(-72.6572529391, 43.90258387664)
B-128	5/14/2012	0.80	6	0.0	1.0		Asphalt Pavement - 9" Top, 3" Decomposed									
				1.0	4.0	Auger	f.m.c. SAND, S. Silt, S f.c. Gravel, brn, moist	7.2	A-2-4	SM	27.8	40.2	31.9			
				4.0	5.0	Auger	becomes gray	12.7	A-4	SM	12.8	47.5	39.7			
							End of Boring @ 5.0'									(-72.6591432242, 43.90519612566)
B-129	5/14/2012	1.00	5.5	0.0	1.0		Asphalt Pavement - 9" Top, 3" Decomposed									
				1.0	2.3	Auger	Subbase - f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				2.3	5.0	Auger	f. SAND, S. Silt, brn, moist		A-4	SM						
							End of Boring @ 5.0'									(-72.6612395133, 43.90767159047)
B-130	5/14/2012	1.20	7	0.0	0.7		Asphalt Pavement - 9" Top, 3" Decomposed									Auger grinding full depth.
				0.7	2.5	Auger	Subbase - f.m.c. SAND, l. silt, l. f.c. gravel, brn, moist		A-4	SM						
				2.5	5.0	Auger	f. SAND, S. Silt, d. gray, moist		A-4	SM						Sand has asphalt odor.
							End of Boring @ 5.0'									(-72.6633888248, 43.90997194583)
B-131	5/14/2012	1.40	6	0.0	1.0		Asphalt Pavement - 8" Top, 4" Decomposed									
				1.0	3.5	Auger	f.c. GRAVEL & f.m.c. SAND, S Silt, brn, moist	4.3	A-1-b	SM	41.1	35.5	23.4			
				3.5	5.0	Auger	SILT & f.m.c. SAND, t. f.c. gravel, d. brn, moist	12.7	A-4	ML	11.7	36.9	51.5			
							End of Boring @ 5.0'									(-72.664438305, 43.91284249037)
B-132	5/14/2012	1.50	7	0.0	1.0		Asphalt Pavement - 6" Top Coat, 6" Decomposed Base									
				1.0	2.8	Auger	Subbase - f.m.c. SAND, S. f.c. Gravel, l. silt, l. brn, moist		A-4	SM						
				2.8	5.0		becomes d. brn		A-4	SM						
							End of Boring @ 5.0'									(-72.6647219996, 43.913968542101)

NOTE: SEE PROJECT LAYOUT SHEETS FOR THE LOCATION OF BORE HOLES

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244boring.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
BORING LOG SHEET 2

PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP



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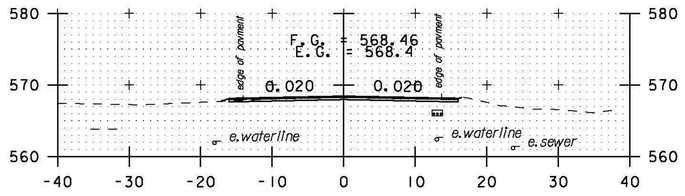

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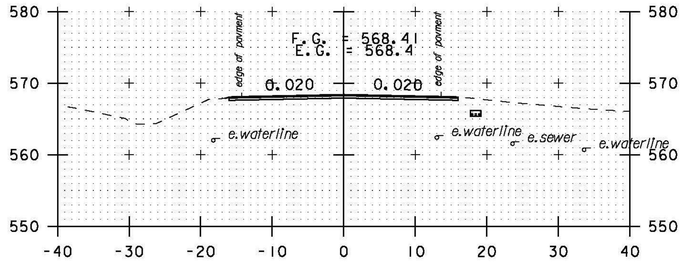

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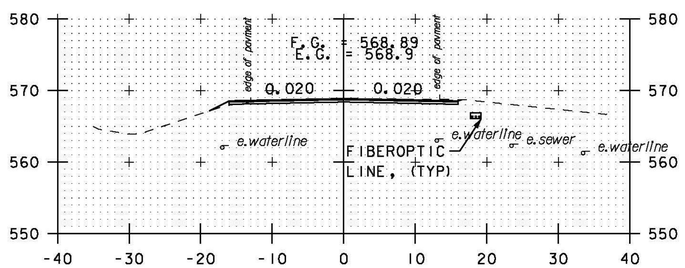

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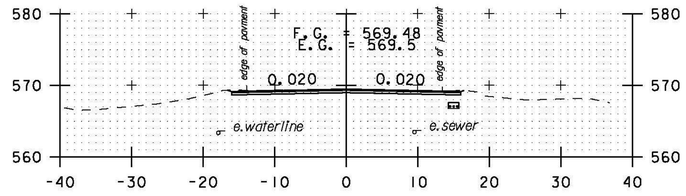

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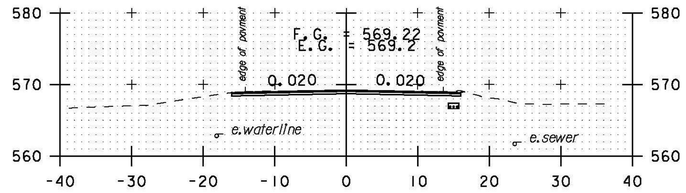

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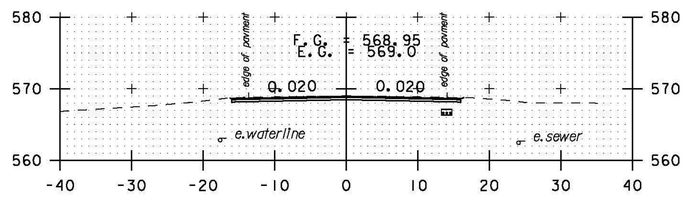

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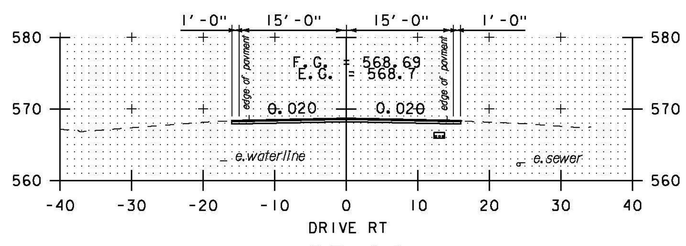

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STA. 124+00 TO STA. 128+50

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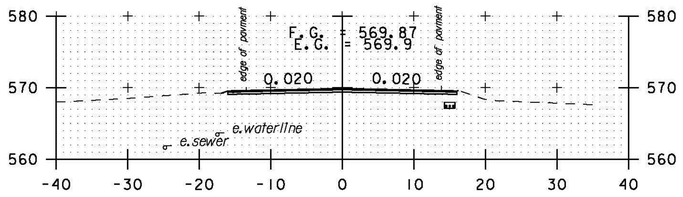
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(I)
FILE NAME: pI0C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET I	SHEET 135 OF 211



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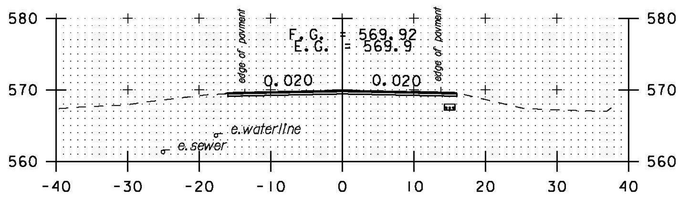

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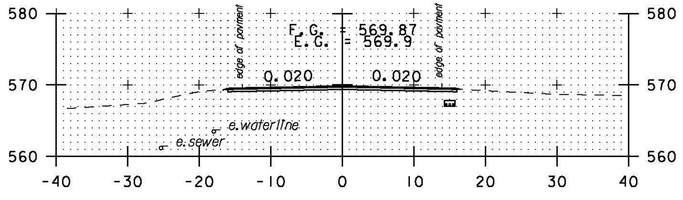

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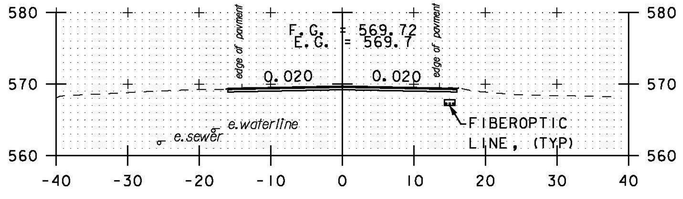

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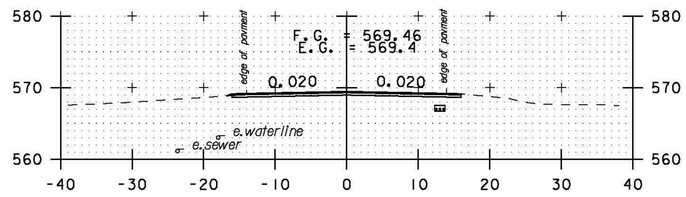

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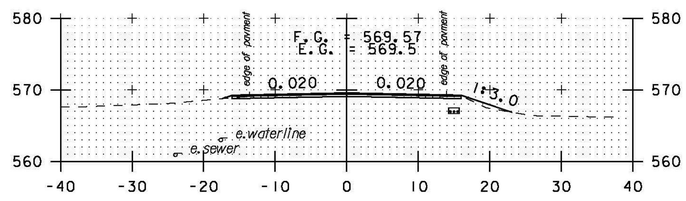

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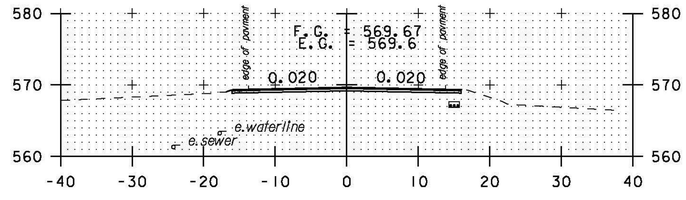

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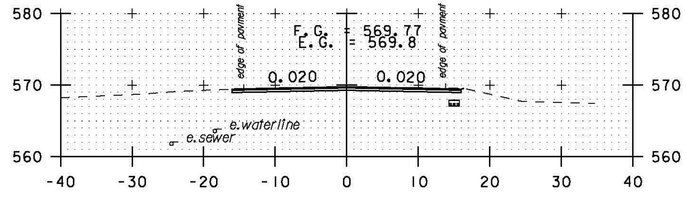

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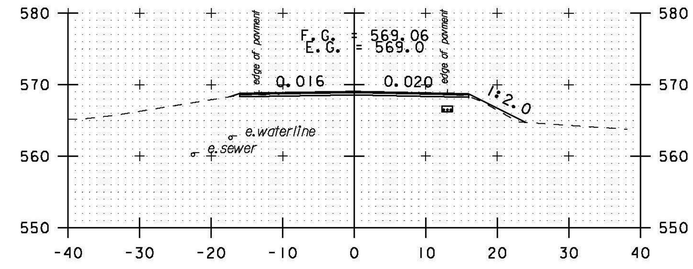

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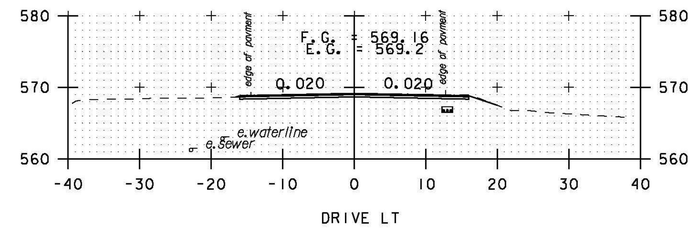

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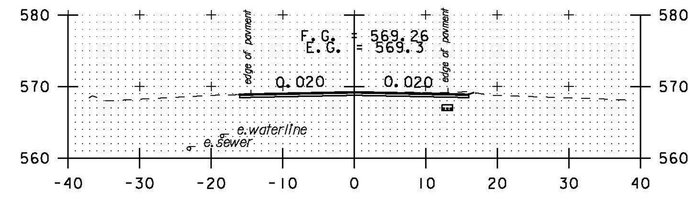

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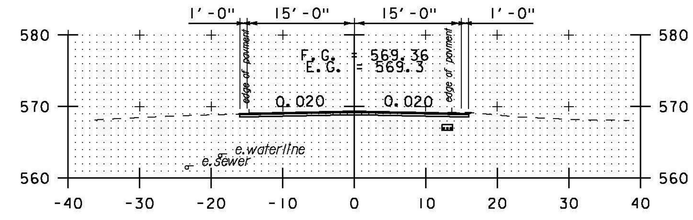

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STA. 129+00 TO STA. 134+50

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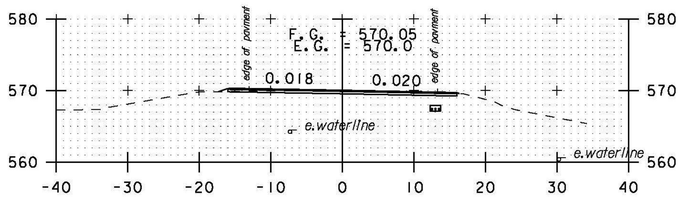
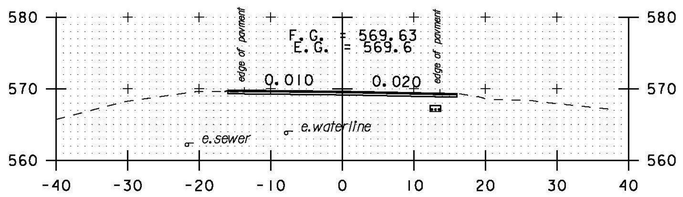
SCALE IN FEET

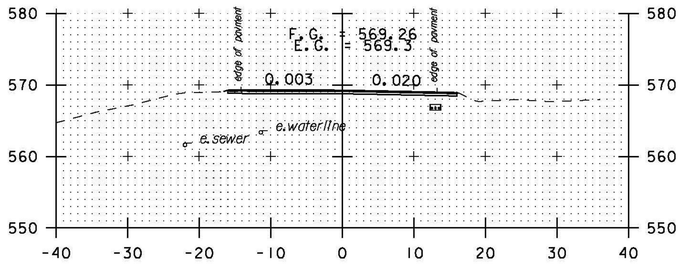
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 2	SHEET 136 OF 211



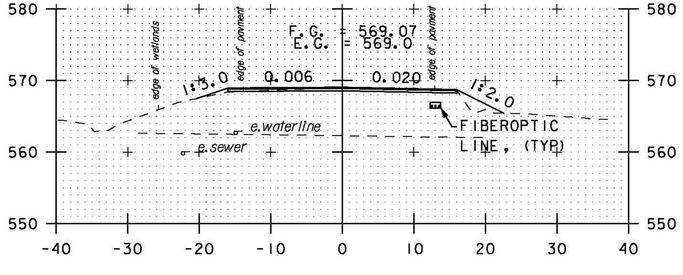
136+50



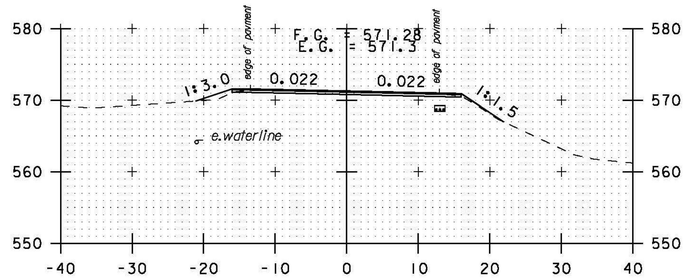
136+00



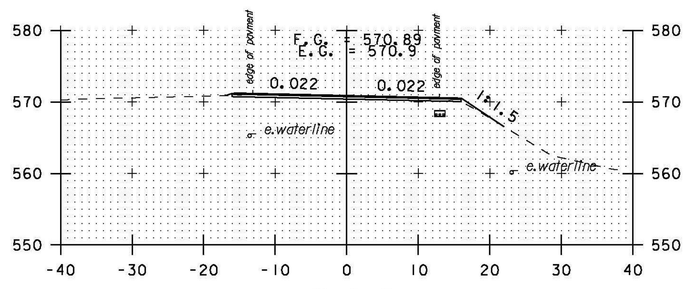
135+50



135+00

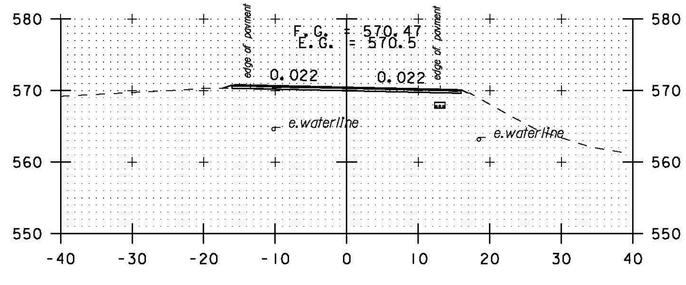


138+00

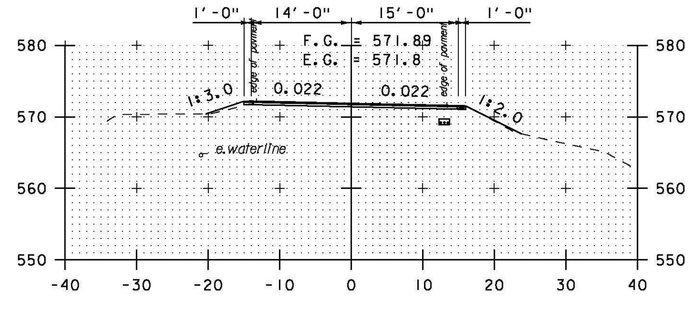


DRIVE LT

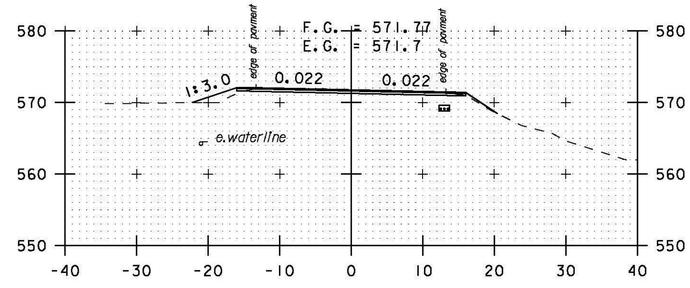
137+50



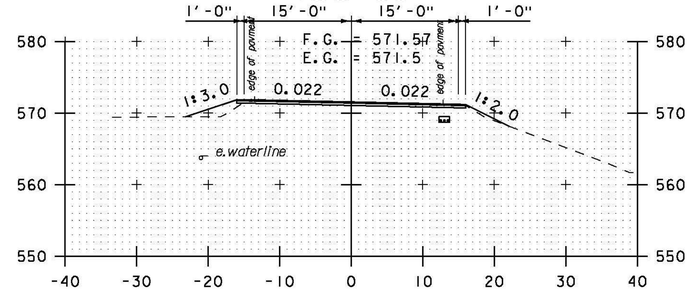
137+00



139+50



139+00

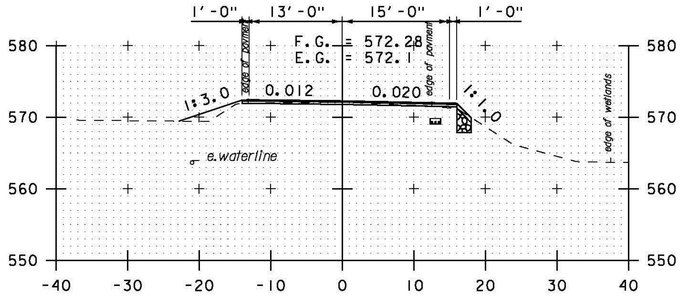


138+50

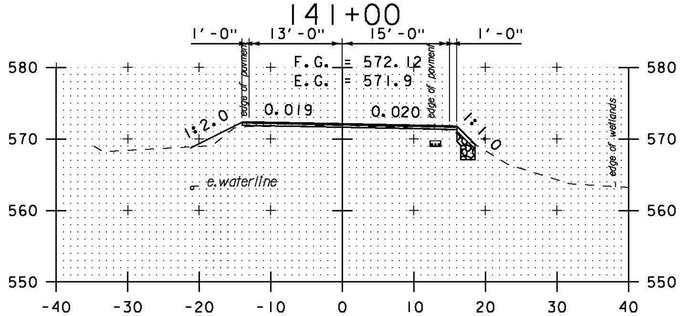
STA. 135+00 TO STA. 139+50

0 20 40
SCALE IN FEET

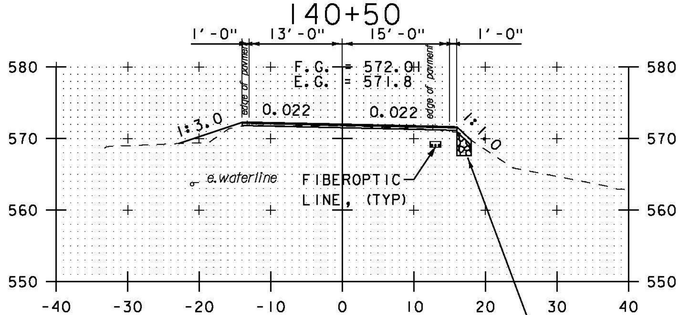
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 3	SHEET 137 OF 211



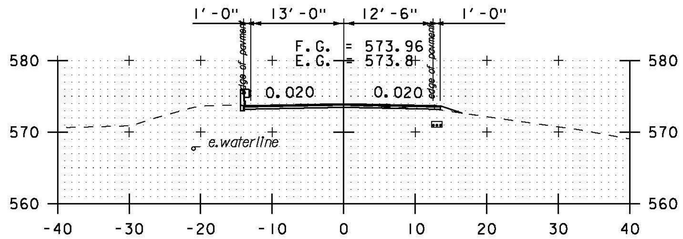
141+00



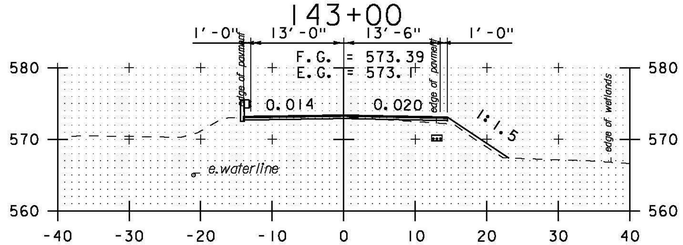
140+50



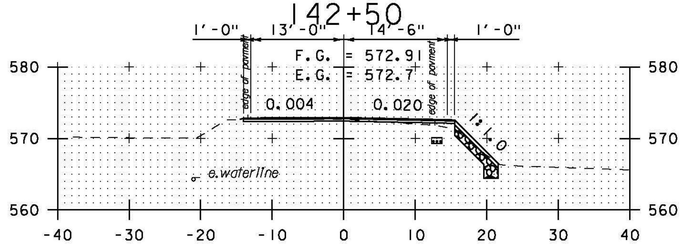
140+00



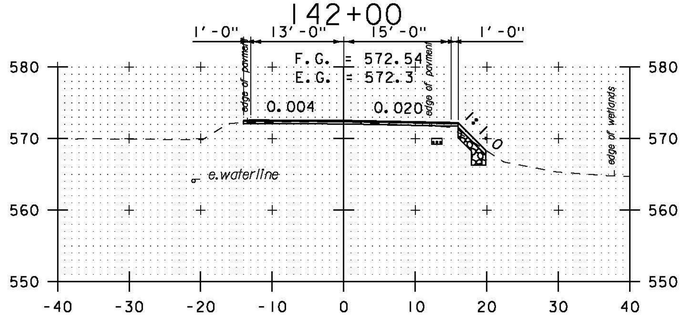
143+00



142+50

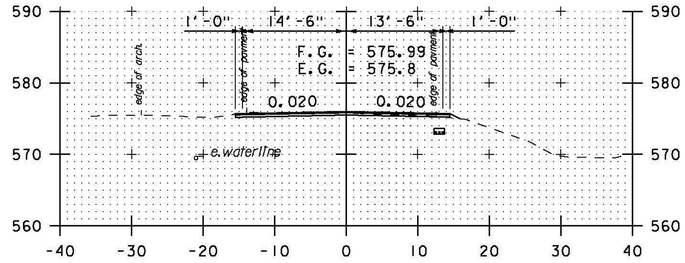


142+00

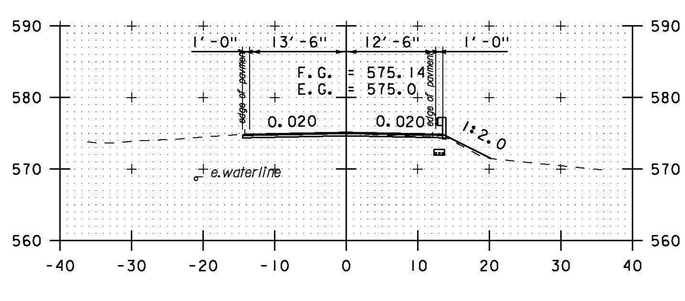


141+50

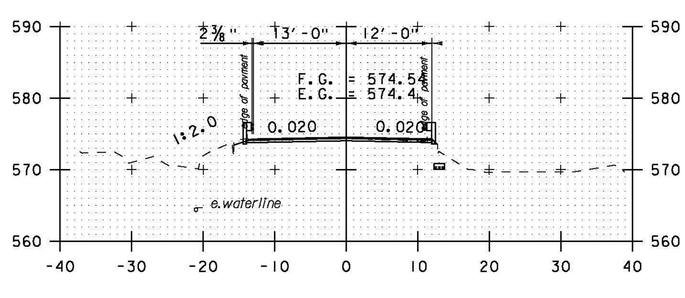
12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)



144+50



144+00

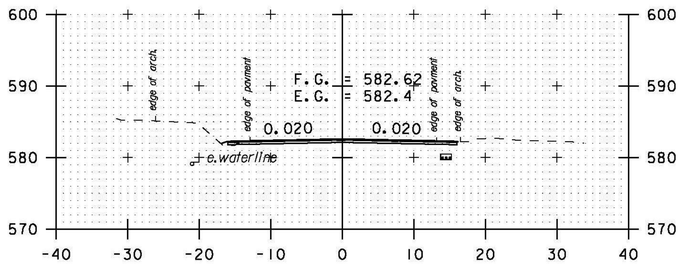


143+50

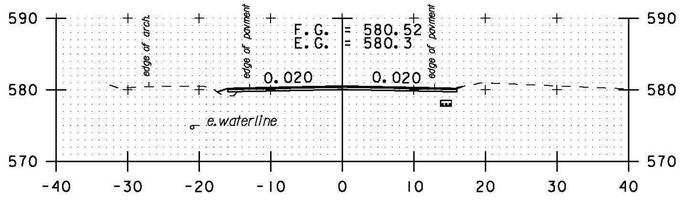
STA. 140+00 TO STA. 144+50

0 20 40
SCALE IN FEET

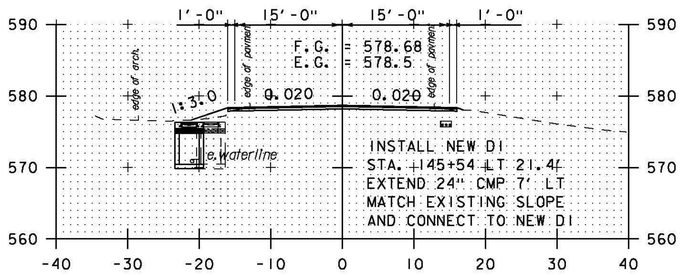
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: pl0C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 4	SHEET 138 OF 211



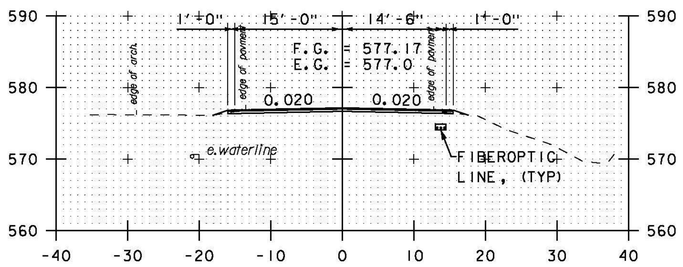
146+50



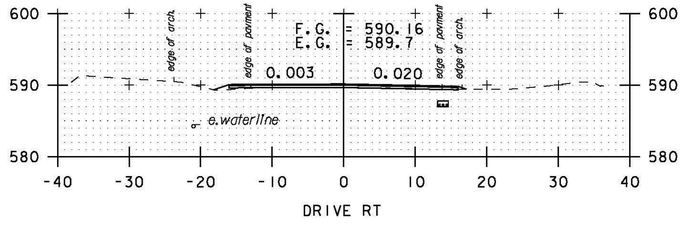
146+00



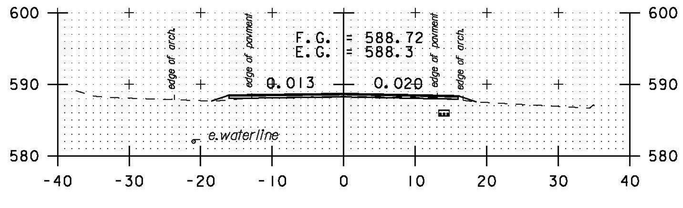
145+50



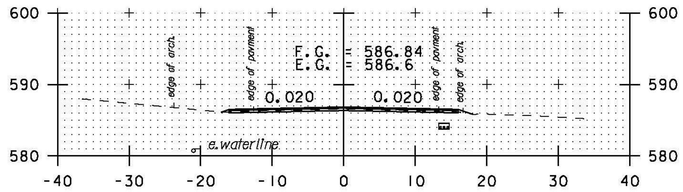
145+00



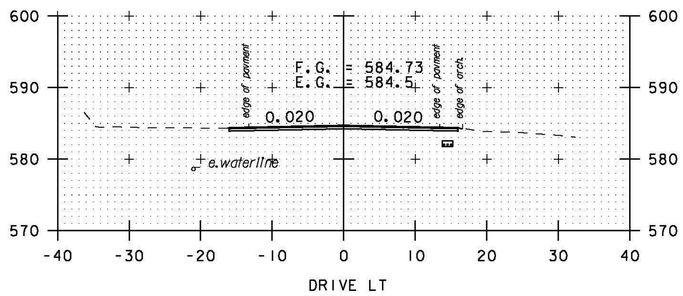
148+50



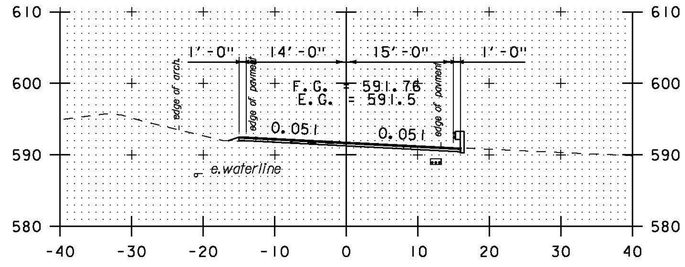
148+00



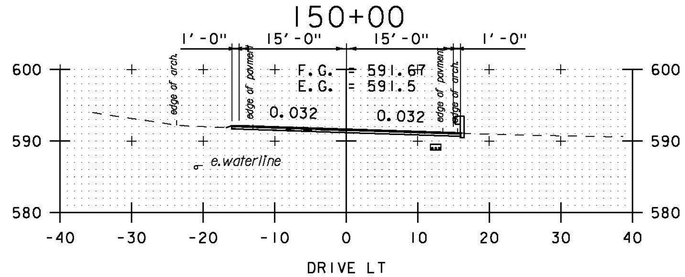
147+50



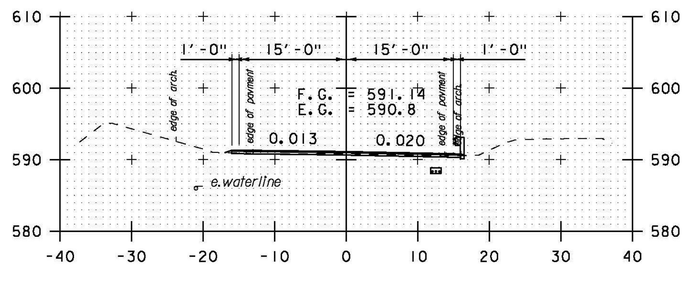
147+00



150+00



149+50



149+00

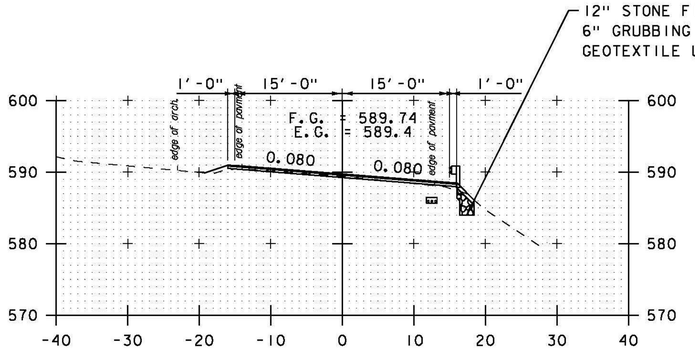
STA. 145+00 TO STA. 150+00

0 20 40
SCALE IN FEET

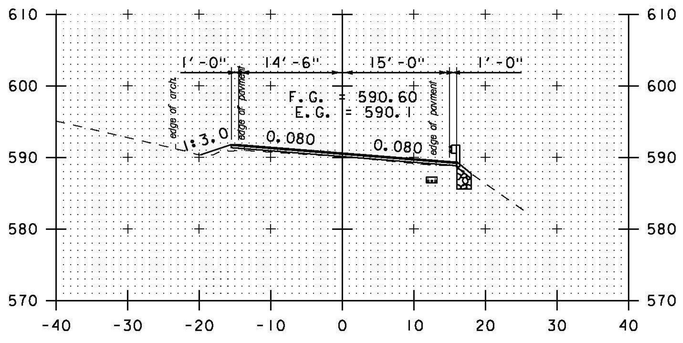
PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: p10C244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
CROSS SECTION SHEET 5

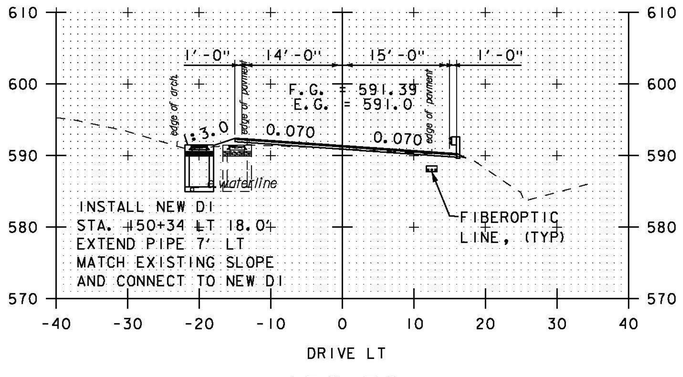
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 139 OF 211



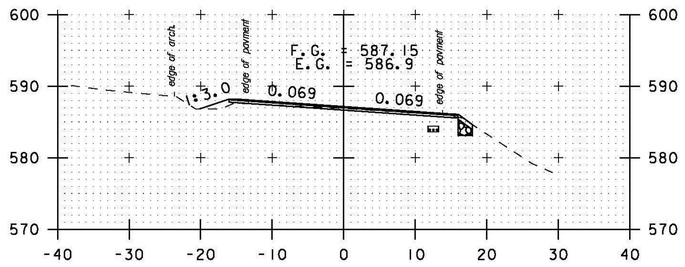
151+50



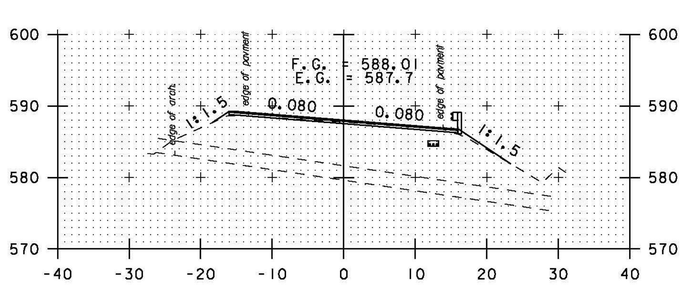
151+00



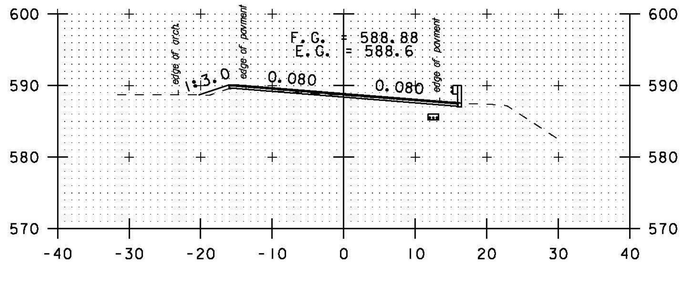
150+50



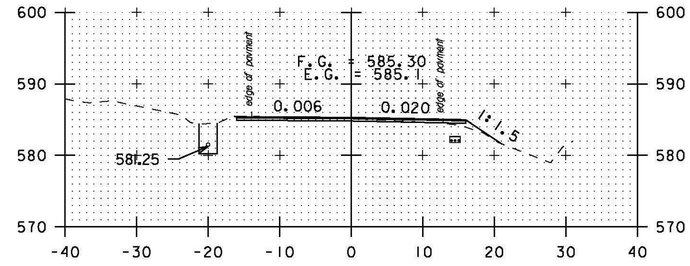
153+00



152+50

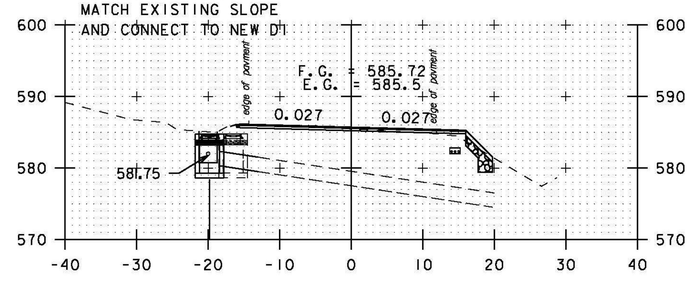


152+00

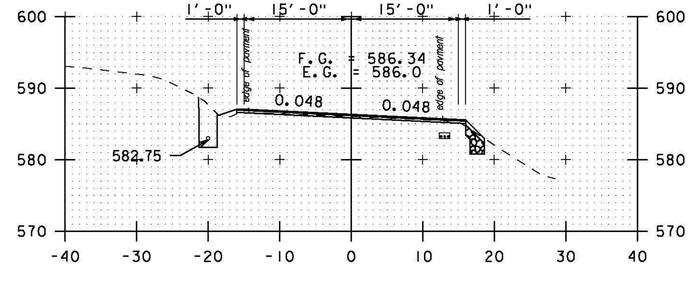


INSTALL NEW DI
STA. 154+21 LT 19.8'
EXTEND PIPE 3.0' LT
MATCH EXISTING SLOPE
AND CONNECT TO NEW DI

154+50



154+00

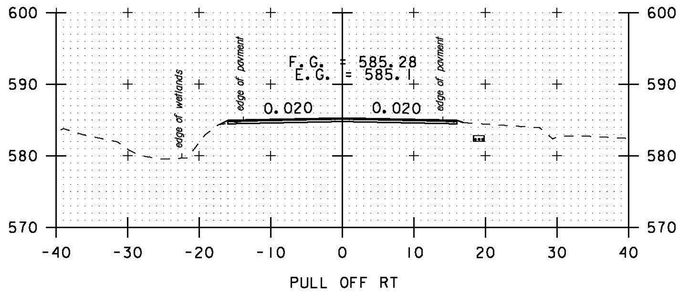


153+50

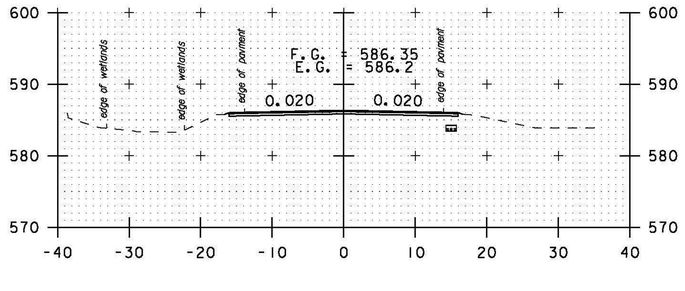
STA. 150+50 TO STA. 154+50

0 20 40
SCALE IN FEET

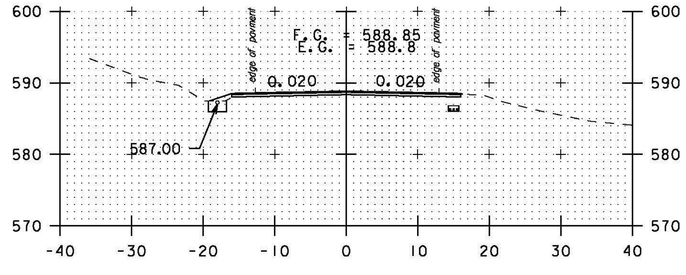
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 6	SHEET 140 OF 211



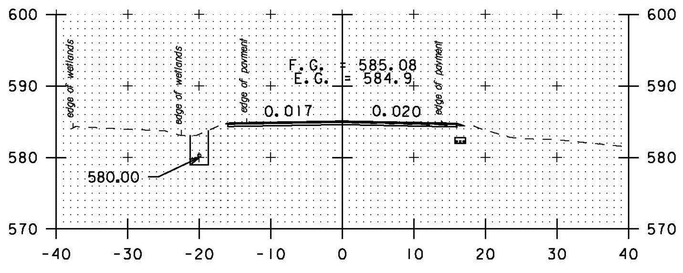
156+00



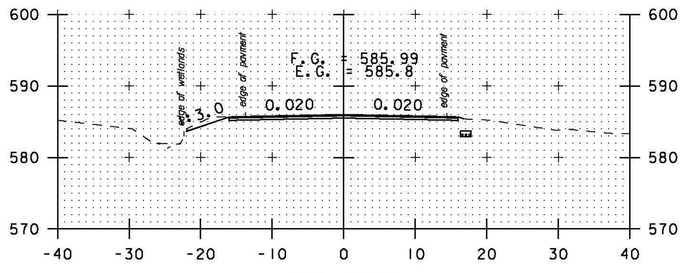
157+50



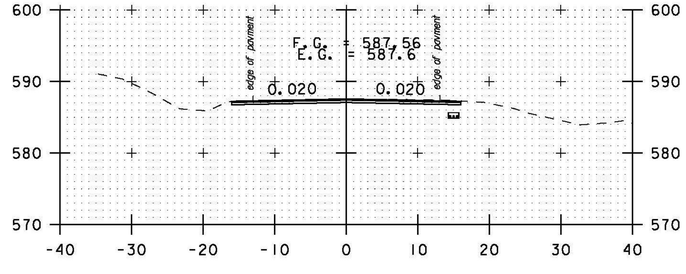
159+00



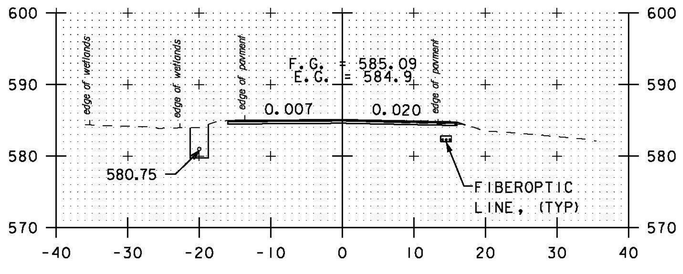
155+50



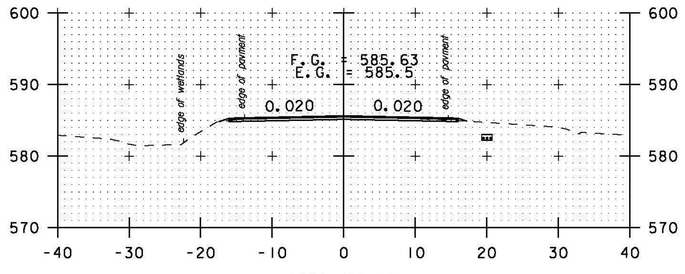
157+00



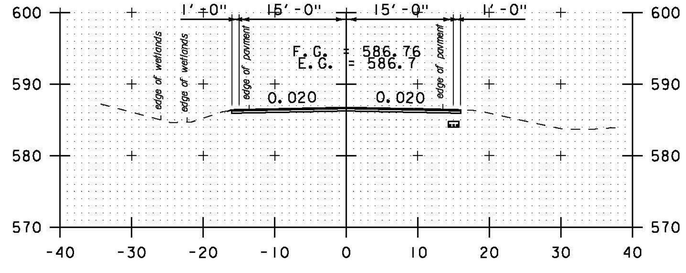
158+50



155+00



156+50

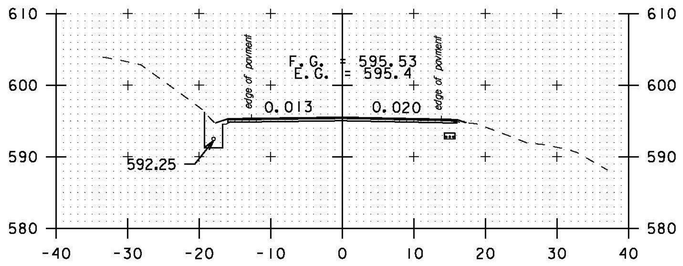


158+00

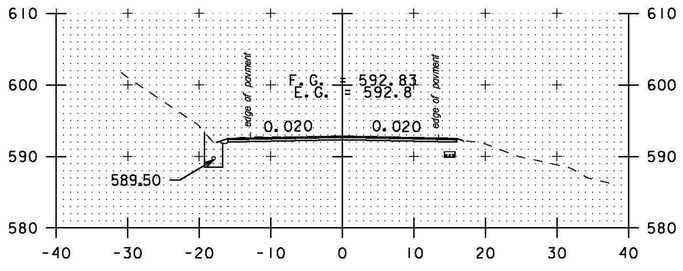
STA. 155+00 TO STA. 159+00

0 20 40
SCALE IN FEET

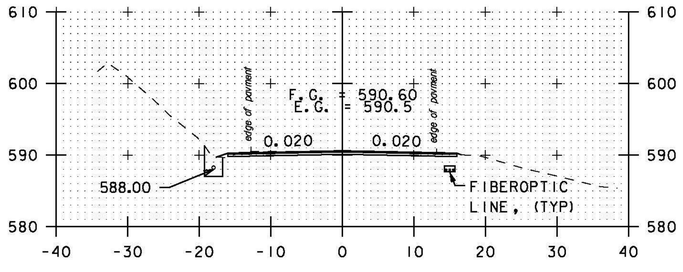
PROJECT NAME: BETHEL-RANDOLPH	
PROJECT NUMBER: STP 2921(1)	
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 7	SHEET 141 OF 211



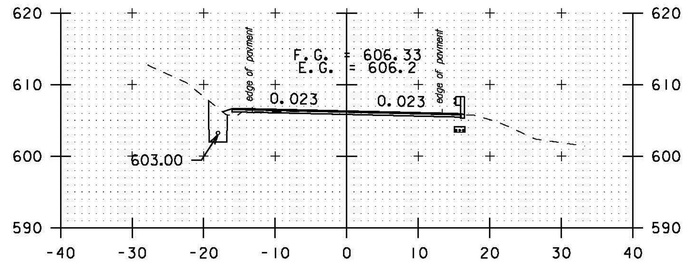
160+50



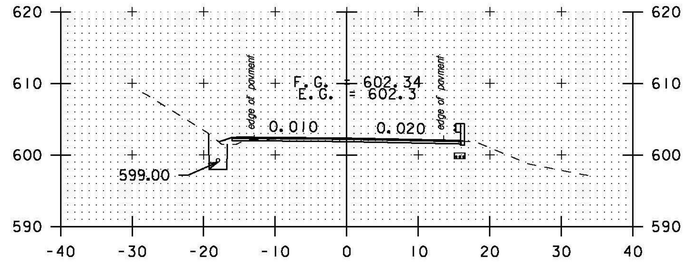
160+00



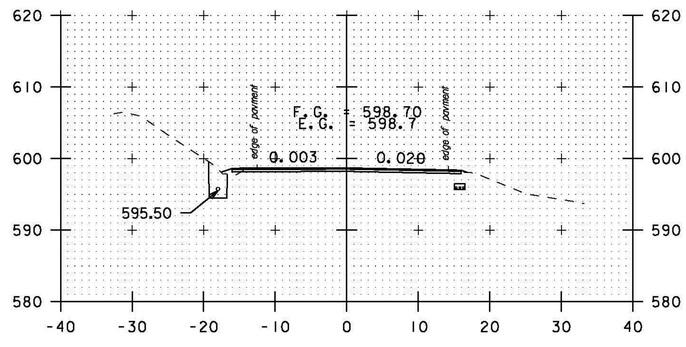
159+50



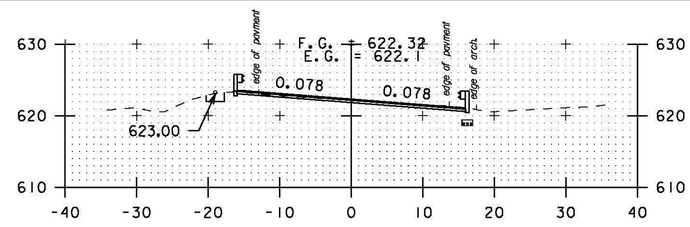
162+00



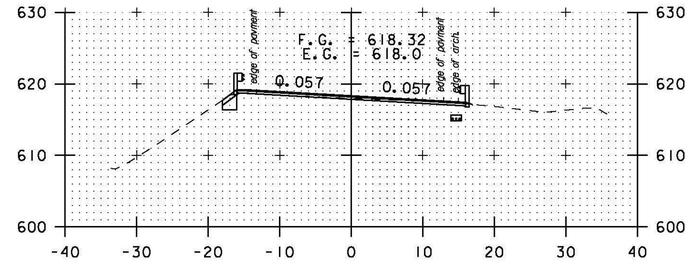
161+50



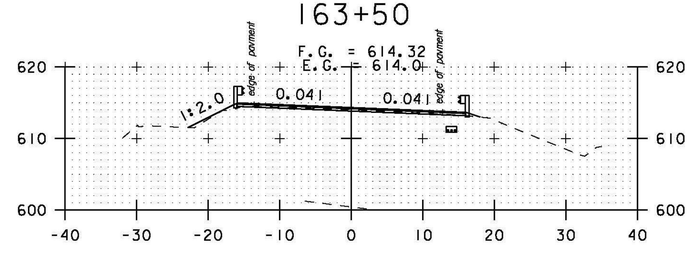
161+00



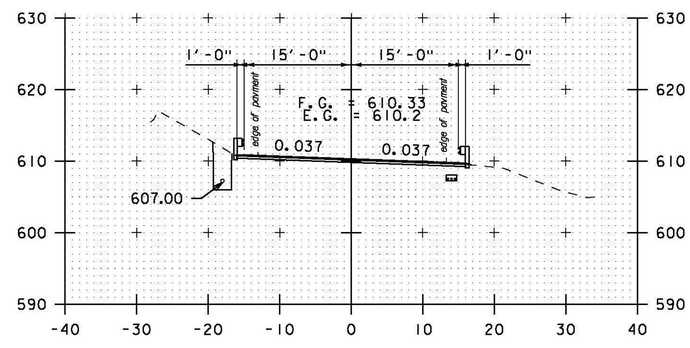
164+00



163+50



163+00

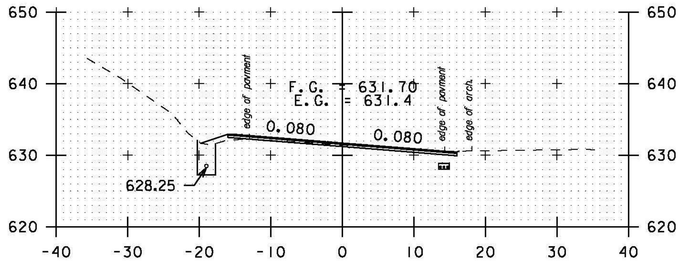


162+50

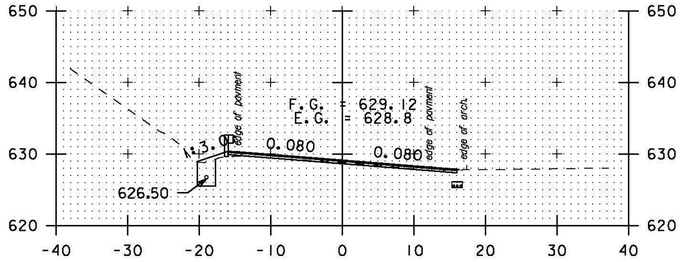
STA. 159+50 TO STA. 164+00

0 20 40
SCALE IN FEET

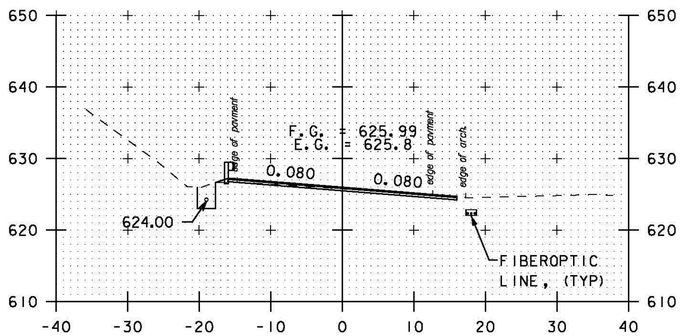
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 8	SHEET 142 OF 211



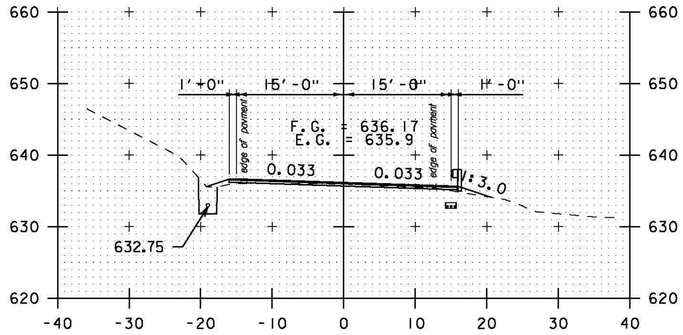
165+50



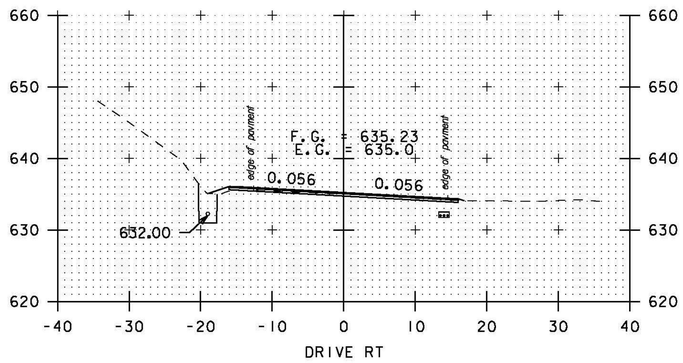
165+00



164+50

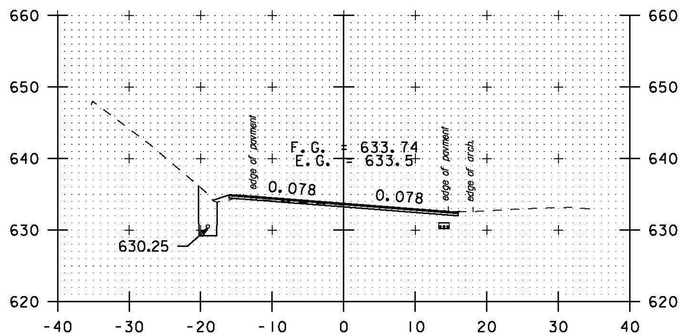


167+00

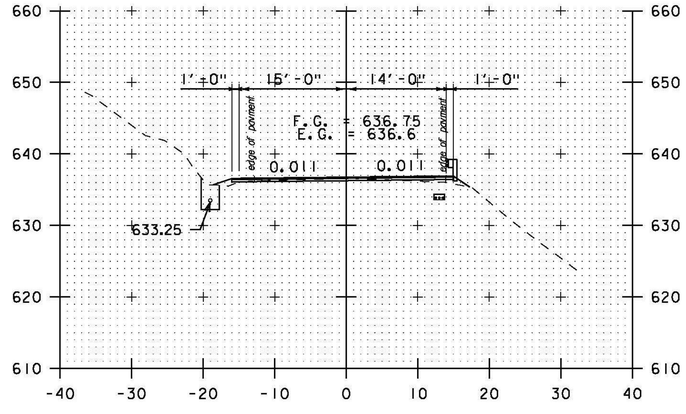


DRIVE RT

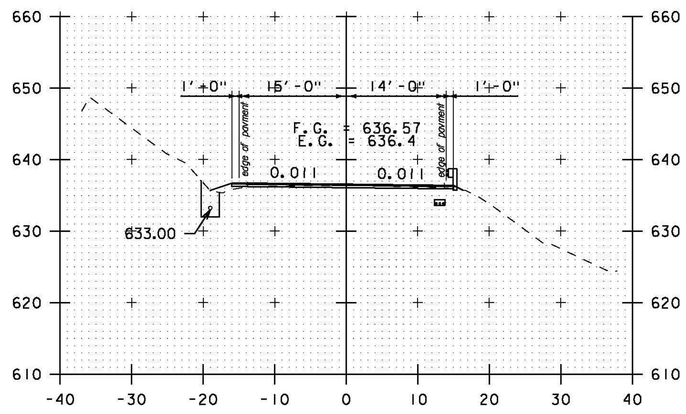
166+50



166+00



168+00

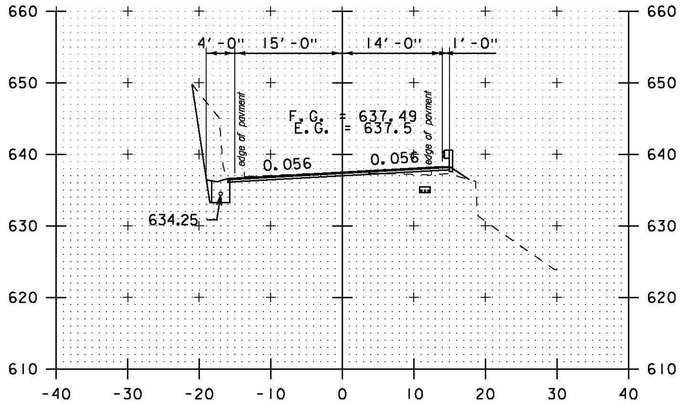


167+50

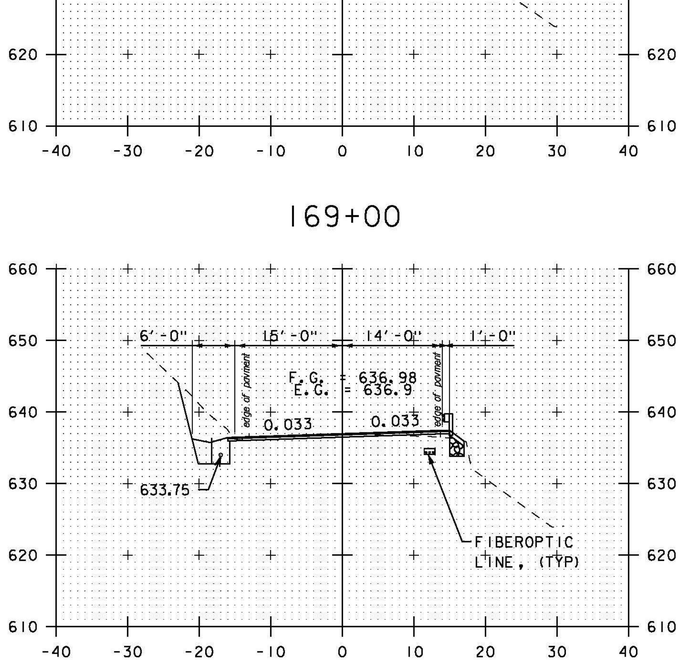
STA. 164+50 TO STA. 168+00

0 20 40
SCALE IN FEET

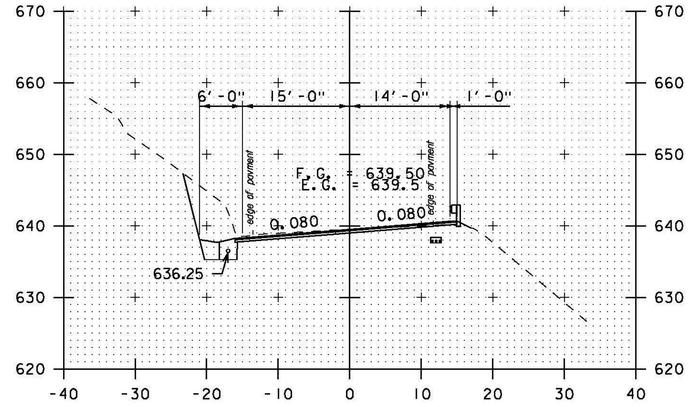
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 9	SHEET 143 OF 211



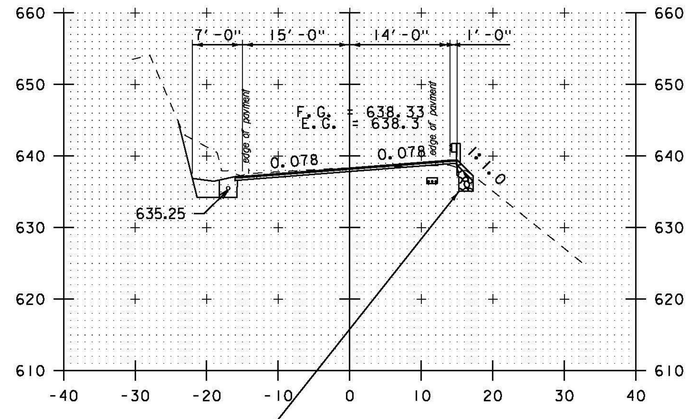
169+00



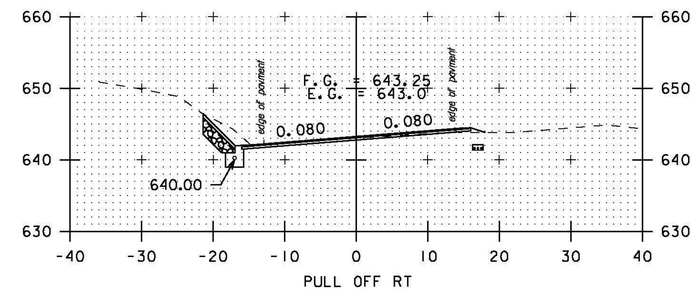
168+50



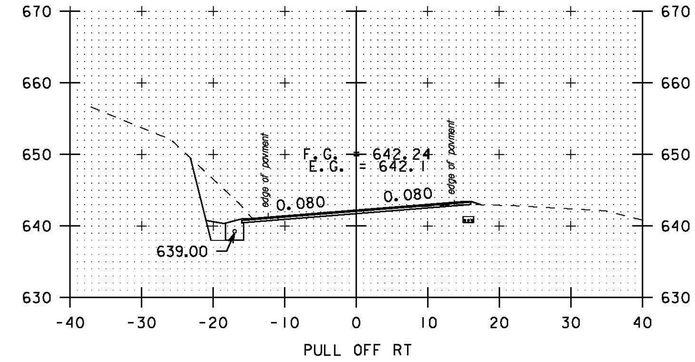
170+00



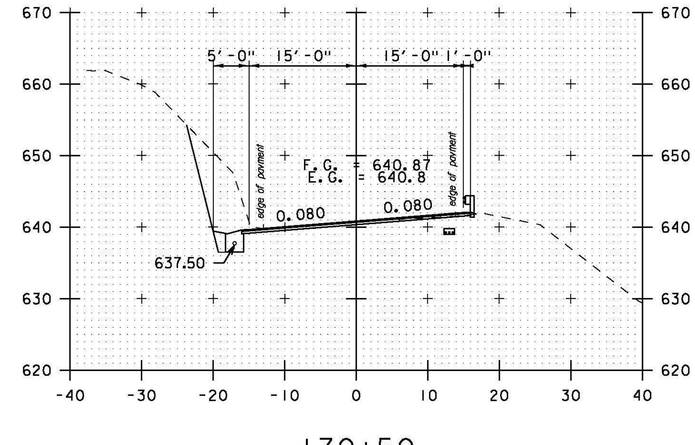
169+50



171+50



171+00

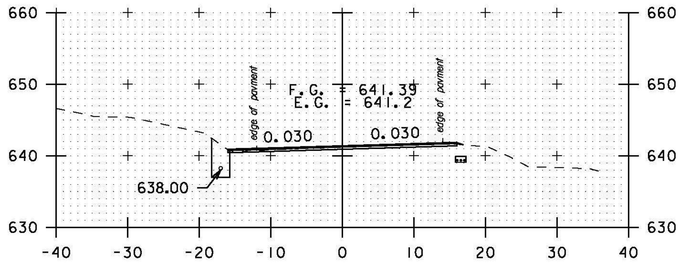


170+50

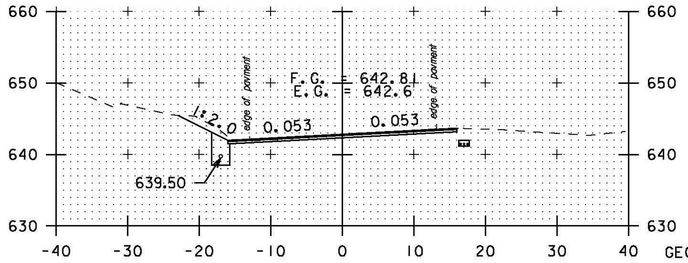
STA. 168+50 TO STA. 171+50

0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH	
PROJECT NUMBER: STP 2921(1)	
FILE NAME: pl0C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 10	SHEET 144 OF 211

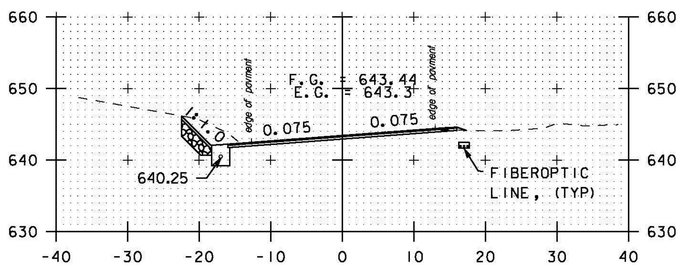


173+00

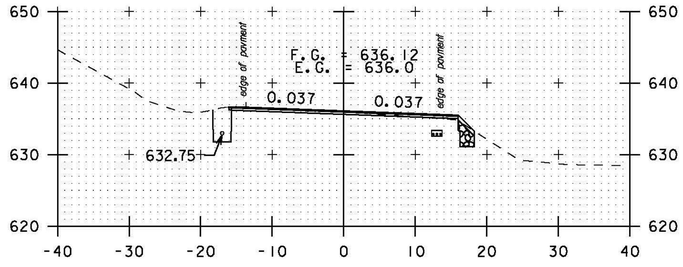


DRIVE RT

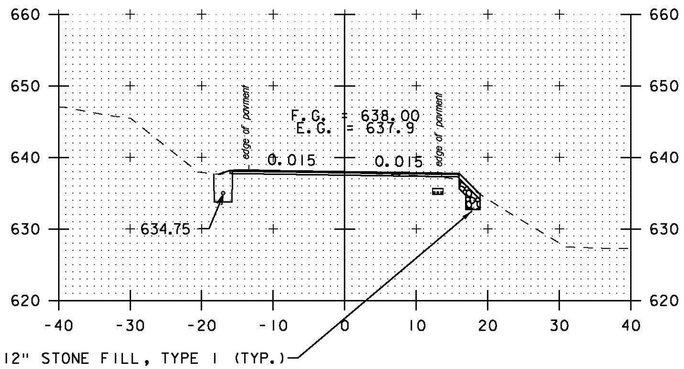
172+50



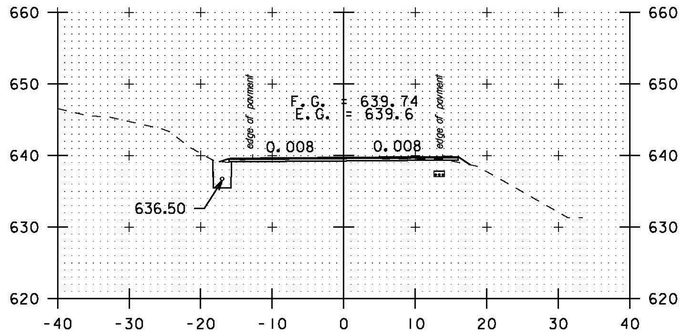
172+00



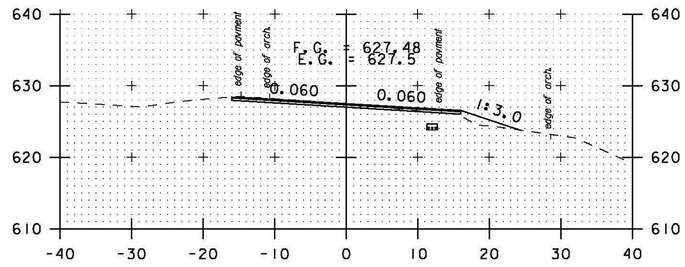
174+50



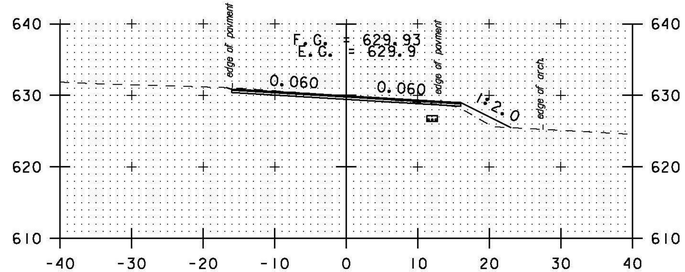
174+00



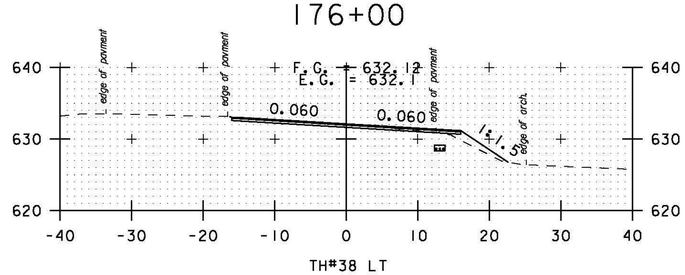
173+50



176+50

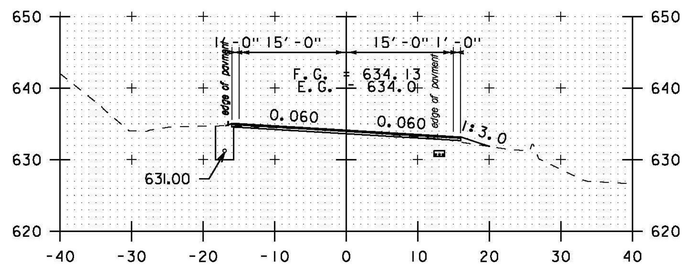


176+00



TH#38 LT

175+50

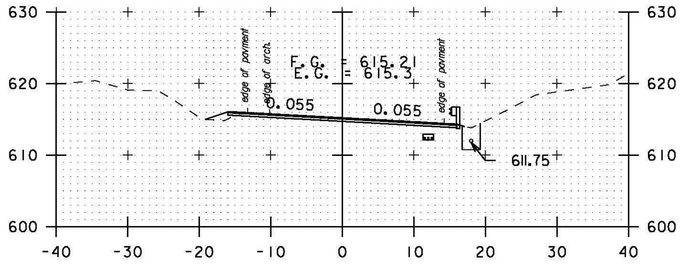


175+00

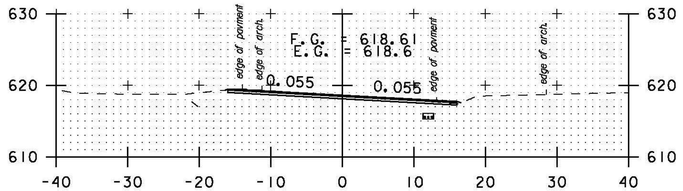
STA. 172+00 TO STA. 176+50

0 20 40
SCALE IN FEET

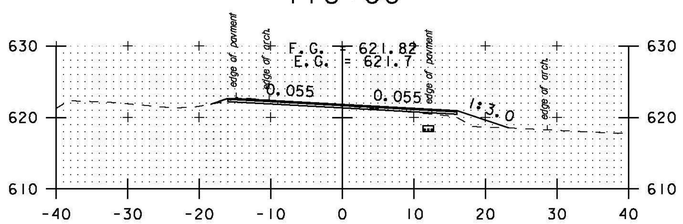
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET II	SHEET 145 OF 211



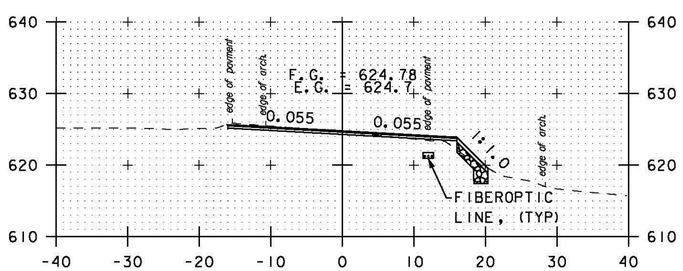
178+50



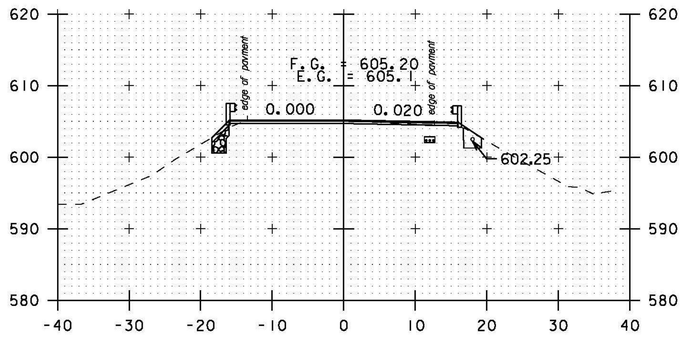
178+00



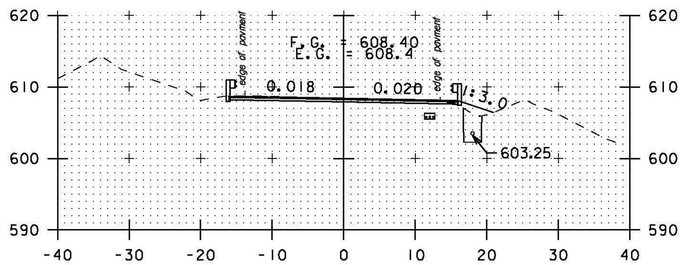
177+50



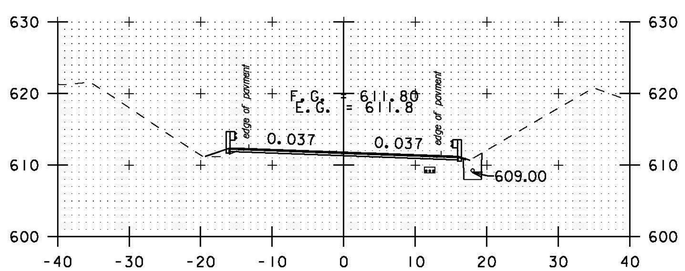
177+00



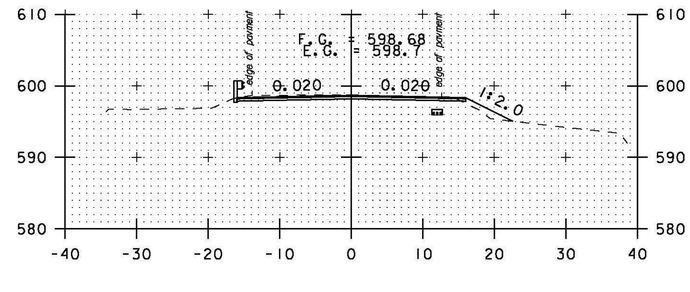
180+00



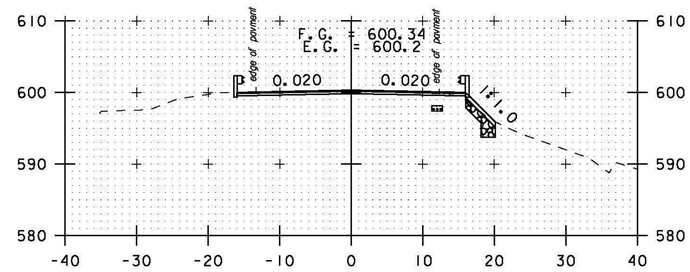
179+50



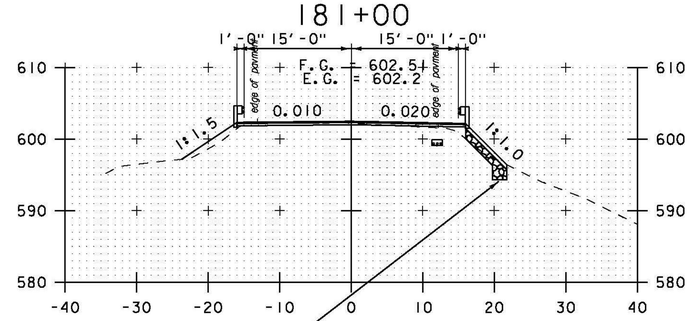
179+00



181+50



181+00



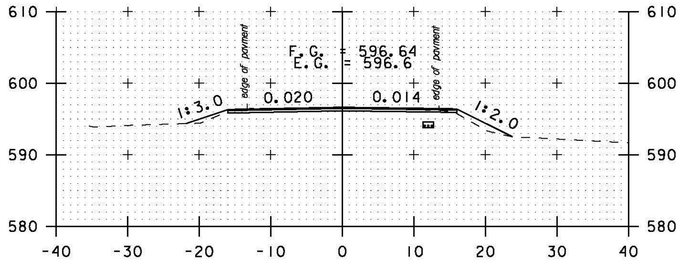
180+50

12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)

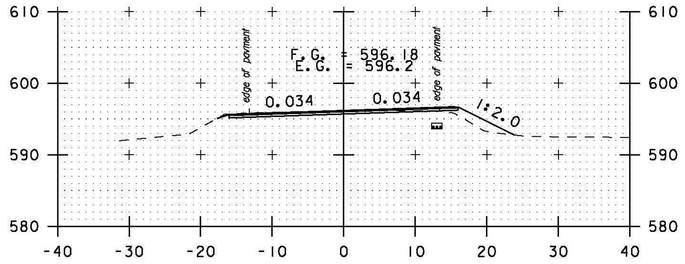
0 20 40
SCALE IN FEET

STA. 177+00 TO STA. 181+50

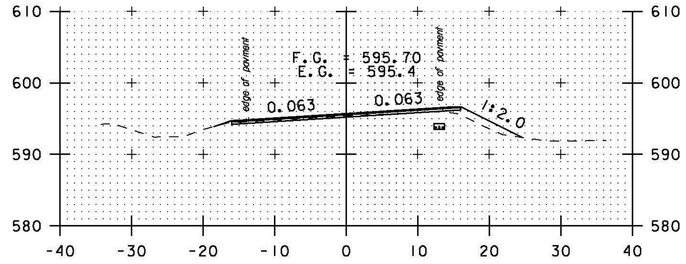
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 12	SHEET 146 OF 211



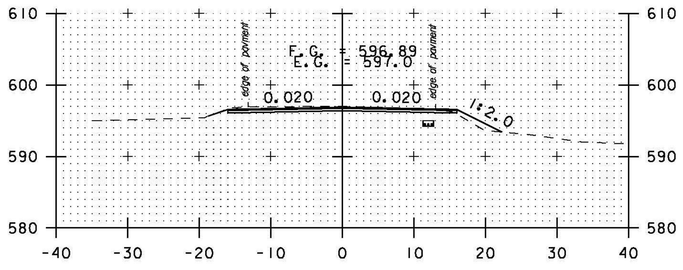
183+00



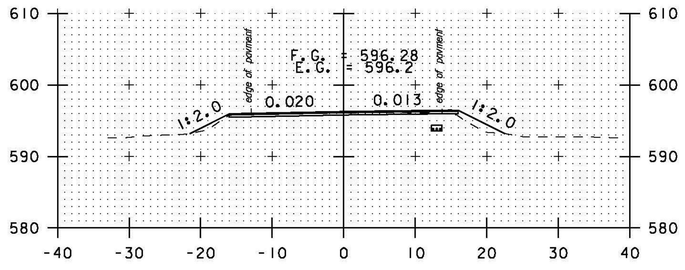
184+50



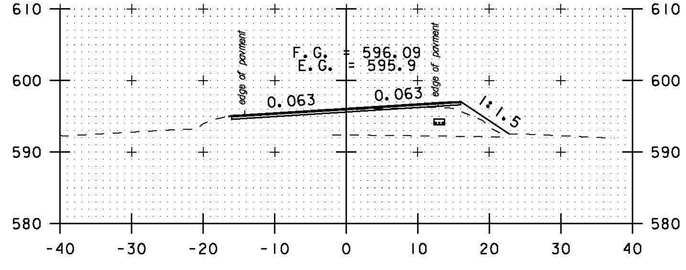
186+00



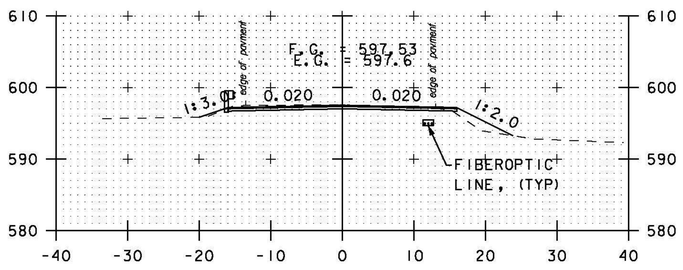
182+50



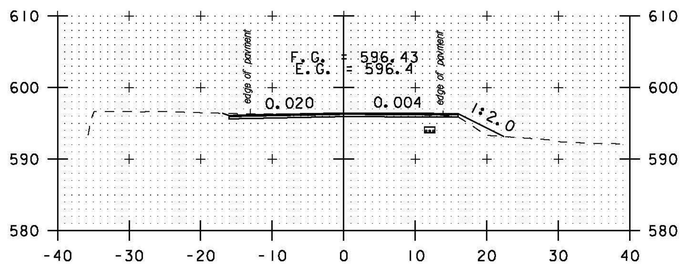
184+00



185+50

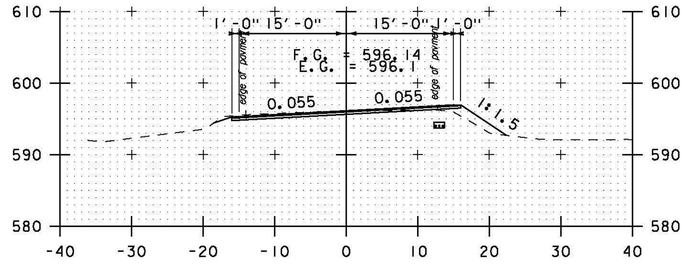


182+00



DRIVE LT

183+50



185+00

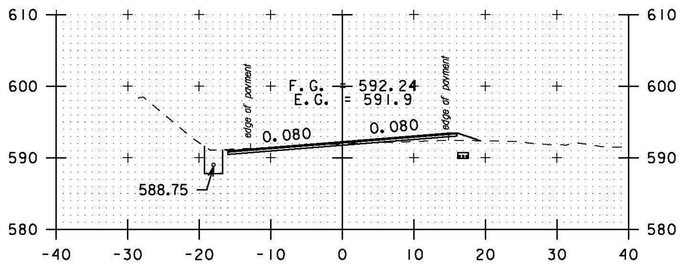
STA. 182+00 TO STA. 186+00

0 20 40
SCALE IN FEET

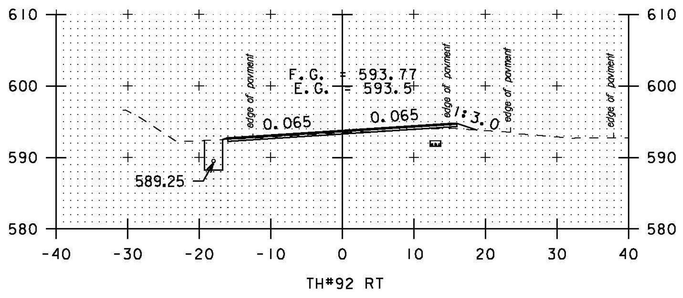
PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: pl0C244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
CROSS SECTION SHEET 13

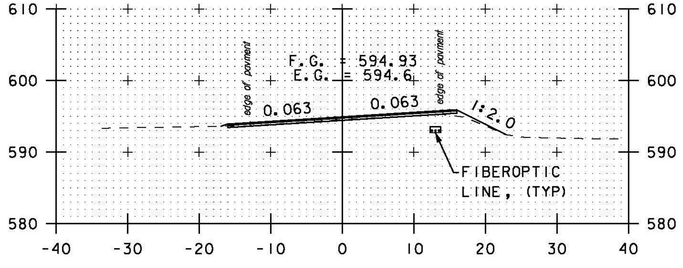
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 147 OF 211



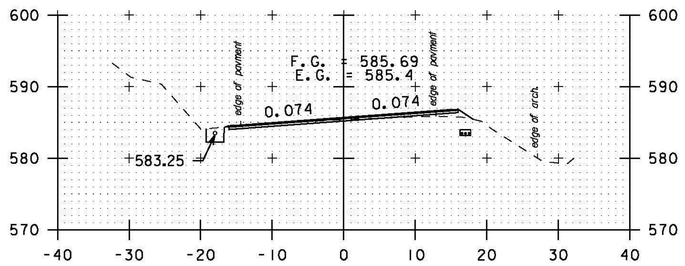
187+50



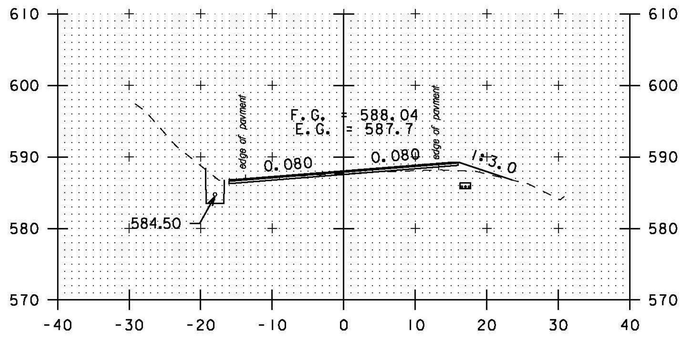
187+00



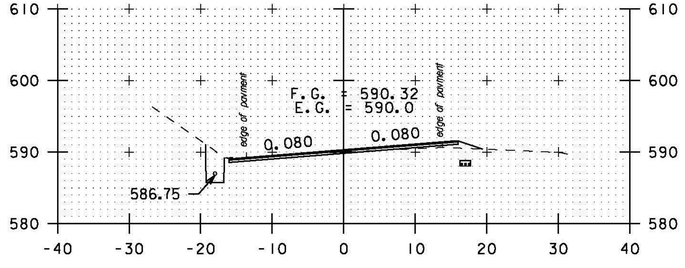
186+50



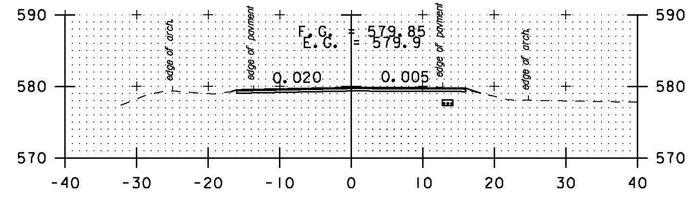
189+00



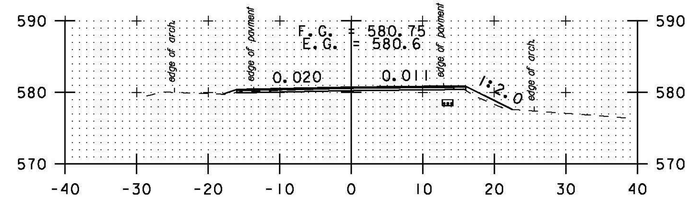
188+50



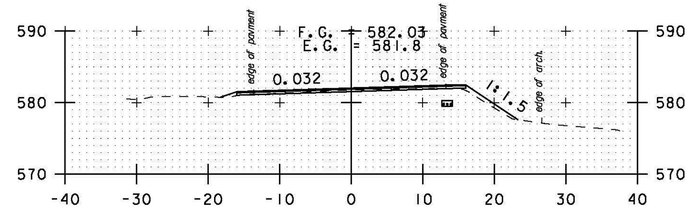
188+00



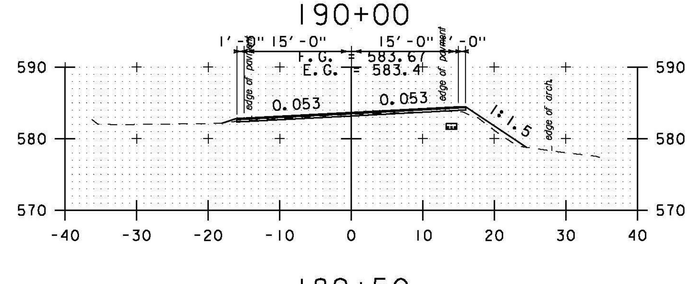
191+00



190+50



190+00

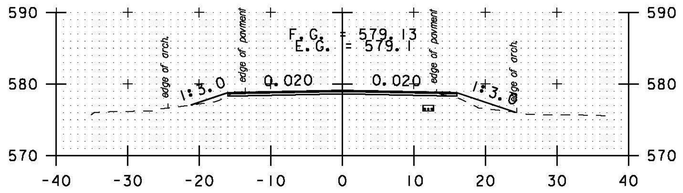


189+50

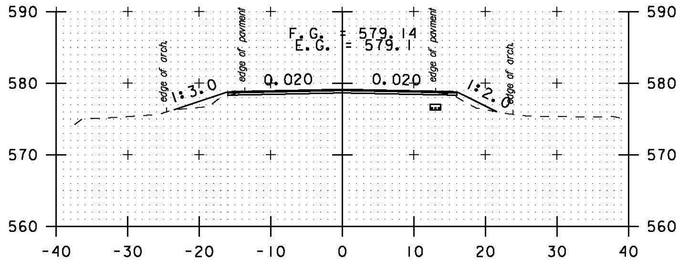
STA. 186+50 TO STA. 191+00

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 14	SHEET 148 OF 211

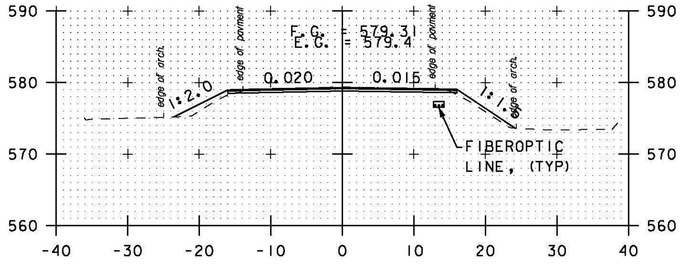


193+00

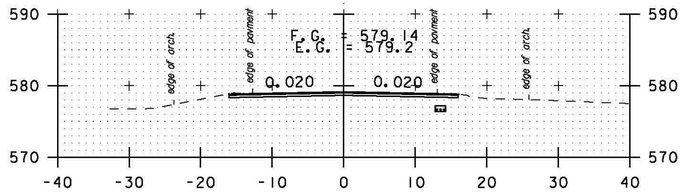


192+50

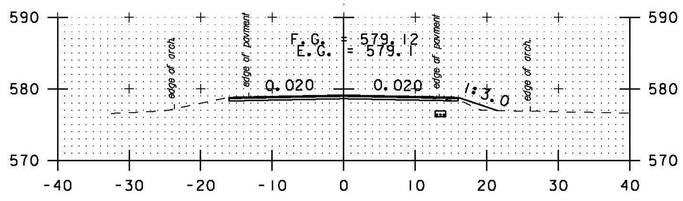
192+00



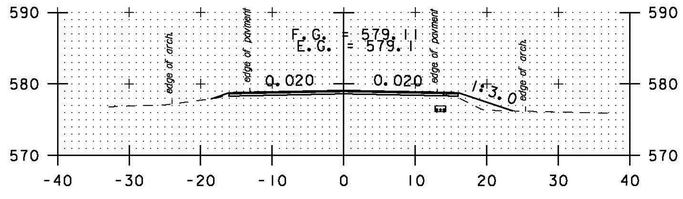
191+50



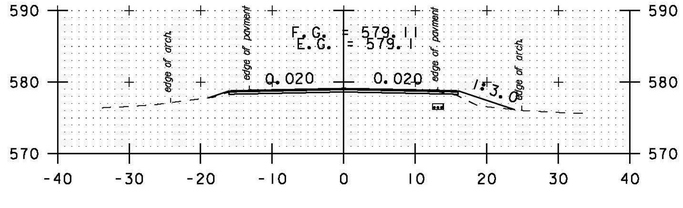
195+00



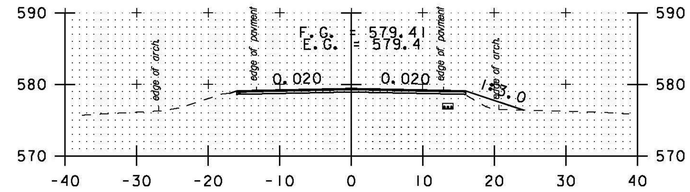
194+50



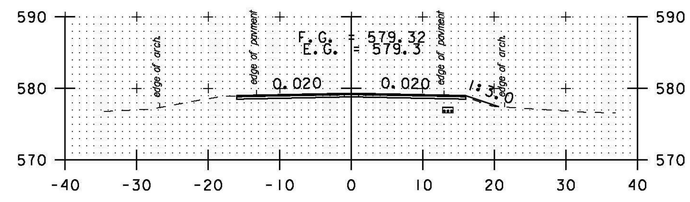
194+00



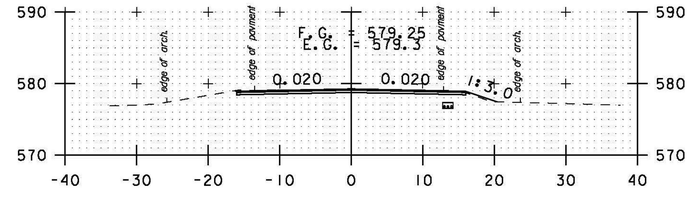
193+50



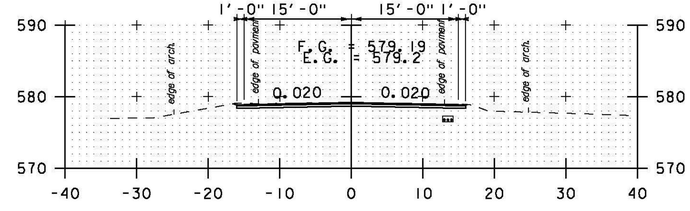
197+00



196+50



196+00

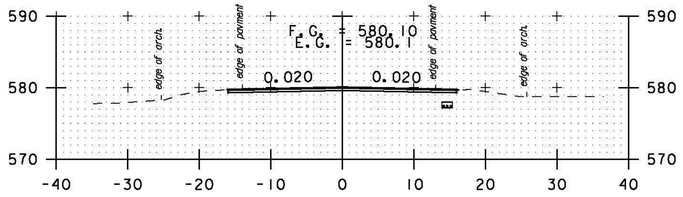


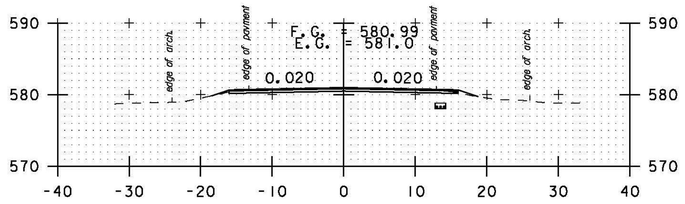
195+50

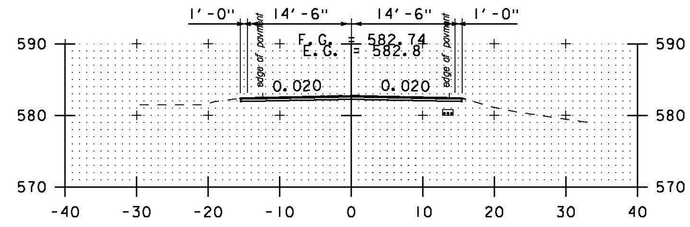
STA. 191+50 TO STA. 197+00

0 20 40
SCALE IN FEET

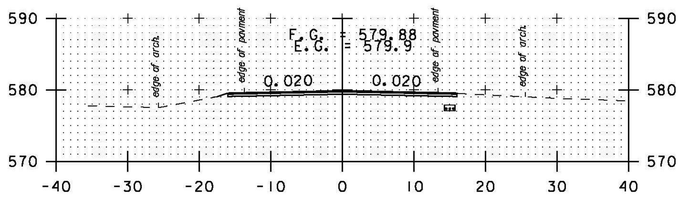
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 15	SHEET 149 OF 211



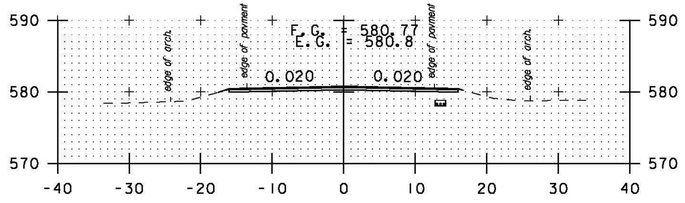




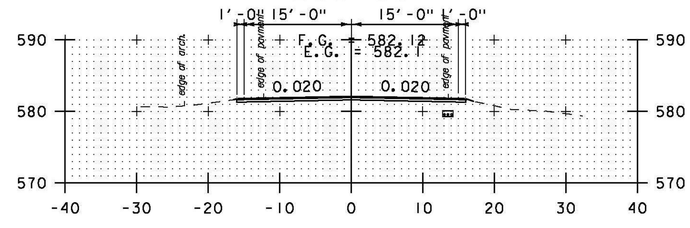
199+00



201+00

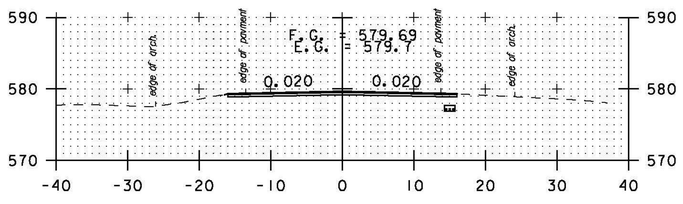


203+00

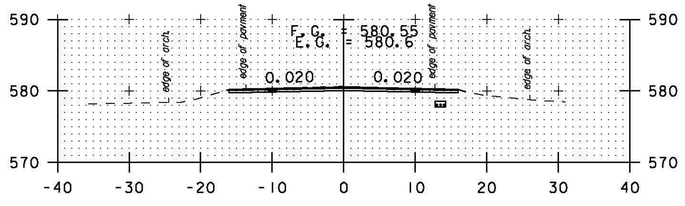


PULL OFF RT

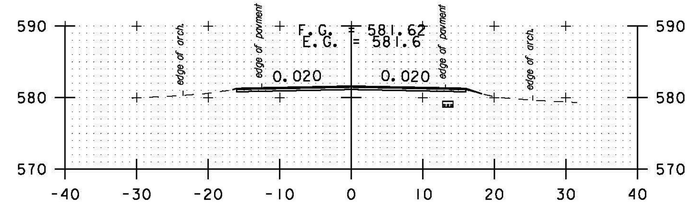
198+50



200+50

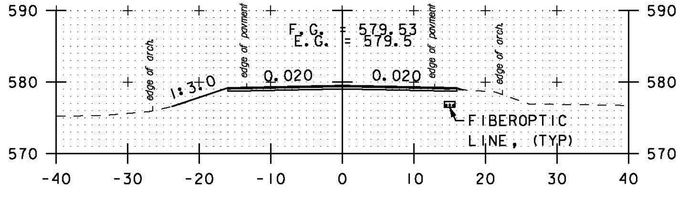


202+50

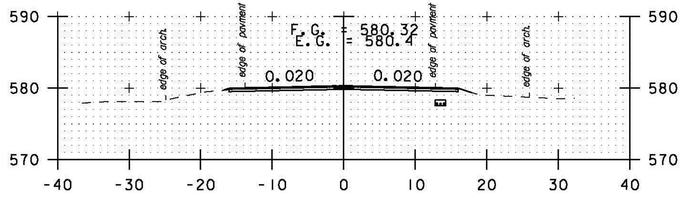


PULL OFF RT

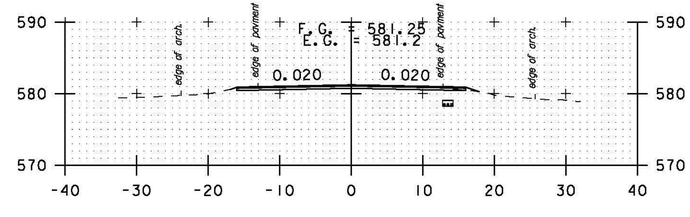
198+00



200+00



202+00



197+50

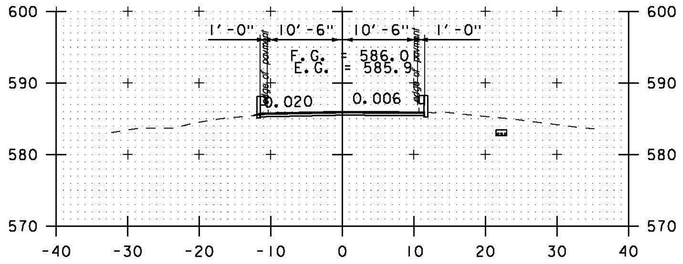
199+50

201+50

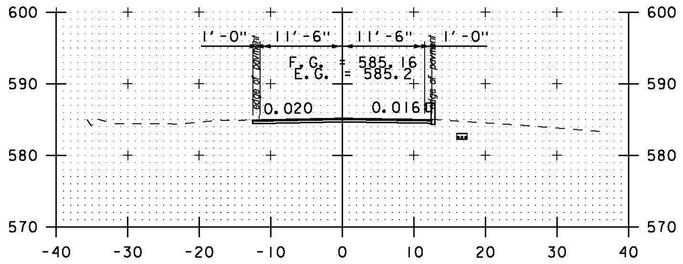
STA. 197+50 TO STA. 203+00

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 16	SHEET 150 OF 211

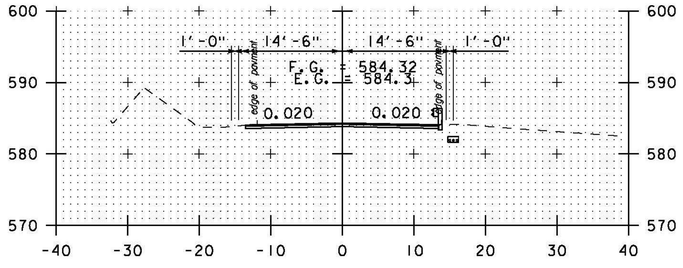


205+00

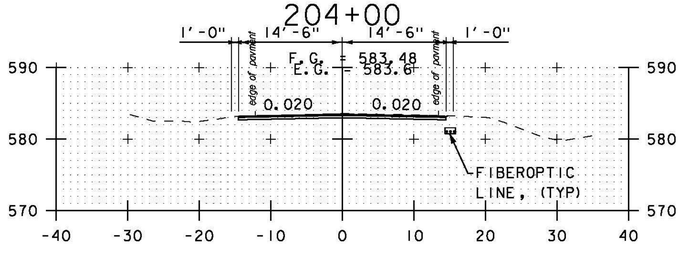


DRIVE LT

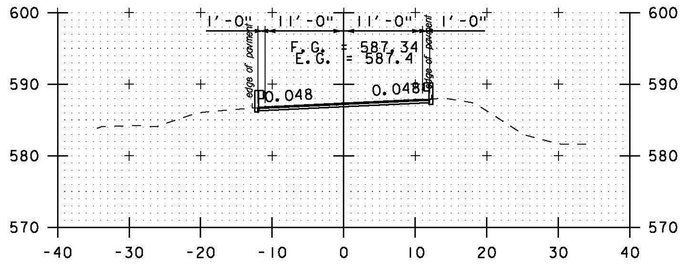
204+50



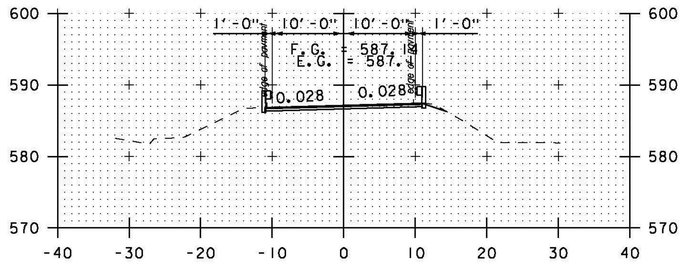
204+00



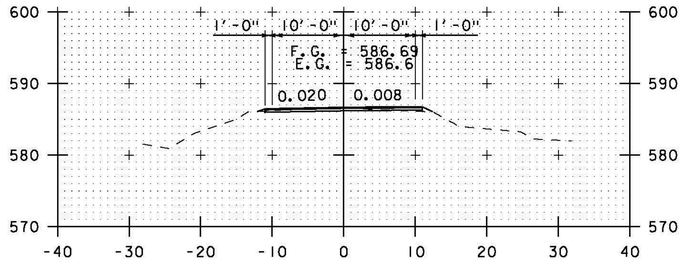
203+50



206+50

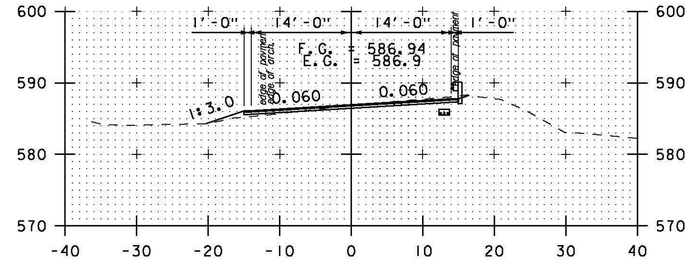


206+00

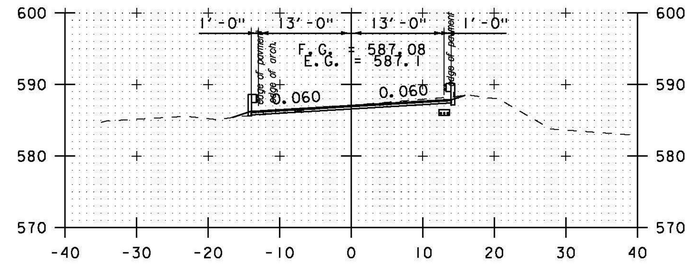


BRIDGE

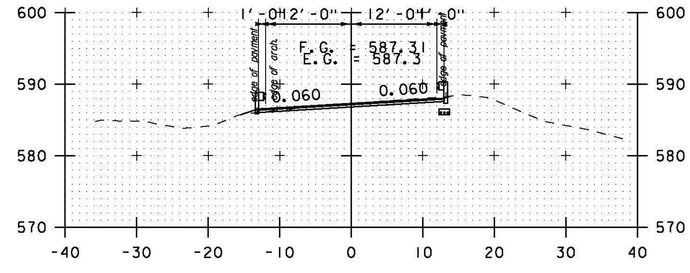
205+50



208+00



207+50

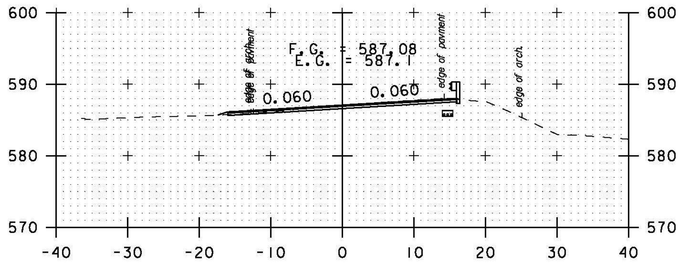


207+00

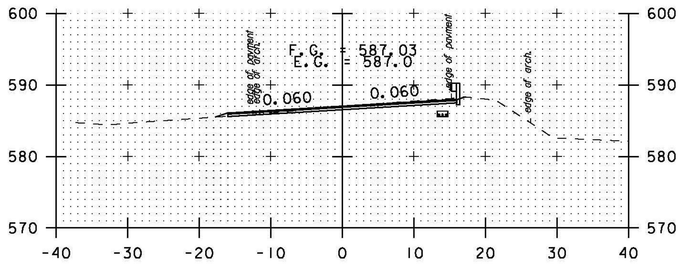
STA. 203+50 TO STA. 208+00

0 20 40
SCALE IN FEET

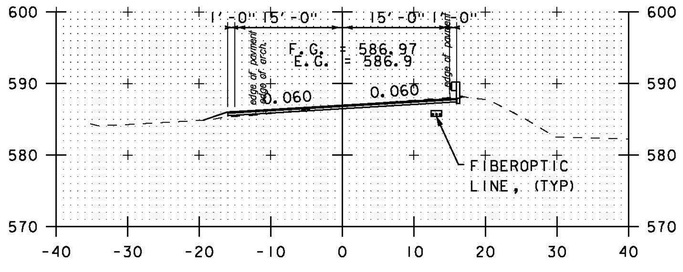
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 17	SHEET 151 OF 211



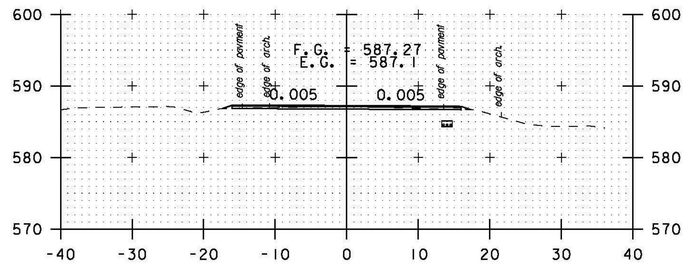
209+50



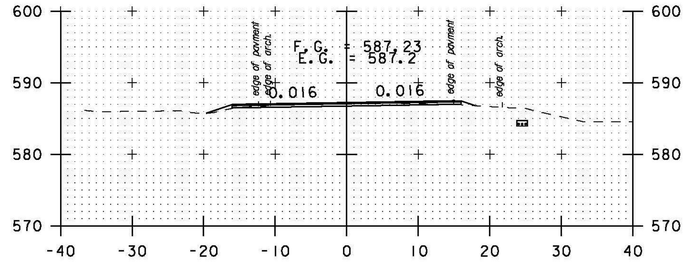
209+00



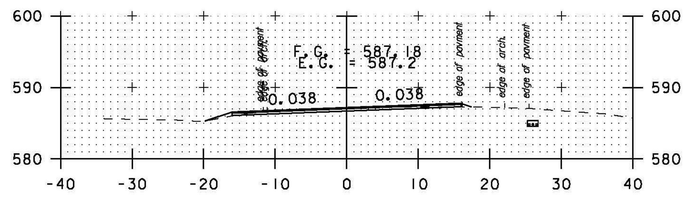
208+50



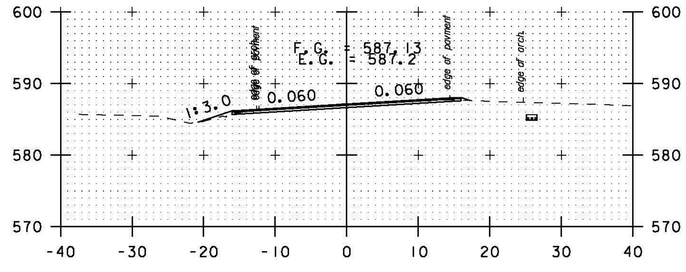
211+50



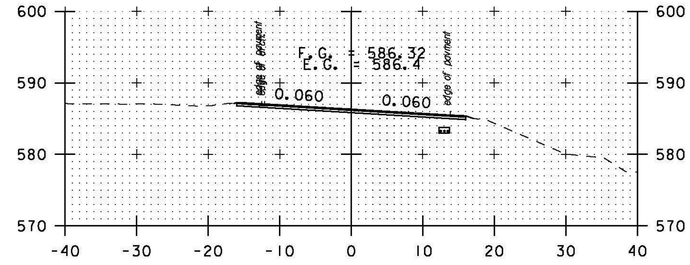
211+00



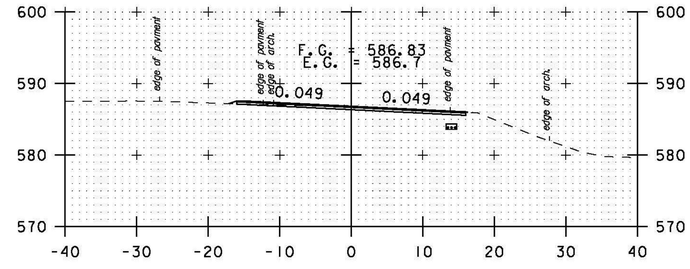
210+50



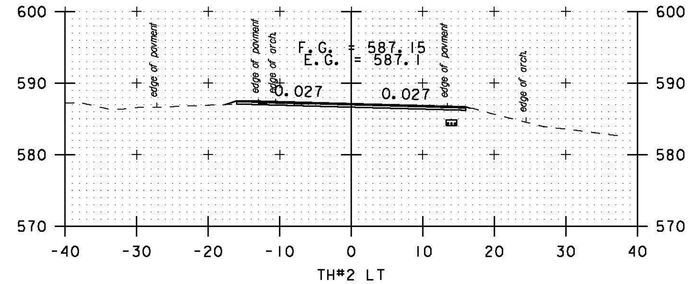
210+00



213+00



212+50

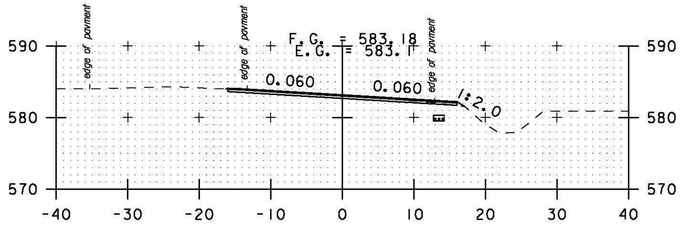


212+00

STA. 208+50 TO STA. 213+00

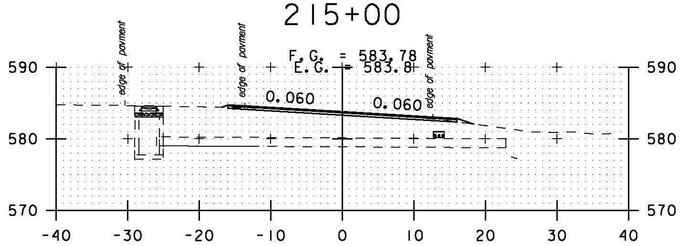
0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 18	SHEET 152 OF 211

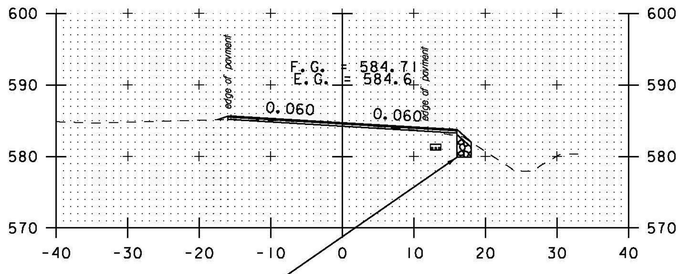


TH#2 LT

215+00

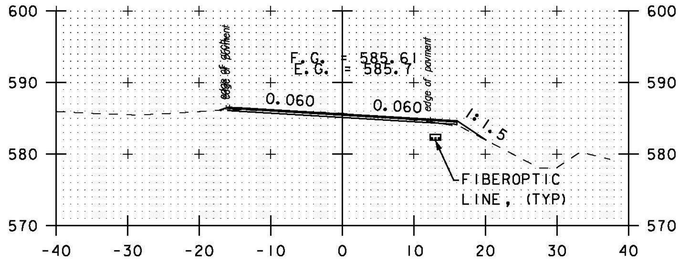


214+50

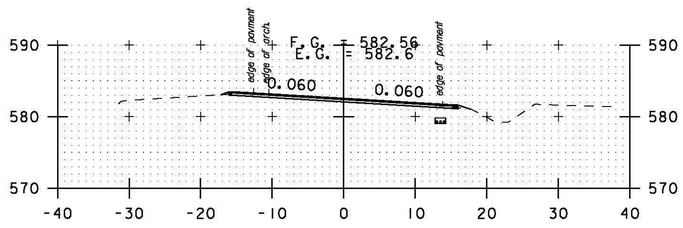


12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)

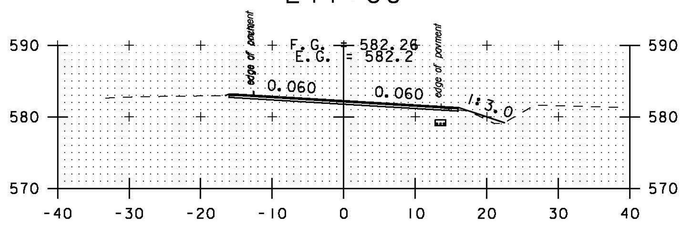
214+00



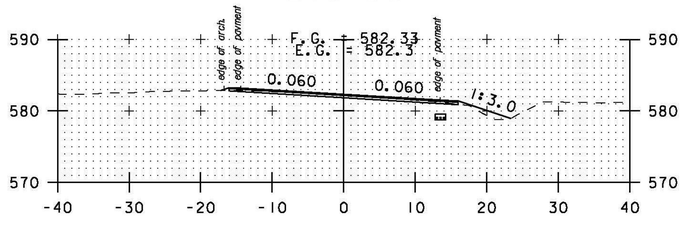
213+50



217+00

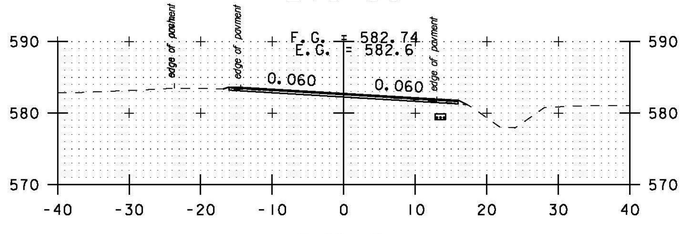


216+50



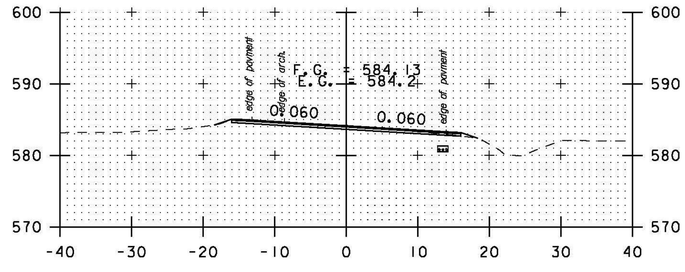
DRIVE LT

216+00

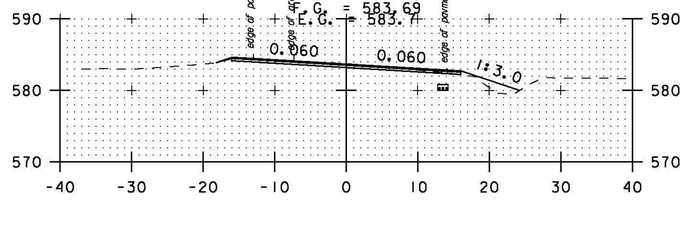


TH#2 LT

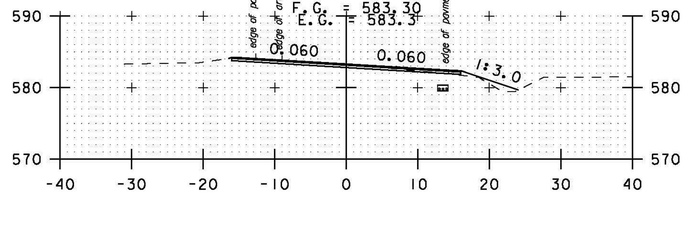
215+50



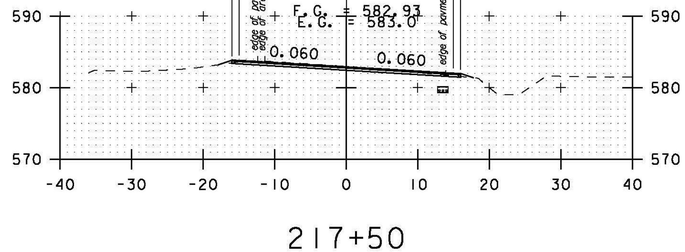
219+00



218+50



218+00

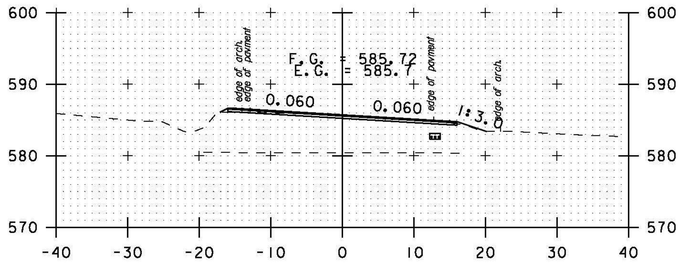


217+50

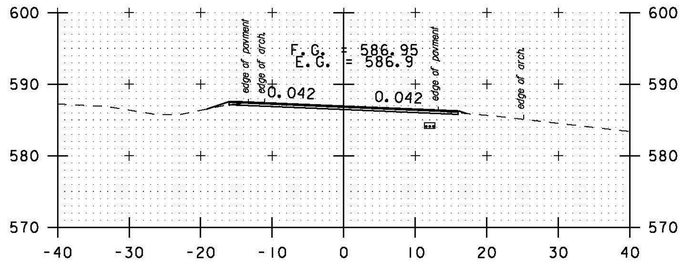
STA. 213+50 TO STA. 219+00

0 20 40
SCALE IN FEET

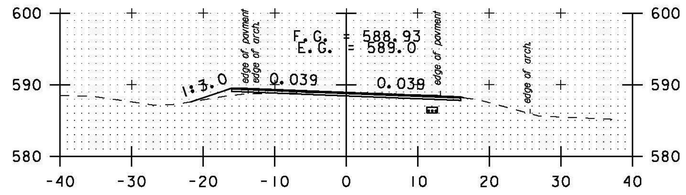
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 19	SHEET 153 OF 211



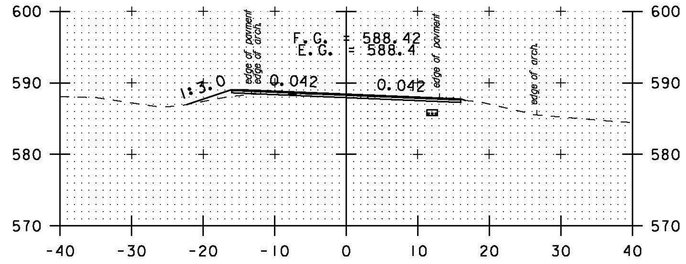
220+50



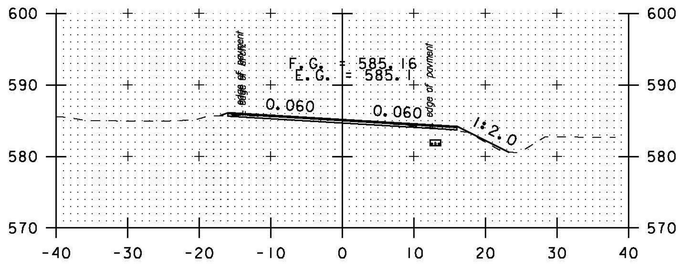
222+00



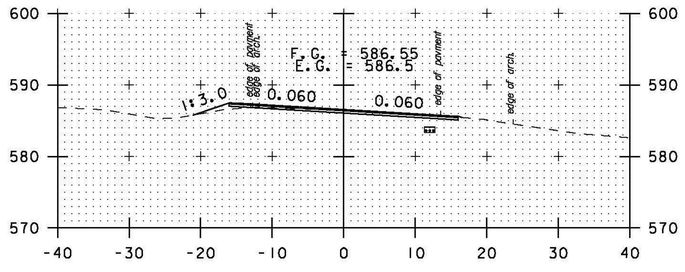
224+00



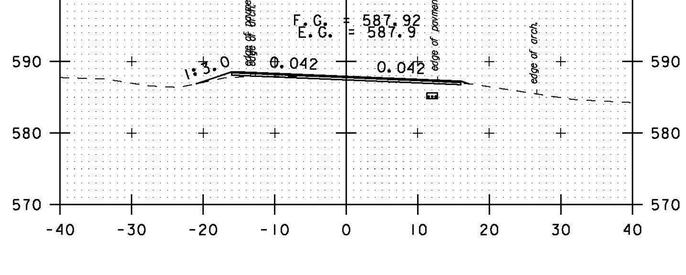
223+50



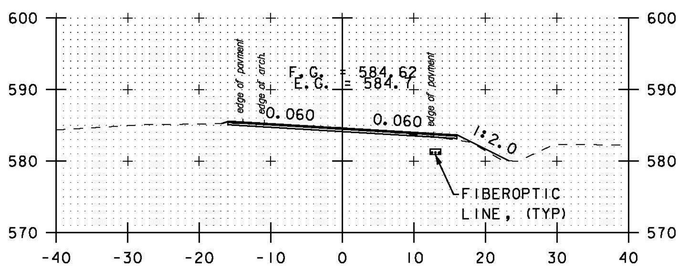
220+00



221+50

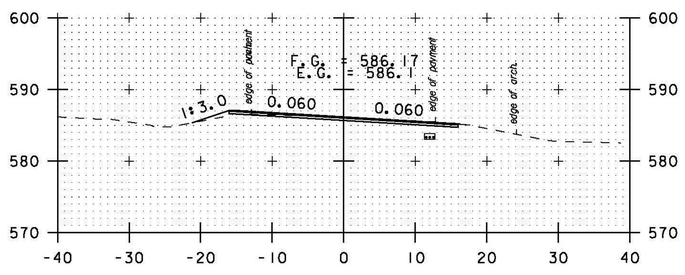


223+00

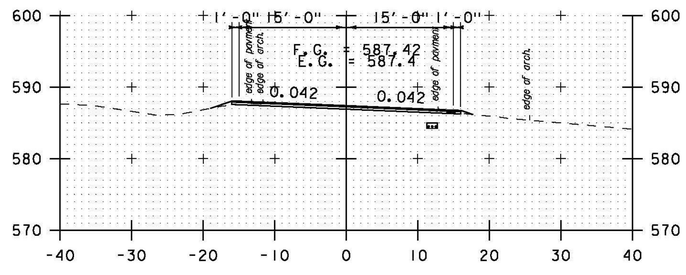


DRIVE LT

219+50



221+00

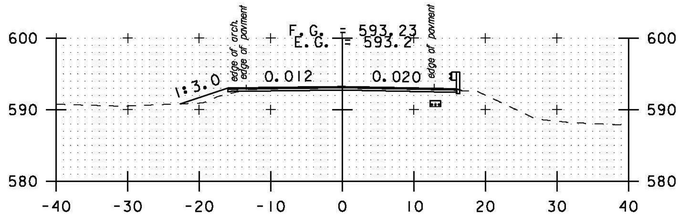


222+50

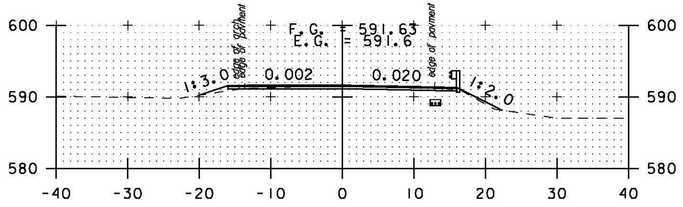
STA. 219+50 TO STA. 224+00

0 20 40
SCALE IN FEET

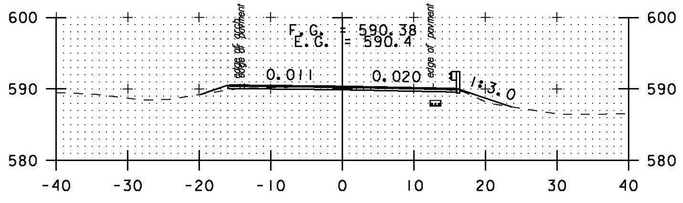
PROJECT NAME: BETHEL-RANDOLPH	
PROJECT NUMBER: STP 2921(1)	
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 20	SHEET 154 OF 211



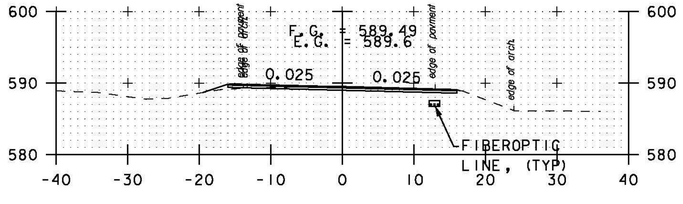
226+00



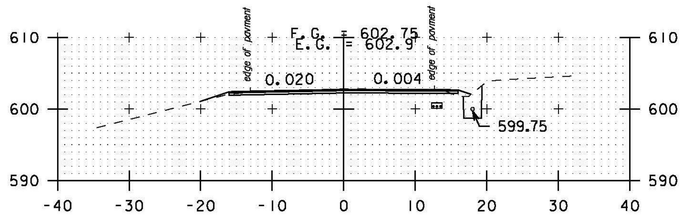
225+50



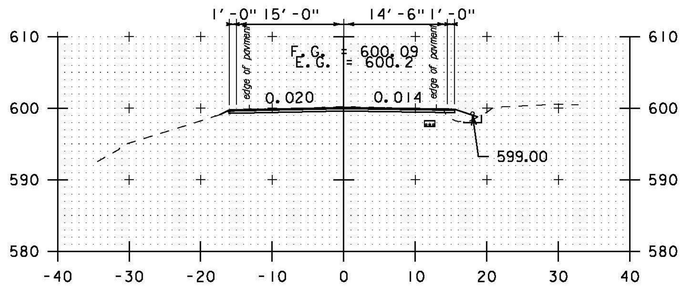
225+00



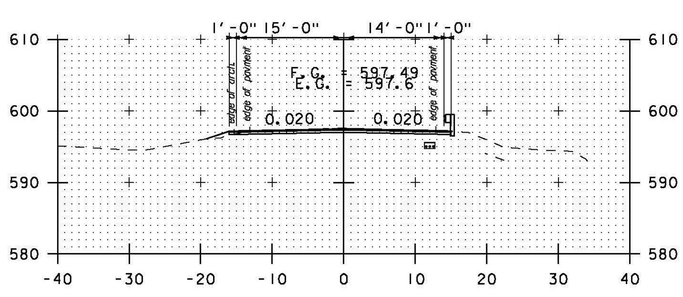
224+50



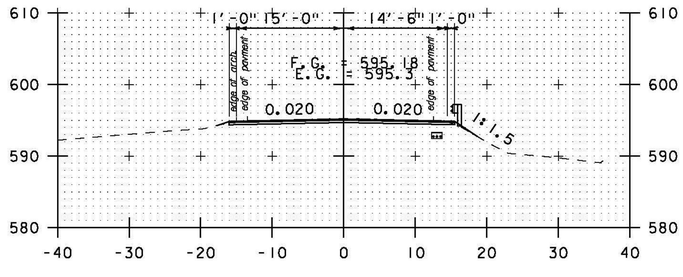
228+00



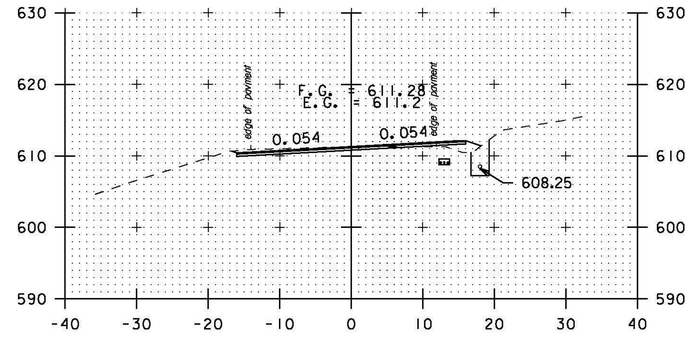
227+50



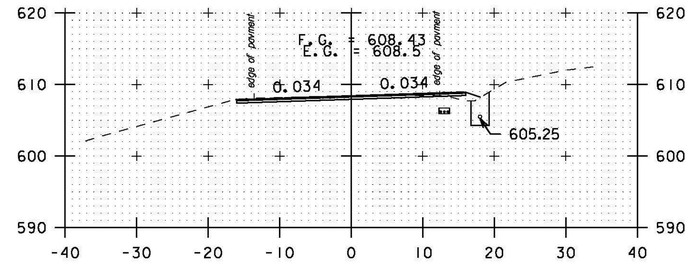
227+00



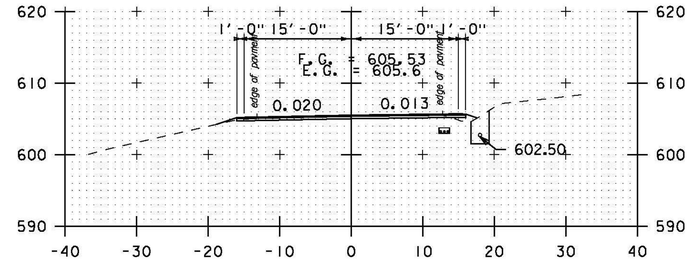
226+50



229+50



229+00



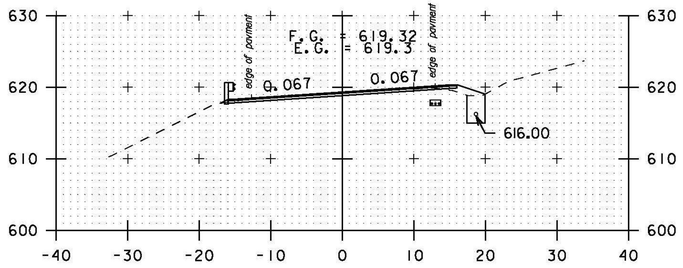
228+50

STA. 224+50 TO STA. 229+50

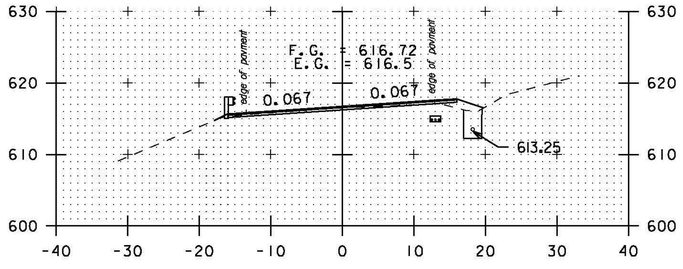
0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 21	SHEET 155 OF 211

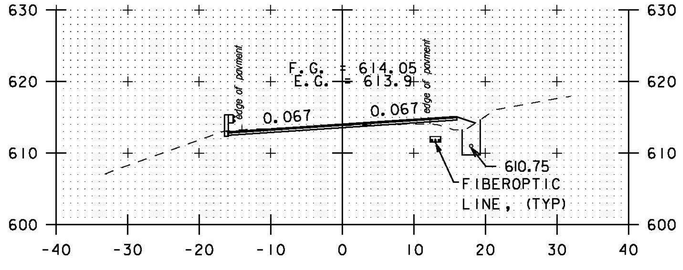
12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)



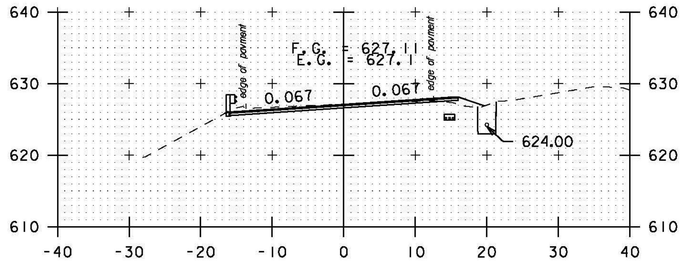
231+00



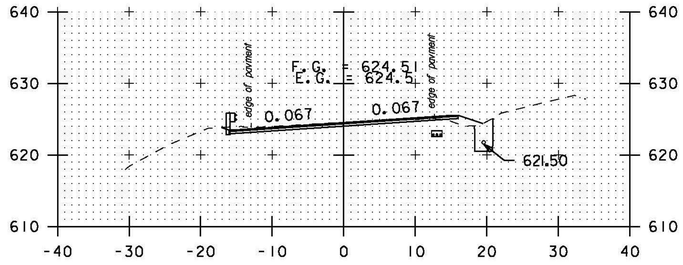
230+50



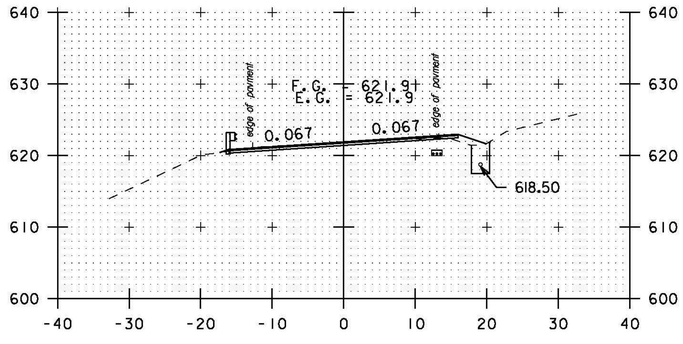
230+00



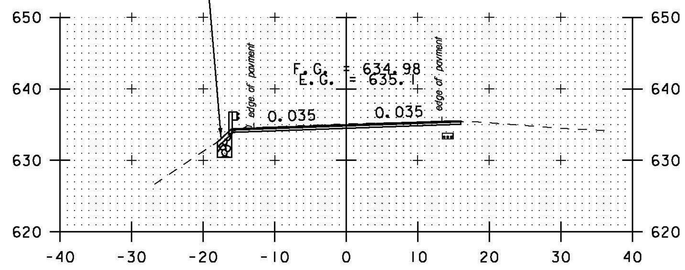
232+50



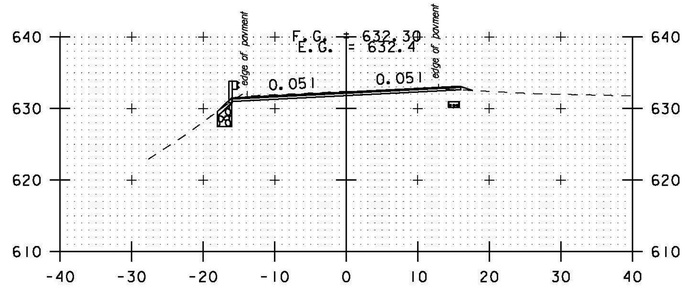
232+00



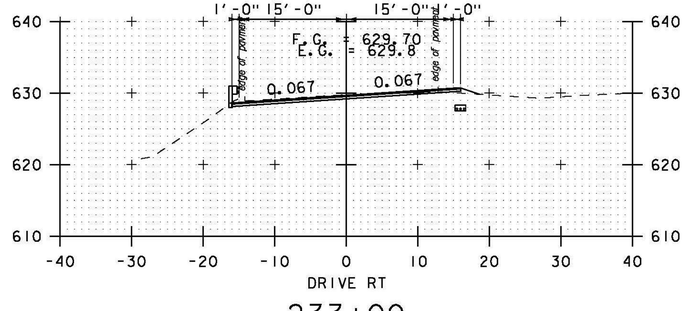
231+50



234+00



233+50

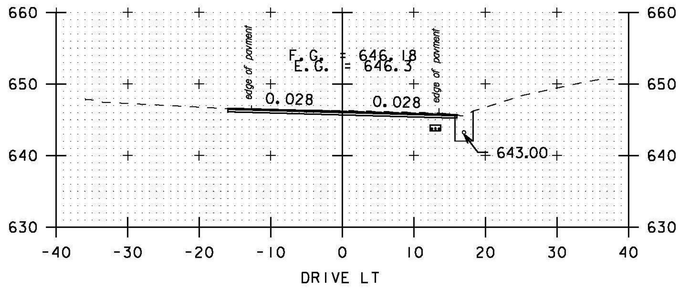


233+00

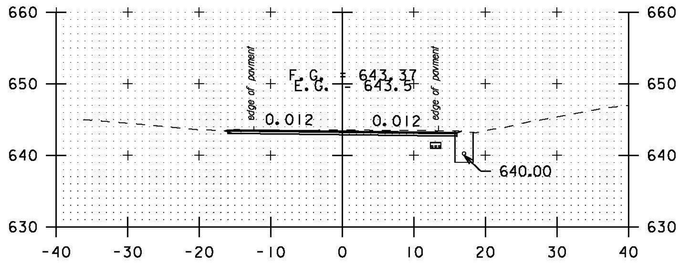
STA. 230+00 TO STA. 234+00

0 20 40
SCALE IN FEET

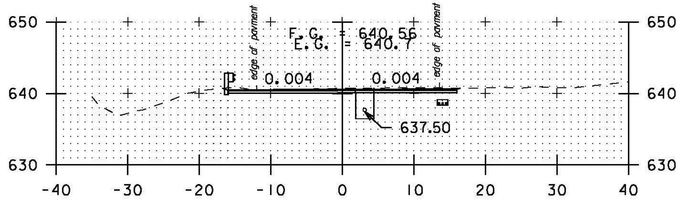
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 22	SHEET 156 OF 211



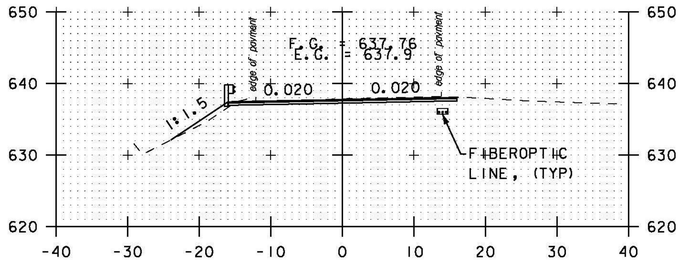
236+00



235+50

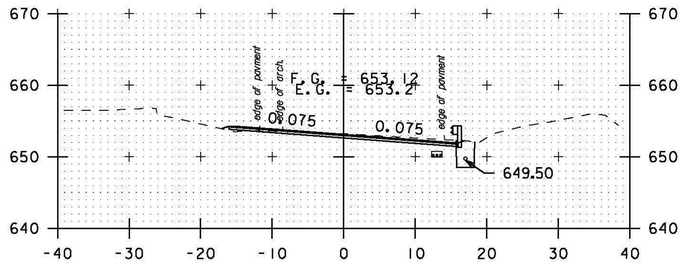


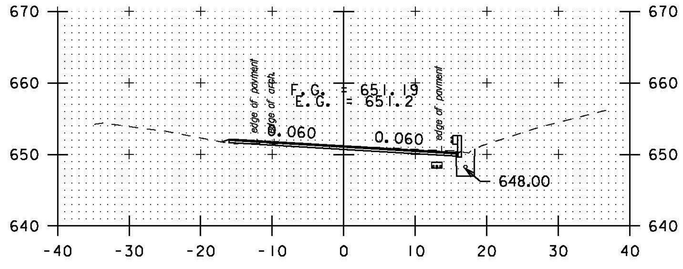
235+00



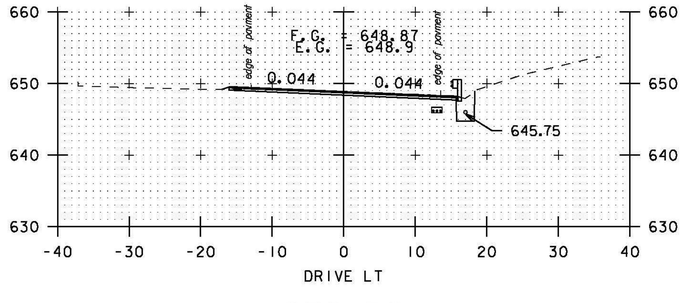
234+50

237+50



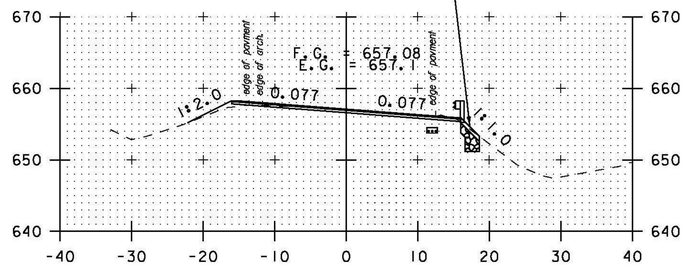


237+00

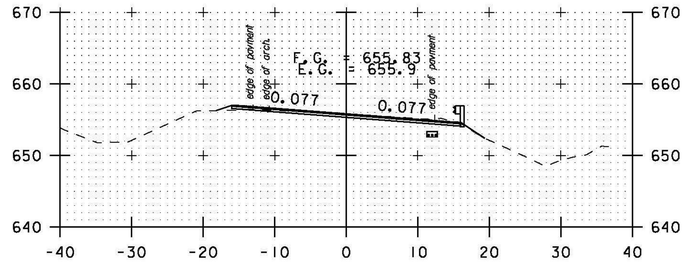


236+50

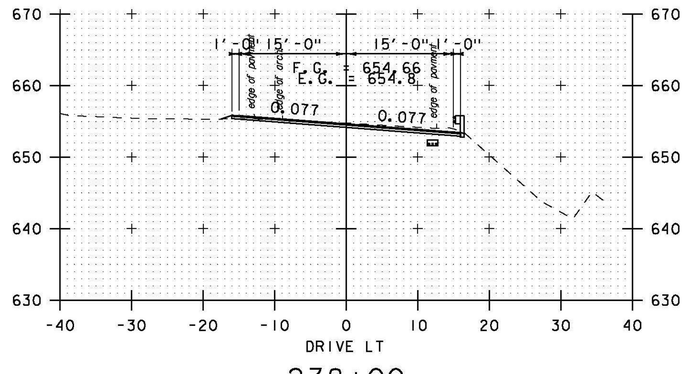
12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)



239+00



238+50

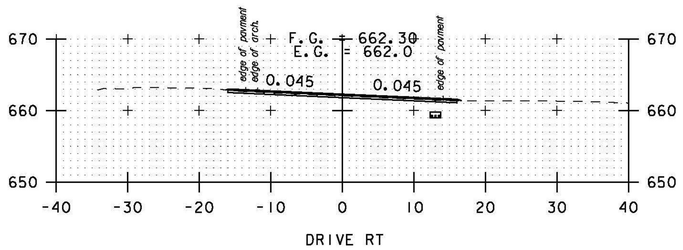


238+00

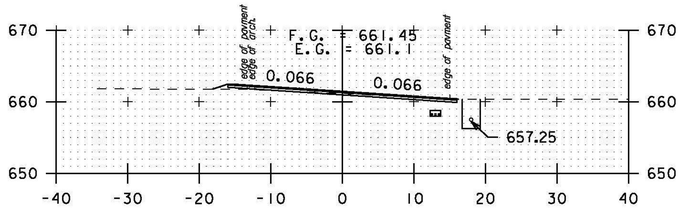
STA. 234+50 TO STA. 239+00

0 20 40
SCALE IN FEET

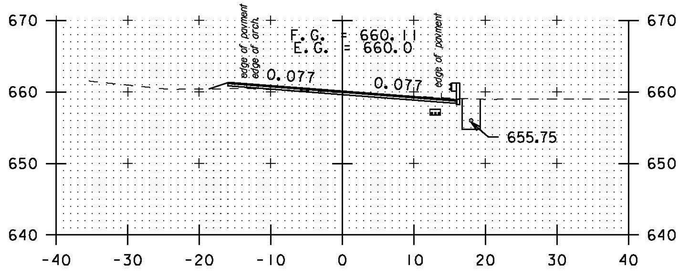
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 23	SHEET 157 OF 211



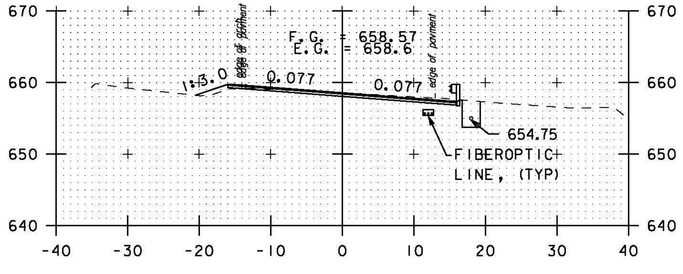
241+00



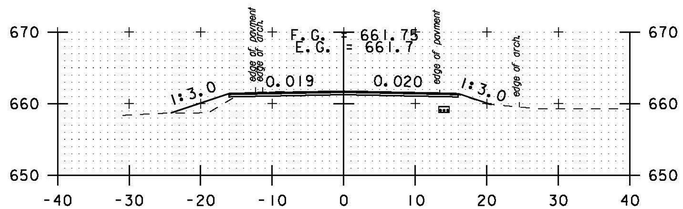
240+50



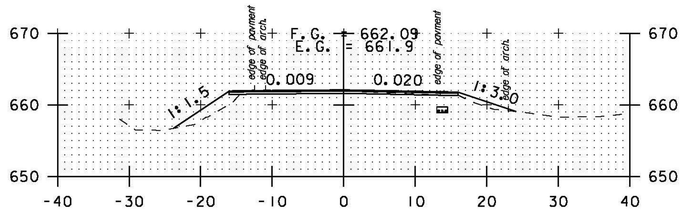
240+00



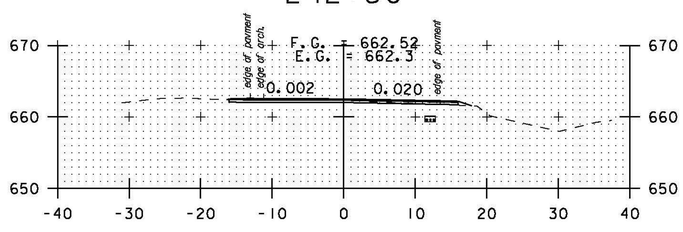
239+50



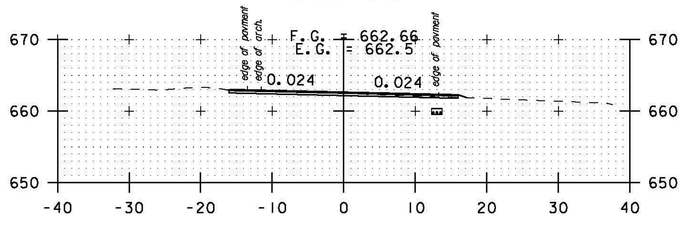
243+00



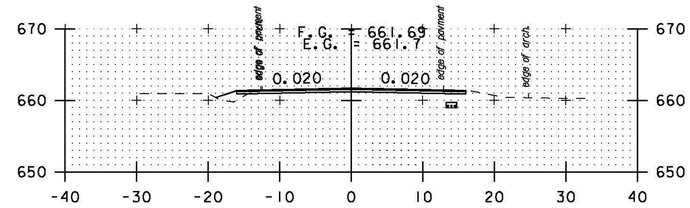
242+50



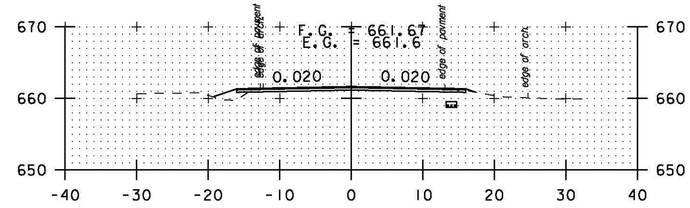
242+00



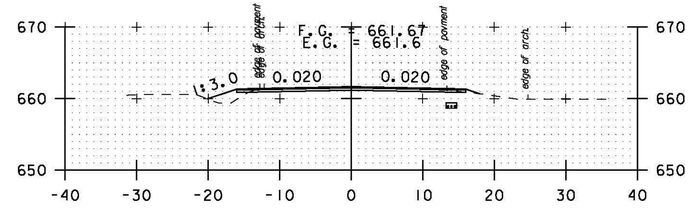
241+50



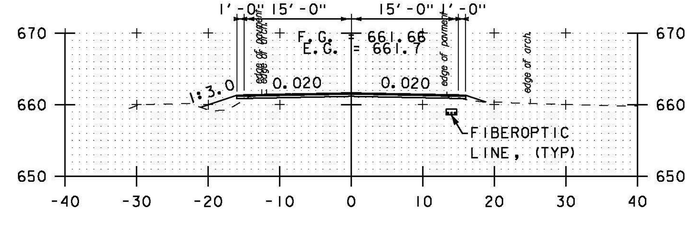
245+00



244+50



244+00

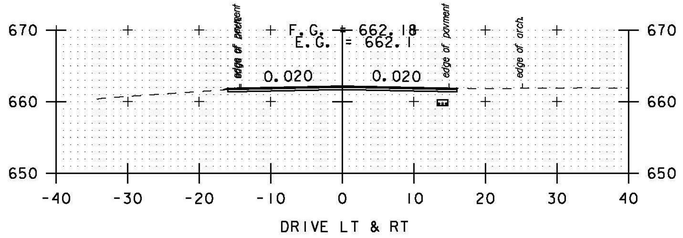


243+50

STA. 239+50 TO STA. 245+00

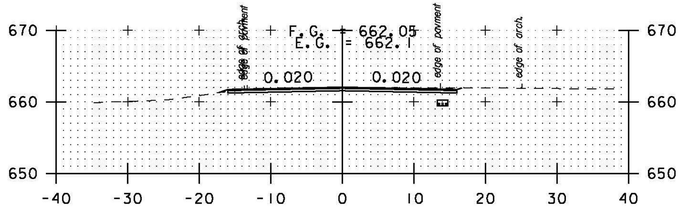
0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 24	SHEET 158 OF 211

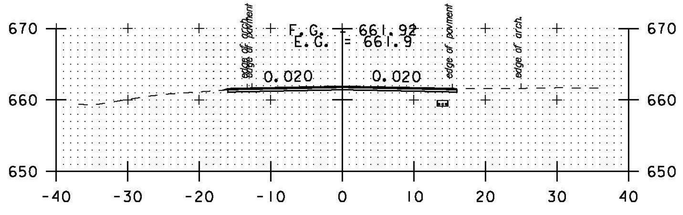


DRIVE LT & RT

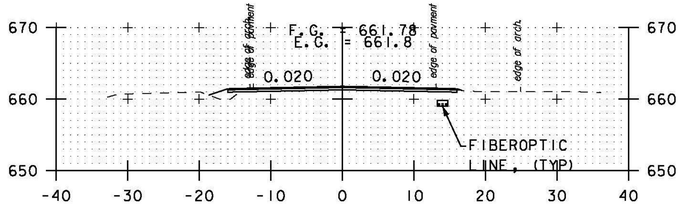
247+00



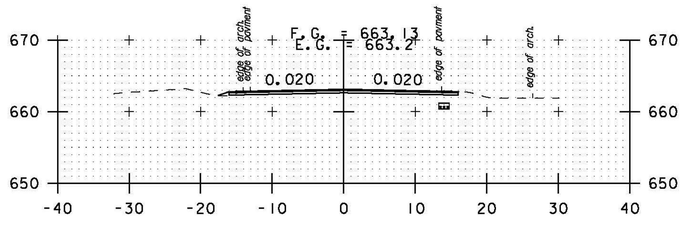
246+50



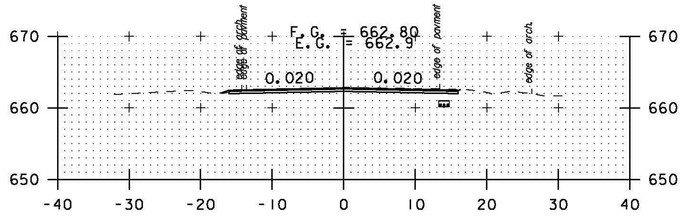
246+00



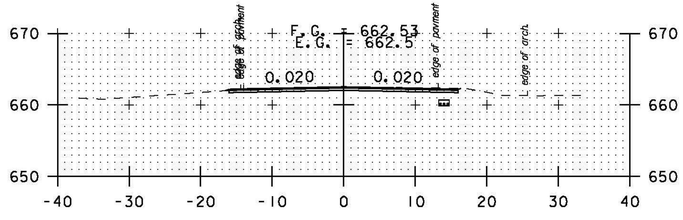
245+50



249+00

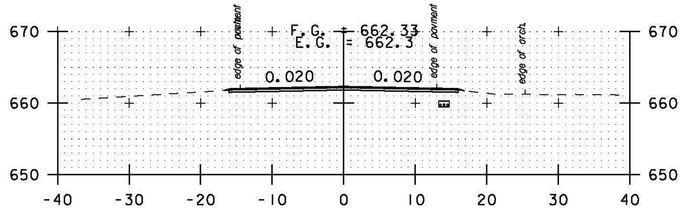


248+50



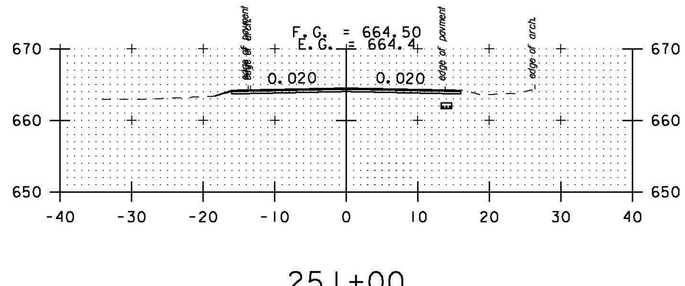
DRIVE LT

248+00

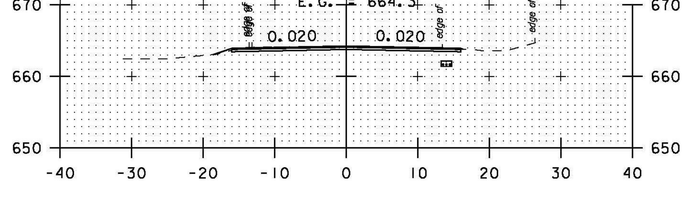


DRIVE LT & RT

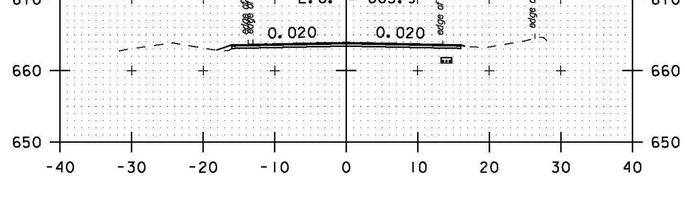
247+50



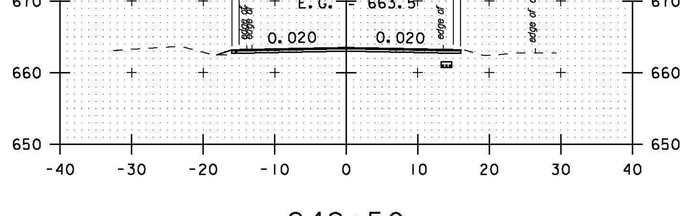
251+00



250+50



250+00

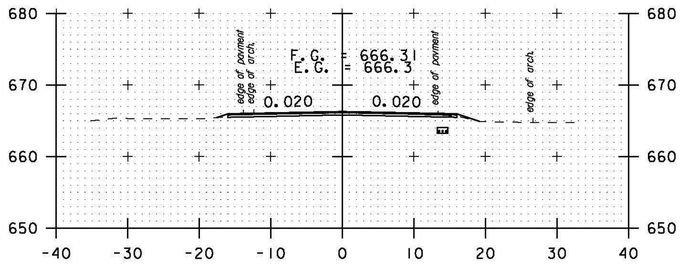


249+50

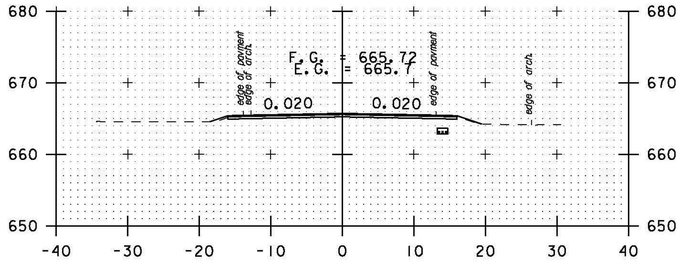
STA. 245+50 TO STA. 251+00

0 20 40
SCALE IN FEET

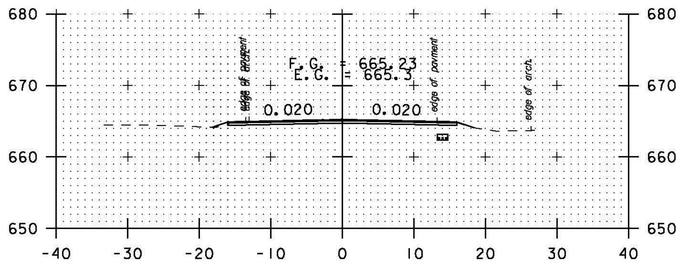
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 25	SHEET 159 OF 211



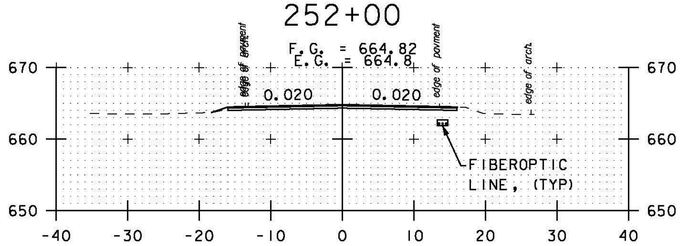
253+00



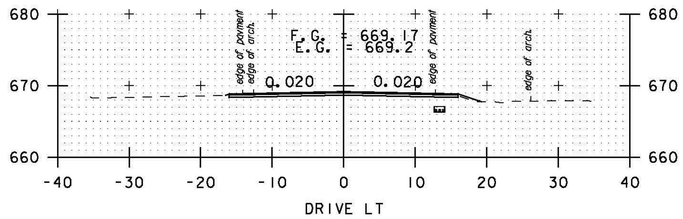
252+50



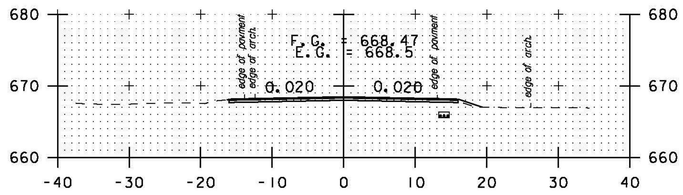
252+00



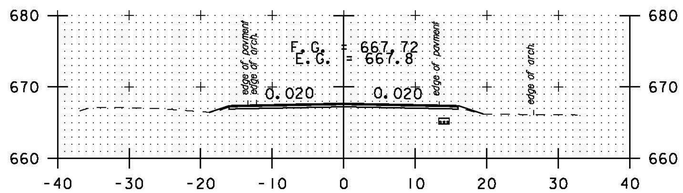
251+50



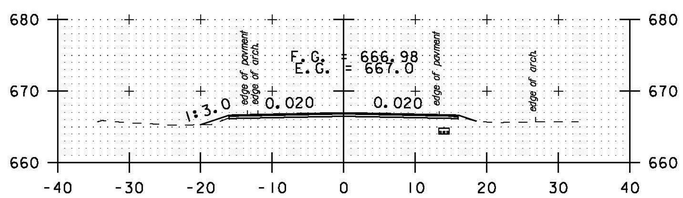
255+00



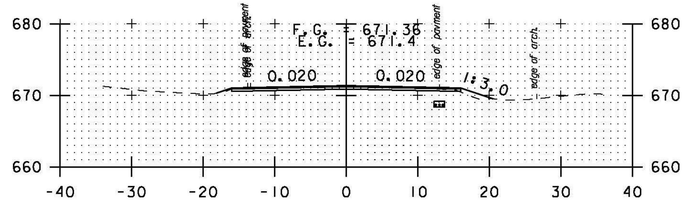
254+50



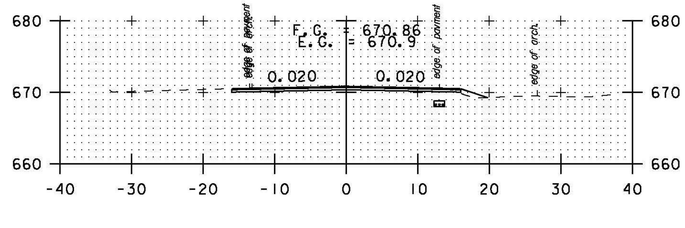
254+00



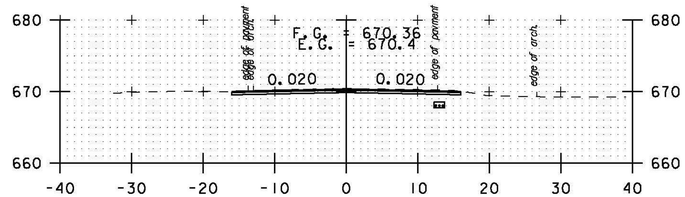
253+50



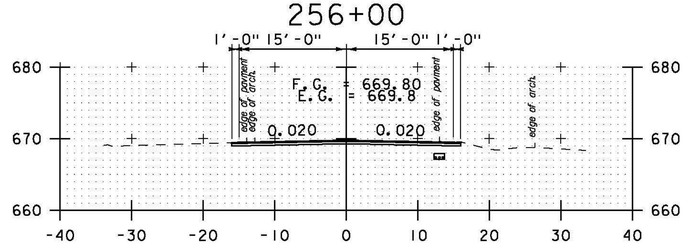
257+00



256+50



256+00

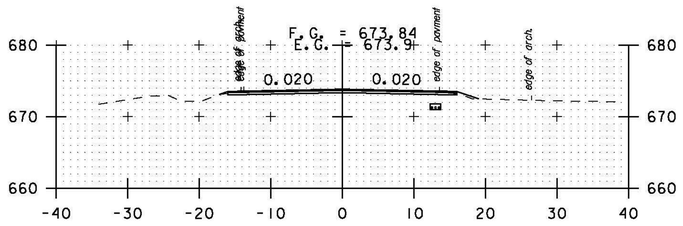


255+50

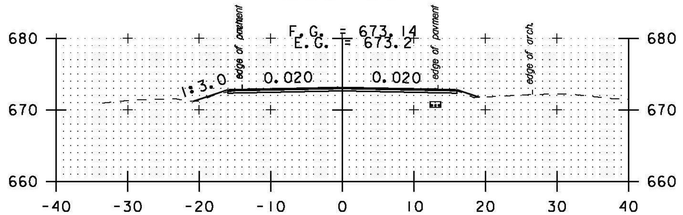
STA. 251+50 TO STA. 257+00

0 20 40
SCALE IN FEET

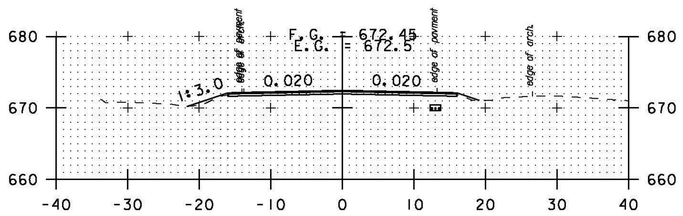
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 26	SHEET 160 OF 211



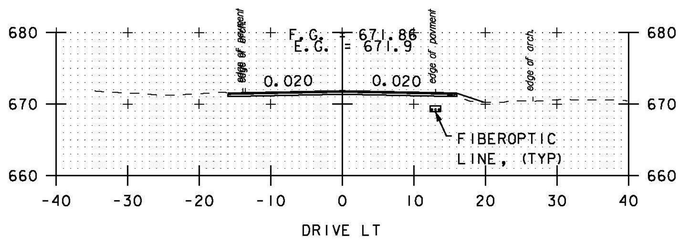
259+00



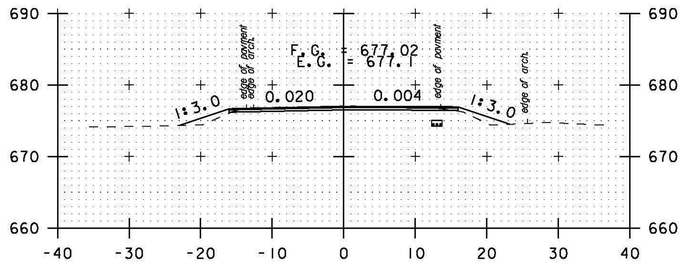
258+50



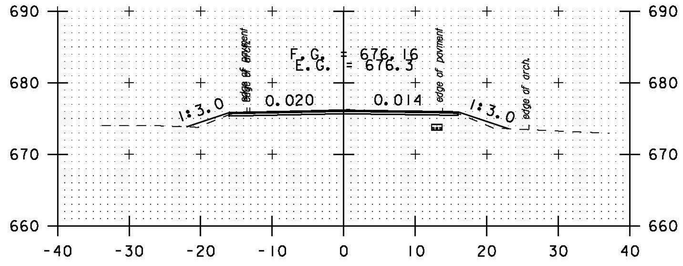
258+00



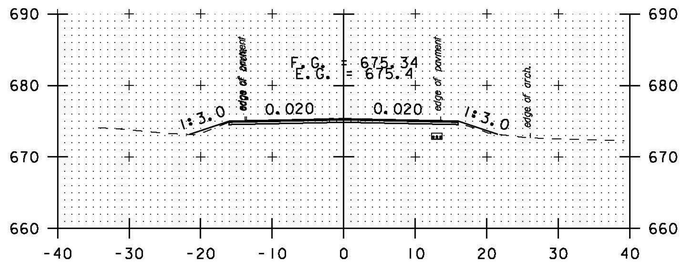
257+50



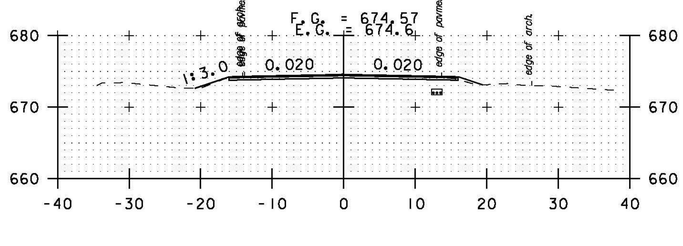
261+00



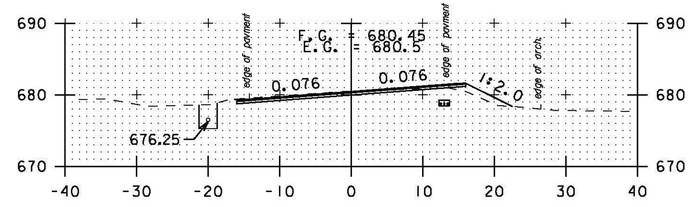
260+50



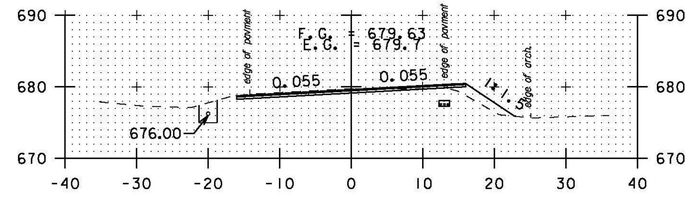
260+00



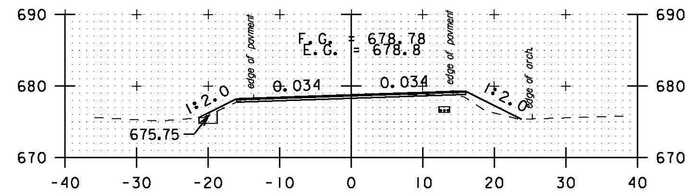
259+50



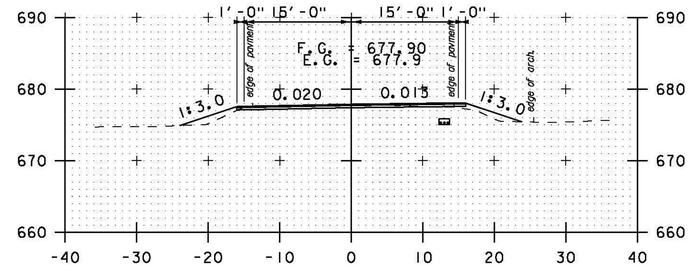
263+00



262+50



262+00

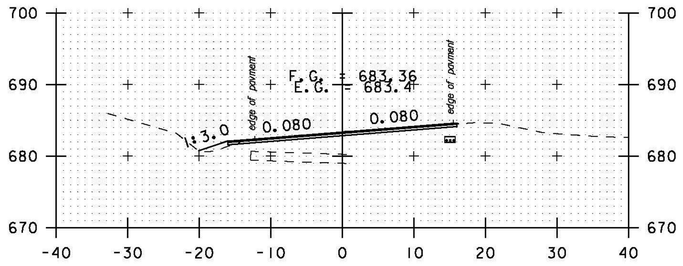


261+50

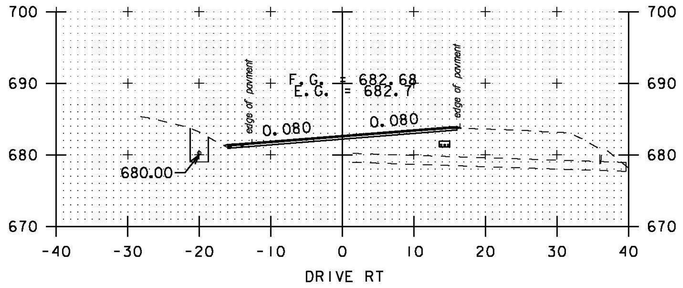
STA. 257+50 TO STA. 263+00

0 20 40
SCALE IN FEET

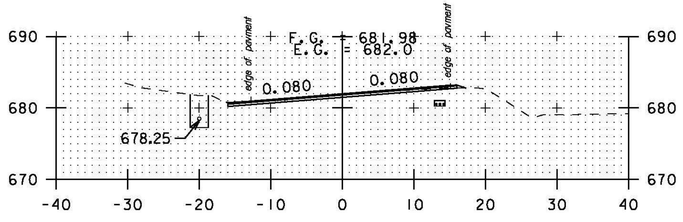
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 27	SHEET 161 OF 211



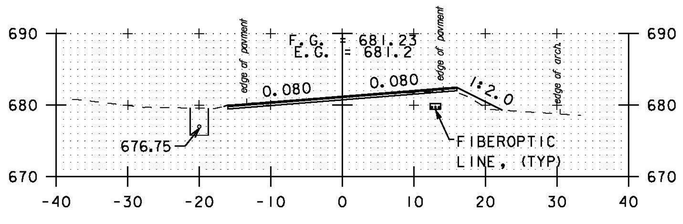
265+00



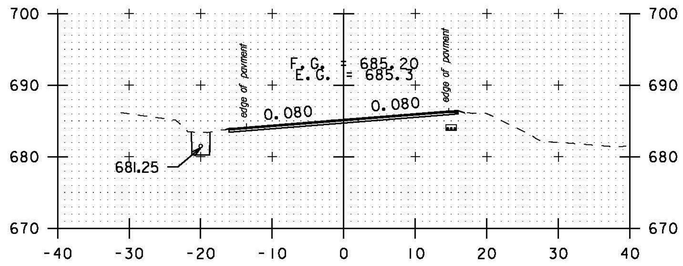
264+50



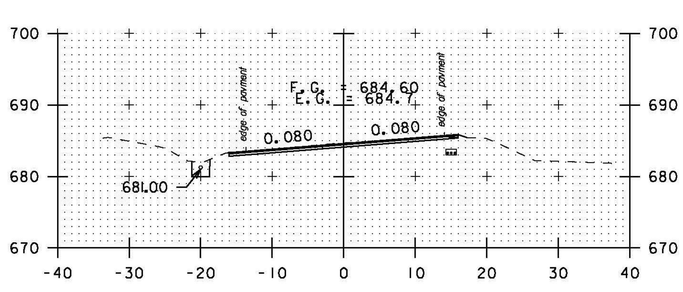
264+00



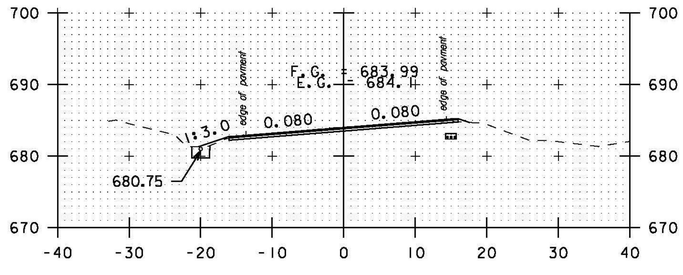
263+50



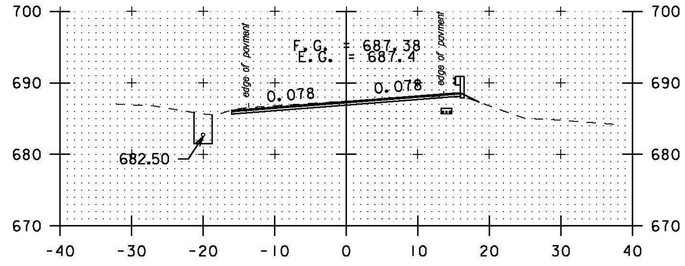
266+50



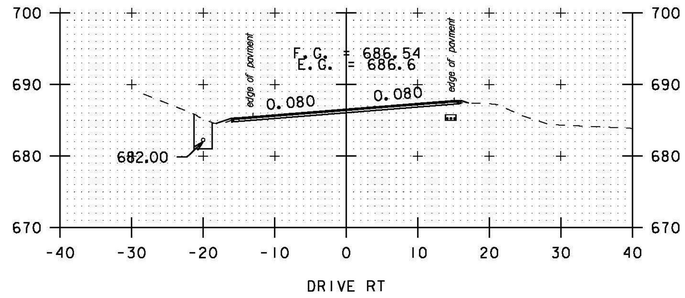
266+00



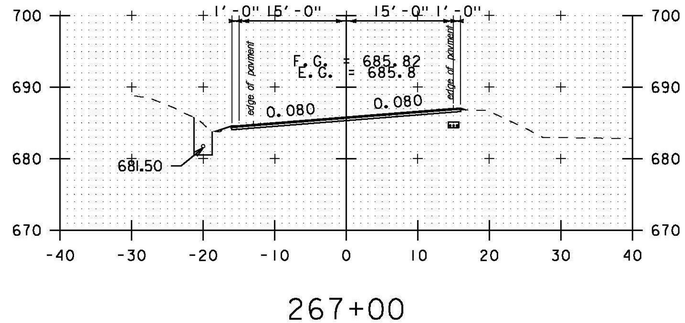
265+50



268+00



267+50

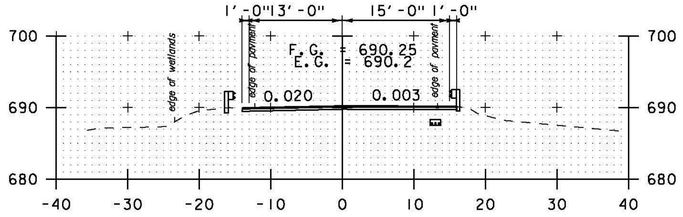


267+00

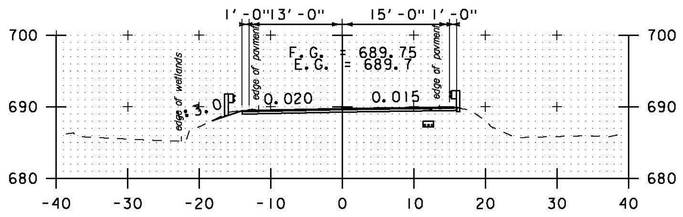
STA. 263+50 TO STA. 268+00

0 20 40
SCALE IN FEET

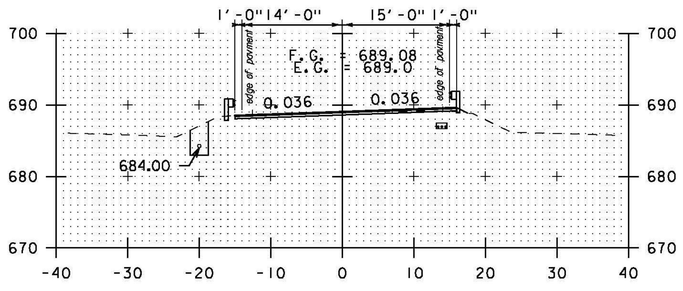
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 28	SHEET 162 OF 211



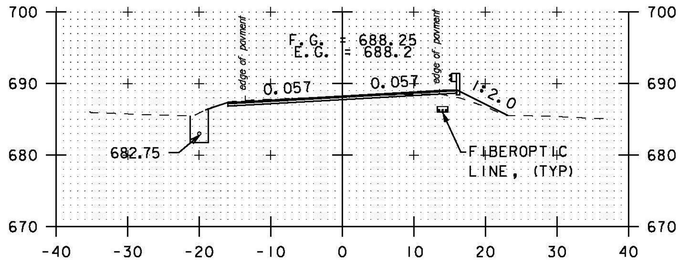
270+00



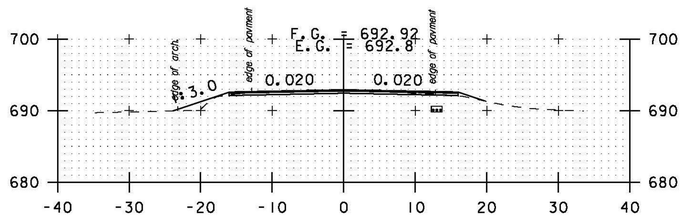
269+50



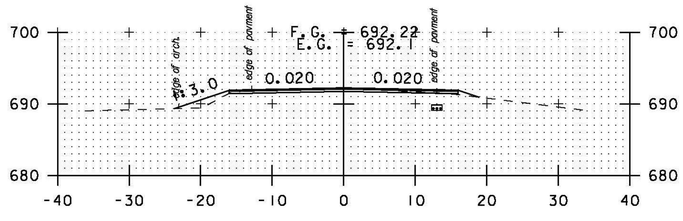
269+00



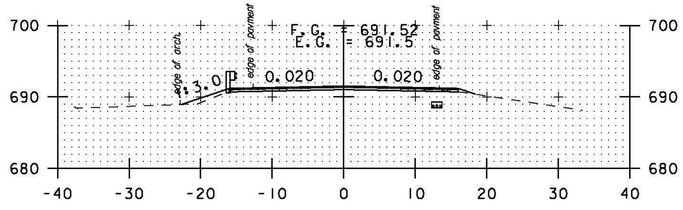
268+50



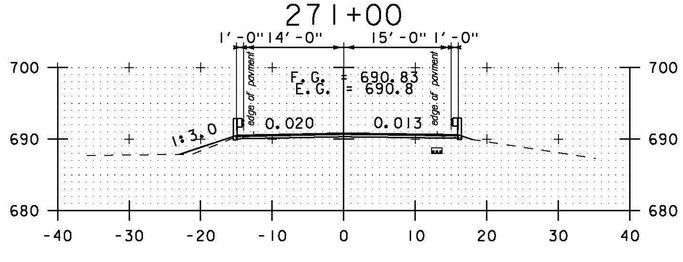
272+00



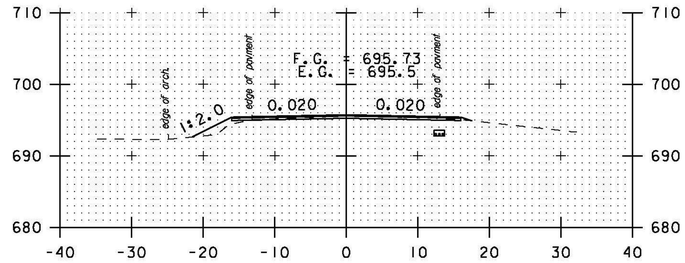
271+50



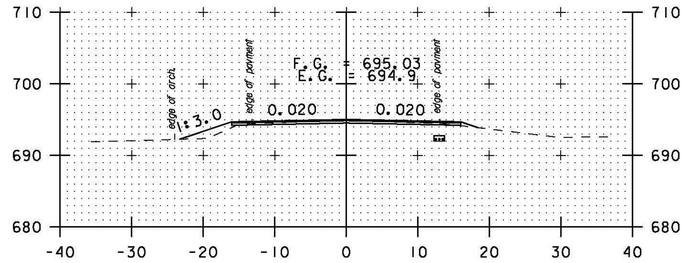
271+00



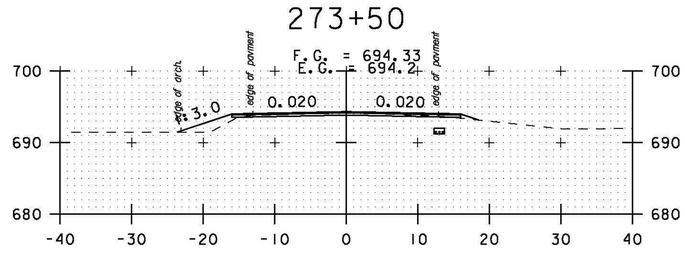
270+50



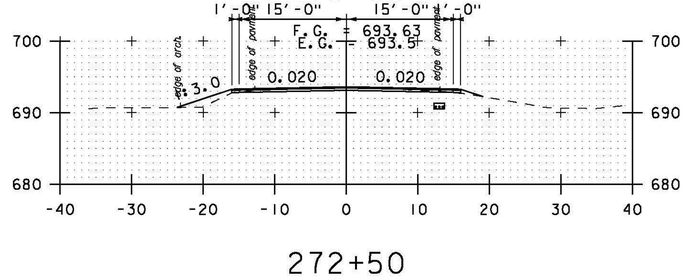
274+00



273+50



273+00

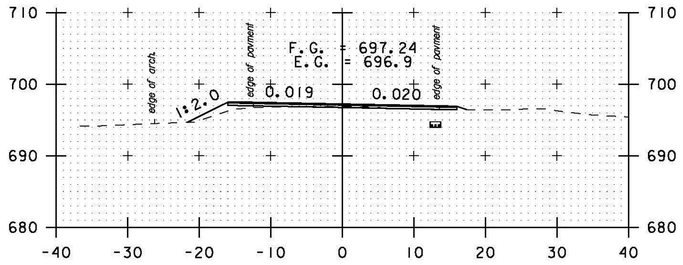


272+50

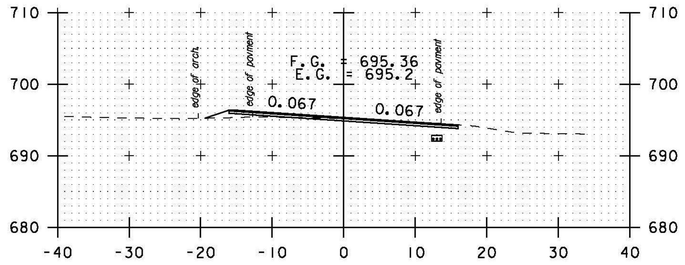
STA. 268+50 TO STA. 274+00

0 20 40
SCALE IN FEET

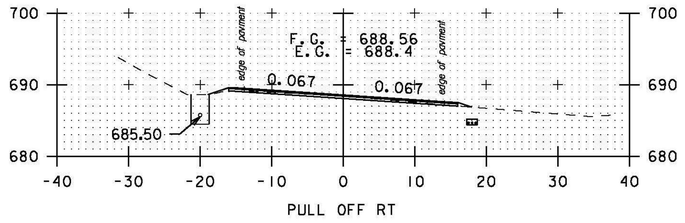
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 29	SHEET 163 OF 211



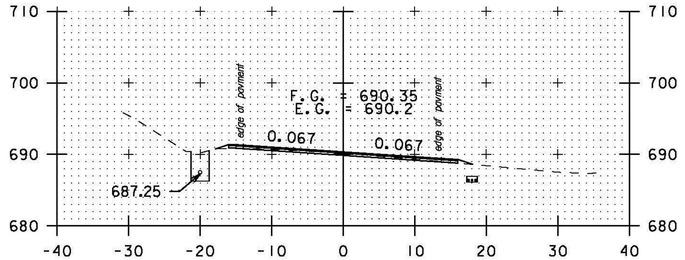
275+50



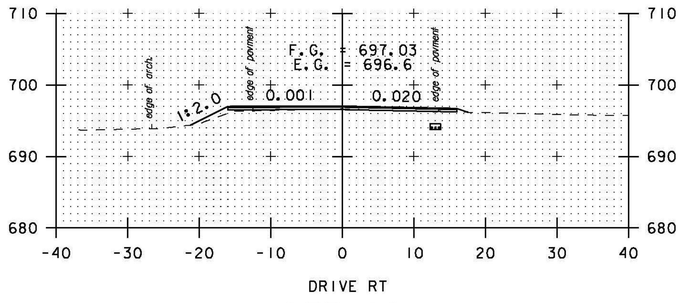
277+00



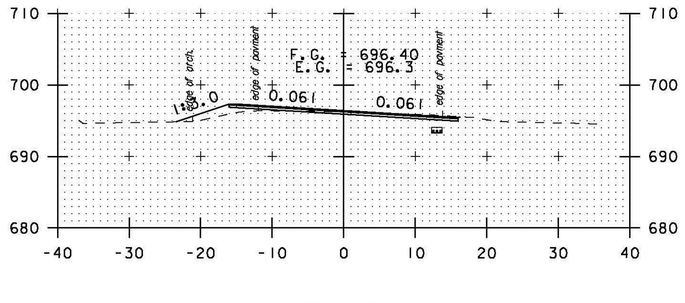
279+00



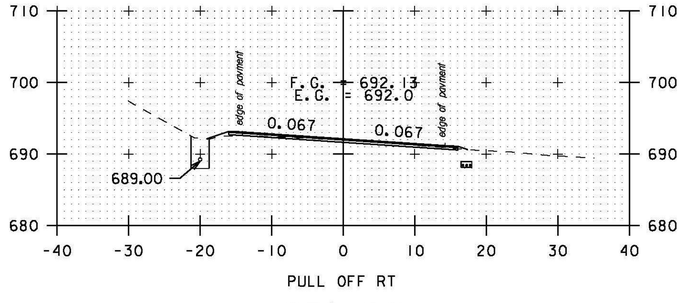
278+50



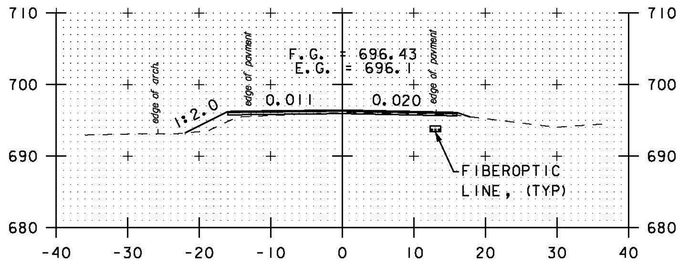
275+00



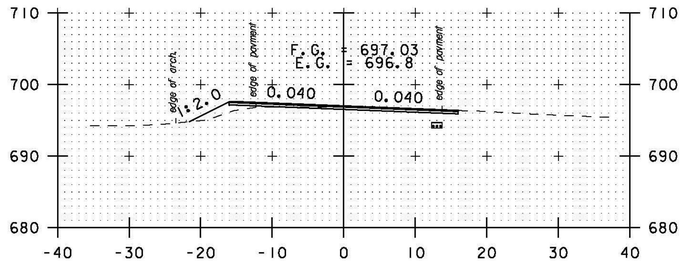
276+50



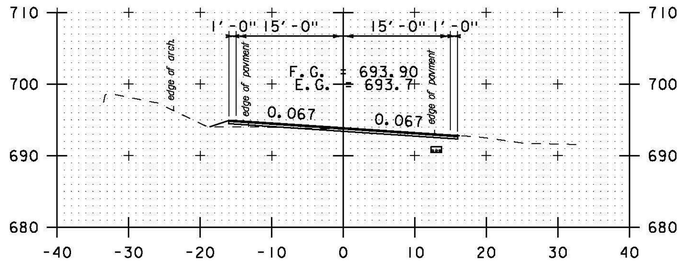
278+00



274+50



276+00

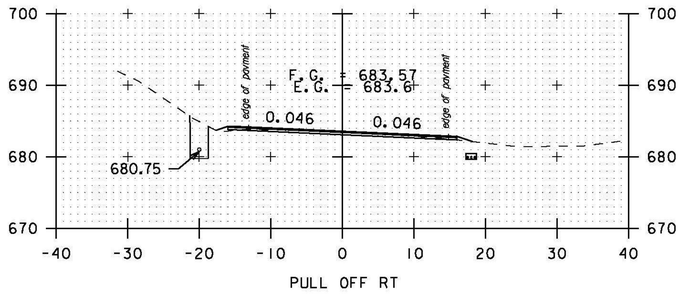


277+50

STA. 274+50 TO STA. 279+00

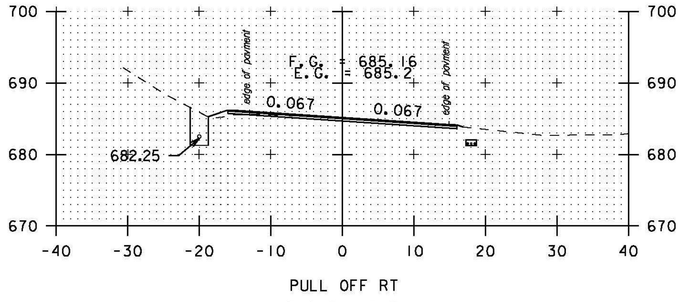
0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 30	SHEET 164 OF 211



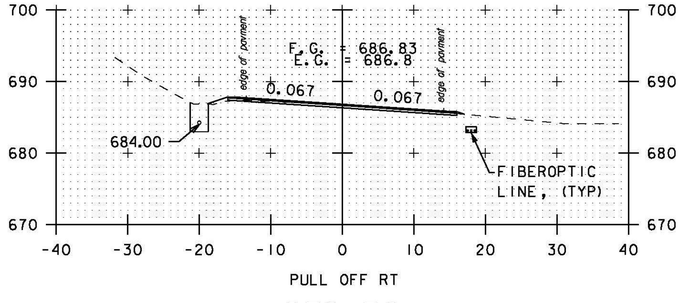
PULL OFF RT

280+50



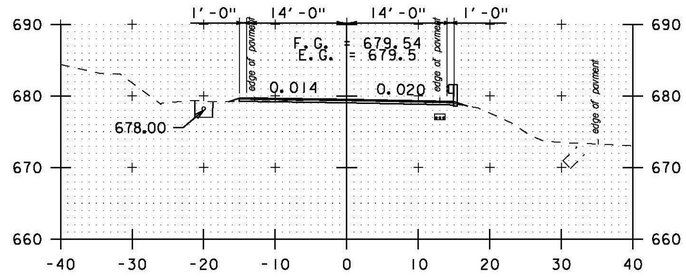
PULL OFF RT

280+00

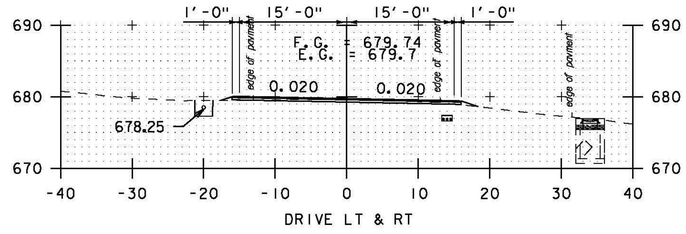


PULL OFF RT

279+50

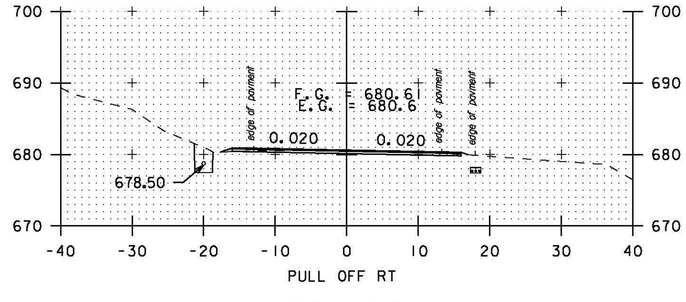


282+50



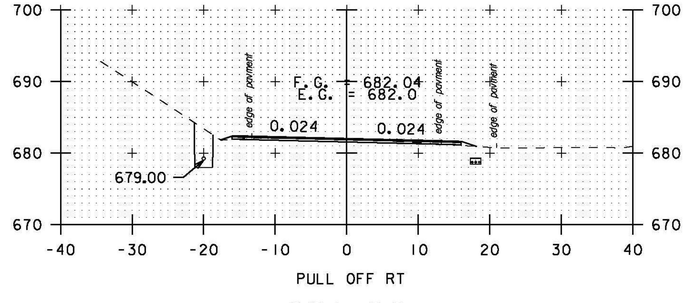
DRIVE LT & RT

282+00



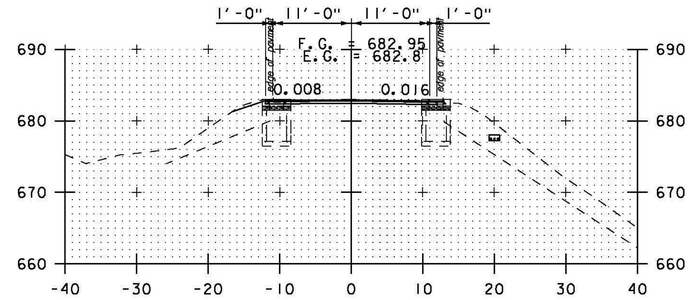
PULL OFF RT

281+50

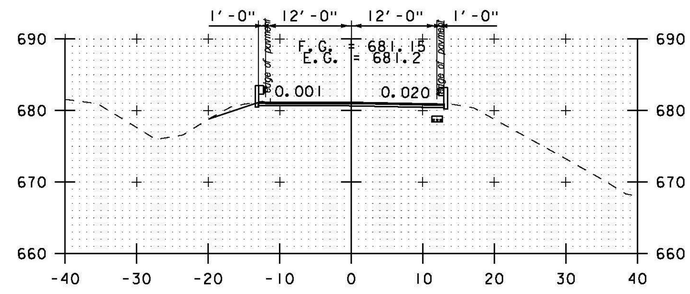


PULL OFF RT

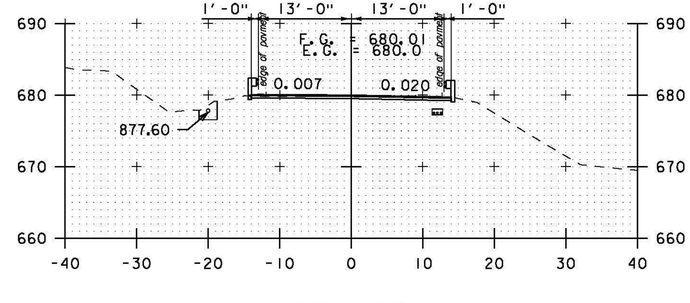
281+00



284+00



283+50

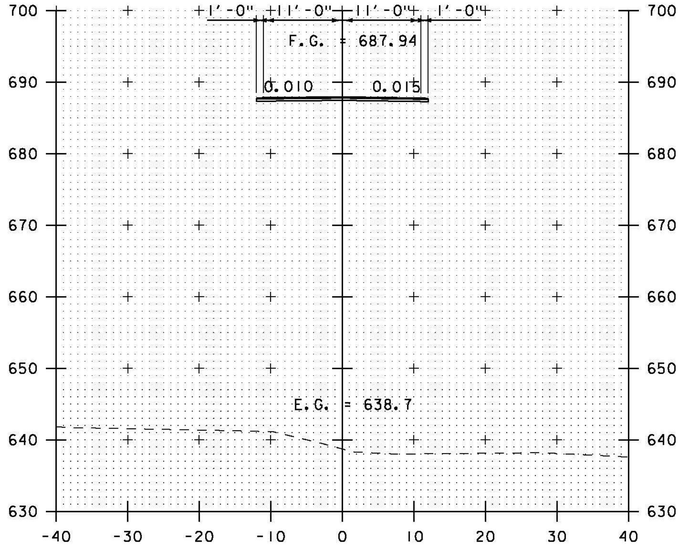


283+00

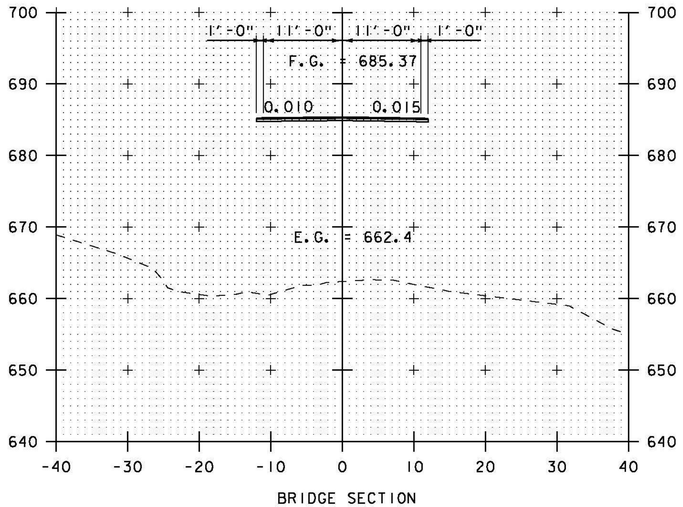
STA. 279+50 TO STA. 284+00

0 20 40
SCALE IN FEET

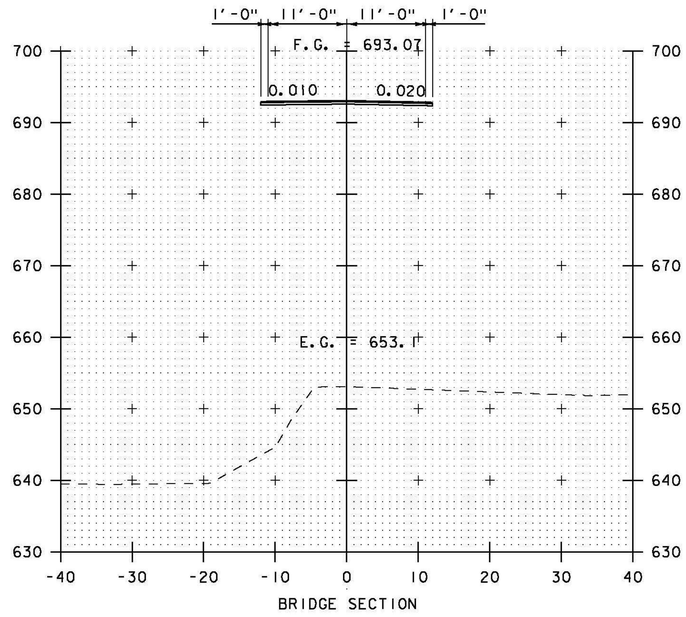
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(I)
FILE NAME: plOC244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 31	SHEET 165 OF 211



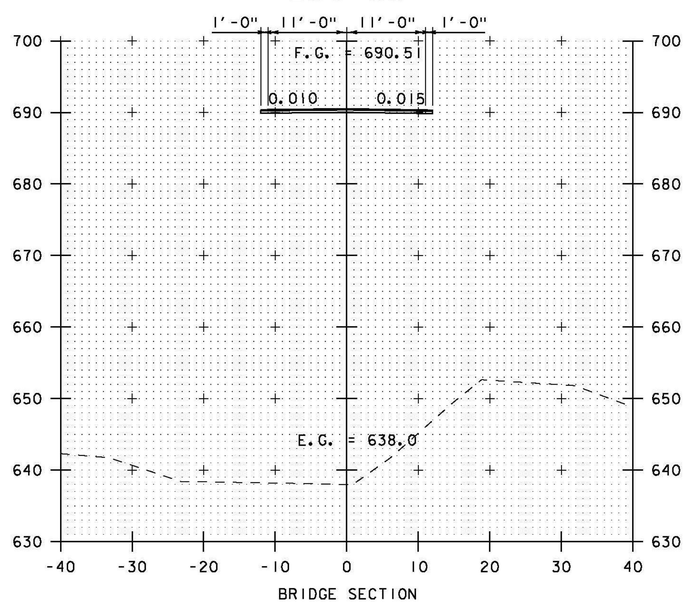
285+00



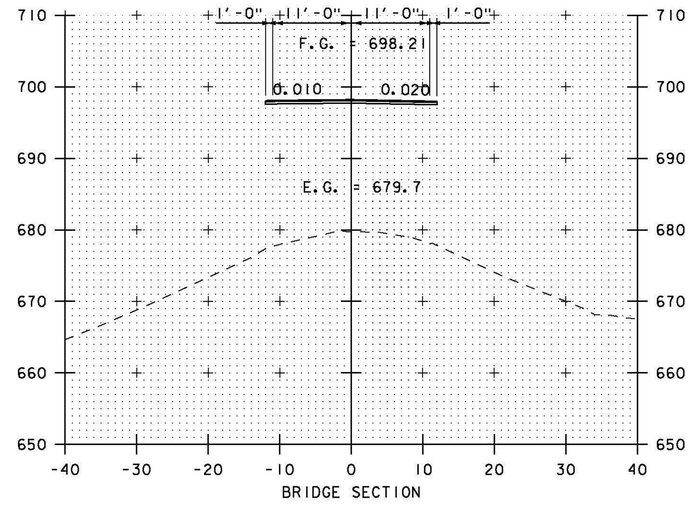
284+50



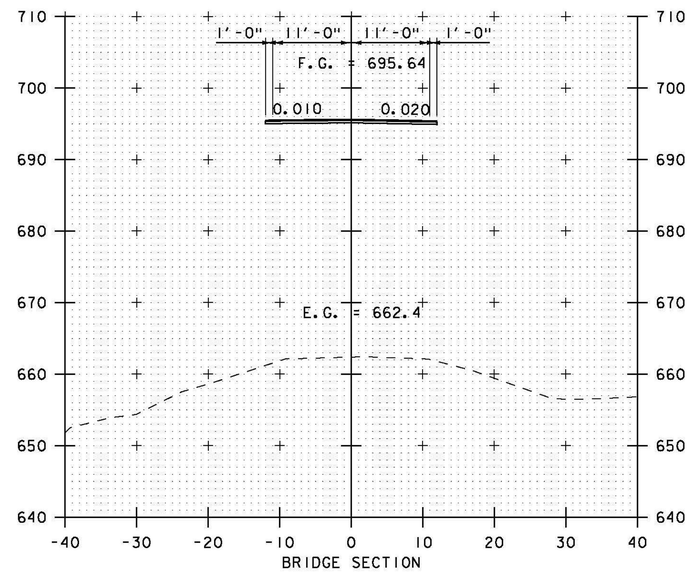
286+00



285+50



287+00

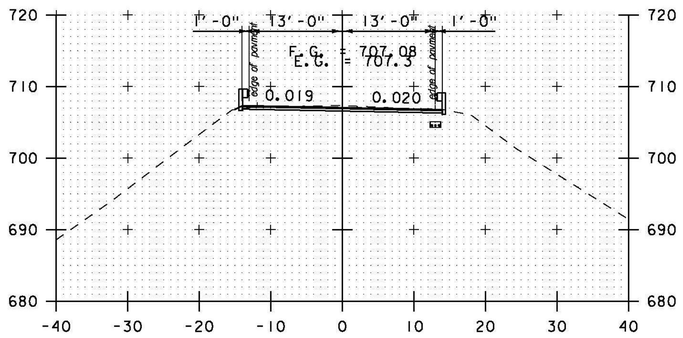


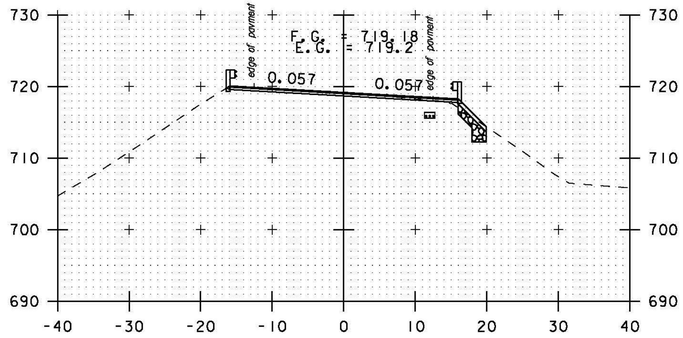
286+50

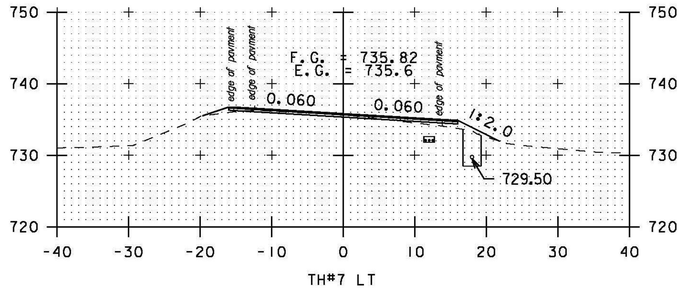
STA. 284+50 TO STA. 287+00

0 20 40
SCALE IN FEET

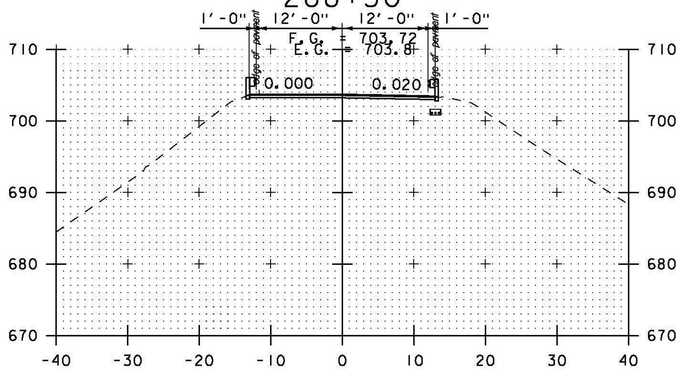
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 32	SHEET 166 OF 211



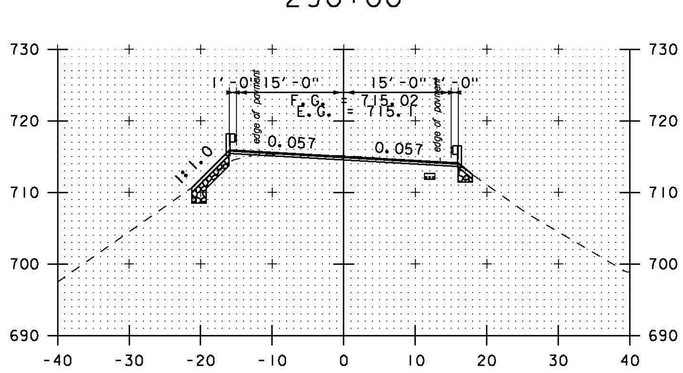




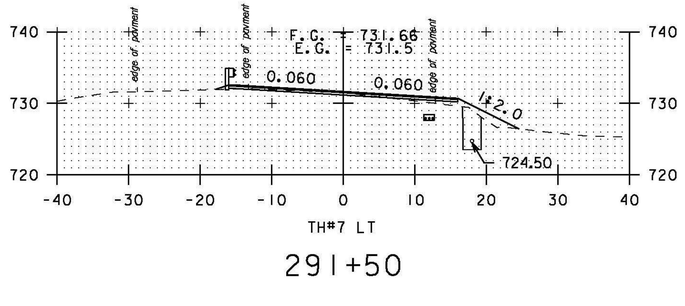
288+50



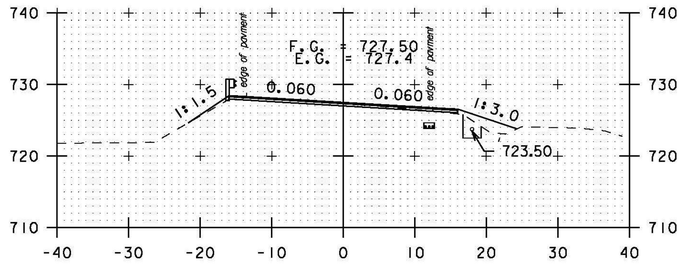
290+00



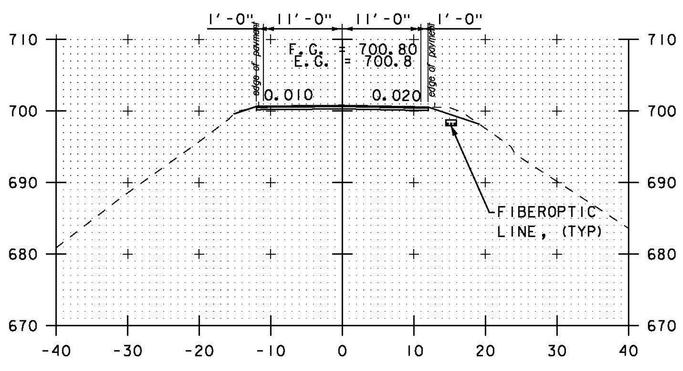
292+00



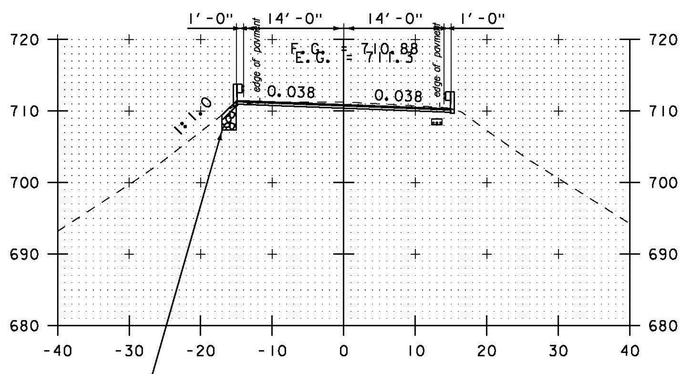
291+50



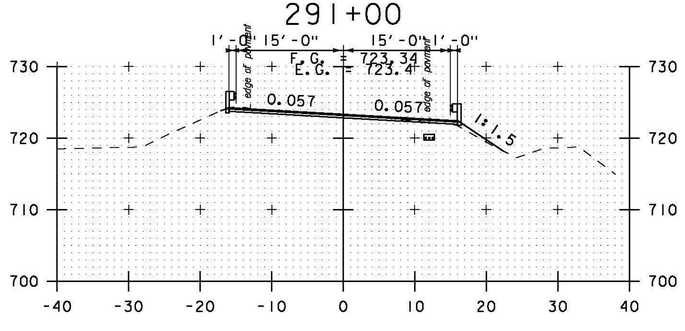
288+00



289+50



291+00



287+50

289+00

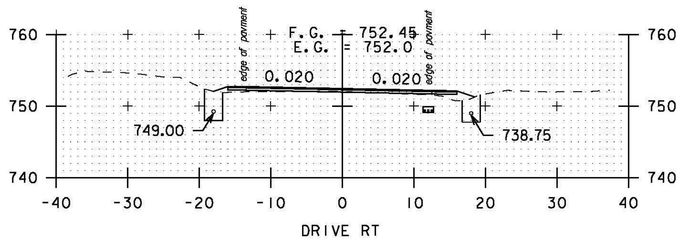
290+50

12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)

STA. 287+50 TO STA. 292+00

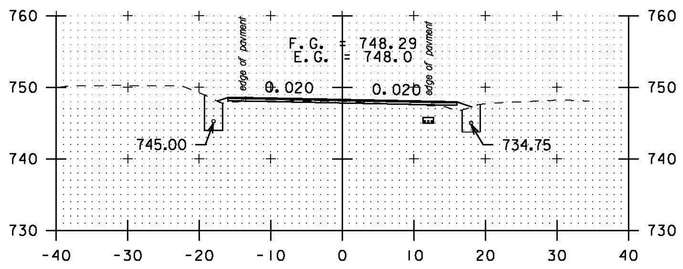
0 20 40
SCALE IN FEET

PROJECT NAME: BETHEL-RANDOLPH	
PROJECT NUMBER: STP 292I(I)	
FILE NAME: pI0C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 33	SHEET 167 OF 211

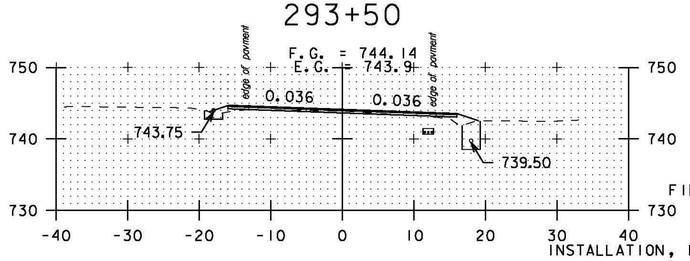


DRIVE RT

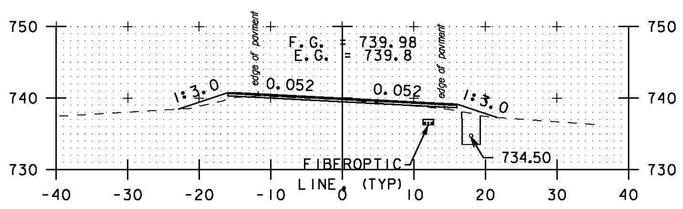
294+00



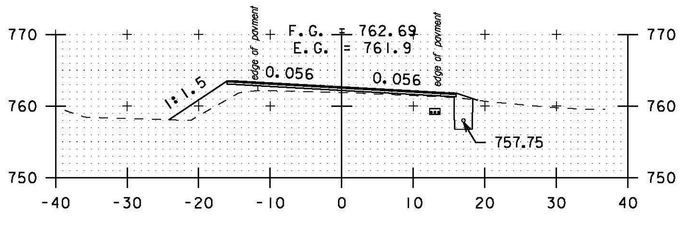
293+50



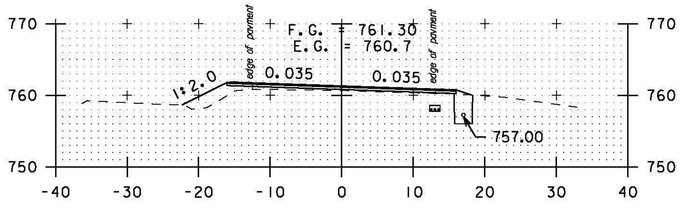
293+00



292+50



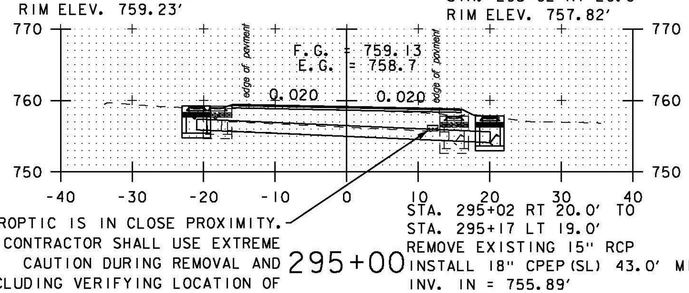
296+00



INSTALL NEW CB WITH
CAST IRON GRATE (TYPE A)
STA. 295+17 LT 21.0'
RIM ELEV. 759.23'

295+50

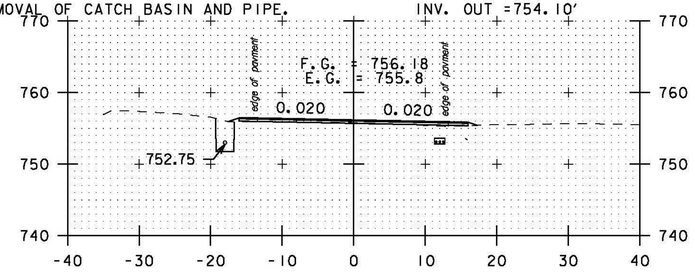
INSTALL NEW CB WITH
CAST IRON GRATE (TYPE A)
STA. 295+02 RT 20.0'
RIM ELEV. 757.82'



FIBEROPTIC IS IN CLOSE PROXIMITY.
CONTRACTOR SHALL USE EXTREME
CAUTION DURING REMOVAL AND
INSTALLATION, INCLUDING VERIFYING LOCATION OF
FIBEROPTIC LINE PRIOR TO REMOVAL OF CATCH BASIN AND PIPE.

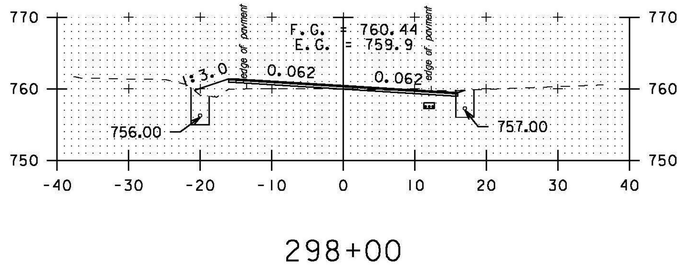
STA. 295+02 RT 20.0' TO
STA. 295+17 LT 19.0'
REMOVE EXISTING 15" RCP
INSTALL 18" CPEP(SL) 43.0' MIN.
INV. IN = 755.89'
INV. OUT =754.10'

295+00

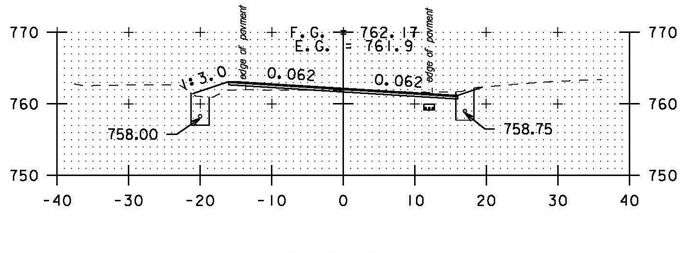


DRIVE LT

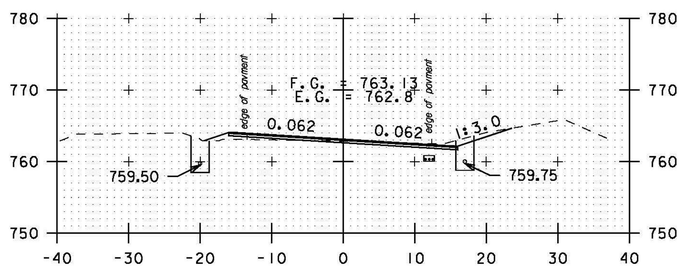
294+50



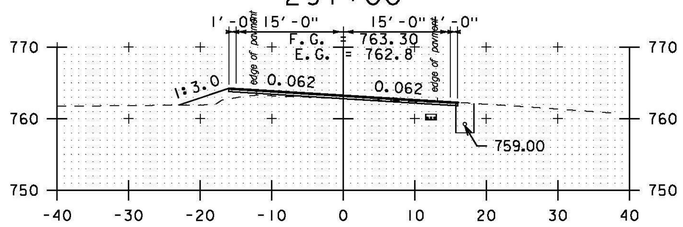
298+00



297+50



297+00

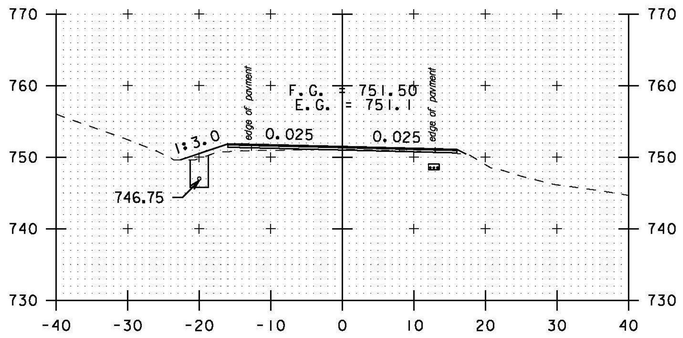


296+50

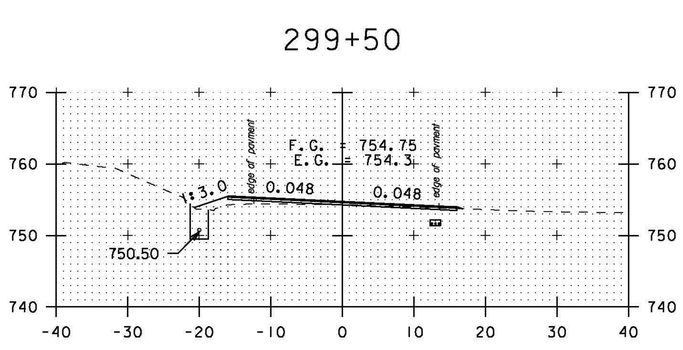
STA. 292+50 TO STA. 298+00

0 20 40
SCALE IN FEET

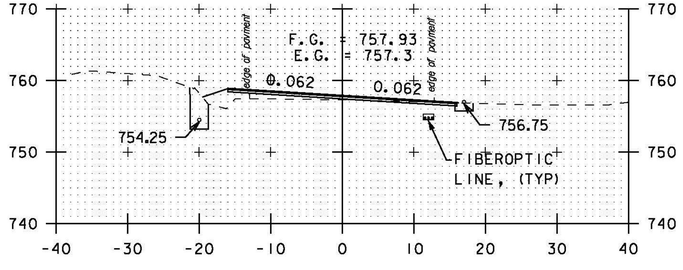
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 34	SHEET 168 OF 211



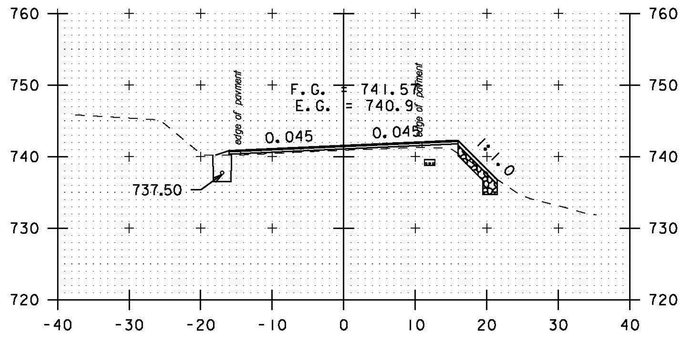
299+50



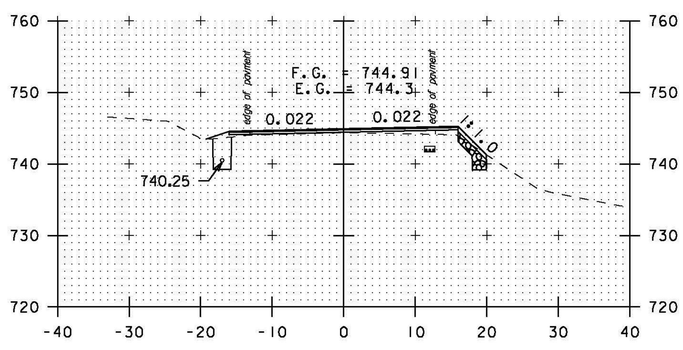
299+00



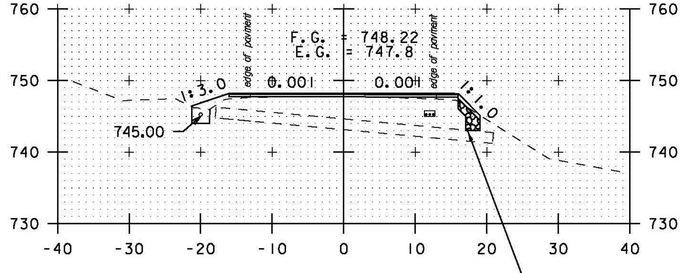
298+50



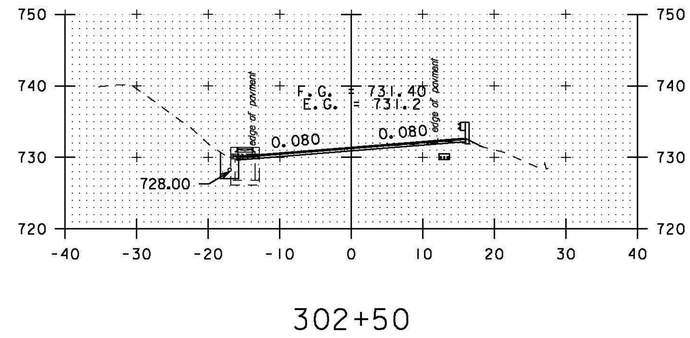
301+00



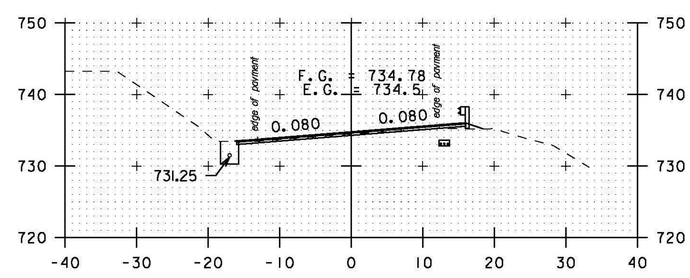
300+50



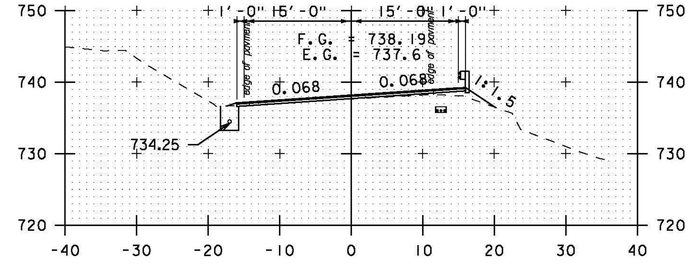
300+00



302+50



302+00



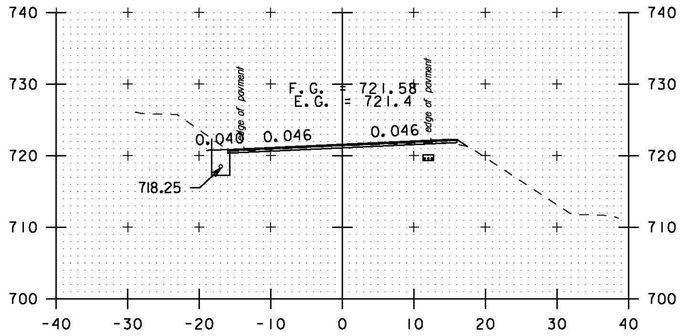
301+50

12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)

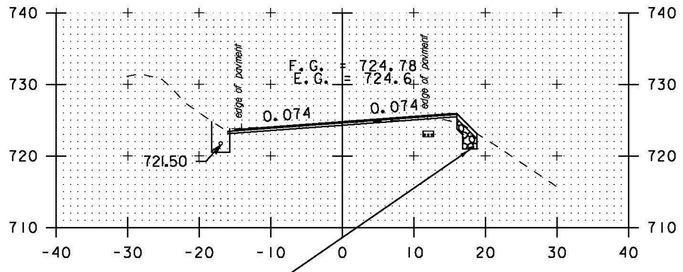
STA. 298+50 TO STA. 302+50

0 20 40
SCALE IN FEET

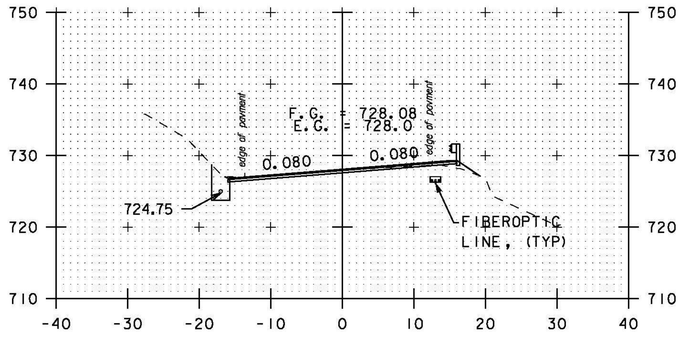
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: pl0C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 35	SHEET 169 OF 211



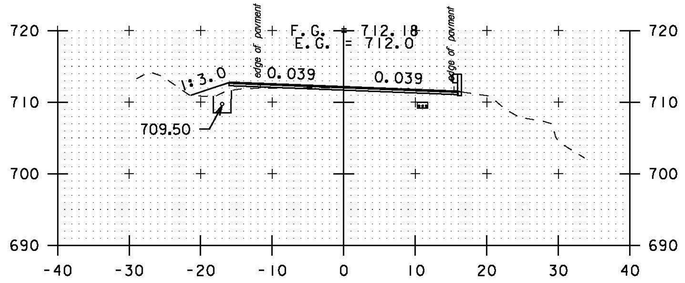
304+00



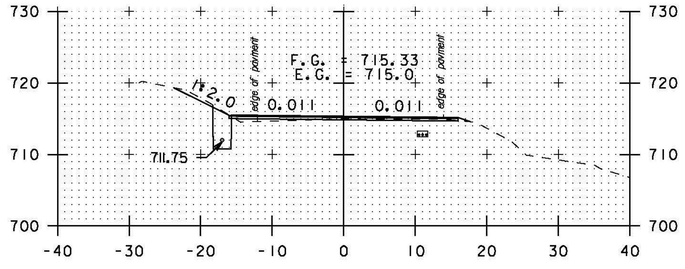
303+50



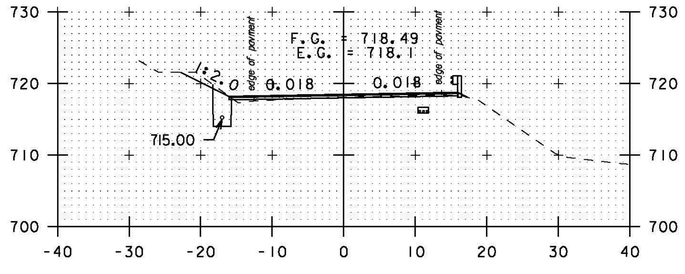
303+00



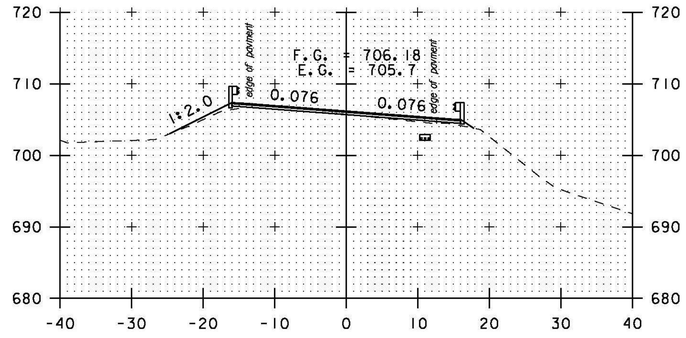
305+50



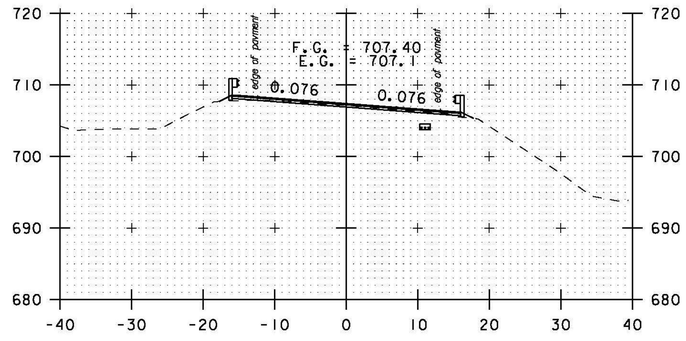
305+00



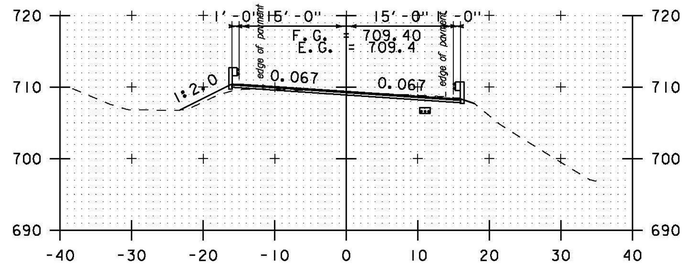
304+50



307+00



306+50

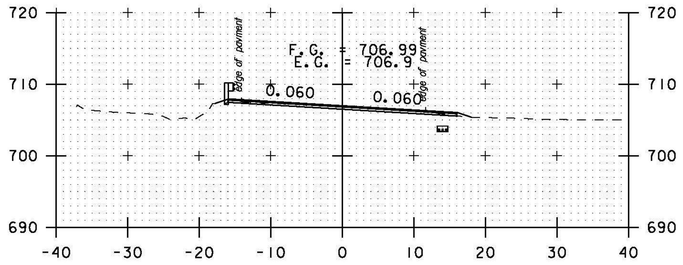


306+00

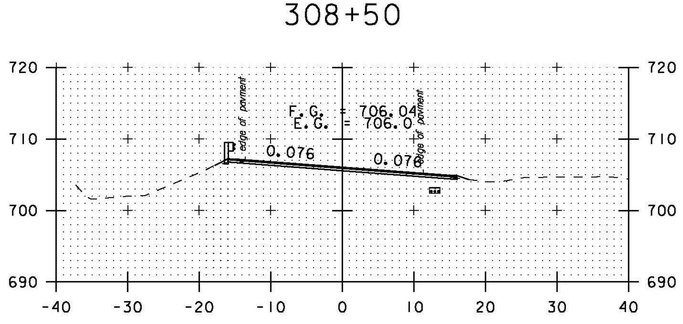
STA. 303+00 TO STA. 307+00

0 20 40
SCALE IN FEET

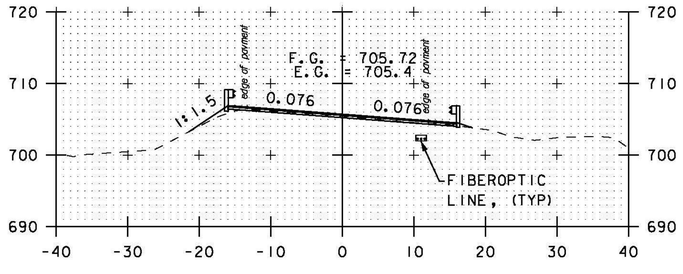
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 36	SHEET 170 OF 211



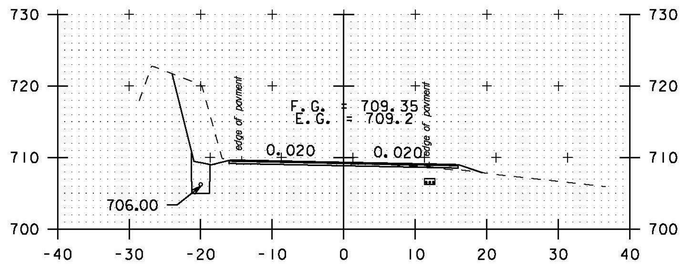
308+50



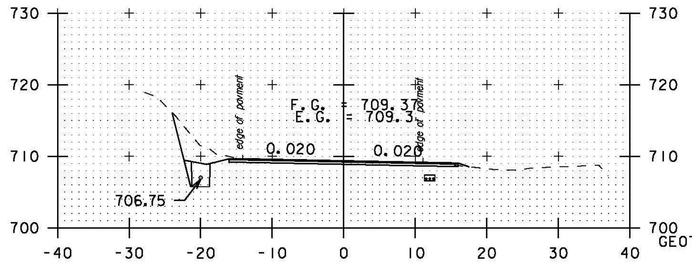
308+00



307+50

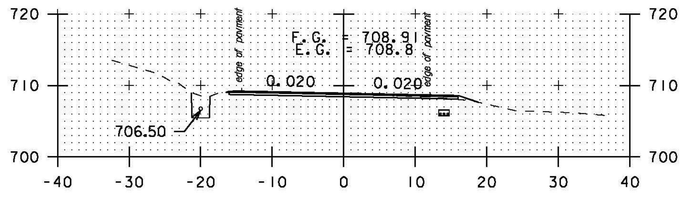


310+50

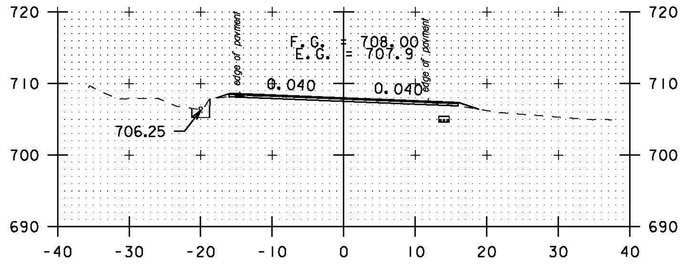


DRIVE RT

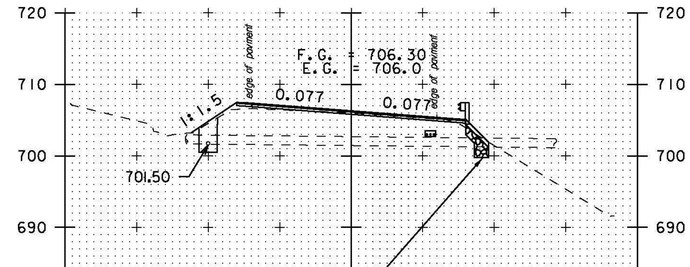
310+00



309+50

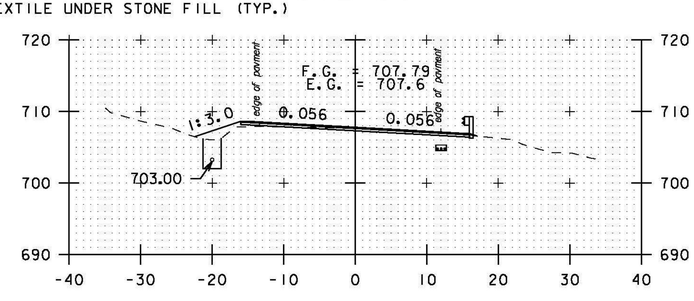


309+00

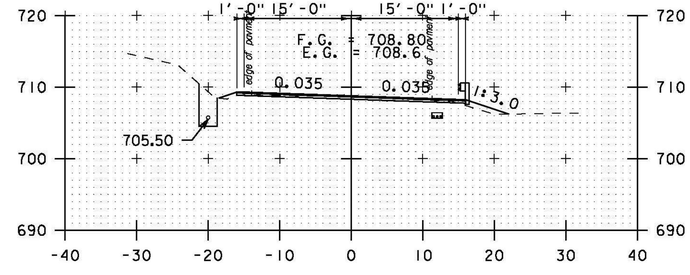


12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)

312+00



311+50

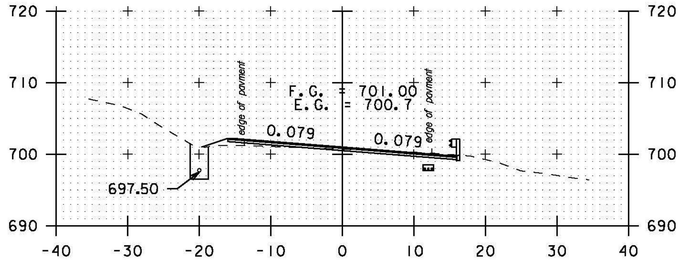


311+00

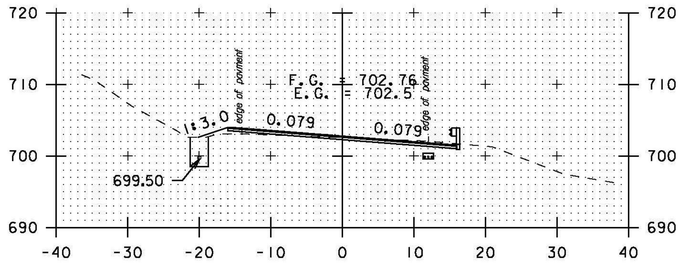
STA. 307+50 TO STA. 312+00

0 20 40
SCALE IN FEET

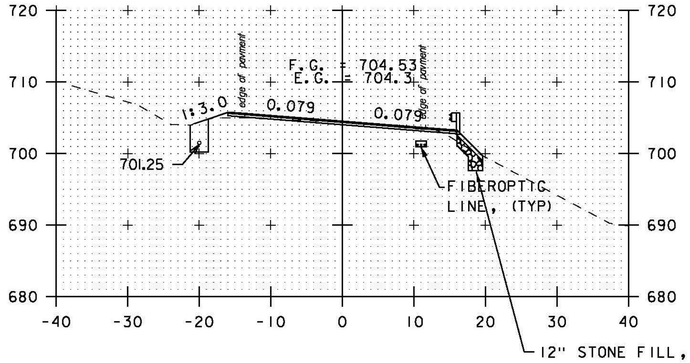
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: pl0C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 37	SHEET 171 OF 211



313+50



313+00



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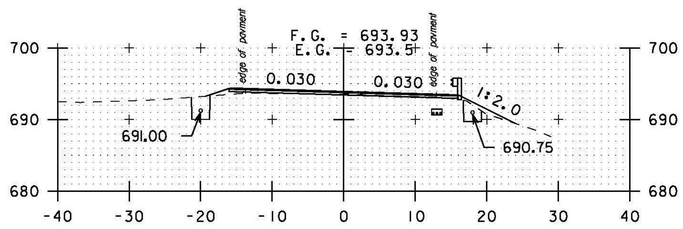
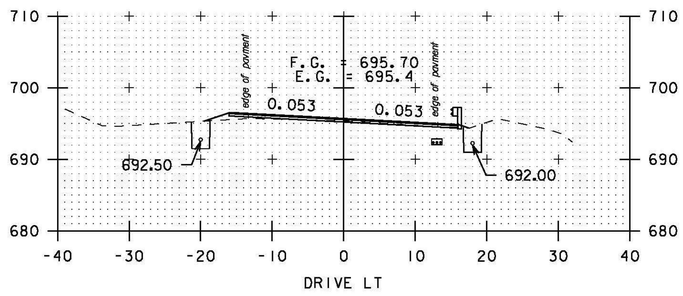
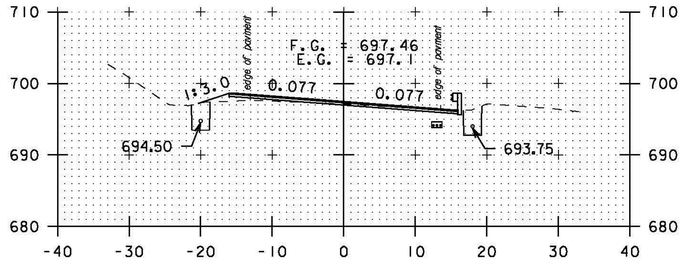


315+50

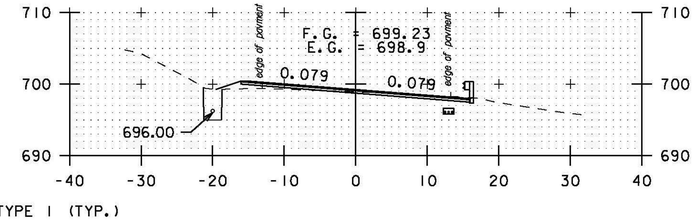


DRIVE LT

315+00

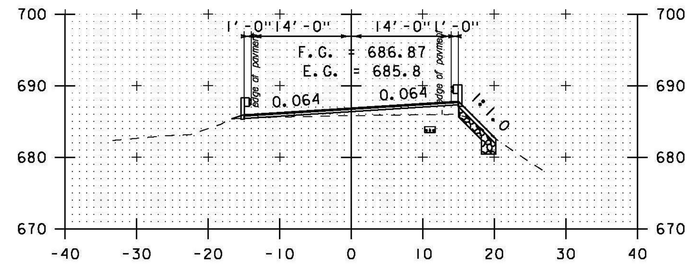


314+50

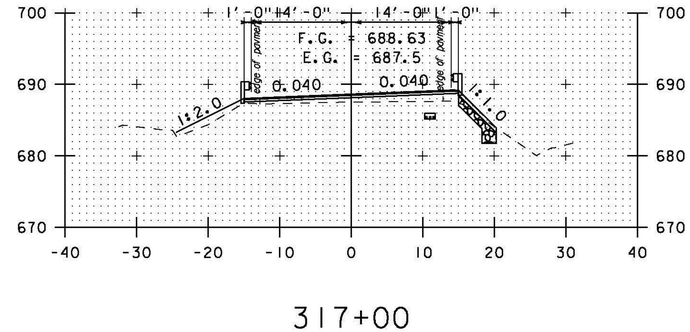


314+00

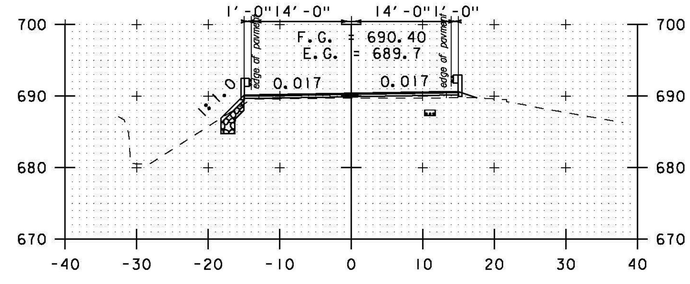
12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)



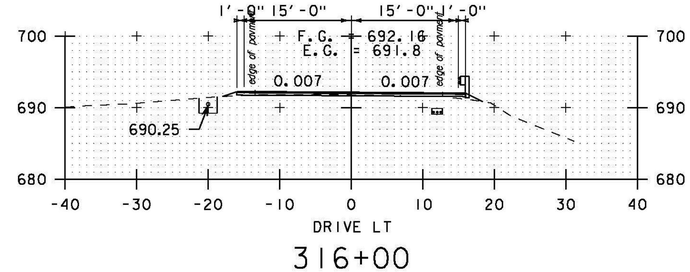
317+50



317+00



316+50



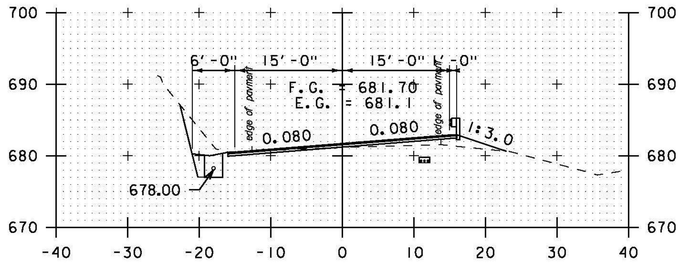
DRIVE LT

316+00

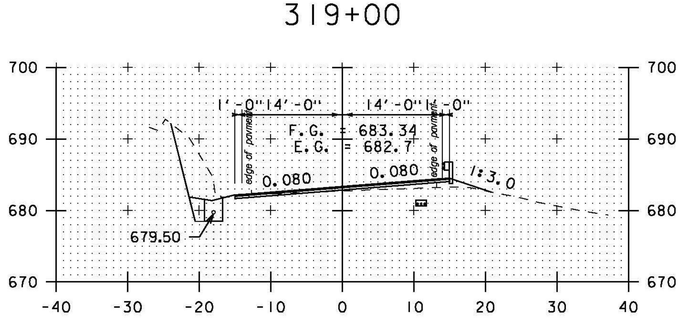
STA. 312+50 TO STA. 317+50

SCALE IN FEET 0 20 40

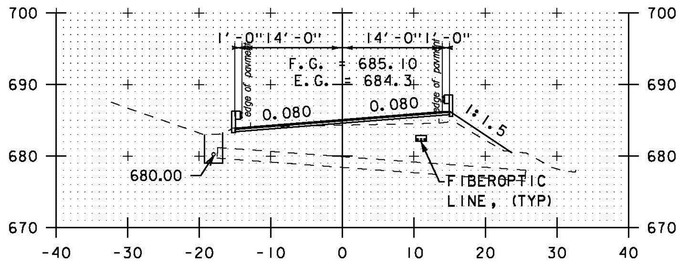
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME:	pl0C244.dgn
PROJECT LEADER:	C. LATHROP
DESIGNED BY:	S. LAMPHERE
CROSS SECTION SHEET	38
PLOT DATE:	4/23/2015
DRAWN BY:	S. LAMPHERE
CHECKED BY:	C. LATHROP
SHEET	172 OF 211



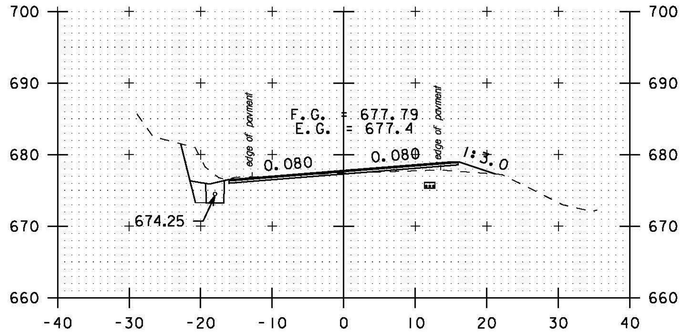
319+00



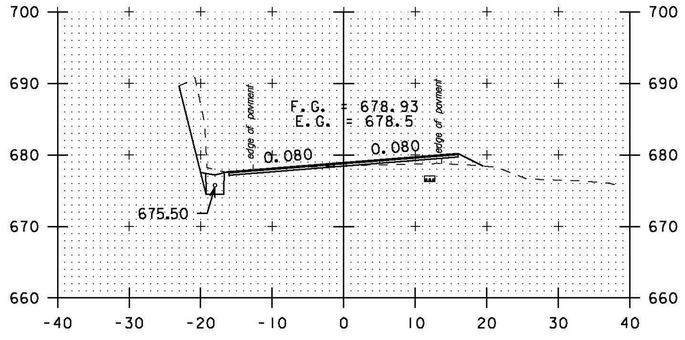
318+50



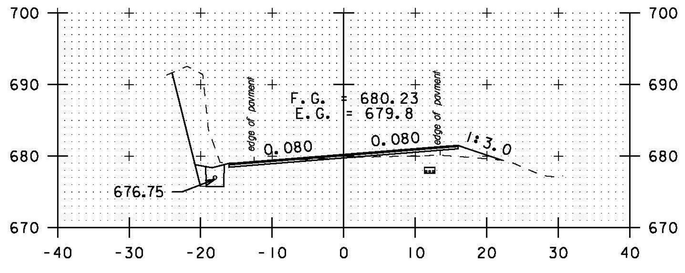
318+00



320+50



320+00



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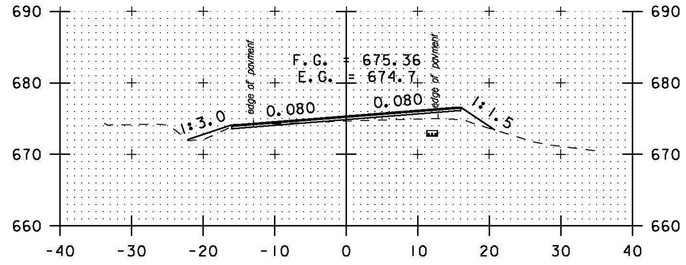
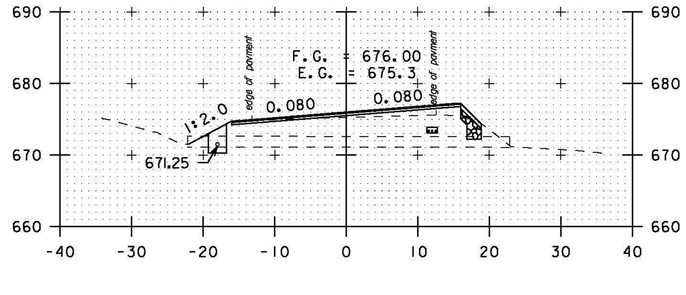
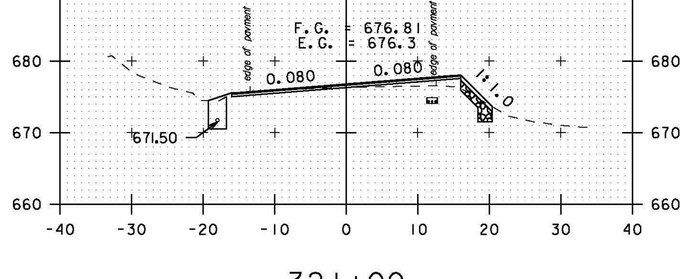


322+00



321+50

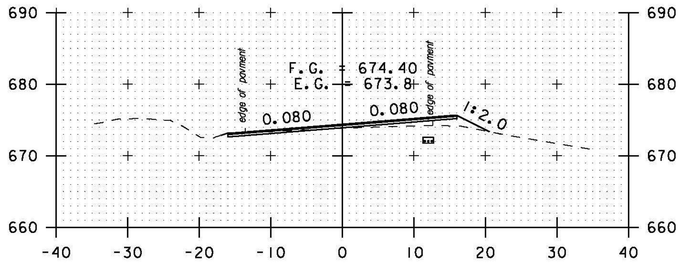


321+00

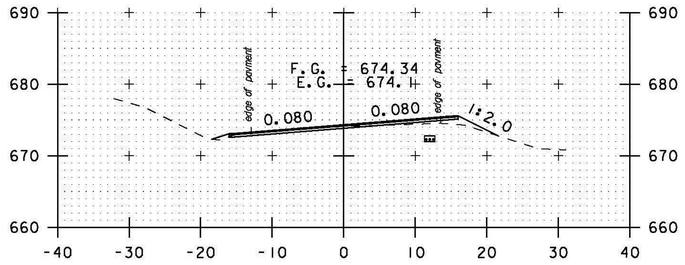
STA. 318+00 TO STA. 322+00

0 20 40
SCALE IN FEET

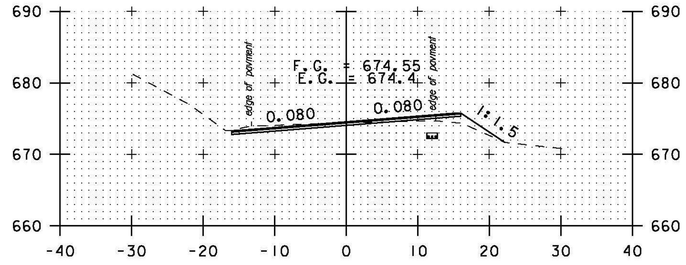
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 39	SHEET 173 OF 211



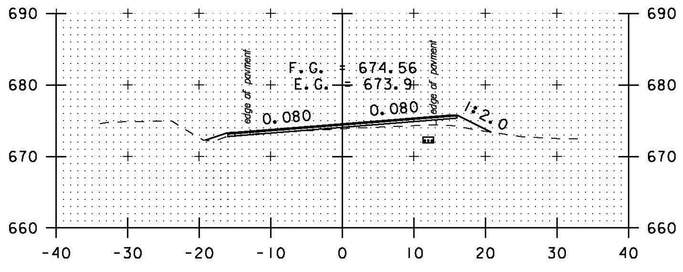
323+50



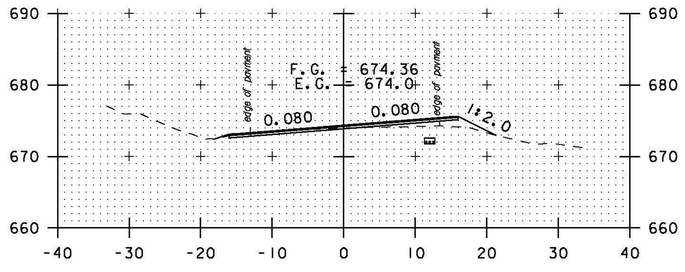
325+00



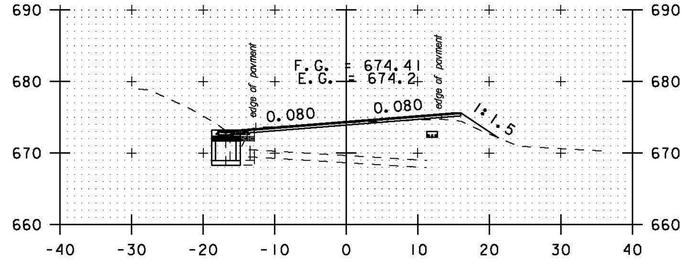
326+50



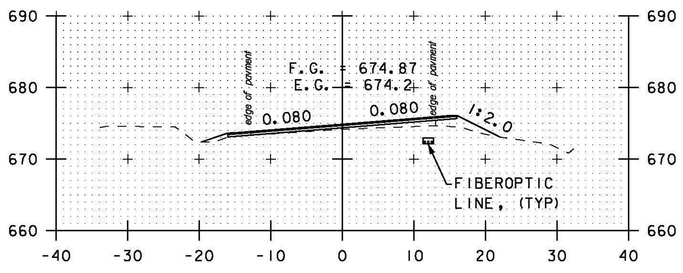
323+00



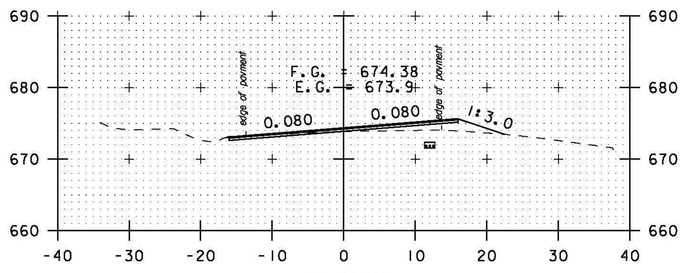
324+50



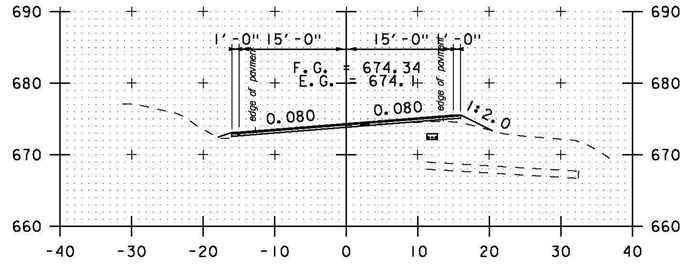
326+00



322+50



324+00



325+50

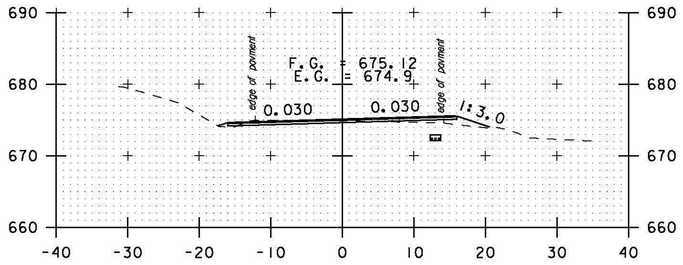
STA. 322+50 TO STA. 326+50

0 20 40
SCALE IN FEET

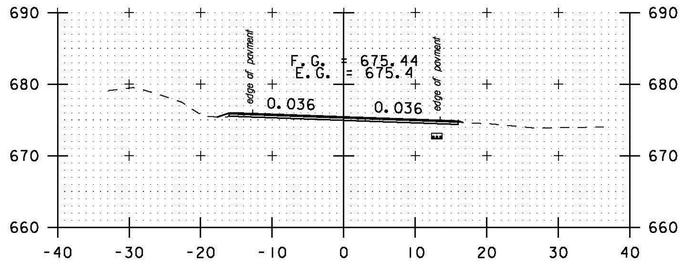
PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: pl0C244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
CROSS SECTION SHEET 40

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 174 OF 211

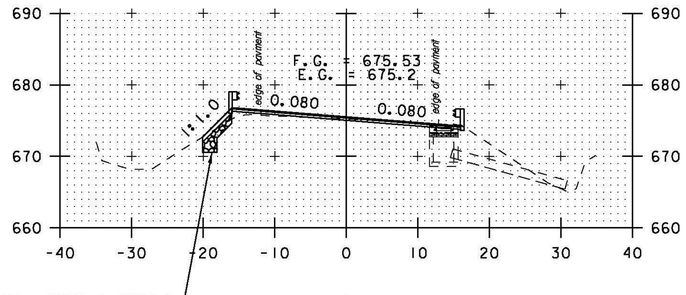


328+00



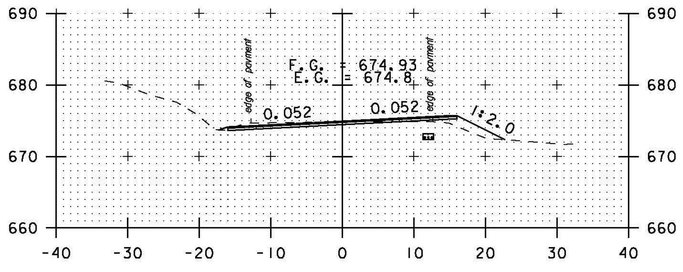
DRIVE RT

329+50

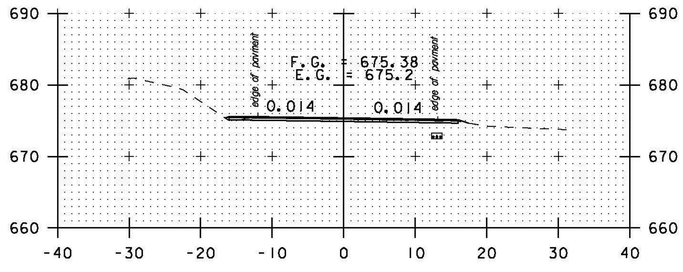


12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)

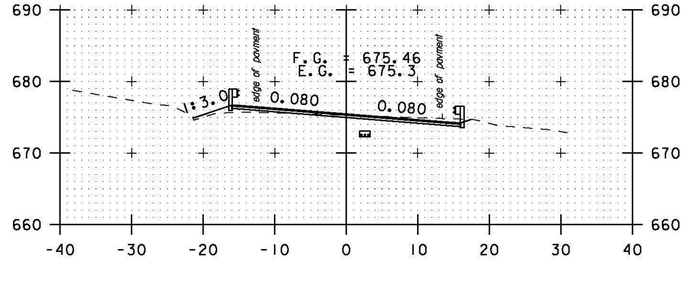
331+00



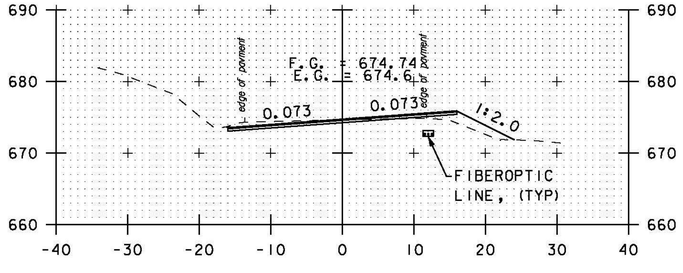
327+50



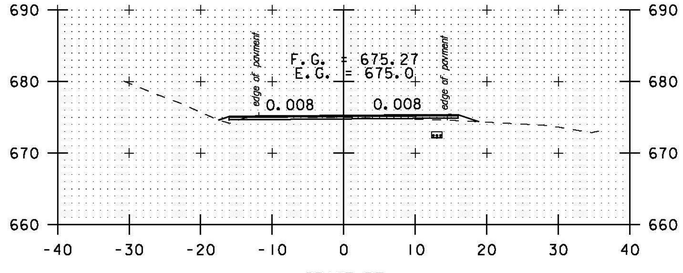
329+00



330+50

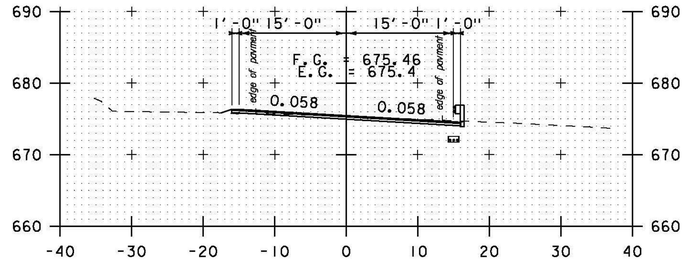


327+00



DRIVE RT

328+50

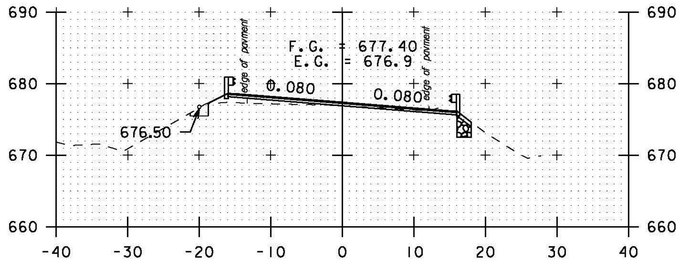


330+00

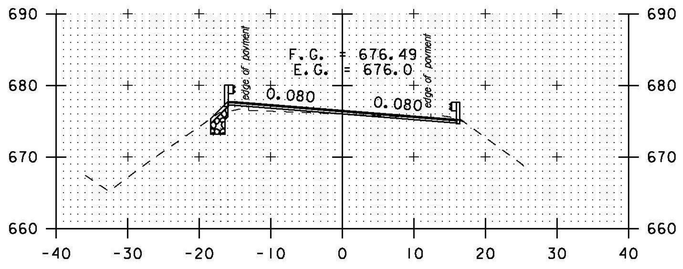
STA. 327+00 TO STA. 331+00

0 20 40
SCALE IN FEET

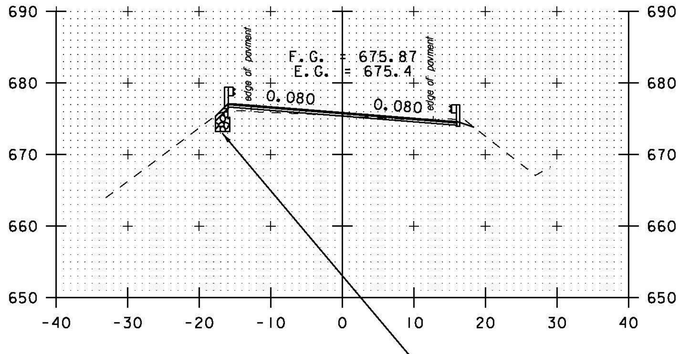
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 41	SHEET 175 OF 211



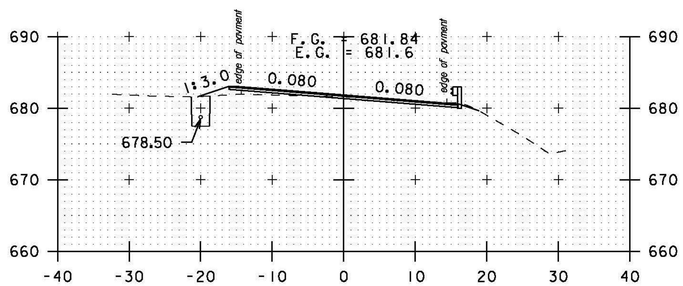
332+50



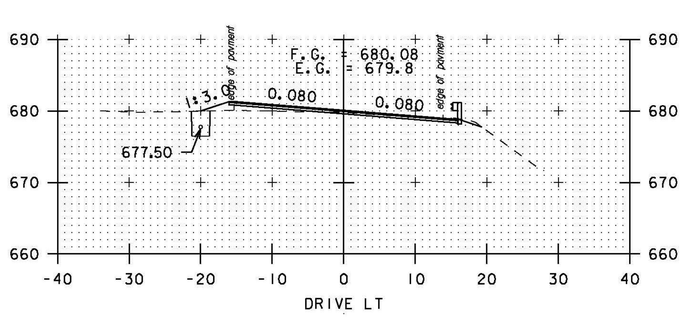
332+00



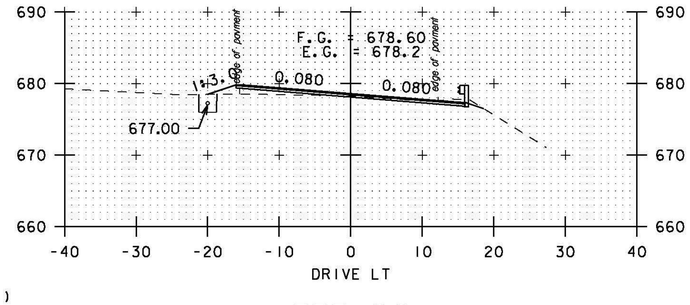
331+50



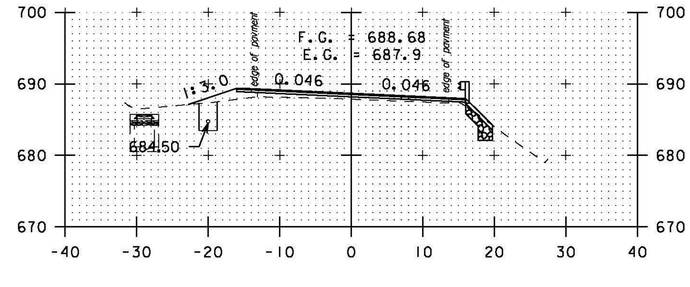
334+00



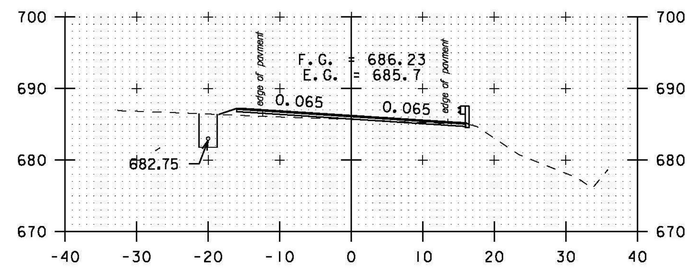
333+50



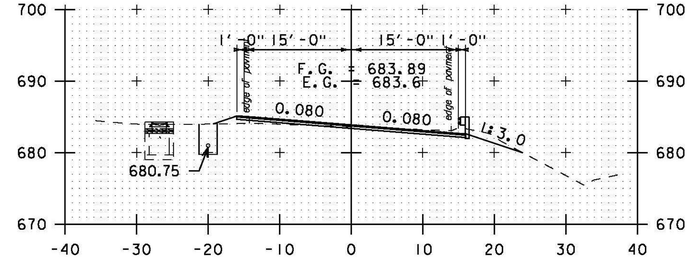
333+00



335+50



335+00

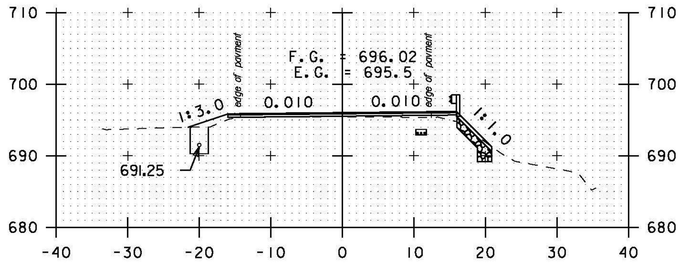


334+50

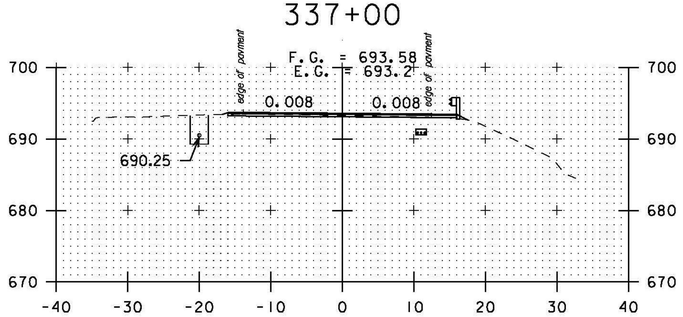
STA. 331+50 TO STA. 335+50

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 42	SHEET 176 OF 211

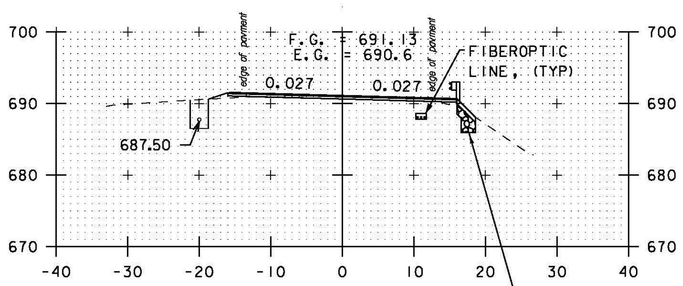


337+00

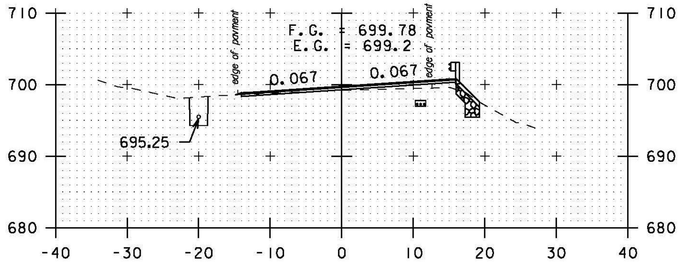


DRIVE LT

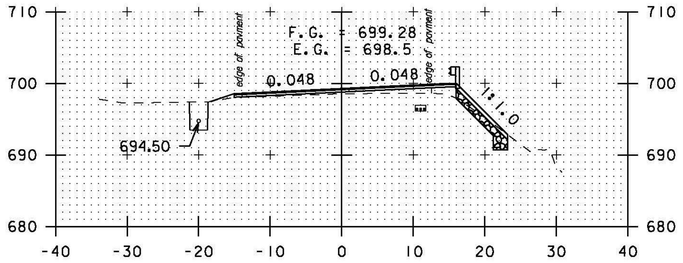
336+50



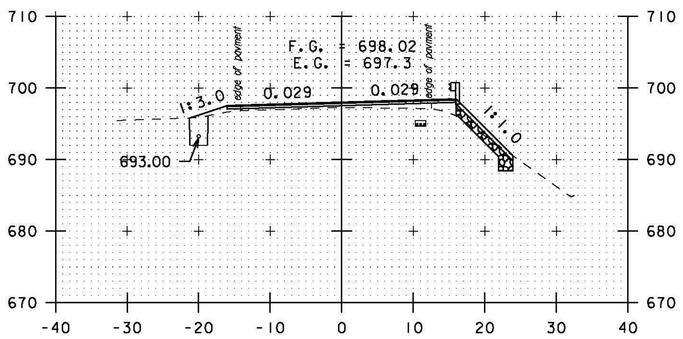
336+00



338+50

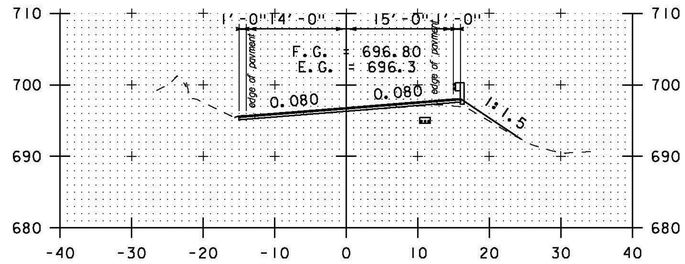


338+00

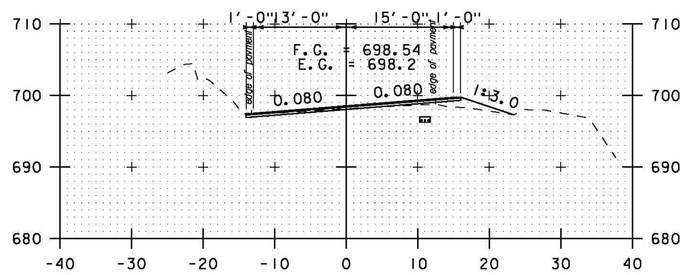


337+50

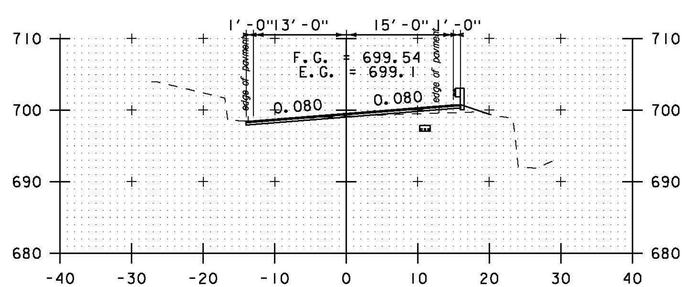
12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)



340+00



339+50

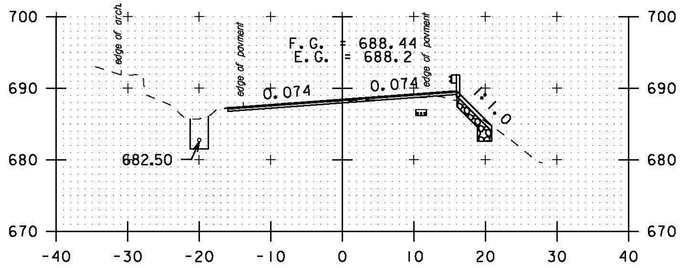


339+00

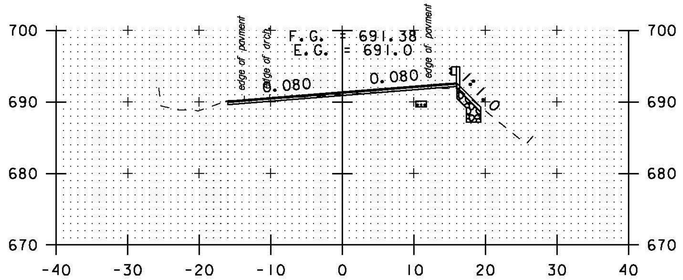
STA. 336+00 TO STA. 340+00

0 20 40
SCALE IN FEET

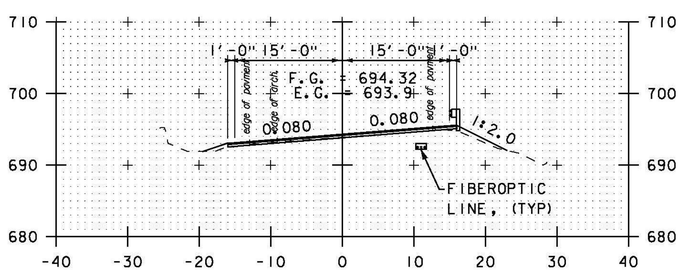
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 43	SHEET 177 OF 211



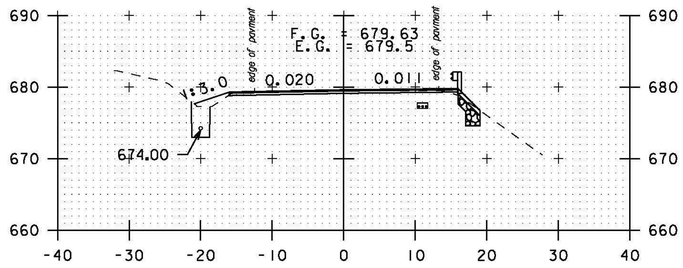
341+50



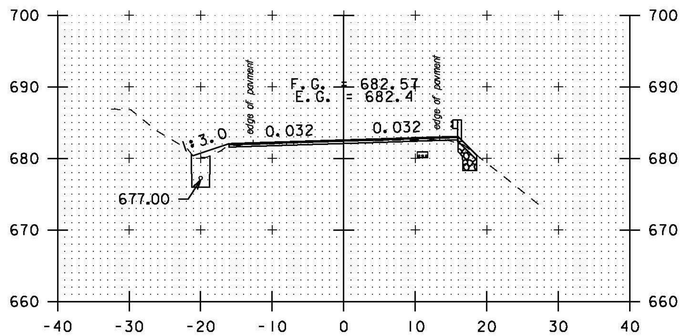
341+00



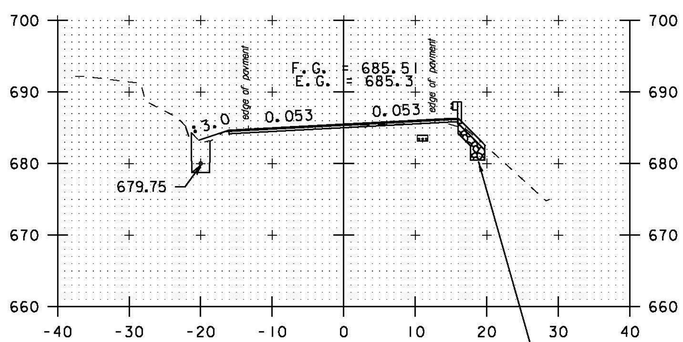
340+50



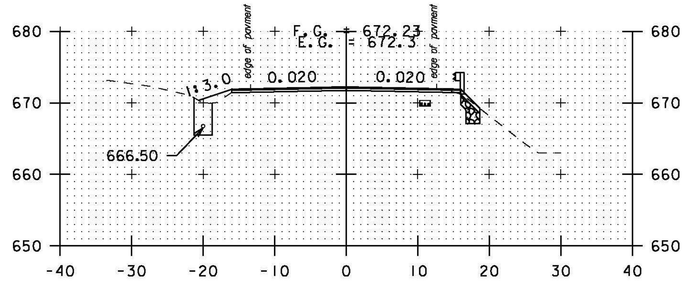
343+00



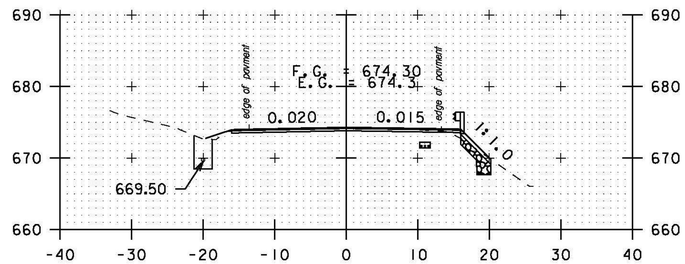
342+50



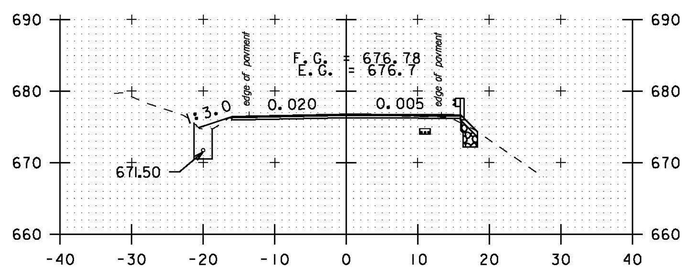
342+00



344+50



344+00

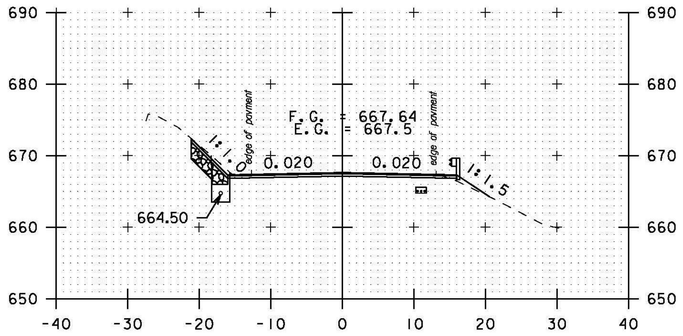


343+50

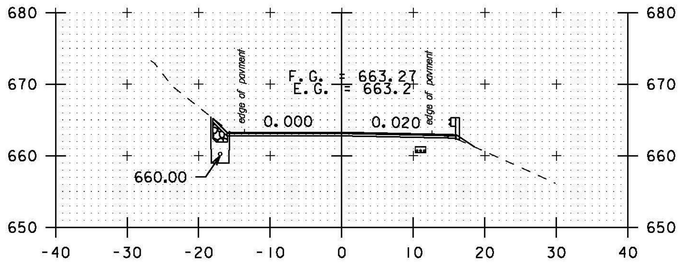
STA. 340+50 TO STA. 344+50

0 20 40
SCALE IN FEET

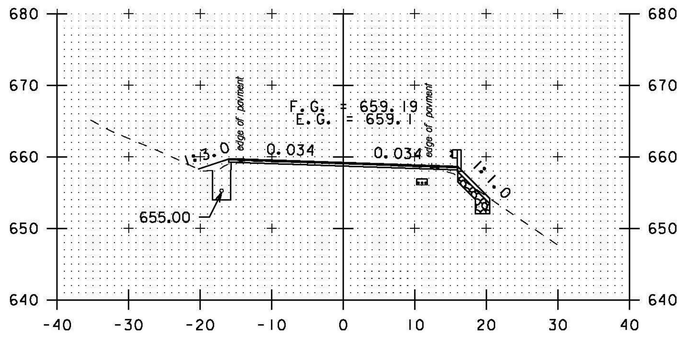
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 44	SHEET 178 OF 211



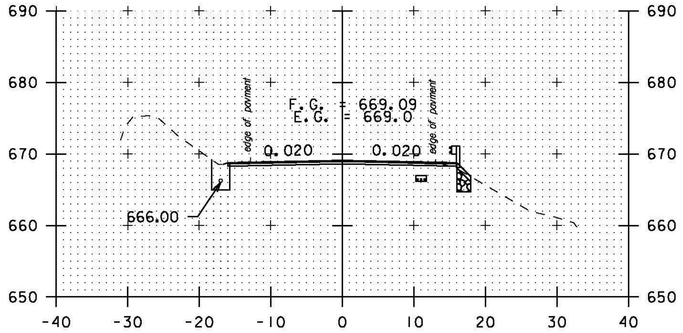
346+00



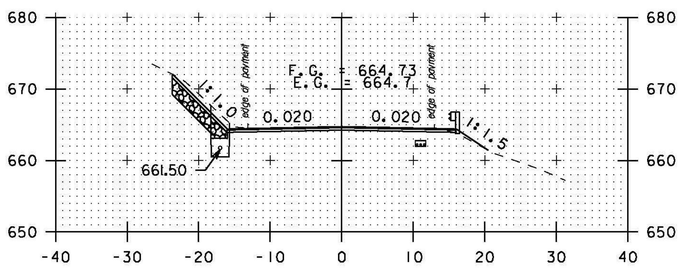
347+50



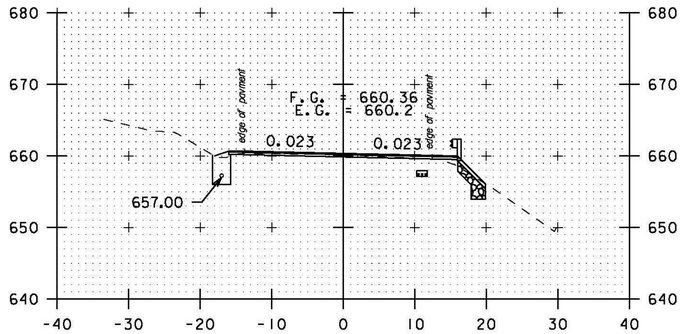
349+00



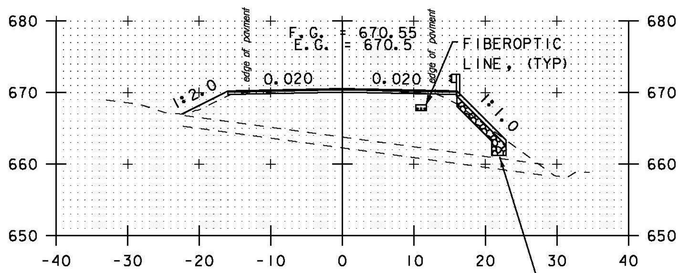
345+50



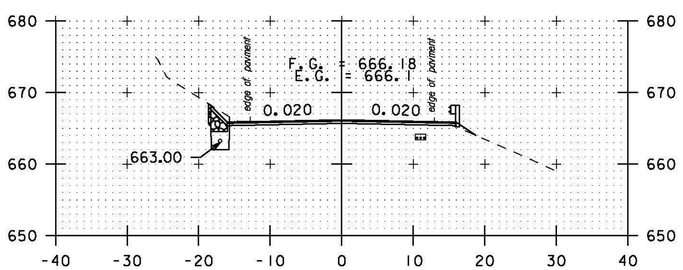
347+00



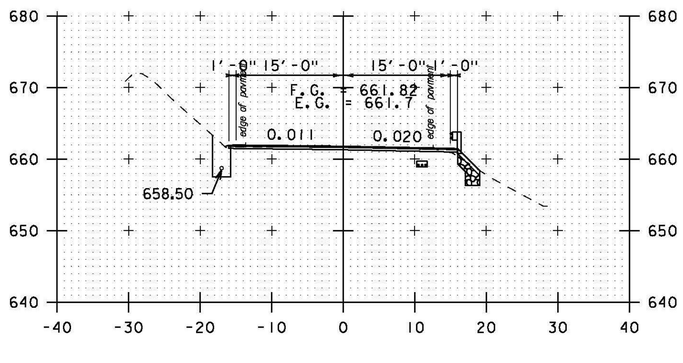
348+50



345+00



346+50



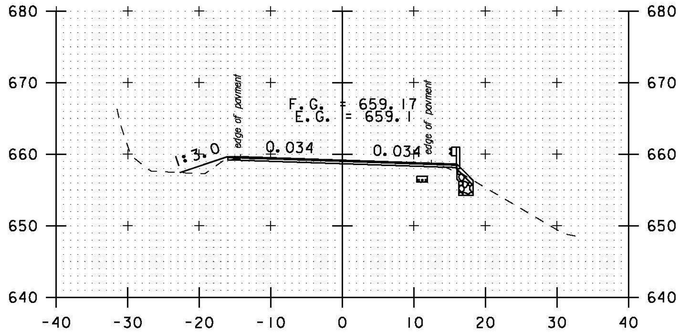
348+00

12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)

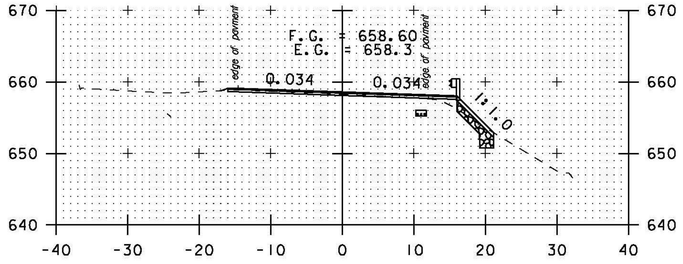
STA. 345+00 TO STA. 349+00

0 20 40
SCALE IN FEET

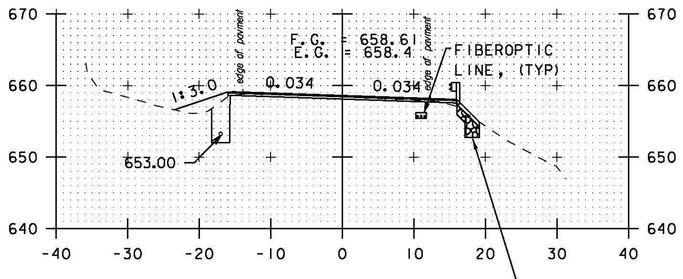
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 45	SHEET 179 OF 211



350+50

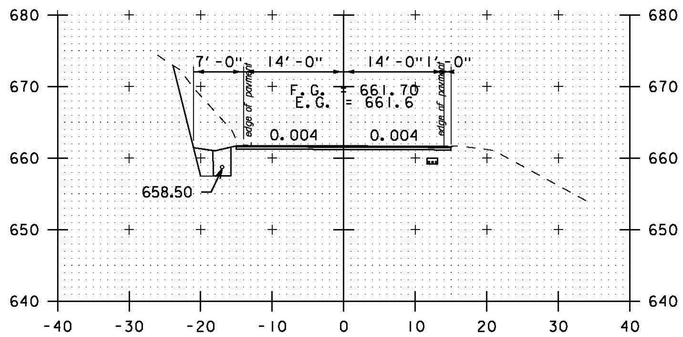


350+00

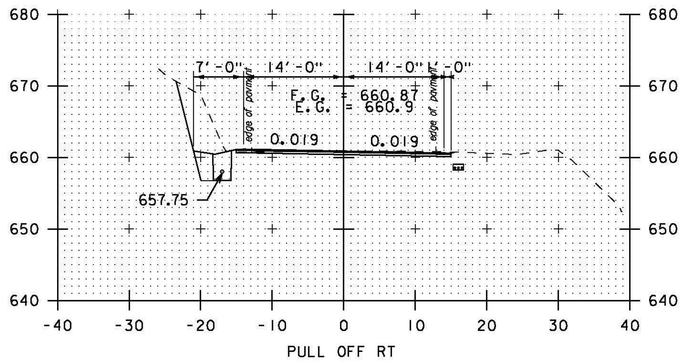


349+50

12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)

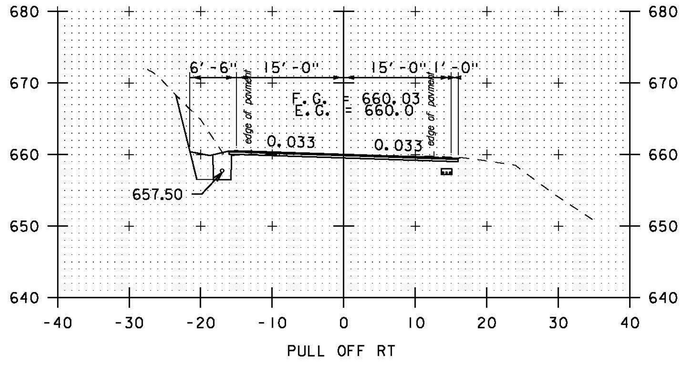


352+00



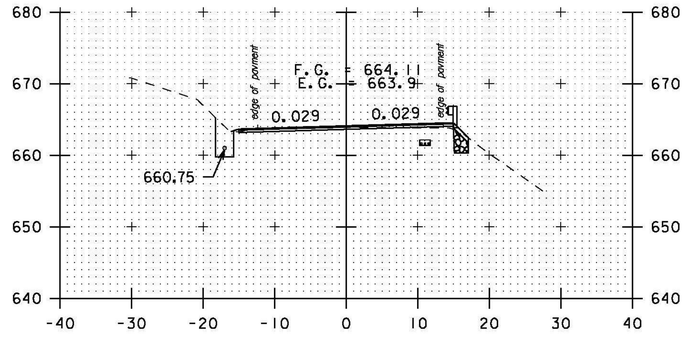
PULL OFF RT

351+50

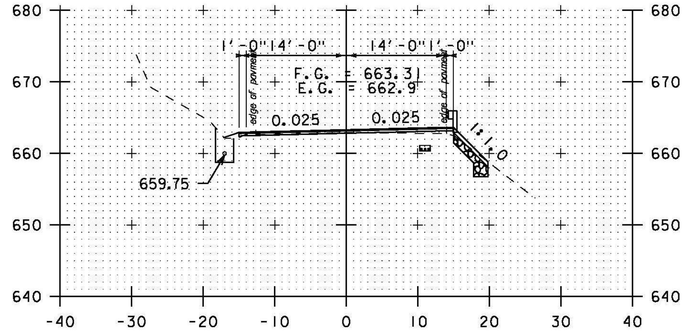


PULL OFF RT

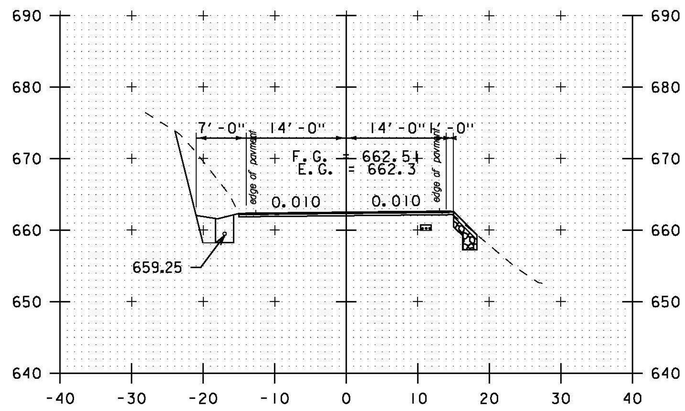
351+00



353+50



353+00

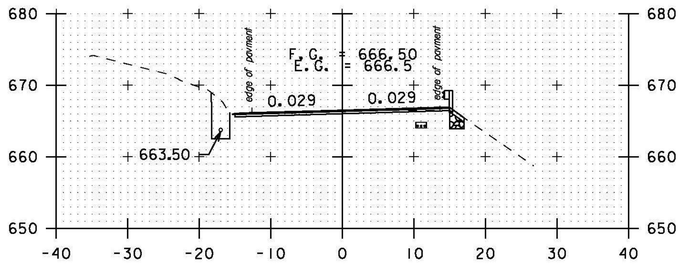


352+50

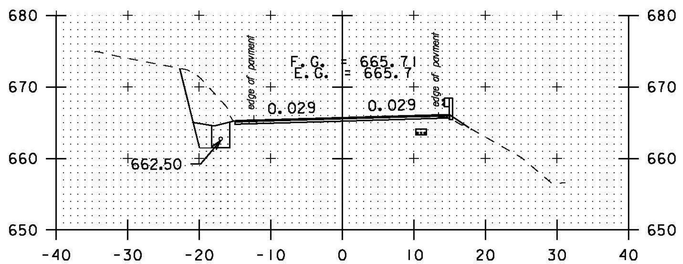
STA. 349+50 TO STA. 353+50

0 20 40
SCALE IN FEET

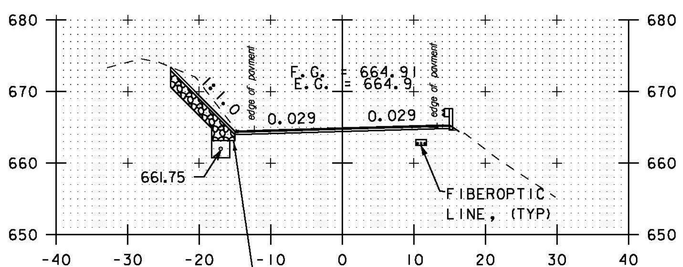
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292K(1)
FILE NAME: pl0C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 46	SHEET 180 OF 211



355+00

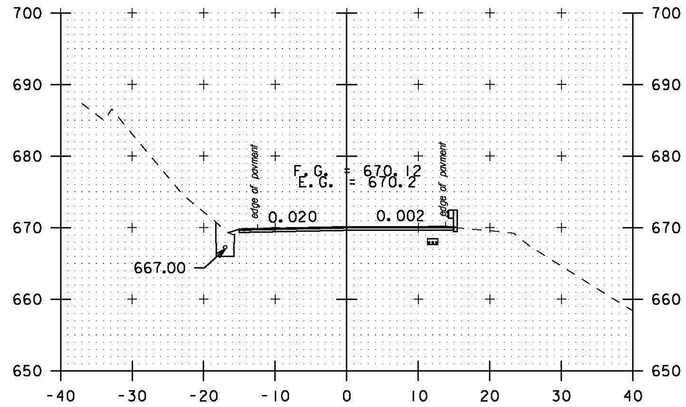


354+50

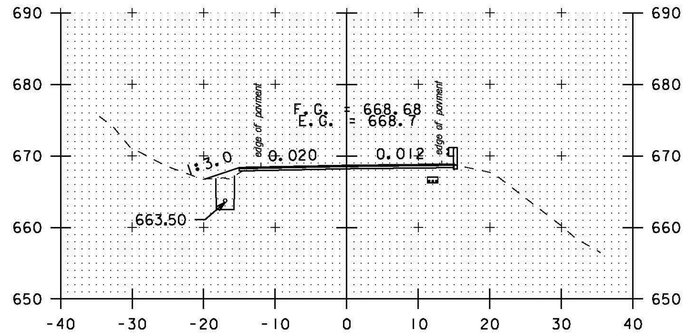


354+00

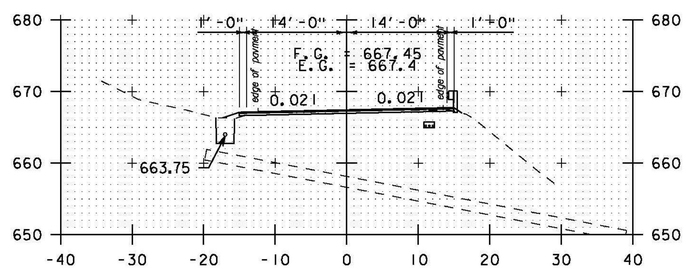
12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)



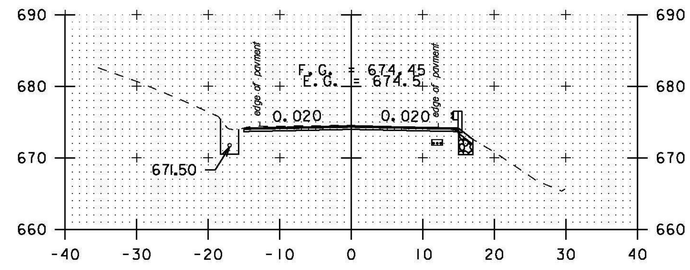
356+50



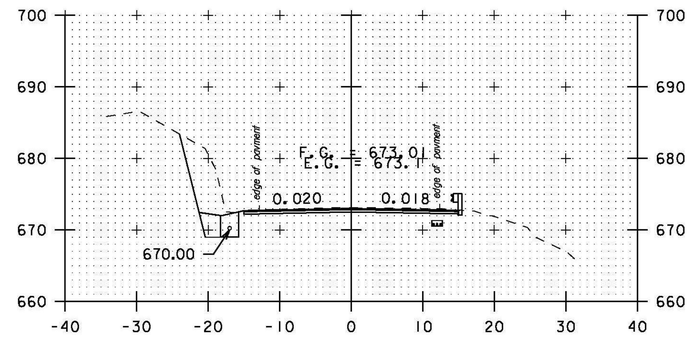
356+00



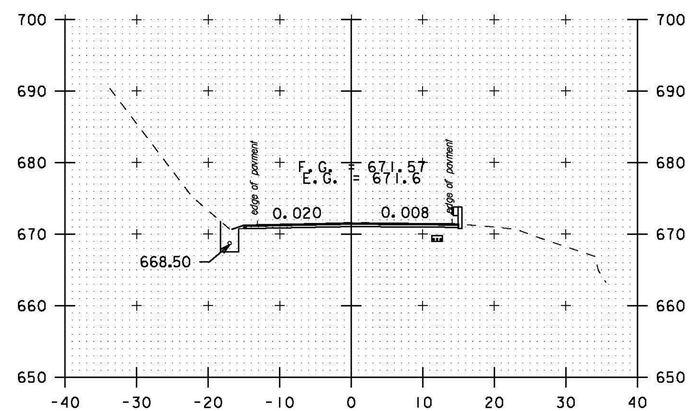
355+50



358+00



357+50

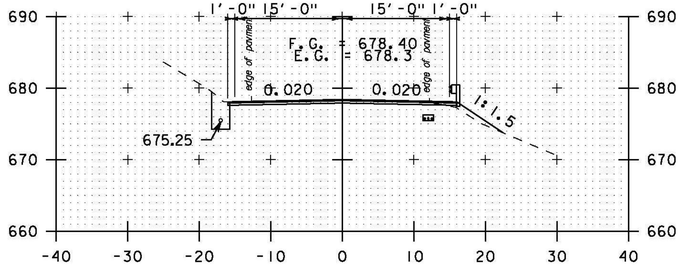


357+00

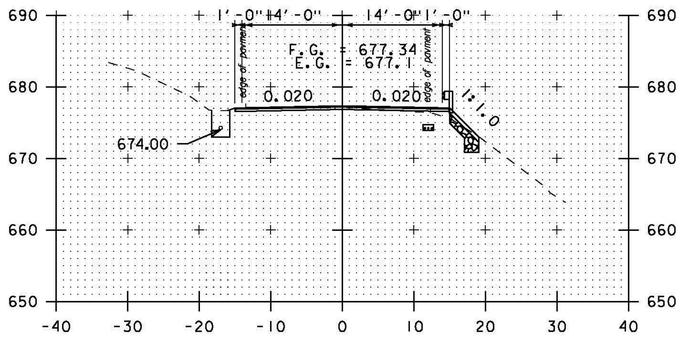
STA. 354+00 TO STA. 358+00

0 20 40
SCALE IN FEET

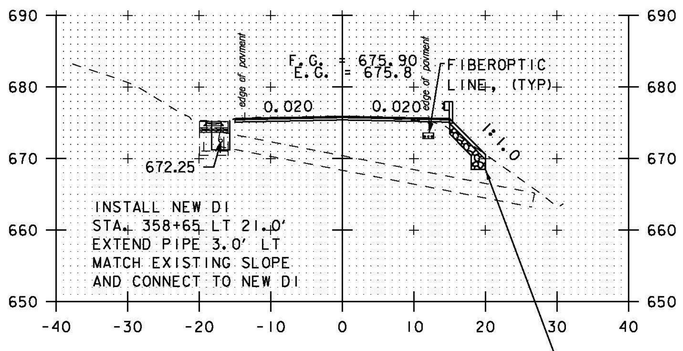
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(I)
FILE NAME: pl0C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 47	SHEET 181 OF 211



359+50

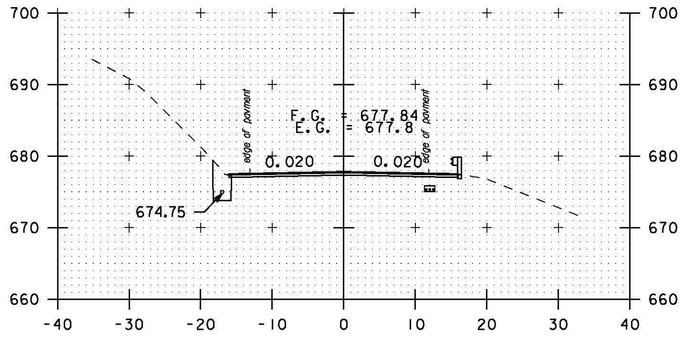


359+00

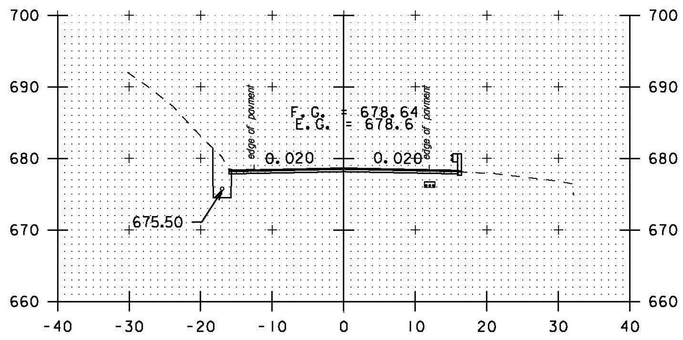


358+50

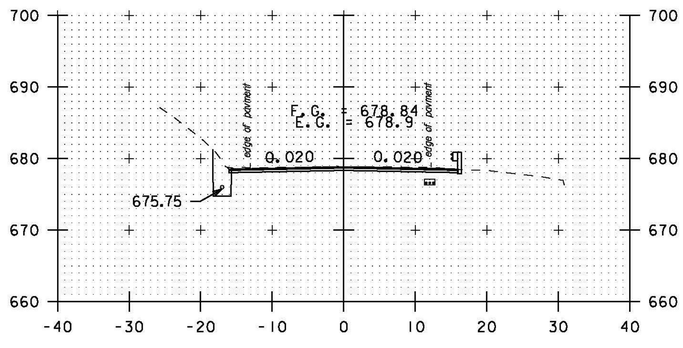
12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)



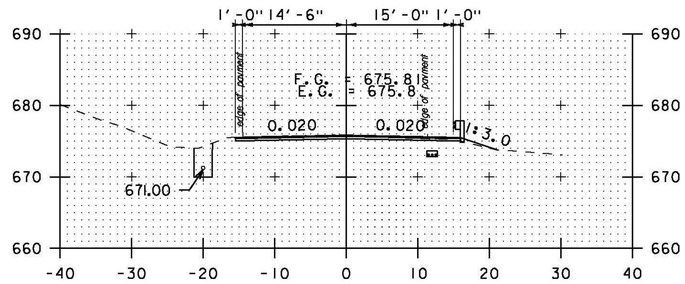
361+00



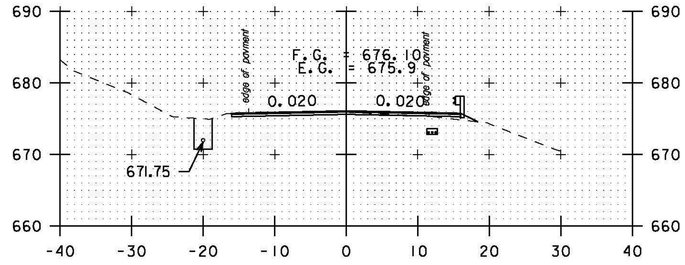
360+50



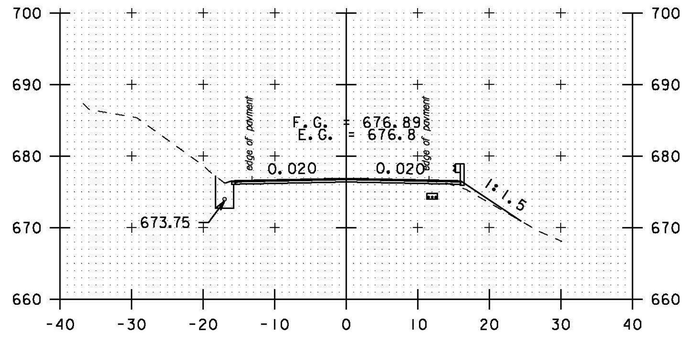
360+00



362+50



362+00

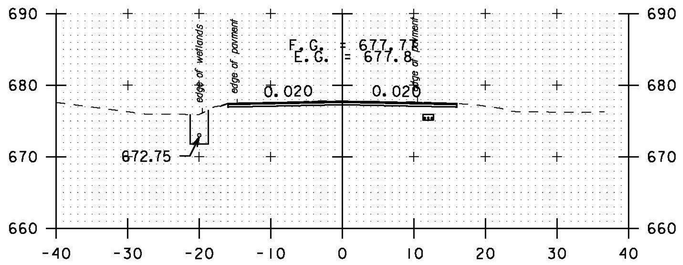


361+50

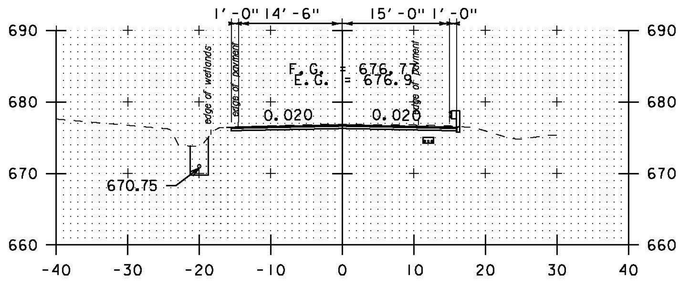
STA. 358+50 TO STA. 362+50

0 20 40
SCALE IN FEET

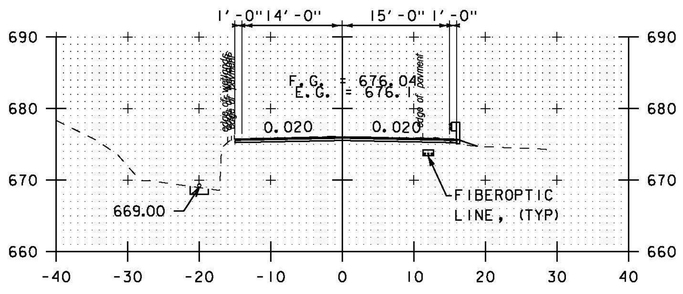
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: plOC244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 48	SHEET 182 OF 211



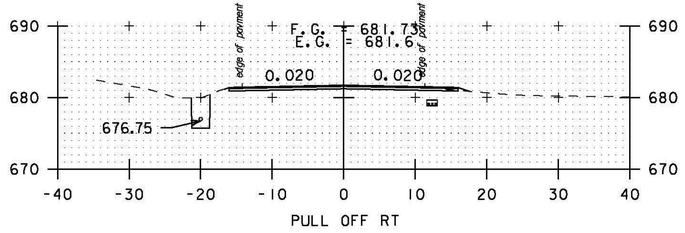
364+00



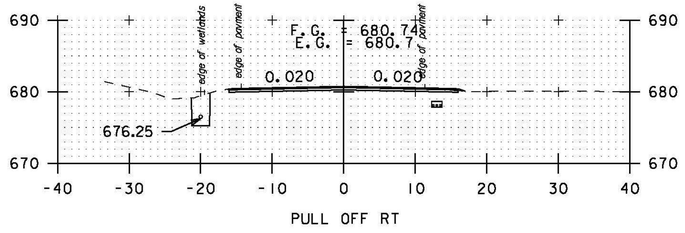
363+50



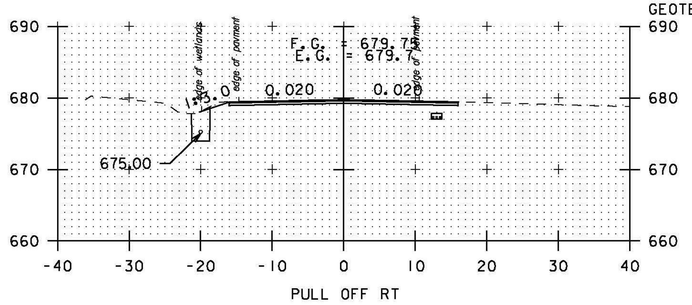
363+00



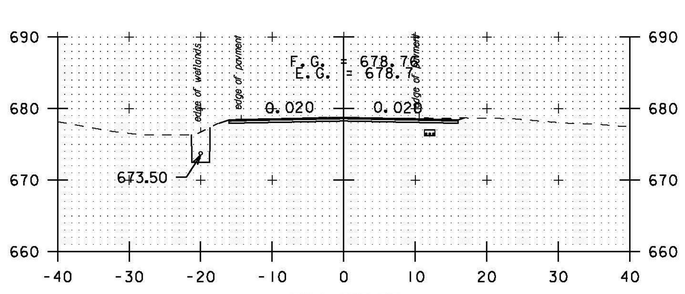
366+00



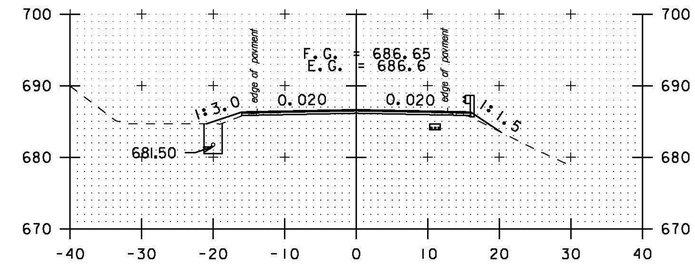
365+50



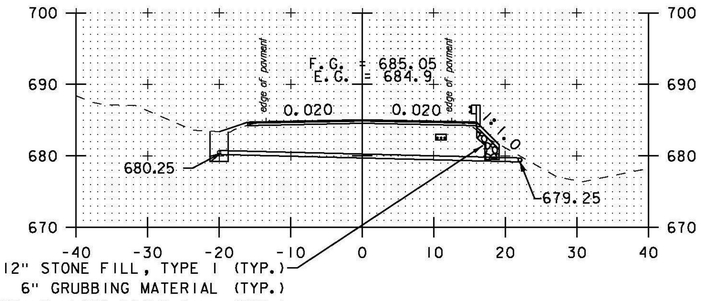
365+00



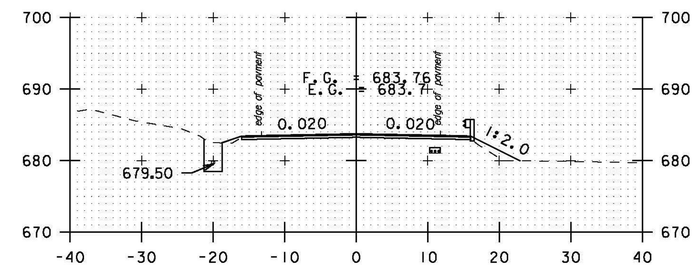
364+50



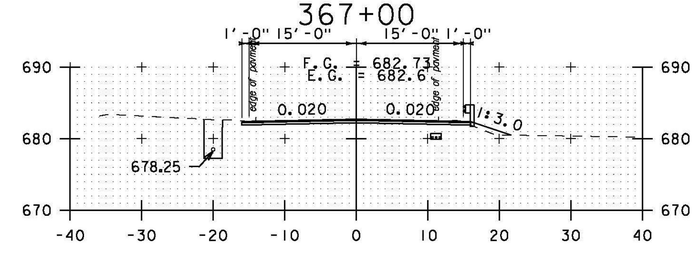
368+00



367+50



367+00

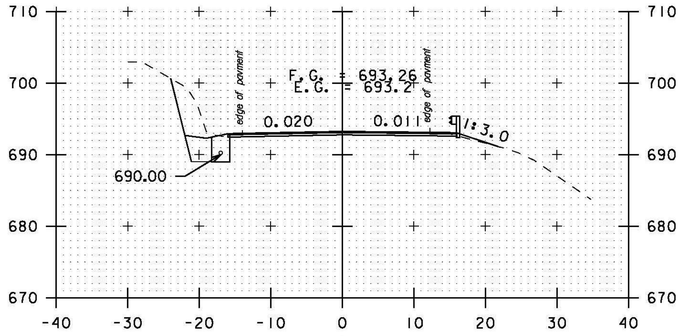


366+50

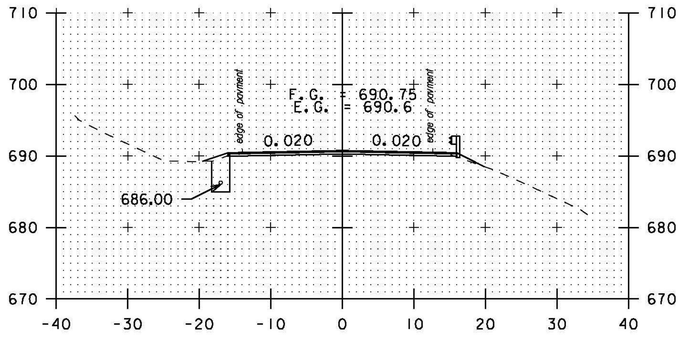
STA. 363+00 TO STA. 368+00

0 20 40
SCALE IN FEET

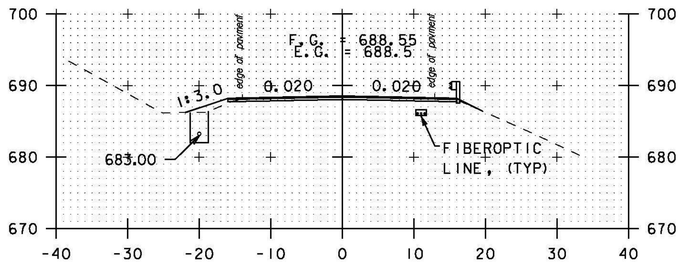
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 49	SHEET 183 OF 211



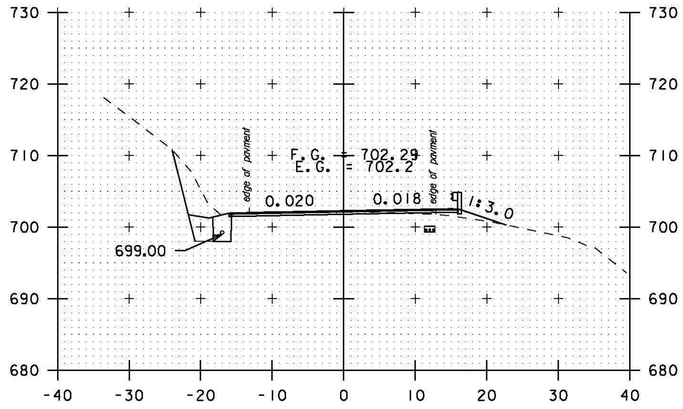
369+50



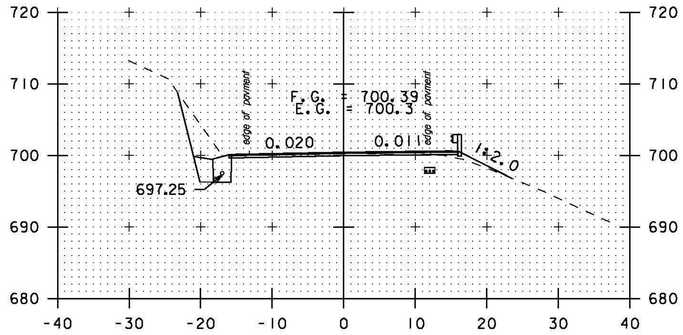
369+00



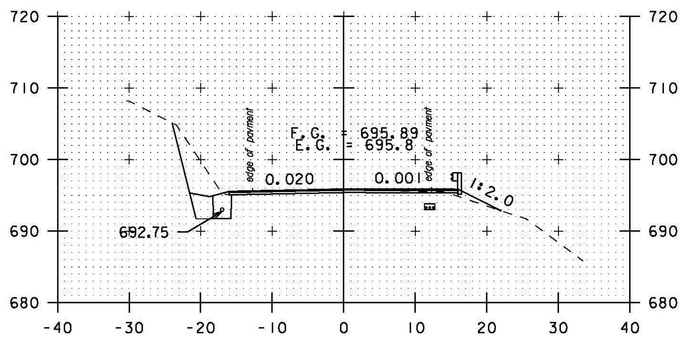
368+50



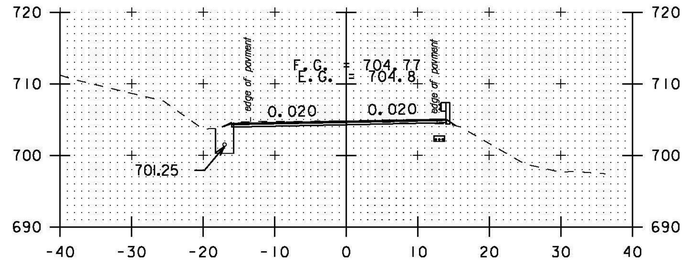
A 1+00



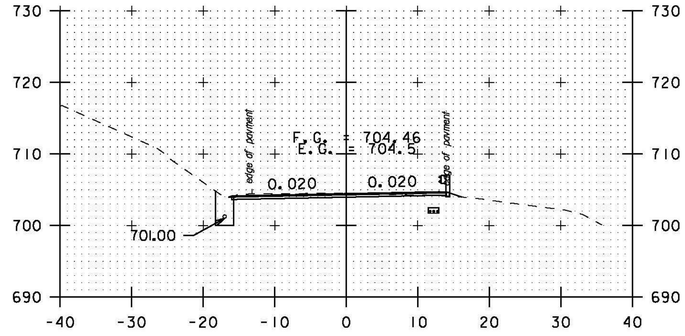
A 0+50



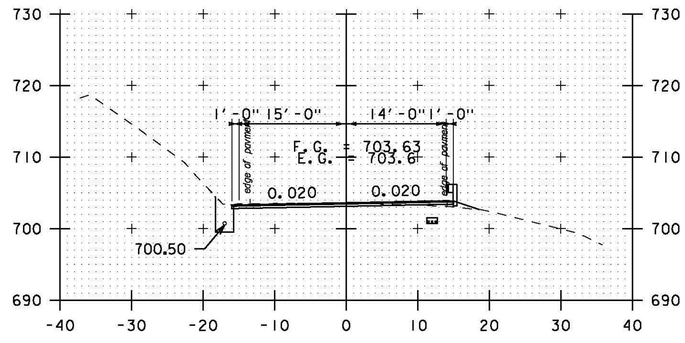
370+00



A 2+50



A 2+00

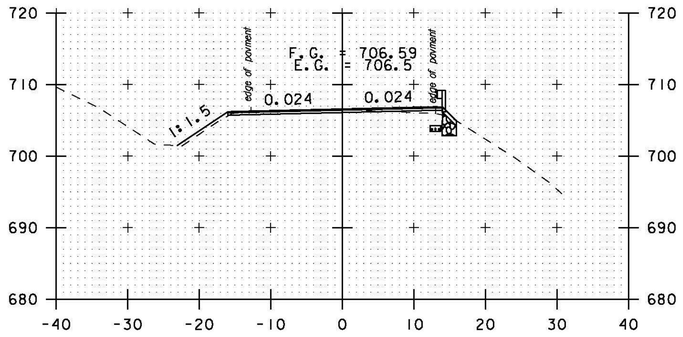


A 1+50

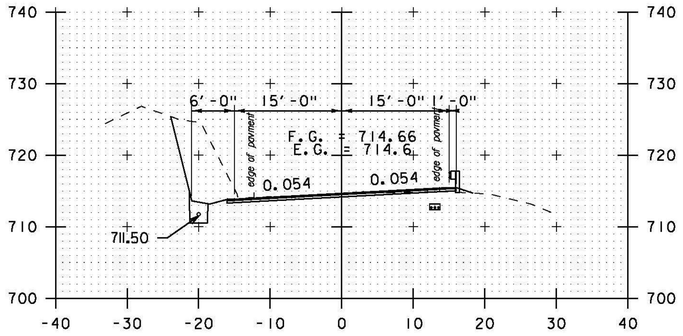
STA. 368+50 TO STA. A 2+50

0 20 40
SCALE IN FEET

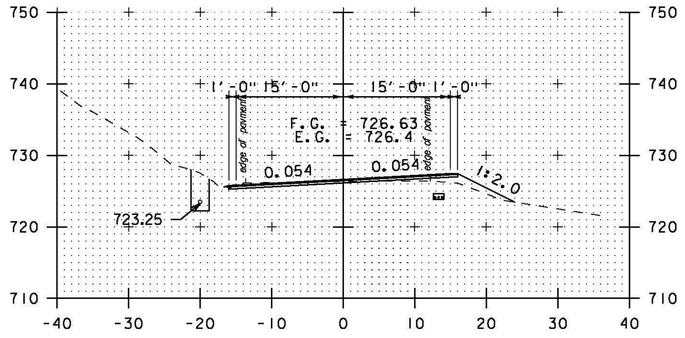
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 50	SHEET 184 OF 211



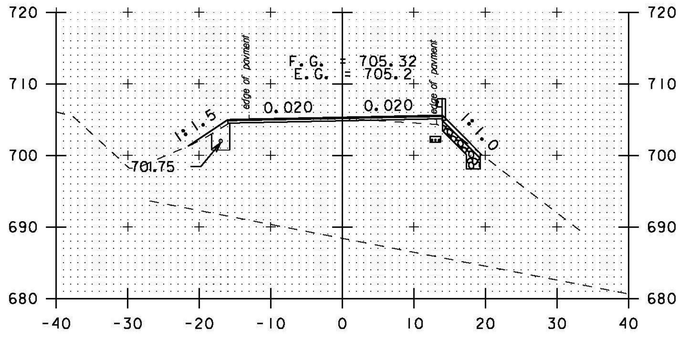
A 4+00



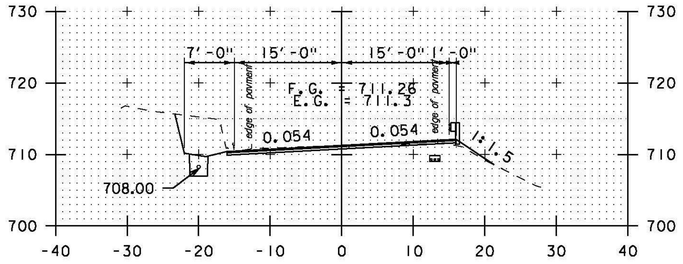
A 5+50



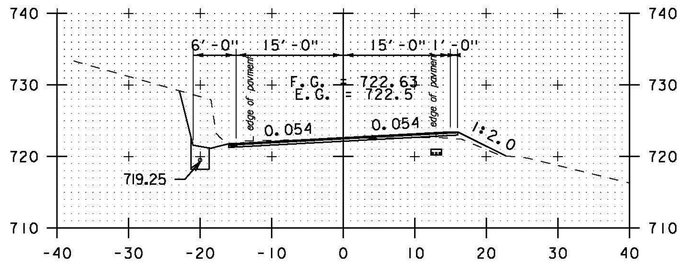
A 7+00



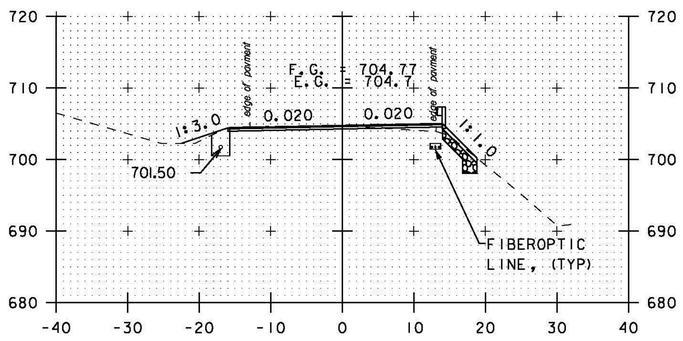
A 3+50



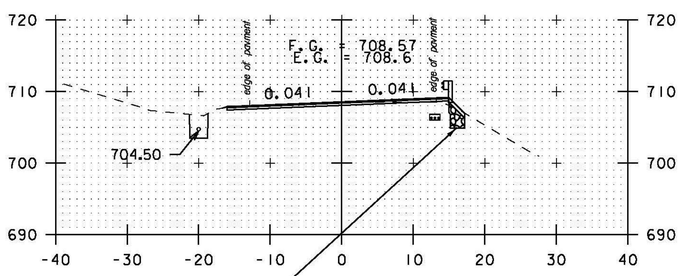
A 5+00



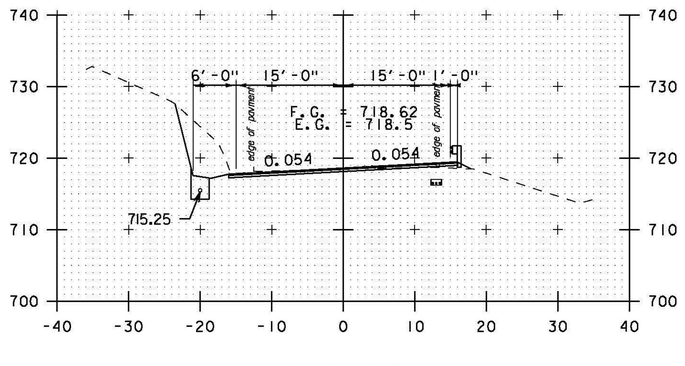
A 6+50



A 3+00



A 4+50



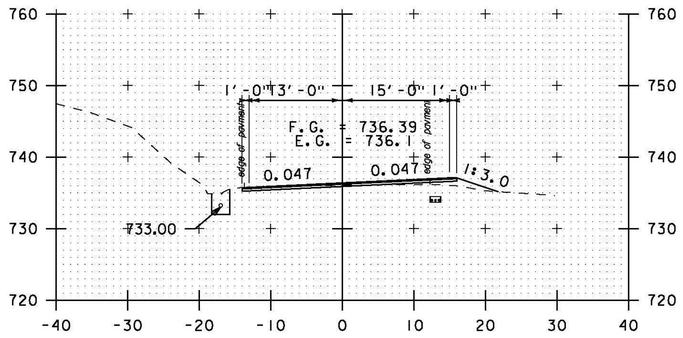
A 6+00

12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)

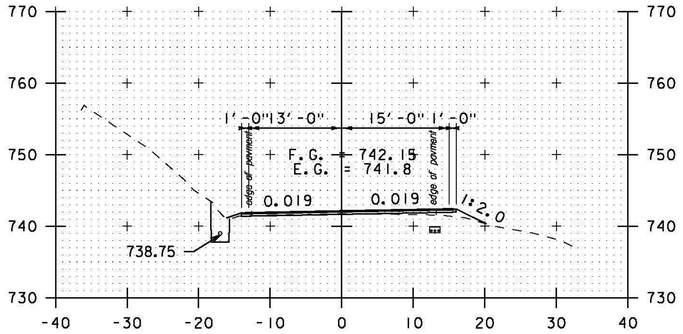
STA. A 3+00 TO STA. A 7+00

0 20 40
SCALE IN FEET

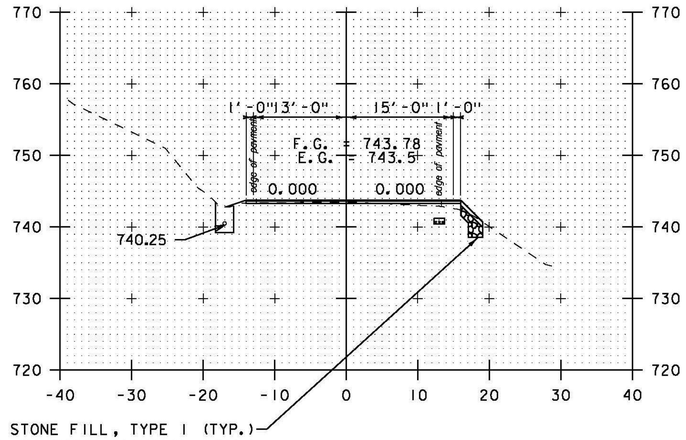
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 51	SHEET 185 OF 211



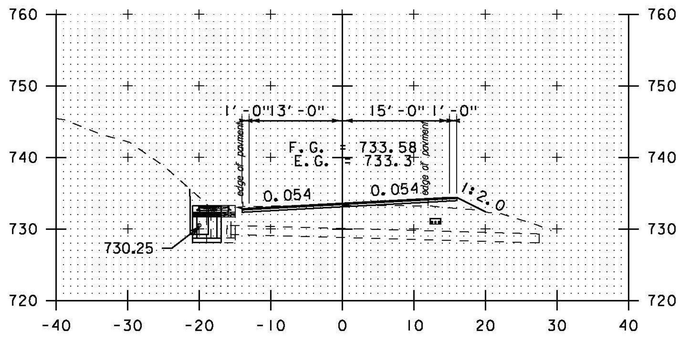
A 8+50



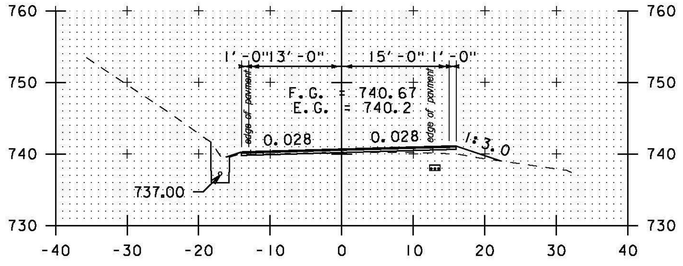
A 10+00



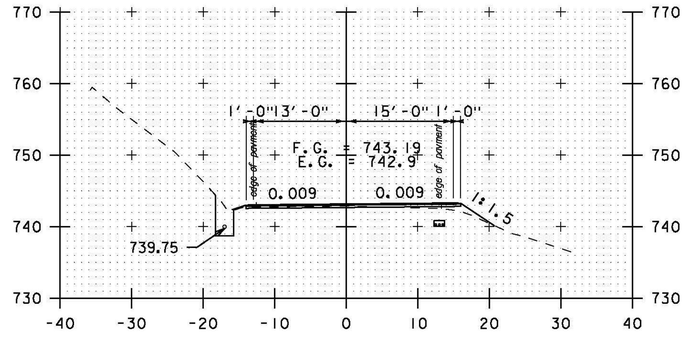
A 11+00



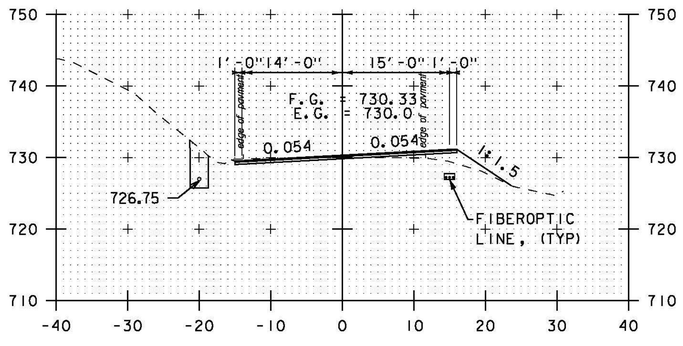
A 8+00



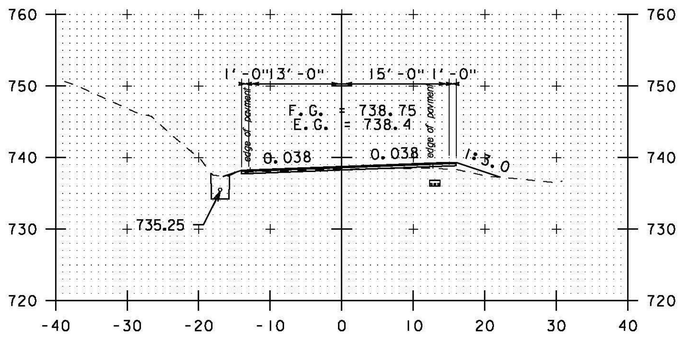
A 9+50



A 10+50



A 7+50

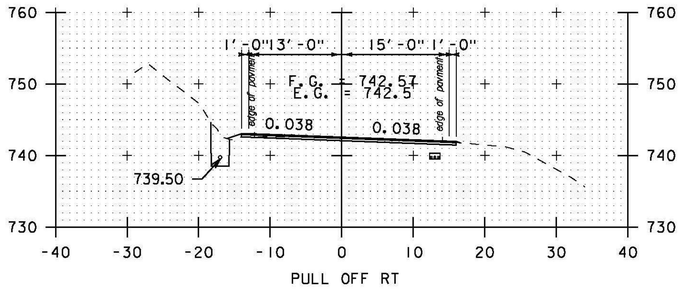


A 9+00

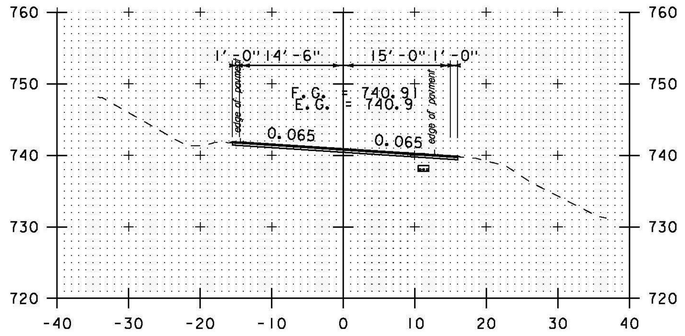
STA. A 7+50 TO STA. A 11+00

0 20 40
SCALE IN FEET

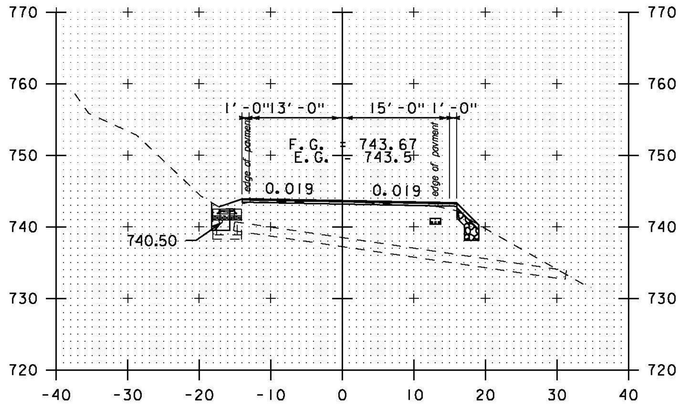
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 52	SHEET 186 OF 211



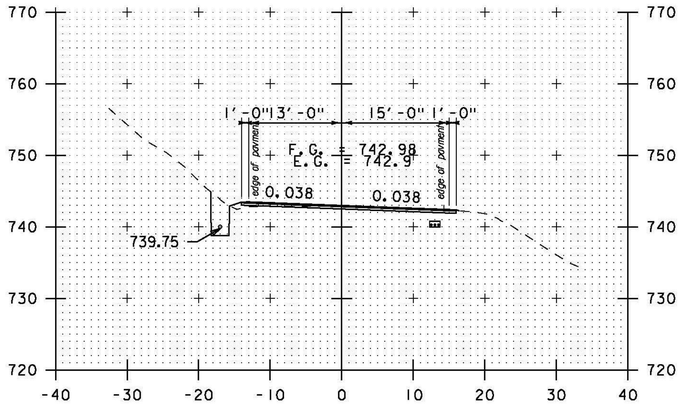
A 13+50



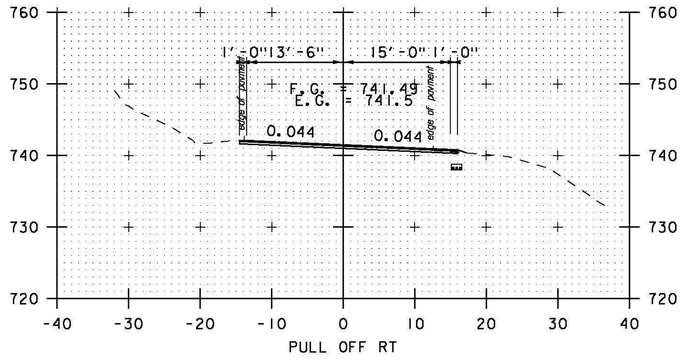
A 15+00



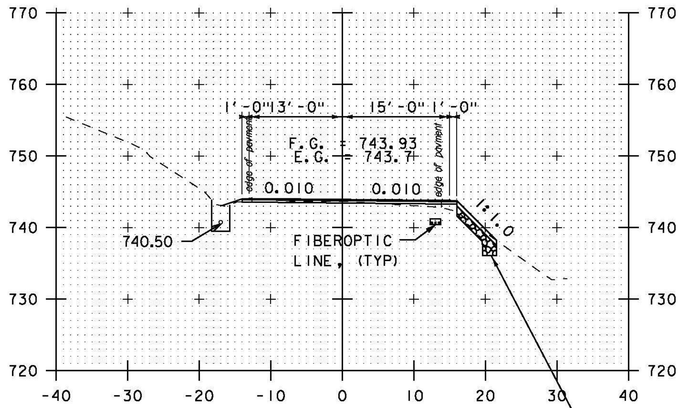
A 12+00



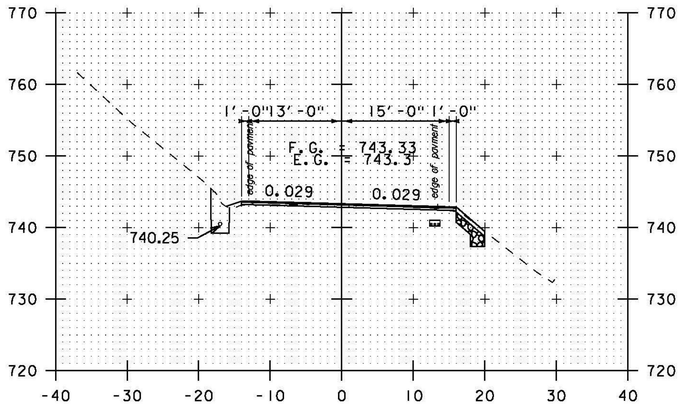
A 13+00



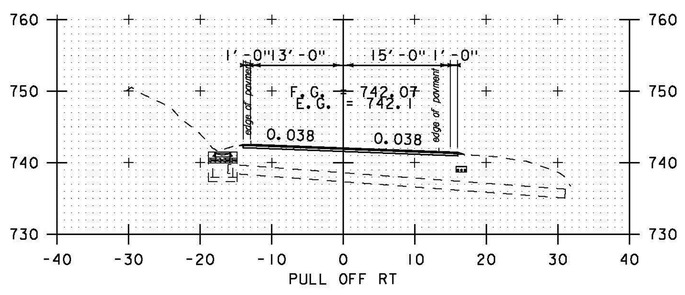
A 14+50



A 11+50



A 12+50

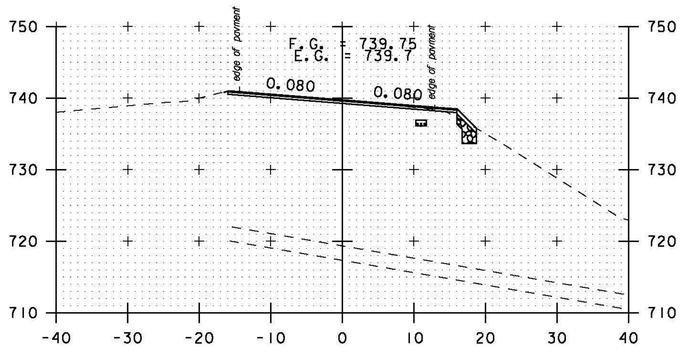


A 14+00

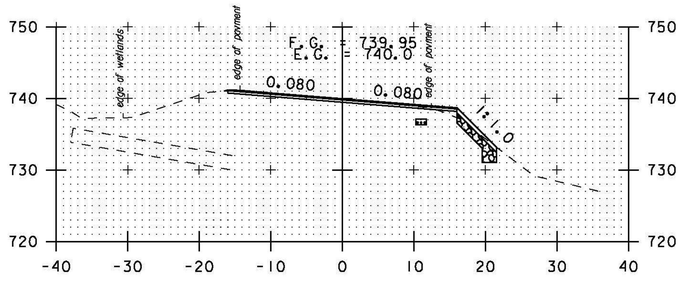
STA. A 11+50 TO STA. A 15+00

0 20 40
SCALE IN FEET

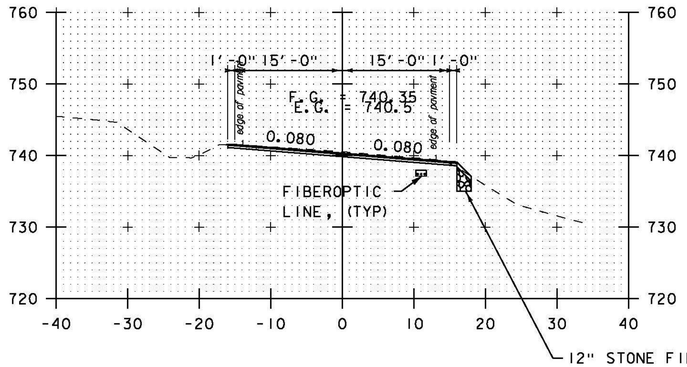
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 53	SHEET 187 OF 211



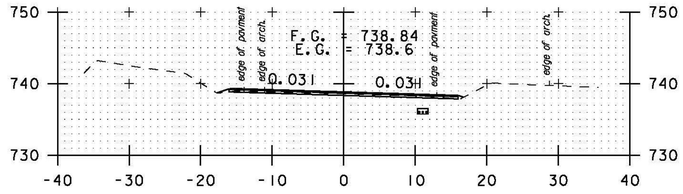
A 16+50



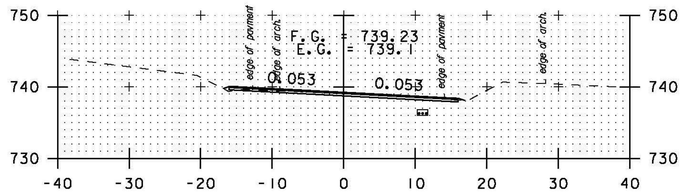
A 16+00



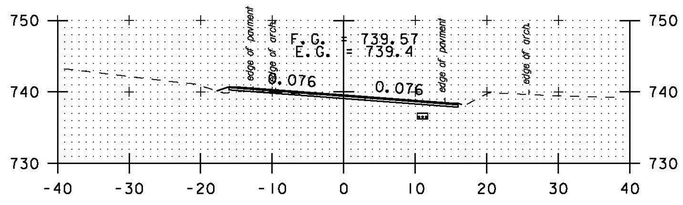
A 15+50



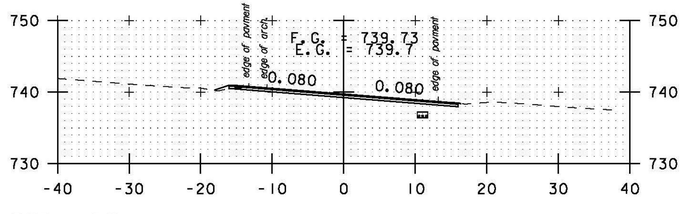
A 18+50



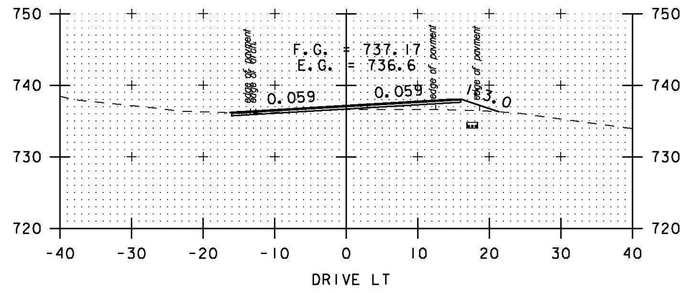
A 18+00



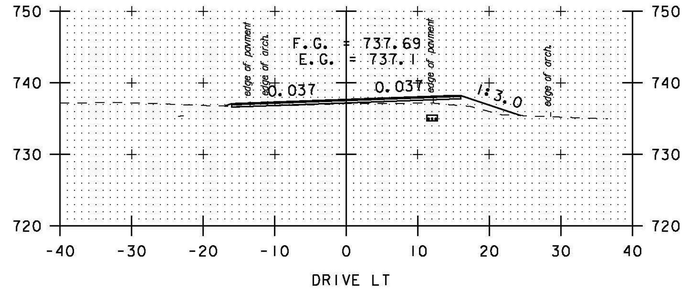
A 17+50



A 17+00



A 20+50



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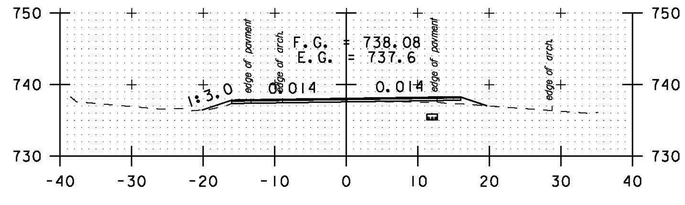
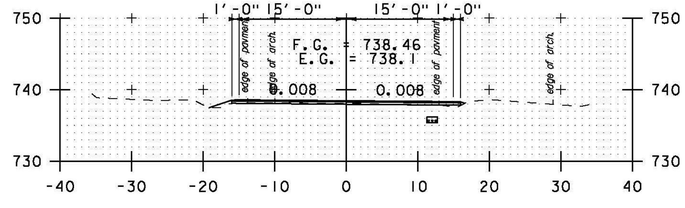


A 19+50



A 19+00

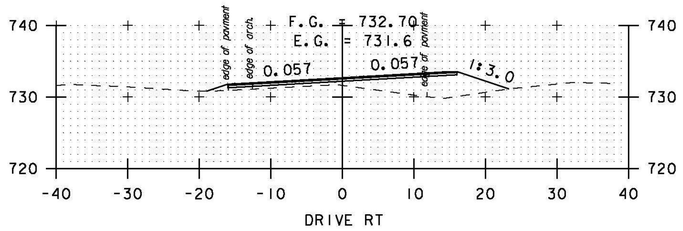
STA. A 15+50 TO STA. A 20+50

0 20 40
SCALE IN FEET

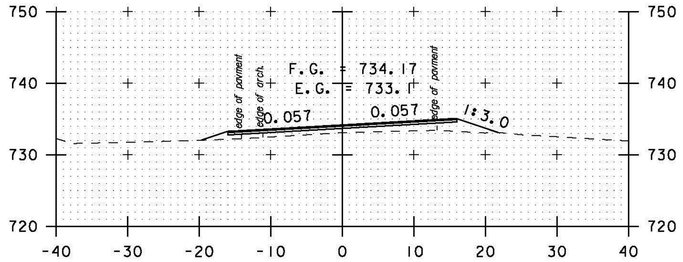
PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: pl0C244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
CROSS SECTION SHEET 54

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 188 OF 211



A 22+50



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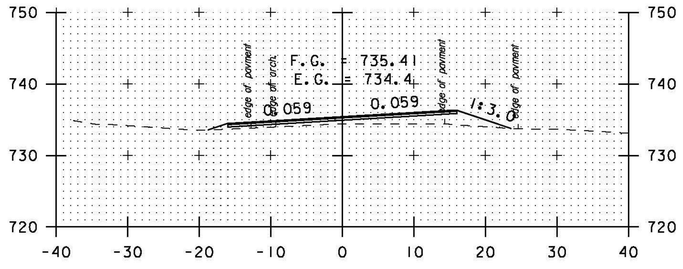
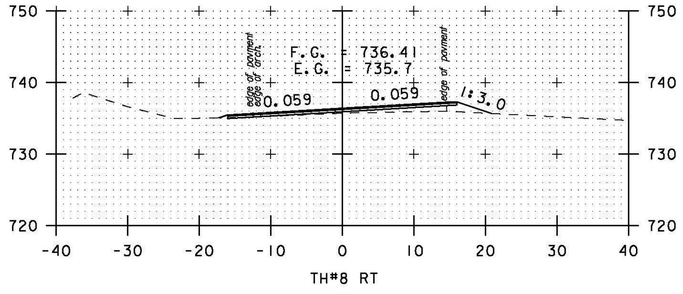
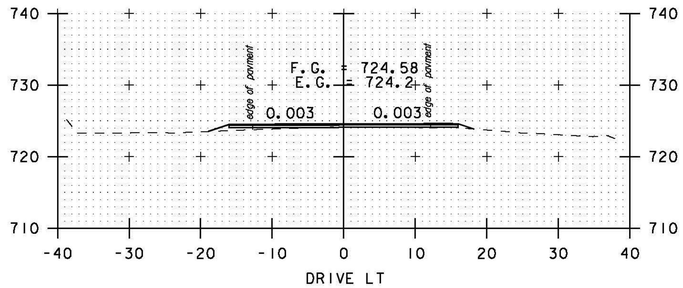


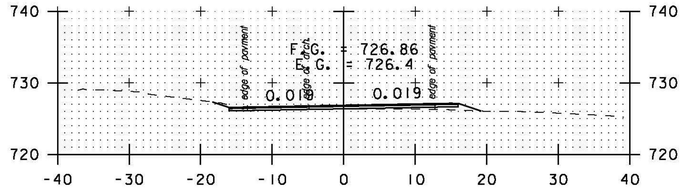
A 21+50



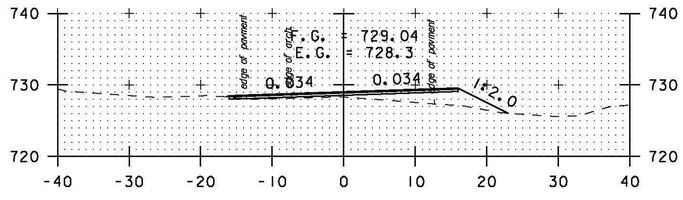
A 21+00



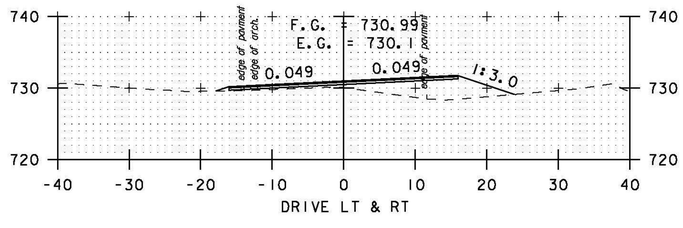
A 24+50



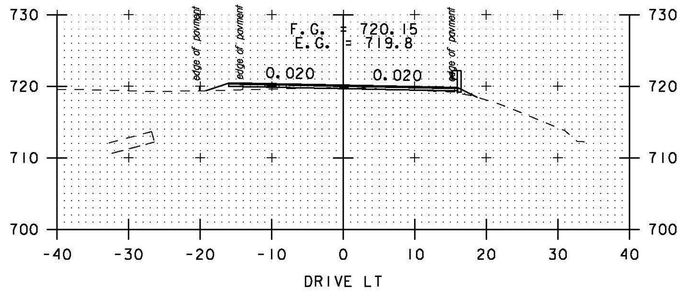
A 24+00



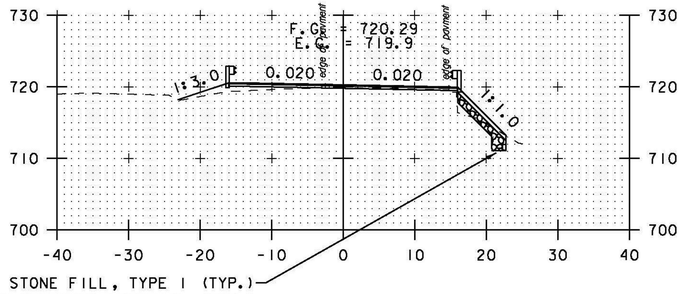
A 23+50



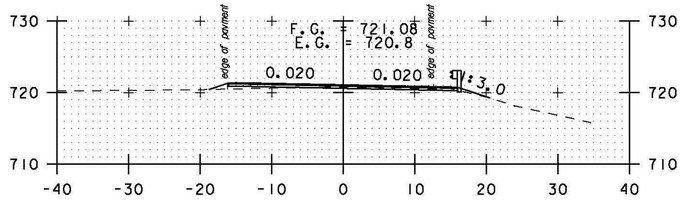
A 23+00



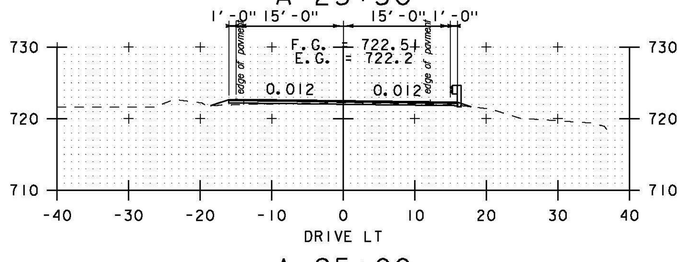
A 26+50



A 26+00



A 25+50

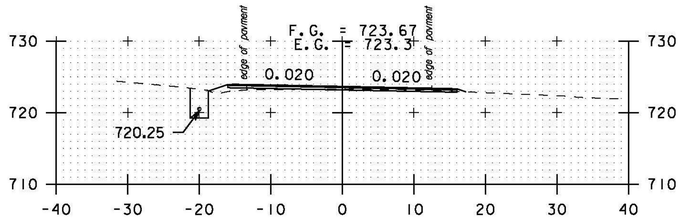


A 25+00

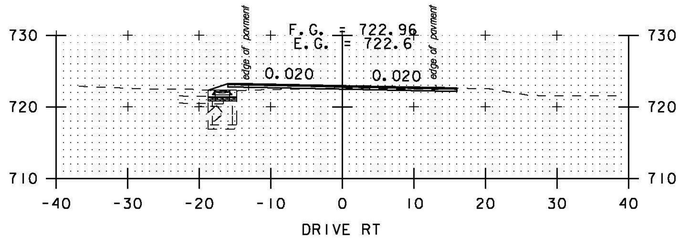
STA. A 21+00 TO STA. A 26+50

0 20 40
SCALE IN FEET

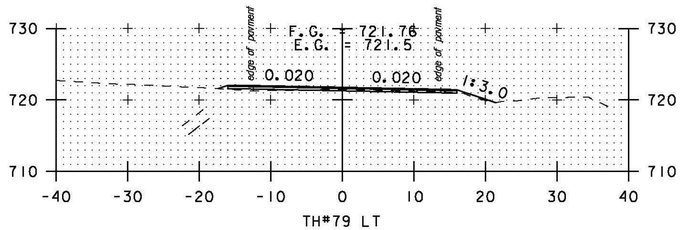
PROJECT NAME: BETHEL-RANDOLPH	
PROJECT NUMBER: STP 2921(1)	
FILE NAME: pl0C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 55	SHEET 189 OF 211



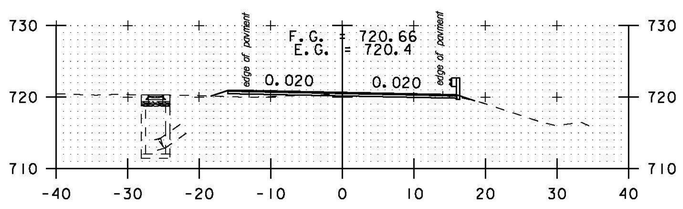
A 28+50



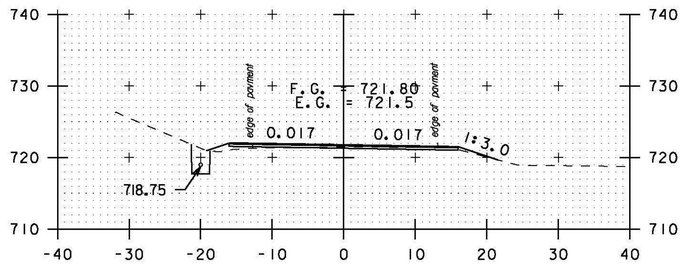
A 28+00



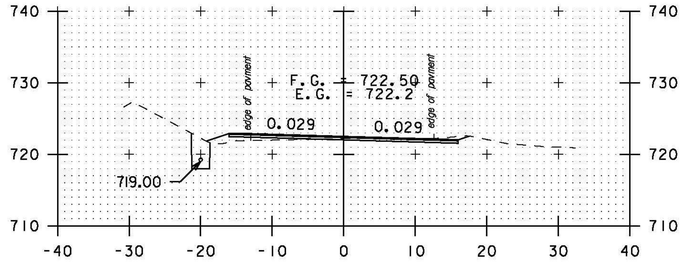
A 27+50



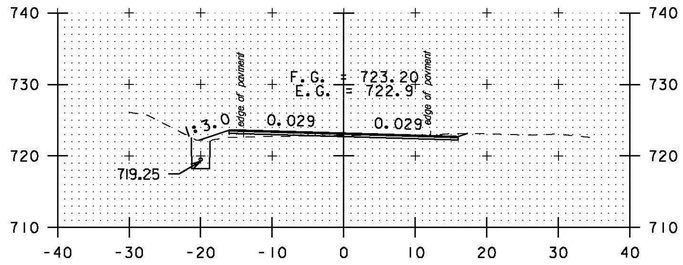
A 27+00



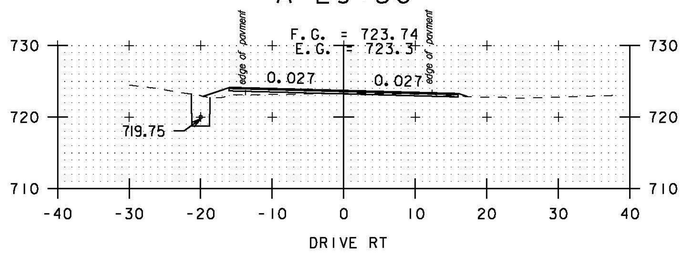
A 30+50



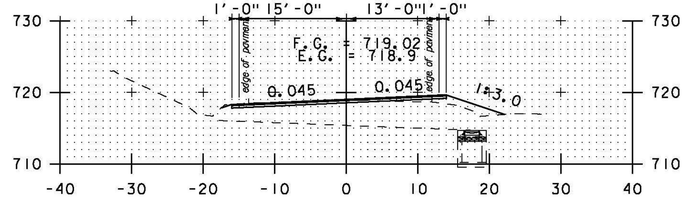
A 30+00



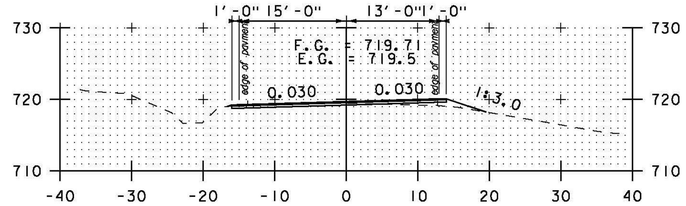
A 29+50



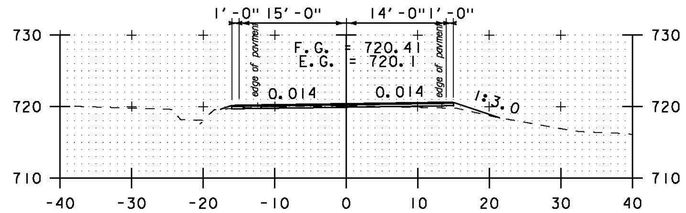
A 29+00



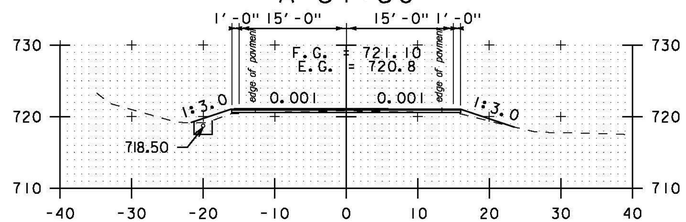
A 32+50



A 32+00



A 31+50

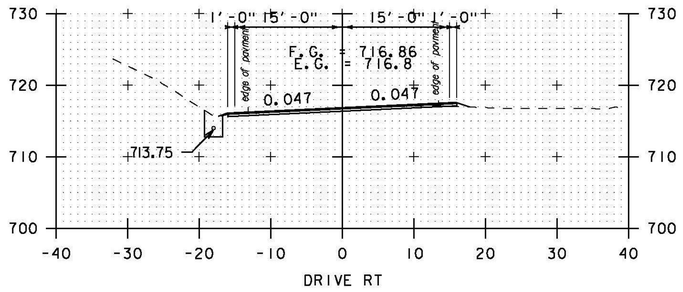


A 31+00

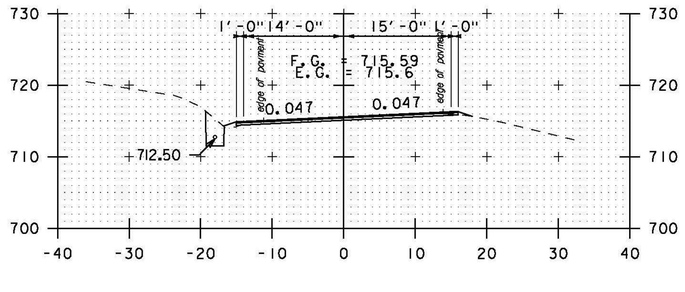
STA. A 27+00 TO STA. A 32+50

0 20 40
SCALE IN FEET

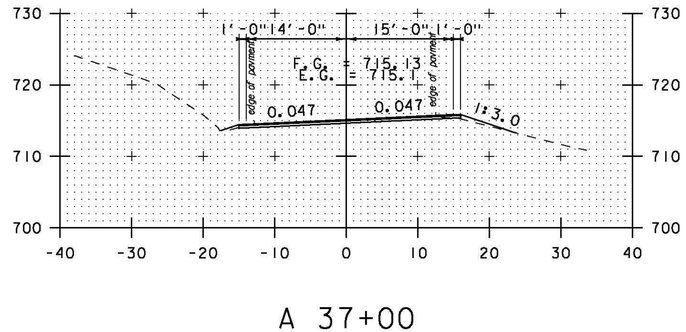
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 56	SHEET 190 OF 211



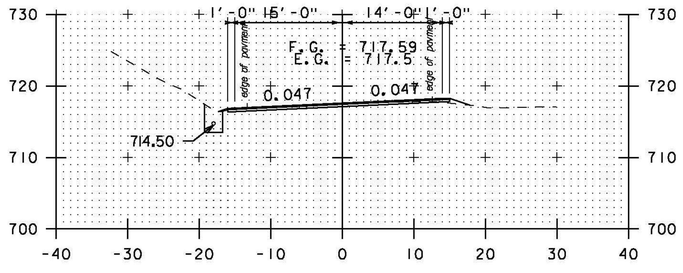
A 34+00



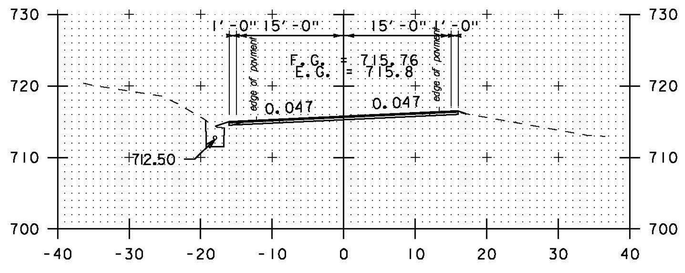
A 35+50



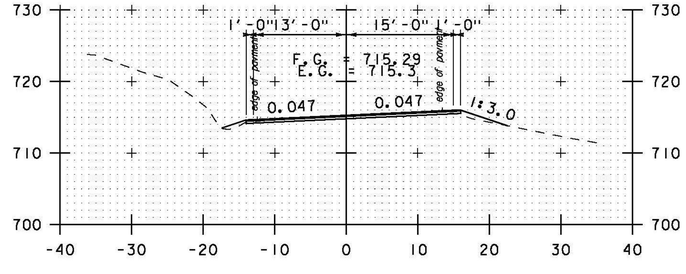
A 37+00



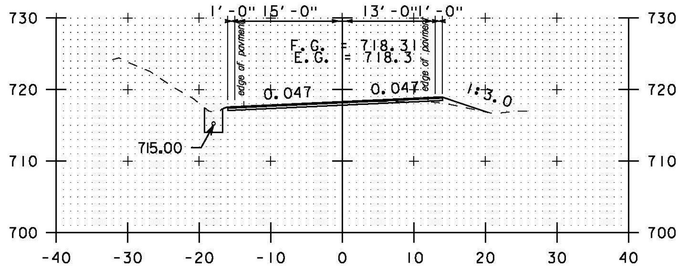
A 33+50



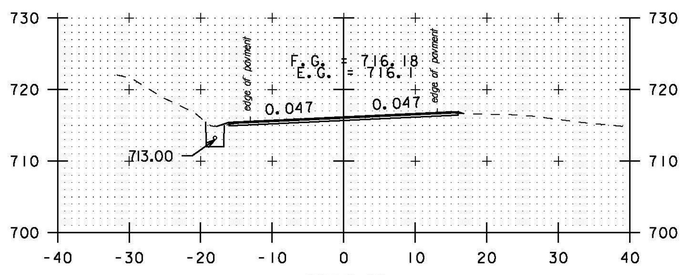
A 35+00



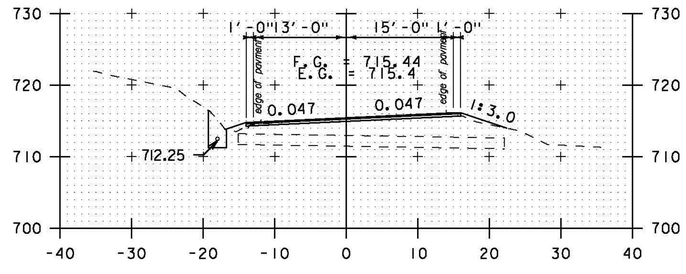
A 36+50



A 33+00



A 34+50

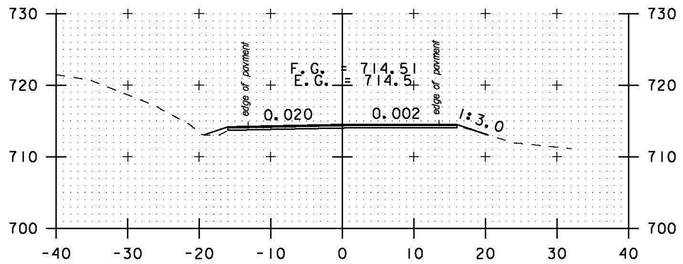


A 36+00

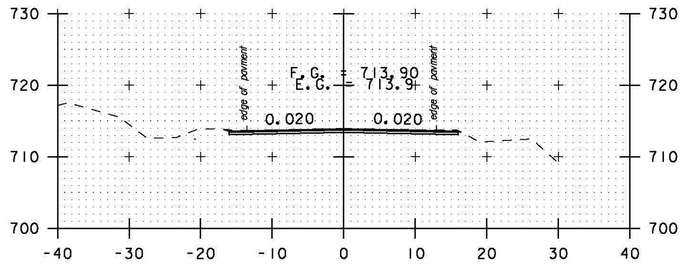
STA. A 33+00 TO STA. A 37+00

0 20 40
SCALE IN FEET

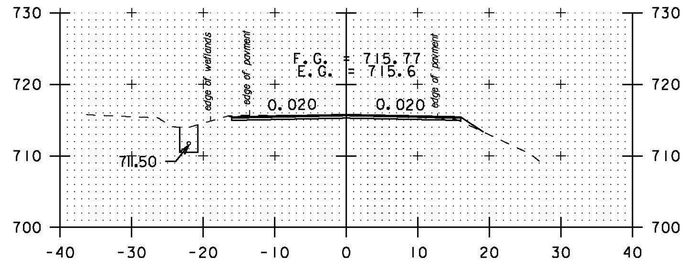
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 57	SHEET 191 OF 211



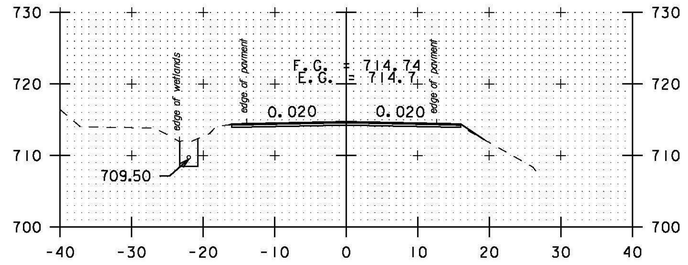
A 38+50



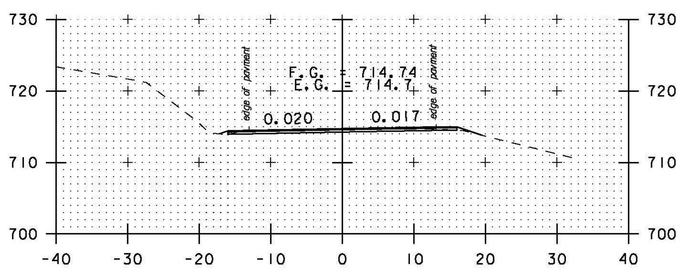
A 40+00



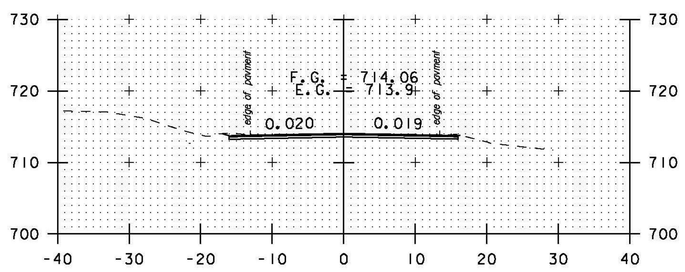
A 41+50



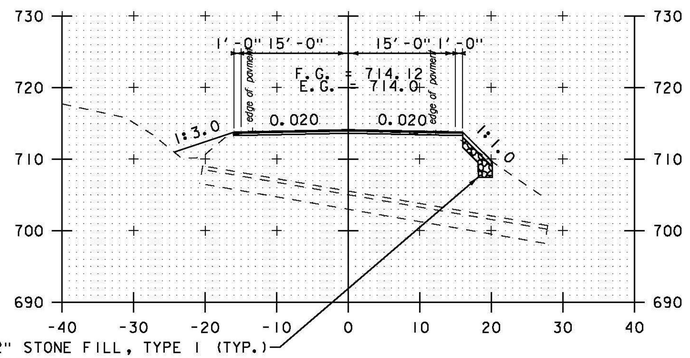
A 41+00



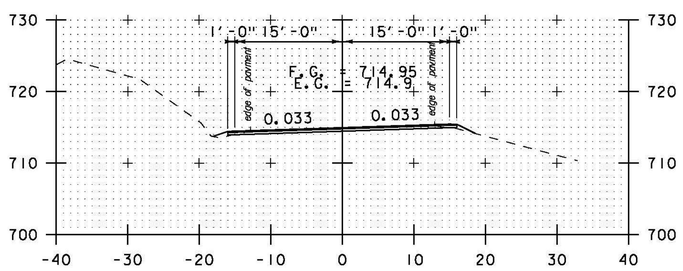
A 38+00



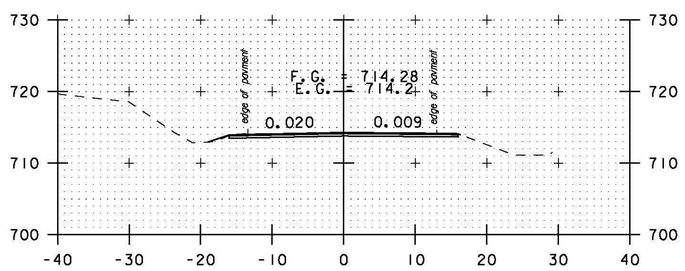
A 39+50



A 40+50



A 37+50

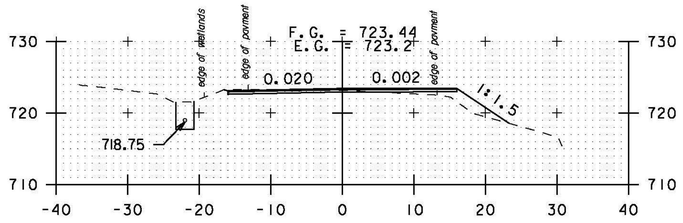


A 39+00

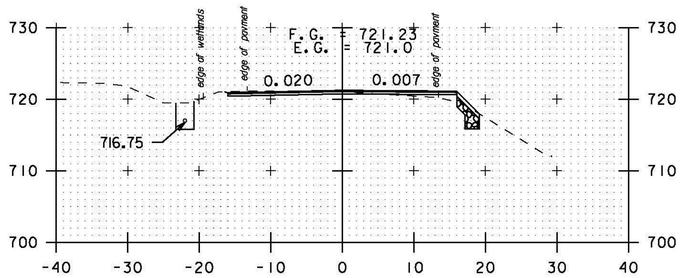
STA. A 37+50 TO STA. A 41+50

0 20 40
SCALE IN FEET

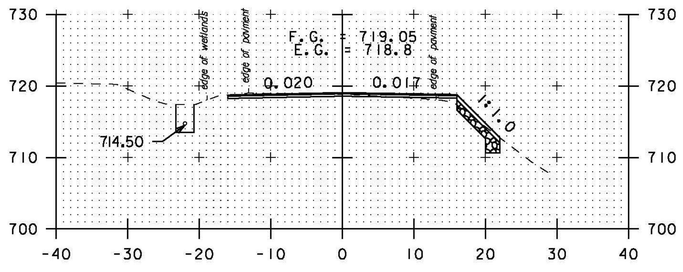
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME:	p10C244.dgn
PROJECT LEADER:	C. LATHROP
DESIGNED BY:	S. LAMPHERE
CROSS SECTION SHEET	58
PLOT DATE:	4/23/2015
DRAWN BY:	S. LAMPHERE
CHECKED BY:	C. LATHROP
SHEET	192 OF 211



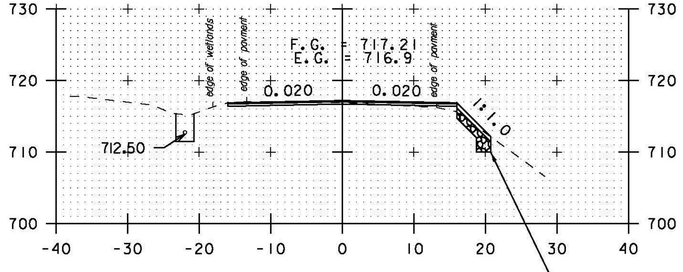
A 43+50



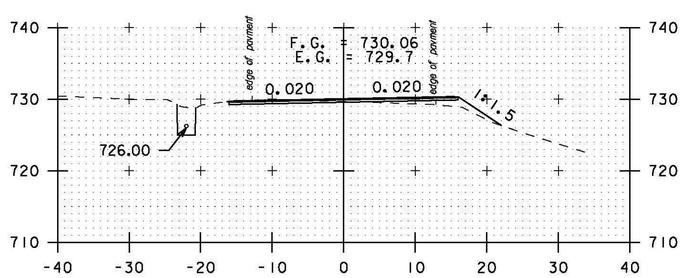
A 43+00



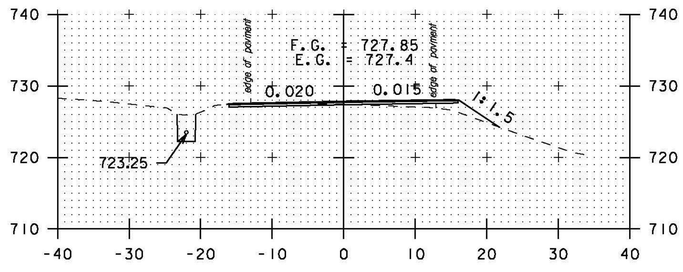
A 42+50



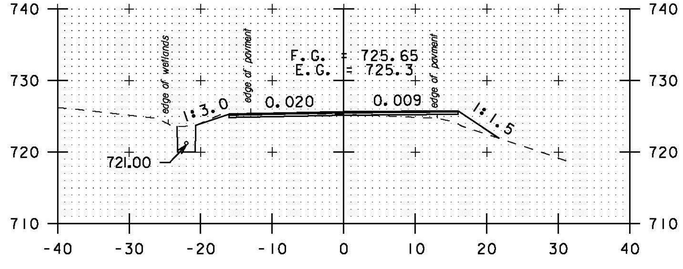
A 42+00



A 45+00

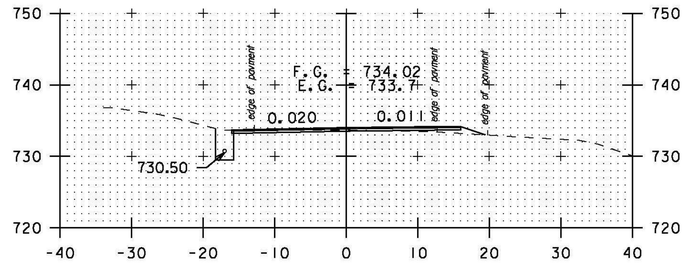


A 44+50

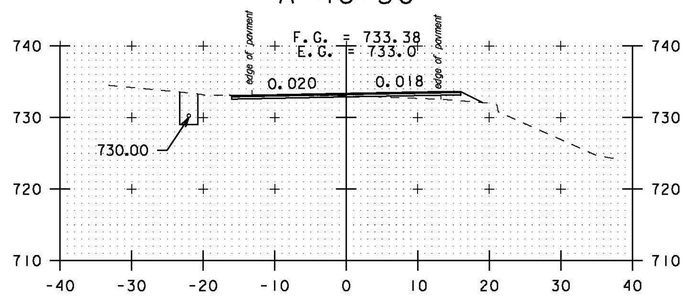


A 44+00

12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)



A 46+50



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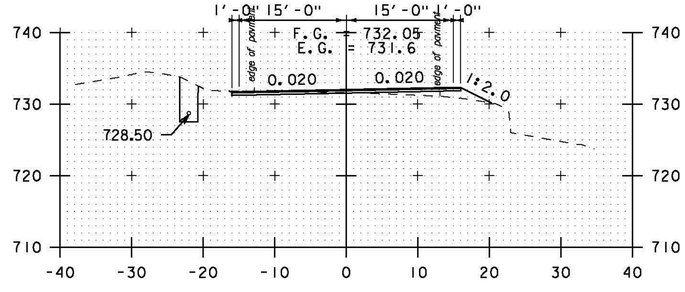
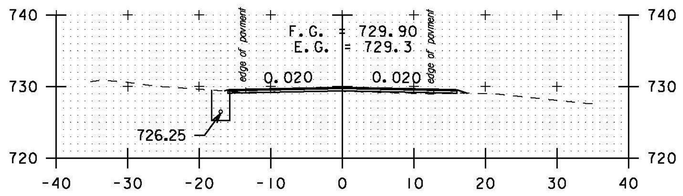


A 45+50

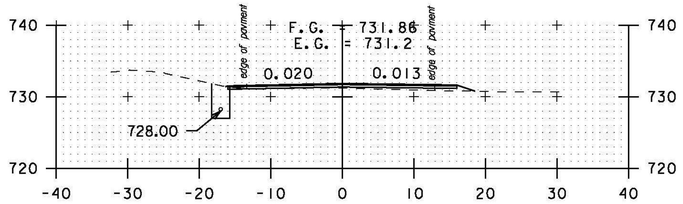
STA. A 42+00 TO STA. A 46+50

0 20 40
SCALE IN FEET

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 59	SHEET 193 OF 211



A 48+50



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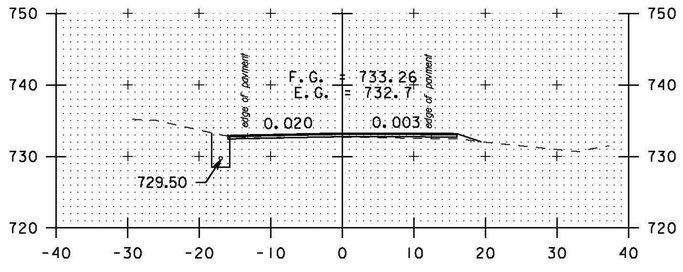
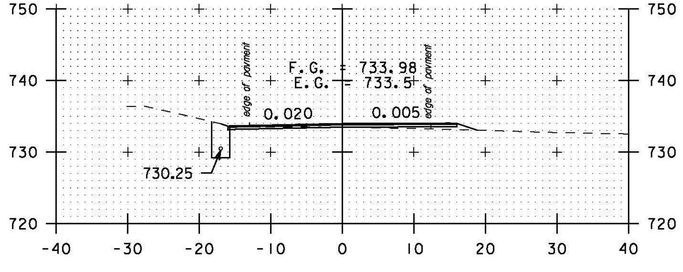
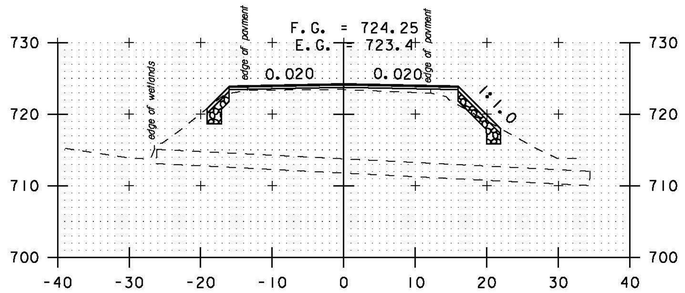


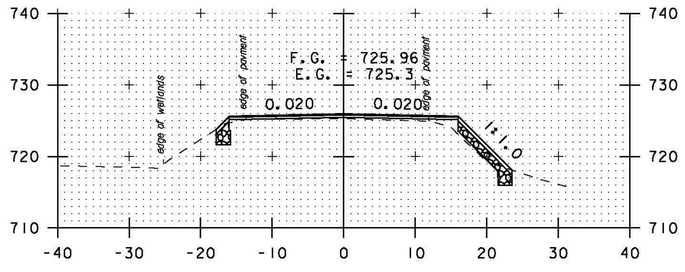
A 47+50



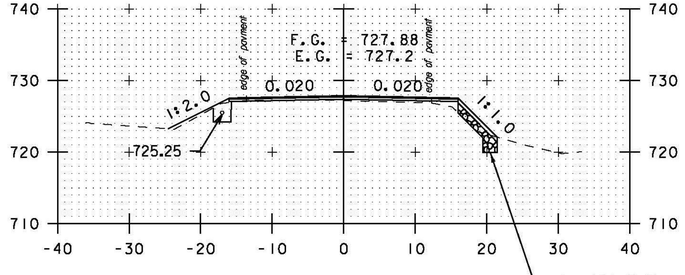
A 47+00



A 50+00

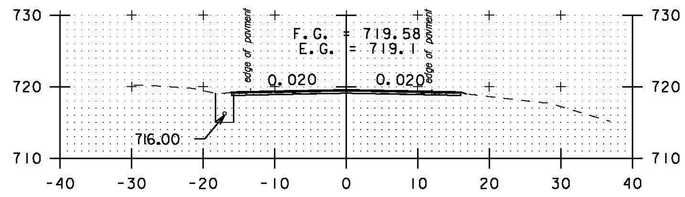


A 49+50

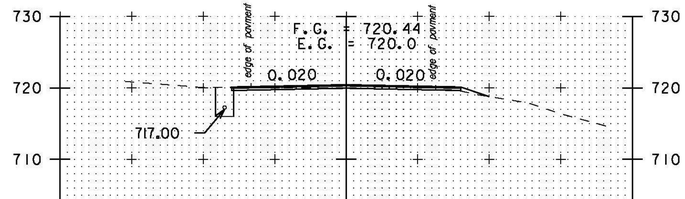


A 49+00

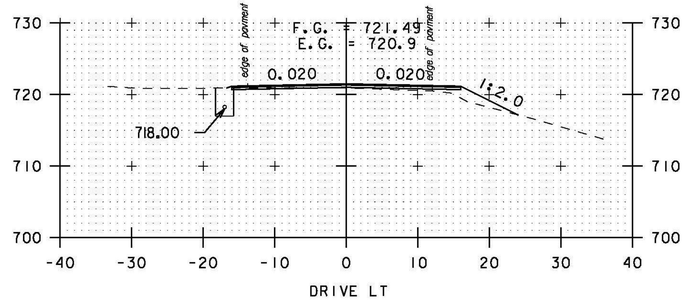
12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)



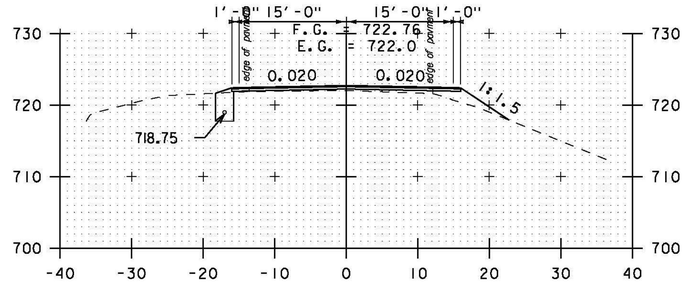
A 52+00



A 51+50



A 51+00

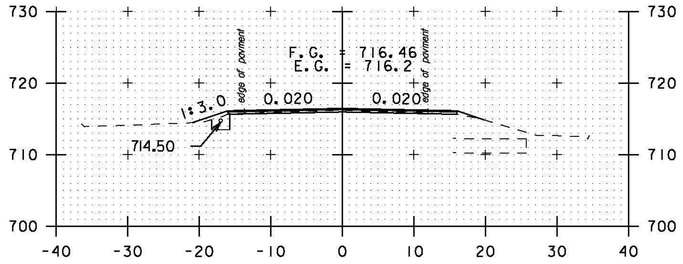


A 50+50

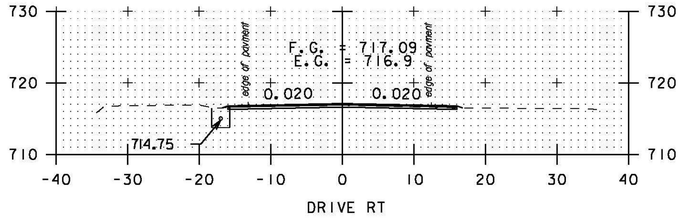
STA. A 47+00 TO STA. A 52+00

0 20 40
SCALE IN FEET

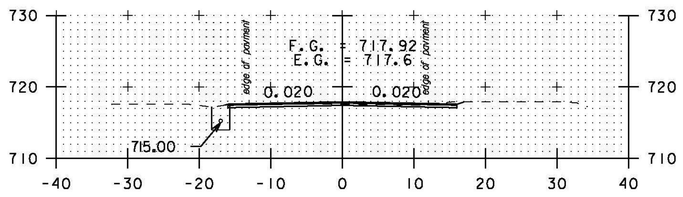
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME:	pl0C244.dgn
PROJECT LEADER:	C. LATHROP
DESIGNED BY:	S. LAMPHERE
CROSS SECTION SHEET	60
PLOT DATE:	4/23/2015
DRAWN BY:	S. LAMPHERE
CHECKED BY:	C. LATHROP
SHEET	194 OF 211



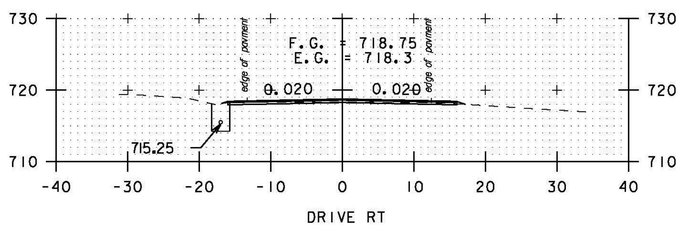
A 54+00



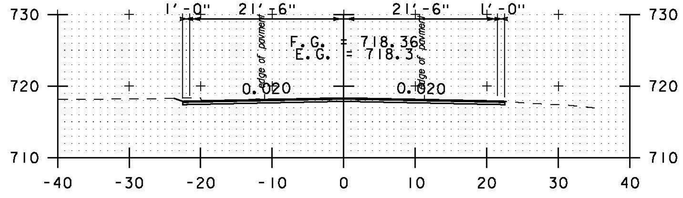
A 53+50



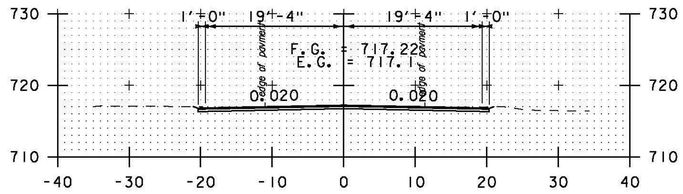
A 53+00



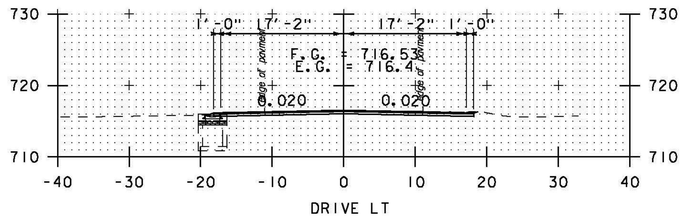
A 52+50



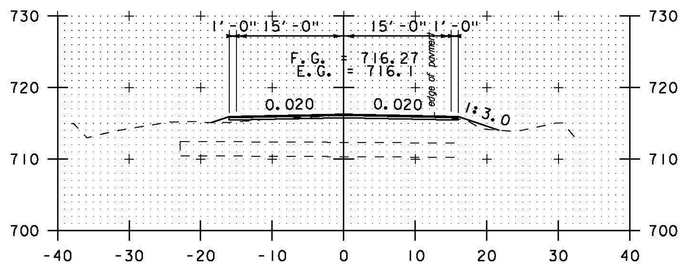
A 56+00



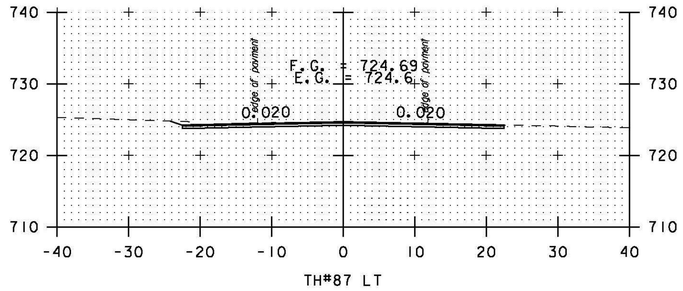
A 55+50



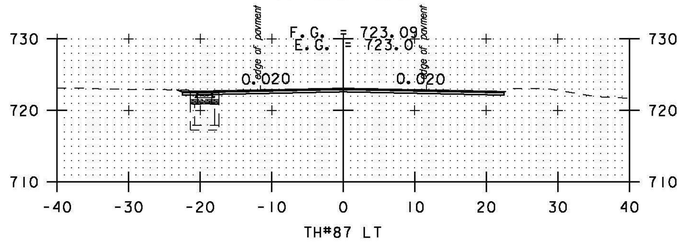
A 55+00



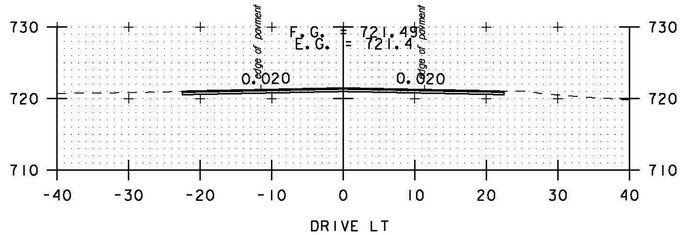
A 54+50



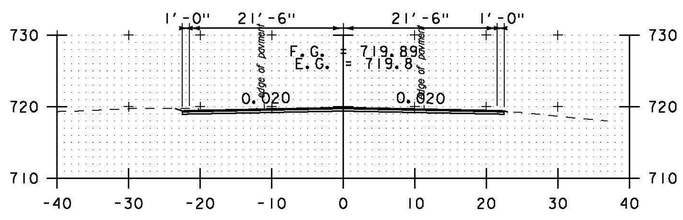
A 58+00



A 57+50



A 57+00

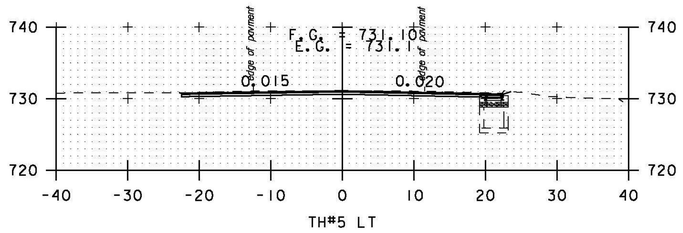


A 56+50

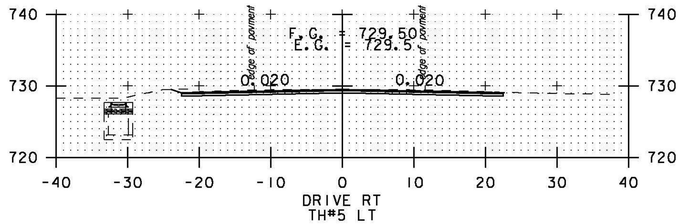
STA. A 52+50 TO STA. A 58+00

0 20 40
SCALE IN FEET

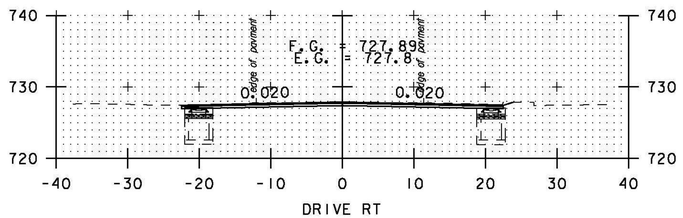
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 61	SHEET 195 OF 211



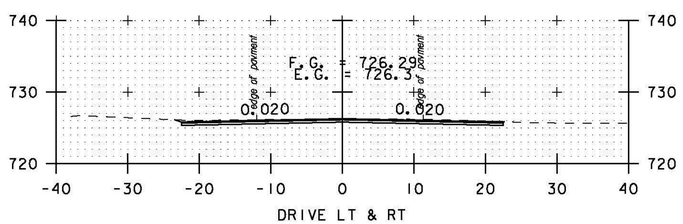
A 60+00



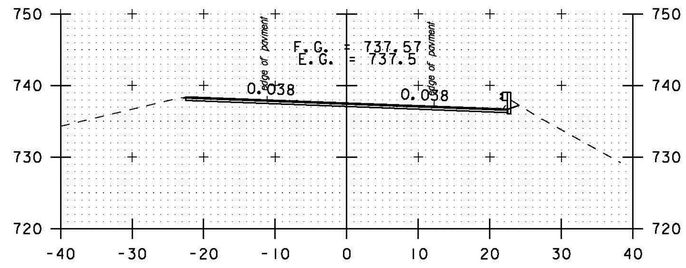
A 59+50



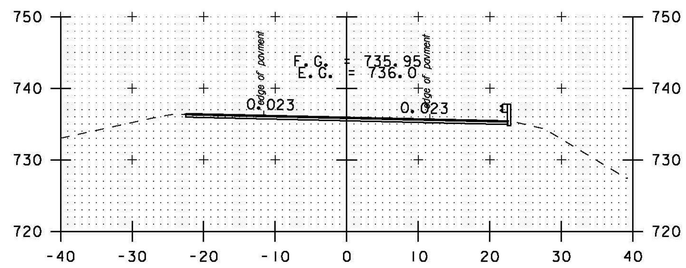
A 59+00



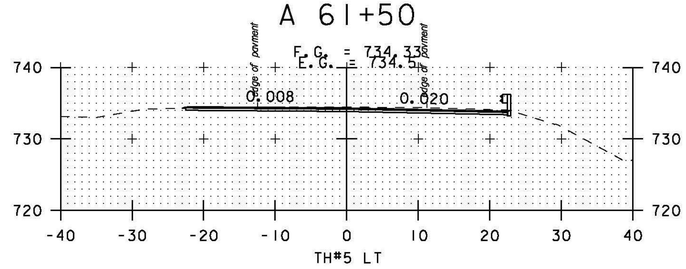
A 58+50



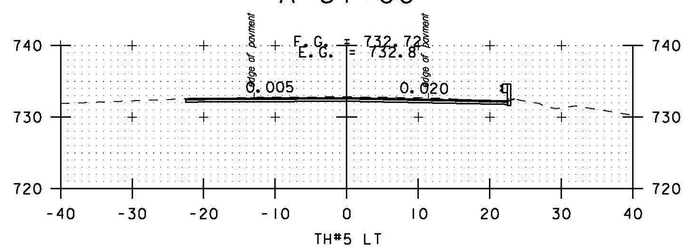
A 62+00



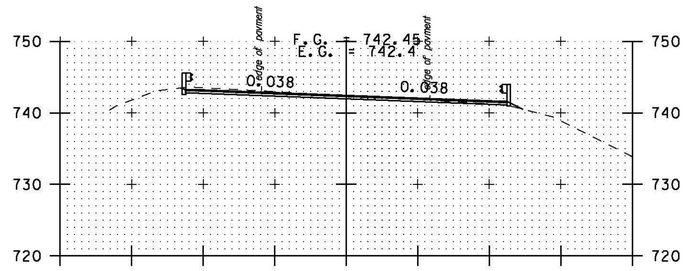
A 61+50



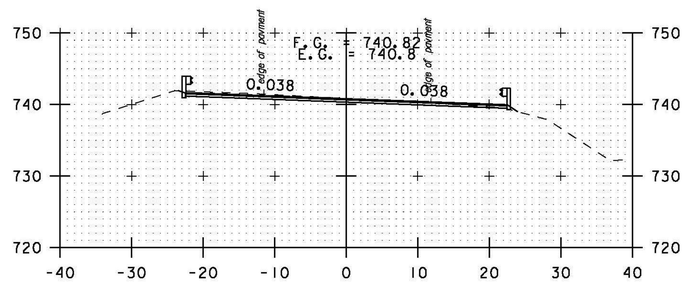
A 61+00



A 60+50



A 63+50



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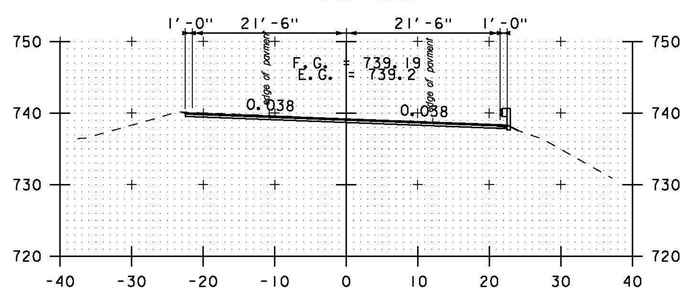
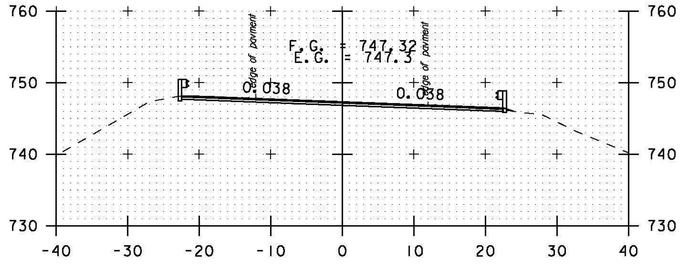


A 62+50

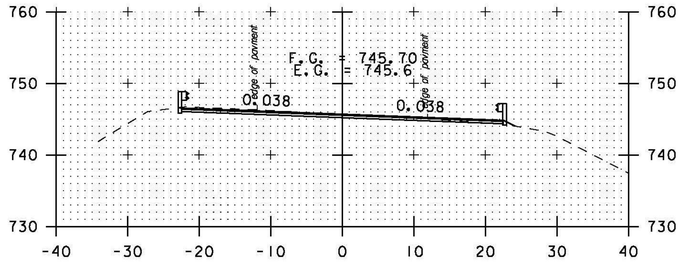
STA. A 58+50 TO STA. A 63+50

0 20 40
SCALE IN FEET

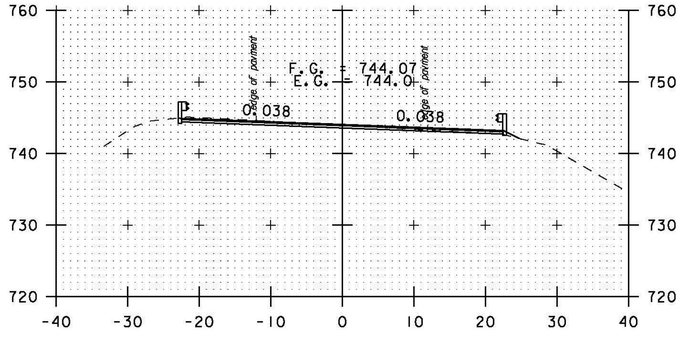
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292K(1)
FILE NAME:	pl0C244.dgn
PROJECT LEADER:	C. LATHROP
DESIGNED BY:	S. LAMPHERE
CROSS SECTION SHEET	62
PLOT DATE:	4/23/2015
DRAWN BY:	S. LAMPHERE
CHECKED BY:	C. LATHROP
SHEET	196 OF 211



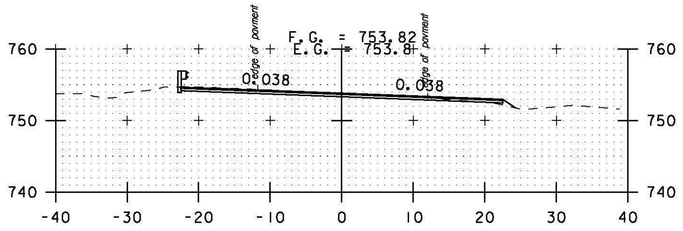
A 65+00



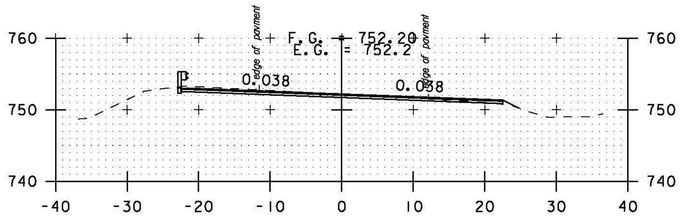
A 64+50



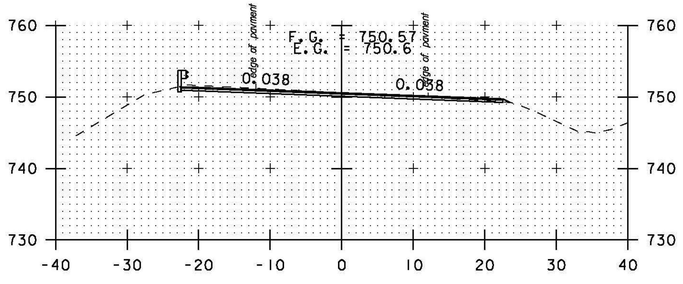
A 64+00



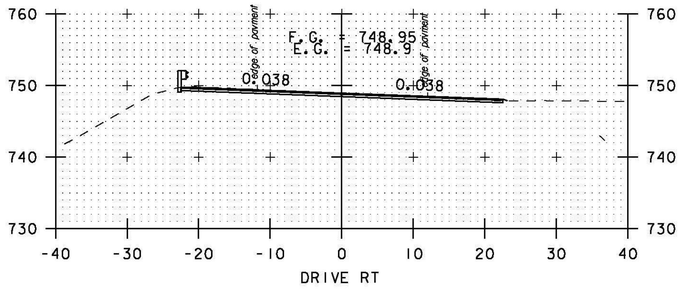
A 67+00



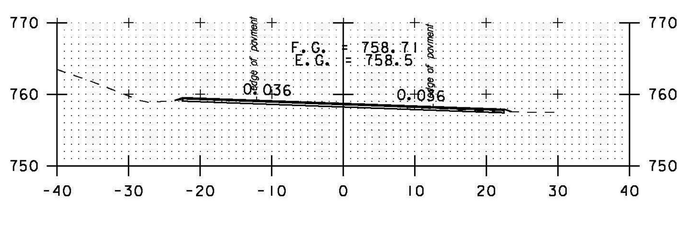
A 66+50



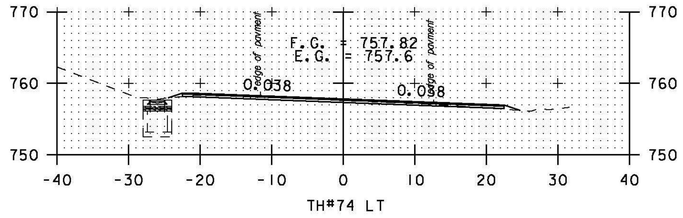
A 66+00



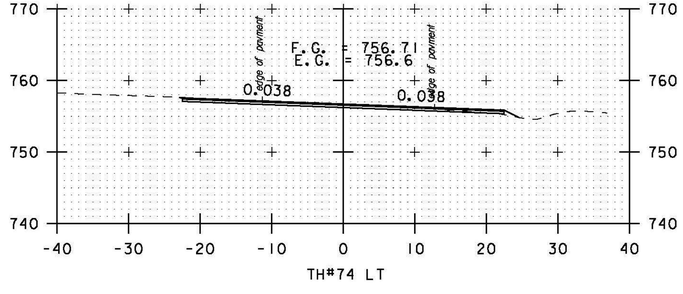
A 65+50



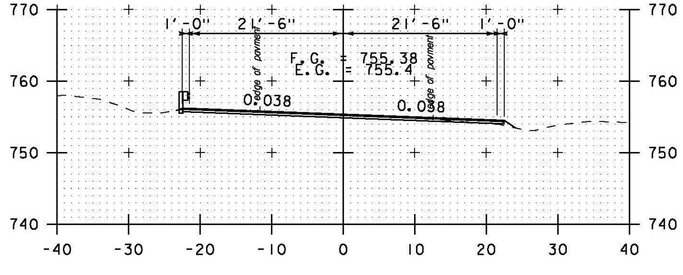
A 69+00



A 68+50



A 68+00

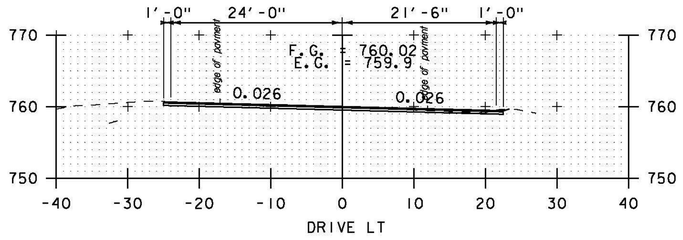


A 67+50

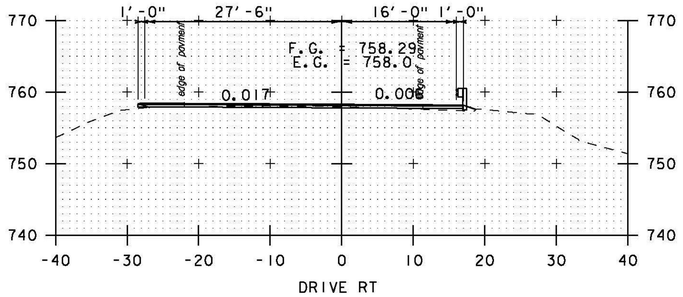
STA. A 64+00 TO STA. A 69+00

0 20 40
SCALE IN FEET

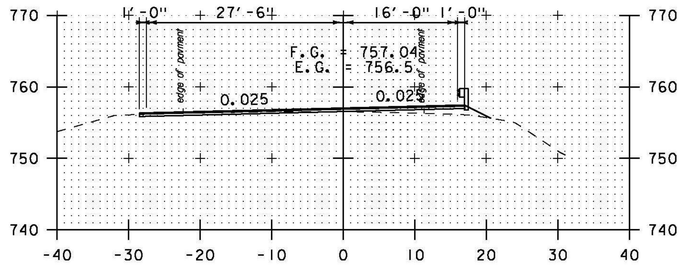
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 63	SHEET 197 OF 211



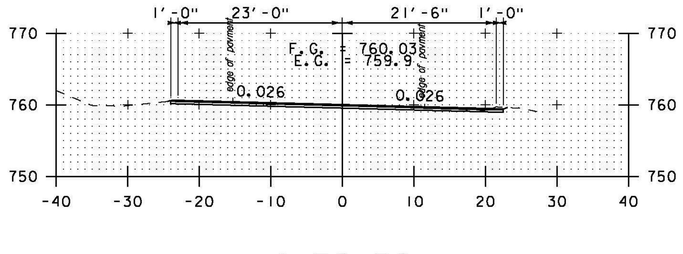
A 71+00



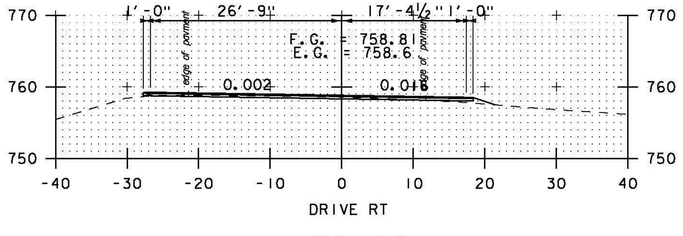
A 73+00



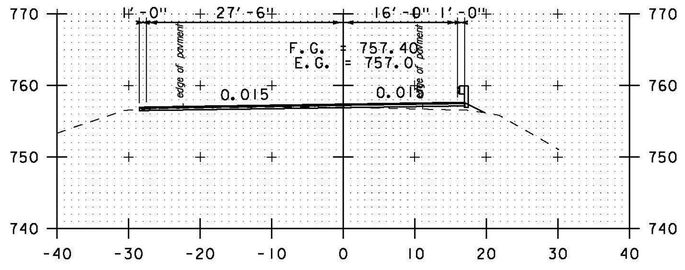
A 74+50



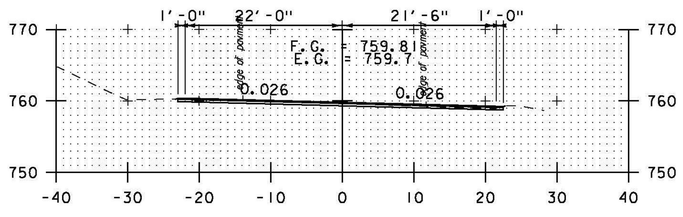
A 70+50



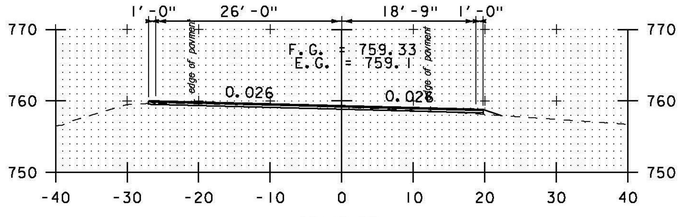
A 72+50



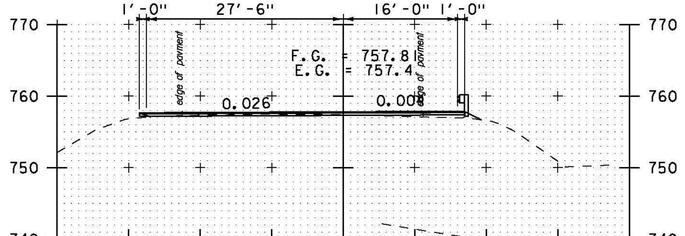
A 74+00



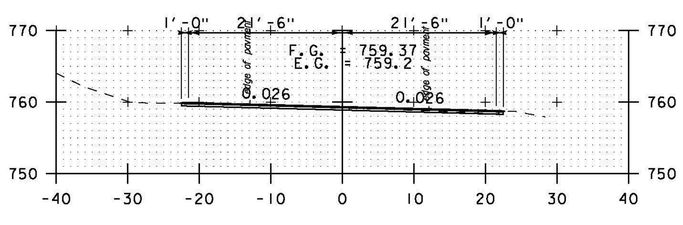
A 70+00



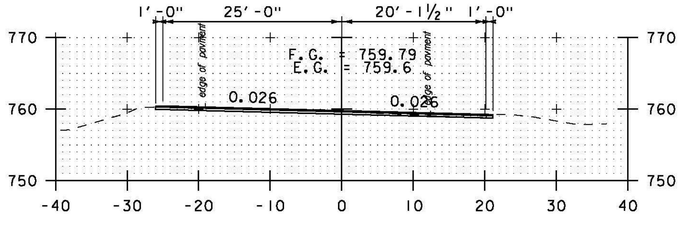
A 72+00



A 73+50



A 69+50

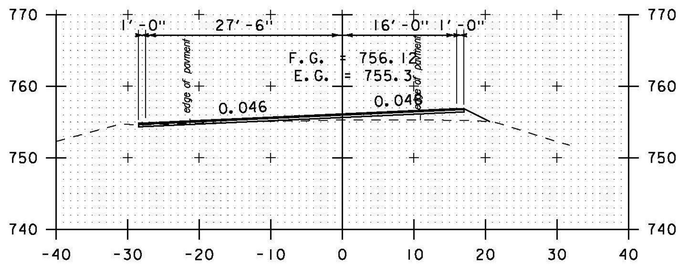


A 71+50

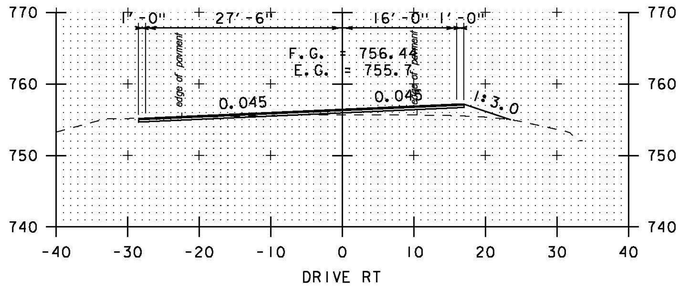
STA. A 69+50 TO STA. A 74+50

0 20 40
SCALE IN FEET

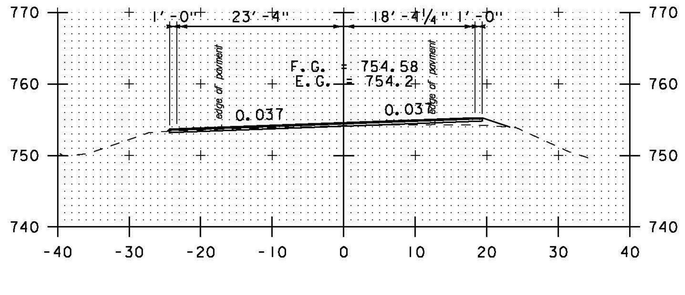
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 64	SHEET 198 OF 211



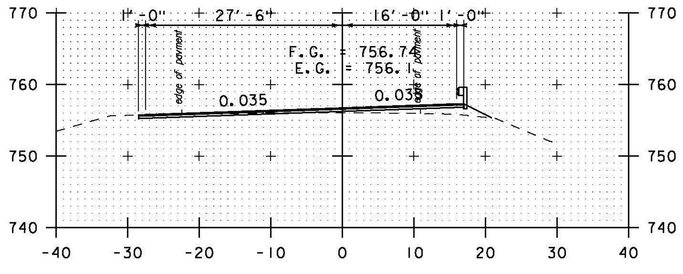
A 76+00



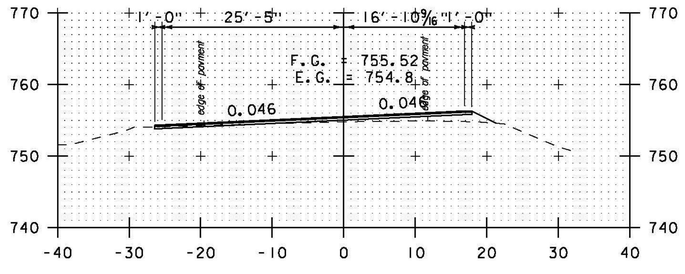
A 75+50



A 77+00



A 75+00

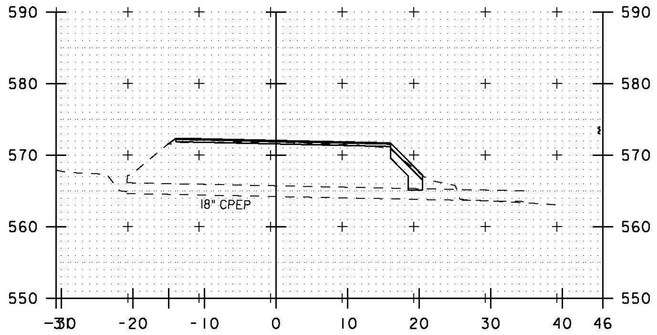


A 76+50

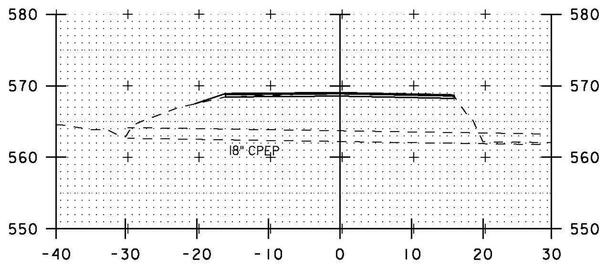
STA. A 75+00 TO STA. A 77+50

0 20 40
SCALE IN FEET

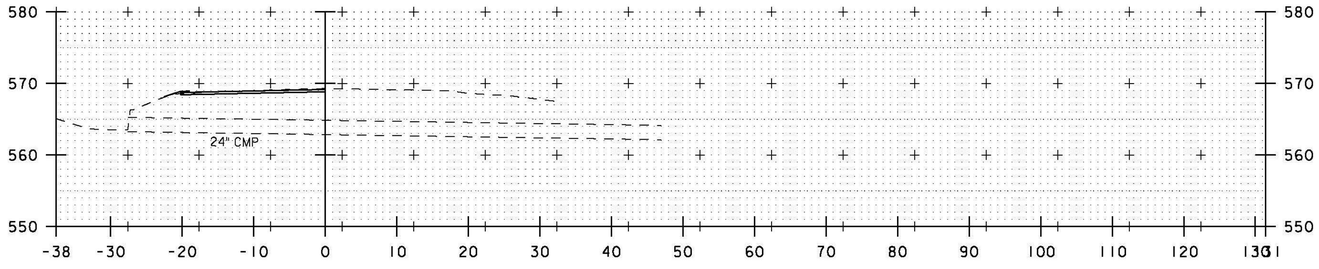
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: p10C244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CROSS SECTION SHEET 65	SHEET 199 OF 211



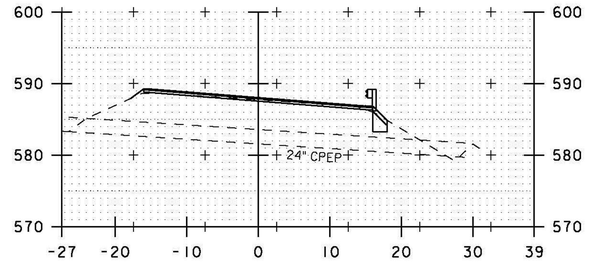
140+22



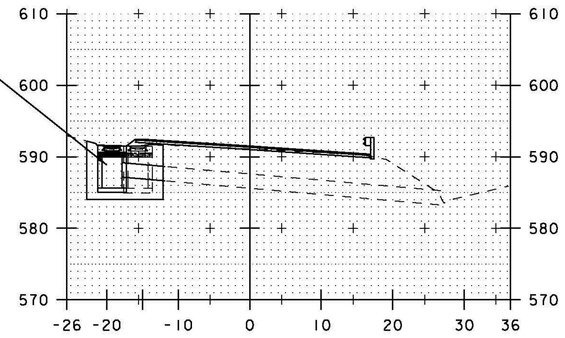
134+93



124+45

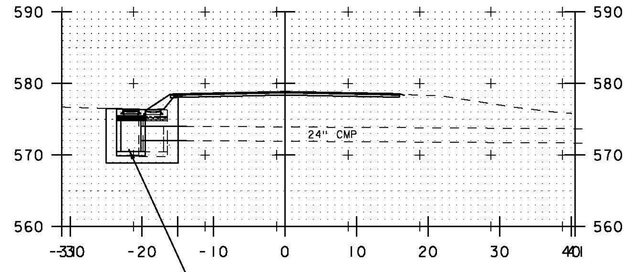


152+48



(2) REMOVE EXISTING DI AND INSTALL NEW DI WITH CAST IRON GRATE (TYPE A) STA. 150+34 LT 21.0' EXTEND 15" RCP 3.0' LT MATCH EXISTING SLOPE AND CONNECT TO NEW DI RIM EL. = 591.53'

150+39

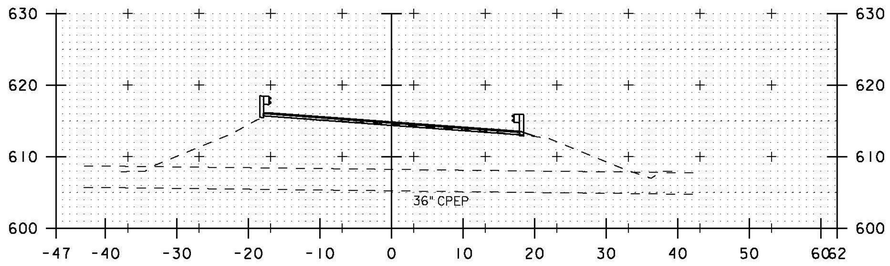


145+56

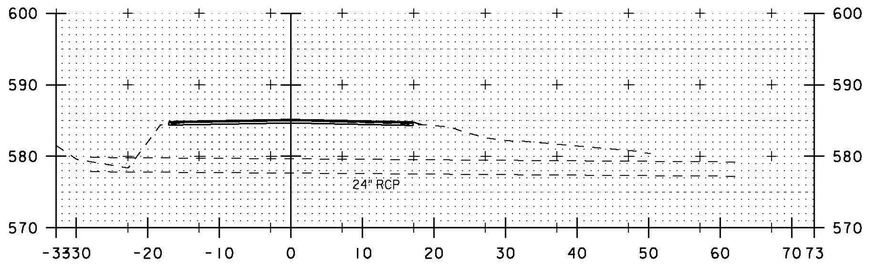
(1) REMOVE EXISTING DI AND INSTALL NEW DI WITH CAST IRON GRATE (TYPE A) STA. 145+54 LT 21.4' EXTEND 24" CMP 2.0' LT MATCH EXISTING SLOPE AND CONNECT TO NEW DI RIM EL. = 576.40'

STA. 124+45 TO STA. 152+48

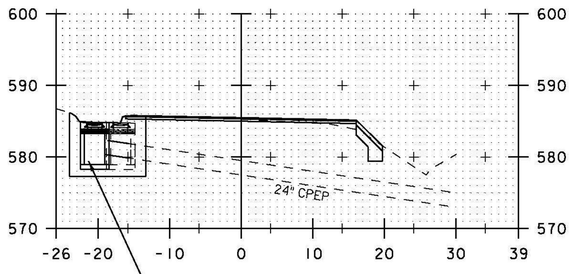
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(I)
PLOT FILE: z10c244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CULVERT CROSS SECTION SHEET I	SHEET 200 OF 211



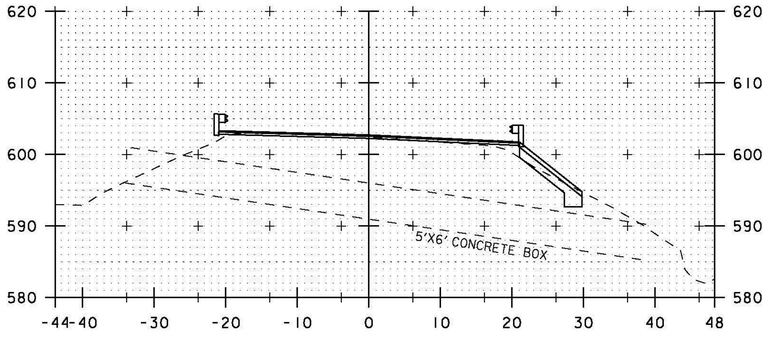
163+07



155+75



154+23

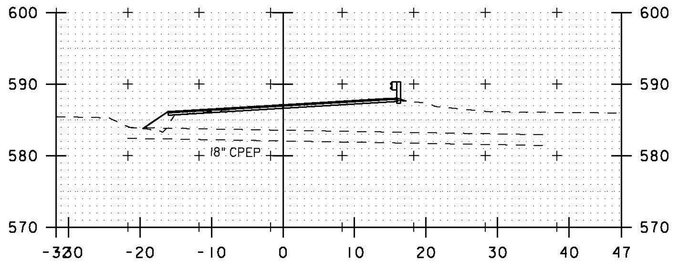


180+45

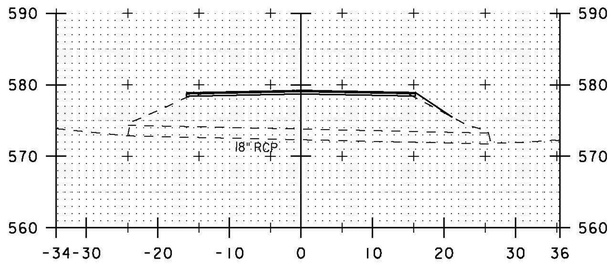
(3) REMOVE EXISTING DI AND INSTALL NEW DI WITH CAST IRON GRATE (TYPE A) STA. 154+21 LT 19.8' EXTEND 24" CPEP(SL) 3.0' LT MATCH EXISTING SLOPE AND CONNECT TO NEW DI RIM EL. = 584.87'

STA. 154+23 TO STA. 180+45

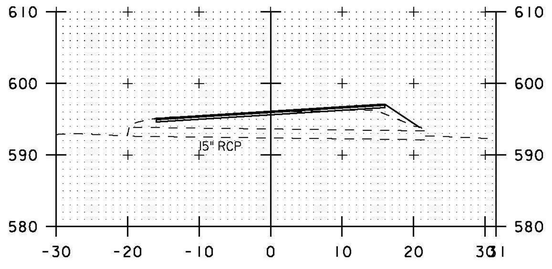
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(I)
PLOT FILE: zI0c244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CULVERT CROSS SECTION SHEET 2	SHEET 201 OF 211



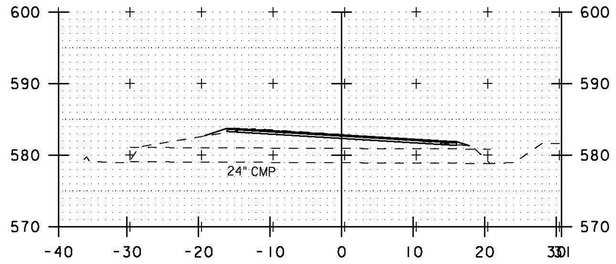
209+81



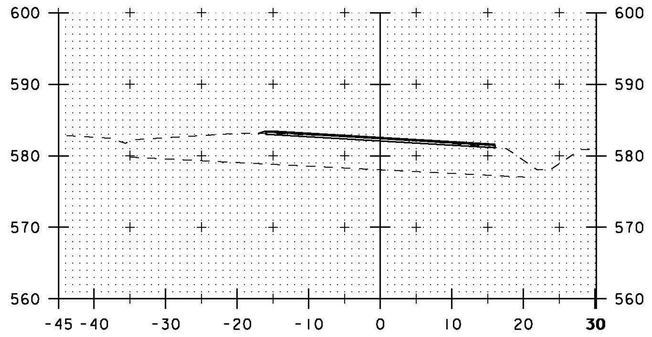
191+67



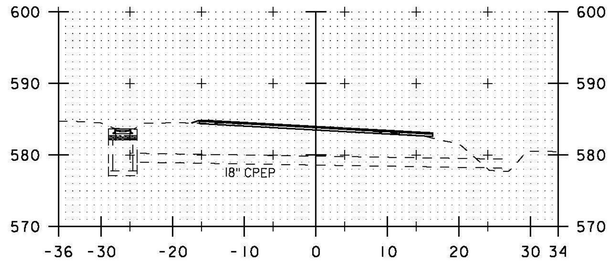
185+40



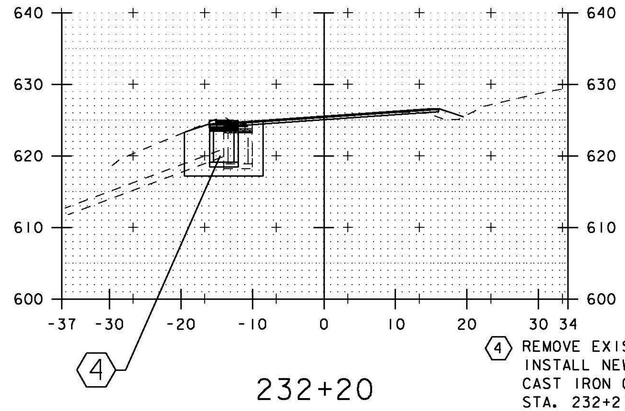
217+37



215+70

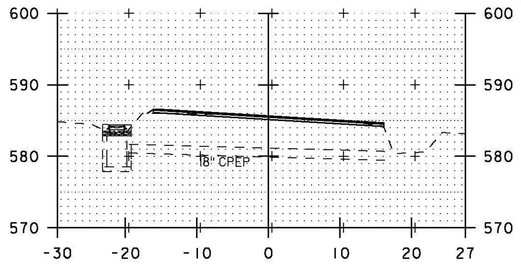


214+37

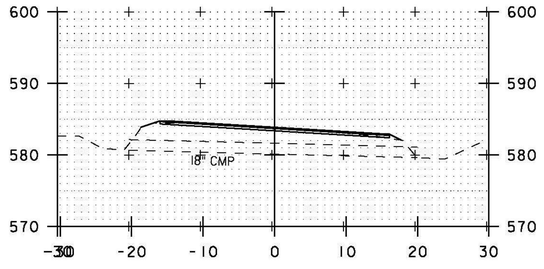


4 REMOVE EXISTING DI AND INSTALL NEW DI WITH CAST IRON GRATE (TYPE D) STA. 232+21 LT 14.0' CONNECT PIPE TO NEW DI RIM EL. = 624.59'

232+20



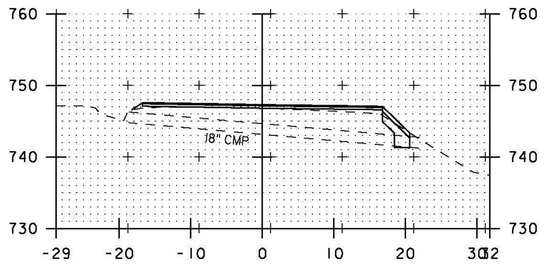
220+43



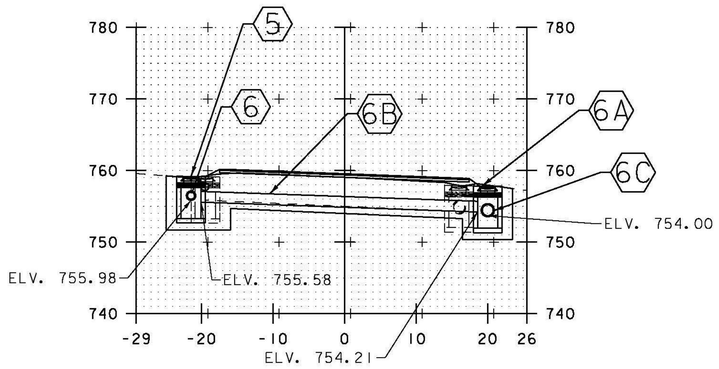
218+72

STA. 185+40 TO STA. 232+20

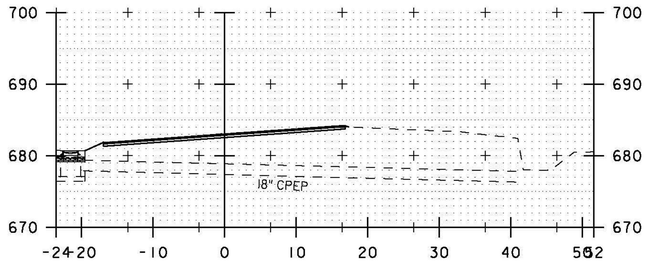
PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
PLOT FILE: z10c244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CULVERT CROSS SECTION SHEET 3	SHEET 202 OF 211



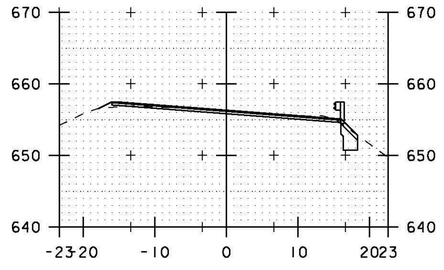
300+14



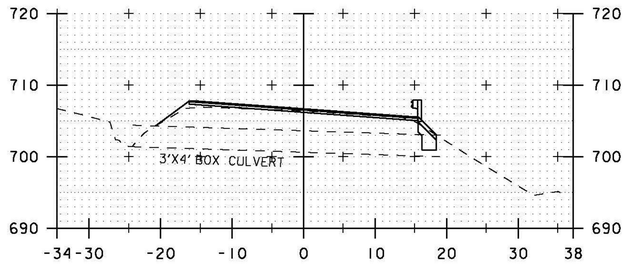
295+08



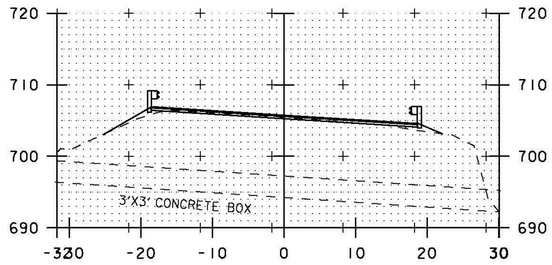
264+75



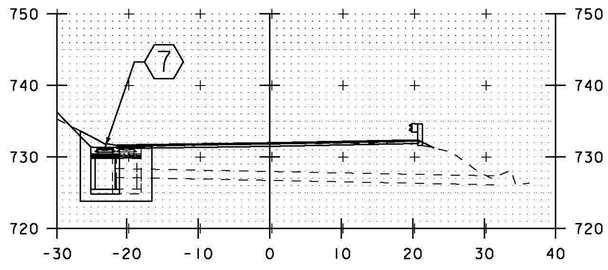
238+71



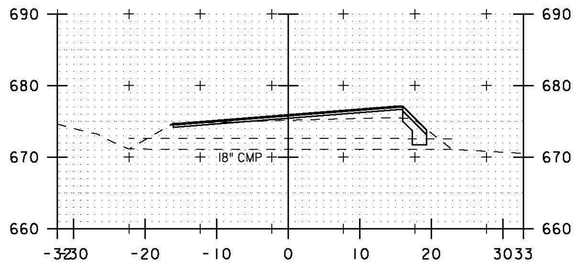
311+88



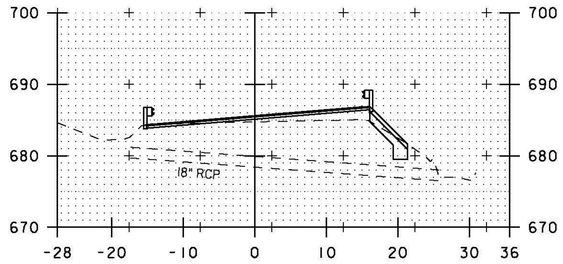
307+41



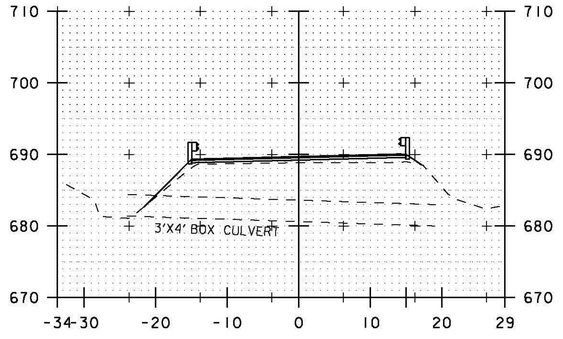
302+41



321+55



317+86



316+69

(5) REMOVE EXISTING CB AND INSTALL NEW CB WITH CAST IRON GRATE (TYPE A)
STA. 295+17 LT 21.0'
RIM EL. = 759.23'

(6) REMOVE EXISTING 12" CSP AND INSTALL NEW 12" CSP 21.0' MIN.
STA. 295+18 LT 21.0' TO
STA. 295+38 LT 19.0'
INV. IN = 757.95
INV. OUT = 755.98
CONNECT TO NEW DI

(6A) REMOVE EXISTING CB AND INSTALL NEW CB WITH CAST IRON GRATE (TYPE A)
STA. 295+02 RT 20.0'
RIM EL. = 757.82'

(6C) REMOVE EXISTING 18" RCP AND INSTALL NEW 18" CPEP (SL) 63.5' MIN.
STA. 294+38 RT 16.0' TO
STA. 295+00 RT 20.0'
INV. IN = 754.00'
INV. OUT = 753.37'

(6B) REMOVE EXISTING 15" RCP AND INSTALL NEW 18" CPEP (SL) 43.0' MIN.
STA. 295+02 RT 20.0' TO
STA. 295+17 LT 19.0'
INV. IN = 755.58'
INV. OUT = 754.21'

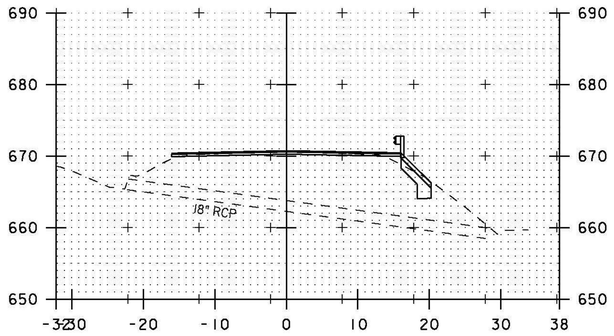
(7) REMOVE EXISTING DI AND INSTALL NEW DI WITH CAST IRON GRATE (TYPE D)
STA. 302+26 LT 17.0'
EXTEND 15" RCP 2.0' LT
MATCH EXISTING SLOPE
AND CONNECT TO NEW DI
6" UD. INV. EL. = 729.50'
RIM EL. = 731.57'

STA. 238+71 TO STA. 321+55

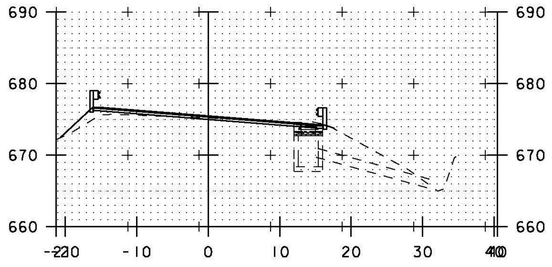
PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

PLOT FILE: z10c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
CULVERT CROSS SECTION SHEET 4

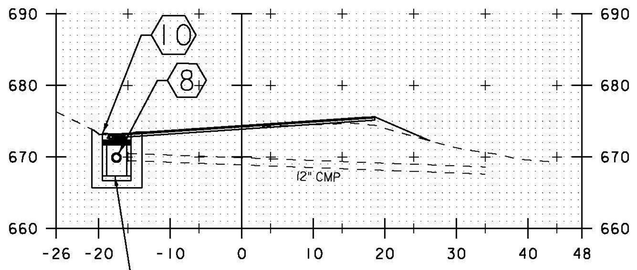
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 203 OF 211



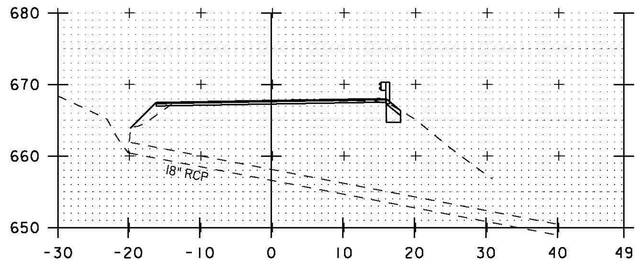
344+94



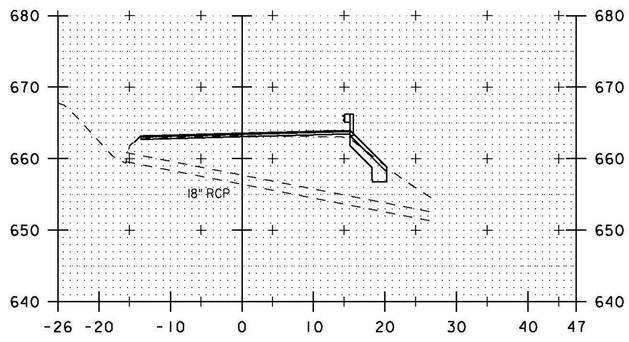
330+91



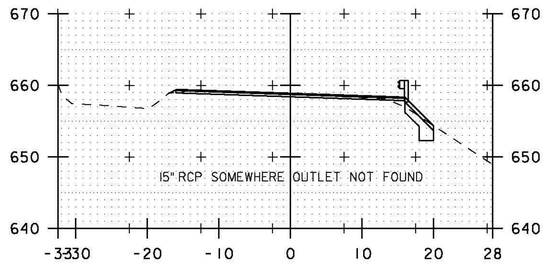
325+82



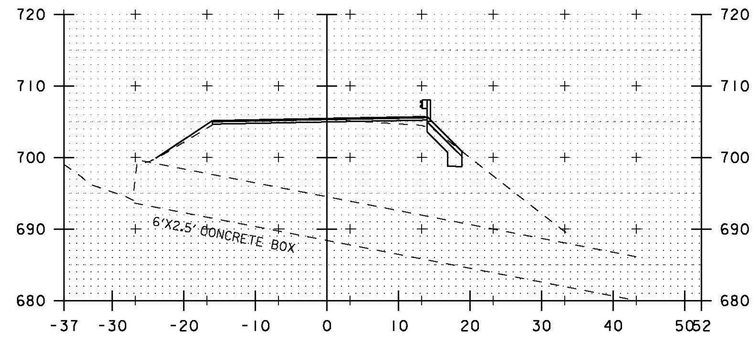
355+64



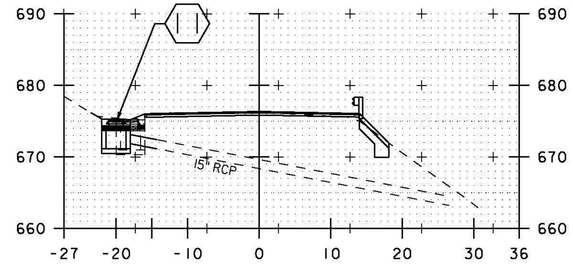
353+16



350+32



A 3+57



358+66

(8) REMOVE EXISTING CB AND INSTALL NEW CB WITH CAST IRON GRATE (TYPE D)
STA. 325+91 LT 17.0'
EXTEND 12" CMP 2.0' LT
MATCH EXISTING SLOPE AND CONNECT TO NEW DI
RIM EL. = 673.23'

(9) REMOVE EXISTING 12" CMP AND INSTALL NEW 12" CMP 21.0' MIN.
STA. 325+69 - STA. 325+90 LT
INV. IN = 671.67
INV. OUT = 670.83

(10) REMOVE EXISTING 12" CMP AND INSTALL NEW 12" CMP 6.0' MIN.
STA. 325+92 - STA. 325+98 LT
INV. IN = 671.68
INV. OUT = 671.35

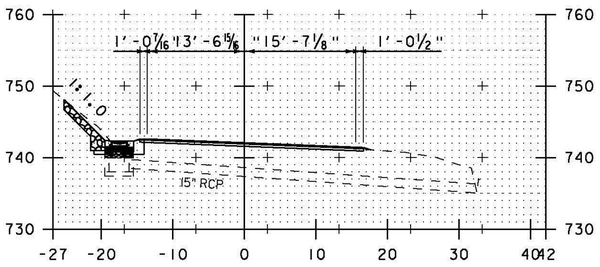
(11) INSTALL NEW DI WITH CAST IRON GRATE (TYPE A)
STA. 358+65 LT 21.0'
EXTEND 15" RCP 3.0' LT
MATCH EXISTING SLOPE AND CONNECT TO NEW DI
6" UD EL. IN = 672.50

STA. 325+82 TO STA. A 3+57

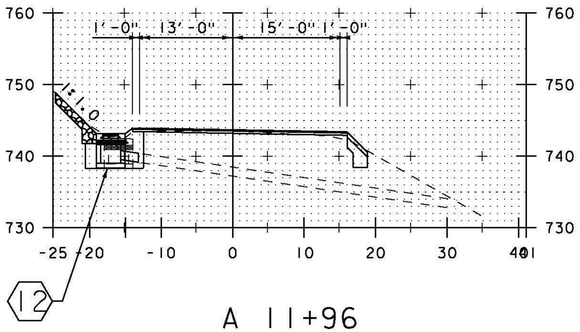
PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

PLOT FILE: z10c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
CULVERT CROSS SECTION SHEET 5

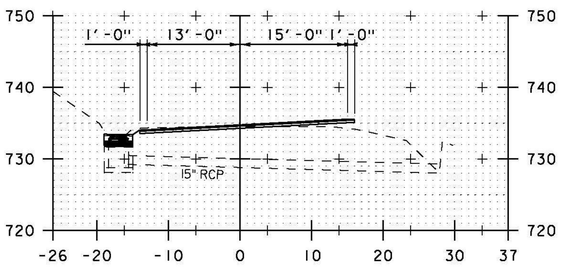
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 204 OF 211



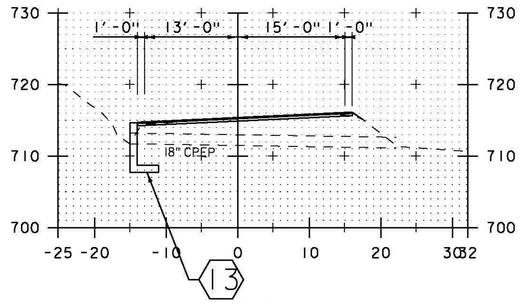
A 14+00



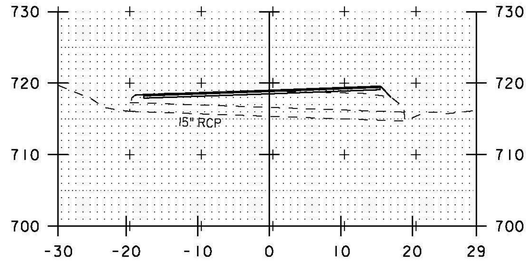
A 11+96



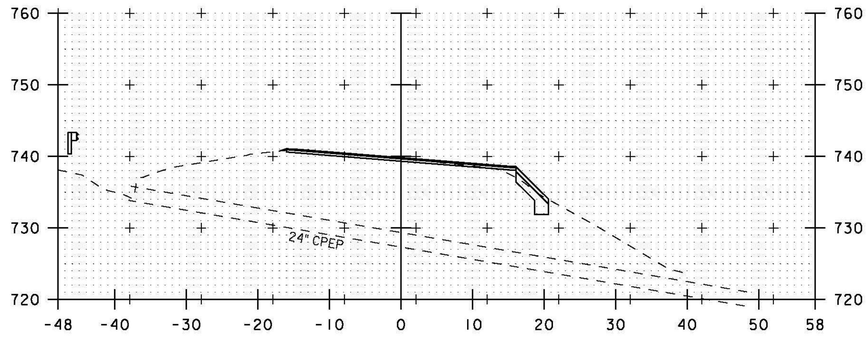
A 8+20



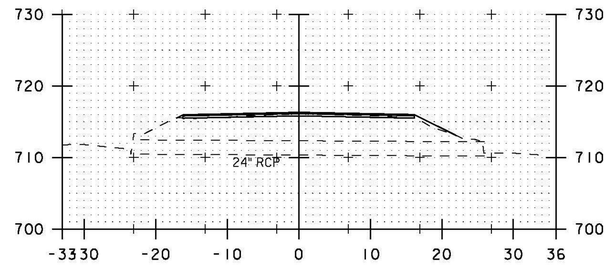
A 36+18



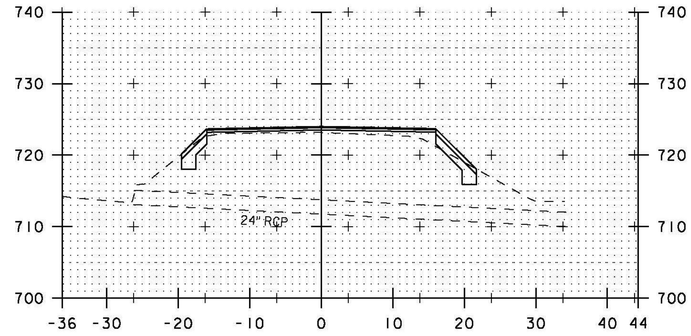
A 32+51



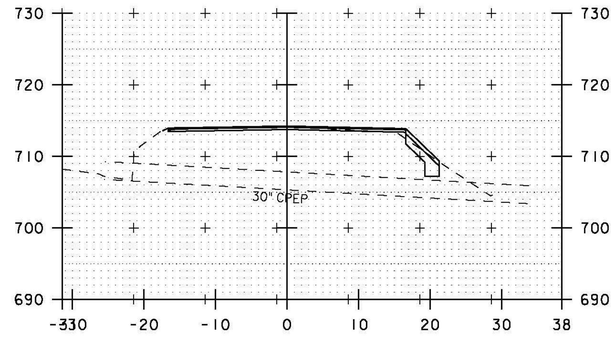
A 16+26



A 54+27



A 50+08



A 40+63

12 REMOVE EXISTING DI AND INSTALL NEW DI WITH CAST IRON GRATE (TYPE A) STA. A 11+96 LT 18.0' EXTEND 15"RCP 2.0' LT MATCH EXISTING SLOPE AND CONNECT TO NEW DI RIM EL. = 743.16'

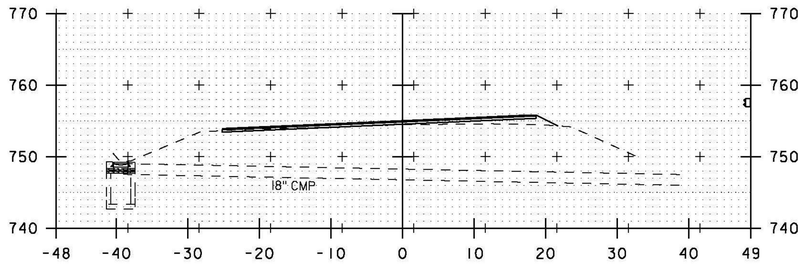
13 INSTALL NEW PRECAST CONCRETE HEADWALL AT STA. A 36+18 LT. PIPE INV. = 711.71', TOP OF HEADWALL EL. = 714.73' SEE STD. D-33

STA. A 8+20 TO STA. A 54+27

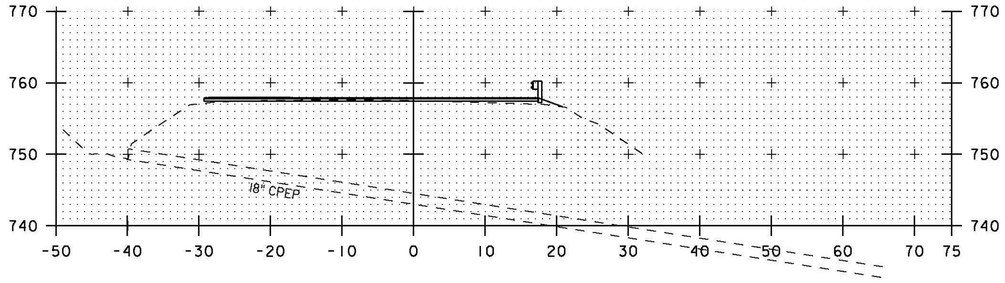
PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

PLOT FILE: z10c244.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
CULVERT CROSS SECTION SHEET 6

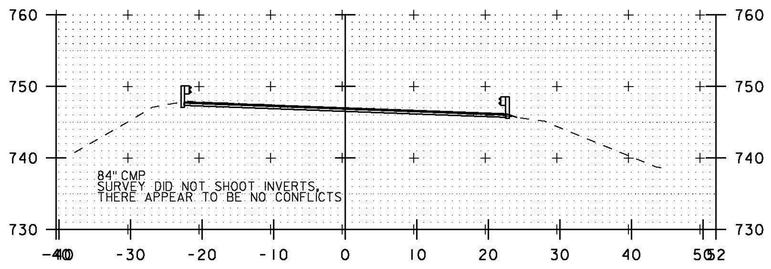
PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 205 OF 211



A 76+78



A 73+39



A 64+90

STA. A 64+90 TO STA. A 76+78

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 292I(I)
PLOT FILE: zI0c244.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
CULVERT CROSS SECTION SHEET 7	SHEET 206 OF 211

TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES AT ALL TIMES.

2. A MINIMUM LANE WIDTH OF 10 FT. INCLUDING SHOULDERS SHALL BE MAINTAINED.

3. WHEN COLD PLANED BITUMINOUS PAVEMENT IS OPEN TO TRAFFIC, A "MOTORCYCLES USE CAUTION" SIGN, AS PER VAOT STANDARD T-17, SHALL BE PROVIDED.

4. THE CONTRACTOR SHALL LEAVE NO LONGITUDINAL DROP-OFFS DURING THE OVERNIGHT HOURS. THEREFORE, THE FULL ROADWAY WIDTH SHALL BE COLD PLANED OR PAVED DURING THE DAILY WORK PERIOD. WHEN NECESSARY, DROP-OFF PROTECTION IN THESE AREAS SHALL CONFORM TO VAOT STANDARD T-36.

5. MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES FOR EMERGENCY VEHICLES. MAINTAIN ACCESS TO ALL COMMERCIAL AND MUNICIPAL PROPERTIES DURING BUSINESS HOURS. ACCESS TO RESIDENTIAL PROPERTIES MAY BE RESTRICTED FOR A SHORT DURATION (A FEW HOURS). THIS WORK WILL BE COORDINATED WITH THE OWNER. COORDINATE MAJOR WORK ON COMMERCIAL OR MUNICIPAL ACCESSES WITH THE OWNER AT LEAST ONE WEEK PRIOR TO STARTING THE WORK. ALL ACCESSES SHALL ALSO BE KEPT FREE OF WORK AND TRAFFIC CONTROLLED BY UNIFORMED TRAFFIC OFFICERS OR FLAGGERS AS REQUIRED BY THE ENGINEER.

6. TRAFFIC SHALL NOT BE CHANGED FROM ONE TRAFFIC PATTERN TO THE NEXT TRAFFIC PATTERN UNTIL ALL TEMPORARY MARKINGS AND SIGNING ARE COMPLETED. ANY CONFLICTING MARKINGS SHALL BE REMOVED.

7. ALL PERMANENT SIGNS WHICH CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED.

8. ALL REASONABLE EFFORTS SHALL BE MADE TO ACCOMMODATE PEDESTRIAN TRAVEL AT ALL TIMES. THIS CAN INCLUDE, BUT IS NOT LIMITED TO A DEDICATED PEDESTRIAN ESCORT, SIGNAGE AND CONED OFF WALKING AREAS WITHIN CLOSED LANES. FLAGGERS SHALL NOT BE USED AS PEDESTRIAN ESCORTS. WHEN EXISTING PEDESTRIAN FACILITIES ARE DISRUPTED, CLOSED, OR RELOCATED IN A TEMPORARY TRAFFIC CONTROL ZONE, THE TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY. PAYMENT WILL BE INCLUDED IN THE UNIT PRICE FOR ITEM 641.10 TRAFFIC CONTROL.

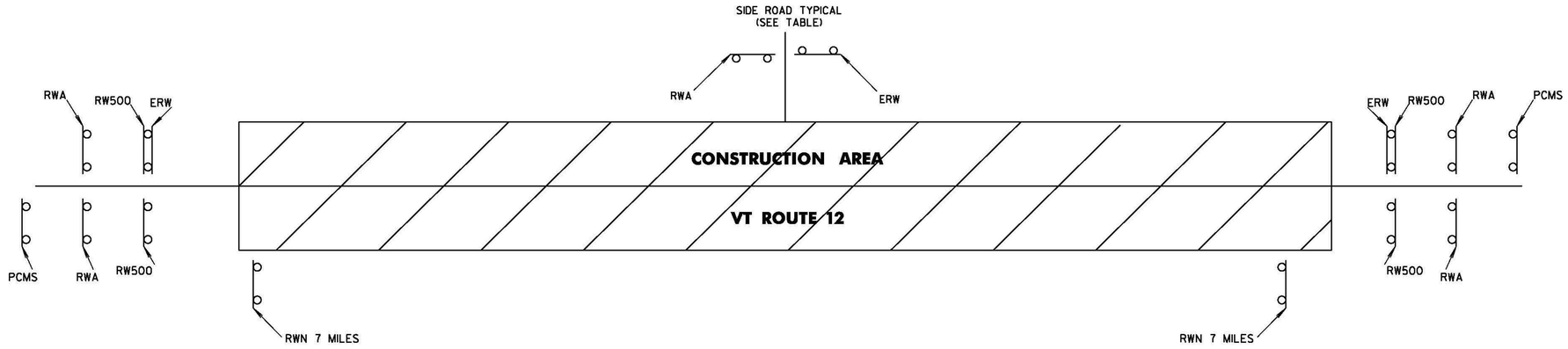
9. PLEASE NOTE THAT THE A UTO (UNIFORMED TRAFFIC OFFICER), UNDER AUTHORITY GRANTED BY LAW (TITLE 23 VSA) MAY DIRECT AND CONTROL TRAFFIC. SUITABLE EXAMPLES IN WORK MIGHT INCLUDE THE DIRECTION AND CONTROLS OF TRAFFIC AT INTERSECTIONS WHERE SIGNALS ARE NOT FUNCTIONING OR ARE MALFUNCTIONING. IN THESE CASES, THE PRESENCE OF THE BLUE LIGHT MAY NOT BE SUITABLE OR NECESSARY. THE WEARING OF DEPARTMENTALLY REQUIRED AND APPROVED REFLECTIVE GARMENTS IS REQUIRED.

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)
FILE NAME: z10c244cas.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: S. LAMPHERE
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
TRAFFIC CONTROL NOTES	SHEET 207 OF 211

CONSTRUCTION APPROACH SIGNING

NOT TO SCALE

SEE STD T-10 FOR SIGN PLACEMENT



NOTES:

1. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) WILL NOT BE PAID SEPARATELY BUT WILL BE PAID AS PART OF ITEM 641.10, "TRAFFIC CONTROL". THE TRAFFIC CONTROL PLAN SHALL BE IN COMPLIANCE WITH VTRANS STANDARDS AND 2009 MUTCD. WHERE CONFLICTS EXIST, THE 2009 MUTCD SHALL GOVERN.

2. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH THE TRAFFIC CONTROL NOTES AND PART 6 OF THE 2009 MUTCD. PAYMENT FOR PROVIDING THIS PACKAGE WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, "TRAFFIC CONTROL".

3. THE BID PRICE FOR "TRAFFIC CONTROL", ITEM 641.10, SHALL INCLUDE ALL OF THE FOLLOWING, AS NEEDED: APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VAOT STANDARDS. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE ENGINEER SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS WILL BE PAID FOR SEPARATELY:
   646.602, 646.612, 646.652, 646.682, 646.692 - TEMPORARY PAVEMENT MARKINGS
   630.10 UNIFORMED TRAFFIC OFFICER, 630.15 - FLAGGERS

4. THE MUTCD 2009 AND ITS LATEST REVISIONS SHALL BE THE STANDARD FOR ALL TRAFFIC CONTROL DEVICES. EXISTING SIGNS, SIGNALS AND MARKINGS SHALL BE VALID UNTIL SUCH TIME AS THEY ARE REPLACED OR RECONSTRUCTED. WHEN NEW TRAFFIC CONTROL DEVICES ARE ERECTED OR PLACED OR EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED THE EQUIPMENT, DESIGN, METHOD OF INSTALLATION, PLACEMENT OR REPAIR SHALL CONFORM WITH SUCH STANDARDS.

5. CONES SHALL BE USED TO CLEARLY DEFINE THE TRAVEL SPACE AND PROVIDE SEPARATION FROM THE WORK SPACE ALONG ITS ENTIRE LENGTH.

6. AS THE PAVING OPERATION MOVES, THE FLAGGER SIGNS SHALL BE MOVED ACCORDINGLY. AT NO TIME SHOULD THE FLAGGER SYMBOL SIGN BE MORE THAN 1000 FT FROM THE FLAGGER STATION. FLAGGER SIGNS SHALL BE COVERED OR TURNED AWAY IF FLAGGING OPERATIONS CEASE FOR MORE THAN 15 MINUTES.

7. NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS.

8. ALL PERMANENT SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED, THE PAYMENT FOR WHICH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10 TRAFFIC CONTROL.

9. CONSTRUCTION SIGNS SHALL BE IN NEW OR LIKE NEW CONDITION PER VAOT STANDARDS.

10. DIAMOND SHAPED SIGNS SHALL BE 4'X4' WITH BLACK TEXT AND BORDER ON A RETROREFLECTIVE FLOURESCENT ORANGE BACKGROUND (ASTM D 4956 TYPE VII, VIII, OR IX SHEETING MATERIAL).

11. CONSTRUCTION ZONE SIGNS SHALL BE INSTALLED AS SPECIFIED IN THE SPECIAL PROVISIONS.

12. WHERE TEMPORARY SIGNS ARE PLACED BEHIND GUARDRAIL, THEY SHALL BE ADJUSTED SUCH THAT THE BOTTOM OF THE SIGNS ARE ABOVE THE TOP OF GUARDRAIL.

	ROAD WORK AHEAD	END ROAD WORK	ROAD WORK 500 FT	SIDE ROAD WORK AHEAD	SIDE ROAD WORK 500 FT	ROAD WORK NEXT 7 MILES	PCMS
BETHEL							
BEGIN PROJECT (VT 12)		2		4	4	1	1
WATERSHED RD	1	1					
STAFFORD MEADOWS LN	1	1					
FINDLEY BRIDGE RD	1	1					
CAMP BROOK RD	1	1					1
GILEAD BROOK RD	1	1					
RANDOLPH	1	1					
BEANVILLE RD	1	1					
SPOONER RD	1	1					
DYLAN DR	1	1					
MEADOW LN	1	1					
PINNACLE RD	1	1					
TATRO HILL RD	1	1					
END PROJECT	2	1	2			1	1
TOTALS	14	15	2	4	4	2	3

LEGEND

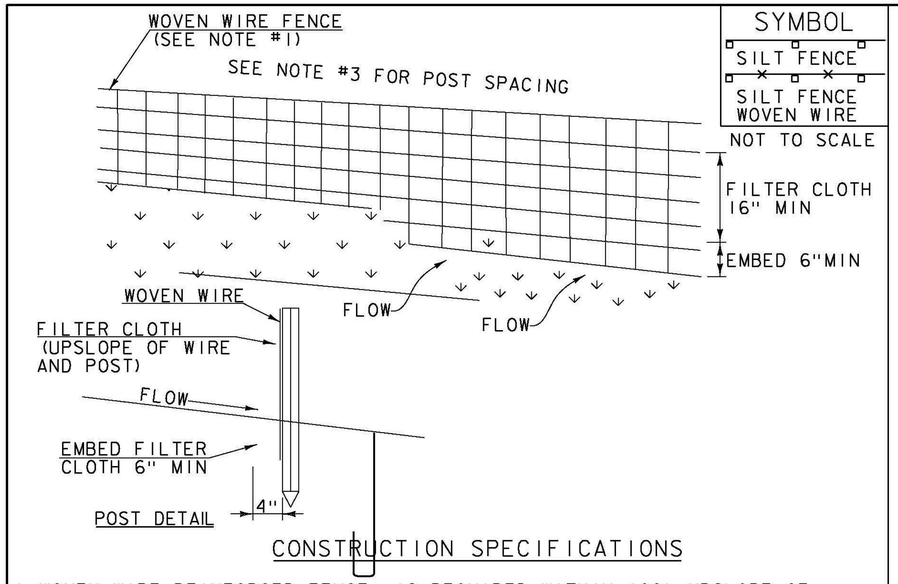
SRW500	=	SIDE ROAD WORK 500FT
SRWA	=	SIDE ROAD WORK AHEAD
RWA	=	ROAD WORK AHEAD
RW500	=	ROAD WORK 500 FT
ERW	=	END ROAD WORK
RWN	=	ROAD WORK NEXT 7 MILES
PCMS	=	PORTABLE CHANGEABLE MESSAGE SIGN

DETAILS ARE NOT TO SCALE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244cas.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
CONSTRUCTION APPROACH SIGNING SHEET

PLOT DATE: 4/23/2015
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 208 OF 211



SYMBOL

SILT FENCE

SILT FENCE WOVEN WIRE

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

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

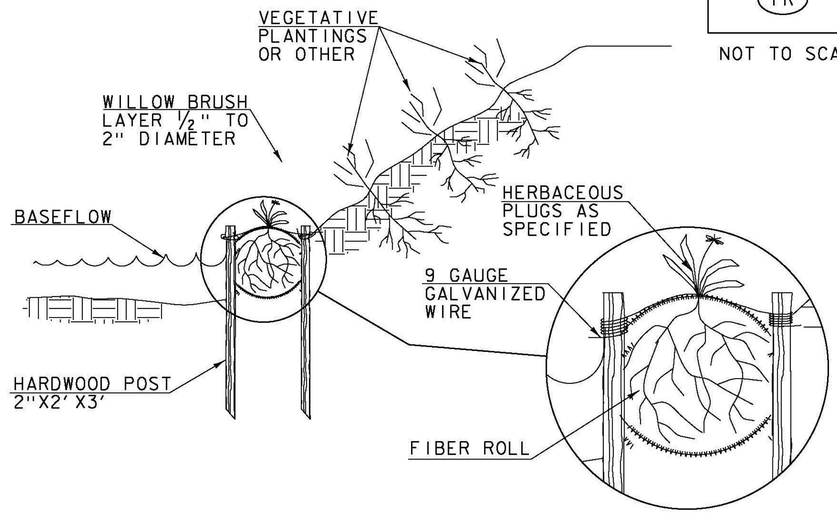
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

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

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

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



SYMBOL

FR

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

1. EXCAVATE A SHALLOW TRENCH SLIGHTLY BELOW BASEFLOW OR A 4" TRENCH ON SLOPE CONTOURS
2. PLACE THE ROLL IN THE TRENCH AND ANCHOR WITH 2"X2" POSTS PLACED ON BOTH SIDES FO 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 9 GAUGE GALVANIZED WIRE OR 1/8" DIAMETER BRAIDED NYLON ROPE.
4. PLACE SOIL EXCAVATED FROM THE TRENCH BEHIND THE ROLL AND HAND TAMP. PLANTWITH SUITABLE HERBACEOUS OR WOODY VEGETATION AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS. VEGETATION SHALL BE PLACED IMMEDIATELY ADJACENT TO THE ROLL TO PROMOTE ROOT GROWTH INTO THE FIBER. HERBACEOUS VEGETATION, IF SPECIFIED, SHALL BE PLANTED INTO THE FIBER ROLL.

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

FIBER ROLL (EROSION LOG)

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

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR EROSION LOG (PAY ITEM 653.60)

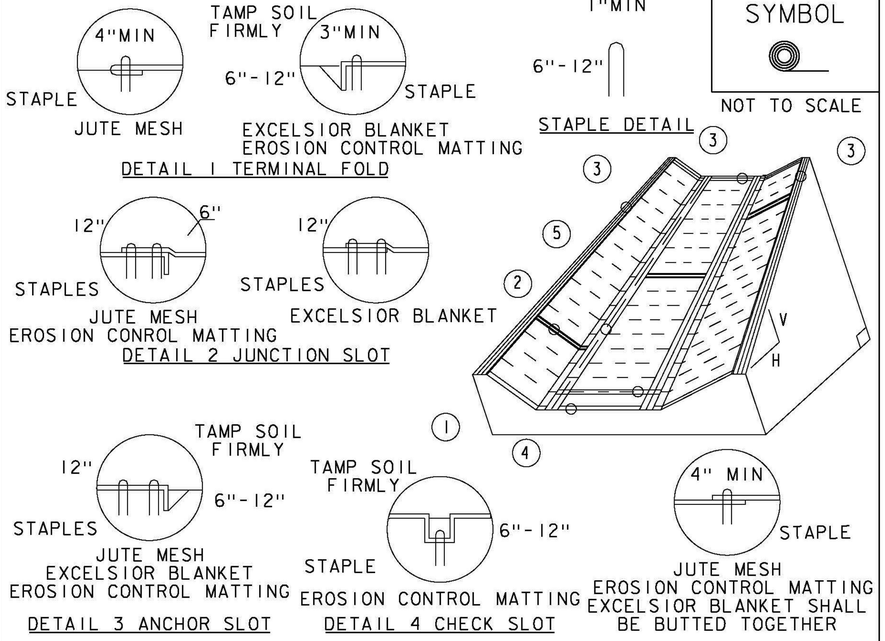
REVISIONS	
MARCH 21, 2008	WHF
JANUARY 13, 2009	WHF

DETAILS ARE NOT TO SCALE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(1)

FILE NAME: z10c244det.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
EPSC DETAIL SHEET 1

PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 209 OF 211



SYMBOL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

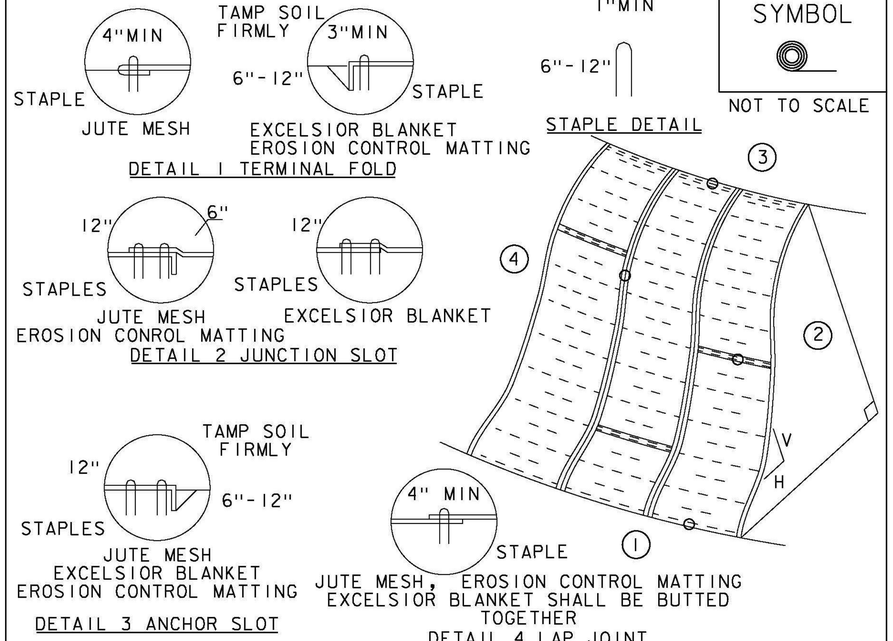
1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

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

ROLLED EROSION CONTROL PRODUCT (RECP) DITCH

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

REVISIONS	
MARCH 8, 2007	JMF
APRIL 16, 2007	WHF
JANUARY 13, 2009	WHF



SYMBOL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS

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

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

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

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

REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF

DETAILS ARE NOT TO SCALE

PROJECT NAME: BETHEL-RANDOLPH
PROJECT NUMBER: STP 2921(I)

FILE NAME: z10c244det.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
EPSC DETAIL SHEET 2

PLOT DATE: 4/23/2015
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 210 OF 211

VAOT LOW GROW/FINE FESCUE MIX

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

VAOT RURAL AREA MIX

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

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

CONSTRUCTION GUIDANCE

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

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

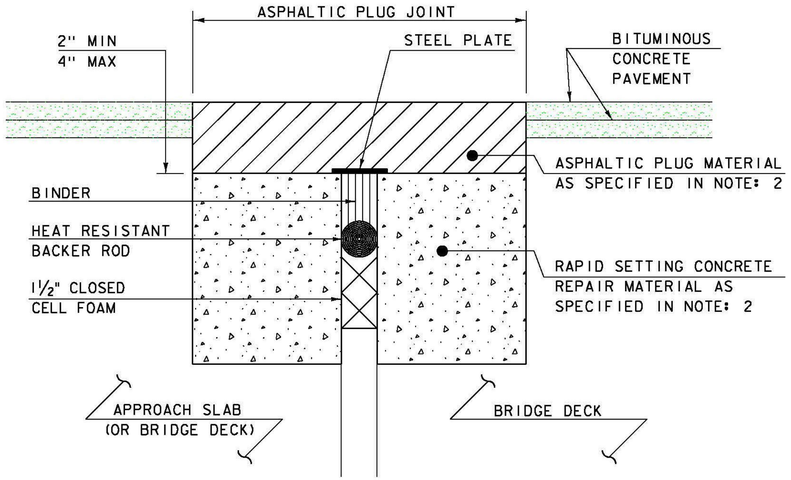
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 651FOR SEED (PAY ITEM 651.15)

REVISIONS	
JANUARY 12, 2015	WHF

DETAILS ARE NOT TO SCALE

PROJECT NAME:	BETHEL-RANDOLPH
PROJECT NUMBER:	STP 2921(1)

FILE NAME: z10c244det.dgn	PLOT DATE: 4/23/2015
PROJECT LEADER: C. LATHROP	DRAWN BY: J. GOODALL
DESIGNED BY: S. LAMPHERE	CHECKED BY: C. LATHROP
EPSC DETAIL SHEET 3	SHEET 211 OF 211



ASPHALTIC PLUG-TYPE JOINT DETAIL - REHAB

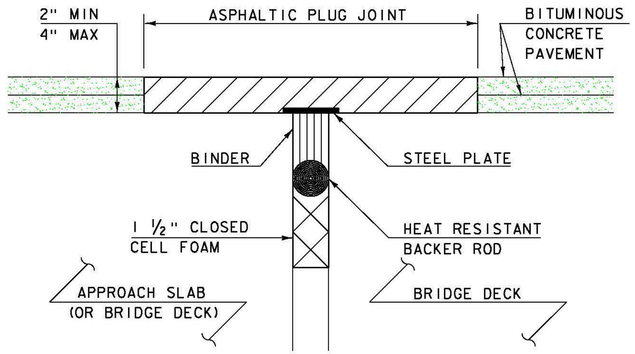
(NOT TO SCALE)

NOTES:

1. THE CONTRACTOR SHALL REMOVE ALL ASPHALTIC PLUG JOINT MATERIAL AND DETERIORATED CONCRETE AS DIRECTED BY THE ENGINEER. REMOVAL OF THE FIRST 4 INCHES OF MATERIAL SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG. ANY REMOVAL OF MATERIAL GREATER THAN 4 INCHES SHALL BE INCLUDED IN THE BID PRICE OF ITEM 580.20 RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.

2. THE CONTRACTOR SHALL REPLACE REMOVED MATERIAL THAT IS LESS THAN 4" FROM FINISHED GRADE WITH ASPHALTIC PLUG JOINT MATERIAL MEETING THE REQUIREMENTS OF SUBSECTION 707.15. ALL REMOVED MATERIAL THAT IS GREATER THAN 4 INCHES FROM FINISHED GRADE SHALL BE REPLACED WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE MEETING THE REQUIREMENTS OF SUBSECTION 780.04.

3. REINFORCING STEEL NOT SHOWN FOR CLARITY.



ASPHALTIC PLUG-TYPE JOINT DETAIL - NEW

(NOT TO SCALE)

ASPHALTIC PLUG JOINT NOTES

INSTALLATION:

1. LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT, MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
2. REMOVE THE BITUMINOUS CONCRETE PAVEMENT FULL DEPTH AS SHOWN ON THE PLANS. THE PAVEMENT SHALL BE DRY AND SAW CUT TO THE LIMITS REQUIRED TO PLACE THE JOINT. A PNEUMATIC HAMMER AND CHISEL MAY BE USED ADJACENT TO THE CURB ONLY WHEN SAW CUTTING IS NOT POSSIBLE.
3. BLAST CLEAN THE JOINT AREA OF DEBRIS, ASPHALT AND SHEET MEMBRANE. THOROUGHLY DRY THE JOINT AREA WITH COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
4. REPAIR MATERIAL GREATER THAN 4 INCHES FROM FINISHED GRADE WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE MEETING THE REQUIREMENTS OF SUBSECTION 780.04.
5. PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.
6. HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
7. PLACE 1/4" THICK BY 8" WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE THE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRE-STAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER. THE STEEL PLATES MAY BE OMITTED WHERE THE ENGINEER DETERMINES THAT THE APPROACH SLAB OR BRIDGE DECK WILL PROVIDE INADEQUATE SUPPORT AND WHERE VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.
8. HEAT AND MIX THE BINDER MATERIAL AND AGGREGATE AS RECOMMENDED BY THE MANUFACTURER.
9. INSTALLATION OF MATERIAL, COMPACTION, AND TOP COATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
10. IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
11. ONCE THE JOINT REACHES 82 DEG C (180 DEG F) +/-, WATER MAY BE USED TO EXPEDITE THE COOLING PROCESS.
12. PROTECT JOINT FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 51 DEG C (125 DEG F) +/-.

WEATHER LIMITATIONS

APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL OR AS RECOMMENDED BY THE MANUFACTURER:

1. THE AMBIENT AIR TEMPERATURE IS AT LEAST 10 DEG C (50 DEG F) AND RISING.
2. THE ROAD SURFACE IS DRY.
3. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.

REVISIONS	
MAY 7, 2010	APPROVED FOR USE BY VAOT STRUCTURES SECTION

BRIDGE JOINT
ASPHALTIC PLUG

STRUCTURES DETAIL
SD-516.10