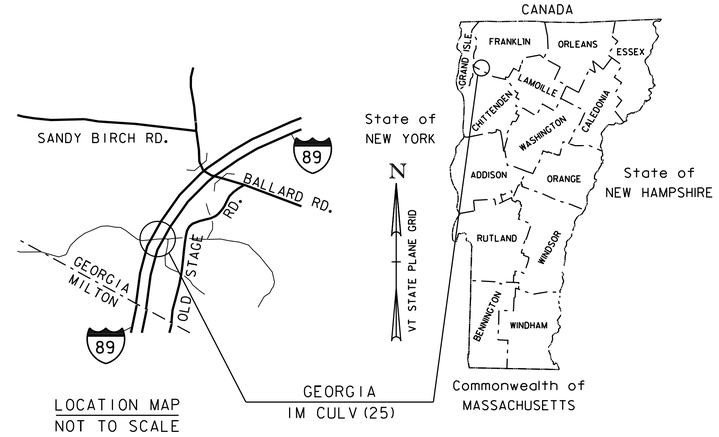
STATE OF VERMONT
AGENCY OF TRANSPORTATION



LOCATION MAP
NOT TO SCALE

PROPOSED IMPROVEMENT
CULVERT PROJECT
TOWN OF GEORGIA
COUNTY OF FRANKLIN

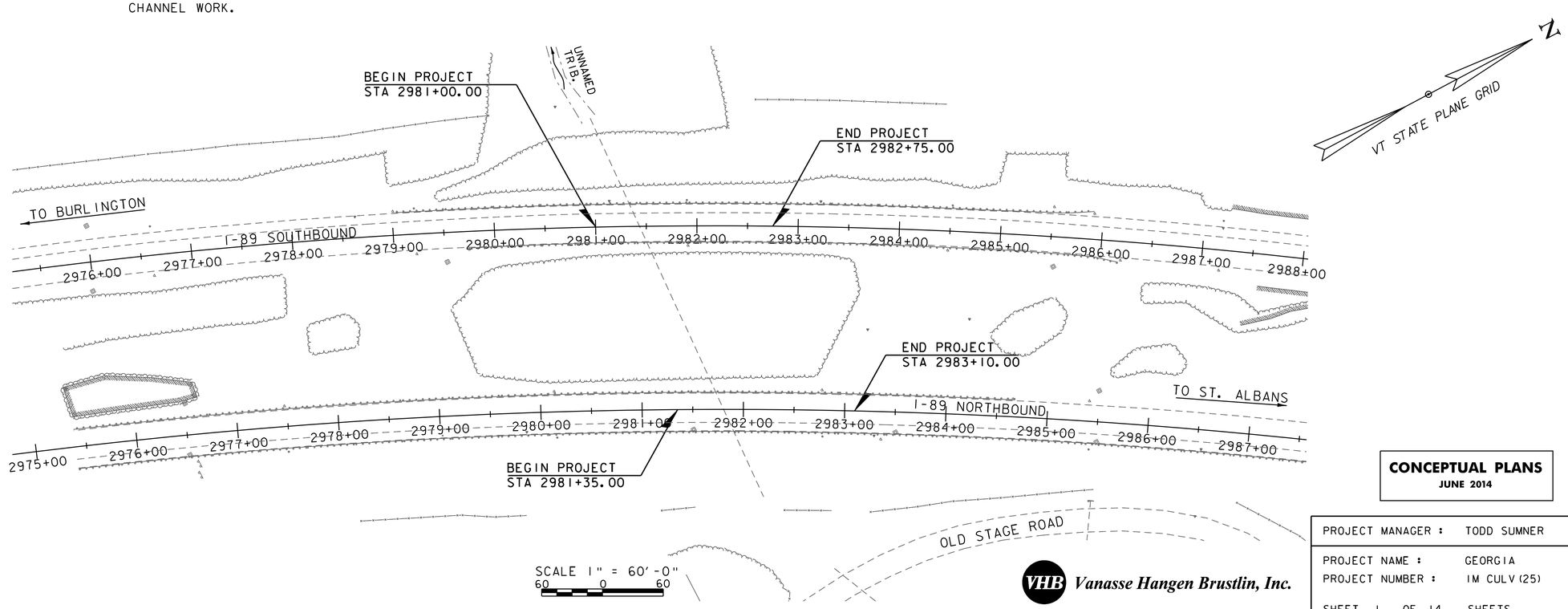
ROUTE: I-89 (PRINCIPAL ARTERIAL)

CULVERT NOS. 83-1N AND 83-1S

PROJECT LOCATION: LOCATED IN THE COUNTY OF FRANKLIN, TOWN OF GEORGIA, ON I-89; CULVERT NOS. 83-IN AND 83-IS OVER AN UNNAMED TRIBUTARY TO STONE BRIDGE BROOK, APPROXIMATELY 0.4 MILES NORTH OF THE GEORGIA/MILTON TOWN LINE.

PROJECT DESCRIPTION: WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES THE INSTALLATION OF A NEW CULVERT AND CLOSURE OF THE EXISTING CULVERT, WITH ASSOCIATED ROADWAY AND CHANNEL WORK.

LENGTH OF CULVERT:	83-IN & S	425.0 FT
LENGTH OF PROJECT:		450.0 FT



CONCEPTUAL PLANS
JUNE 2014

QUALITY ASSURANCE PROGRAM : LEVEL	
SURVEYED BY :	VHB
SURVEYED DATE :	JANUARY 2013
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD83 (2007)

VHB Vanasse Hangen Brustlin, Inc.

PROJECT MANAGER :	TODD SUMNER
PROJECT NAME :	GEORGIA
PROJECT NUMBER :	IM CULV(25)
SHEET 1 OF 14	SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

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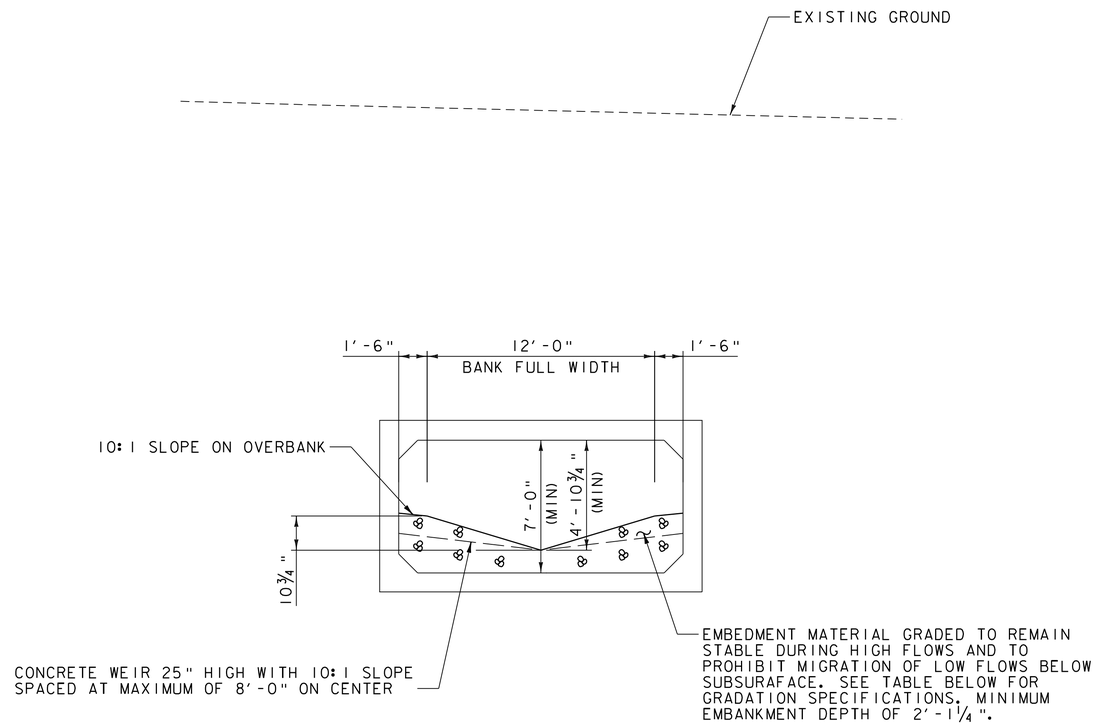
3	TYPICAL CULVERT SECTION
4	TYPICAL ROADWAY SECTIONS
5	COLD PLANING LIMITS
6-7	LAYOUT SHEETS
8-9	NORTHBOUND CROSS SECTIONS
10-11	SOUTHBOUND CROSS SECTIONS
12-14	CHANNEL CROSS SECTIONS

Vanasse Hangen Brustlin, Inc.

PROJECT NAME:	GEORGIA		
PROJECT NUMBER:	CULV(25)		
FILE NAME:	11a218index.dgn	PLOT DATE:	06/03/2014
PROJECT LEADER:	M.A. COLGAN	DRAWN BY:	M.C. SCOTT
DESIGNED BY:	J.J. WESTCOTT	CHECKED BY:	A.P. GUYETTE
INDEX OF SHEETS		SHEET 2	OF 14

VHB 57579



TYPICAL CULVERT SECTION

SCALE ¼" = 1'-0"

EMBEDMENT TABLE:

D (x) (%)	83-1	METHOD	NOTES
D5	0.01	FULLER-THOMPSON	FINE MATERIAL TO PROHIBIT SUBSRUFACE FLOW
D16	0.25	FULLER-THOMPSON	FINE MATERIAL TO PROHIBIT SUBSRUFACE FLOW
D50	2.5	ISBASH CURVE	STABLE COARSE MATERIAL
D100	4	ISBASH CURVE	IMMOBILE MATERIAL

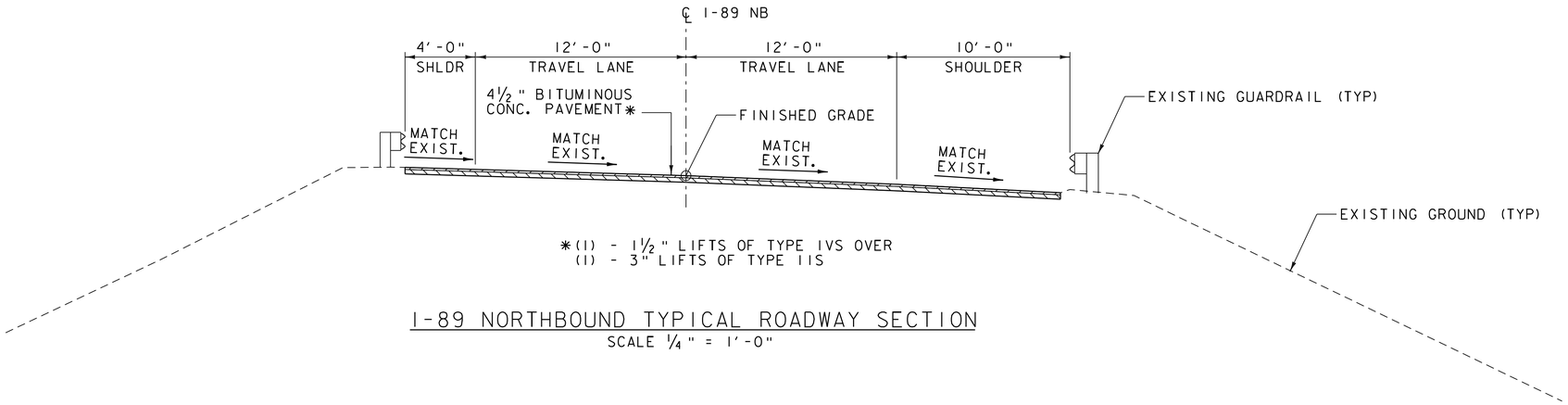
Vanasse Hangen Brustlin, Inc.

PROJECT NAME: GEORGIA
PROJECT NUMBER: IM CULV(25)

FILE NAME: z11a218typ.dgn
PROJECT LEADER: M.A. COLGAN
DESIGNED BY: J.D. KEENER
TYPICAL CULVERT SECTION

PLOT DATE: 6/13/2014
DRAWN BY: J.D. KEENER
CHECKED BY: J.J. WESTCOTT
SHEET 3 OF 14

VHB 57579



*(1) - 1½" LIFTS OF TYPE IVS OVER
(1) - 3" LIFTS OF TYPE IIS

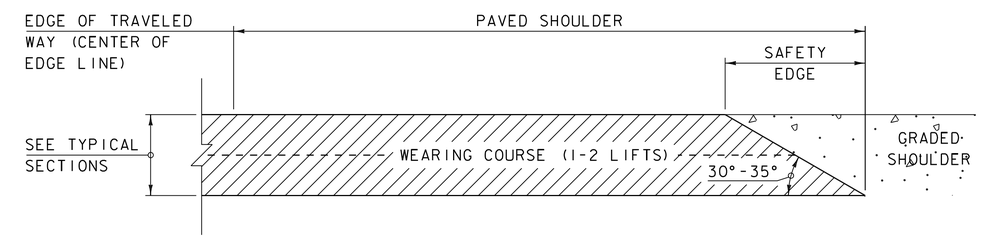
I-89 NORTHBOUND TYPICAL ROADWAY SECTION

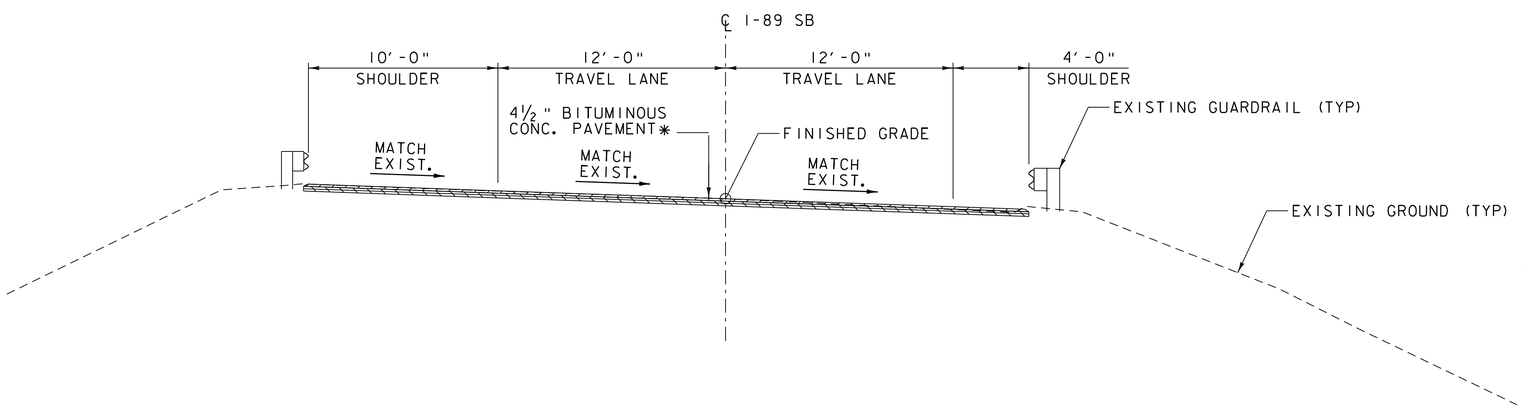
SCALE ¼" = 1'-0"

MATERIAL TOLERANCES

(IF USED ON PROJECT)

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





*(1) - 1½" LIFTS OF TYPE IVS OVER
(1) - 3" LIFTS OF TYPE IIS

I-89 SOUTHBOUND TYPICAL ROADWAY SECTION

SCALE ¼" = 1'-0"

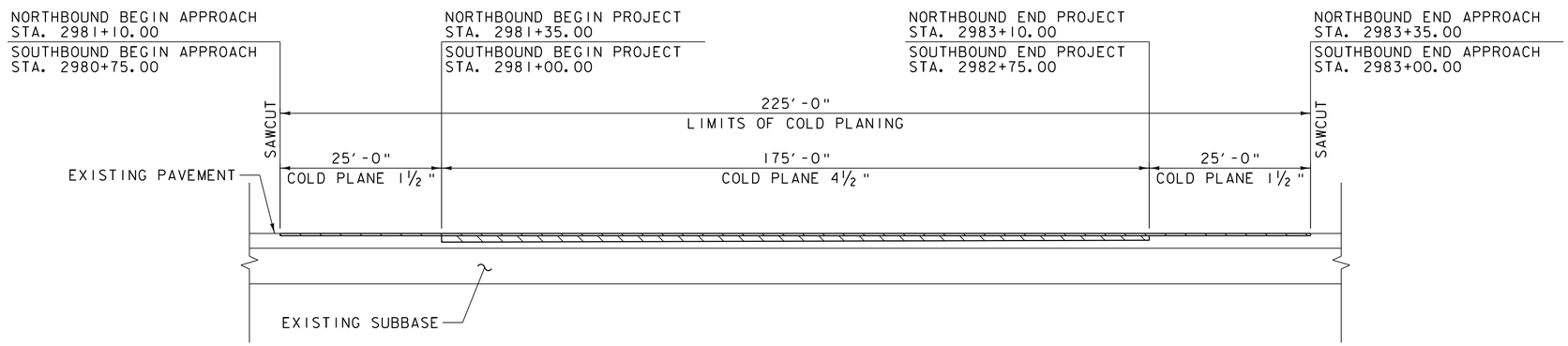
SAFETY EDGE DETAIL

NOT TO SCALE

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".

Vanasse Hangen Brustlin, Inc.

PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218typ.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: J.D. KEENER
DESIGNED BY: J.D. KEENER	CHECKED BY: J.J. WESTCOTT
TYPICAL ROADWAY SECTIONS	SHEET 4 OF 14



COLD PLANING LIMITS

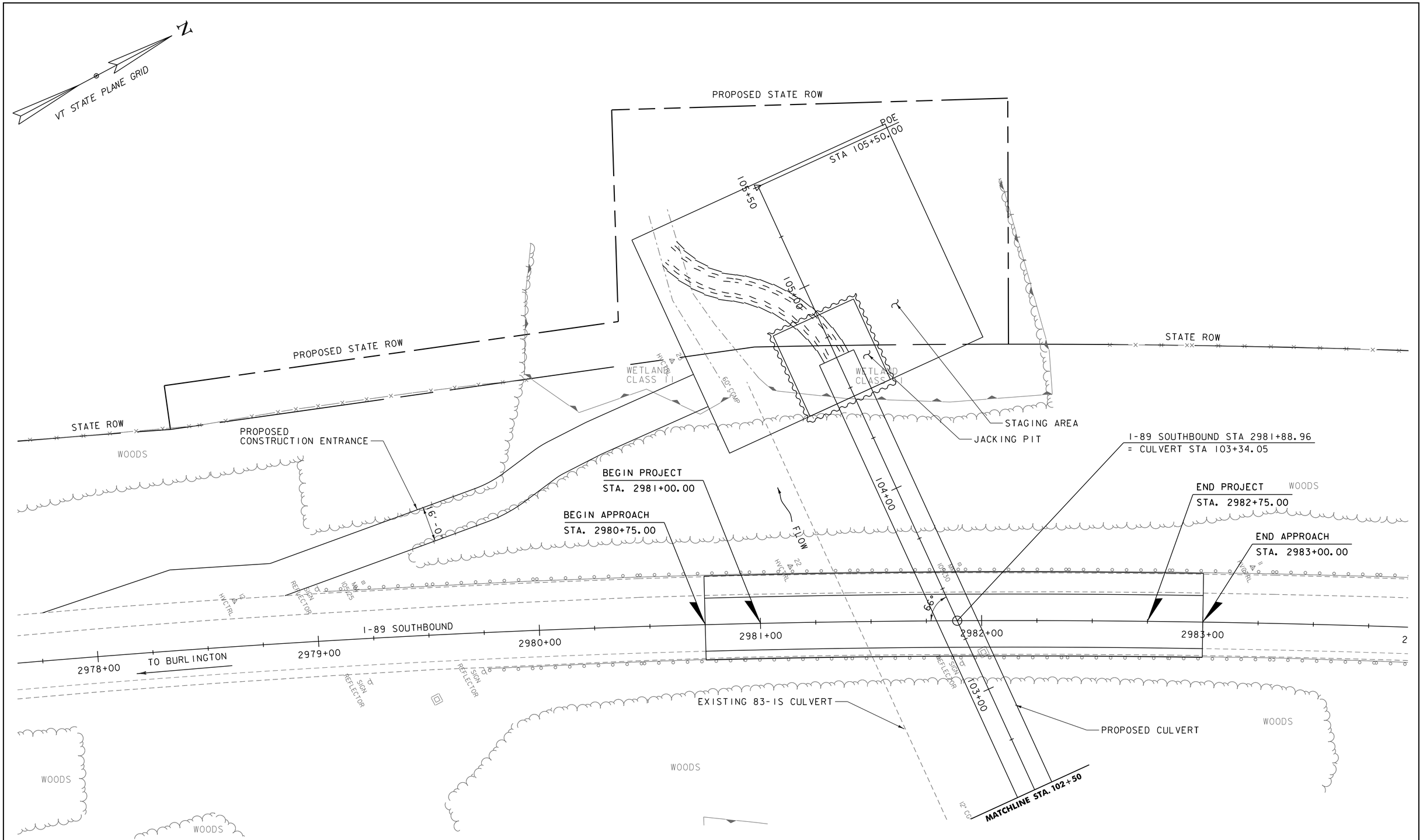
NOT TO SCALE

* (1) - 1½" LIFTS OF TYPE IVS OVER
(1) - 3" LIFTS OF TYPE IIS

NOTE: EMULSIFIED ASPHALT IS TO BE APPLIED AT A RATE OF 0.040 GAL/SY BETWEEN ALL LIFTS OF BITUMINOUS CONCRETE PAVEMENT AND ON THE EXISTING PAVEMENT AND THE APPROACH SLAB PRIOR TO PLACING THE FIRST LIFT, AS DIRECTED BY THE ENGINEER.

Vanasse Hangen Brustlin, Inc.

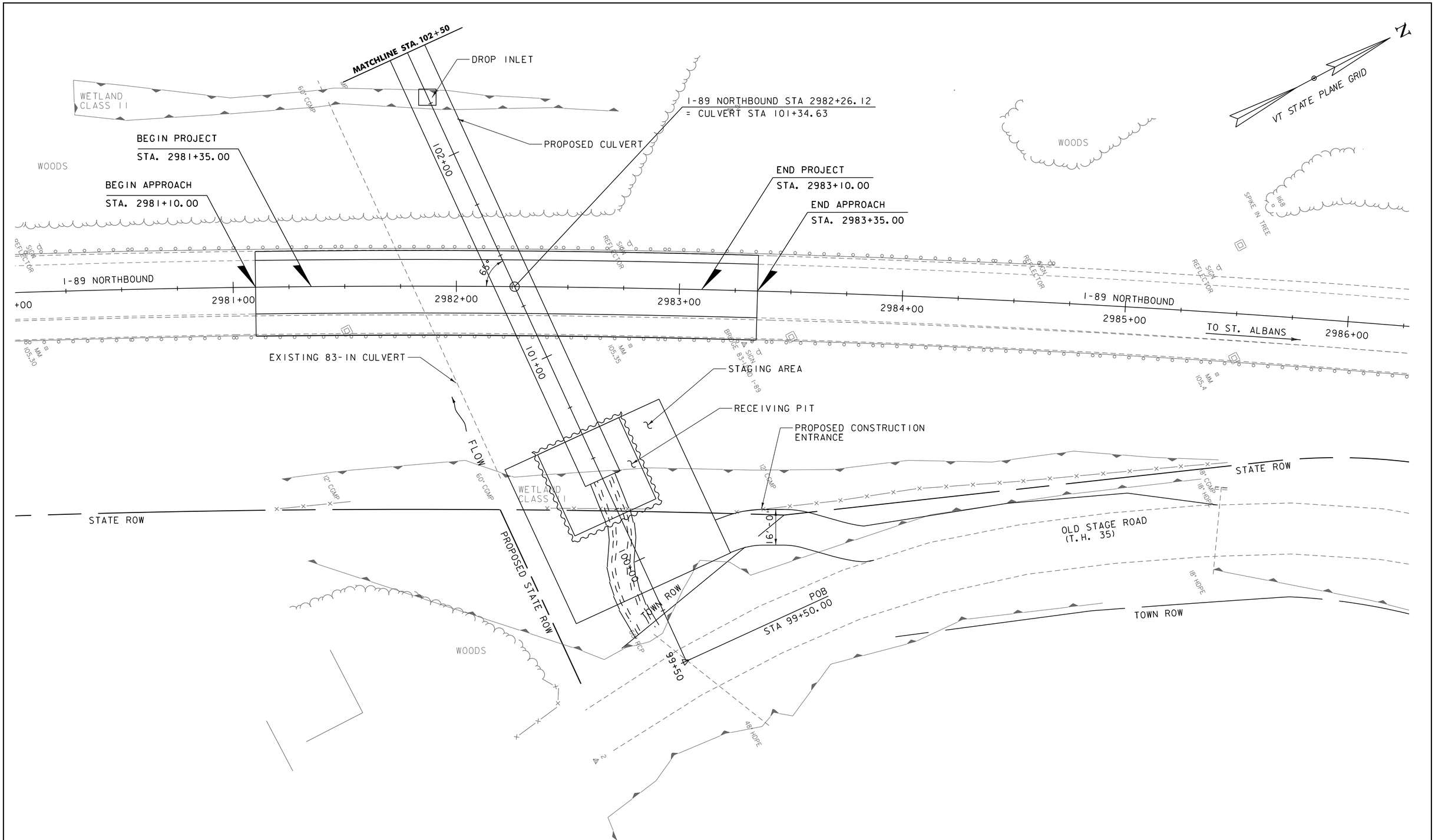
PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218typ.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: M.C. SCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
COLDING PLANING LIMITS	SHEET 5 OF 14



Vanasse Hangen Brustlin, Inc.

PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218bdr_nul.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: J.D. KEENER
DESIGNED BY: J.D. KEENER	CHECKED BY: J.J. WESTCOTT
LAYOUT SHEET (1 OF 2)	SHEET 6 OF 14

VHB 57579

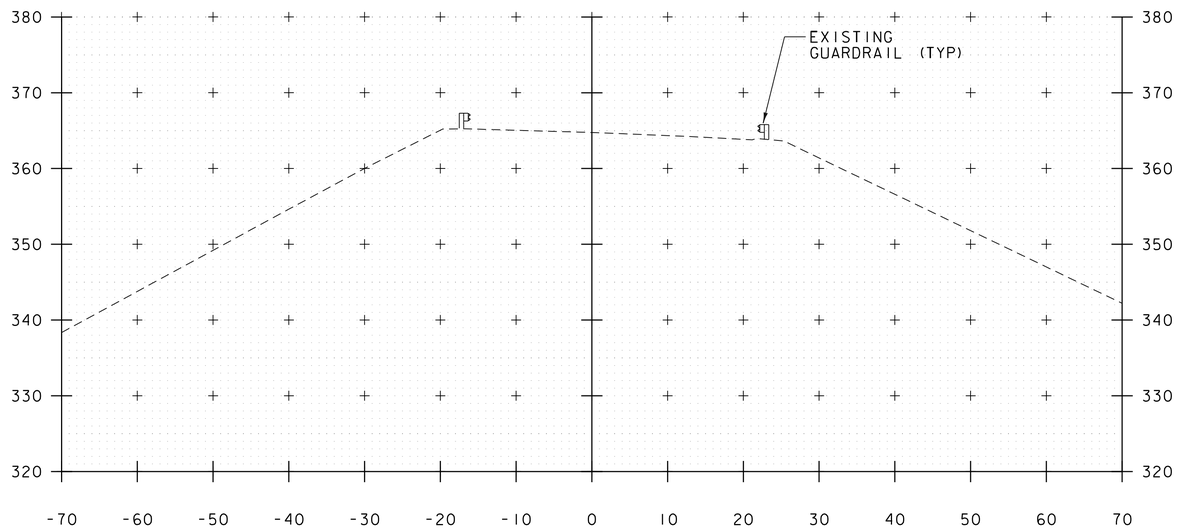


SCALE 1" = 20'-0"
20 0 20

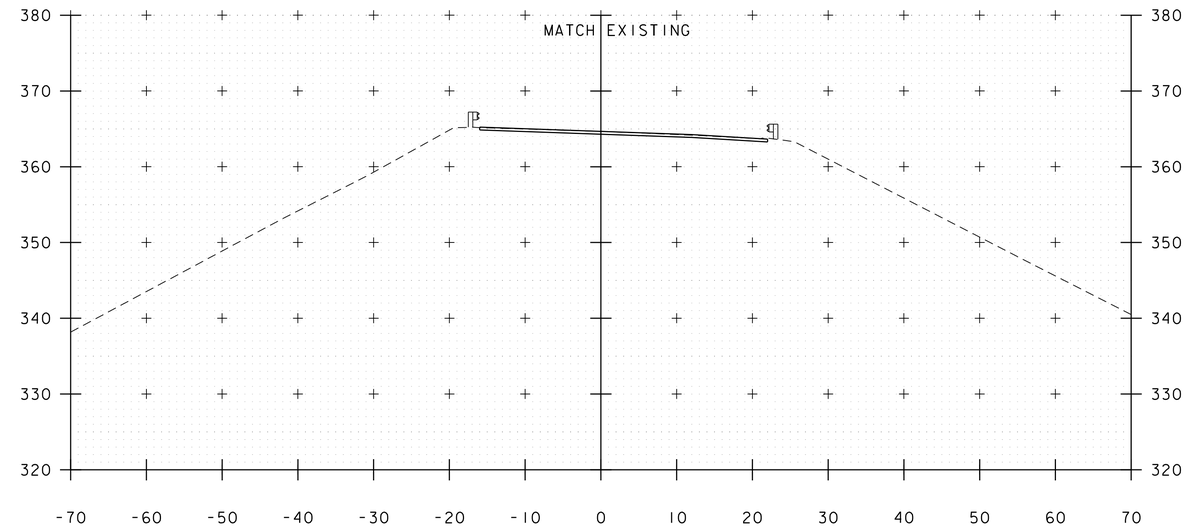
VHB Vanasse Hangen Brustlin, Inc.

PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218bdr_nul.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: J.D. KEENER
DESIGNED BY: J.D. KEENER	CHECKED BY: J.J. WESTCOTT
LAYOUT SHEET (2 OF 2)	SHEET 7 OF 14

VHB 57579



2981+00



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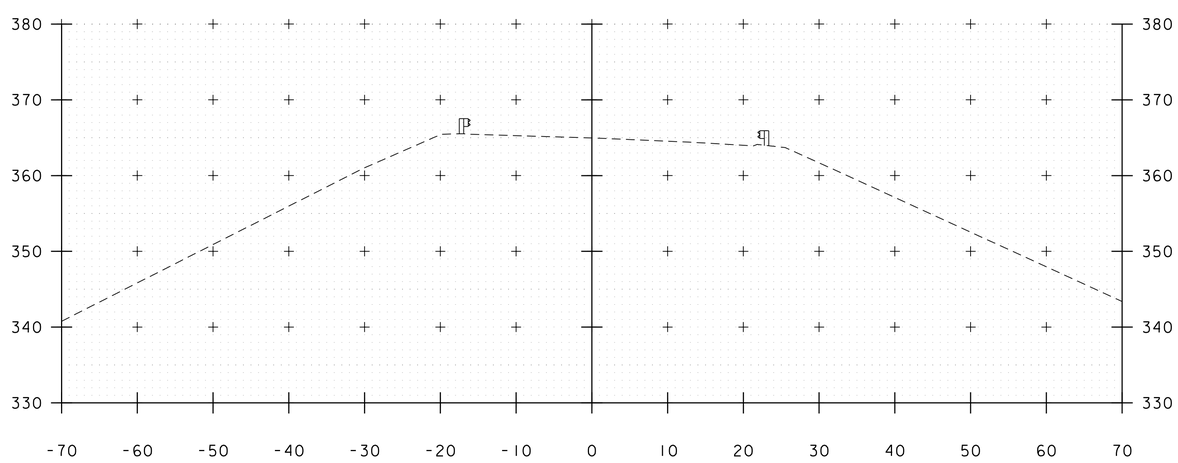
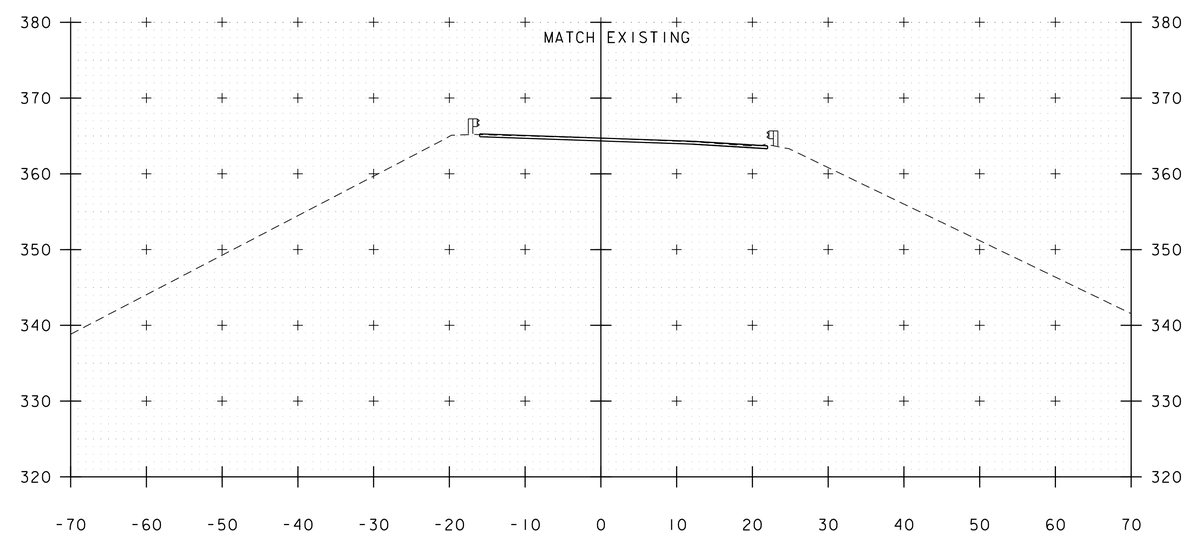


2980+50



2981+50
BEGIN PROJECT STA. 2981+35.00
BEGIN APPROACH STA. 2981+10.00

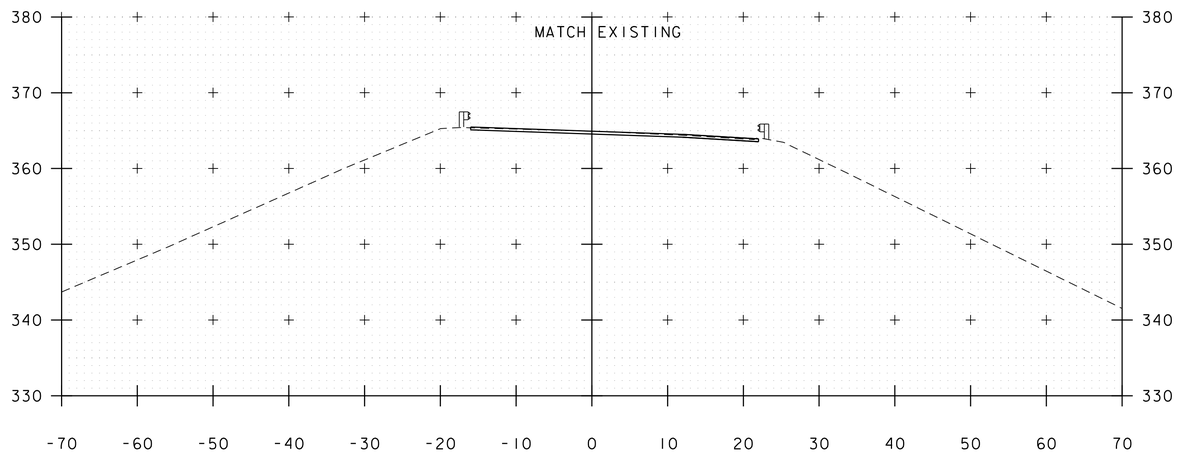
I-89 NORTHBOUND CROSS SECTIONS

STA. 2980+50 - 2982+00
SCALE 1" = 10'

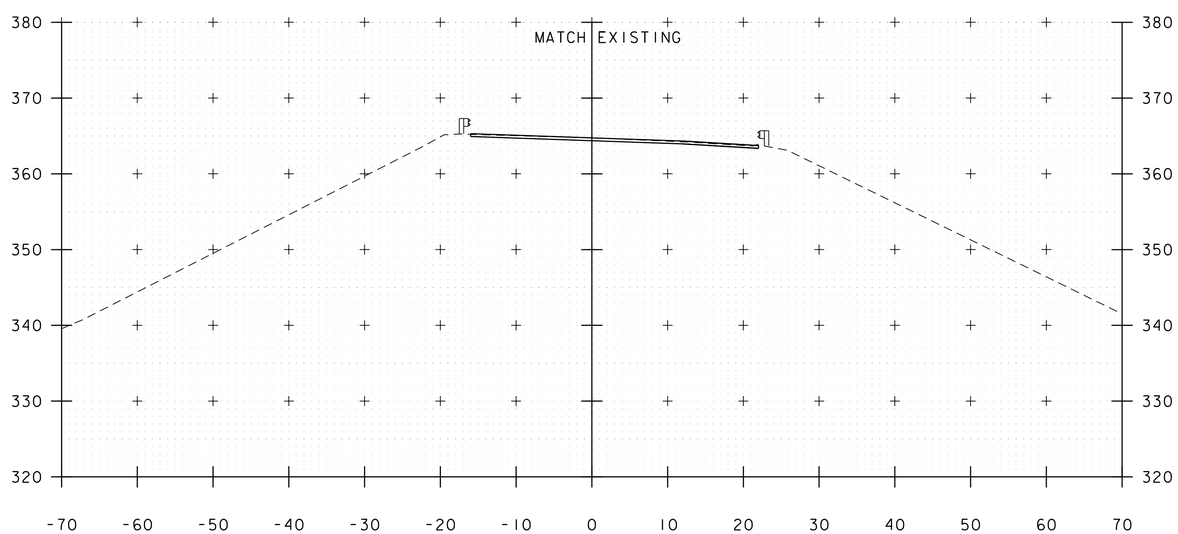
Vanasse Hangen Brustlin, Inc.

PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218xs.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: E.A. FIALA
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
NORTHBOUND CROSS SECTIONS (1 OF 2)	SHEET 8 OF 14

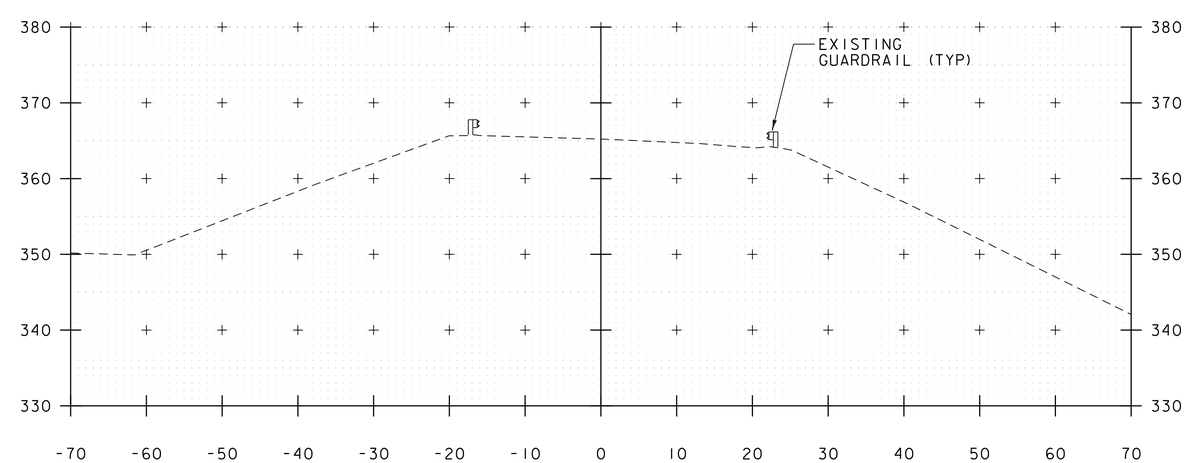
VHB 57579



2983+00



2982+50



2983+50

END APPROACH STA. 2983+35.00
END PROJECT STA. 2983+10.00

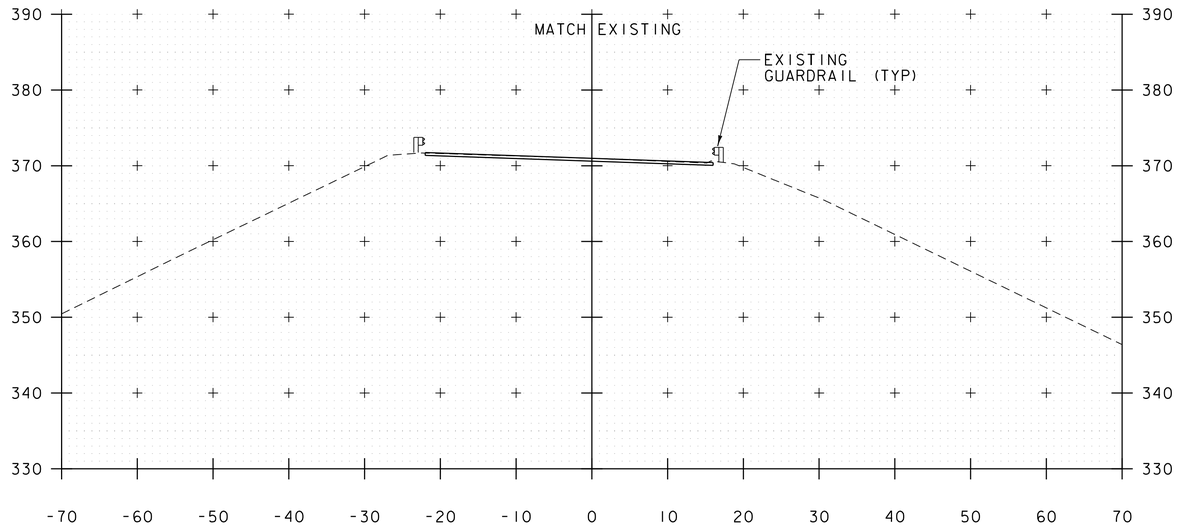
I-89 NORTHBOUND CROSS SECTIONS

STA. 2982+50 - 2983+50
SCALE 1" = 10"

Vanasse Hangen Brustlin, Inc.

PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218xs.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: E.A. FIALA
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
NORTHBOUND CROSS SECTIONS (2 OF 2)	SHEET 9 OF 14

VHB 57579



2981+00
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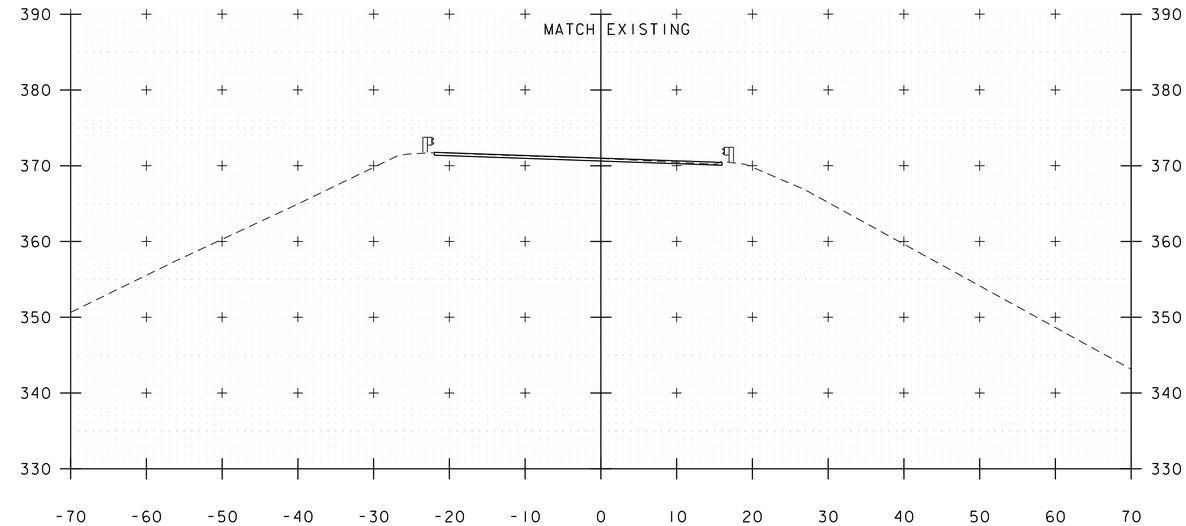
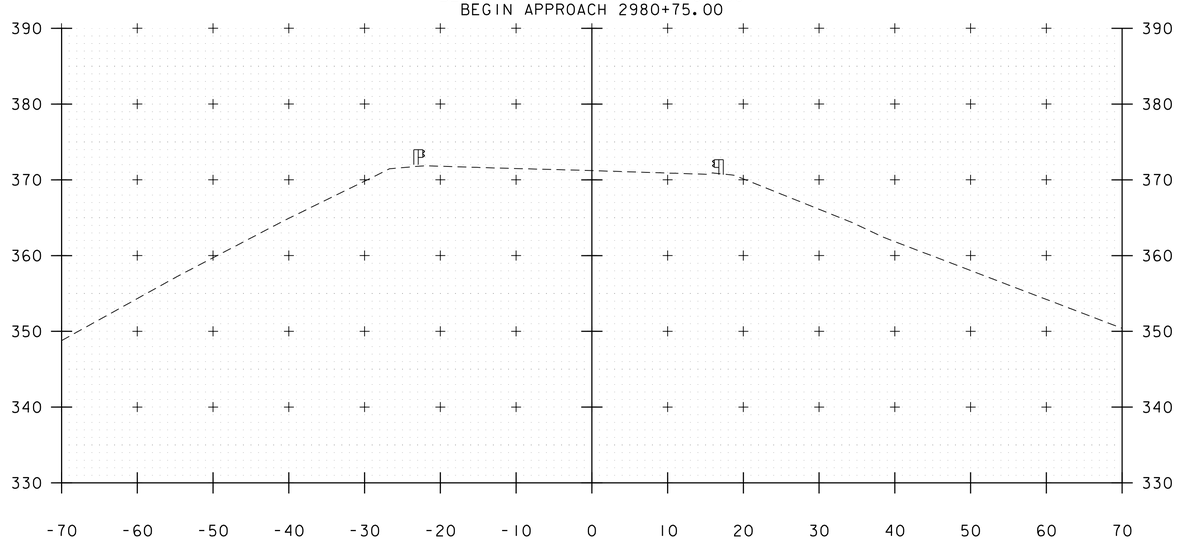
BEGIN APPROACH 2980+75.00



2982+00



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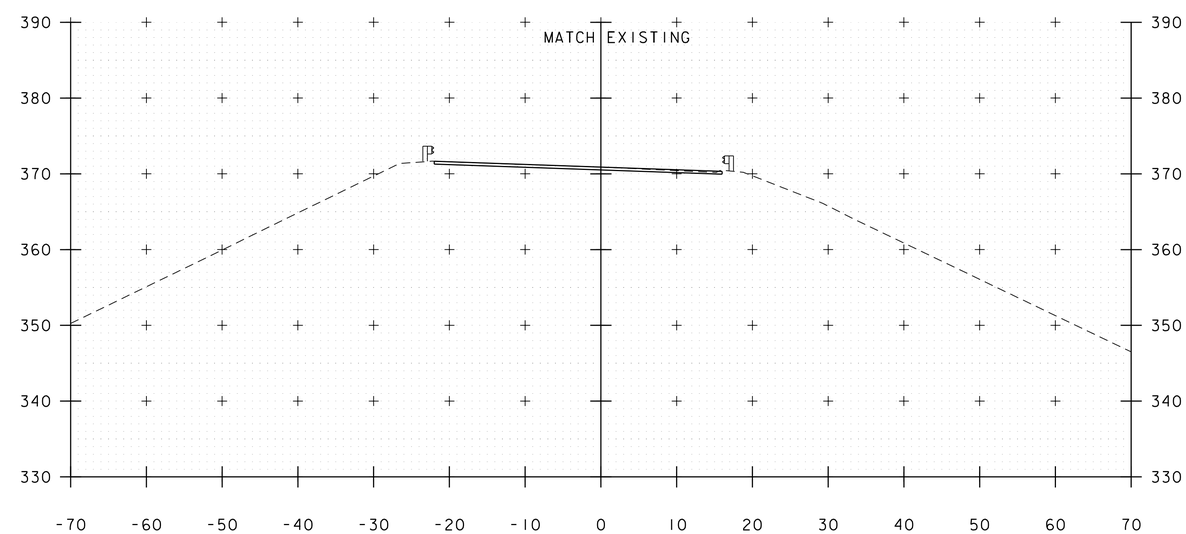


2981+50

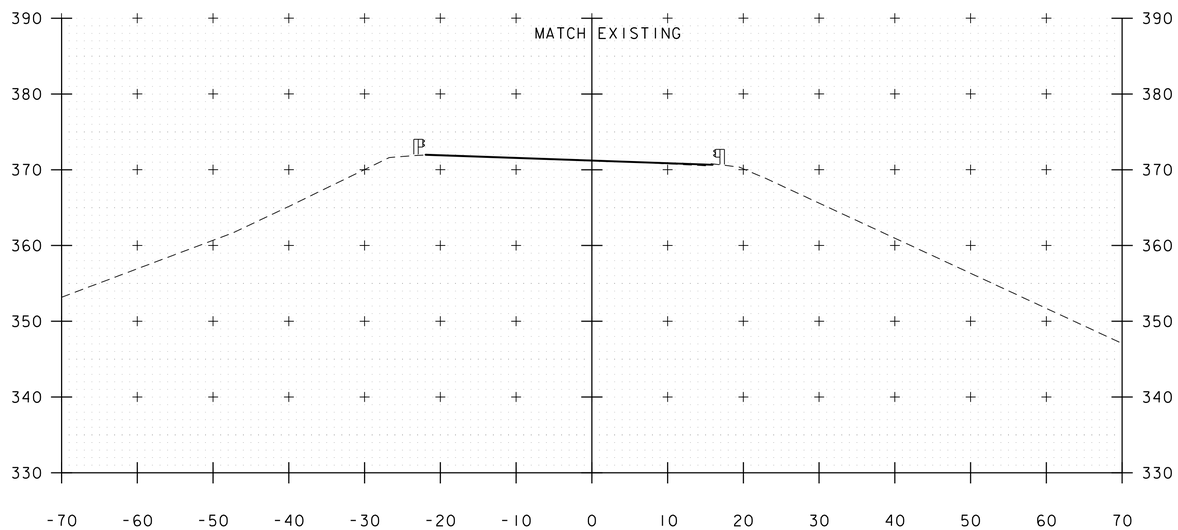
I-89 SOUTHBOUND CROSS SECTIONS

STA. 2980+50 - 2982+00
SCALE 1" = 10"

Vanasse Hangen Brustlin, Inc.

PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218xs.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: E.A. FIALA
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
SOUTHBOUND CROSS SECTIONS (1 OF 2)	SHEET 10 OF 14

VHB 57579



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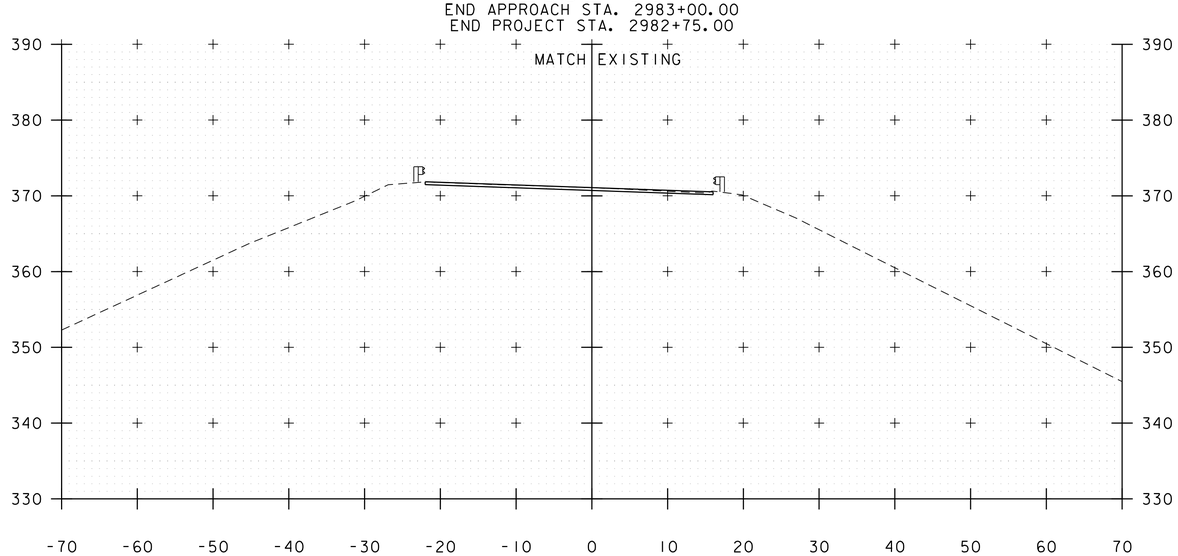
END PROJECT STA. 2982+75.00



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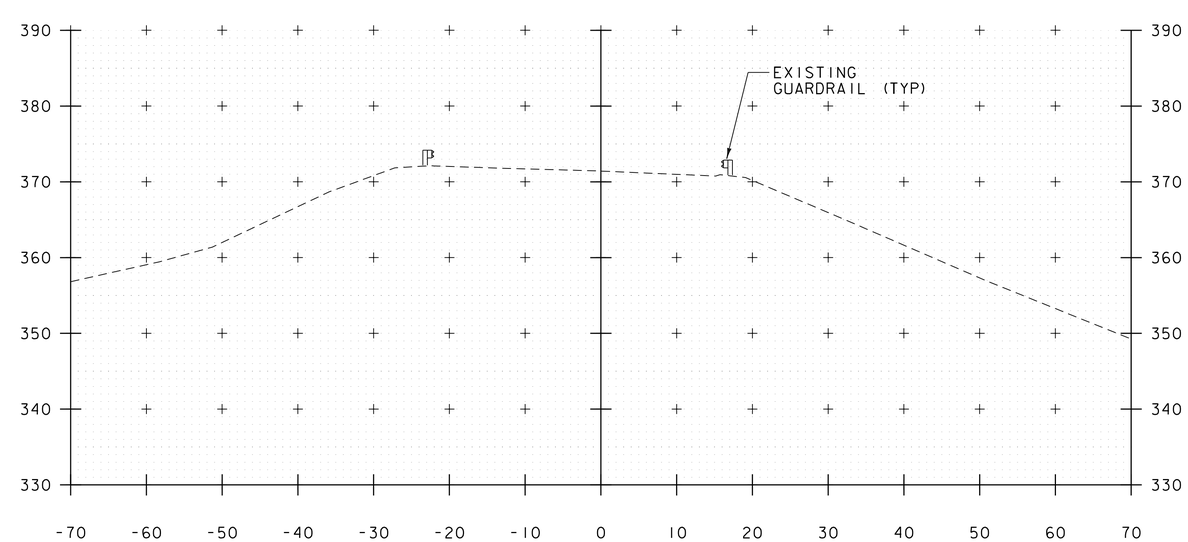


2983+50

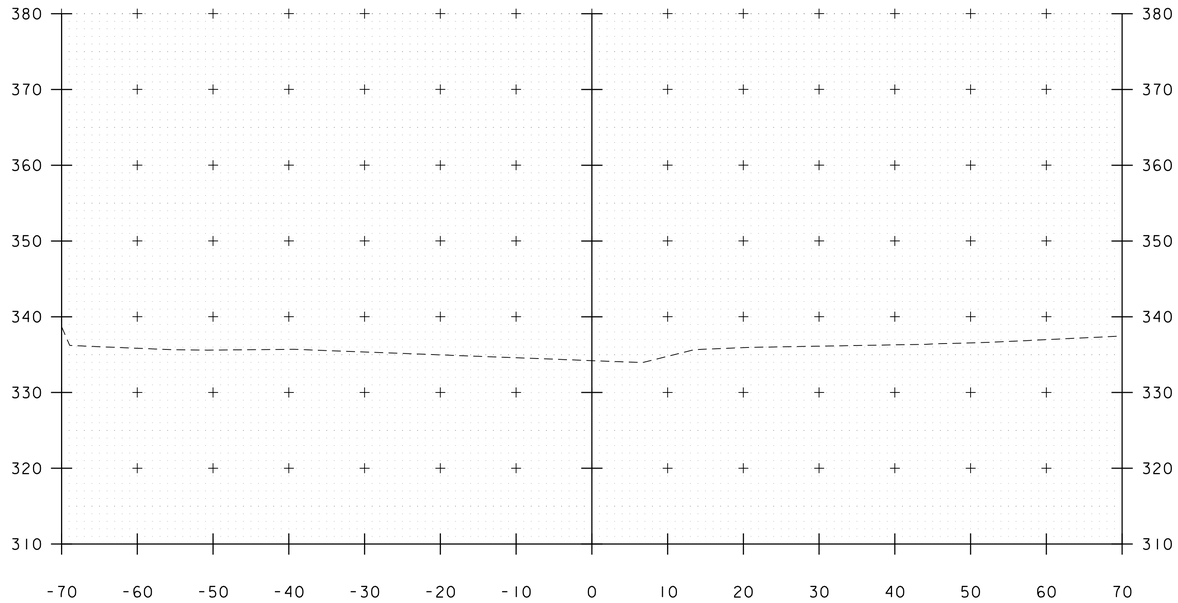
I-89 SOUTHBOUND CROSS SECTIONS

STA. 2982+50 - 2983+50
SCALE 1" = 10"

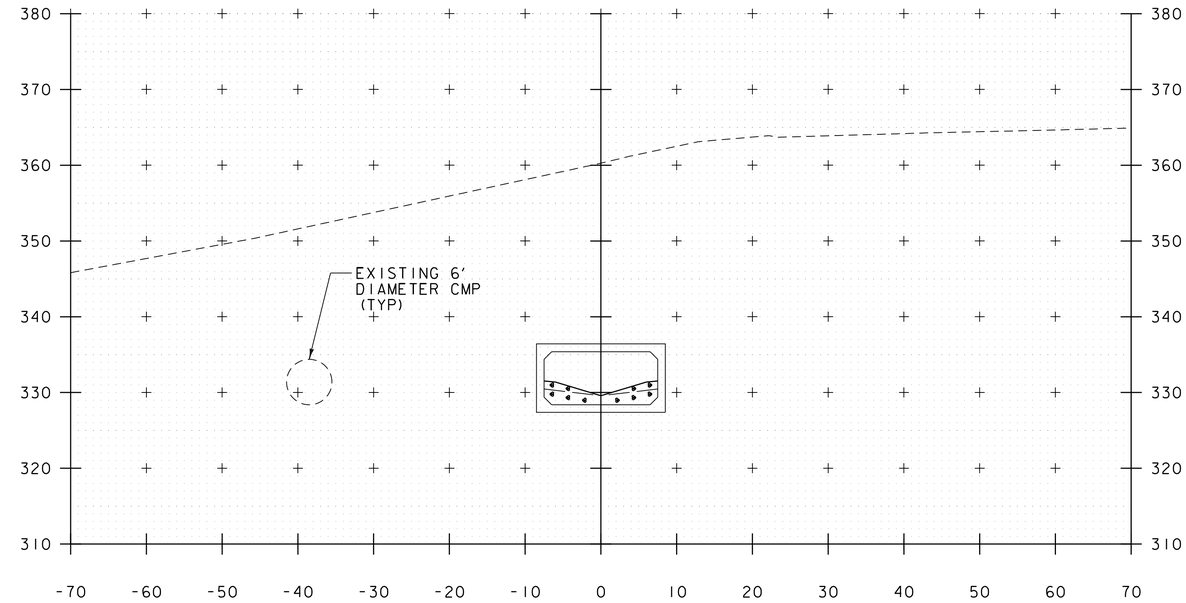
Vanasse Hangen Brustlin, Inc.

PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218xs.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: E.A. FIALA
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
SOUTHBOUND CROSS SECTIONS (2 OF 2)	SHEET 11 OF 14

VHB 57579



100+00



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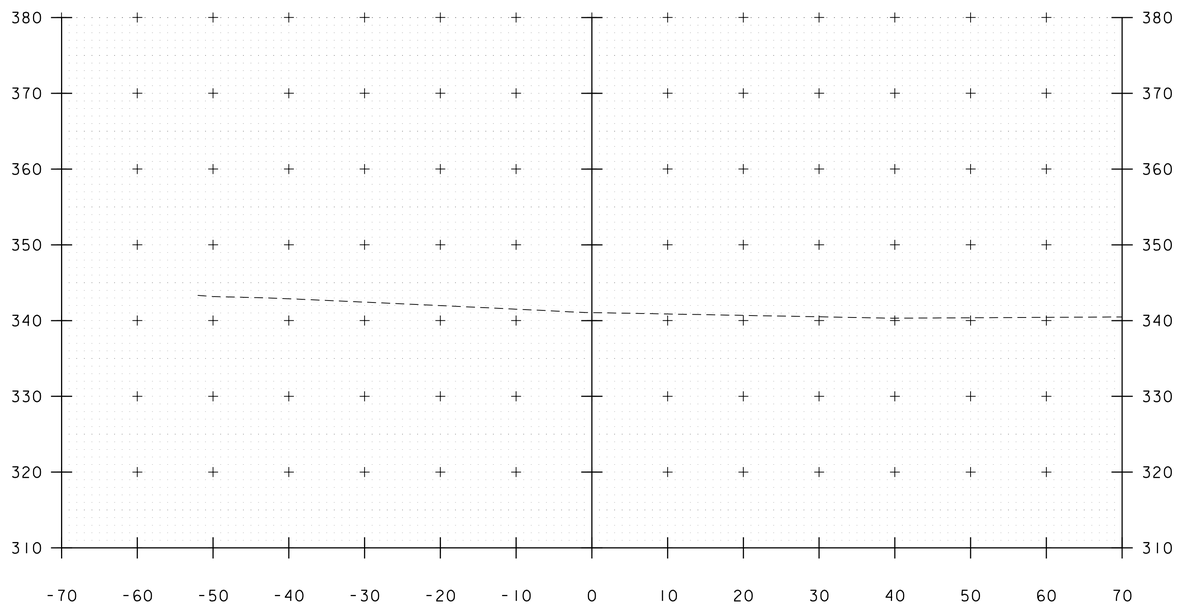
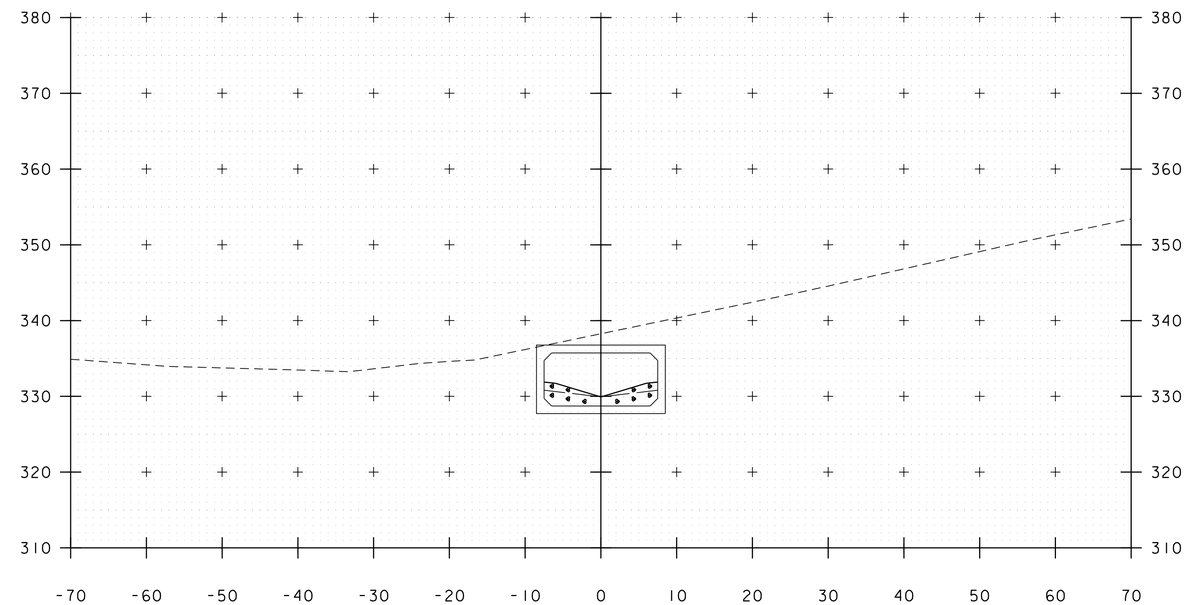


99+50



100+50
BEGIN CULVERT
STA. 100+40.00

CHANNEL CROSS SECTIONS

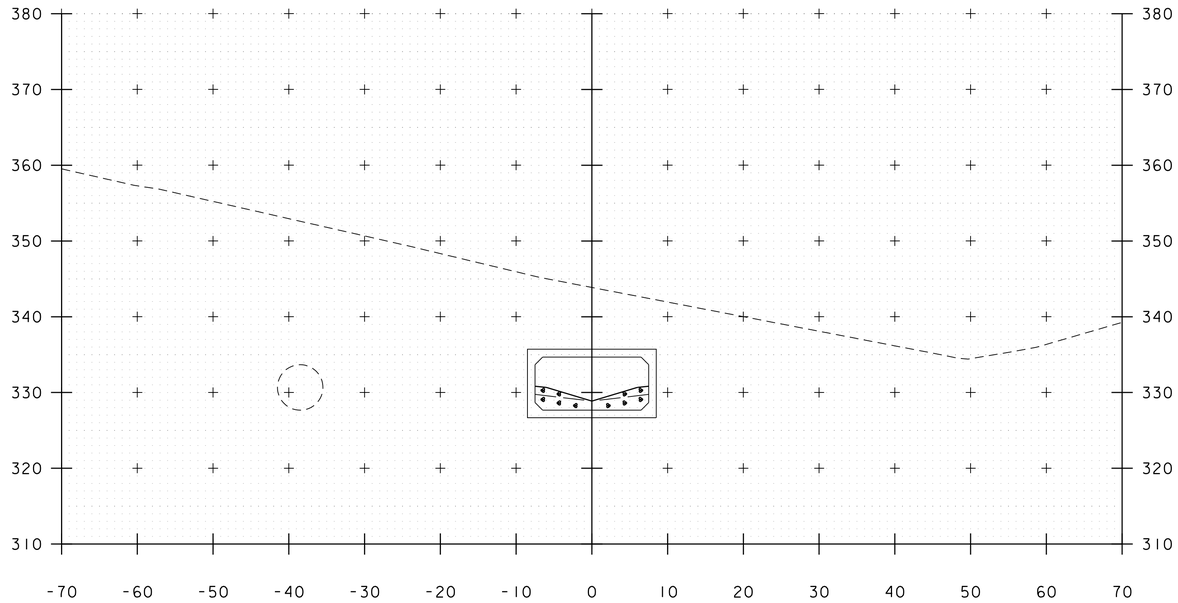
STA. 99+50 - 101+00
SCALE 1" = 10"

Vanasse Hangen Brustlin, Inc.

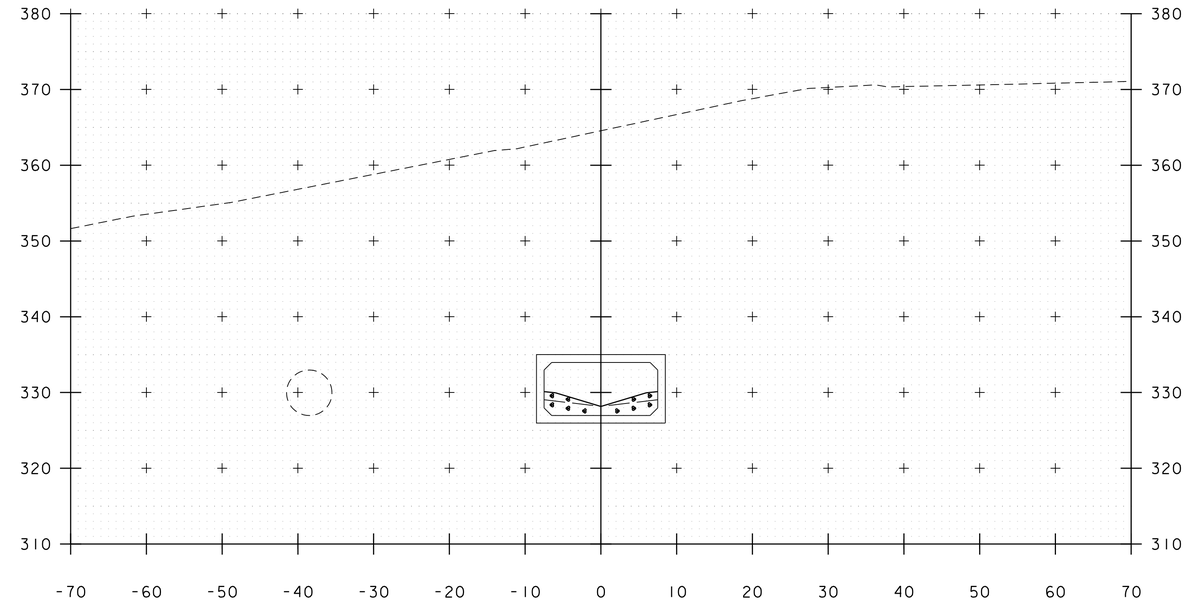
STA. 99+50 TO STA. 101+00

PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218xs.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTION (1 OF 3)	SHEET 12 OF 14

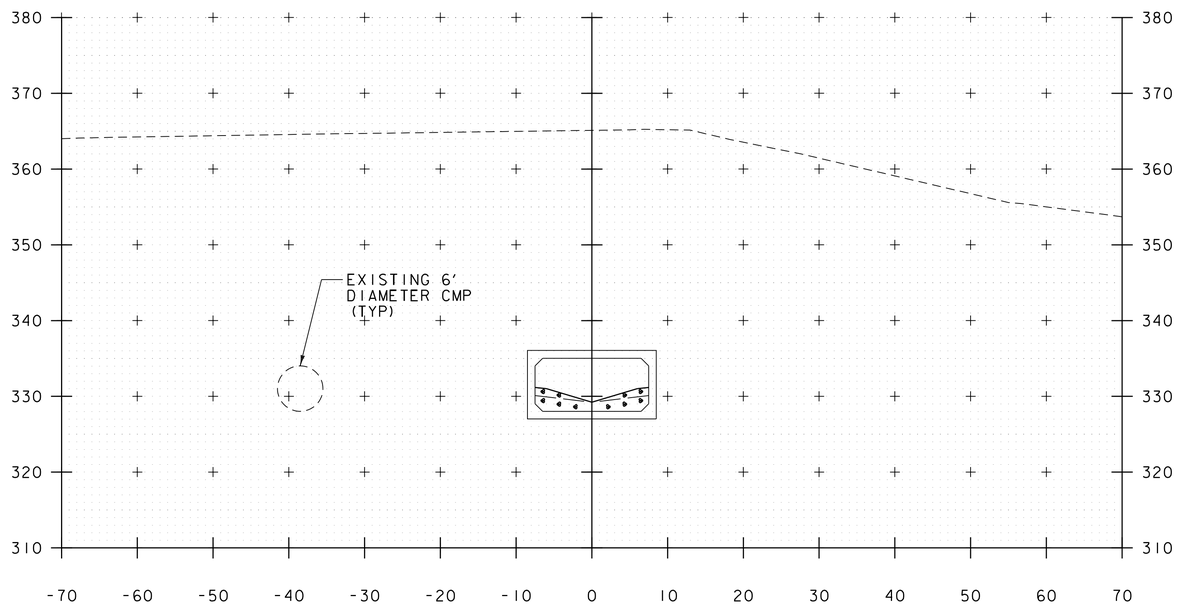
VHB 57579



102+00



103+00



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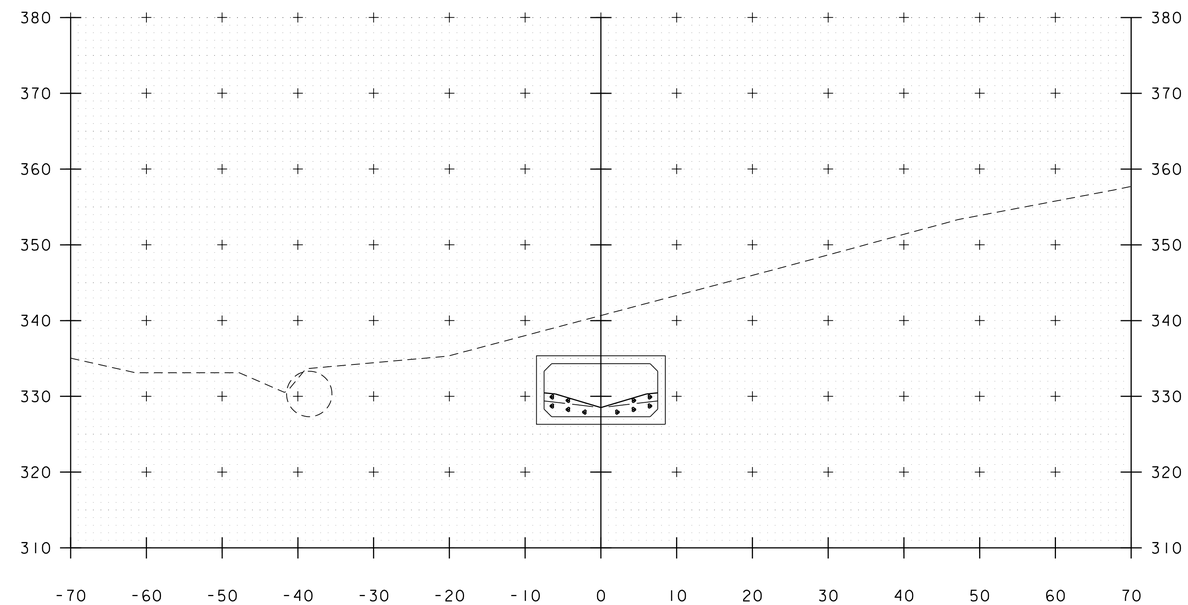


102+50

CHANNEL CROSS SECTIONS

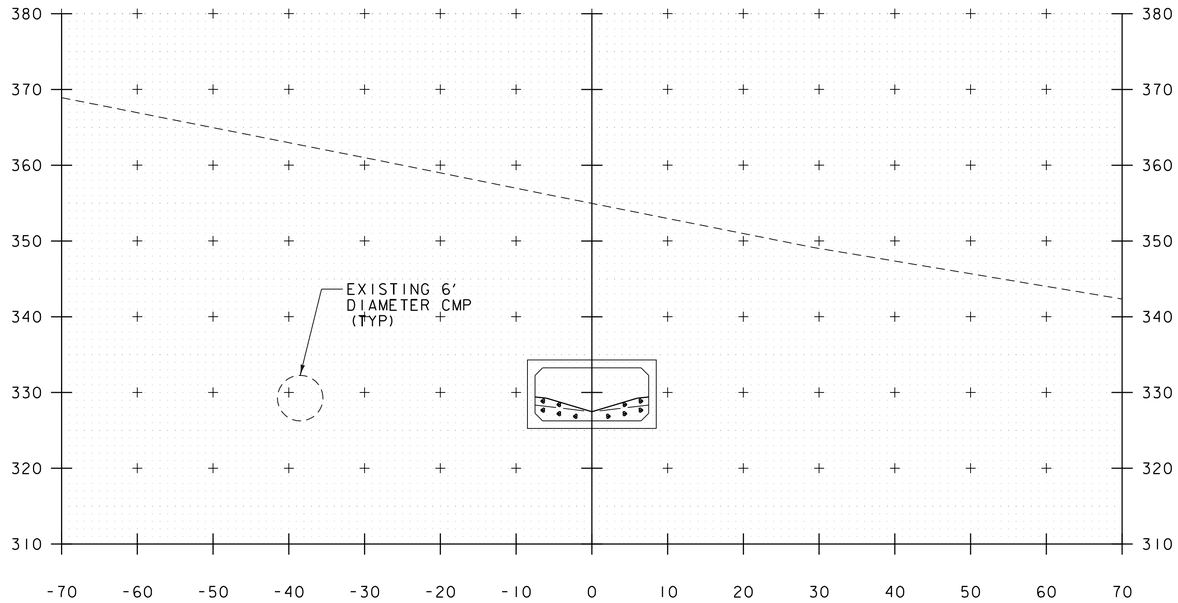
STA. 101+50 - 103+00
SCALE 1" = 10"

Vanasse Hangen Brustlin, Inc.

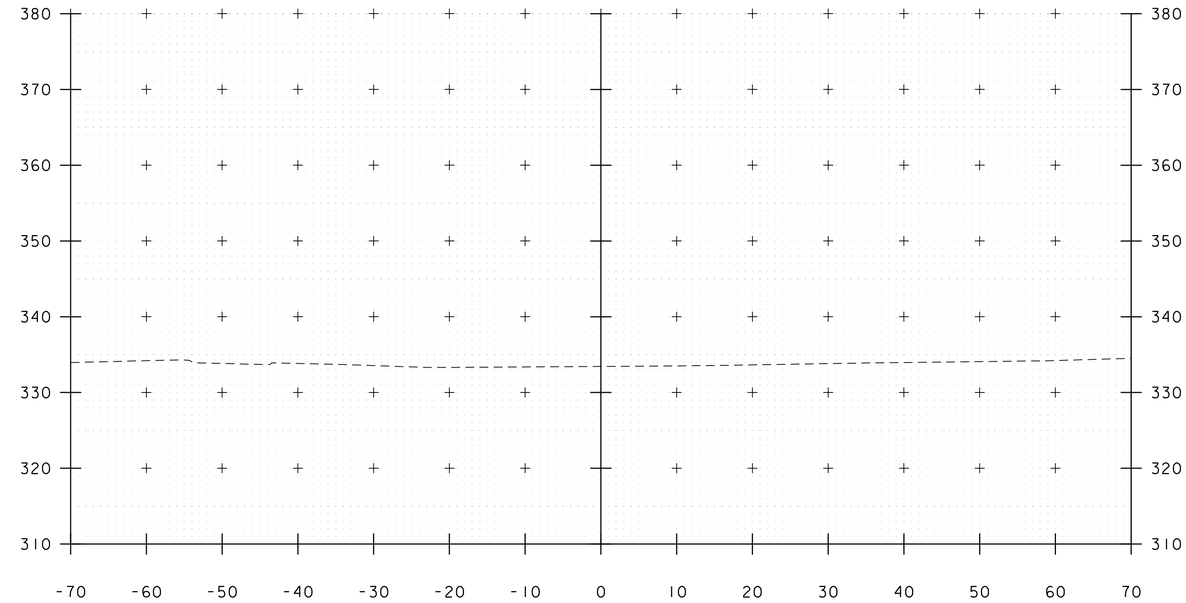
STA. 101+50 TO STA. 103+00

PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218xs.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTION (2 OF 3)	SHEET 13 OF 14

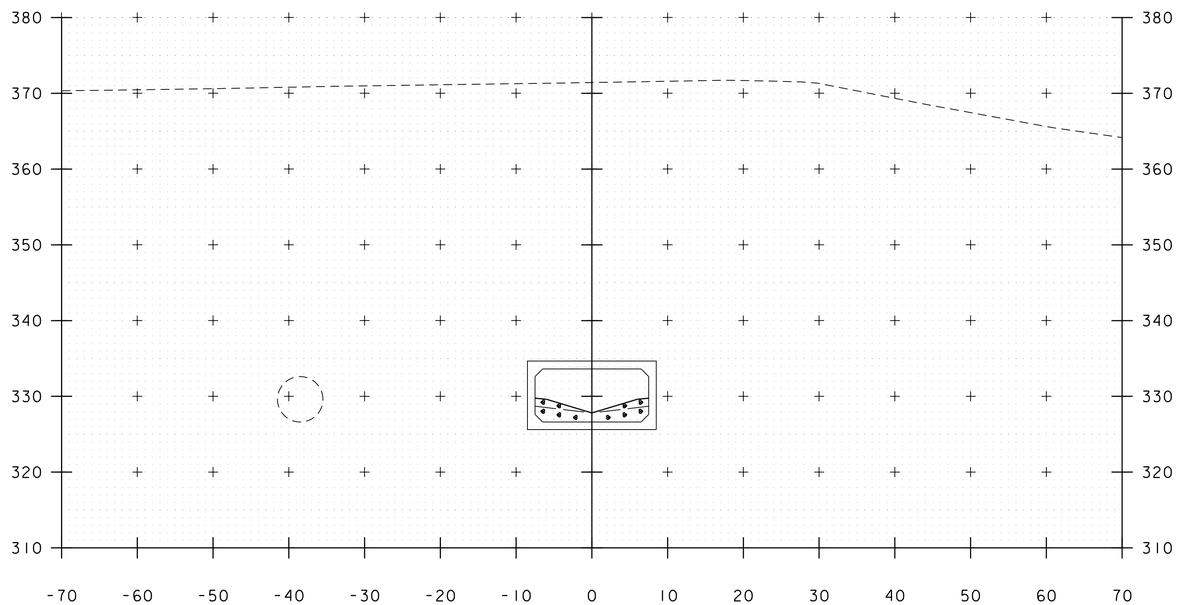
VHB 57579



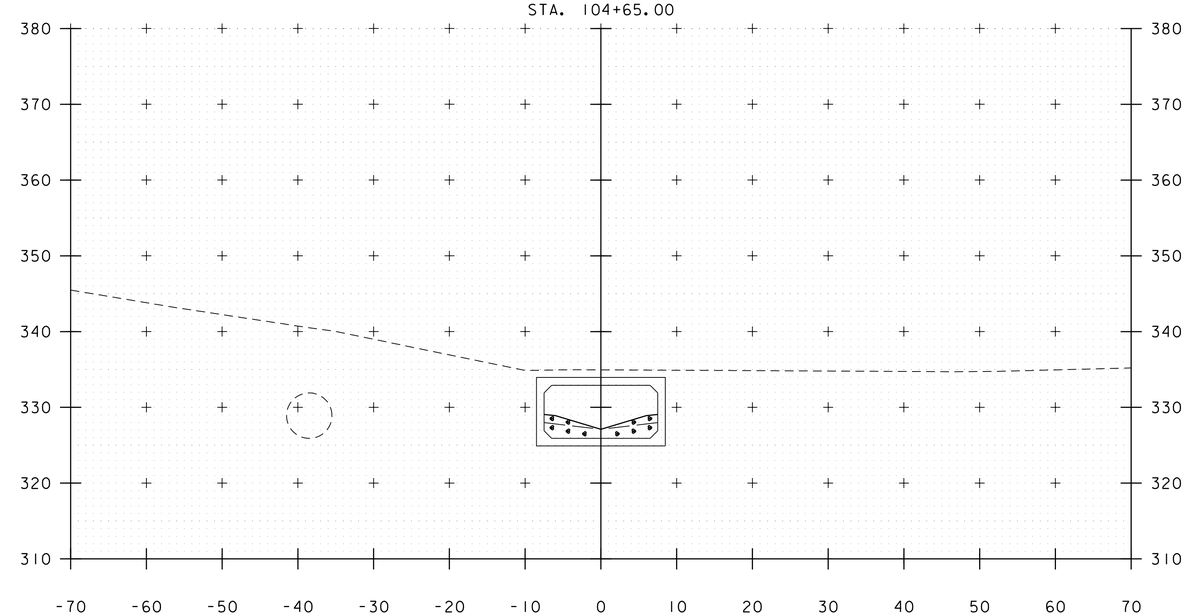
104+00



105+00
END CULVERT
STA. 104+65.00



103+50



104+50

CHANNEL CROSS SECTIONS
STA. 103+50 - 105+00
SCALE 1" = 10"

Vanasse Hangen Brustlin, Inc.
STA. 103+50 TO STA. 105+00

PROJECT NAME: GEORGIA	
PROJECT NUMBER: IM CULV(25)	
FILE NAME: z11a218xs.dgn	PLOT DATE: 6/13/2014
PROJECT LEADER: M.A. COLGAN	DRAWN BY: J.J. WESTCOTT
DESIGNED BY: J.J. WESTCOTT	CHECKED BY: S.E. BURBANK
CHANNEL CROSS SECTION (3 OF 3)	SHEET 14 OF 14

VHB 57579