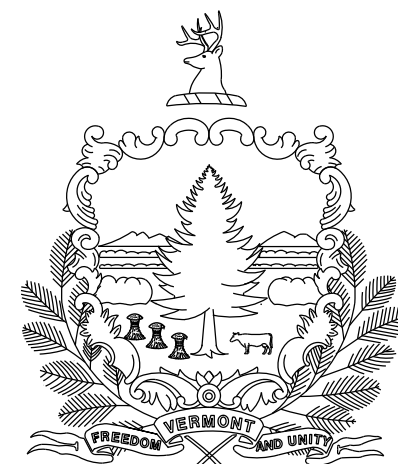


REVIEWER NOTES

1. THIS WILL BE A PHASED PROJECT.
2. ALL WORK IS EXPECTED TO BE INSIDE THE EXISTING RIGHT OF WAY. UTILITY RELOCATION MAY BE NEEDED.
3. A SIMPLIFIED PAVEMENT DESIGN HAS BEEN DONE FOR THIS PROJECT.

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT

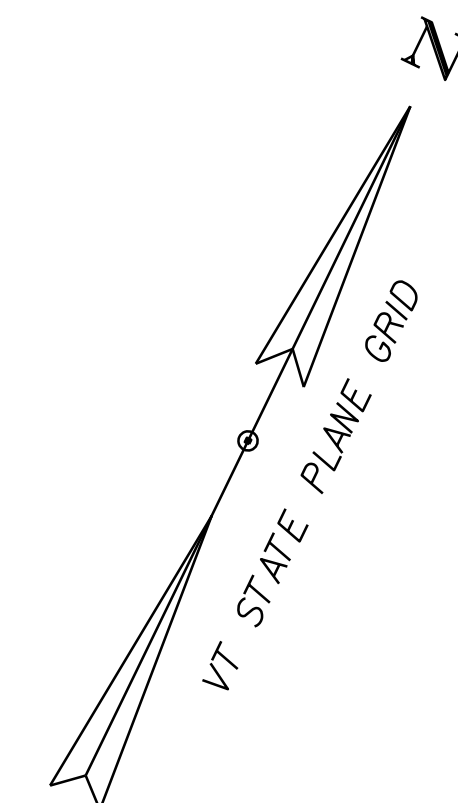
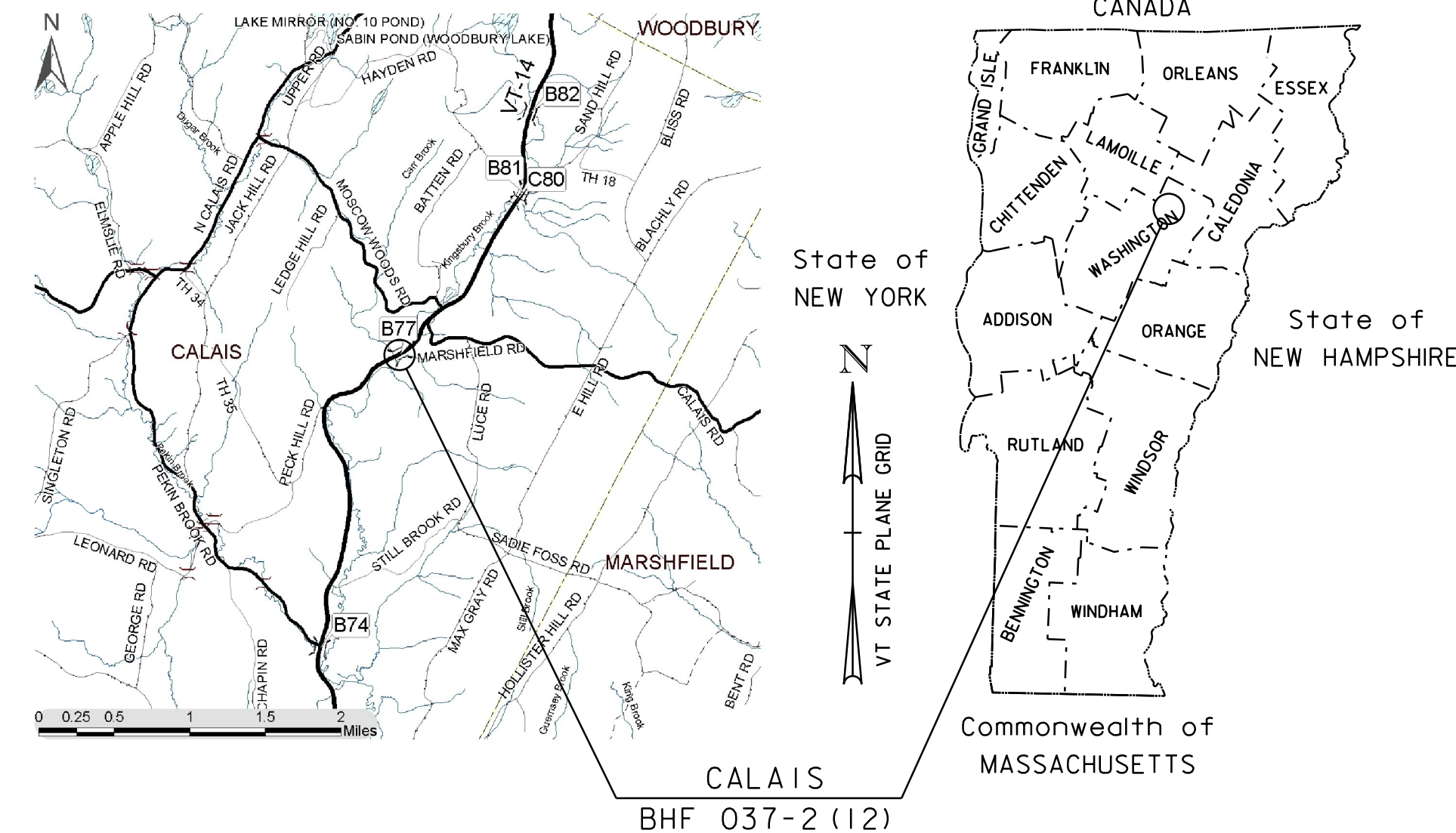
TOWN OF CALAIS
COUNTY OF WASHINGTON

ROUTE NO : VT RTE 14, RURAL MINOR ARTERIAL BRIDGE NO : 77

PROJECT LOCATION: 7.6 MILES NORTH OF JUNCTION WITH US ROUTE 2

PROJECT DESCRIPTION: REMOVAL OF EXISTING DECK AND SUPERSTRUCTURE, AND REPLACEMENT WITH NEW DECK AND SUPERSTRUCTURE IN TWO PHASES.

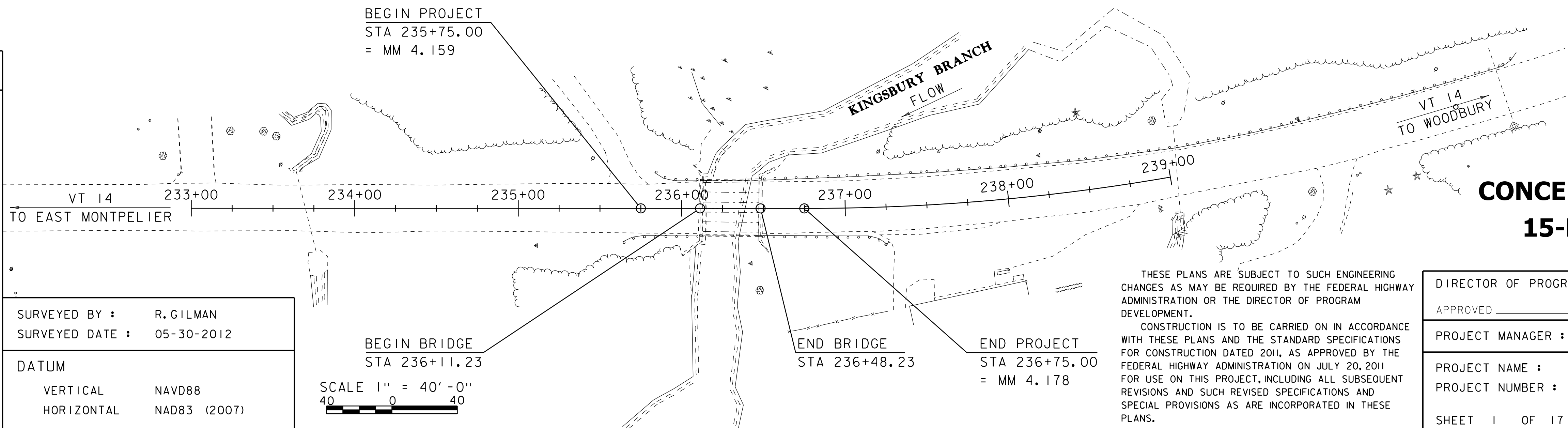
LENGTH OF STRUCTURE: 37.00 FEET
LENGTH OF ROADWAY: 63.00 FEET
LENGTH OF PROJECT: 100.00 FEET



QUALITY ASSURANCE PROGRAM: LEVEL 2

CONVENTIONAL SYMBOLS

COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
GUARD RAIL	
RAILROAD	
SURVEY LINE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
TREES	
CONTROL OF ACCESS	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
TOP OF CUT	
TOE OF SLOPE	



CONCEPTUAL PLANS
15-NOV-2013

SURVEYED BY : R. GILMAN
SURVEYED DATE : 05-30-2012
DATUM
VERTICAL NAVD88
HORIZONTAL NAD83 (2007)

BEGIN BRIDGE STA 236+11.23
END BRIDGE STA 236+48.23
SCALE 1" = 40'-0"

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.
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.

DIRECTOR OF PROGRAM DEVELOPMENT	APPROVED _____ DATE _____
PROJECT MANAGER :	C. P. WILLIAMS
PROJECT NAME :	CALAIS
PROJECT NUMBER :	BHF 037-2 (12)
SHEET 1 OF 17 SHEETS	

PRELIMINARY INFORMATION SHEET (BRIDGE)

LRFD

INDEX OF SHEETS

FINAL HYDRAULIC REPORT

PLAN SHEETS

- 1 TITLE SHEET
- 2 PRELIMINARY INFORMATION SHEET
- 3 TYPICAL SECTIONS
- 4 LEGEND SHEET
- 5 LAYOUT SHEET
- 6 RAILING LAYOUT SHEET
- 7 PROFILE SHEET
- 8 PHASING TYPICAL SECTIONS
- 9 - 10 PHASING LAYOUT SHEETS
- 11 - 14 MAINLINE CROSS SECTIONS
- 15 - 16 CHANNEL CROSS SECTIONS
- 17 EXISTING CONDITIONS SHEET

STANDARDS LIST

DESIGN VALUES

1. DESIGN LIVE LOAD	HL-93
2. FUTURE PAVEMENT	<i>d</i> p: 3.0 INCH
3. DESIGN SPAN	<i>L</i> : 37.00 FT
4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS)	<i>Δ</i> : ---
5. PRESTRESSING STRAND (0.60 INCH DIAMETER - LOW RELAX)	<i>f</i> y: 270 KSI
6. PRESTRESSED CONCRETE STRENGTH	<i>f</i> 'c: 6.0 KSI
7. PRESTRESSED CONCRETE RELEASE STRENGTH	<i>f</i> 'ci: 5.0 KSI
8. CONCRETE, HIGH PERFORMANCE CLASS AA	<i>f</i> 'c: 4.0 KSI
9. CONCRETE, HIGH PERFORMANCE CLASS A	<i>f</i> 'c: 4.0 KSI
10. CONCRETE, HIGH PERFORMANCE CLASS B	<i>f</i> 'c: 3.5 KSI
11. CONCRETE, CLASS C	<i>f</i> 'c: 3.0 KSI
12. REINFORCING STEEL	<i>f</i> y: 60 KSI
13. STRUCTURAL STEEL AASHTO M270	<i>f</i> y: ---
14. SOIL UNIT WEIGHT	<i>γ</i> : 0.140 KCF
15. NOMINAL BEARING RESISTANCE OF SOIL	<i>q</i> n: 4.0 KSF
16. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	<i>φ</i> : ---
17. NOMINAL BEARING RESISTANCE OF ROCK	<i>q</i> n: 10.0 KSF
18. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD)	<i>φ</i> : ---
19. NOMINAL AXIAL PILE RESISTANCE	<i>q</i> p: ---
20. PILE YIELD STRENGTH ASTM A572	<i>f</i> y: ---
21. PILE SIZE	---
22. EST. PILE LENGTH	<i>L</i> p: ---
23. PILE RESISTANCE FACTOR	<i>φ</i> : ---
24. LATERAL PILE DEFLECTION	<i>Δ</i> : ---
25. BASIC WIND SPEED	<i>V</i> 3s: ---
26. MINIMUM GROUND SNOW LOAD	<i>p</i> g: ---
27. SEISMIC DATA	<i>P</i> G <i>A</i> : --- <i>S</i> s: --- <i>S</i> 1: ---

LRFR LOAD RATING FACTORS

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

AS BUILT "REBAR" DETAIL

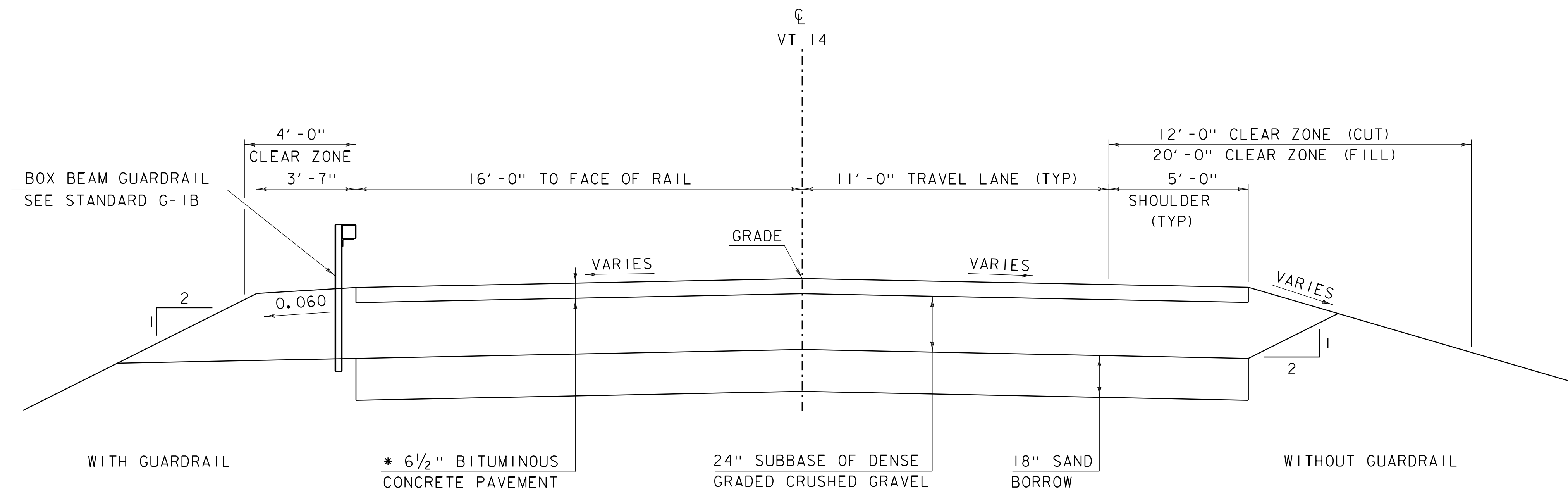
LEVEL I	LEVEL II	LEVEL III
TYPE:	TYPE:	TYPE:
GRADE:	GRADE:	GRADE:

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT	20 year ESAL for flexible pavement from 2015 to 2035 : 2609000	40 year ESAL for flexible pavement from 2015 to 2055 : 5803000	Design Speed : 50 mph
2015	3100	360	72	6.7	290			
2035	3300	390	72	9.5	440			

PROJECT NAME: **CALAIS**
PROJECT NUMBER: **BHF 037-2(12)**

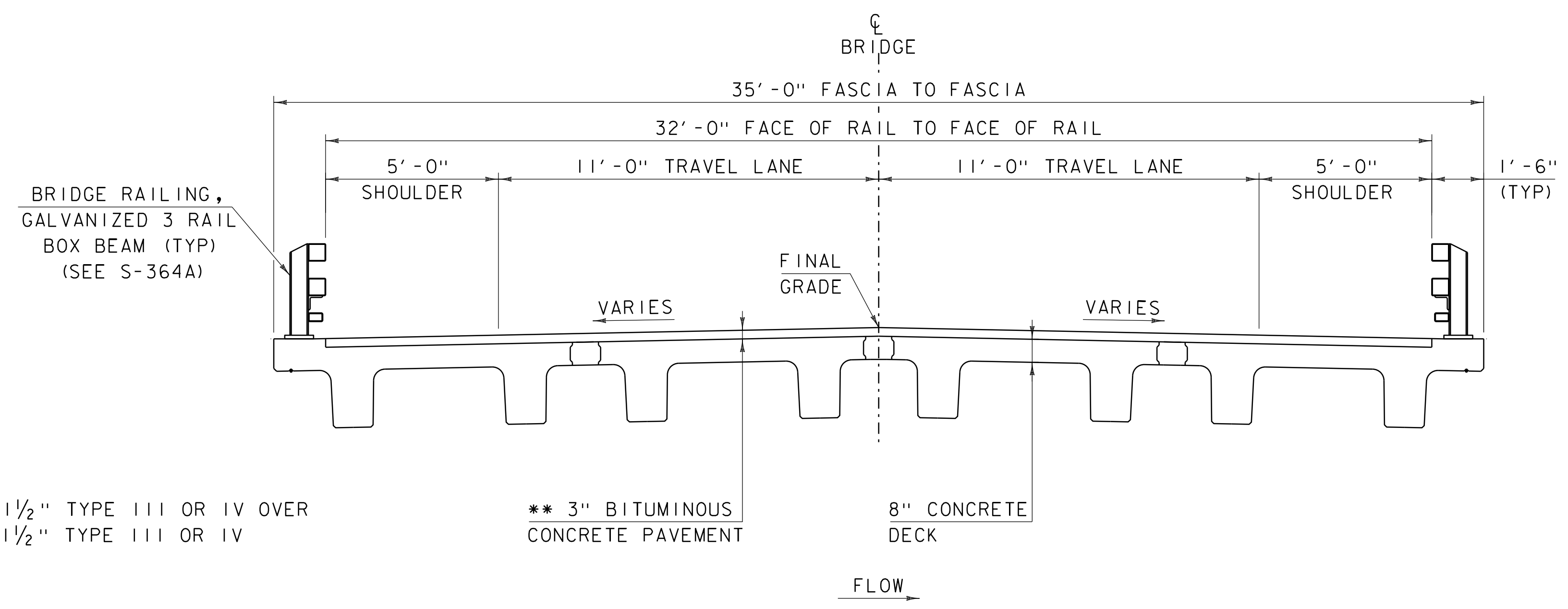
FILE NAME: **12b148s12b148excel.dgn** PLOT DATE: 11/5/2013
PROJECT LEADER: **C.P.WILLIAMS** DRAWN BY: **D.D.BEARD**
DESIGNED BY: **T.FILLBACH** CHECKED BY:
PRELIMINARY INFORMATION SHEET 1 SHEET 2 OF 17



* 1 1/2" TYPE IVS OVER
 1 1/2" TYPE IVS OVER
 3 1/2" TYPE IIS

PROPOSED VT 14 TYPICAL SECTION

SCALE 3/8" = 1'-0"



** 1 1/2" TYPE III OR IV OVER
 1 1/2" TYPE III OR IV

** 3" BITUMINOUS CONCRETE PAVEMENT

8" CONCRETE DECK

PROPOSED BRIDGE TYPICAL SECTION

SCALE 3/8" = 1'-0"

MATERIAL TOLERANCES

(IF USED ON PROJECT)

SURFACE	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
- AGGREGATE SURFACE COURSE	+/- 1/2"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"

PROJECT NAME:	CALAIS	PLOT DATE:	15-NOV-2013
PROJECT NUMBER:	BHF 037-2(12)	DRAWN BY:	L.E.GALIER
FILE NAME:	I2b148/s12b148+typical.dgn	DESIGNED BY:	-----
PROJECT LEADER:	C.P.WILLIAMS	CHECKED BY:	D.D.BEARD
TYPICAL SECTIONS		SHEET	3 OF 17

NOTE: SUPERSTRUCTURE NOT DESIGNED.
 NEXT 28D SHOWN FOR EXAMPLE

GENERAL INFORMATION

SYMBOLGY LEGEND NOTE

THE SYMBOLGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLGY. THE SYMBOLGY 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. SYMBOLGY 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
HWY	HIGHWAY EASEMENT
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 SYMBOLGY

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 SYMBOLGY

PROJECT DESIGN & LAYOUT SYMBOLGY	
—	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
PDF	PROJECT DEMARCATION FENCE
BF	BARRIER FENCE
XXXXXX	TREE PROTECTION ZONE (TPZ)
////	STRIPING LINE REMOVAL
~~~~	SHEET PILES

**CONVENTIONAL BOUNDARY SYMBOLGY**

BOUNDARY LINES	
—	TOWN BOUNDARY LINE
—	COUNTY BOUNDARY 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	SLOPE RIGHTS
6f	6F PROPERTY BOUNDARY
4f	4F PROPERTY BOUNDARY
HAZ	HAZARDOUS WASTE

**EPSC LAYOUT PLAN SYMBOLGY**

EPSC MEASURES	
ONNOONNOONNO	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	HAZARDOUS WASTE AREA
---	AGRICULTURAL LAND
---	FISH & WILDLIFE HABITAT
---	FLOOD PLAIN
---	ORDINARY HIGH WATER (OHW)
---	STORM WATER
---	USDA FOREST SERVICE LANDS
---	WILDLIFE HABITAT SUIT/CONN

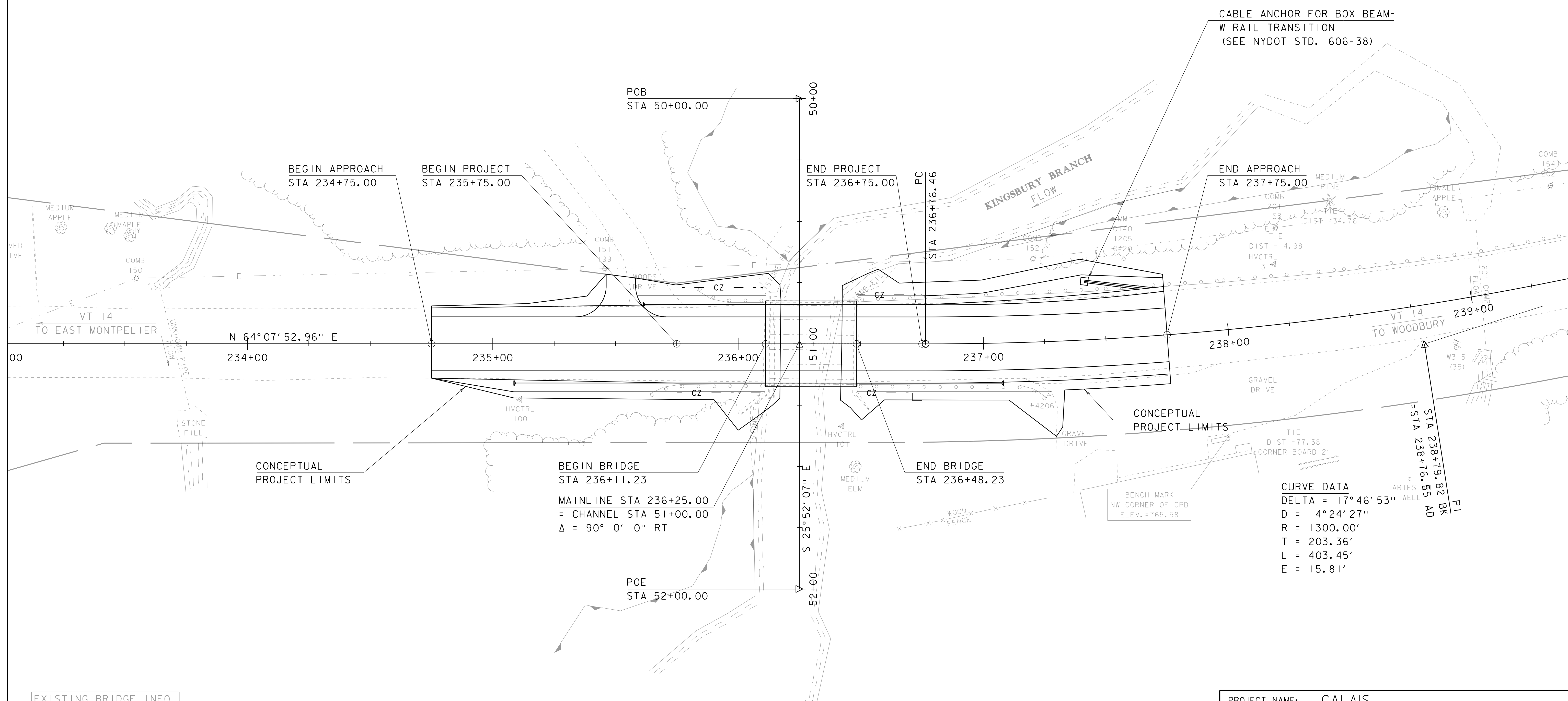
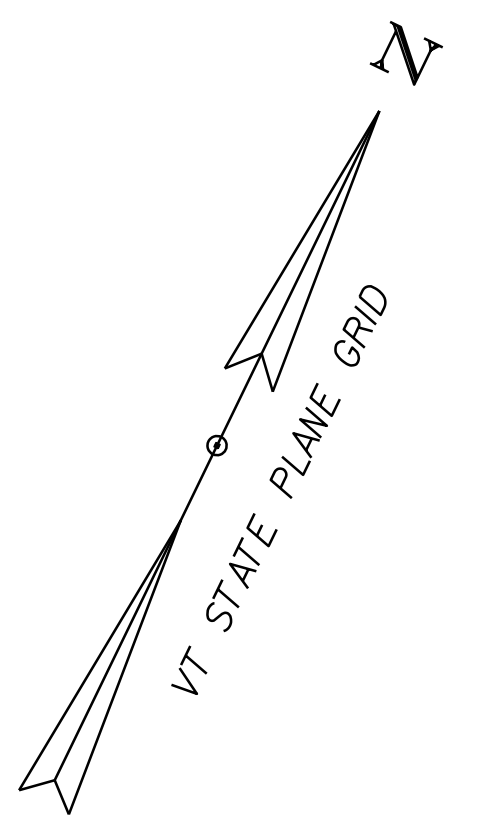
**ARCHEOLOGICAL & HISTORIC**

---	ARCHEOLOGICAL BOUNDARY
---	HISTORIC DISTRICT BOUNDARY
---	HISTORIC AREA
Ⓜ	HISTORIC STRUCTURE

**CONVENTIONAL TOPOGRAPHIC SYMBOLGY**

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:	CALAIS
PROJECT NUMBER:	BHF 037-2(12)
FILE NAME:	I2b148/s12b148excel.dgn
PROJECT LEADER:	C.P.WILLIAMS
DESIGNED BY:	-----
LEGEND SHEET	
PLOT DATE:	15-NOV-2013
DRAWN BY:	M.LONGSTREET
CHECKED BY:	-----
SHEET	4 OF 17



EXISTING BRIDGE INFO  
 CONCRETE T-BEAMS  
 CONSTRUCTED IN 1928  
 WIDENED IN 1977  
 38' SPAN, 33'-5" WIDE

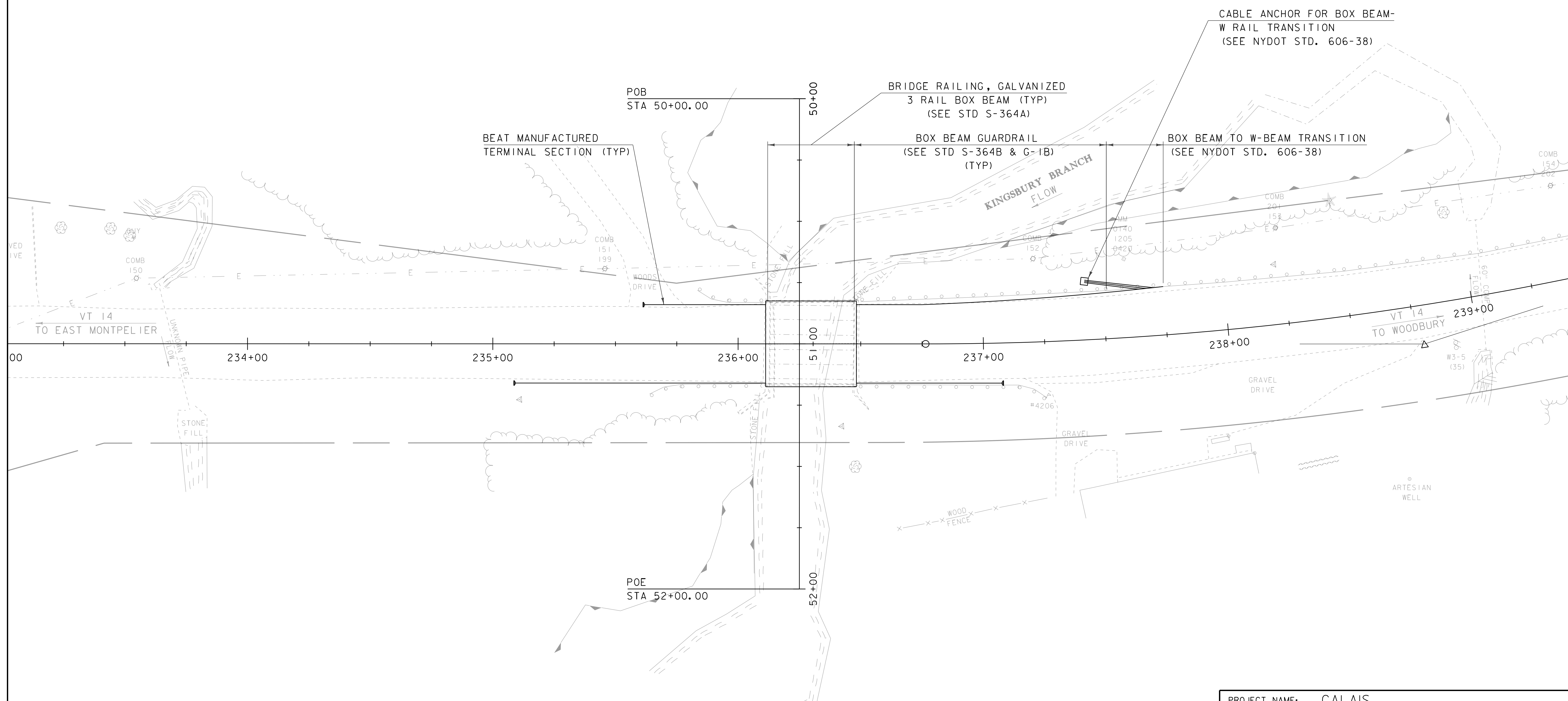
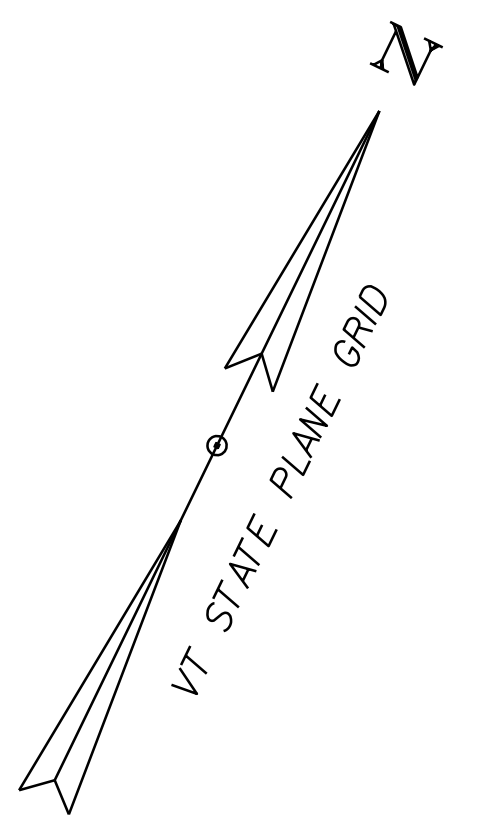
LAYOUT  
 SCALE 1" = 20'-0"  
 20 0 20

PROJECT NAME:	CALAIS	FILE NAME:	I2b148\sl2b148bdr.dgn	PLOT DATE:	15-NOV-2013
PROJECT NUMBER:	BHF 037-2(12)	PROJECT LEADER:	C.P.WILLIAMS	DRAWN BY:	D.D.BEARD
		DESIGNED BY:	-----	CHECKED BY:	-----
		LAYOUT SHEET		SHEET	5 OF 17

CURVE DATA  
 DELTA = 17° 46' 53"  
 D = 4° 24' 27"  
 R = 1300.00'  
 T = 203.36'  
 L = 403.45'  
 E = 15.81'

BEGIN BRIDGE  
 STA 236+11.23  
 MAINLINE STA 236+25.00  
 = CHANNEL STA 51+00.00  
 Δ = 90° 0' 0" RT

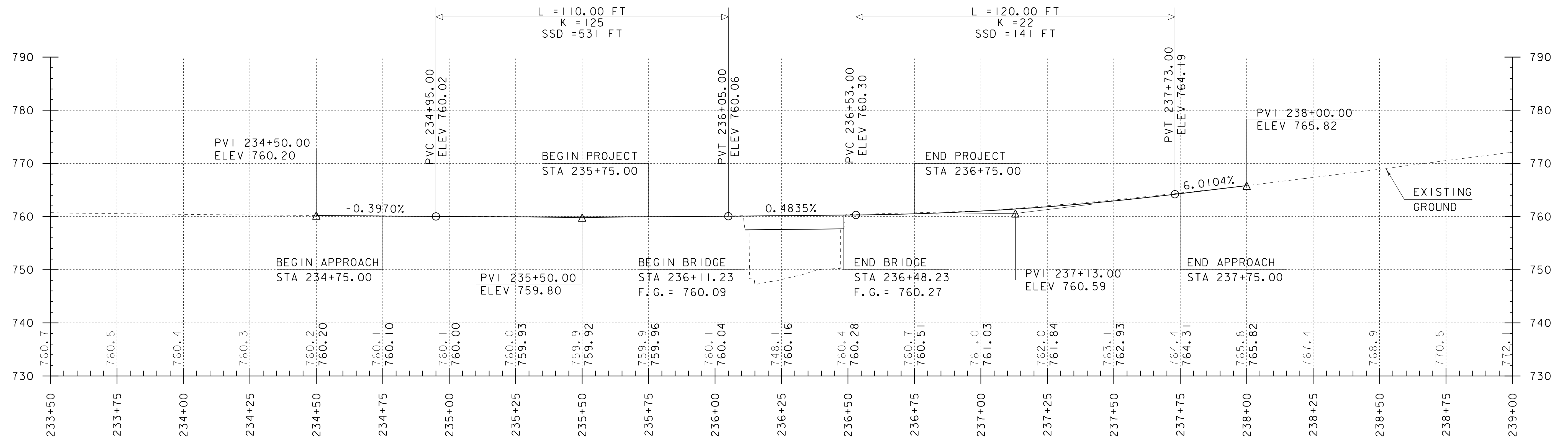
BENCH MARK  
 NW CORNER OF CPD  
 ELEV. = 765.58



**RAILING LAYOUT**

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

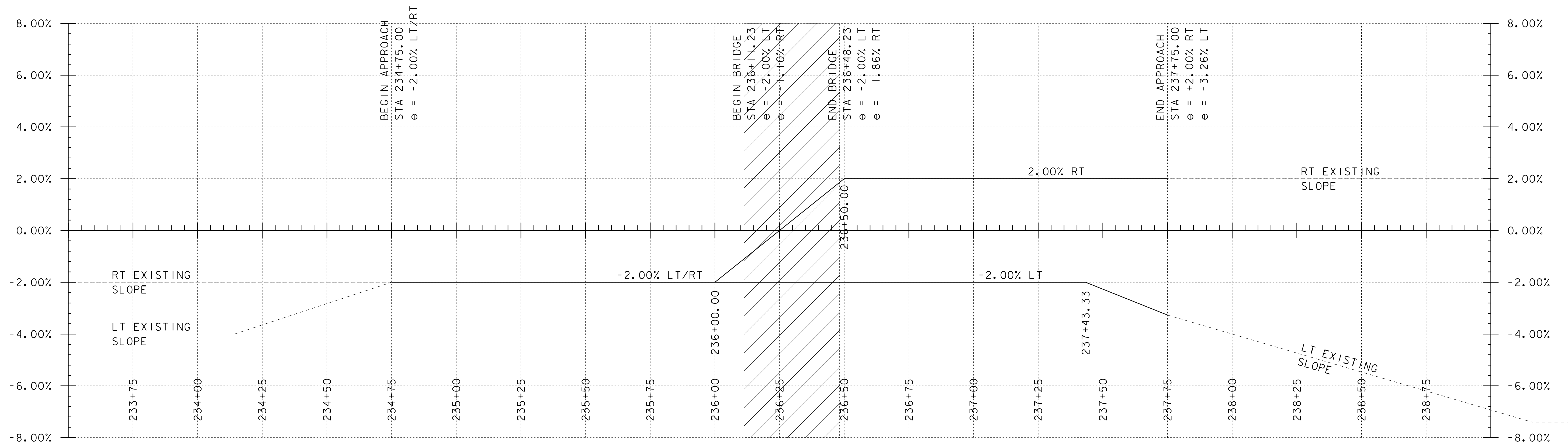
PROJECT NAME: CALAIS	
PROJECT NUMBER: BHF 037-2(12)	
FILE NAME: I2b148\sl2b148bdr.dgn	PLOT DATE: 15-NOV-2013
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: -----	CHECKED BY: -----
RAILING LAYOUT SHEET	SHEET 6 OF 17



**VT RT 14 PROFILE**

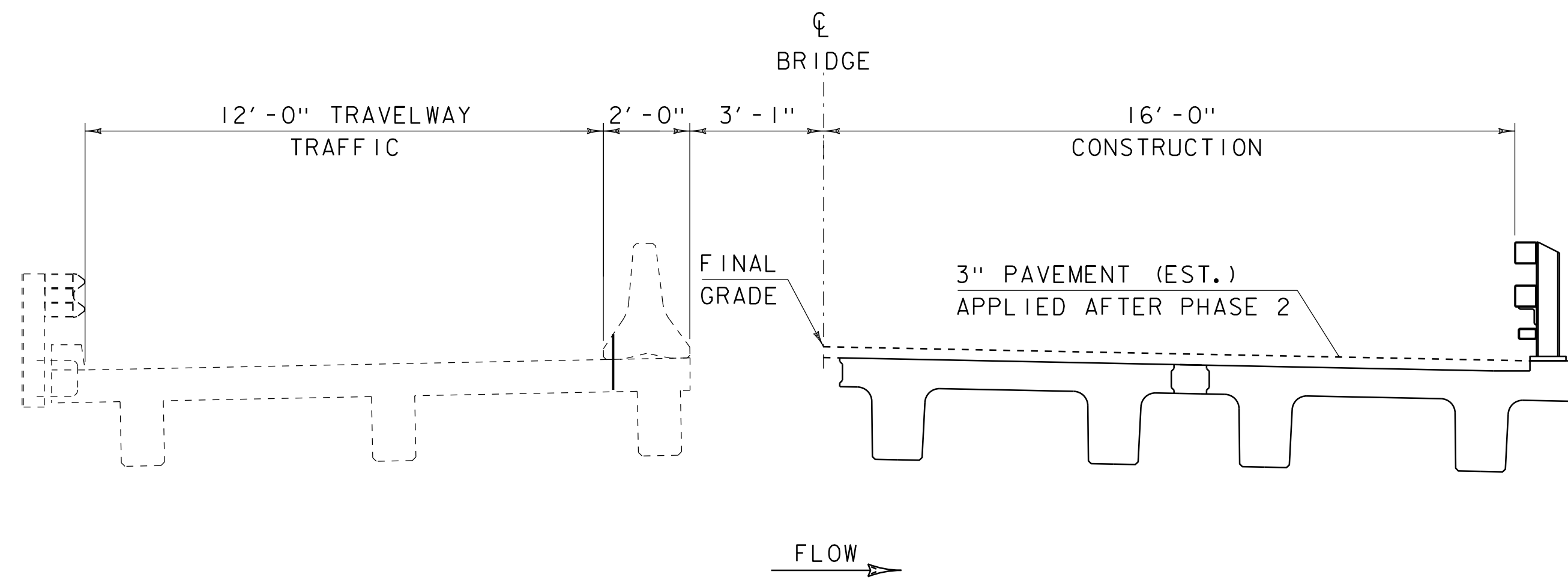
SCALE: HORIZONTAL 1"=20'  
VERTICAL 1"=10'

NOTE: NO SUBSTRUCTURE WORK ANTICIPATED



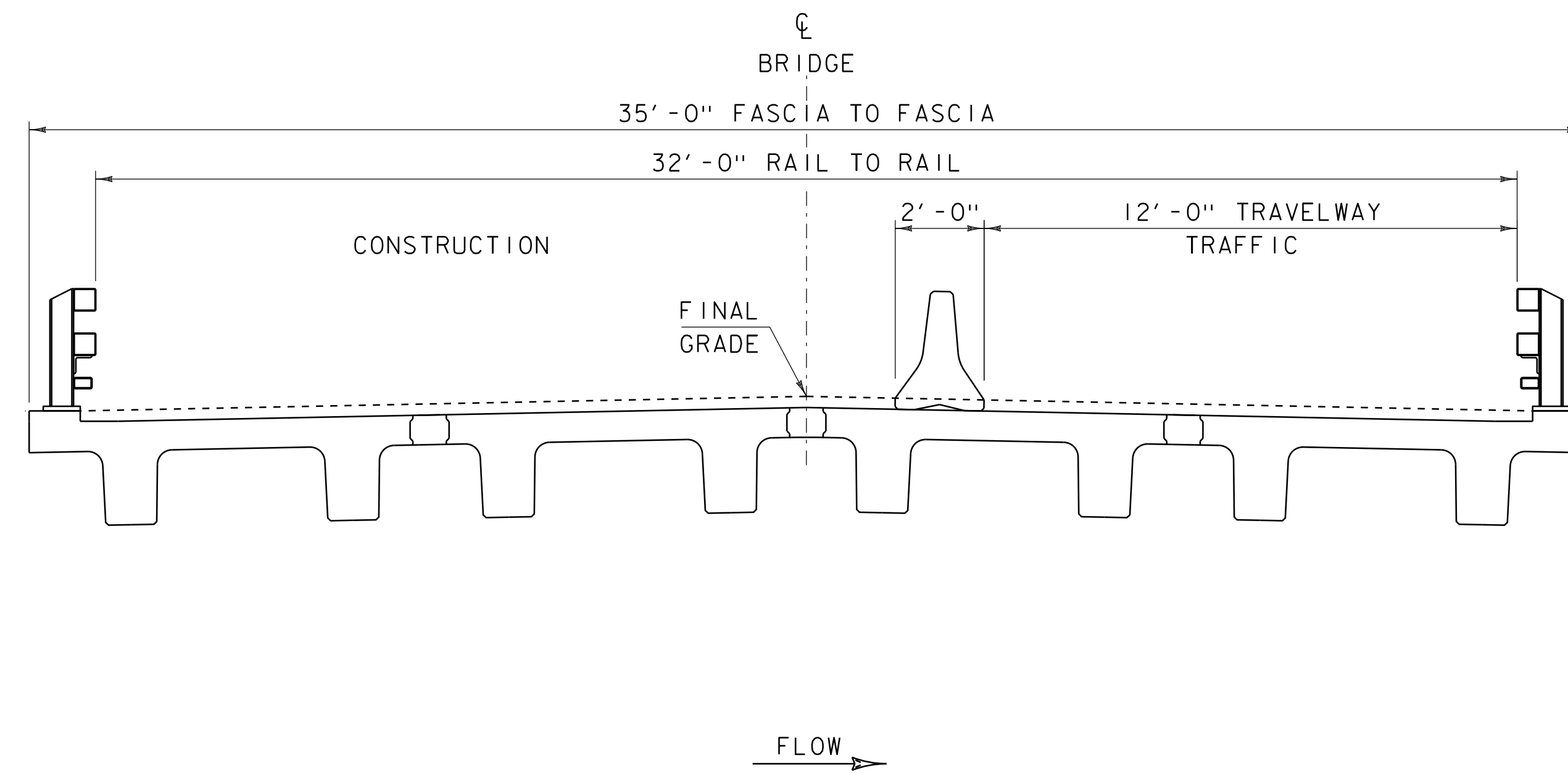
NOTE:  
GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG  $\phi$   
GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADE ALONG  $\phi$

PROJECT NAME:	CALAIS	PLOT DATE:	15-NOV-2013
PROJECT NUMBER:	BHF 037-2(12)	DRAWN BY:	D.D.BEARD
FILE NAME:	I2b148\sl2b148profile.dgn	CHECKED BY:	-----
PROJECT LEADER:	C.P.WILLIAMS	SHEET	7 OF 17
DESIGNED BY:	T.C.FILLBACH		
PROFILE SHEET			



SUPERSTRUCTURE REPLACEMENT PHASE #1 TYPICAL SECTION

SCALE  $\frac{3}{8}$ " = 1'-0"

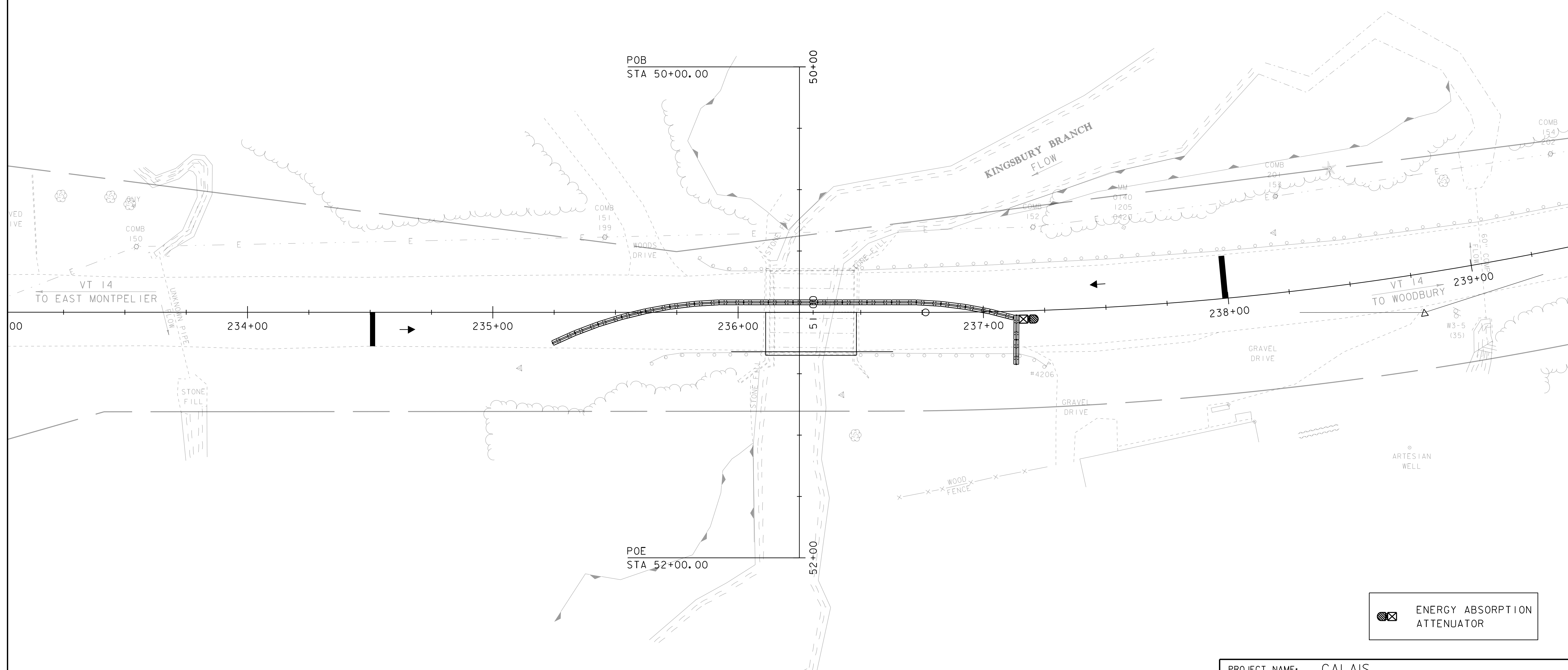
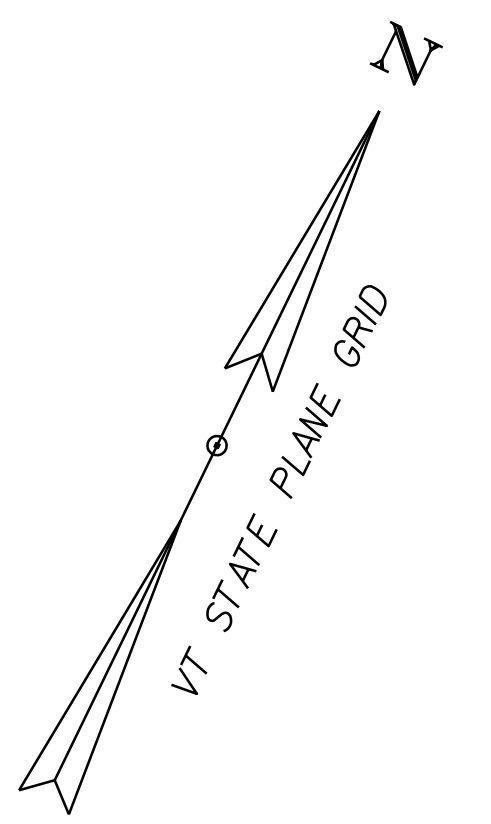



SUPERSTRUCTURE REPLACEMENT PHASE #2 TYPICAL SECTION

SCALE  $\frac{3}{8}$ " = 1'-0"

PROJECT NAME:	CALAIS	PLOT DATE:	15-NOV-2013
PROJECT NUMBER:	BHF 037-2(12)	DRAWN BY:	D.D.BEARD
FILE NAME:	I2b148/s12b148+ypical.dgn	CHECKED BY:	-----
PROJECT LEADER:	C.P.WILLIAMS	ALTERNATIVE 1 PHASING TYPICAL SECTIONS	SHEET 8 OF 17
DESIGNED BY:	-----		



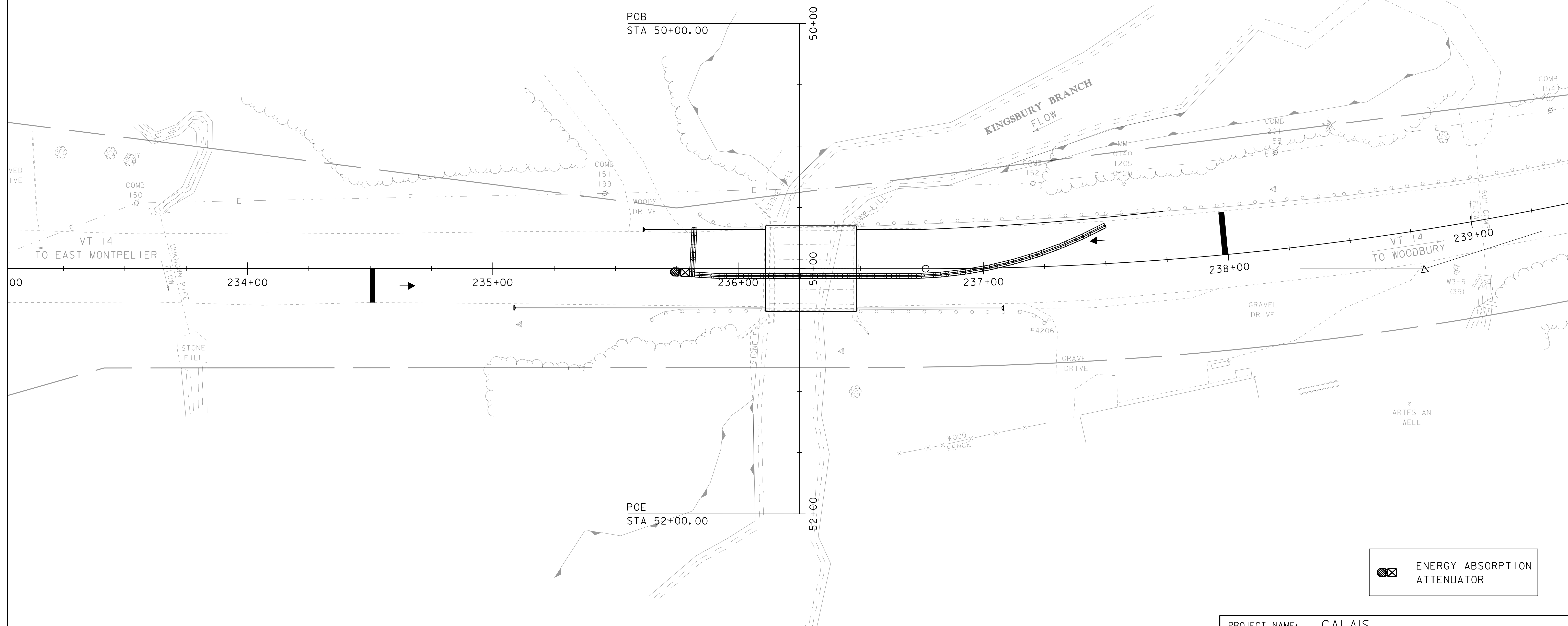
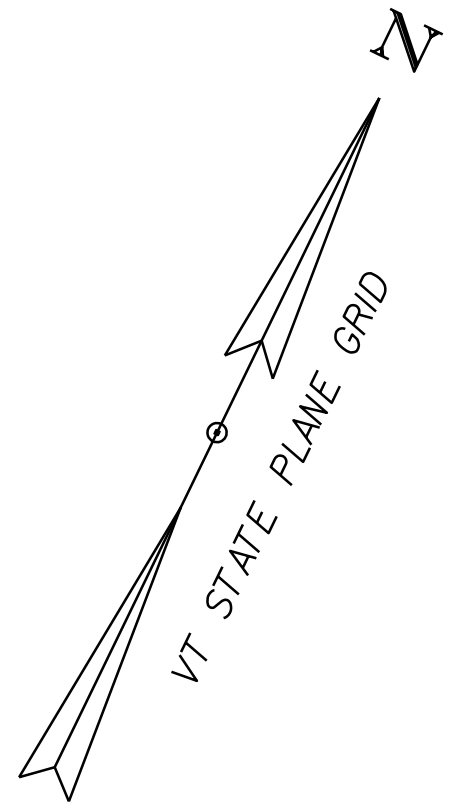




**ENERGY ABSORPTION ATTENUATOR**

**PHASE I LAYOUT**

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

PROJECT NAME:	CALAIS	PLOT DATE:	15-NOV-2013
PROJECT NUMBER:	BHF 037-2(12)	DRAWN BY:	D.D.BEARD
FILE NAME:	I2b148\sl2b148bdr.dgn	CHECKED BY:	-----
PROJECT LEADER:	C.P.WILLIAMS	PHASE I LAYOUT	SHEET 9 OF 17



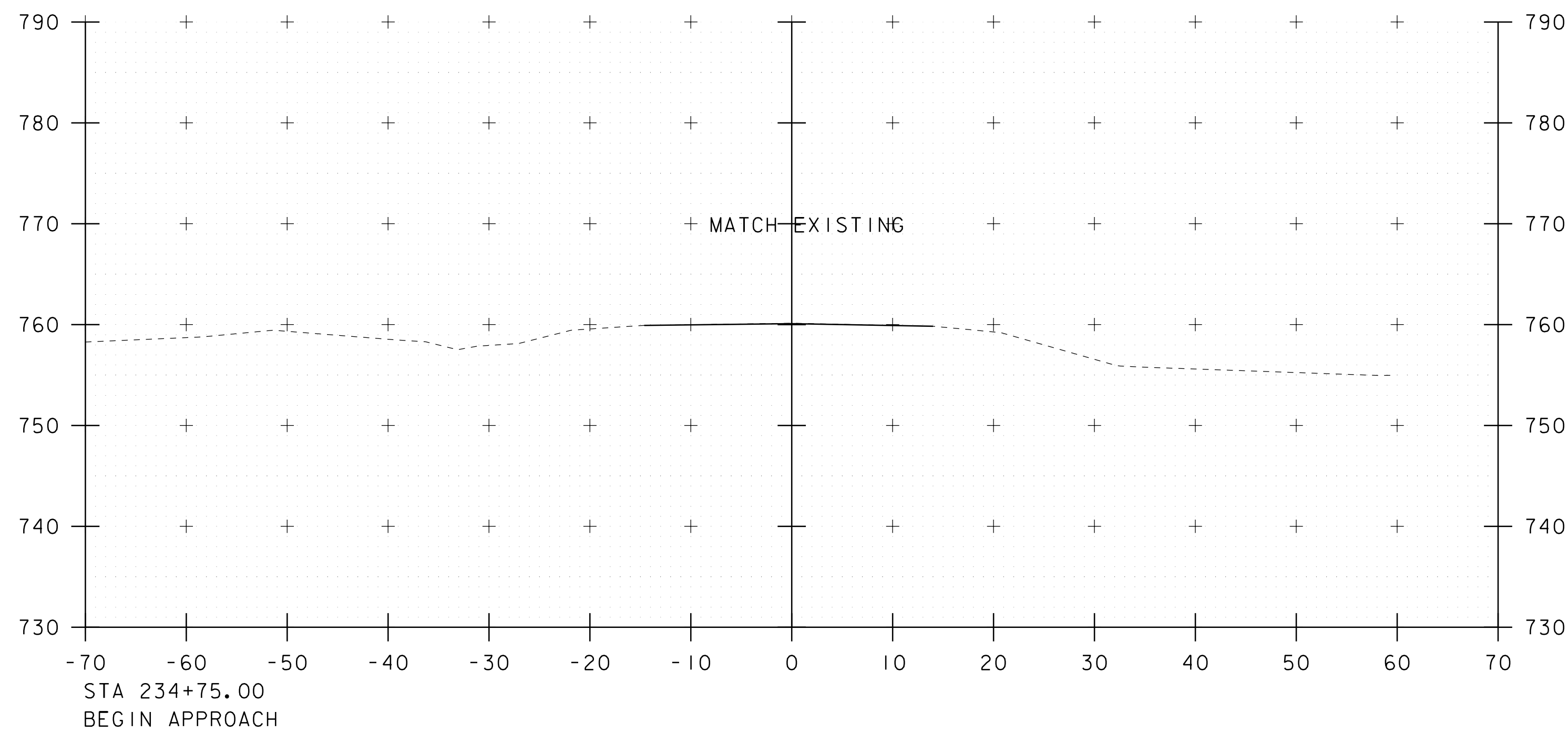
 ENERGY ABSORPTION ATTENUATOR

PHASE 2 LAYOUT

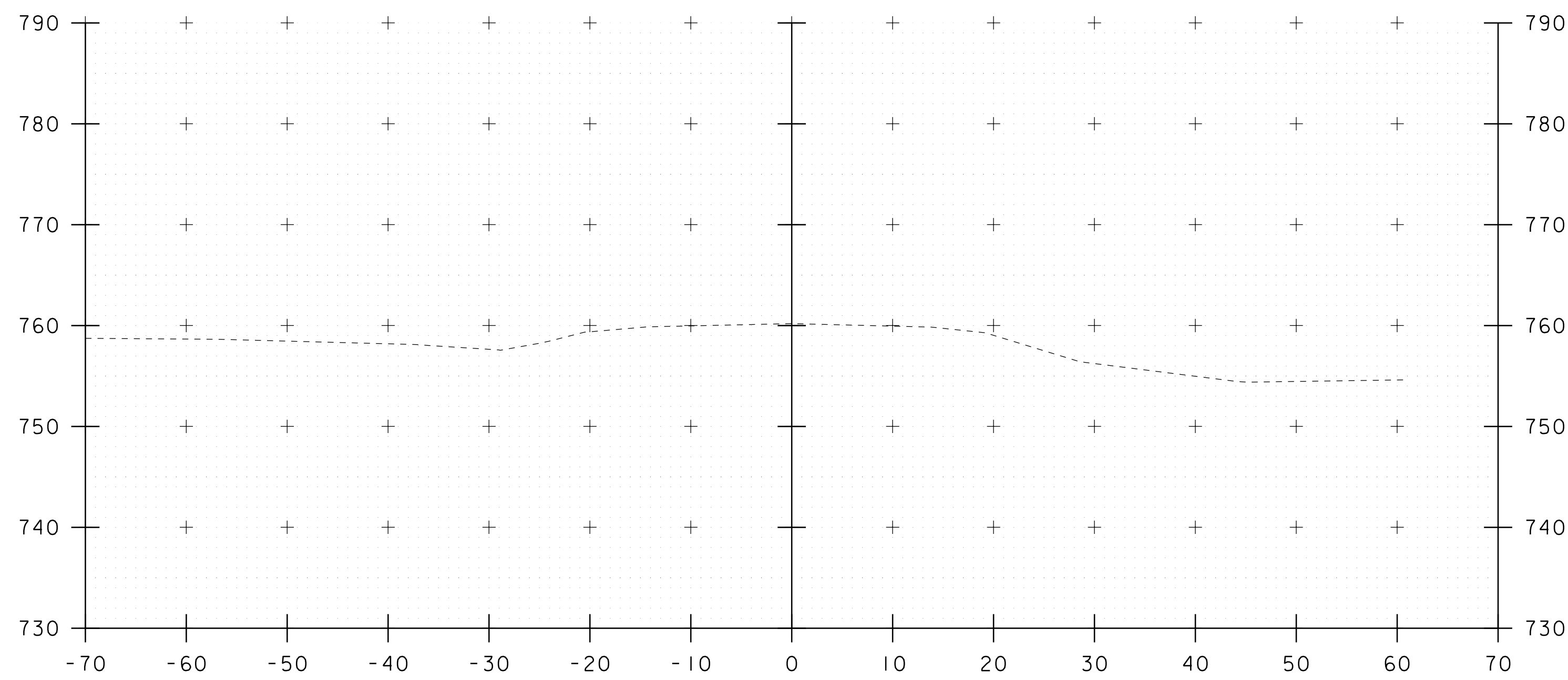
SCALE 1" = 20' - 0"

20 0 20

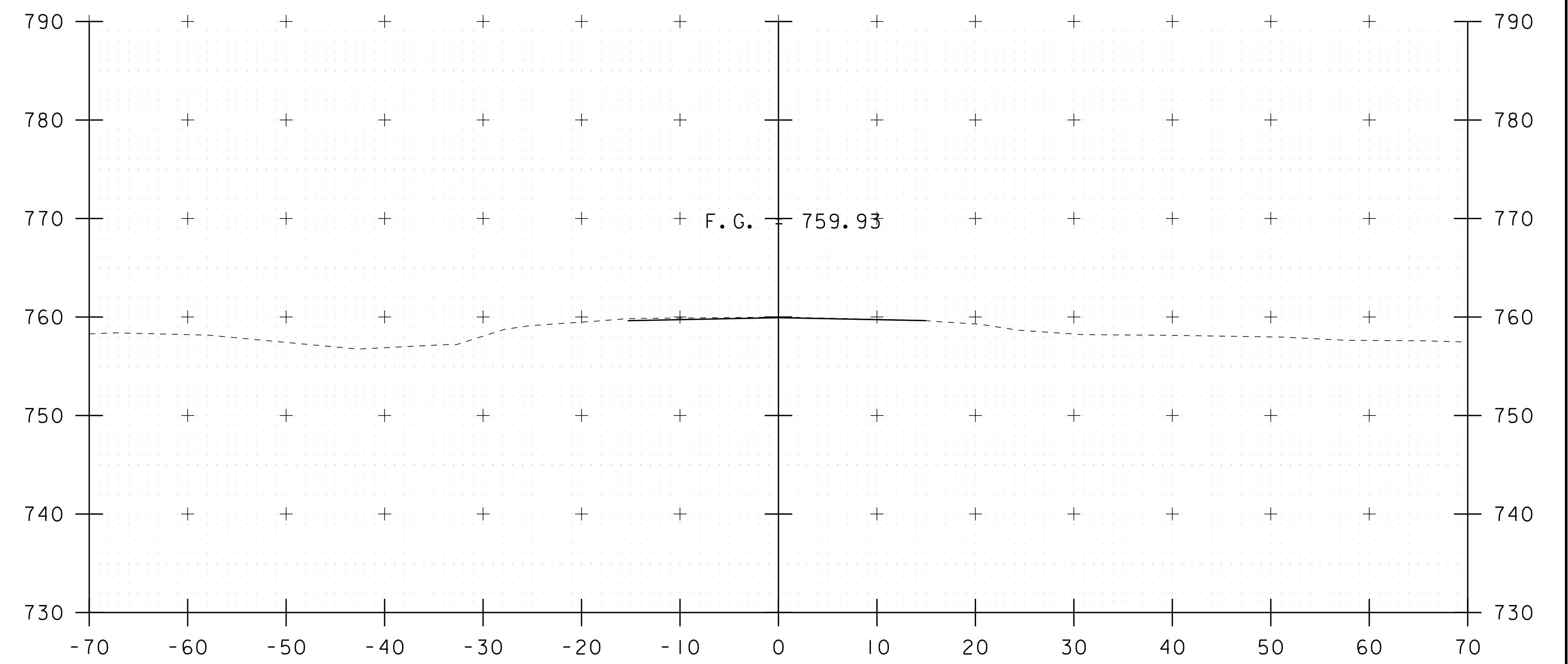
PROJECT NAME:	CALAIS	PLOT DATE:	15-NOV-2013
PROJECT NUMBER:	BHF 037-2(12)	DRAWN BY:	D.D.BEARD
FILE NAME:	I2bi48\sl2bi48bdr.dgn	CHECKED BY:	-----
PROJECT LEADER:	C.P.WILLIAMS	PHASE 2 LAYOUT	SHEET 10 OF 17



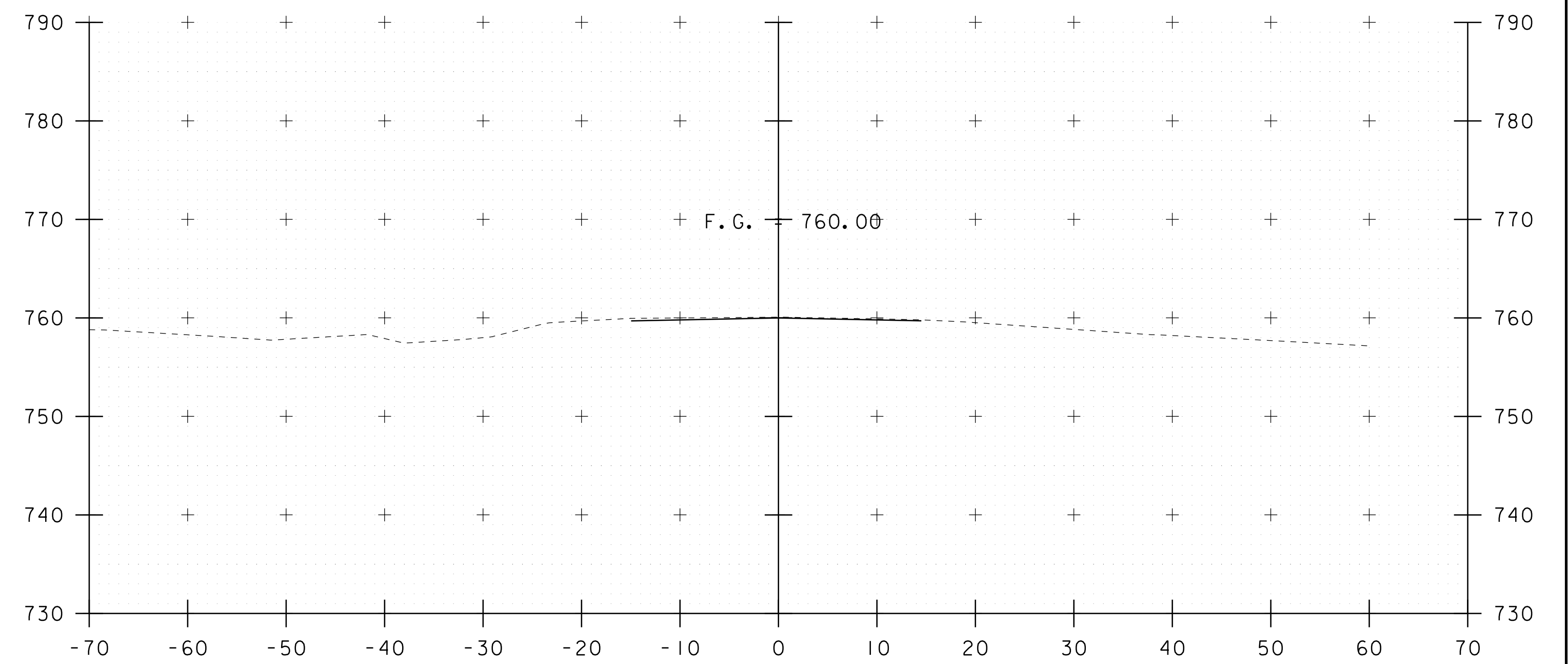
234+75



234+50



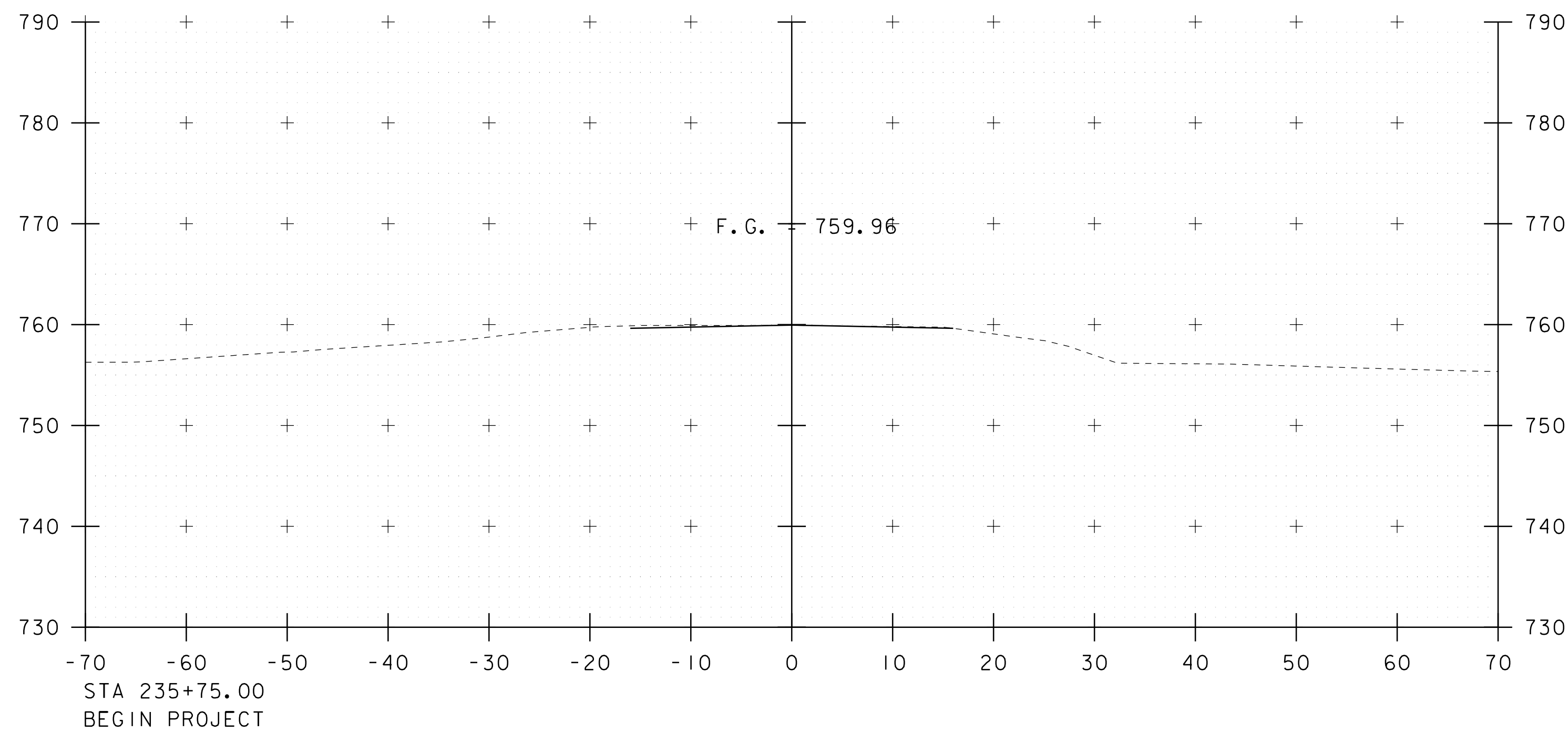
235+25



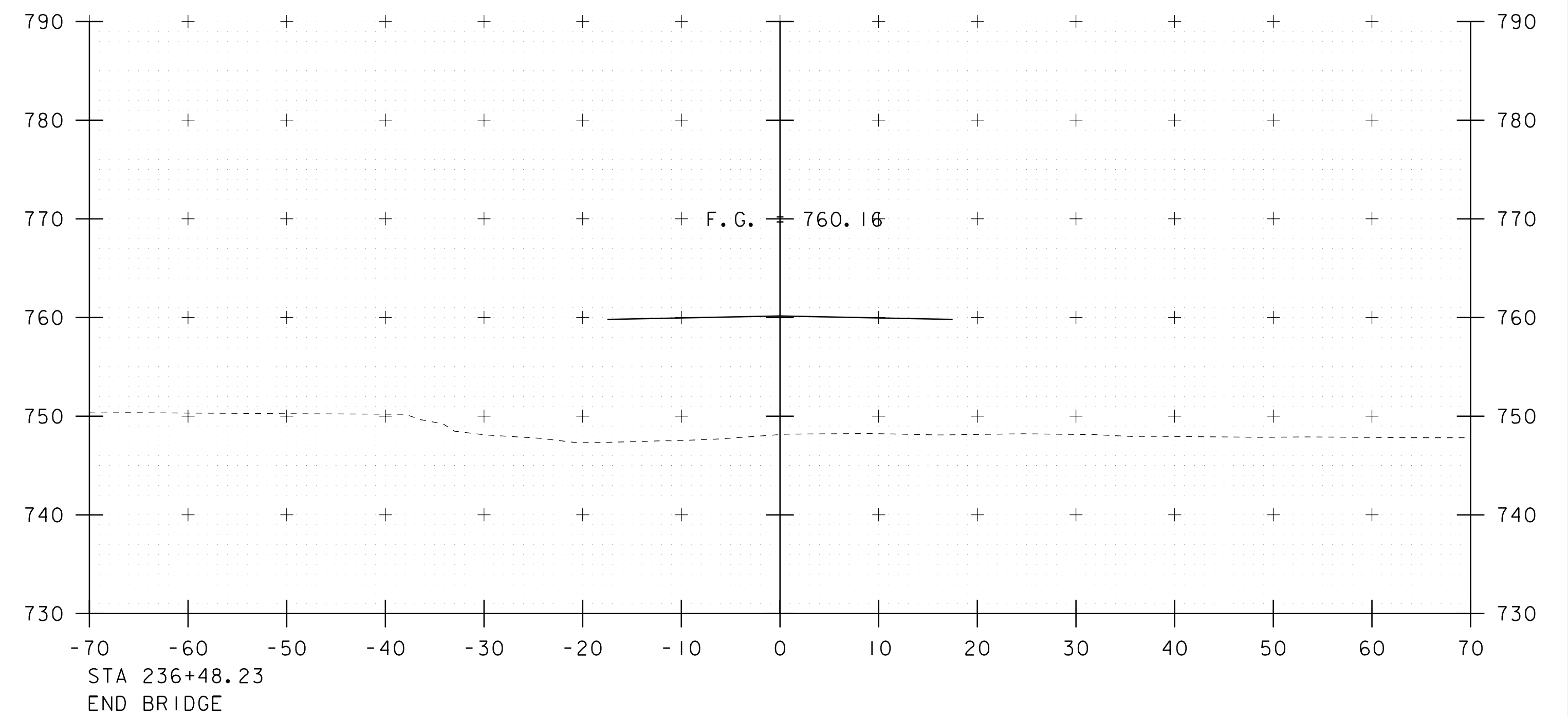
235+00

STA. 234+50 TO STA. 235+25

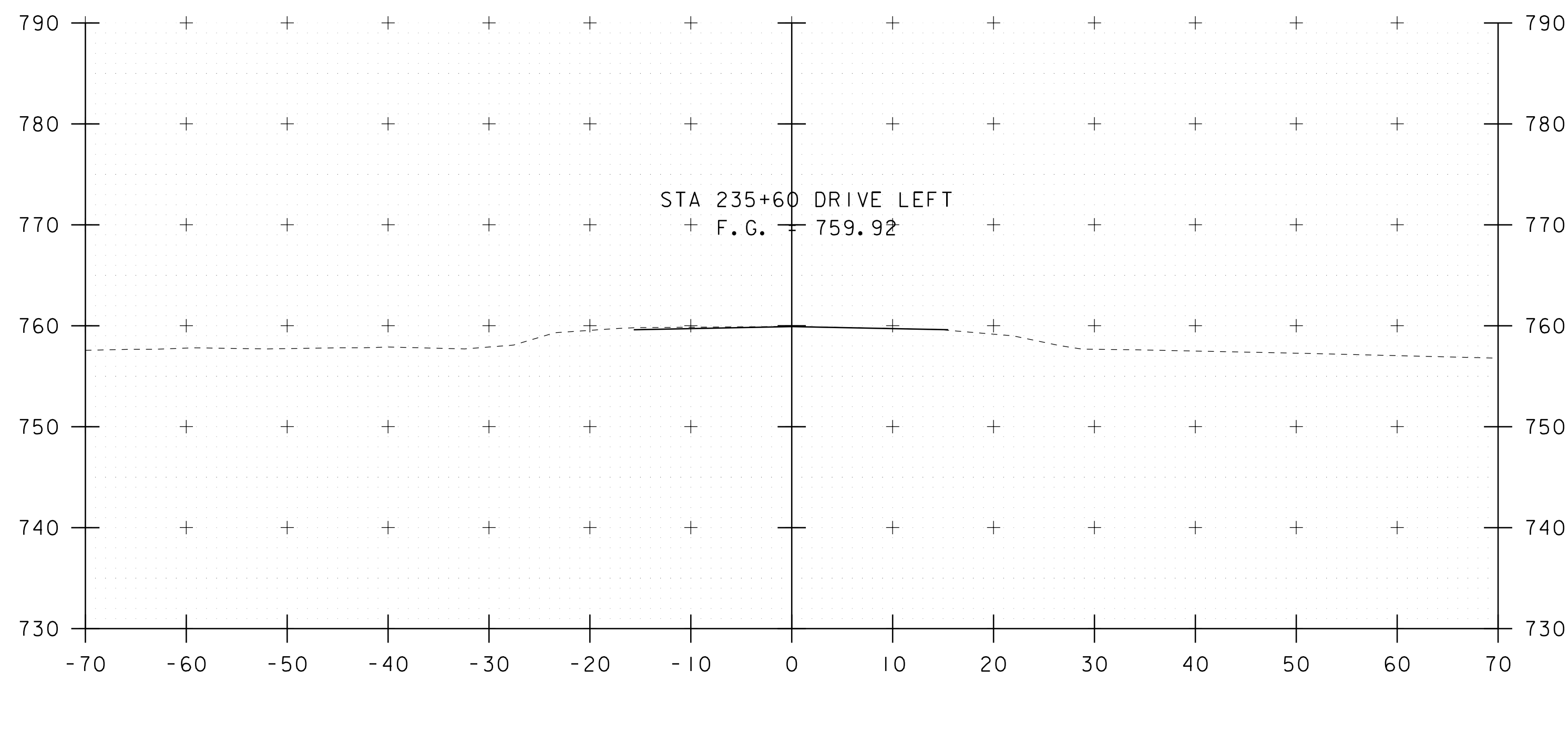
PROJECT NAME: CALAIS	
PROJECT NUMBER: BHF 037-2(12)	
FILE NAME: I2b148/s12b148xs1.dgn	PLOT DATE: 15-NOV-2013
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: -----	CHECKED BY: -----
MAINLINE CROSS SECTIONS 1	SHEET 11 OF 17



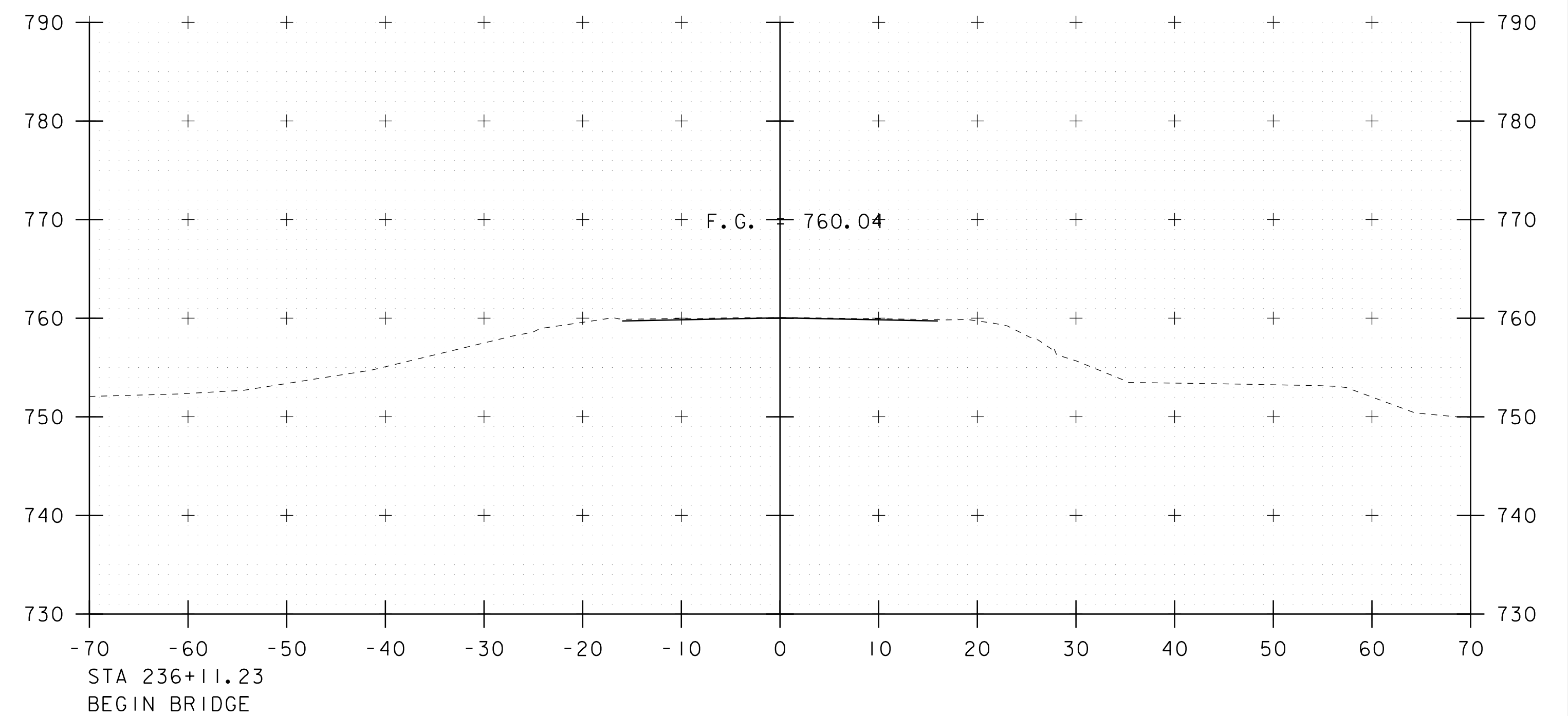
235+75



236+25



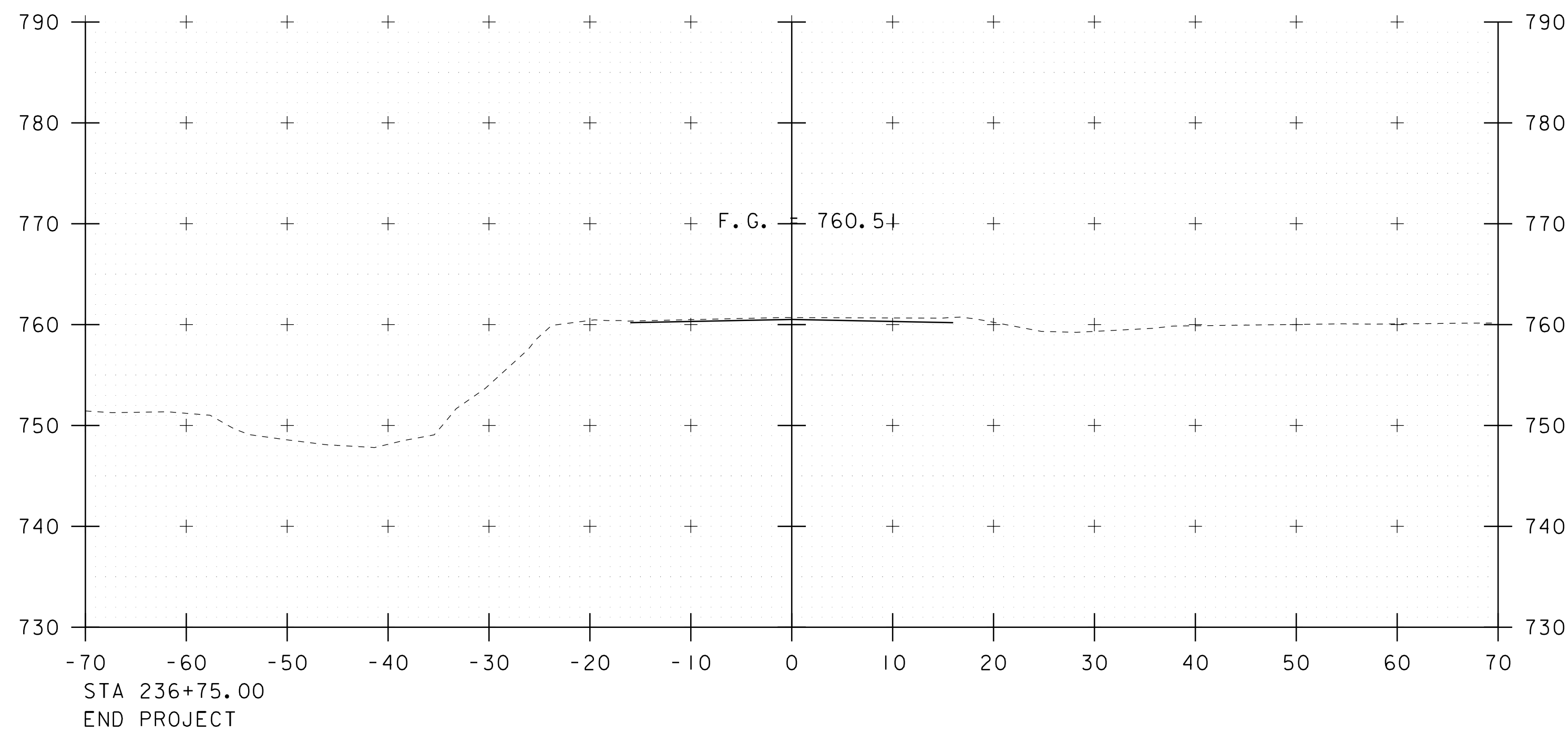
235+50



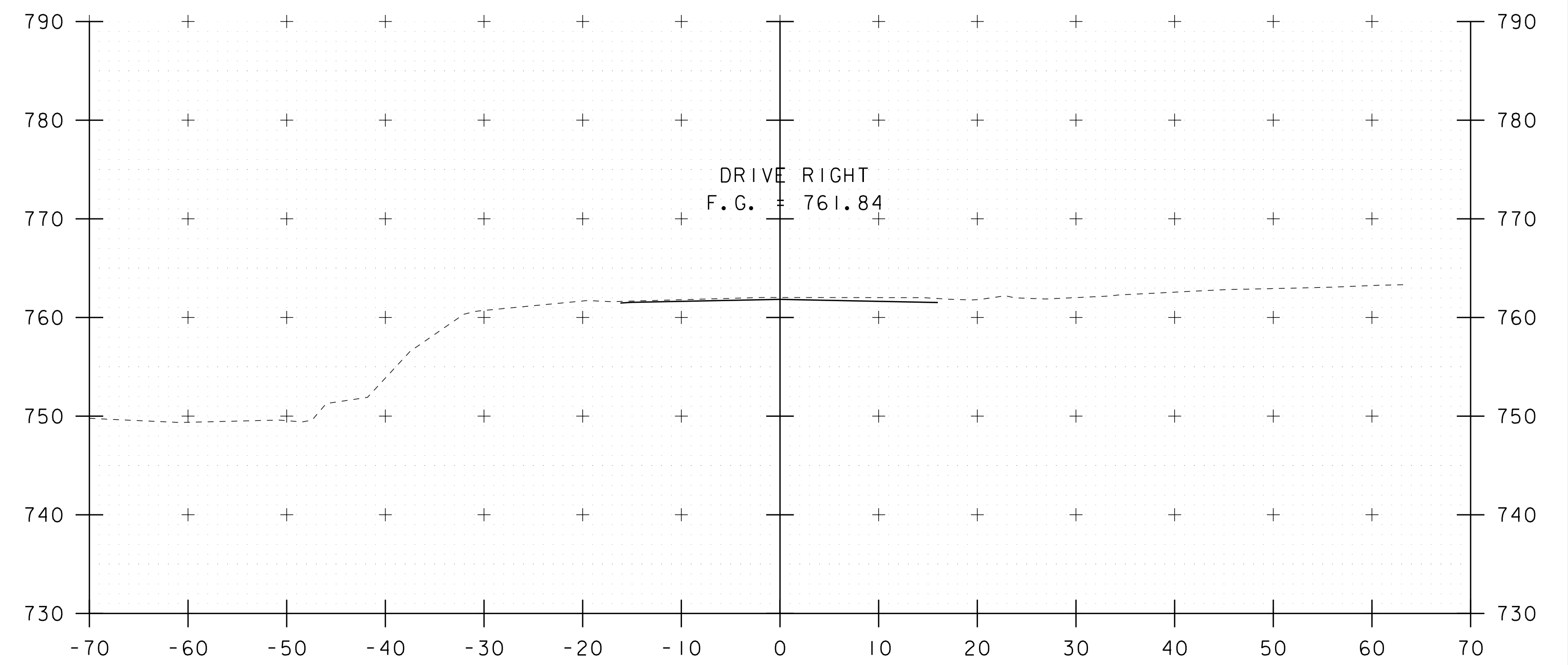
236+00

STA. 235+50 TO STA. 236+25

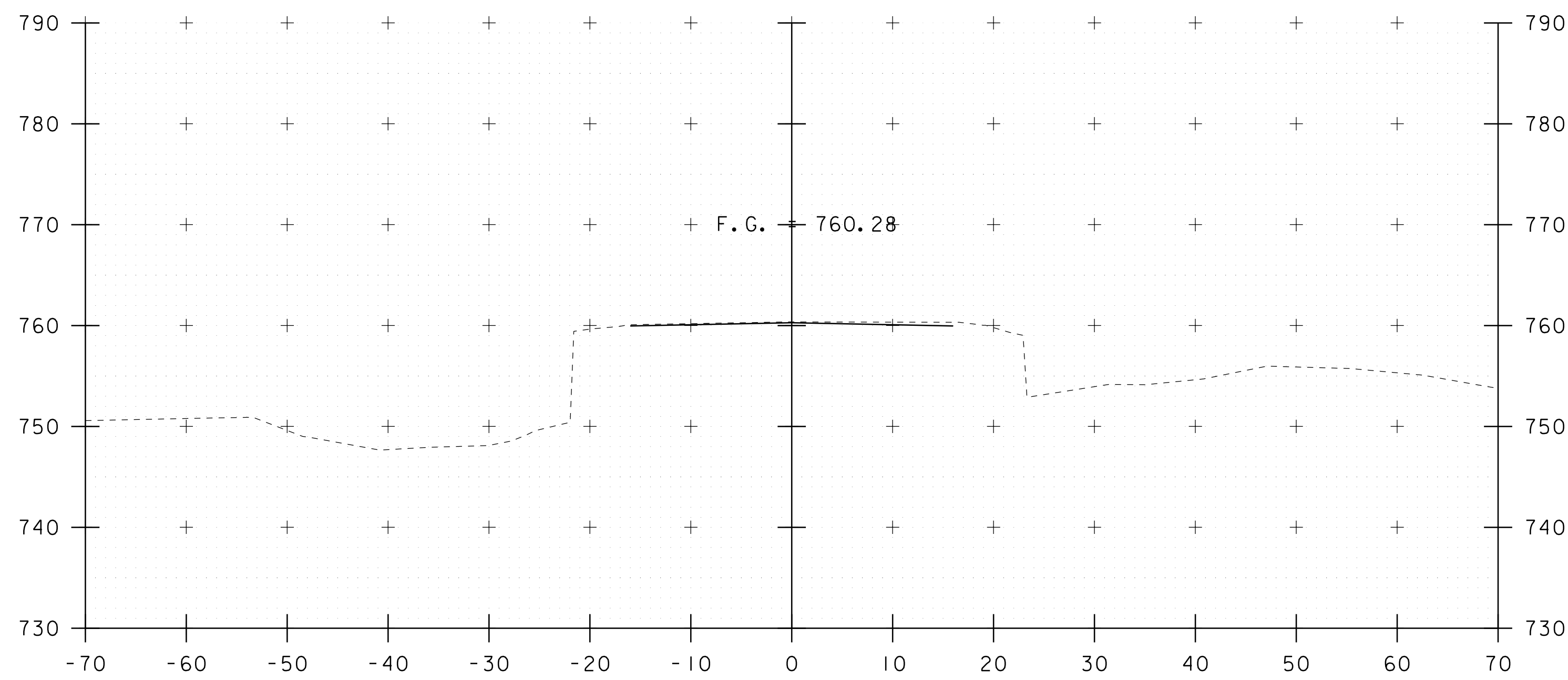
PROJECT NAME: CALAIS	
PROJECT NUMBER: BHF 037-2(12)	
FILE NAME: I2bI48/sI2bI48xsI.dgn	PLOT DATE: 15-NOV-2013
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: -----	CHECKED BY: -----
MAINLINE CROSS SECTIONS 2	SHEET 12 OF 17



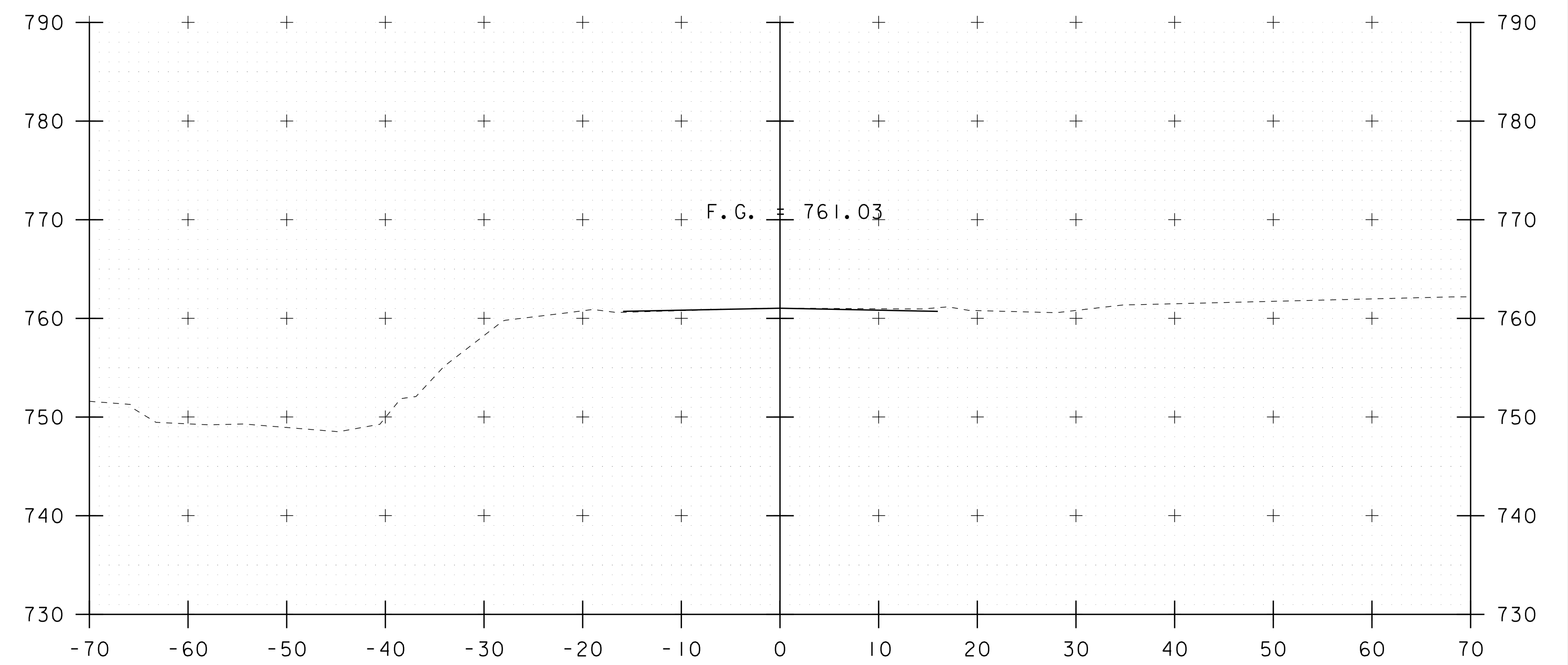
236+75



237+25



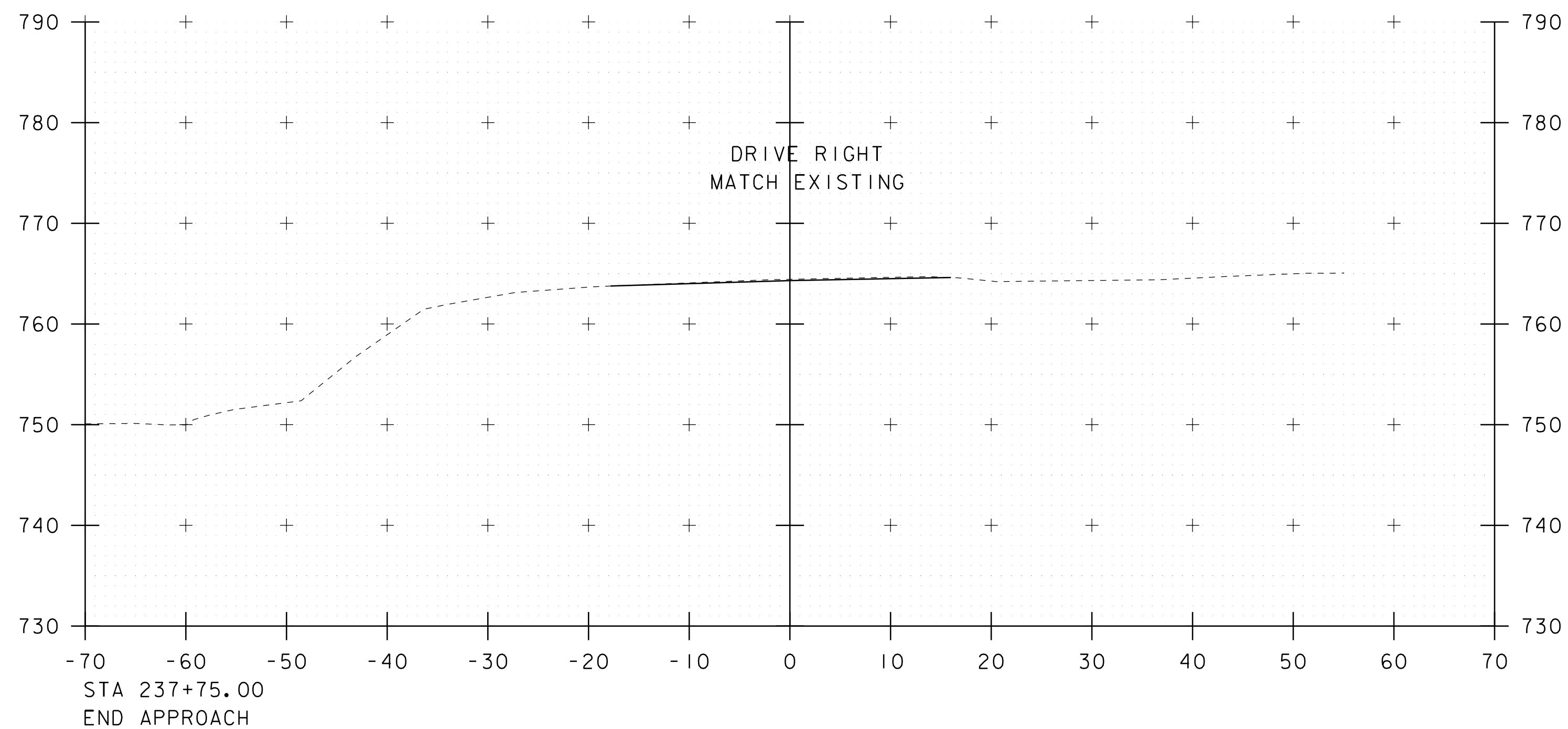
236+50



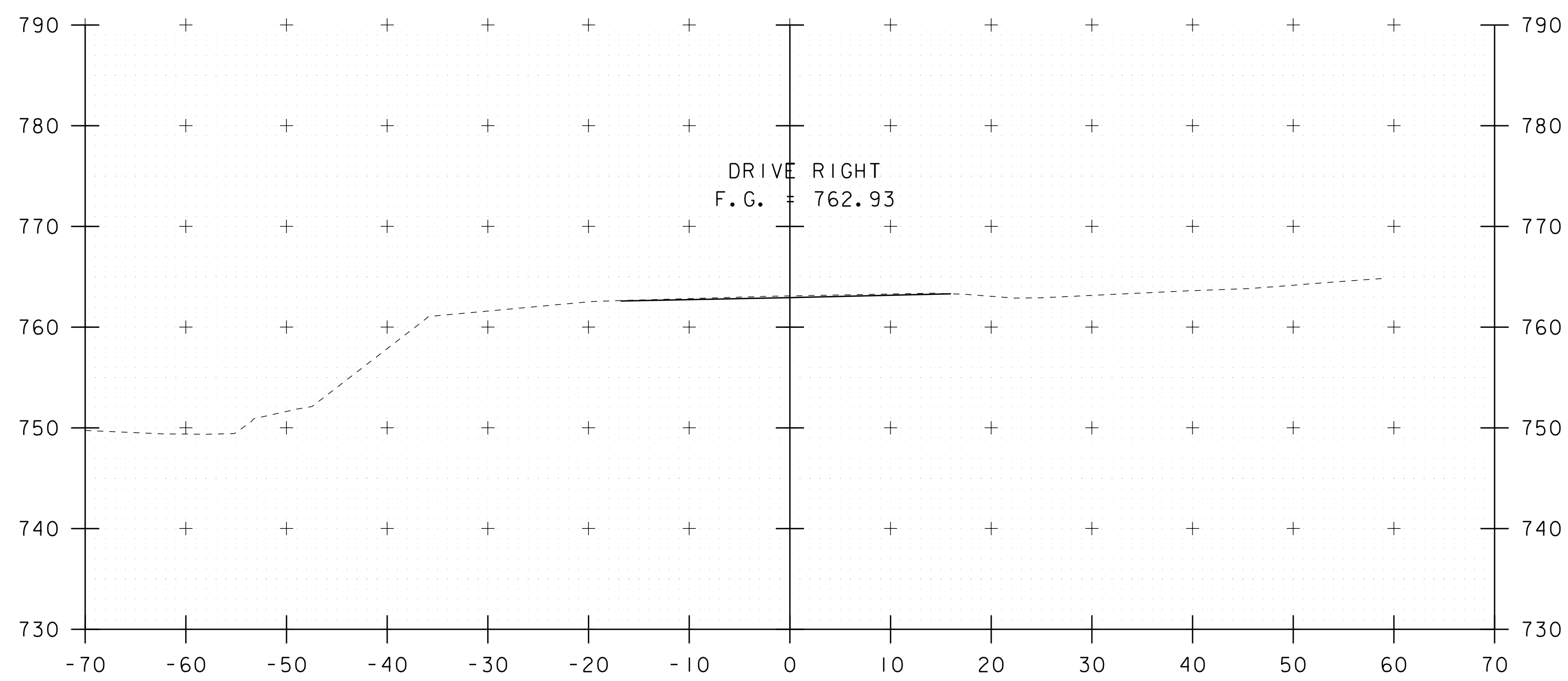
237+00

STA. 236+50 TO STA. 237+25

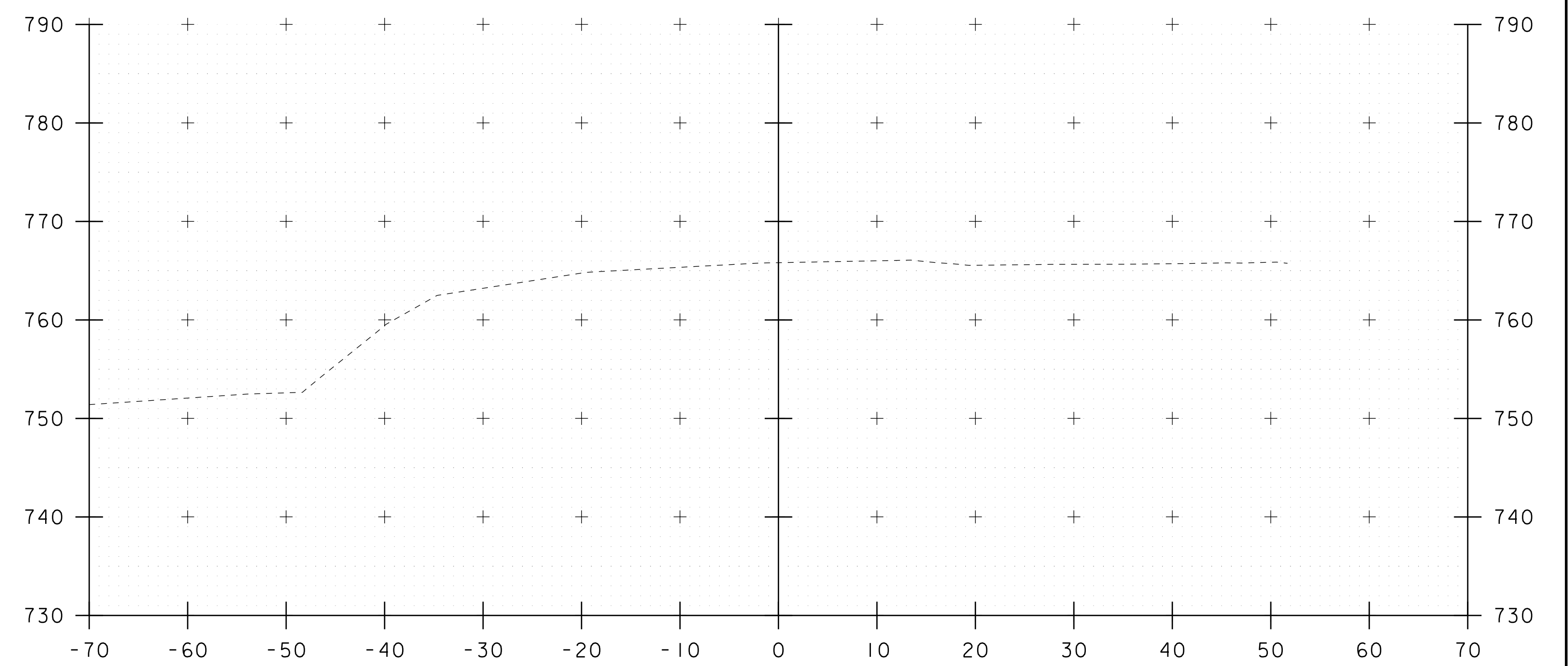
PROJECT NAME: CALAIS	
PROJECT NUMBER: BHF 037-2(12)	
FILE NAME: I2b148/s12b148xs1.dgn	PLOT DATE: 15-NOV-2013
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: -----	CHECKED BY: -----
MAINLINE CROSS SECTIONS 3	SHEET 13 OF 17



237+75



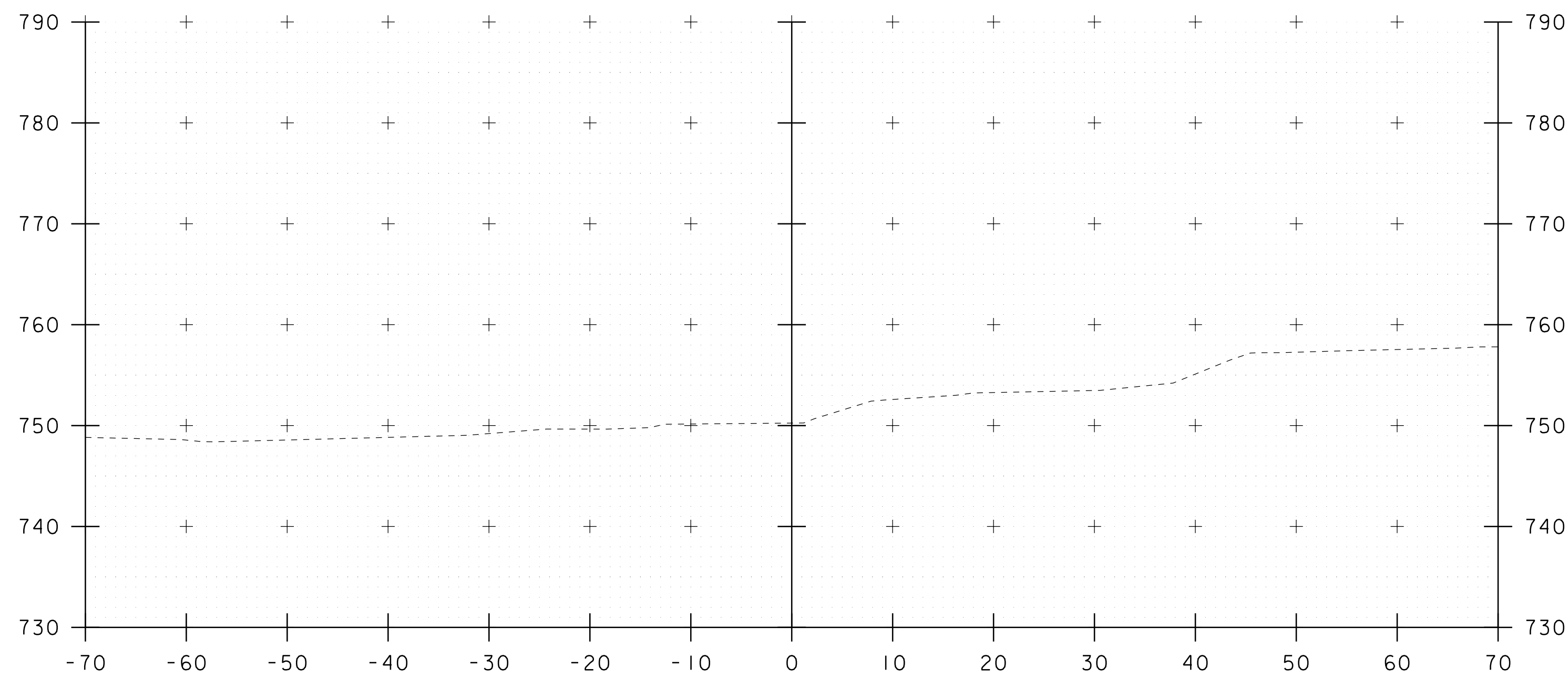
237+50



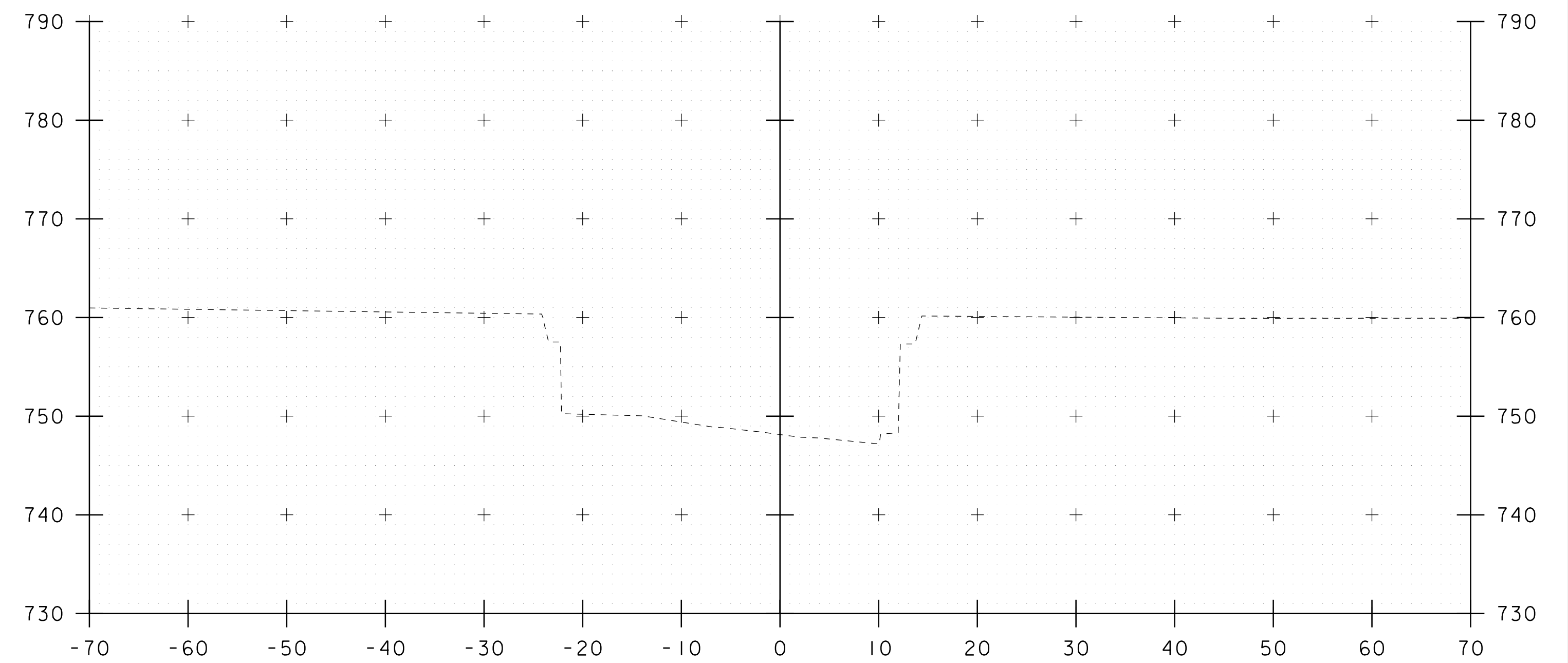
238+00

STA. 237+50 TO STA. 238+00

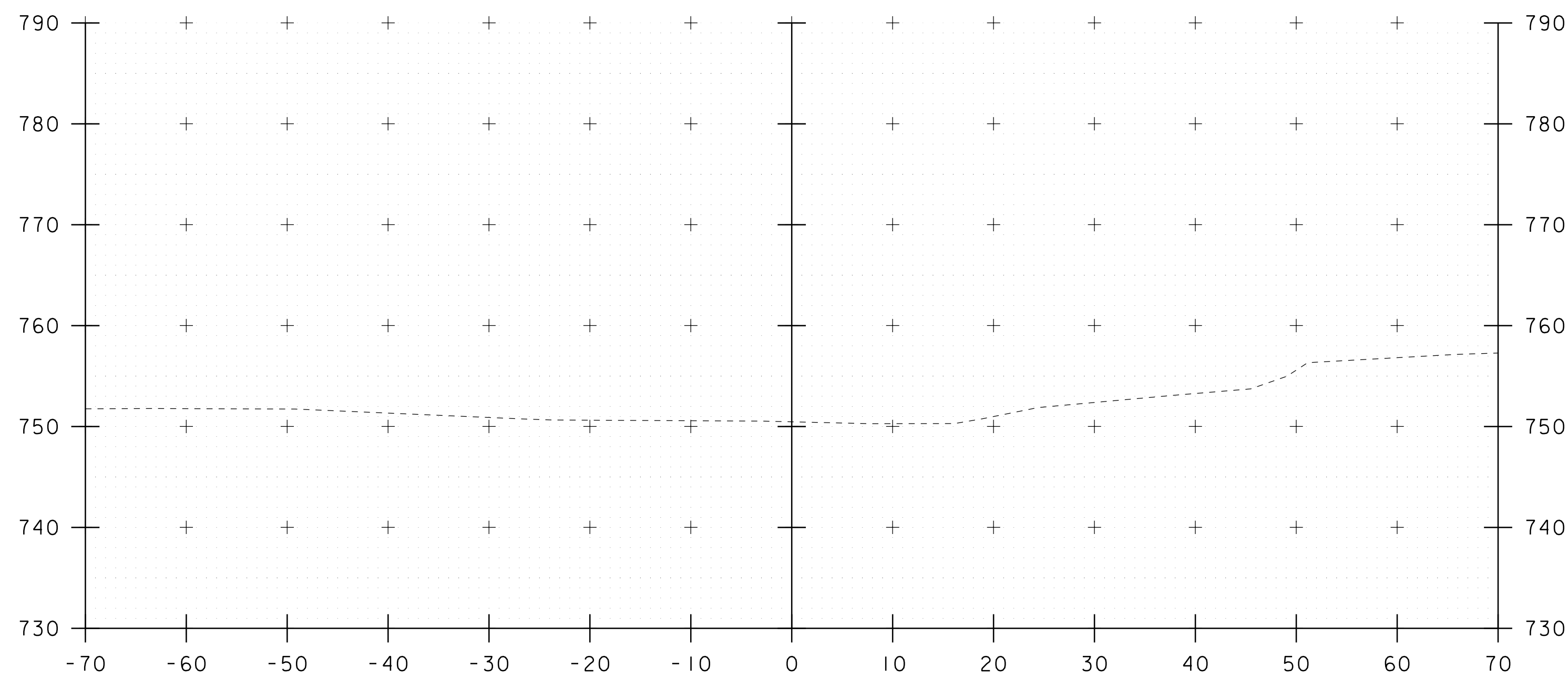
PROJECT NAME: CALAIS	
PROJECT NUMBER: BHF 037-2(12)	
FILE NAME: I2b148/s12b148xs1.dgn	PLOT DATE: 15-NOV-2013
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: -----	CHECKED BY: -----
MAINLINE CROSS SECTIONS 4	SHEET 14 OF 17



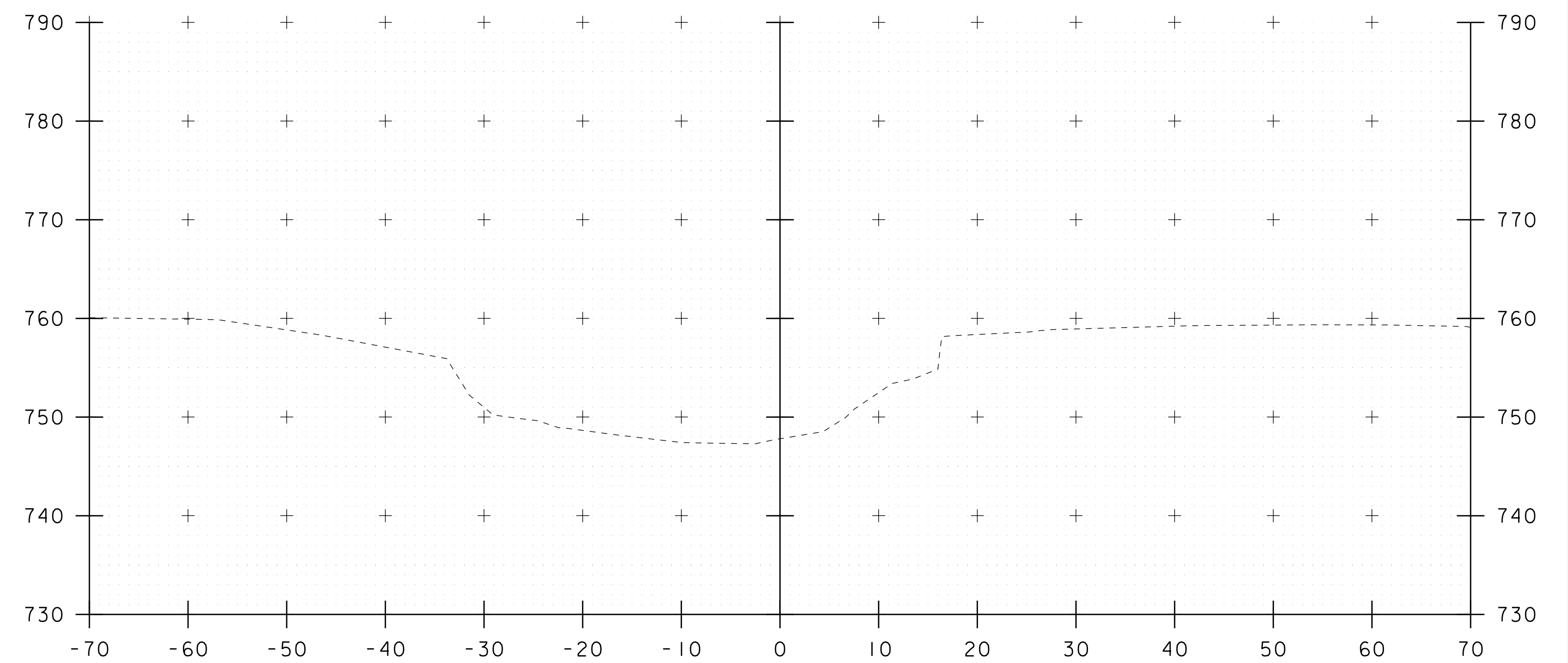
50+50



51+00



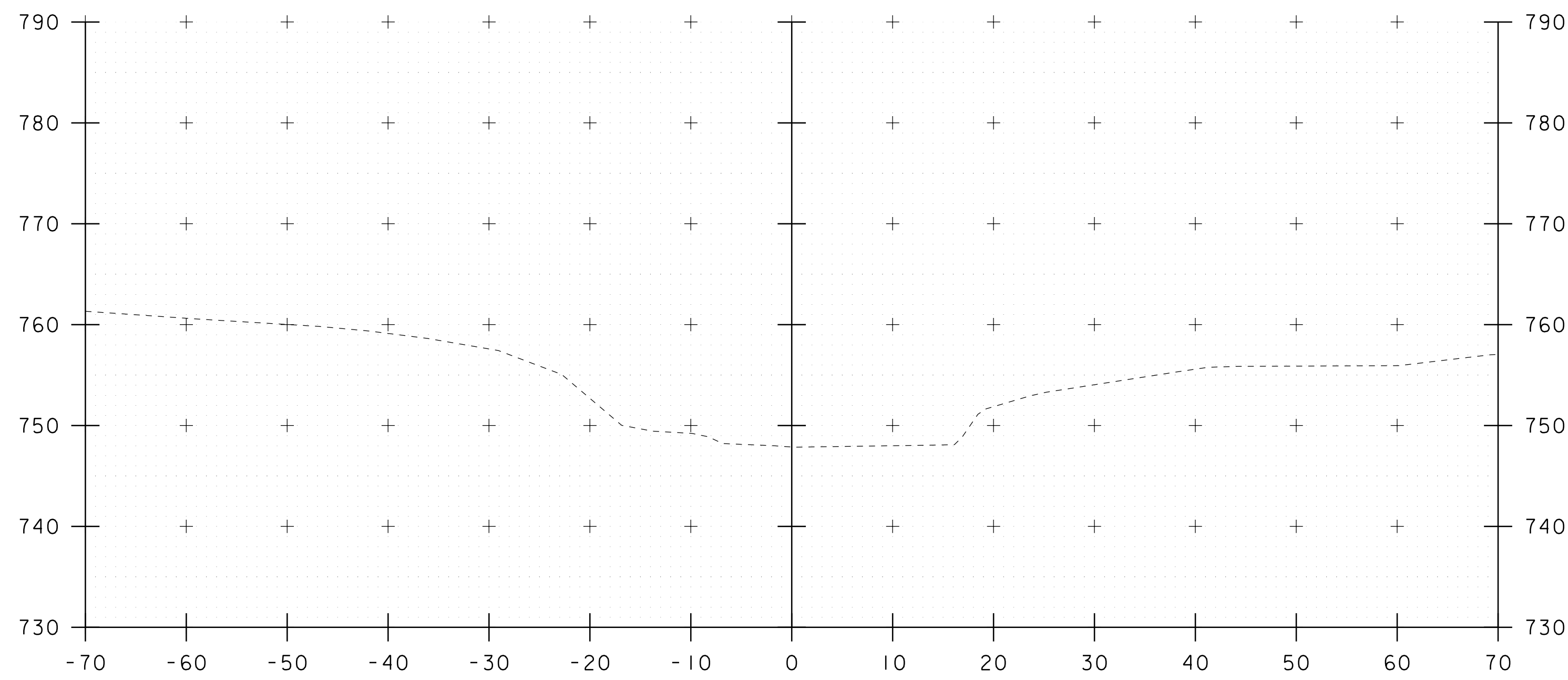
50+25



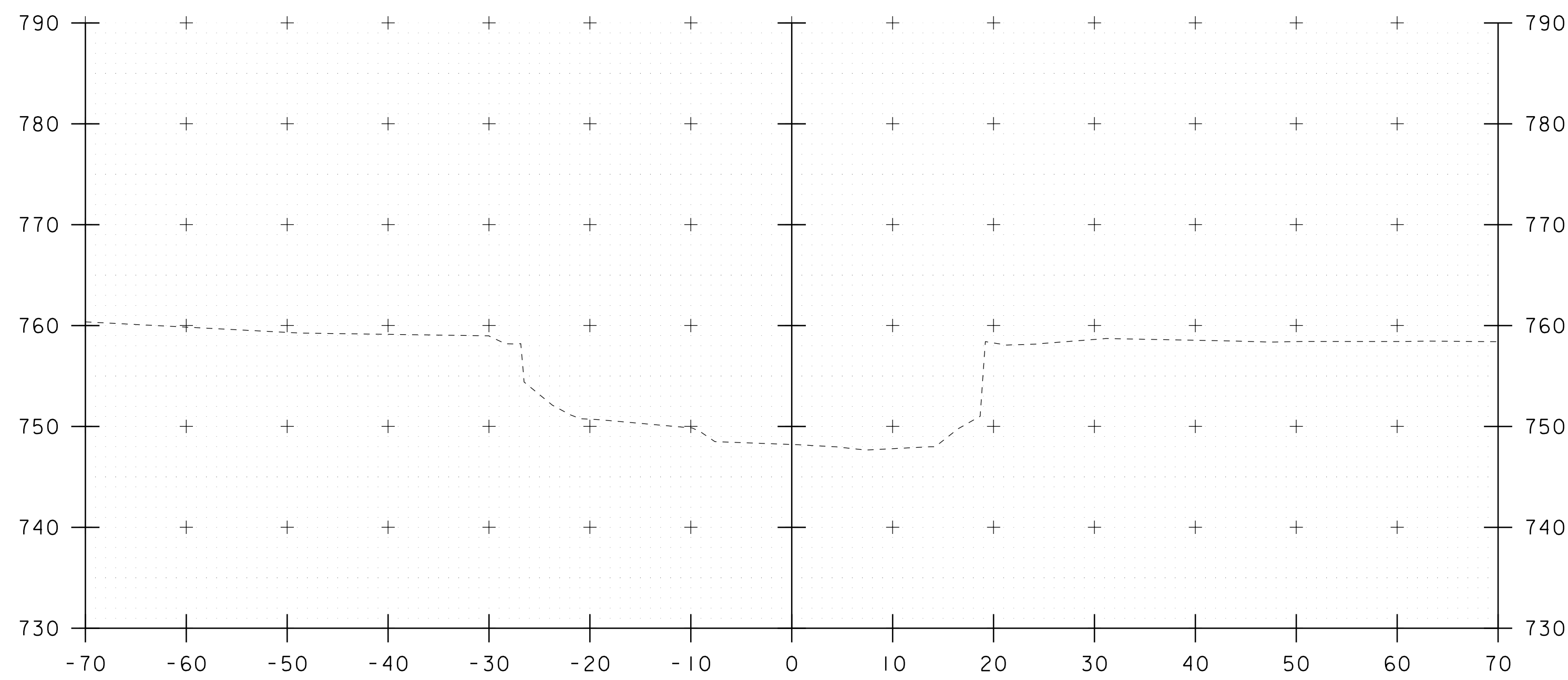
50+75

STA. 50+25 TO STA. 51+00

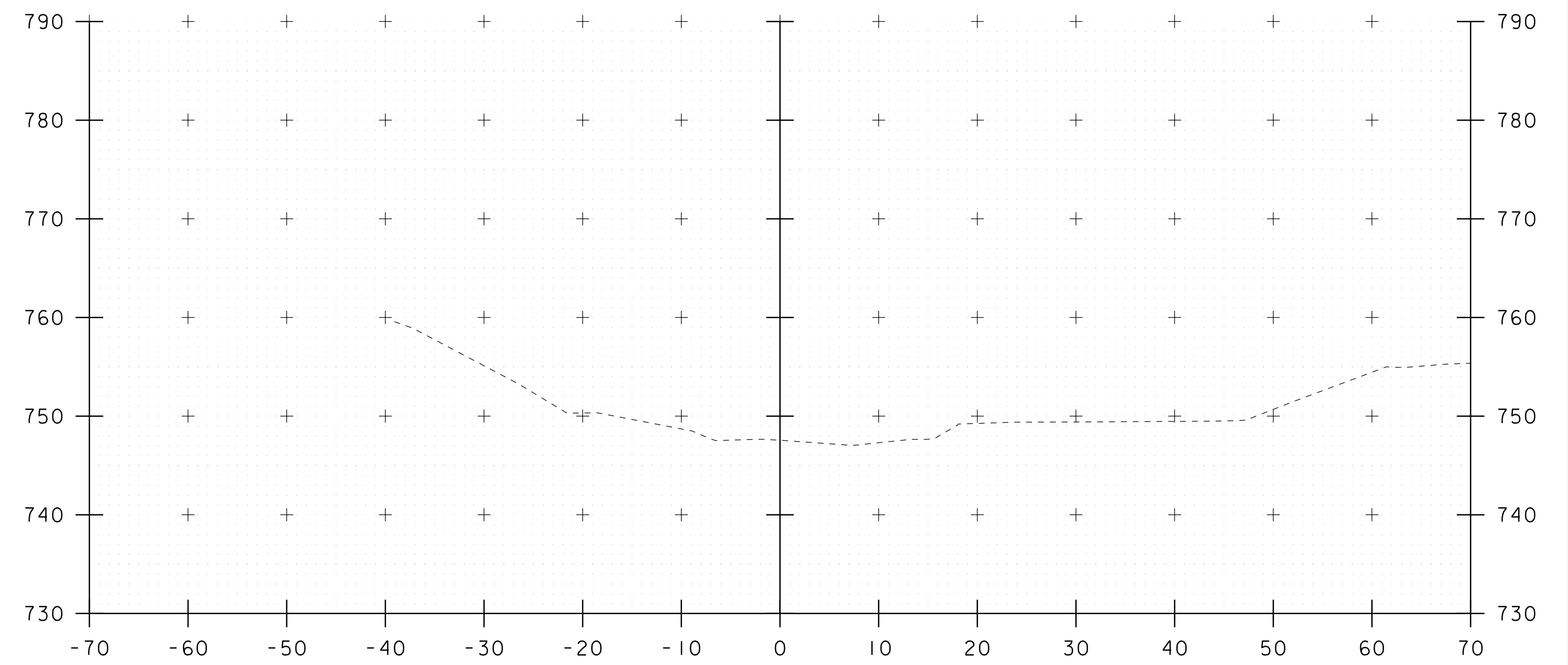
PROJECT NAME: CALAIS	PLOT DATE: 15-NOV-2013
PROJECT NUMBER: BHF 037-2(12)	DRAWN BY: D.D.BEARD
FILE NAME: I2b148/s12b148xs1.dgn	DESIGNED BY: -----
PROJECT LEADER: C.P.WILLIAMS	CHECKED BY: -----
CHANNEL CROSS SECTIONS 1	SHEET 15 OF 17



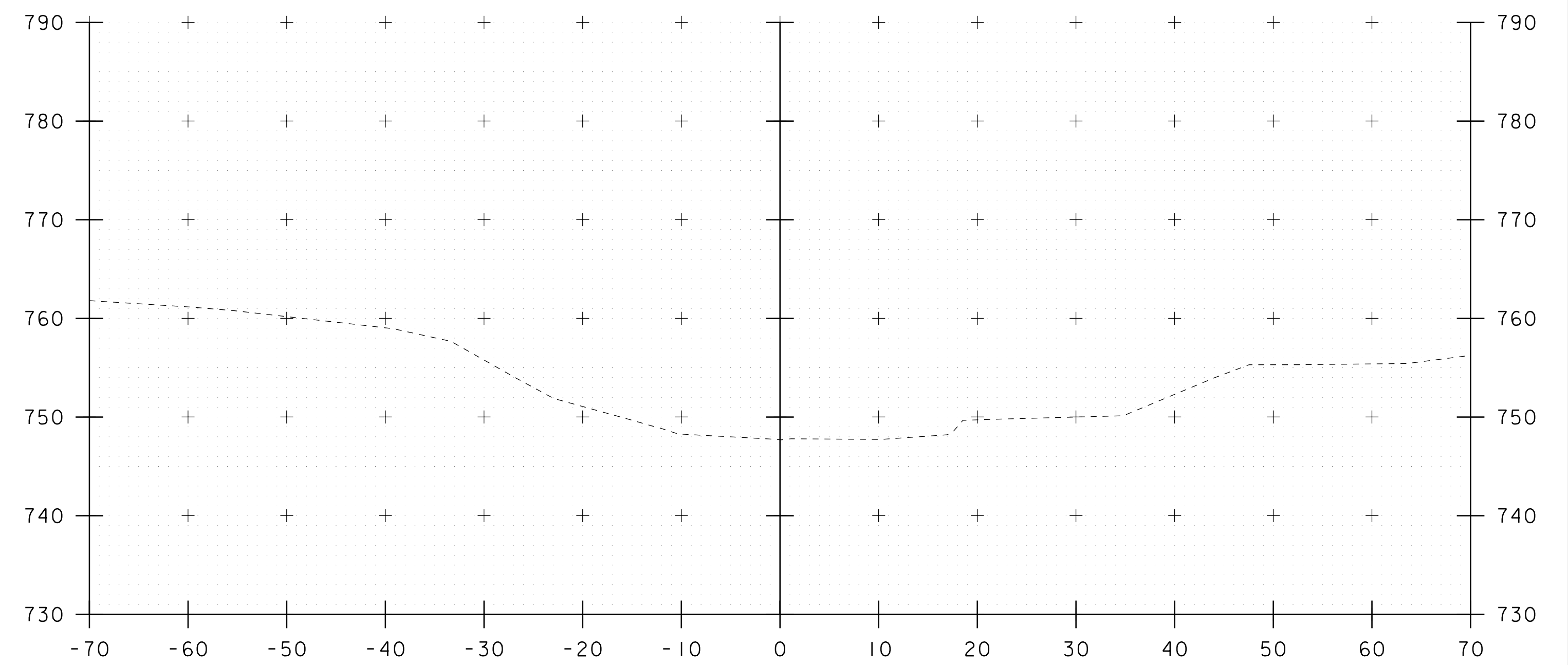
51+50



51+25



52+00



51+75

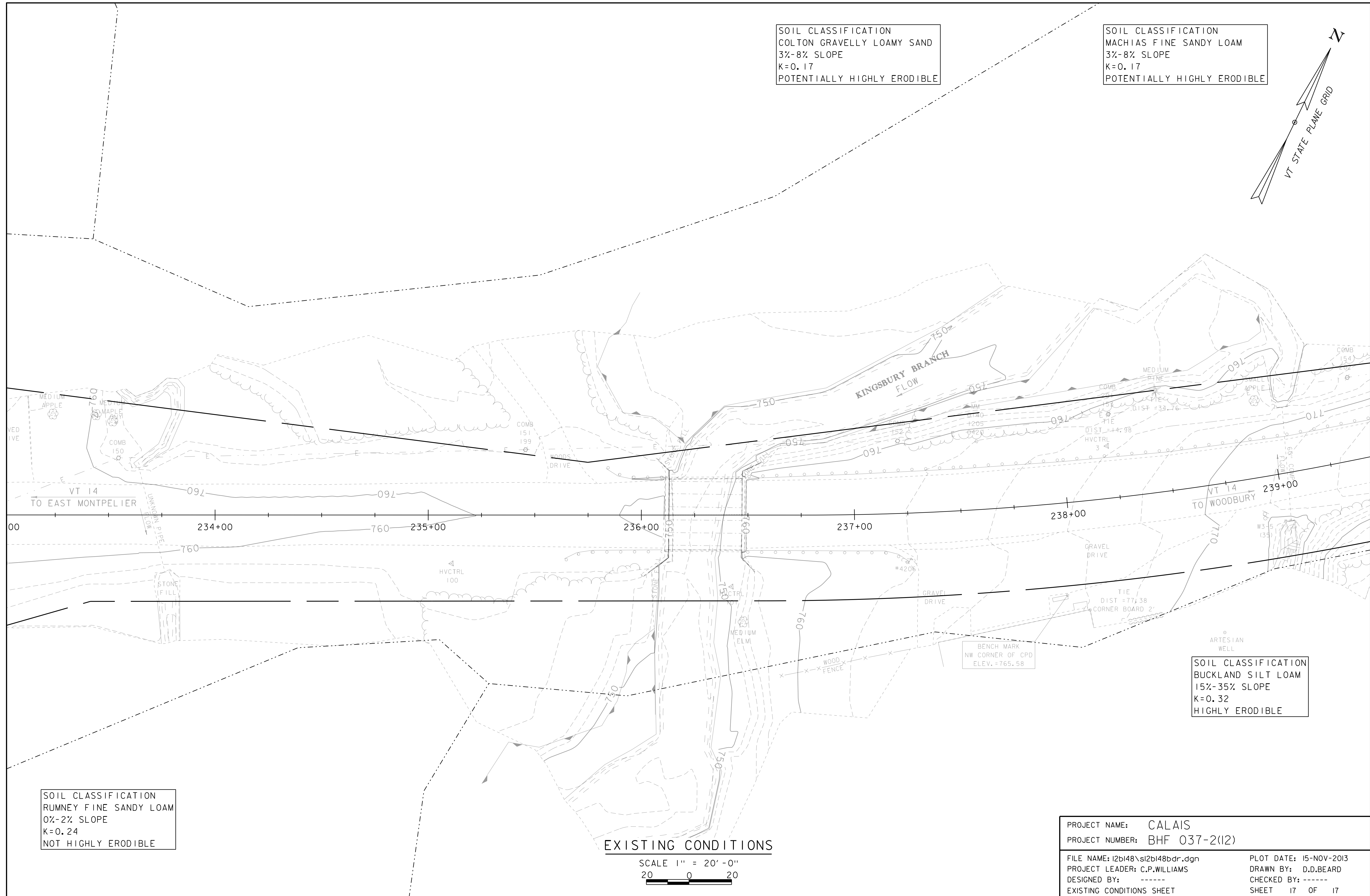
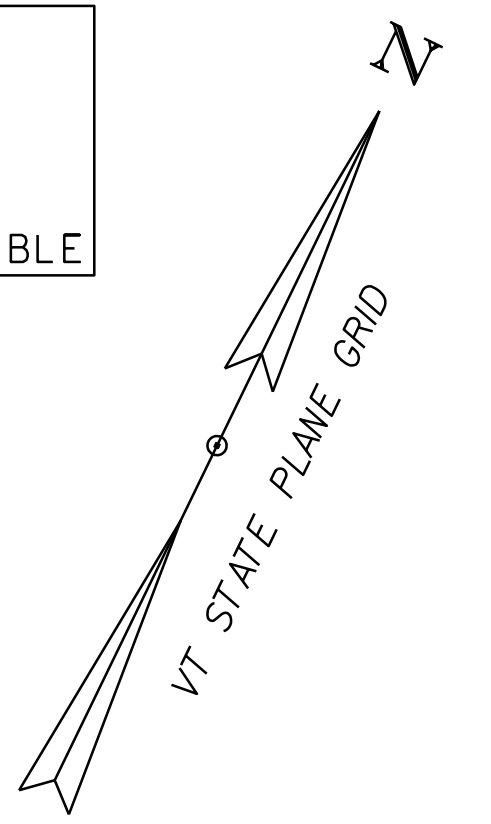
STA. 51+25 TO STA. 52+00

PROJECT NAME: CALAIS	
PROJECT NUMBER: BHF 037-2(12)	
FILE NAME: I2b148/s12b148xs1.dgn	PLOT DATE: 15-NOV-2013
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: -----	CHECKED BY: -----
CHANNEL CROSS SECTIONS 2	SHEET 16 OF 17



SOIL CLASSIFICATION  
COLTON GRAVELLY LOAMY SAND  
3%-8% SLOPE  
K=0.17  
POTENTIALLY HIGHLY ERODIBLE

SOIL CLASSIFICATION  
MACHIAS FINE SANDY LOAM  
3%-8% SLOPE  
K=0.17  
POTENTIALLY HIGHLY ERODIBLE



VT 14  
TO EAST MONTPELIER

VT 14  
TO WOODBURY

234+00 235+00 236+00 237+00 238+00 239+00

SOIL CLASSIFICATION  
RUMNEY FINE SANDY LOAM  
0%-2% SLOPE  
K=0.24  
NOT HIGHLY ERODIBLE

SOIL CLASSIFICATION  
BUCKLAND SILT LOAM  
15%-35% SLOPE  
K=0.32  
HIGHLY ERODIBLE

EXISTING CONDITIONS

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

PROJECT NAME: CALAIS	
PROJECT NUMBER: BHF 037-2(12)	
FILE NAME: I2b148\sl2b148bdr.dgn	PLOT DATE: 15-NOV-2013
PROJECT LEADER: C.P.WILLIAMS	DRAWN BY: D.D.BEARD
DESIGNED BY: -----	CHECKED BY: -----
EXISTING CONDITIONS SHEET	SHEET 17 OF 17