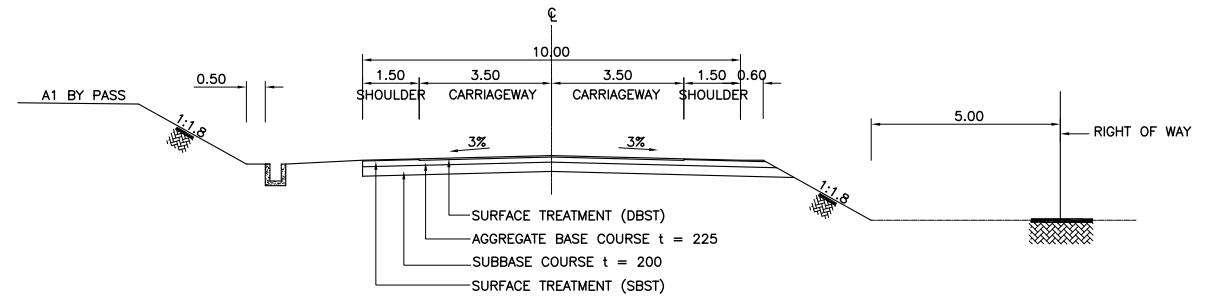
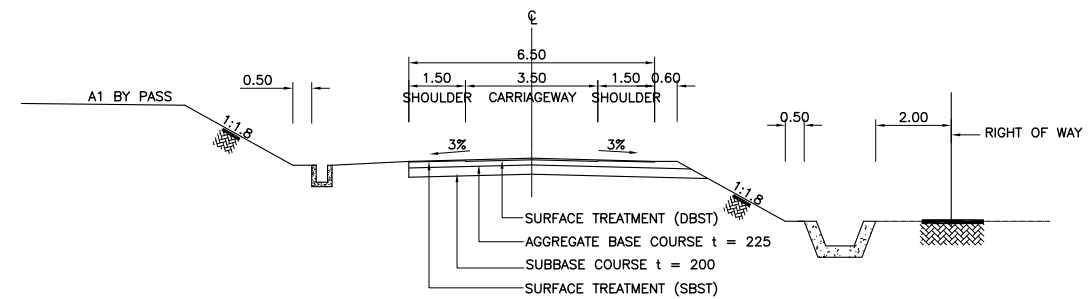
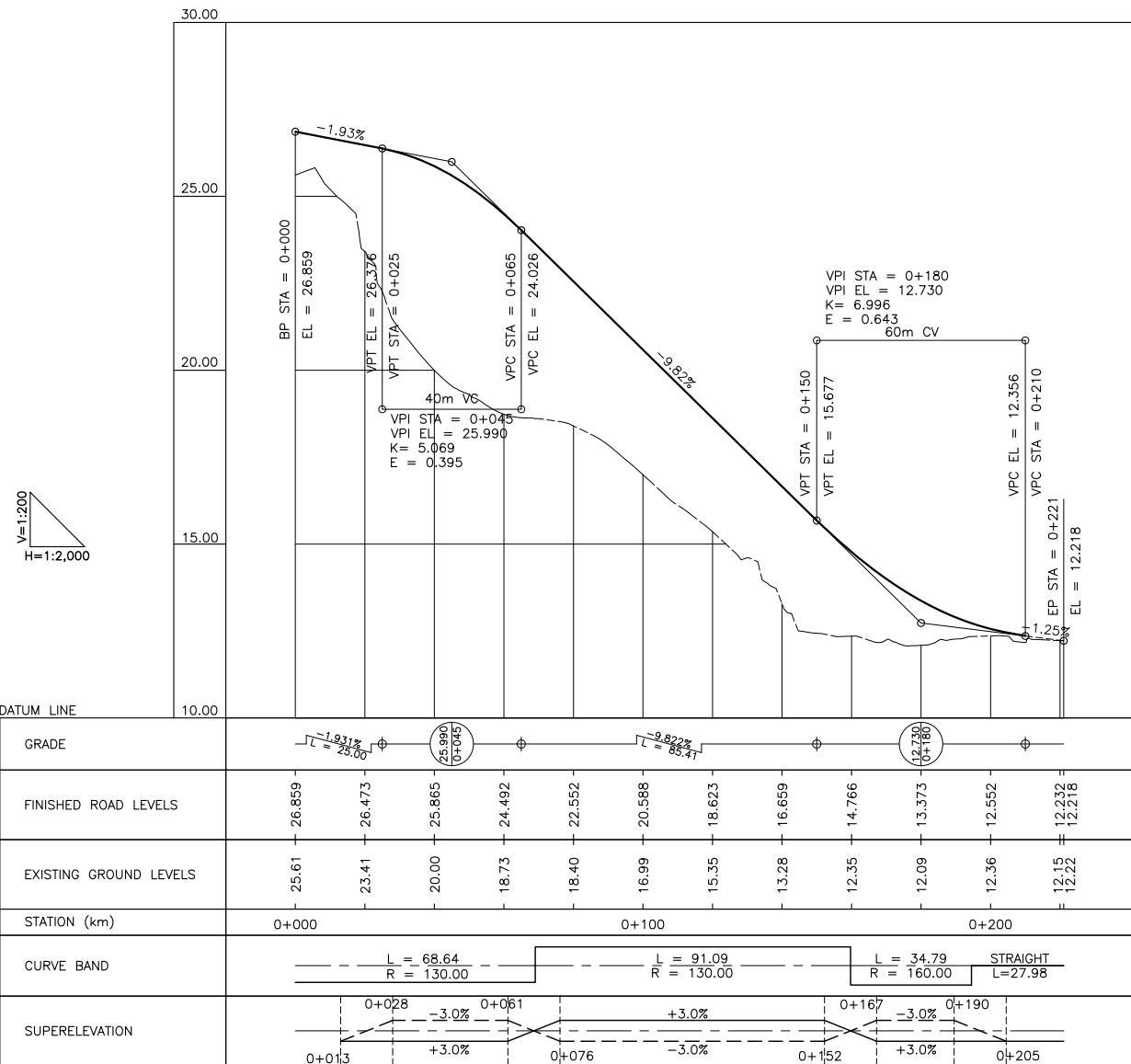


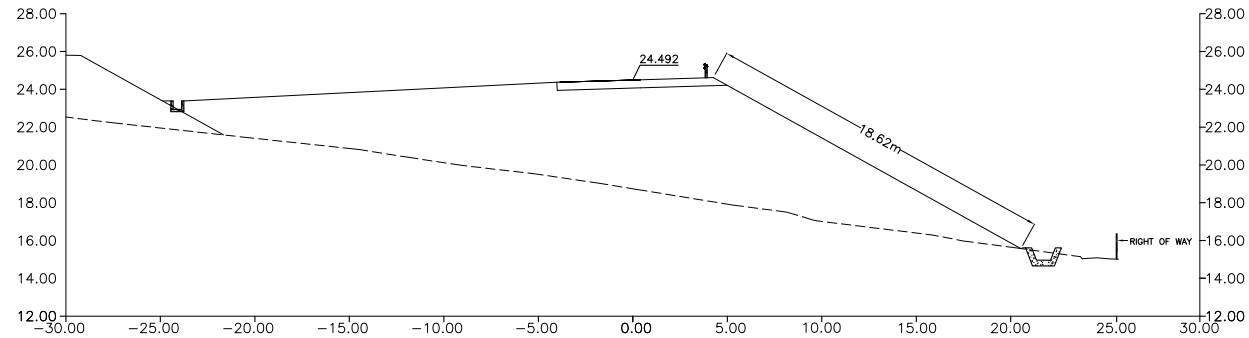
G. APPROACH ROAD



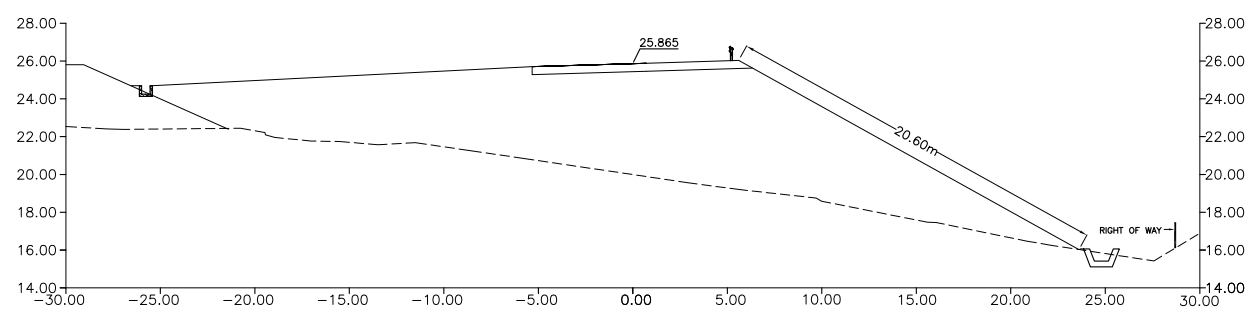
TYPICAL CROSS SECTION (0+000 ~ 0+040)
(SCALE 1:200)



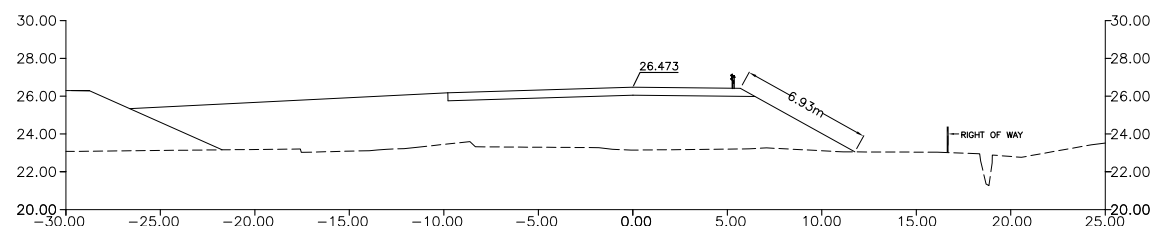
TYPICAL CROSS SECTION (0+069 ~ 0+223)
(SCALE 1:200)



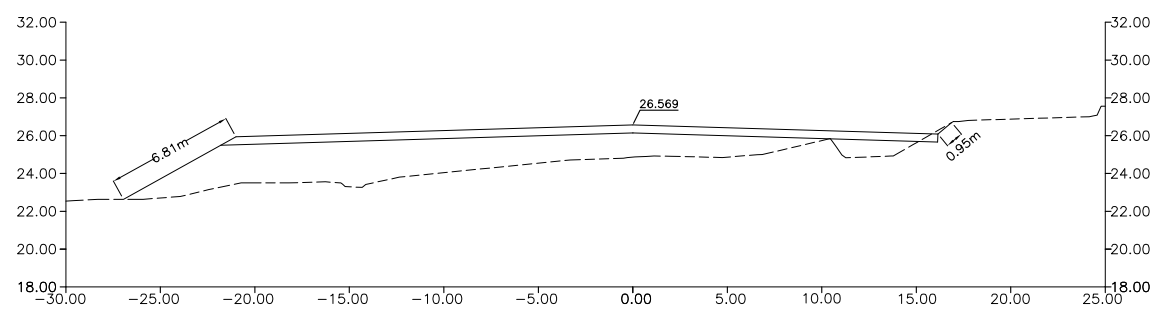
STA = 0+060.00
 FILL AREA =161.629(SM)
 CUT AREA =0.000(SM)



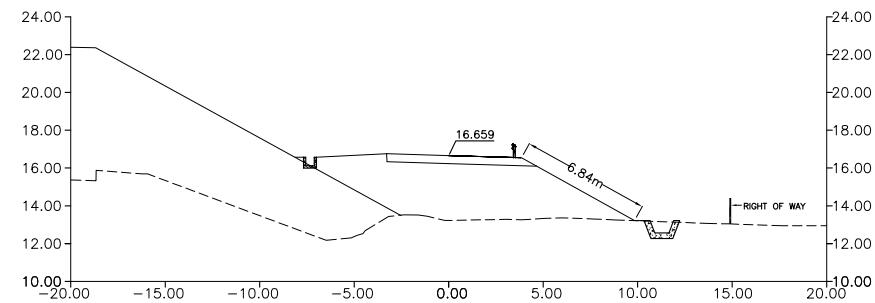
STA = 0+040.00
 FILL AREA =185.323(SM)
 CUT AREA =0.000(SM)



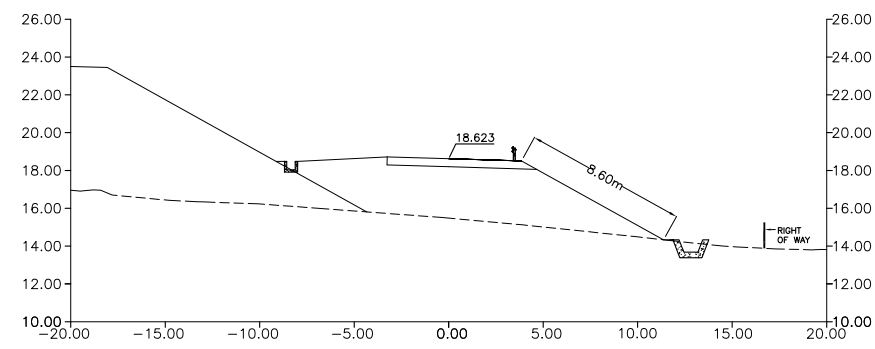
STA = 0+020.00
 FILL AREA =89.019(SM)
 CUT AREA =0.000(SM)



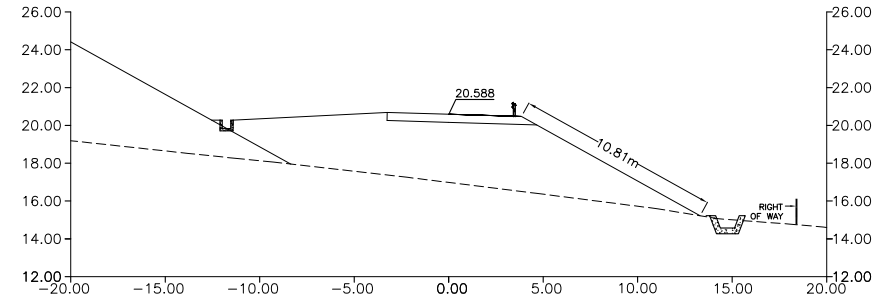
STA = 0+013.00
 FILL AREA =58.510(SM)
 CUT AREA =0.381(SM)



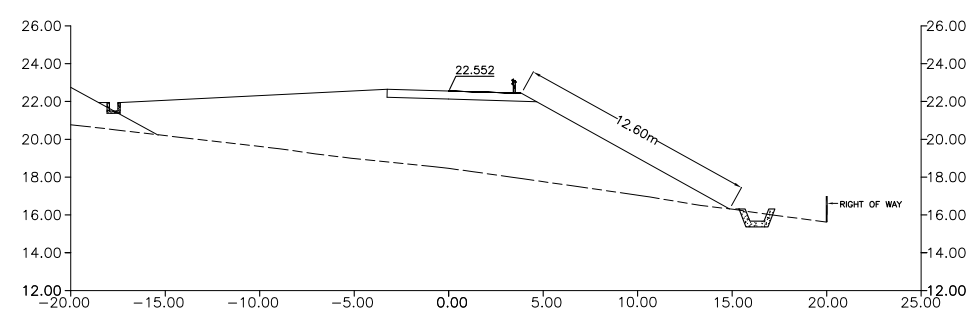
STA = 0+140.00
 FILL AREA =36.502(SM)
 CUT AREA =0.000(SM)



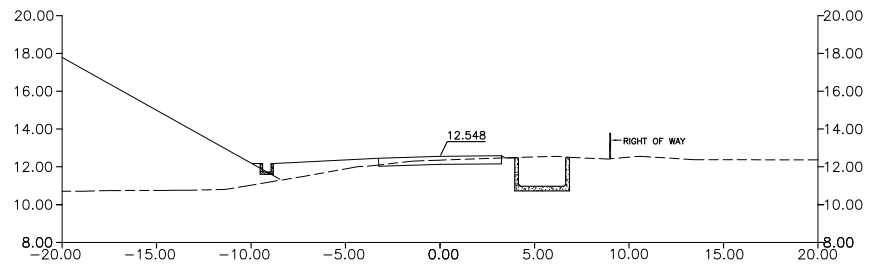
STA = 0+120.00
 FILL AREA =41.895(SM)
 CUT AREA =0.000(SM)



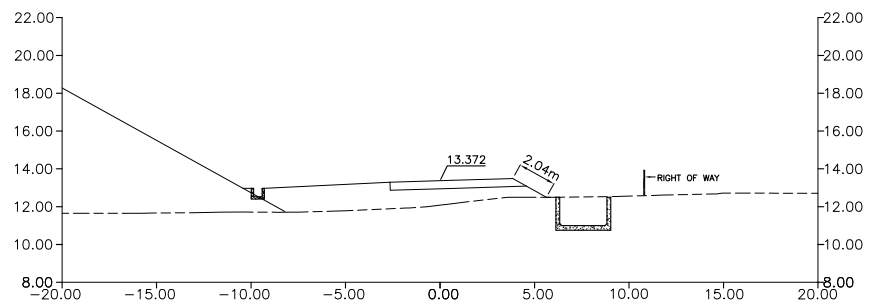
STA = 0+100.00
 FILL AREA =60.930(SM)
 CUT AREA =0.000(SM)



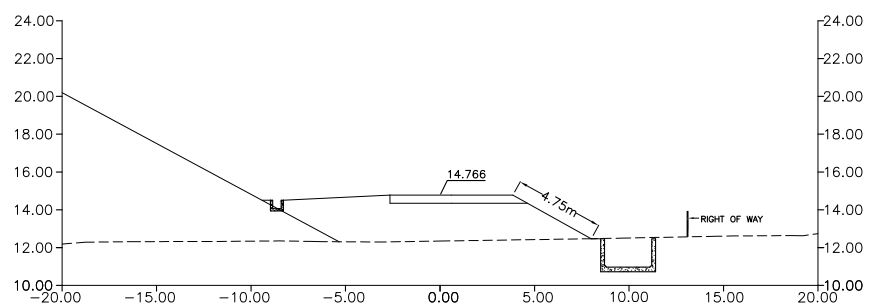
STA = 0+080.00
 FILL AREA =88.171(SM)
 CUT AREA =0.000(SM)



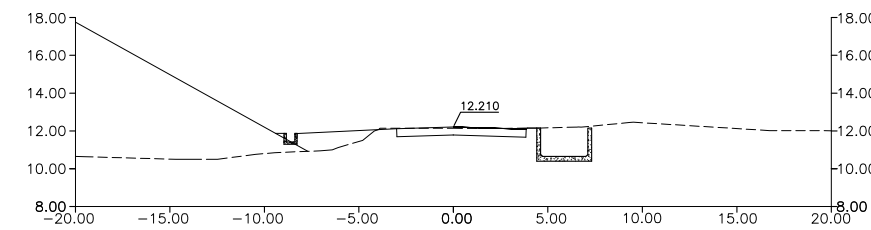
STA = 0+200.00
 FILL AREA = 3.738(SM)
 CUT AREA = 1.449(SM)



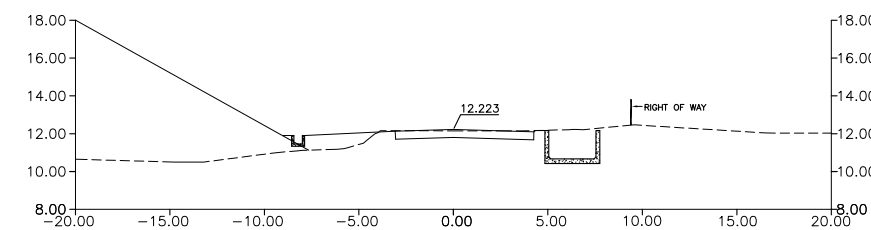
STA = 0+180.00
 FILL AREA = 14.987(SM)
 CUT AREA = 0.000(SM)



STA = 0+160.00
 FILL AREA = 28.879(SM)
 CUT AREA = 0.000(SM)



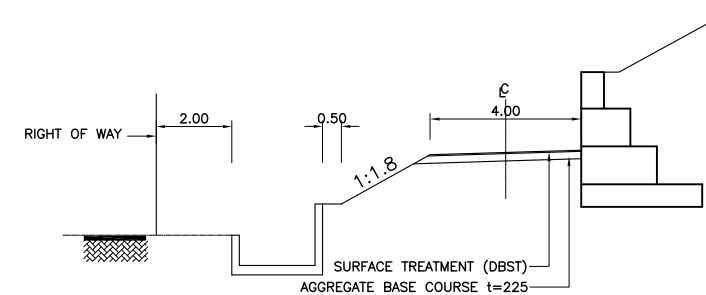
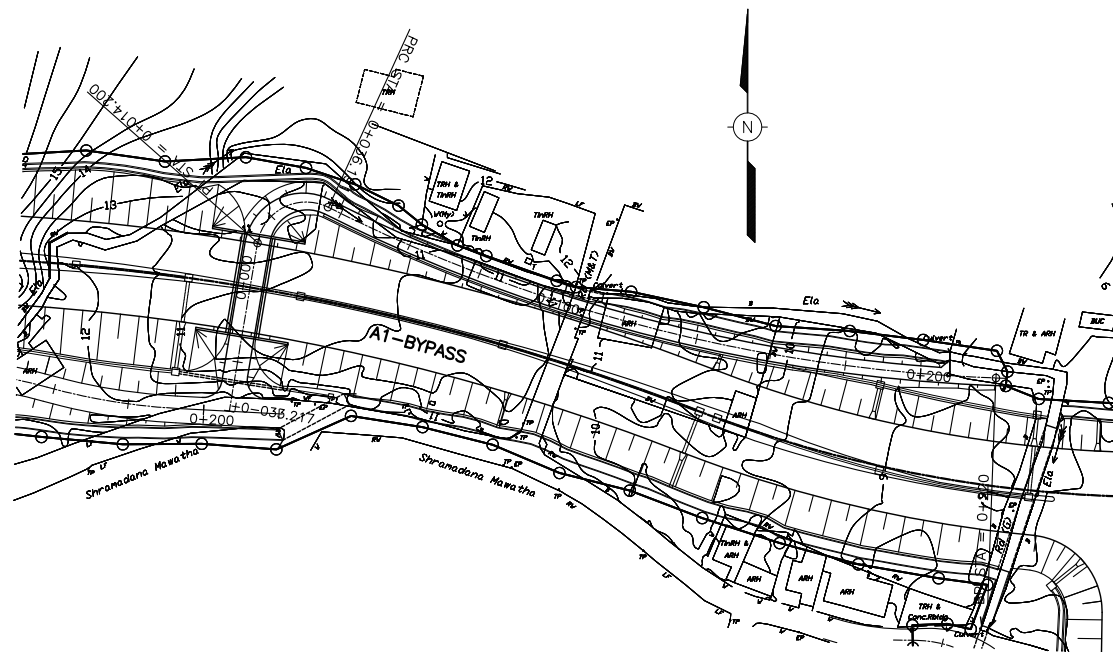
STA = 0+221.05
 FILL AREA = 3.438(SM)
 CUT AREA = 2.825(SM)



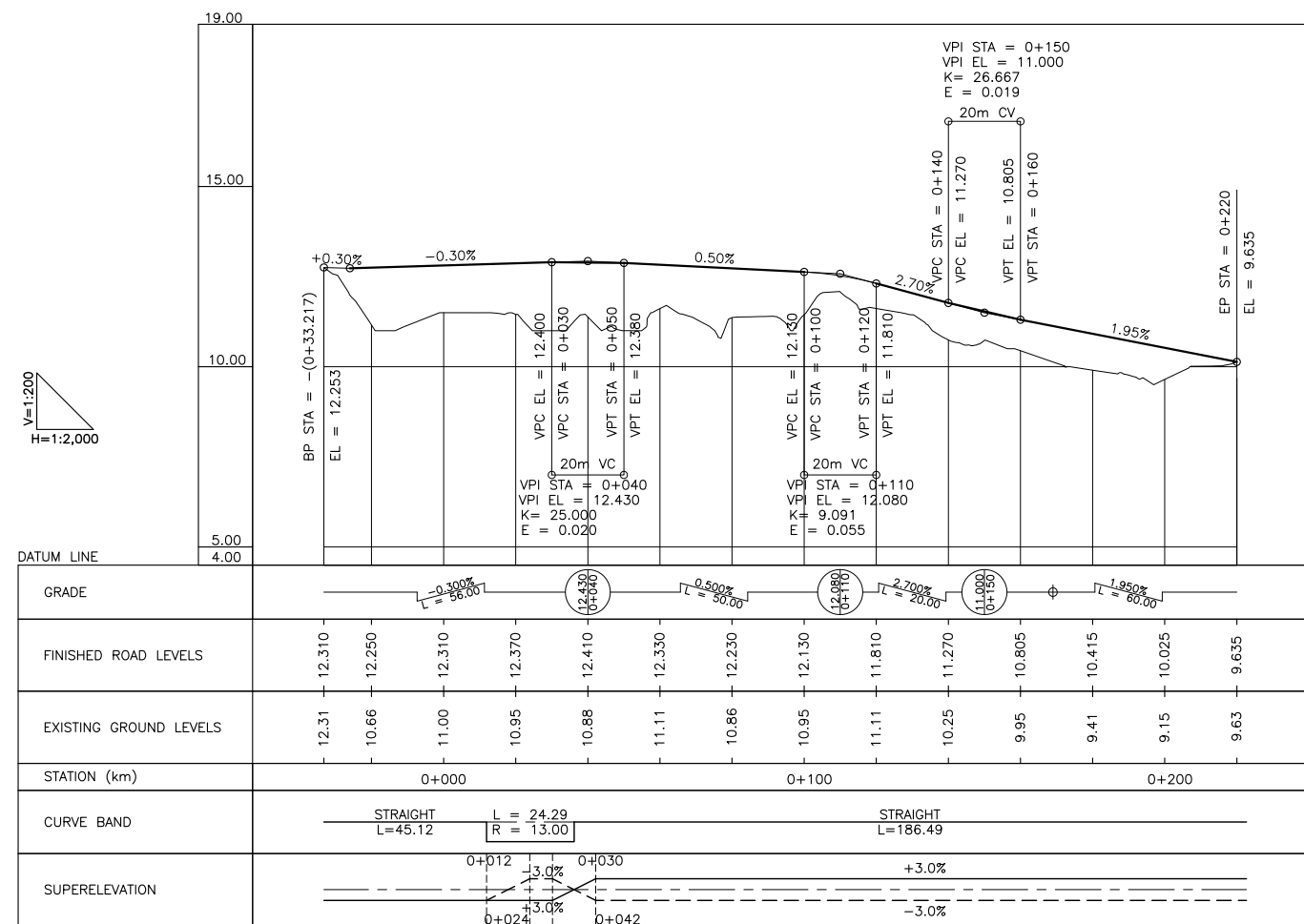
STA = 0+220.00
 FILL AREA = 2.926(SM)
 CUT AREA = 3.047(SM)

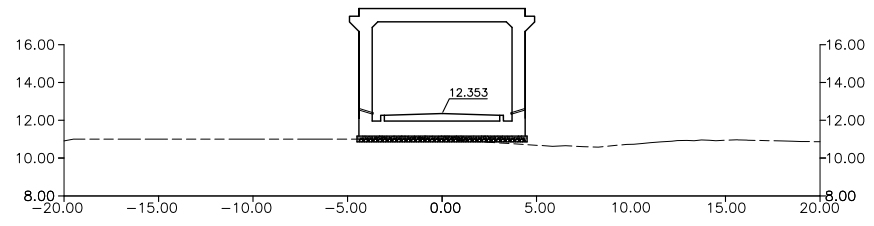
No	REVISION	DATE

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	G-03

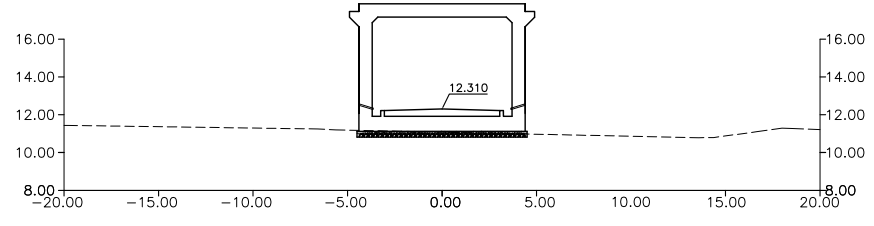


TYPICAL CROSS SECTION
(SCALE 1:200)

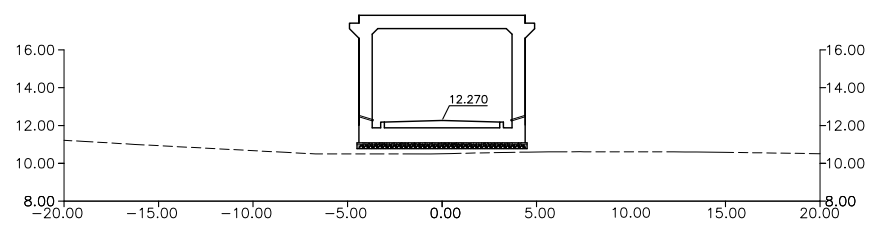




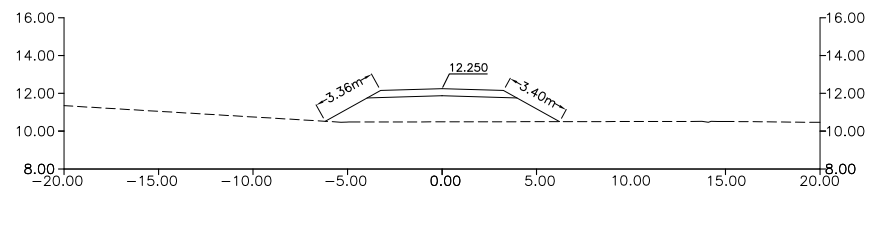
STA = 00+14.20
 FILL AREA = 0.00(SM)
 CUT AREA = 0.00(SM)



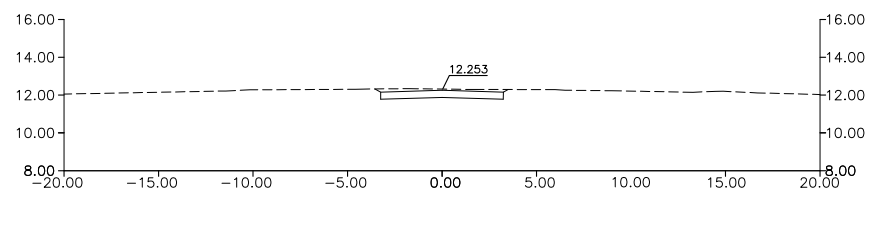
STA = 0+000.00
 FILL AREA = 0.00(SM)
 CUT AREA = 0.00(SM)



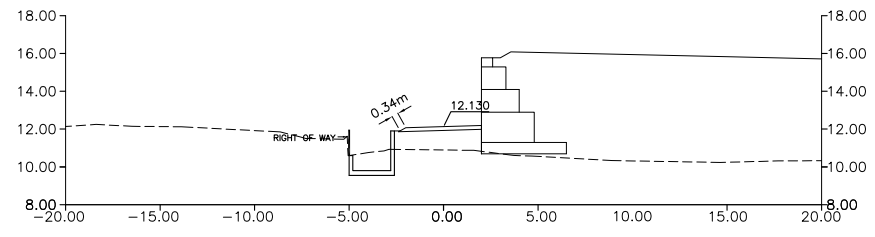
STA = (-0+13.30)
 FILL AREA = 0.00(SM)
 CUT AREA = 0.00(SM)



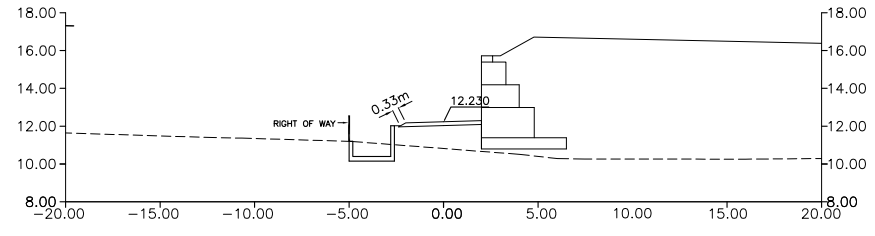
STA = -(0+020.00)
 FILL AREA = 13.359(SM)
 CUT AREA = 0.00(SM)



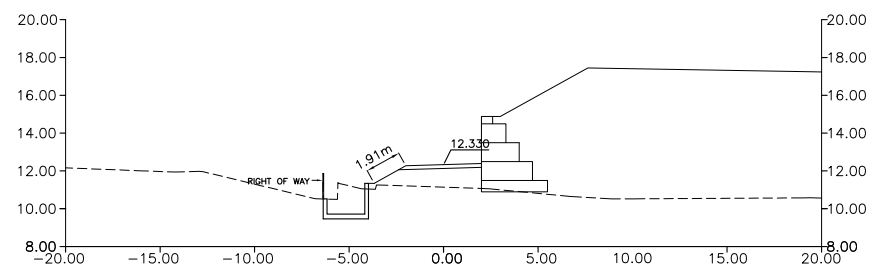
STA = (-0+33.217)
 FILL AREA = 0.00(SM)
 CUT AREA = 3.21(SM)



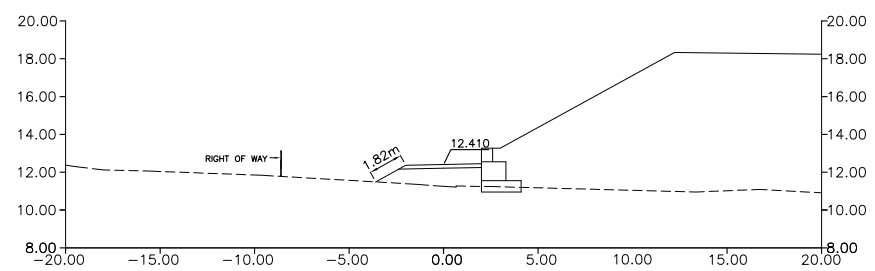
STA = 0+100.00
 FILL AREA = 5.472(SM)
 CUT AREA = 0.00(SM)



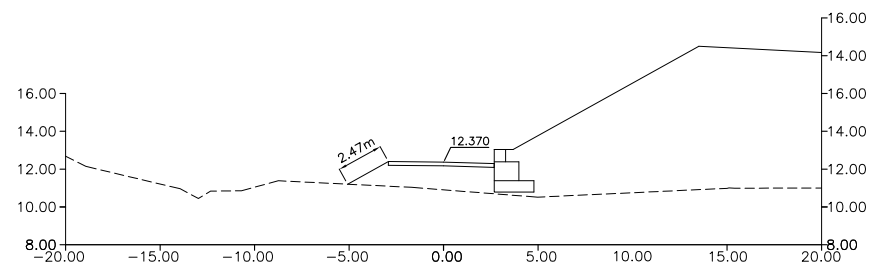
STA = 0+080.00
 FILL AREA = 5.950(SM)
 CUT AREA = 0.00(SM)



STA = 0+060.00
 FILL AREA = 4.985(SM)
 CUT AREA = 0.00(SM)



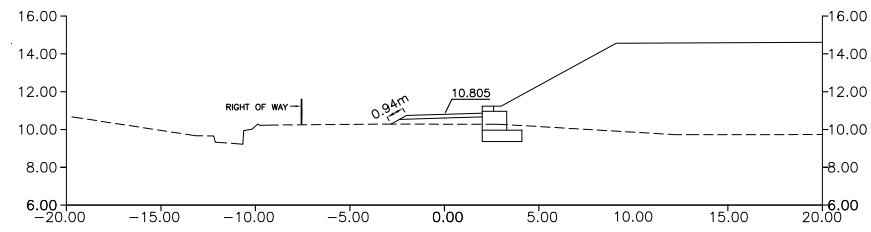
STA = 0+040.00
 FILL AREA = 4.425(SM)
 CUT AREA = 0.00(SM)



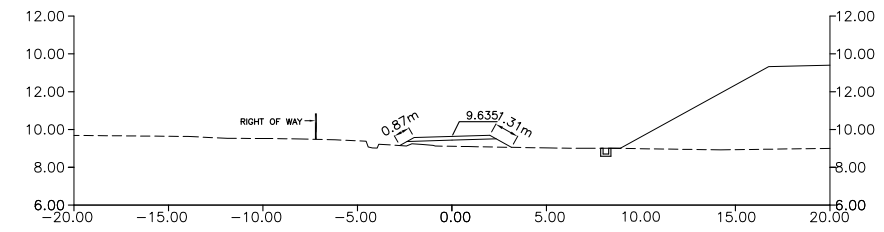
STA = 0+020.00
 FILL AREA = 9.206(SM)
 CUT AREA = 0.00(SM)

No	REVISION	DATE

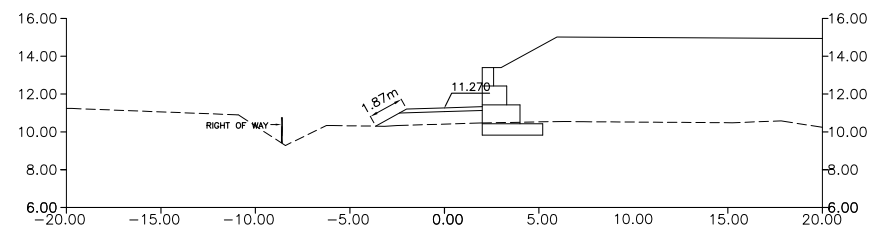
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	G-05



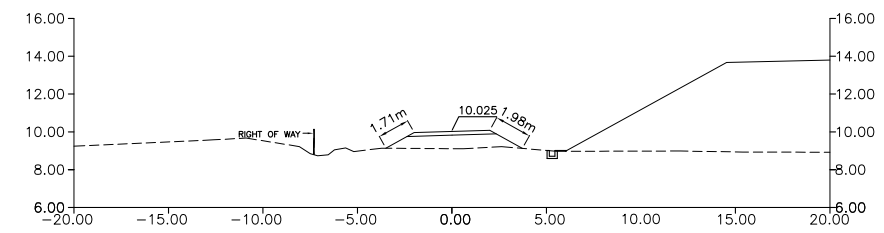
STA = 0+160.00
 FILL AREA = 1.450(SM)
 CUT AREA = 0.000(SM)



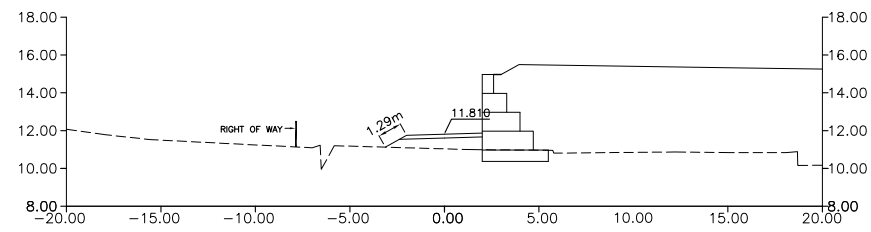
STA = 0+220.00
 FILL AREA = 1.660(SM)
 CUT AREA = 0.000(SM)



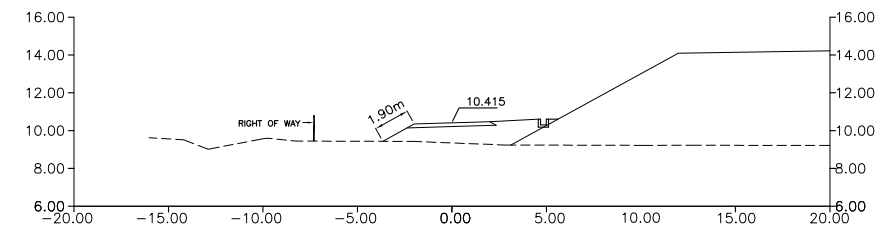
STA = 0+140.00
 FILL AREA = 3.316(SM)
 CUT AREA = 0.000(SM)



STA = 0+200.00
 FILL AREA = 4.088(SM)
 CUT AREA = 0.000(SM)



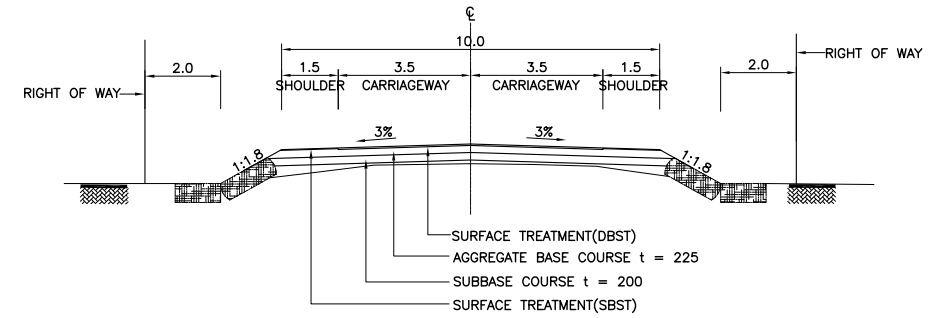
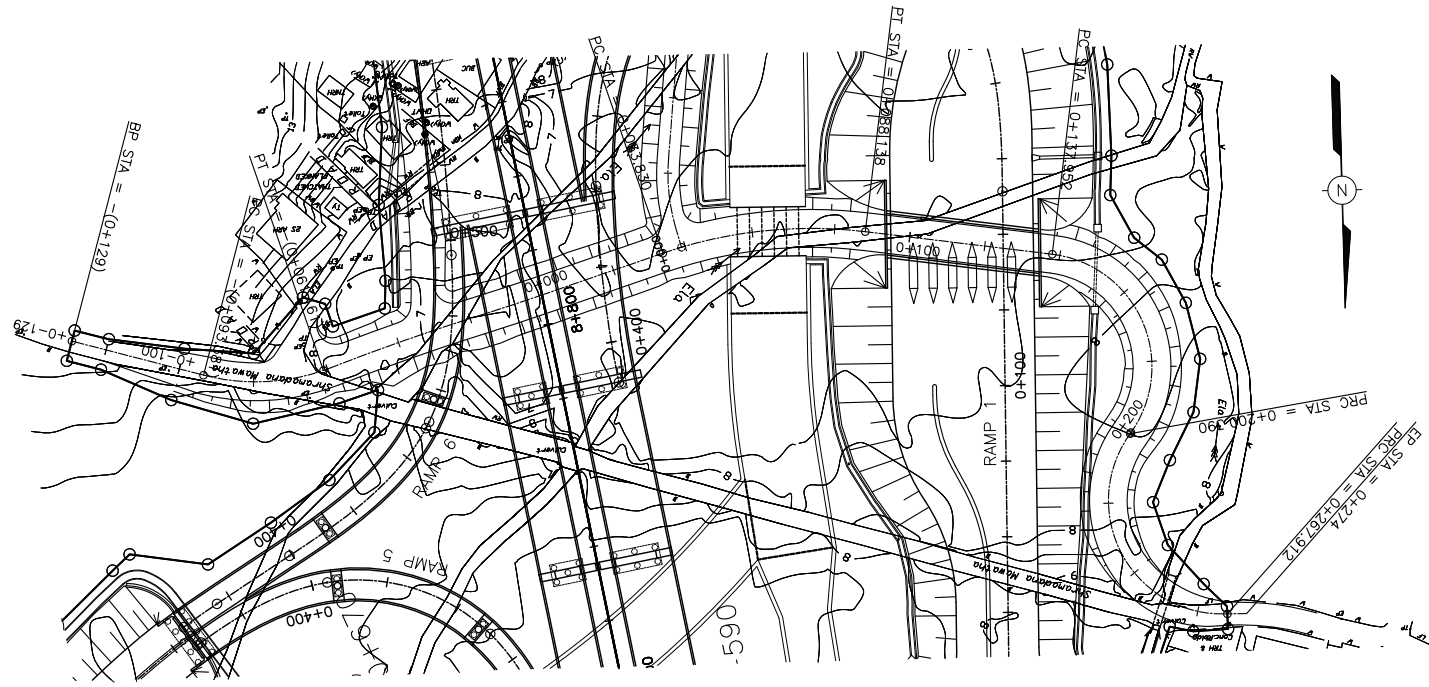
STA = 0+120.00
 FILL AREA = 2.622(SM)
 CUT AREA = 0.000(SM)



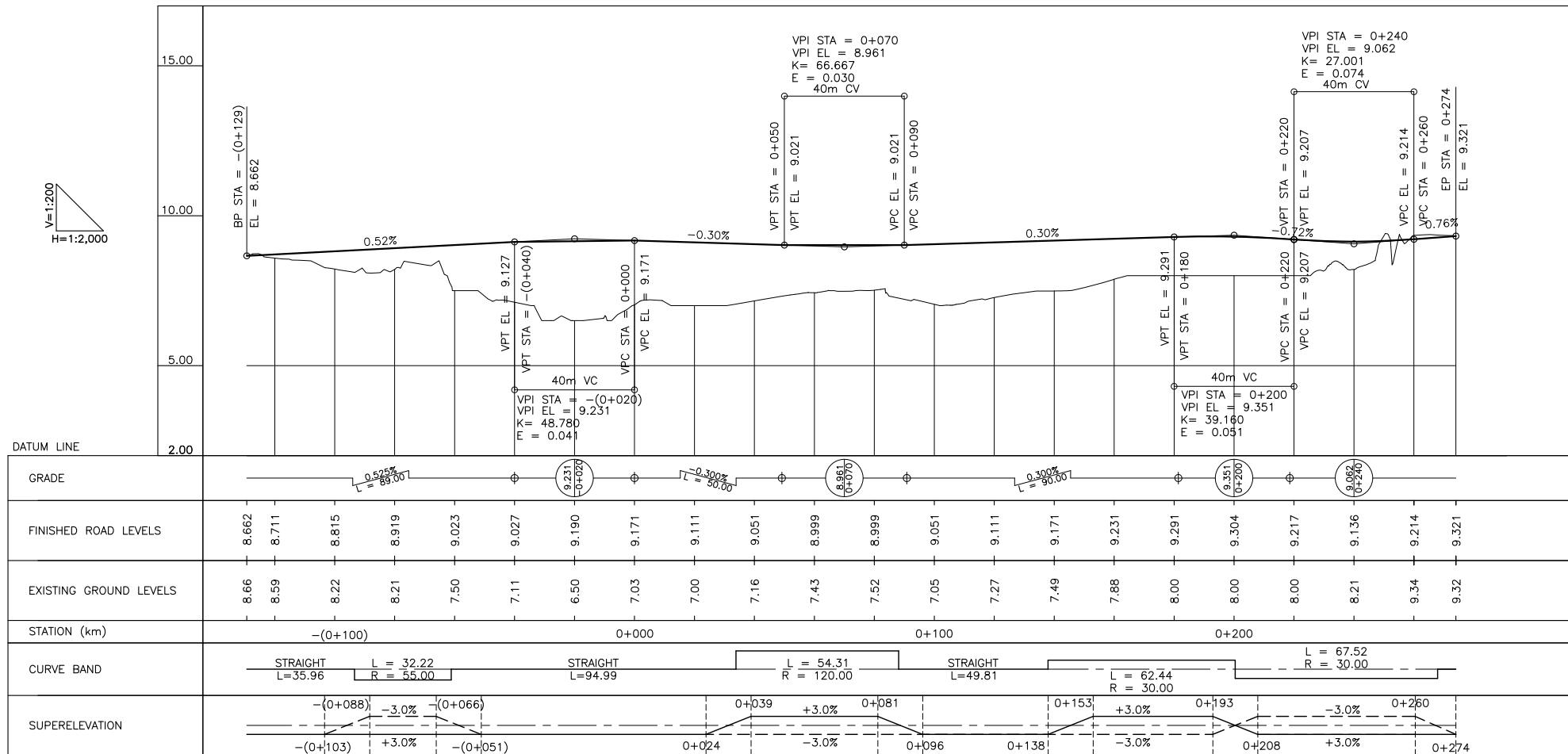
STA = 0+180.00
 FILL AREA = 7.233(SM)
 CUT AREA = 0.000(SM)

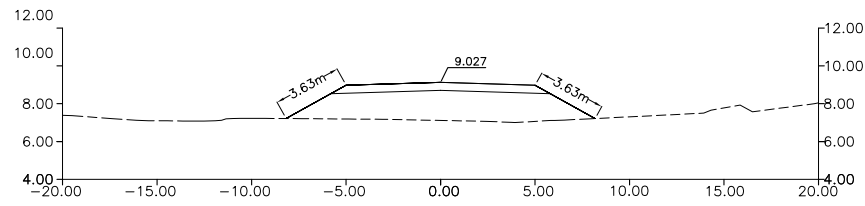
No	REVISION	DATE

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	G-06

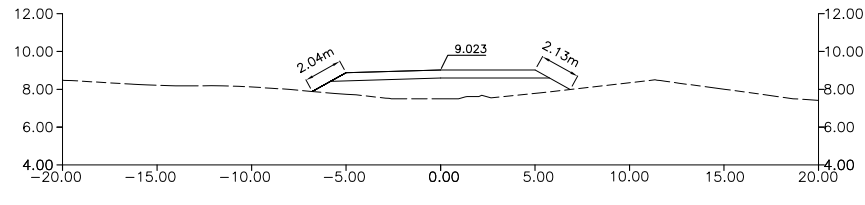


TYPICAL CROSS SECTION
(SCALE 1:200)

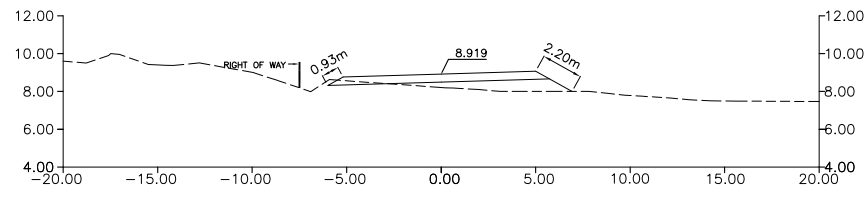




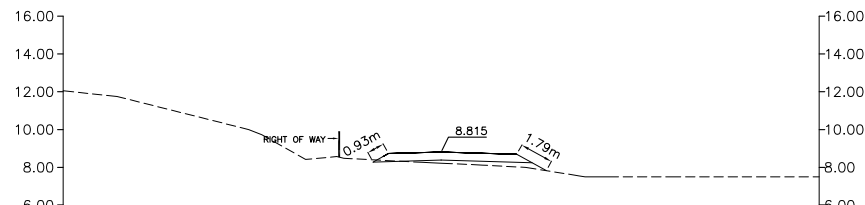
STA = -(0+040.00)
 FILL AREA = 20.703(SM)
 CUT AREA = 0.000(SM)



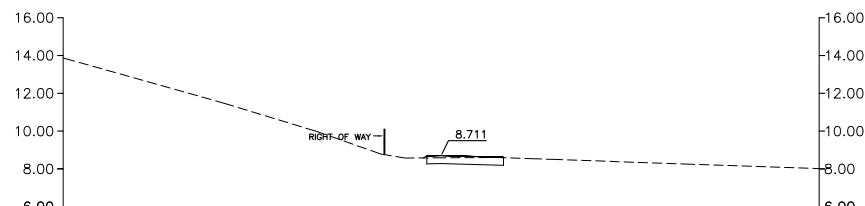
STA = -(0+060.00)
 FILL AREA = 11.573(SM)
 CUT AREA = 0.000(SM)



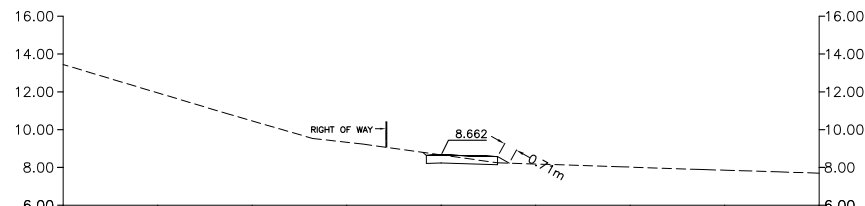
STA = -(0+080.00)
 FILL AREA = 3.755(SM)
 CUT AREA = 0.423(SM)



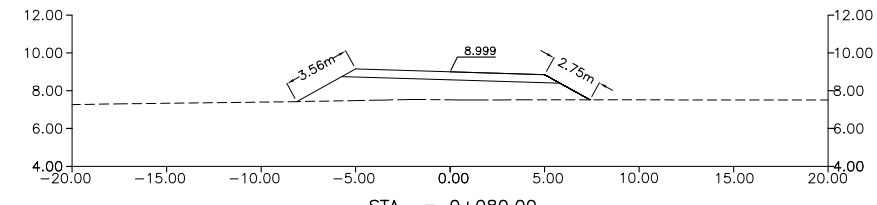
STA = -(0+100.00)
 FILL AREA = 1.325(SM)
 CUT AREA = 0.000(SM)



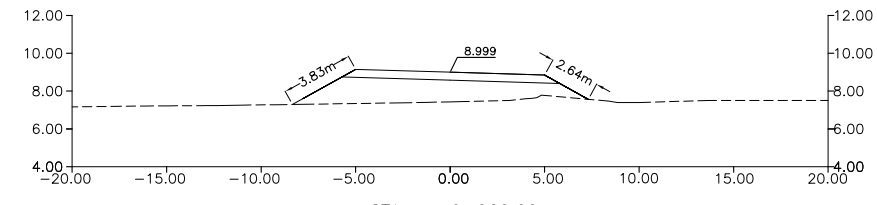
STA = -(0+120.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 1.427(SM)



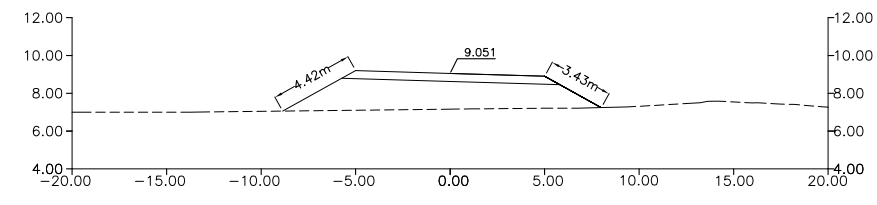
STA = -(0+129)
 FILL AREA = 0.000(SM)
 CUT AREA = 1.181(SM)



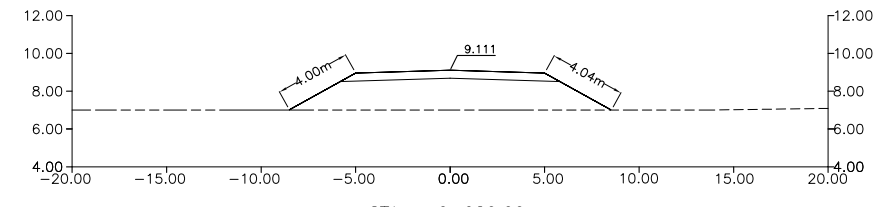
STA = 0+080.00
 FILL AREA = 14.472(SM)
 CUT AREA = 0.000(SM)



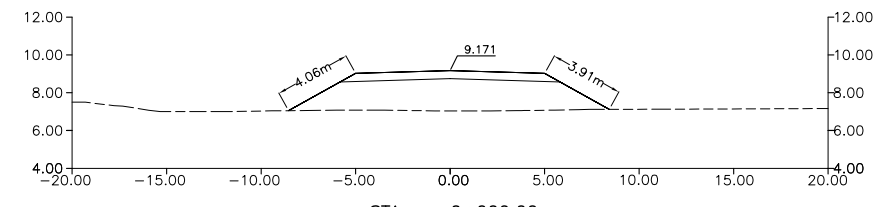
STA = 0+060.00
 FILL AREA = 15.170(SM)
 CUT AREA = 0.000(SM)



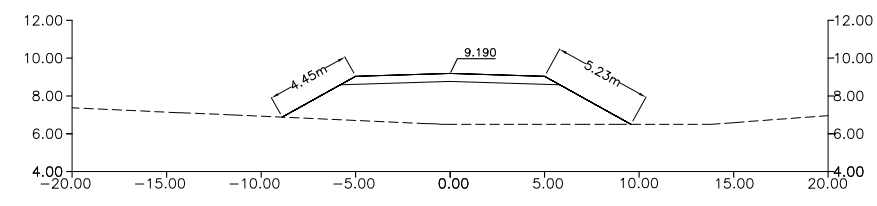
STA = 0+040.00
 FILL AREA = 20.964(SM)
 CUT AREA = 0.000(SM)



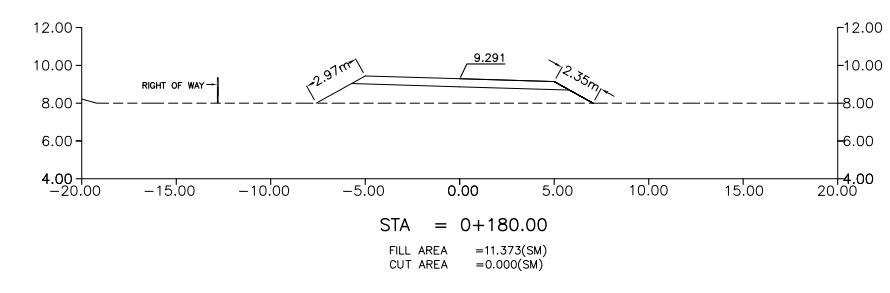
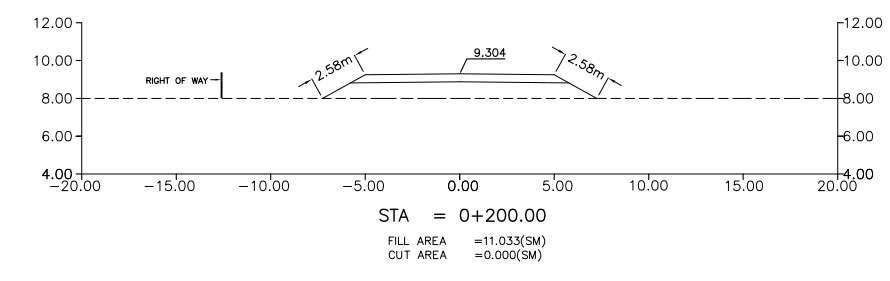
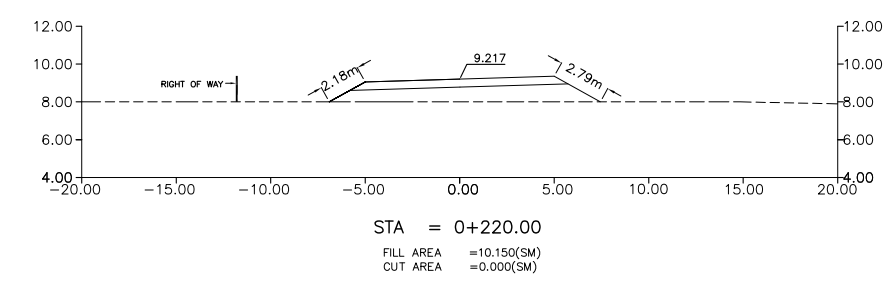
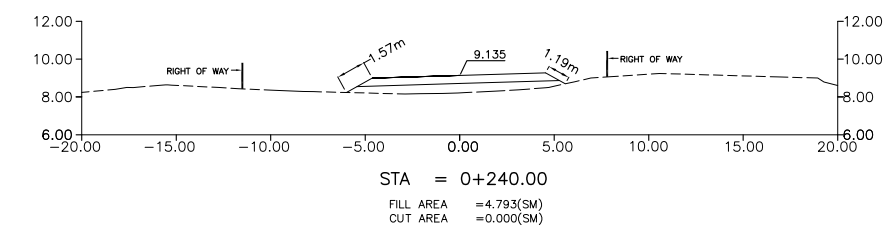
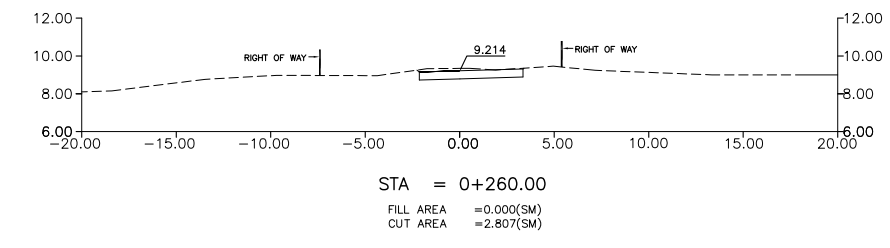
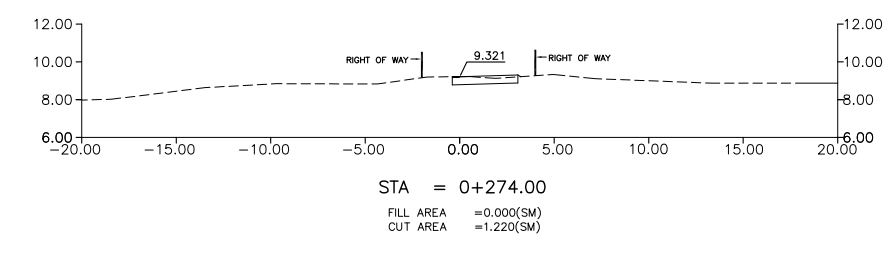
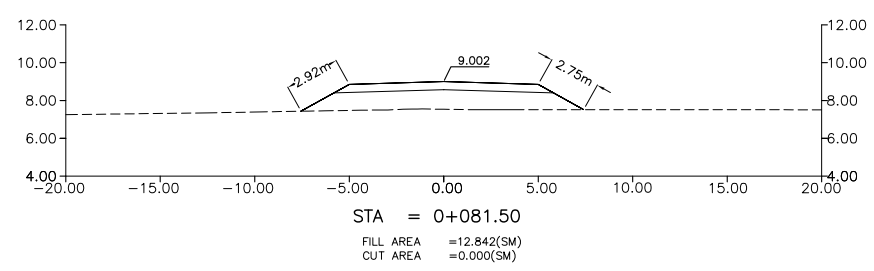
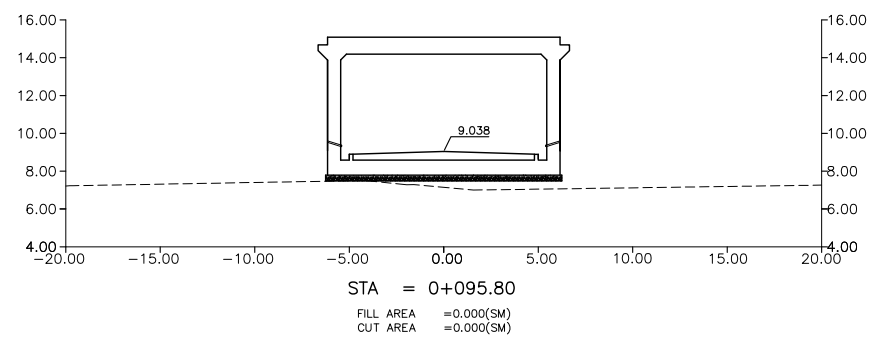
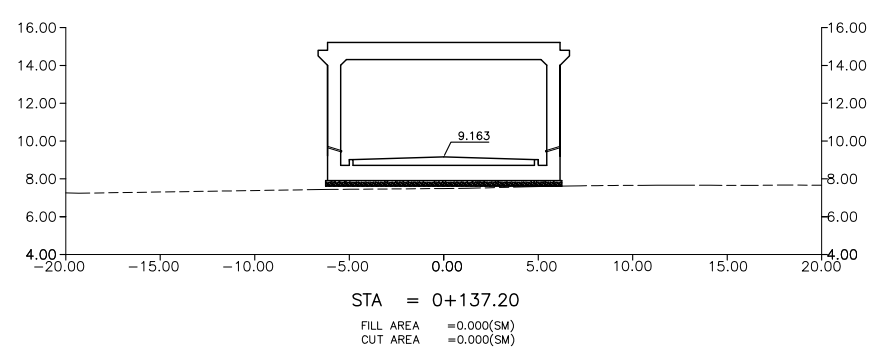
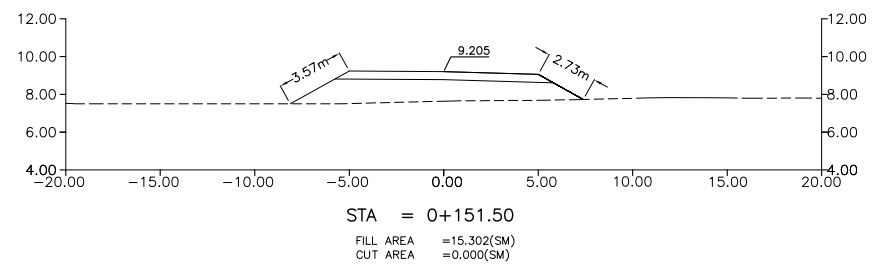
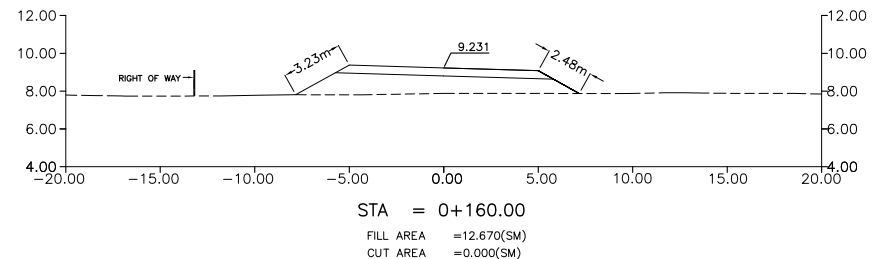
STA = 0+020.00
 FILL AREA = 22.686(SM)
 CUT AREA = 0.000(SM)

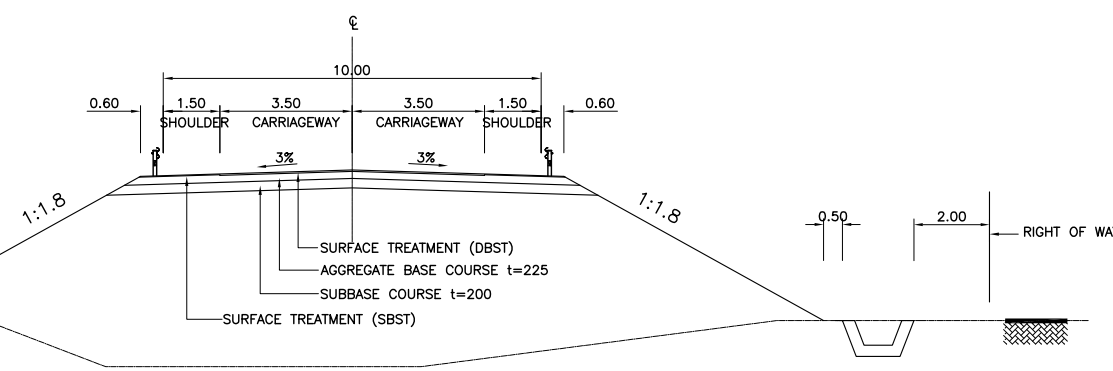
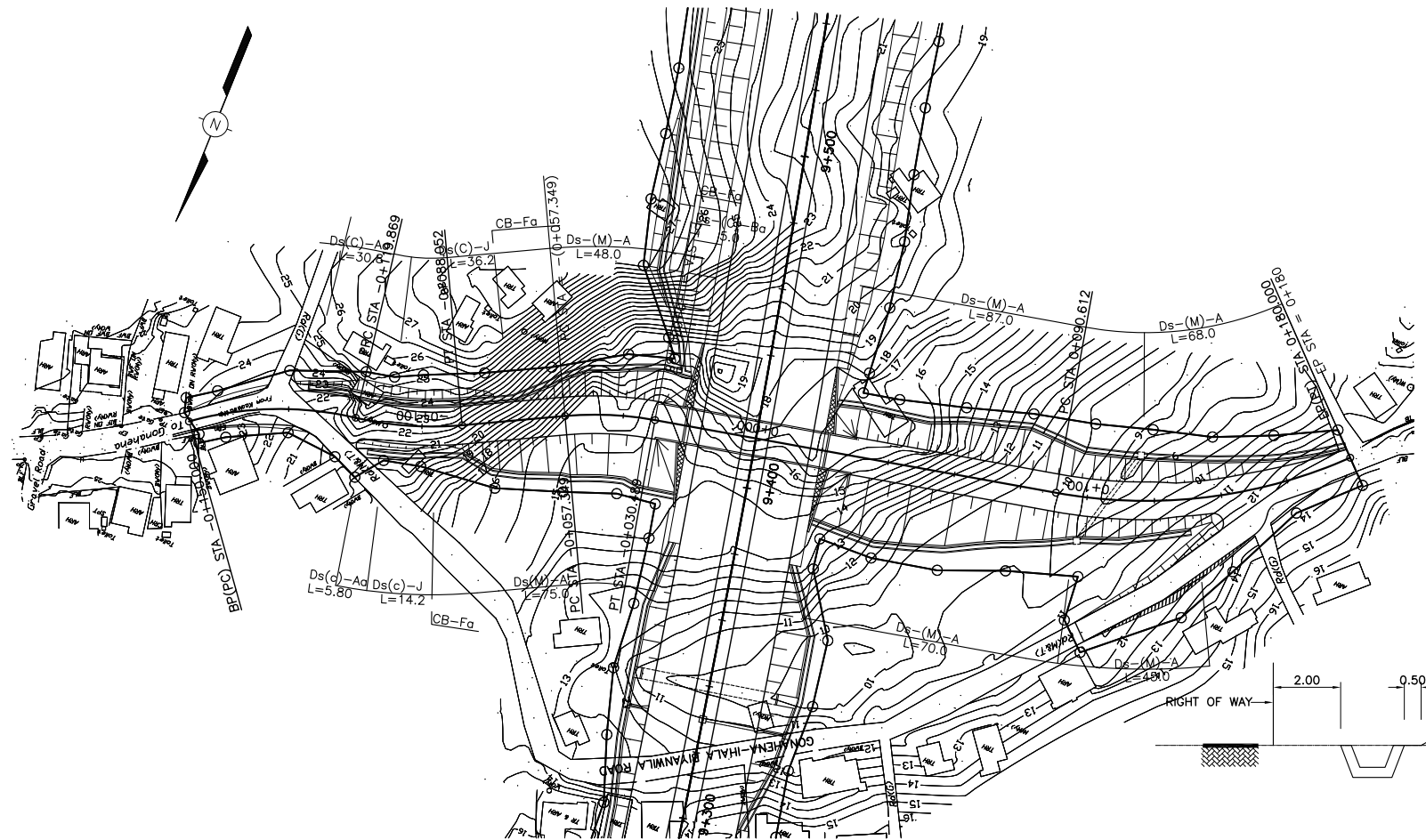


STA = 0+000.00
 FILL AREA = 22.596(SM)
 CUT AREA = 0.000(SM)

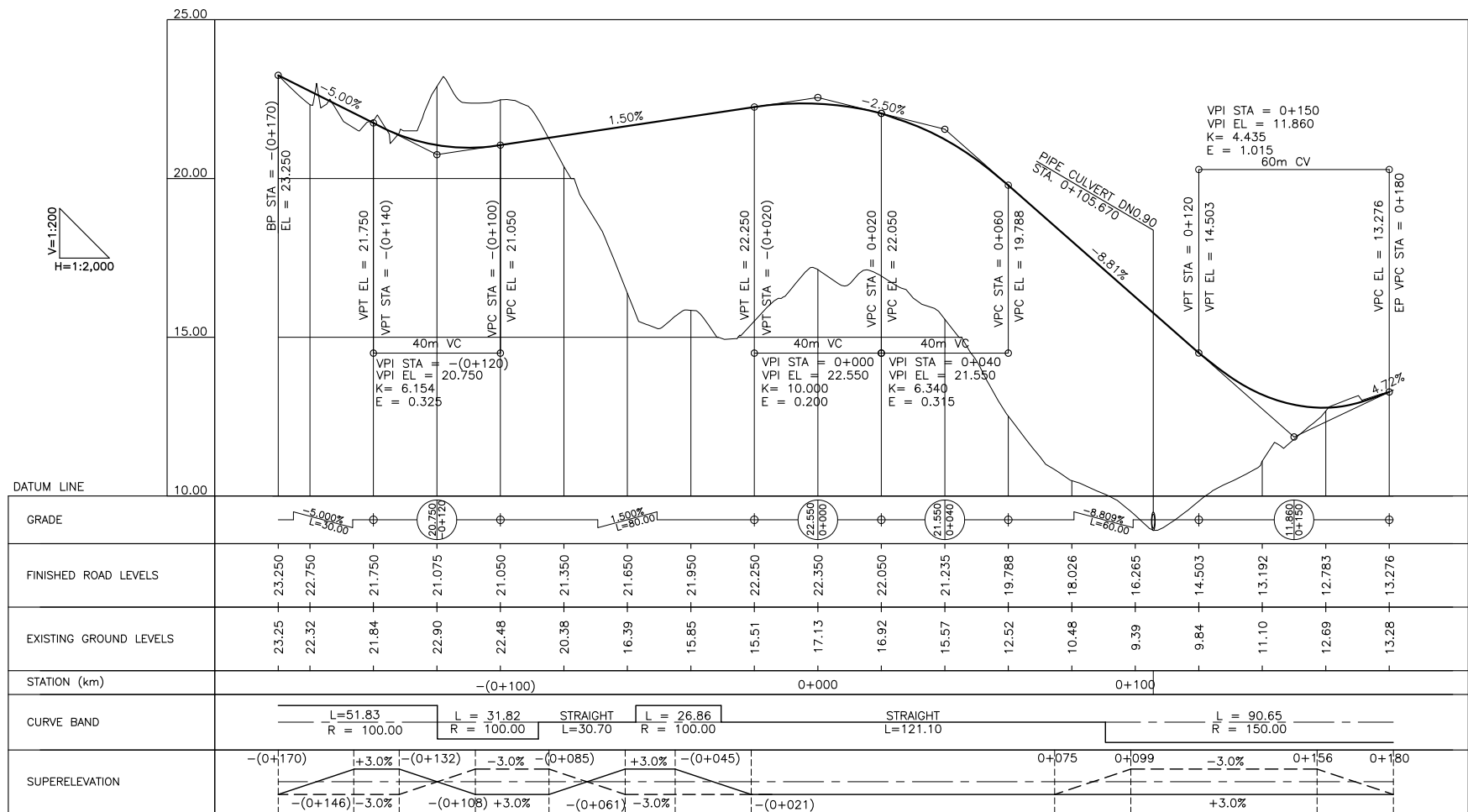


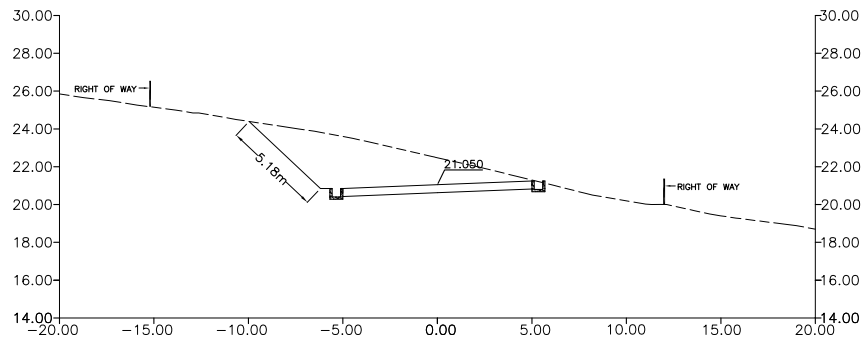
STA = -(0+020.00)
 FILL AREA = 31.437(SM)
 CUT AREA = 0.000(SM)



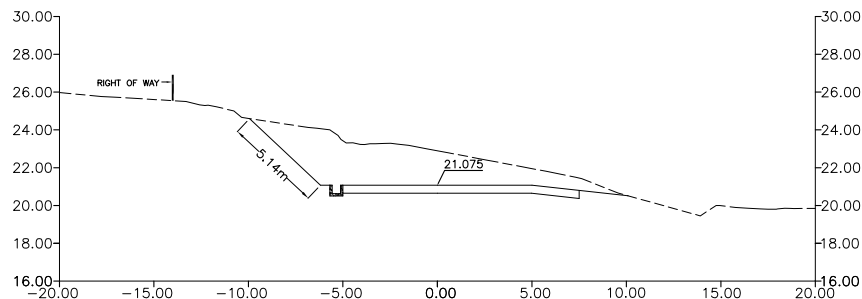


TYPICAL CROSS SECTION
(SCALE 1:200)

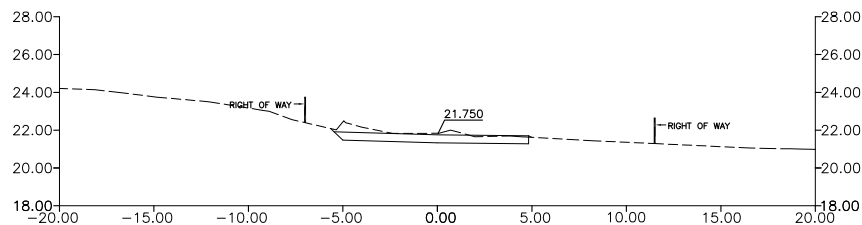




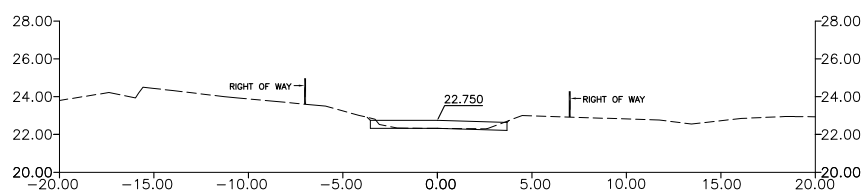
STA = -(0+100.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 27.524(SM)



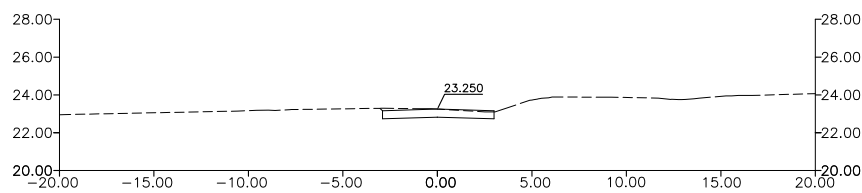
STA = -(0+120.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 34.308(SM)



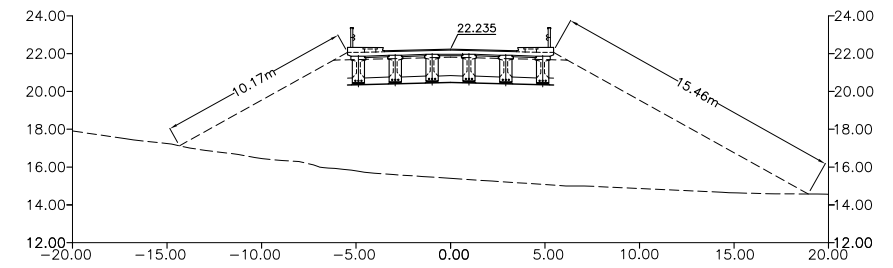
STA = -(0+140.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 5.269(SM)



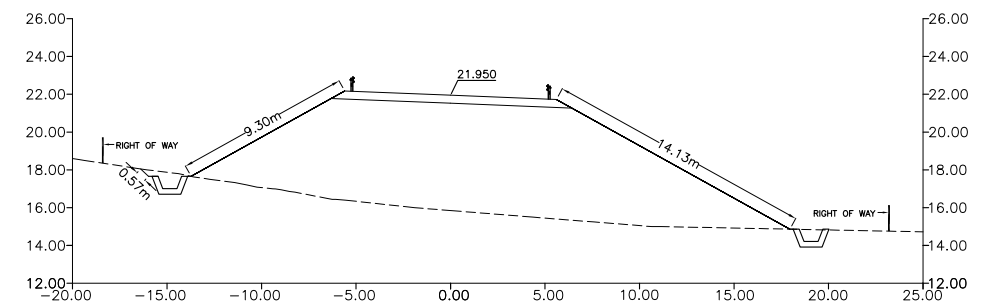
STA = -(0+160.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 0.678(SM)



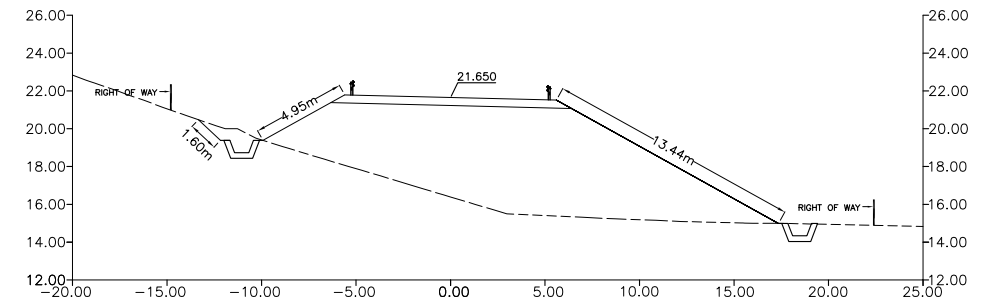
STA = -(0+170.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 2.602(SM)



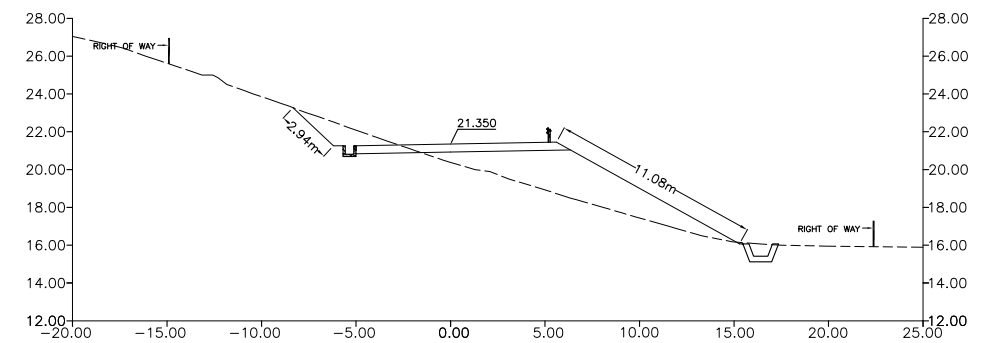
STA = -(0+021.00)
 FILL AREA = 144.291(SM)
 CUT AREA = 0.000(SM)



STA = -(0+040.00)
 FILL AREA = 126.704(SM)
 CUT AREA = 0.492(SM)



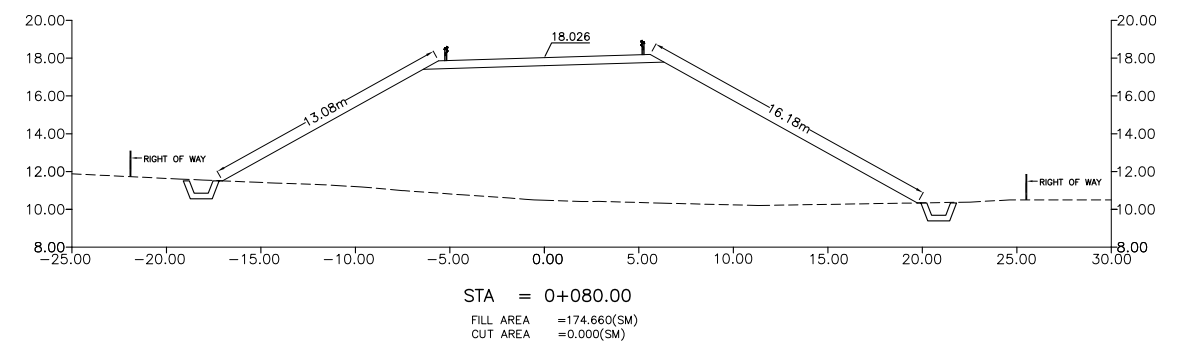
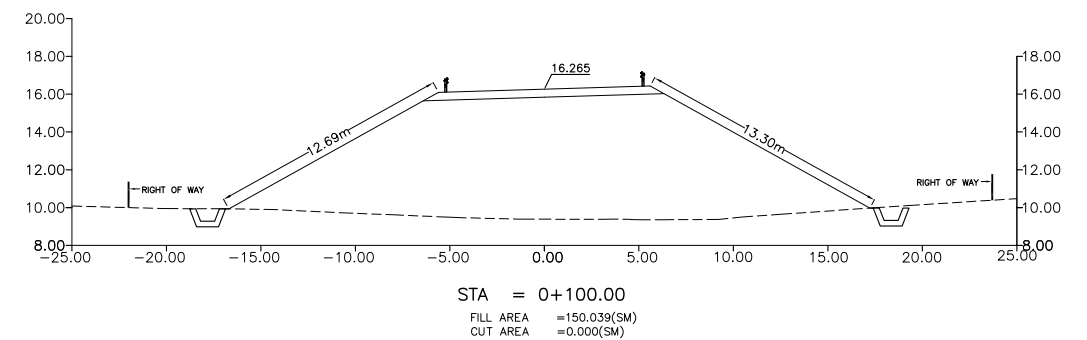
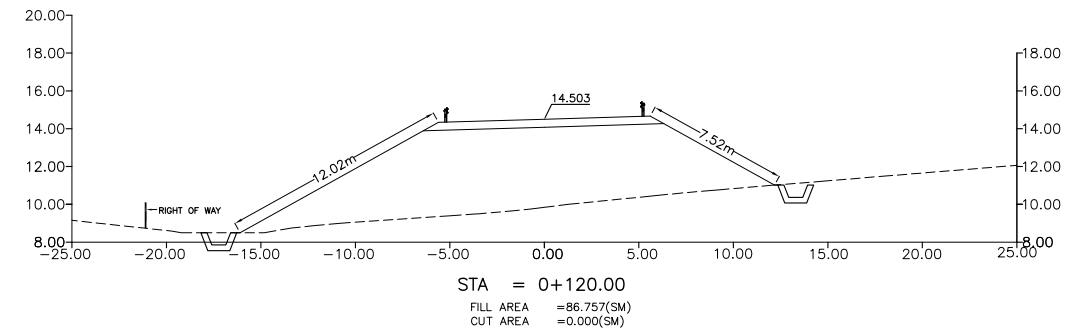
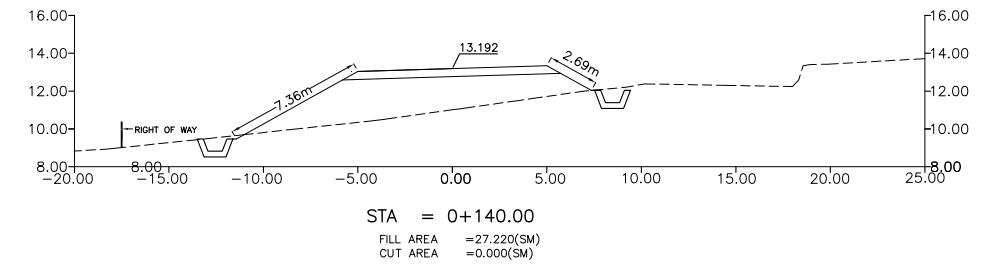
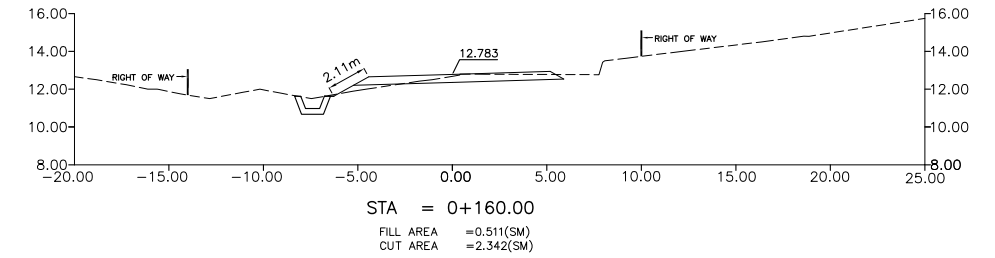
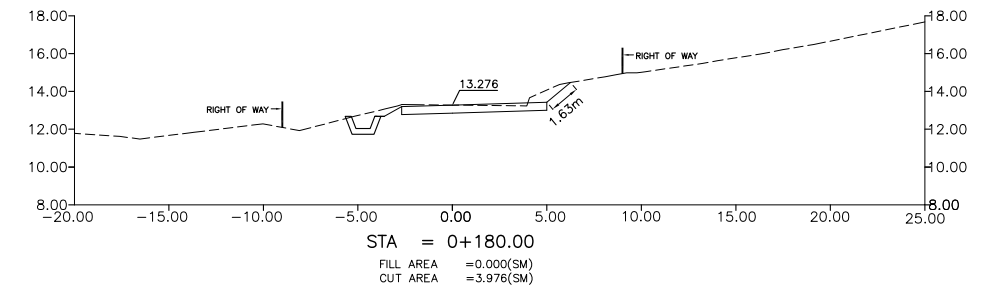
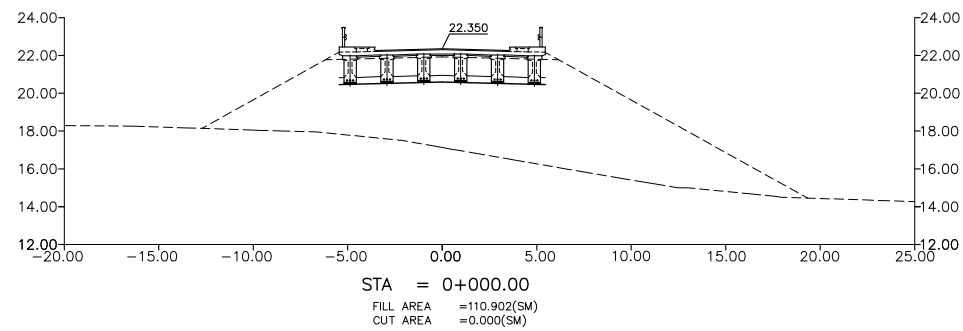
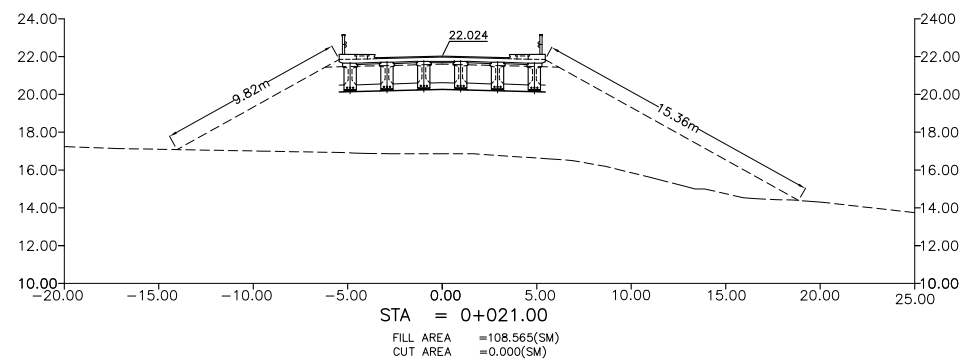
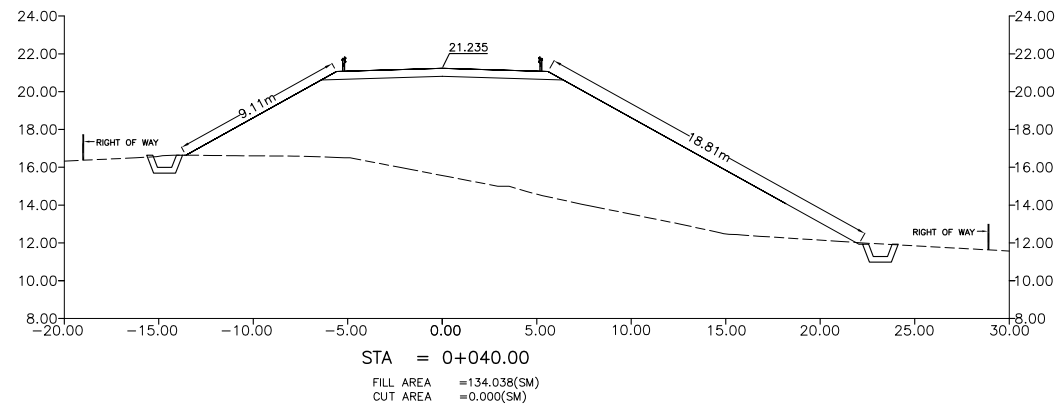
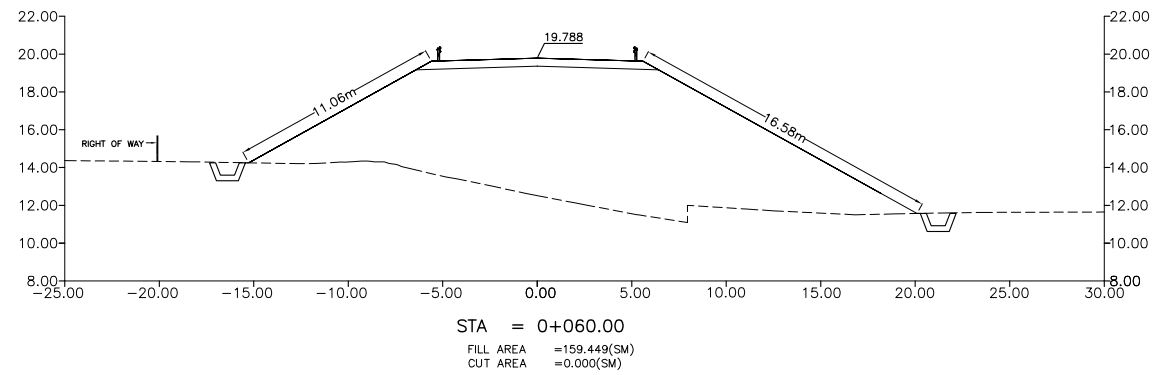
STA = -(0+060.00)
 FILL AREA = 97.521(SM)
 CUT AREA = 1.350(SM)

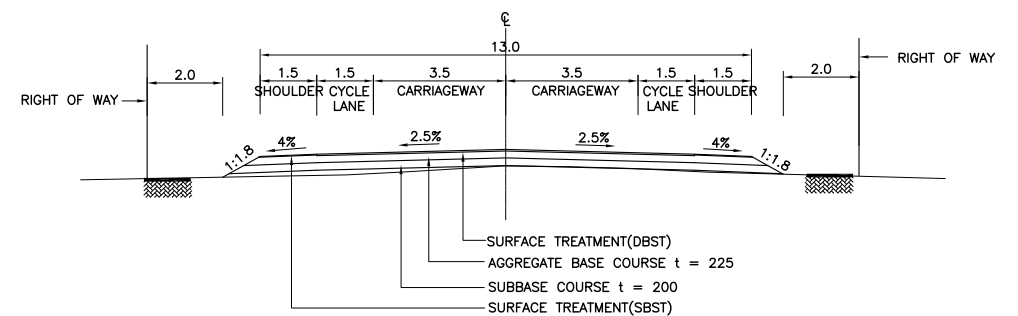
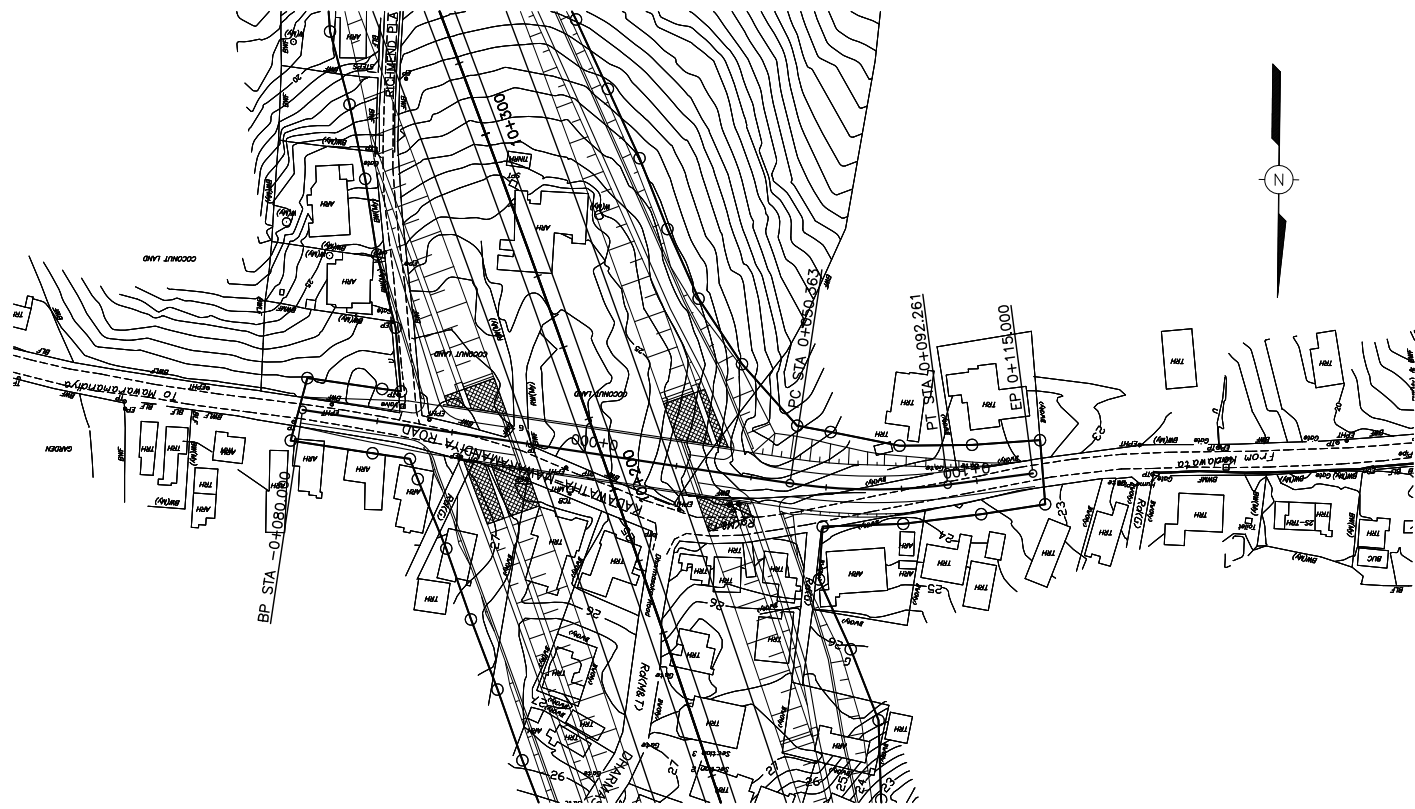


STA = -(0+080.00)
 FILL AREA = 21.842(SM)
 CUT AREA = 4.715(SM)

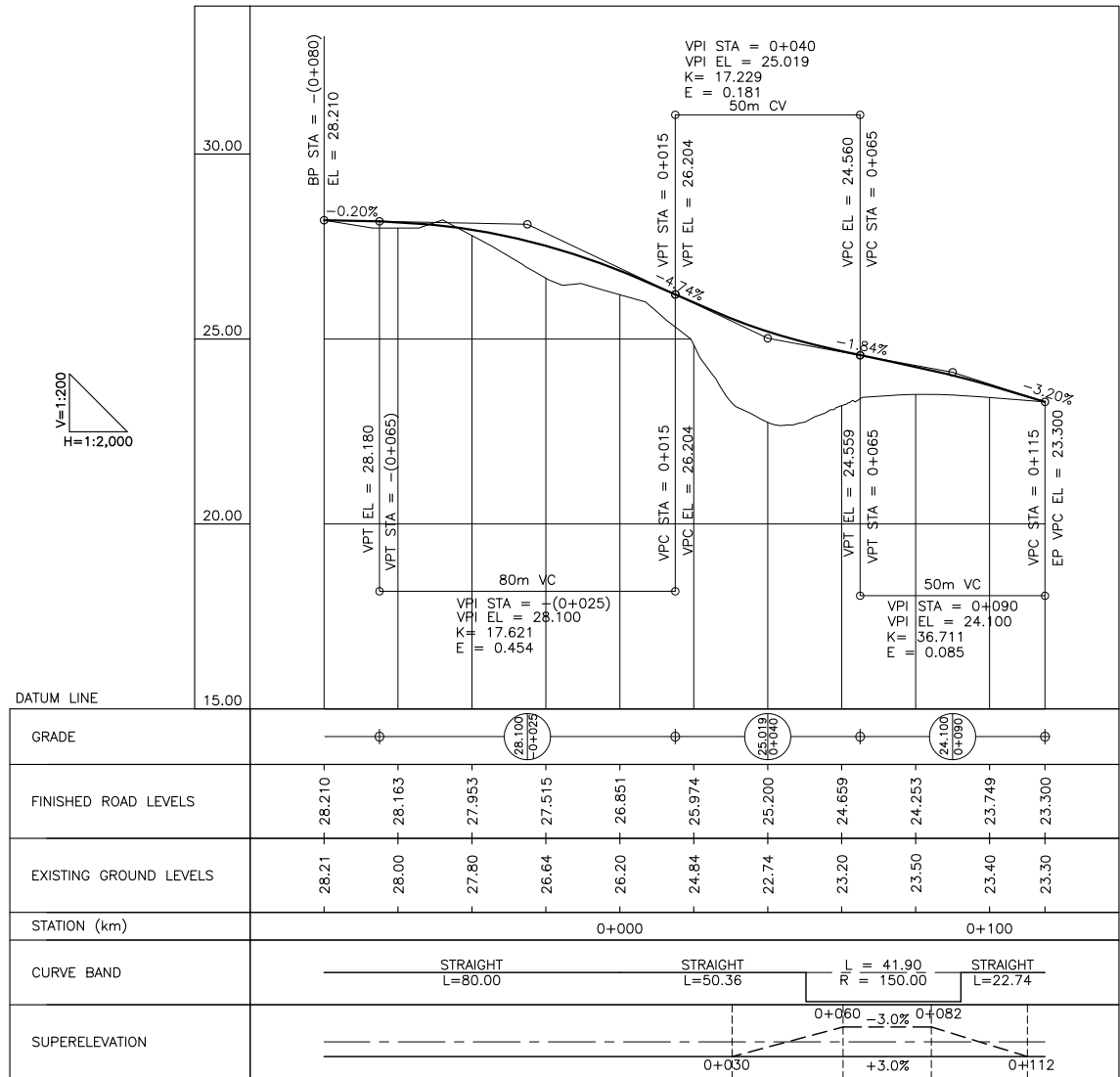
No	REVISION	DATE
----	----------	------

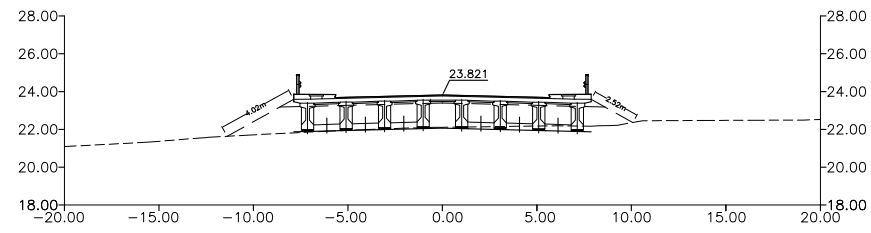
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	G-11



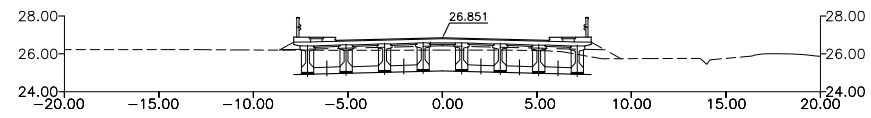


TYPICAL CROSS SECTION
(SCALE 1:200)

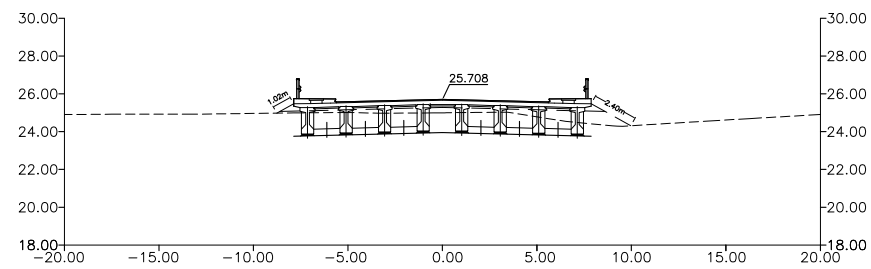




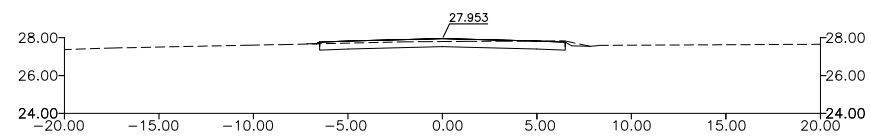
STA = 0+025.00
 FILL AREA = 23.767(SM)
 CUT AREA = 0.000(SM)



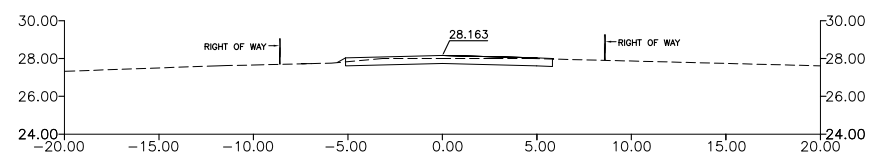
STA = 0+000.00
 FILL AREA = 0.000(SM)
 CUT AREA = 0.000(SM)



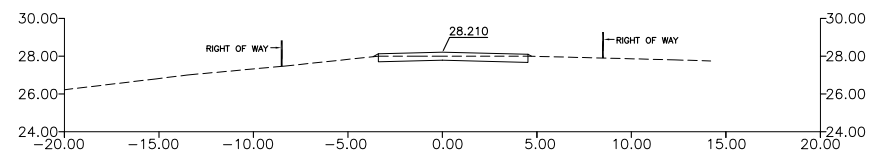
STA = -(0+025.00)
 FILL AREA = 5.386(SM)
 CUT AREA = 0.000(SM)



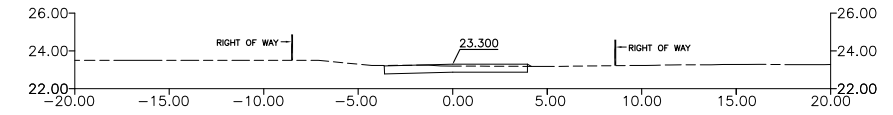
STA = -(0+040.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 4.364(SM)



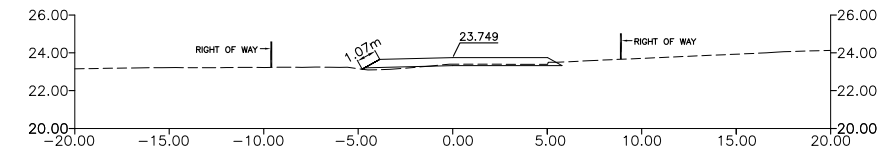
STA = -(0+060.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 3.441(SM)



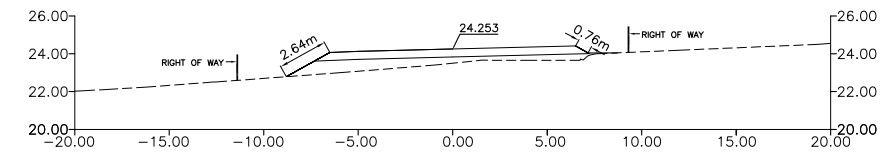
STA = -(0+080.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 2.104(SM)



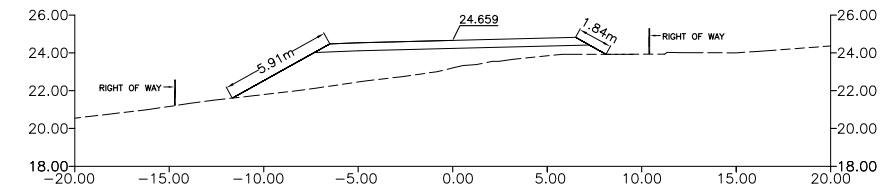
STA = 0+115.00
 FILL AREA = 0.000(SM)
 CUT AREA = 2.687(SM)



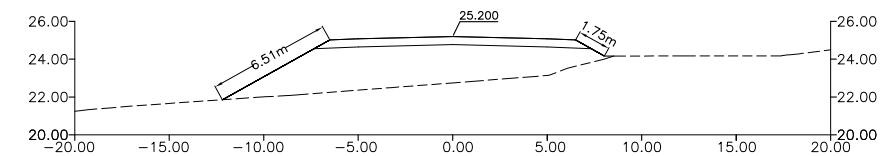
STA = 0+100.00
 FILL AREA = 0.279(SM)
 CUT AREA = 0.526(SM)



STA = 0+080.00
 FILL AREA = 6.524(SM)
 CUT AREA = 0.000(SM)



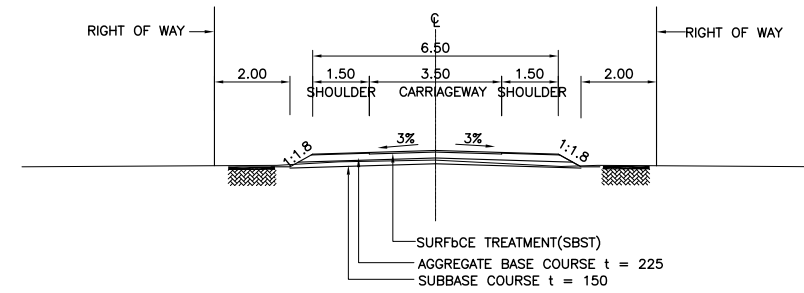
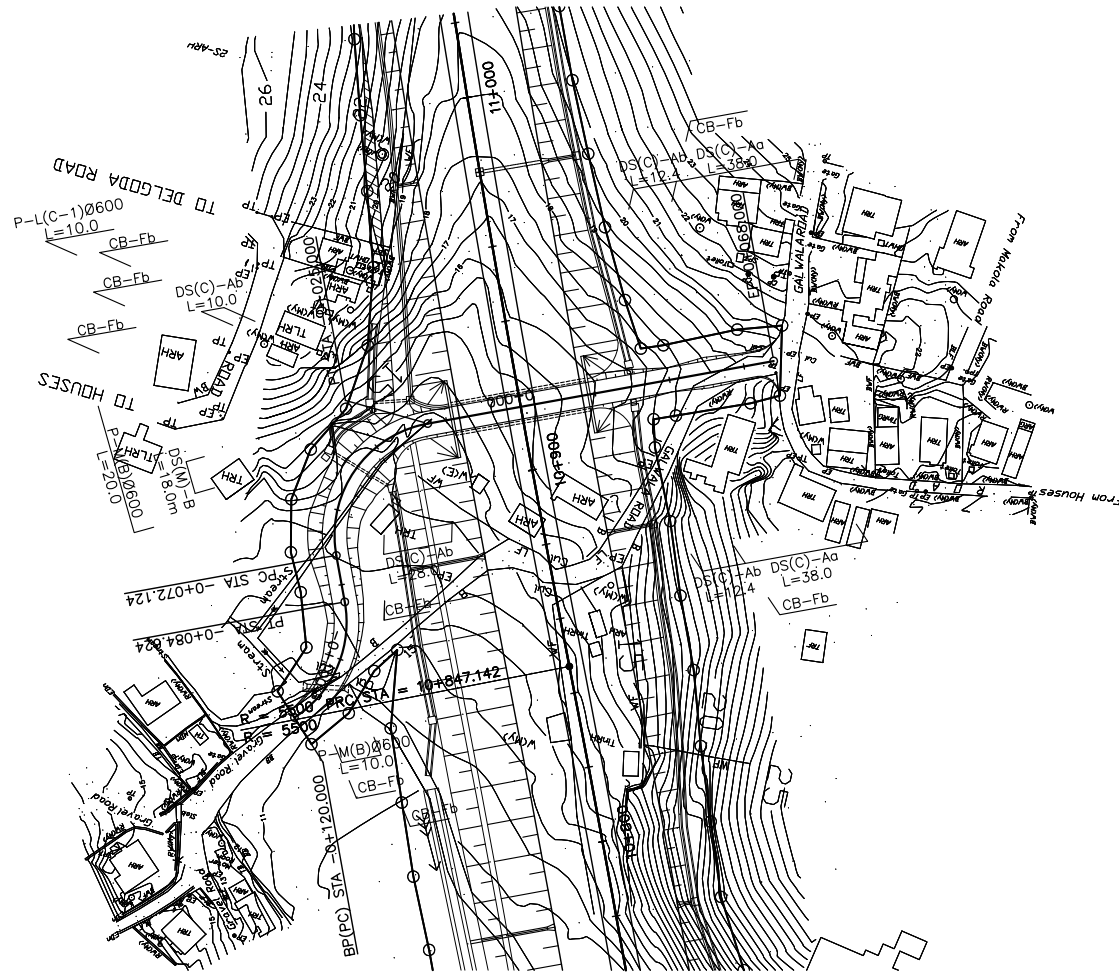
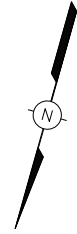
STA = 0+060.00
 FILL AREA = 20.176(SM)
 CUT AREA = 0.000(SM)



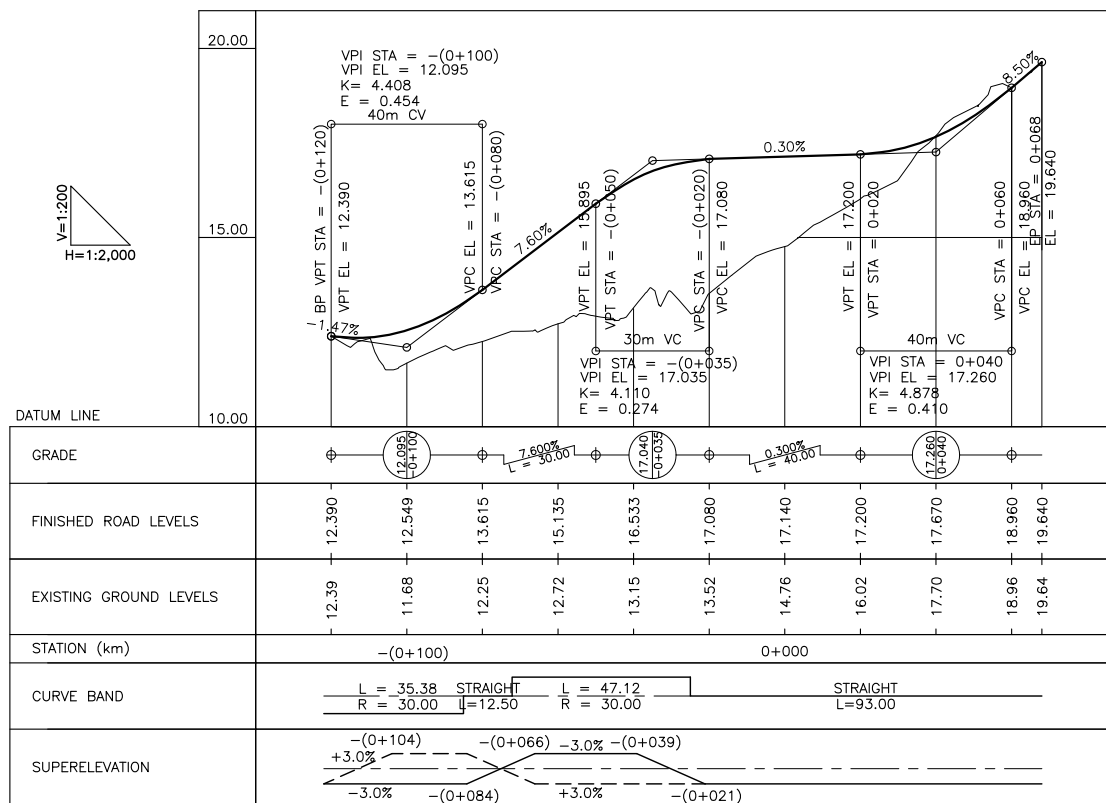
STA = 0+040.00
 FILL AREA = 33.742(SM)
 CUT AREA = 0.000(SM)

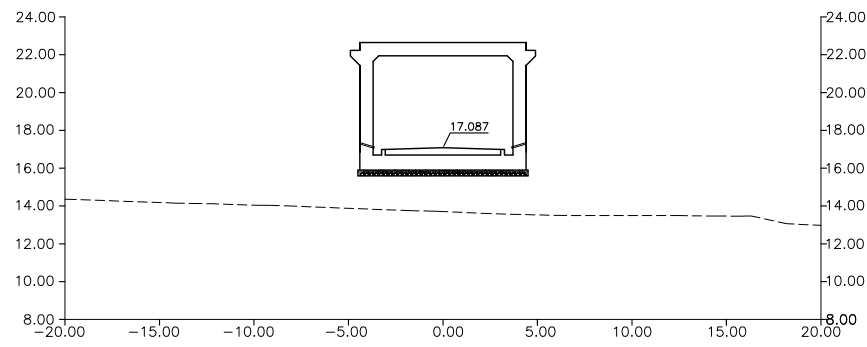
No	REVISION	DATE

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	G-14

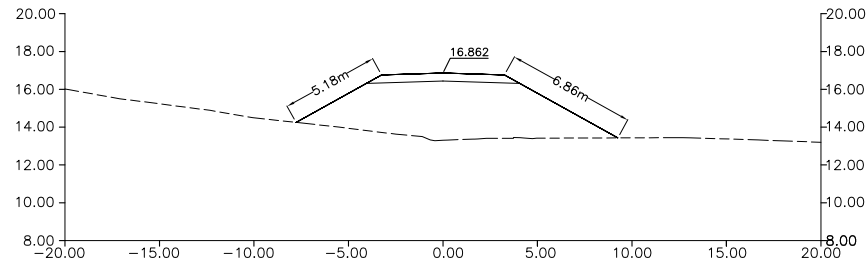


TYPICAL CROSS SECTION
(SCALE 1:200)

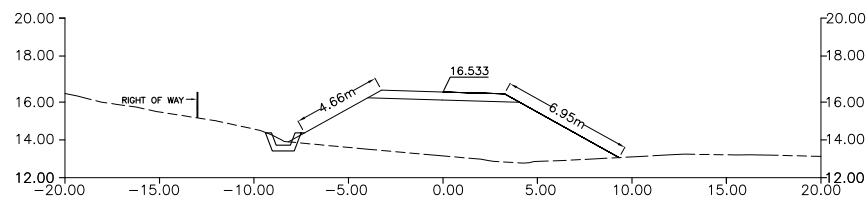




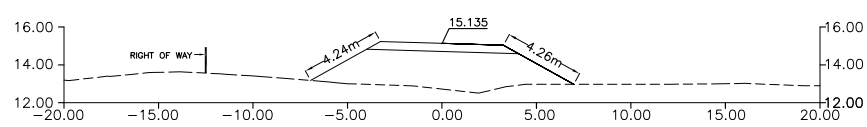
STA = -(0+017.70)
 FILL AREA = 0.000(SM)
 CUT AREA = 0.000(SM)



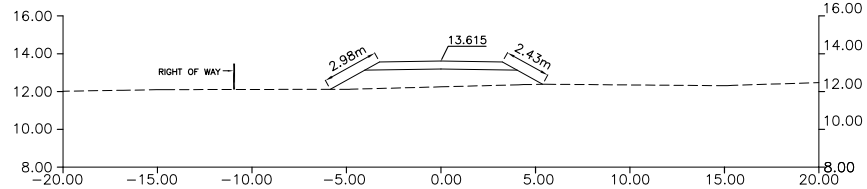
STA = -(0+032.20)
 FILL AREA = 35.701(SM)
 CUT AREA = 0.000(SM)



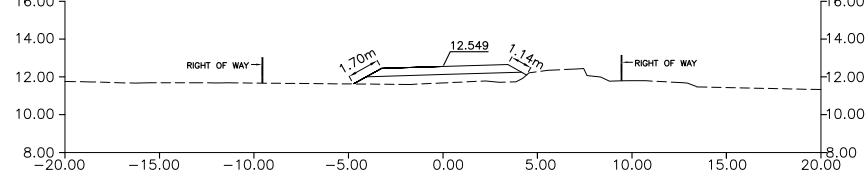
STA = -(0+040.00)
 FILL AREA = 38.872(SM)
 CUT AREA = 0.000(SM)



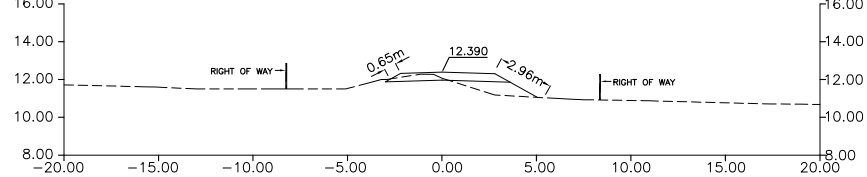
STA = -(0+060.00)
 FILL AREA = 20.700(SM)
 CUT AREA = 0.000(SM)



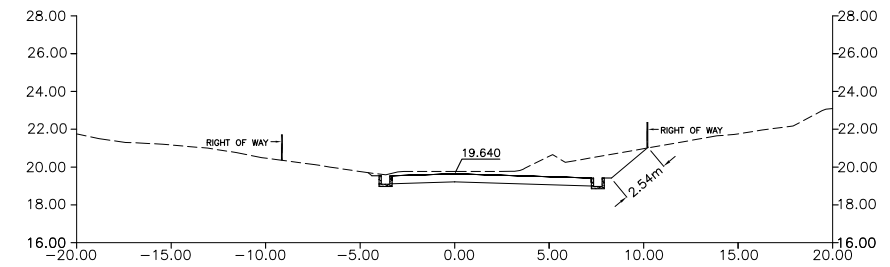
STA = -(0+080.00)
 FILL AREA = 8.766(SM)
 CUT AREA = 0.000(SM)



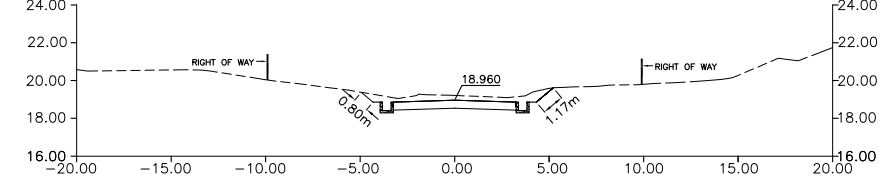
STA = -(0+100.00)
 FILL AREA = 3.830(SM)
 CUT AREA = 0.000(SM)



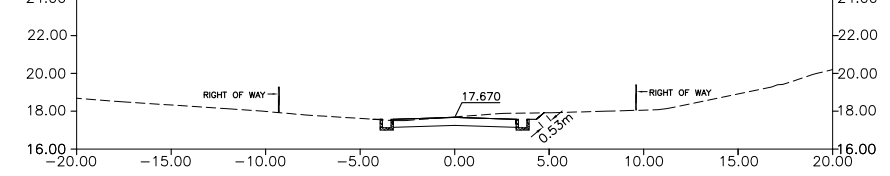
STA = -(0+120.00)
 FILL AREA = 1.948(SM)
 CUT AREA = 0.757(SM)



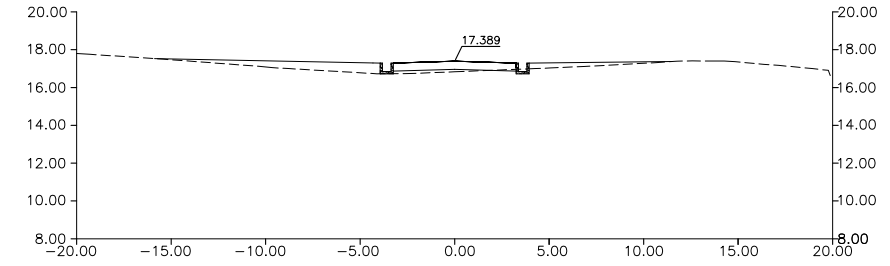
STA = 0+068.00
 FILL AREA = 0.000(SM)
 CUT AREA = 11.400(SM)



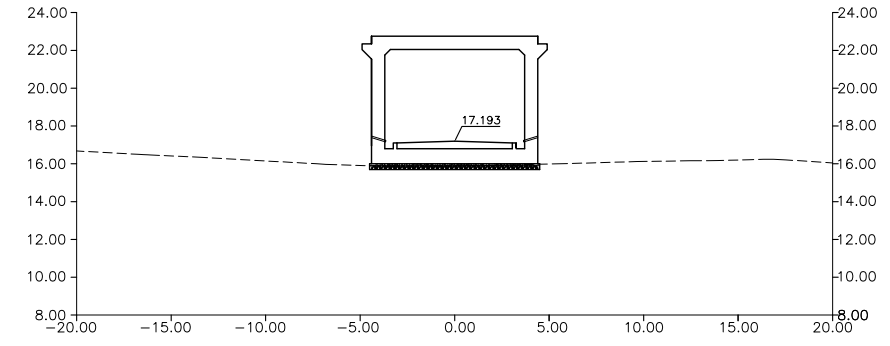
STA = 0+060.00
 FILL AREA = 0.000(SM)
 CUT AREA = 5.617(SM)



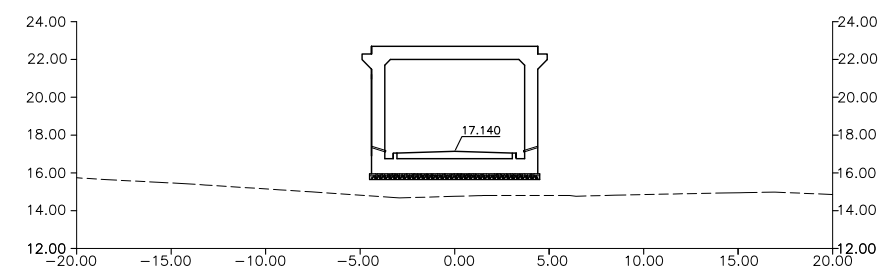
STA = 0+040.00
 FILL AREA = 0.000(SM)
 CUT AREA = 3.687(SM)



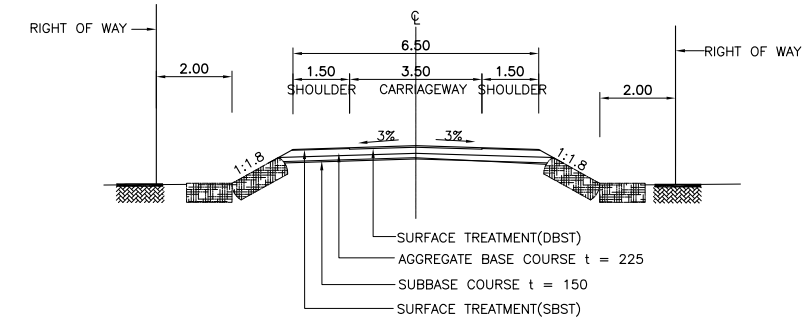
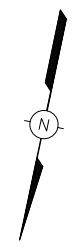
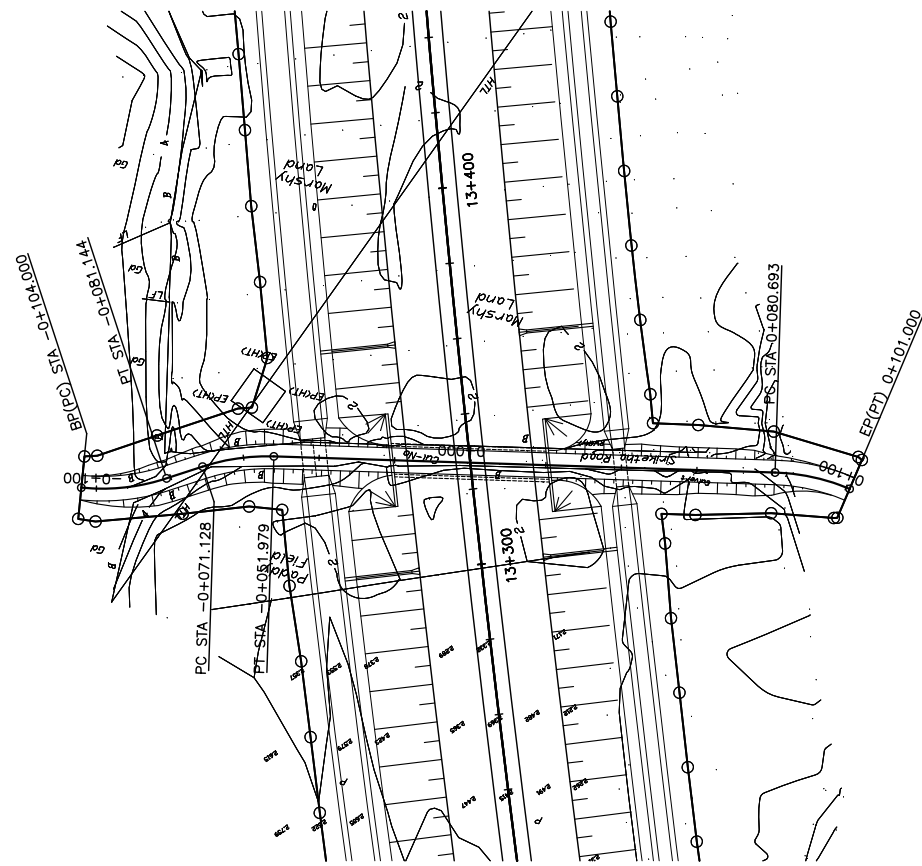
STA = 0+032.20
 FILL AREA = 5.546(SM)
 CUT AREA = 0.064(SM)



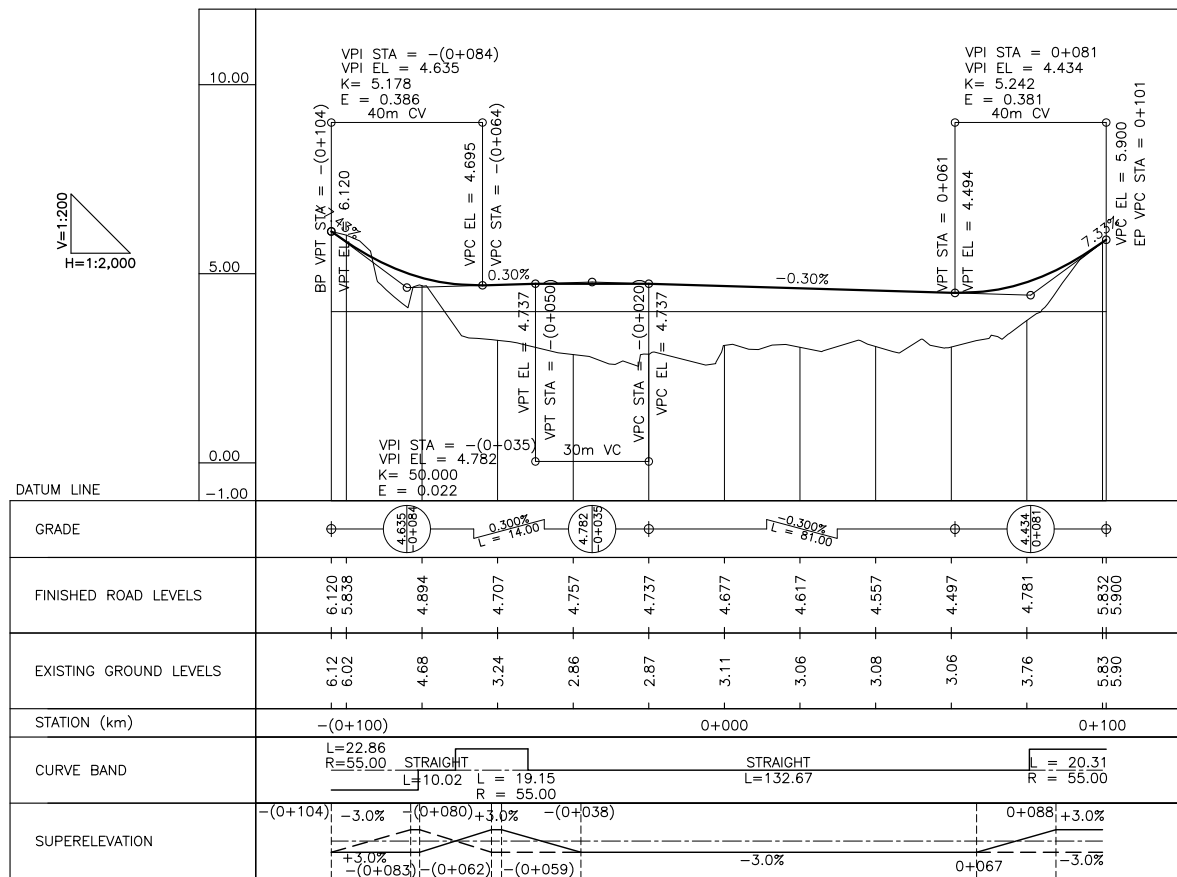
STA = 0+017.70
 FILL AREA = 0.000(SM)
 CUT AREA = 0.000(SM)

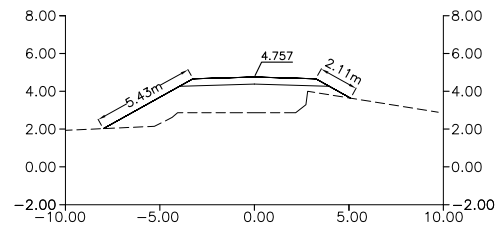


STA = 0+000.00
 FILL AREA = 0.000(SM)
 CUT AREA = 0.000(SM)

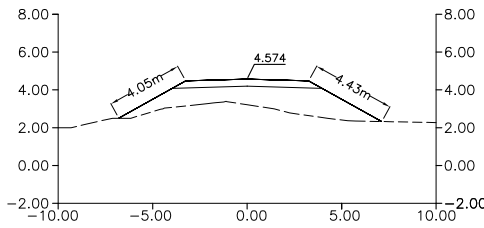


TYPICAL CROSS SECTION
(SCALE 1:200)

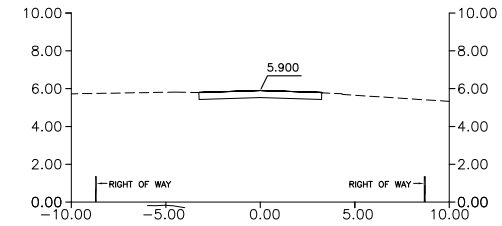




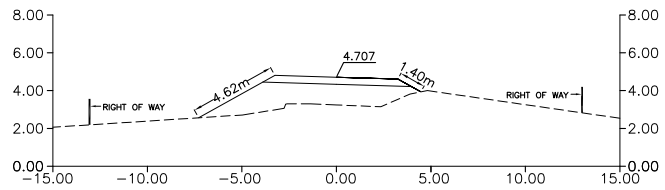
STA = -(0+040.00)
 FILL AREA =14.157(SM)
 CUT AREA =0.000(SM)



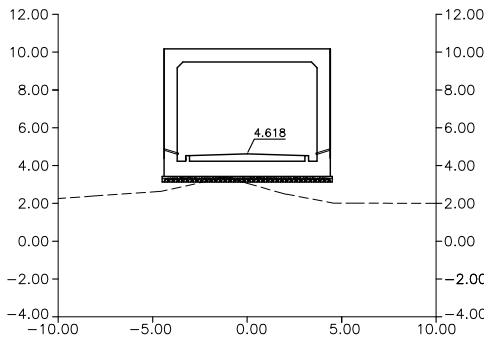
STA = 0+034.40
 FILL AREA =12.674(SM)
 CUT AREA =0.000(SM)



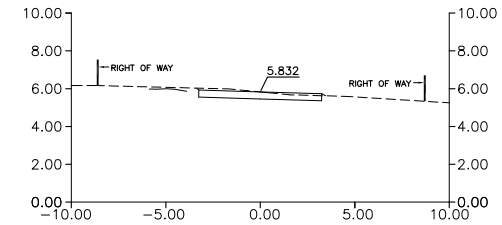
STA = 0+101.00
 FILL AREA =0.000(SM)
 CUT AREA =2.376(SM)



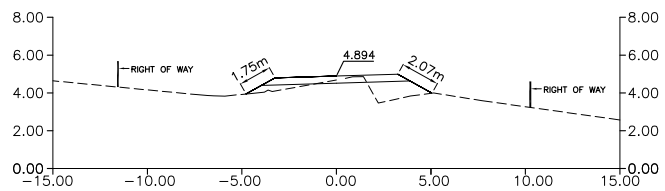
STA = -(0+060.00)
 FILL AREA =11.325(SM)
 CUT AREA =0.000(SM)



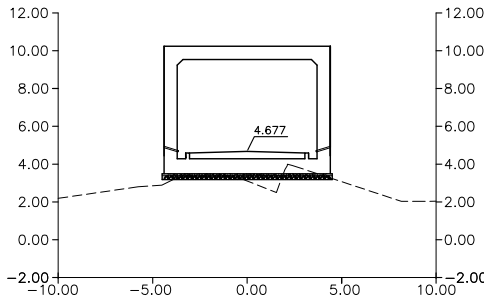
STA = 0+019.60
 FILL AREA =0.000(SM)
 CUT AREA =0.000(SM)



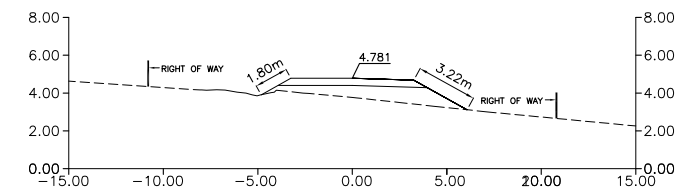
STA = 0+100.00
 FILL AREA =0.000(SM)
 CUT AREA =2.428(SM)



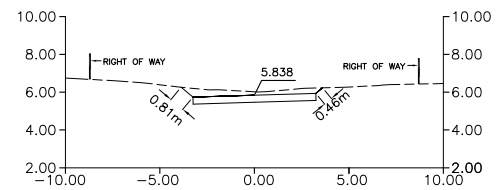
STA = -(0+080.00)
 FILL AREA =3.156(SM)
 CUT AREA =0.490(SM)



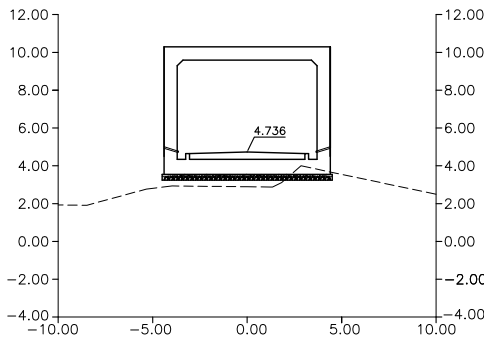
STA = 0+000.00
 FILL AREA =0.000(SM)
 CUT AREA =0.000(SM)



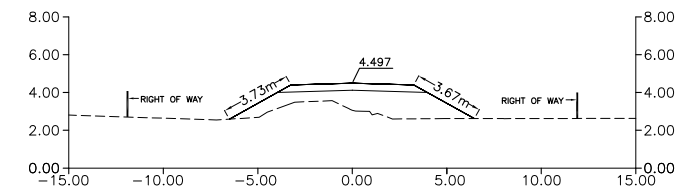
STA = 0+080.00
 FILL AREA =6.053(SM)
 CUT AREA =0.000(SM)



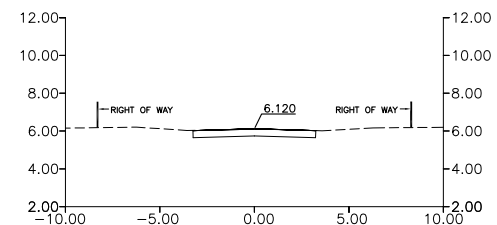
STA = -(0+100.00)
 FILL AREA =0.000(SM)
 CUT AREA =4.392(SM)



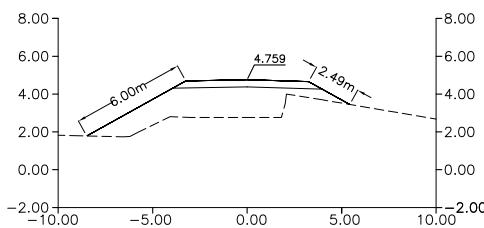
STA = -(0+019.60)
 FILL AREA =0.000(SM)
 CUT AREA =0.000(SM)



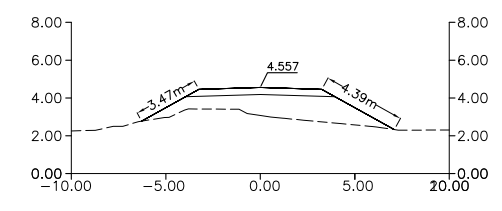
STA = 0+060.00
 FILL AREA =10.802(SM)
 CUT AREA =0.000(SM)



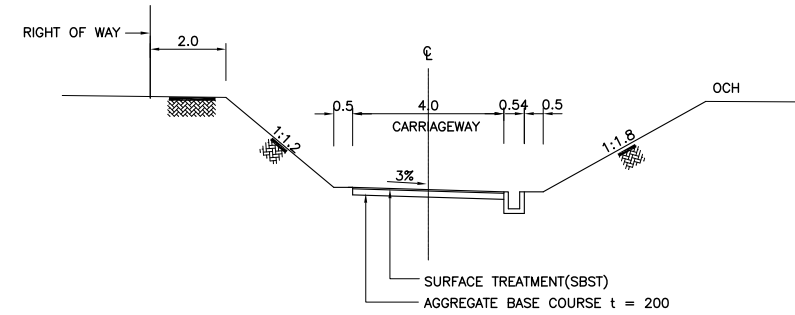
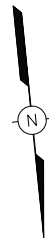
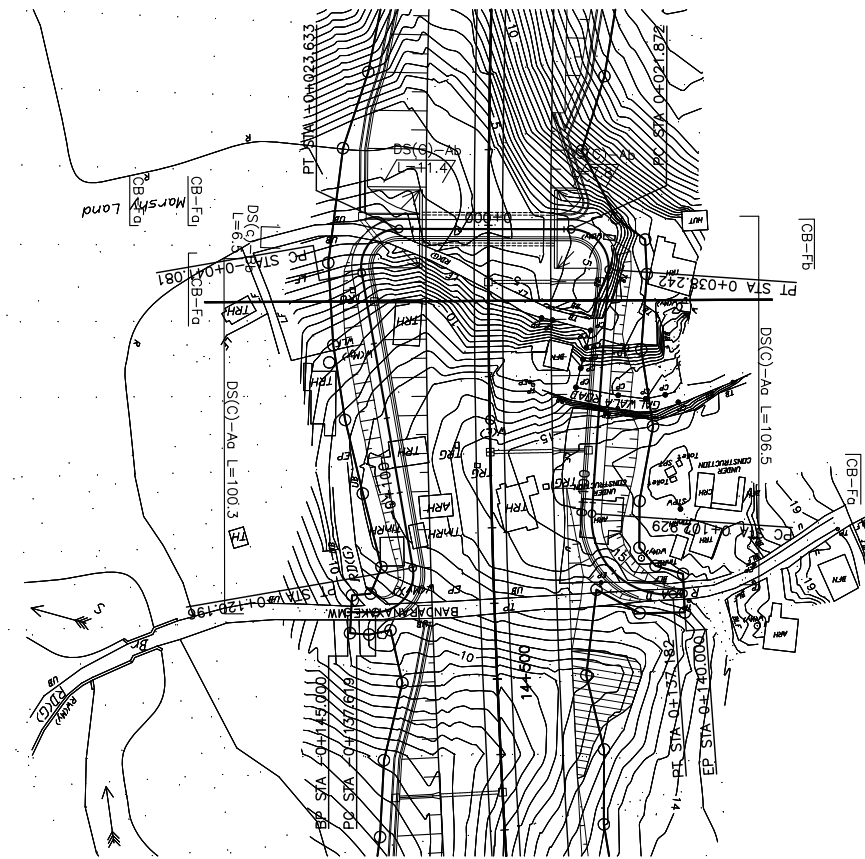
STA = -(0+104.00)
 FILL AREA =0.000(SM)
 CUT AREA =2.404(SM)



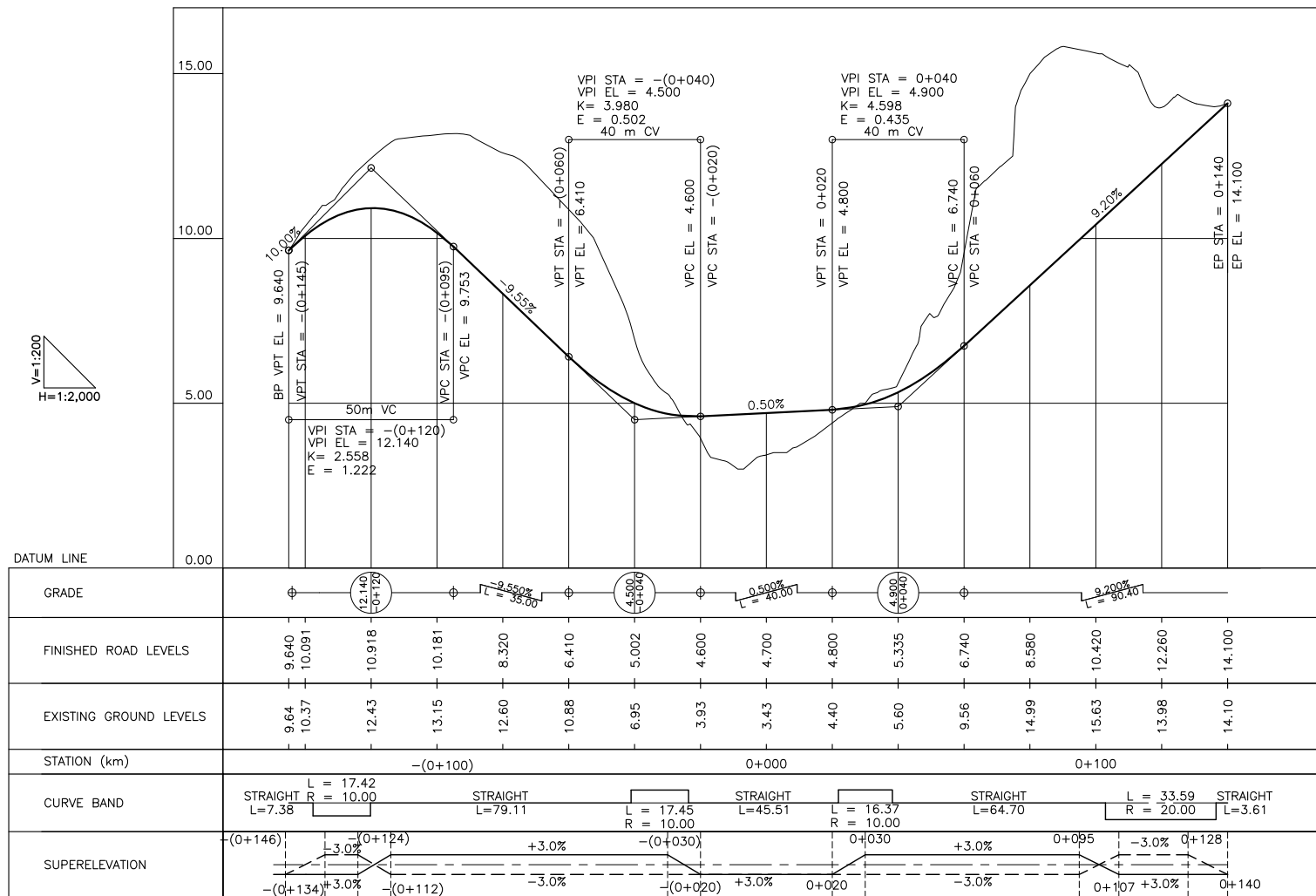
STA = -(0+034.40)
 FILL AREA =15.257(SM)
 CUT AREA =0.000(SM)

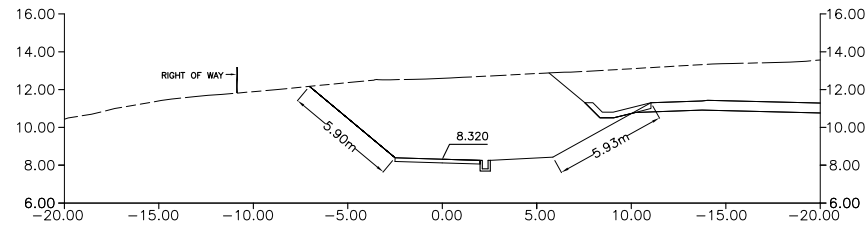


STA = 0+040.00
 FILL AREA =11.180(SM)
 CUT AREA =0.000(SM)

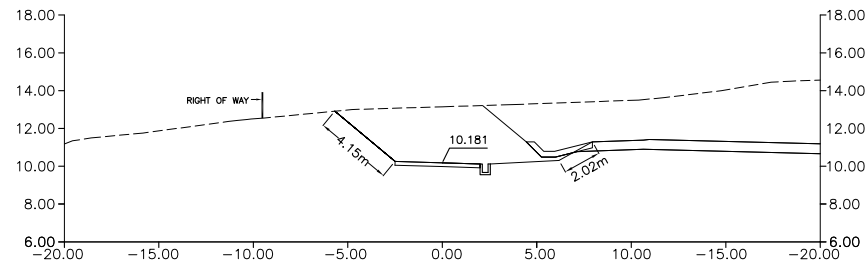


TYPICAL CROSS SECTION
(SCALE 1:200)

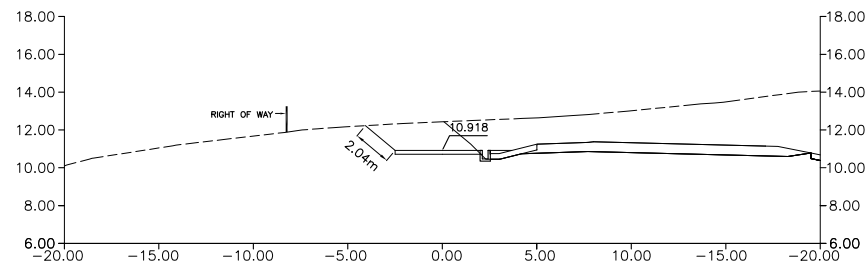




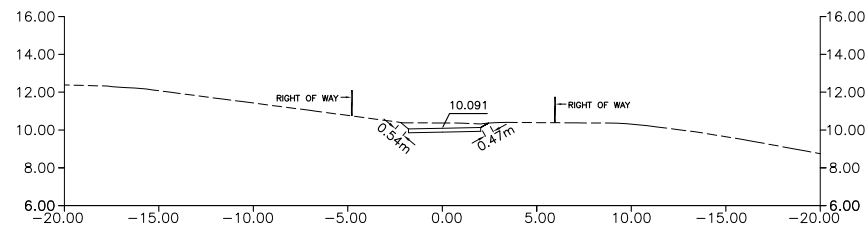
STA = -(0+080.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 53.605(SM)



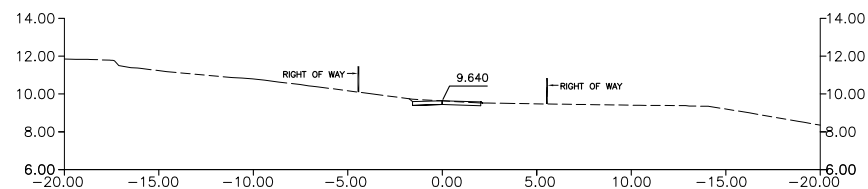
STA = -(0+100.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 24.781(SM)



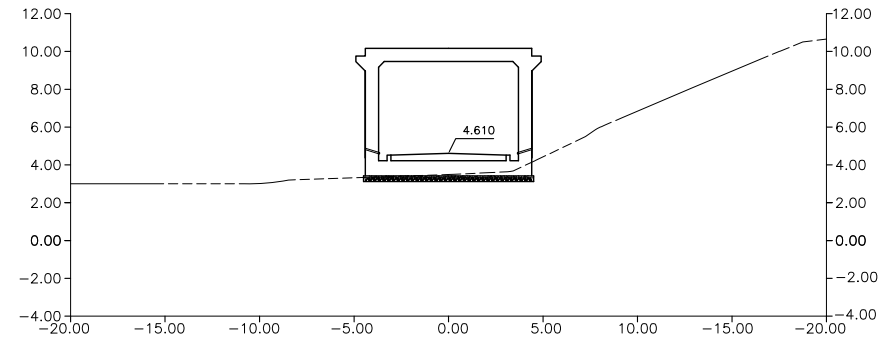
STA = -(0+120.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 7.132(SM)



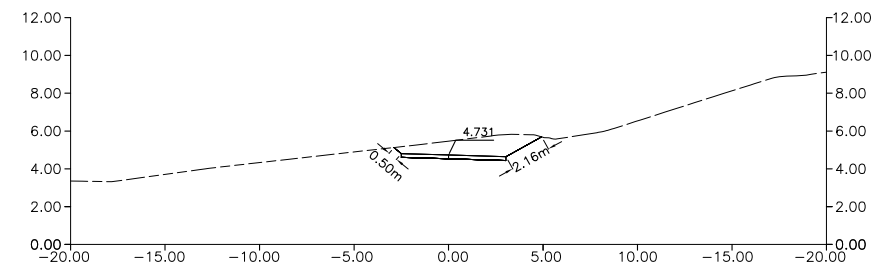
STA = -(0+140.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 1.902(SM)



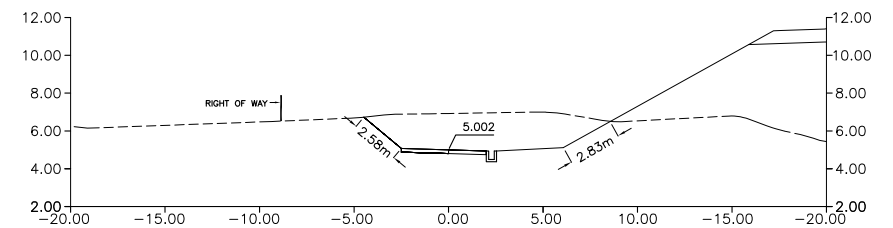
STA = -(0+145.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 0.767(SM)



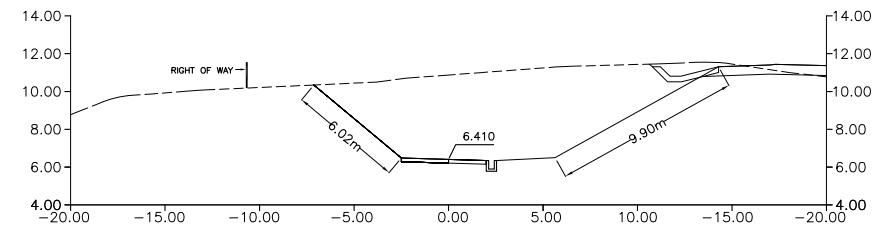
STA = -(0+017.90)
 FILL AREA = 0.000(SM)
 CUT AREA = 0.000(SM)



STA = -(0+032.40)
 FILL AREA = 0.000(SM)
 CUT AREA = 6.673(SM)



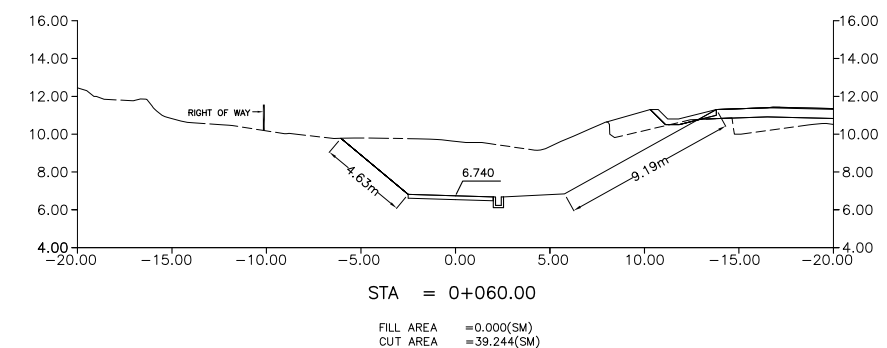
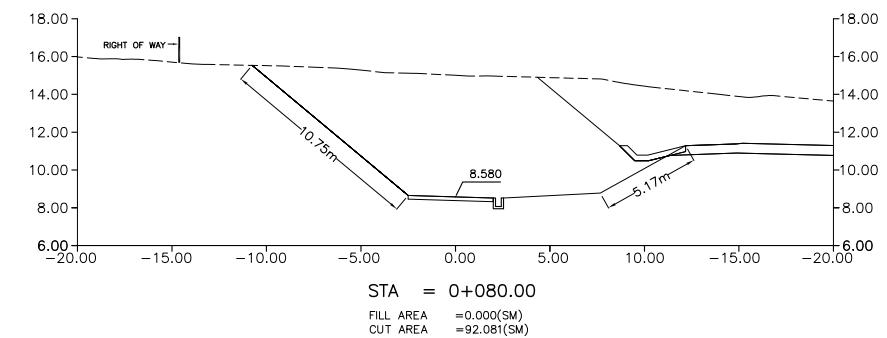
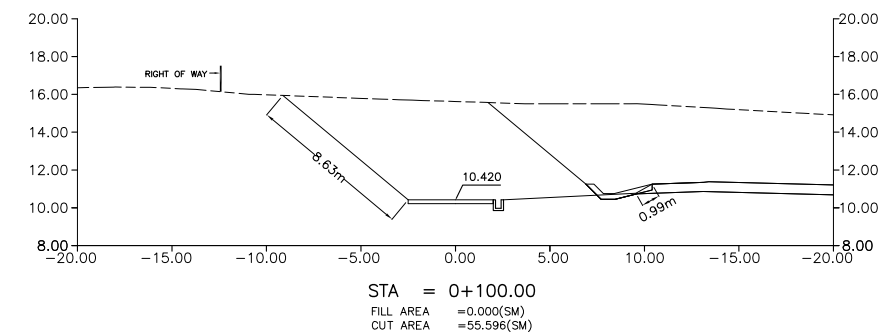
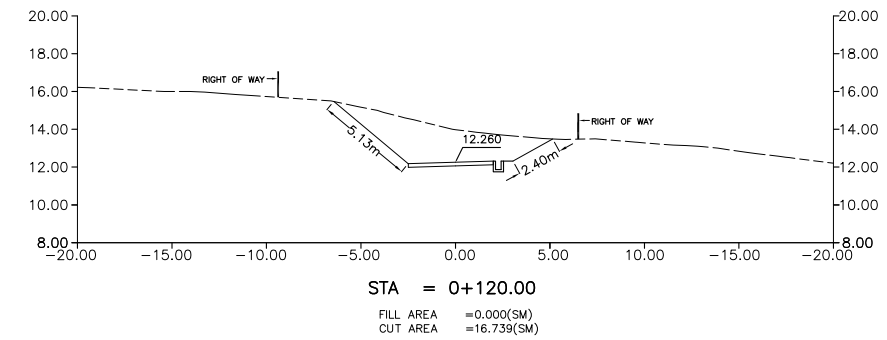
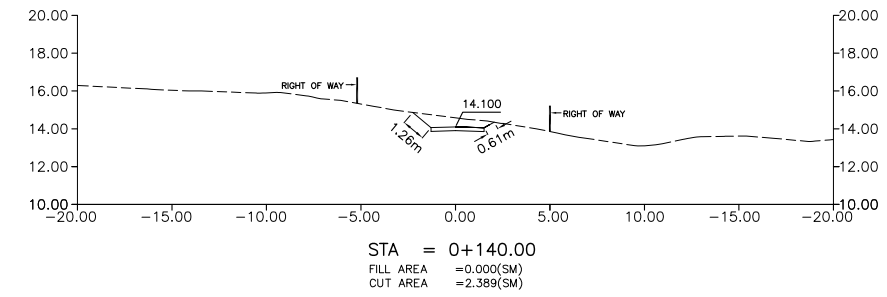
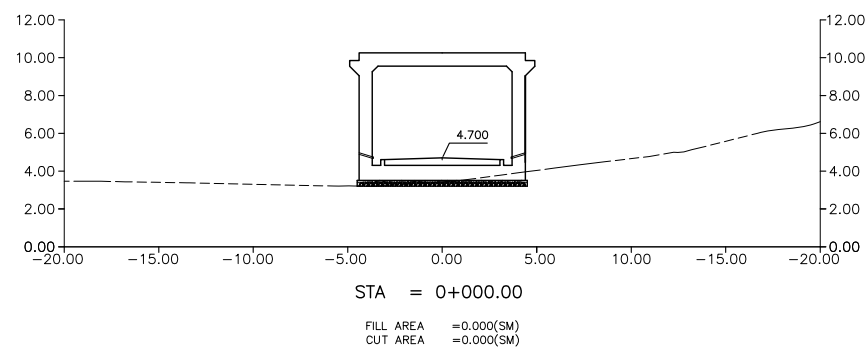
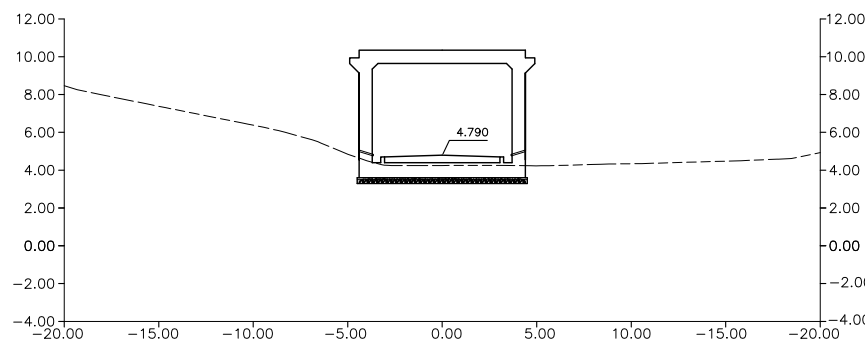
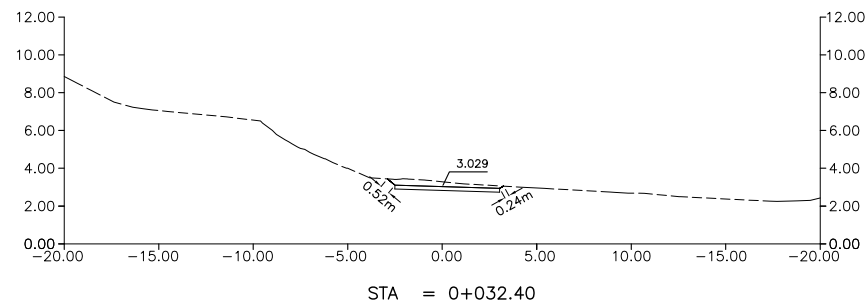
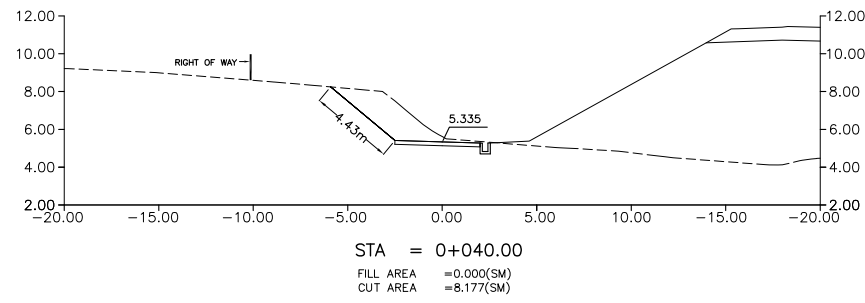
STA = -(0+040.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 21.514(SM)

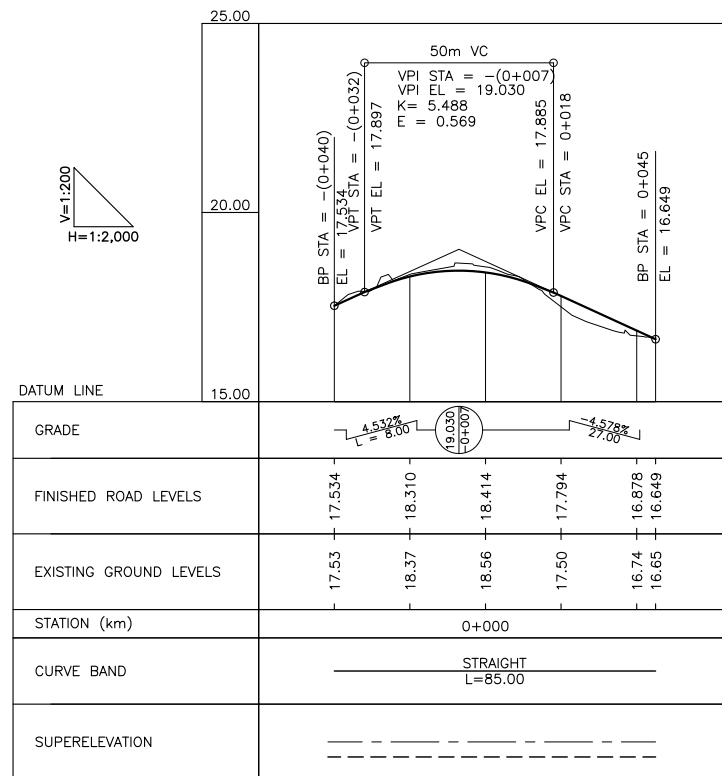
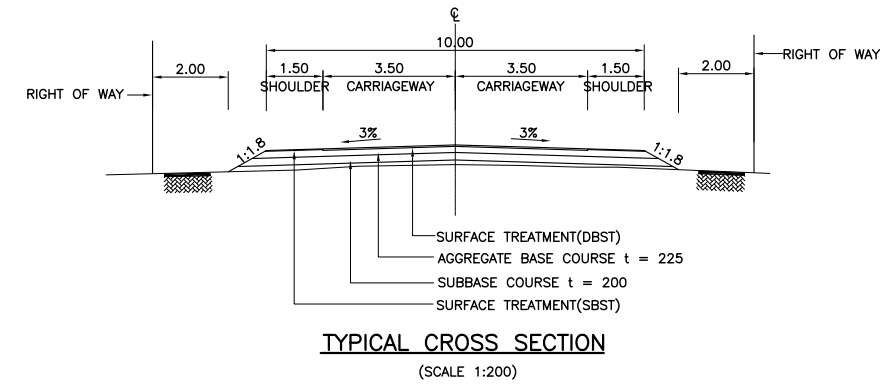
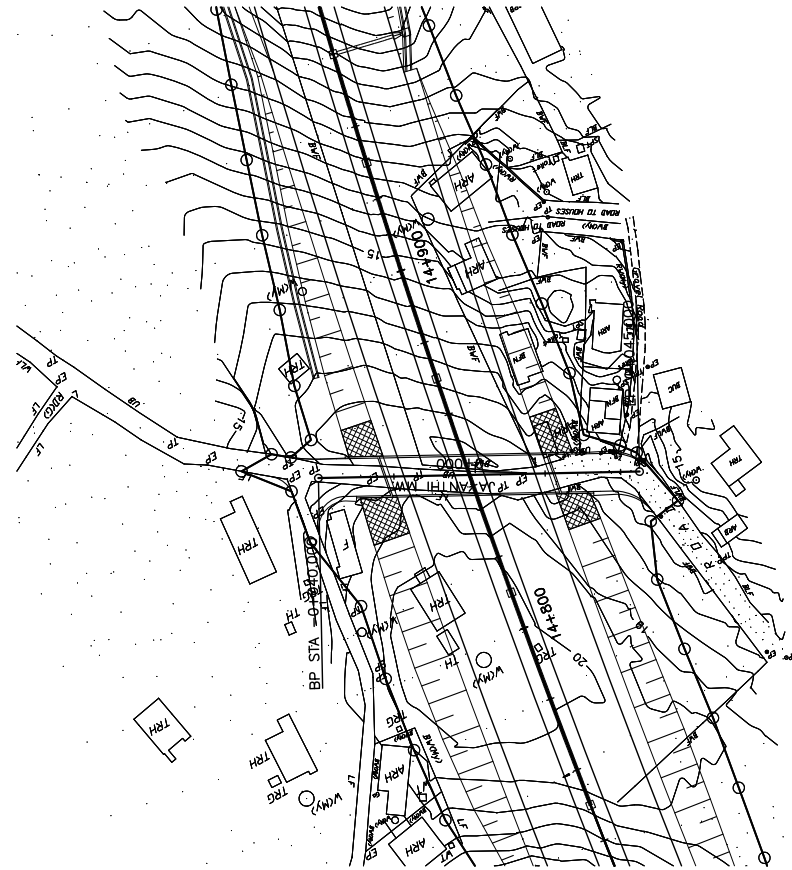


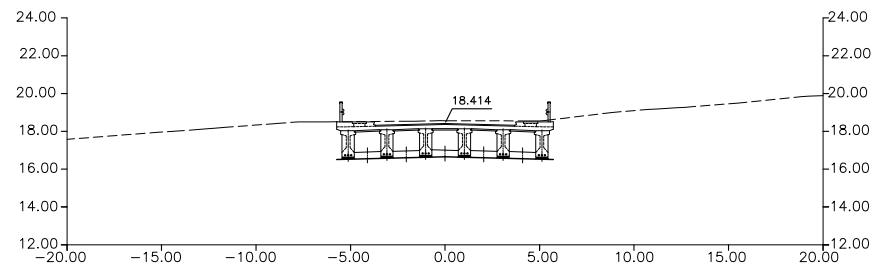
STA = -(0+060.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 66.902(SM)

No	REVISION	DATE

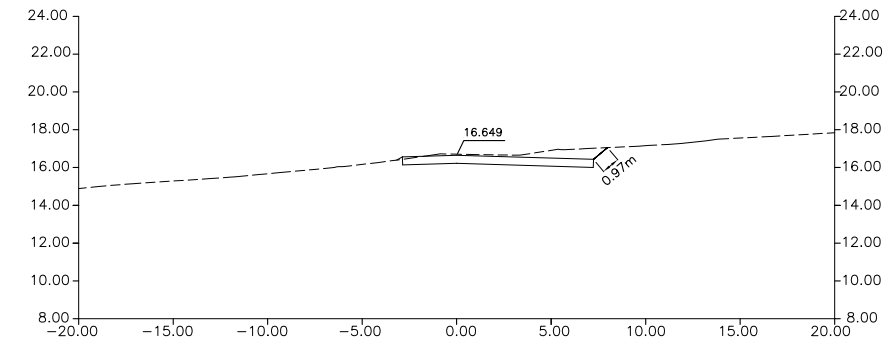
DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	G-20



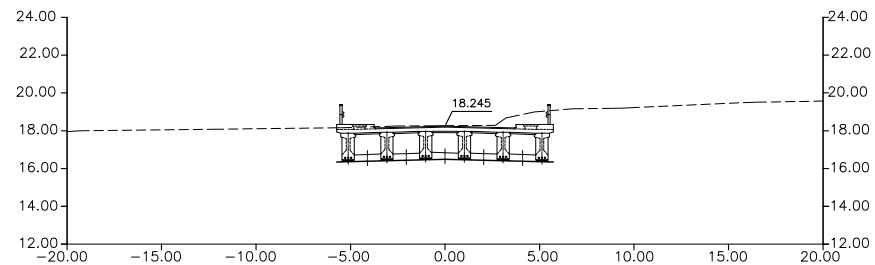




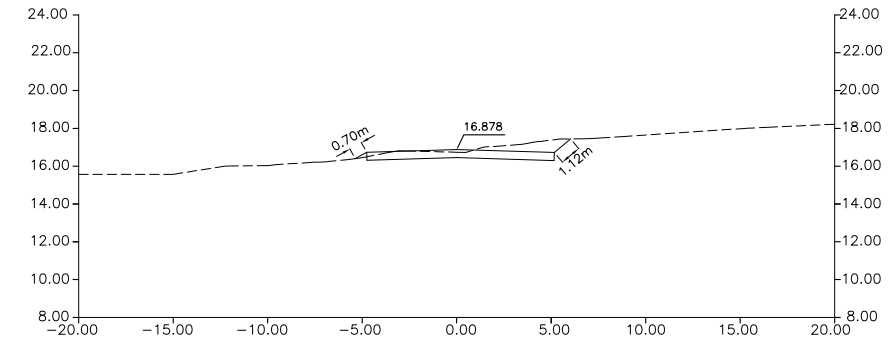
STA = 0+000.00
 FILL AREA = 0.000(SM)
 CUT AREA = 0.000(SM)



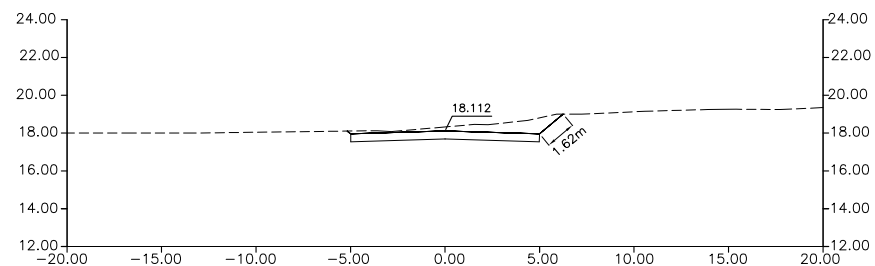
STA = 0+045.00
 FILL AREA = 0.000(SM)
 CUT AREA = 6.354(SM)



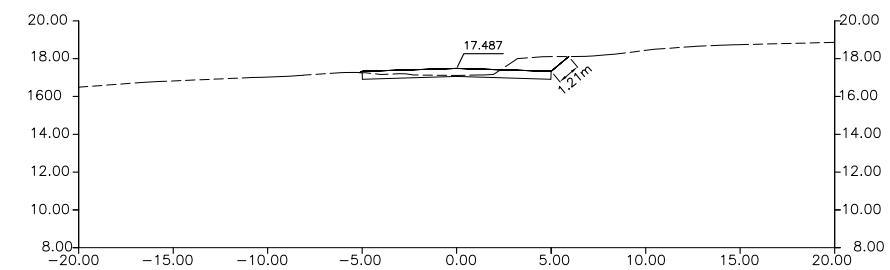
STA = -(0+022.50)
 FILL AREA = 0.000(SM)
 CUT AREA = 0.000(SM)



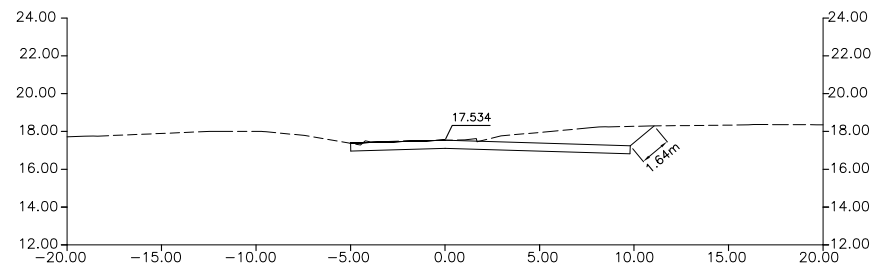
STA = 0+040.00
 FILL AREA = 0.000(SM)
 CUT AREA = 5.596(SM)



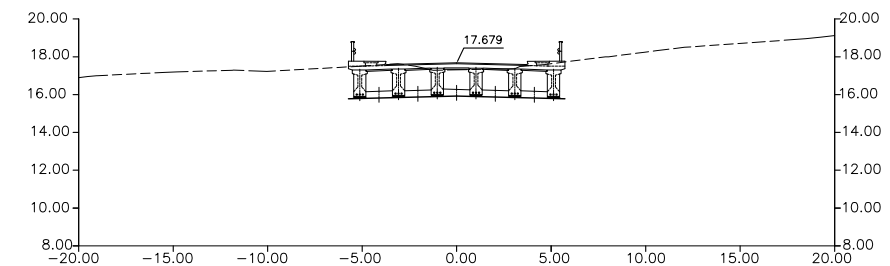
STA = -(0+026.70)
 FILL AREA = 0.000(SM)
 CUT AREA = 7.836(SM)



STA = 0+026.70
 FILL AREA = 0.000(SM)
 CUT AREA = 4.216(SM)



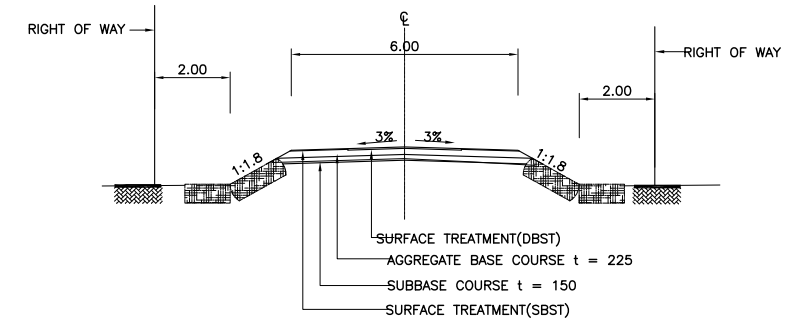
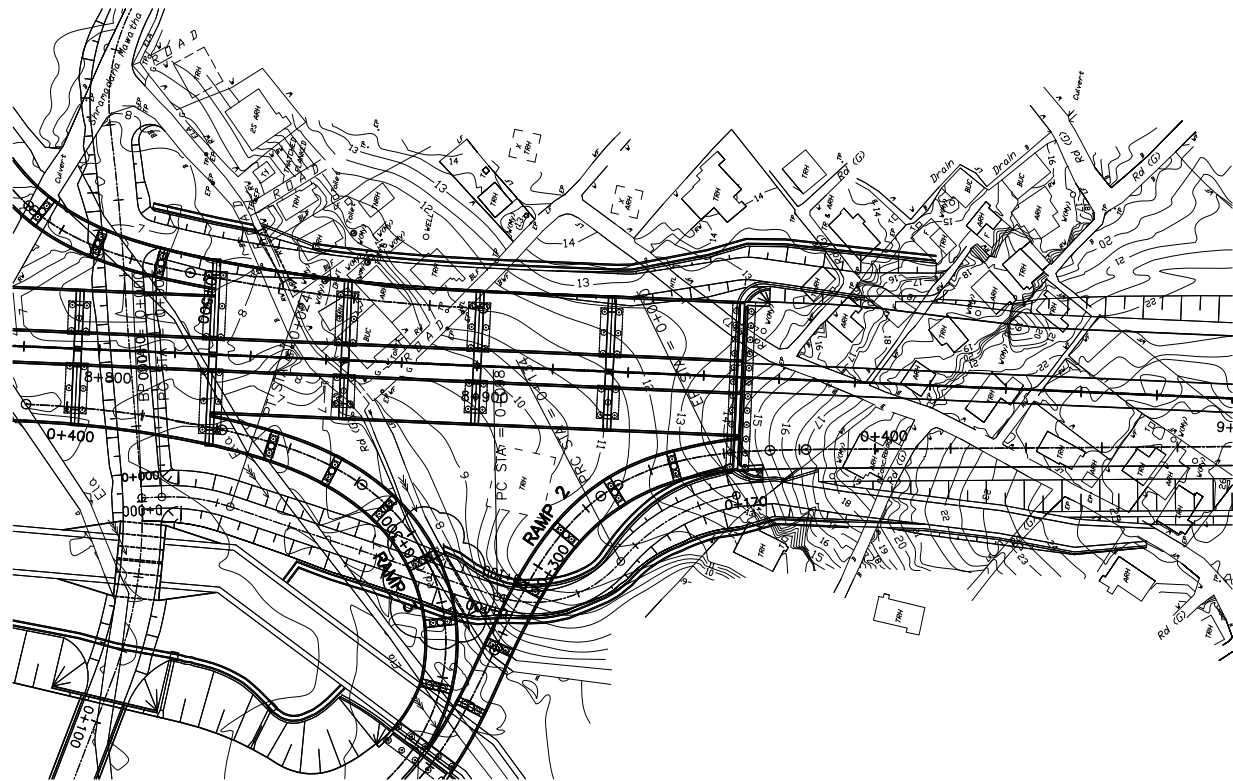
STA = -(0+040.00)
 FILL AREA = 0.000(SM)
 CUT AREA = 12.168(SM)



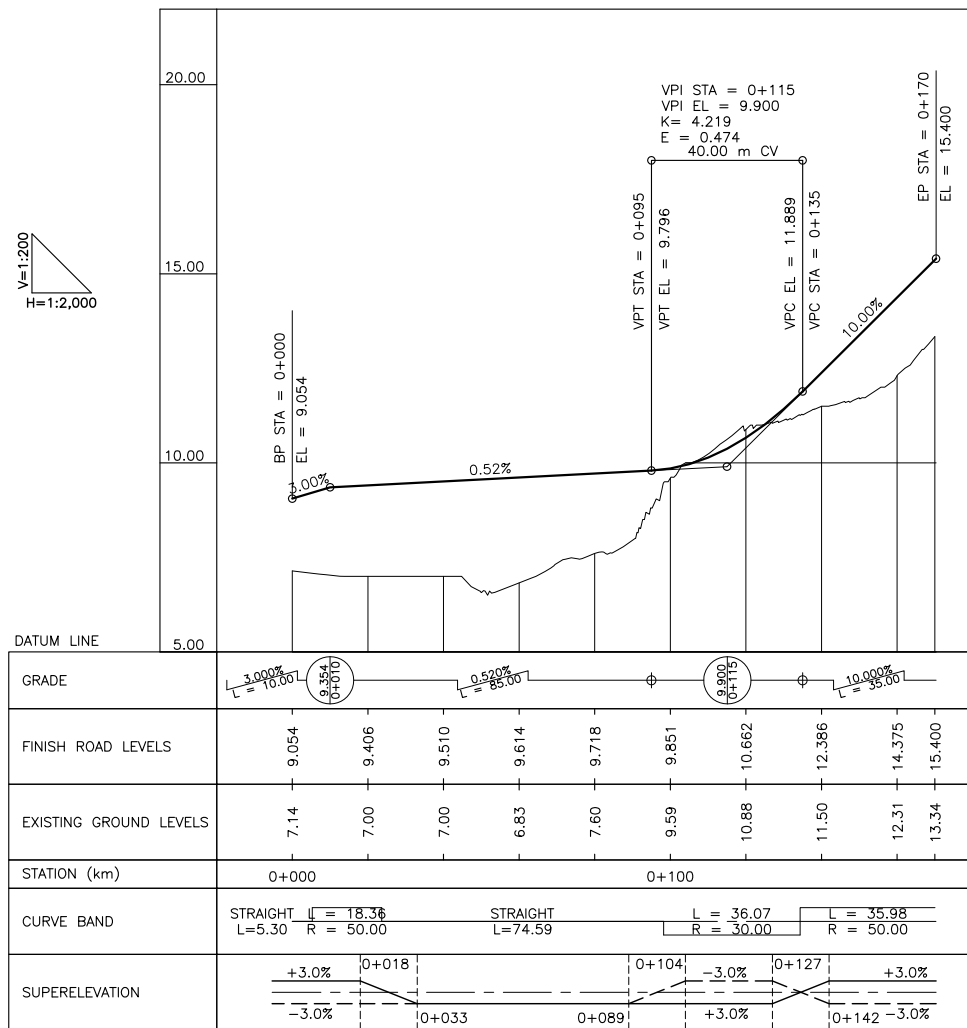
STA = 0+022.50
 FILL AREA = 0.000(SM)
 CUT AREA = 0.000(SM)

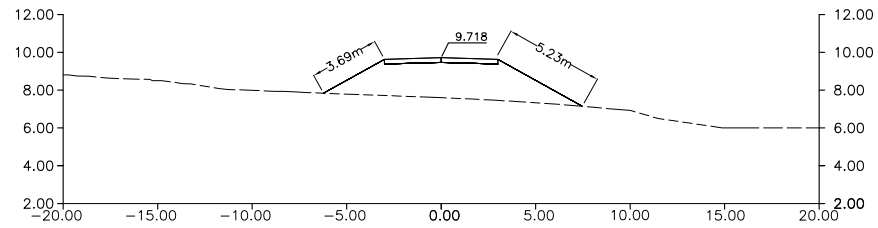
No	REVISION	DATE

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	G-23



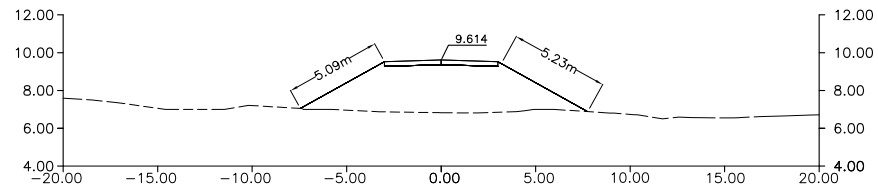
TYPICAL CROSS SECTION
(SCALE 1:200)





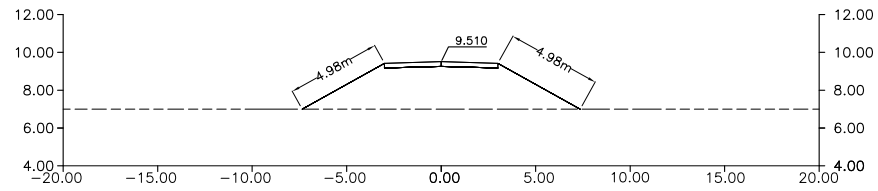
STA = 0+080.00

FILL AREA = 18.865(SM)
CUT AREA = 0.000(SM)



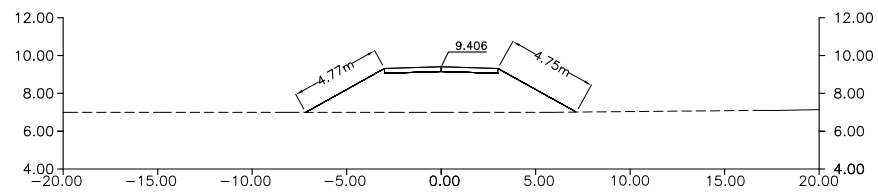
STA = 0+060.00

FILL AREA = 26.840(SM)
CUT AREA = 0.000(SM)



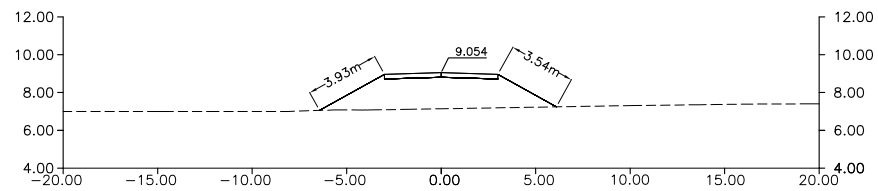
STA = 0+040.00

FILL AREA = 23.832(SM)
CUT AREA = 0.000(SM)



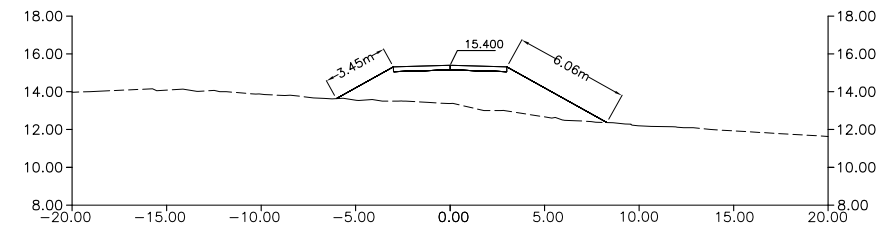
STA = 0+020.00

FILL AREA = 22.315(SM)
CUT AREA = 0.000(SM)



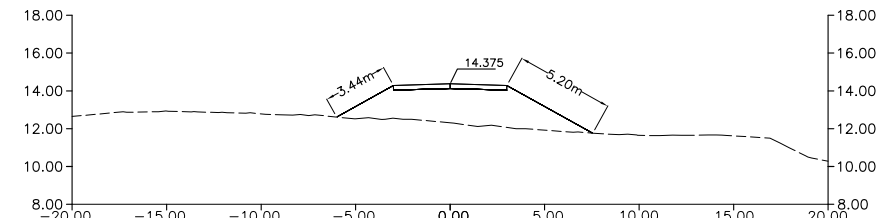
STA = 0+000.00

FILL AREA = 15.654(SM)
CUT AREA = 0.000(SM)



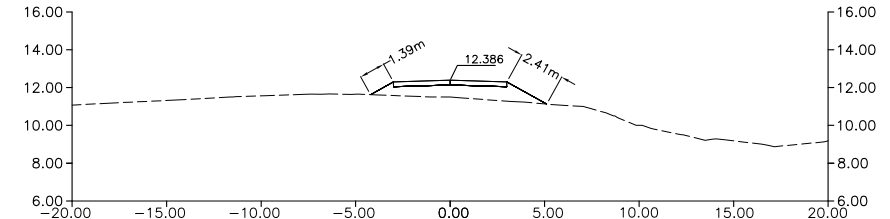
STA = 0+170.00

FILL AREA = 20.157(SM)
CUT AREA = 0.000(SM)



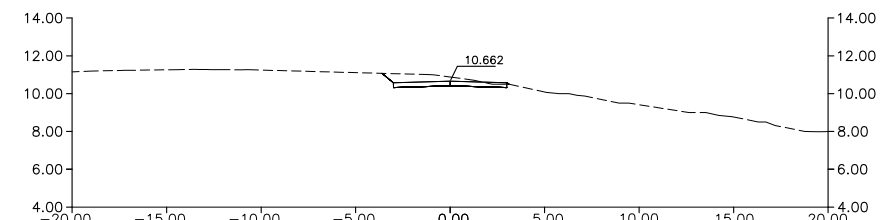
STA = 0+160.00

FILL AREA = 18.429(SM)
CUT AREA = 0.000(SM)



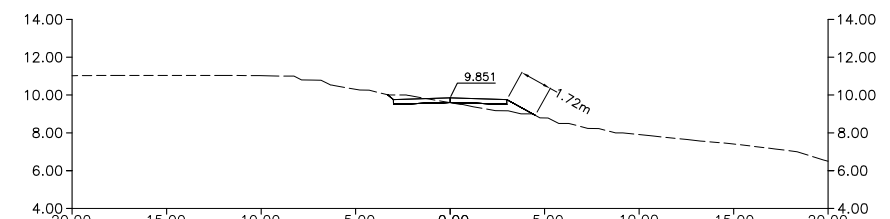
STA = 0+140.00

FILL AREA = 5.302(SM)
CUT AREA = 0.000(SM)



STA = 0+120.00

FILL AREA = 0.000(SM)
CUT AREA = 2.919(SM)



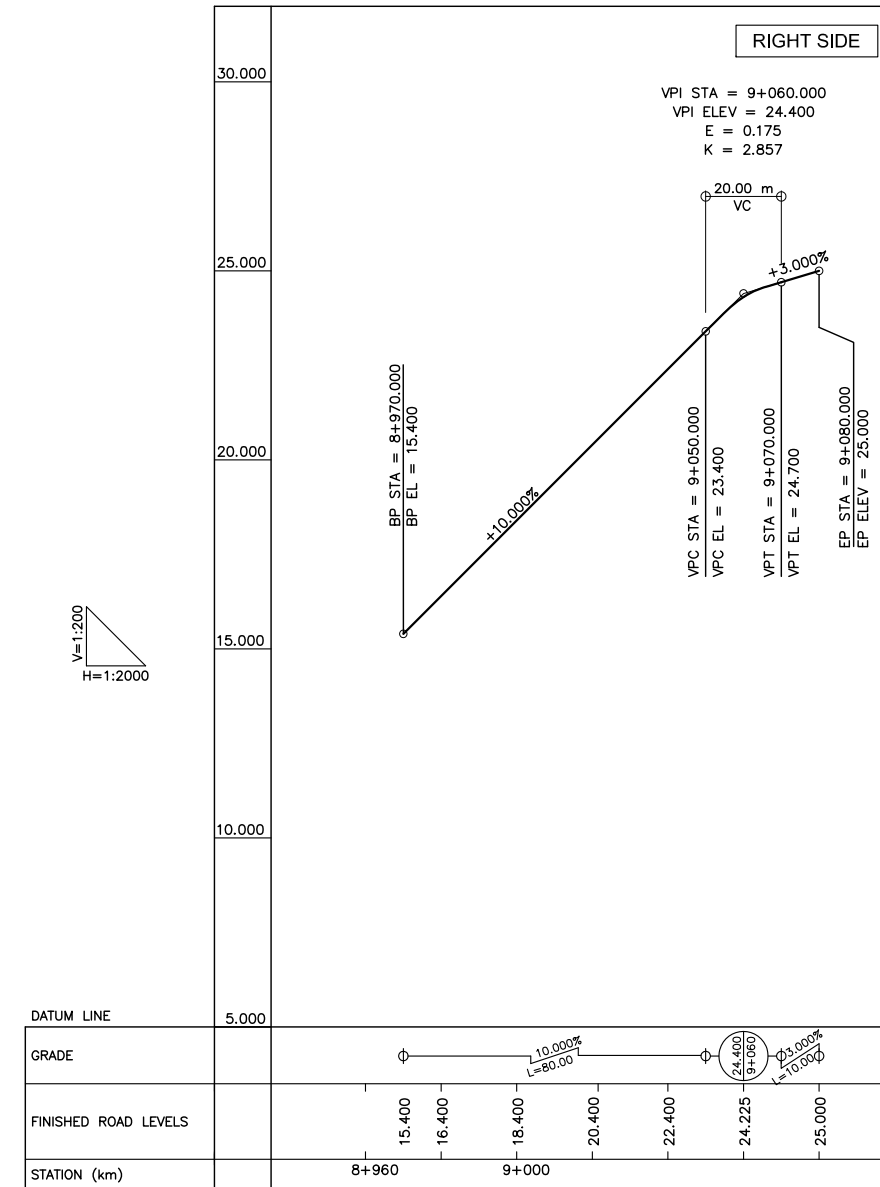
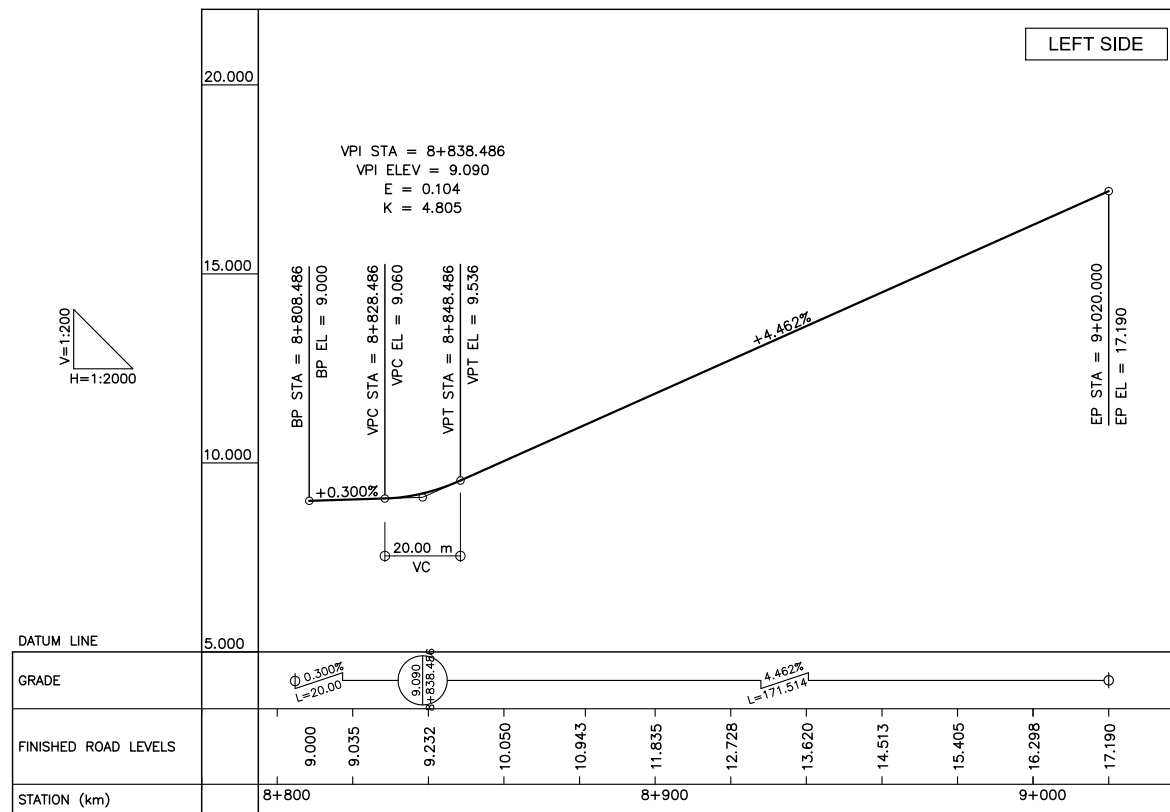
STA = 0+100.00

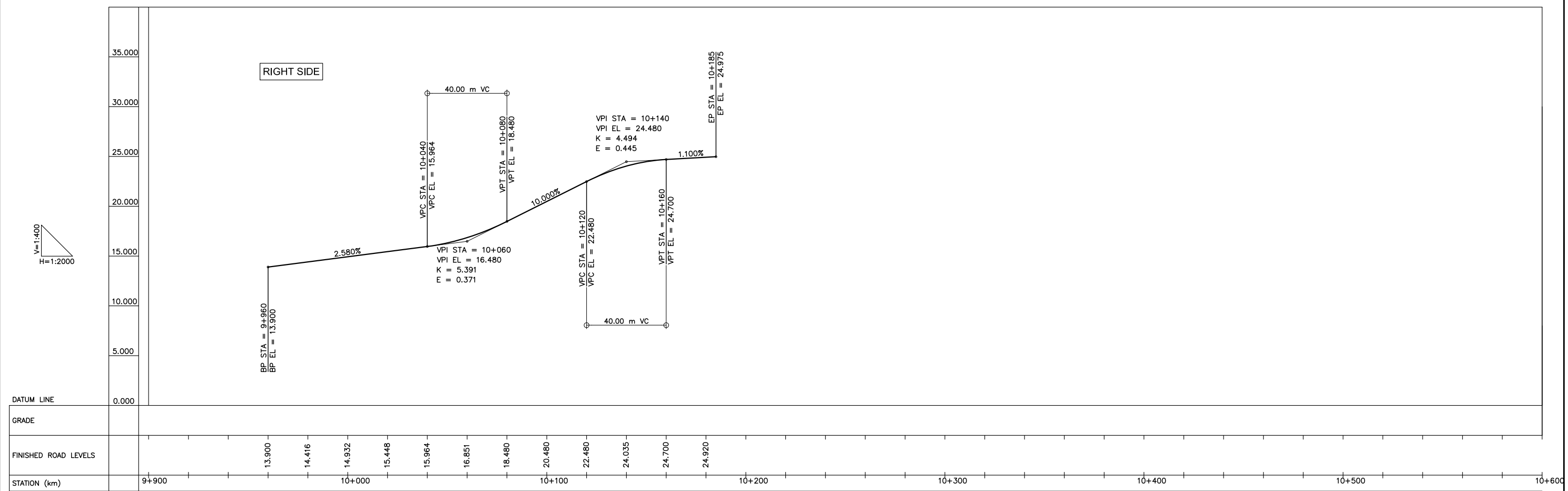
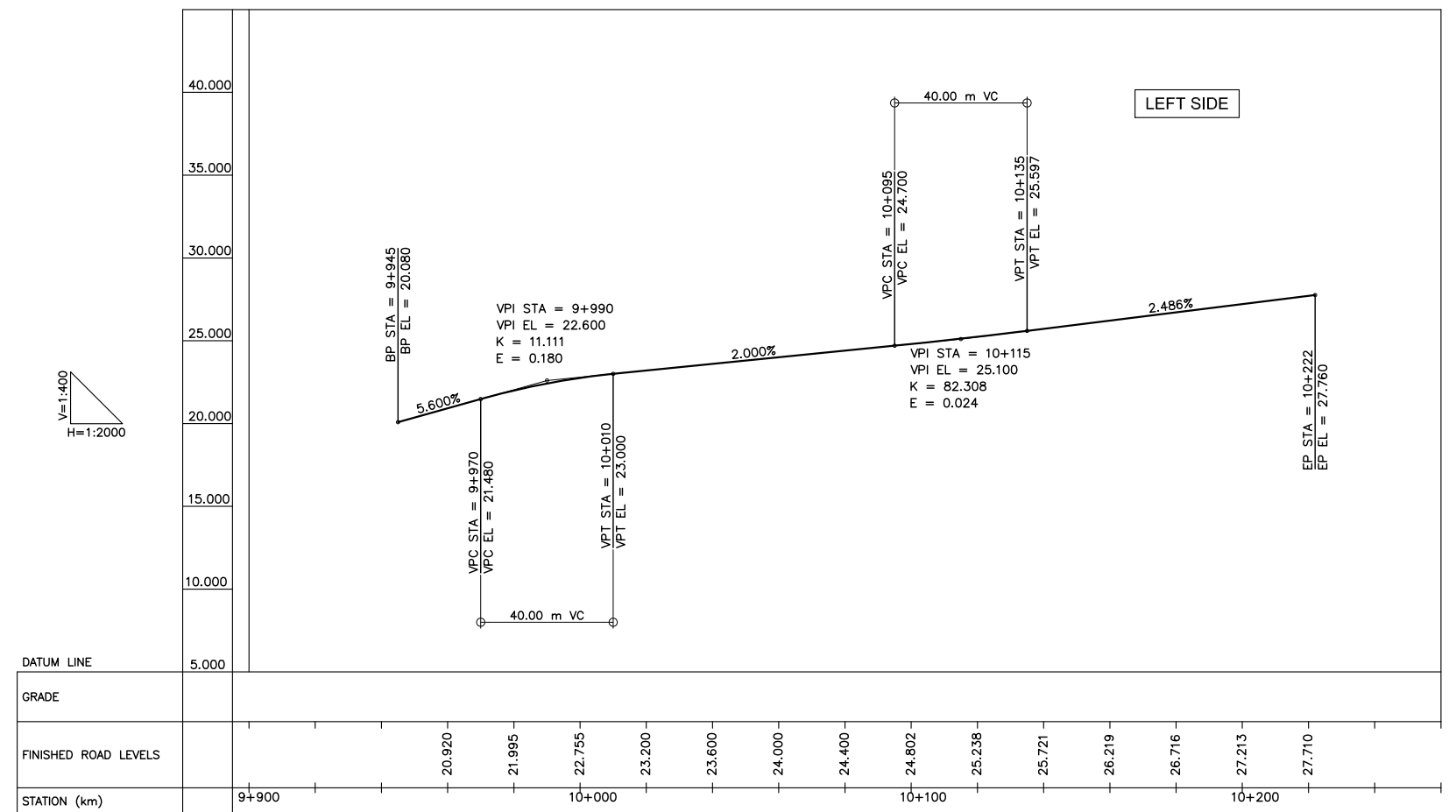
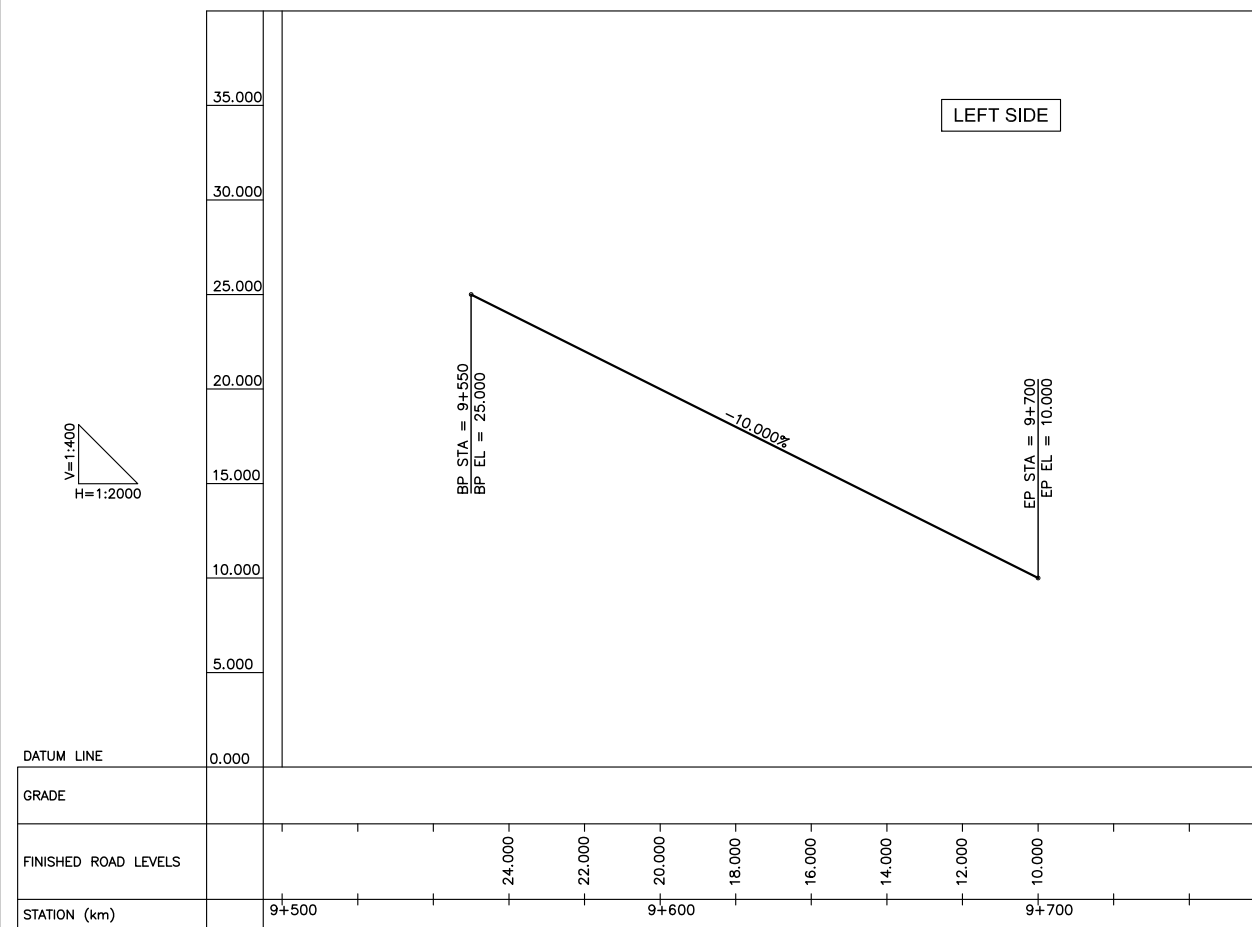
FILL AREA = 1.089(SM)
CUT AREA = 0.893(SM)

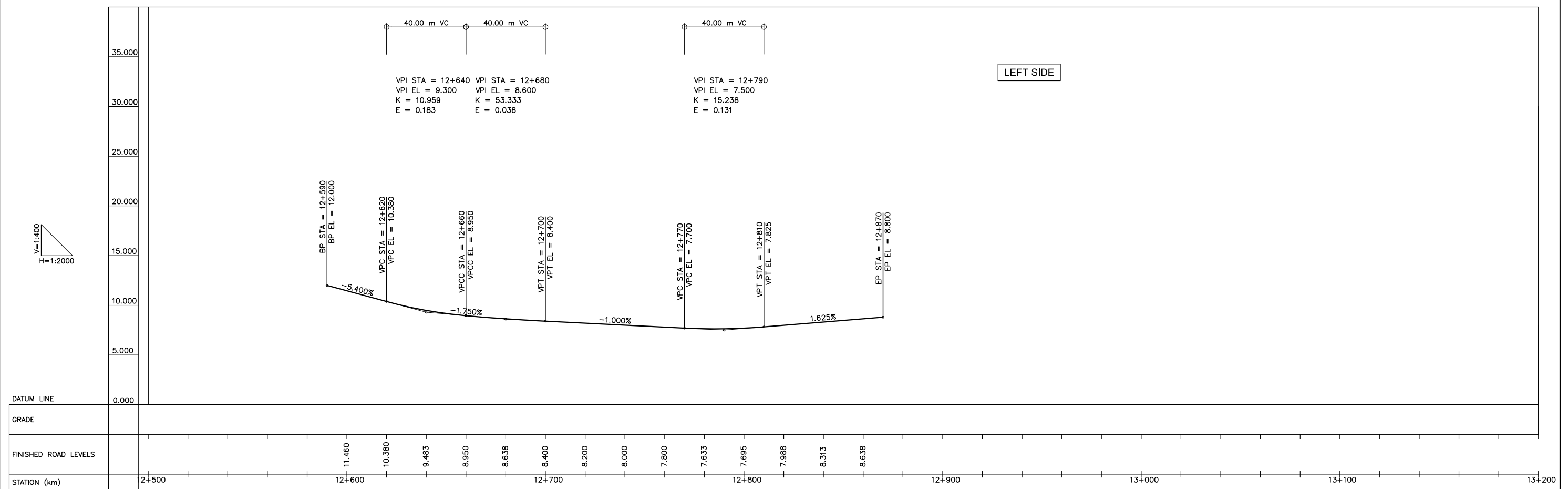
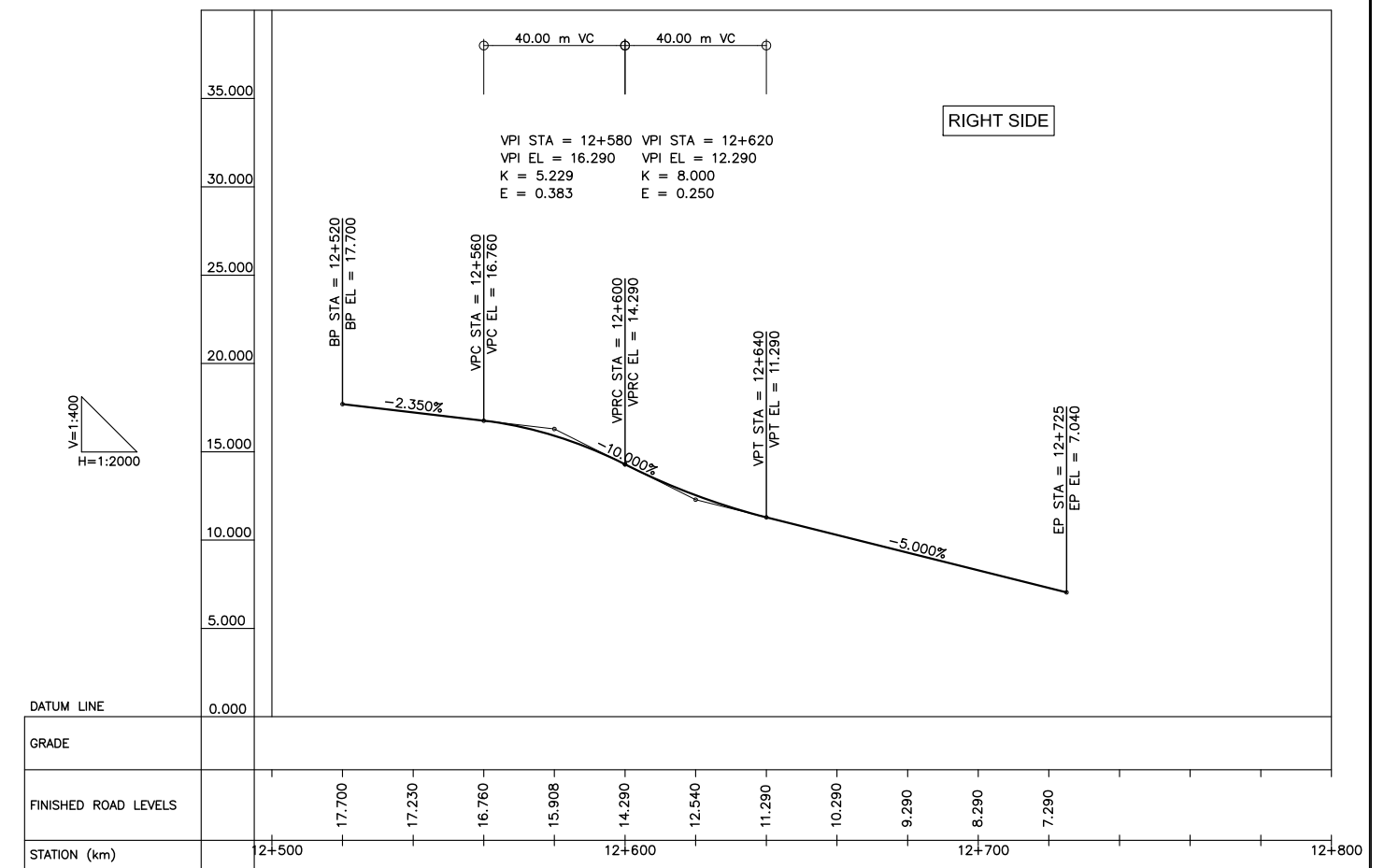
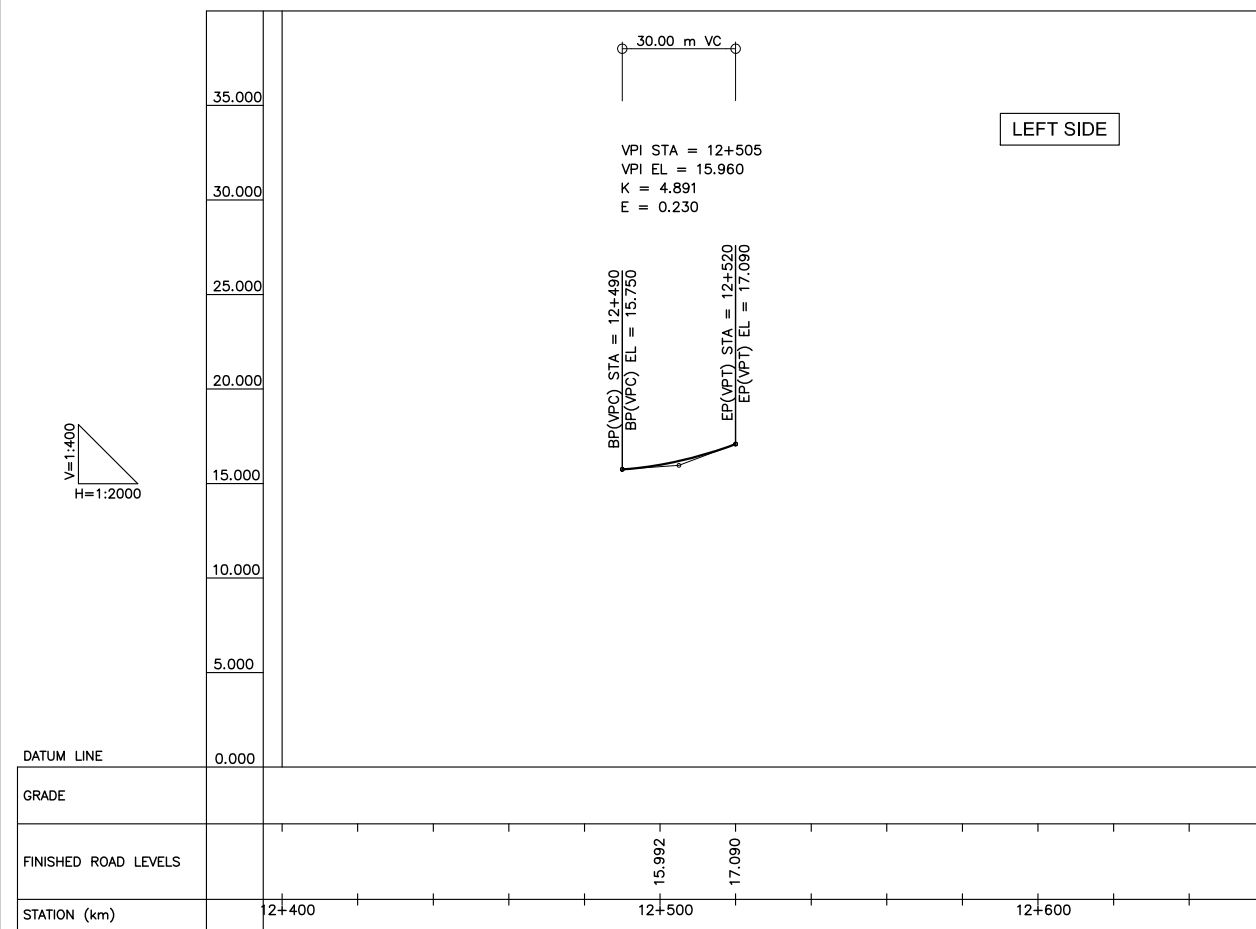
No	REVISION	DATE

DESIGNED BY:	
CHECKED BY:	
APPROVED BY:	
DWG. NO.	G-25

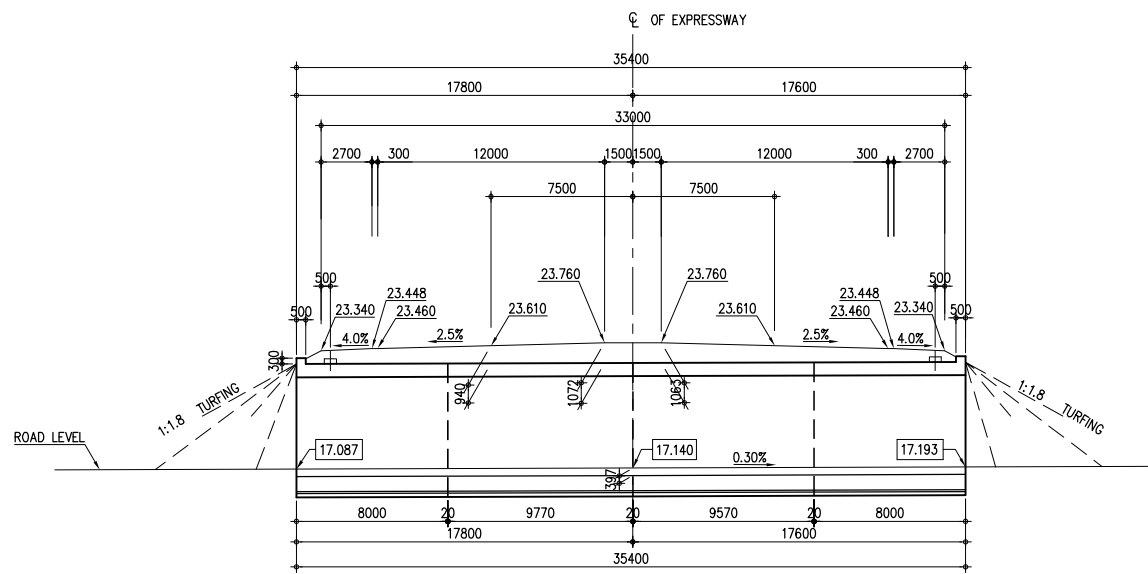
H. FRONTAGE ROAD



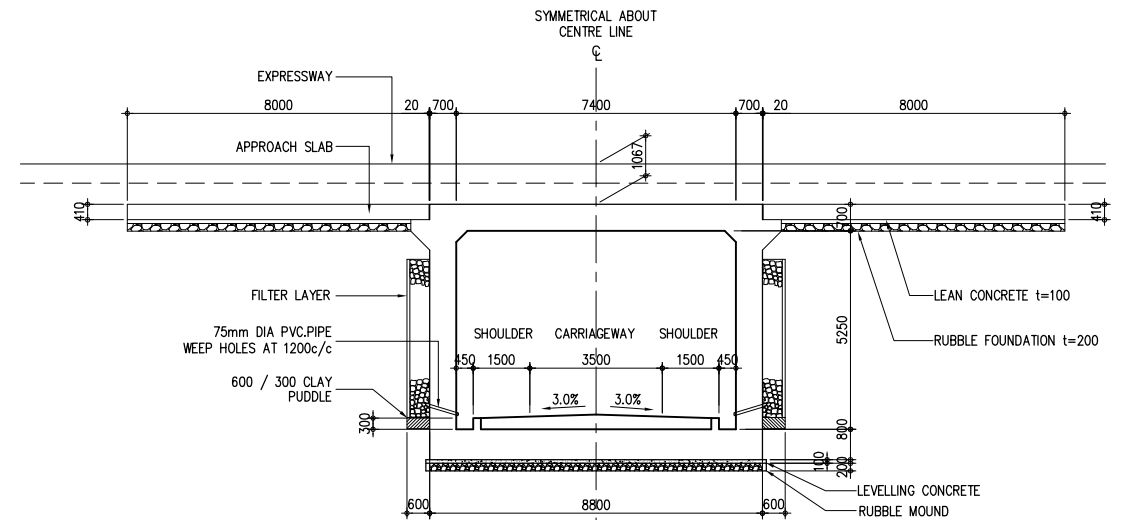




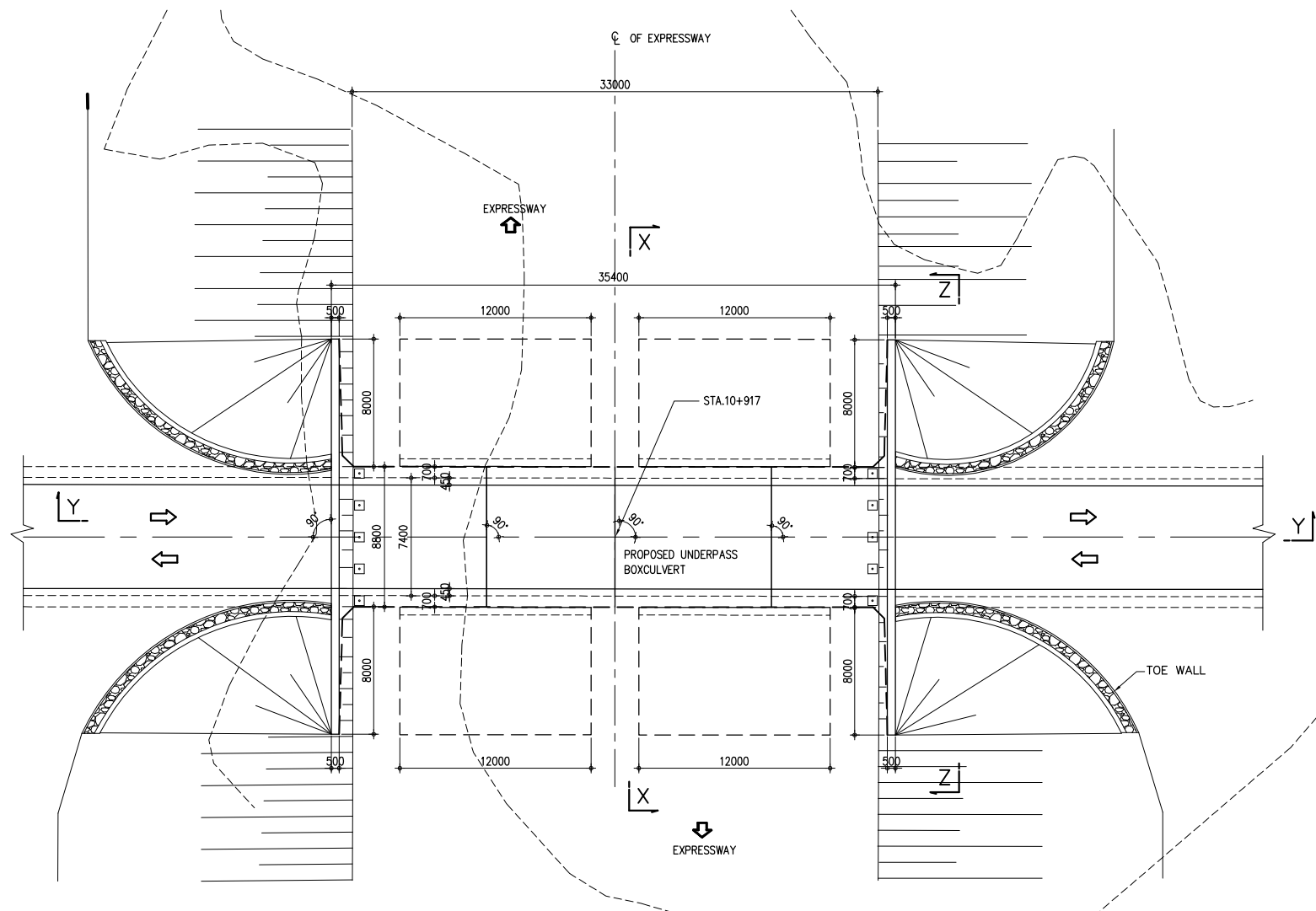
I. CULVERT



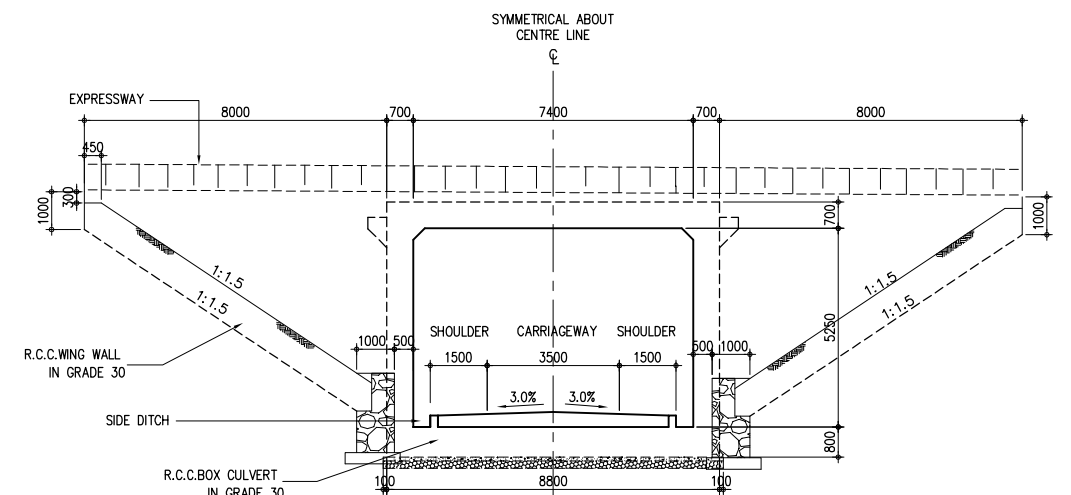
1 LONGITUDINAL SECTION Y-Y
SCALE 1:200



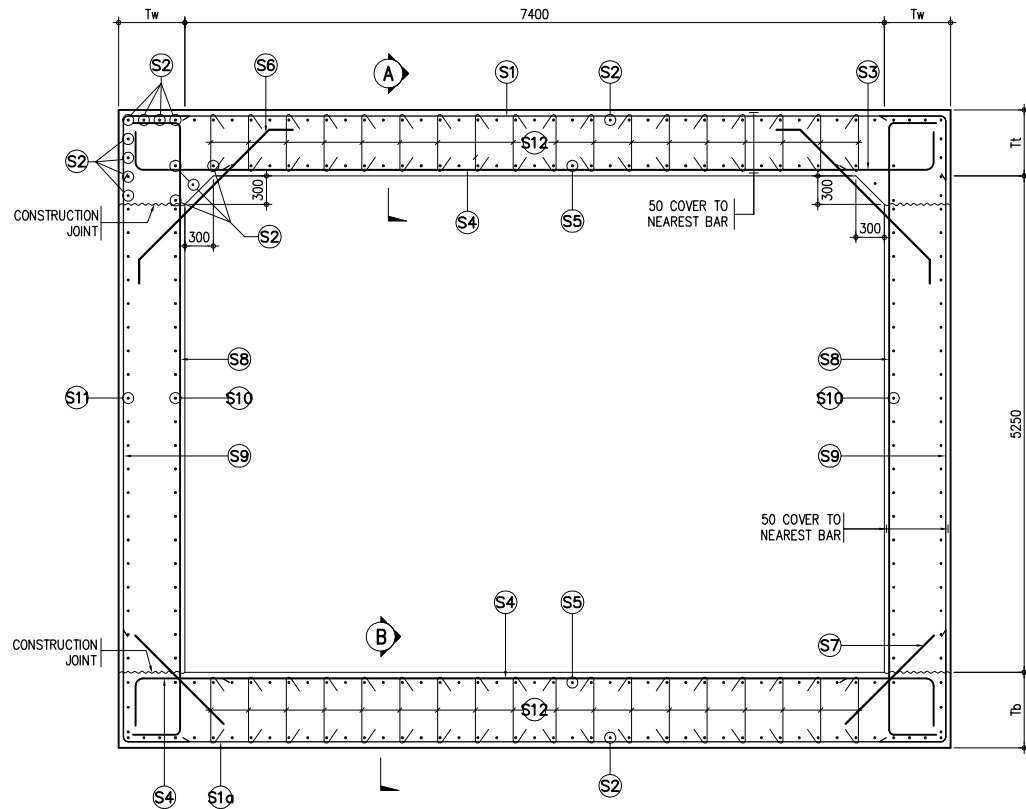
3 CROSS SECTION X-X
SCALE 1:100



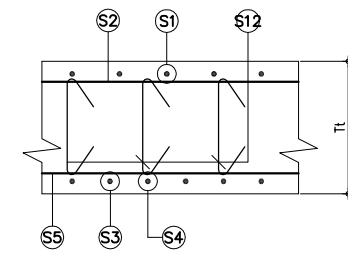
2 PLAN
SCALE 1:200



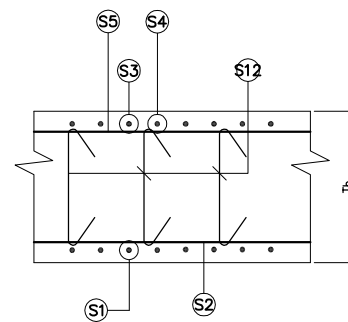
4 SECTIONAL ELEVATION Z-Z
SCALE 1:100



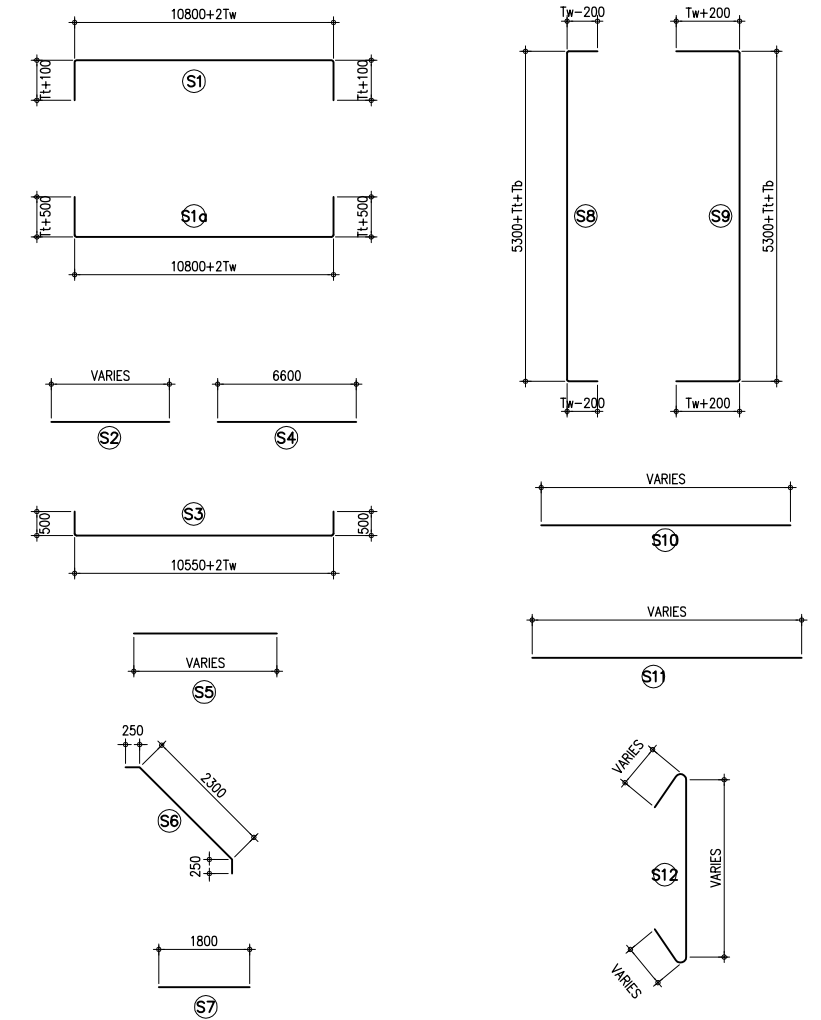
2 SECTIONAL ELEVATION
SCALE 1:40



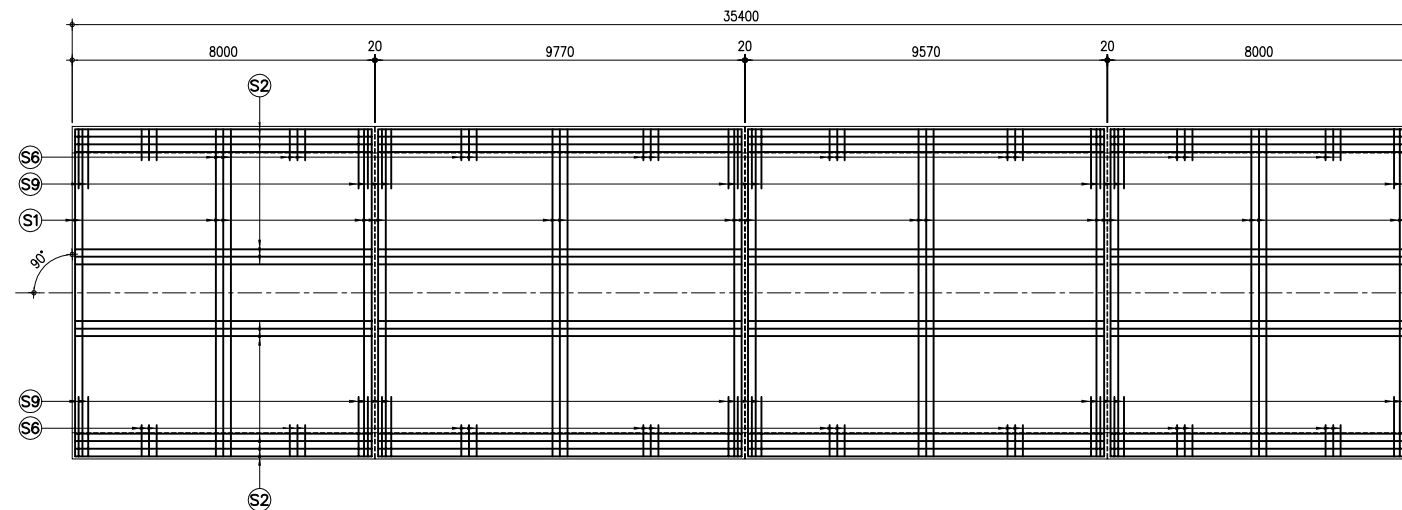
3 SECTION "A"
SCALE 1:20



4 SECTION "B"
SCALE 1:20



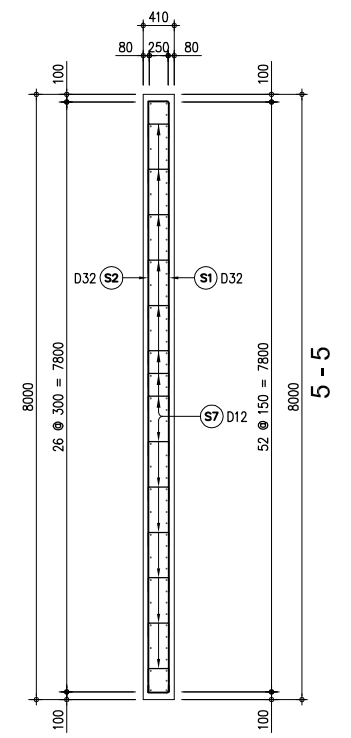
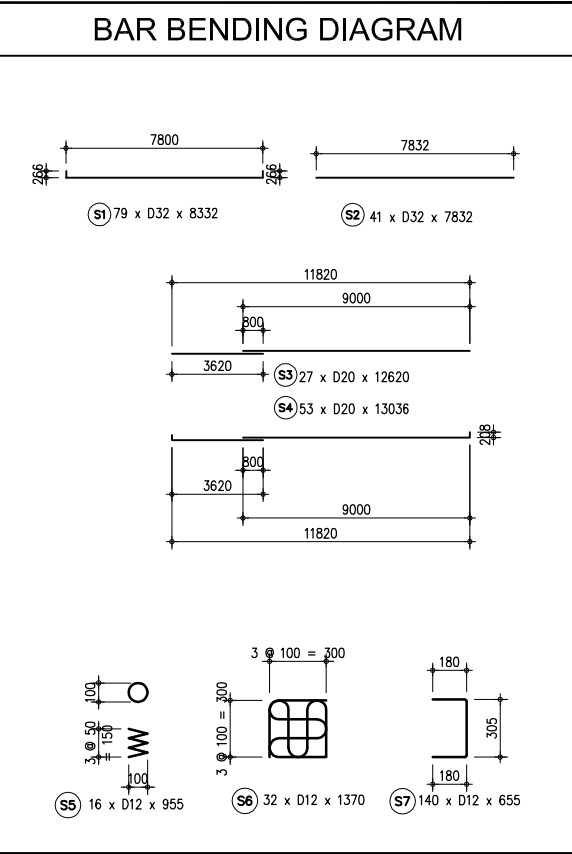
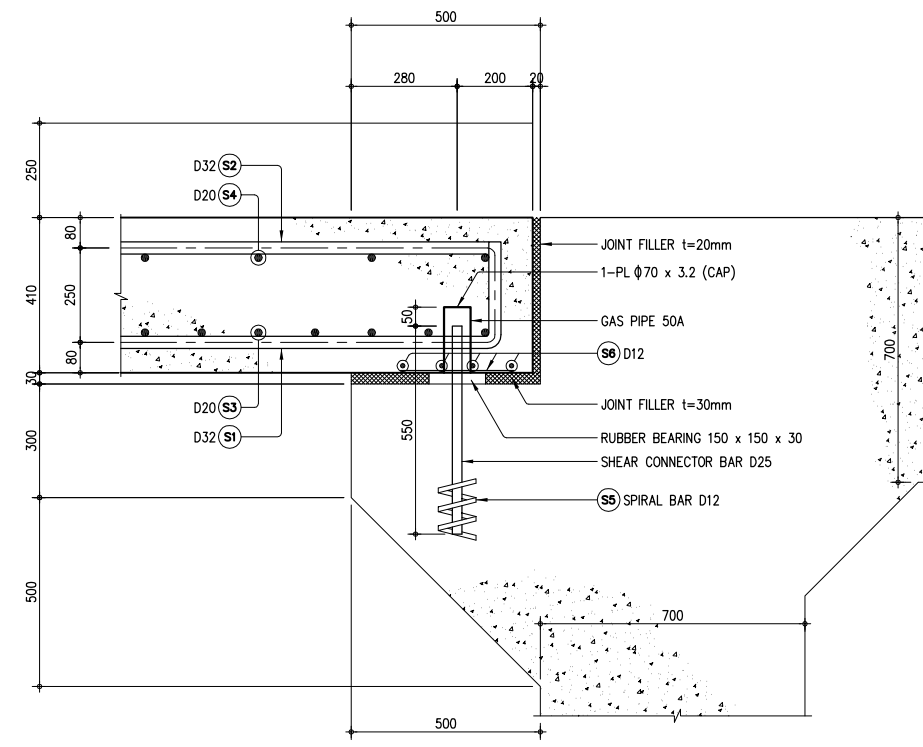
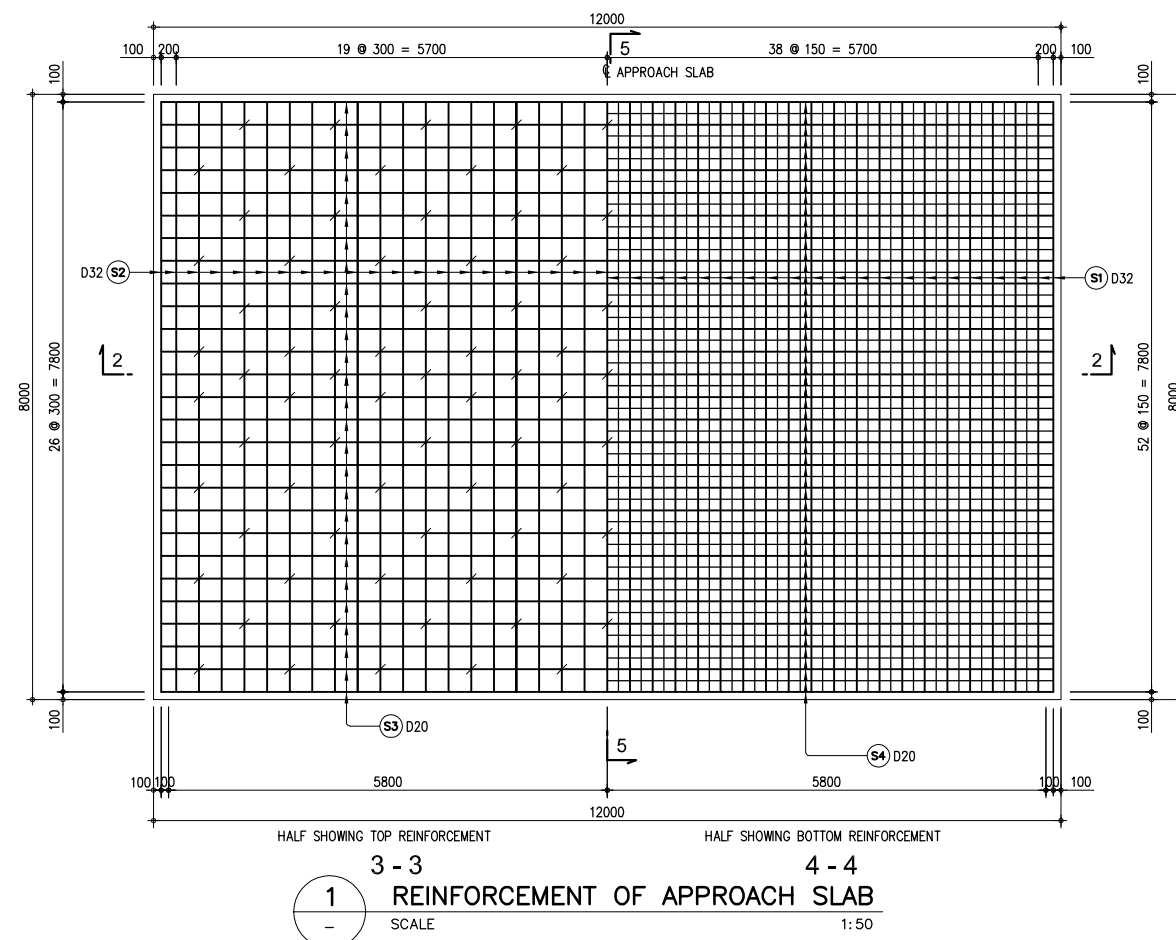
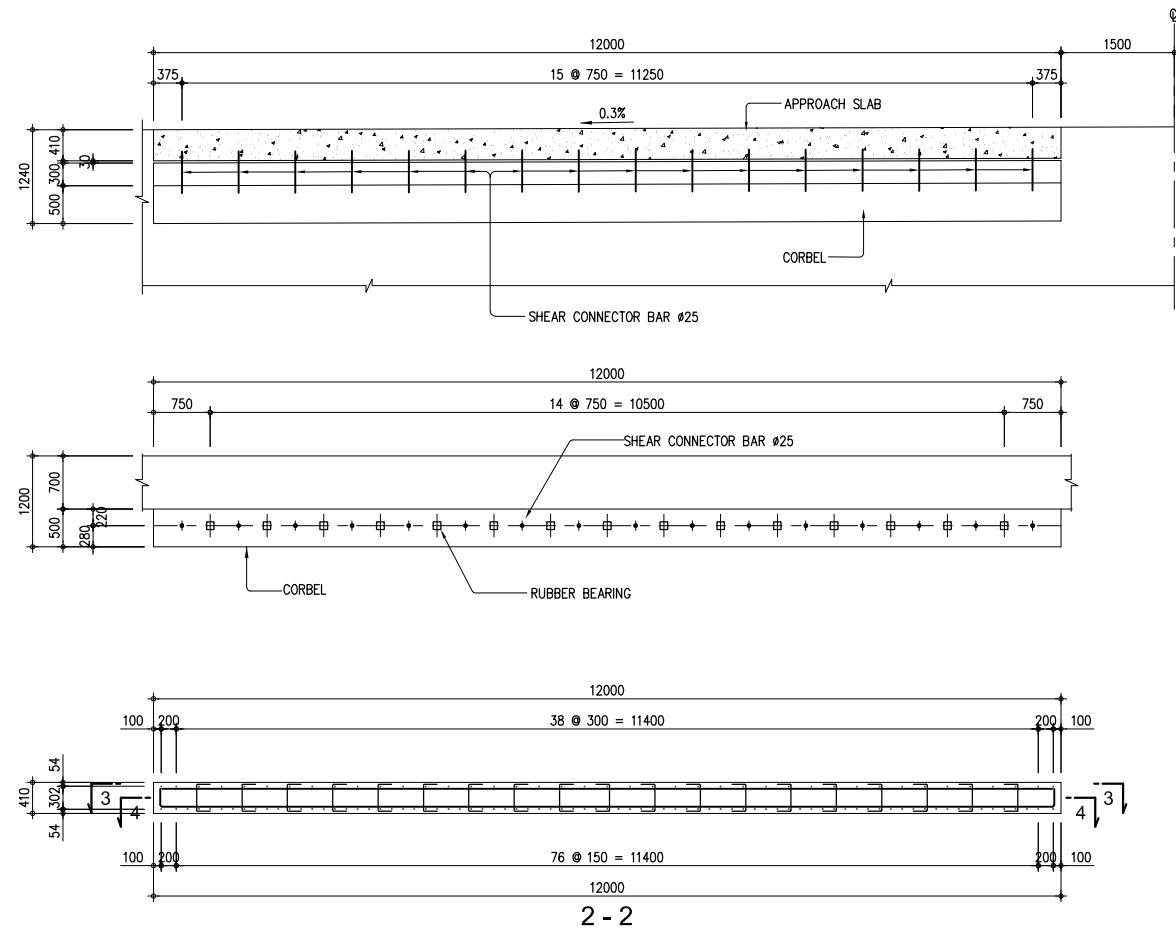
5 BAR BENDING DIAGRAM
NOT TO SCALE



1 STEEL BAR ARRANGEMENT
SCALE 1:100

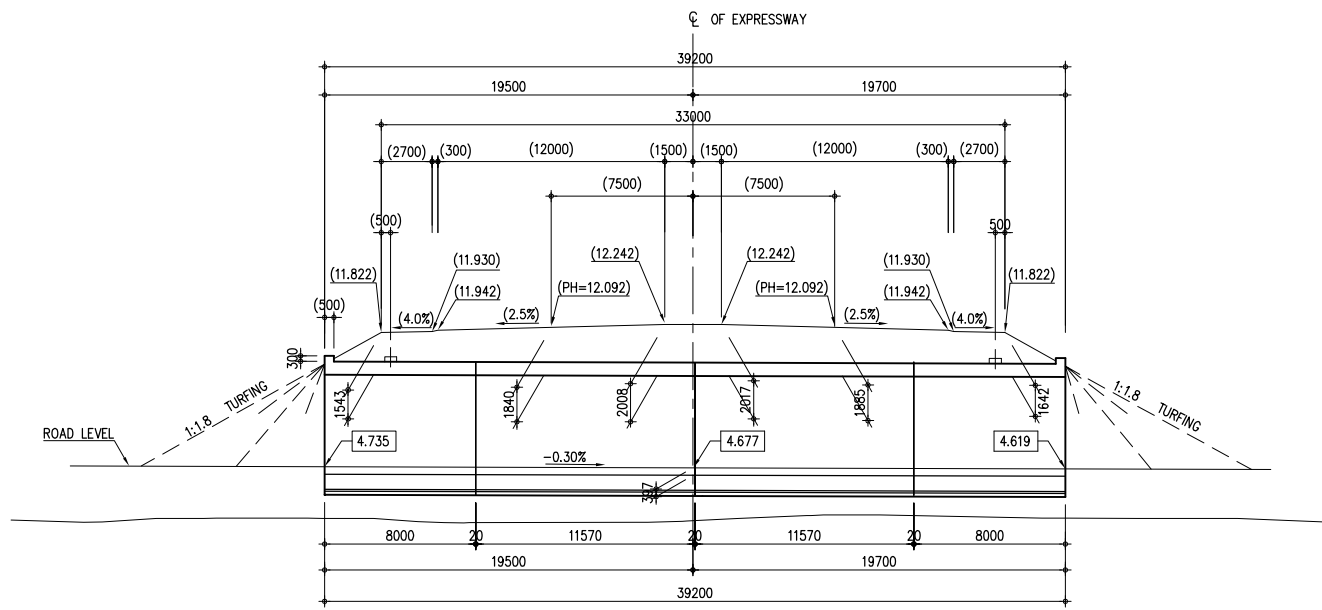
BAR SCHEDULE FOR 7.40m x 5.25m CULVERTS

DIMENSIONS (mm)				REINFORCEMENT (Fy = GRADE 460)												
HEIGHT OF FILL H	TOP SLAB Tt	BOTTOM SLAB Tb	WALL Tw	(S1)	(S1a)	(S2)	(S3)	(S4)	(S5)	(S6)	(S7)	(S8)	(S9)	(S10)	(S11)	(S12)
2000	700	800	700	#20 @200	#20 @200	#16 @200	#25 @400	#25 @400	#16 @200	#16 @250	#16 @250	#20 @200	#25 @200	#16 @200	#16 @200	#16 @400 IN BOTH DIRECTION

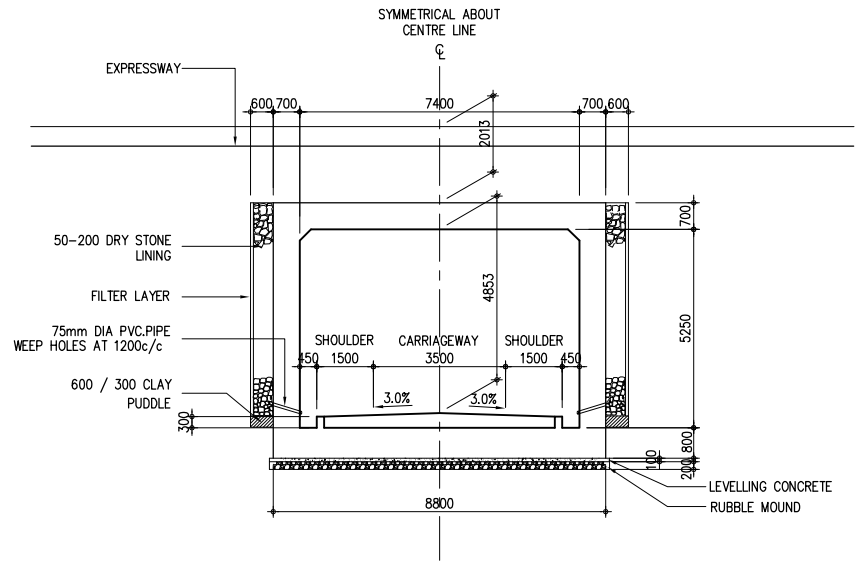


BAR BENDING	BAR MARK	BAR SHAPE	QTY.	SIZE	DIMENSIONS			LENGTH PER BAR (mm)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)	
					a	b	c					
	S1	A	79	D32	7800	266	-	8332	658.23	6.314	4,156.05	
	S2	B	41	D32	7832	-	-	7832	340.74	6.314	2,027.50	
	S3	C	27	D20	9000	3620	-	12620	319.14	2.466	840.26	
	S4	D	53	D20	9000	3620	208	13036	648.51	2.466	1,703.78	
	S5	E	16	D12	955	-	-	955	19.10	0.888	13.57	
	S6	F	32	D12	1370	-	-	1370	43.84	0.888	38.93	
	S7	A	140	D12	305	180	-	665	93.10	0.888	82.67	
									D32		6,183.55	
									D20		2,544.04	
									D12		135.17	
									TOTAL		8,862.76	
	SGP	50A	-	-	-	-	-	-	-	-	GAS PIPE	
	PL	G	-	-	-	-	-	-	-	-	CAP	
CONCRETE												
FORM												
BEARING (T=30mm)												
JOINT FILLER (T=20mm)												
JOINT FILLER (T=30mm)												

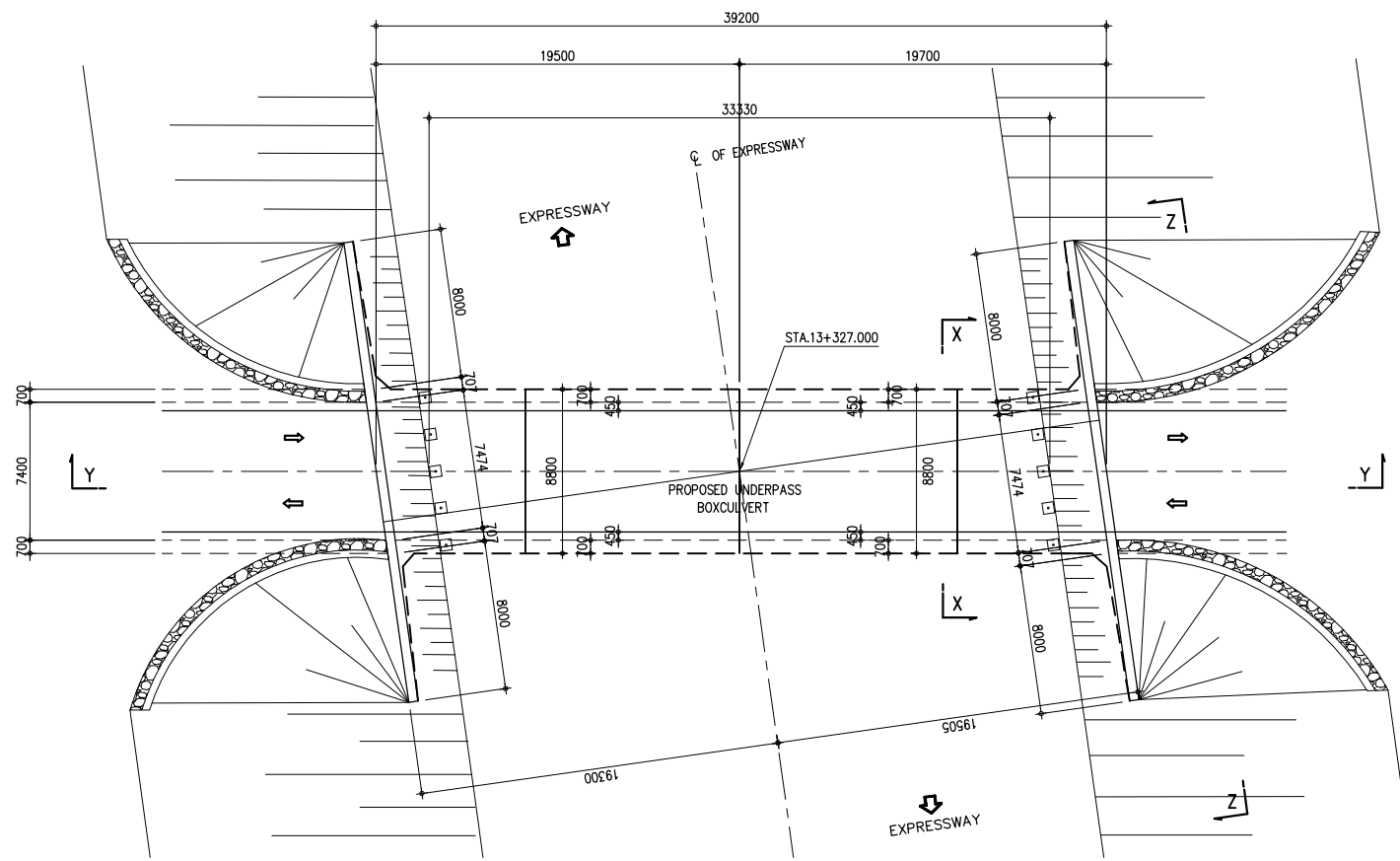
NOTE: QUANTITIES ARE FOR (1) ONE APPROACH ONLY.



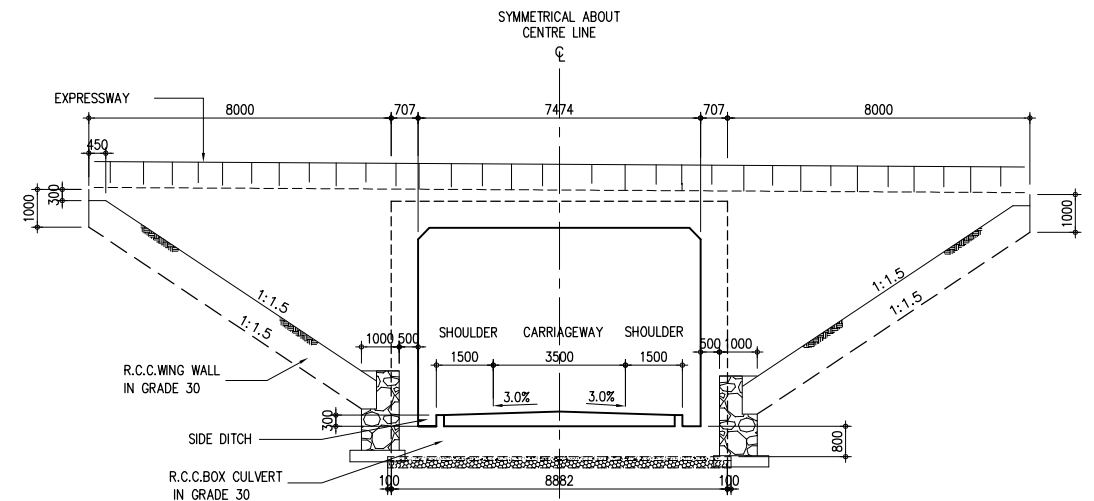
1 LONGITUDINAL SECTION Y-Y
SCALE 1:200



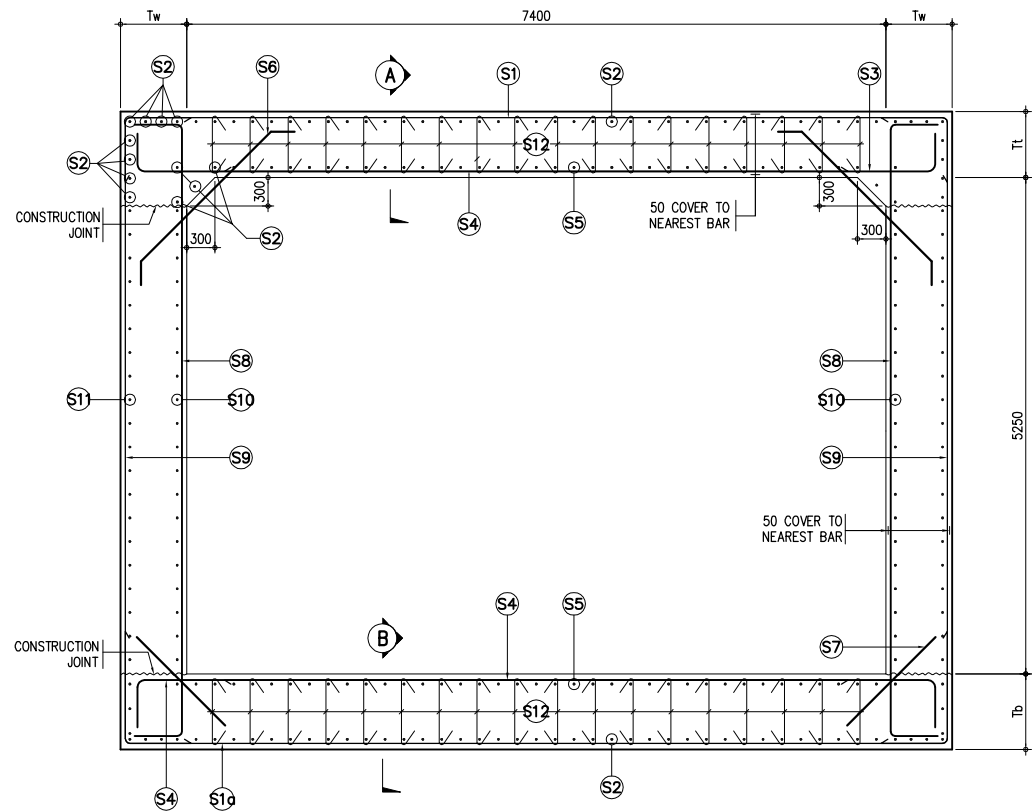
3 CROSS SECTION X-X
SCALE 1:100



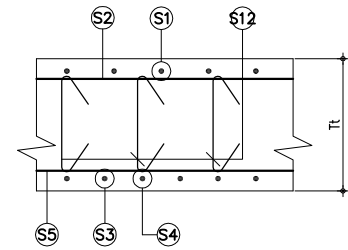
2 PLAN
SCALE 1:200



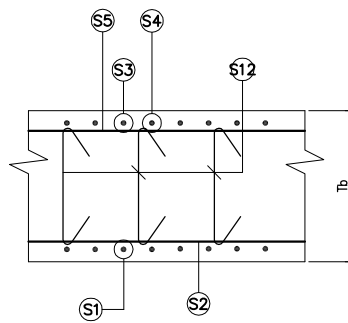
4 SECTIONAL ELEVATION Z-Z
SCALE 1:100



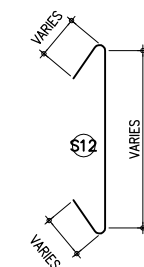
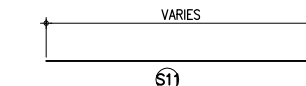
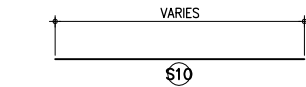
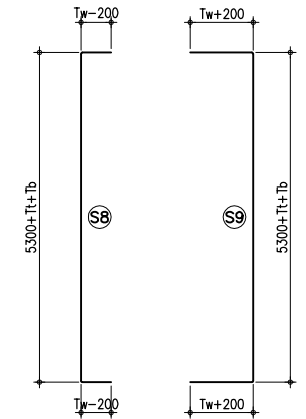
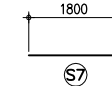
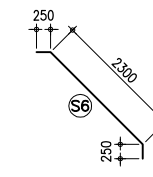
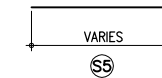
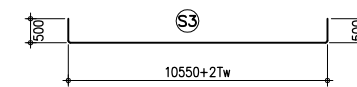
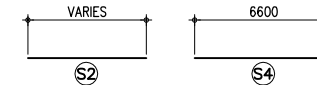
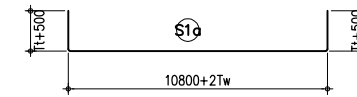
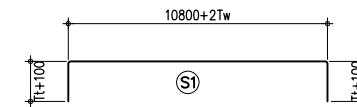
2 SECTIONAL ELEVATION
SCALE 1:40



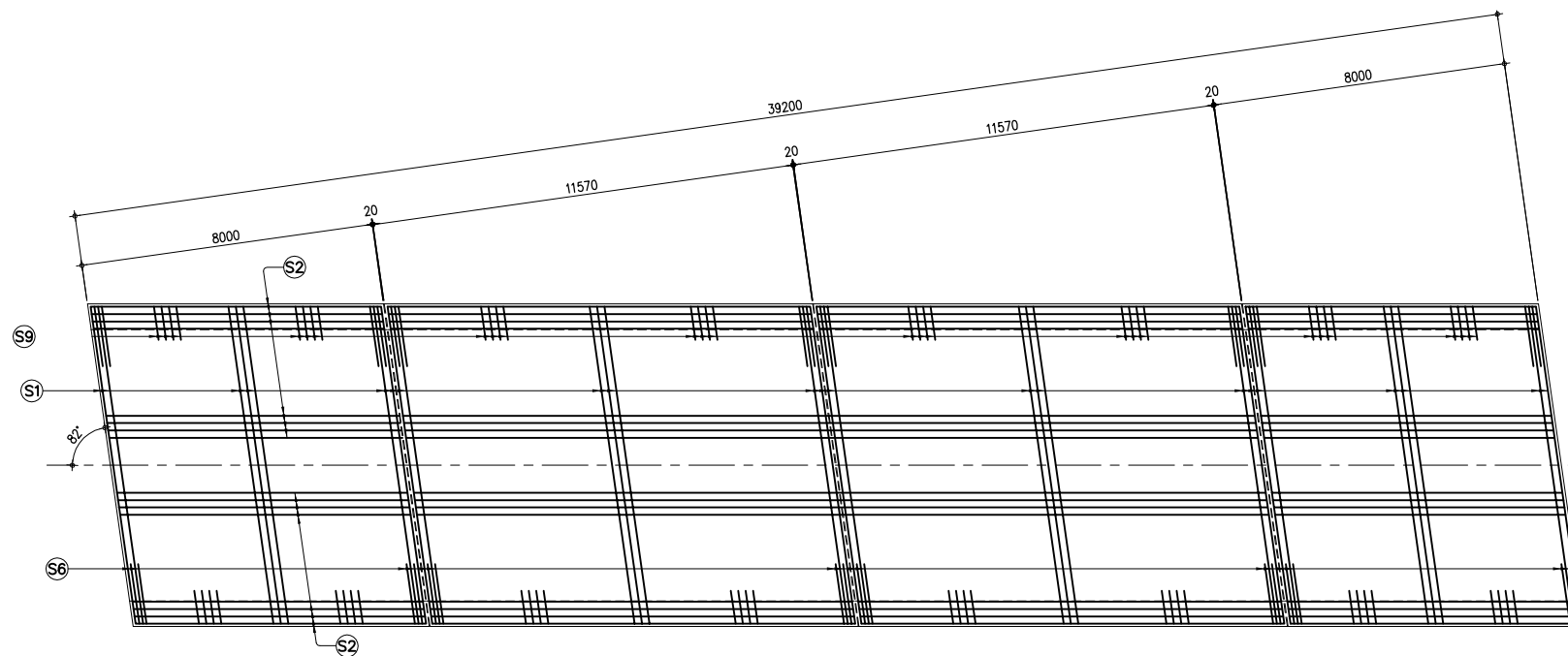
3 SECTION "A"
SCALE 1:20



4 SECTION "B"
SCALE 1:20



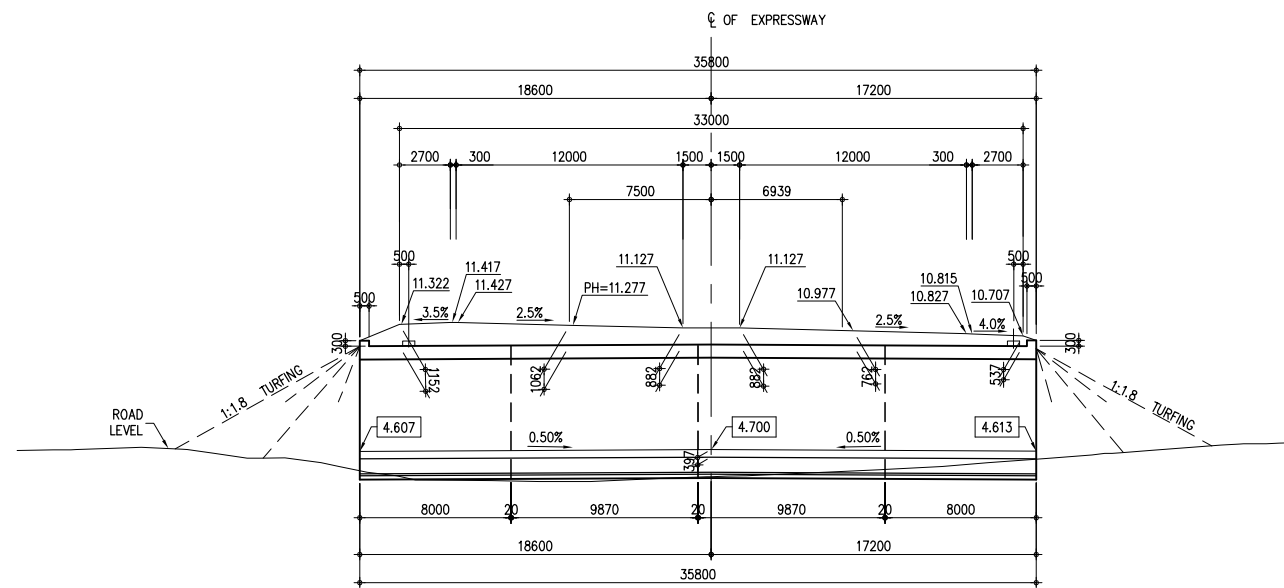
5 BAR BENDING DIAGRAM
NOT TO SCALE



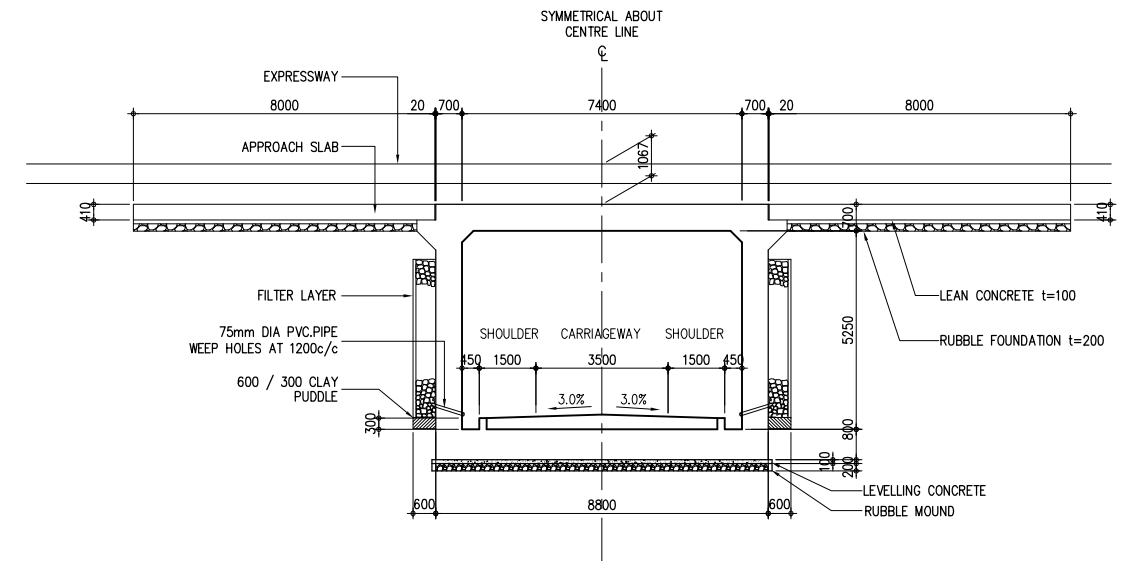
1 STEEL BAR ARRANGEMENT
SCALE 1:100

BAR SCHEDULE FOR 7.40m x 5.25m CULVERTS

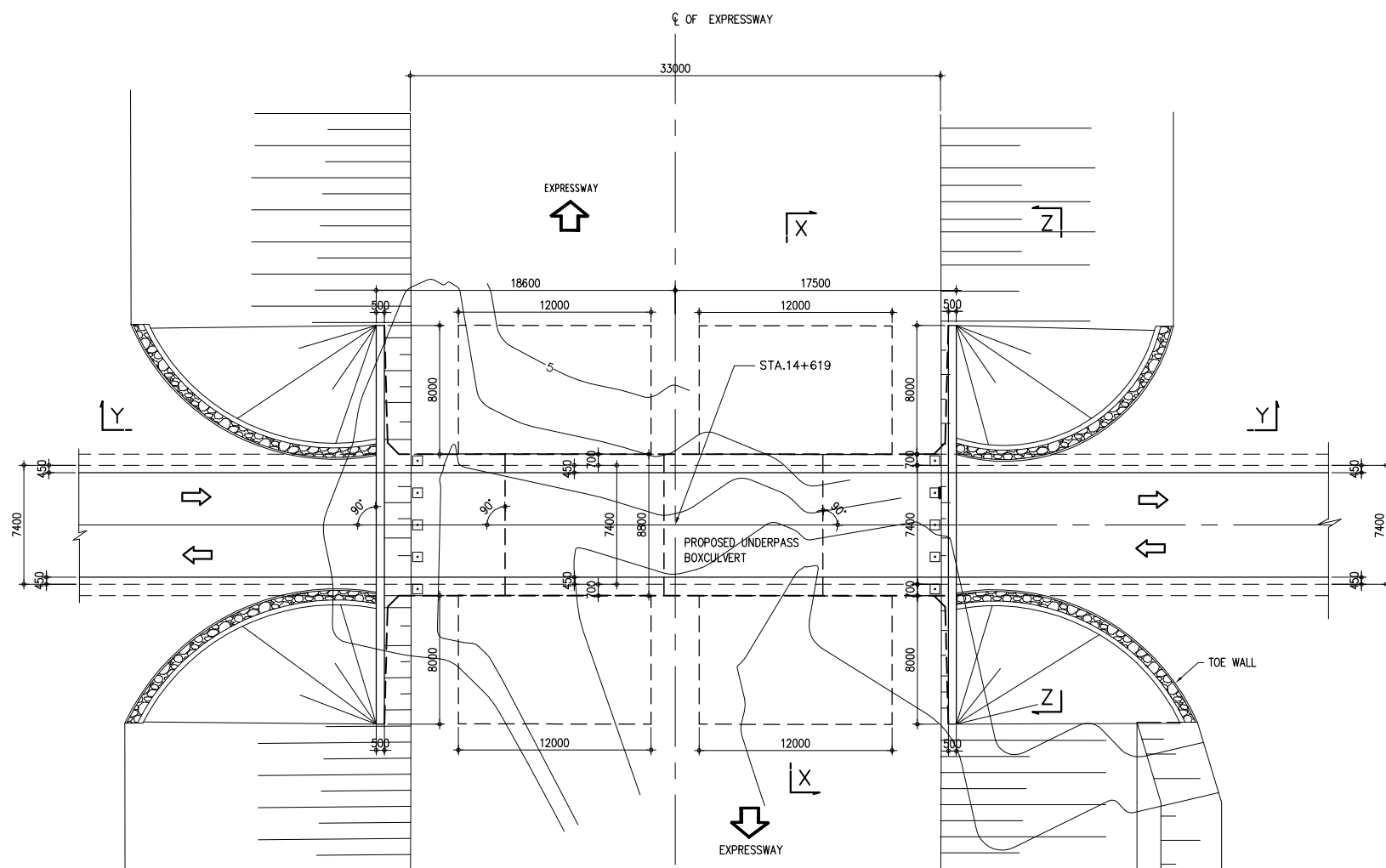
DIMENSIONS (mm)				REINFORCEMENT (Fy = GRADE 460)												
HEIGHT OF FILL H	TOP SLAB Tt	BOTTOM SLAB Tb	WALL Tw	S1	S10	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
2000	700	800	700	#20 @200	#20 @200	#16 @200	#25 @400	#25 @400	#16 @200	#16 @250	#16 @250	#20 @200	#25 @200	#16 @200	#16 @200	#16 @400 IN BOTH DIRECTION



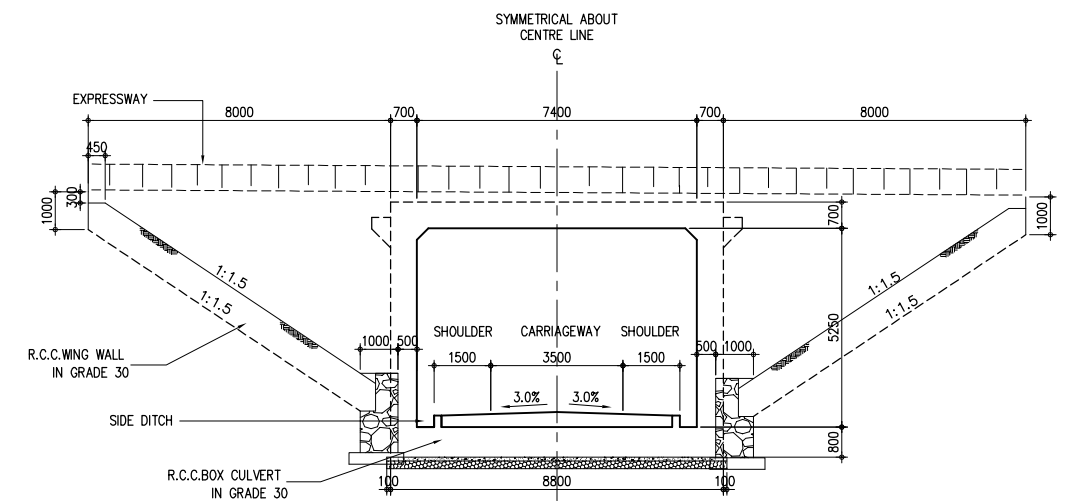
2 LONGITUDINAL SECTION Y-Y
SCALE 1:200



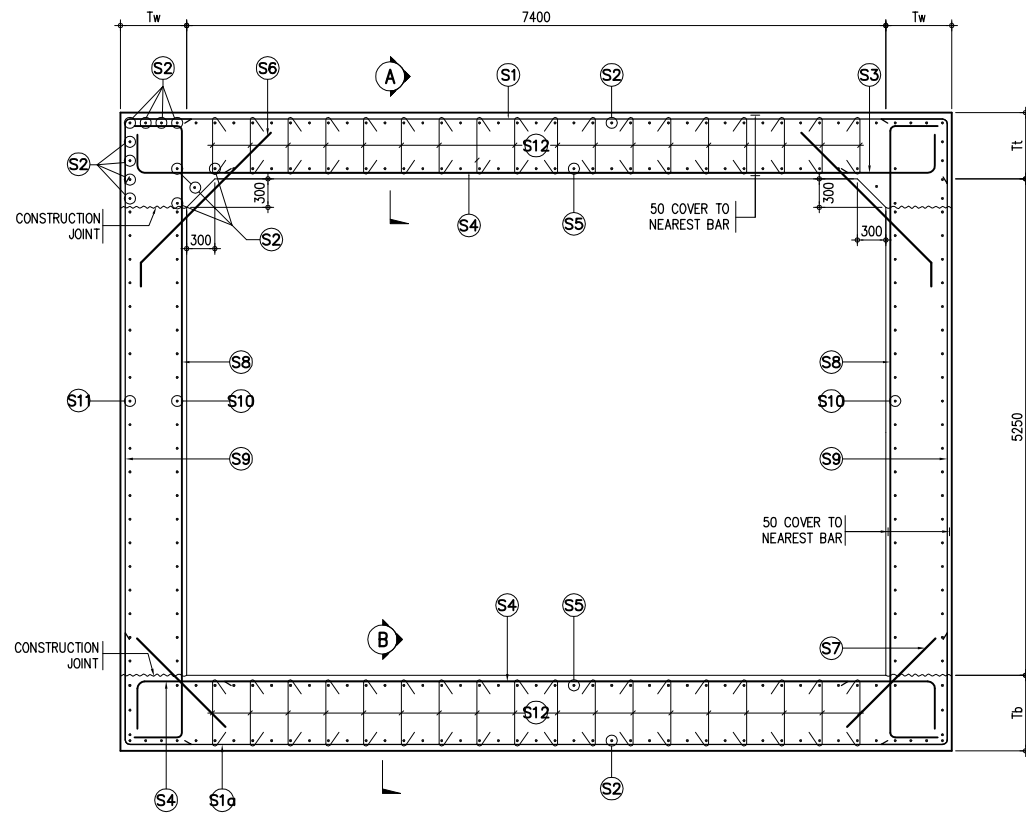
3 CROSS SECTION X-X
SCALE 1:100



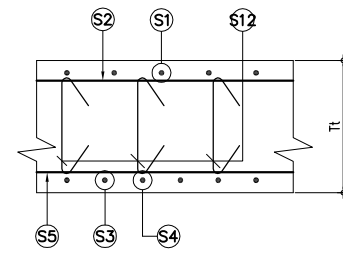
1 PLAN
SCALE 1:200



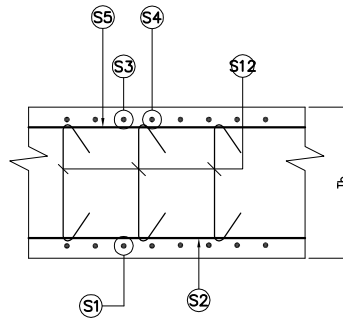
4 SECTIONAL ELEVATION Z-Z
SCALE 1:100



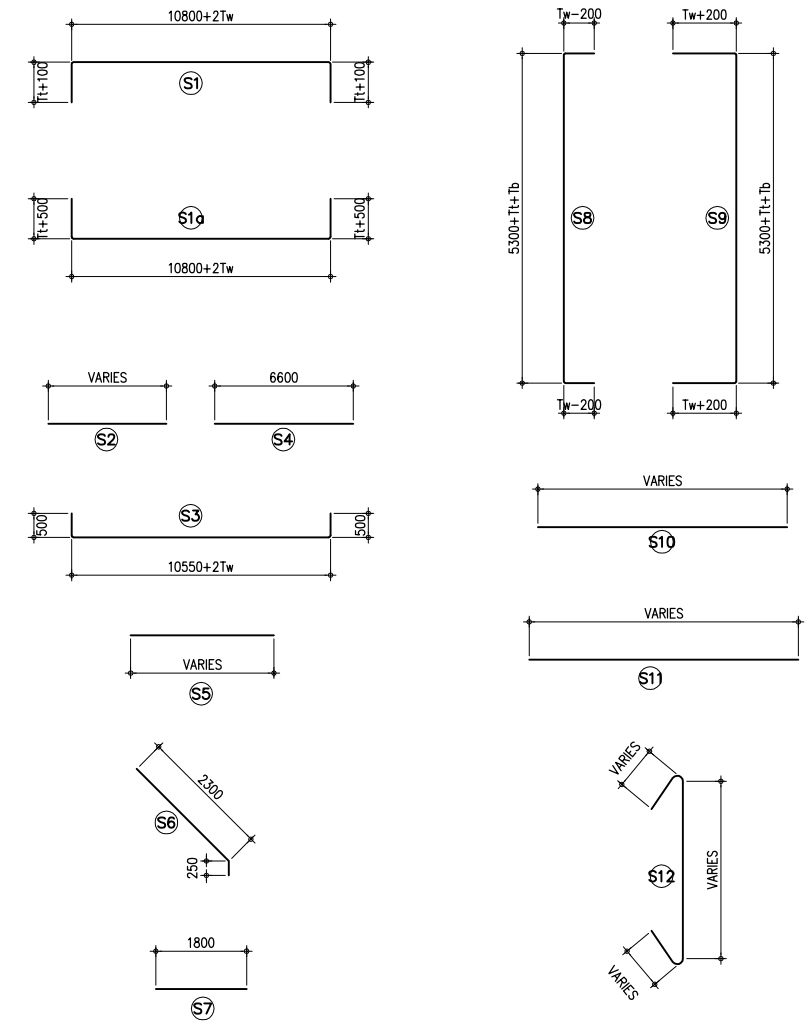
2 SECTIONAL ELEVATION
SCALE 1:40



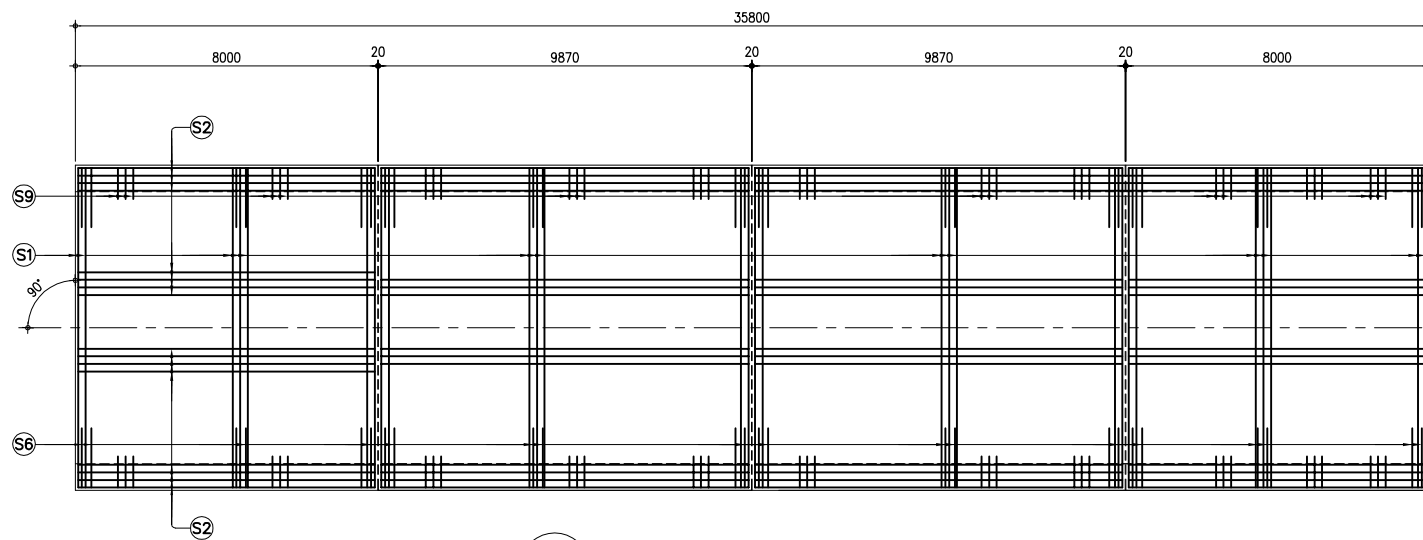
3 SECTION "A"
SCALE 1:20



4 SECTION "B"
SCALE 1:20



5 BAR BENDING DIAGRAM
NOT TO SCALE



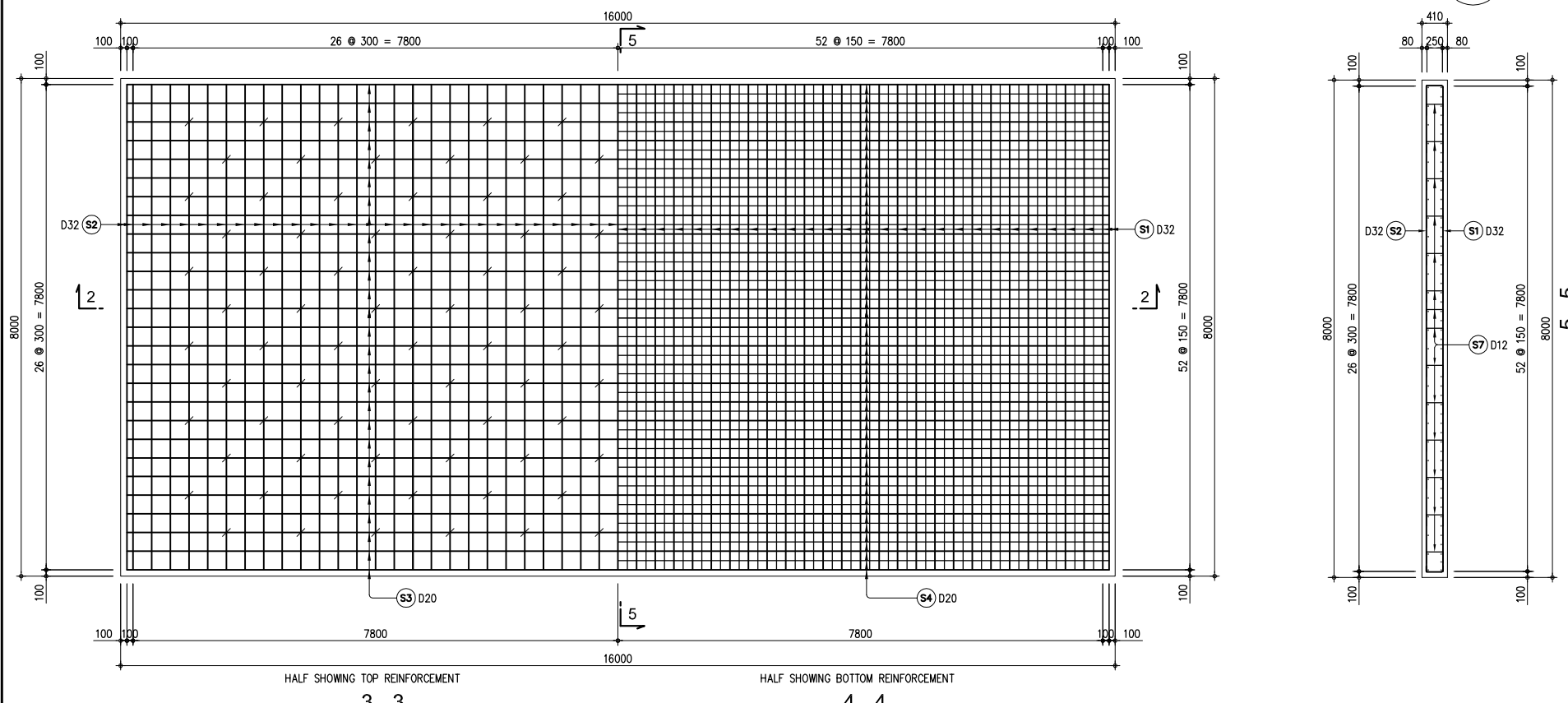
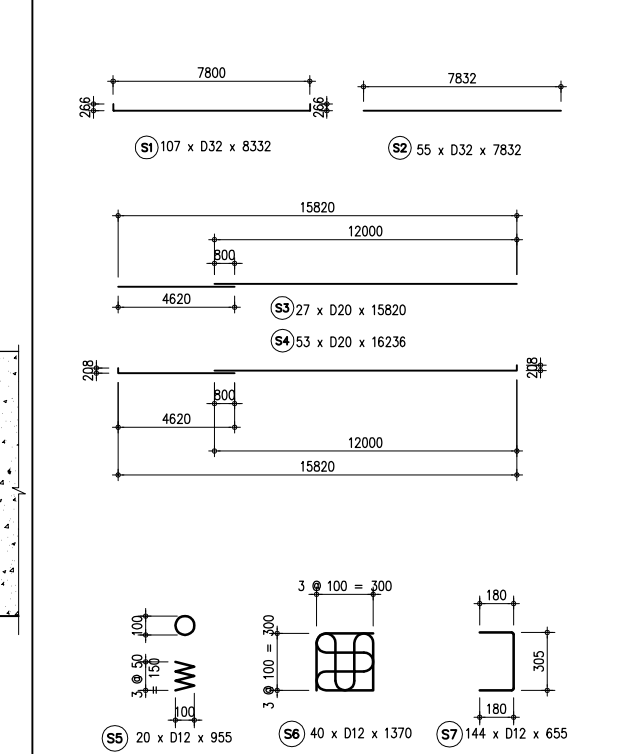
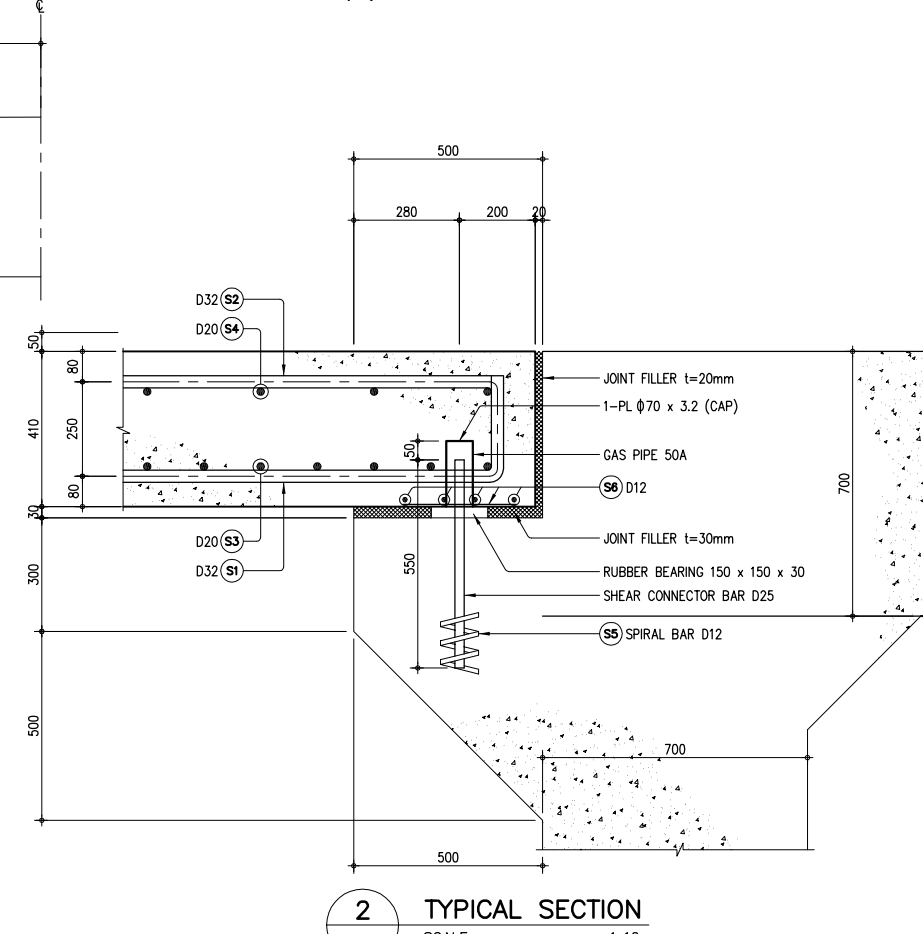
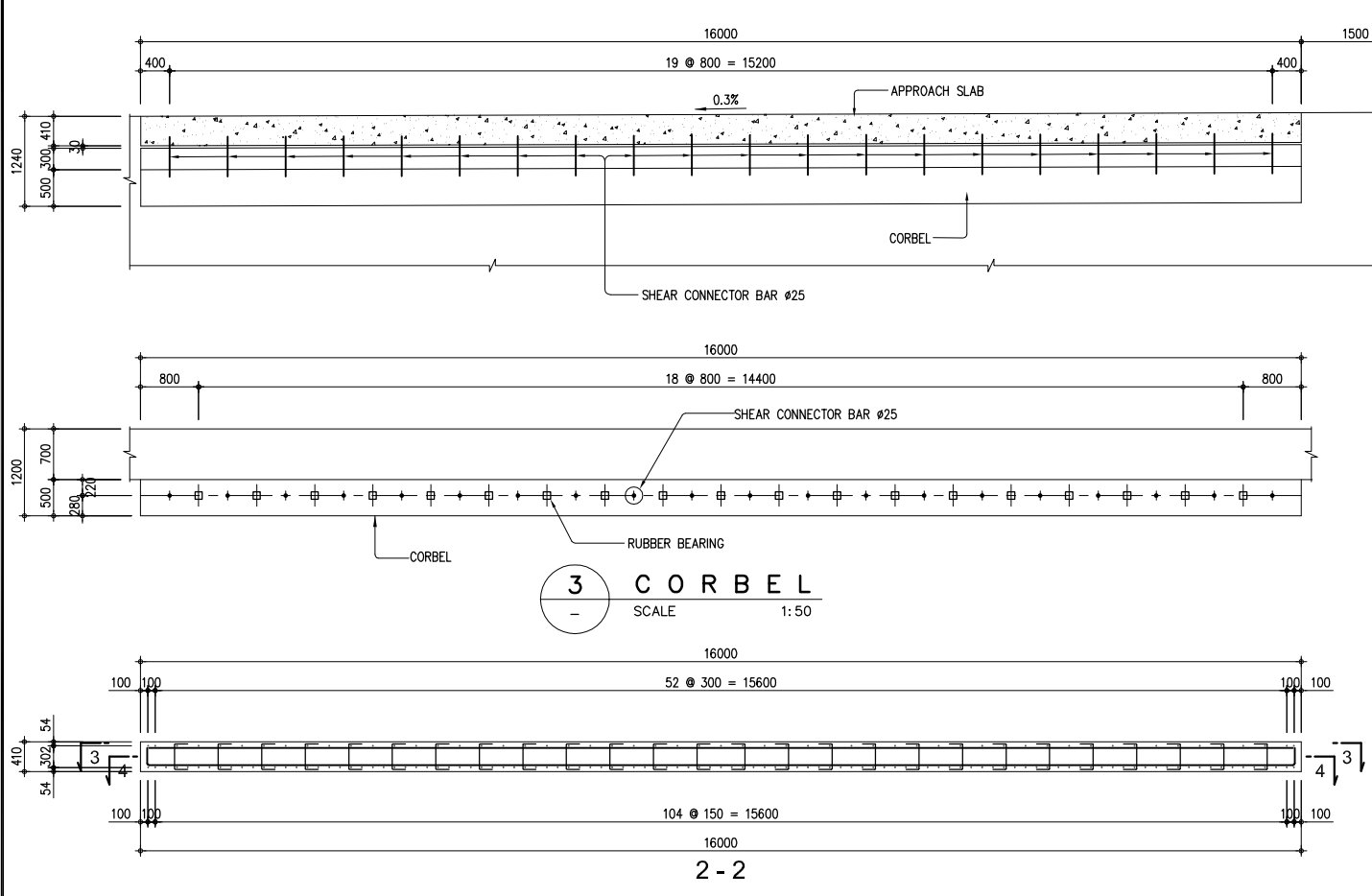
1 STEEL BAR ARRANGEMENT
SCALE 1:100

BAR SCHEDULE FOR 7.40m x 5.25m CULVERTS

DIMENSIONS (mm)				REINFORCEMENT (Fy = GRADE 460)												
HEIGHT OF FILL H	TOP SLAB Tt	BOTTOM SLAB Tb	WALL Tw	S1	S1a	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
2000	700	800	700	#20 @200	#20 @200	#16 @200	#25 @400	#25 @400	#16 @200	#16 @250	#16 @250	#20 @200	#25 @200	#16 @200	#16 @200	#16 @400 IN BOTH DIRECTION

REINFORCEMENT OF APPROACH SLAB (2)

BAR BENDING DIAGRAM

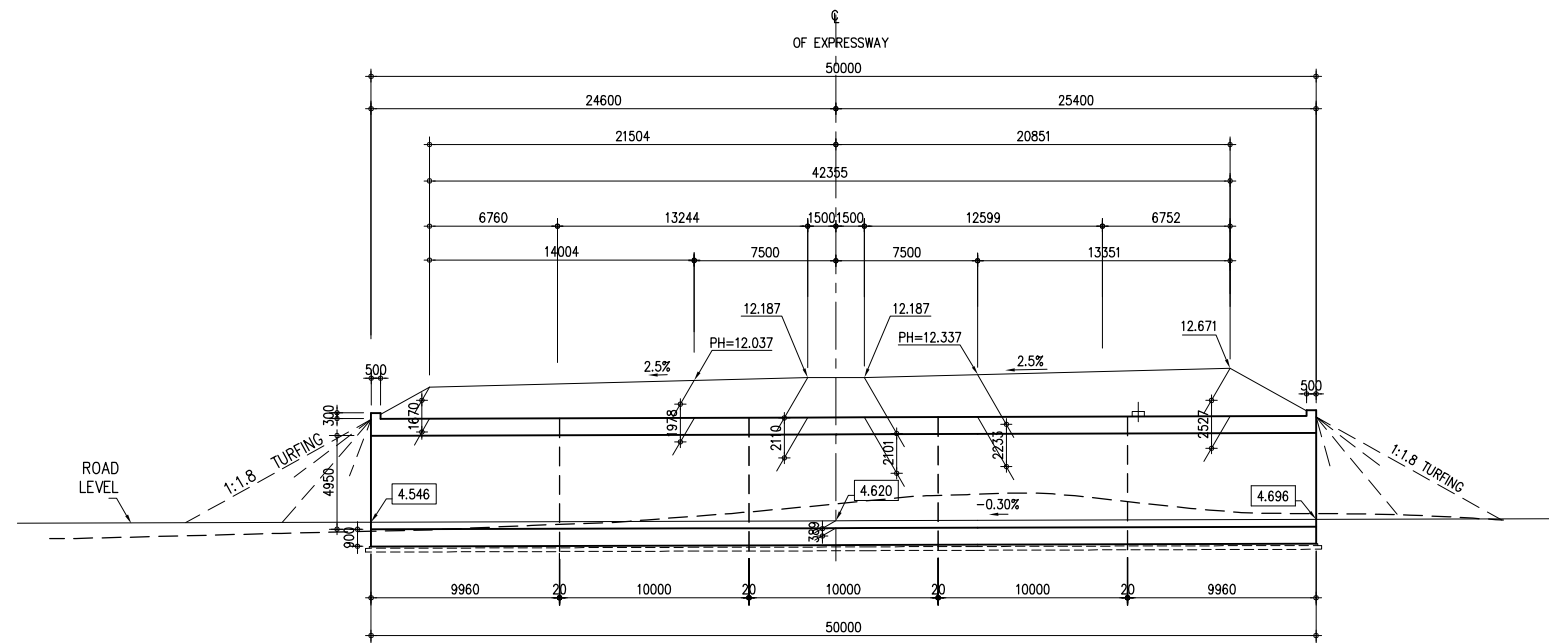


REINFORCING BARS											
BAR BENDING	BAR MARK	BAR SHAPE	QTY.	SIZE	DIMENSIONS			LENGTH PER BAR (mm)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)
					a	b	c				
	S1	A	107	D32	7800	266	-	8332	891.52	6.314	5,629.08
	S2	B	55	D32	7832	-	-	7832	430.76	6.314	2,719.82
	S3	C	27	D20	12000	4620	-	16620	448.74	2.466	1,106.59
	S4	D	53	D20	12000	4620	208	17036	902.91	2.466	2,226.57
	S5	E	20	D12	955	-	-	955	19.10	0.888	16.96
	S6	F	40	D12	1370	-	-	1370	54.80	0.888	48.66
	S7	A	144	D12	305	180	180	665	95.76	0.888	85.03
									D32		8,348.90
									D20		3,333.16
									D12		150.66
									TOTAL		11,832.72
SGP	50A	-	-	-	-	-	-	-	-	-	GAS PIPE
PL	G	-	-	-	-	-	-	-	-	-	CAP
CONCRETE											
FORM											
BEARING (T=30mm)											
JOINT FILLER (T=20mm)											
JOINT FILLER (T=30mm)											

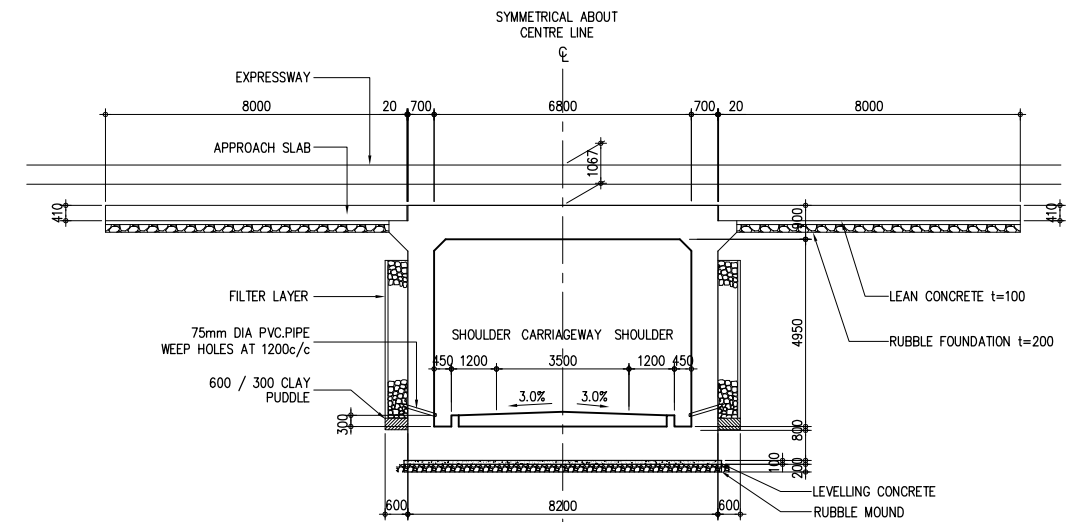
NOTE: QUANTITIES ARE FOR (1) ONE APPROACH ONLY.

1 REINFORCEMENT OF APPROACH SLAB SCALE 1:50

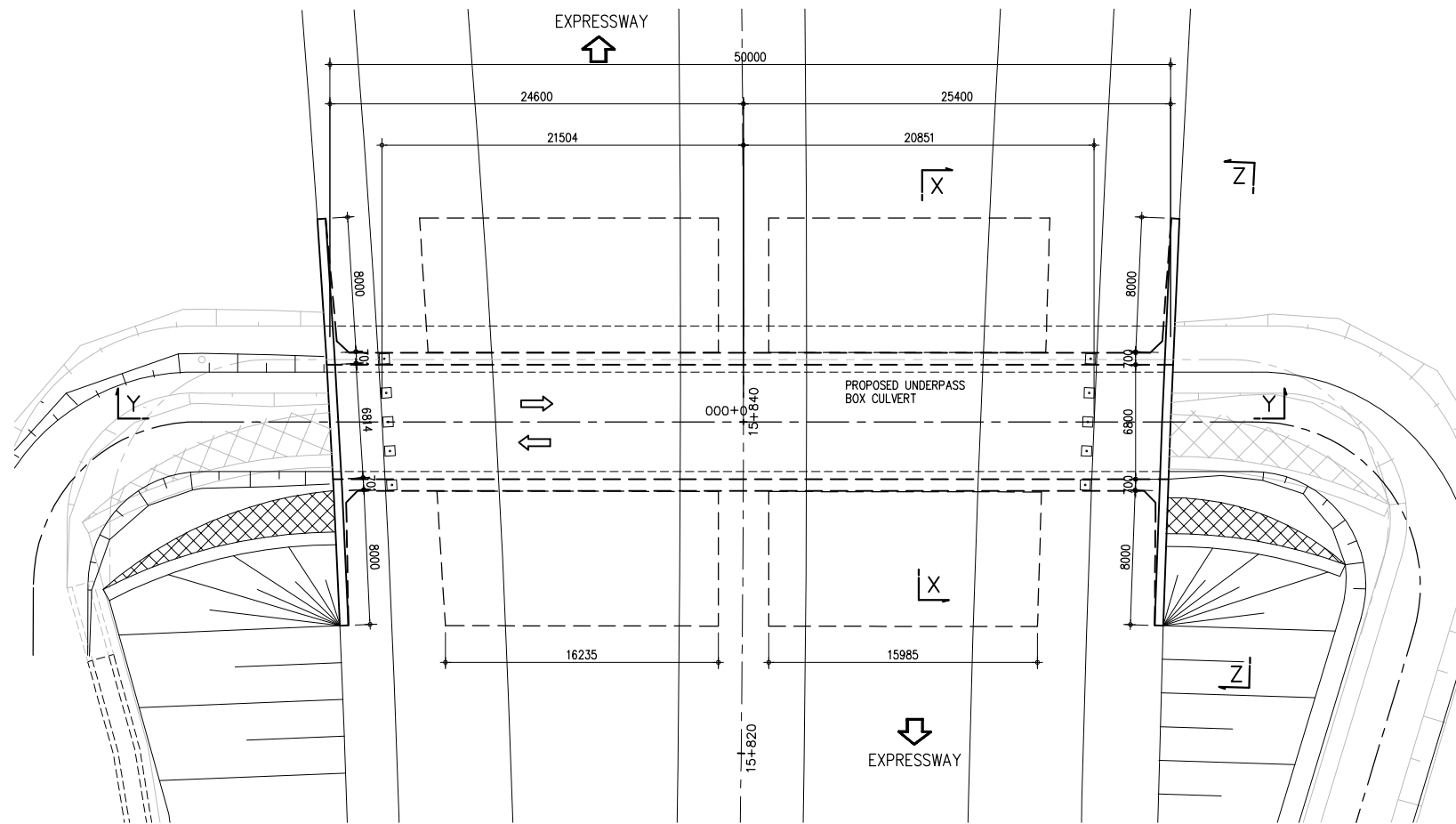
2 TYPICAL SECTION SCALE 1:10



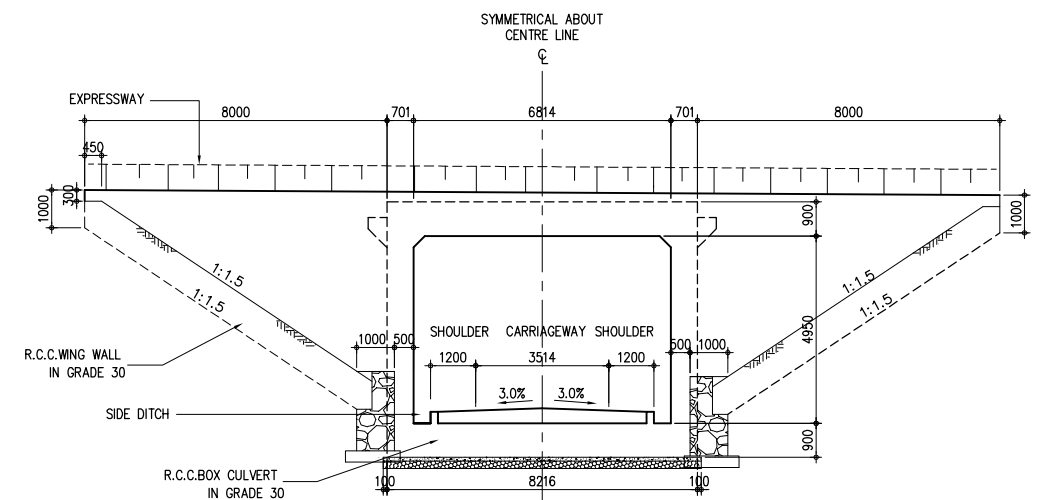
1 LONGITUDINAL SECTION Y-Y
SCALE 1:200



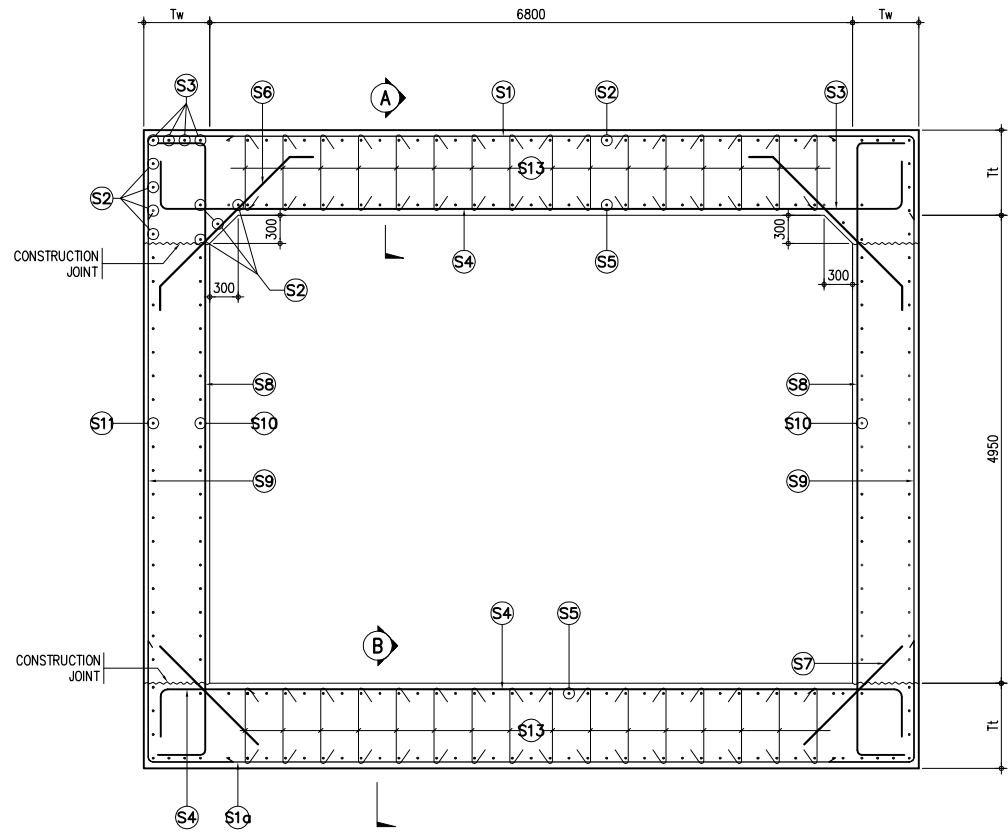
3 CROSS SECTION X-X
SCALE 1:100



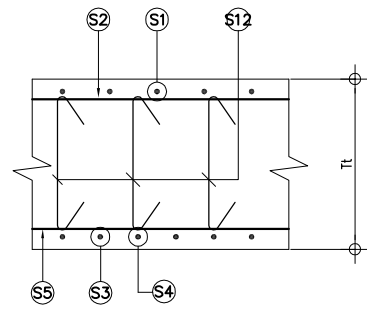
2 PLAN
SCALE 1:200



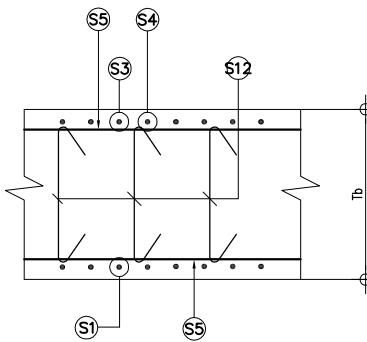
4 SECTION ELEVATION Z-Z
SCALE 1:100



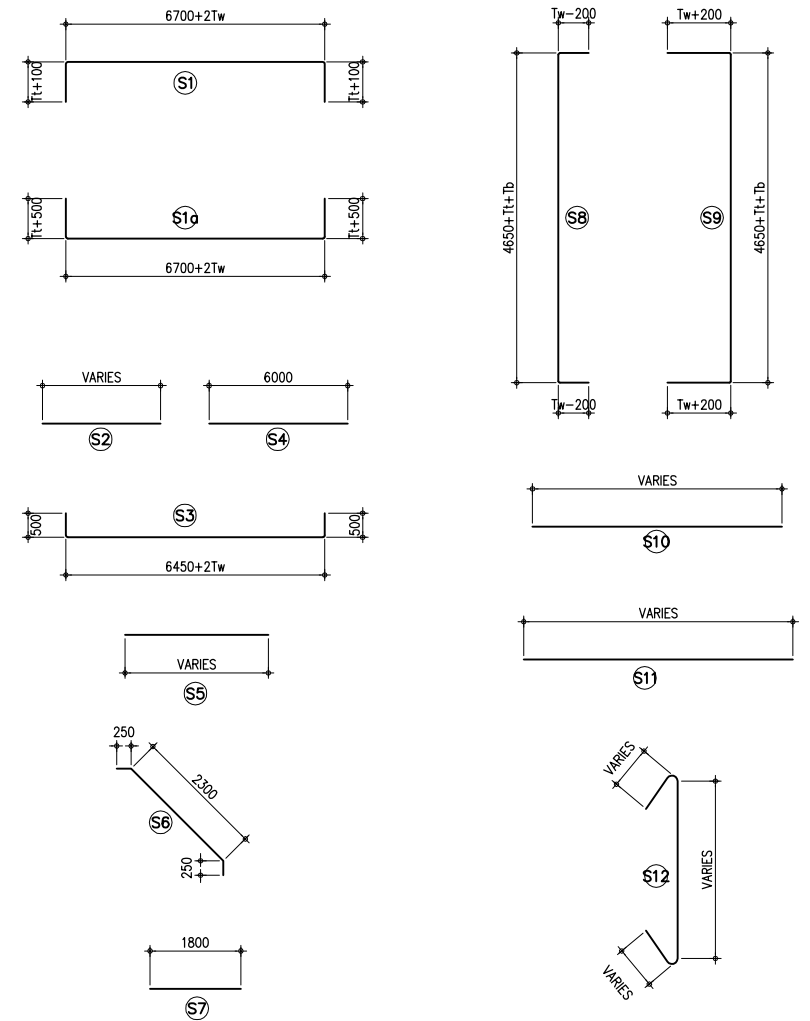
2 SECTIONAL ELEVATION
SCALE 1:40



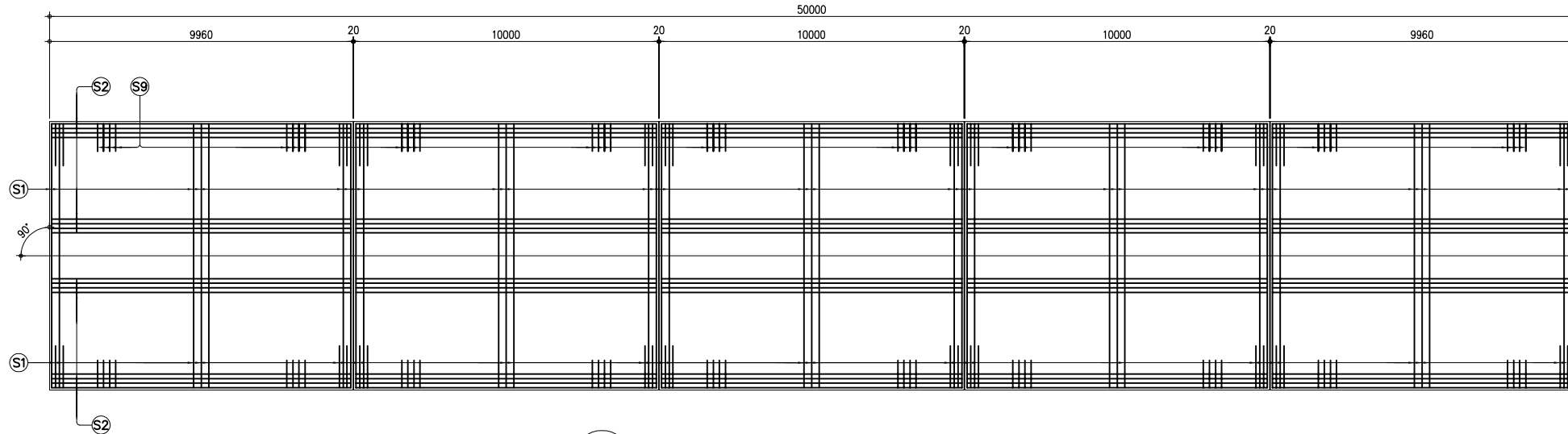
3 SECTION "A"
SCALE 1:20



3 SECTION "B"
SCALE 1:20



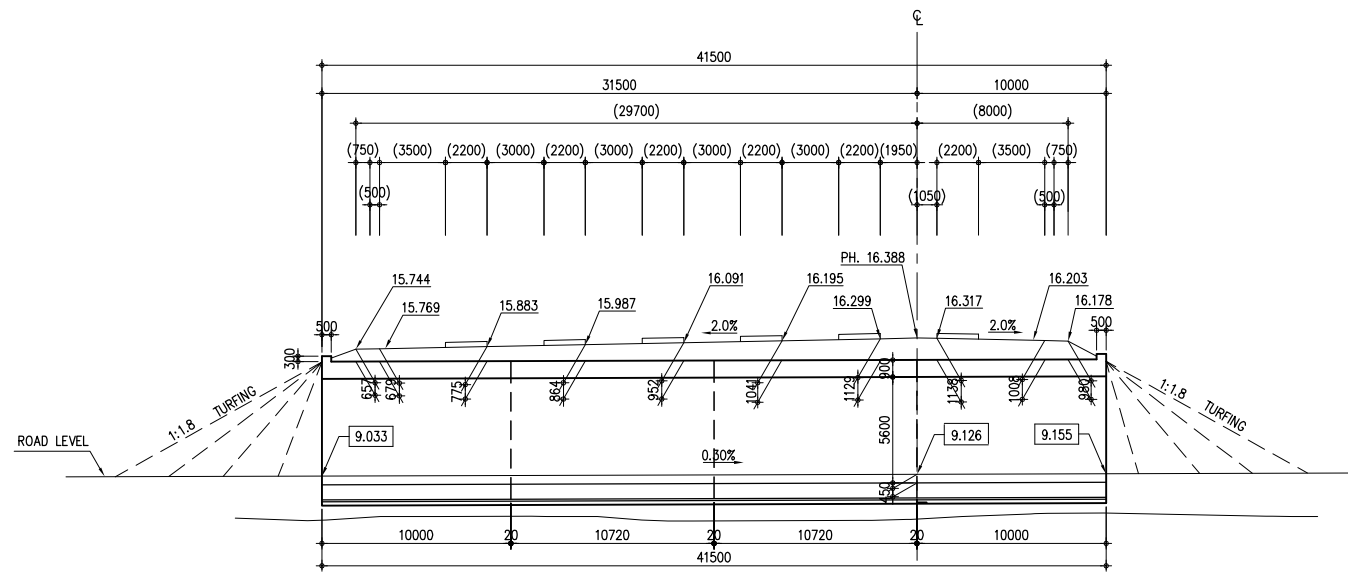
5 BAR BENDING DIAGRAM
NOT TO SCALE



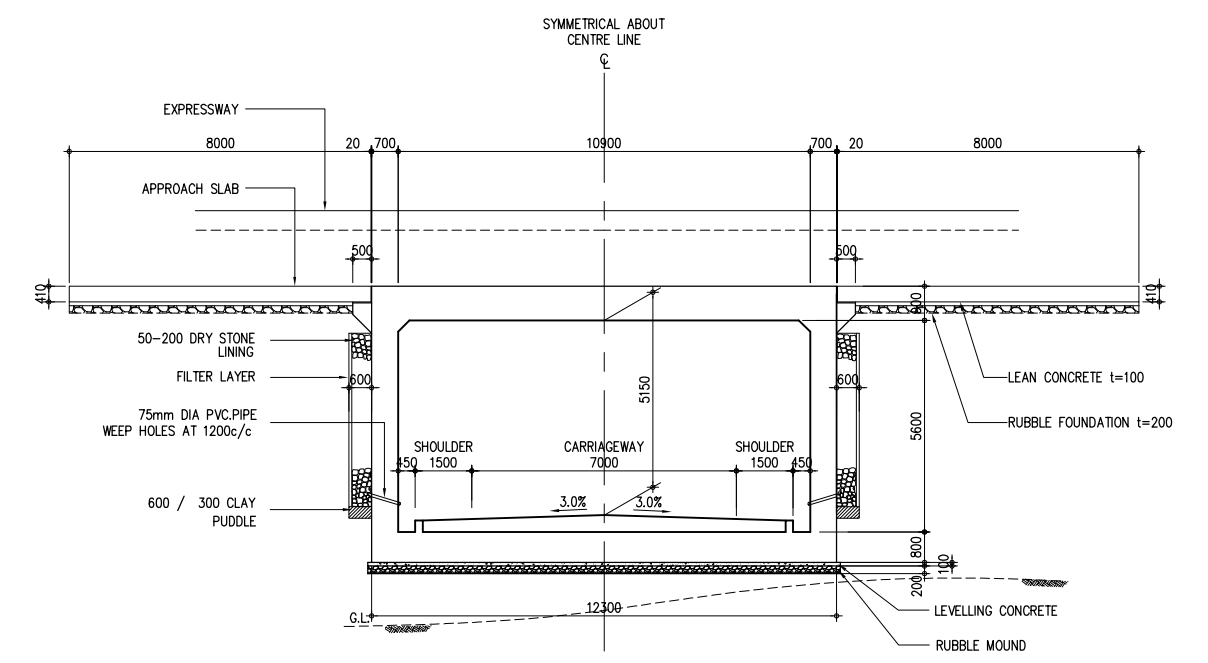
1 STEEL BAR ARRANGEMENT
SCALE 1:100

BAR SCHEDULE FOR 6.80m x 4.95m CULVERTS

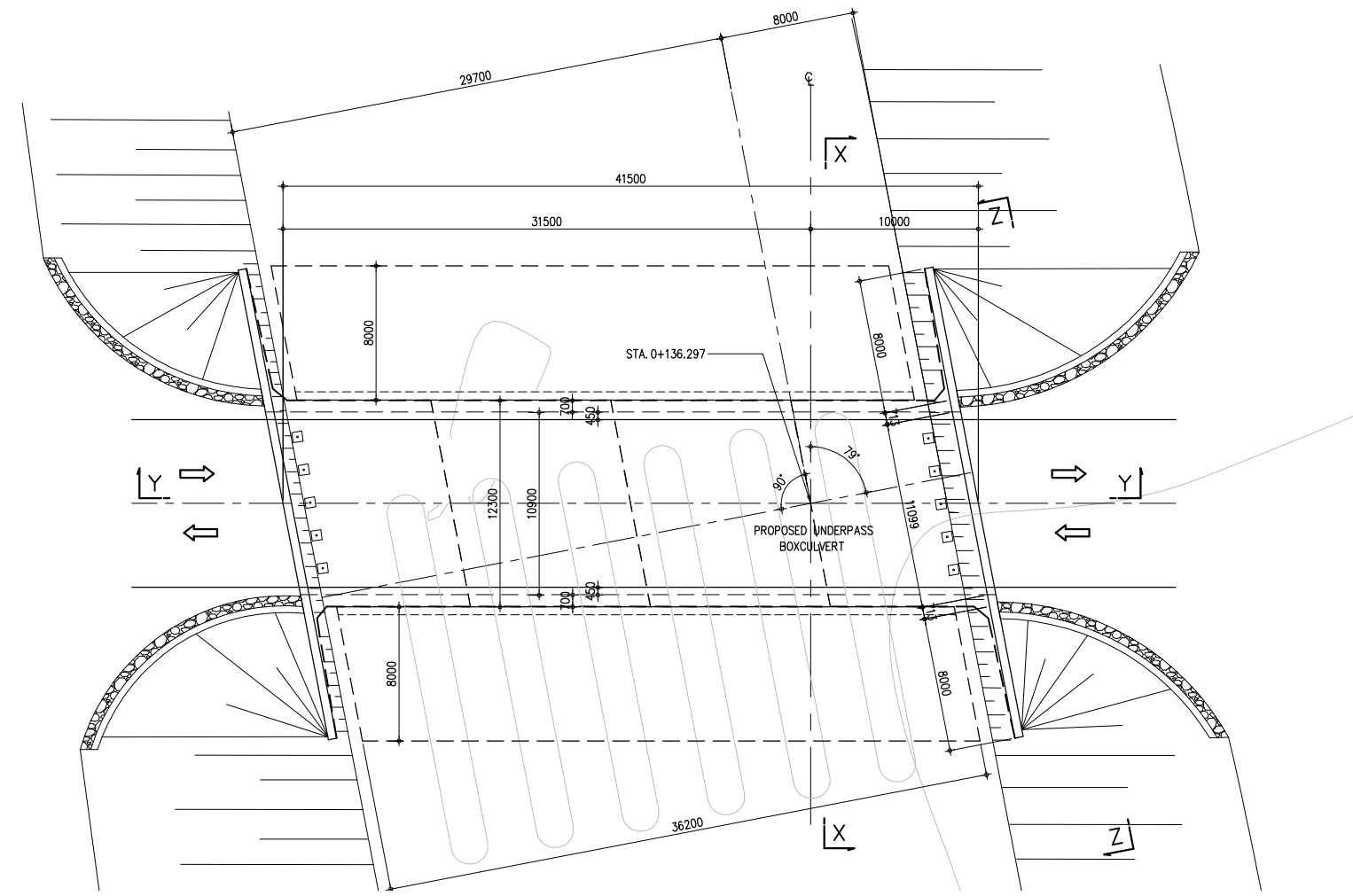
DIMENSIONS (mm)				REINFORCEMENT (Fy = GRADE 460)												
HEIGHT OF FILL H	TOP SLAB Tt	BOTTOM SLAB Tb	WALL Tw	S1	S1a	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
3000	900	900	700	#20 @200	#20 @175	#16 @150	#25 @400	#25 @400	#16 @150	#16 @250	#16 @250	#20 @200	#25 @200	#16 @200	#16 @200	#16 @400 IN BOTH DIRECTION



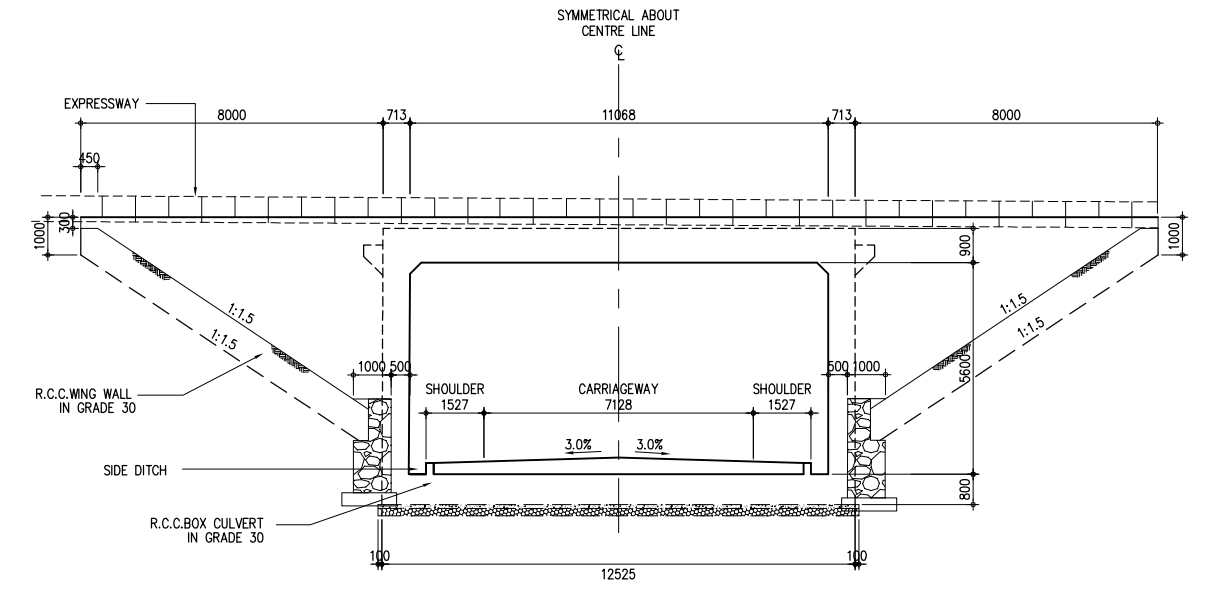
1 LONGITUDINAL SECTION Y-Y
SCALE 1:200



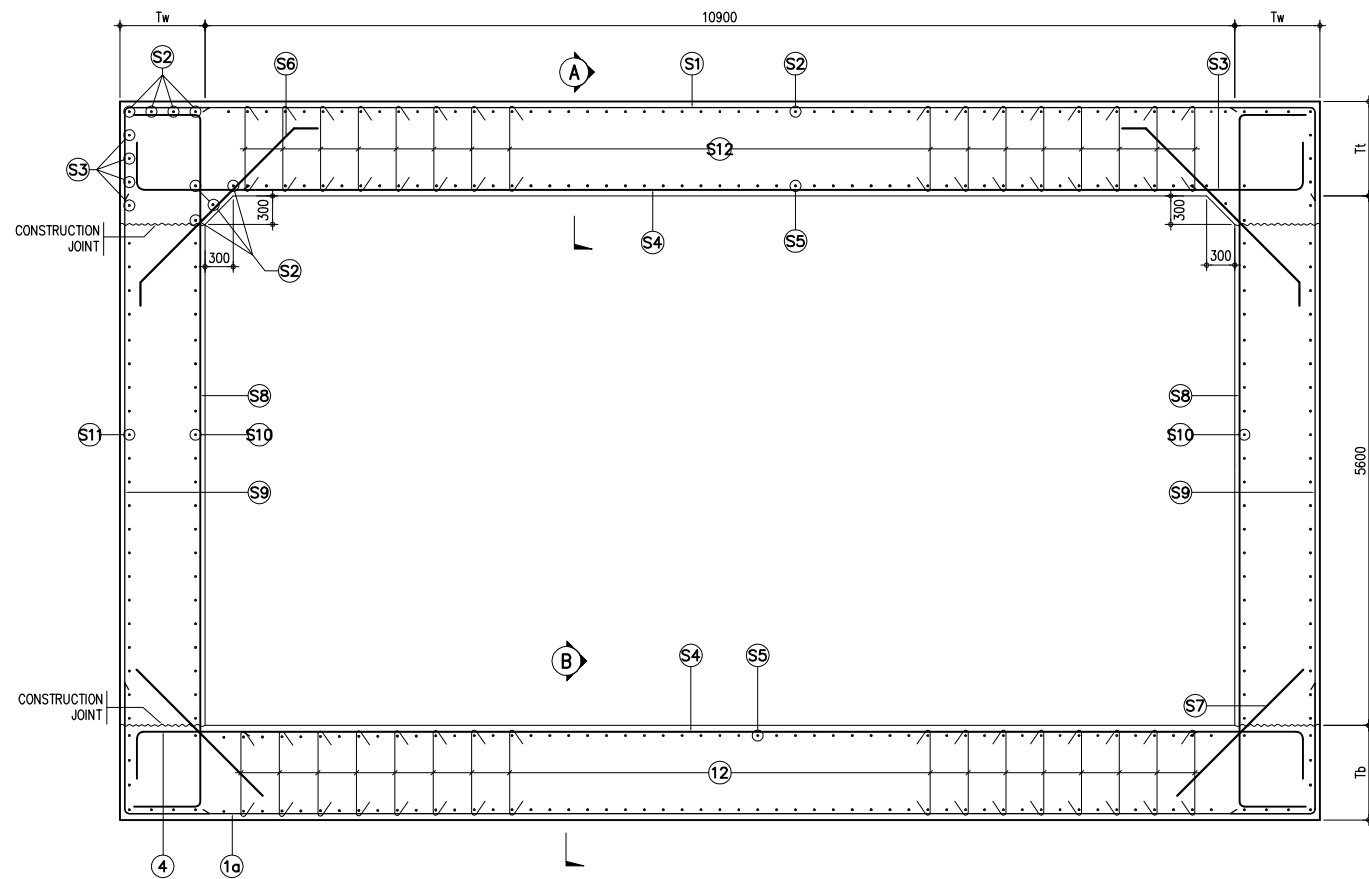
3 SECTIONAL ELEVATION X-X
SCALE 1:100



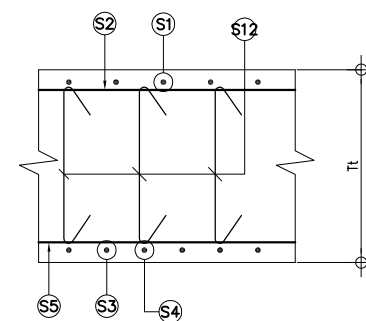
2 PLAN
SCALE 1:200



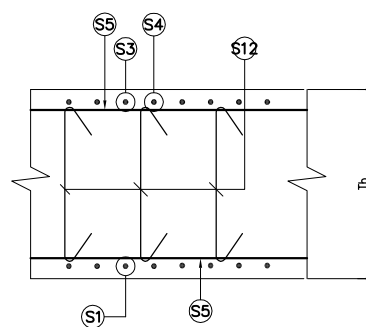
4 SECTIONAL ELEVATION Z-Z
SCALE 1:100



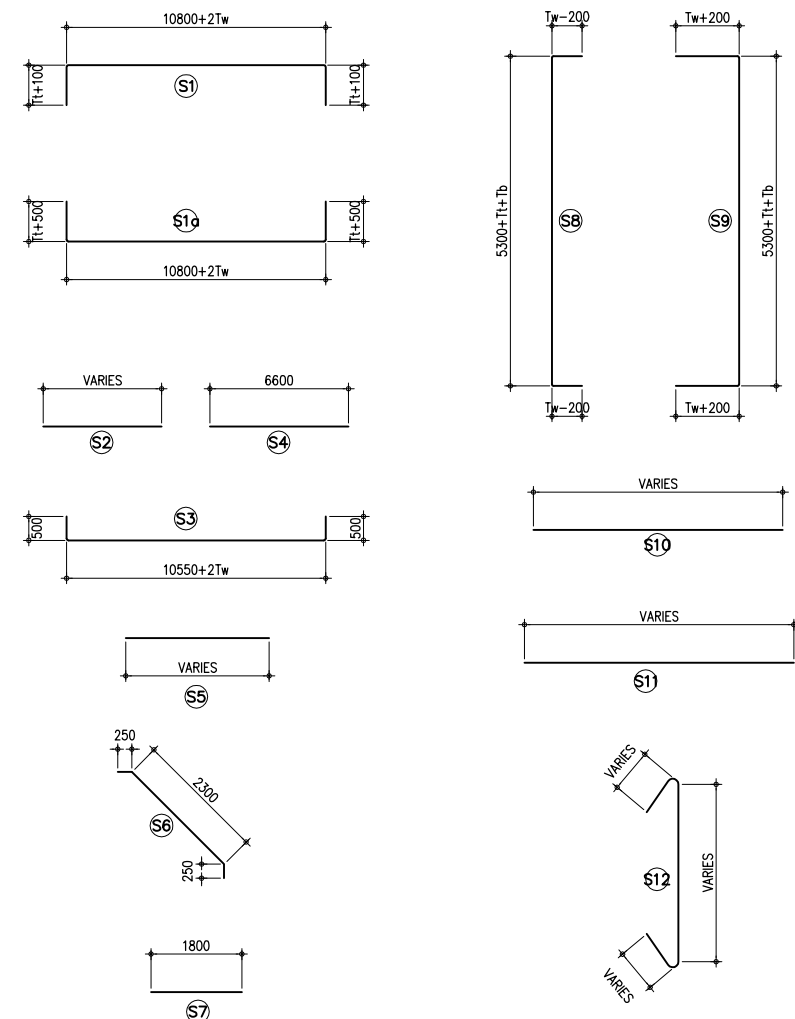
2 SECTIONAL ELEVATION
SCALE 1:40



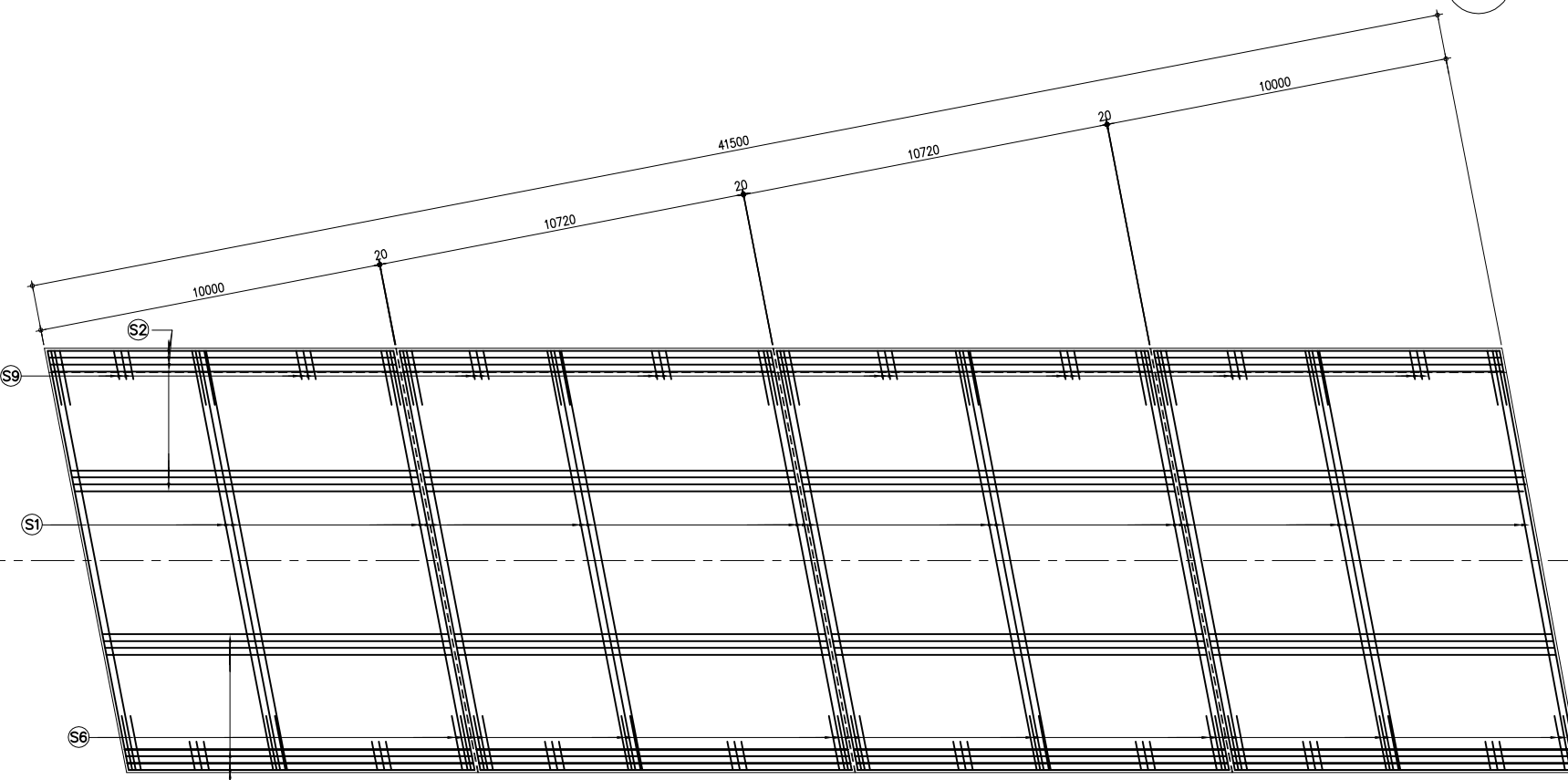
3 SECTION "A"
SCALE 1:20



4 SECTION "B"
SCALE 1:20



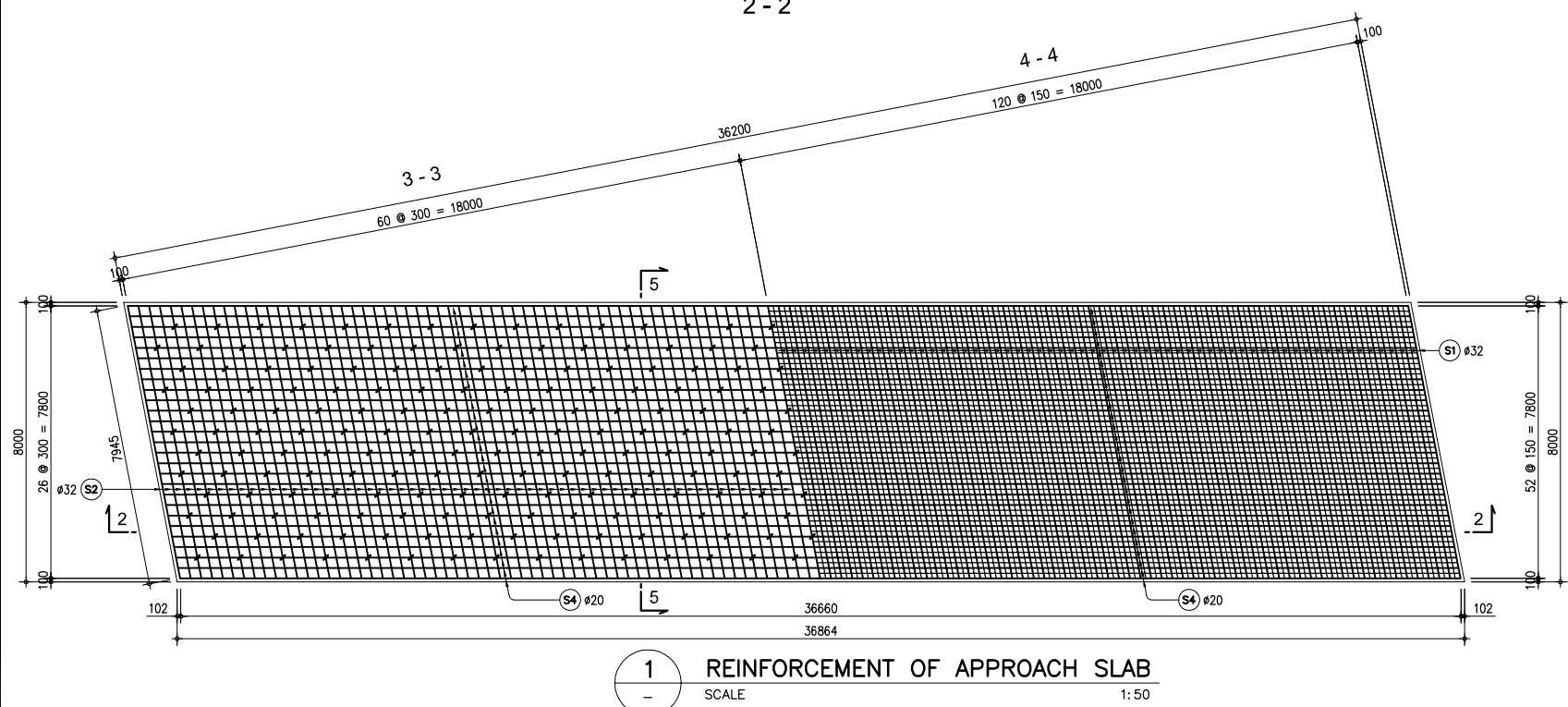
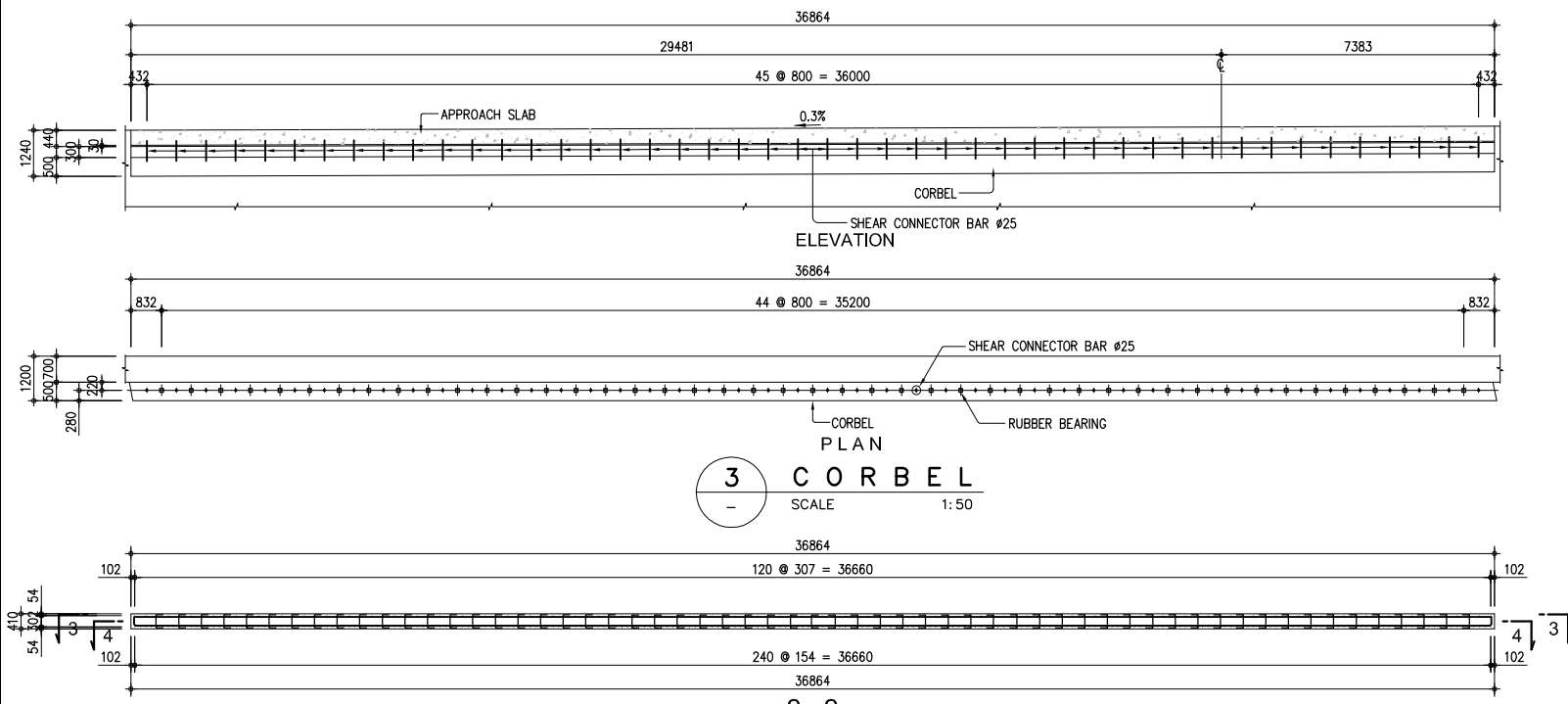
5 BAR BENDING DIAGRAM
NOT TO SCALE



1 STEEL BAR ARRANGEMENT
SCALE 1:100

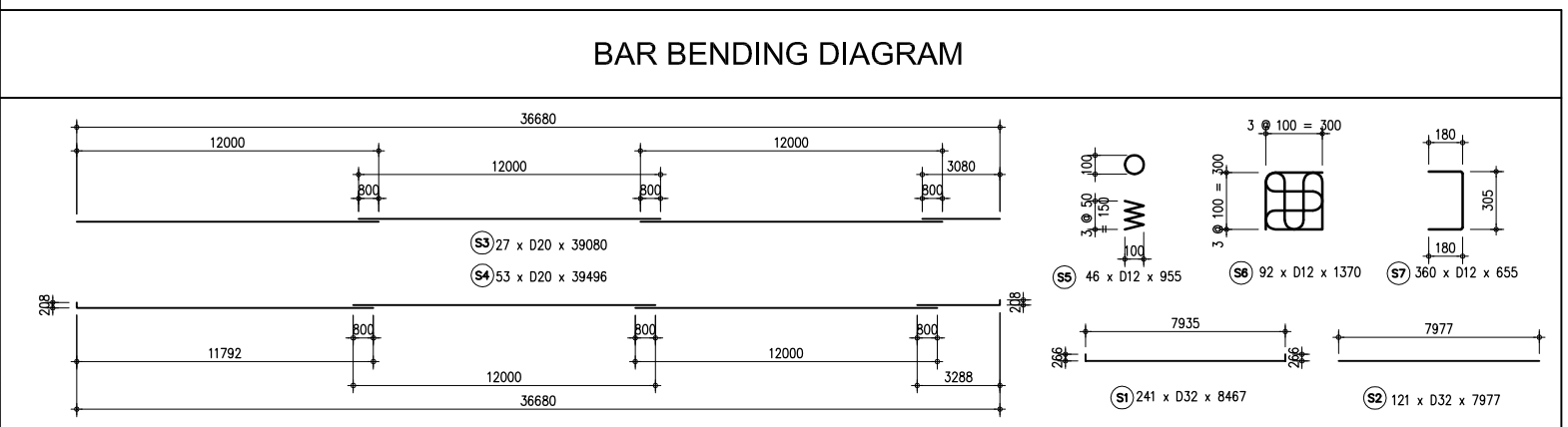
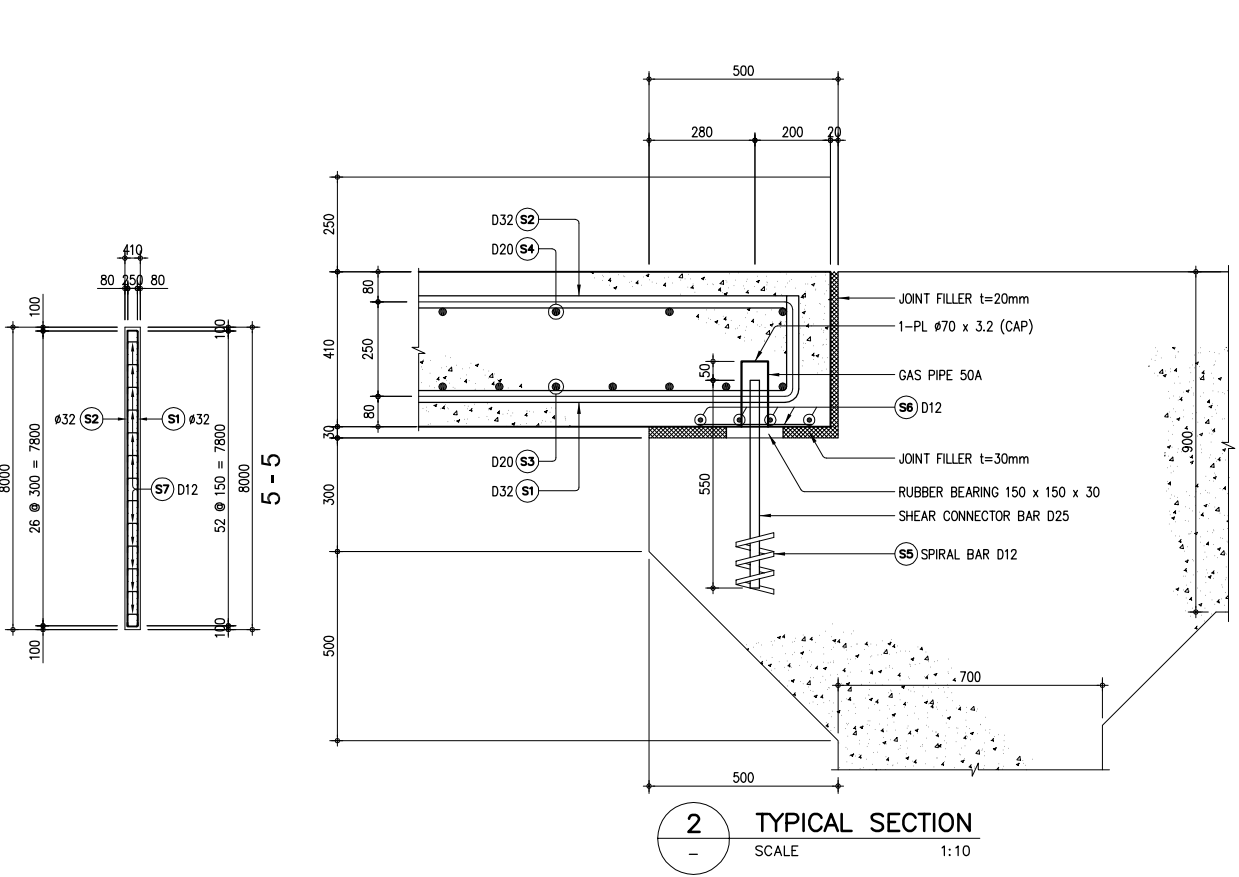
BAR SCHEDULE FOR 10.90m x 5.60m CULVERTS

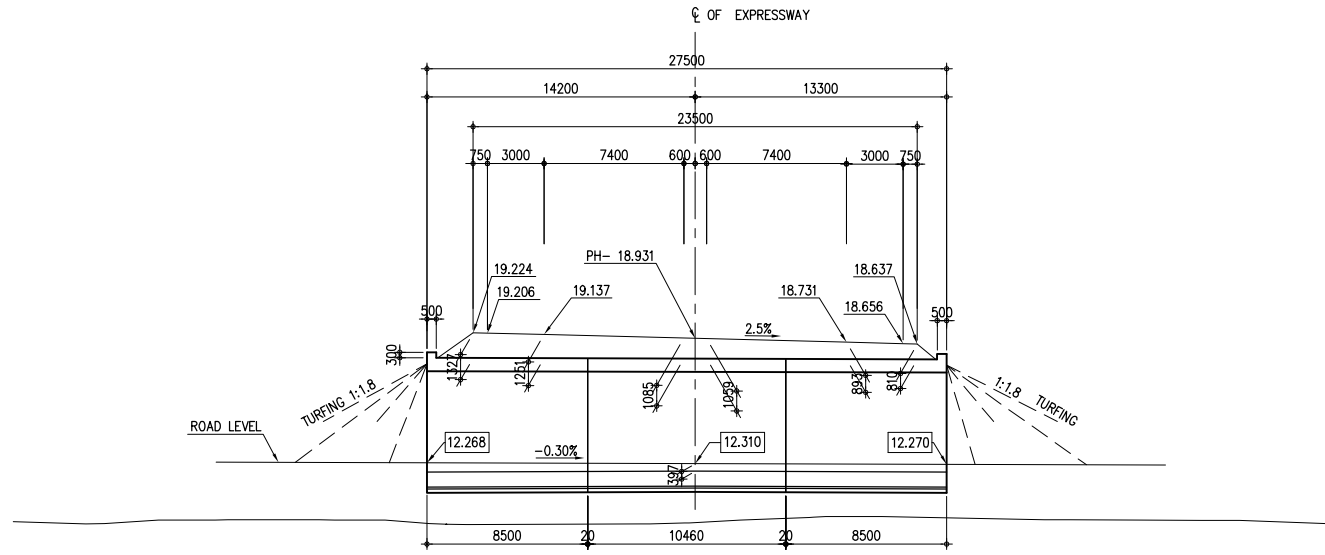
DIMENSIONS (mm)				REINFORCEMENT (Fy = GRADE 460)												
HEIGHT OF FILL H	TOP SLAB Tt	BOTTOM SLAB Tb	WALL Tw	S1	S1a	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
2000	900	900	700	ø25 @200	ø25 @150	ø16 @150	ø32 @400	ø32 @400	ø16 @150	ø16 @250	ø16 @250	ø25 @200	ø32 @200	ø16 @200	ø16 @200	ø16 @300 IN BOTH DIRECTION



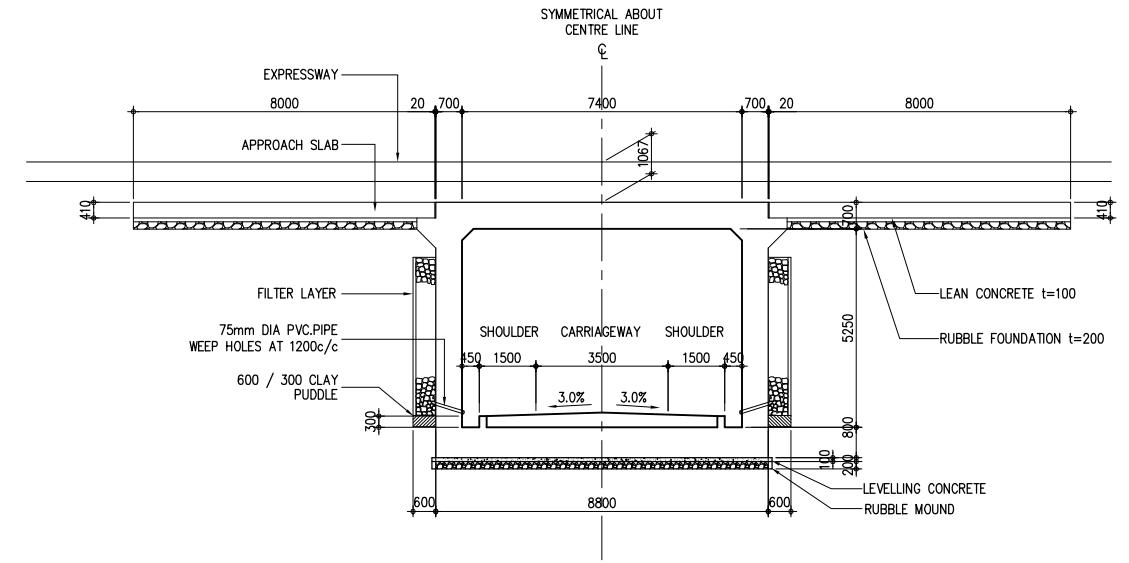
BAR BENDING		BAR MARK	BAR SHAPE	QTY.	SIZE	DIMENSIONS					LENGTH PER BAR (mm)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)
a	b					c	d	e						
(A)	b	S1	A	241	D32	7800	266	-	-	-	8332	2,008.01	6.314	12,678.59
(B)	a	S2	B	121	D32	7832	-	-	-	-	7832	947.67	6.314	5,983.60
(C)	a	S3	C	27	D20	12000	12000	12000	3080	-	39080	1,055.16	2.466	2,602.02
(D)	a	S4	D	53	D20	11792	12000	12000	3288	208	39496	2,093.29	2.466	5,162.05
(E)	a	S5	E	46	D12	955	-	955	-	-	955	43.93	0.888	39.01
(F)	a	S6	F	92	D12	1370	-	1370	-	-	1370	126.04	0.888	111.92
(F)	a	S7	A	360	D12	305	180	305	180	-	665	239.40	0.888	212.59
											D32	18,662.19		
											D20	7,764.07		
											D12	363.52		
											TOTAL	26,789.78		
SGP	50A	-	-	-	-	-	-	-	-	-	-	-	-	GAS PIPE
PL	G	-	-	-	-	-	-	-	-	-	-	-	-	CAP
CONCRETE														
FORM														
BEARING (T=30mm)														
JOINT FILLER (T=20mm)														
JOINT FILLER (T=30mm)														

NOTE: QUANTITIES ARE FOR (1) ONE APPROACH ONLY.

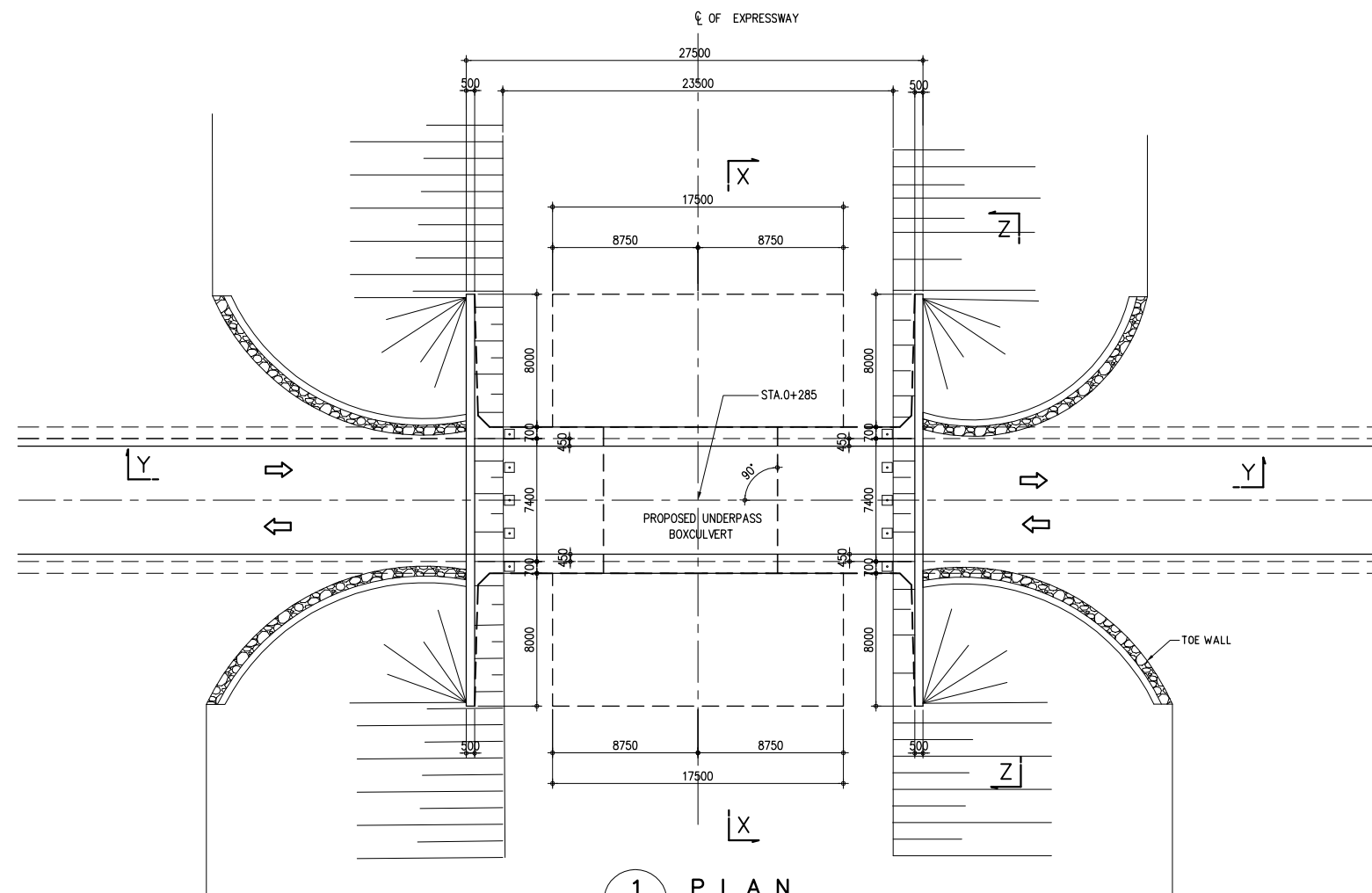




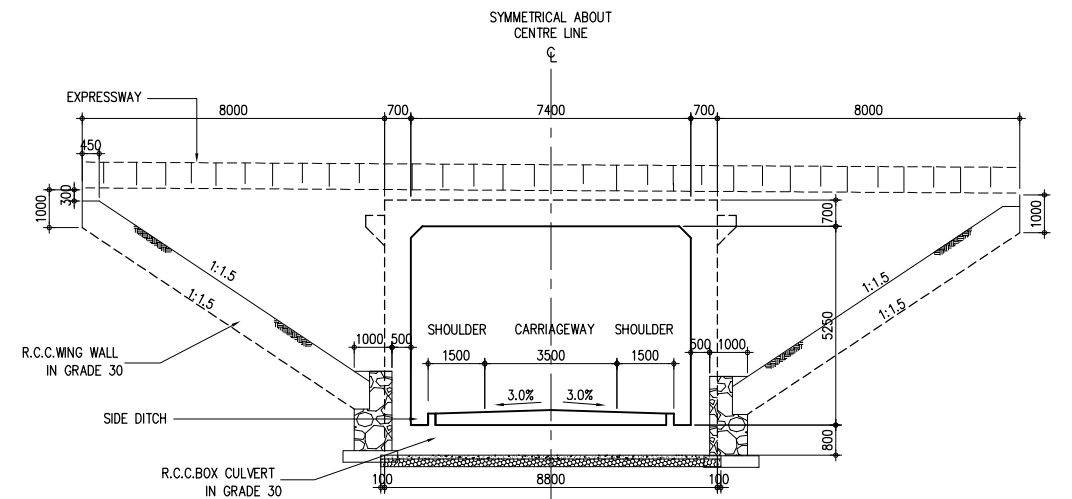
2 LONGITUDINAL SECTION Y-Y
SCALE 1:200



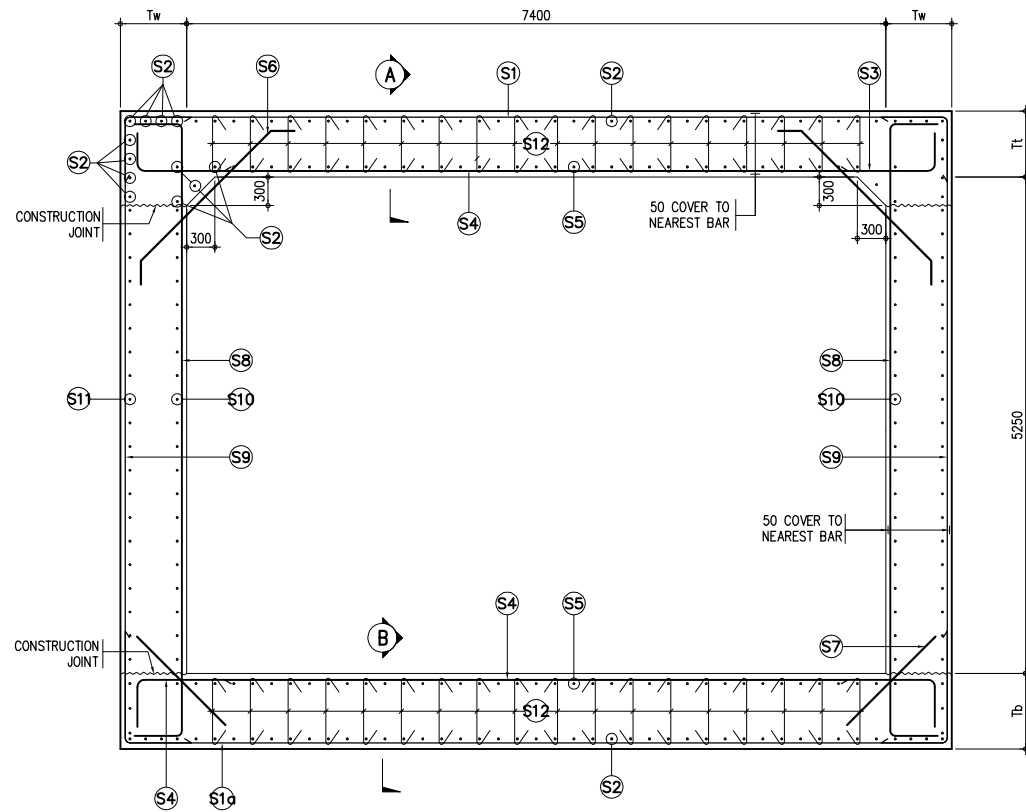
3 CROSS SECTION X-X
SCALE 1:100



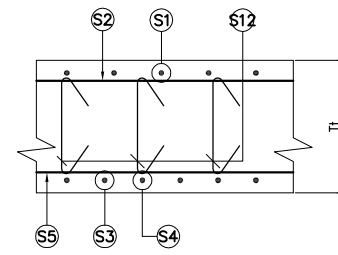
1 PLAN
SCALE 1:200



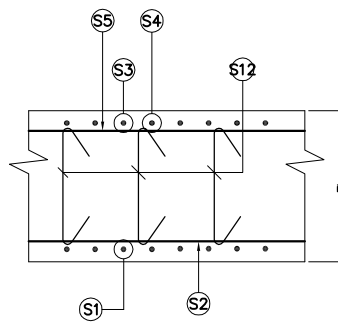
4 SECTIONAL ELEVATION Z-Z
SCALE 1:100



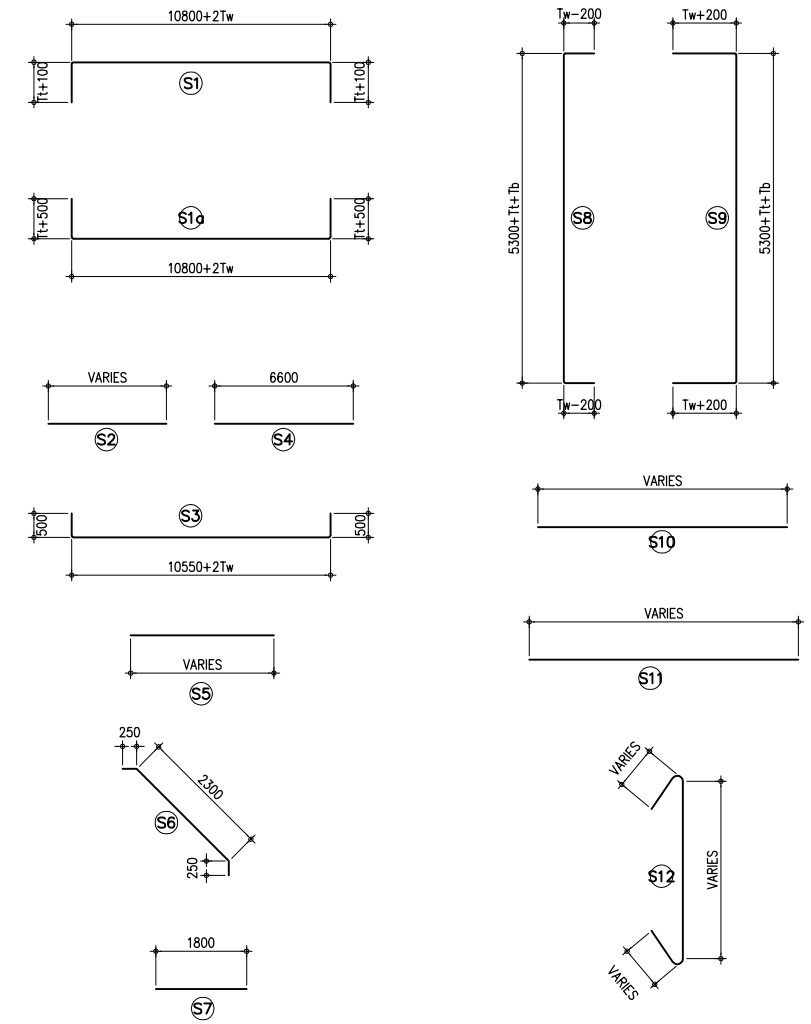
2 SECTIONAL ELEVATION
SCALE 1:40



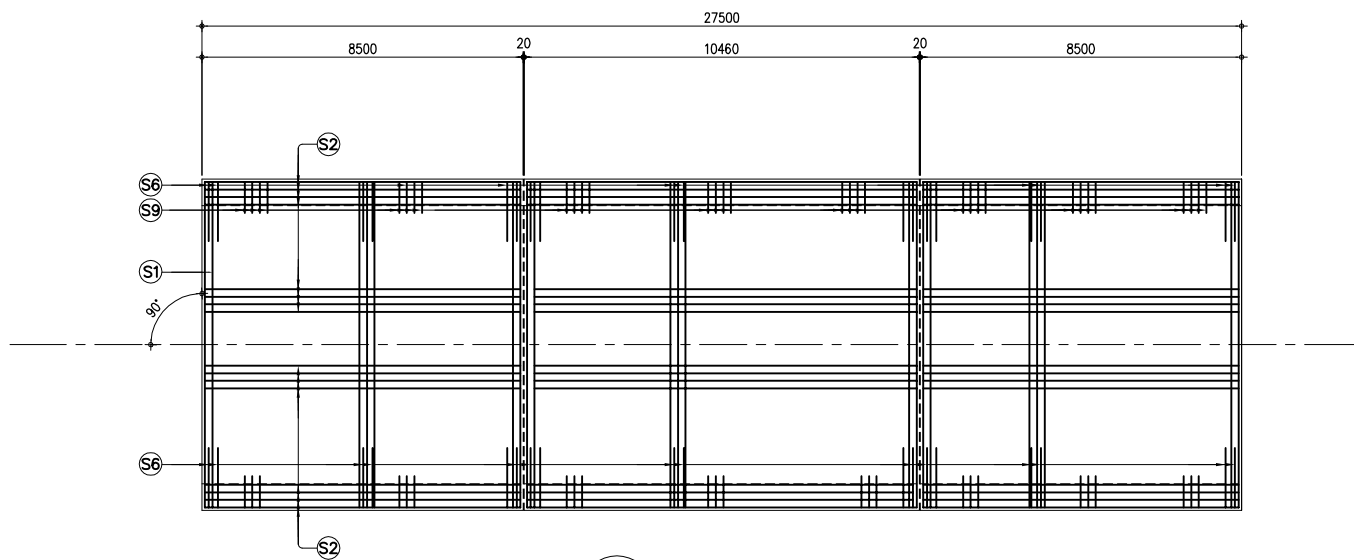
3 SECTION "A"
SCALE 1:20



4 SECTION "B"
SCALE 1:20



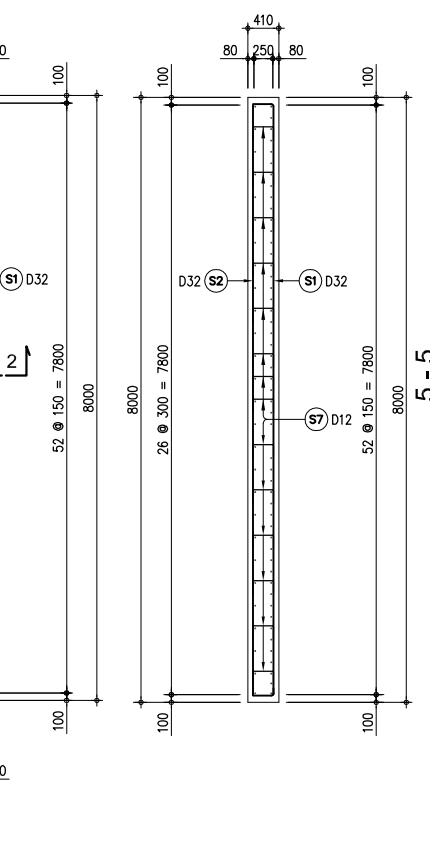
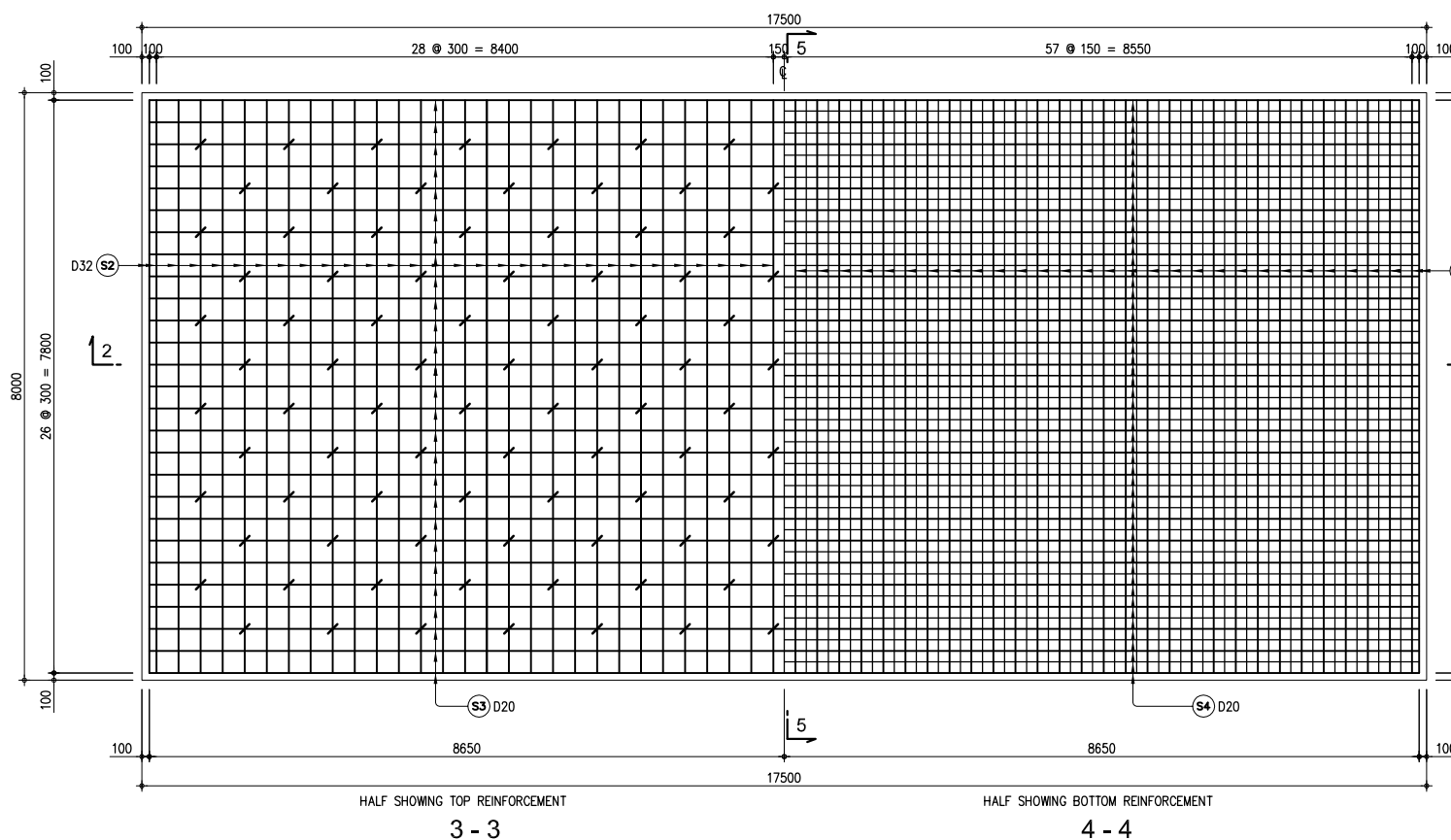
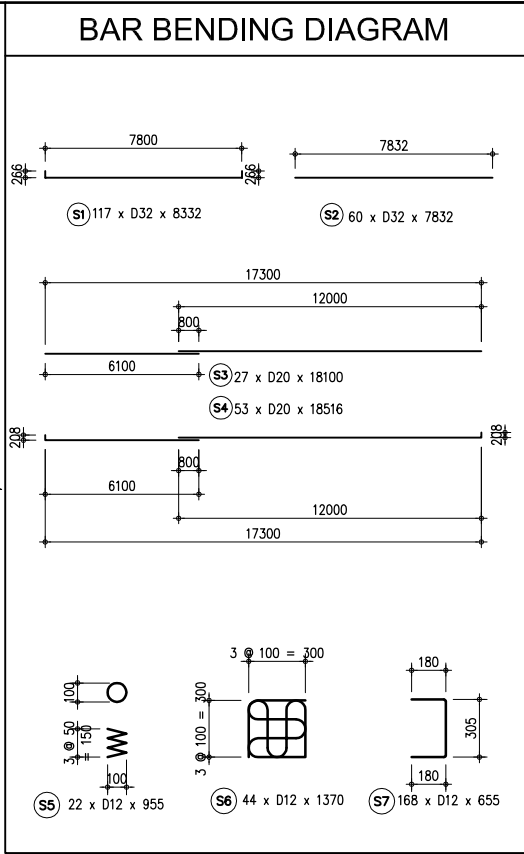
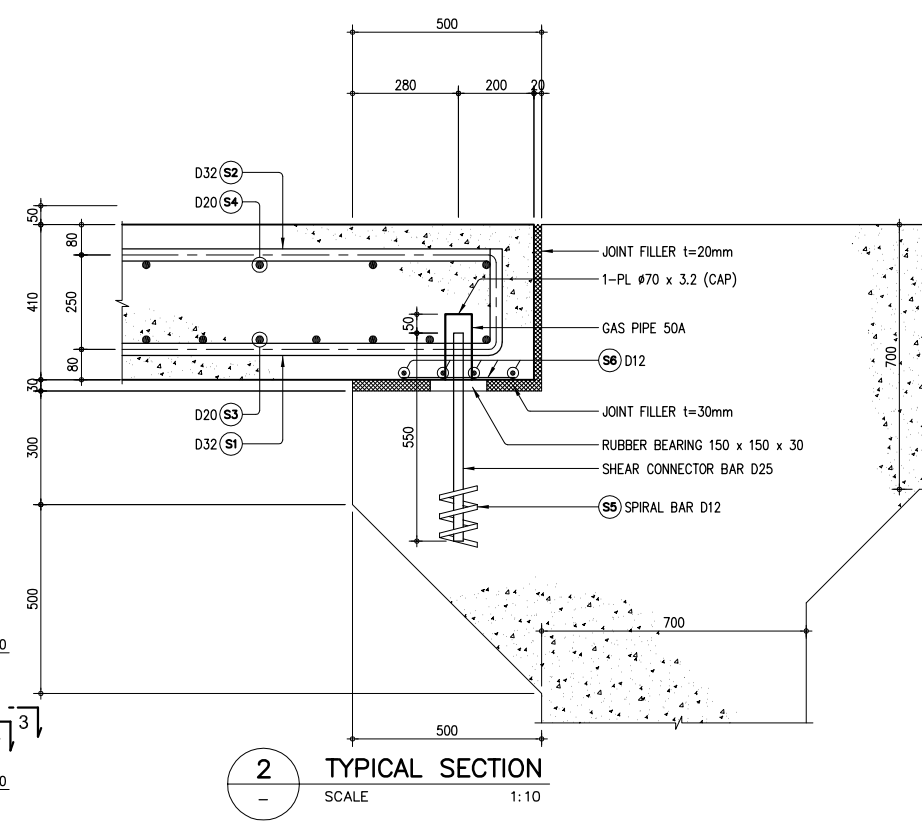
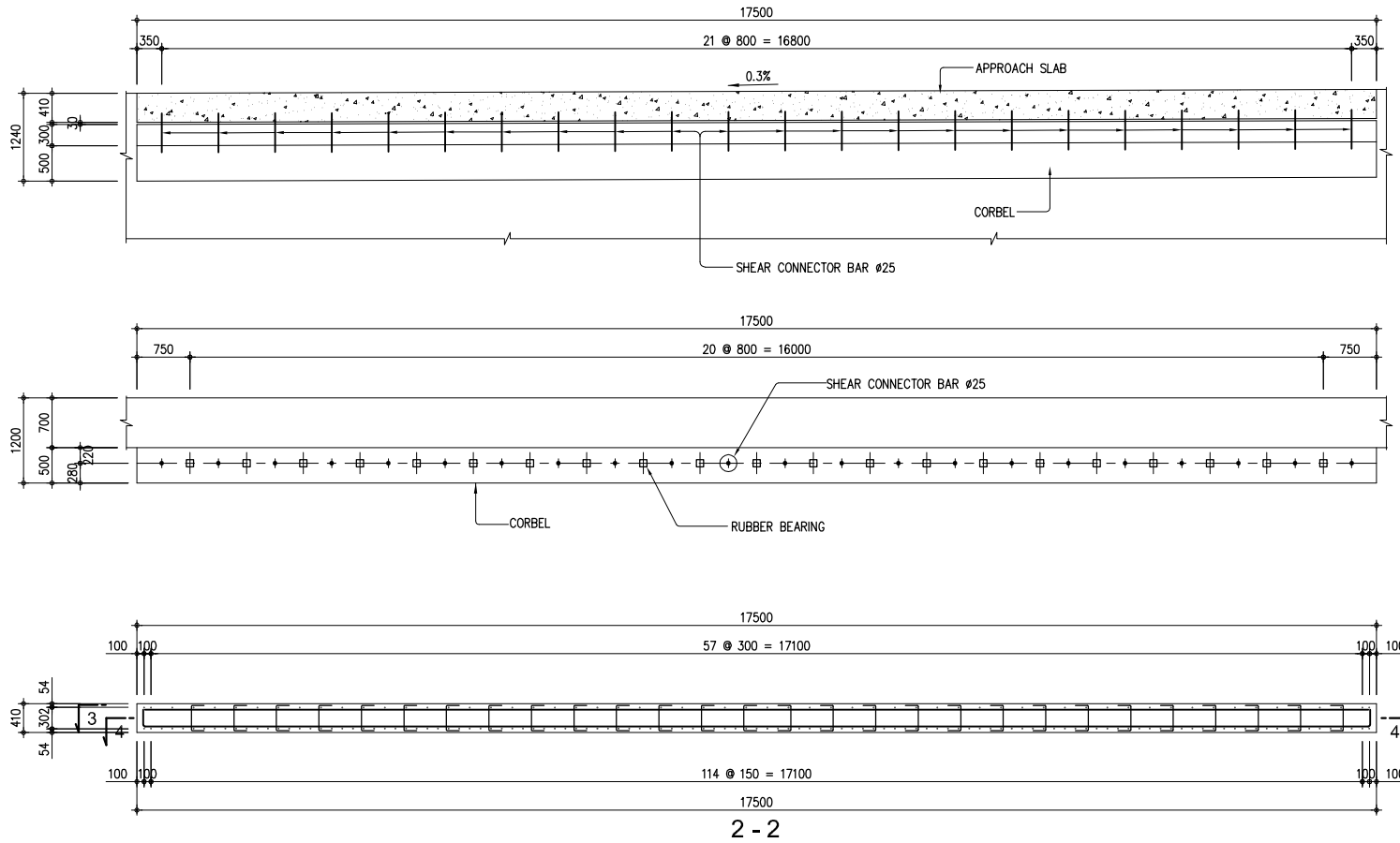
5 BAR BENDING DIAGRAM
NOT TO SCALE



1 STEEL BAR ARRANGEMENT
SCALE 1:100

BAR SCHEDULE FOR 7.40m x 5.25m CULVERTS

DIMENSIONS (mm)				REINFORCEMENT (Fy = GRADE 460)												
HEIGHT OF FILL H	TOP SLAB Tt	BOTTOM SLAB Tb	WALL Tw	S1	S1a	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
2000	700	800	700	#20 @200	#20 @200	#16 @200	#25 @400	#25 @400	#16 @200	#16 @250	#16 @250	#20 @200	#25 @200	#16 @200	#16 @200	#16 @400 IN BOTH DIRECTION

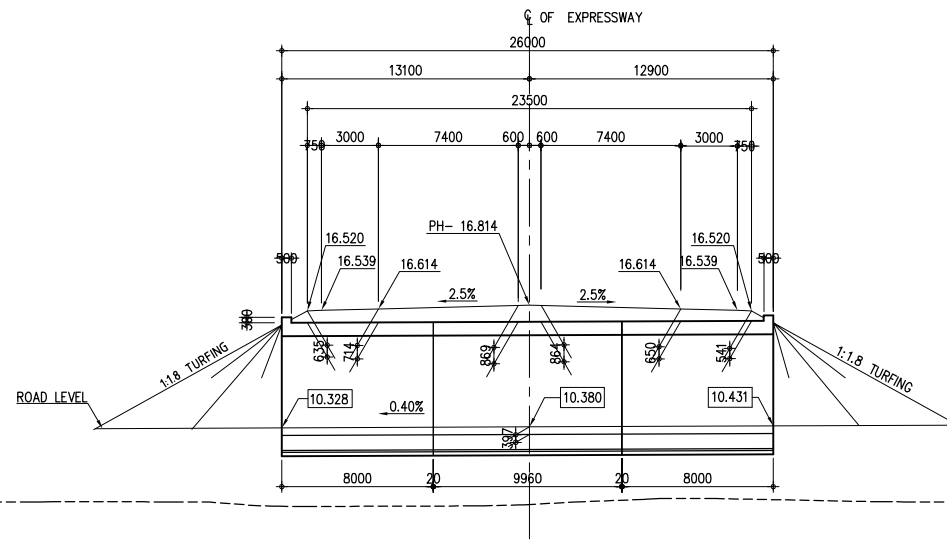


REINFORCING BARS												
BAR BENDING	BAR MARK	BAR SHAPE	QTY.	SIZE	DIMENSIONS			LENGTH PER BAR (mm)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)	
					a	b	c					
	S1	A	117	D32	7800	266	-	8332	891.52	6.314	6,155.17	
	S2	B	60	D32	7832	-	-	7832	430.76	6.314	2,967.07	
	S3	C	27	D20	12000	6100	-	18100	488.70	2.466	1,205.13	
	S4	D	53	D20	12000	6100	208	18516	981.35	2.466	2,420.00	
	S5	E	22	D12	955	-	-	955	21.01	0.888	18.66	
	S6	F	44	D12	1370	-	-	1370	60.28	0.888	53.53	
	S7	A	168	D12	305	180	180	665	111.72	0.888	99.21	
										D32	9,122.24	
										D20	3,625.13	
										D12	171.40	
										TOTAL	12,918.77	
SGP	50A	-	-	-	-	-	-	-	-	-	GAS PIPE	
PL	G	-	-	-	-	-	-	-	-	-	CAP	
CONCRETE												
FORM												
BEARING (T=30mm)												
JOINT FILLER (T=20mm)												
JOINT FILLER (T=30mm)												

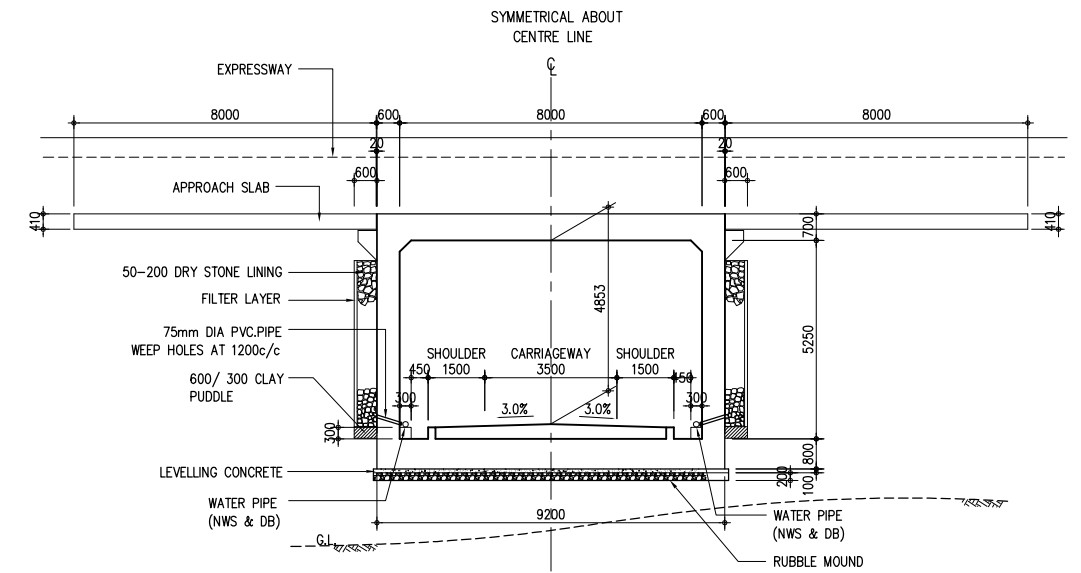
1 REINFORCEMENT OF APPROACH SLAB
SCALE 1:50

2 TYPICAL SECTION
SCALE 1:10

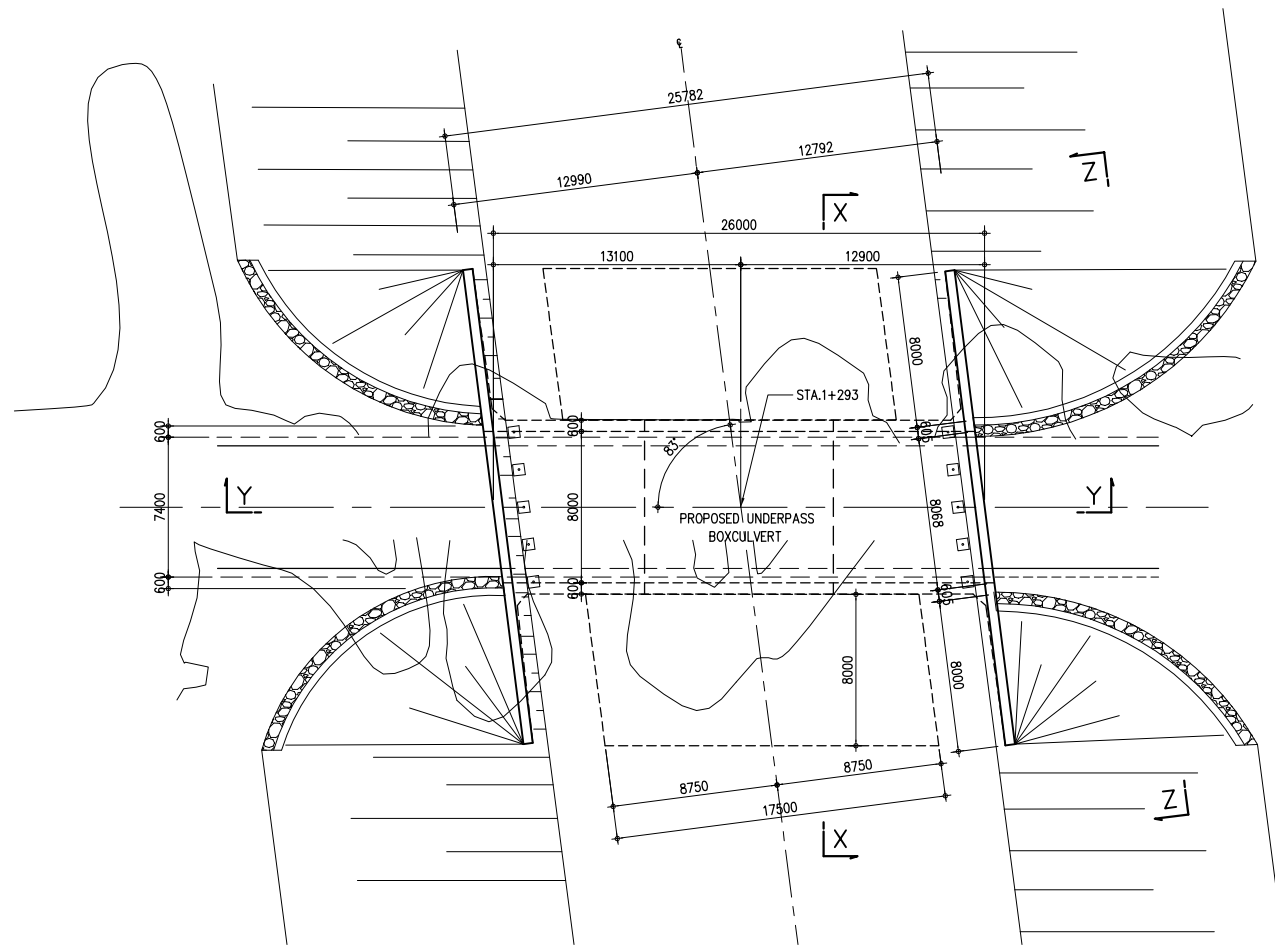
NOTE: QUANTITIES ARE FOR (1) ONE APPROACH ONLY.



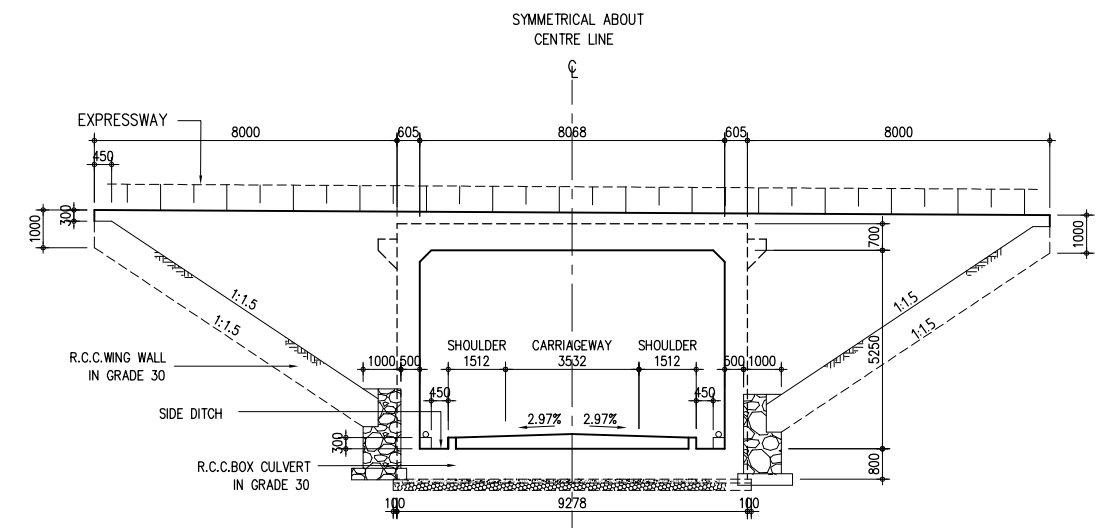
2 LONGITUDINAL SECTION Y-Y
SCALE 1:200



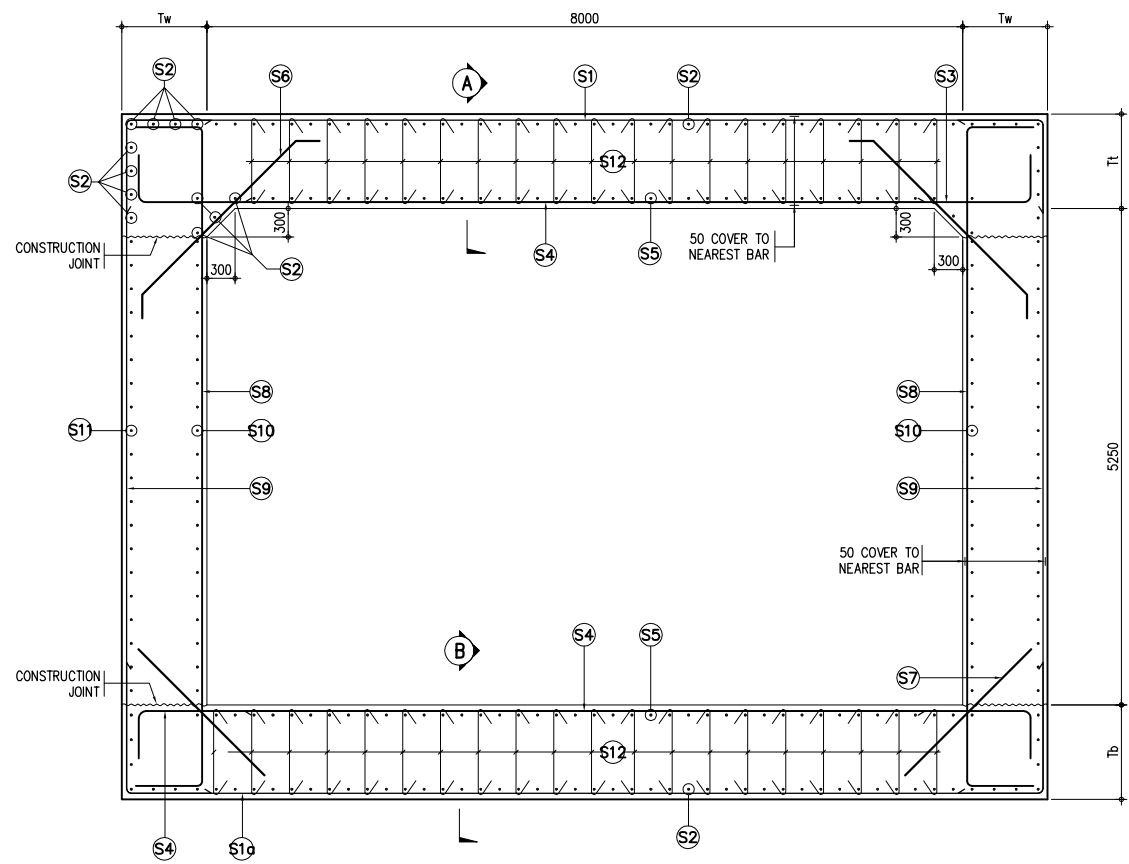
3 CROSS SECTION X-X
SCALE 1:100



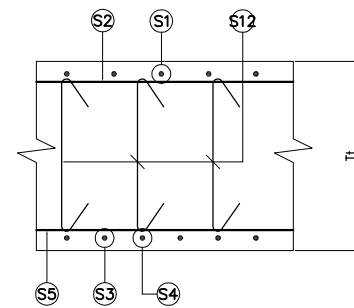
1 PLAN
SCALE 1:200



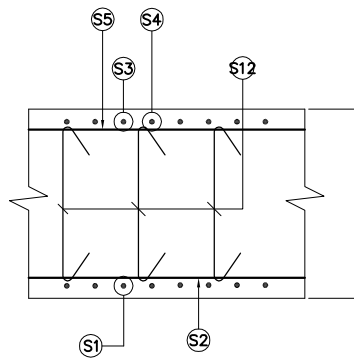
4 SECTIONAL ELEVATION Z-Z
SCALE 1:100



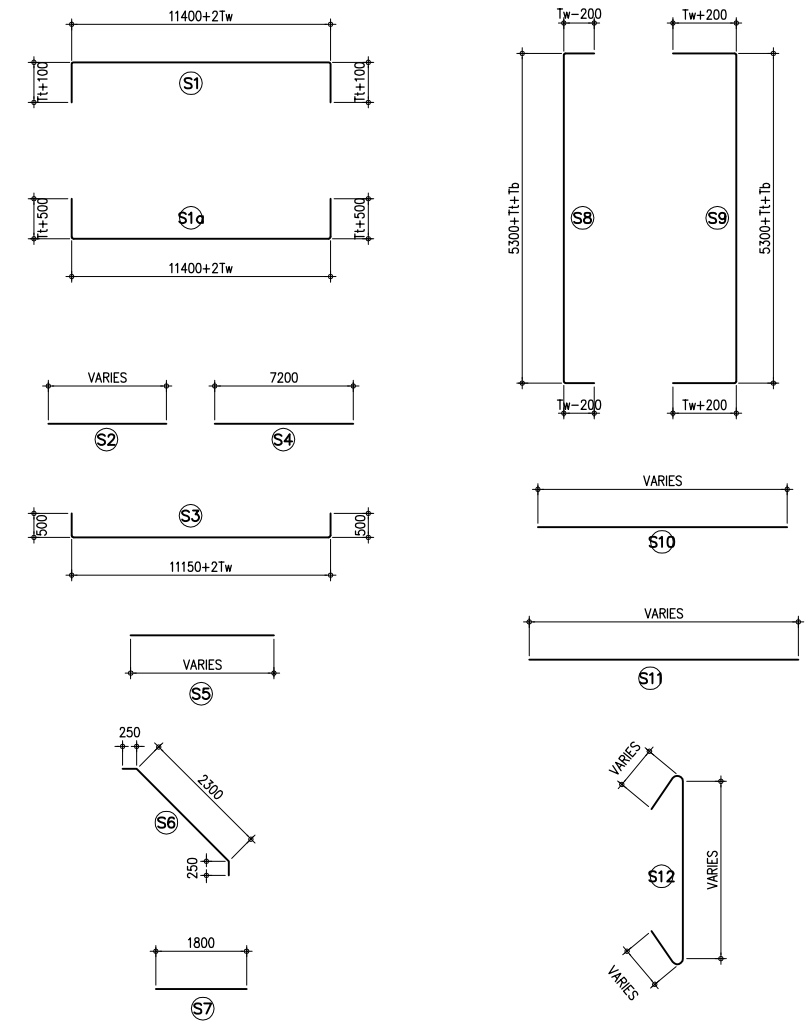
2 SECTIONAL ELEVATION
SCALE 1:40



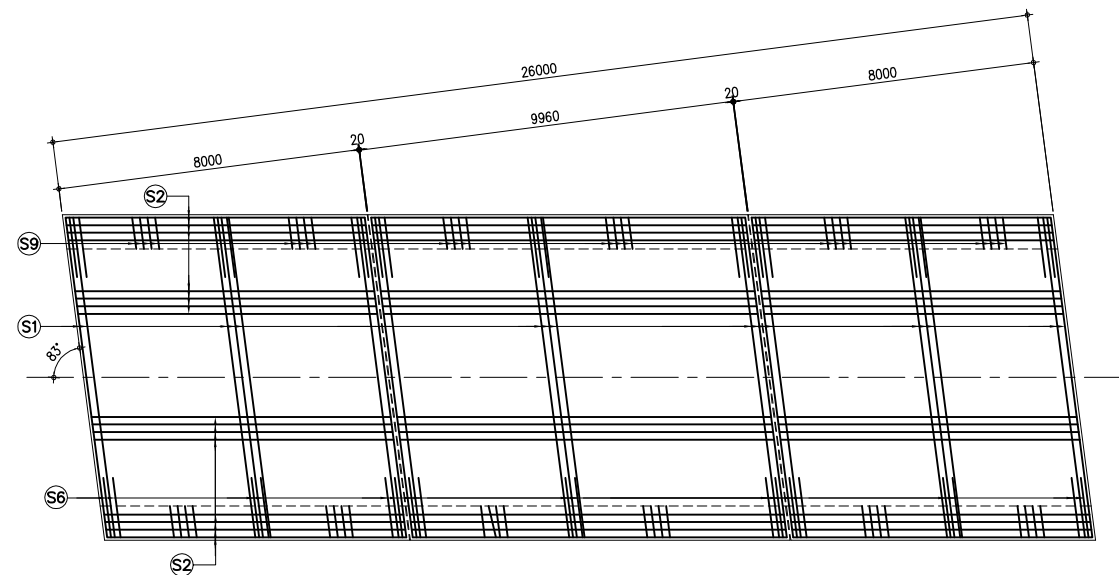
3 SECTION "A"
SCALE 1:20



4 SECTION "B"
SCALE 1:20



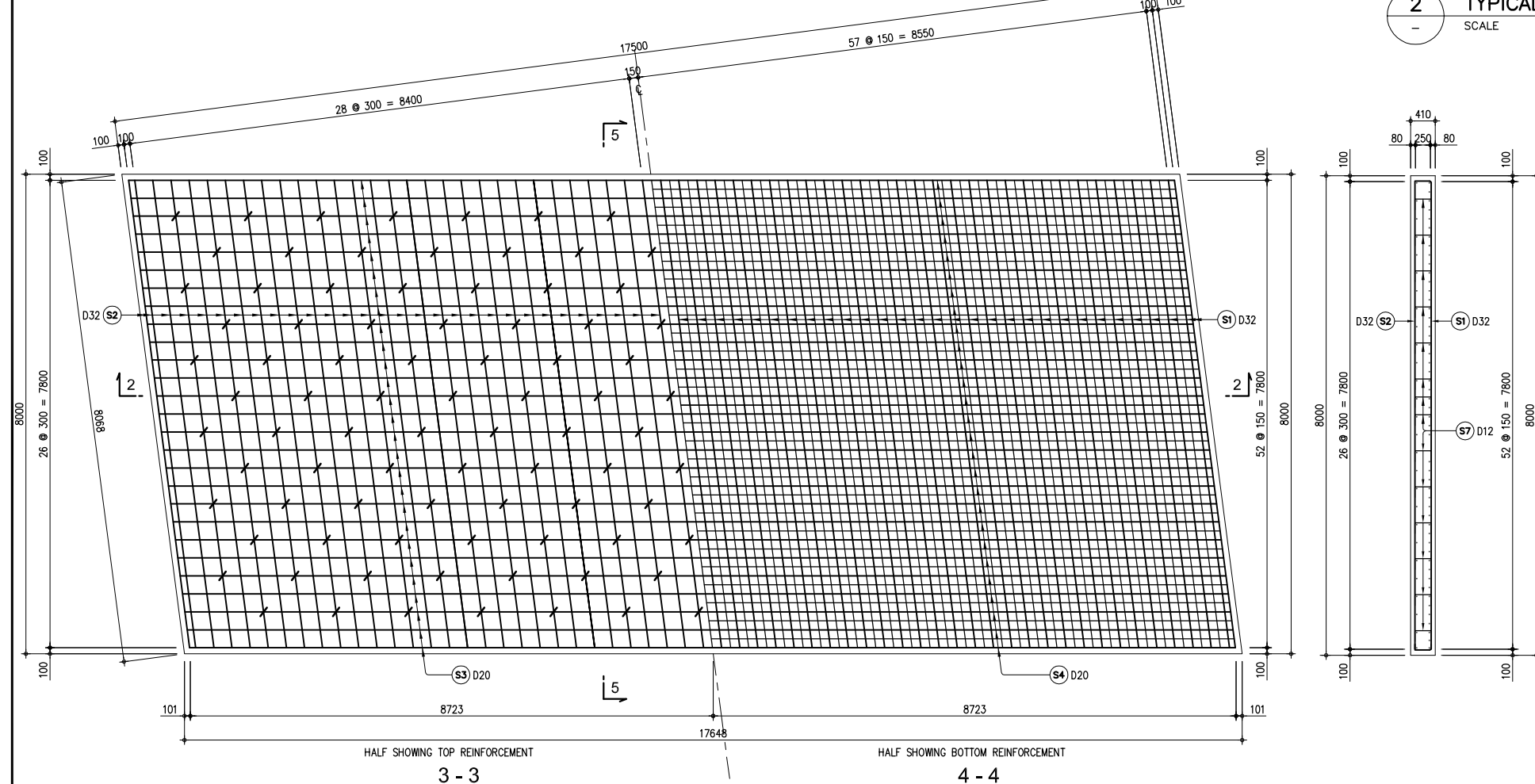
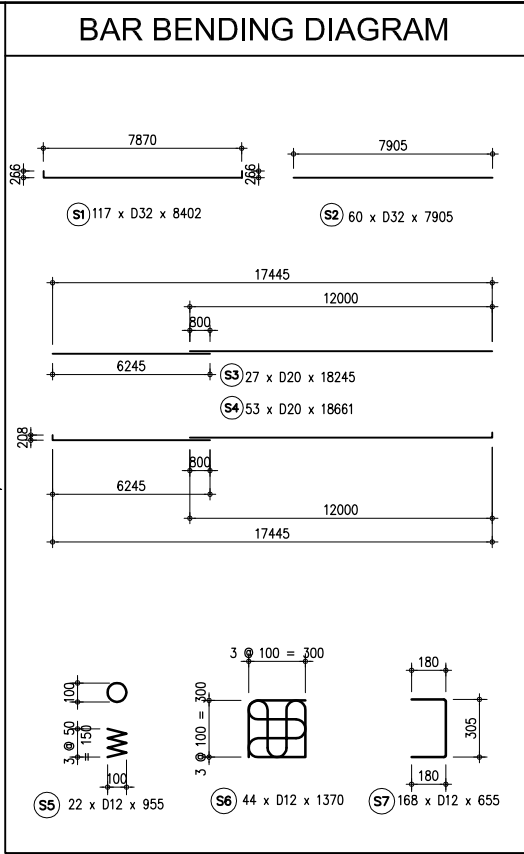
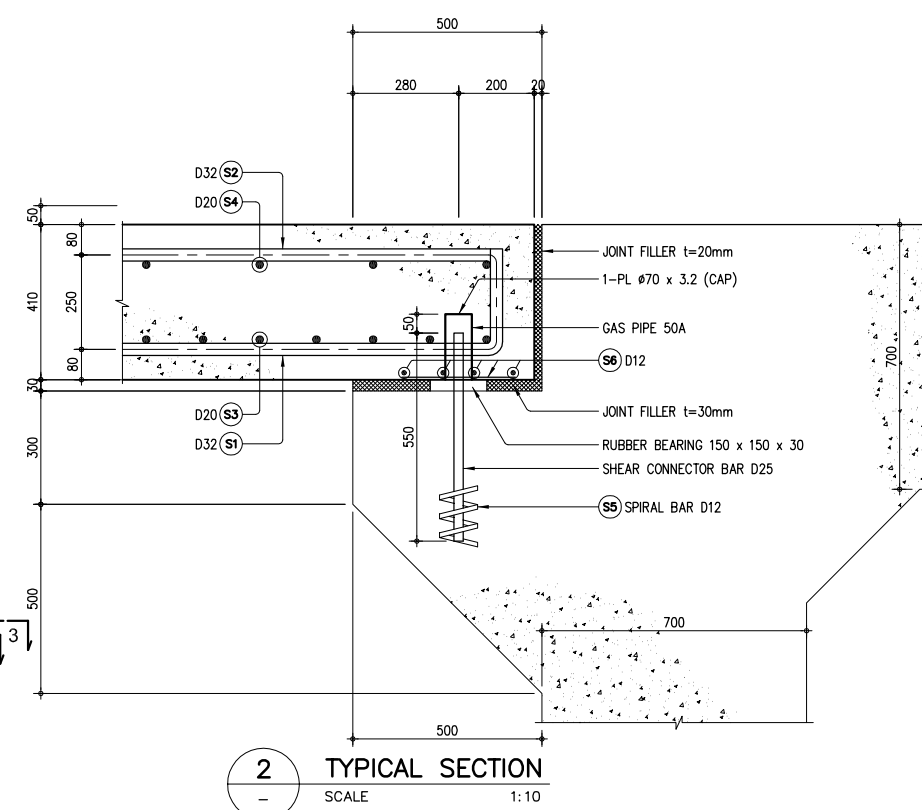
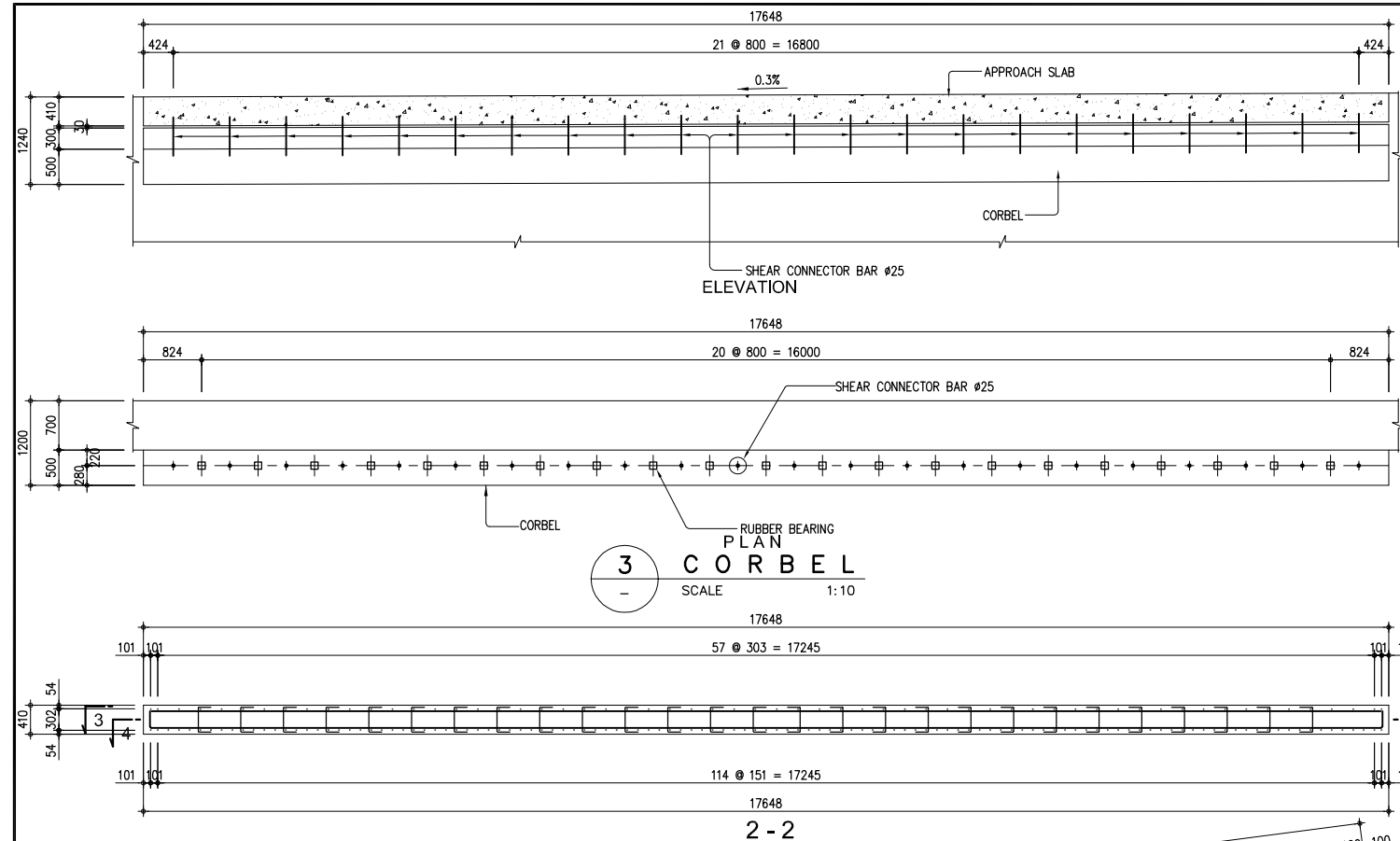
5 BAR BENDING DIAGRAM
NOT TO SCALE



1 STEEL BAR ARRANGEMENT
SCALE 1:100

BAR SCHEDULE FOR 7.40m x 5.25m CULVERTS

DIMENSIONS (mm)				REINFORCEMENT (Fy = GRADE 460)												
HEIGHT OF FILL H	TOP SLAB Tt	BOTTOM SLAB Tb	WALL Tw	S1	S1a	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12
1000	700	800	600	#20 @200	#20 @200	#16 @200	#25 @400	#25 @400	#16 @200	#16 @250	#16 @250	#20 @200	#25 @250	#12 @150	#12 @150	#16 @400 IN BOTH DIRECTION

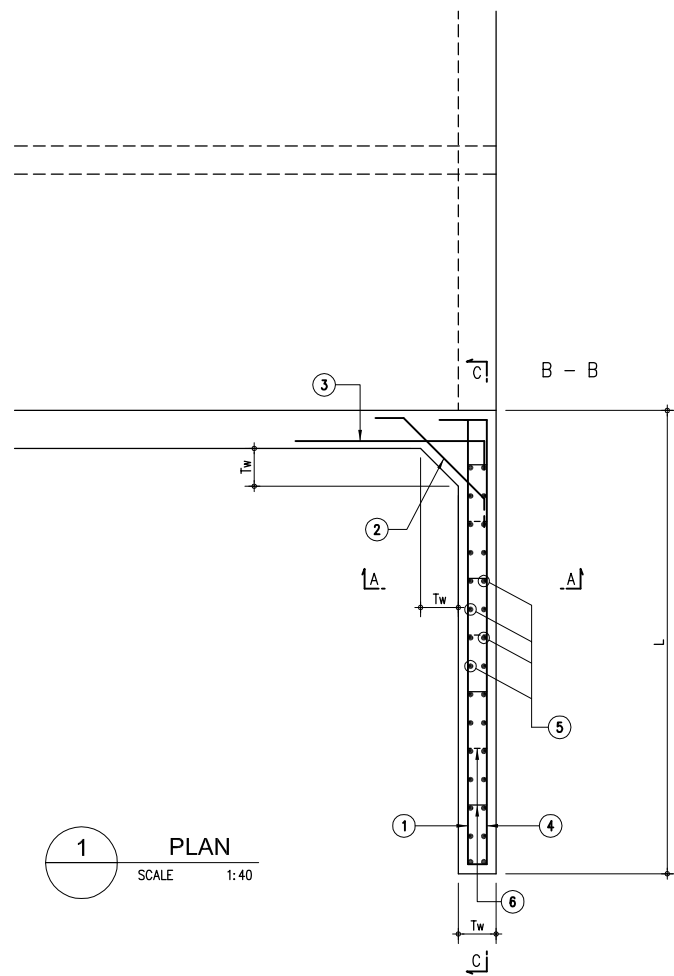


BAR BENDING	BAR MARK	BAR SHAPE	QTY.	SIZE	DIMENSIONS			LENGTH PER BAR (mm)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)	
					a	b	c					
	S1	A	117	D32	7800	266	-	8332	891.52	6.314	6,155.17	
	S2	B	60	D32	7832	-	-	7832	430.76	6.314	2,967.07	
	S3	C	27	D20	12000	6245	-	18245	492.62	2.466	1,214.79	
	S4	D	53	D20	12000	6245	208	18661	989.03	2.466	2,438.96	
	S5	E	22	D12	955	-	-	955	21.01	0.888	18.66	
	S6	F	44	D12	1370	-	-	1370	60.28	0.888	53.53	
	S7	A	168	D12	305	180	180	665	111.72	0.888	99.21	
									D32			9,122.24
									D20			3,653.75
									D12			171.40
									TOTAL			12,947.39
SGP	50A	-	-	-	-	-	-	-	-	-	GAS PIPE	
PL	G	-	-	-	-	-	-	-	-	-	CAP	
CONCRETE												
FORM												
BEARING (T=30mm)												
JOINT FILLER (T=20mm)												
JOINT FILLER (T=30mm)												

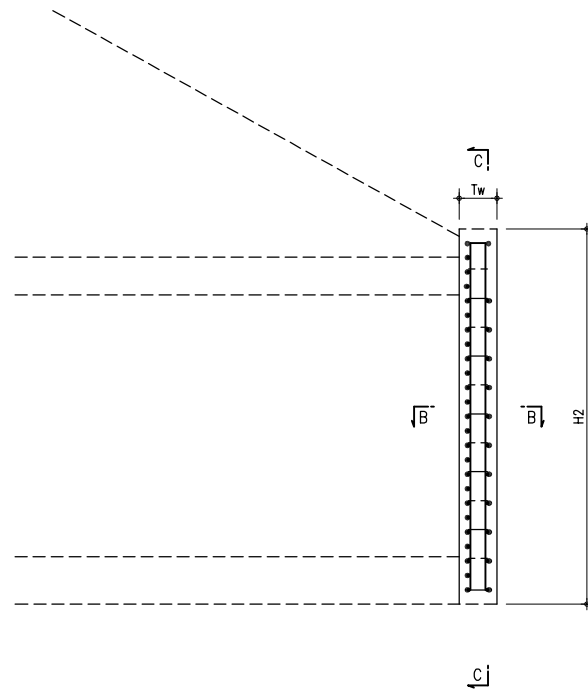
1 REINFORCEMENT OF APPROACH SLAB
SCALE 1:50

2 TYPICAL SECTION
SCALE 1:10

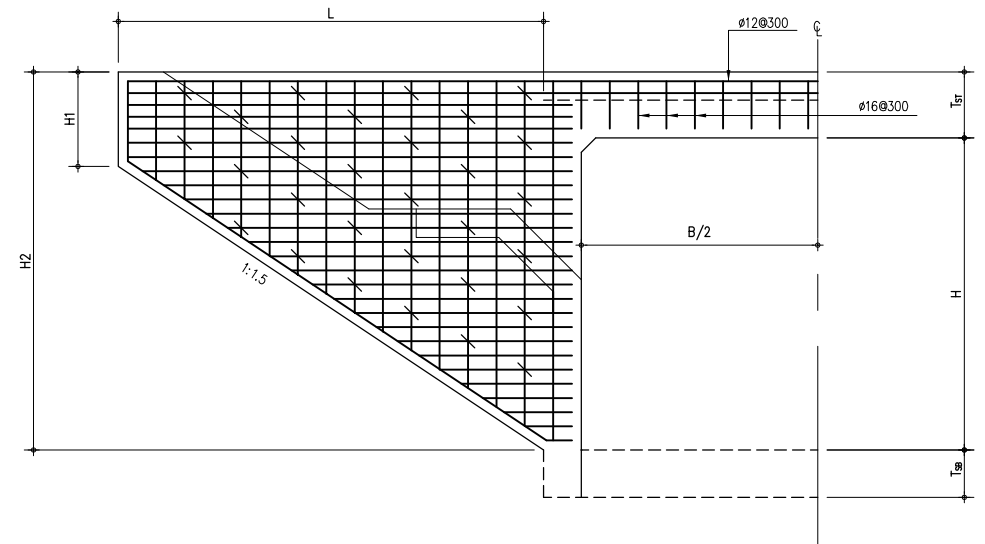
NOTE: QUANTITIES ARE FOR (1) ONE APPROACH ONLY.



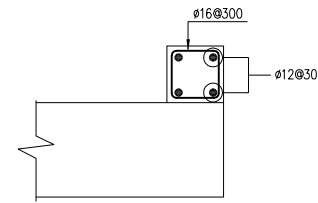
1 PLAN
SCALE 1:40



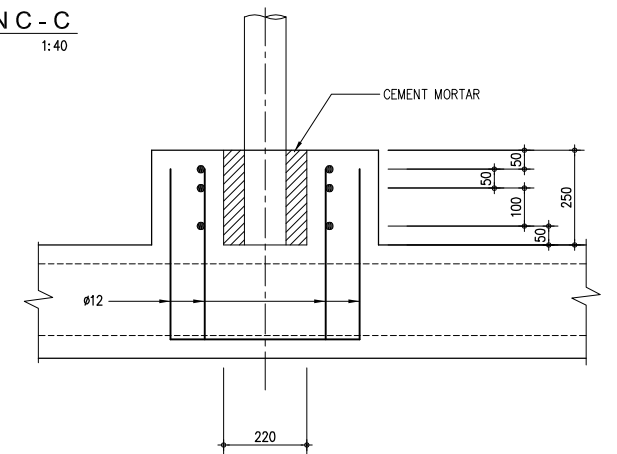
2 SECTION A - A
SCALE 1:40



3 SECTION C - C
SCALE 1:40

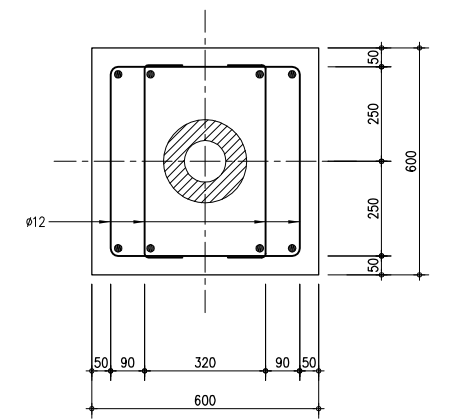


4 DETAIL OF TOP WALL
SCALE 1:20

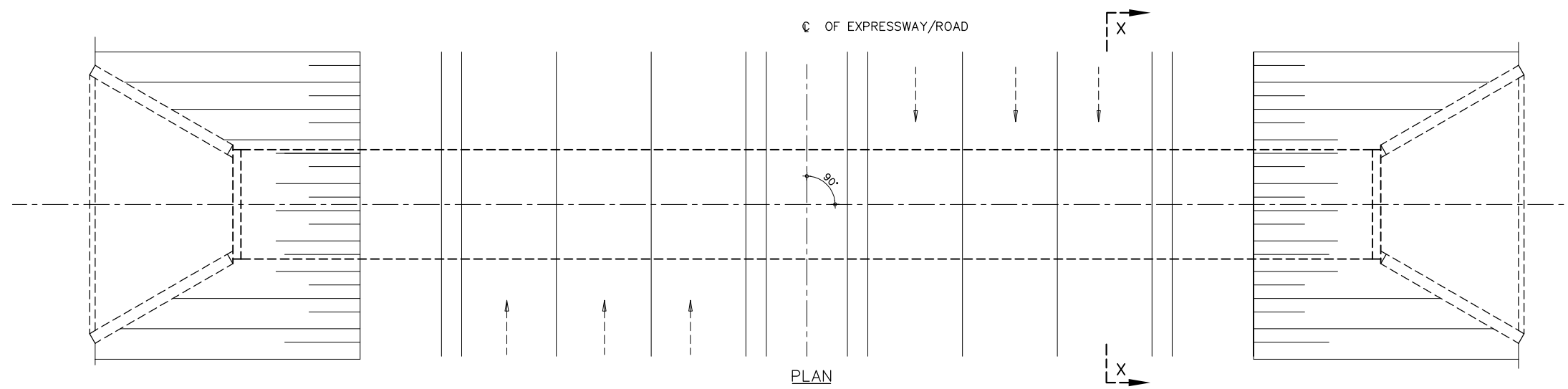


B SECTION
SCALE 1:10

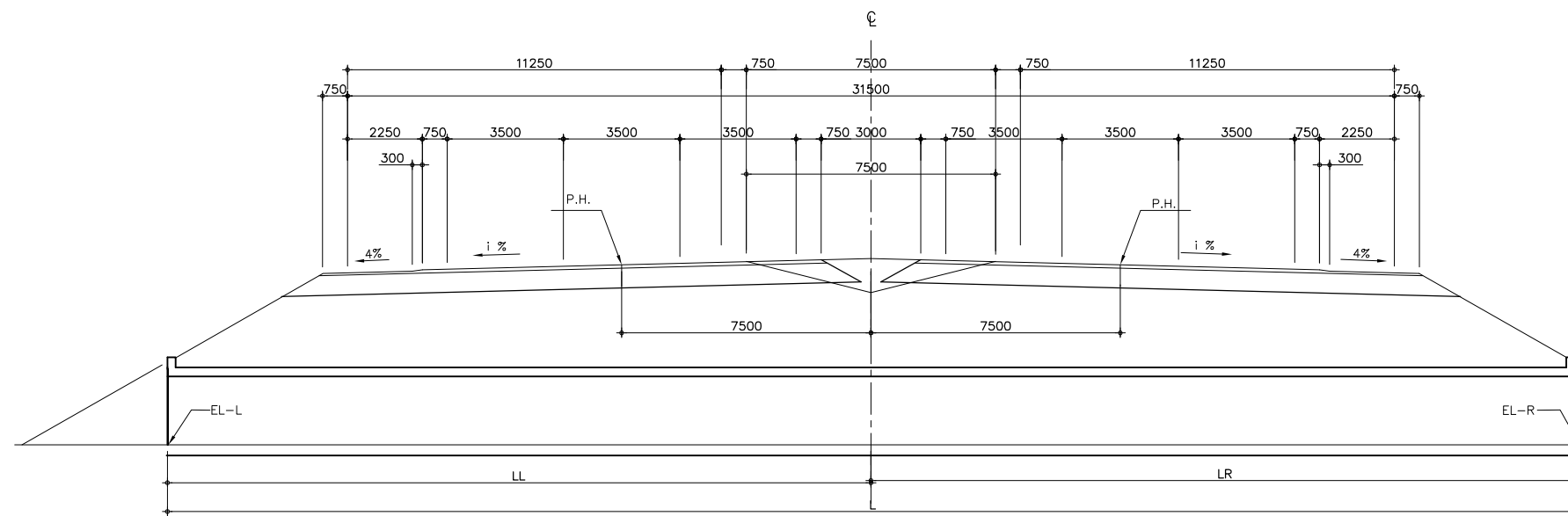
STATION	L,R or Both	NR of Cells	CULVERT DIMENSIONS (m)						Detail Cover(m)	Design Cover High(m)	Side ditch depth (m)	WINGWALL DIMENSIONS (m)				STEEL BAR SCHEDULE						
			B (m)	H (m)	Top slab Thickness (m)(T _{ST})	Bottom slab Thickness (m)(T _{SB})	Sidewall Thickness (m)(T _S)	Hunch (m)				L (m)	H1 (m)	H2 (m)	tw (m)	① main bar(inside)	② hunch	③ box main	④ main bar(outside)	⑤ distribution bar	⑥ shear bar	
MAIN LINE																						
10+917	underpass	Both	1	7.400	5.250	0.700	0.800	0.700	0	0.697	1.00	0	8.00	1.00	5.95	0.500	Ø25@150	Ø25@150	Ø16@300	Ø16@300	Ø16@300	Ø12@600
13+327	underpass	Both	1	7.400	5.250	0.700	0.800	0.700	0	1.642	2.00	0	8.00	1.00	5.95	0.500	Ø25@150	Ø25@150	Ø16@300	Ø16@300	Ø16@300	Ø12@600
14+619	underpass	Both	1	7.400	5.250	0.700	0.800	0.700	0	1.152	1.50	0	8.00	1.00	5.95	0.500	Ø25@150	Ø25@150	Ø16@300	Ø16@300	Ø16@300	Ø12@600
15+840	underpass	Both	1	6.800	4.950	0.900	0.900	0.700	0	2.251	2.50	0	8.00	1.00	5.85	0.500	Ø25@150	Ø25@150	Ø16@300	Ø16@300	Ø16@300	Ø12@600
A1Ramp1																						
0+136.297	underpass	Both	1	10.900	5.600	0.900	0.900	0.700	0	0.963	1.00	0	8.00	1.00	6.5	0.500	Ø25@150	Ø25@150	Ø16@300	Ø16@300	Ø16@300	Ø12@600
A1BP																						
0+285	underpass	Both	1	7.400	5.250	0.700	0.800	0.700	0	1.327	1.50	0	8.00	1.00	5.95	0.500	Ø25@150	Ø25@150	Ø16@300	Ø16@300	Ø16@300	Ø12@600
1+293	underpass	Both	1	7.400	5.250	0.700	0.800	0.600	0	0.635	1.00	0	8.00	1.00	5.95	0.500	Ø25@150	Ø25@150	Ø16@300	Ø16@300	Ø16@300	Ø12@600



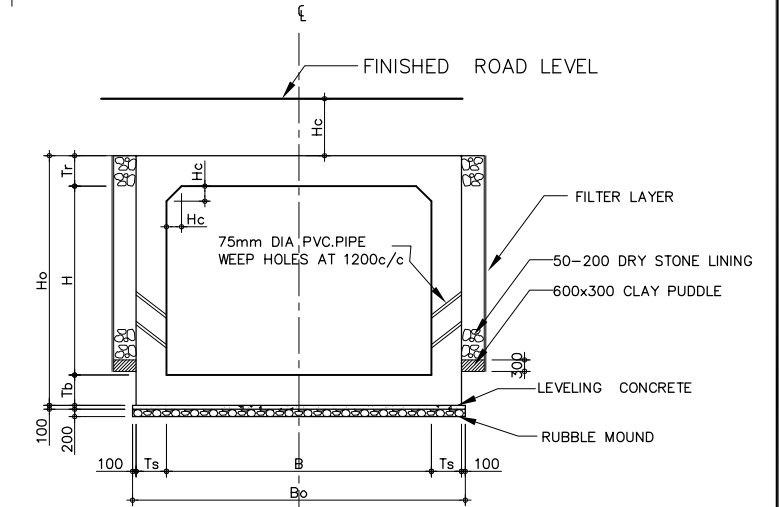
A PLAN
SCALE 1:10



PLAN
SCALE :- 1:100



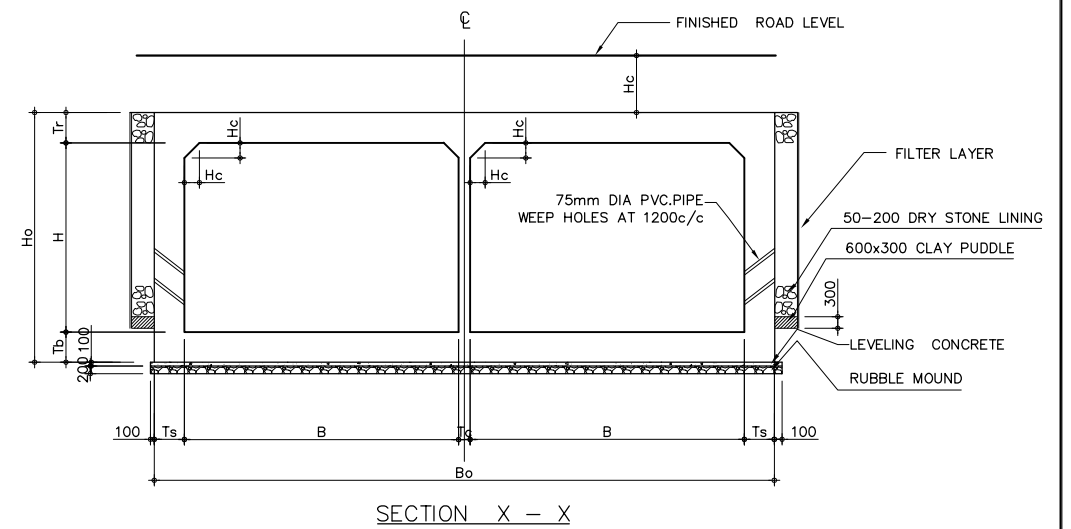
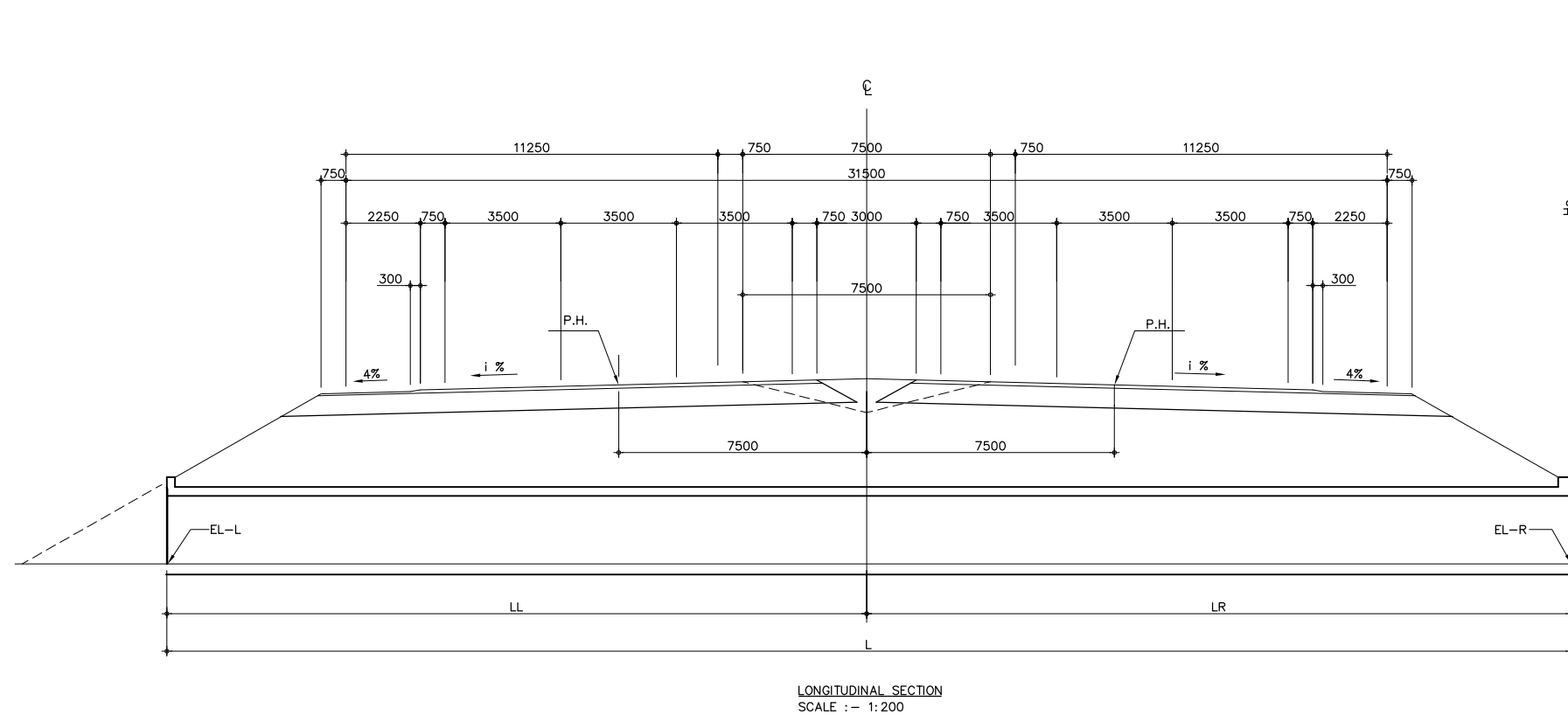
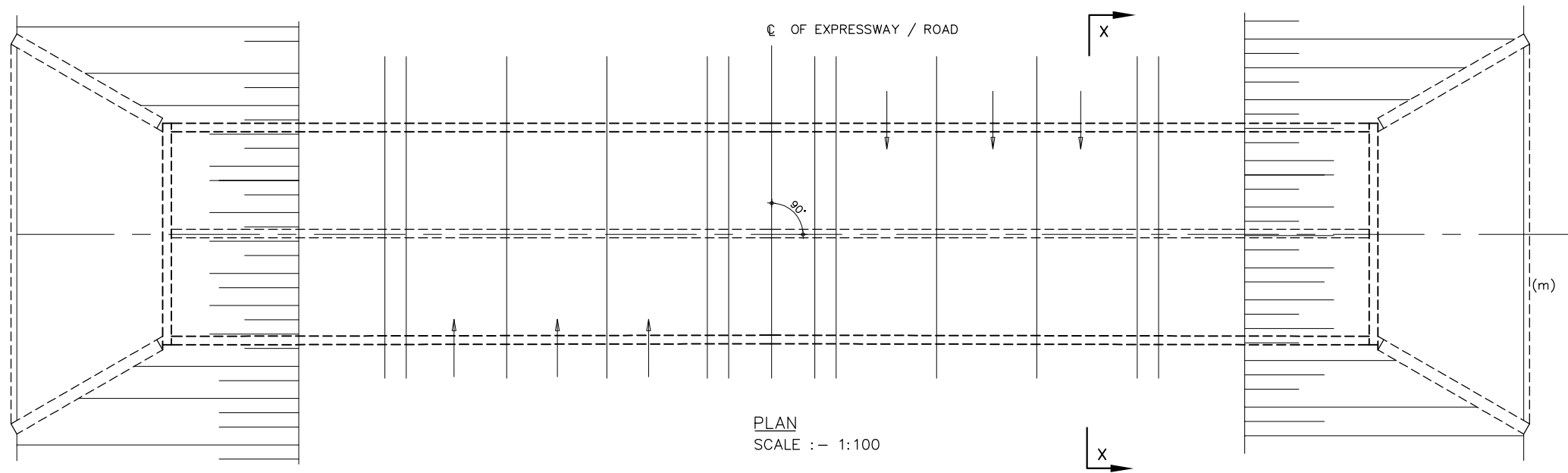
LONGITUDINAL SECTION
SCALE :- 1:100



SECTION X - X
SCALE :- 1:100

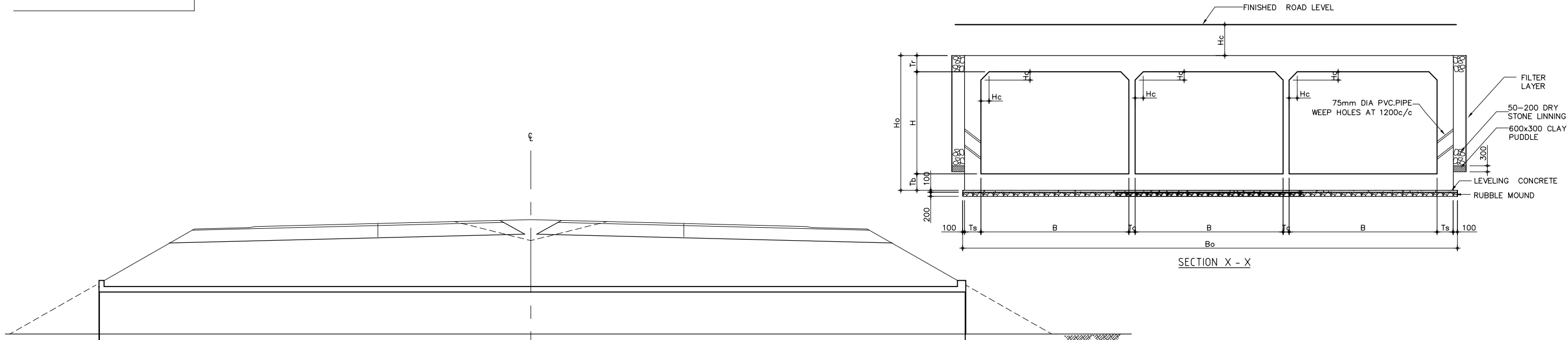
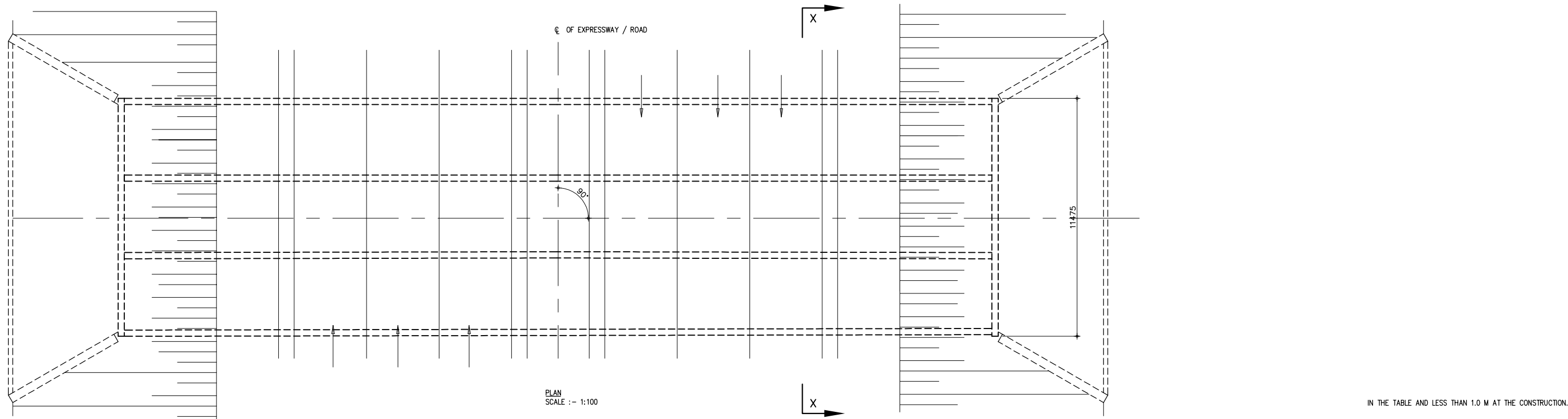
- NOTE: 1. SETTING ELEVATION SHALL BE CHECKED AND CONFIRMED AT SITE PRIOR THE CONSTRUCTION.
2. INDICATED DIMENSIONS IN LONGITUDINAL SECTION ARE FOR MAIN LINE ONLY.
3. APPROACH SLAB SHALL BE NEEDED WHEN THE COVER DEPTH OF BOX CULVERT IS LESS THAN 1.10 M IN THE TABLE AND LESS THAN 1.0 M AT THE CONSTRUCTION.

Location	Station	Section (m)										Skew Angle (degree)	Length (m)			Cover Depth (m)	Setting Elevation (m)		
		Inner Width	Inner Height	Top Slab Thickness	Bottom Slab Thickness	Side Wall Thickness	Inside Wall Thickness	Haunch	Total Width	Total Height	Left Length		Right Length	Total Length	Elevation (Left)		Elevation (Right)		
		B	H	Tr	Tb	Ts	Tc	Hc	Bo	Ho	LL		LR	L	EL-L		EL-R		
Drainage	Main Line	9+340.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	90-00-00	19.000	21.800	40.800	3.040	11.439	9.276	
		10+530.000	3.25	2.00	0.60	0.70	0.50	0.00	0.15	4.25	3.30	90-00-00	25.500	25.900	51.400	6.001	8.559	8.141	
		10+690.000	3.25	2.00	0.60	0.70	0.50	0.00	0.15	4.25	3.30	75-00-00	29.100	29.300	58.400	7.385	8.630	8.445	
		11+740.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	90-00-00	23.300	23.100	46.400	4.585	9.820	9.980	
		11+935.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	90-00-00	20.900	17.000	37.900	2.232	8.204	10.509	
		12+735.000	3.25	3.00	0.40	0.50	0.30	0.00	0.15	3.85	3.90	90-00-00	17.000	16.700	33.700	1.098	6.083	6.267	
		13+550.000	3.25	2.00	0.60	0.70	0.50	0.00	0.15	4.25	3.30	90-00-00	29.400	29.400	58.800	8.044	8.825	9.905	
		14+340.000	3.25	2.00	0.60	0.70	0.50	0.00	0.15	4.25	3.30	90-00-00	28.000	27.300	55.300	6.923	1.198	1.402	
	15+585.000	3.25	2.00	0.60	0.70	0.50	0.00	0.15	4.25	3.30	90-00-00	26.800	28.000	54.800	6.957	2.402	1.223		
	A1 Bypass	0+675.000	3.25	3.00	0.40	0.50	0.30	0.00	0.15	3.85	3.90	90-00-00	13.800	18.900	32.700	1.433	6.333	6.187	
		0+990.000	3.25	3.00	0.40	0.50	0.30	0.00	0.15	3.85	3.90	90-00-00	14.700	21.800	36.500	1.948	6.665	6.485	
		1+312.000	3.25	3.00	0.50	0.60	0.40	0.00	0.15	4.05	4.10	90-00-00	21.700	25.700	47.400	5.775	7.694	7.664	
		Ap Rd 8+808	0+252.000	2.00	1.50	0.30	0.35	0.30	0.00	0.15	2.60	2.15	90-00-00	5.800	6.400	12.200	0.582	6.794	6.806
		Ap Rd 13+327	0+040.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	90-00-00	5.000	5.000	10.000	1.037	1.020	1.020
		Ap Rd 0+102 A1 BP	0+230.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	33-00-00	10.900	11.500	22.400	0.658	8.943	8.741
Ap Rd 0+285L A1 BP		0+107.000	2.00	1.50	0.30	0.35	0.30	0.00	0.15	2.60	2.15	90-00-00	3.000	3.000	6.000	0.600	9.865	9.835	
Irrigation	Main Line	0+208.000	2.00	1.50	0.30	0.35	0.30	0.00	0.15	2.60	2.15	90-00-00	3.000	3.000	6.000	0.575	7.240	7.210	
		Ap Rd 1+294 A1 BP	0-025.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	90-00-00	4.600	4.500	9.100	0.650	6.632	6.668
		Fr Rd Ramp-2	0+280.000	2.00	1.50	0.30	0.35	0.30	0.00	0.15	2.60	2.15	60-00-00	4.700	4.700	9.400	0.669	7.100	7.100
		Fr Rd Ramp-6	0+515.000	2.00	1.50	0.30	0.35	0.30	0.00	0.15	2.60	2.15	58-00-00	5.300	5.300	10.600	0.804	7.000	7.000
		9+726.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	53-00-00	26.100	25.600	51.700	3.193	7.009	7.288	
	A1 Bypass	9+876.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	69-00-00	18.500	22.800	41.300	2.416	9.913	6.925	
		10+497.500	3.25	2.00	0.60	0.70	0.50	0.00	0.15	4.25	3.30	60-00-00	27.900	29.800	57.700	5.596	9.574	8.101	
		12+250.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	56-00-00	21.700	20.400	42.100	1.425	5.959	6.629	
		12+395.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	84-00-00	18.800	16.900	35.700	1.599	5.110	6.220	
		0+500.500	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	78-00-00	18.700	19.800	38.500	3.887	7.071	7.031	
1+634.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	86-00-00	20.100	20.000	40.100	4.183	8.797	8.837			
1+665.000	3.25	2.00	0.50	0.60	0.40	0.00	0.15	4.05	3.10	77-00-00	23.400	24.800	48.200	4.547	8.845	8.895			



- NOTE:**
- SETTING ELEVATION SHALL BE CHECKED AND CONFIRMED AT SITE PRIOR THE CONSTRUCTION.
 - INDICATED DIMENSIONS IN LONGITUDINAL SECTION ARE FOR MAIN LINE ONLY.
 - APPROACH SLAB SHALL BE NEEDED WHEN THE COVER DEPTH OF BOX CULVERT IS LESS THAN 1.10 M IN THE TABLE AND LESS THAN 1.0 M AT THE CONSTRUCTION.

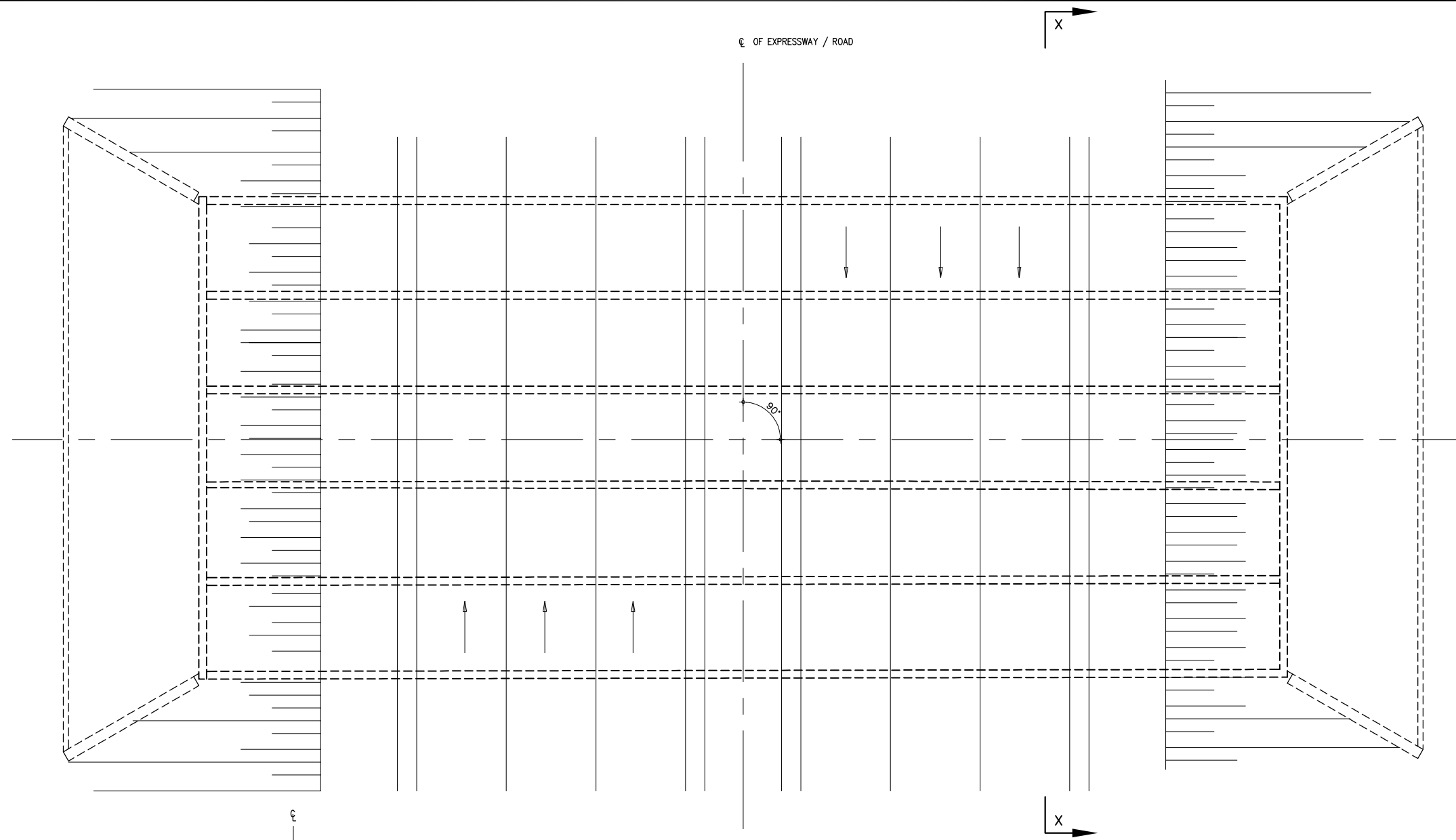
LOCATION	Station	Section (m)										Skew Angle (degree)	Length (m)			Cover Depth (m)	Setting Elevation(m)	
		Inner Width	Inner Height	Top Slab Thickness	Bottom Slab Thickness	Side Wall Thickness	Inside Wall Thickness	Haunch	Total Width	Total Height	Left Length		Right Length	Total Length	Total Length		Total Length	
		B	H	Tr	Tb	Ts	Tc	Hc	Bo	Ho	LL		LR	L	Hc		EL-L	EL-R
Drainage	Main Line	9+760.000	3.25	3.00	0.40	0.50	0.40	0.30	0.15	7.60	3.90	70-00-00	22.000	22.200	44.200	3.238	6.202	6.048
		12+350.000	3.25	3.00	0.40	0.50	0.40	0.30	0.15	7.60	3.90	90-00-00	18.100	17.400	35.500	1.567	4.640	5.035
		13+210.000	3.25	3.00	0.60	0.70	0.40	0.30	0.15	7.60	4.30	90-00-00	28.200	28.200	56.400	7.390	1.143	1.102
	AP Rd 13+327	0-040.000	3.25	2.00	0.40	0.50	0.40	0.30	0.15	7.60	2.90	90-00-00	5.700	5.700	11.400	1.422	0.935	0.935



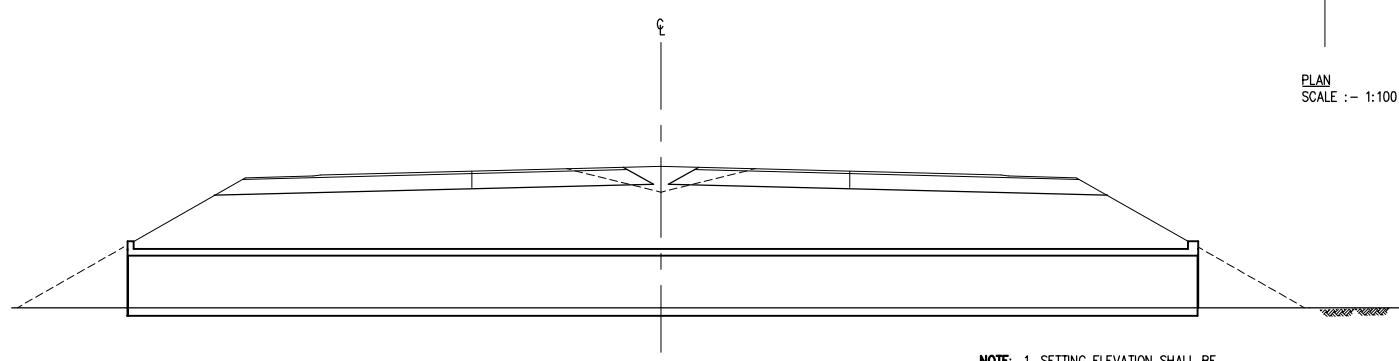
LONGITUDINAL SECTION
SCALE :- 1:200

- NOTE:**
- SETTING ELEVATION SHALL BE CHECKED AND CONFIRMED AT SITE PRIOR THE CONSTRUCTION.
 - INDICATED DIMENSIONS IN LONGITUDINAL SECTION ARE FOR MAIN LINE ONLY.
 - APPROACH SLAB SHALL BE NEEDED WHEN THE COVER DEPTH OF BOX CULVERT IS LESS THAN 1.10 M IN THE TABLE AND LESS THAN 1.0 M AT THE CONSTRUCTION.

LOCATION	Station	Section (m)										Skew Angle (degree)	Length (m)			Cover Depth (m)	Setting Elevation(m)	
		Inner Width	Inner Height	Top Slab Thickness	Bottom Slab Thickness	Side Wall Thickness	Inside Wall Thickness	Haunch	Total Width	Total Height	Left Length		Right Length	Total Length	Total Length		Total Length	
		B	H	Tr	Tb	Ts	Tc	Hc	Bo	Ho	LL		LR	L	Hc		EL-L	EL-R
Drainage	A1 IC RAMP-4	0+025.000	3.25	3.00	0.40	0.50	0.40	0.30	0.15	11.15	3.90	90-00-00	15.700	19.800	35.500	1.463	6.475	6.435
	A1 BYPASS	0+575.000	3.25	2.00	0.40	0.50	0.40	0.30	0.15	11.15	2.90	90-00-00	17.700	22.700	40.400	3.590	6.283	6.261
	Ap Rd 1+294 A1 BP	0+030.000	3.25	2.00	0.40	0.50	0.40	0.30	0.15	11.15	2.90	90-00-00	4.400	4.400	8.800	0.560	6.636	6.644

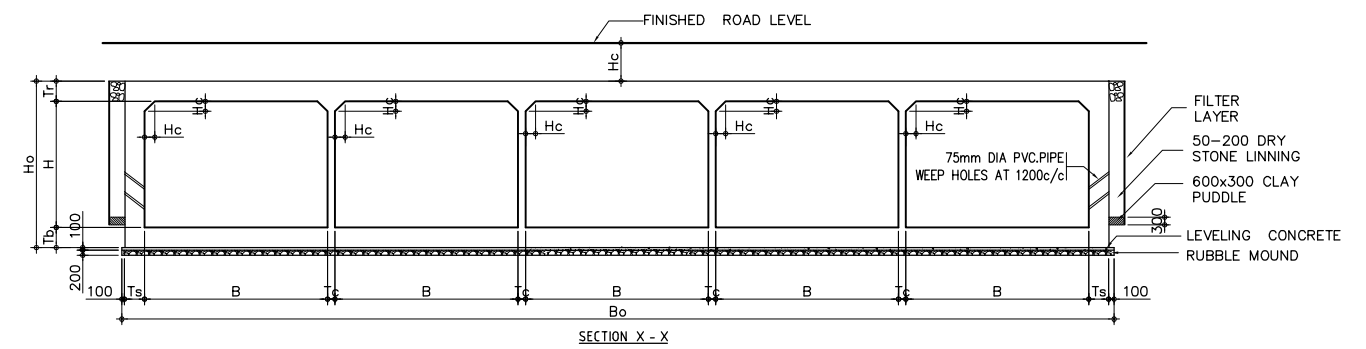


PLAN SCALE :- 1:100



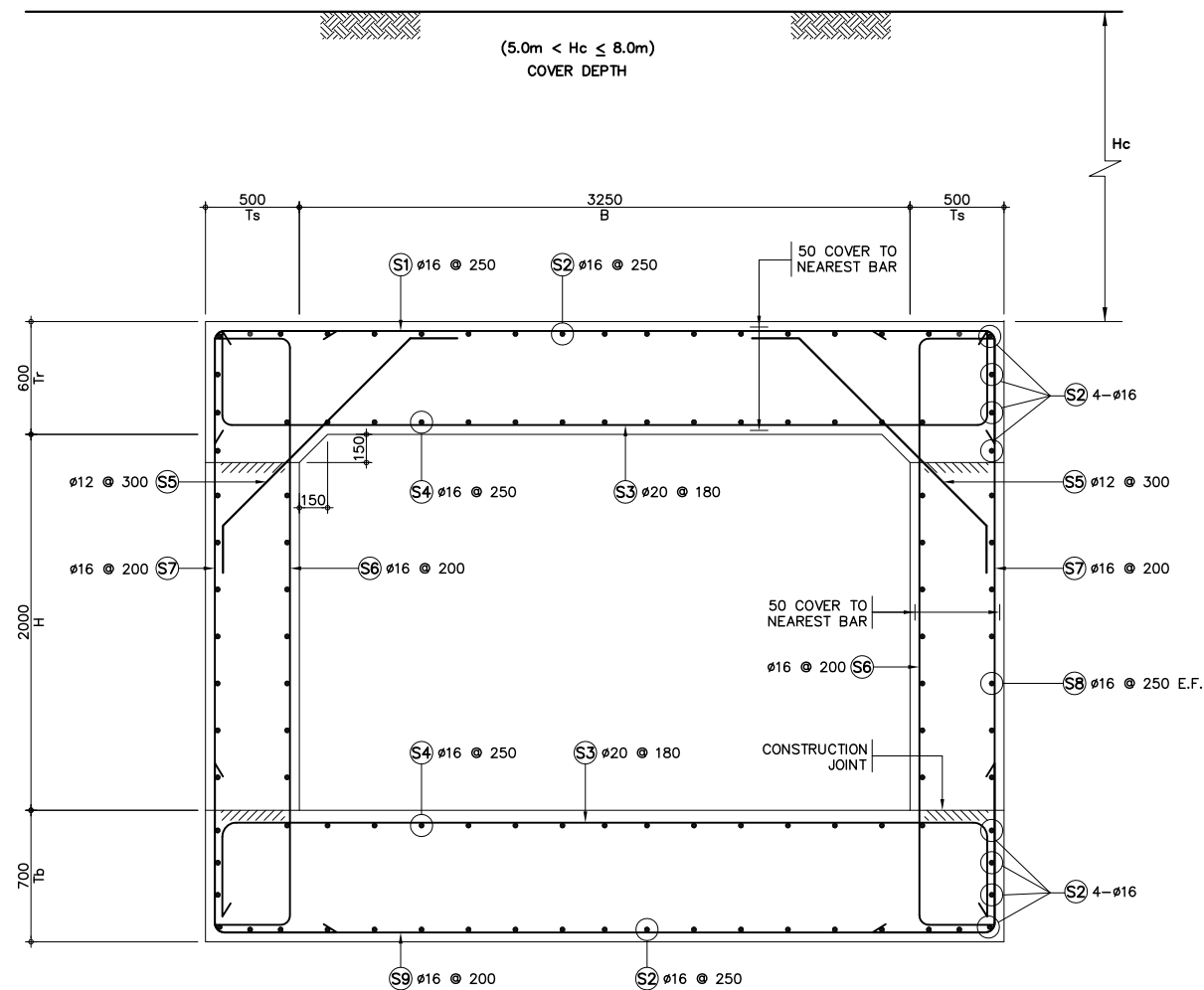
LONGITUDINAL SECTION SCALE :- 1:200

- NOTE:**
1. SETTING ELEVATION SHALL BE CHECKED AND CONFIRMED AT SITE PRIOR THE CONSTRUCTION.
 2. INDICATED DIMENSIONS IN LONGITUDINAL SECTION ARE FOR MAIN LINE ONLY.
 3. APPROACH SLAB SHALL BE NEEDED WHEN THE COVER DEPTH OF BOX CULVERT IS LESS THAN 1.10 M IN THE TABLE AND LESS THAN 1.0 M AT THE CONSTRUCTION.

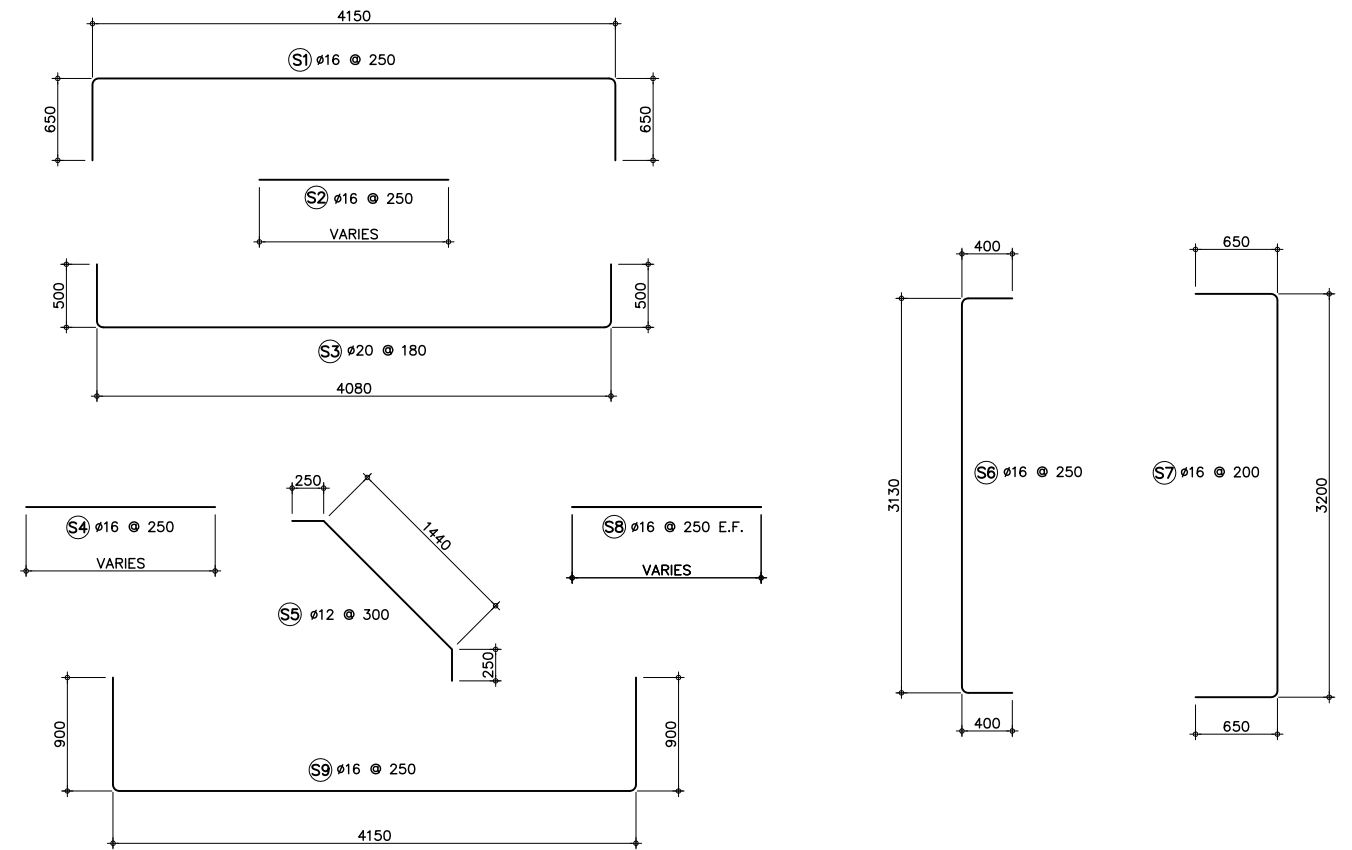


DIMENSIONS FOR FIVE CELL (5-CELL) OF DRAINAGE BOX CULVERT

LOCATION	Station	Section (m)										Skew Angle (degree)	Length (m)			Cover Depth (m)	Setting Elevation(m)	
		Inner Width	Inner Height	Top Slab Thickness	Bottom Slab Thickness	Side Wall Thickness	Inside Wall Thickness	Haunch	Total Width	Total Height	Left Length		Right Length	Total Length	Total Length		Total Length	
		B	H	Tr	Tb	Ts	Tc	Hc	Bo	Ho	LL		LR	L	EL-L		EL-R	
Drainage Ap Rd 8+805	0+055.000	3.25	3.00	0.40	0.50	0.40	0.30	0.15	18.25	3.90	90-00-00	5.800	5.700	11.500	0.532	5.057	5.103	

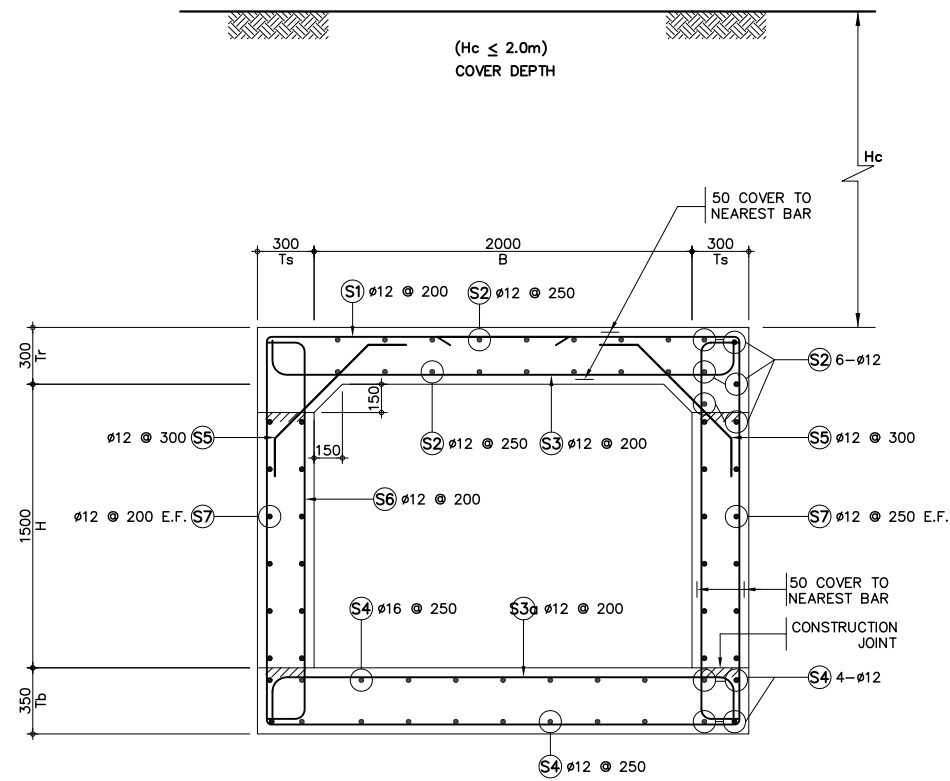


1 CROSS SECTION
SCALE 1:20

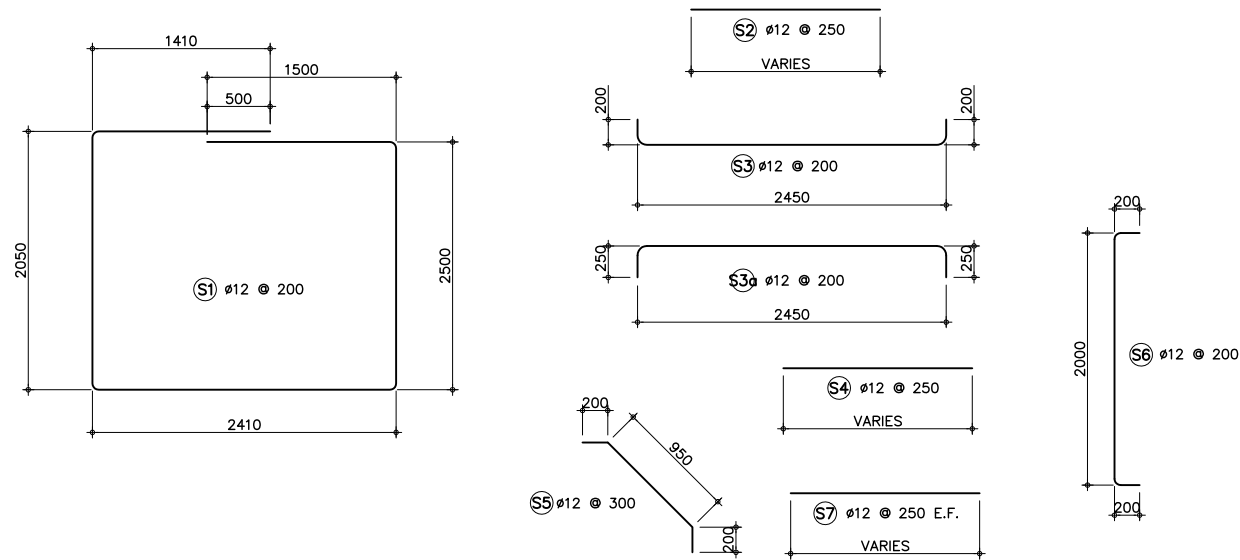


2 BAR BENDING DIAGRAM
SCALE 1:30

LOCATION		STATION	CULVERT DIMENSIONS METRE				
			B	H	Tr	Tb	Ts
DRAINAGE	MAINLINE	14+340.000	3.25	2.00	0.60	0.70	0.50
		10+530.000	3.25	2.00	0.60	0.70	0.50
		10+690.000	3.25	2.00	0.60	0.70	0.50
		15+585.000	3.25	2.00	0.60	0.70	0.50
IRRIGATION	MAINLINE	10+497.500	3.25	2.00	0.60	0.70	0.50

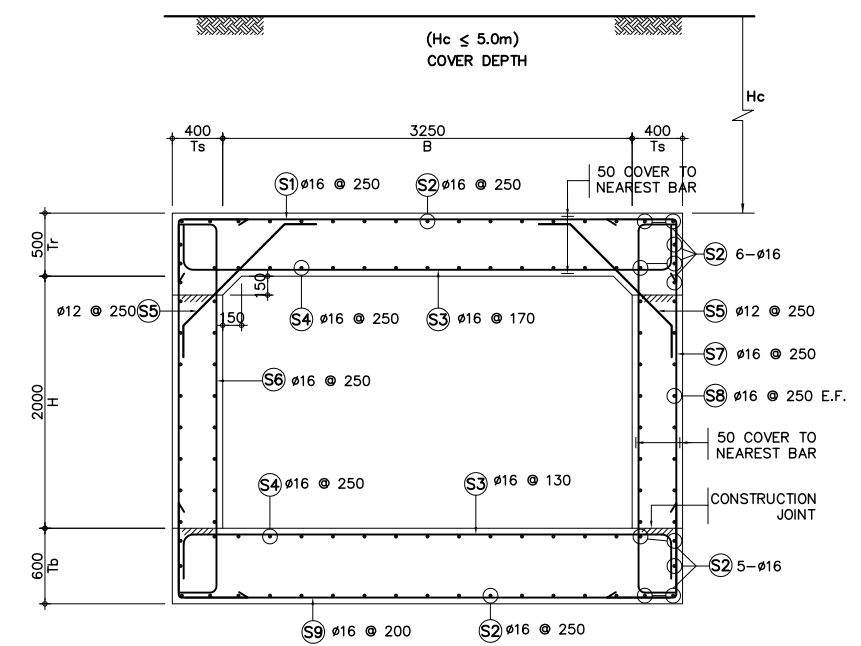


1 CROSS SECTION
SCALE 1:20

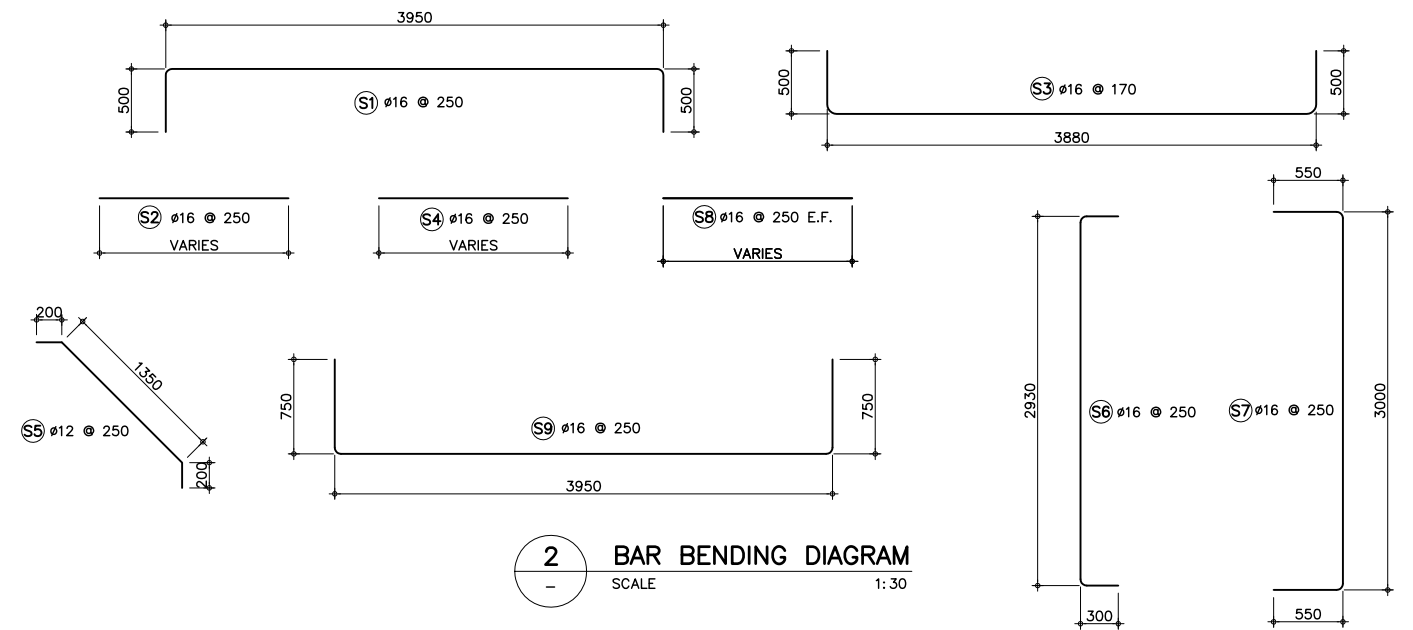


2 BAR BENDING DIAGRAM
SCALE 1:30

LOCATION	STATION	CULVERT DIMENSIONS METRE					
		B	H	Tr	Tb	Ts	
DRAINAGE	Ap Rd 8+805	0+252.000	2.00	1.50	0.30	0.35	0.30
	Ap Rd 0+285L A1 BP	0+107.000	2.00	1.50	0.30	0.35	0.30
		0+208.000	2.00	1.50	0.30	0.35	0.30
	Fr Rd Ramp-2	0+280.000	2.00	1.50	0.30	0.35	0.30
	Fr Rd Ramp-6	0+515.000	2.00	1.50	0.30	0.35	0.30

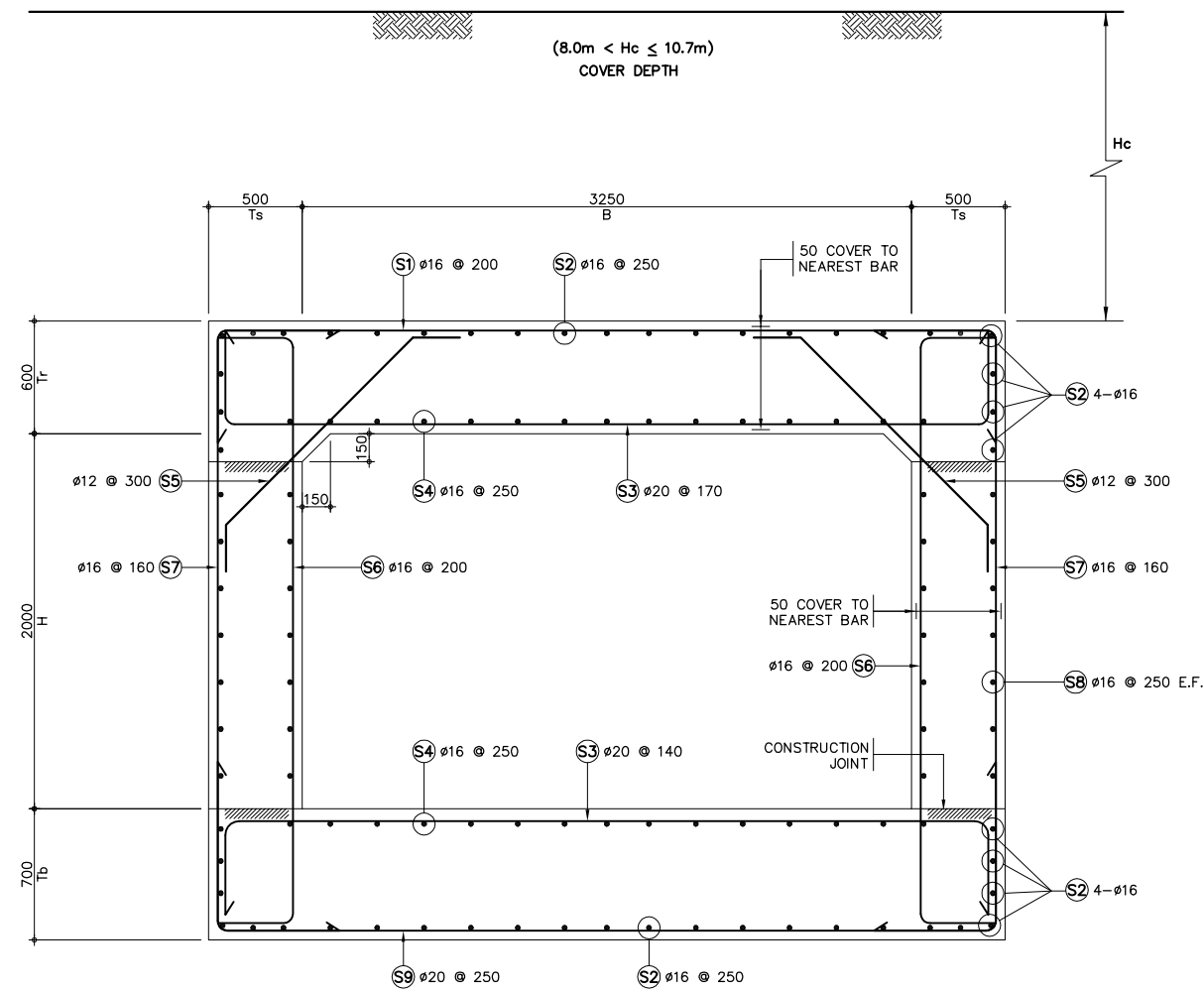


1 CROSS SECTION
SCALE 1:30

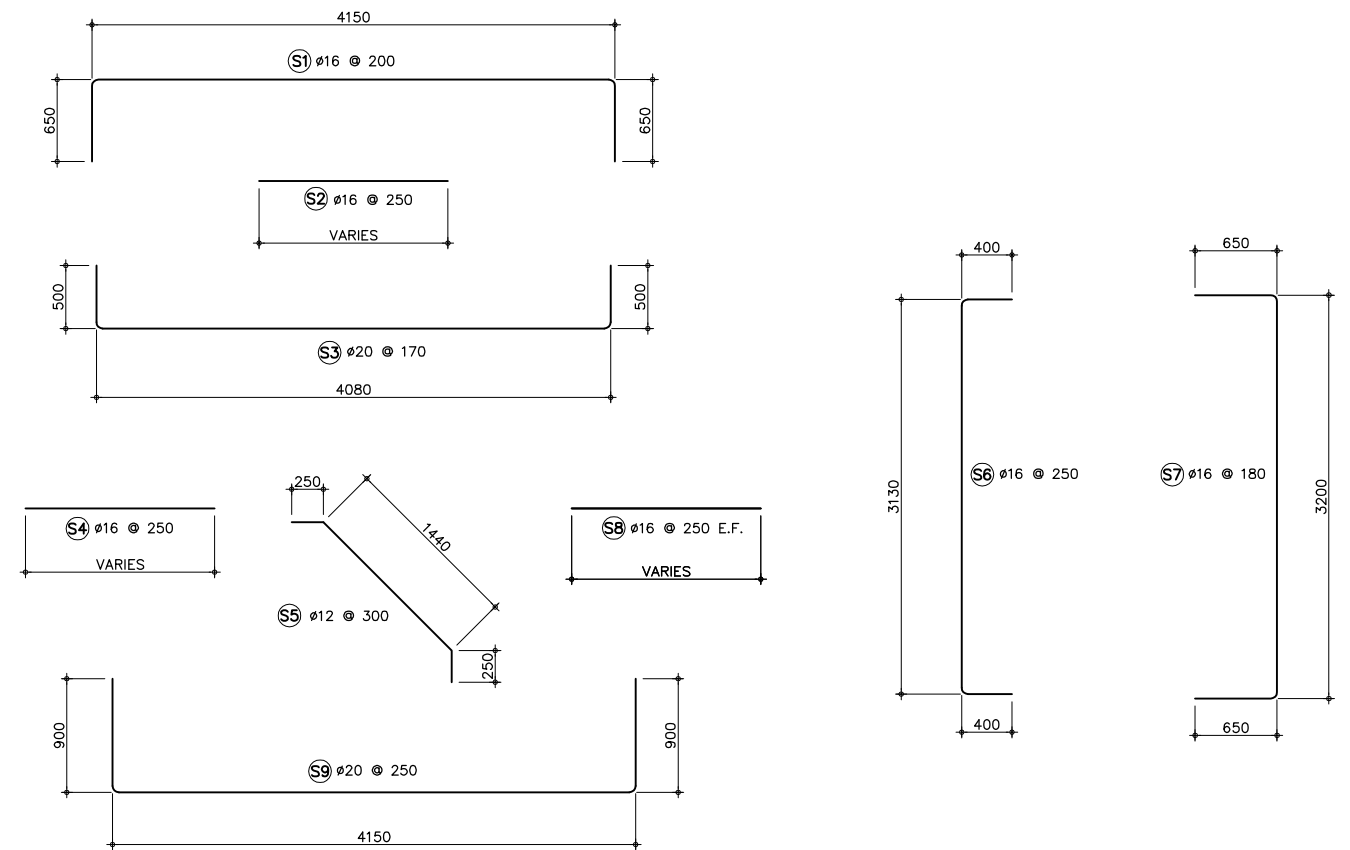


2 BAR BENDING DIAGRAM
SCALE 1:30

LOCATION	STATION	CULVERT DIMENSIONS METRE					
		B	H	Tr	Tb	Ts	
DRAINAGE	MAINLINE	9+340.000	3.25	2.00	0.50	0.60	0.40
		11+740.000	3.25	2.00	0.50	0.60	0.40
		11+935.000	3.25	2.00	0.50	0.60	0.40
	Ap Rd 13+327	0+040.000	3.25	2.00	0.50	0.60	0.40
	Ap Rd 0+102 A1 BP	0+230.000	3.25	2.00	0.50	0.60	0.40
Ap Rd 1+294 A1 BP	0-025.000	3.25	2.00	0.50	0.60	0.40	
IRRIGATION	MAINLINE	9+726.000	3.25	2.00	0.50	0.60	0.40
		9+876.000	3.25	2.00	0.50	0.60	0.40
		12+250.000	3.25	2.00	0.50	0.60	0.40
		12+395.000	3.25	2.00	0.50	0.60	0.40
	A1 BYPASS	0+500.500	3.25	2.00	0.50	0.60	0.40
1+634.000		3.25	2.00	0.50	0.60	0.40	
	1+665.000	3.25	2.00	0.50	0.60	0.40	

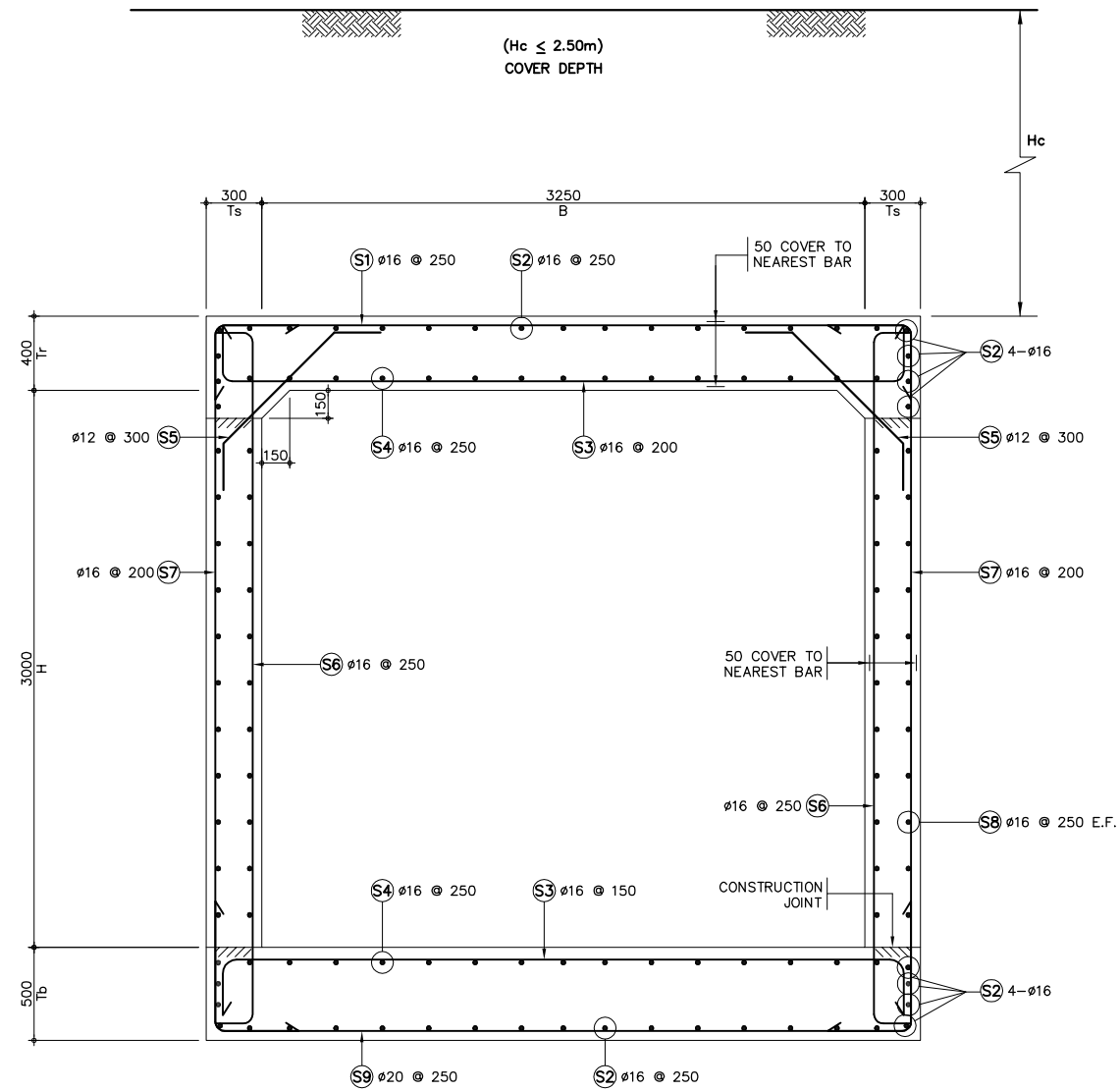


1 CROSS SECTION
SCALE 1:20

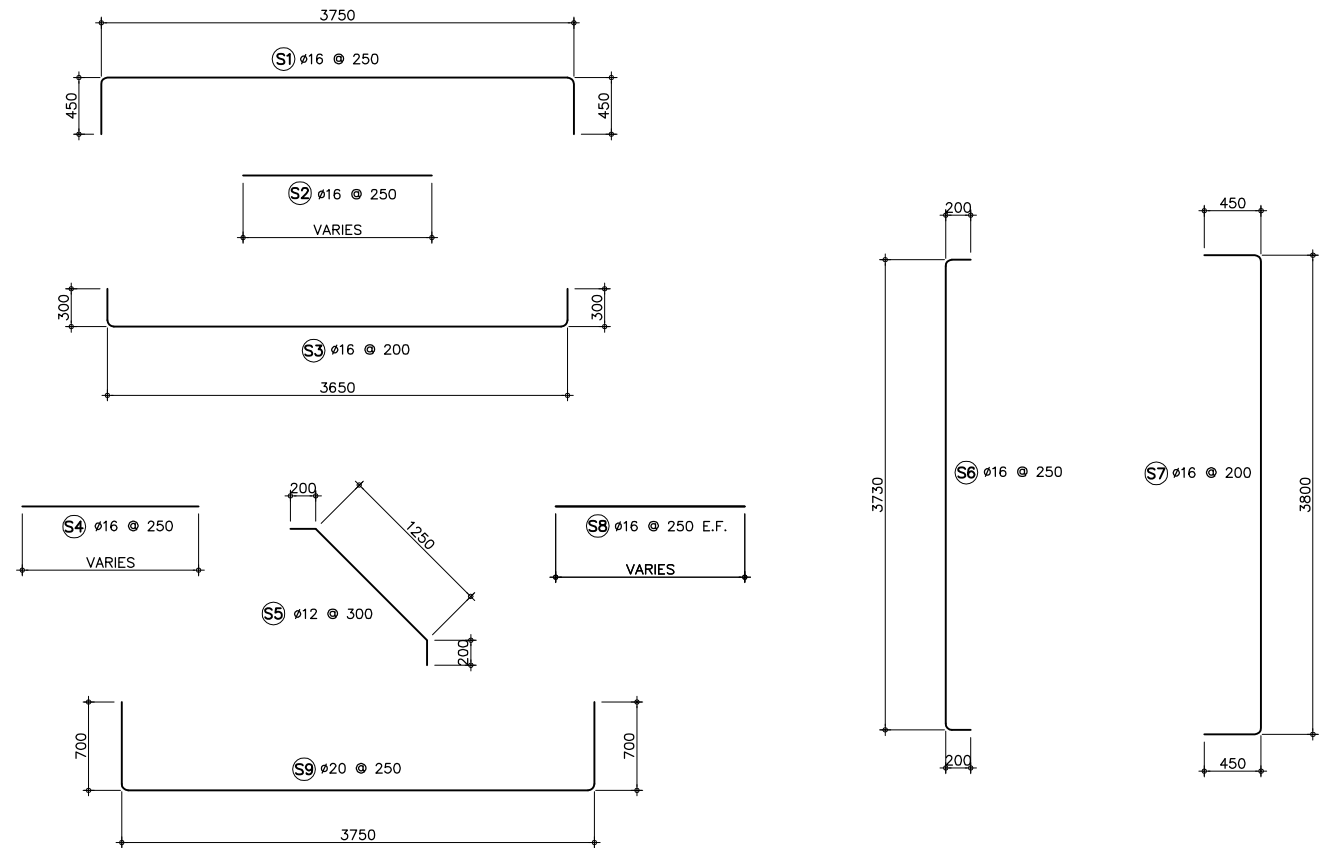


2 BAR BENDING DIAGRAM
SCALE 1:30

LOCATION	STATION	CULVERT DIMENSIONS METRE				
		B	H	Tr	Tb	Ts
DRAINAGE MAINLINE	1.3+550.000	3.25	2.00	0.60	0.70	0.50

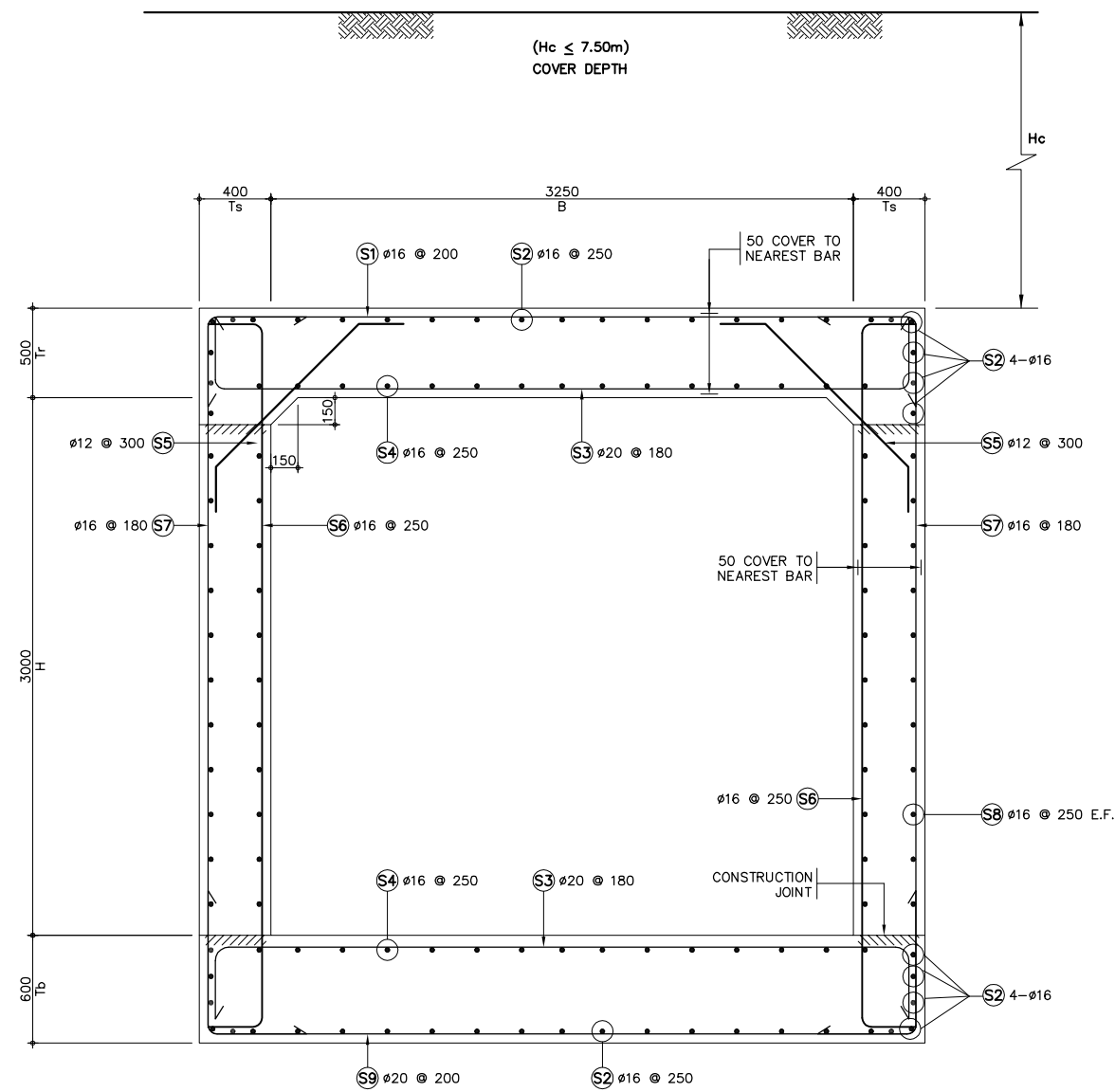


1 CROSS SECTION
SCALE 1:20

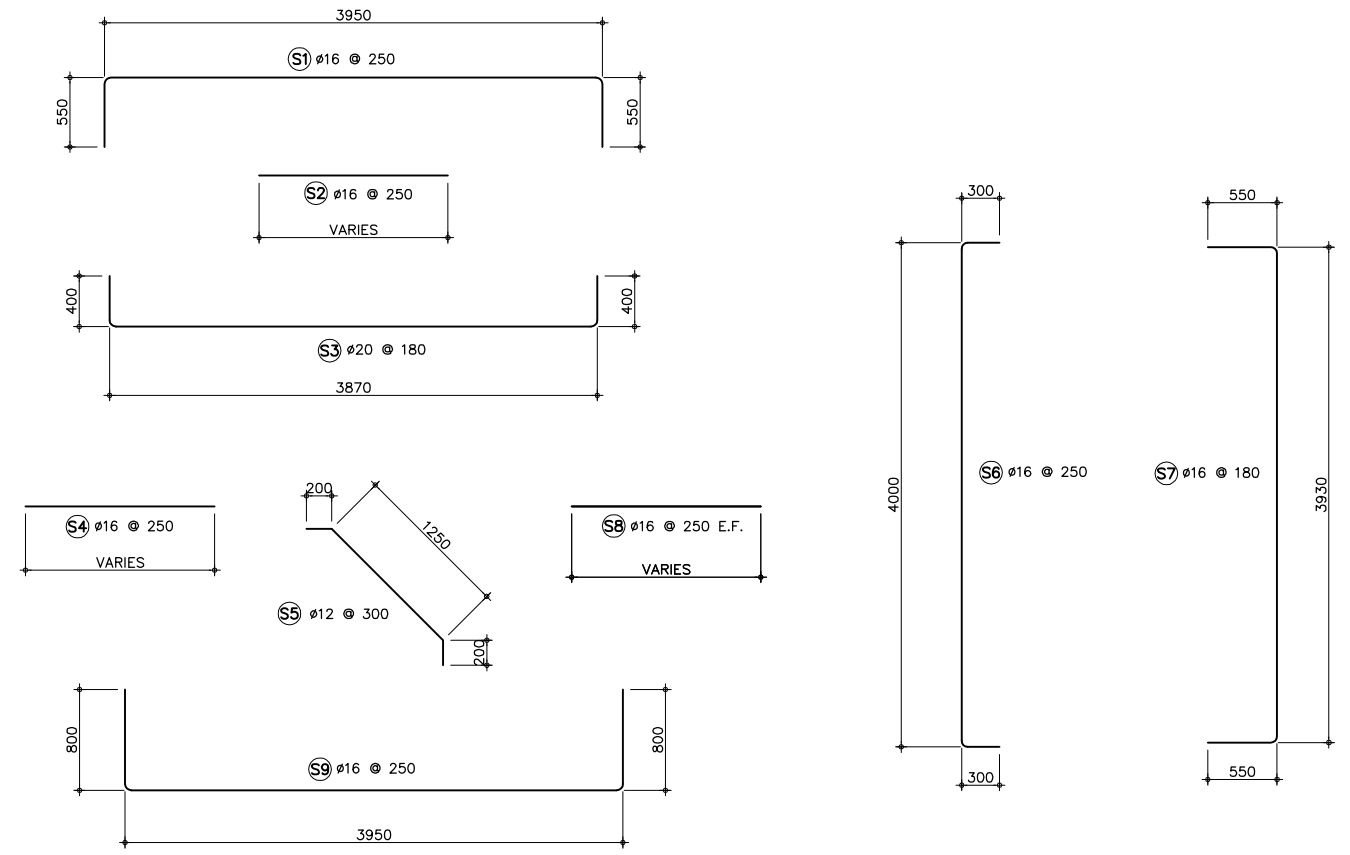


2 BAR BENDING DIAGRAM
SCALE 1:30

LOCATION	STATION	CULVERT DIMENSIONS METRE				
		B	H	Tr	Tb	Ts
DRAINAGE A1 BYPASS	0+675.000	3.25	3.00	0.40	0.50	0.30
	0+990.000	3.25	3.00	0.40	0.50	0.30
MAIN LINE	12+735.000	3.25	3.00	0.40	0.50	0.30

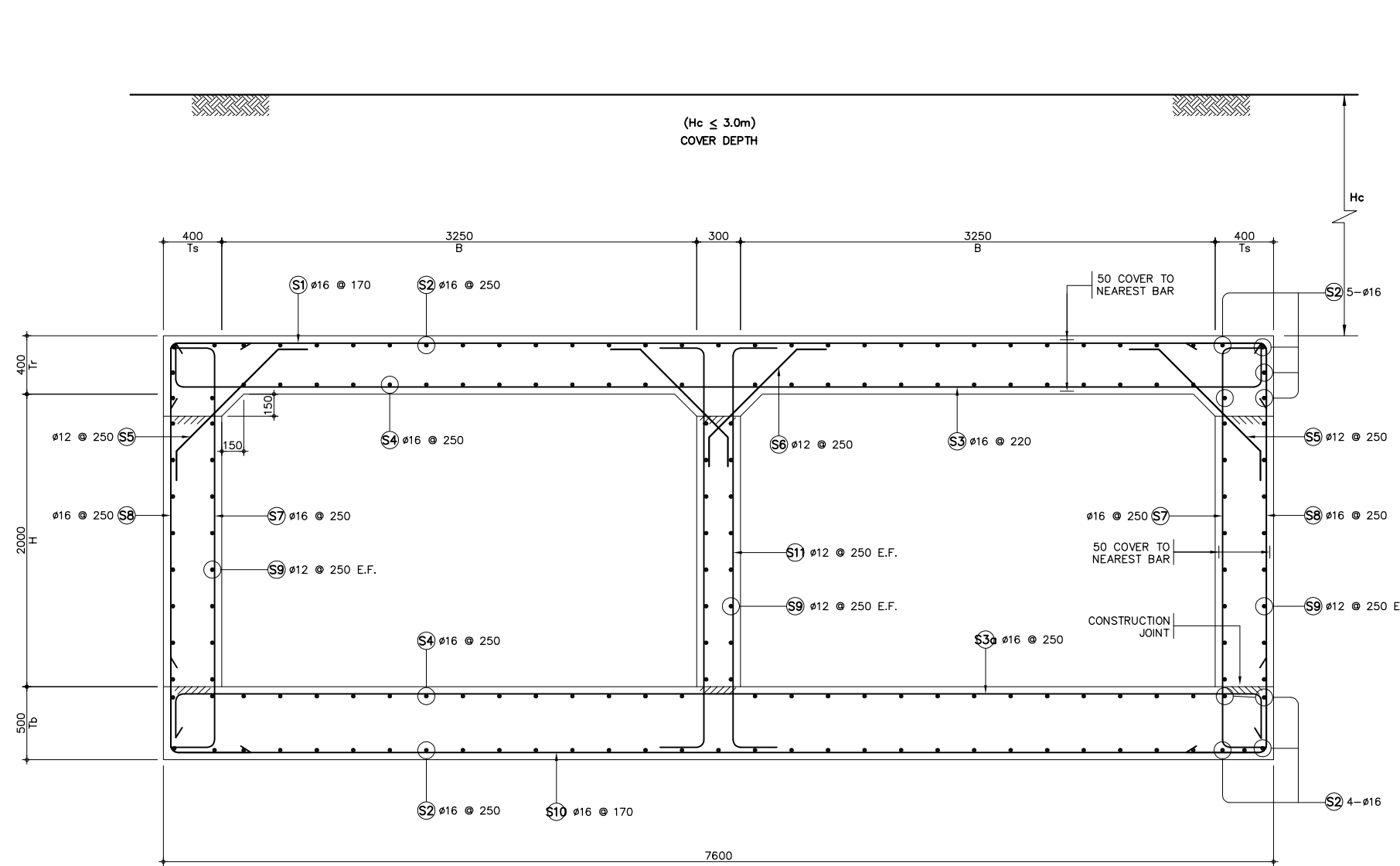


1 CROSS SECTION
SCALE 1:20



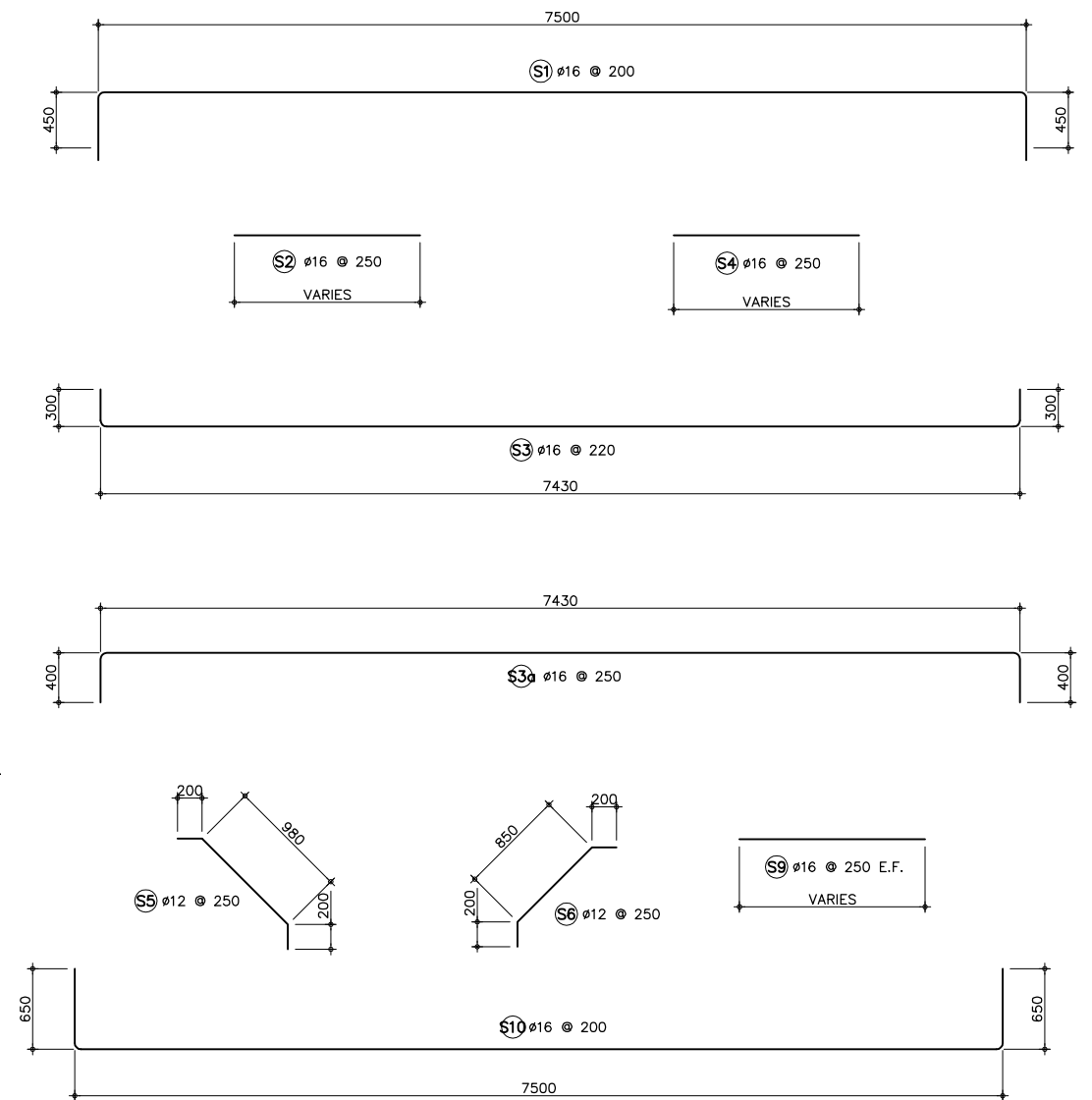
2 BAR BENDING DIAGRAM
SCALE 1:30

LOCATION	STATION	CULVERT DIMENSIONS METRE				
		B	H	Tr	Tb	Ts
DRAINAGE MAINLINE	1+312.000	3.25	3.00	0.50	0.60	0.40

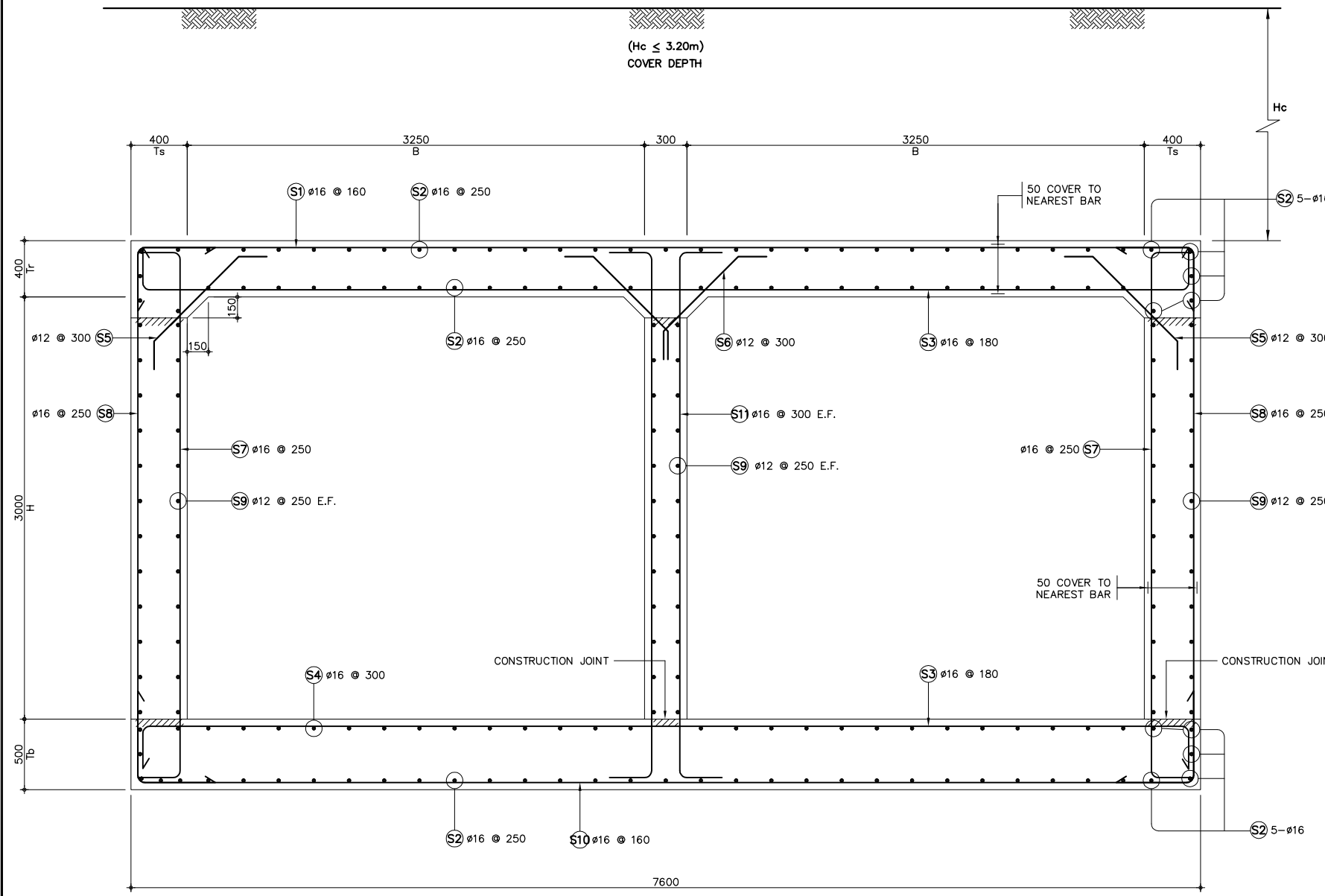


1 GENERAL CROSS SECTION
SCALE 1:20

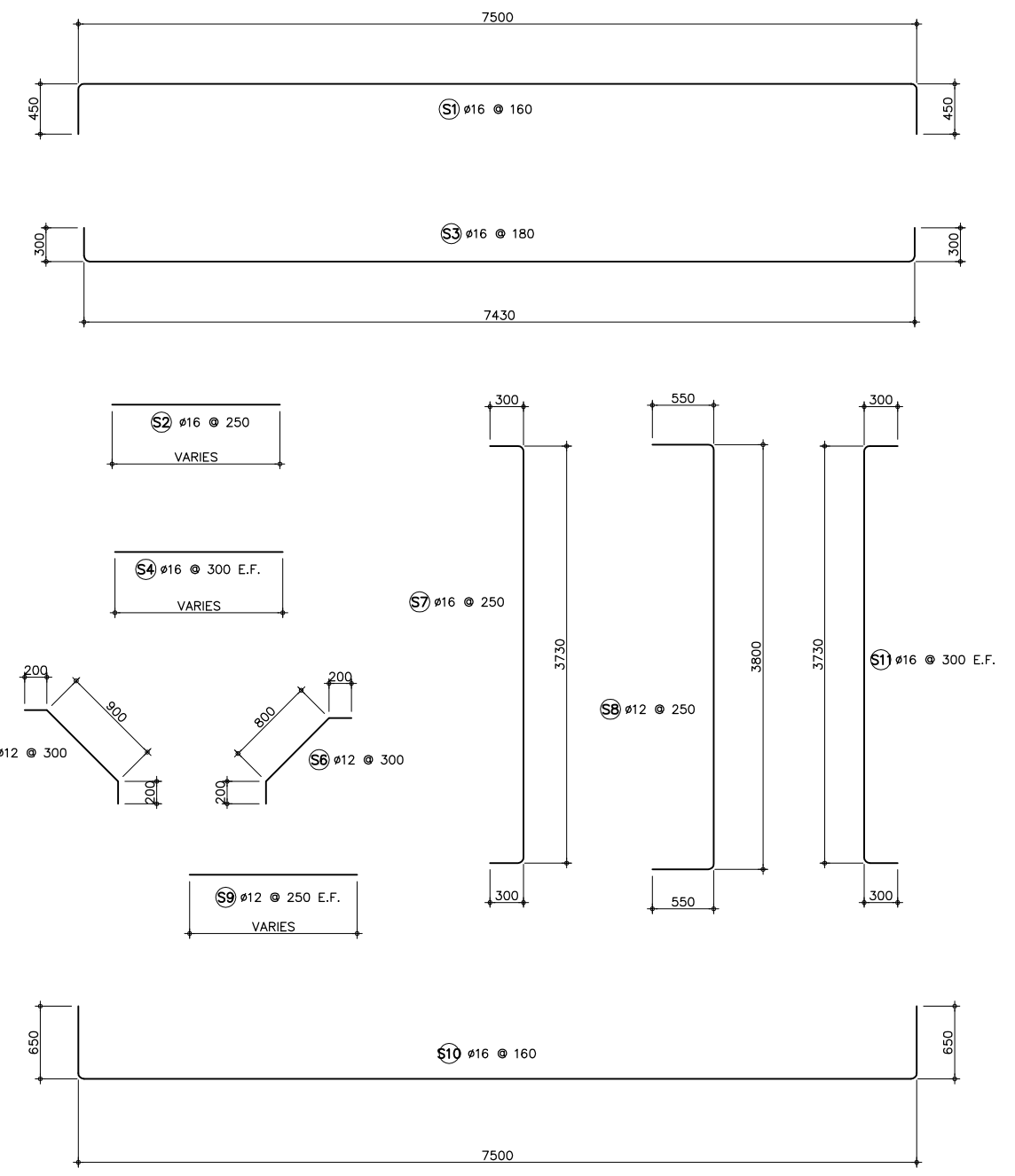
LOCATION	STATION	CULVERT DIMENSIONS METRE				
		B	H	Tr	Tb	Ts
DRAINAGE AP Rd 13+327	0+040.000	3.25	2.00	0.40	0.50	0.40



2 BAR BENDING DIAGRAM
SCALE 1:30

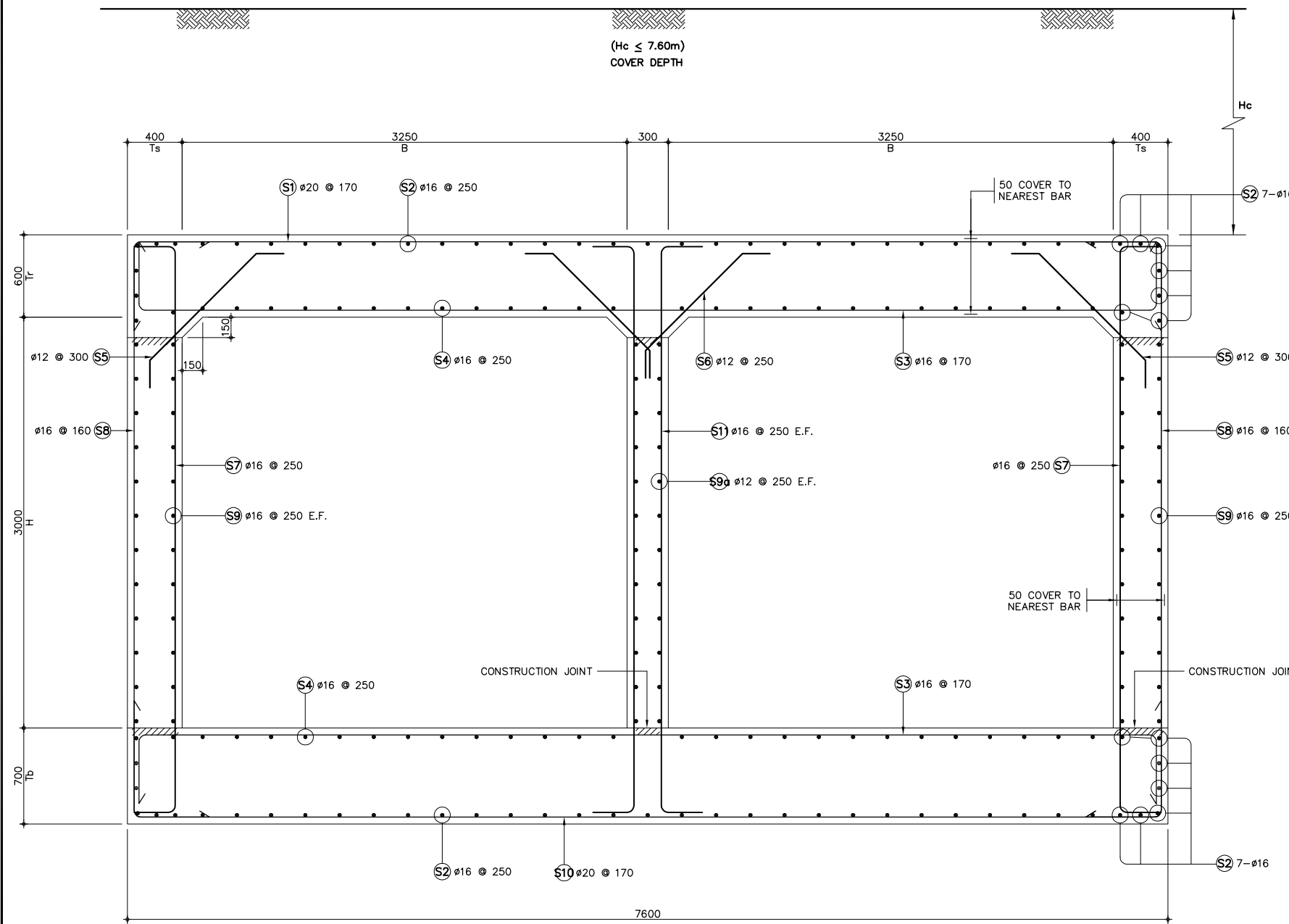


1 CROSS SECTION
SCALE 1:20

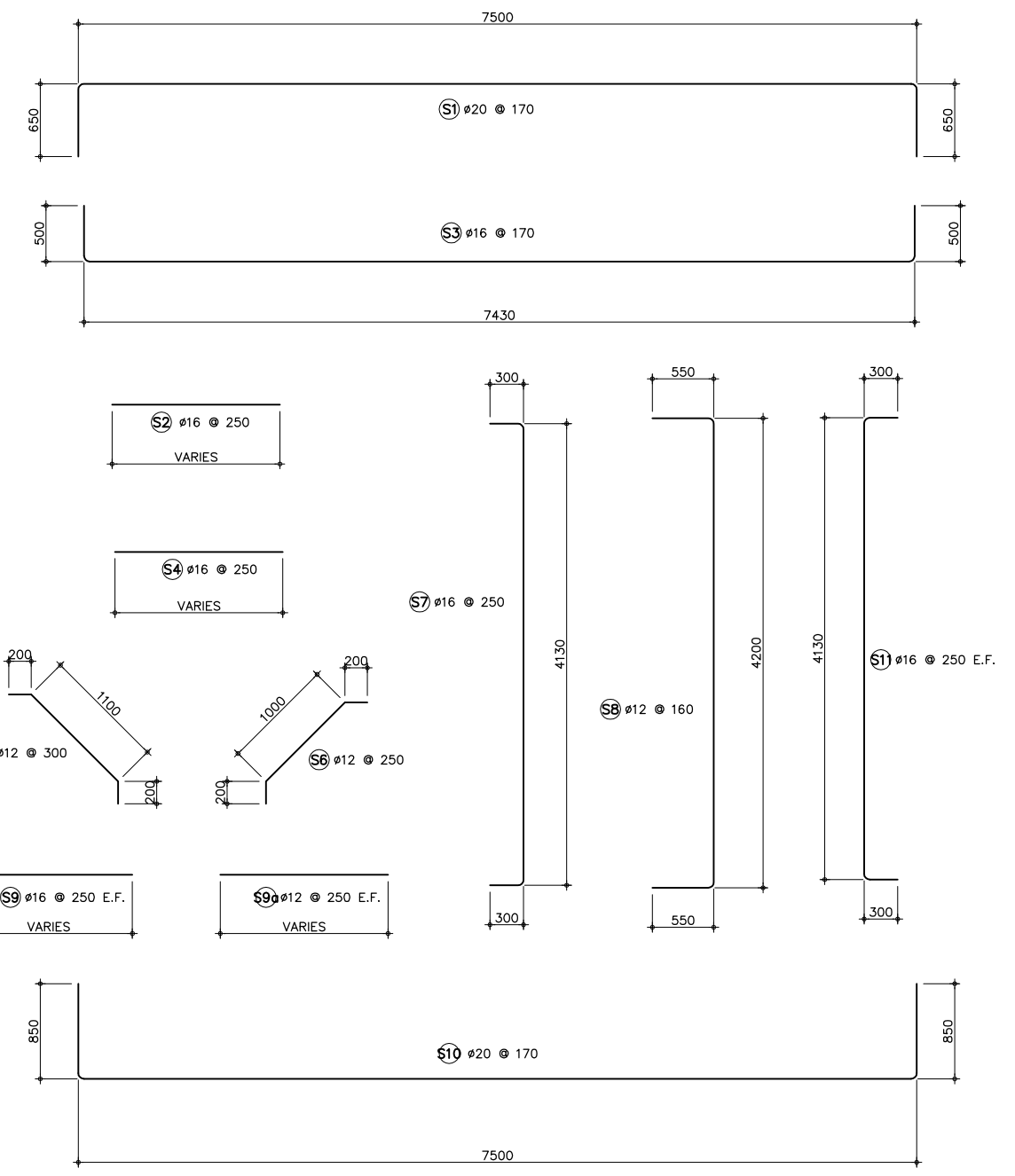


2 BAR BENDING DIAGRAM
SCALE 1:30

LOCATION	STATION	CULVERT DIMENSIONS METRE				
		B	H	Tr	Tb	Ts
DRAINAGE MAINLINE	9+760.000	3.25	3.00	0.40	0.50	0.40
	12+350.000	3.25	3.00	0.40	0.50	0.40

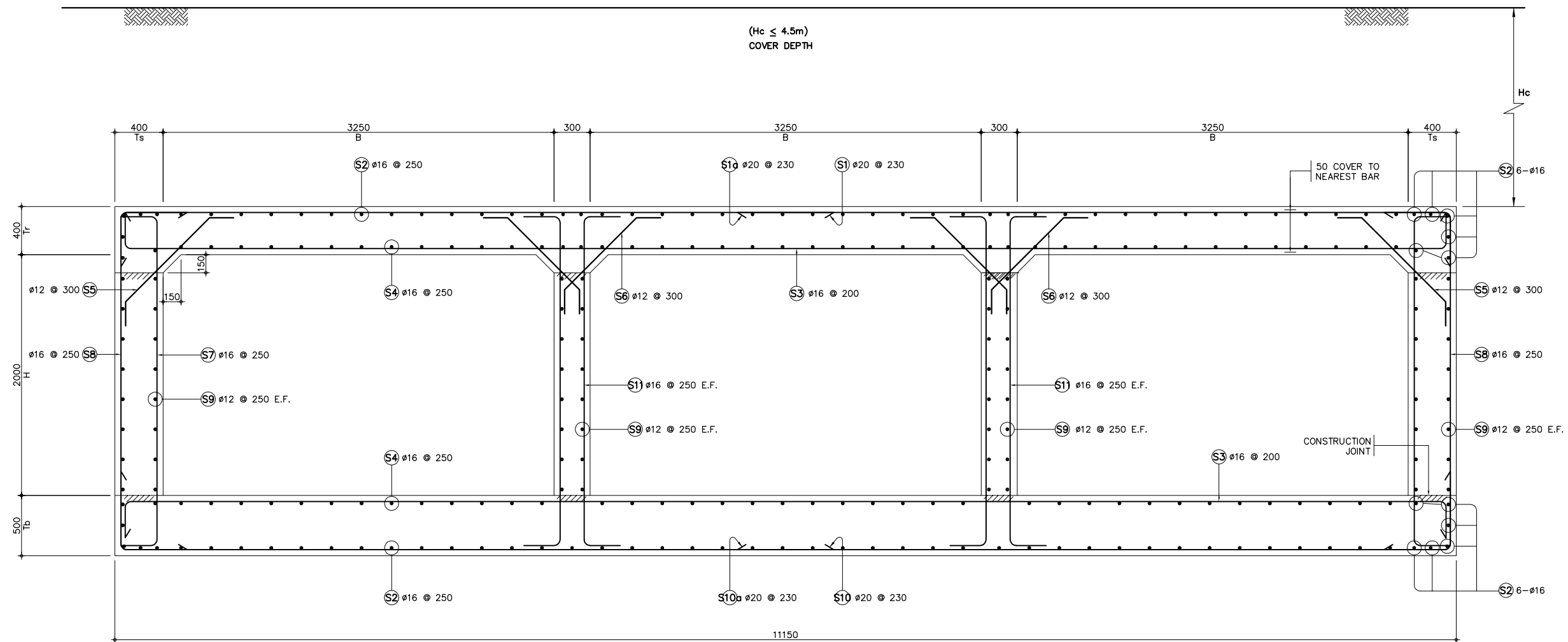


1 CROSS SECTION
SCALE 1:20

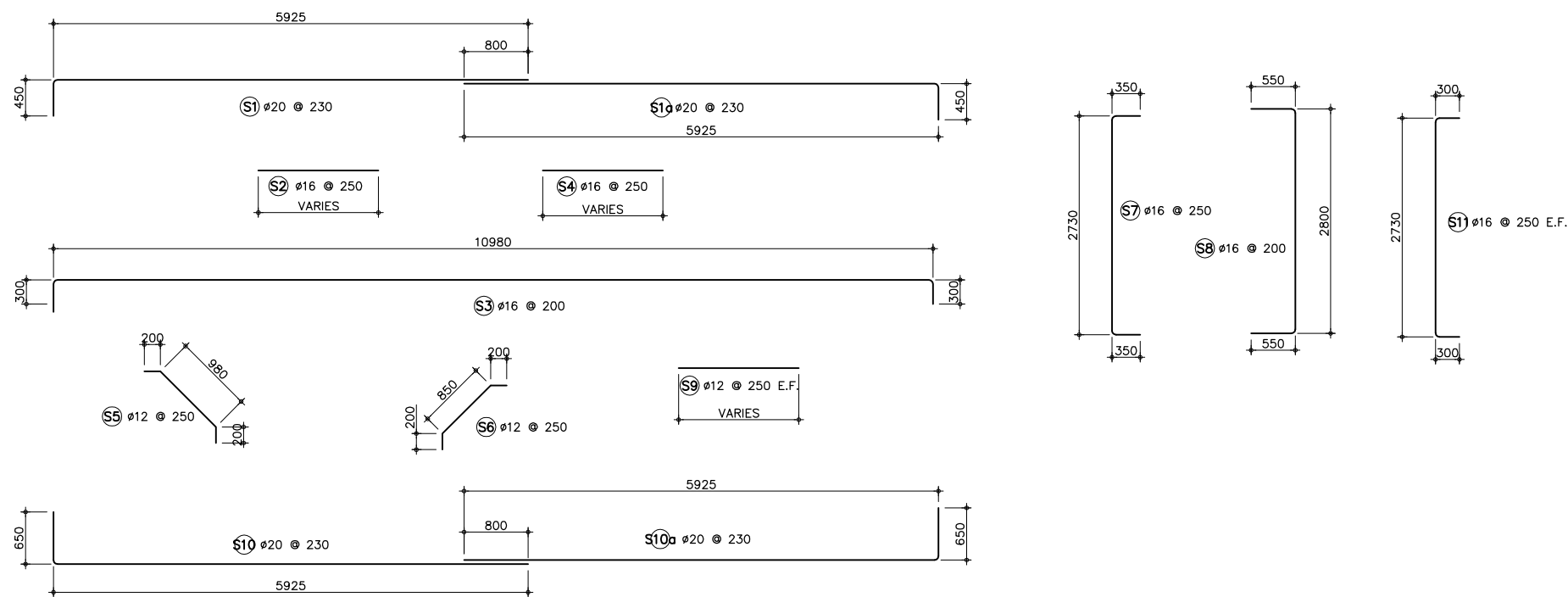


2 BAR BENDING DIAGRAM
SCALE 1:30

LOCATION	STATION	CULVERT DIMENSIONS METRE				
		B	H	Tr	Tb	Ts
DRAINAGE MAINLINE	13+210.000	3.25	3.00	0.60	0.70	0.40

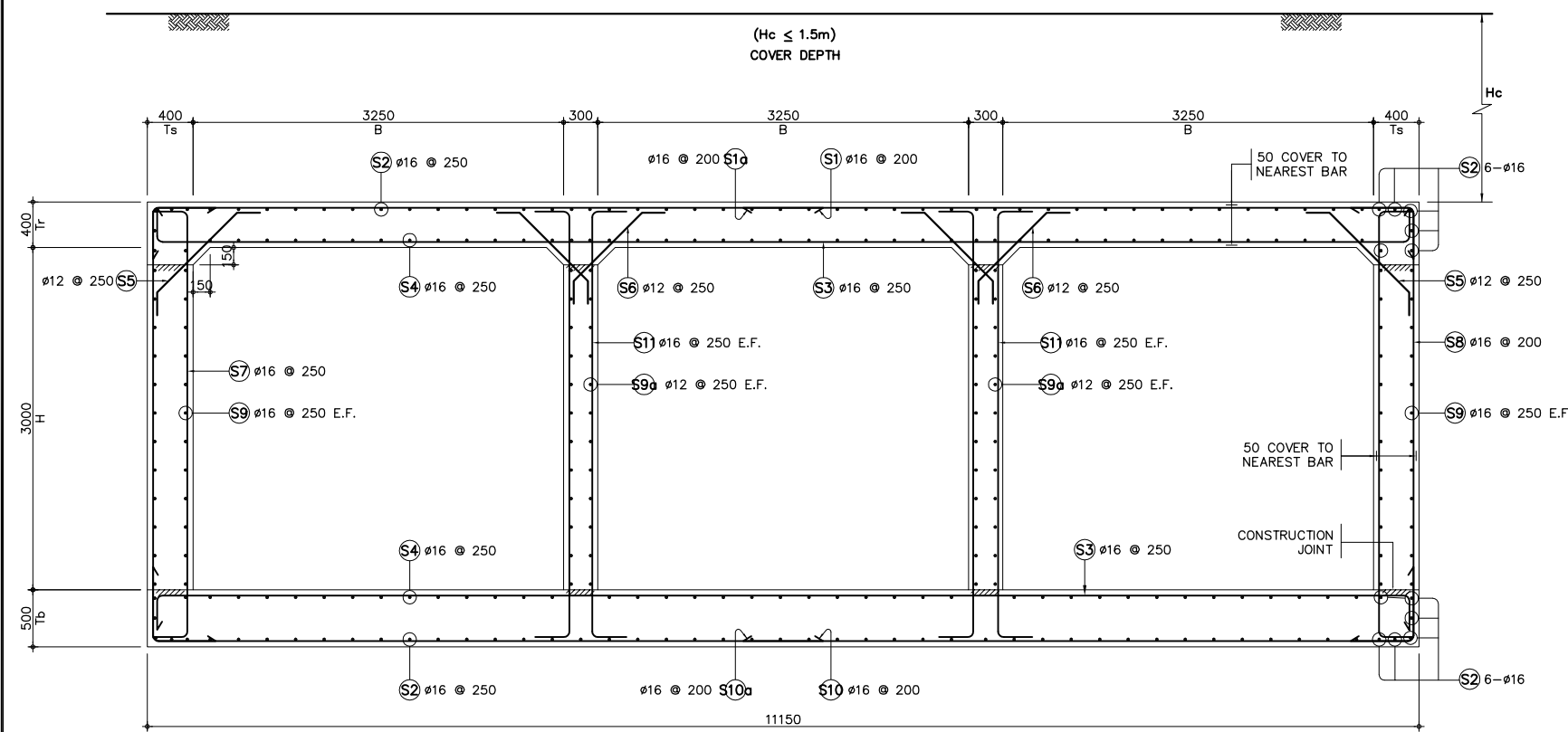


1 GENERAL CROSS SECTION
SCALE 1:20

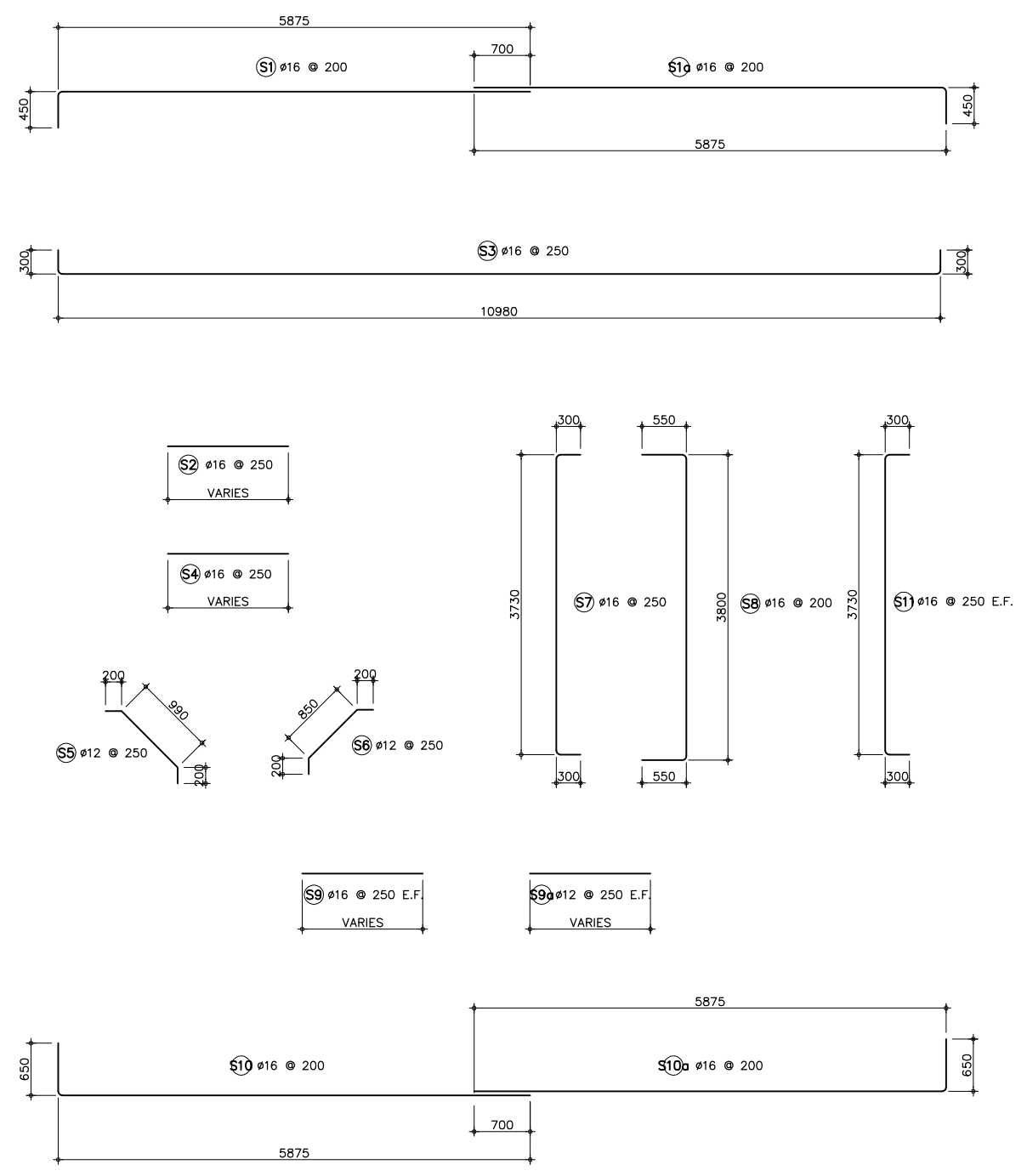


2 BAR BENDING DIAGRAM
SCALE 1:40

LOCATION	STATION	CULVERT DIMENSIONS METRE					
		B	H	Tr	Tb	Ts	
DRAINAGE	A1 Bypass	0+575.000	3.25	2.00	0.40	0.50	0.40
	Ap Rd 1+294 A1 BP	0+030.000	3.25	2.00	0.40	0.50	0.40

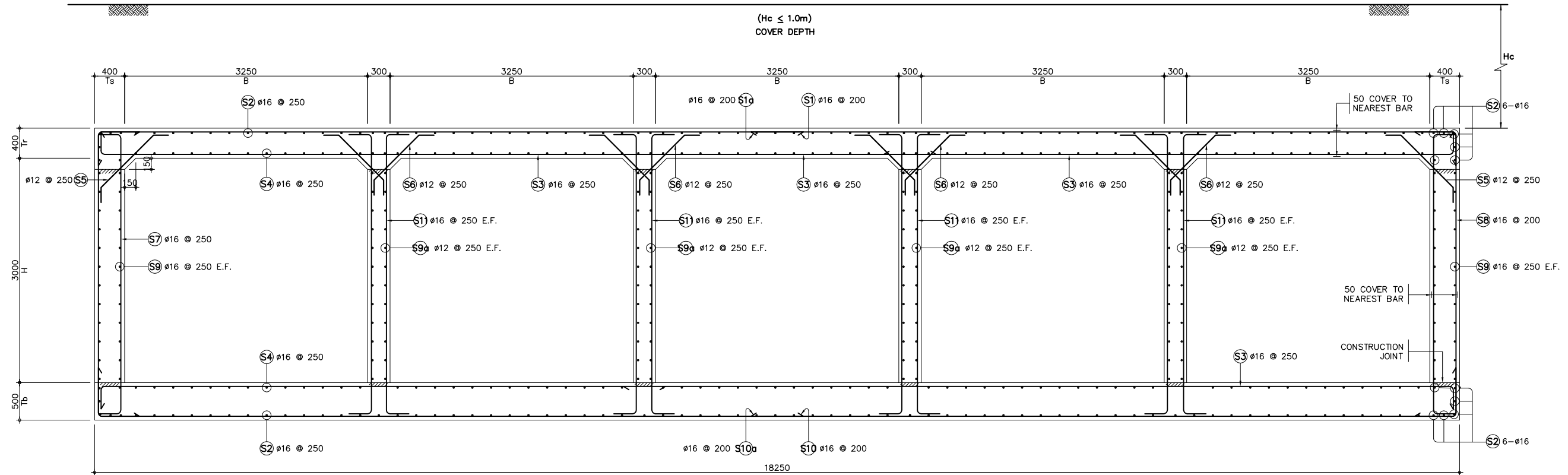


1 GENERAL CROSS SECTION
SCALE 1:30



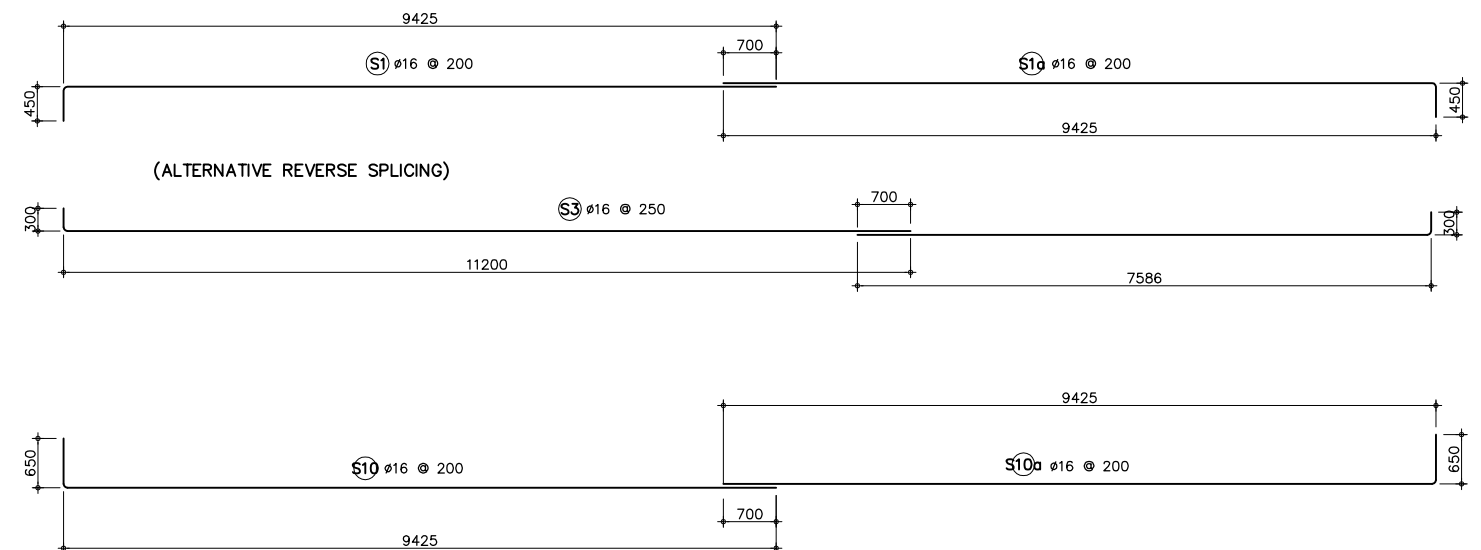
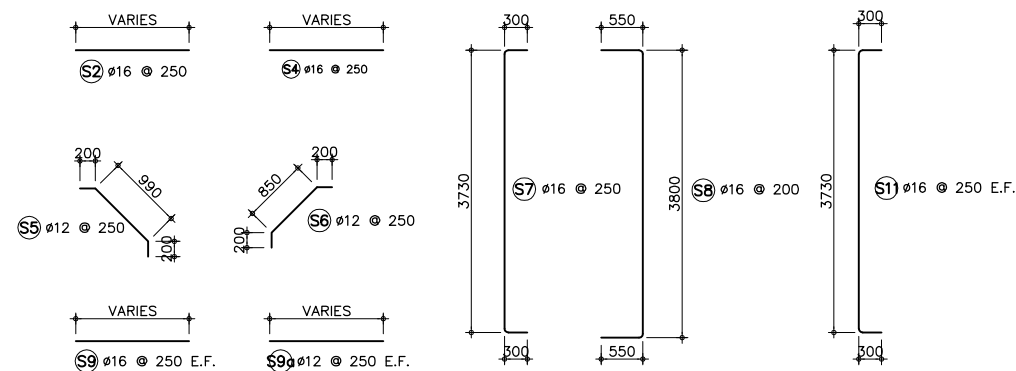
2 BAR BENDING DIAGRAM
SCALE 1:40

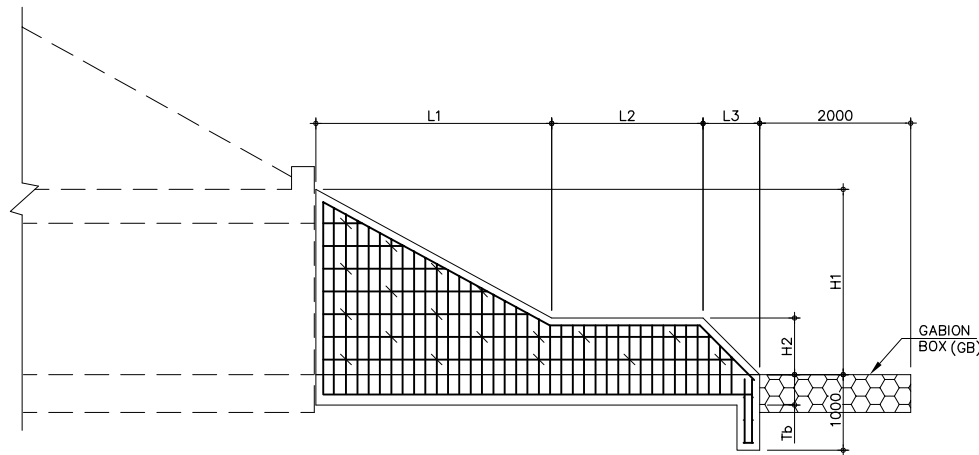
LOCATION	STATION	CULVERT DIMENSIONS METRE				
		B	H	Tr	Tb	Ts
DRAINAGE A1 Ramp-4	0+025.000	3.25	3.00	0.40	0.50	0.40



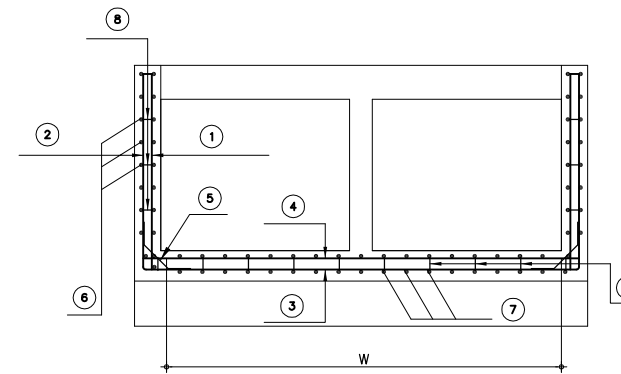
1 GENERAL CROSS SECTION
SCALE 1:30

LOCATION	STATION	CULVERT DIMENSIONS METRE				
		B	H	Tr	Tb	Ts
DRAINAGE AP Rd 8+805	0+055.000	3.25	3.00	0.40	0.50	0.40

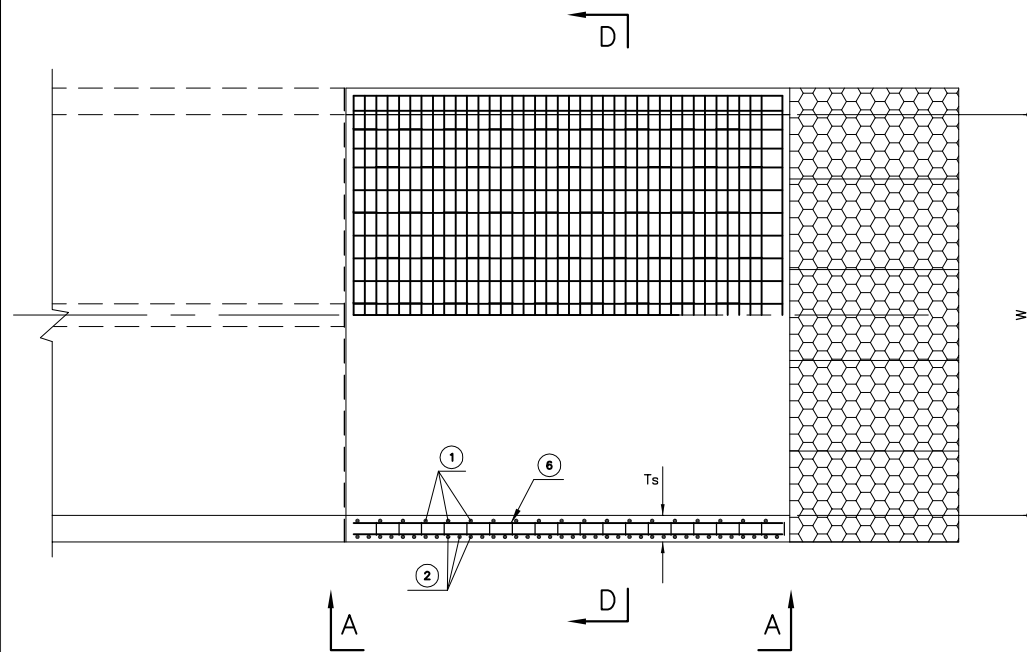




2 SECTION A - A
SCALE 1:50



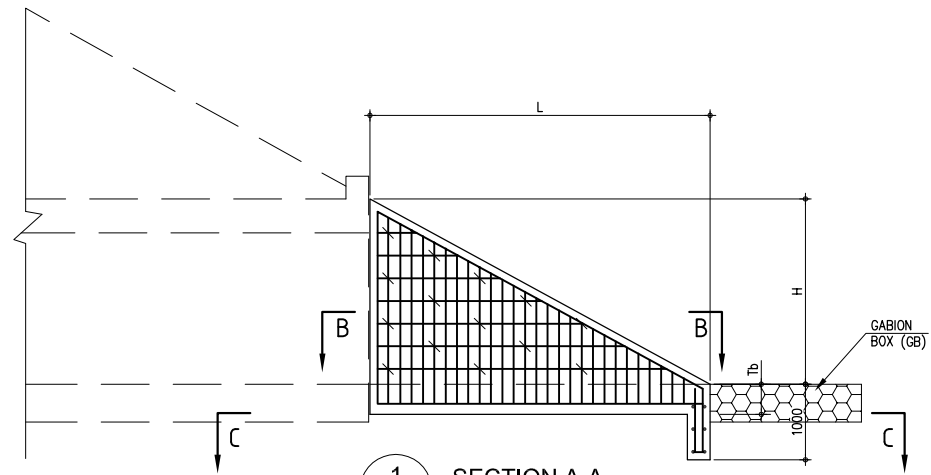
3 SECTION D - D
SCALE 1:50



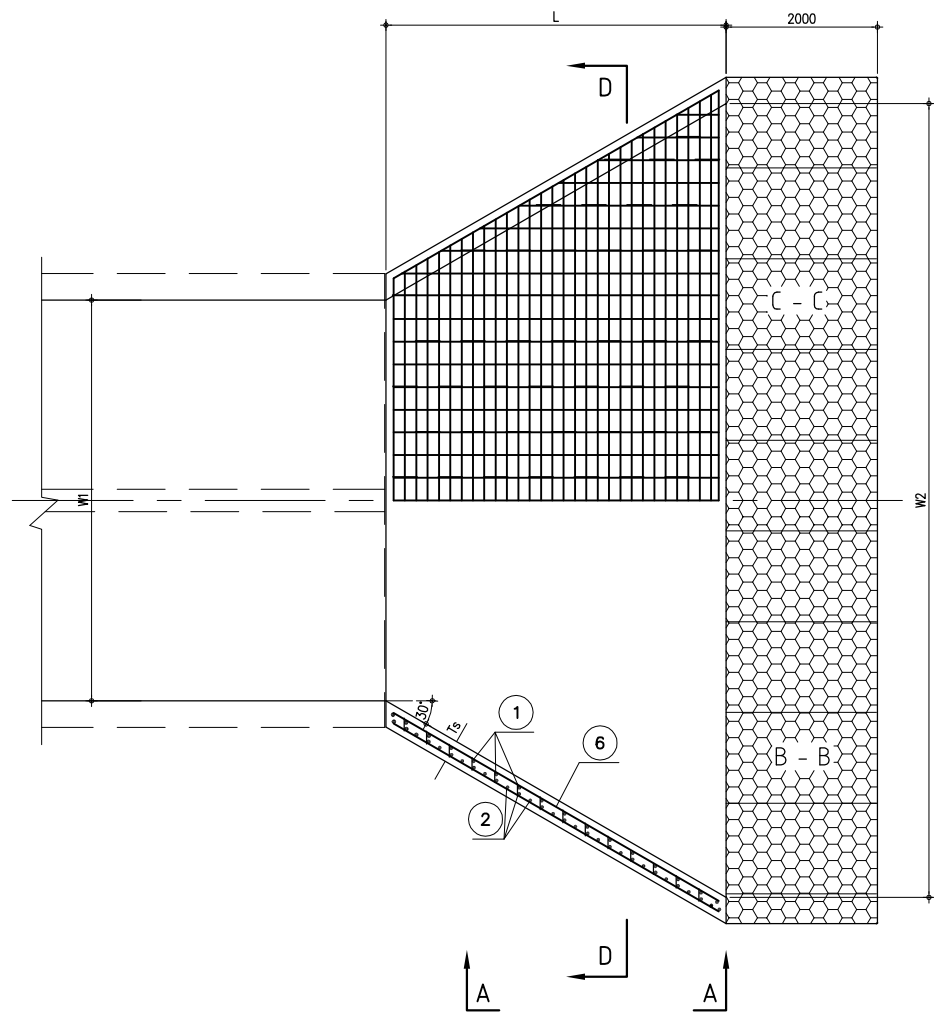
1 PLAN
SCALE 1:50

DIMENSIONS AND STEEL BAR SCHEDULE

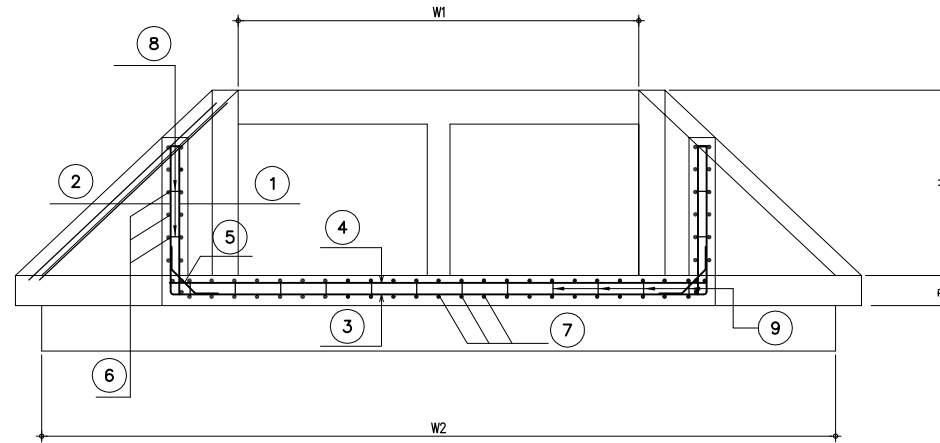
LOCATION	STATION	SIDE (Left/Right)	SKEW ANGLE	DIMENSIONS (m)								No. of GB	STEEL BAR SCHEDULE								
				L1	L2	L3	H1	H2	W	Ts	Tb		①	②	③	④	⑤	⑥	⑦	⑧	⑨
MAIN LINE	9+340.000	Left	90	2.950	0.550	0.300	2.339	0.700	3.250	0.300	0.400	4	D12@150	D12@150	D12@150	D12@150	D16@300	D12@300	D12@300	D12@600	D12@600
	9+340.000	Right	90	3.530	1.670	0.300	2.661	0.700	3.250	0.400	0.400	4	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	9+760.000	Left	70	5.127	1.353	0.319	3.377	0.700	6.800	0.400	0.400	8	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	9+760.000	Right	70	5.216	1.264	0.319	3.423	0.700	6.800	0.400	0.400	8	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	11+740.000	Right	90	3.203	1.097	0.300	2.480	0.700	3.250	0.300	0.400	4	D12@150	D12@150	D12@150	D12@150	D16@300	D12@300	D12@300	D12@600	D12@600
	11+935.000	Left	90	2.593	3.007	1.500	2.941	1.500	3.250	0.400	0.400	4	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	11+935.000	Right	90	2.447	0.000	0.300	2.059	0.700	3.250	0.300	0.400	4	D12@150	D12@150	D12@150	D12@150	D16@300	D12@300	D12@300	D12@600	D12@600
	12+350.000	Left	90	3.582	3.718	1.500	3.490	1.500	6.800	0.400	0.400	8	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	12+350.000	Right	90	4.698	1.302	0.300	3.310	0.700	6.800	0.400	0.400	8	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	12+735.000	Left	90	5.639	0.000	0.000	3.433	0.300	3.250	0.400	0.400	4	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	12+735.000	Right	90	4.801	2.599	0.300	3.367	0.700	3.250	0.400	0.400	4	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	13+210.000	Right	90	3.792	3.808	1.500	3.607	1.500	6.800	0.400	0.400	8	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	13+550.000	Left	90	1.998	4.302	1.500	2.610	1.500	3.250	0.400	0.400	5	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	13+550.000	Right	90	1.962	3.638	1.500	2.590	1.500	3.250	0.400	0.400	5	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	14+340.000	Left	90	3.417	0.000	0.300	2.598	0.700	3.250	0.400	0.400	5	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
14+340.000	Right	90	3.423	0.000	0.300	2.602	0.700	3.250	0.400	0.400	5	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600	
15+585.000	Right	90	3.596	1.604	0.300	2.698	0.700	3.250	0.400	0.400	5	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600	
A1 BYPASS	0+675.000	Right	90	3.428	0.000	1.500	3.404	1.500	3.250	0.400	0.400	4	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	0+990.000	Left	90	3.433	1.867	0.000	3.407	1.500	3.250	0.400	0.400	4	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	0+990.000	Right	90	2.507	0.000	2.000	3.393	2.000	3.250	0.400	0.400	4	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	1+312.000	Left	90	3.595	4.705	0.000	3.497	1.500	3.250	0.400	0.400	4	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600
	1+312.000	Right	90	2.705	0.000	2.000	3.503	2.000	3.250	0.400	0.400	4	D25@150	D12@150	D25@150	D12@150	D16@300	D16@300	D16@300	D12@600	D12@600



1 SECTION A-A
SCALE 1:50



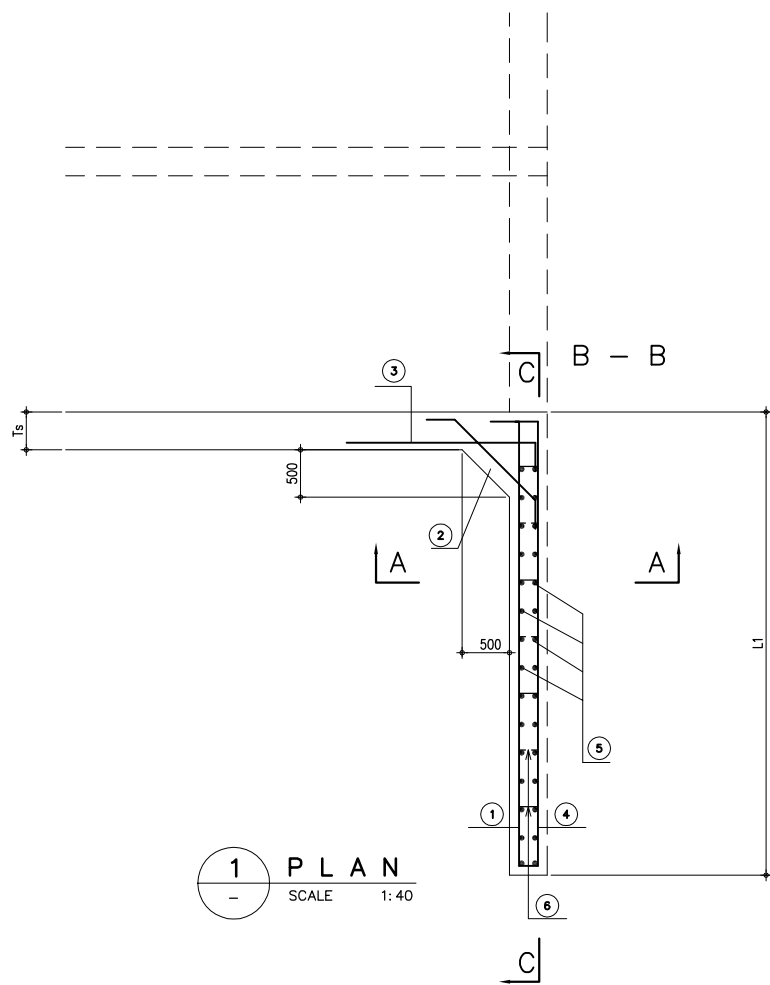
1 PLAN
SCALE 1:50



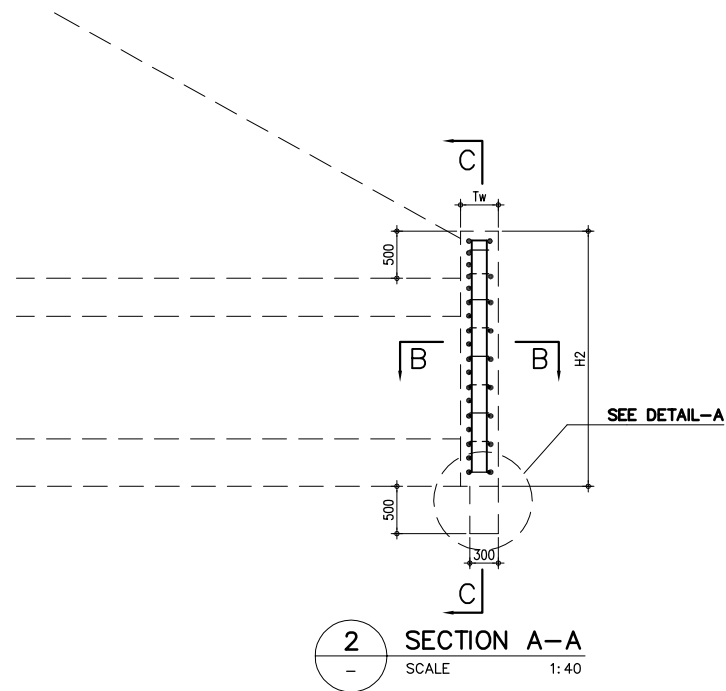
1 SECTION D-D
SCALE 1:50

DIMENSIONS AND STEEL BAR SCHEDULE

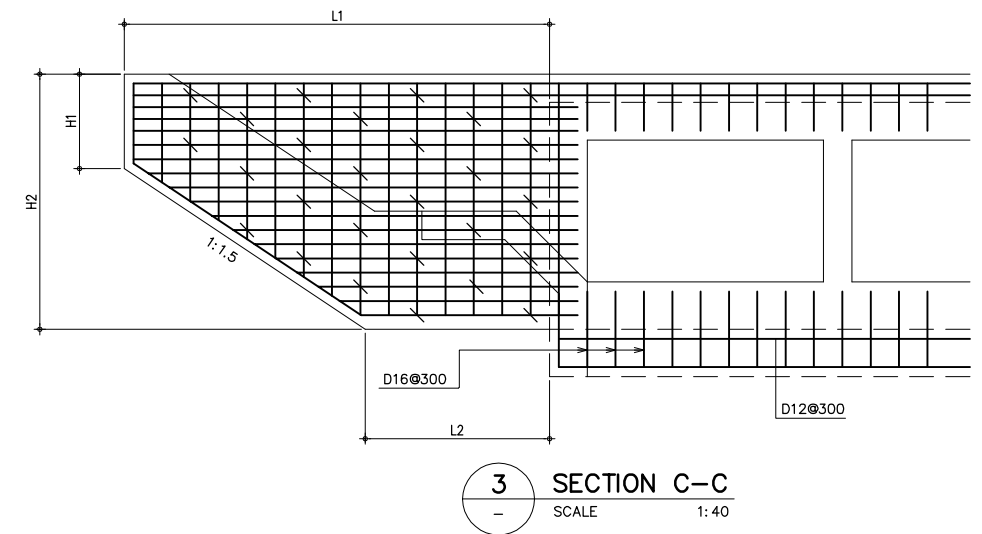
LOCATION	STATION	SIDE (Left/Right)	SKEW ANGLE	DIMENSIONS (m)						No. of GB	STEEL BAR SCHEDULE								
				L	H	W1	W2	Ts	Tb		①	②	③	④	⑤	⑥	⑦	⑧	⑨
MAIN LINE	10+530	Left	90	4.755	2.641	3.250	8.740	0.350	0.400	10	D12@150	D12@150	D12@150	D12@150	D16@300	D12@300	D12@300	D12@600	D12@600
	10+530	Right	90	4.605	2.559	3.250	8.568	0.350	0.400	10	D12@150	D12@150	D12@150	D12@150	D16@300	D12@300	D12@300	D12@600	D12@600
	15+585	Left	90	4.856	2.698	3.250	8.858	0.350	0.400	10	D12@150	D12@150	D12@150	D12@150	D16@300	D12@300	D12@300	D12@600	D12@600



1 PLAN
SCALE 1:40



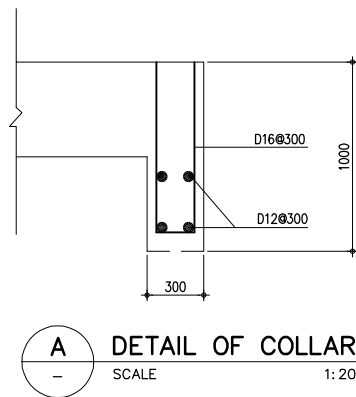
2 SECTION A-A
SCALE 1:40



3 SECTION C-C
SCALE 1:40

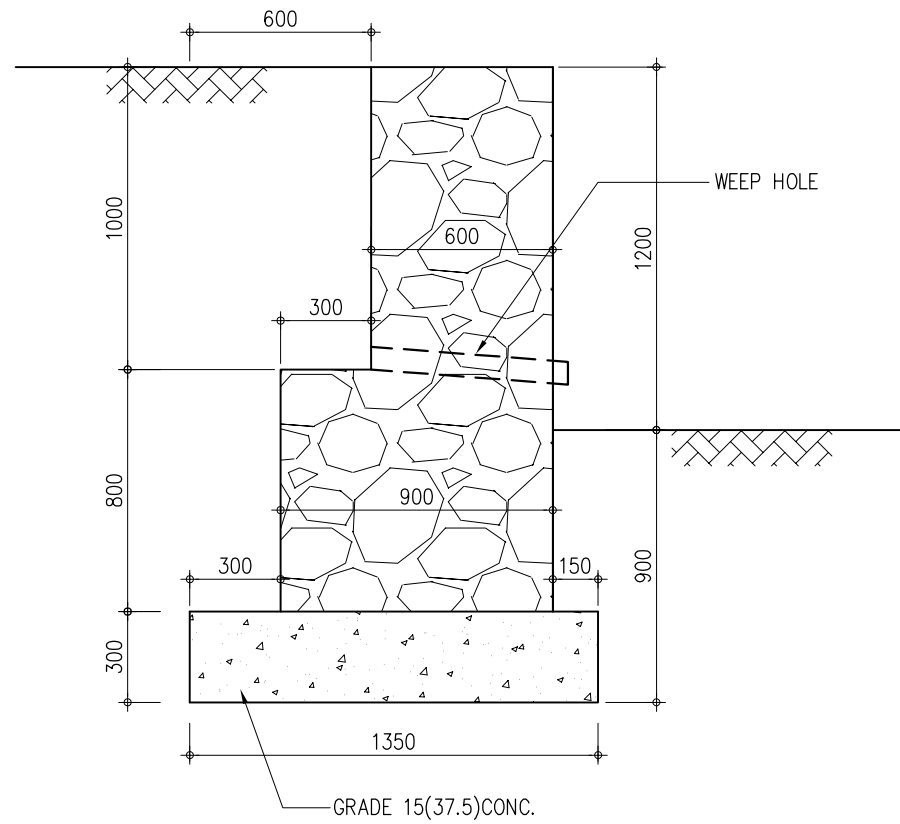
DIMENSIONS AND STEEL BAR SCHEDULE

LOCATION	STATION	SIDE (Left/Right)	DIMENSIONS (m)					STEEL BAR SCHEDULE						
			L1	L2	H1	H2	Tw	①	②	③	④	⑤	⑥	
DRAINAGE	MAIN LINE	10+690.000	Left	6.700	2.500	1.000	3.800	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		10+690.000	Right	6.700	2.500	1.000	3.800	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		11+740.000	Left	6.200	2.300	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	A1 IC RAMP-4	0+025.000	Left	7.400	2.300	1.000	4.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0+025.000	Right	7.100	2.000	1.000	4.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	A1 BYPASS	0+575.000	Left	5.900	2.300	1.000	3.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0+575.000	Right	5.900	2.300	1.000	3.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	AP. RD 8+805	0+675.000	Left	5.900	0.800	1.000	4.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0+055.000	Left	7.400	2.300	1.000	4.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	AP. RD 8+805	0+055.000	Right	7.400	2.300	1.000	4.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0+252.000	Left	4.800	2.325	1.000	2.650	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	AP. RD 8+805	0+252.000	Right	4.800	2.325	1.000	2.650	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0+040.000	Left	6.200	2.300	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	AP. RD 13+327	0+040.000	Right	6.200	2.300	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0-040.000	Left	5.900	2.300	1.000	3.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	AP. RD 13+327	0-040.000	Right	5.900	2.300	1.000	3.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0+230.000	Left	4.700	0.800	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	AP. RD 0+102 A1 BP	0+230.000	Right	4.700	0.800	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0+107.000	Left	3.100	0.625	1.000	2.650	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	AP. RD 0+285L A1 BP	0+107.000	Right	3.100	0.625	1.000	2.650	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0+208.000	Left	3.100	0.625	1.000	2.650	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	AP. RD 0+285L A1 BP	0+208.000	Right	3.100	0.625	1.000	2.650	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0-025.000	Left	4.700	0.800	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	AP. RD 1+294	0-025.000	Right	4.700	0.800	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
0+030.000		Left	5.900	2.300	1.000	3.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600	
AP. RD 1+294	0+030.000	Right	5.900	2.300	1.000	3.400	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600	
	0+280.000	Left	5.100	2.625	1.000	2.650	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600	
FR. RD RAMP-2	0+280.000	Right	5.100	2.625	1.000	2.650	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600	
	0+515.000	Left	5.100	2.625	1.000	2.650	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600	
FR. RD RAMP-6	0+515.000	Right	5.100	2.625	1.000	2.650	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600	
	9+726.000	Left	6.500	2.600	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600	
IRRIGATION	MAIN LINE	9+726.000	Right	6.500	2.600	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		9+876.000	Left	6.500	2.600	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		9+876.000	Right	6.500	2.600	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		10+497.500	Left	7.000	2.800	1.000	3.800	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		10+497.500	Right	7.000	2.800	1.000	3.800	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		12+250.000	Left	6.400	2.500	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	MAIN LINE	12+250.000	Right	6.400	2.500	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		12+395.000	Left	6.500	2.600	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		12+395.000	Right	6.500	2.600	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0+500.500	Left	6.200	2.300	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		0+500.500	Right	6.200	2.300	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		1+634.000	Left	6.400	2.500	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
	A1 BYPASS	1+634.000	Right	6.400	2.500	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		1+665.000	Left	6.400	2.500	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600
		1+665.000	Right	6.400	2.500	1.000	3.600	0.500	D25@150	D25@150	D16@300	D16@300	D16@300	D12@600

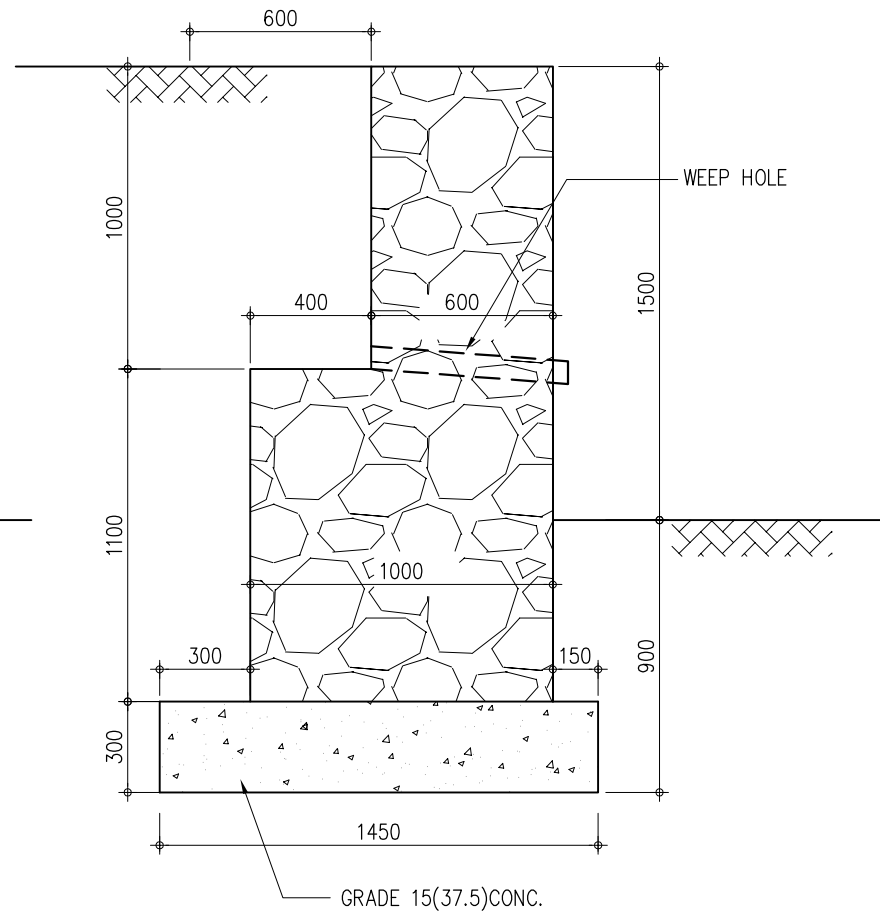


A DETAIL OF COLLAR
SCALE 1:20

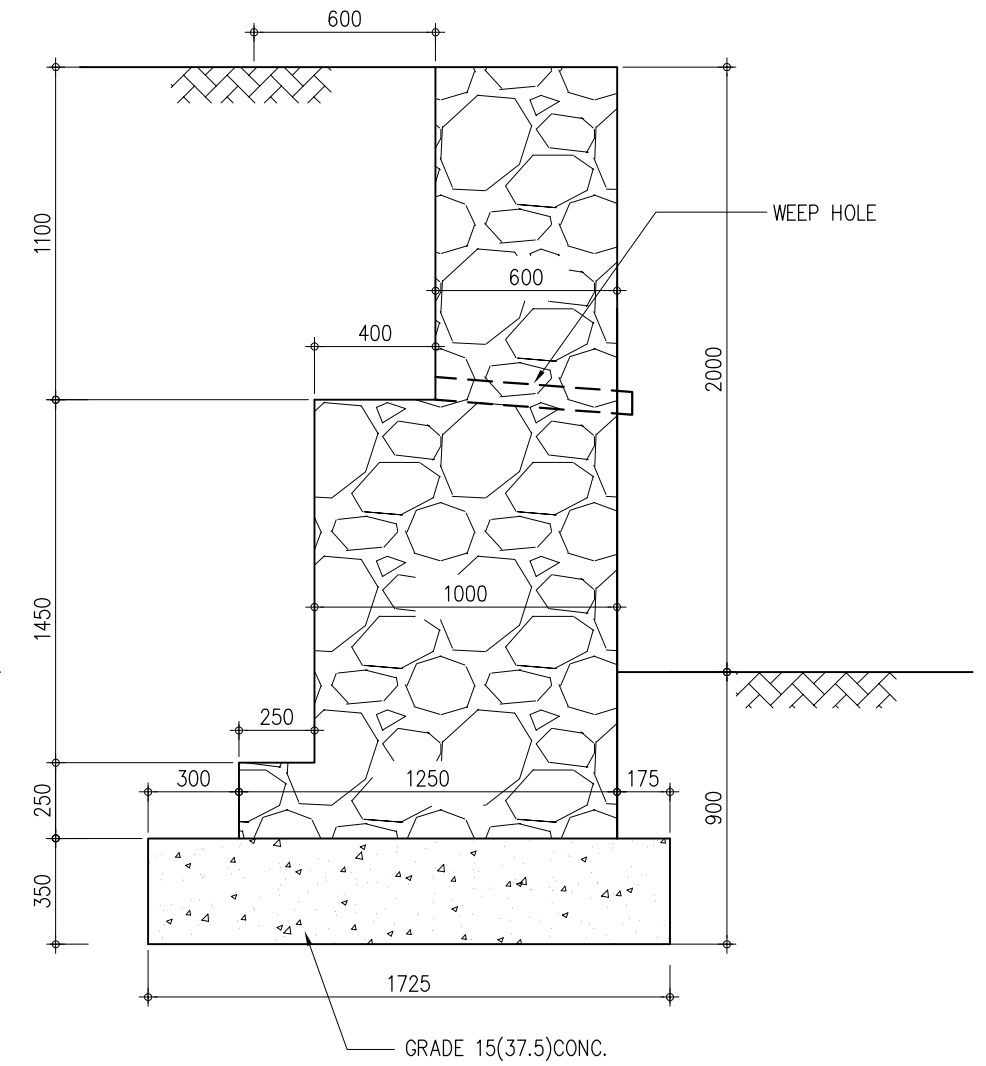
J. RETAINING WALL



RW 1



RW 2



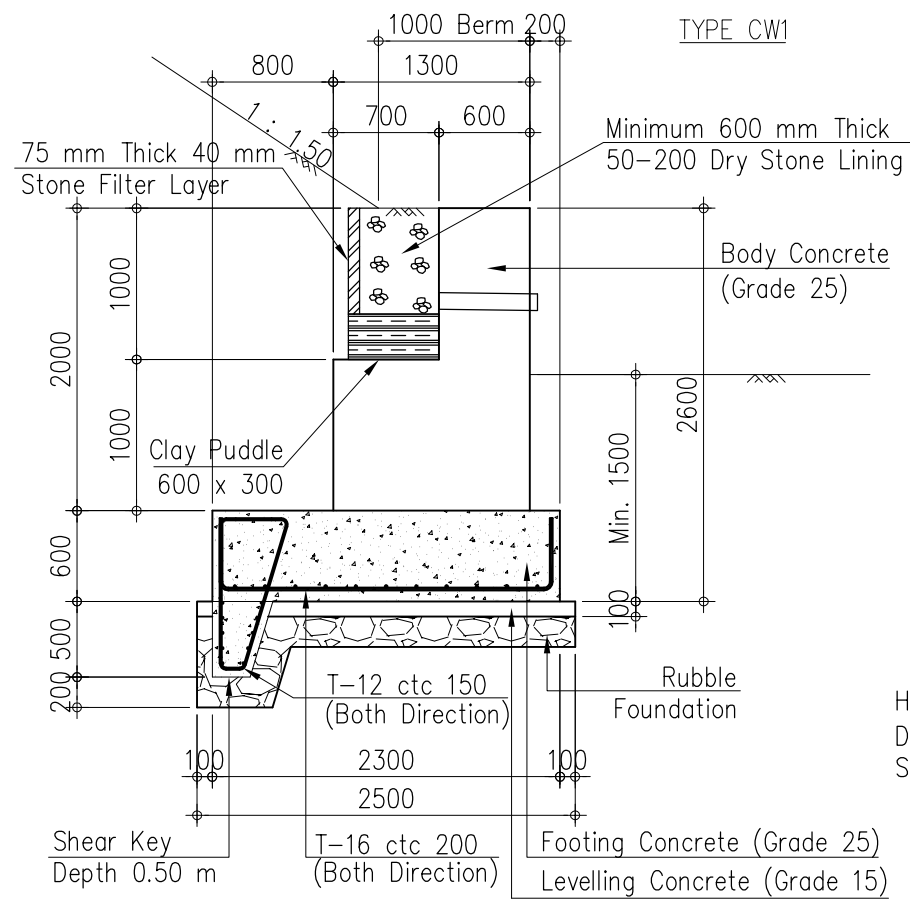
RW 3

Scale 1:25

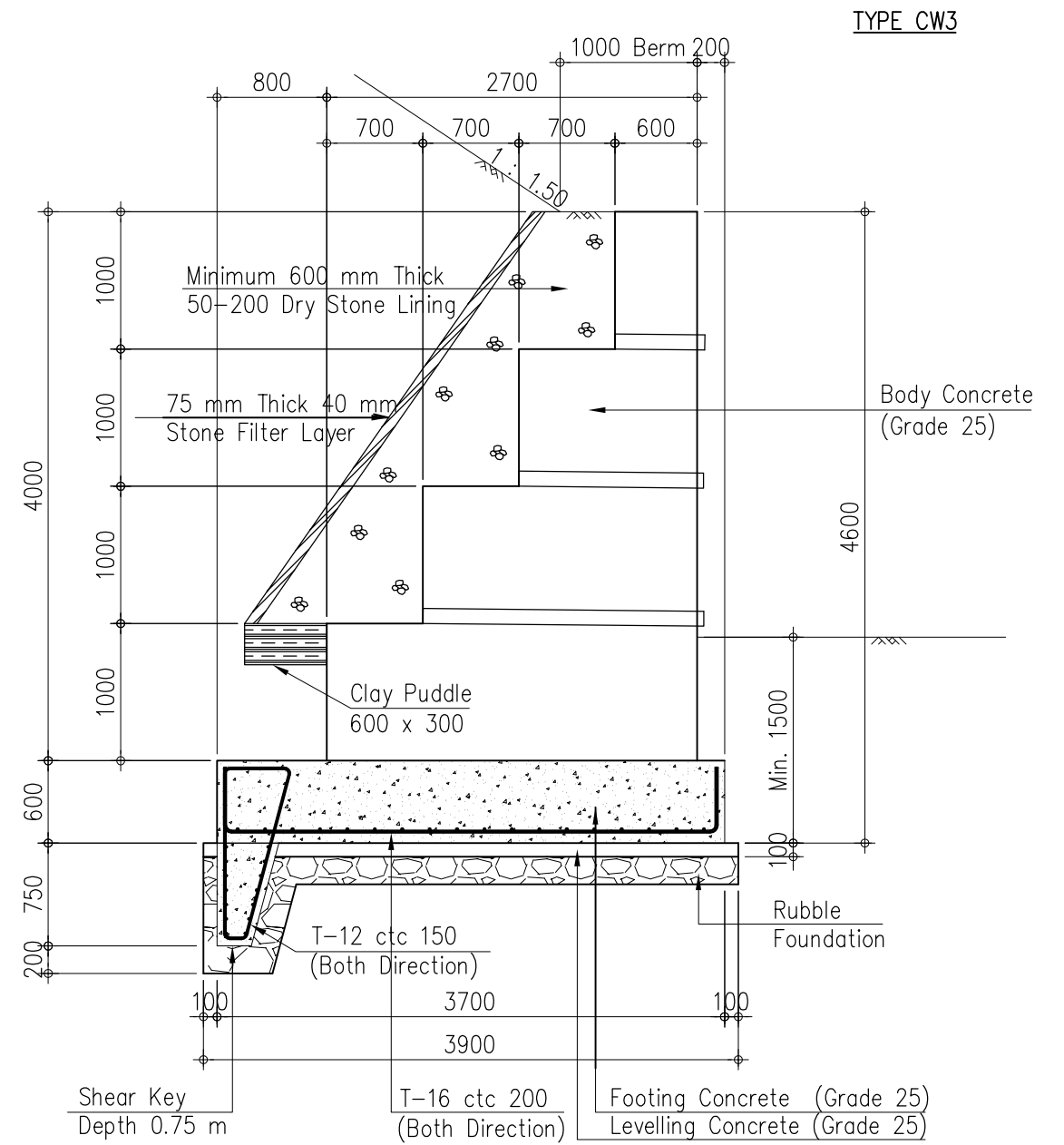
NOTE

Limited to heights of less than 2.9m for retained soil.
 Generally used at the toe of embankments to connect wing-walls and tipped fills smoothly.
 Minimum embedded depth "D" is 90cm.
 Minimum berm width of 1m is required at the top of masonry walls.

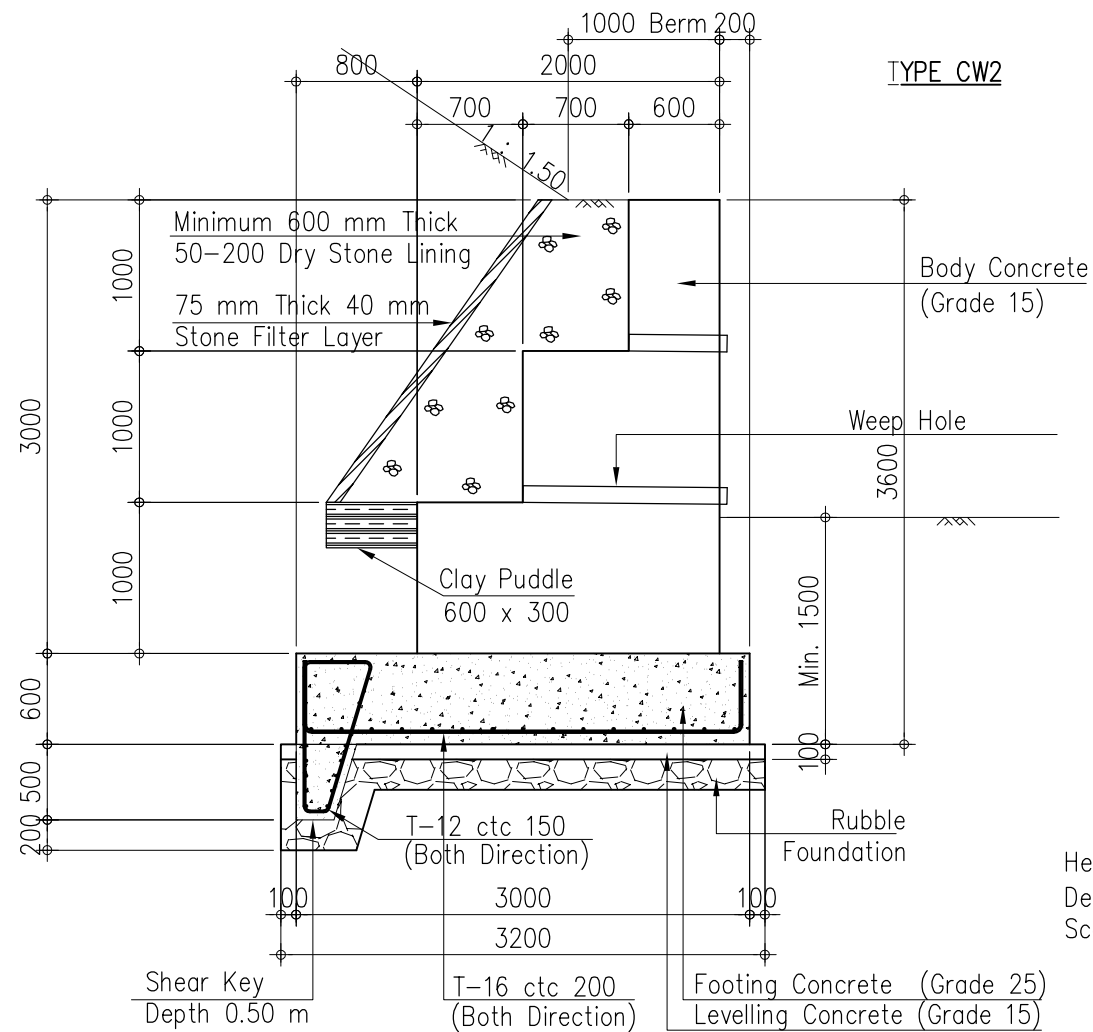
No	REVISION	DATE



Height: $H \leq 2.6$ m
 Developed Soil Pressure 115 kN/m²
 Scale 1:50

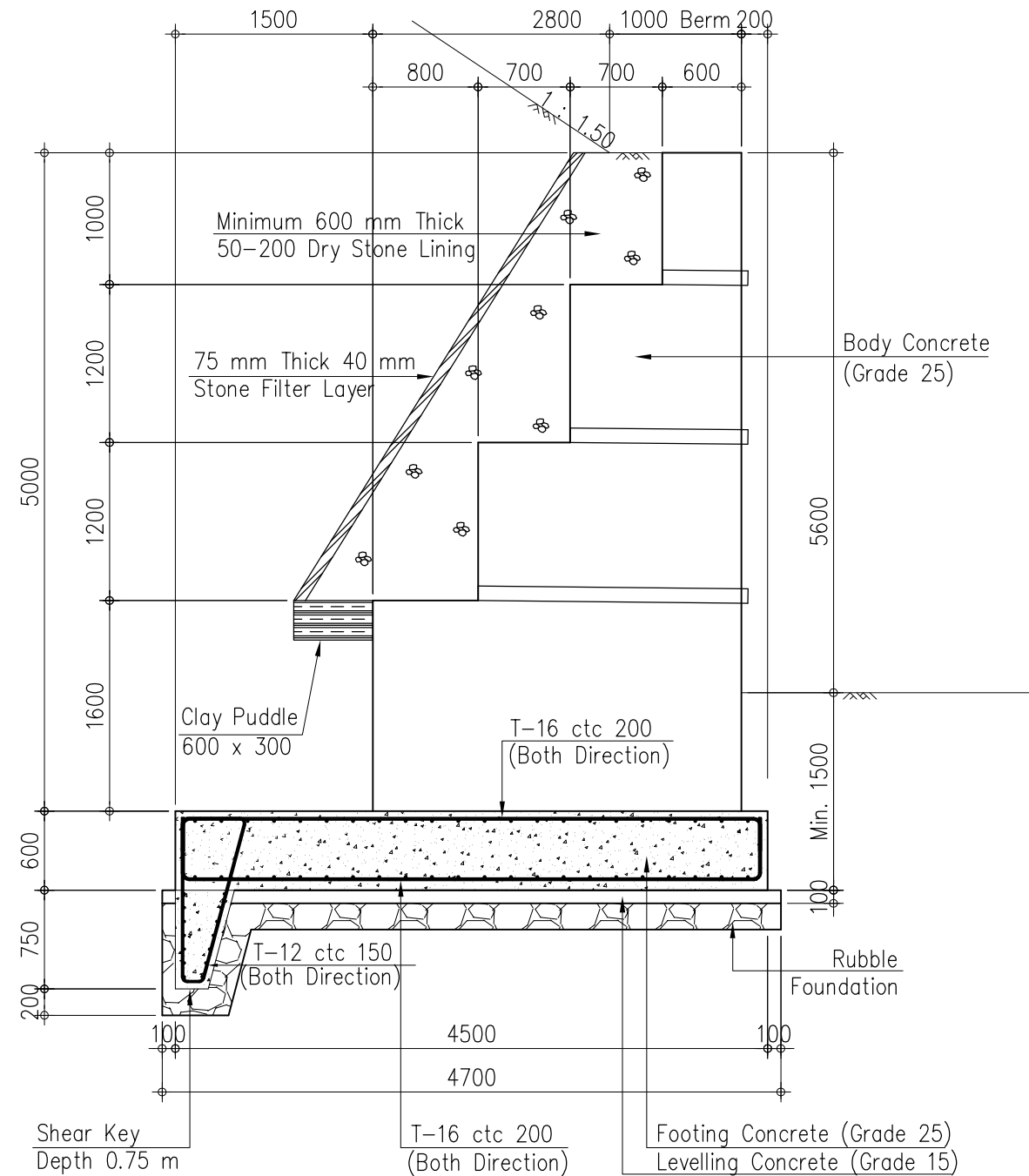


Height: 3.6 m $< H \leq 4.6$ m
 Developed Soil Pressure 180 kN/m²
 Scale 1:50

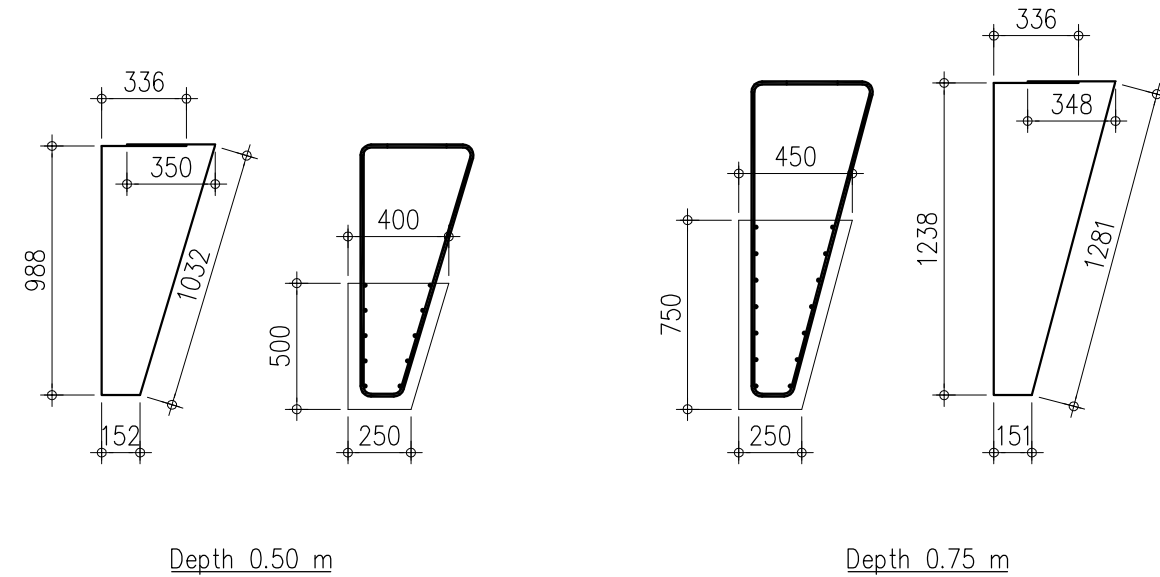


Height: 2.6 m $< H \leq 3.6$ m
 Developed Soil Pressure 135 kN/m²
 Scale 1:50

TYPE CW4



Height: $4.6 \text{ m} < H \leq 5.6 \text{ m}$
 Developed Soil Pressure 210 kN/m^2
 Scale 1:50



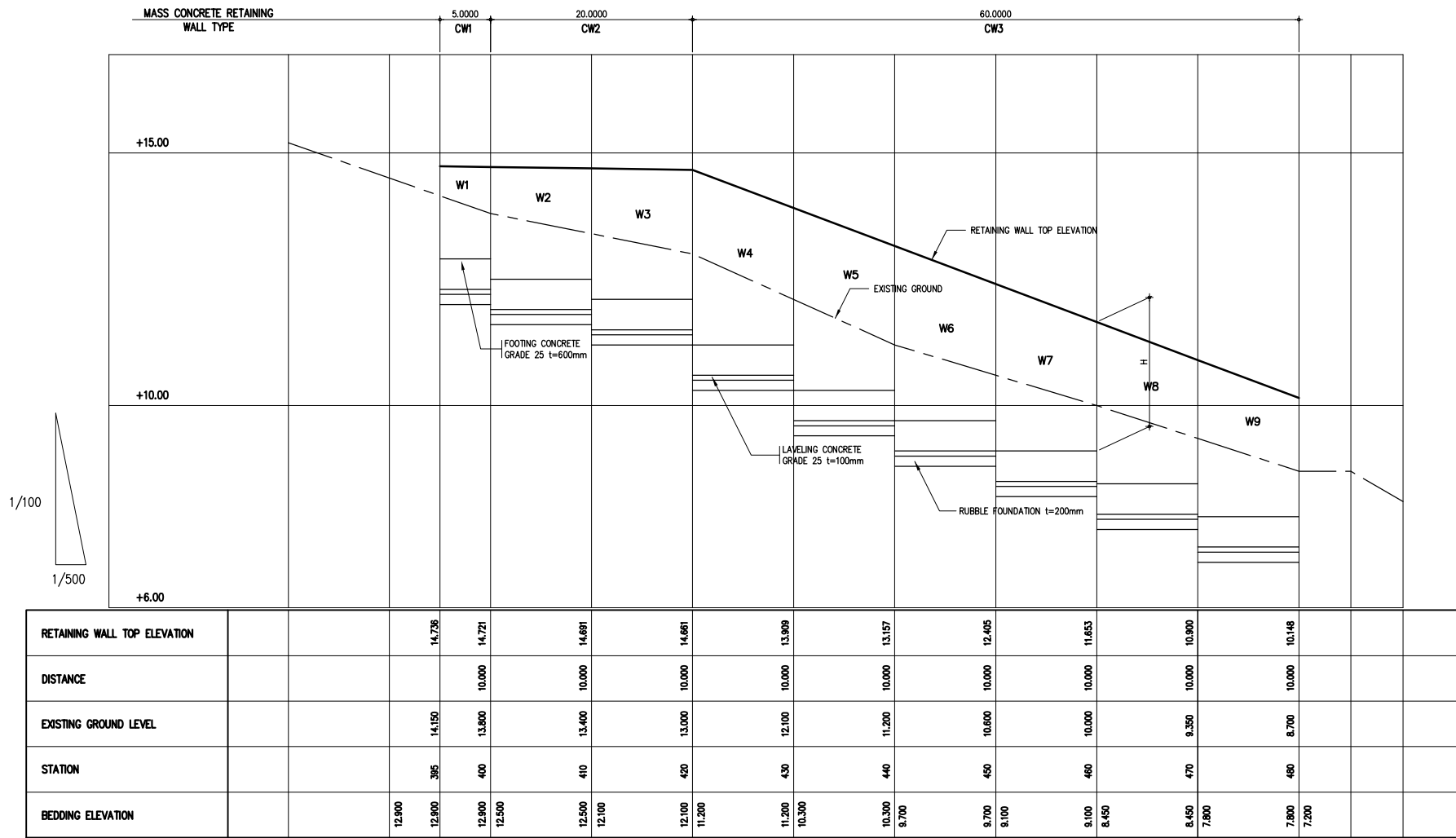
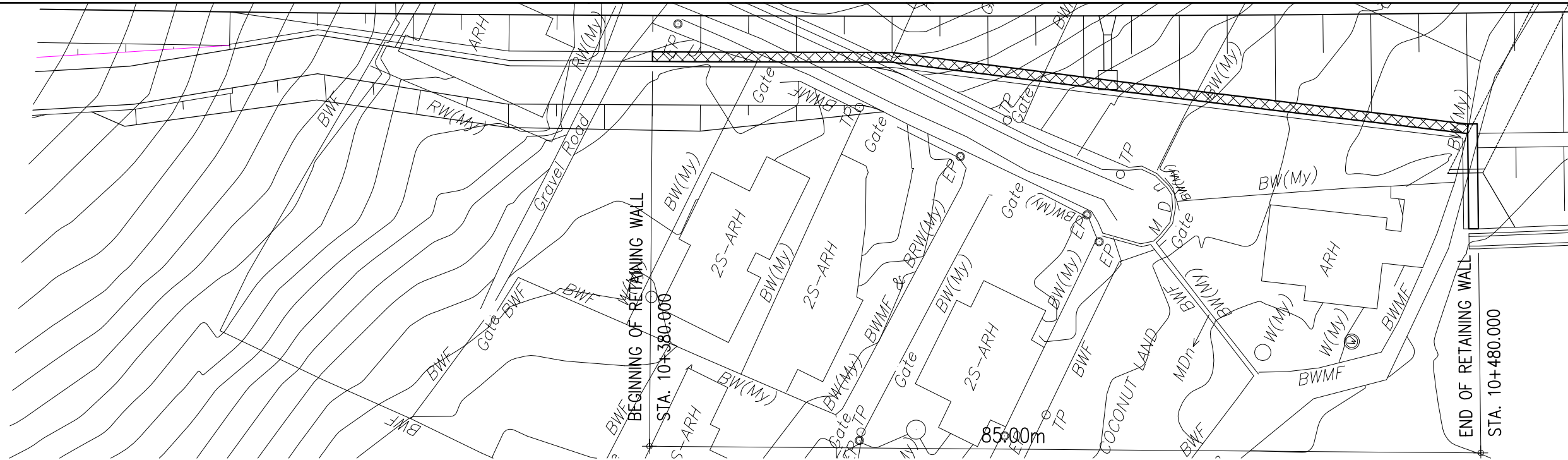
Shear Key
 Scale 1:30

Concrete & Reinforcement Notes:

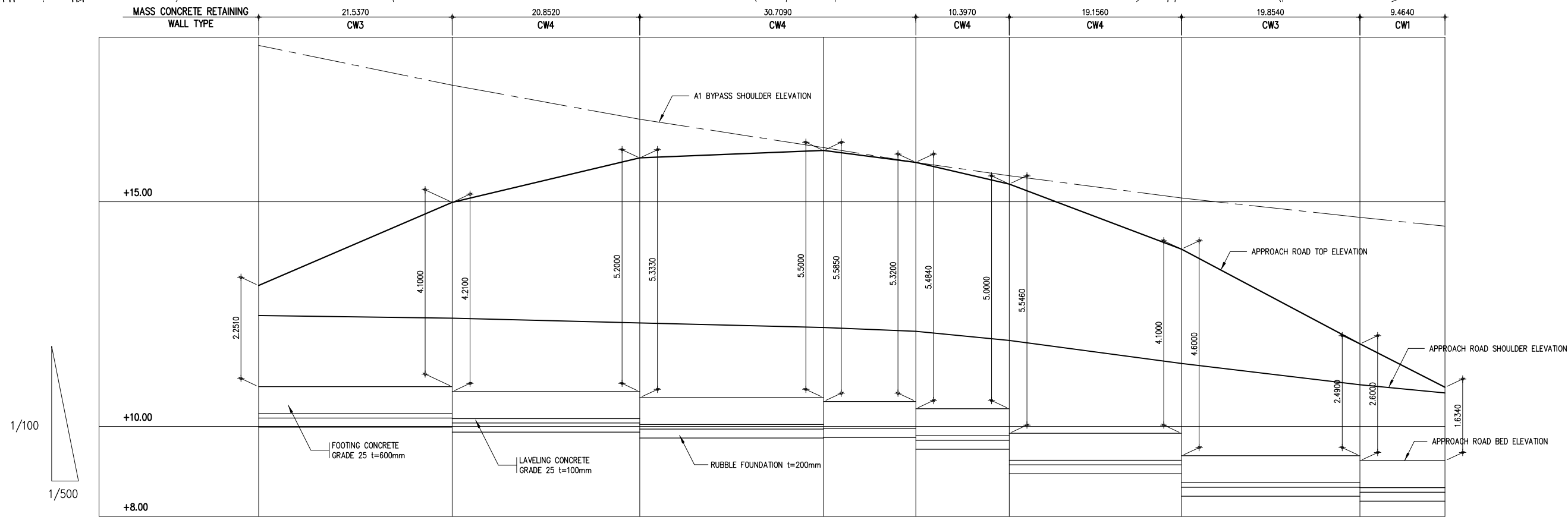
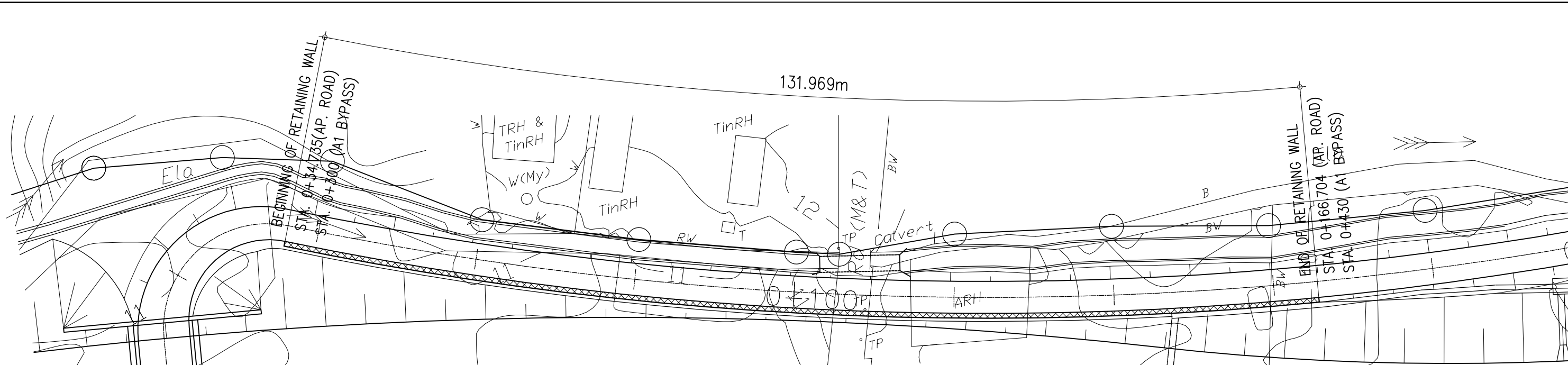
1. Concrete grade for body and footing shall be Grade 25, for leveling shall be Grade 15.
2. Concrete nominal mix for body, footing and leveling are to be 1:3:6(40), 1:3:6(20), and 1:3:6(19) respectively.
3. Concrete nominal mix 1:3:6 (number) means 1 cement, 3 fine aggregate and 6 coarse aggregate with maximum coarse aggregate size of number in millimeter.
4. All reinforcing bars marked "T" shall be high yield deformed bar with yielding strength not less than 460 MPa.
5. Bar splice length shall be not less than the values stated in General Notes.
6. Clear cover for reinforcing bar shall be at least 75 mm for foundation bottom and 50 mm for all side surfaces including shear key.
7. The bars shall be bent in accordance with the Specifications.
8. Type of form shall be rough for foundation slab, and shall be smooth for all other concrete works.

General Note:

1. All dimensions are in millimeters unless otherwise stated.
2. Weep hole is provided by 110 mm diameter PVC pipe at 1.50 m intervals staggered. Additional weep holes are to be provided if necessary to suit site conditions.
3. Depth of foundation below ground level should be at least 1.5 m. If excessive scour is expected, deeper depth may be required.
4. Wing wall length shall be adjusted at site to suit the variation in site conditions during construction.
5. These two drawings shall be read in conjunction with Standard Specifications for Construction and Maintenance of Roads and Bridges.



WALL	LOCATION	WALL HEIGHT H (m)
W1	BEGINNING	1.836
	ENDING	1.821
W2	BEGINNING	2.221
	ENDING	2.191
W3	BEGINNING	2.591
	ENDING	2.561
W4	BEGINNING	3.461
	ENDING	2.709
W5	BEGINNING	3.609
	ENDING	2.857
W6	BEGINNING	3.457
	ENDING	2.705
W7	BEGINNING	3.305
	ENDING	2.553
W8	BEGINNING	3.203
	ENDING	2.450
W9	BEGINNING	3.100
	ENDING	2.348



A1 BYPASS ROAD STATION	0+300	0+320	0+340	0+360	0+370	0+380	0+400	0+420	0+430
SHOULDER ELEVATION	18.479	17.594	16.836	16.205	15.877	15.581	15.085	14.651	14.458
APPROCH ROAD STATION	0+34.735	0+56.272	0+77.124	0+97.576	0+107.833	0+118.230	0+137.386	0+154.240	0+166.704
SHOULDER ELEVATION	12.47	12.409	12.304	12.202	12.117	11.916	11.401	10.926	10.746
TOP ELEVATION	13.136	14.985	15.975	16.142	15.877	15.393	13.947	11.837	10.871
BEDDING ELEVATION	10.885	10.885 10.775	10.775 10.642	10.642 10.557	10.557 10.393	10.393 9.847	9.847 9.347	9.347 9.237	9.237