

Project :




CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR
BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

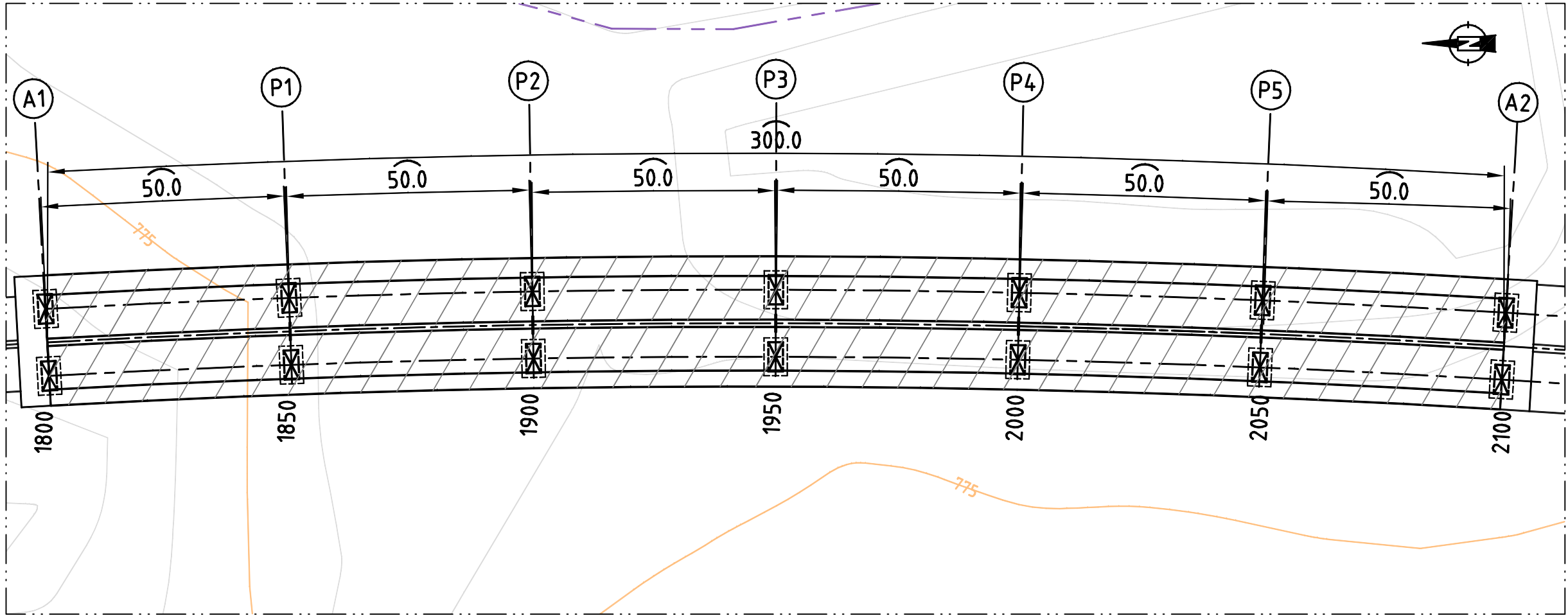
Subject :

KD 6 : Draft Detailed Project Report

Volume-IX
Drawings

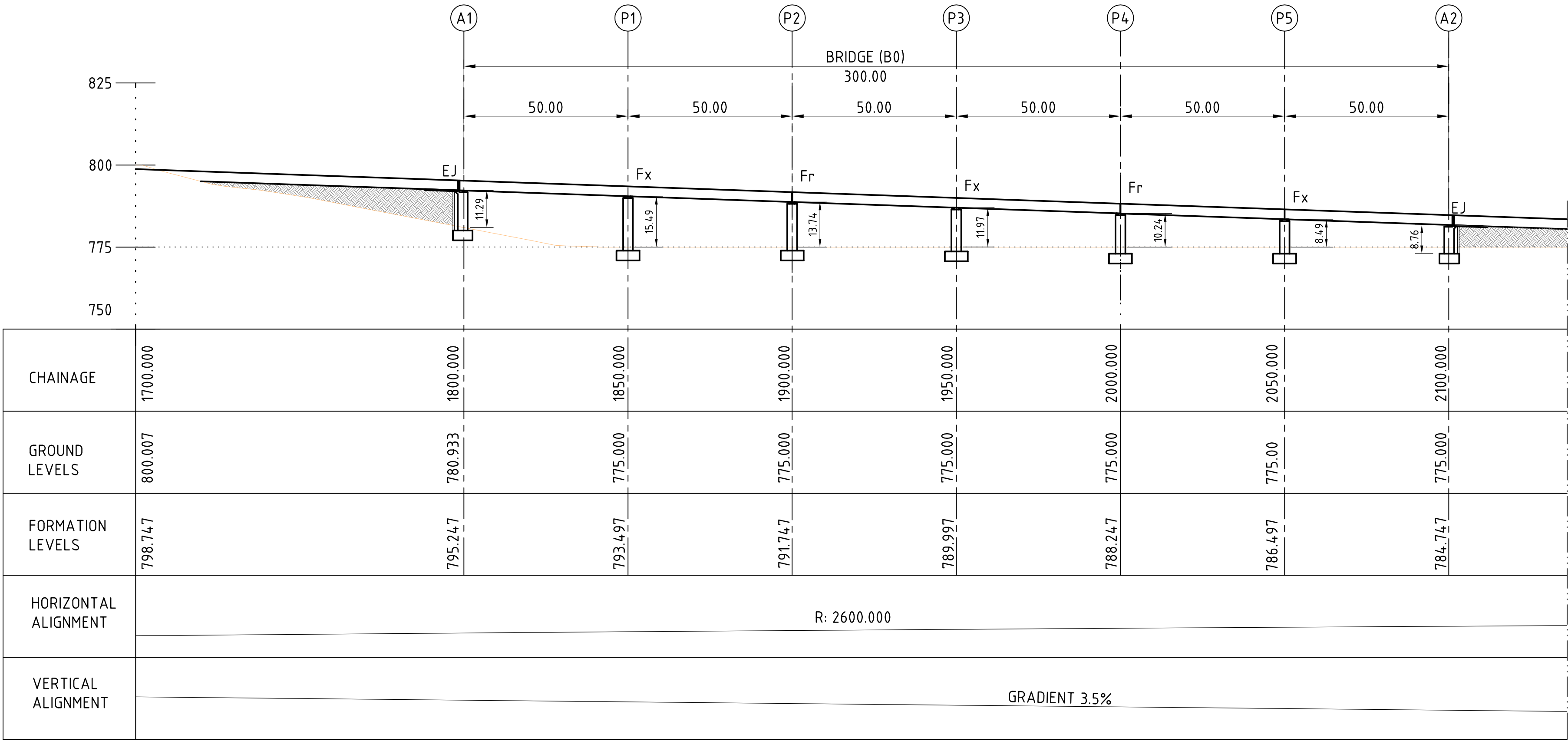
PRELIMINARY

REVISION					QUALITY ASSURANCE						DESIGN CONSULTANTS :  GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)	CLIENT :  सड़क परिवहन और राजमार्ग मंत्रालय MINISTRY OF ROAD TRANSPORT & HIGHWAYS भारत सरकार Government of India  Karnataka Public Works, Ports & Inland Water Transport Department	
F	DEC 2015	SIXTH DRAFT (KD-6)	PRa	RMe	AKg	The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.							
E	DEC 2015	FIFTH DRAFT (KD-5)		RMe	RMe								AKg
D	SEP 2015	FOURTH DRAFT (KD-4)	ABa	RMe	AKg	Date (FIRST ISSUE)	22.07.15	22.07.15	-	-			22.07.15
C	AUG 2015	THIRD DRAFT (KD-3)	ABa	RMe	AKg								
B	AUG 2015	SECOND DRAFT (KD-2)	ABa	RMe	AKg	Name	ABa/PRa	RMe	-	-			AKg/FKr
A	JULY 2015	FIRST DRAFT (KD-1)	ABa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk			Approved
REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators							
GEOCONSULT, PRa, R/16000 Projects/V6060-Shridi Ghat/1CURRENT WD-6/COVER PAGE_F.dwg, 2015-12-18													



GENERAL ARRANGEMENT PLAN

SCALE 1:1000



GENERAL ARRANGEMENT L-SECTION

SCALE 1:1000


NOTES:

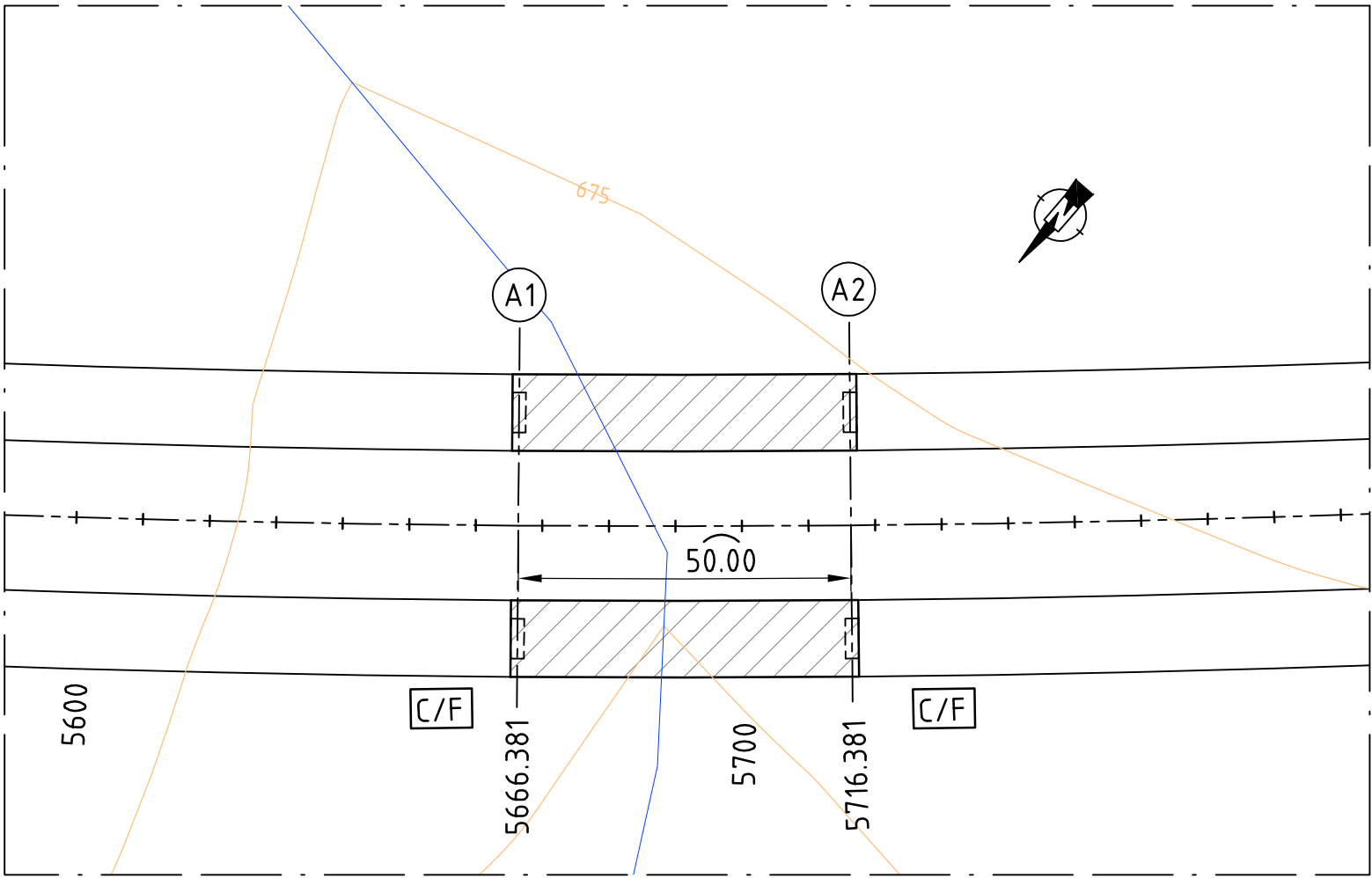
- ALL DIMENSIONS ARE SHOWN IN mm AND LEVELS ARE SHOWN IN METERS UNLESS OTHERWISE SPECIFIED.
- DO NOT SCALE THE DIMENSIONS.
- THE FOUNDATION LEVELS SHOWN IN THE DRAWING ARE TO BE VERIFIED AT SITE BASED ON CONFIRMATORY SUBSOIL INVESTIGATION PRIOR TO COMMENCEMENT OF WORK.
- THIS DRAWING SHALL BE READ ALONG WITH RELATED REFERENCE DRAWINGS.

SCALE 1 : 1000

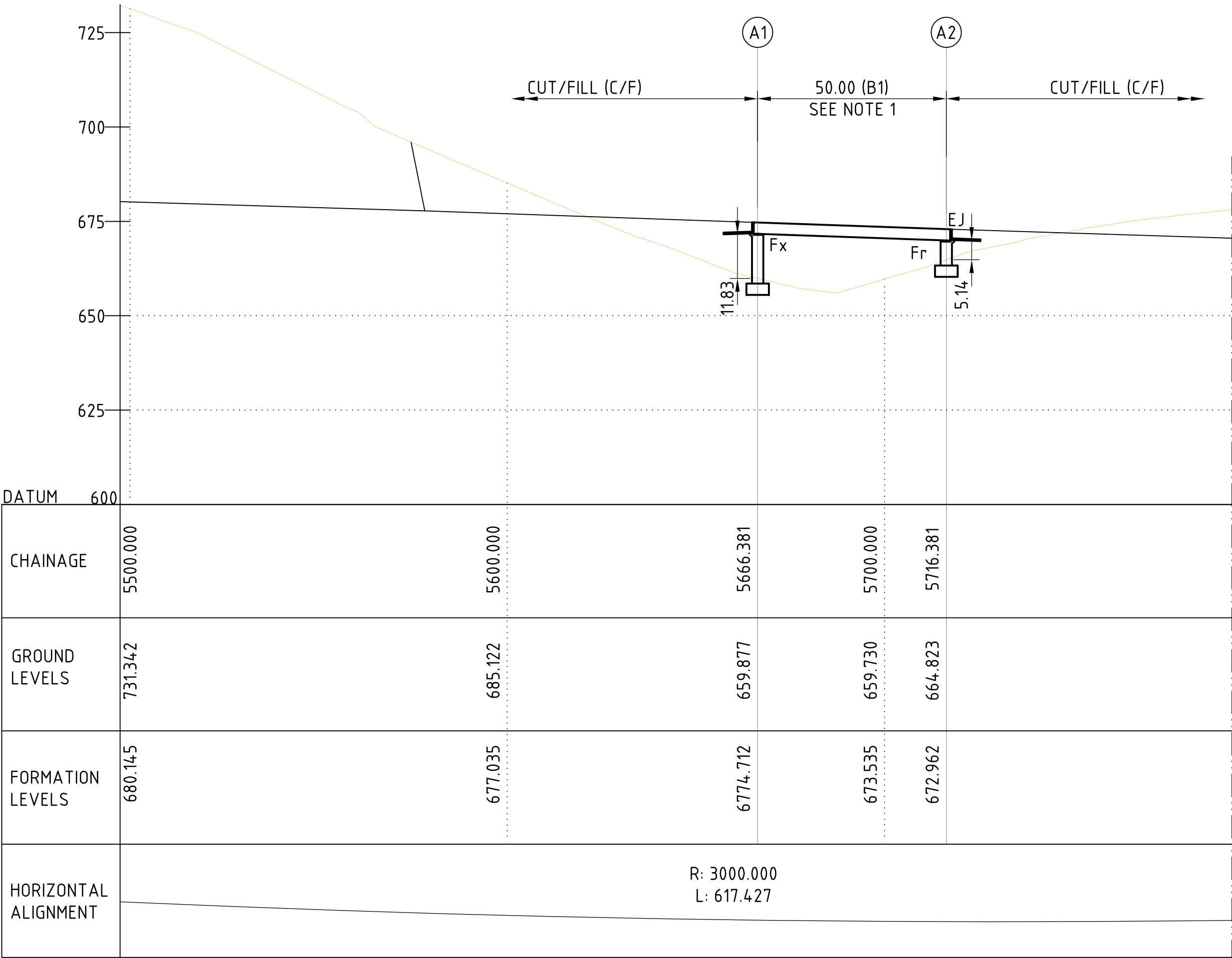


PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 SHGA-FS-GEN-015 (TYPICAL CROSS-SECTION)	LEGEND: EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT <div><div></div> BRIDGE DECK</div>	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA		
					The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.								DRAWING TITLE BRIDGE 'B0 ' GENERAL ARRANGEMENT PLAN & SECTION				
													PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780				
					Date (FIRST ISSUE)						DEC 15	DEC 15	DEC 15	DEC 15	DEC 15	DRAWING NUMBER SHGA-FS-BR0-1505	
					Name						PRa/RMe	RMe	ADh/AKg	ADh/AKg	AKg	REV B	
					Drawn						Drafting Chk	Designed	Design Chk	Approved	SCALE 1:1000		
REV.		DATE		PARTICULARS				Drawn	Checked	Approved	Originators		MONTH (Current Issue)		DEC 2015		



PLAN
SCALE 1:1000




LONGITUDINAL SECTION AT PROJECT CENTRE LINE
SCALE 1:1000



- NOTES:
- SPAN ARRANGEMENTS, EXTENT OF CUT/FILL SHOWN IN DRAWING ARE PRELIMINARY AND SHALL BE VERIFIED / FINALISED AFTER DETAILED GEOLOGICAL INVESTIGATION AND TOPOGRAPHIC SURVEY.
 - THIS DRAWING SHALL BE READ ALONGWITH DRAWING NUMBER SHGA-FS-GEN-015, FOR GENERAL PIERS SECTIONS ADAPTABILITY .


PRELIMINARY

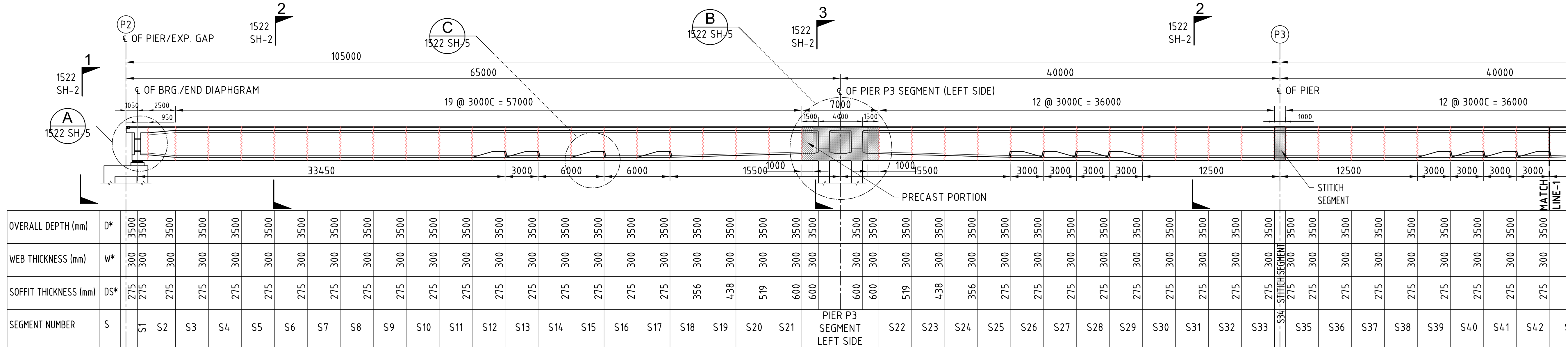
REFERENCE DRAWINGS: SHGA-FS-LAY-1000 SHGA-FS-GEN-015 (TYPICAL CROSS-SECTION)	LEGEND: EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT ☐ - BRIDGE DECK	REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA		
														PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			DRAWING TITLE BRIDGE No. B1 GENERAL ARRANGEMENT PLAN AND L-SECTION		
														Date (FIRST ISSUE)			DRAWING NUMBER SHGA-FS-BR1-1511		REV C
														Name			SCALE 1:1000		MONTH (Current Issue) DEC 2015
														Drawn					
		C	DEC 2015	THIRD SUBMISSION (KD-6)			ABa/PRa	RMe	AKg										
		B	DEC 2015	SECOND SUBMISSION (KD-5)			ABa/PRa	RMe	AKg										
		A	SEP 2015	FIRST DRAFT			ABa	RMe	AKg										
		REV.	DATE	PARTICULARS			Drawn	Checked	Approved	Originators		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. ©GEOCONSULT, PRA, R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-BR1-1511_C.dwg, 2015-12-18							

PLAN-BRIDGE 'B2'

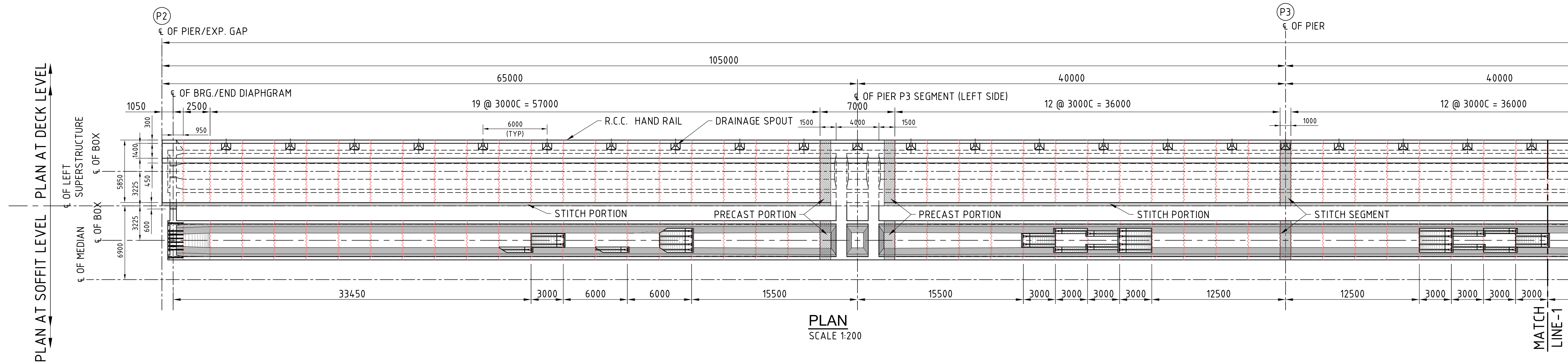


PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000	LEGEND: ML- MONOLITHIC EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT ☐ BRIDGE DECK	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA				
					The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			DRAWING TITLE BRIDGE No. 'B2' GENERAL ARRANGEMENT PLAN AND L-SECTION				
		D	DEC 2015	FOURTH SUBMISSION (KD-6)	ABa/RMe	RMe	AKg	Date (FIRST ISSUE)	AUG 15	AUG 15	AUG 15	AUG 15		AUG 15				
		C	DEC 2015	THIRD SUBMISSION (KD-5)	ABa/RMe	RMe	AKg	Name	ABa	RMe	ADh/RMe	AKg		AKg				
		B	SEP 2015	SECOND DRAFT (KD-4)	ABa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk		Approved				
		A	AUG 2015	FIRST DRAFT (INTERIM SUBMISSION)	ABa	RMe	AKg											
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators						SCALE 1:2000		MONTH (Current Issue) DEC 2015		
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		GEOCONSULT, PRA, R/16000 Projects/16060-Shiradi Ghat/CURRENT W/O-6/SHGA-FS-BR2-1521_D.dwg, 2015-12-18																

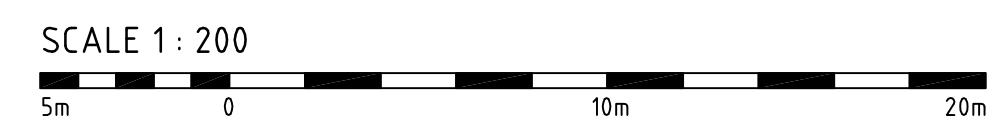



LONGITUDINAL ELEVATION

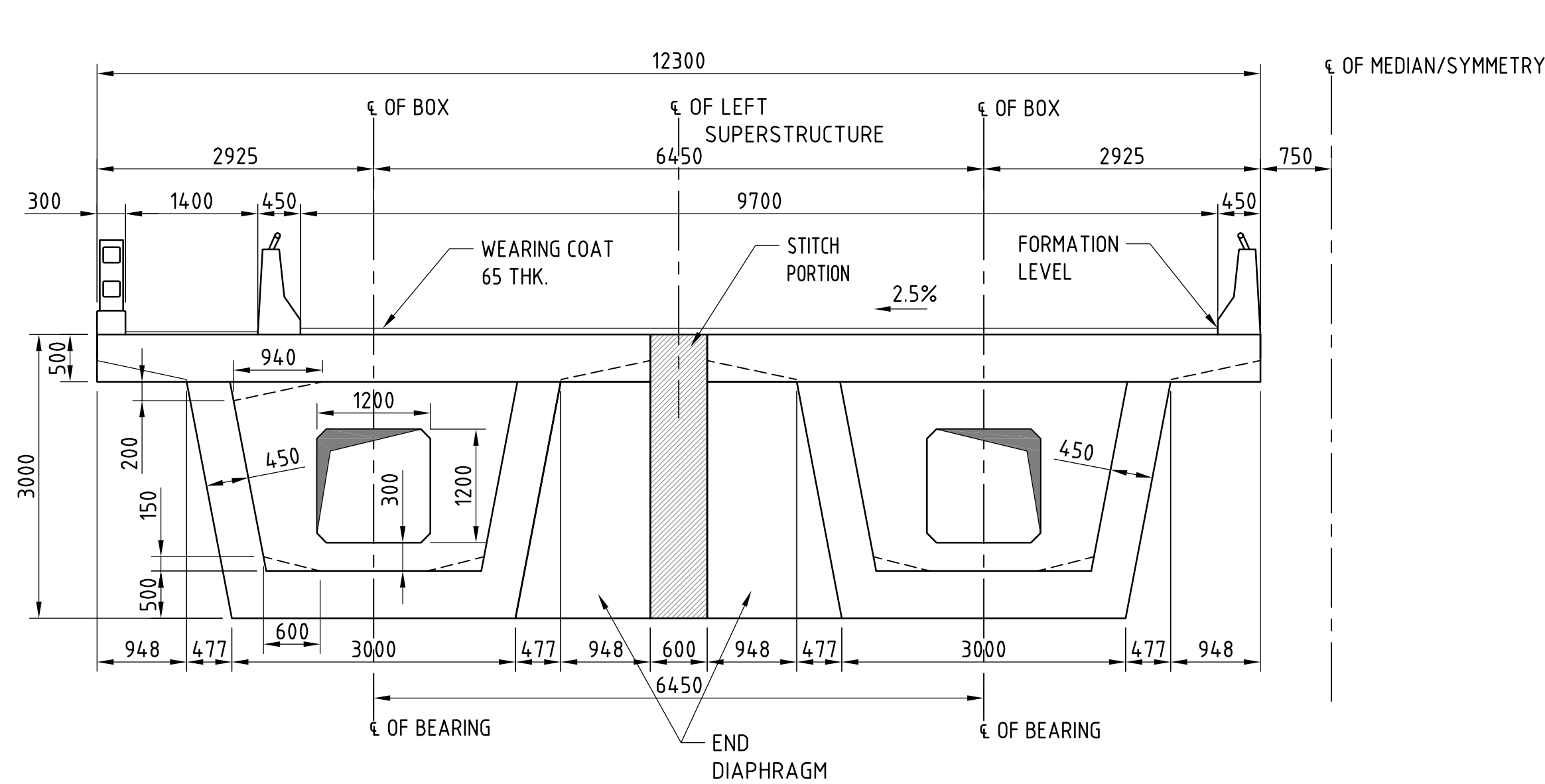


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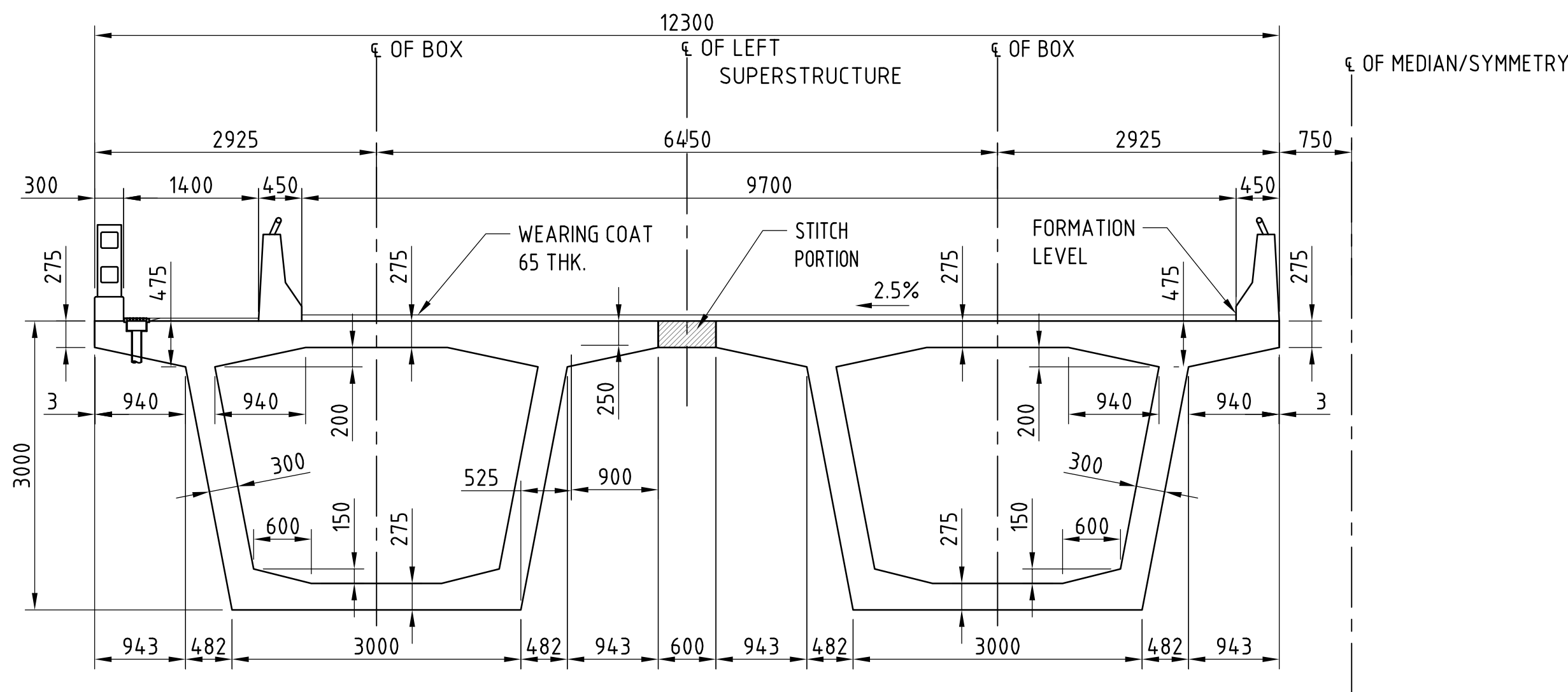
1. ALL DIMENSIONS ARE IN mm. AND LEVELS IN METERS UNLESS STATED OTHERWISE.
2. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
3. CONCRETE GRADE FOR SUPERSTRUCTURE SHALL BE M50.
4. DIMENSION GIVEN IN THE DRAWING MUST BE CHECKED AT SITE BEFORE START THE WORK FOR FEASIBILITY.
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH SHEET 2 OF 4, 3 OF 4 AND 4 OF 4 OF THIS DRAWING



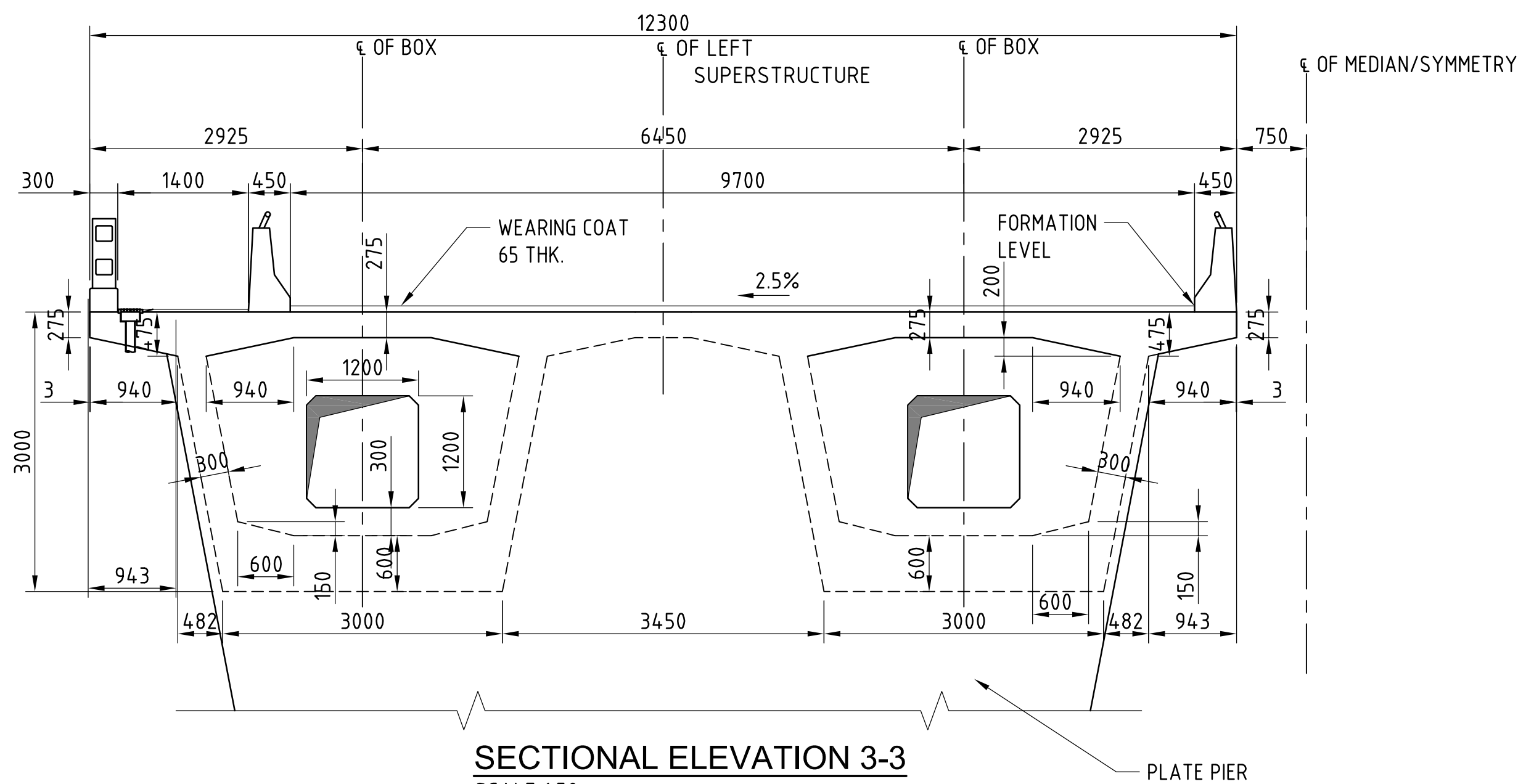
REFERENCE DRAWINGS:	LEGEND:	REVISION						QUALITY ASSURANCE					DESIGN CONSULTANTS :			CLIENT			
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			GOVERNMENT OF KARNATAKA			
														PROJECT TITLE		DRAWING TITLE			
								Date (FIRST ISSUE)	DEC'15	DEC 15	DEC 15	DEC 15	DEC 15	CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		BRIDGE NO.'B2 ' DIMENSION DETAILS OF SUPERSTRUCTURE BETWEEN PIERS P2 TO P5 (SHEET-1)			
		B	DEC2015	SECOND DRAFT(KD6)				ABa	RMe/ADh	AKg	Name	ABa	RMe	ADh	ADh	AKg	DRAWING NUMBER		REV
		A	DEC2015	FIRST DRAFT(KD5)				ABa	RMe/ADh	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved	SHGA-FS-BR2-1522		B
		REV.	DATE	PARTICULARS				Drawn	Checked	Approved	Originators					SCALE		MONTH	
																1:200		(Current Issue)	DEC 2015



SECTION ELEVATION 1-1
SCALE 1:50

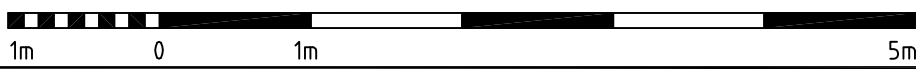


CROSS SECTION 2-2
SCALE 1:50



SECTIONAL ELEVATION 3-3
SCALE 1:50

SCALE 1 : 50



REFERENCE DRAWINGS:

LEGEND:

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
B	DEC2015	SECOND DRAFT(KD6)	ABa	RMe/ADh	AKg
A	DEC2015	FIRST DRAFT(KD5)	ABa	RMe/ADh	AKg

QUALITY ASSURANCE

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Date (FIRST ISSUE)	DEC15	DEC 15	DEC 15	DEC 15	DEC 15
Name	ABa	RMe	ADh	ADh	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS :

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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R:\GEOCONSULT_PRA_R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-BR2-1522_B-4_SHEETS.dwg, 2015-12-18

CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

BRIDGE NO.'B2 '
DIMENSION DETAILS OF SUPERSTRUCTURE
BETWEEN PIERS P2 TO P5 (SHEET-2)

DRAWING NUMBER

SHGA-FS-BR2-1522

SCALE

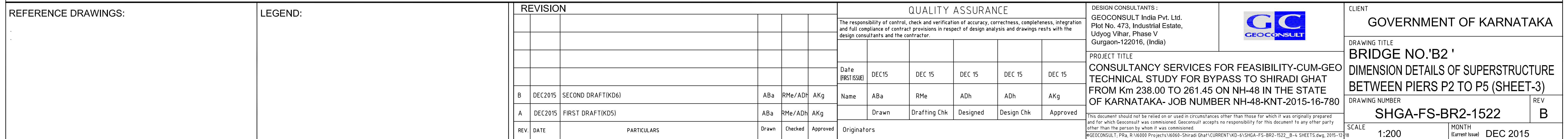
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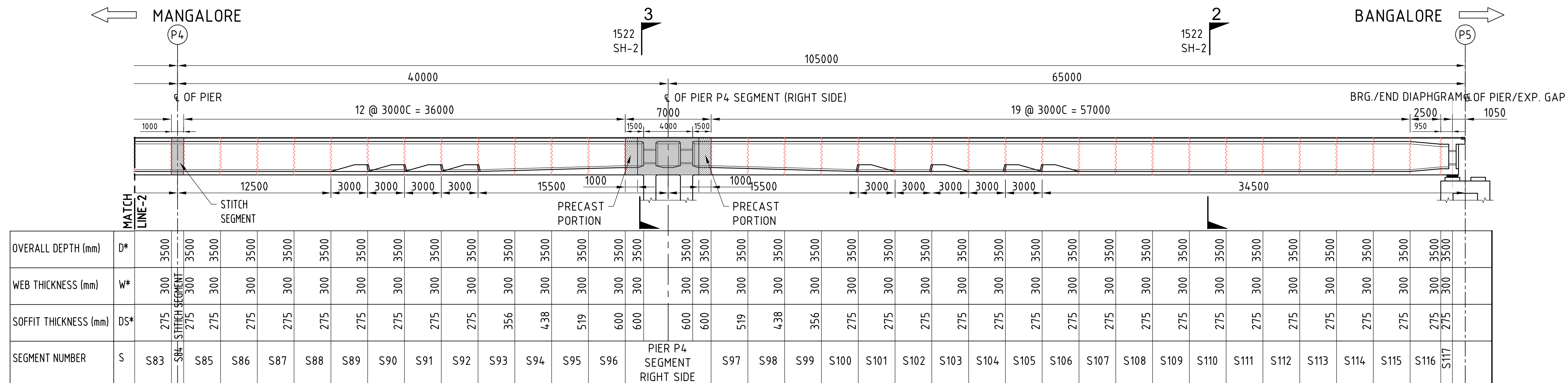
MONTH

DEC 2015

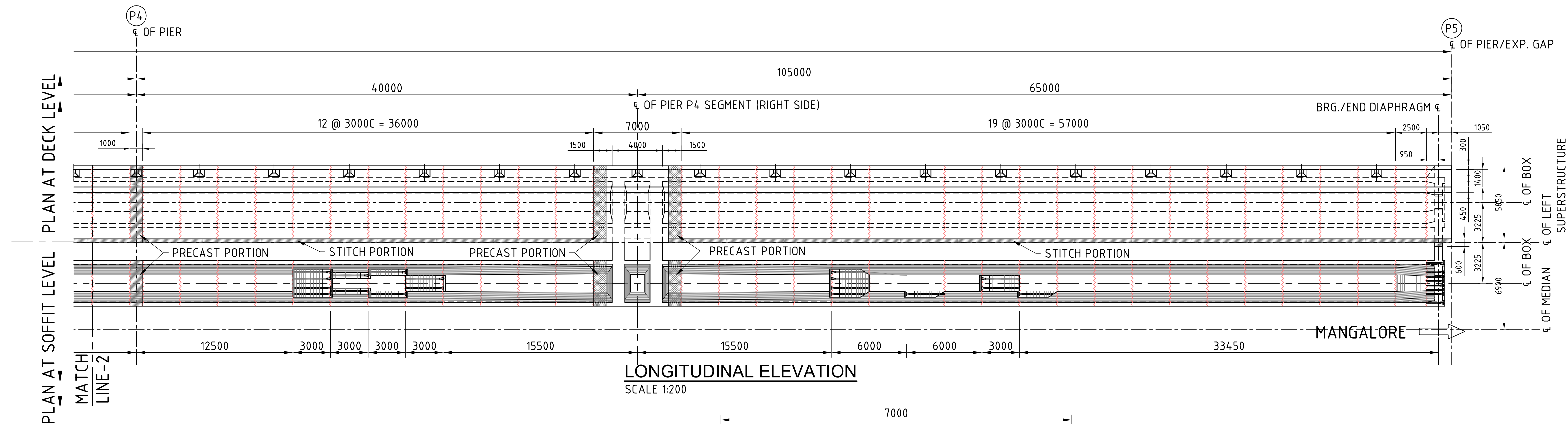
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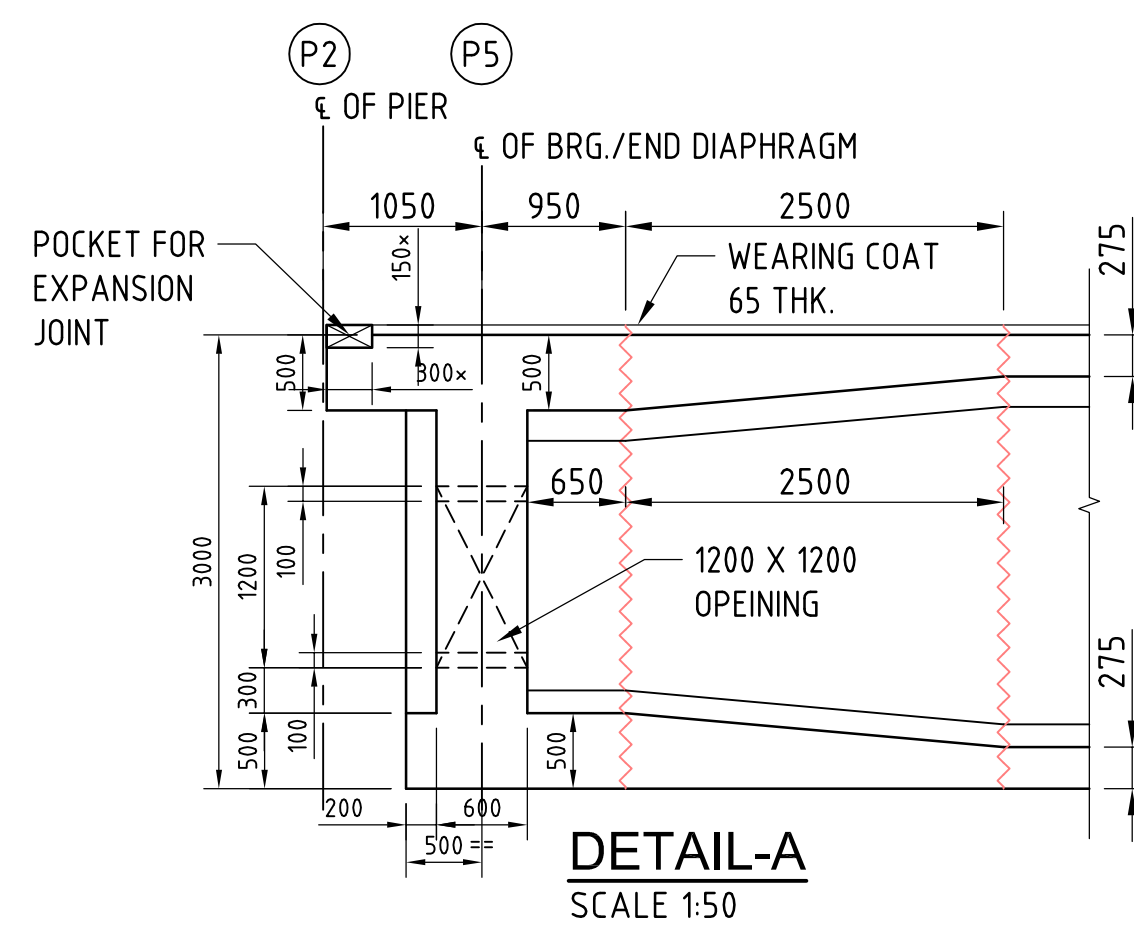




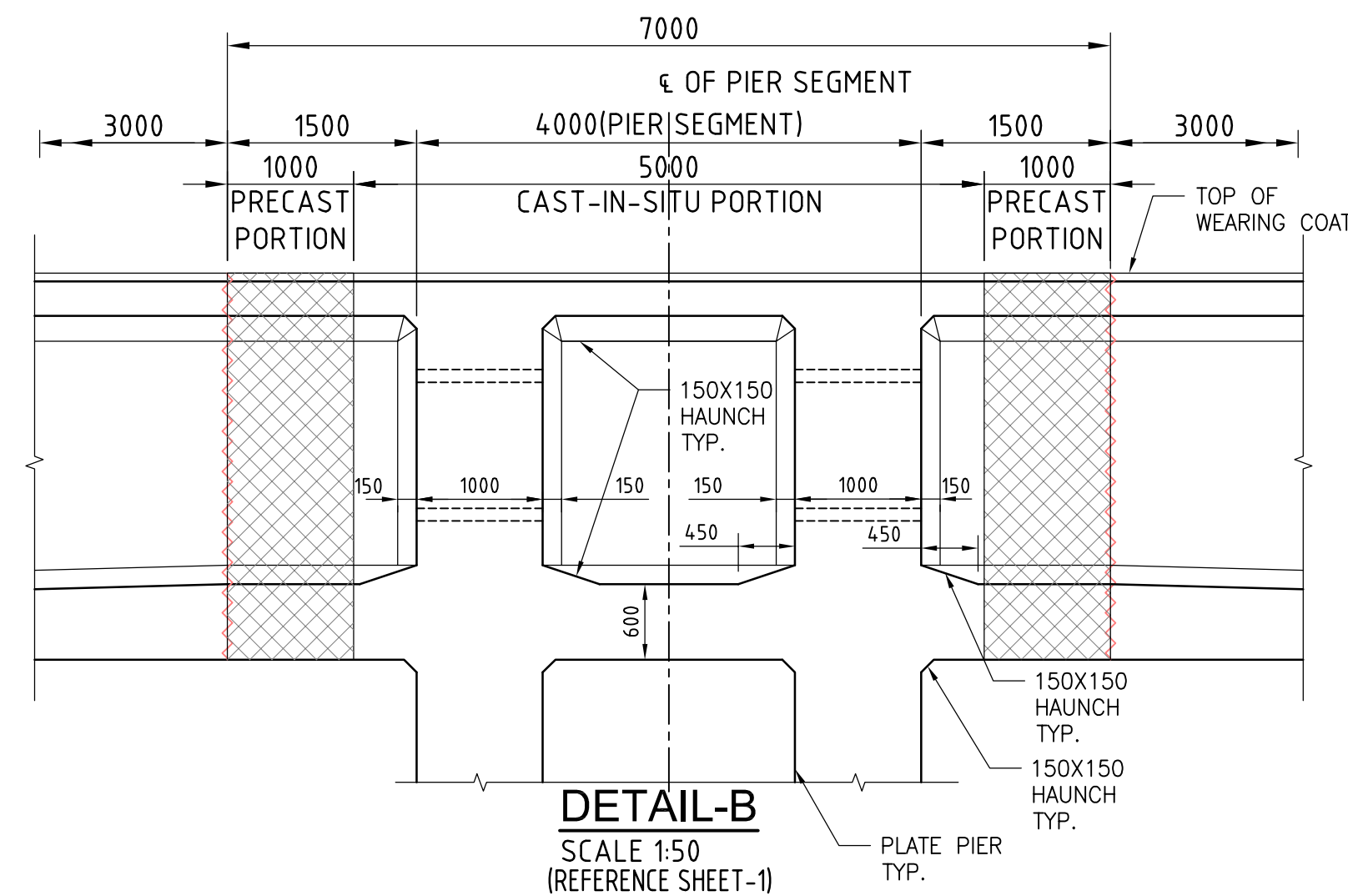
LONGITUDINAL ELEVATION
SCALE 1:200



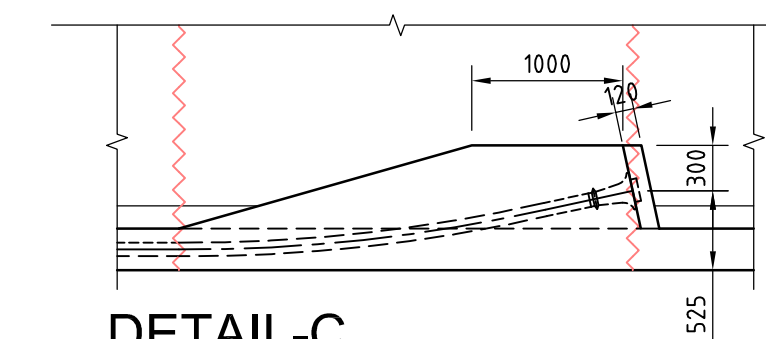
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SCALE 1:200



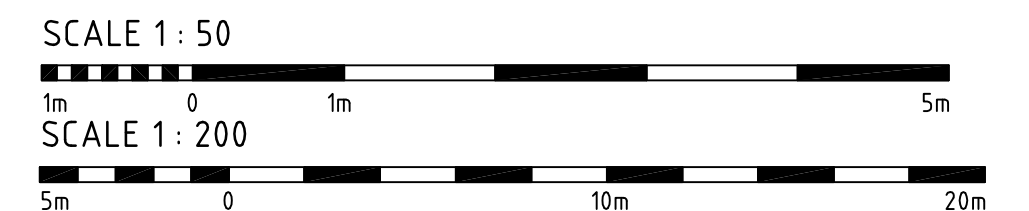
DETAIL-A
SCALE 1:50



DETAIL-B
SCALE 1:50
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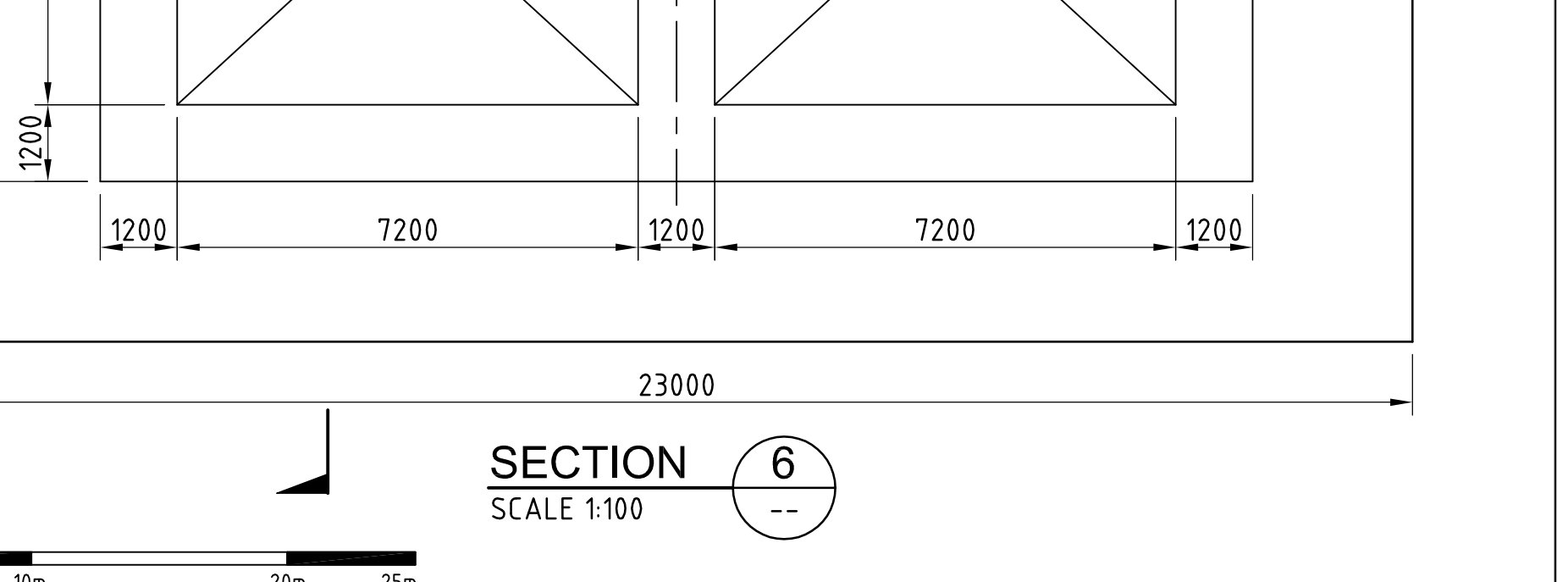
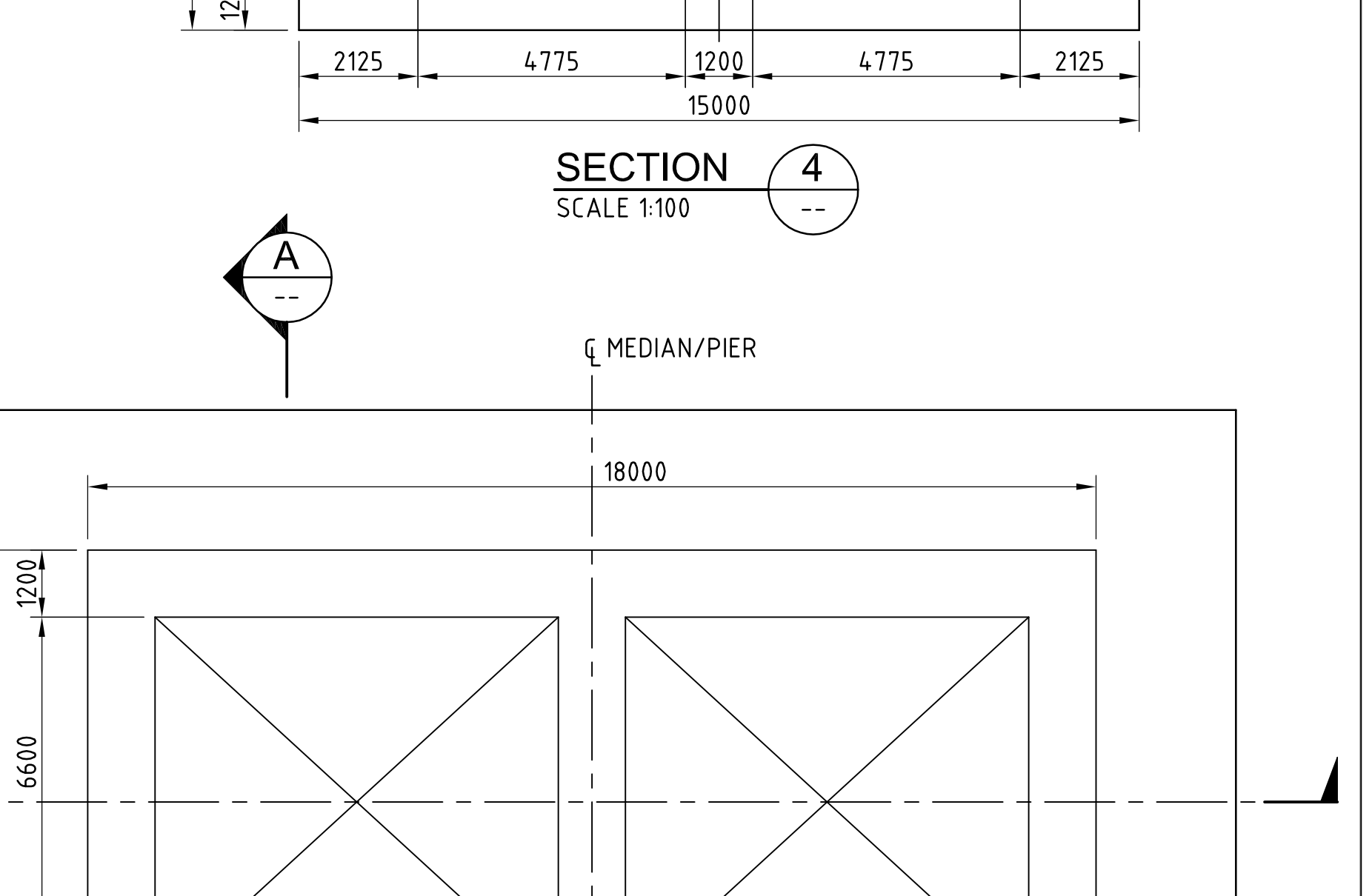
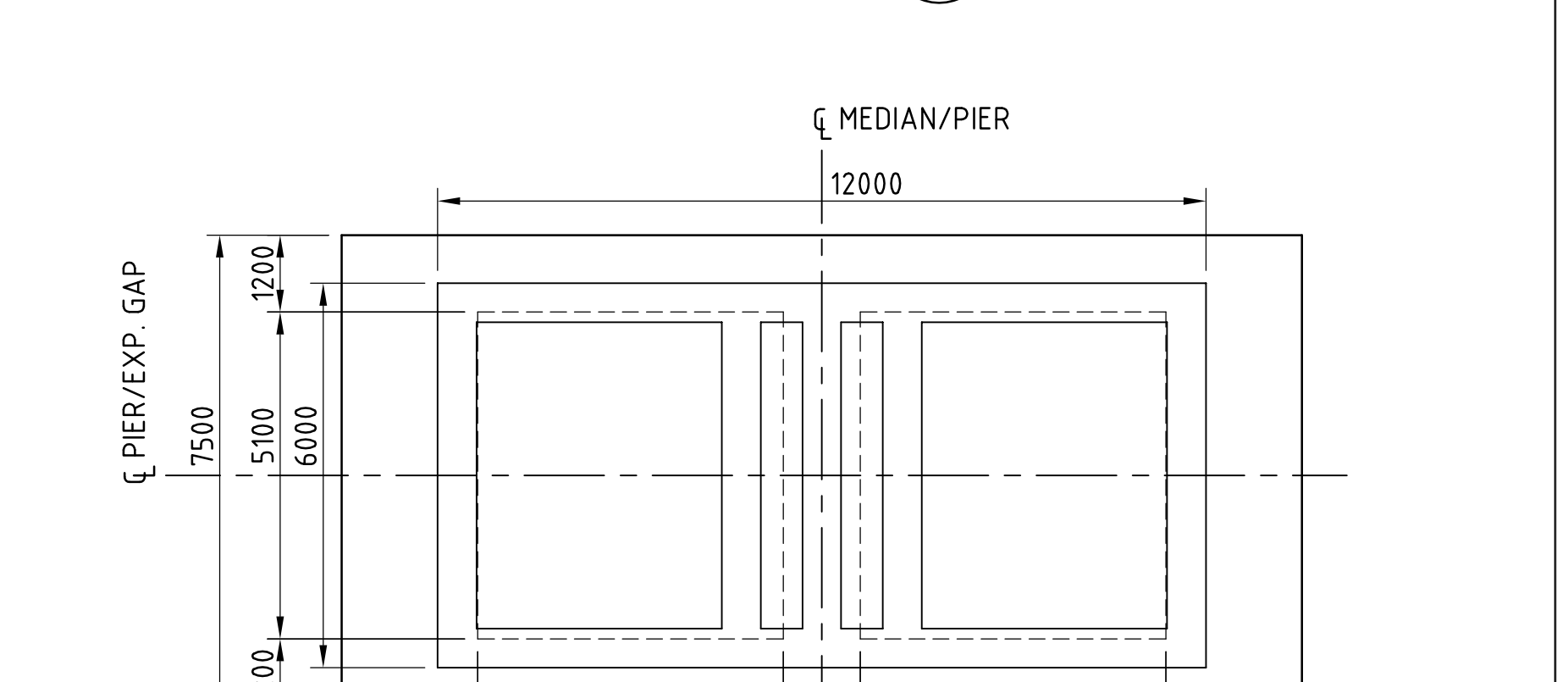
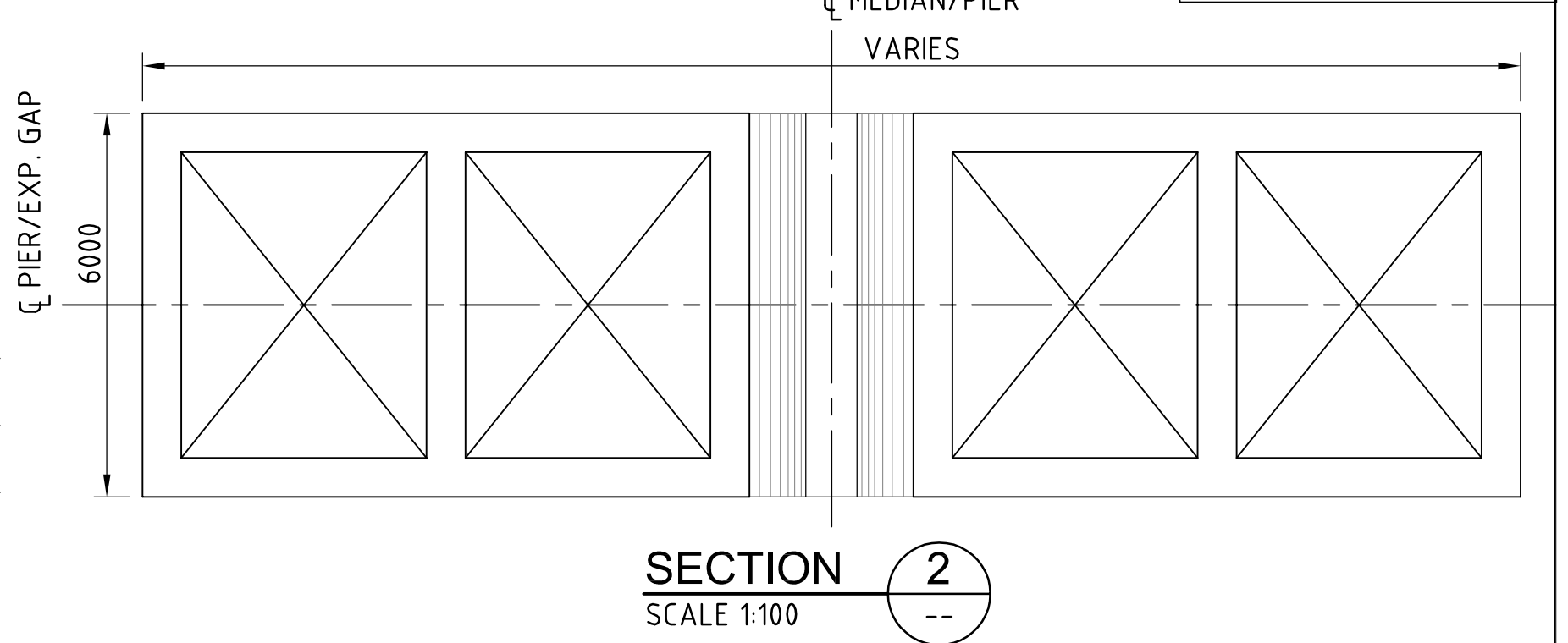
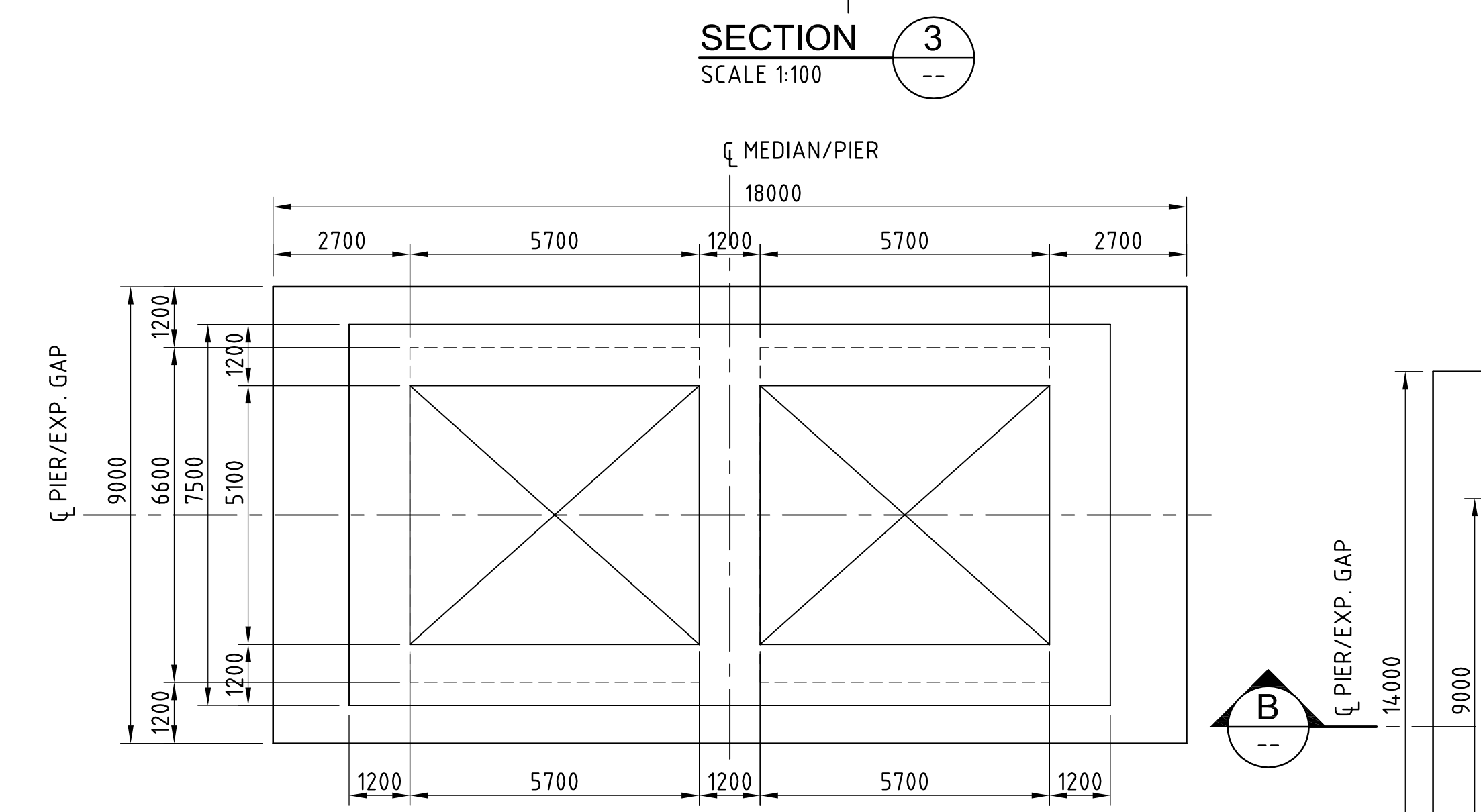
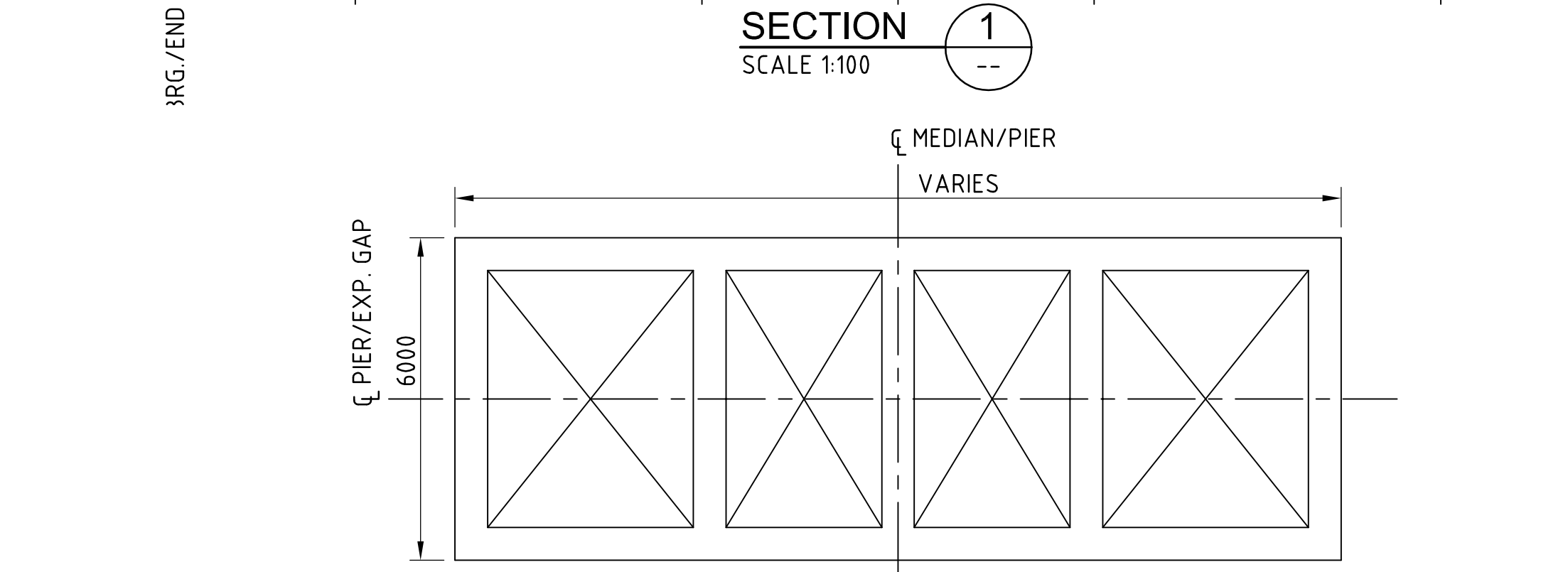
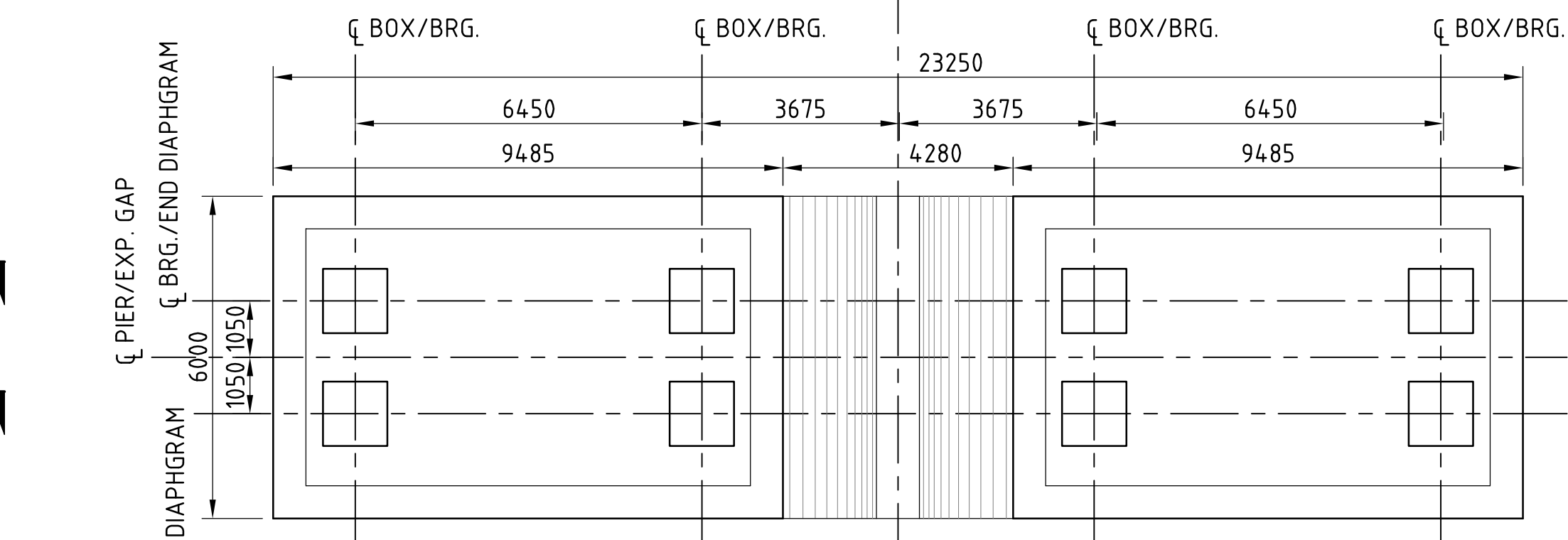
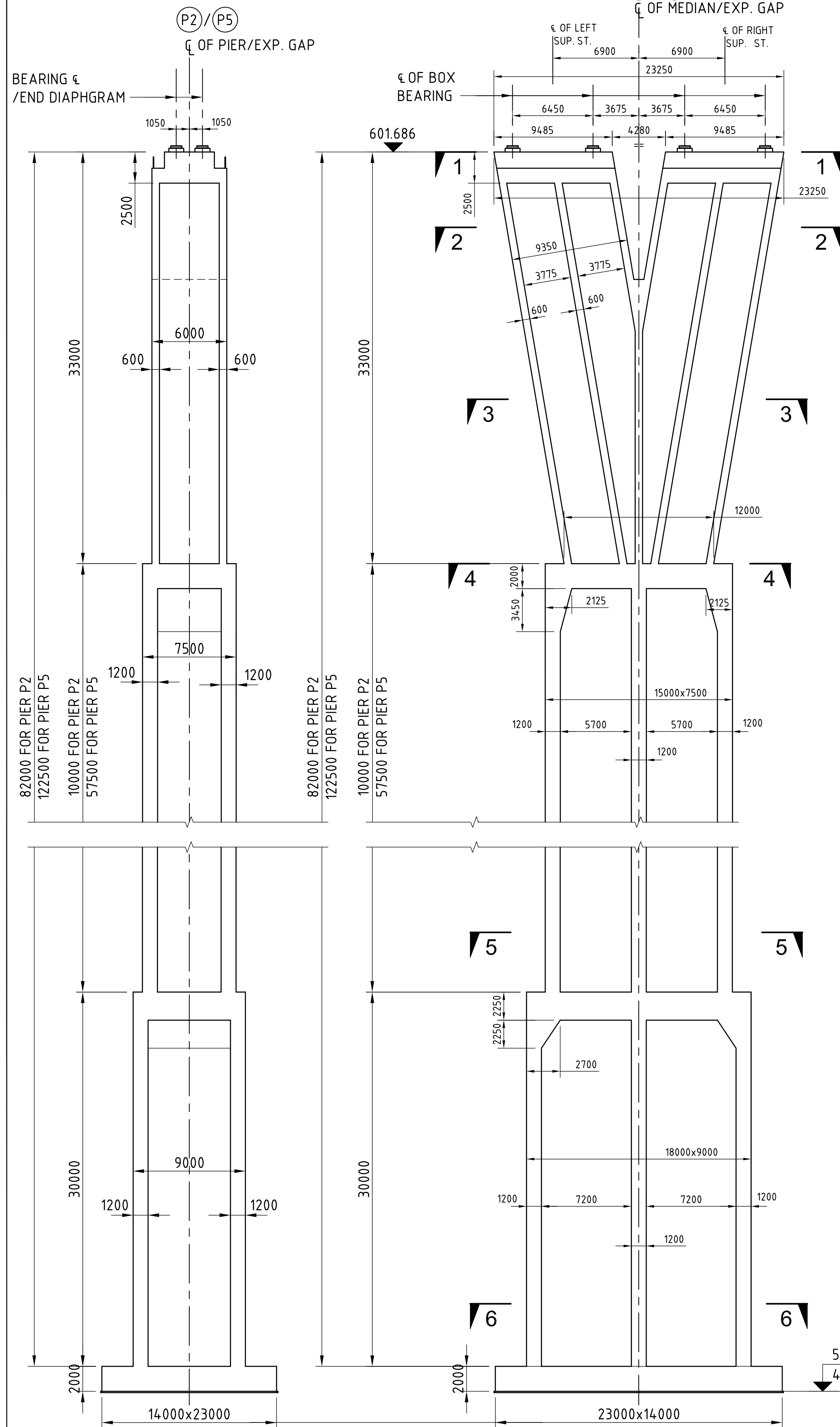
525
DETAIL-C
(TYPICAL DETAIL OF BLISTER BLOCK)
SCALE 1:50



NOTES:-

1. ALL DIMENSIONS ARE IN mm. AND LEVELS IN METERS.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH SHEET 1 OF 4, 3 OF 4 & 4 OF 4 OF THIS DRAWING

REFERENCE DRAWINGS:	LEGEND:	REVISION						QUALITY ASSURANCE					DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA			
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			DRAWING TITLE BRIDGE NO.'B2 ' DIMENSION DETAILS OF SUPERSTRUCTURE BETWEEN PIERS P2 TO P5 (SHEET-4)			
		B	DEC2015	SECOND DRAFT(K06)				ABa	RMe/ADh	AKg	Name	ABa	RMe	ADh	ADh	AKg	DRAWING NUMBER SHGA-FS-BR2-1522		REV B
		A	DEC2015	FIRST DRAFT(K05)				ABa	RMe/ADh	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved			
		REV.	DATE	PARTICULARS				Drawn	Checked	Approved	Originators					This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		SCALE 1:200	



NOTES:


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4. DIMENSION AND LEVELS GIVEN IN THE DRAWING MUST BE VERIFIED AT SITE BEFORE STARTING THE WORK FOR FEASIBILITY.
5. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH SHEET 2 OF 3 AND 3 OF 3 OF THIS DRAWING.

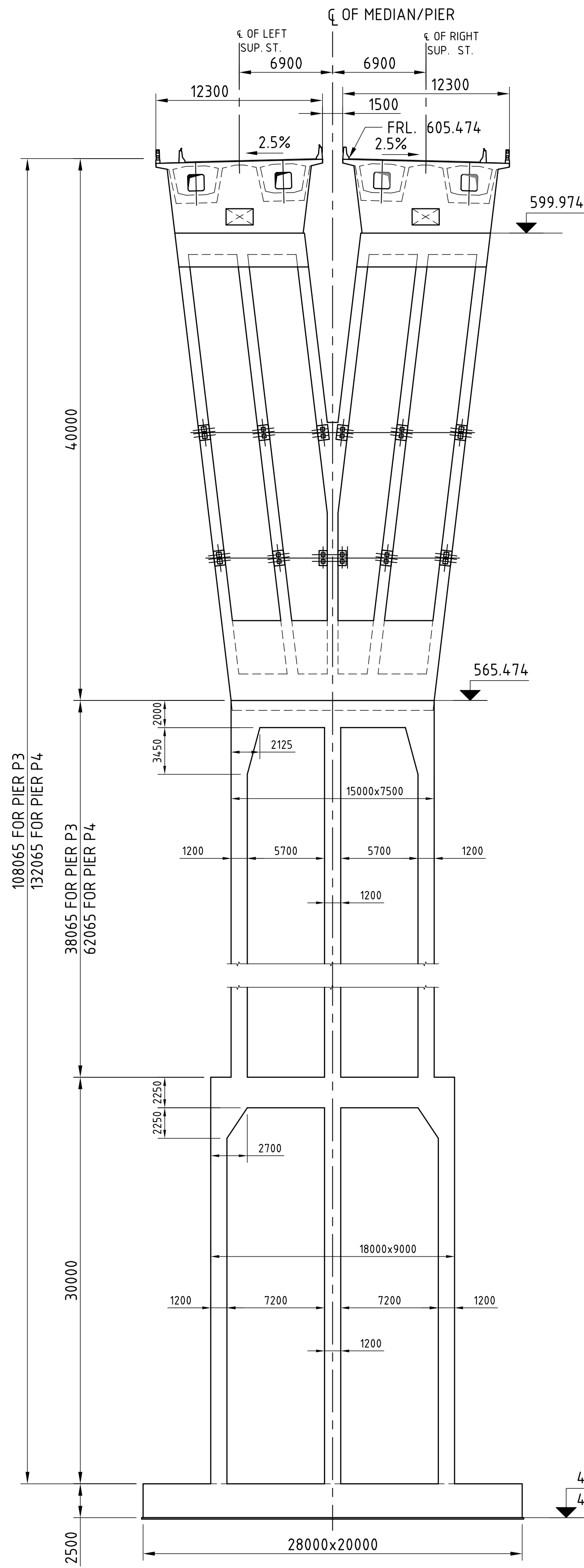
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SCALE 1 : 100

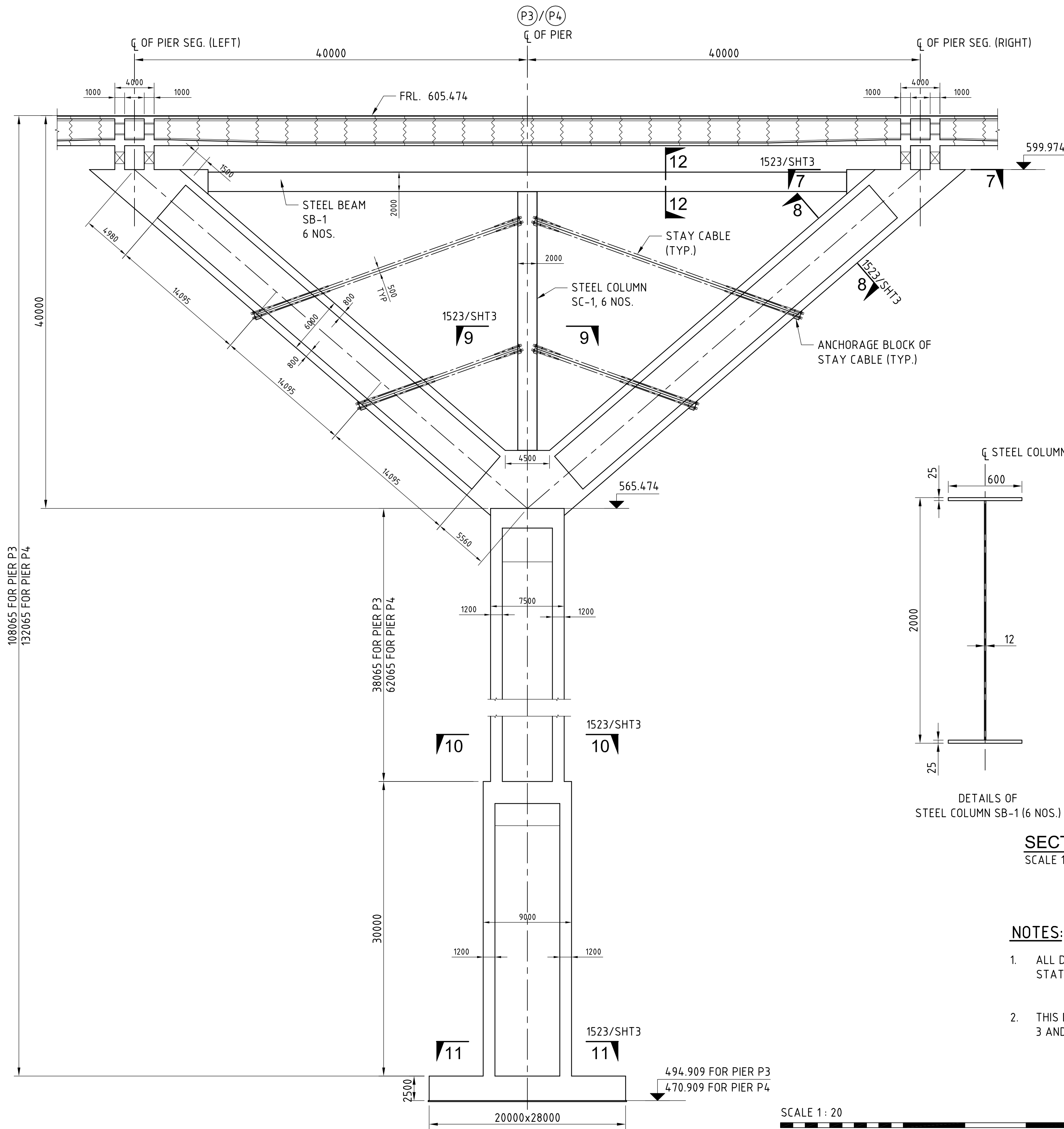


REFERENCE DRAWINGS:	LEGEND:	REVISION			QUALITY ASSURANCE					DESIGN CONSULTANTS :			CLIENT			
									The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					GOVERNMENT OF KARNATAKA		
														DRAWING TITLE		
														BRIDGE 'B2 '		
														DIMENSION DETAILS OF PIERS		
														P2 , P3, P4 AND P5- SHEET 1		
														DRAWING NUMBER		
														SHGA-FS-BR2-1523		
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											MONTH					
											(Current Issue)					
											DEC 2015					

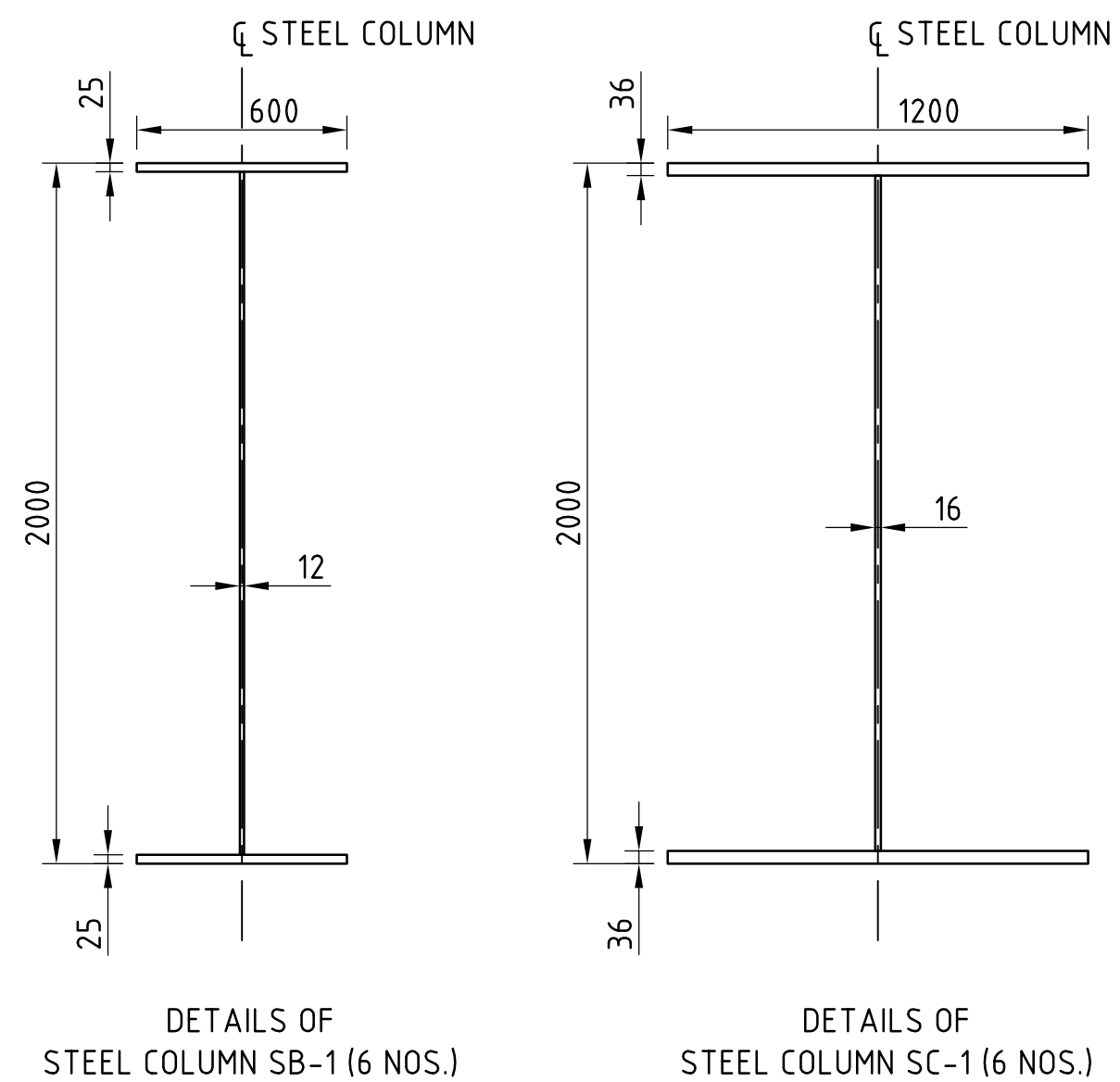


SECTION D
SCALE 1:250

DIMENSION DETAILS OF PIER P3 AND P4



SECTION C
SCALE 1:250

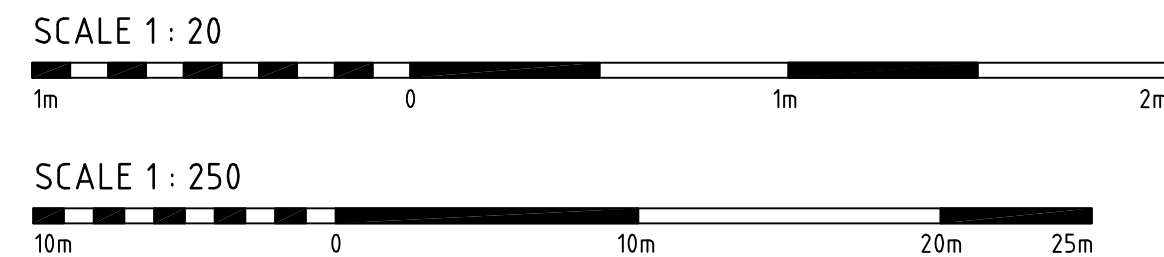


DETAILS OF STEEL COLUMN SB-1 (6 NOS.)
DETAILS OF STEEL COLUMN SC-1 (6 NOS.)

SECTION 12
SCALE 1:20
1523 SHT2 & 3

NOTES:

- ALL DIMENSIONS ARE IN mm. AND LEVELS IN METERS UNLESS STATED OTHERWISE.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH SHEET 1 OF 3 AND 3 OF 3 OF THIS DRAWING.



PRELIMINARY

REFERENCE DRAWINGS:

LEGEND:

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
B	DEC 2015	SECOND SUBMISSION (KD-6)	PRa	RMe	AKg
A	DEC 2015	FIRST SUBMISSION (KD-5)	PRa	RMe	AKg

QUALITY ASSURANCE

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Date (FIRST ISSUE)	DEC 15	DEC 15	DEC 15	DEC 15
Name	PRa	RMe	ADh	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved
Originators				

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



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CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

BRIDGE 'B2'
DIMENSION DETAILS OF PIERS
P2 , P3, P4 AND P5- SHEET 2

DRAWING NUMBER

SHGA-FS-BR2-1523

SCALE

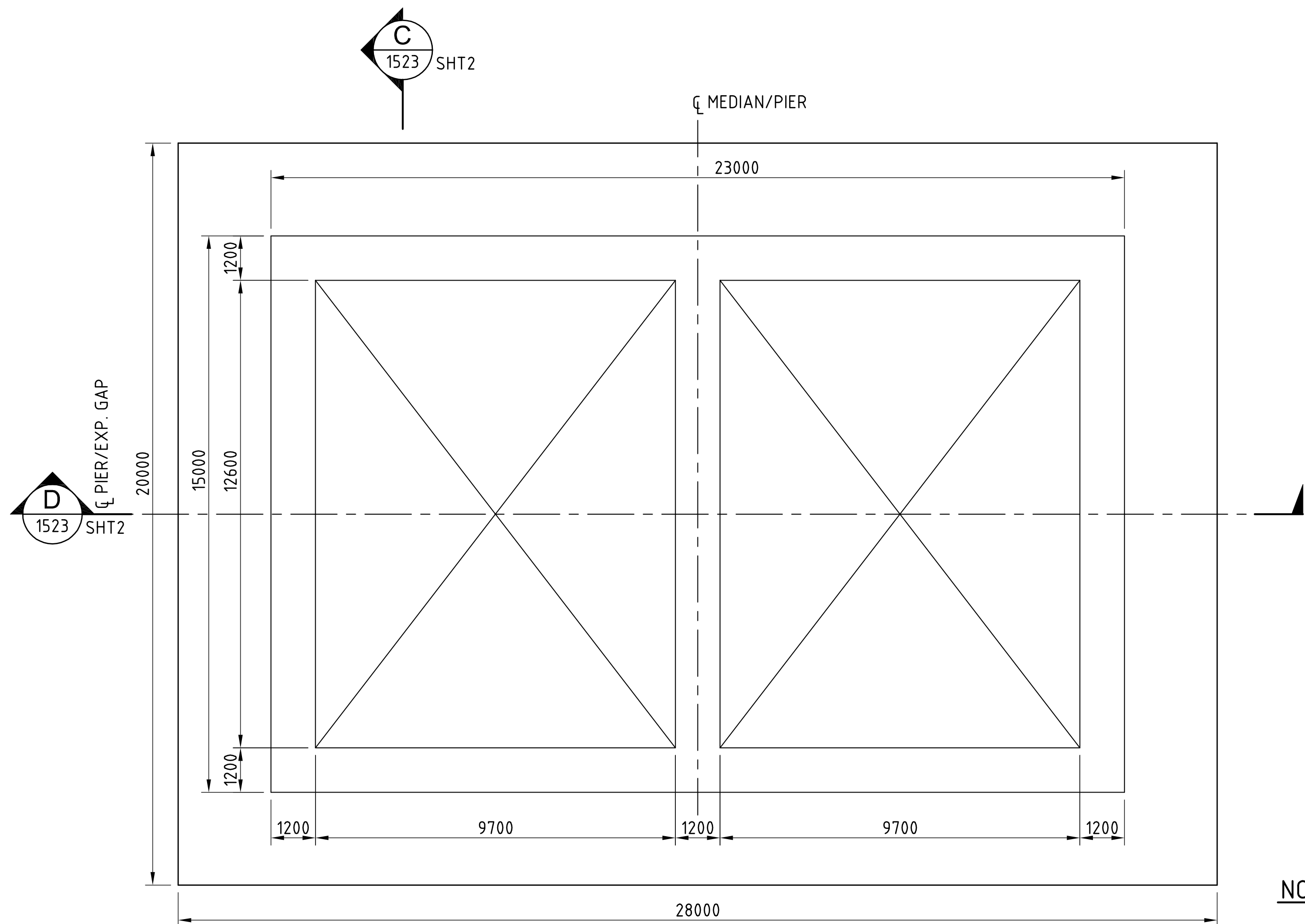
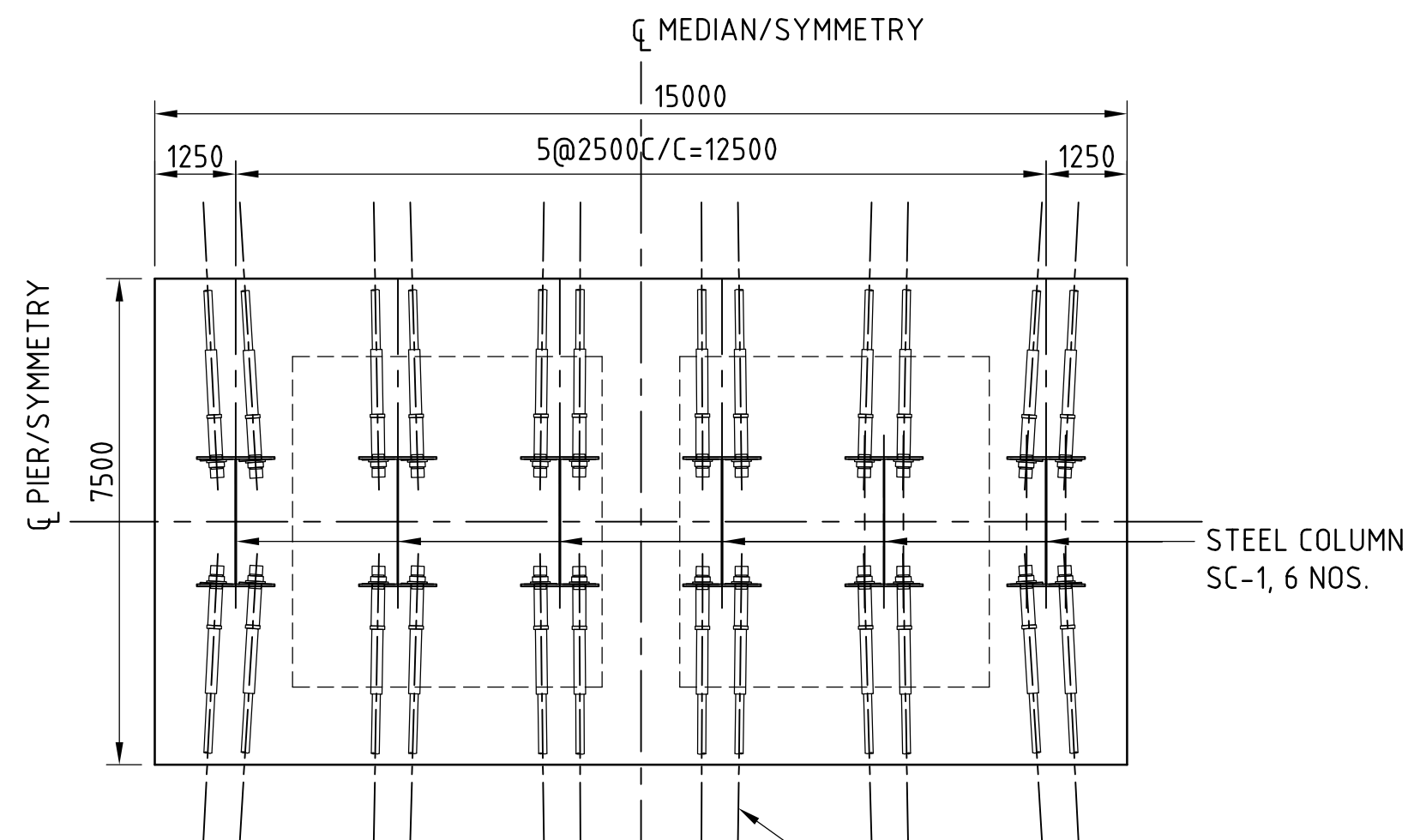
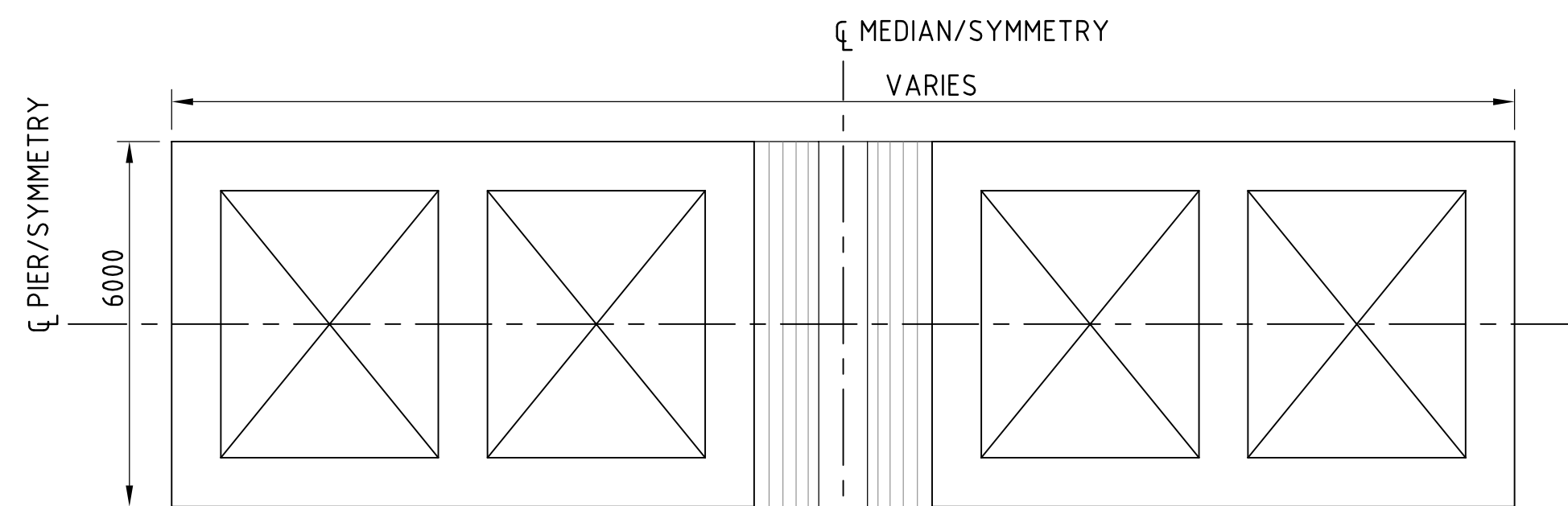
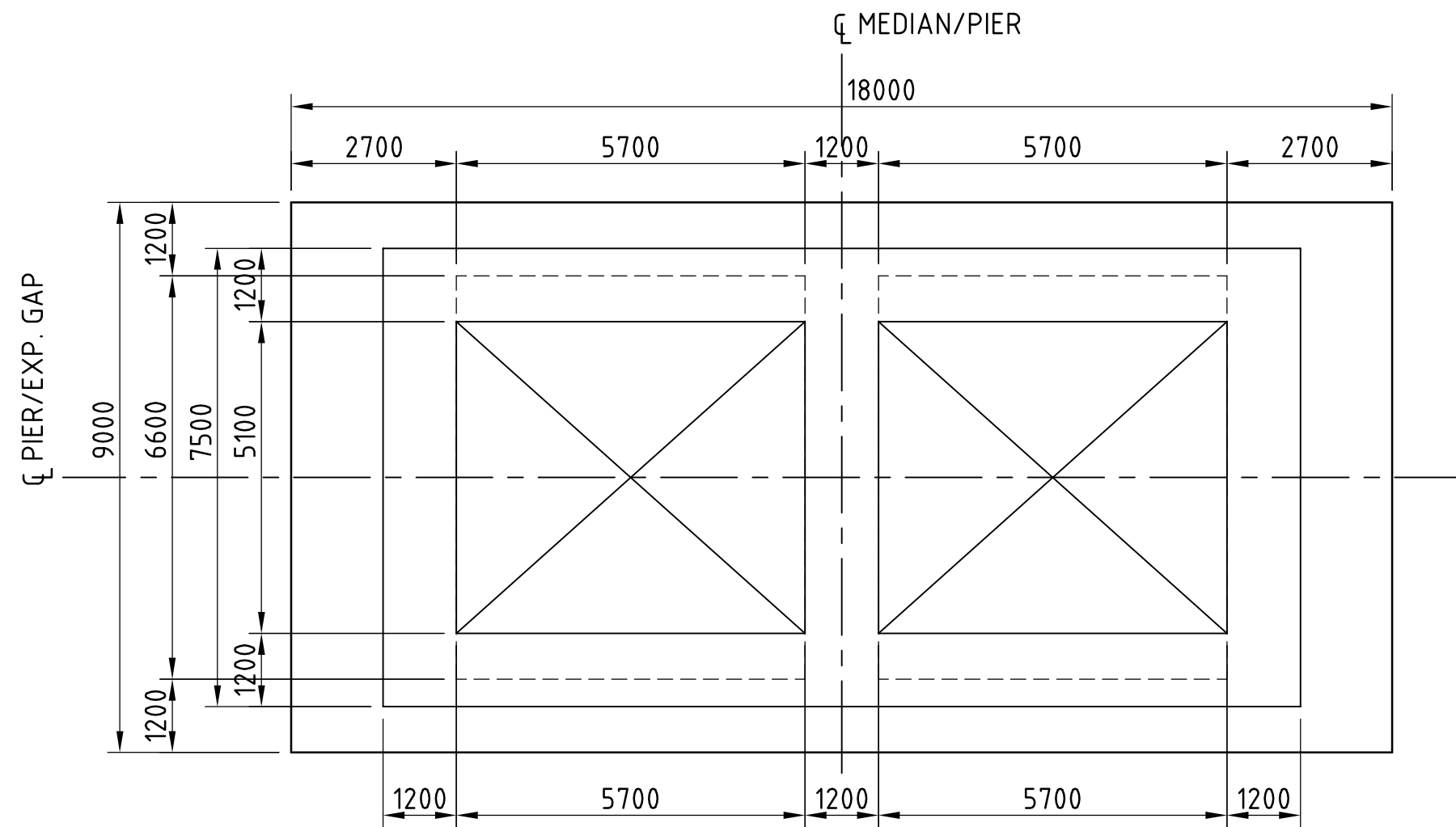
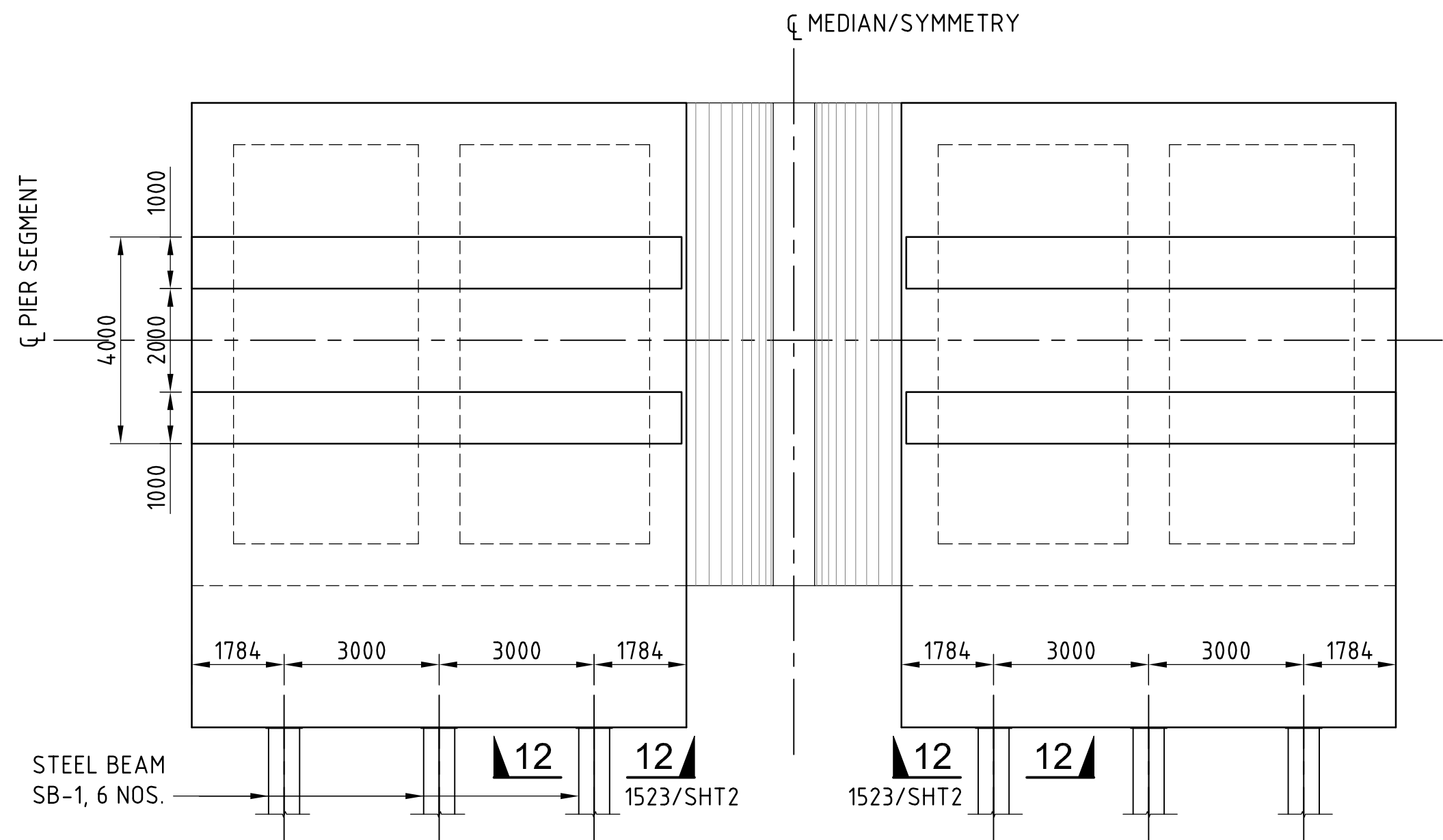
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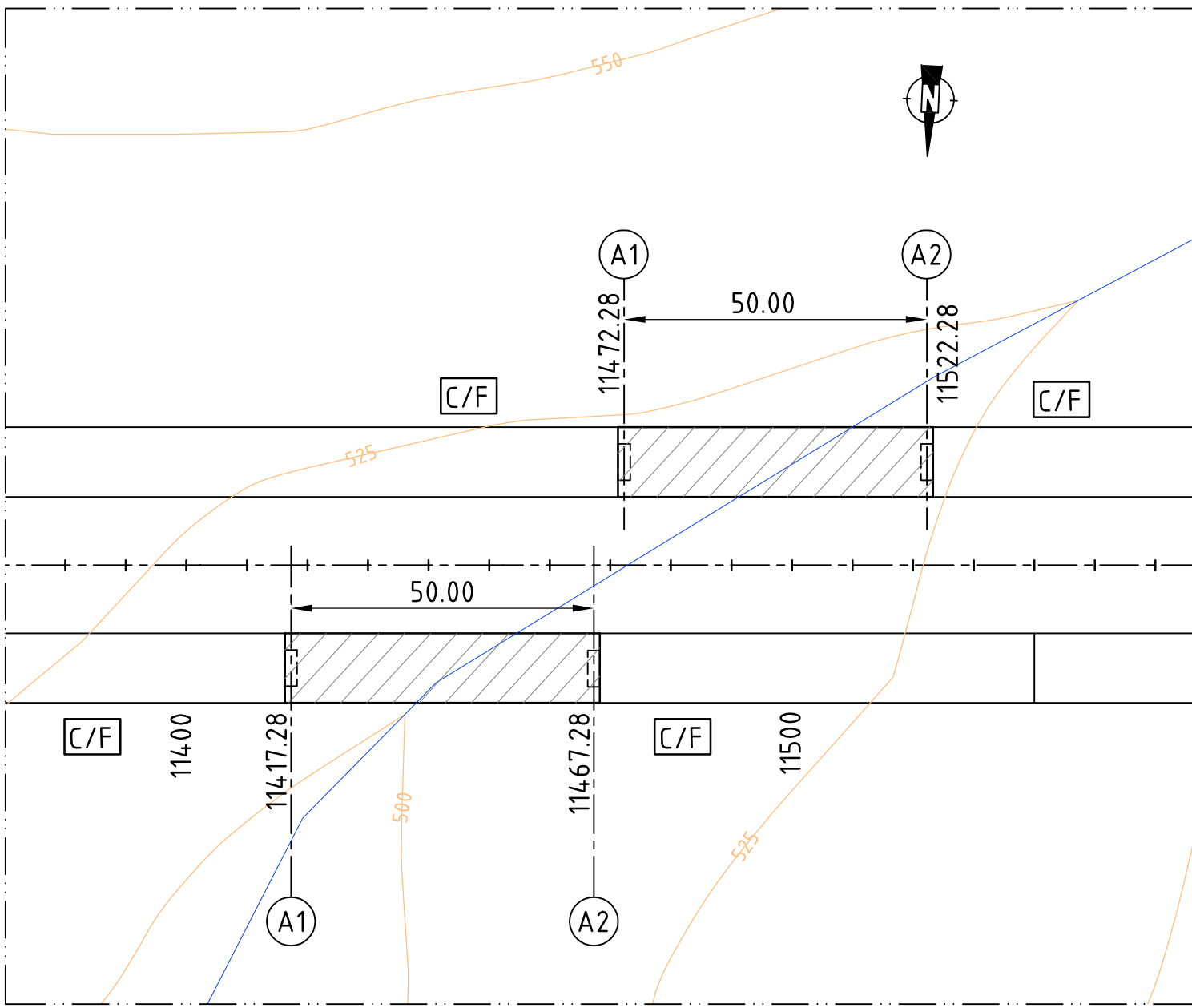


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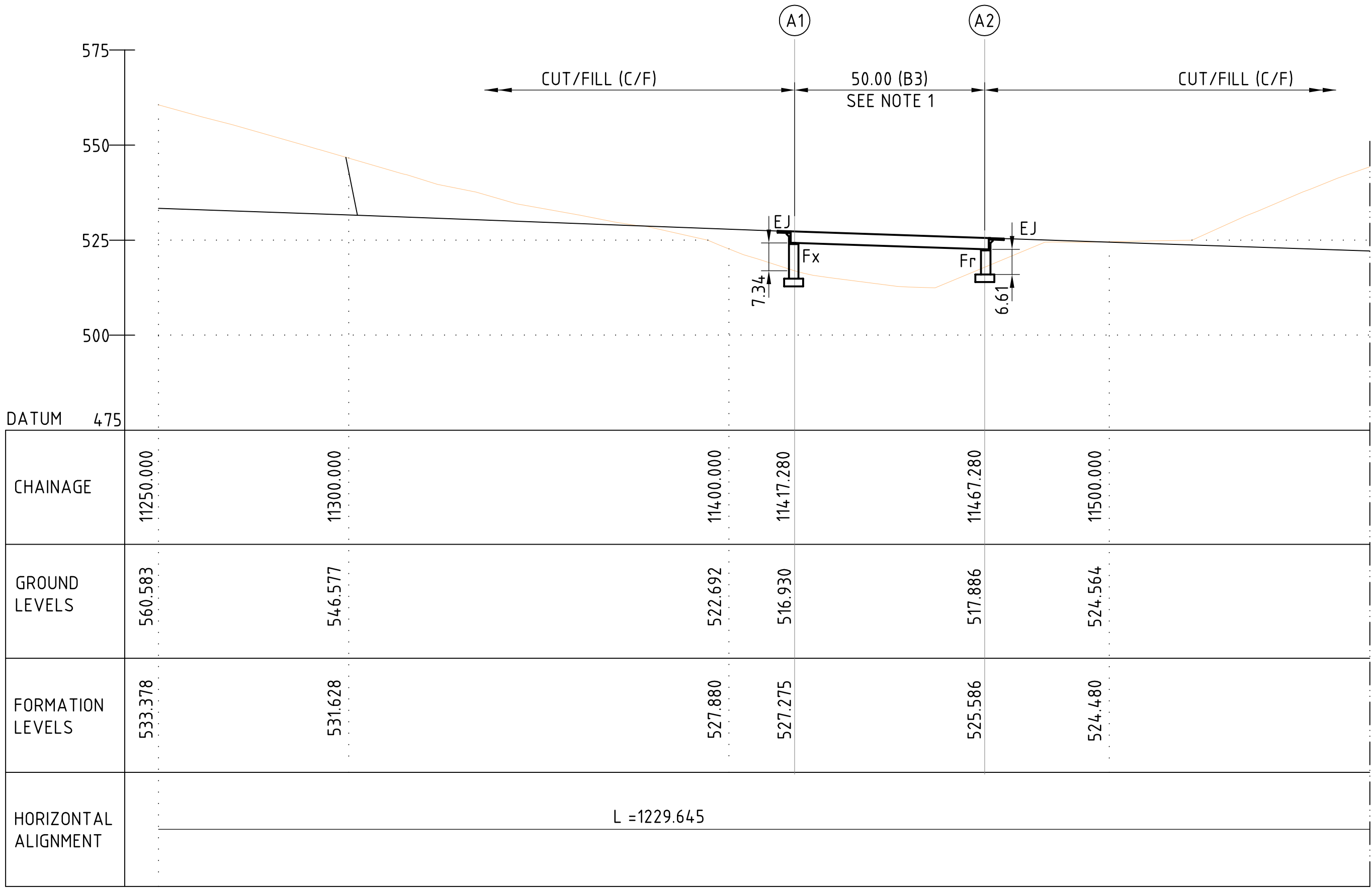
- ALL DIMENSIONS ARE IN mm. AND LEVELS IN METERS UNLESS STATED OTHERWISE.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH SHEET 1 OF 3 AND 2 OF 3 OF THIS DRAWING.

PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION		QUALITY ASSURANCE		DESIGN CONSULTANTS:		CLIENT	
								GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA	
								GEOCONSULT		DRAWING TITLE	
								PROJECT TITLE		BRIDGE 'B2'	
								CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO		DIMENSION DETAILS OF PIERS	
								TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT		P2 , P3, P4 AND P5- SHEET 3	
								FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE		DRAWING NUMBER	
								OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		SHGA-FS-BR2-1523	
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								1:100		(Current Issue) DEC 2015	



PLAN
SCALE 1:1000

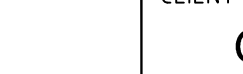


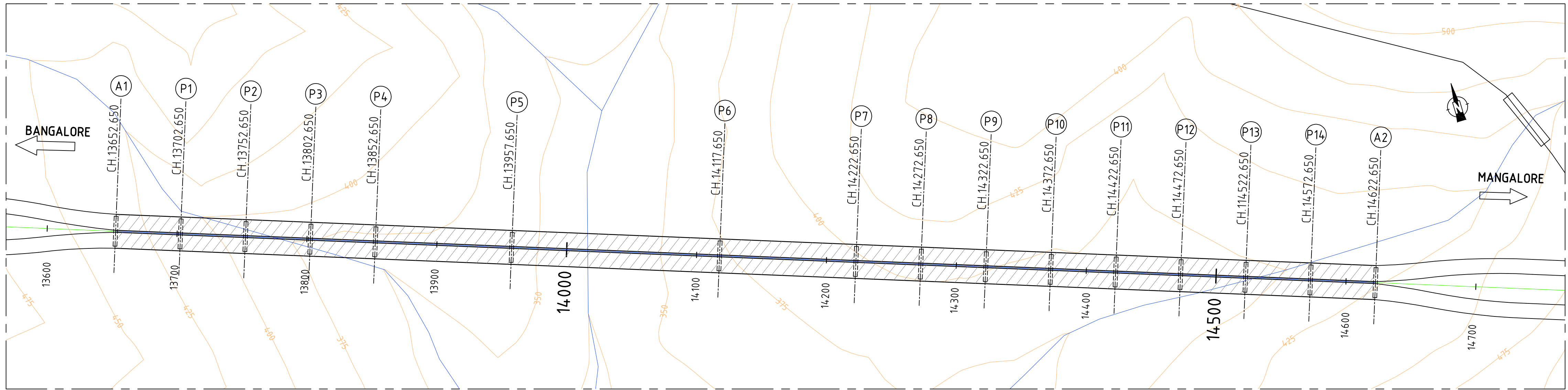
LONGITUDINAL SECTION AT PROJECT CENTRE LINE
SCALE 1:1000

- NOTES:
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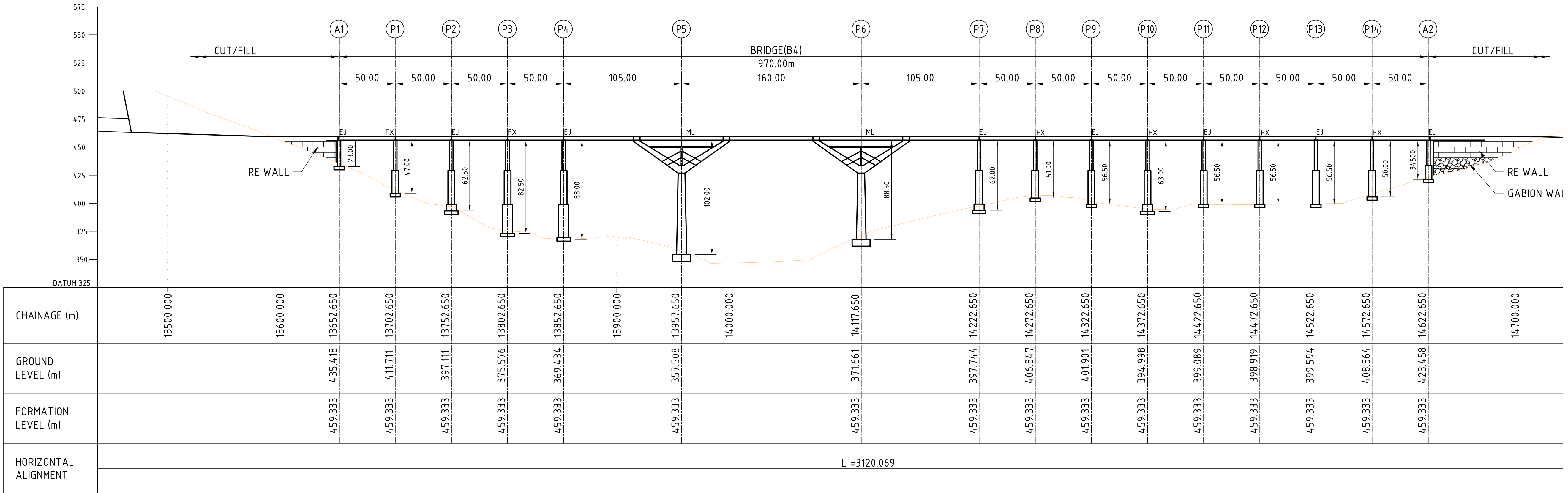


PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 SHGA-FS-GEN-015 (TYPICAL CROSS-SECTION)	LEGEND: EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT ☐ - BRIDGE DECK	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA		
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.							
								Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15	PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780	
		B	DEC 2015	SECOND SUBMISSION (KD-5)	ABa/PRa	RMe	AKg	Name	ABa/PRa	RMe	ADh	AKg	Frk		
		A	SEP 2015	FIRST DRAFT	ABa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved		
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.						
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DRAWING NUMBER SHGA-FS-BR3-1531											REV C				
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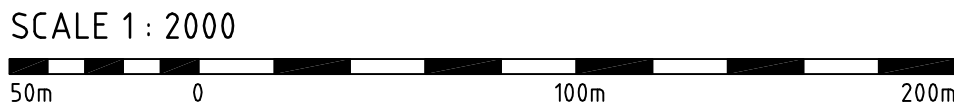
PLAN (BRIDGE 'B4')
SCALE 1:2000



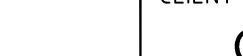
LONGITUDINAL SECTION AT PROJECT CENTRE LINE
SCALE 1:2000

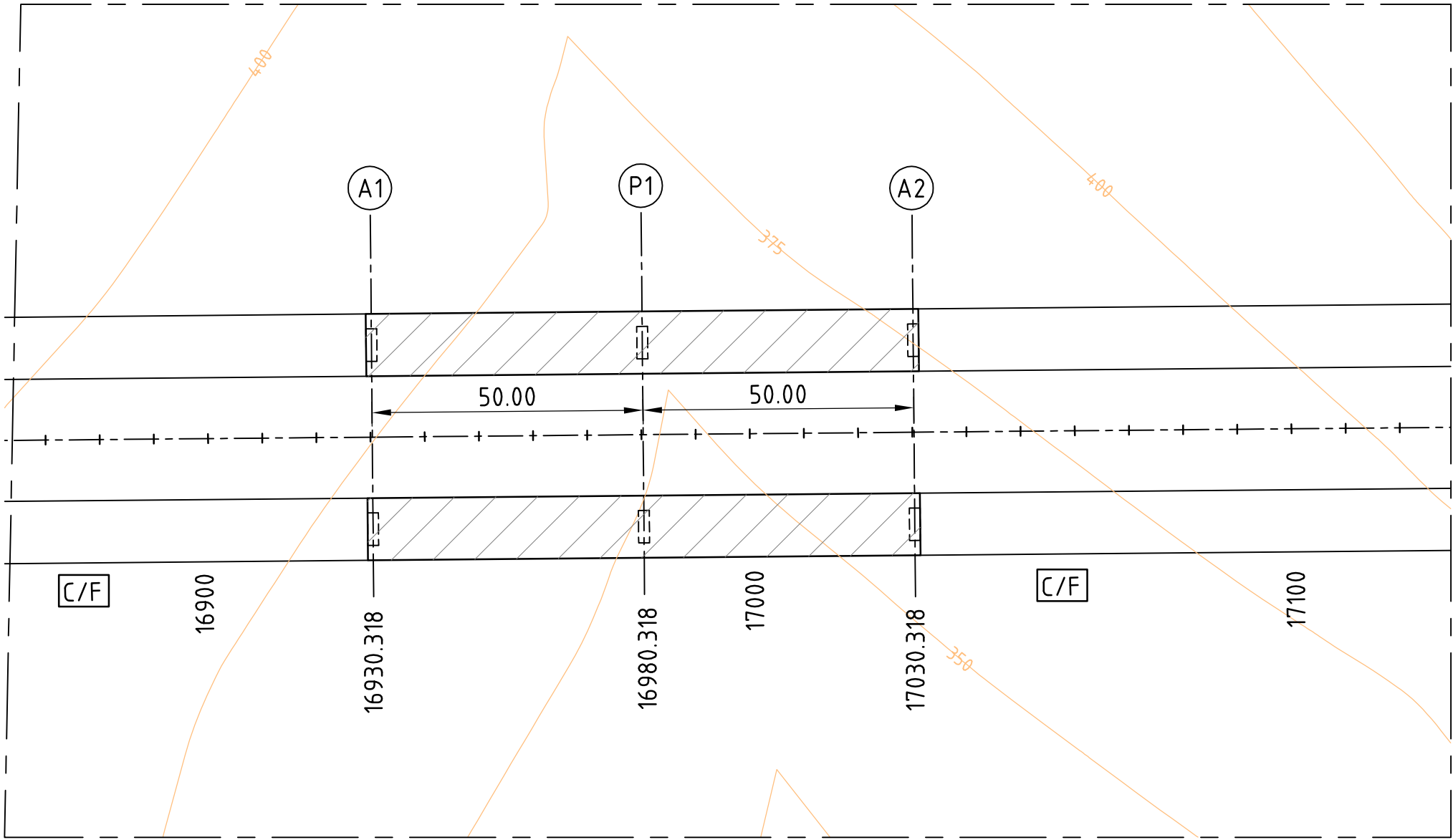
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- SUITABLE TRAINING OF STREAM SHALL BE DONE DURING EXECUTION OF WORK

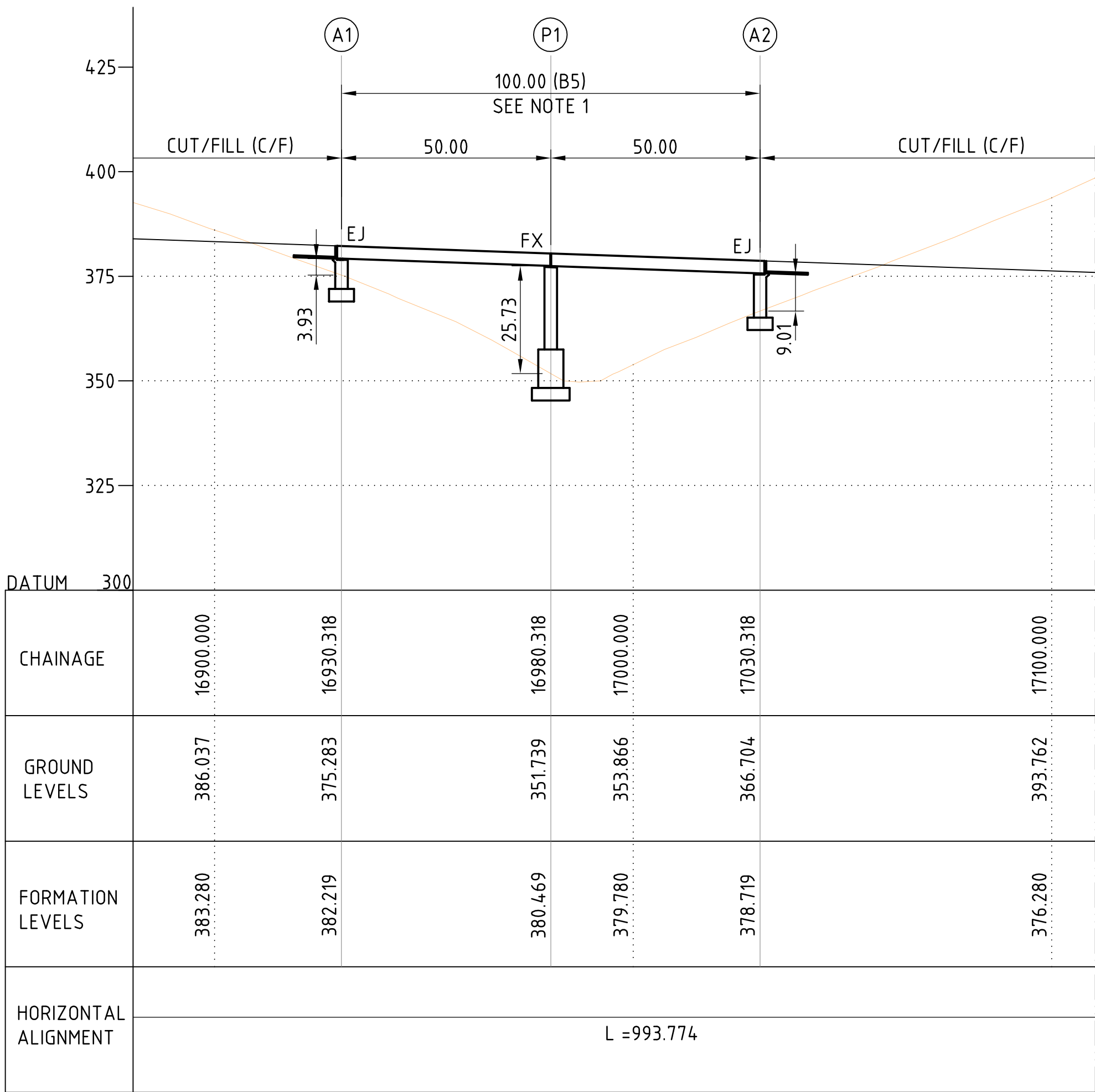


PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000	LEGEND: ML- MONOLITHIC EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT <div><input checked="" type="checkbox"/> BRIDGE DECK</div>	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA			
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											PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780					
		D DEC 2015 FOURTH SUBMISSION (KD-6)			RMe	ADh	AKg	Date (FIRST ISSUE)	SEP 15	SEP 15	SEP 15		SEP 15	SEP 15	DRAWING NUMBER SHGA-FS-BR4-1541	REV D
		C DEC 2015 THIRD SUBMISSION (KD-5)			RMe	ADh	AKg	Name	PRa/ABa	RMe	ADh		ADh/AKg	AKg	SCALE 1:2000	MONTH (Current Issue) DEC 2015
		B SEP 2015 SECOND DRAFT (KD-4)			ABa	RMe	AKg	Drawn	Drafting Chk	Designed	Design Chk		Approved	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. <small>GEOCONSULT, PRA, R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-BR4-1541_Dwg_2015-12-18</small>		
A SEP 2015 FIRST DRAFT (INTERIM PROGRESS-KD3)			ABa	RMe	AKg	Originators										
REV. DATE		PARTICULARS				Drawn	Checked	Approved								



PLAN
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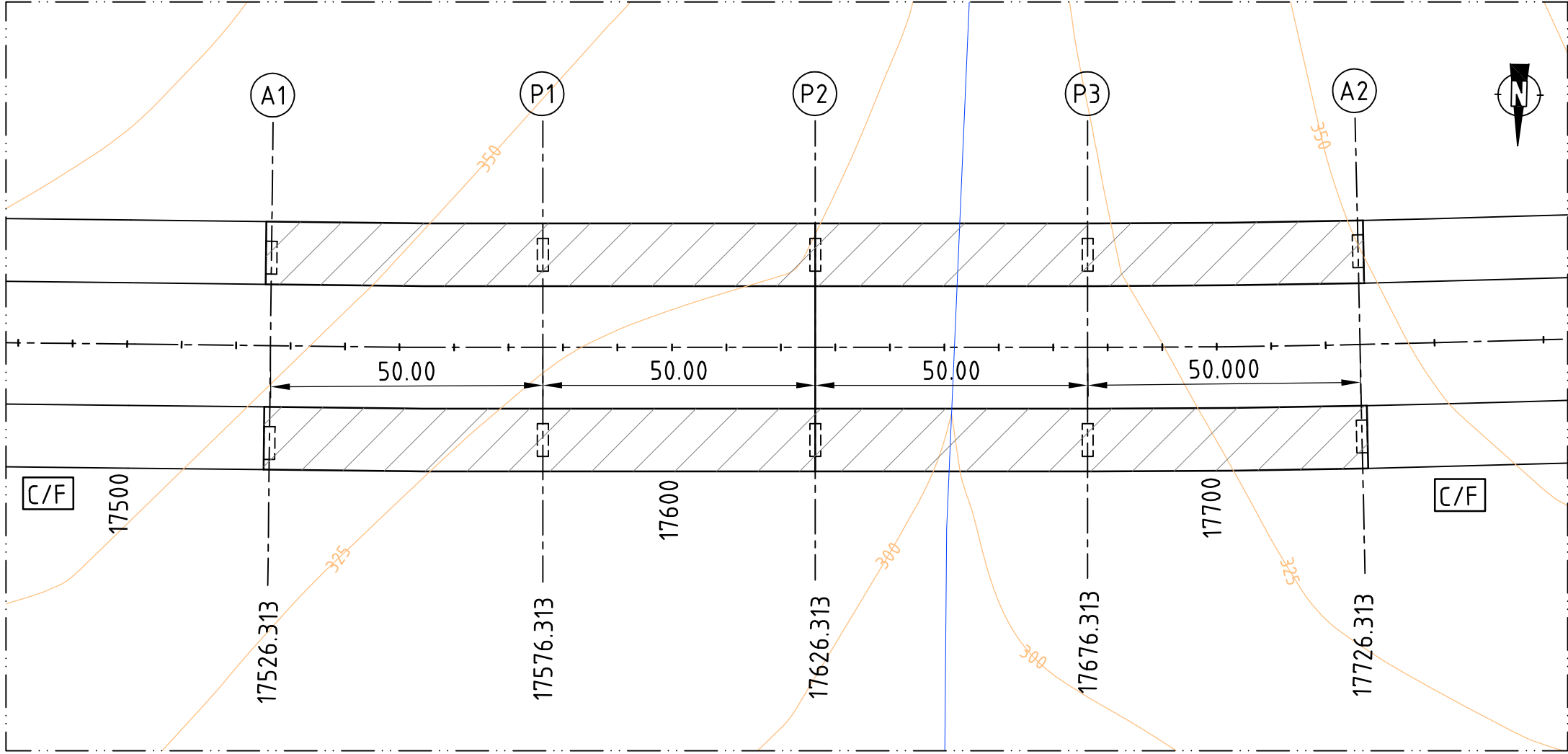
LONGITUDINAL SECTION
SCALE 1:1000

- NOTES:
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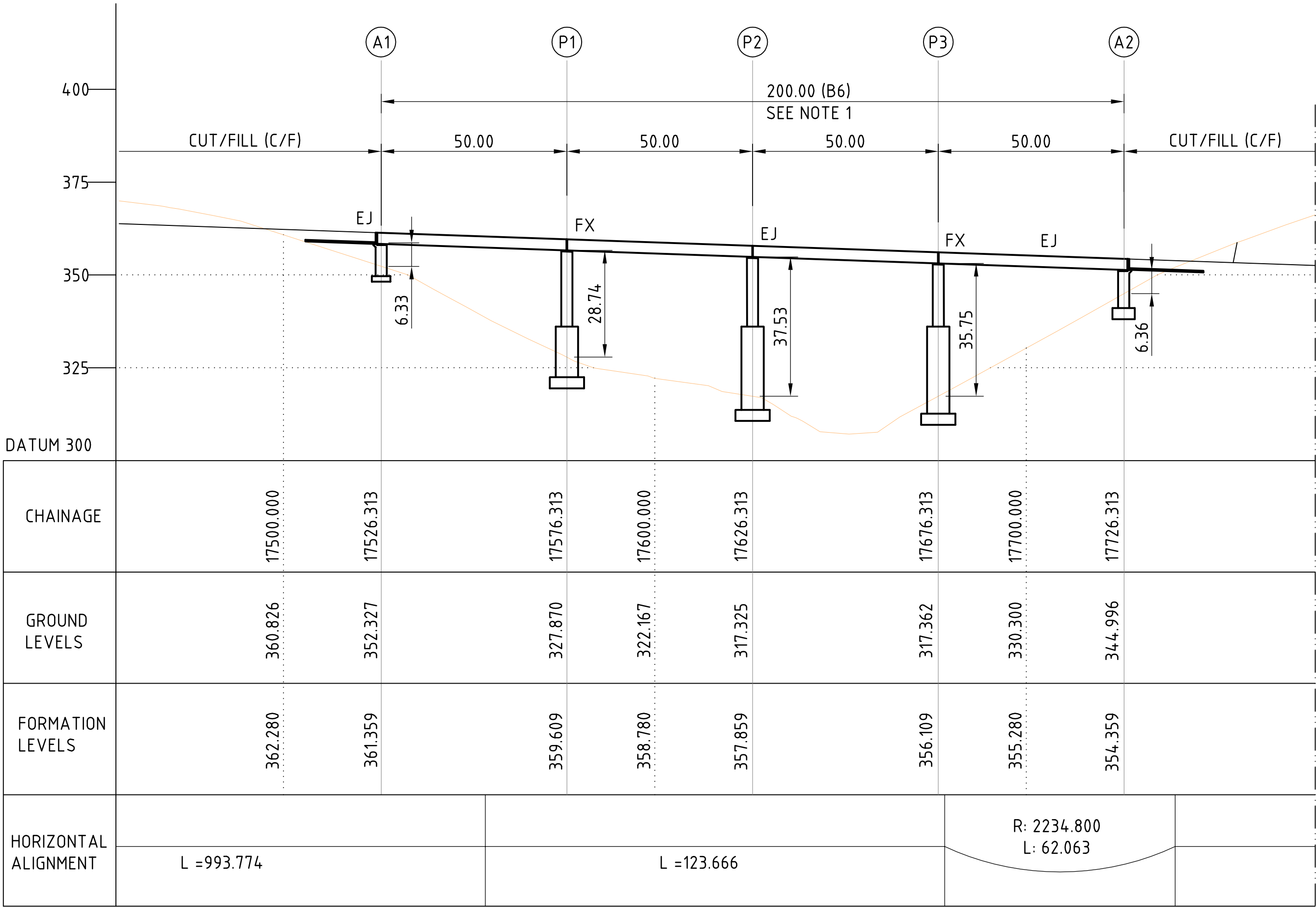


PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 SHGA-FS-GEN-015 (TYPICAL CROSS-SECTION)	LEGEND: EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT ☐ - BRIDGE DECK	REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA		
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.										
								Date (FIRST ISSUE)	AUG 2015	AUG 2015	AUG 2015	AUG 2015	AUG 2015					
		D	DEC 2015	FOURTH SUBMISSION (KD-6)			ABa/PRa	RMe	AKg	Name	ABa	RMe	ADh				ADh/AKg	FKr
		C	DEC 2015	THIRD SUBMISSION (KD-5)			ABa/PRa	RMe	AKg		Drawn	Drafting Chk	Designed				Design Chk	Approved
		B	OCT 2015	SECOND DRAFT (KD-4)			ABa	RMe	AKg									
		A	AUG 2015	FIRST DRAFT (INTERIM SUBMISSION-KD-3)			ABa	RMe	AKg									
		REV.	DATE	PARTICULARS				Drawn	Checked	Approved	Originators							
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											PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780							
											DRAWING NUMBER SHGA-FS-BR5-1551				REV D			
											SCALE 1:1000		MONTH (Current Issue) DEC 2015					



PLAN
SCALE 1:1000



LONGITUDINAL SECTION AT PROJECT CENTRE LINE


SCALE 1:1000

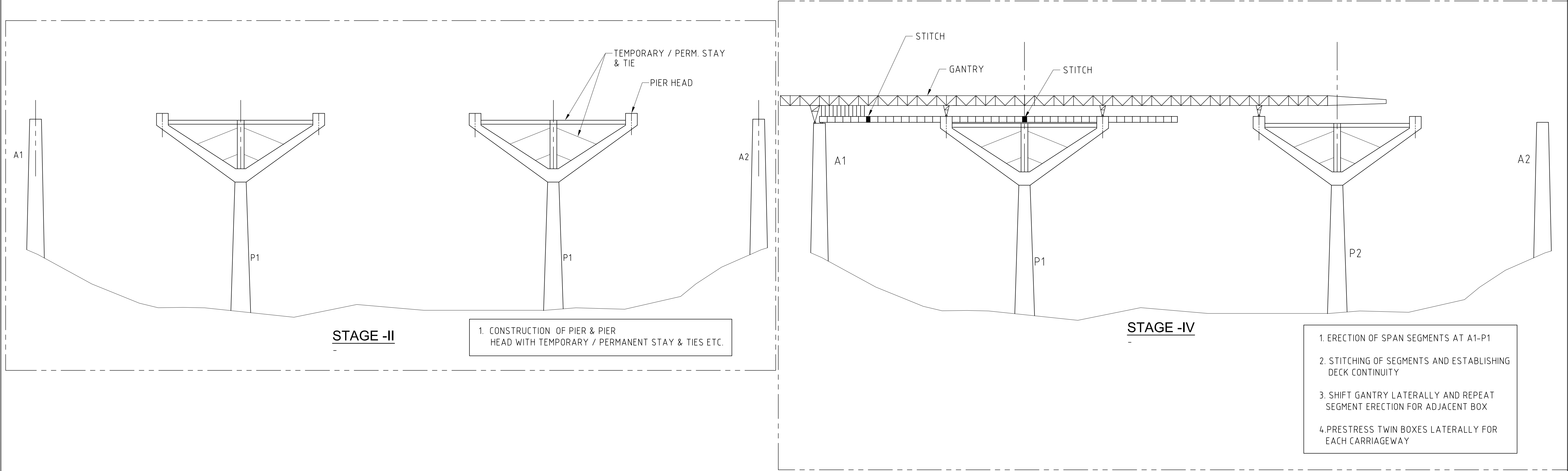
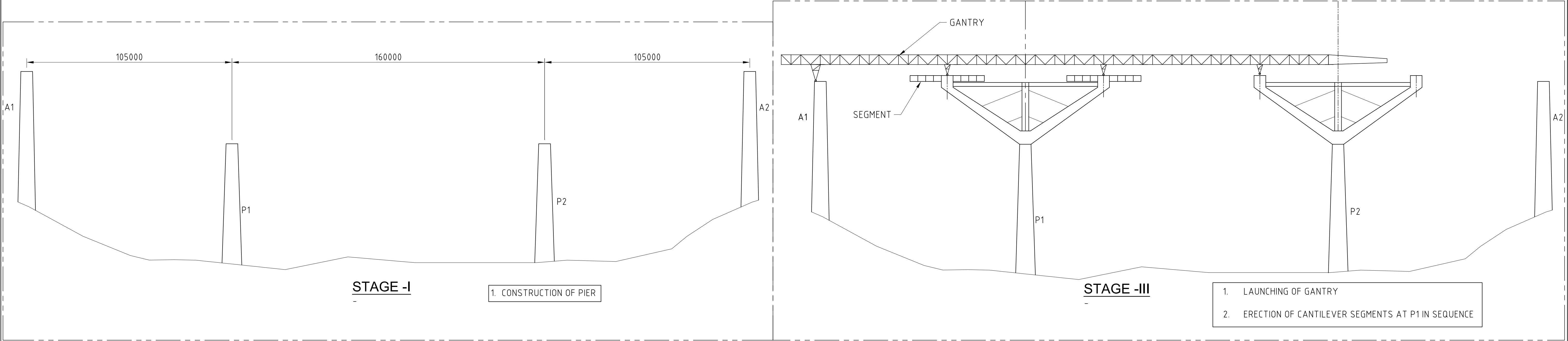
- NOTES:**
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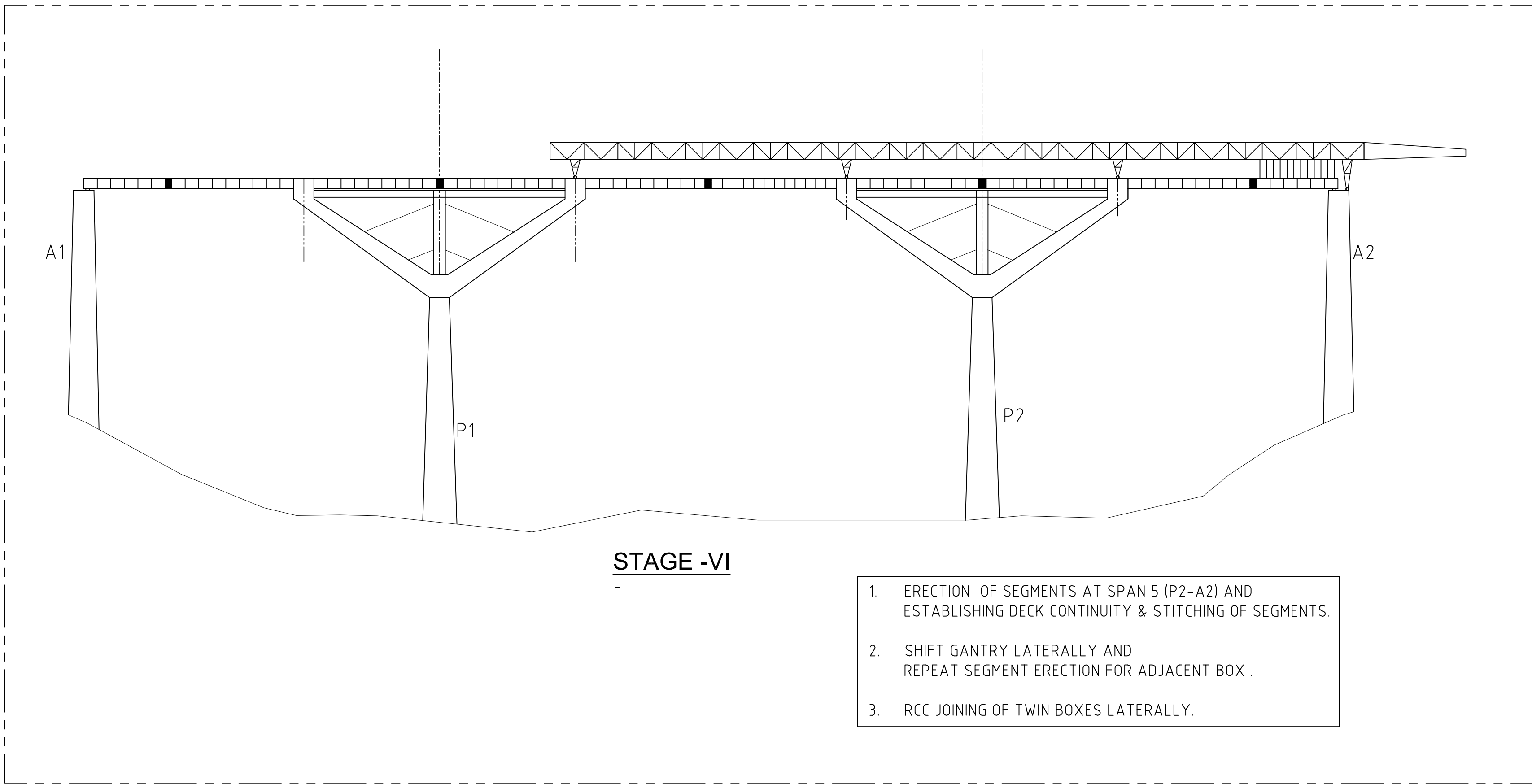
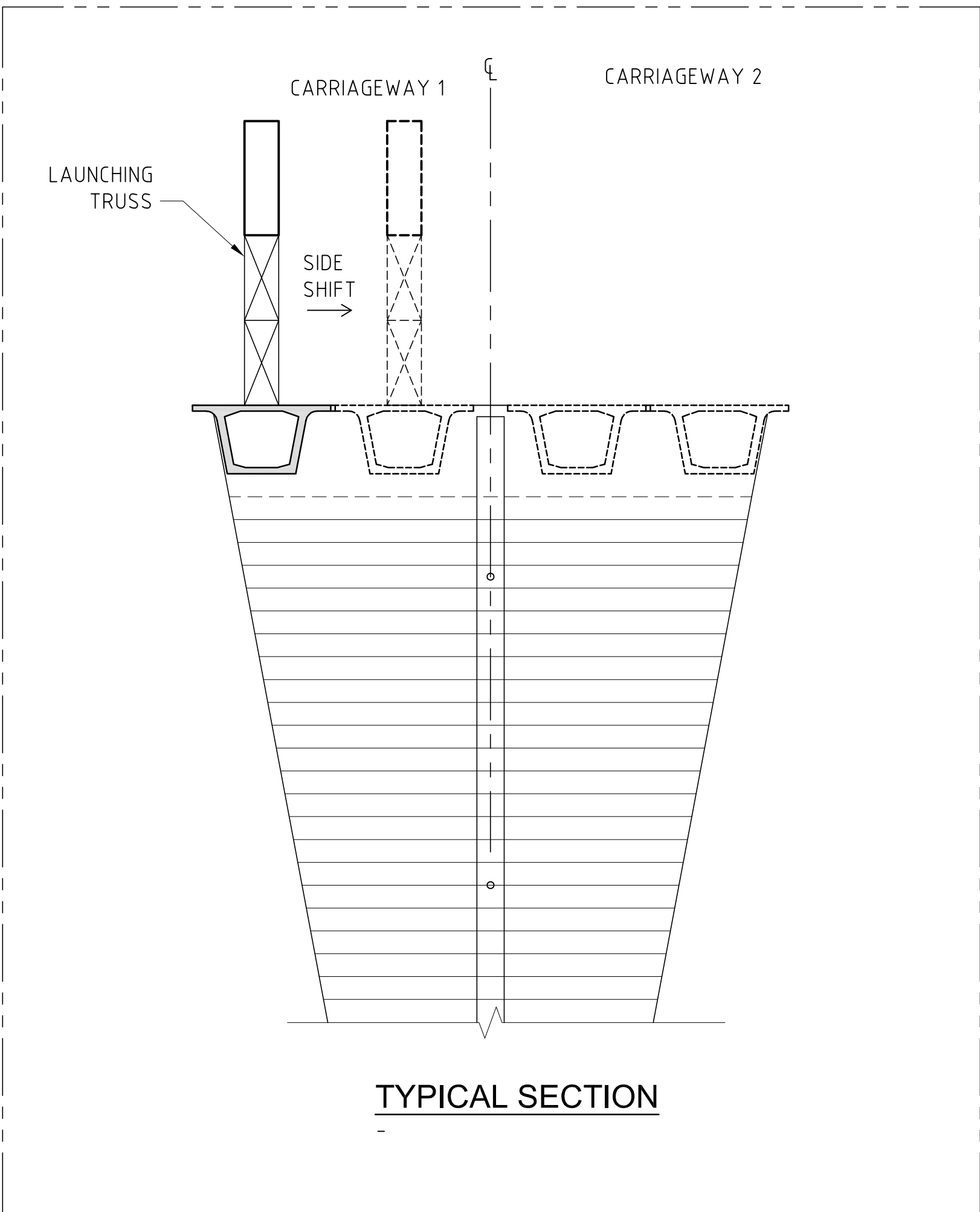
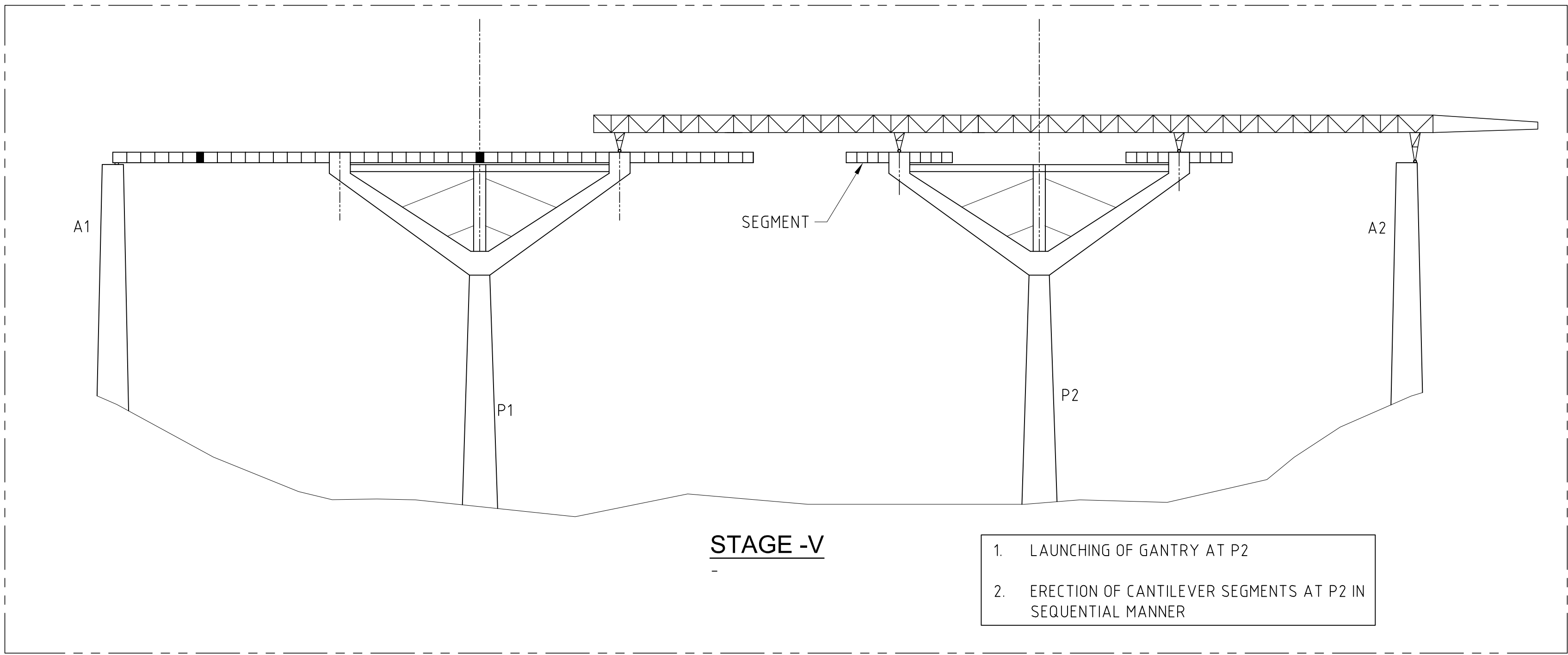
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REFERENCE DRAWINGS: SHGA-FS-LAY-1000 SHGA-FS-GEN-015 (TYPICAL CROSS-SECTION)	LEGEND: EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT ▣ - BRIDGE DECK	REVISION			QUALITY ASSURANCE					DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA				
		The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.								PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING TITLE BRIDGE 'B6 ' GENERAL ARRANGEMENT PLAN & SECTION				
		C	DEC 2015	MINOR CORRECTIONS / THIRD SUBMISSION (KD-6)	ABa/PRa	RMe	AKg	Date (FIRST ISSUE)	AUG 15	AUG 15	AUG 15	AUG 15	AUG 15	DRAWING NUMBER SHGA-FS-BR6-1561	REV C	
		B	DEC 2015	SECOND SUBMISSION (KD-5)	ABa/PRa	RMe	AKg	Name	ABa	RMe	ADh	AKg	AKg	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. @GEOCONSULT, T. 88A, B 16/900, Brinjes Vadda, Shigga (Bhat) (CURRENT) W.D. L. SHGA, F.C. BR6, JK61 C. dwn 2015-12-18	SCALE 1:1000	MONTH (Current Issue) DEC 2015
		A	SEP 2015	FIRST DRAFT (INCEPTION STAGE)	ABa	RMe	AKg	Drawn	Drafting Chk	Designed	Design Chk	Approved				
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators								




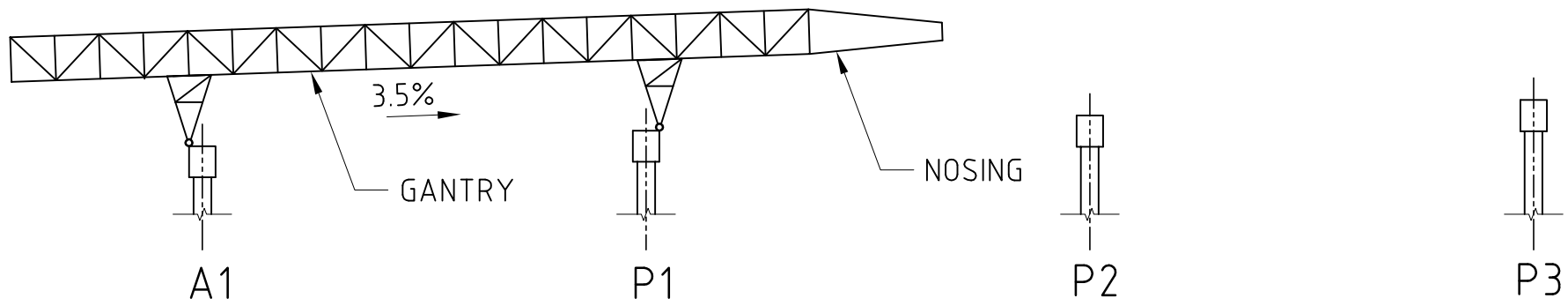
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REFERENCE DRAWINGS:	LEGEND:	REVISION			QUALITY ASSURANCE					DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA				
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			
								Date (FIRST ISSUE)	DEC 15	DEC 15	DEC 15				DEC 15	DEC 15	
		B	DEC 2015	SECOND DRAFT (KD-6)		ABa	RMe	FKr	Name	ABa	RMe				ATd	ATd	AKg
		A	DEC 2015	FIRST DRAFT (KD-5)		ABa	RMe	FKr		Drawn	Drafting Chk				Designed	Design Chk	Approved
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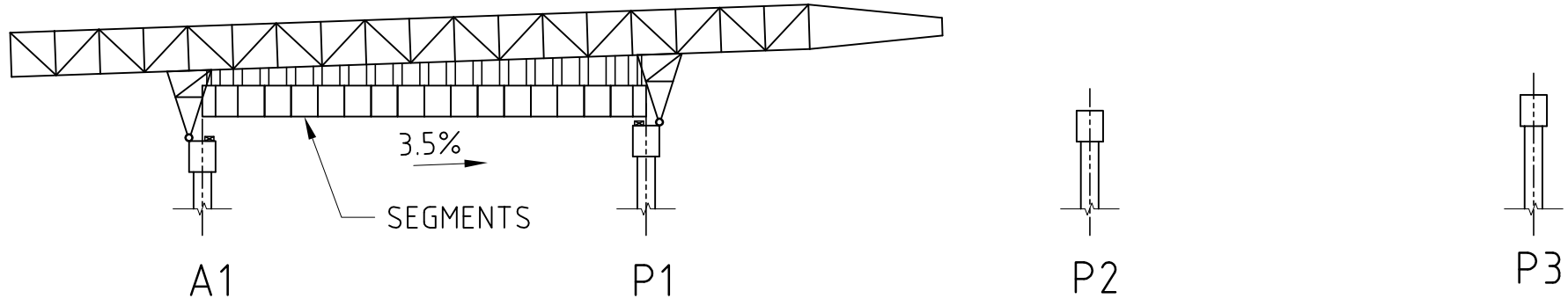


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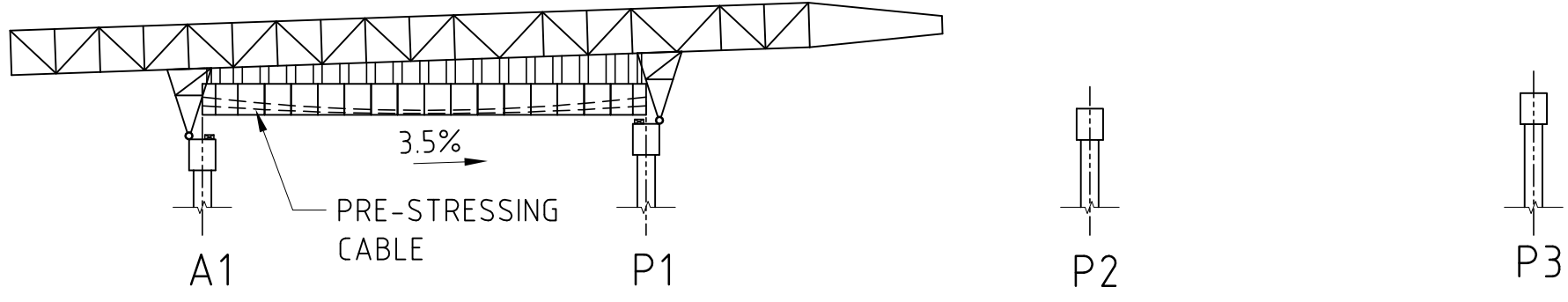
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								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.									DRAWING TITLE Y-PIER OPTION CONSTRUCTION SCHEME SHEET-2		
															PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING NUMBER SHGA-FS-CNS-1702	REV B	
								Date (FIRST ISSUE)	DEC 15	DEC 15	DEC 15	DEC 15	DEC 15						
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		A	DEC 2015	FIRST DRAFT (KD-5)				ABa	RMe	FKr		Drawn	Drafting Chk	Designed	Design Chk		Approved		
		REV.	DATE	PARTICULARS				Drawn	Checked	Approved	Originators						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		
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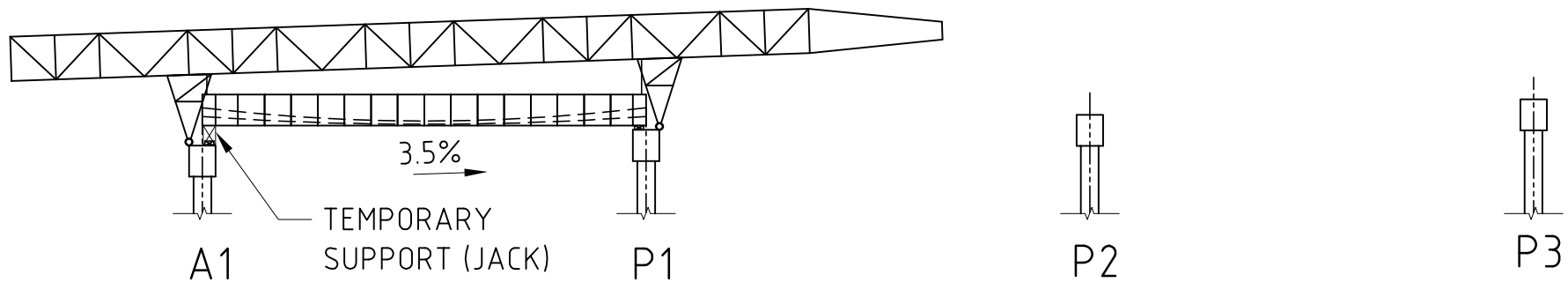
STAGE-I
LAUNCHER AT SPAN 1.



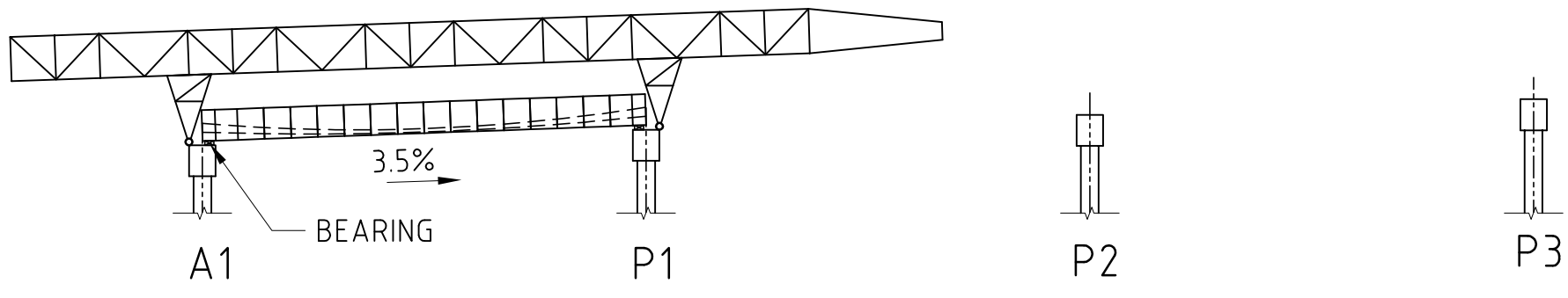
STAGE-II
ASSEMBLY OF SEGMENTS.



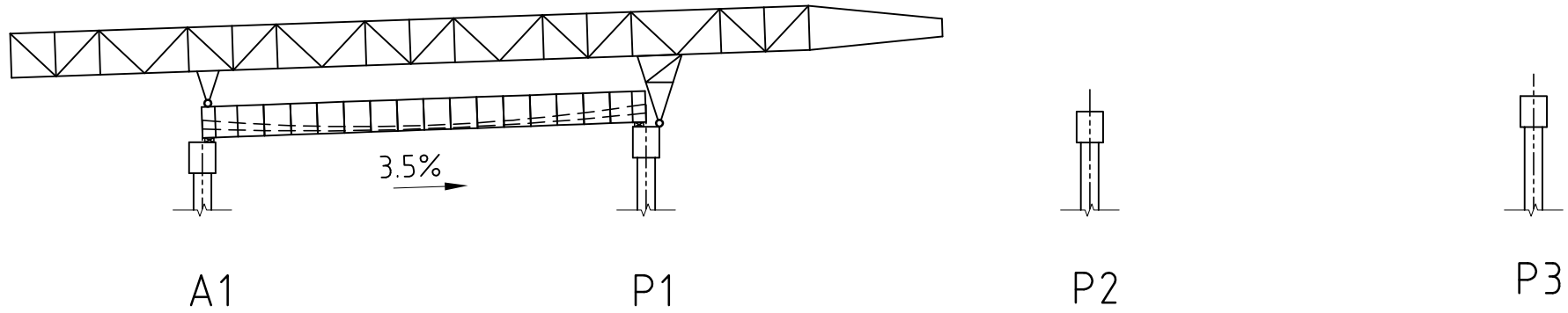
STAGE-III
STRESSING OF PRE-STRESSING CABLES.



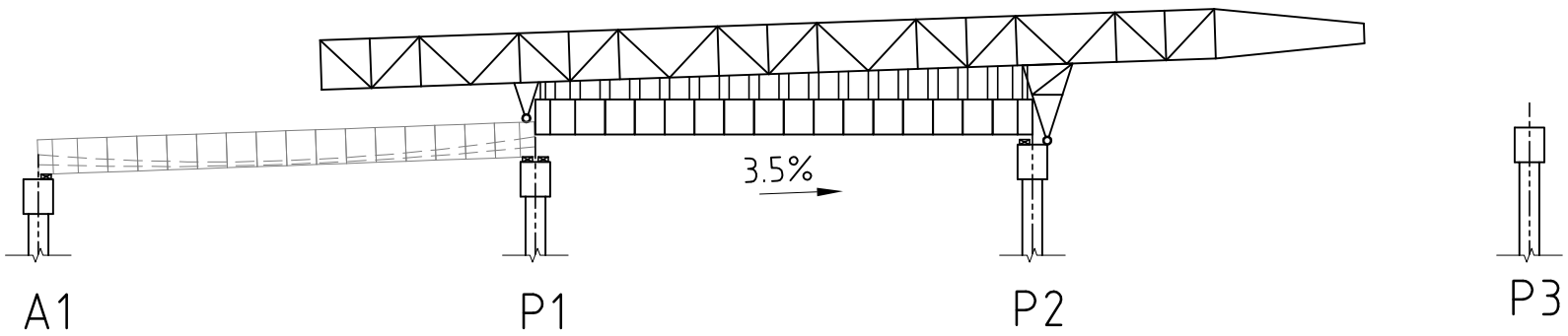
STAGE-IV
LOWERING OF BOX SPAN.



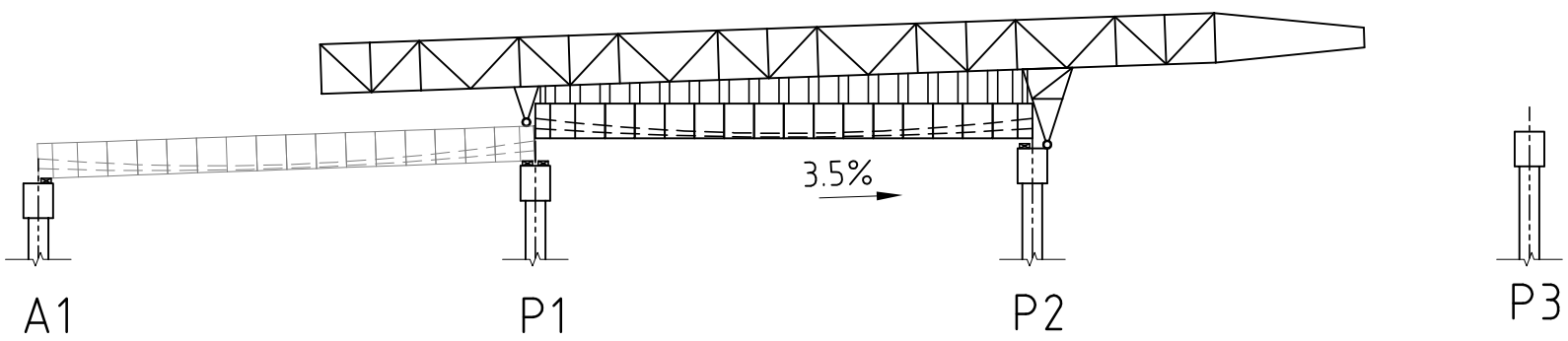
STAGE-V
JACKING DOWN OF BOX SPAN & REMOVAL OF
TEMPORARY SUPPORT AT ABUTMENT A1.



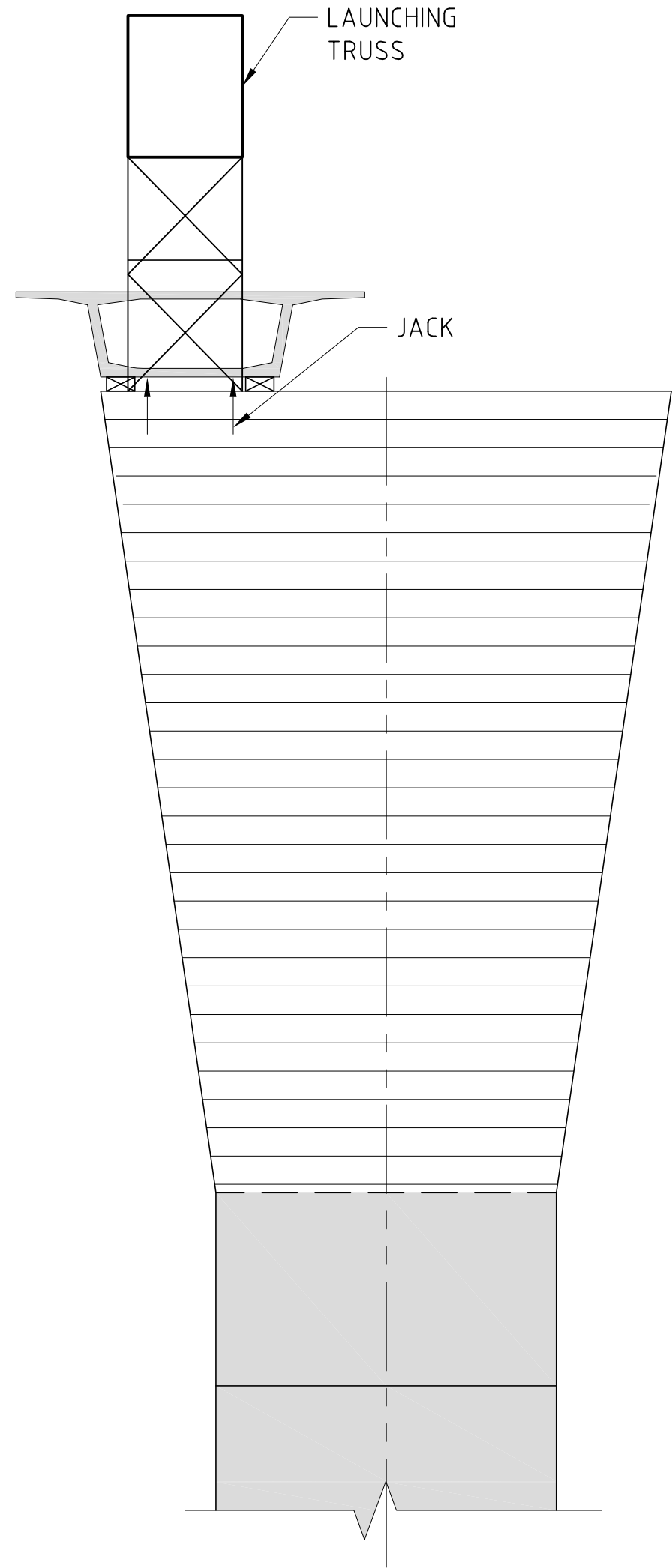
STAGE-VI
SPAN 1 AT FINAL POSITION.



STAGE-VII
ADVANCEMENT OF GANTRY TO SPAN 2.




STAGE-VIII
STRESSING OPERATION, REPEAT OPERATION
STAGES SAME AS IV TO VI.



4 LANE TWIN BOX VIADUCT ERECTION
NTS

PRELIMINARY

REFERENCE DRAWINGS:	LEGEND:	REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.									
								Date (FIRST ISSUE)	Dec 15	Dec 15	Dec 15	Dec 15	Dec 15	PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			
		B	DEC 2015	SECOND DRAFT (KD6)			ABa	RMe	AKg	Name	ABa	RMe	DSu	ADh	AKg	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. <small>GEOCONSULT, Aha, R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-CNS-1751_B.dwg, 2015-12-18</small>	
		A	DEC 2015	FIRST DRAFT (KD5)			ABa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved		
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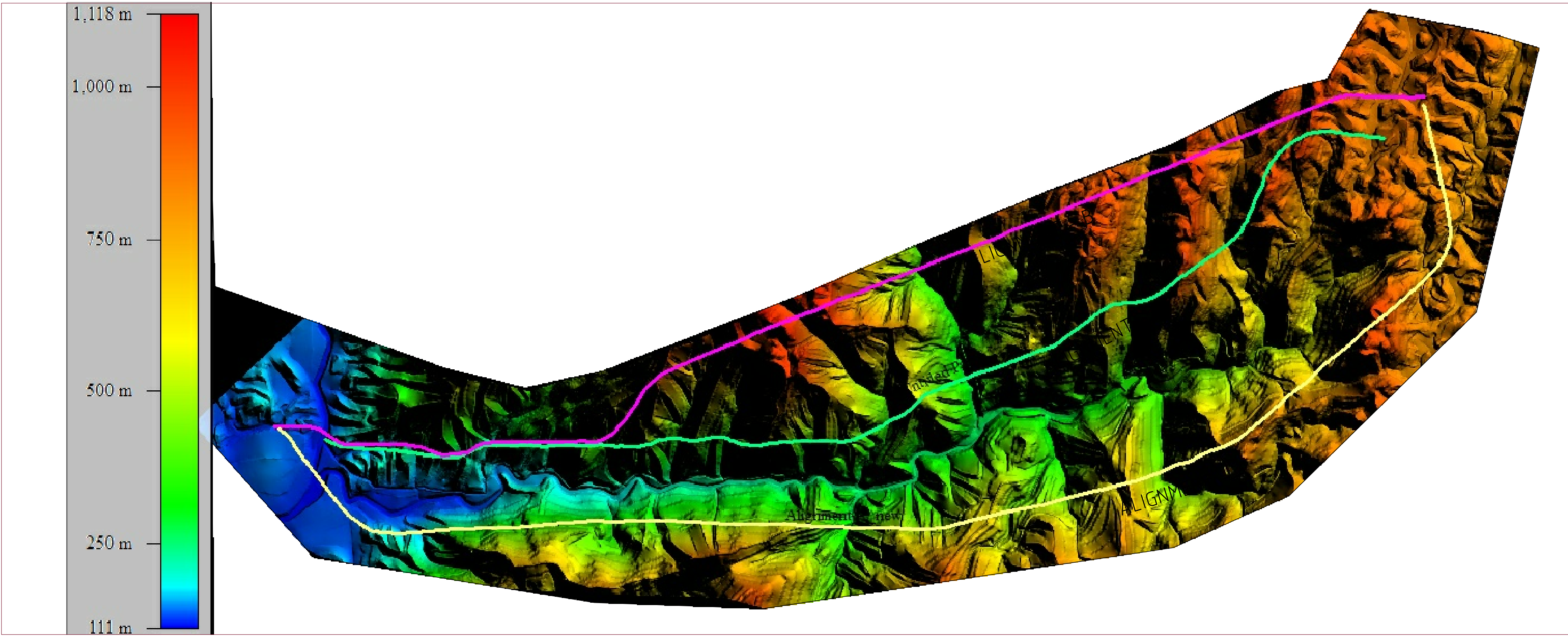
PROJECT LOCATION MAP
- Source : METI STUDY TEAM



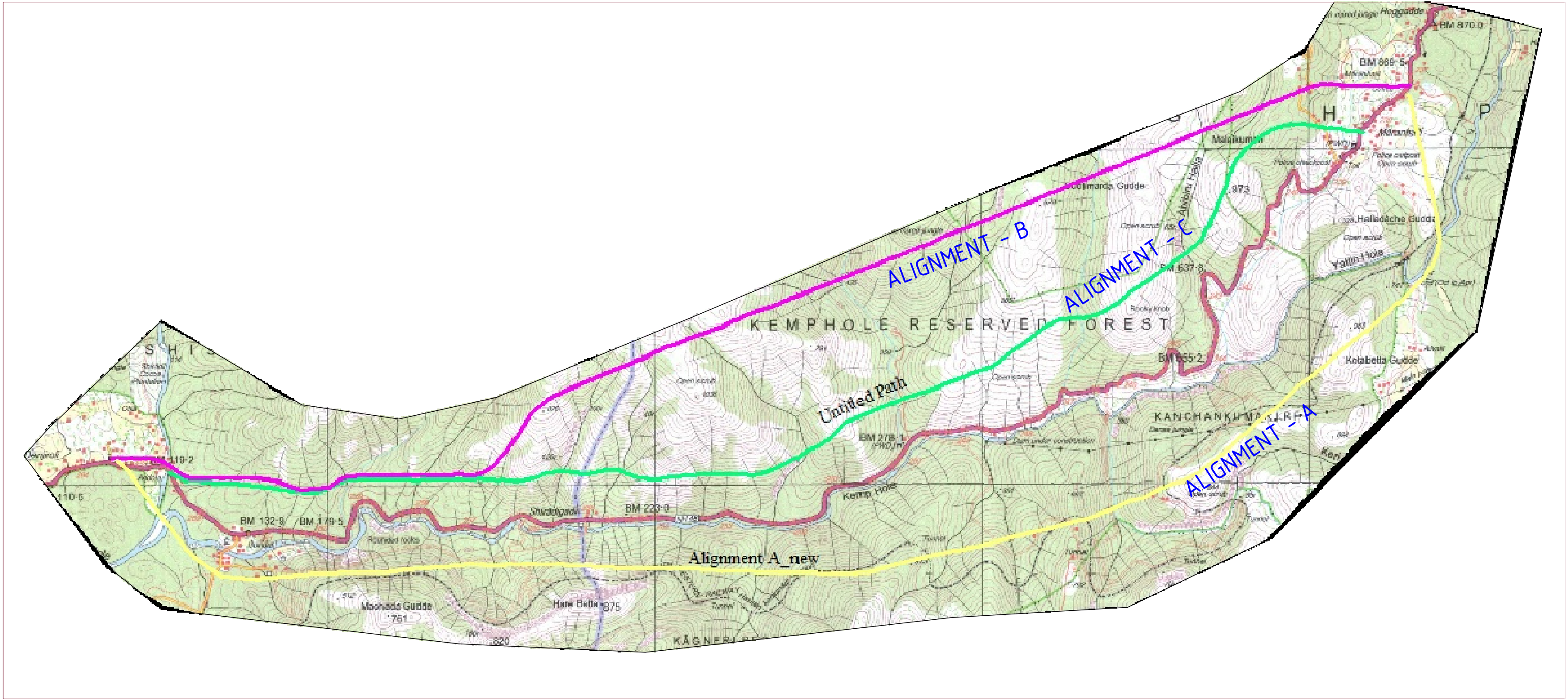
PROJECT ROAD
- Source : METI STUDY TEAM

PRELIMINARY

REFERENCE DRAWINGS:	LEGEND:	REVISION					QUALITY ASSURANCE					DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA	
							The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			DRAWING TITLE INDEX MAP AND PROJECT LOCATION - DRAWING NUMBER SHGA-FS-GEN-001 SCALE AS MARKED MONTH (Current Issue) DEC 2015	
		D	DEC 2015	RESUBMITTED (KD6)	ABa	RMe	AKg	Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15			This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. GEOCONSULT, Pk. R-16000 Project+16068-Shiradi Ghat+CURRENT KD-6+SHGA-FS-GEN-001_D.dwg, 2015-12-18
		C	DEC 2015	RESUBMITTED (KD5)	ABa	RMe	AKg	Name	GCI	RMe	-	-	AKg			
		B	SEP 2015	RESUBMITTED (KD4)	ABa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved			
		A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	ABa	RMe	AKg									
REV.	DATE	PARTICULARS			Drawn	Checked	Approved	Originators								




ALTERNATIVES A , B & C ON DTM MODEL
- NOTE : ALIGNMENTS AS SUBMITTED IN THREE ALIGNMENT REPORT



ALTERNATIVES A,B,& C ON TOPOGRAPHIC MAP
NOTE : ALIGNMENTS AS SUBMITTED IN THREE ALIGNMENT REPORT

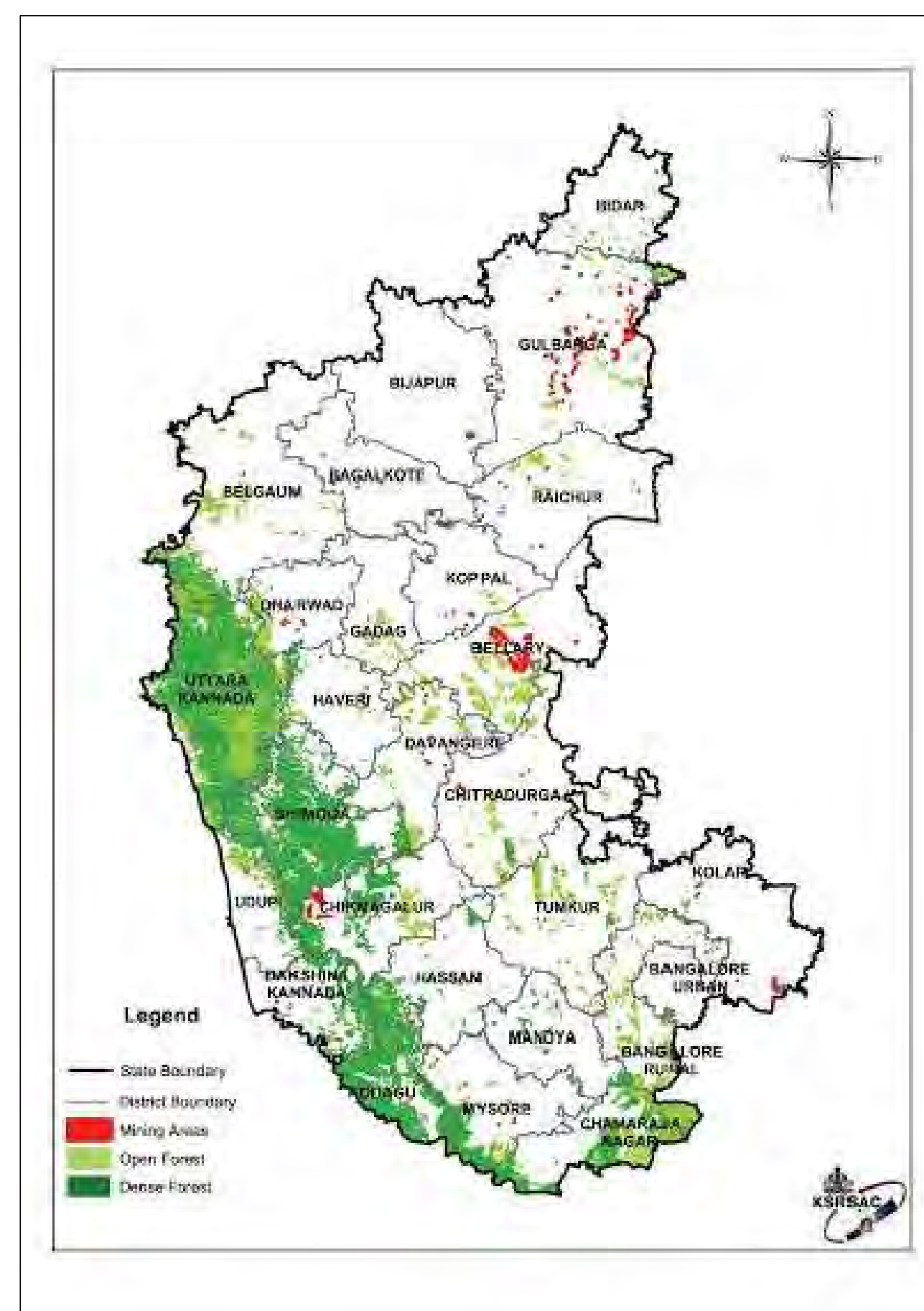
PRELIMINARY

REFERENCE DRAWINGS:	LEGEND:	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT	GOVERNMENT OF KARNATAKA						
														DRAWING TITLE	ALIGNMENT A,B & C MARKED ON DTM IMAGE & TOPOGRAPHIC MAP					
		D	SEP 2015	RESUBMITTED (KD6)	ABa	RMe	AKg	Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15		22.07.15	22.07.15	PROJECT TITLE	CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780				
		C	SEP 2015	RESUBMITTED (KD5)	ABa	RMe	AKg	Name	ABa/RMe	RMe	-		AKg	AKg	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. <small>©GEOCONSULT, PRA, R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-GEN-002_0.dwg, 2015-12-18</small>	DRAWING NUMBER	SHGA-FS-GEN-002		REV	D
		B	SEP 2015	RESUBMITTED (KD4)	ABa	RMe	AKg	Drawn	Drafting Chk	Designed	Design Chk		Approved	SCALE		NTS		MONTH (Current Issue)	DEC 2015	
		A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	ABa	RMe	AKg	Originators												
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved													



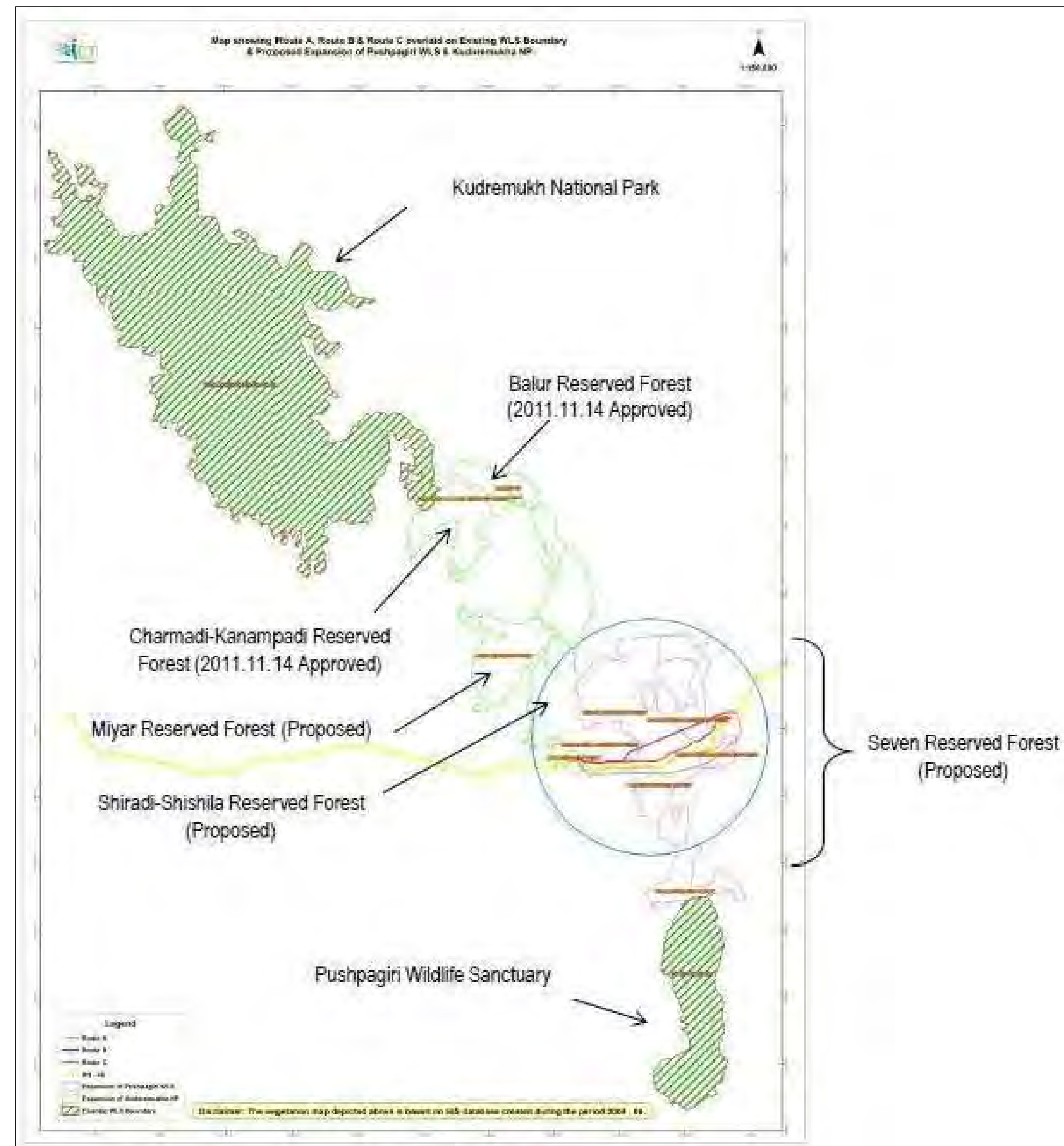
NATIONAL PARKS

Source : METI STUDY TEAM



FOREST MAP


Source : METI STUDY TEAM

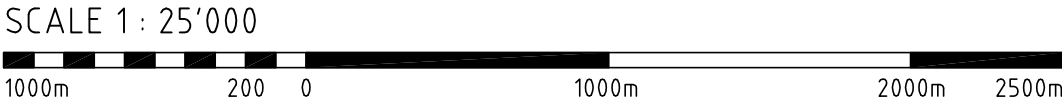
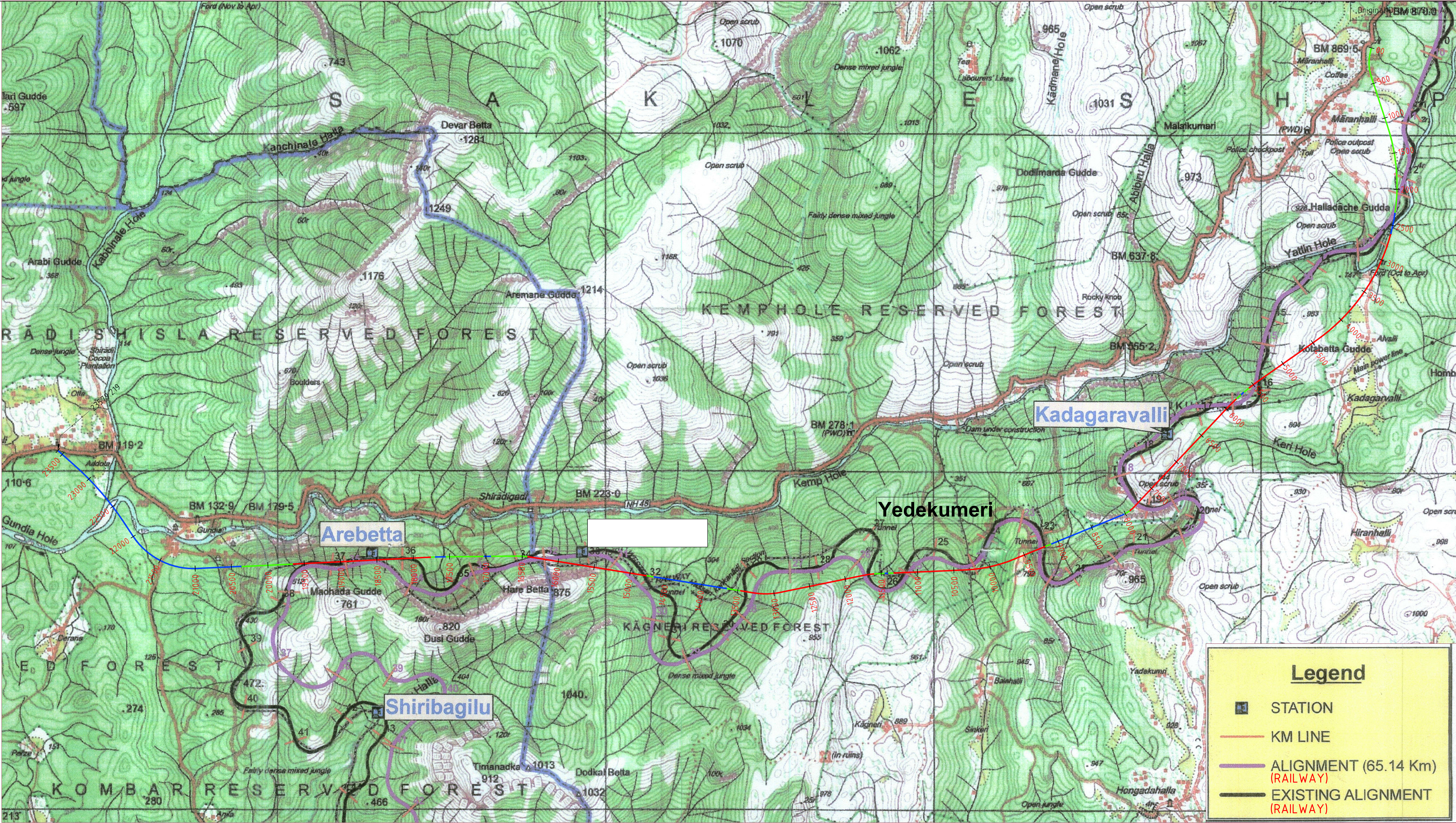


EXPANSION OF PROJECTED AREAS AND PROPOSED ALIGNMENTS


Source : METI STUDY TEAM

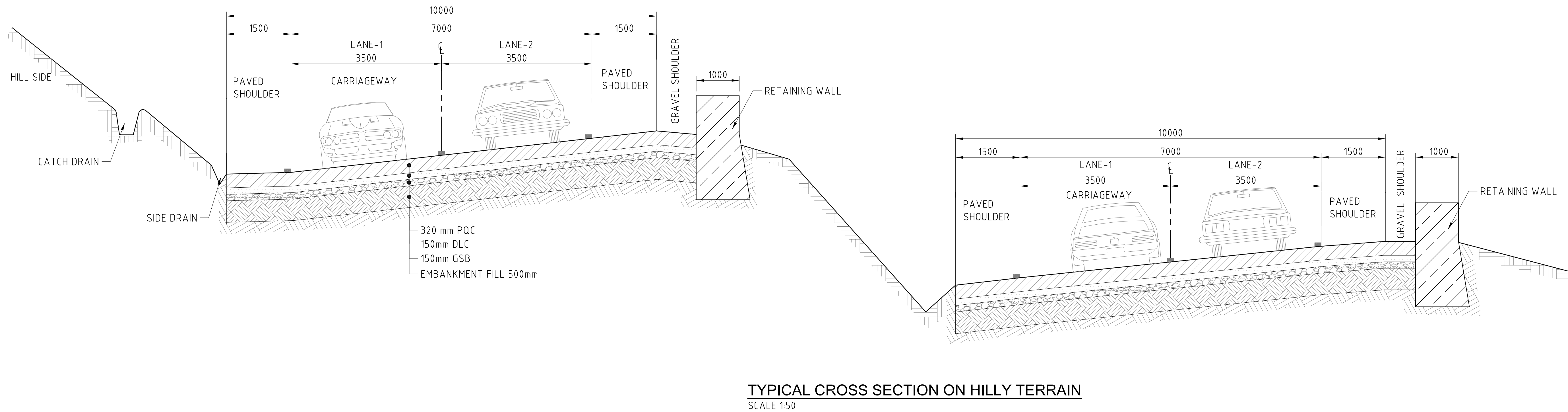
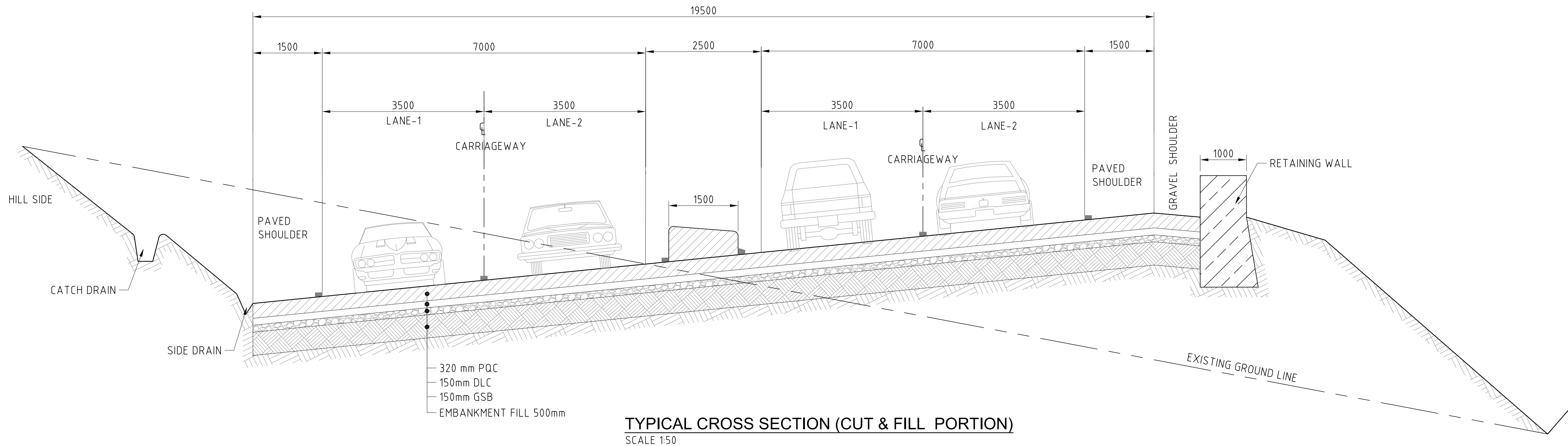
PRELIMINARY

REFERENCE DRAWINGS:	LEGEND:	REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA		
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.									DRAWING TITLE FOREST MAP AND NATIONAL PARKS OF KARNATAKA		
														PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			DRAWING NUMBER SHGA-FS-GEN-003		REV D
														This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.			SCALE AS MARKED		MONTH (Current Issue) DEC 2015
														GEOCONSULT, PRA, R/16000 Project's/16060-Shiradi Ghat/CURRENT/KD-6/SHGA-FS-GEN-003_0.dwg, 2015-12-18					



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REFERENCE DRAWINGS:	LEGEND:	REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA				
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.													
														PROJECT TITLE							
								Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15	CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780							
		B	DEC 2015	SECOND DRAFT (KD-6)					RMe	AKg	AKg	Name	RMe	RMe	-			AKg	AKg	DRAWING TITLE LAYOUT PLAN PROPOSED ALIGNMENT AND RAILWAY ALIGNMENT PLAN	
		A	DEC 2015	FIRST DRAFT (KD-5)					RMe	AKg	AKg		Drawn	Drafting Chk	Designed			Design Chk	Approved		
		REV.	DATE	PARTICULARS					Drawn	Checked	Approved	Originators									
		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.																			
		GEOCONSULT, P.Ra, R\16000 Project\6066-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-GEN-004_B.dwg, 2015-12-18																			
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SCALE																					
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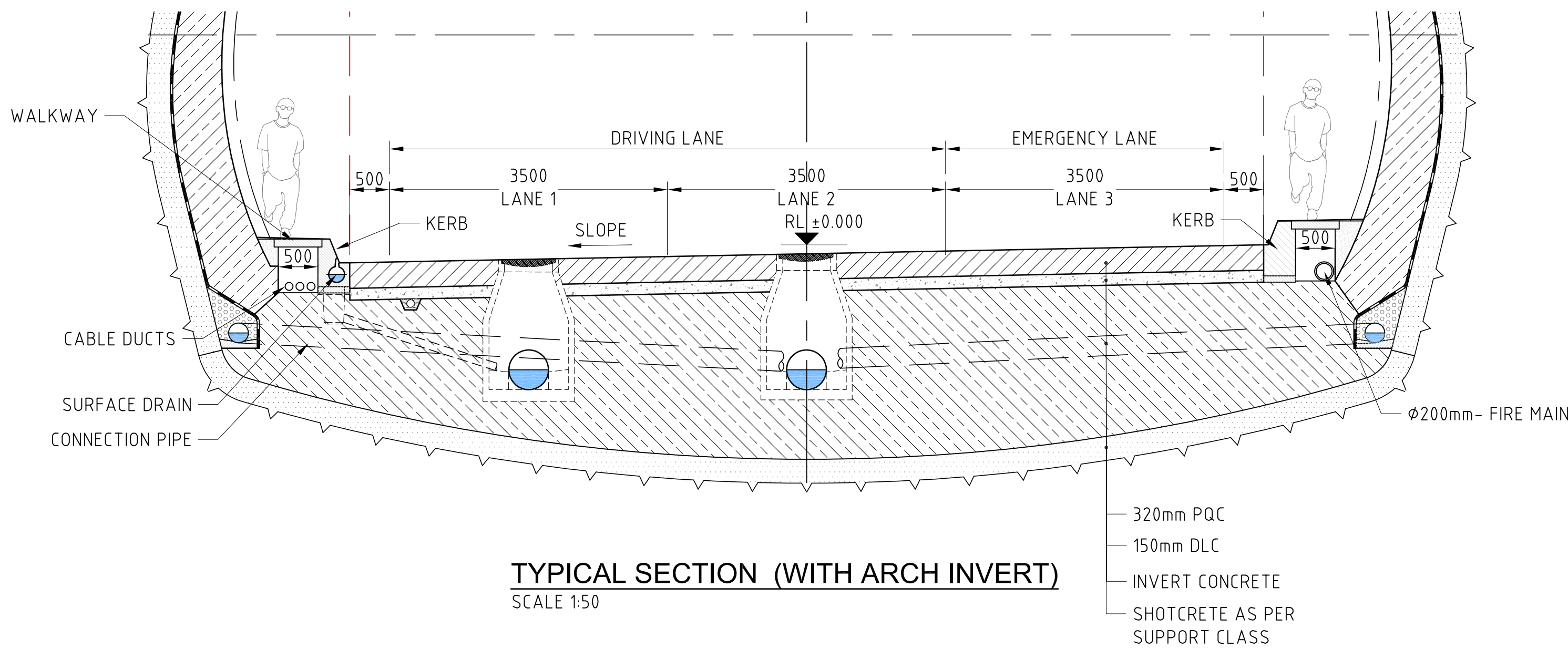
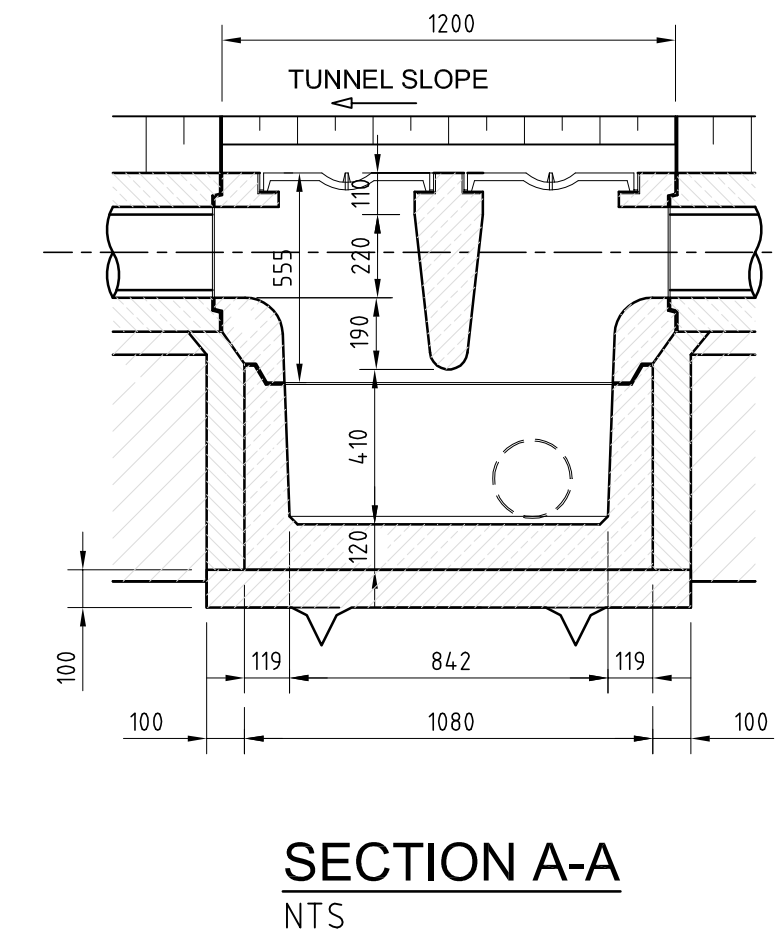
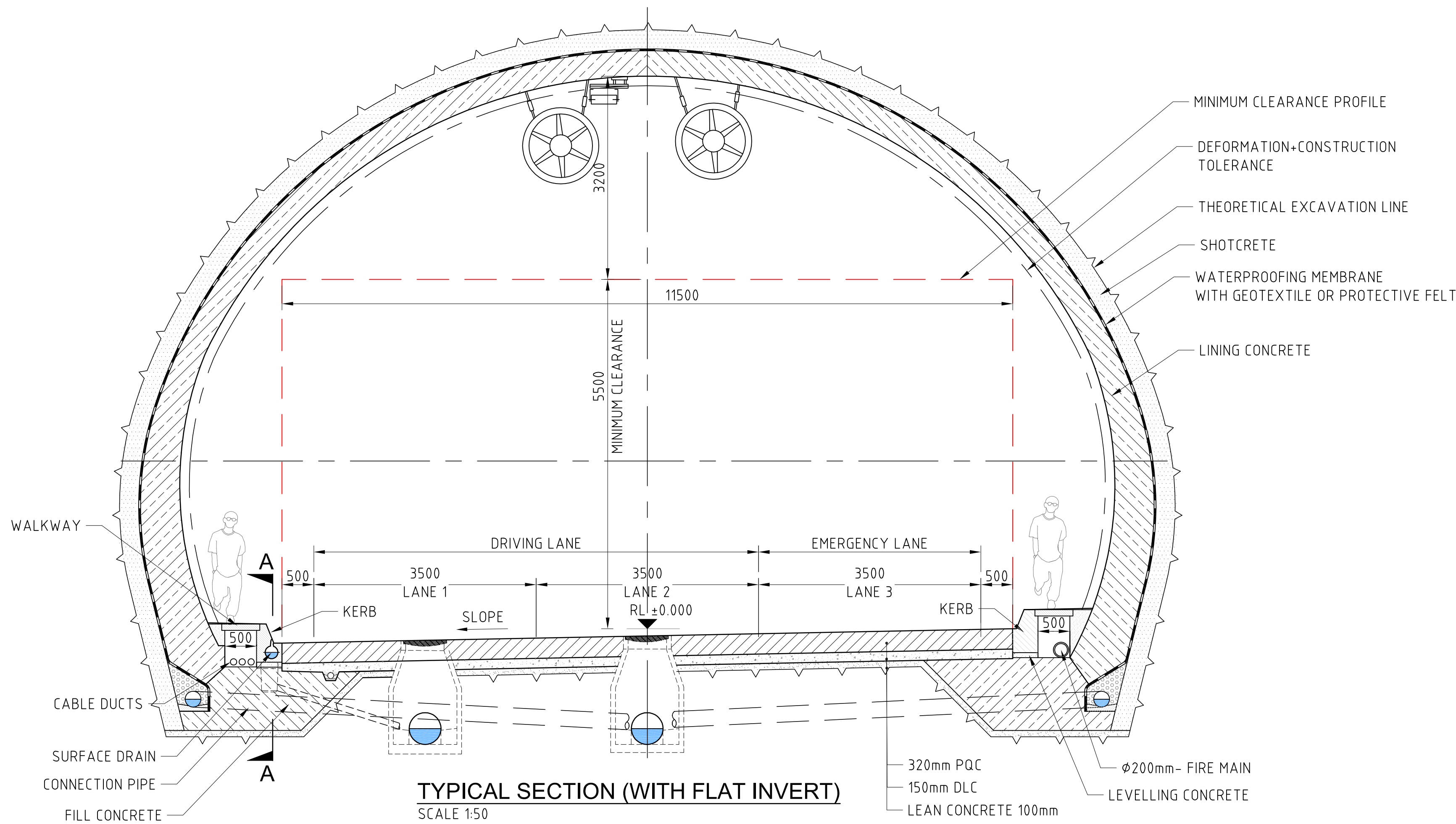
NOTES :

1. ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE.



PRELIMINARY

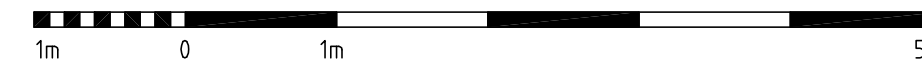
REFERENCE DRAWINGS: SHGA-FS-LAY-1001 TO 1016 (16 SHEETS) SHGA-FS-LAY-1061 TO 1098 (38 SHEETS)	LEGEND:	REVISION					QUALITY ASSURANCE					DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA	
		The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and The contractor.										PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780				
		E	DEC 2015	RESUBMITTED (KD-6)			ABa	RMe	FKr	Date (FIRST ISSUE)	22.07.2015	22.07.2015	22.07.2015	22.07.2015	22.07.2015	
		D	DEC 2015	PQC REVISED TO 320 mm			ABa	RMe	FKr	Name	ABa	RMe	AKg	BRs	AKg	
		C	SEP 2015	RESUBMITTED (KD-4)			ABa	RMe	FKr		Drawn	Drafting Chk	Designed	Design Chk	Approved	
		B	AUG 2015	RESUBMITTED (KD-3)			ABa	RMe	FKr	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.						
		A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)			ABa	RMe	FKr	PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780						
		REV. DATE PARTICULARS Drawn Checked Approved					Originators					PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780				
												DRAWING TITLE 4 LANE ROAD TYPICAL CROSS SECTION AND PAVEMENT DETAILS				
												DRAWING NUMBER SHGA-FS-GEN-011		REV E		
SCALE 1:50												MONTH (Current Issue) DEC 2015				



NOTES :

1. ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE.

SCALE 1 : 50



PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1001 TO 1016 (16 SHEETS)
SHGA-FS-LAY-1061 TO 1098 (38 SHEETS)

LEGEND:

- LINING / INVERT CONCRETE
- PAVEMENT QUALITY CONCRETE (PQC)
- DRY LEAN CONCRETE (DLC)

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
E	DEC 15	MINOR CORRECTIONS / RESUBMITTED (KD-6)	RMe	BRs	FKr
D	DEC 15	SECTION WITH ARCH INVERT ADDED (KD-5)	RMe	BRs	FKr
C	SEP 15	CP HEIGHT MODIFICATION & RESUBMISSION (KD-4)	PRa	BRs	FKr
B	AUG 15	MINOR MODIFICATION	PRa	BRs	FKr
A	JULY 15	FIRST DRAFT (INCEPTION STAGE)	RMe	BRs	FKr

QUALITY ASSURANCE

The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					
Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15
Name	RMe	RMe	BRs	FKr	FKr
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS :
GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE
CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

MAIN TUNNEL
REGULAR CROSS SECTION
2 DRIVING LANES+ 1 EMERGENCY LANE

DRAWING NUMBER

SHGA-FS-GEN-012

REV

E

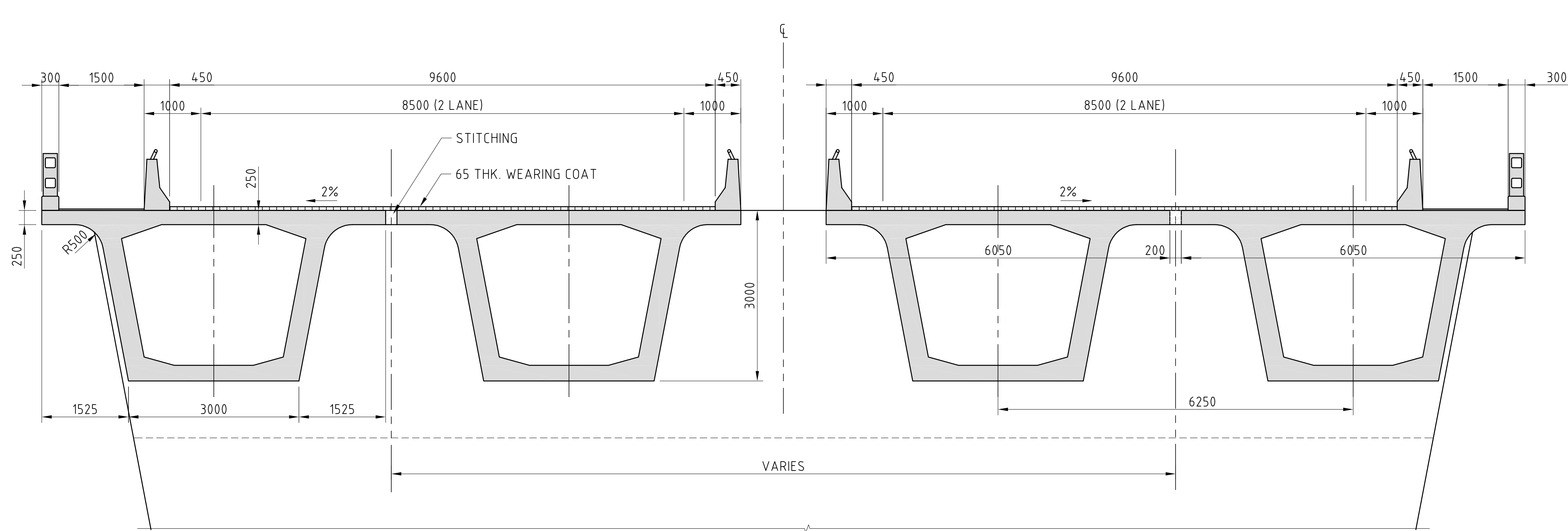
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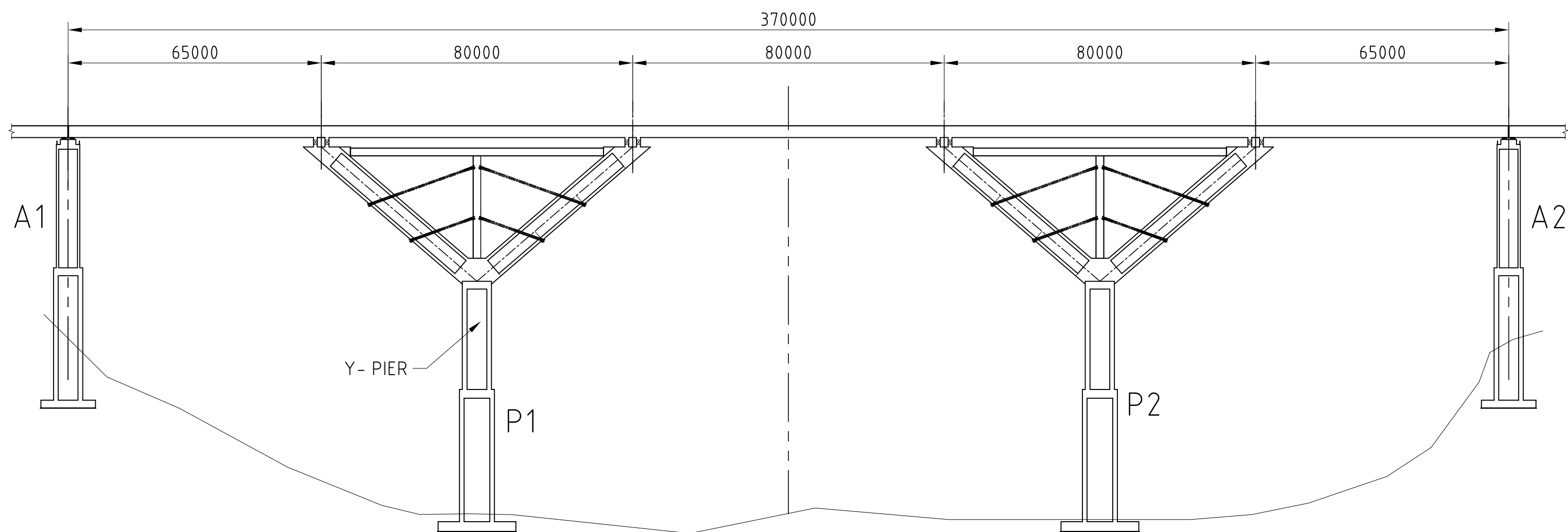
MONTH

(Current Issue)

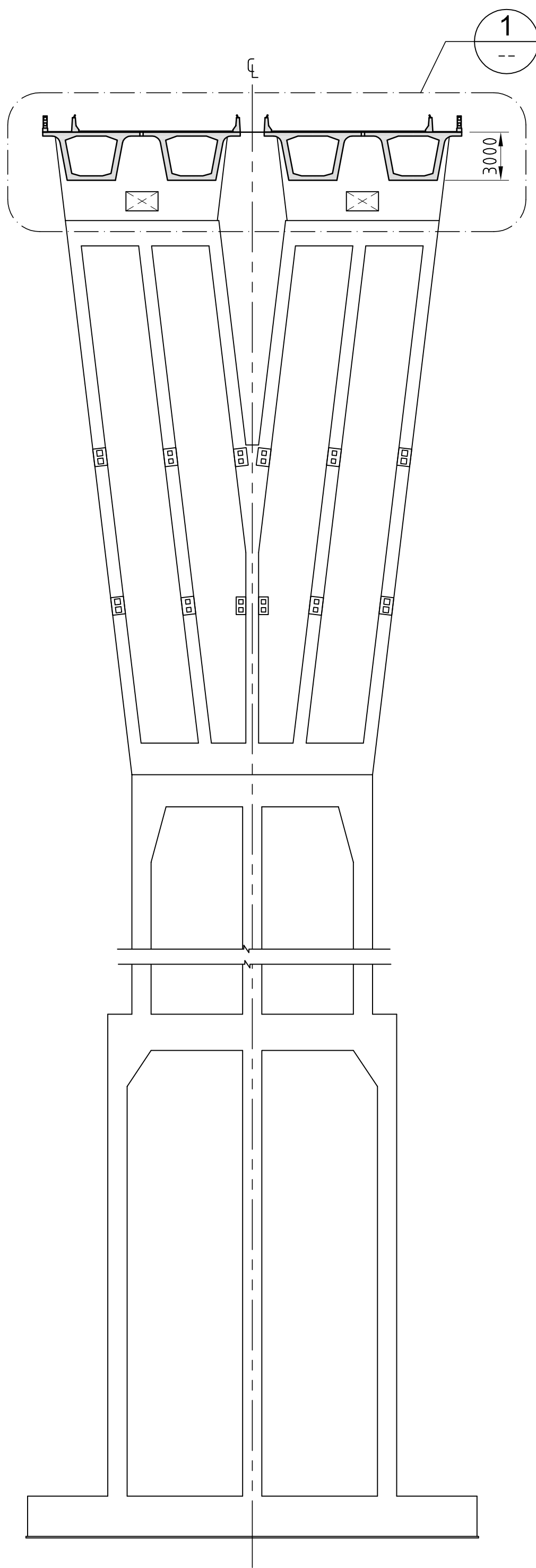
DEC 15



DETAIL
SCALE 1:50



LONGITUDINAL SECTION -Y PIER OPTION- TWIN BOX STRUCTURE
SCALE 1:1000

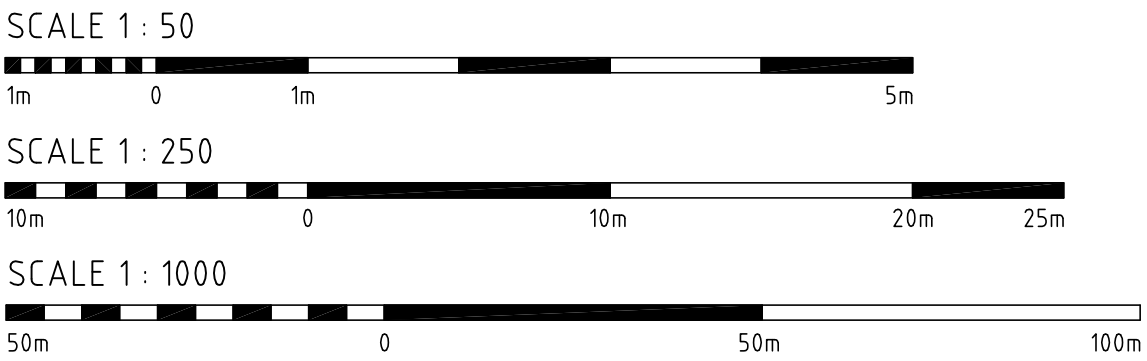


4 LANE -Y- PIER OPTION - TWIN BOX STRUCTURE
SCALE 1:250


APPLICABLE AT Y-PIERS IN LONG SPAN BRIDGES.

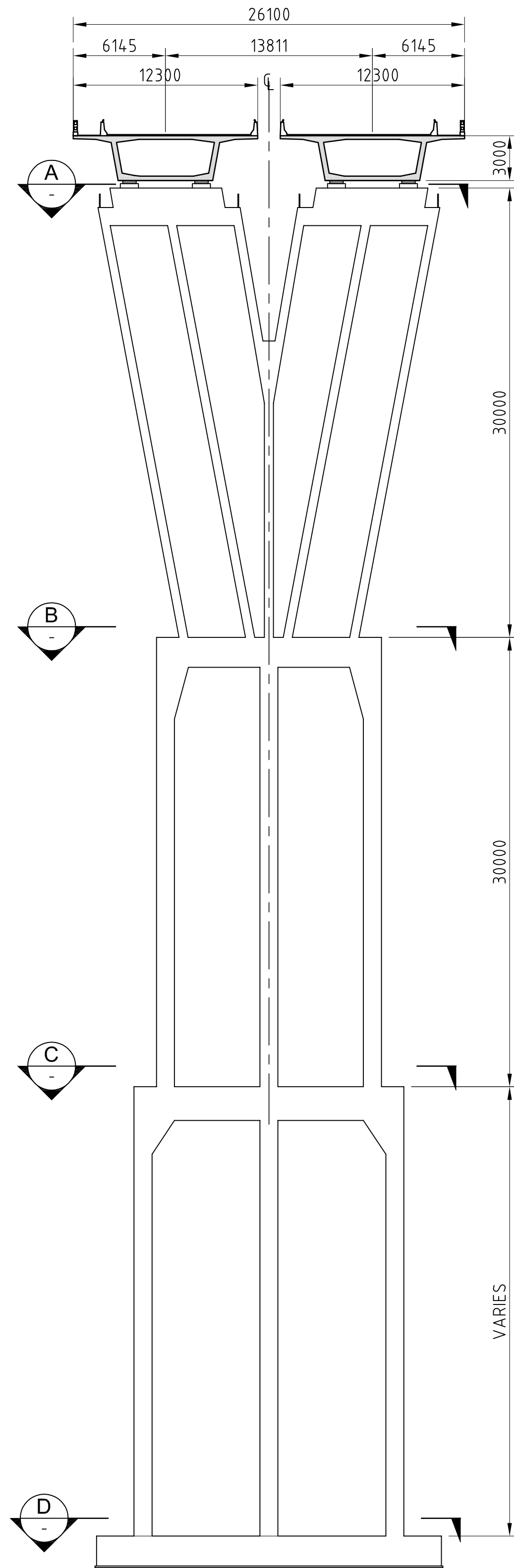
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REFERENCE DRAWINGS:	LEGEND:	REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA					
		The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.												DRAWING TITLE 4 LANE MAJOR BRIDGE GENERAL SECTIONS PSC BOX GIRDER WITH Y-PIERS								
		E	DEC 2015	PIER SHAPE MODIFIED (KD-6)			ABa	RMe	FKr	Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15		PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780					
		D	DEC 2015	BOX GIRDER & PIER SHAPE MODIFIED (KD-5)			PRa	RMe/ADh	FKr								DRAWING NUMBER SHGA-FS-GEN-013		REV E			
		C	SEP 2015	PIER ELEVATION MODIFIED AND RESUBMITTED (KD-4)			ABa	RMe	FKr								SCALE AS SHOWN		MONTH (Current Issue) DEC 15			
		B	SEP 2015	RESUBMITTED INTERIM PROGRESS (KD-3)			ABa	RMe	FKr								Name	ABa/RMe	RMe	DSu	ADh	FKr
		A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)			ABa	RMe	FKr								Drawn	Drafting Chk	Designed	Design Chk	Approved	
		REV.	DATE	PARTICULARS				Drawn	Checked	Approved	Originators											
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		GEOCONSULT, PRA, R\16000 Projects\16060-Shiradi Ghat\CURRENT\WD-6\SHGA-FS-GEN-013_E.dwg, 2015-12-18																				

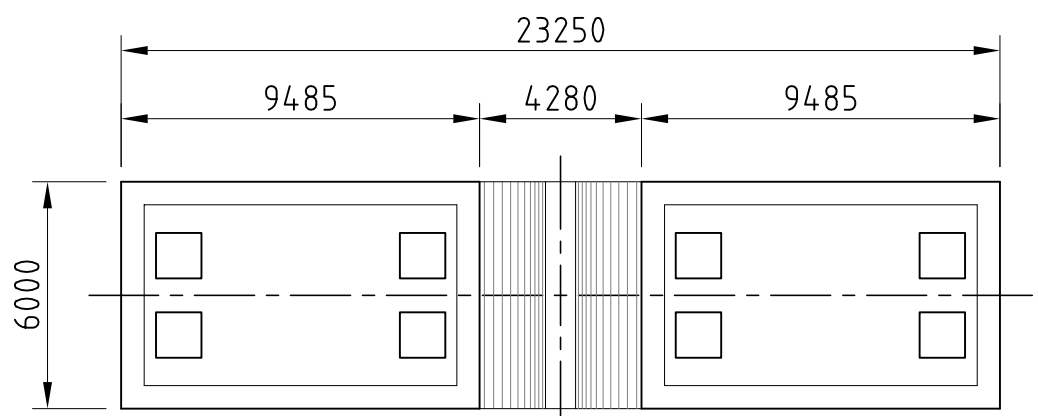
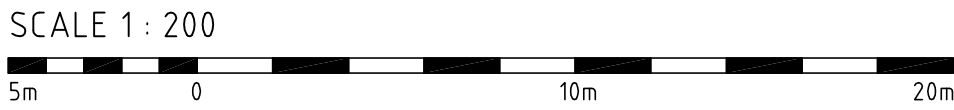


TYPICAL SECTION OF PIER (HIGHEST VARIANT)
SCALE 1:250

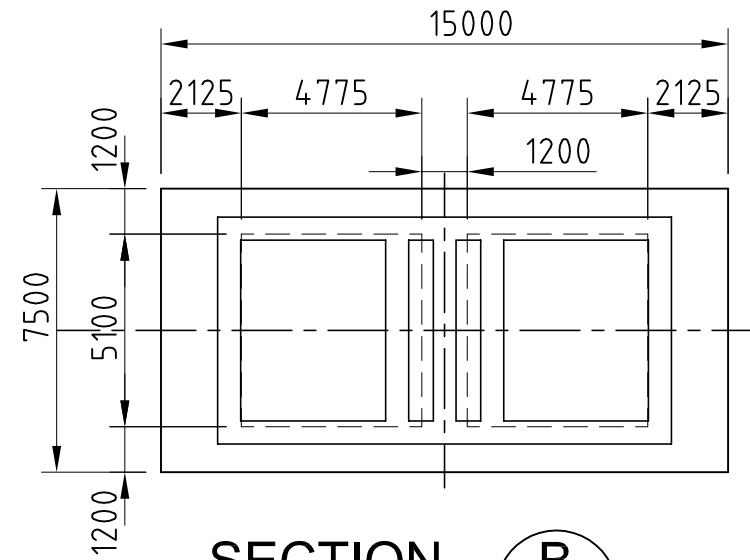
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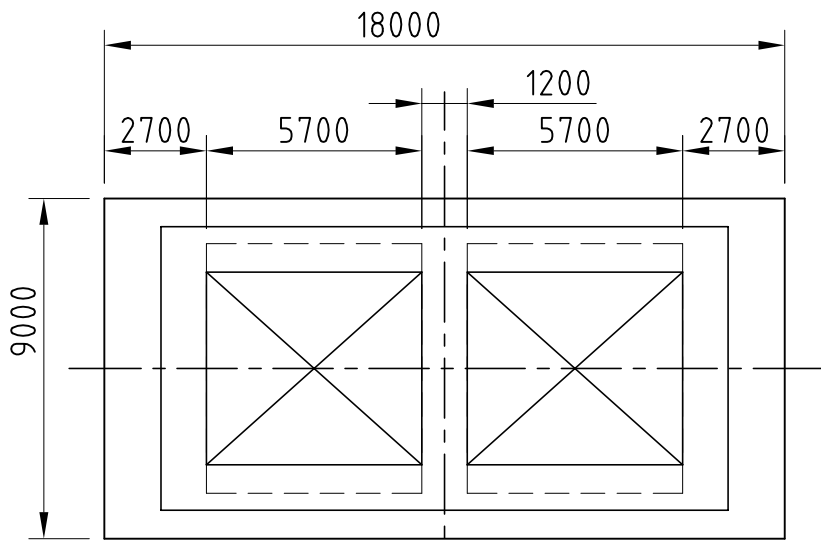
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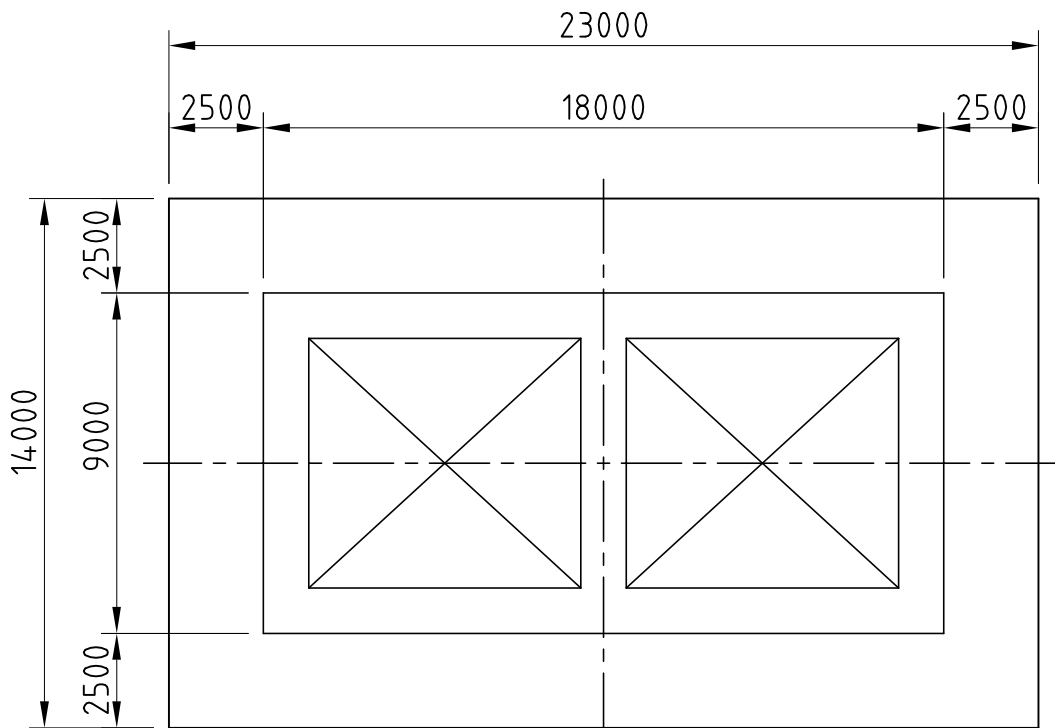
SECTION A
SCALE 1:200



SECTION B
SCALE 1:200




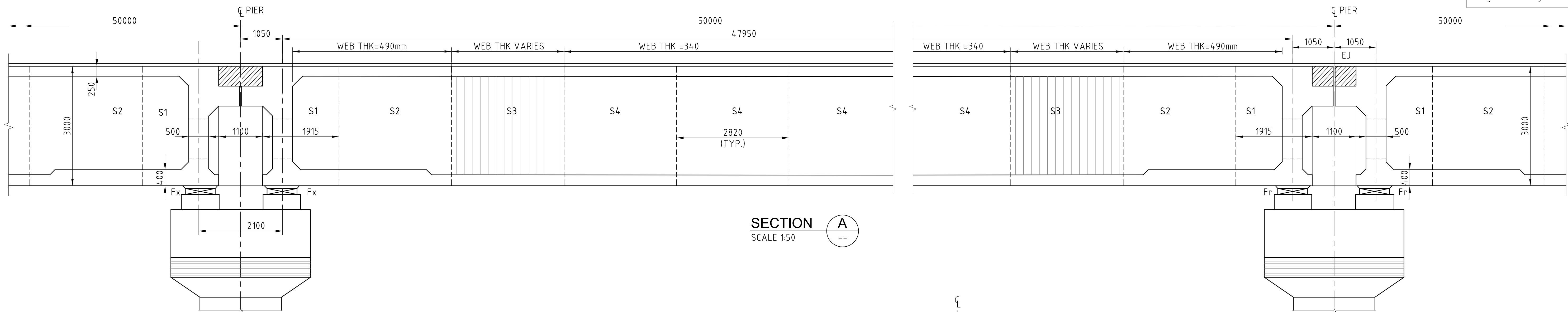
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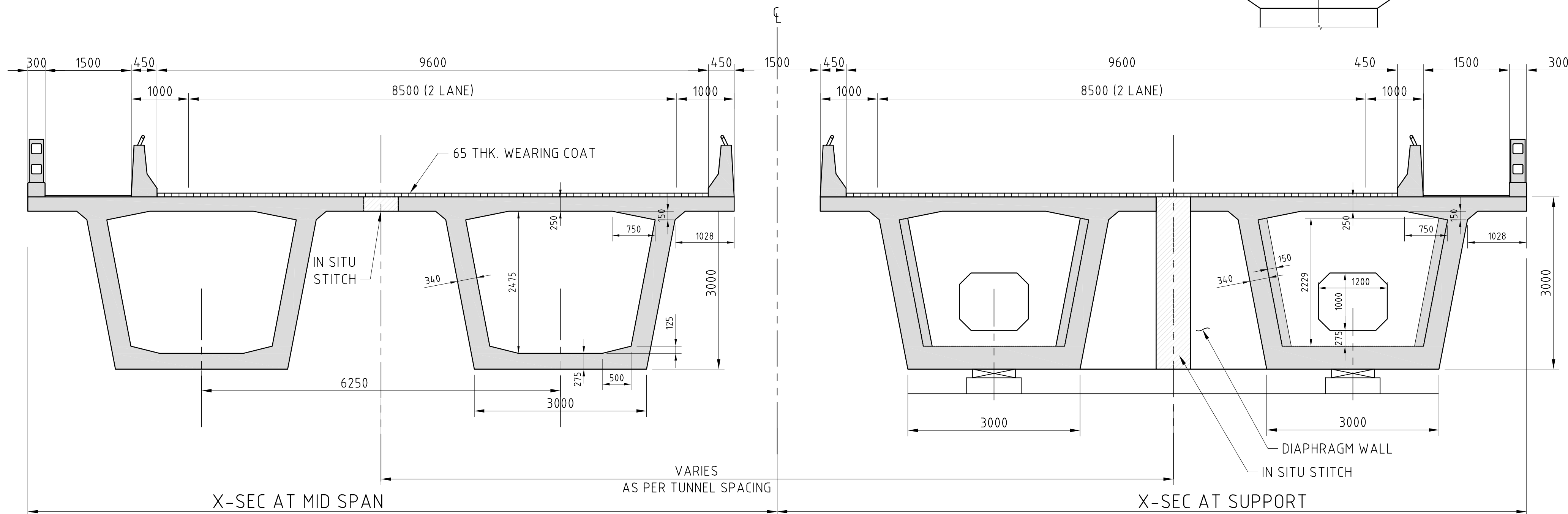
SECTION D
SCALE 1:200

PRELIMINARY

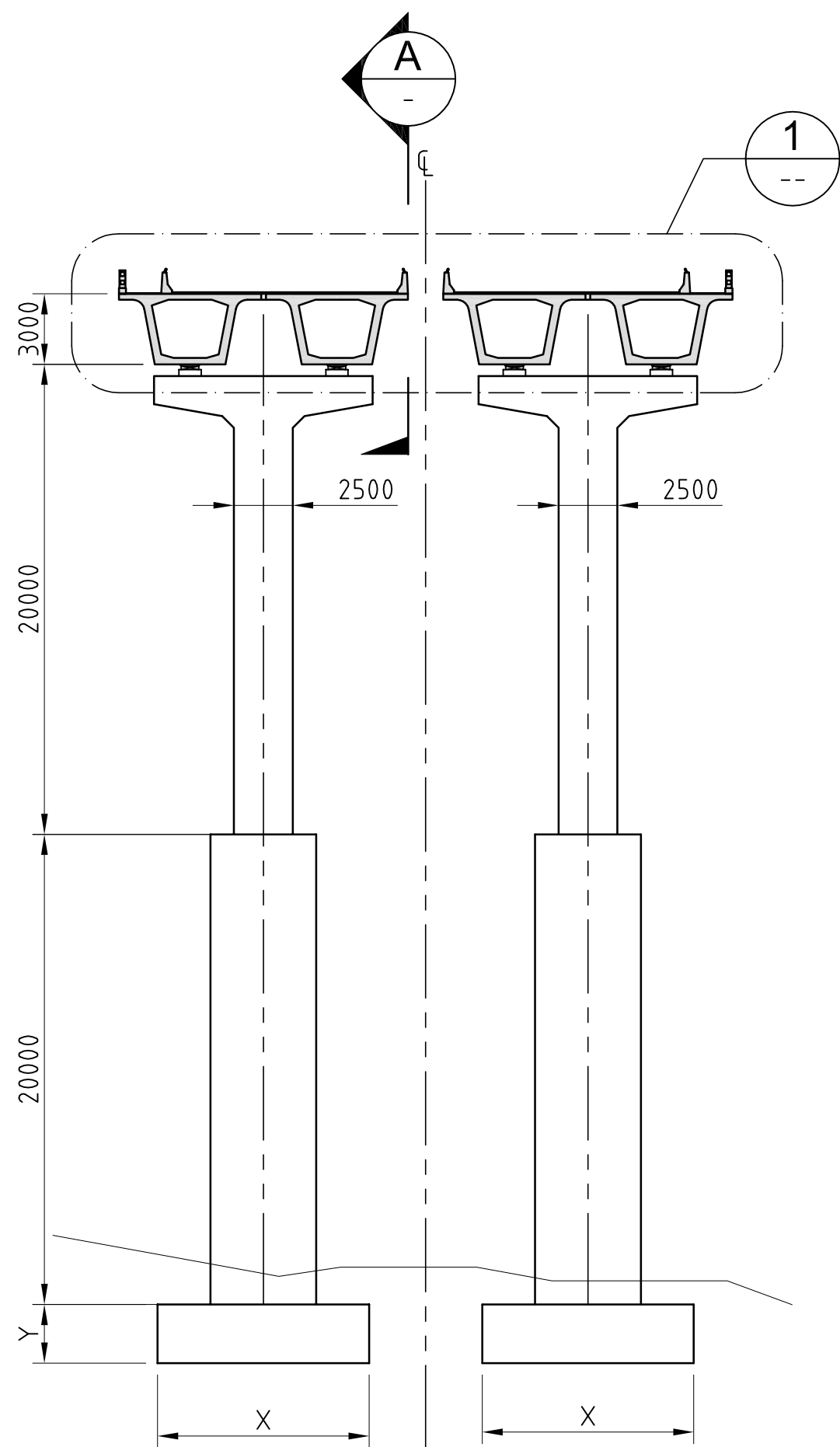
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								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						DRAWING TITLE 4 LANE MAJOR BRIDGE- GENERAL SECTIONS PIERS UP TO 90M HIGH PILE FOUNDATION AND OPEN FOUNDATION								
		D	DEC 2015	FOURTH DRAFT (KD-6)			ABa	ADh/RMe	AKg	Date (FIRST ISSUE)	AUG 15	AUG 15	AUG 15	AUG 15	AUG 15		PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780					
		C	DEC 2015	THIRD DRAFT (KD-5)			PRa	ADh/RMe	AKg	Name	ABa/PRa	RMe	ADh	ADh/AKg	AKg		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. <small>GEOCONSULT, PRa, R\16000 Projects\16060-Shiradi Ghat\CURRENT\WD-6\SHGA-FS-GEN-014_D.dwg, 2015-12-18</small>					
		B	SEP 2015	SECOND DRAFT (KD-4)			PRa	ADh/RMe	AKg	Drawn	Drafting Chk	Designed	Design Chk	Approved								
		A	AUG 2015	FIRST DRAFT (KD-3)			ABa	ADh/RMe	AKg													
		REV.	DATE	PARTICULARS			Drawn	Checked	Approved	Originators							DRAWING NUMBER SHGA-FS-GEN-014		REV D			
																				SCALE AS SHOWN	MONTH (Current Issue) DEC 2015	



SECTION A
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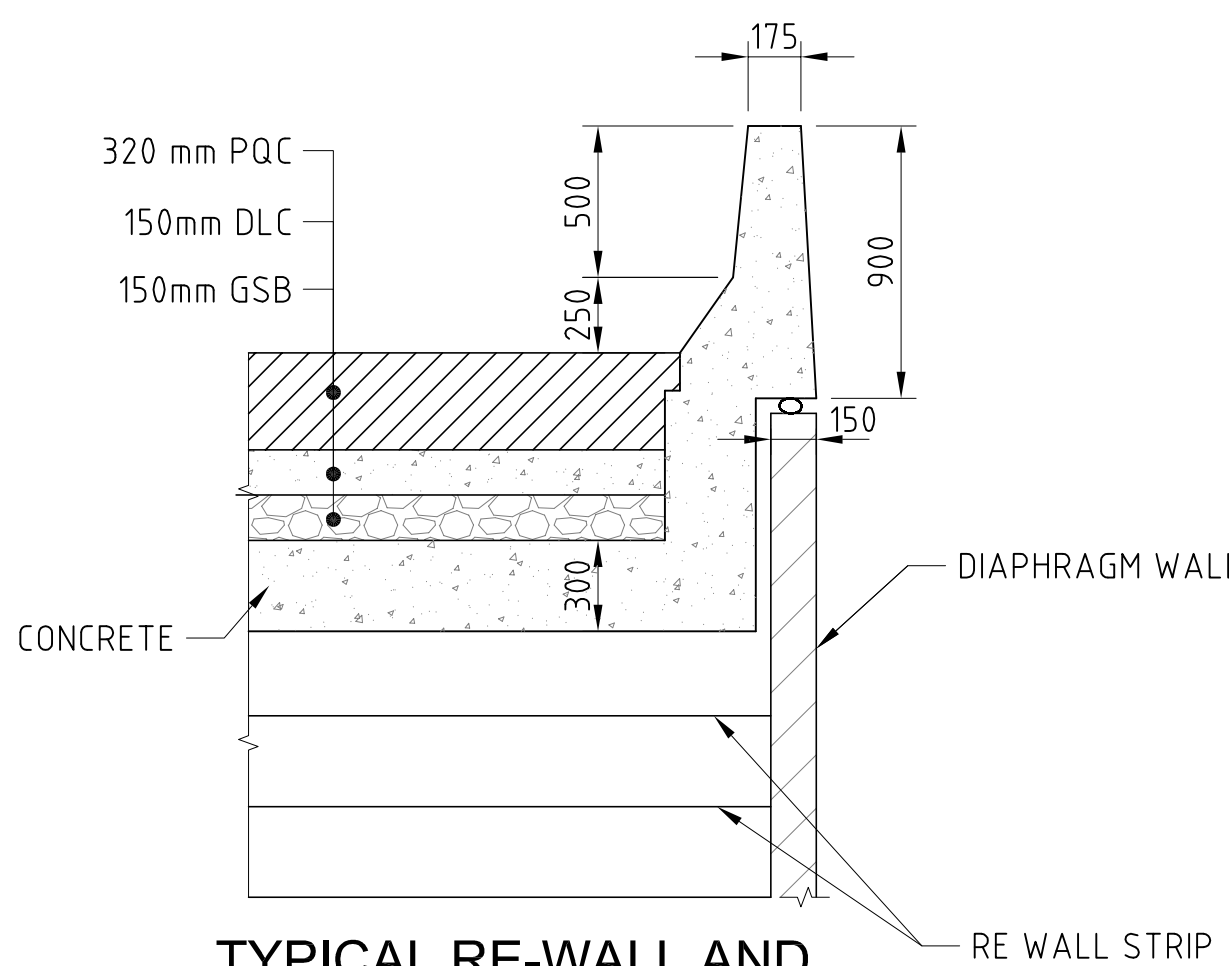


DETAIL 1
SCALE 1:50

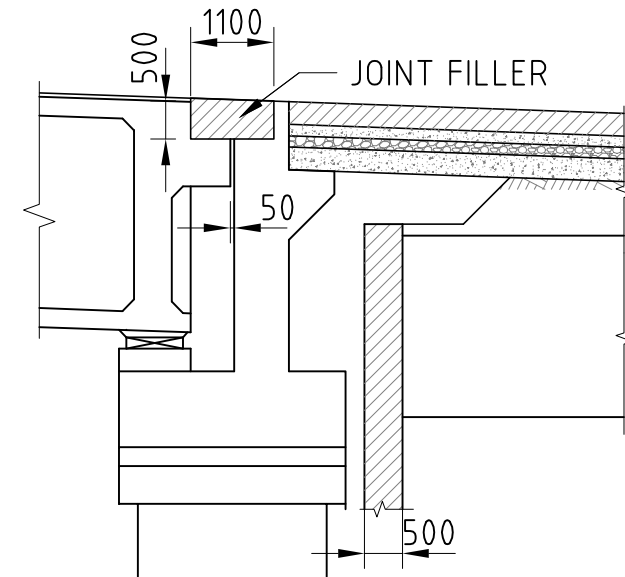


4 LANE - TWIN BOX STRUCTURE - MINOR BRIDGES
SCALE 1:250

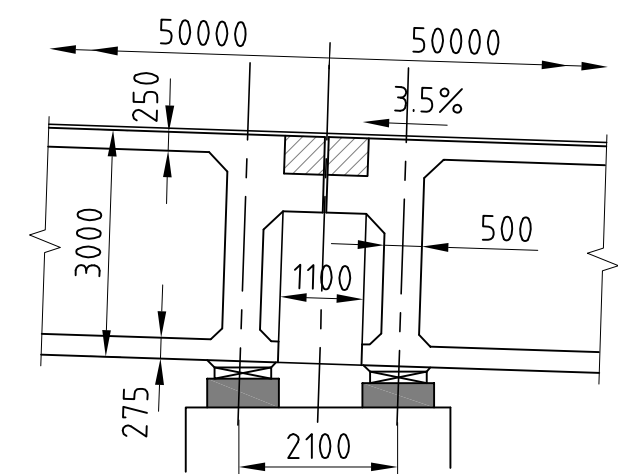
DIMENSIONS AND SIZES SHOWN ARE PRELIMINARY AND SHALL BE FINALIZED AFTER DETAILED GEOLOGICAL/ GEOTECHNICAL INVESTIGATION



TYPICAL RE-WALL AND CRASH BARRIER ARRANGEMENT
SCALE 1:25



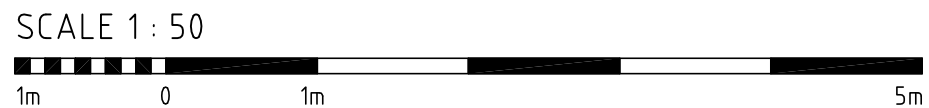
TYPICAL DETAIL AT ABUTMENT JUNCTION
SCALE 1:100



TYPICAL DETAIL AT PIER TO PIER JUNCTION
SCALE 1:100

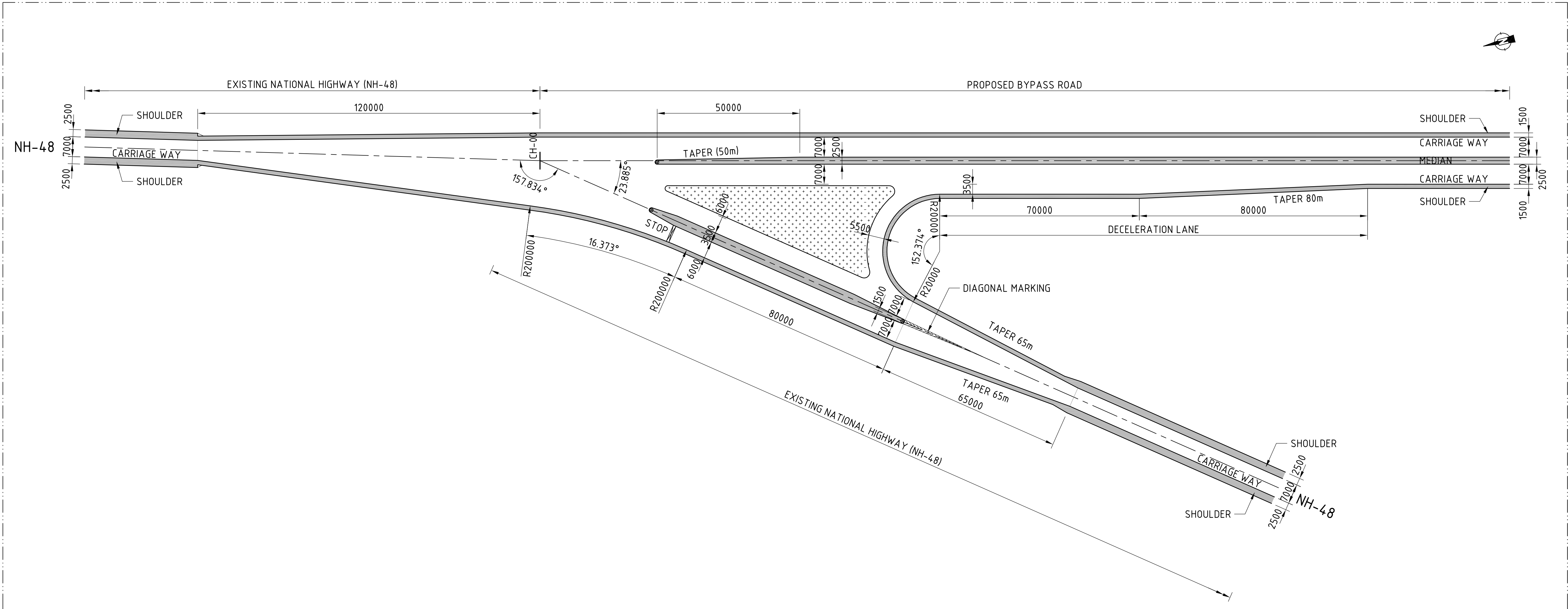
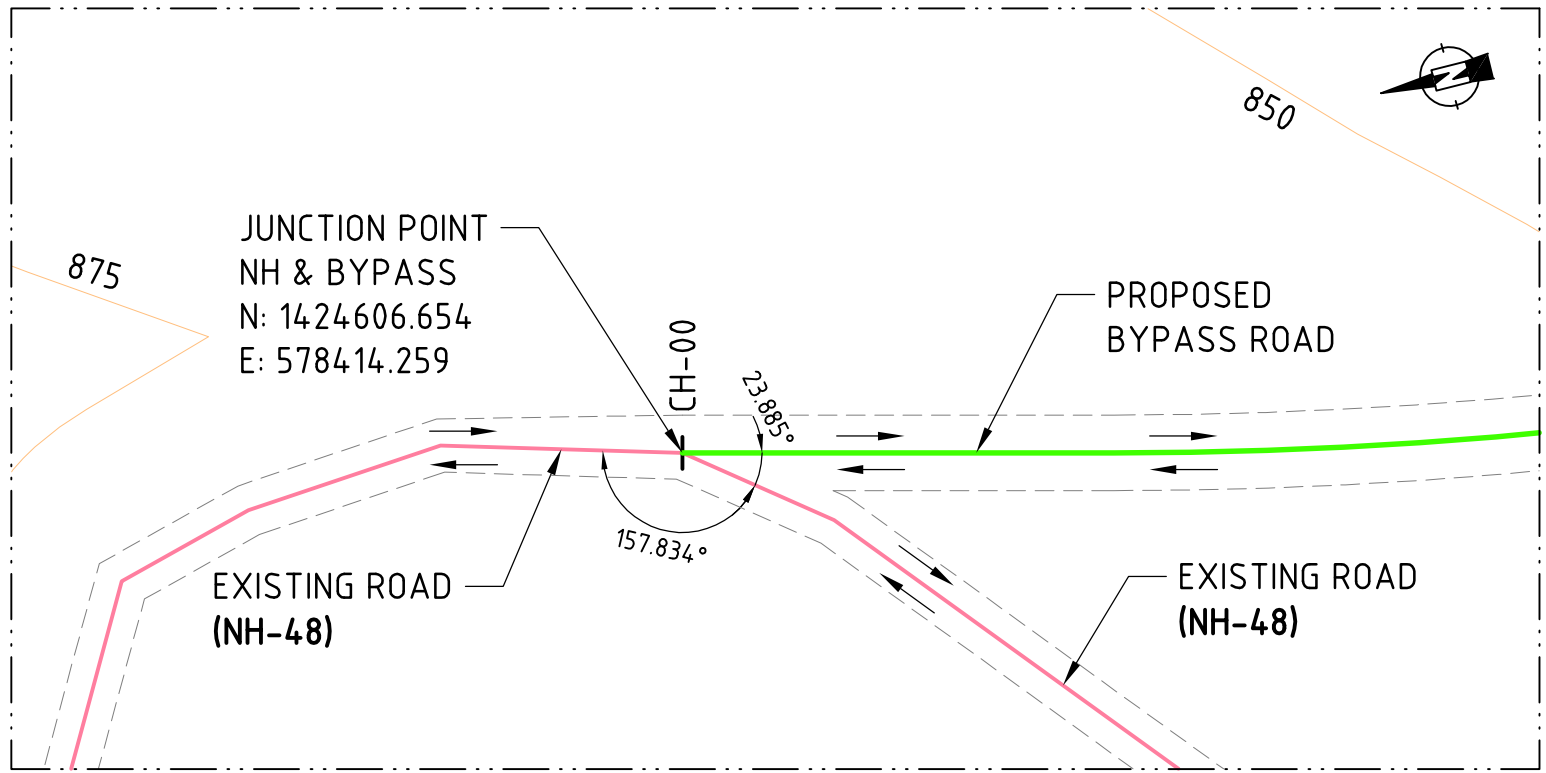
NOTES :

- ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE.
- THIS DRAWING SHALL BE READ ALONG WITH RELATED GENERAL ARRANGEMENT DRAWINGS.



PRELIMINARY

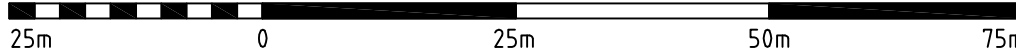
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								GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA	
								PROJECT TITLE		DRAWING TITLE	
								CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		4 LANE MINOR BRIDGES GENERAL SECTIONS PSC BOX GIRDER WITH PIERS UP TO 40m HIGH	
								This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		DRAWING NUMBER	
								GEOCONSULT, P.Ra, R 16000 Projects\16000-Shiradi Ghat\CURRENT\WD-6\SHGA-FS-GEN-015_C.dwg, 2015-12-18		SHGA-FS-GEN-015	
										SCALE	
										AS SHOWN	
										MONTH	
										DEC 2015	



PLAN
SCALE 1:750

INTERSECTION WILL BE MATCHED WITH FOUR LANE NH-48, AFTER GETTING PLAN AND PROFILE DRAWINGS OF THE RELEVANT SECTION FROM NHAI.

SCALE 1 : 750



PRELIMINARY

REFERENCE DRAWINGS: <
--


Technical drawing illustrating the proposed bypass road layout, showing the intersection with the existing state highway road and the proposed bypass road. The drawing includes various dimensions, angles, and labels for road features.

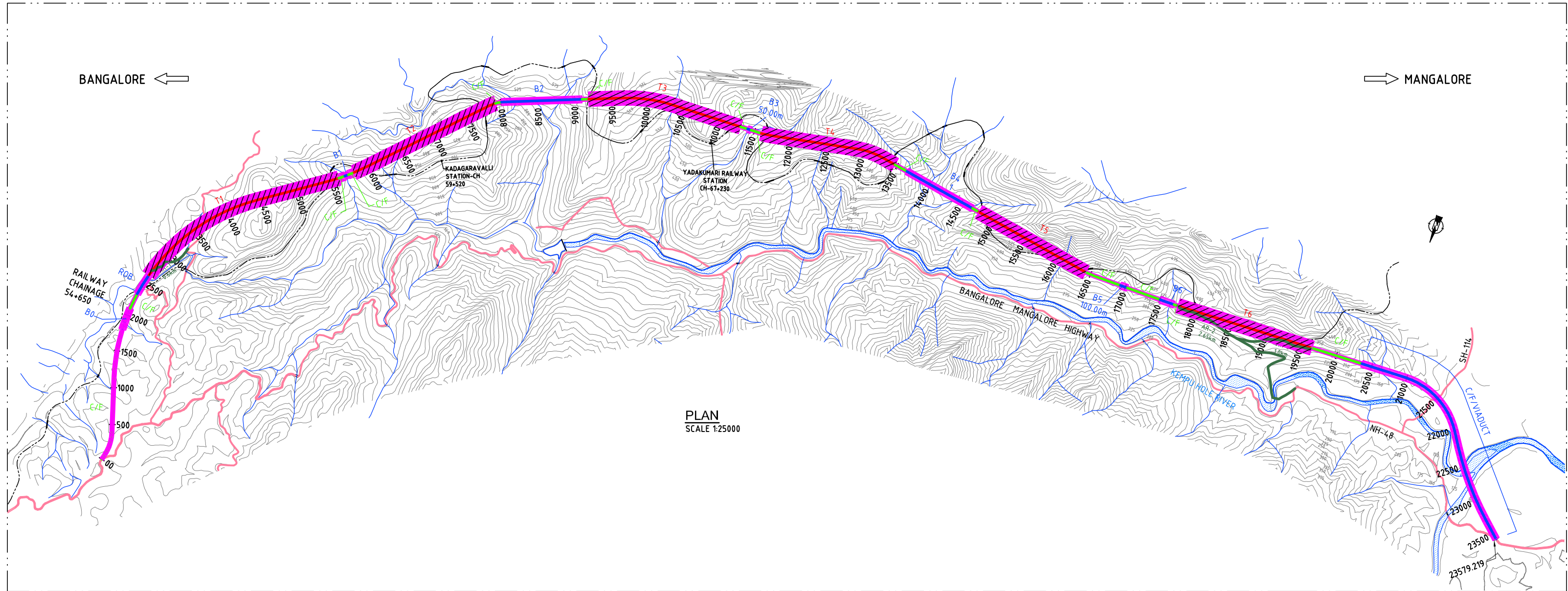
Key Features and Dimensions:

- Existing State Highway Road:** The road running diagonally across the top of the drawing.
- Proposed Bypass Road:** The road running horizontally across the bottom of the drawing.
- Intersection Area:**
 - STOP:** A triangular stop sign symbol.
 - DIAGONAL MARKING:** A series of parallel lines indicating a crossing or intersection.
 - DECELERATION LANE:** A lane for vehicles to slow down before the intersection.
 - TAPER 65m:** Two taper sections, each 65m long, leading into the intersection.
 - TAPER 80m:** A taper section 80m long, leading into the intersection.
 - TAPER (50m):** A taper section 50m long, leading into the intersection.
- Road Features:**
 - SHOULDER:** The outer edge of the road.
 - CARRIAGE WAY:** The main travel lane.
 - MEDIAN:** A central strip separating the two directions of traffic.
- Angles and Distances:**
 - 167.753°:** The angle between the existing state highway road and the proposed bypass road.
 - 215.42°:** The angle between the existing state highway road and the proposed bypass road.
 - 100000:** The distance from the intersection to the start of the proposed bypass road.
 - 25000:** The distance from the intersection to the end of the proposed bypass road.
 - 60000:** The distance from the intersection to the end of the proposed bypass road.
 - 133743:** The distance from the intersection to the end of the proposed bypass road.
 - 65000:** The distance from the intersection to the end of the proposed bypass road.
 - 70000:** The distance from the intersection to the end of the proposed bypass road.
 - 80000:** The distance from the intersection to the end of the proposed bypass road.
- Other Labels:**
 - NH:** National Highway.
 - CH-23579.219:** A specific point on the proposed bypass road.
 - CH-23579.219:** A specific point on the proposed bypass road.

SCALE 1:750

PRELIMINARY

REFERENCE DRAWINGS:	LEGEND:	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA								
														DRAWING TITLE Y-JUNCTION AT CH:- 23+579.219								
														AT NH & BYE PASS CROSSING								
														GENERAL ARRANGEMENT PLAN								
		D	SEP 2015	RESUBMITTED (KD6)				MKu	RMe	AKg												
		C	SEP 2015	RESUBMITTED (KD5)				MKu	RMe	AKg	Date (FIRST ISSUE)	SEP 2015		SEP 2015	SEP 2015	SEP 2015	SEP 2015					
		B	SEP 2015	SECOND DRAFT (KD4)				MKu	RMe	AKg	Name	MKu		RMe	ADh/RMe	AKg	AKg					
		A	AUG 2015	FIRST DRAFT (INTERIM PROGRESS-KD3)				MKu	RMe	AKg		Drawn		Drafting Chk	Designed	Design Chk	Approved					
		REV.	DATE	PARTICULARS				Drawn	Checked	Approved	Originators						DRAWING NUMBER SHGA-FS-JNC-1615				REV D	
		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.																				
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SCALE 1:750												MONTH (Current Issue) DEC 2015										



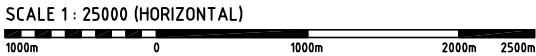
PLAN
SCALE 1:25000

TOTAL LAND ACQUISITION AREA = 344.64 Hectares

- TEMPORARY LAND ACQUISITION AREA = 252.58 Hectares (TUNNELS)
- PERMANENT LAND ACQUISITION AREA (344.64 - 252.58) = 92.06 Hectares
- LAND ACQUISITION - BRIDGES = 68 Hectares
- LAND ACQUISITION - CUT/FILL (92.06 - 68) = 24.06 Hectares
- CONSTRUCTION ROADS AND APPROACH = 5 Hectares

NOTES:-

- ALL DIMENSIONS ARE SHOWN IN mm AND LEVELS ARE SHOWN IN METERS UNLESS OTHERWISE SPECIFIED.
- NO DIMENSIONS TO BE MEASURED FROM DRAWING. WRITTEN DIMENSIONS TO BE FOLLOWED.
- LAND AREA SHOWN IS BASED ON PRELIMINARY ALIGNMENT DESIGN AND MAY CHANGE IF ANY MODIFICATION IS DONE IN THE ALIGNMENT AT A LATER STAGE.



PRELIMINARY

REFERENCE DRAWINGS:
SHGA-FS-LAY-1000

- LEGEND:
- EXISTING ROAD
 - RIVER
 - NALA
 - RAILWAY LINE
 - CUT/FILL (C/F)
 - BRIDGES (B)
 - TUNNELS (T)
 - ACCESS ROAD

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
B	DEC 2015	SECOND DRAFT (KD-6)	RMe	RMe	AKg
A	DEC 2015	FIRST DRAFT (KD-5)	RMe	RMe	AKg

QUALITY ASSURANCE

Date	DEC 15	DEC 15	DEC 15	DEC 15	22.07.15
Name	Drawn	RMe	AKg	AKg	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	

DESIGN CONSULTANTS:
GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE
CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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GEOCONSULT, Pkx, R-14000 Projects/4868-Shiradi Ghat/CURRENT/KD-6/SHGA-FS-LAQ_2011_B.dwg, 2015-12-18

CLIENT
GOVERNMENT OF KARNATAKA

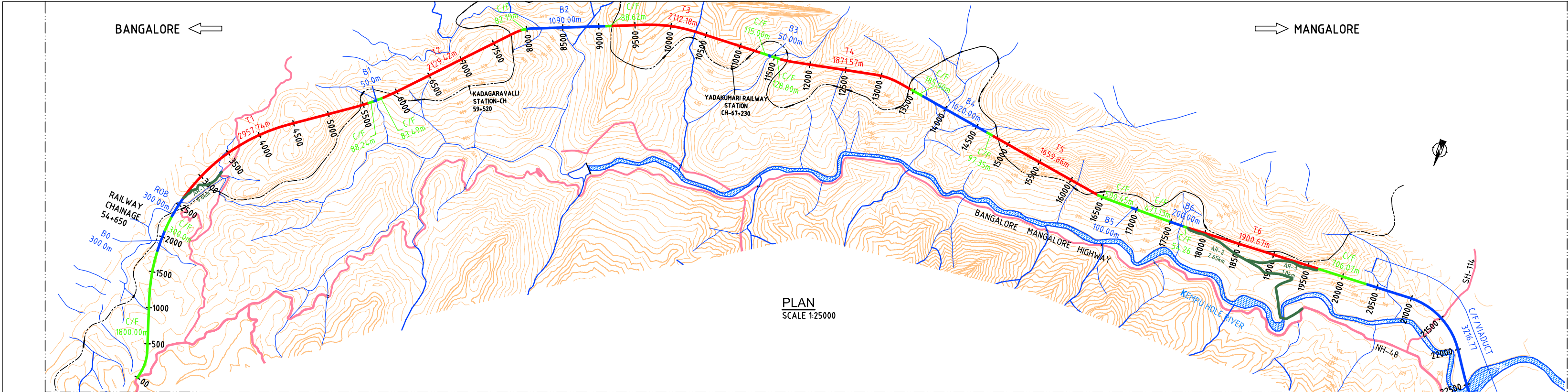
DRAWING TITLE
ALIGNMENT OPTION "A"
LAND ACQUISITION AREA
PLAN

DRAWING NUMBER
SHGA-FS-LAQ-2011

SCALE
AS SHOWN

MONTH
Karnat base

REV
DEC 2015



CONSTRUCTION TYPE DETAILS

S Nr.	CONSTRUCTION TYPE	CHAINAGE (m)		LENGTH 'Ls' (m)
		FROM	TO	
1	CUT/FILL (C/F)	0.00	1800.00	1800.00
2	BRIDGE (B0)	1800.00	2100.00	300.00
3	CUT/FILL (C/F)	2100.00	2320.40	220.40
4	ROB	2320.40	2620.40	300.00
5	TUNNEL (T1)	2620.40	5578.14	2957.74
6	CUT/FILL (C/F)	5578.14	5666.38	88.24
7	BRIDGE (B1)	5666.38	5716.38	50.00
8	CUT/FILL (C/F)	5716.38	5799.87	83.49
9	TUNNEL (T2)	5799.87	7929.29	2129.42
10	CUT/FILL (C/F)	7929.29	8011.48	82.19
11	BRIDGE (B2)	8011.48	9101.48	1090.00
12	CUT/FILL (C/F)	9101.48	9190.10	88.62
13	TUNNEL (T3)	9190.10	11302.28	2112.18
14	CUT/FILL (C/F)	11302.28	11417.28	115.00
15	BRIDGE (B3)	11417.28	11467.28	50.00
16	CUT/FILL (C/F)	11467.28	11596.08	128.80
17	TUNNEL (T4)	11596.08	13467.65	1871.57
18	CUT/FILL (C/F)	13467.65	13652.65	185.00
19	BRIDGE (B4)	13652.65	14672.65	1020.00
20	CUT/FILL (C/F)	14672.65	14770.00	97.35
21	TUNNEL (T5)	14770.00	16429.86	1659.86
22	CUT/FILL (C/F)	16429.86	16930.31	500.45
23	BRIDGE (B5)	16930.31	17030.31	100.00
24	CUT/FILL (C/F)	17030.31	17501.44	471.13
25	BRIDGE (B6)	17501.44	17701.44	200.00
26	CUT/FILL (C/F)	17701.44	17755.70	54.26
27	TUNNEL (T6)	17755.70	19656.37	1900.67
28	CUT/FILL (C/F)	19656.37	20362.44	706.07
29	C/F/VIADUCT	20362.44	23579.21	3216.77

VERTICAL CURVES DATA (REFER VERTICAL ALIGNMENT TABLE)

Nr.	TYPE OF CURVE	CHAINAGE (m)	LENGTH OF CURVE (MT)	VALUE OF K	PVI NO.	PVI CH & RL	VALUE OF A	DESIGN SPEED
VC 1	SUMMIT	14560	14860	300	85.714	1 14.710 459.333	3.5	(100)
VC 2	VALLEY	13503	13653	150	4.8387	2 13578 459.805	3.1	100
VC 3	VALLEY	11446	11746	300	45.455	3 11596 521.117	6.6	100
VC 4	SUMMIT	9090	9290	200	57.143	4 9190 605.474	3.5	100
VC 5	VALLEY	7871	8021	150	50	5 7946 605.474	3	100
VC 6	VALLEY	5650	5950	300	46.154	6 5800 670.305	6.5	100
VC 7	SUMMIT	5553	5603	50	100.000	7 5578 677.8	0.5	100
VC 8	VALLEY	2470	2770	300	46.154	8 2620 766.533	6.5	100

HORIZONTAL CURVES DATA (REFER HORIZONTAL ALIGNMENT TABLE)

Nr.	SIDE	R (m)	V (km/h)	Lc (m)	dg-mt-sec	Ls (m)	e (%)
HC 1	LHS	600	100	338.681	32-19-11	80	5.000
HC 2	RHS	2600	100	3320.450	73-17-45	NR	1.709
HC 3	LHS	3000	100	617.430	11-42-38	NR	2.500
HC 4	RHS	500	100	214.290	24-33-23	95	5.000
HC 5	RHS	2000	100	687.970	19-45-05	NR	2.222
HC 6	LHS	1000	100	159.067	09-06-34.0	50	4.444
HC 7	RHS	1000	100	360.910	20-42-39	50	4.444
HC 8	LHS	1000	100	168.053	8-53-40	50	4.444
HC 9	LHS	2234.8	100	62.600	1-38-32	NR	2.500
HC 10	RHS	1000	100	1035.230	59-18-51	50	4.444
HC 11	LHS	4000	100	1049.790	2/15/2013	NR	2.500

NOTES:-

- ALL DIMENSIONS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- NO DIMENSIONS TO BE MEASURED FROM DRAWING. WRITTEN DIMENSIONS TO BE FOLLOWED.
- ALIGNMENT DESIGN AND STRUCTURES, RAIL INTERFERENCES SHOWN IN THE DRAWING ARE BASED ON PRELIMINARY DATA ONLY AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.
- THIS DRAWING SHALL BE READ ALONG WITH RELATED REFERENCE DRAWINGS.

LONGITUDINAL SECTION

SCALE HOR. 1:25000, VERT. 1:5000

SCALE 1 : 5000 (VERTICAL)



SCALE 1 : 25000 (HORIZONTAL)



PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1001 TO 1016 (16 SHEETS)

SHGA-FS-LAY-1061 TO 1098 (38 SHEETS)

LEGEND:

- EXISTING ROAD
- RIVER
- NALA
- RAILWAY LINE
- CUT/FILL (C/F)
- BRIDGES (B)
- TUNNELS (T)
- ACCESS ROAD

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators
F	DEC 2015	BRIDGE 'B3' LOCATION MODIFIED AND RELATED MODIFICATIONS (KD-6)	PrA	RMe	AKG	
E	DEC 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PrA/RMe	RMe	AKG	
D	SEP 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PrA/RMe	RMe	AKG	
C	AUG 2015	ROW AND OTHER DETAILS ADDED AND DRAWING RESUBMITTED	PrA	RMe	AKG	
B	AUG 2015	MINOR MODIFICATIONS AND RESUBMISSION	PrA	RMe	AKG	
A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	PrA/ABa	RMe	AKG	

QUALITY ASSURANCE

Date	PrA/RMe	RMe	Adh/RMe	AKG	AKG
22.07.15	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS:
GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)

PROJECT TITLE
CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEOTECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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CLIENT
GOVERNMENT OF KARNATAKA

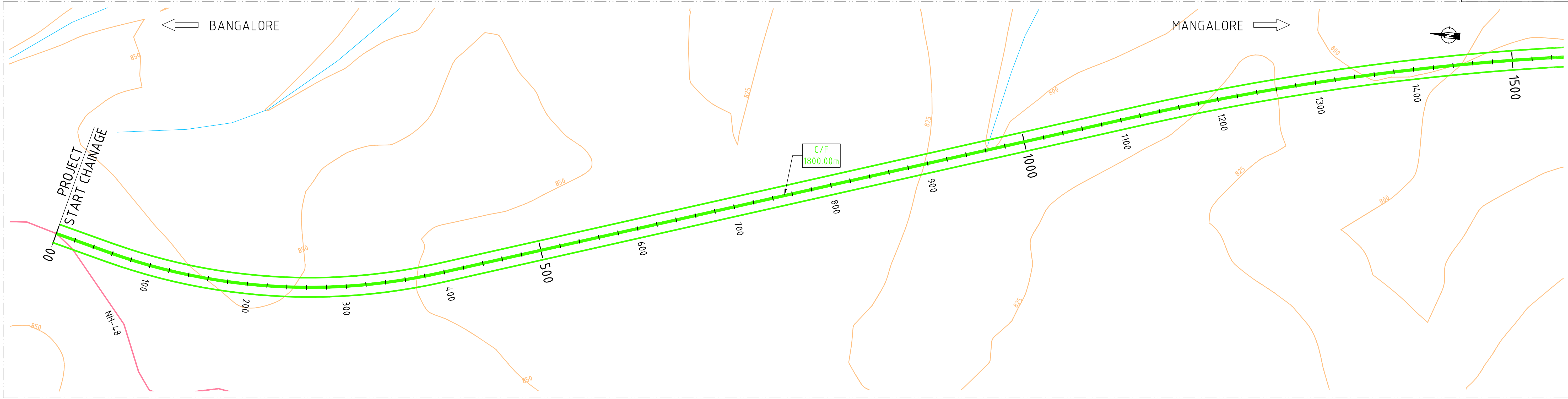
DRAWING TITLE
ALIGNMENT OPTION "A"
PLAN AND PROFILE
CHAINAGE 0+000 TO 23+579.22Km

DRAWING NUMBER
SHGA-FS-LAY-1000

SCALE
AS SHOWN

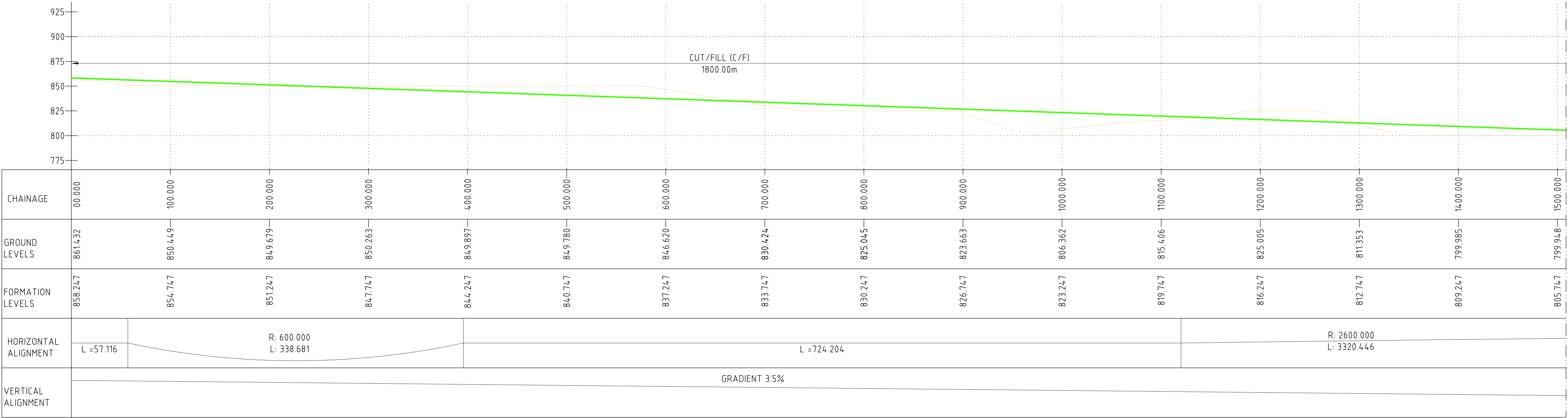
MONTH
Karnat based

DEC 2015



PLAN

SCALE 1:2000



LONGITUDINAL SECTION (AT PROJECT CENTER LINE)

SCALE 1:2000

ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.

SCALE 1 : 2000



PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

- ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.
- NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.

LEGEND:

- EXISTING ROAD
- RIVER
- NALA
- RAILWAY LINE
- CUT/FILL (C/F)
- BRIDGES (B)
- TUNNELS (T)
- ACCESS ROAD

REVISION

F	DEC 2015	RESUBMITTED (KD-6)	PRa	RMe	AKg
E	DEC 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg
D	SEP 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg
C	AUG 2015	INTERIM PROGRESS	PRa	RMe	AKg
B	AUG 2015	MINOR MODIFICATIONS AND RESUBMISSION	PRa	RMe	AKg
A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	PRa/ABa	RMe	AKg
REV.	DATE	PARTICULARS	Drawn	Checked	Approved

QUALITY ASSURANCE

The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					
Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15
Name	PRa/RMe	RMe	ADh/RMe	AKg	AKg
	Drawn	Drafting Chk	Designed	Design Chk	Approved
Originators					

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

ALIGNMENT OPTION "A"
PLAN AND PROFILE
CHAINAGE 0+000 TO 1+500 Km

DRAWING NUMBER

SHGA-FS-LAY-1001

SCALE

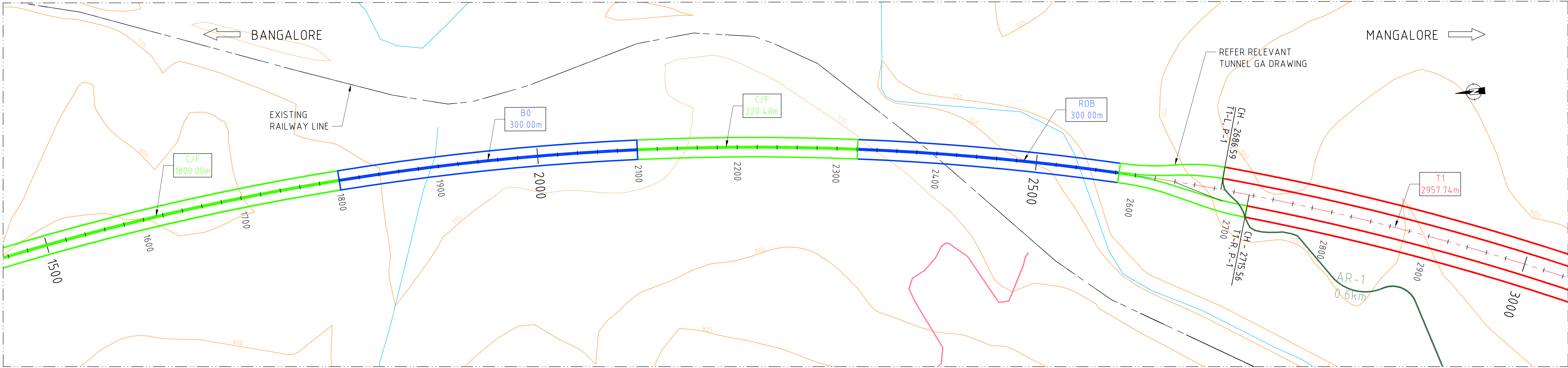
AS SHOWN

MONTH

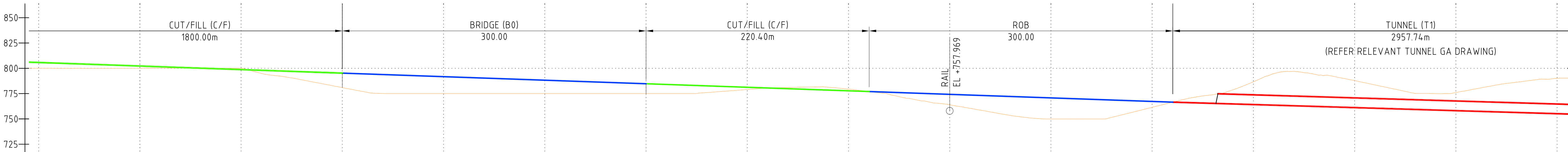
(Current Issue) DEC 2015

REV

F



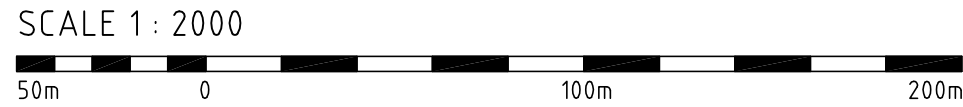
PLAN
SCALE 1:2000




CHAINAGE	1500.000	1600.000	1700.000	1800.000	1900.000	2000.000	2100.000	2200.000	2300.000	2400.000	2500.000	2600.000	2700.000	2800.000	2900.000	3000.000
GROUND LEVELS	799.948	799.977	800.007	780.933	775.000	775.000	775.000	779.062	779.387	764.003	749.998	761.478	786.670	787.817	776.015	790.130
FORMATION LEVELS	805.747	802.247	798.747	795.247	791.747	788.247	784.747	781.247	777.747	774.247	770.747	767.247	764.145	761.145	758.145	755.145
HORIZONTAL ALIGNMENT	R: 2600.000 L: 3320.446															
VERTICAL ALIGNMENT	GRADIENT 3.5% L: 300 GRADIENT 3.0%															

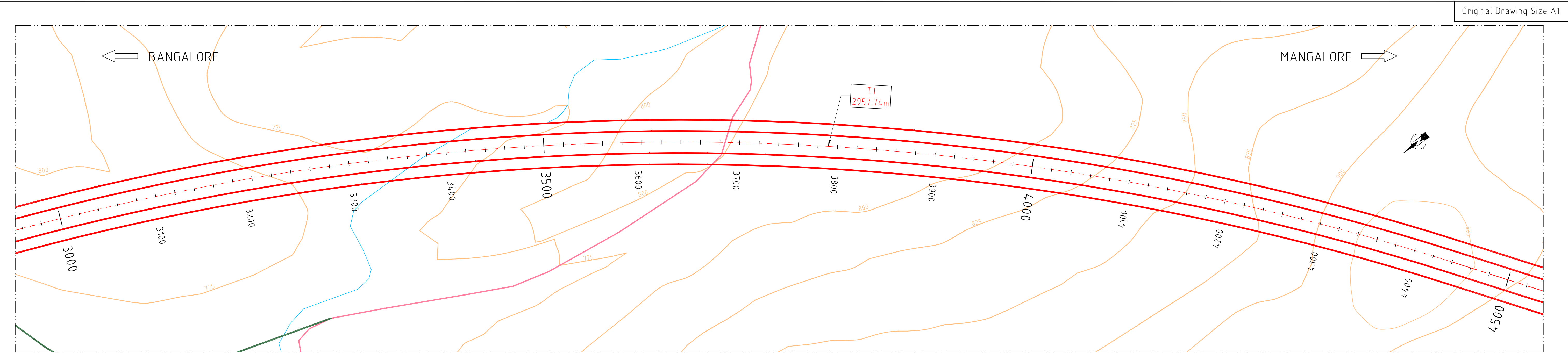
LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.

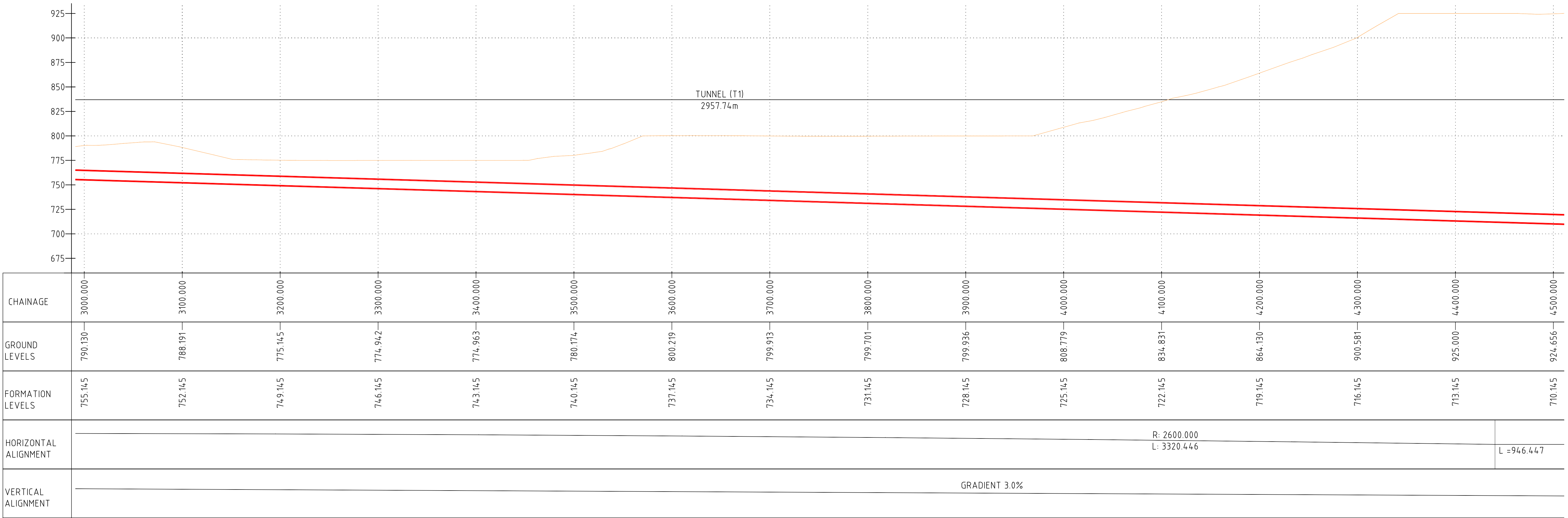


PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS :				CLIENT													
SHGA-FS-LAY-1000		EXISTING ROAD		F		DEC 2015		RESUBMITTED (KD-6)		PRa		RMe		AKg		The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA									
		RIVER		E		DEC 2015		ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS		PRa		RMe		AKg								DRAWING TITLE											
NOTES:		NALA		D		SEP 2015		ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS		PRa		RMe		AKg		PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780						ALIGNMENT OPTION "A" PLAN AND PROFILE CHAINAGE 1+500 TO 3+000 Km											
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.		RAILWAY LINE		C		AUG 2015		INTERIM PROGRESS		PRa		RMe		AKg								Date (FIRST ISSUE)		22.07.15		22.07.15		22.07.15		22.07.15		22.07.15	
2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.		CUT/FILL (C/F)		B		AUG 2015		MINOR MODIFICATIONS AND RESUBMISSION		PRa		RMe		AKg		Name						PRa/RMe		RMe		ADh/RMe		AKg		AKg		REV	
		BRIDGES (B)		A		JULY 2015		FIRST DRAFT (INCEPTION STAGE)		PRa/ABa		RMe		AKg								Drawn		Drafting Chk		Designed		Design Chk		Approved		SHGA-FS-LAY-1002	
		TUNNELS (T)		REV		DATE		PARTICULARS		Drawn		Checked		Approved		Originators						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		SCALE		MONTH		(Current Issue)		DEC 2015			
		ACCESS ROAD																				GEOCONSULT, PRa, R\160000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1001-1016_F.dwg, 2015-12-18		AS SHOWN									



PLAN
SCALE 1:2000



ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.

LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

SCALE 1 : 2000
50m 0 100m 200m

REFERENCE DRAWINGS:
SHGA-FS-LAY-1000

NOTES:
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.
2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.

LEGEND:
EXISTING ROAD
RIVER
NALA
RAILWAY LINE
CUT/FILL (C/F)
BRIDGES (B)
TUNNELS (T)
ACCESS ROAD

REVISION			QUALITY ASSURANCE					DESIGN CONSULTANTS :		CLIENT				
F	DEC 2015	RESUBMITTED (KD-6)	PRa	RMe	AKg	The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					GOVERNMENT OF KARNATAKA			
E	DEC 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg						DRAWING TITLE			
D	SEP 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg	Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	ALIGNMENT OPTION "A"			
C	AUG 2015	INTERIM PROGRESS	PRa	RMe	AKg	Name	PRa/RMe	RMe	ADh/RMe	AKg	AKg	PLAN AND PROFILE		
B	AUG 2015	MINOR MODIFICATIONS AND RESUBMISSION	PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved	CHAINAGE 3+000 TO 4+500 Km		
A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	PRa/ABa	RMe	AKg							DRAWING NUMBER		
REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators					SHGA-FS-LAY-1003			
											SCALE	AS SHOWN	MONTH (Current Issue)	DEC 2015

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

GC
GEOCONSULT

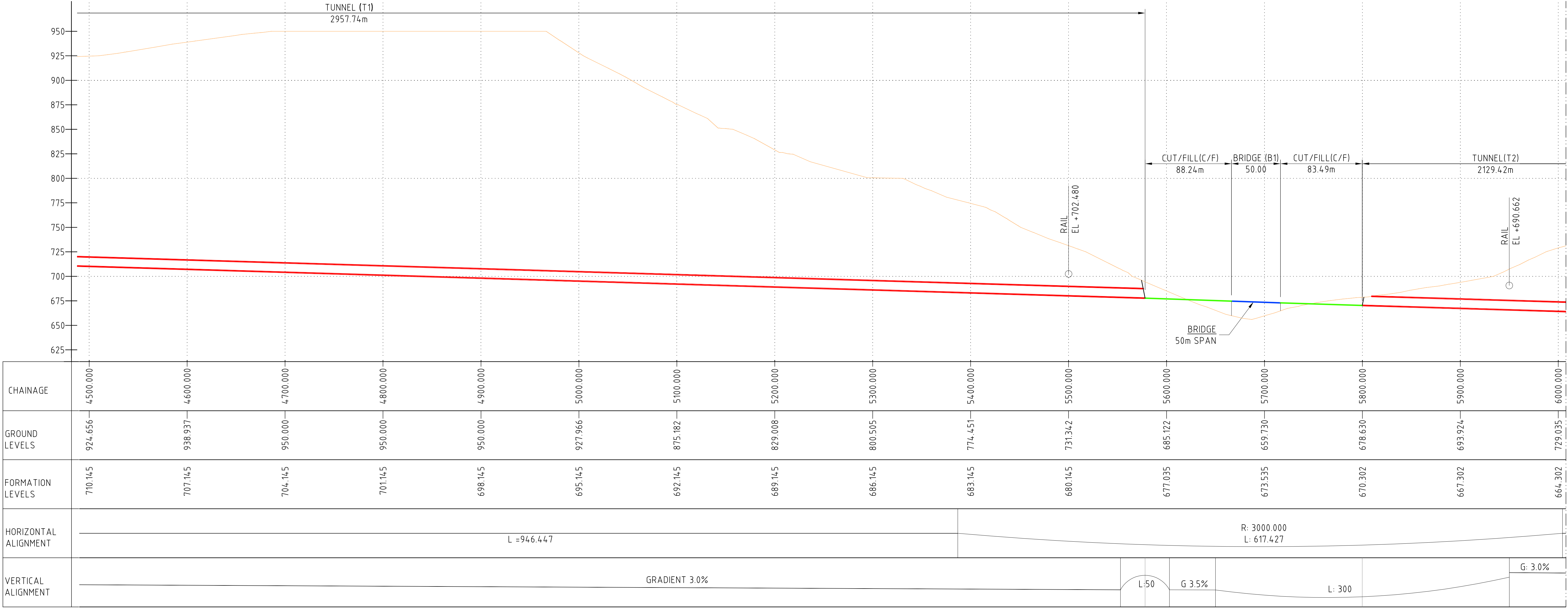
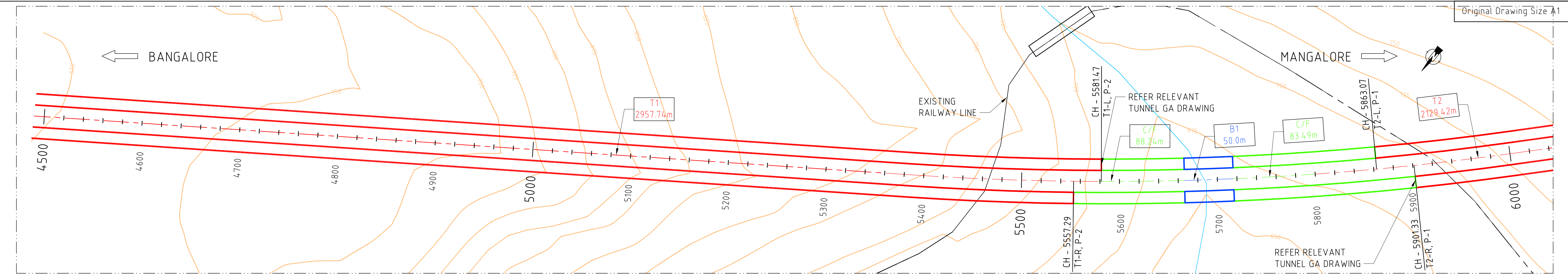
GOVERNMENT OF KARNATAKA

AS SHOWN

DEC 2015

REV F

Current Issue



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LONGITUDINAL SECTION (AT PROJECT CENTER LINE)

SCALE 1:2000

SCALE 1 : 2000

50m0100m200m

PRELIMINARY

REFERENCE DRAWINGS:
SHGA-FS-LAY-1000

NOTES:
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.
2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.

LEGEND:

EXISTING ROAD

RIVER

NALA

RAILWAY LINE

CUT/FILL (C/F)

BRIDGES (B)

TUNNELS (T)

ACCESS ROAD

REVISION

F	DEC 2015	RESUBMITTED (KD-6)	PRa	RMe	AKg
E	DEC 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg
D	SEP 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg
C	AUG 2015	INTERIM PROGRESS	PRa	RMe	AKg
B	AUG 2015	MINOR MODIFICATIONS AND RESUBMISSION	PRa	RMe	AKg
A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	PRa/ABa	RMe	AKg
REV.	DATE	PARTICULARS	Drawn	Checked	Approved

QUALITY ASSURANCE

The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					
Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15
Name	PRa/RMe	RMe	ADh/RMe	AKg	AKg
	Drawn	Drafting Chk	Designed	Design Chk	Approved
Originators					

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)

PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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R:\GEOCONSULT_PRA_R\160000 Project\6\36060-Shiradi Ghat\CURRENT\KNO-6\SHGA-FS-LAY_1001-1016_F.dwg, 2015-12-18

CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

ALIGNMENT OPTION "A"
PLAN AND PROFILE
CHAINAGE 4+500 TO 6+000 Km

DRAWING NUMBER

SHGA-FS-LAY-1004

SCALE

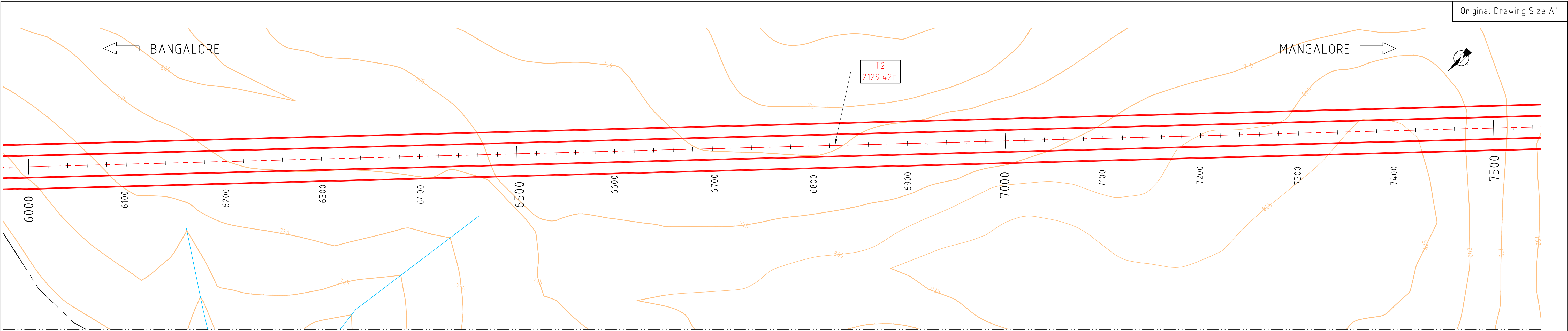
AS SHOWN

MONTH

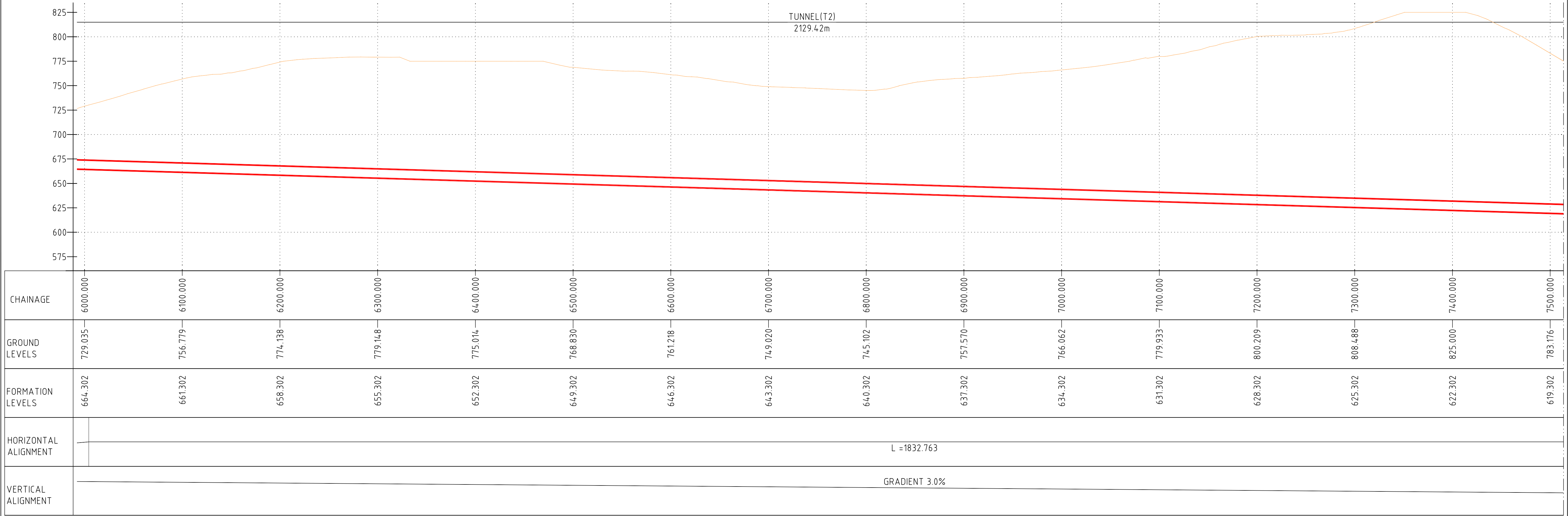
DEC 2015

REV

F

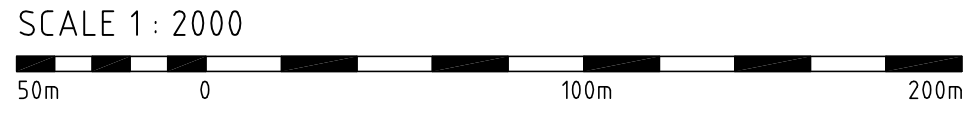


PLAN
SCALE 1:2000




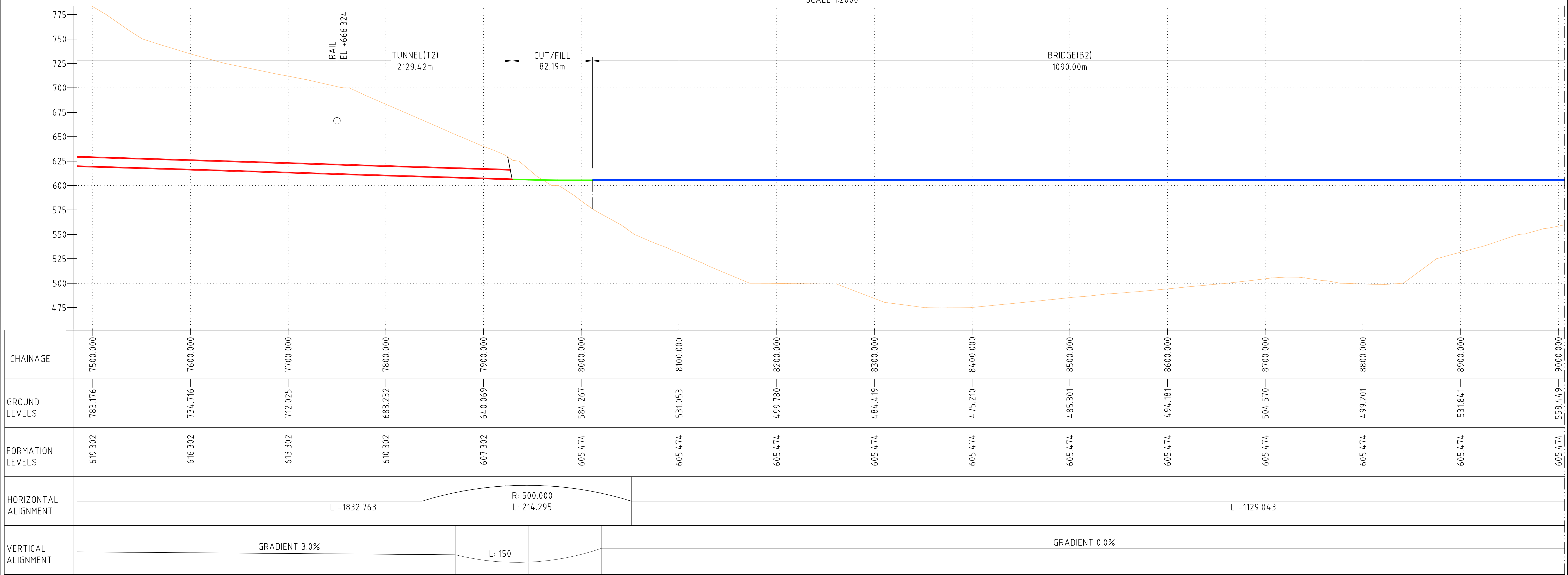
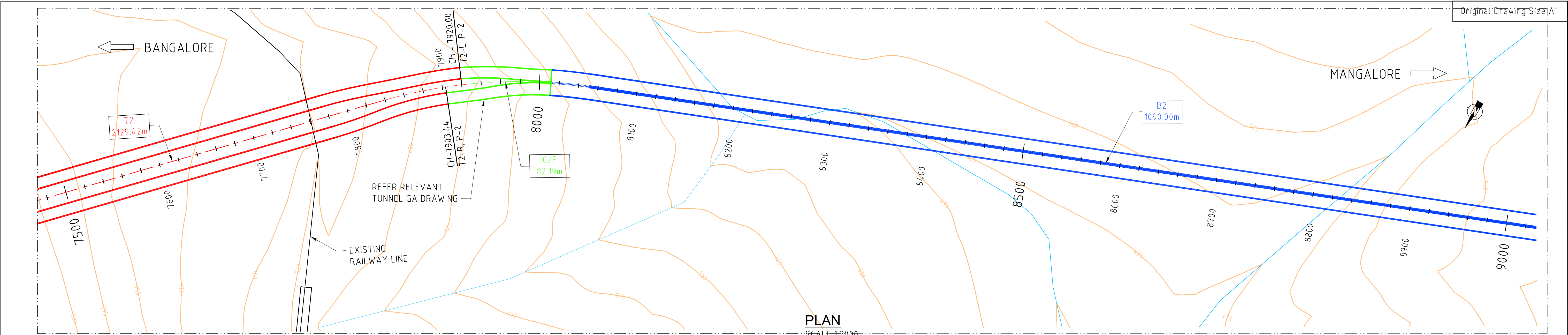
LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000


ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.

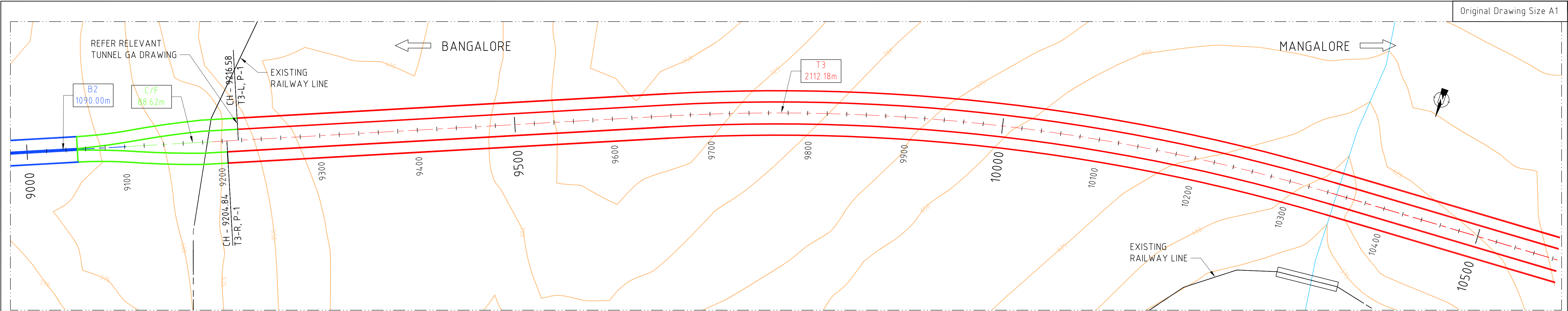


PRELIMINARY

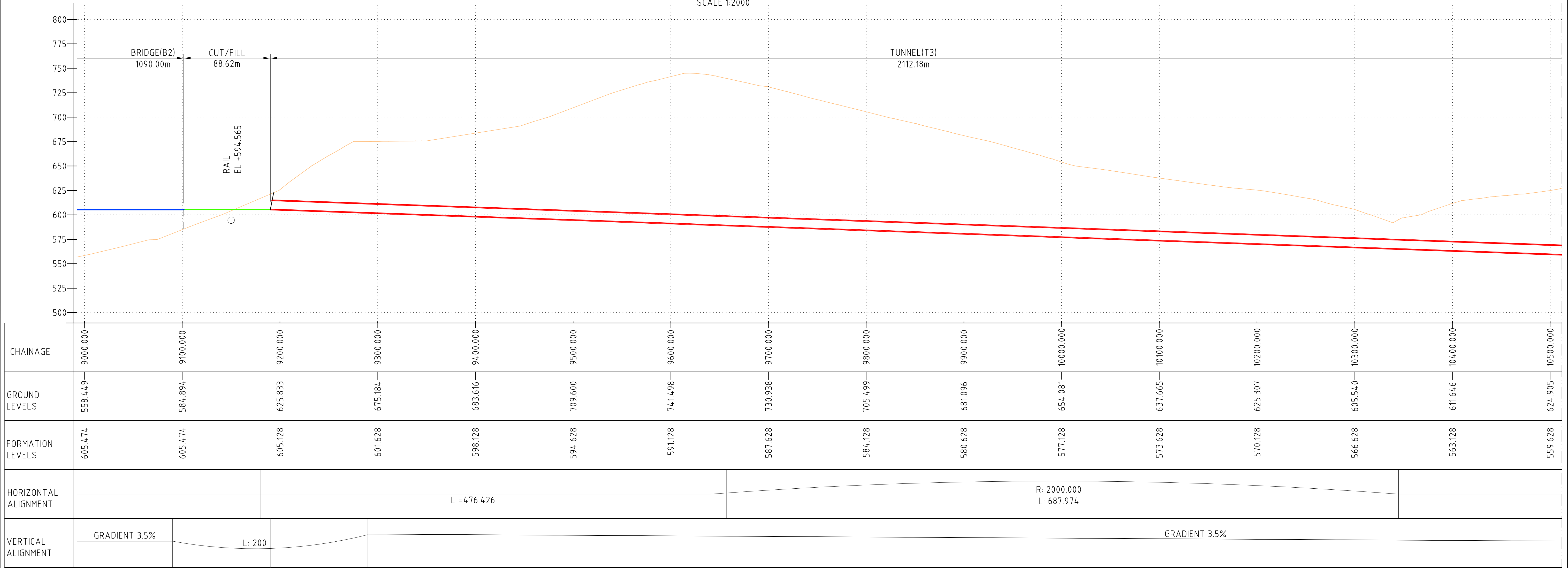
REFERENCE DRAWINGS:		LEGEND:		REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS :				CLIENT	
SHGA-FS-LAY-1000		<div><div></div>EXISTING ROAD</div> <div><div></div>RIVER</div> <div><div></div>NALA</div> <div><div></div>RAILWAY LINE</div> <div><div></div>CUT/FILL (C/F)</div> <div><div></div>BRIDGES (B)</div> <div><div></div>TUNNELS (T)</div> <div><div></div>ACCESS ROAD</div>		F DEC 2015 RESUBMITTED (KD-6) PRa RMe AKg			The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				GOVERNMENT OF KARNATAKA	
NOTES:				E DEC 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS PRa RMe AKg									PROJECT TITLE		DRAWING TITLE			
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.				D SEP 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS PRa RMe AKg			Date (FIRST ISSUE) 22.07.15 22.07.15 22.07.15 22.07.15 22.07.15						CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO		ALIGNMENT OPTION "A"			
2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.				C AUG 2015 INTERIM PROGRESS PRa RMe AKg			Name PRa/RMe RMe ADh/RMe AKg AKg						TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT		PLAN AND PROFILE			
				B AUG 2015 MINOR MODIFICATIONS AND RESUBMISSION PRa RMe AKg			Drawn Drafting Chk Designed Design Chk Approved						FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE		CHAINAGE 6+000 TO 7+500 Km			
				A JULY 2015 FIRST DRAFT (INCEPTION STAGE) PRa/ABa RMe AKg									OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING NUMBER			
				REV. DATE PARTICULARS Drawn Checked Approved			Originators						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		SHGA-FS-LAY-1005 F			
													©GEOCONSULT, PRa, R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1001-1016_F.dwg, 2015-12-18		SCALE AS SHOWN MONTH (Current Issue) DEC 2015			



ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.			LONGITUDINAL SECTION (AT PROJECT CENTER LINE) SCALE 1:2000						SCALE 1 : 2000 50m 0 100m 200m				PRELIMINARY												
REFERENCE DRAWINGS: SHGA-FS-LAY-1000			LEGEND: EXISTING ROAD RIVER NALA RAILWAY LINE CUT/FILL (C/F) BRIDGES (B) TUNNELS (T) ACCESS ROAD			REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)						CLIENT GOVERNMENT OF KARNATAKA	
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m. 2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.						F DEC 2015 RESUBMITTED (KD-6) PRa RMe AKg			The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			DRAWING TITLE ALIGNMENT OPTION "A" PLAN AND PROFILE CHAINAGE 7+500 TO 9+000 Km							
						E DEC 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS PRa RMe AKg									Date (FIRST ISSUE) 22.07.15 22.07.15 22.07.15 22.07.15 22.07.15					DRAWING NUMBER SHGA-FS-LAY-1006		REV F			
						D SEP 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS PRa RMe AKg														SCALE AS SHOWN		MONTH (Current Issue) DEC 2015			
						C AUG 2015 INTERIM PROGRESS PRa RMe AKg																			
						B AUG 2015 MINOR MODIFICATIONS AND RESUBMISSION PRa RMe AKg																			
						A JULY 2015 FIRST DRAFT (INCEPTION STAGE) PRa/ABa RMe AKg																			
						REV. DATE PARTICULARS Drawn Checked Approved																			



PLAN
SCALE 1:2000



LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

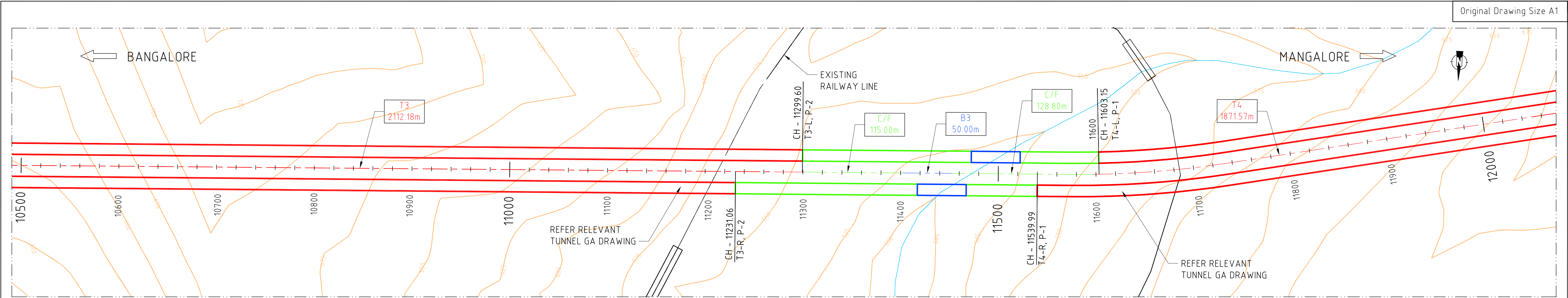
ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.

SCALE 1 : 2000

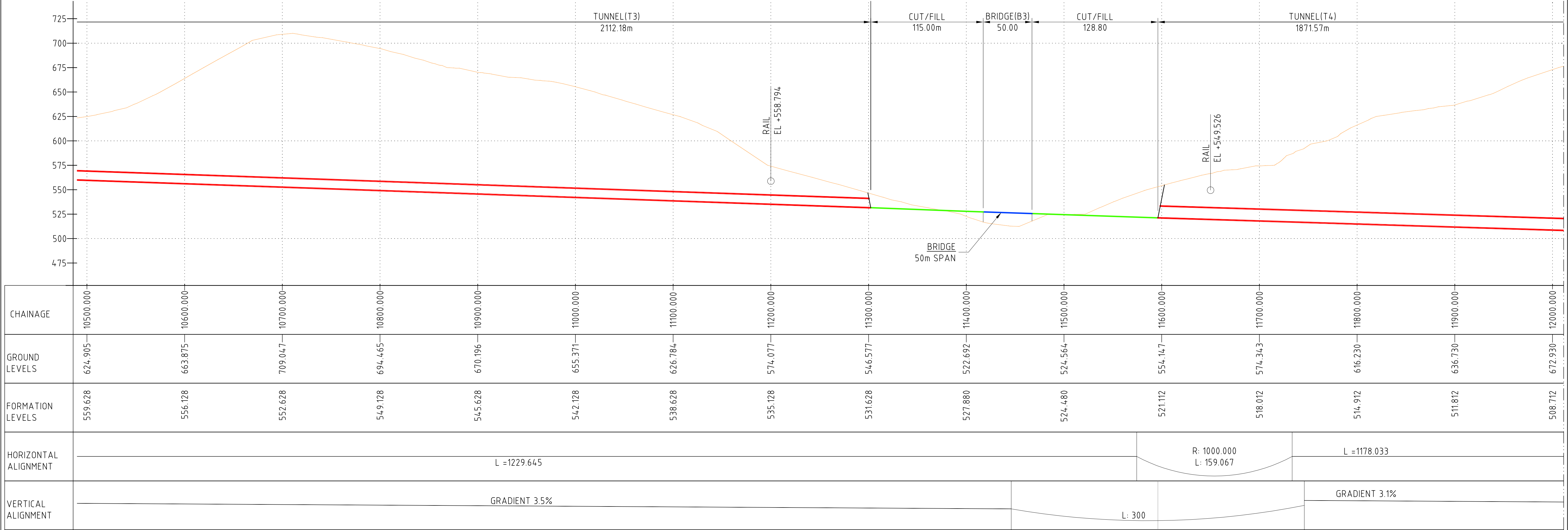
50m 0 100m 200m

PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS :		CLIENT	
SHGA-FS-LAY-1000		<div><div></div> EXISTING ROAD</div> <div><div></div> RIVER</div> <div><div></div> NALA</div> <div><div></div> RAILWAY LINE</div> <div><div></div> CUT/FILL (C/F)</div> <div><div></div> BRIDGES (B)</div> <div><div></div> TUNNELS (T)</div> <div><div></div> ACCESS ROAD</div>		F DEC 2015 RESUBMITTED (KD-6) PRa RMe AKg			The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA	
NOTES:				E DEC 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS PRa RMe AKg									PROJECT TITLE		DRAWING TITLE	
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.				D SEP 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS PRa RMe AKg									CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO		ALIGNMENT OPTION "A"	
2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.				C AUG 2015 INTERIM PROGRESS PRa RMe AKg			Date (FIRST ISSUE) 22.07.15 22.07.15 22.07.15 22.07.15 22.07.15						TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT		PLAN AND PROFILE	
				B AUG 2015 MINOR MODIFICATIONS AND RESUBMISSION PRa RMe AKg			Name PRa/RMe RMe ADh/RMe AKg AKg						FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE		CHAINAGE 9+000 TO 10+500 Km	
				A JULY 2015 FIRST DRAFT (INCEPTION STAGE) PRa/ABa RMe AKg			Drawn Drafting Chk Designed Design Chk Approved						OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING NUMBER	
				REV. DATE PARTICULARS Drawn Checked Approved			Originators						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		SHGA-FS-LAY-1007 F	
													GEOCONSULT, PRa, R/V6000 Project/V6060-Shiradi Ghat/CURRENT VKO-6/SHGA-FS-LAY-1001-1016_F.dwg, 2015-12-18		SCALE AS SHOWN MONTH (Current Issue) DEC 2015	

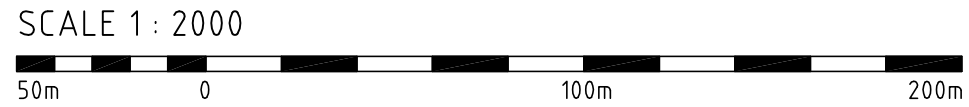


PLAN
SCALE 1:2000



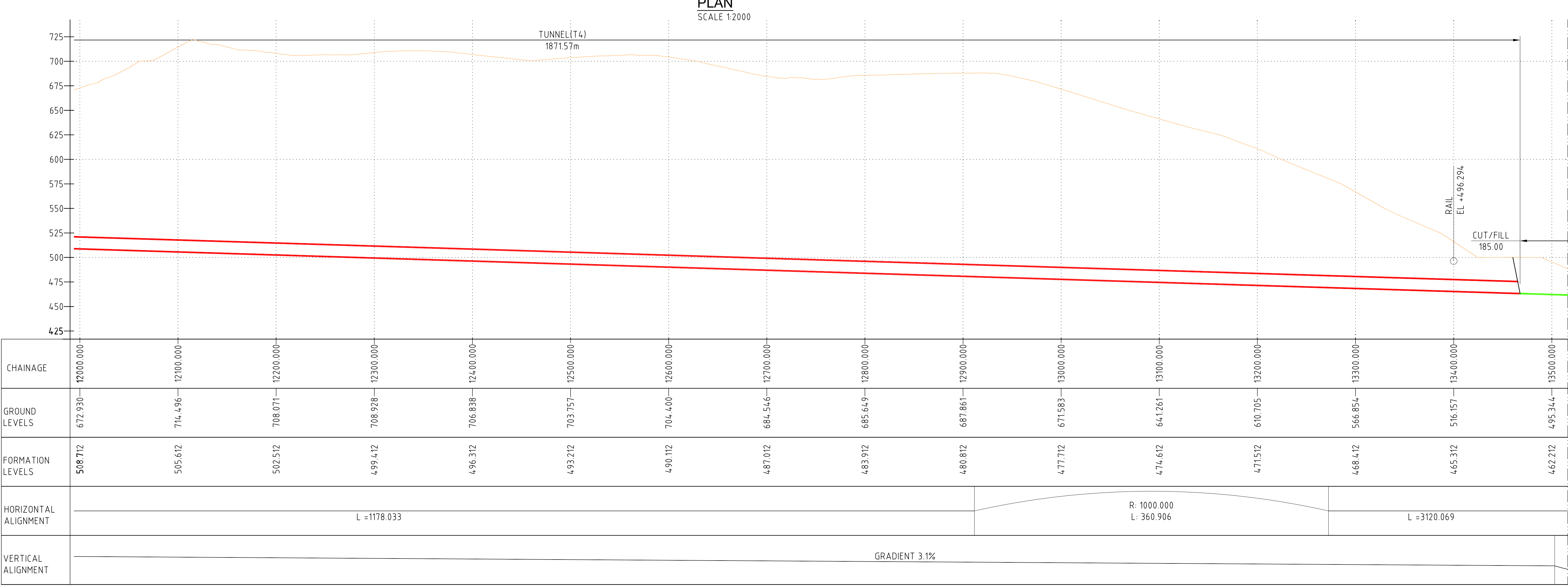
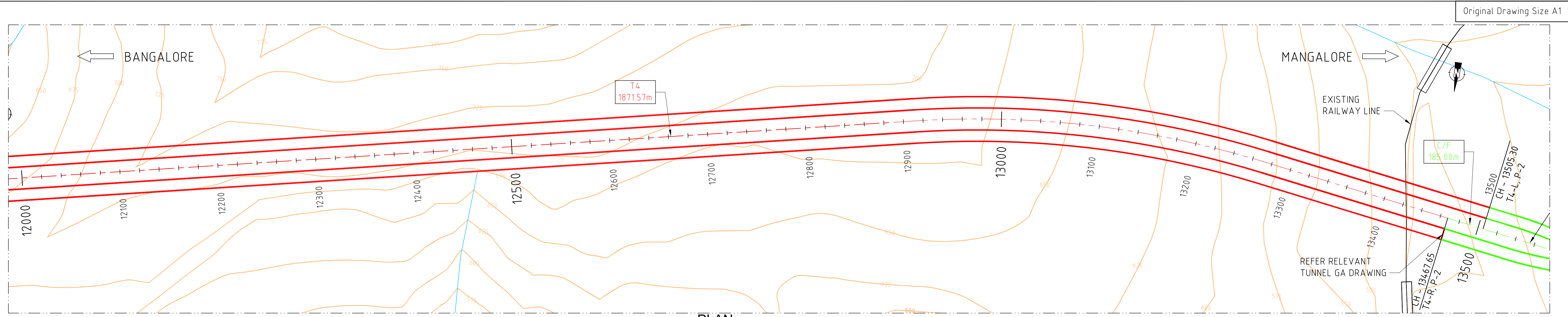
LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.



PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:			REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS :		CLIENT	
SHGA-FS-LAY-1000		<div><div></div> EXISTING ROAD</div> <div><div></div> RIVER</div> <div><div></div> NALA</div> <div><div></div> RAILWAY LINE</div> <div><div></div> CUT/FILL (C/F)</div> <div><div></div> BRIDGES (B)</div> <div><div></div> TUNNELS (T)</div> <div><div></div> ACCESS ROAD</div>			F DEC 2015 "BRIDGE 3" LOCATION MODIFIED/RESUBMITTED (KD-6) PRa RMe AKg			The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA	
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1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.					D SEP 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS PRa RMe AKg									ALIGNMENT OPTION "A"			
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					B AUG 2015 MINOR MODIFICATIONS AND RESUBMISSION PRa RMe AKg			Name PRa/RMe RMe ADh/RMe AKg AKg						CHAINAGE 10+500 TO 12+000 Km			
					A JULY 2015 FIRST DRAFT (INCEPTION STAGE) PRa/ABa RMe AKg			Drawn Drafting Chk Designed Design Chk Approved						DRAWING NUMBER			
					REV DATE PARTICULARS Drawn Checked Approved			Originators						SHGA-FS-LAY-1008			
														SCALE			
														AS SHOWN			
														MONTH			
														(Current Issue) DEC 2015			



ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.

LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

SCALE 1 : 2000
50m 0 100m 200m

REFERENCE DRAWINGS:
SHGA-FS-LAY-1000

NOTES:
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.
2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.

LEGEND:
— EXISTING ROAD
— RIVER
— NALA
--- RAILWAY LINE
— CUT/FILL (C/F)
— BRIDGES (B)
— TUNNELS (T)
— ACCESS ROAD

REVISION

F	DEC 2015	RESUBMITTED (KD-6)	PRa	RMe	AKg
E	DEC 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg
D	SEP 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg
C	AUG 2015	INTERIM PROGRESS	PRa	RMe	AKg
B	AUG 2015	MINOR MODIFICATIONS AND RESUBMISSION	PRa	RMe	AKg
A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	PRa/ABa	RMe	AKg
REV.	DATE	PARTICULARS	Drawn	Checked	Approved

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Name	PRa/RMe	RMe	ADh/RMe	AKg	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)

GC
GEOCONSULT

PROJECT TITLE
CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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CLIENT
GOVERNMENT OF KARNATAKA

DRAWING TITLE
ALIGNMENT OPTION "A"
PLAN AND PROFILE
CHAINAGE 12+000 TO 13+500 Km

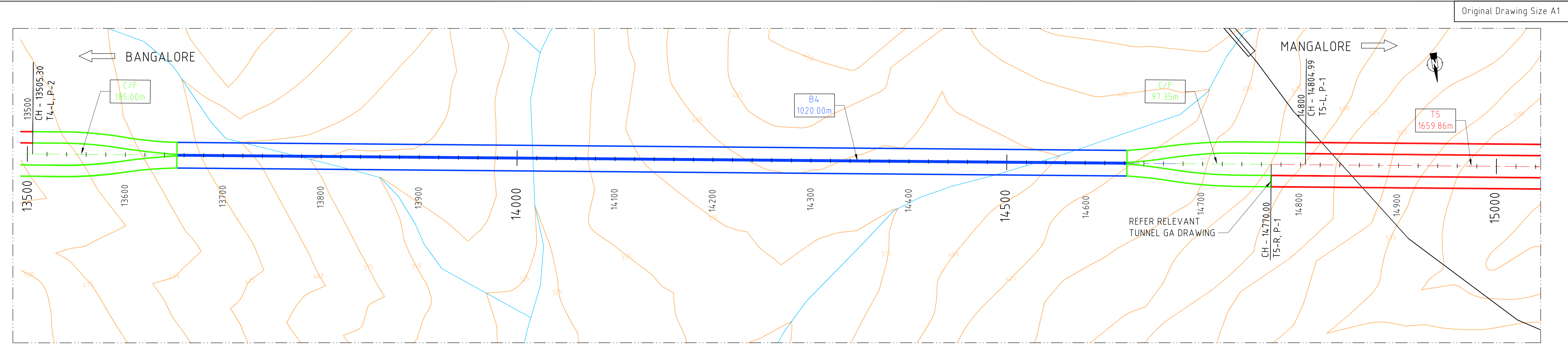
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SCALE
AS SHOWN

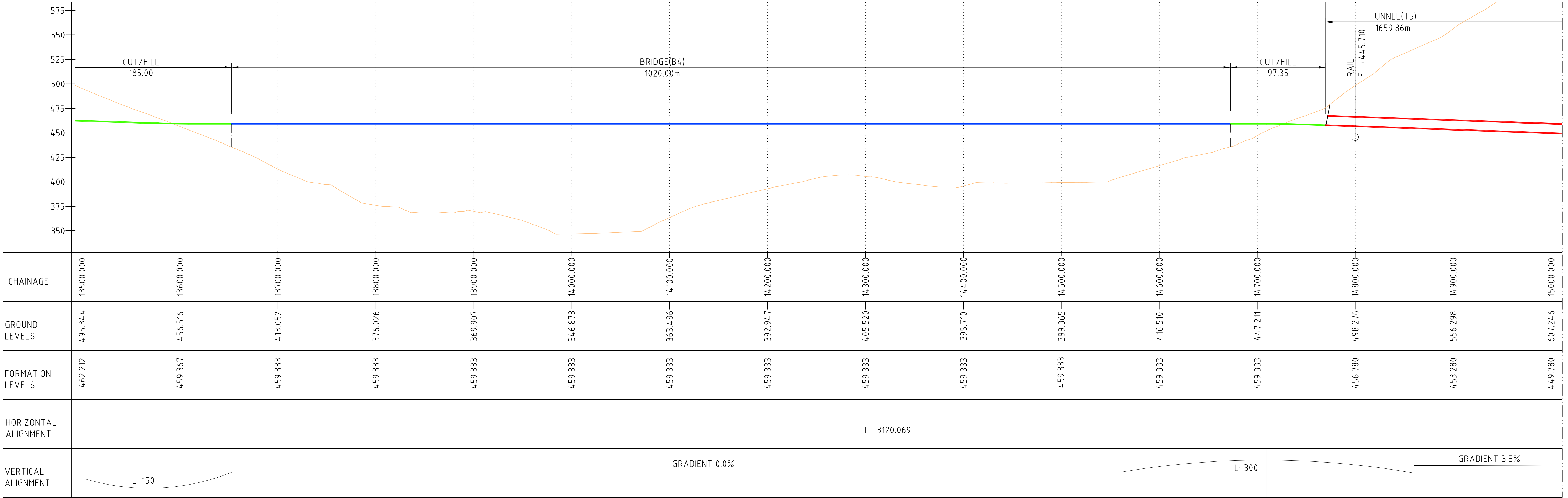
MONTH
(Current Issue)
DEC 2015

REV
F

PRELIMINARY

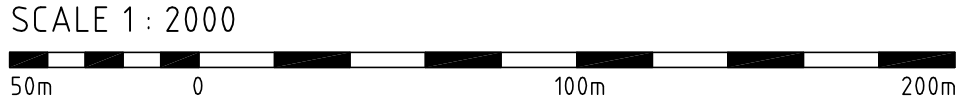


PLAN
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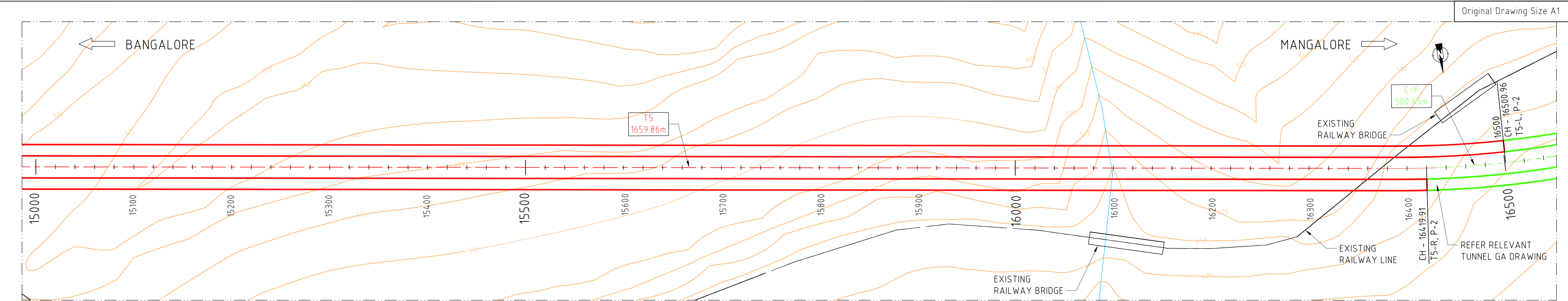
LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

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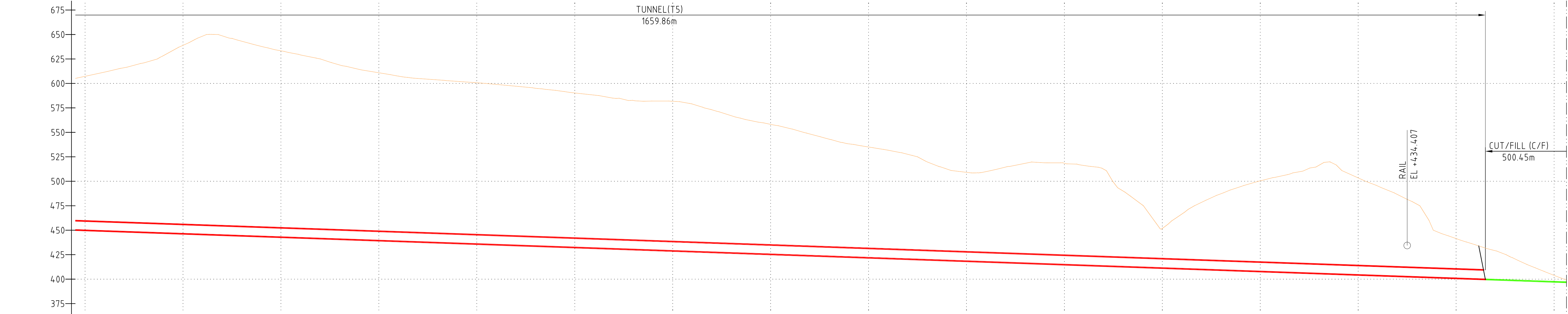


PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m. 2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.	LEGEND: — EXISTING ROAD — RIVER — NALA — RAILWAY LINE — CUT/FILL (C/F) — BRIDGES (B) — TUNNELS (T) — ACCESS ROAD	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA		
		F	DEC 2015	RESUBMITTED IKD-6I	PRa	RMe	AKg	The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.									
		E	DEC 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg							PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			
		D	SEP 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg										
		C	AUG 2015	INTERIM PROGRESS	PRa	RMe	AKg	Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. <small>©GEOCONSULT, PRa, R\16000 Project\6060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1001-1016_F.dwg, 2015-12-18</small>			
		B	AUG 2015	MINOR MODIFICATIONS AND RESUBMISSION	PRa	RMe	AKg	Name	PRa/RMe	RMe	ADh/RMe	AKg	AKg				
		A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	PRa/ABa	RMe	AKg	Drawn	Drafting Chk	Designed	Design Chk	Approved					
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators						SCALE AS SHOWN		MONTH (Current Issue) DEC 2015	



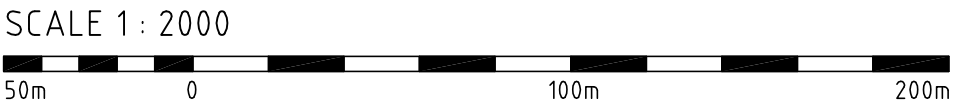
PLAN
SCALE 1:2000



CHAINAGE	15000.000	15100.000	15200.000	15300.000	15400.000	15500.000	15600.000	15700.000	15800.000	15900.000	16000.000	16100.000	16200.000	16300.000	16400.000	16500.000
GROUND LEVELS	607.246	638.923	633.318	610.912	600.678	590.225	581.784	558.174	535.042	509.155	518.398	451.803	500.414	503.456	441.417	403.867
FORMATION LEVELS	449.780	446.280	442.780	439.280	435.780	432.280	428.780	425.280	421.780	418.280	414.780	411.280	407.780	404.280	400.780	397.280
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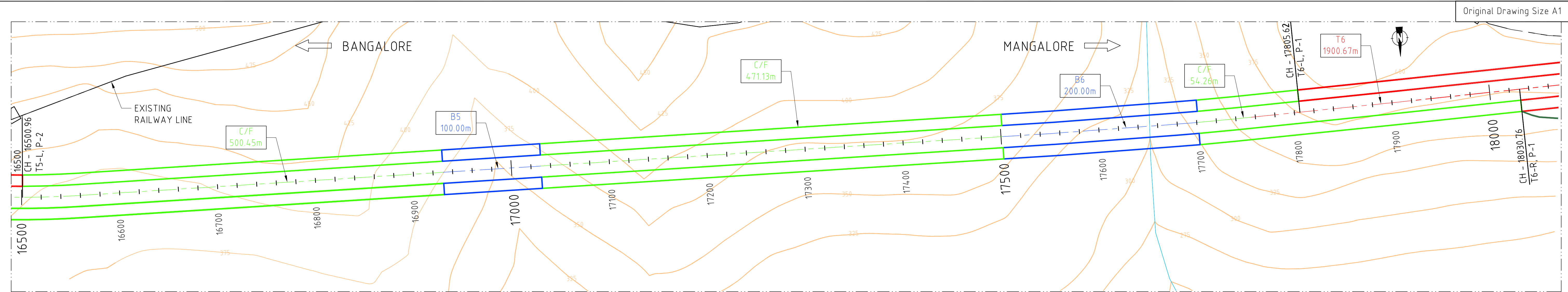
LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.

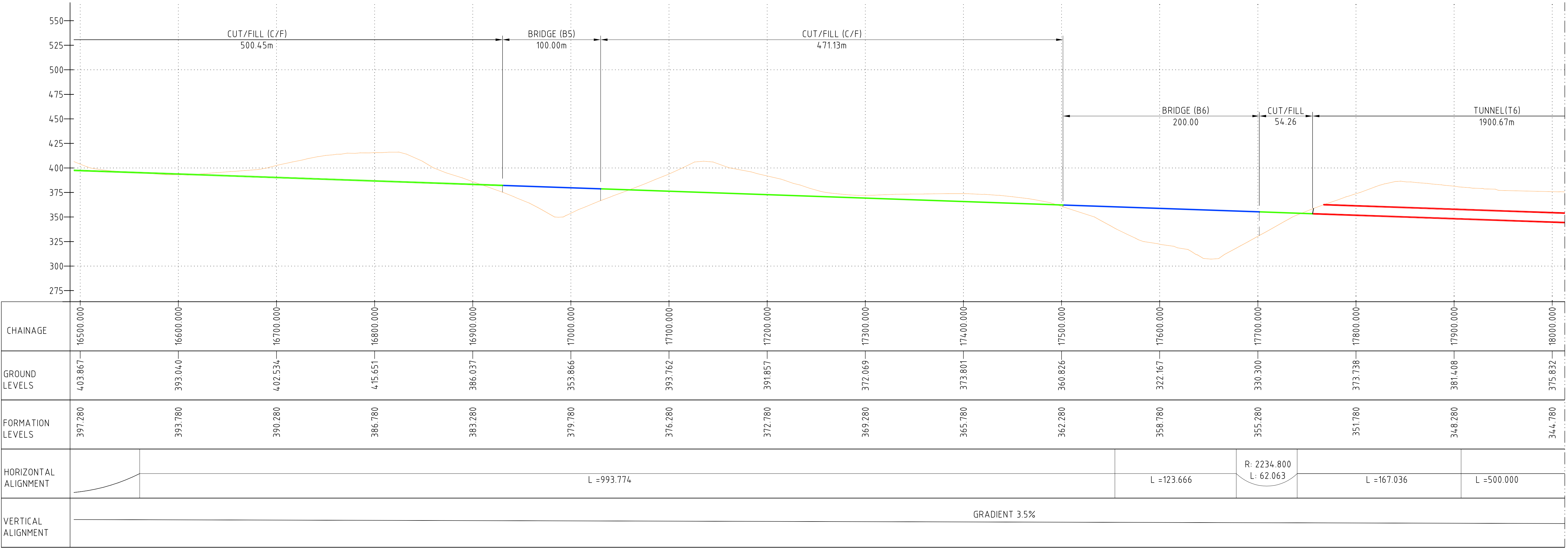


PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m. 2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.	LEGEND: <div><div></div> EXISTING ROAD</div> <div><div></div> RIVER</div> <div><div></div> NALA</div> <div><div></div> RAILWAY LINE</div> <div><div></div> CUT/FILL (C/F)</div> <div><div></div> BRIDGES (B)</div> <div><div></div> TUNNELS (T)</div> <div><div></div> ACCESS ROAD</div>	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		<div><div></div><div>GEOCONSULT</div></div>		CLIENT GOVERNMENT OF KARNATAKA			
		F	DEC 2015	RESUBMITTED IKD-6I	PRa	RMe	AKg	The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.							DRAWING TITLE ALIGNMENT OPTION "A" PLAN AND PROFILE CHAINAGE 15+000 TO 16+500 Km			
		E	DEC 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg							PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING NUMBER SHGA-FS-LAY-1011		REV F
		D	SEP 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg	Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15			SCALE AS SHOWN		MONTH (Current Issue) DEC 2015
		C	AUG 2015	INTERIM PROGRESS	PRa	RMe	AKg	Name	PRa/RMe	RMe	ADh/RMe	AKg	AKg	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.				
		B	AUG 2015	MINOR MODIFICATIONS AND RESUBMISSION	PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved	eGEOCONSULT_PRA_R\160000 Project\6\6060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1001-1016_F.dwg, 2015-12-18				
		A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	PRa/ABa	RMe	AKg											
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators										

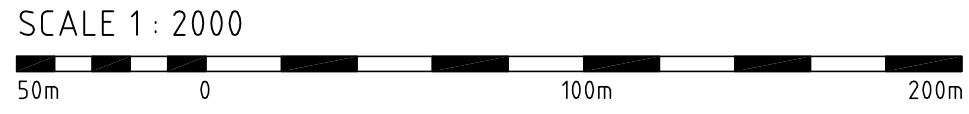


PLAN
SCALE 1:2000




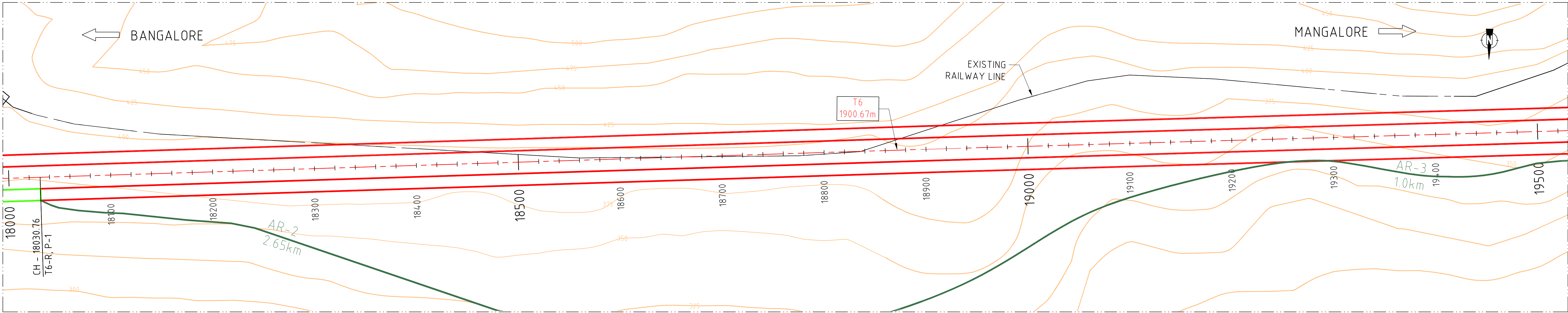
LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.

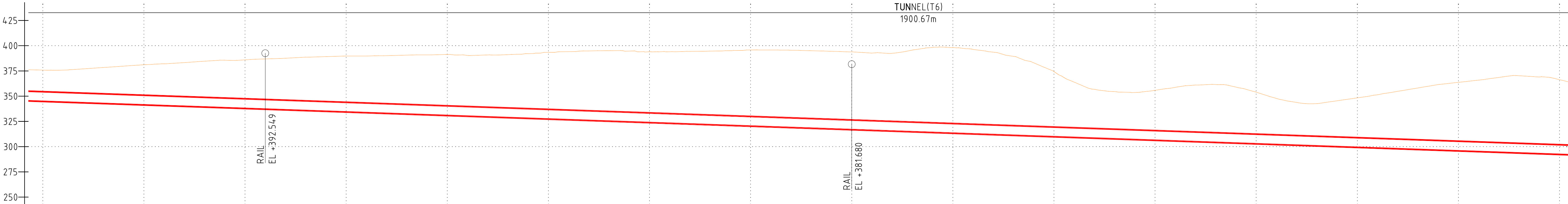


PRELIMINARY

<div>REFERENCE DRAWINGS:</div> <div>SHGA-FS-LAY-1000</div> <div>NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m. 2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.</div>		<div>LEGEND:</div> <div><div><div></div><div>EXISTING ROAD</div></div><div><div></div><div>RIVER</div></div><div><div></div><div>NALA</div></div><div><div></div><div>RAILWAY LINE</div></div><div><div></div><div>CUT/FILL (C/F)</div></div><div><div></div><div>BRIDGES (B)</div></div><div><div></div><div>TUNNELS (T)</div></div><div><div></div><div>ACCESS ROAD</div></div></div>		<div>REVISION</div> <table><tr><td>F</td><td>DEC 2015</td><td>RESUBMITTED (KD-6)</td><td>PRa</td><td>RMe</td><td>AKg</td></tr><tr><td>E</td><td>DEC 2015</td><td>ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS</td><td>PRa</td><td>RMe</td><td>AKg</td></tr><tr><td>D</td><td>SEP 2015</td><td>ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS</td><td>PRa</td><td>RMe</td><td>AKg</td></tr><tr><td>C</td><td>AUG 2015</td><td>INTERIM PROGRESS</td><td>PRa</td><td>RMe</td><td>AKg</td></tr><tr><td>B</td><td>AUG 2015</td><td>MINOR MODIFICATIONS AND RESUBMISSION</td><td>PRa</td><td>RMe</td><td>AKg</td></tr><tr><td>A</td><td>JULY 2015</td><td>FIRST DRAFT (INCEPTION STAGE)</td><td>PRa/ABa</td><td>RMe</td><td>AKg</td></tr><tr><td>REV.</td><td>DATE</td><td>PARTICULARS</td><td>Drawn</td><td>Checked</td><td>Approved</td></tr></table>			F	DEC 2015	RESUBMITTED (KD-6)	PRa	RMe	AKg	E	DEC 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg	D	SEP 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg	C	AUG 2015	INTERIM PROGRESS	PRa	RMe	AKg	B	AUG 2015	MINOR MODIFICATIONS AND RESUBMISSION	PRa	RMe	AKg	A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	PRa/ABa	RMe	AKg	REV.	DATE	PARTICULARS	Drawn	Checked	Approved	<div>QUALITY ASSURANCE</div> <div>The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.</div> <table><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Date (FIRST ISSUE)</td><td>22.07.15</td><td>22.07.15</td><td>22.07.15</td><td>22.07.15</td><td>22.07.15</td></tr><tr><td>Name</td><td>PRa/RMe</td><td>RMe</td><td>ADh/RMe</td><td>AKg</td><td>AKg</td></tr><tr><td></td><td>Drawn</td><td>Drafting Chk</td><td>Designed</td><td>Design Chk</td><td>Approved</td></tr><tr><td>Originators</td><td></td><td></td><td></td><td></td><td></td></tr></table>												Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15	Name	PRa/RMe	RMe	ADh/RMe	AKg	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved	Originators						<div>DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)</div> <div></div> <div>PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780</div> <div><small>This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.</small> <small>©GEOCONSULT, PRA, RME000 Projects\6060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1001-1016_F.dwg, 2015-12-18</small></div>		<div>CLIENT GOVERNMENT OF KARNATAKA</div> <div>DRAWING TITLE ALIGNMENT OPTION "A" PLAN AND PROFILE CHAINAGE 16+500 TO 18+000 Km</div> <div>DRAWING NUMBER SHGA-FS-LAY-1012</div> <div>SCALE AS SHOWN</div>		<div>REV F</div> <div>MONTH (Current Issue) DEC 2015</div>	
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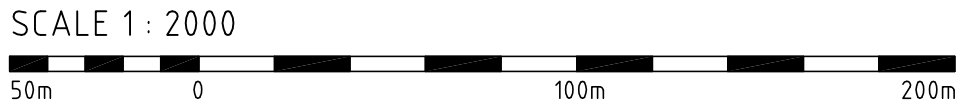
PLAN
SCALE 1:2000



CHAINAGE	18000.000	18100.000	18200.000	18300.000	18400.000	18500.000	18600.000	18700.000	18800.000	18900.000	19000.000	19100.000	19200.000	19300.000	19400.000	19500.000
GROUND LEVELS	375.832	381.115	385.943	389.770	391.329	393.361	393.942	395.714	393.832	398.233	374.423	355.765	353.998	348.313	363.696	366.345
FORMATION LEVELS	344.780	344.280	337.780	334.280	330.780	327.280	323.780	320.280	316.780	313.280	309.780	306.280	302.780	299.280	295.780	292.280
HORIZONTAL ALIGNMENT	L =500.000				L =500.000						L =1500.959					
VERTICAL ALIGNMENT	GRADIENT 3.5%															

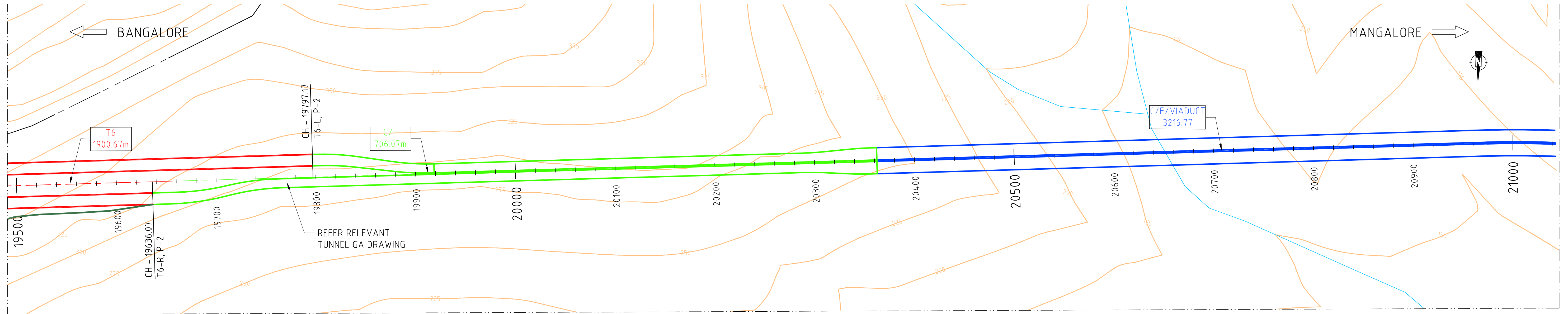
LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.

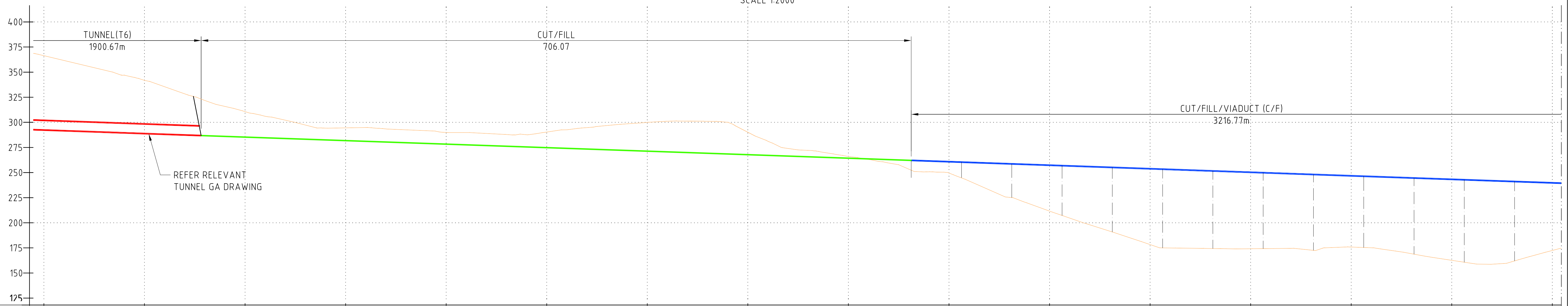


PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION		QUALITY ASSURANCE						DESIGN CONSULTANTS :		CLIENT					
SHGA-FS-LAY-1000		<div><div></div>EXISTING ROAD</div> <div><div></div>RIVER</div> <div><div></div>NALA</div> <div><div></div>RAILWAY LINE</div> <div><div></div>CUT/FILL (C/F)</div> <div><div></div>BRIDGES (B)</div> <div><div></div>TUNNELS (T)</div> <div><div></div>ACCESS ROAD</div>		F DEC 2015 RESUBMITTED (KD-6)		PRa RMe AKg		The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA			
NOTES:				E DEC 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS		PRa RMe AKg								DRAWING TITLE		ALIGNMENT OPTION "A"			
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.				D SEP 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS		PRa RMe AKg								PROJECT TITLE		PLAN AND PROFILE			
2. NO DIMENSION TO BE MEASURED FROM DRAWING				C AUG 2015 INTERIM PROGRESS		PRa RMe AKg		Date (FIRST ISSUE) 22.07.15 22.07.15 22.07.15 22.07.15 22.07.15						CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO		CHAINAGE 18+000 TO 19+500 Km			
ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.				B AUG 2015 MINOR MODIFICATIONS AND RESUBMISSION		PRa RMe AKg		Name PRa/RMe RMe ADh/RMe AKg AKg						TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT					
				A JULY 2015 FIRST DRAFT (INCEPTION STAGE)		PRa/ABa RMe AKg		Drawn Drafting Chk Designed Design Chk Approved						FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE					
				REV. DATE PARTICULARS		Drawn Checked Approved		Originators						OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780					
														This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		DRAWING NUMBER			
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														SCALE		AS SHOWN		MONTH	
																(Current Issue)		DEC 2015	



PLAN
SCALE 1:2000



CHAINAGE	19500.000	19600.000	19700.000	19800.000	19900.000	20000.000	20100.000	20200.000	20300.000	20400.000	20500.000	20600.000	20700.000	20800.000	20900.000	21000.000
GROUND LEVELS	366.345	341.811	310.658	294.476	289.909	290.277	299.946	290.115	265.968	249.519	211.653	178.314	174.133	175.867	162.623	172.456
FORMATION LEVELS	292.280	288.780	285.280	281.780	278.280	274.780	271.280	267.780	264.280	260.780	257.280	253.780	250.280	246.780	243.280	239.780
HORIZONTAL ALIGNMENT	L =1500.959										L =565.911					
VERTICAL ALIGNMENT	GRADIENT 3.5%															










ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.

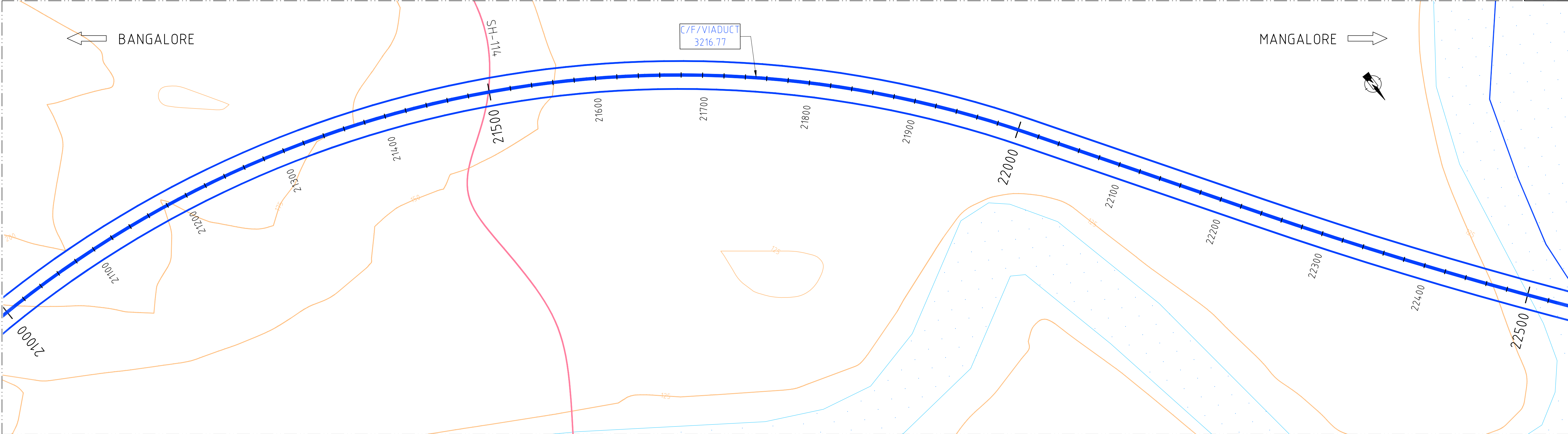
LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

SCALE 1 : 2000

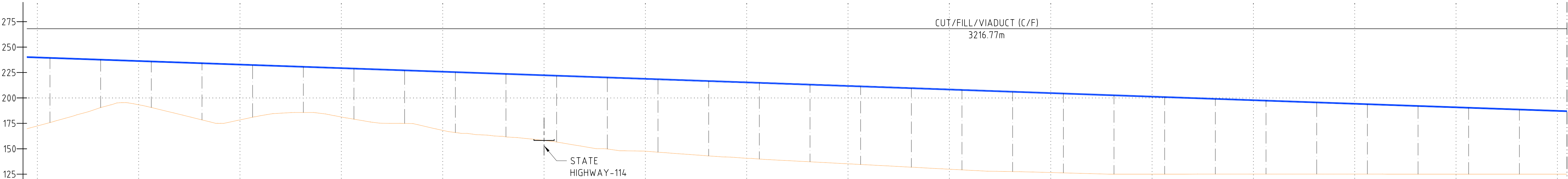


PRELIMINARY

REFERENCE DRAWINGS:	LEGEND:	REVISION	QUALITY ASSURANCE					DESIGN CONSULTANTS :		CLIENT
SHGA-FS-LAY-1000	 EXISTING ROAD  RIVER  NALA  RAILWAY LINE  CUT/FILL (C/F)  BRIDGES (B)  TUNNELS (T)  ACCESS ROAD	F DEC 2015 RESUBMITTED (KD-6) PRa RMe AKg E DEC 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS PRa RMe AKg D SEP 2015 ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS PRa RMe AKg C AUG 2015 INTERIM PROGRESS PRa RMe AKg B AUG 2015 MINOR MODIFICATIONS AND RESUBMISSION PRa RMe AKg A JULY 2015 FIRST DRAFT (INCEPTION STAGE) PRa/ABa RMe AKg	The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA
NOTES:			Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15	PROJECT TITLE	DRAWING TITLE
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.			Name	PRa/RMe	RMe	ADh/RMe	AKg	AKg	CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO	ALIGNMENT OPTION "A"
2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.				Drawn	Drafting Chk	Designed	Design Chk	Approved	TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780	PLAN AND PROFILE
		REV. DATE PARTICULARS Drawn Checked Approved	Originators						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.	CHAINAGE 19+500 TO 21+000 Km
									PROJECT NO. : 19/2015-16-780	DRAWING NUMBER
									SHGA-FS-LAY-1014	REV
									AS SHOWN	F
									MONTH (Current Issue)	DEC 2015



PLAN
SCALE 1:2000



CHAINAGE	21000.000	21100.000	21200.000	21300.000	21400.000	21500.000	21600.000	21700.000	21800.000	21900.000	22000.000	22100.000	22200.000	22300.000	22400.000	22500.000
GROUND LEVELS	172.456	193.301	178.398	181.239	168.098	158.167	147.607	140.643	135.192	129.879	126.610	125.039	125.056	125.064	125.018	125.000
FORMATION LEVELS	239.780	236.280	232.780	229.280	225.780	222.280	218.780	215.280	211.780	208.280	204.780	201.280	197.780	194.280	190.780	187.280
HORIZONTAL ALIGNMENT	<p>R: 1000.000 L: 1035.225</p> <p>L = 229.068</p> <p>R: 4000.000 L: 1049.786</p>															
VERTICAL ALIGNMENT	GRADIENT 3.5%															

LONGITUDINAL SECTION (AT PROJECT CENTER LINE)

SCALE 1:2000

SCALE 1 : 2000



PRELIMINARY






REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.
2. NO DIMENSION TO BE MEASURED FROM DRAWING
ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.

LEGEND:

-  EXISTING ROAD
 RIVER
 NALA
 RAILWAY LINE
 CUT/FILL (C/F)
 BRIDGES (B)
 TUNNELS (T)
 ACCESS ROAD

REVISION

F	DEC 2015	RESUBMITTED (KD-6)	PRa	RMe	AKg
E	DEC 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg
D	SEP 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg
C	AUG 2015	INTERIM PROGRESS	PRa	RMe	AKg
B	AUG 2015	MINOR MODIFICATIONS AND RESUBMISSION	PRa	RMe	AKg
A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	PRa/ABa	RMe	AKg
REV	DATE	PARTICULARS	Drawn	Checked	Approved

QUALITY ASSURANCE

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Date (FIRST ISSUE)	22.07.15	22.07.15	22.07.15	22.07.15	22.07.15
Name	Pra/RMe	RMe	ADh/RMe	AKg	AKg
	Drawn	Drafting Chk	Designed	Design Chk	Approved
nd	Originators				

DESIGN CONSULTANTS :

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

ALIGNMENT OPTION "A"

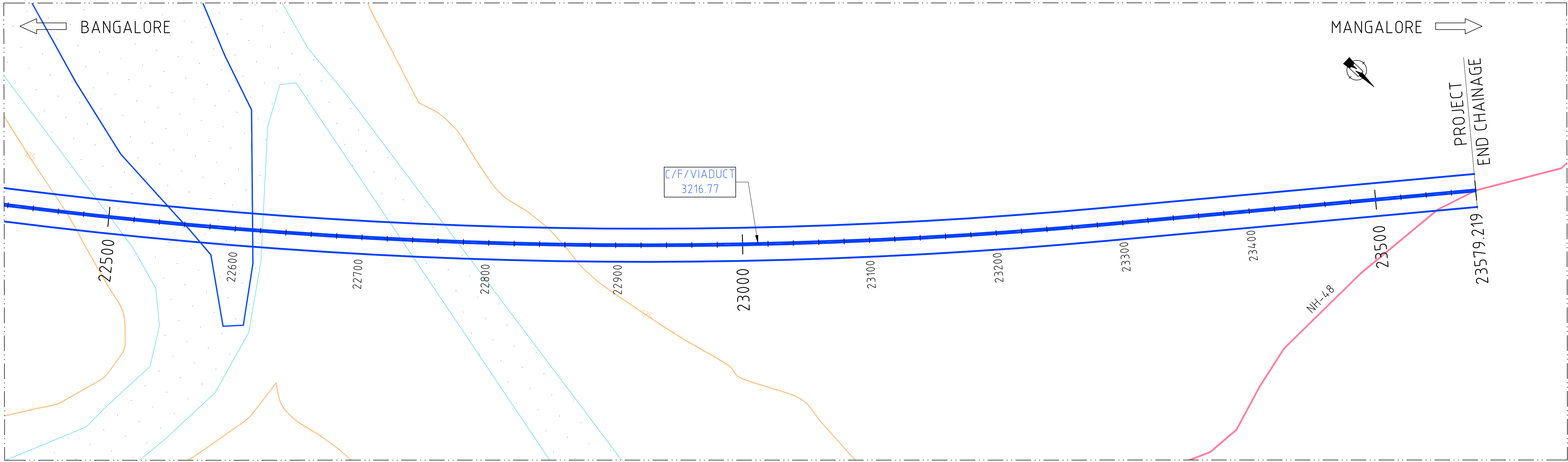
PLAN AND PROFILE

CHAINAGE 21+000 TO 22+500 Km

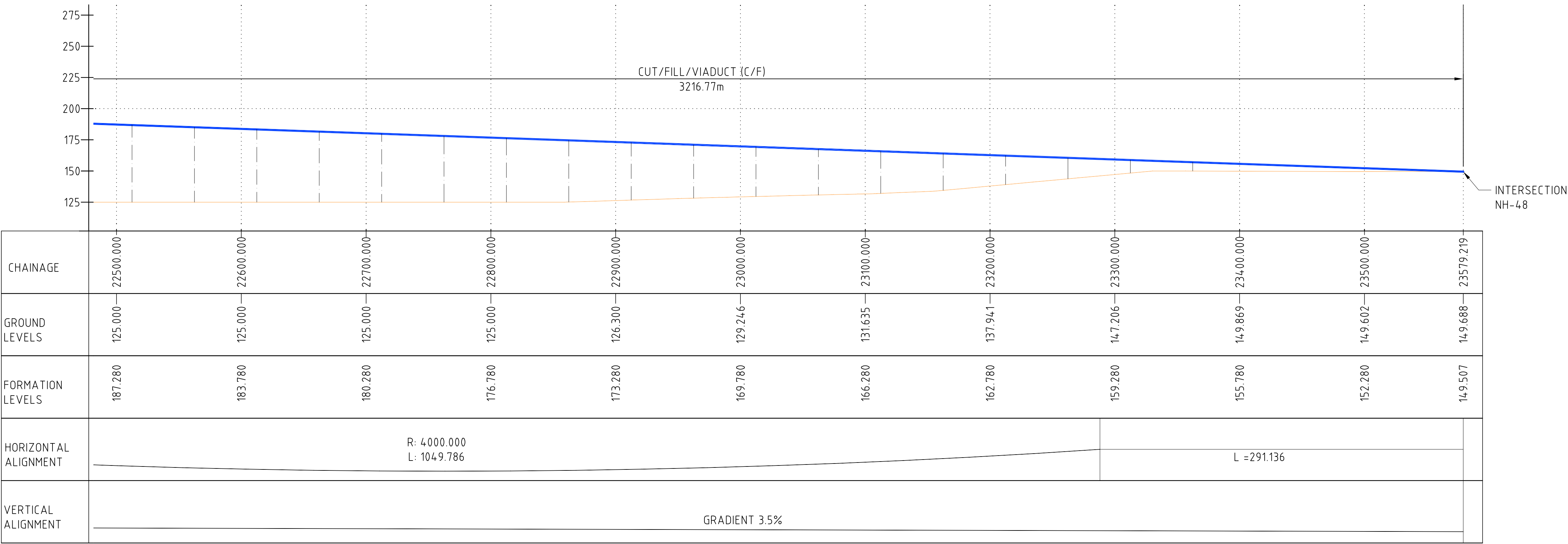
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SHGA-FS-LAY-1015	F
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SCALE AS SHOWN MONTH (Current Issue) DEC 2015

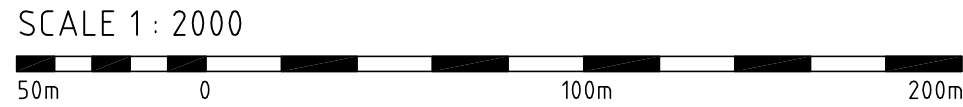


PLAN
SCALE 1:2000



LONGITUDINAL SECTION (AT PROJECT CENTER LINE)
SCALE 1:2000

ALIGNMENT SHOWN HERE MAY VARY, AFTER DETAILED TOPOGRAPHIC SURVEY/GEOLOGICAL INVESTIGATION.



PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.
2. NO DIMENSION TO BE MEASURED FROM DRAWING ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.

LEGEND:

- EXISTING ROAD
- RIVER
- NALA
- RAILWAY LINE
- CUT/FILL (C/F)
- BRIDGES (B)
- TUNNELS (T)
- ACCESS ROAD

REVISION

F	DEC 2015	RESUBMITTED (KD-6)	PRa	RMe	AKg
E	DEC 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg
D	SEP 2015	ALIGNMENT IMPROVEMENT AND RELATED MODIFICATIONS	PRa	RMe	AKg
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A	JULY 2015	FIRST DRAFT (INCEPTION STAGE)	PRa/ABa	RMe	AKg
REV.	DATE	PARTICULARS	Drawn	Checked	Approved

QUALITY ASSURANCE

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Name	PRa/RMe	RMe	ADh/RMe	AKg	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

ALIGNMENT OPTION "A"
PLAN AND PROFILE
CHAINAGE 22+500 TO 23+579.219Km

DRAWING NUMBER

SHGA-FS-LAY-1016

SCALE

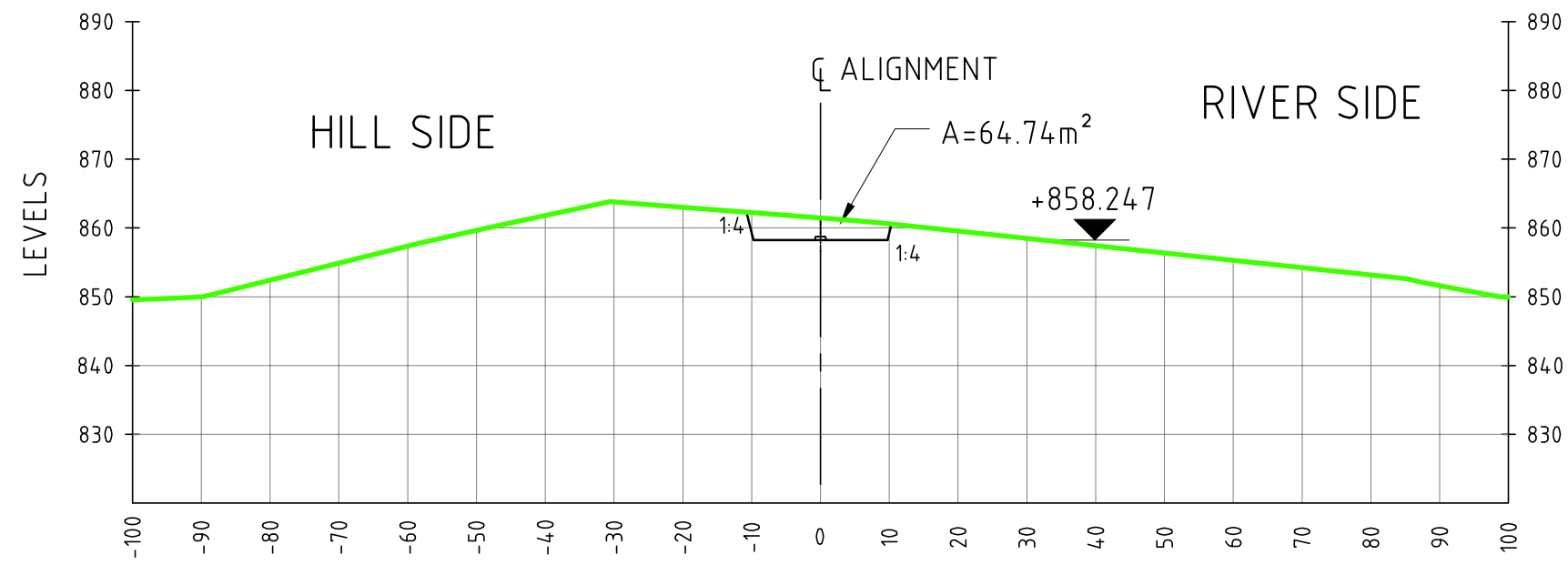
AS SHOWN

MONTH

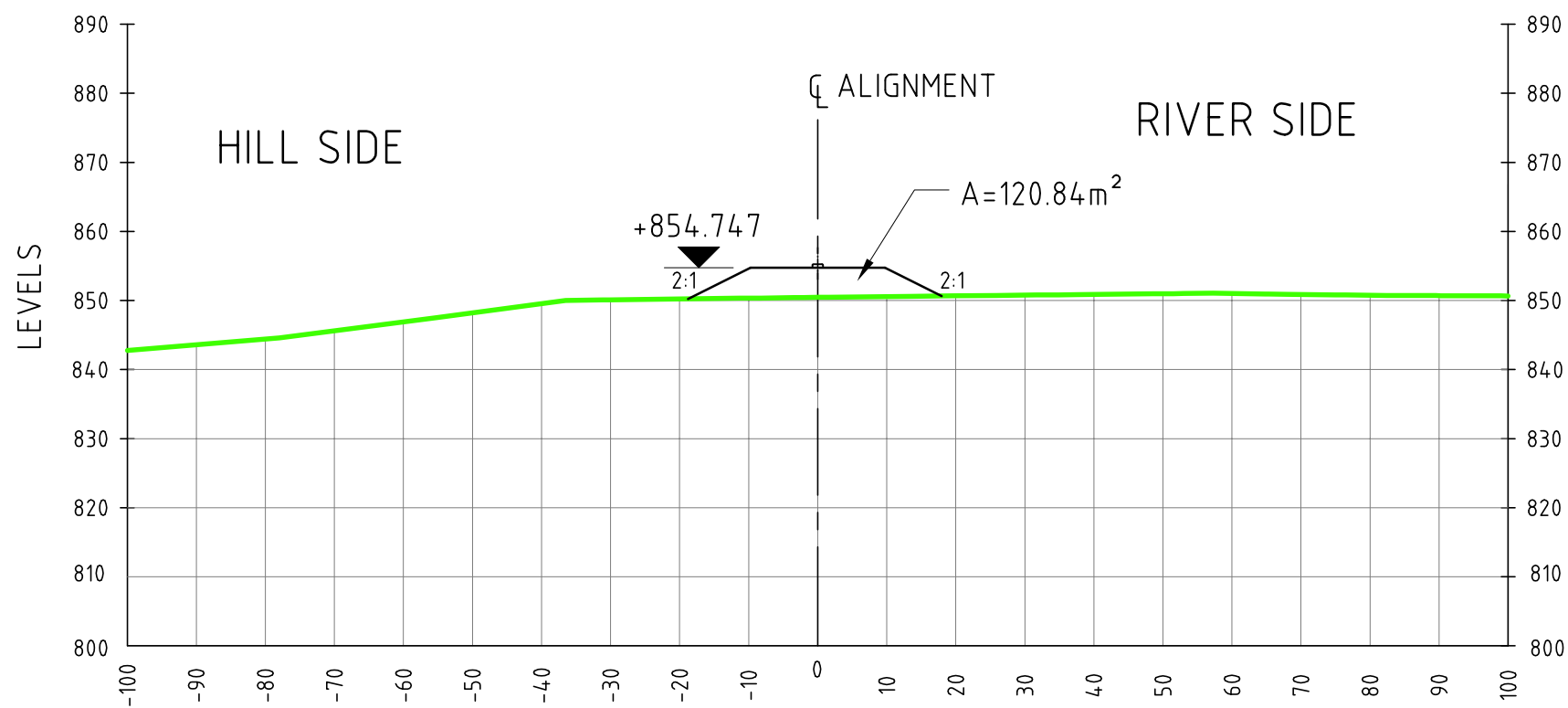
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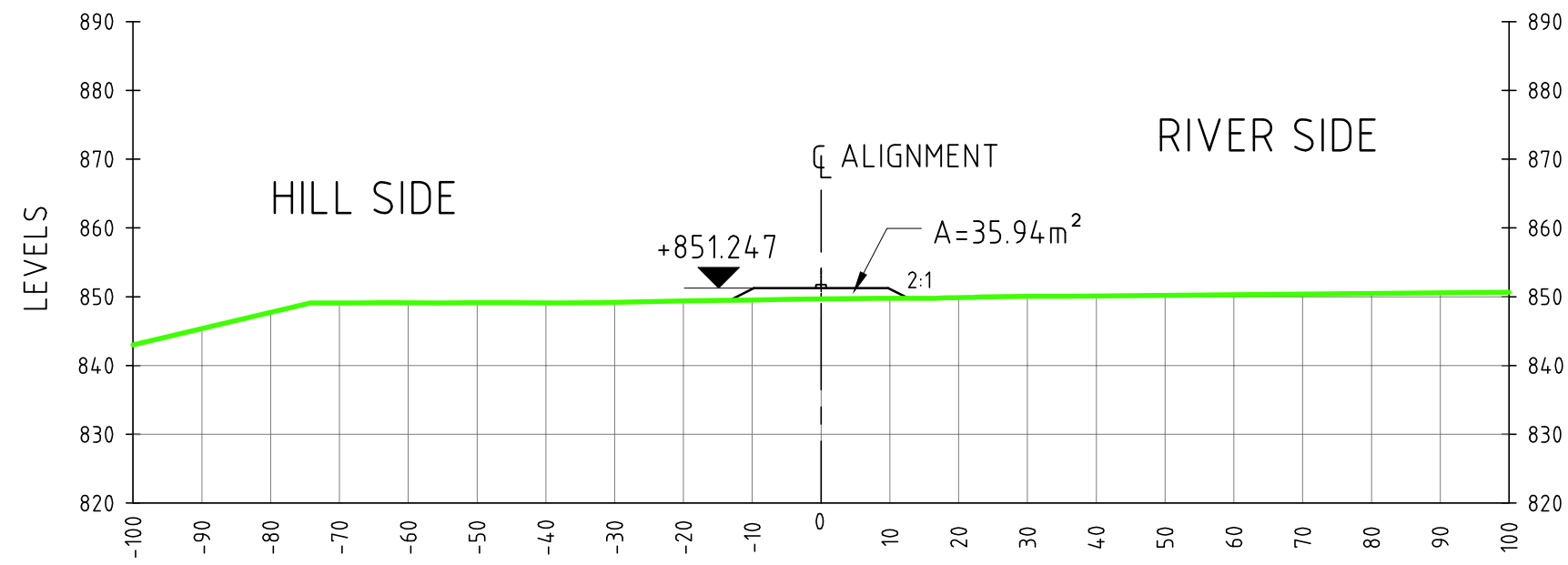
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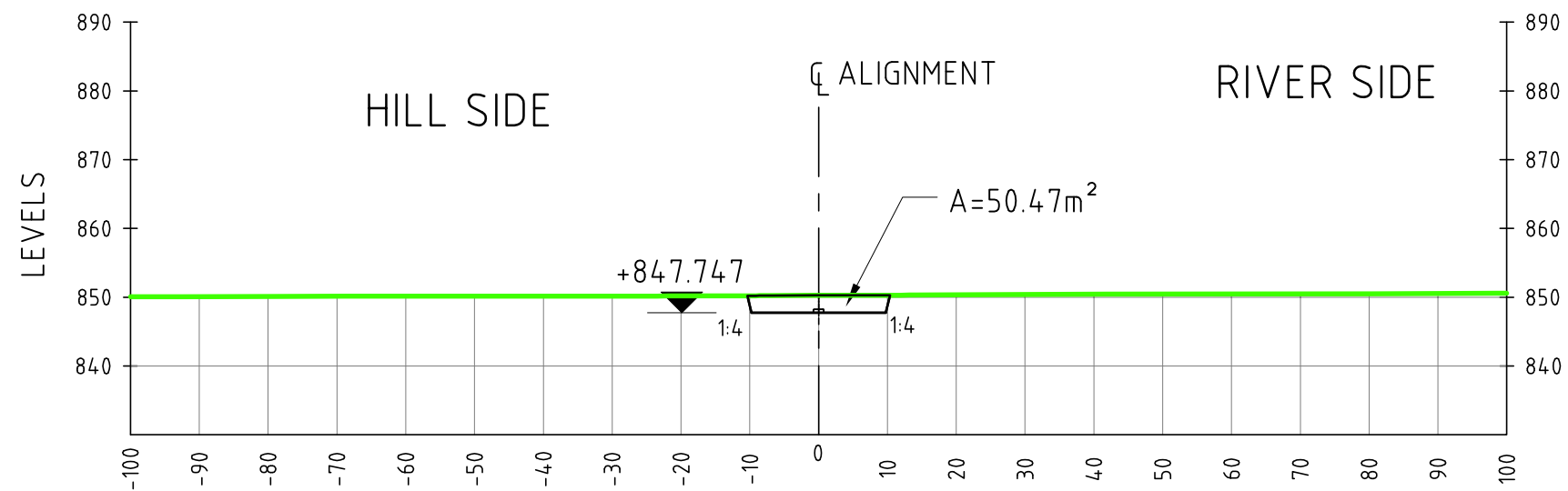
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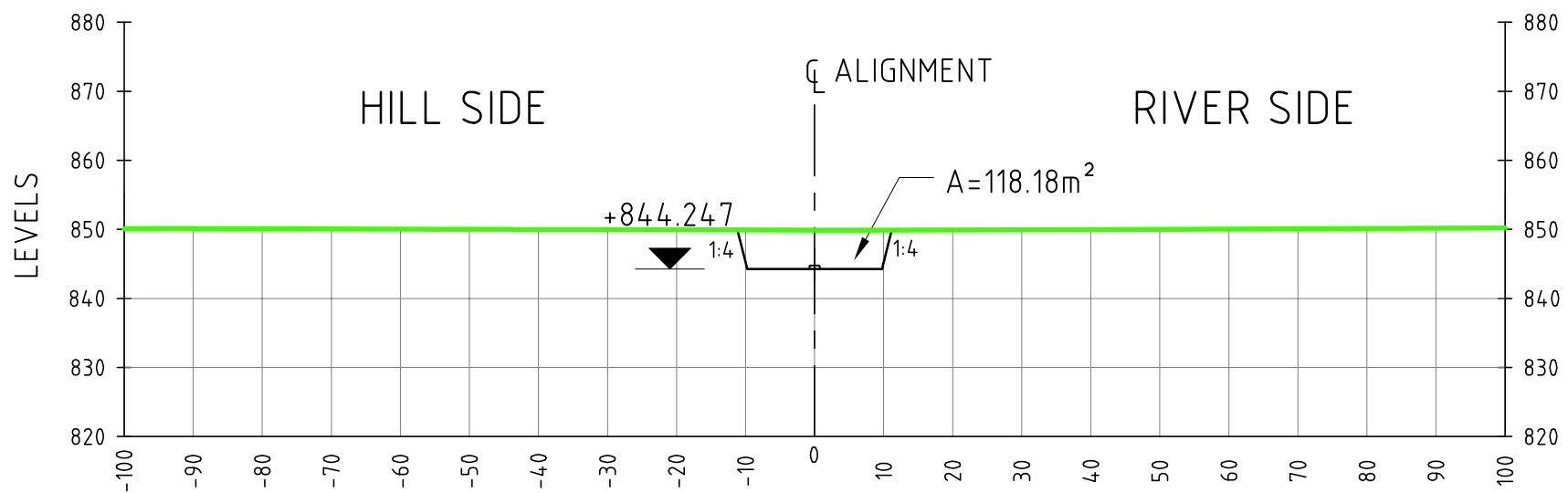
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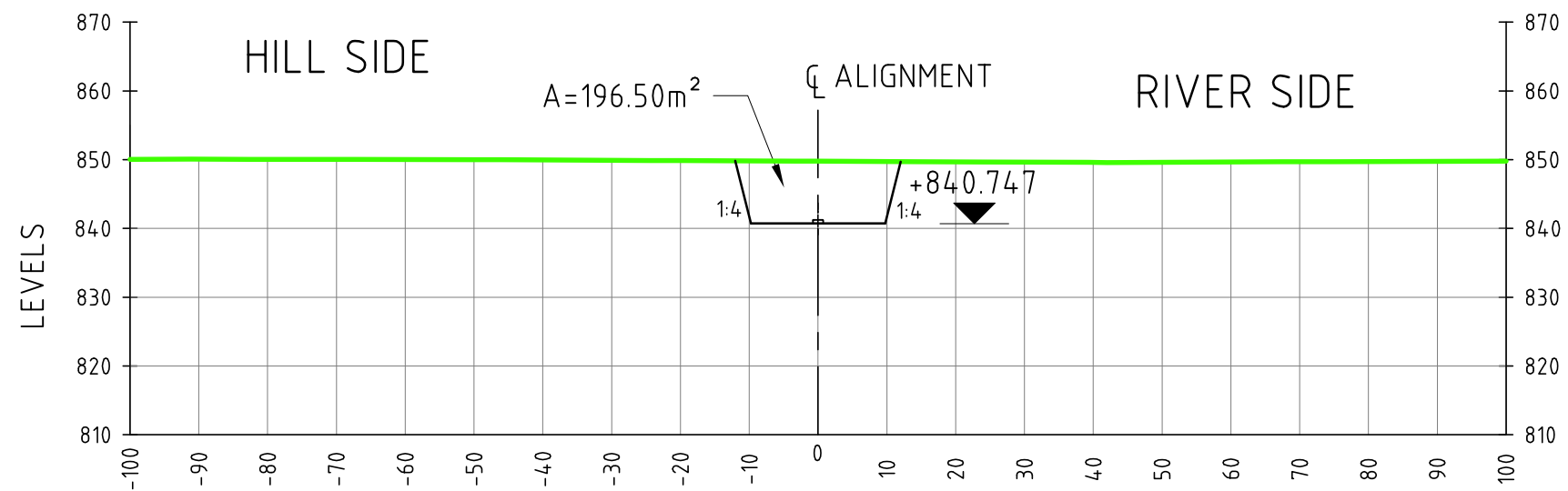
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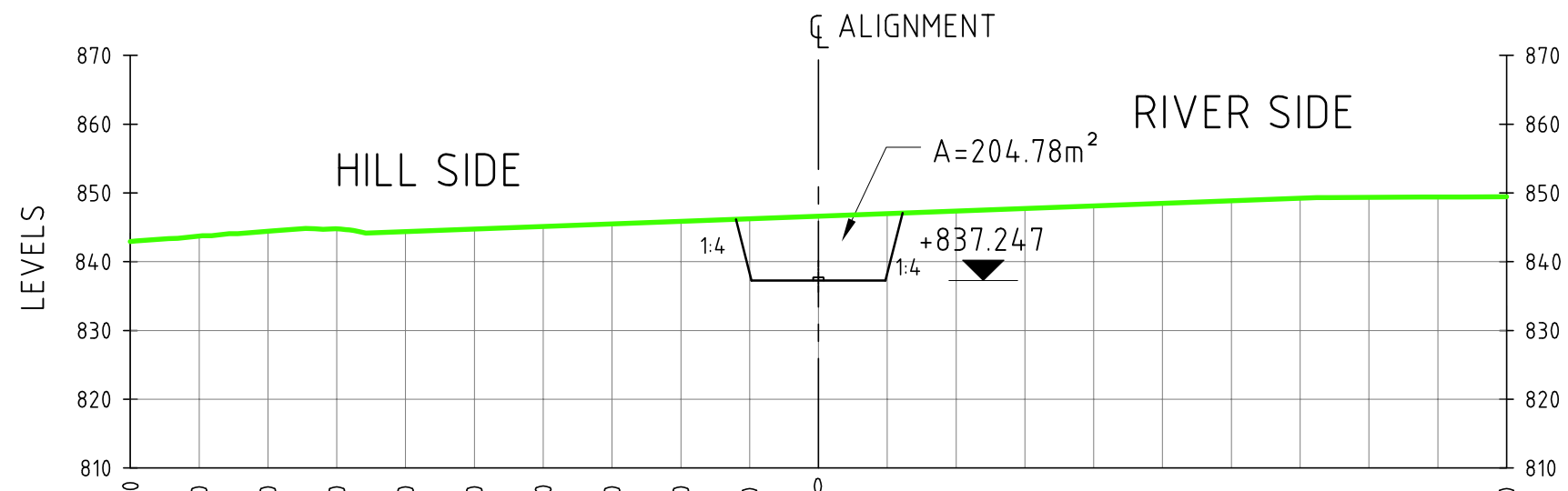
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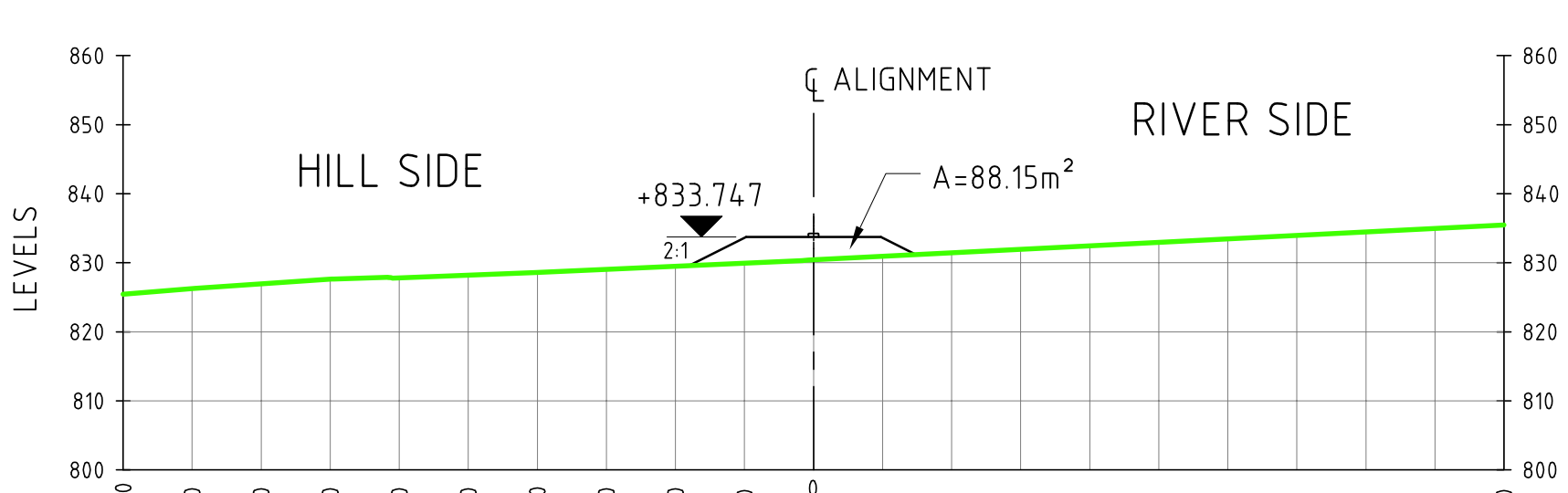
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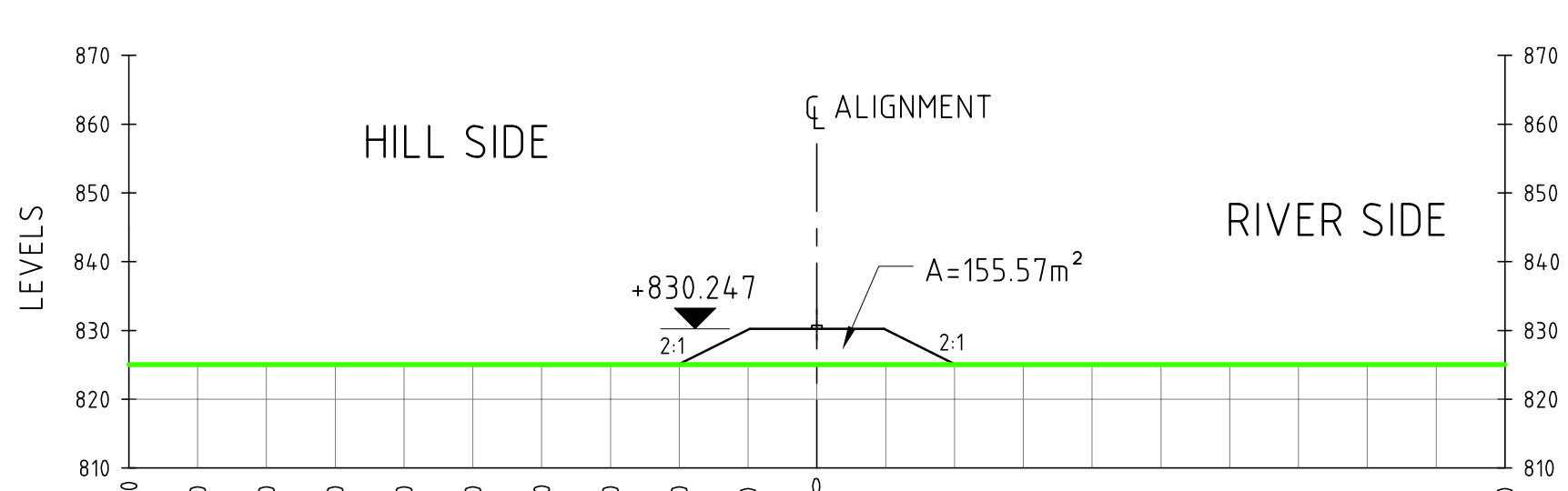
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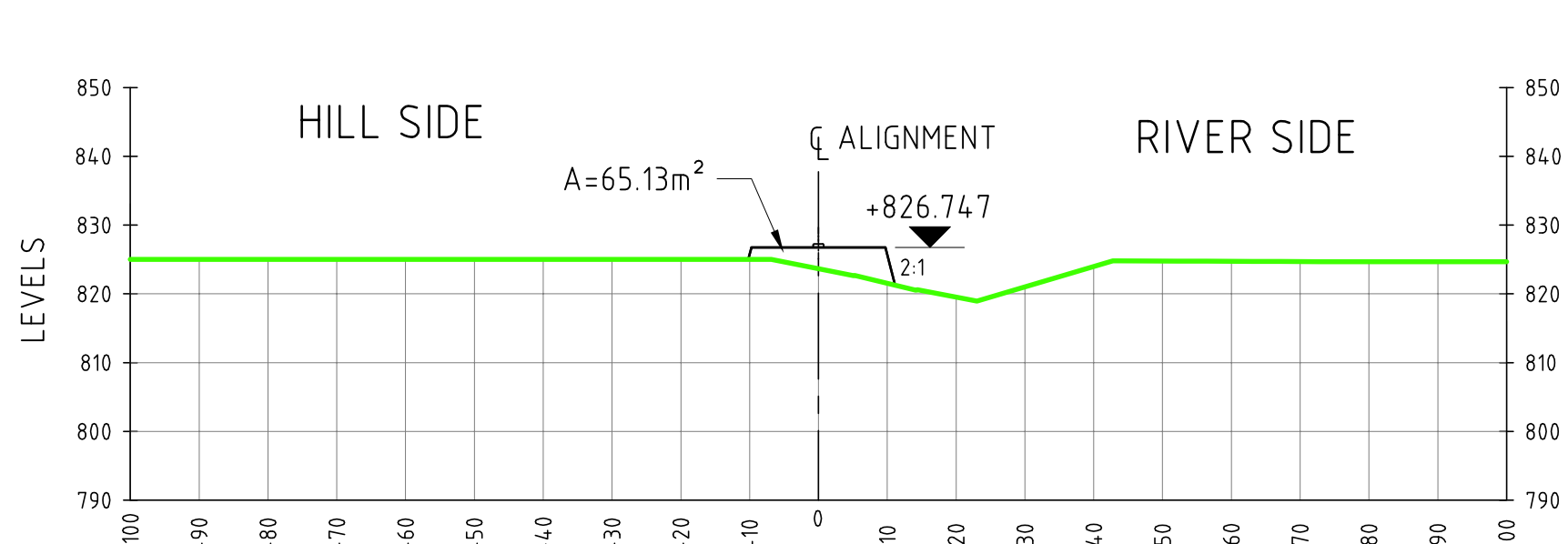
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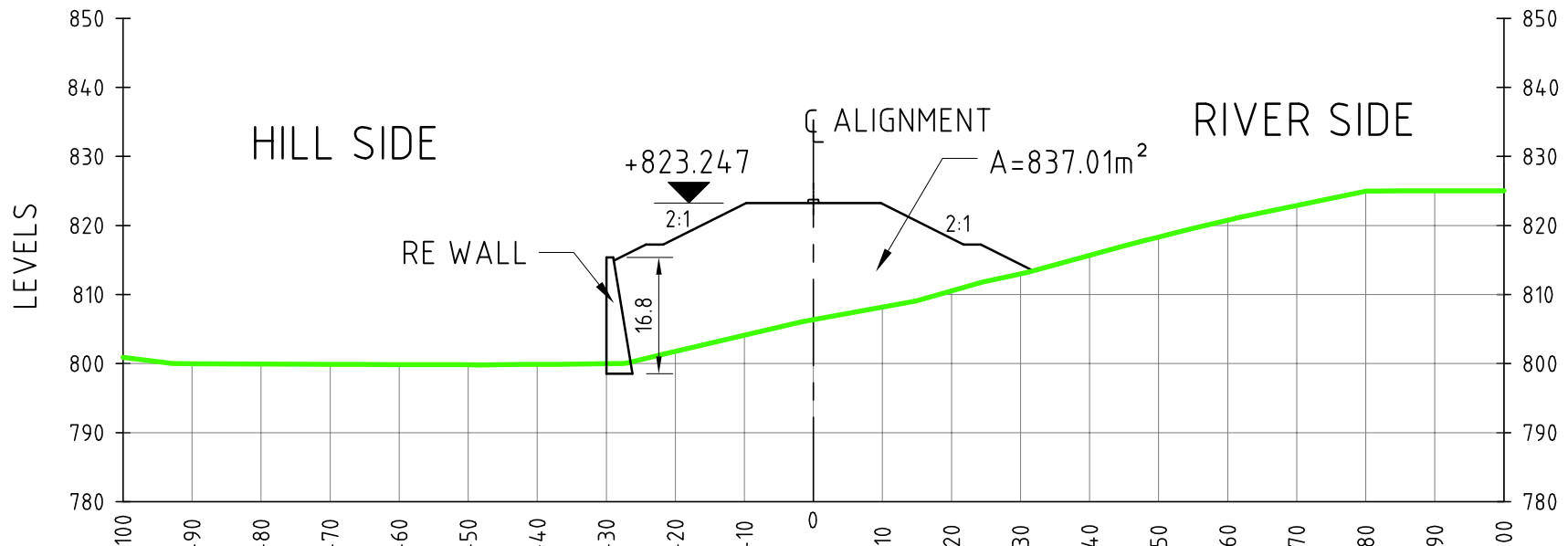
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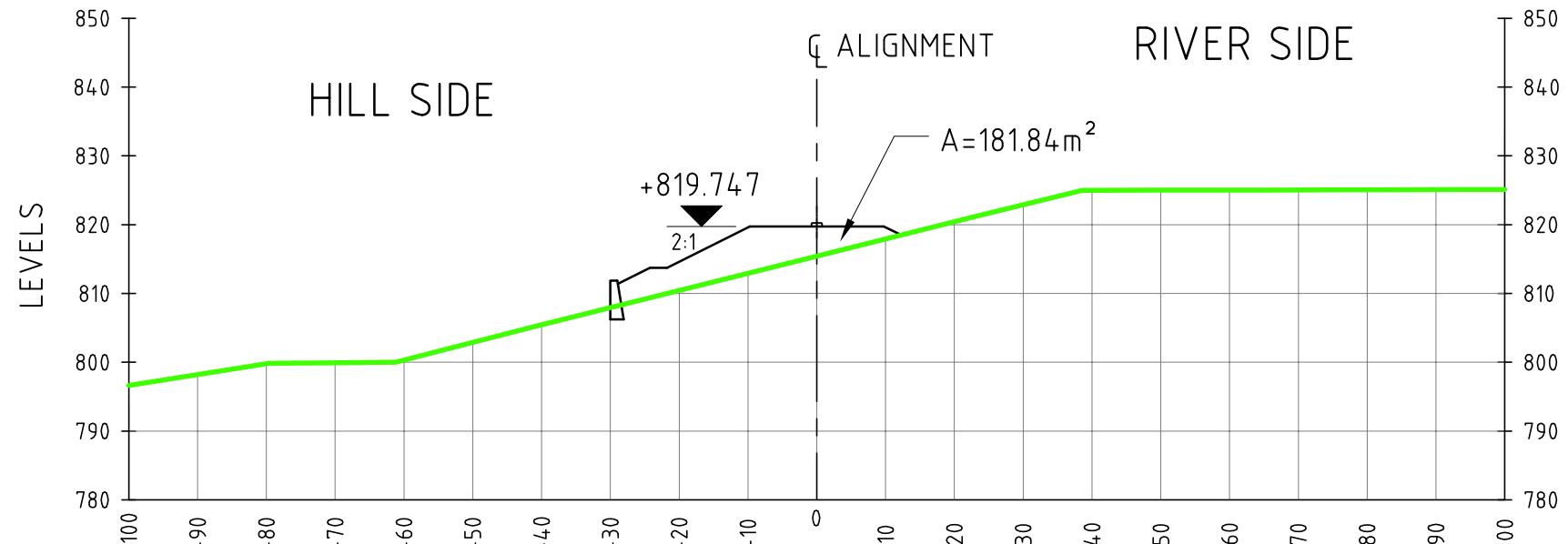
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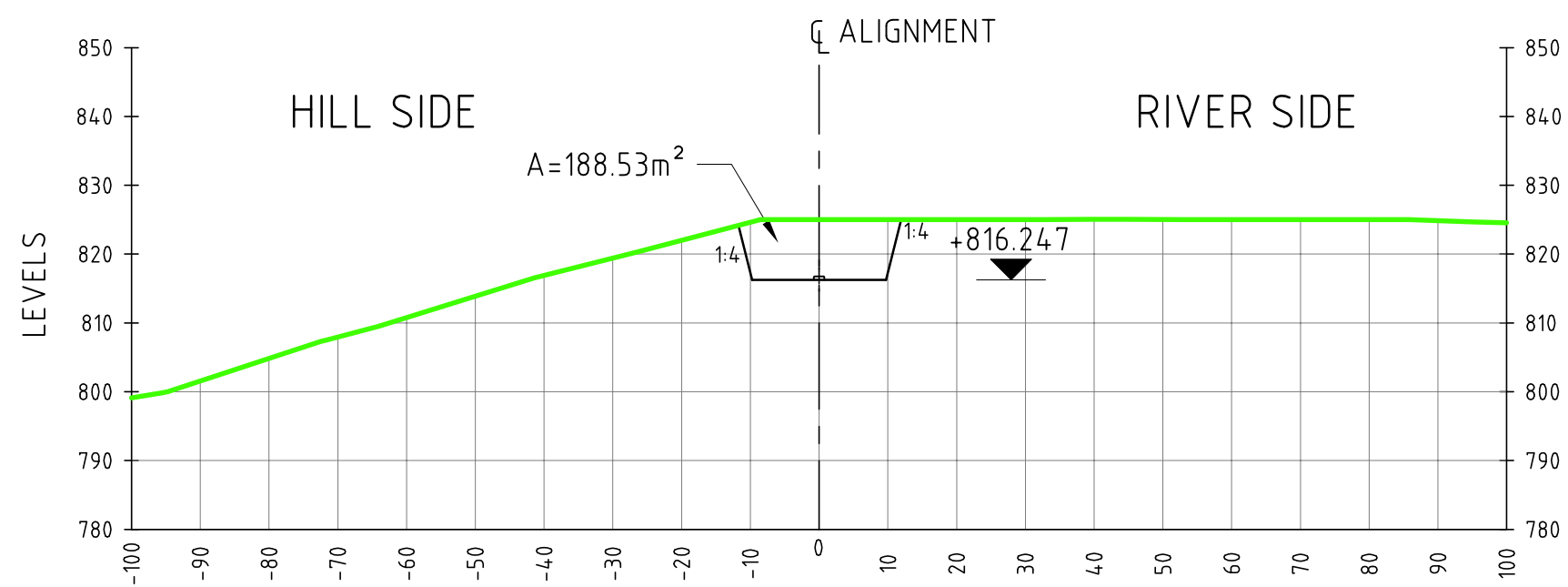


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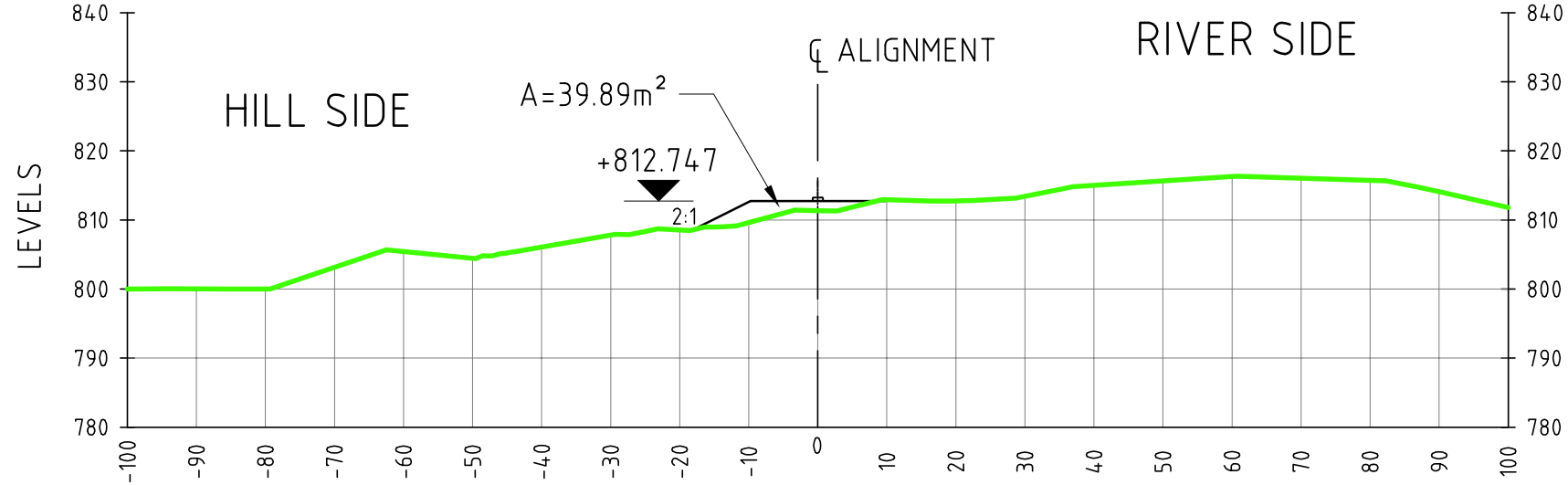


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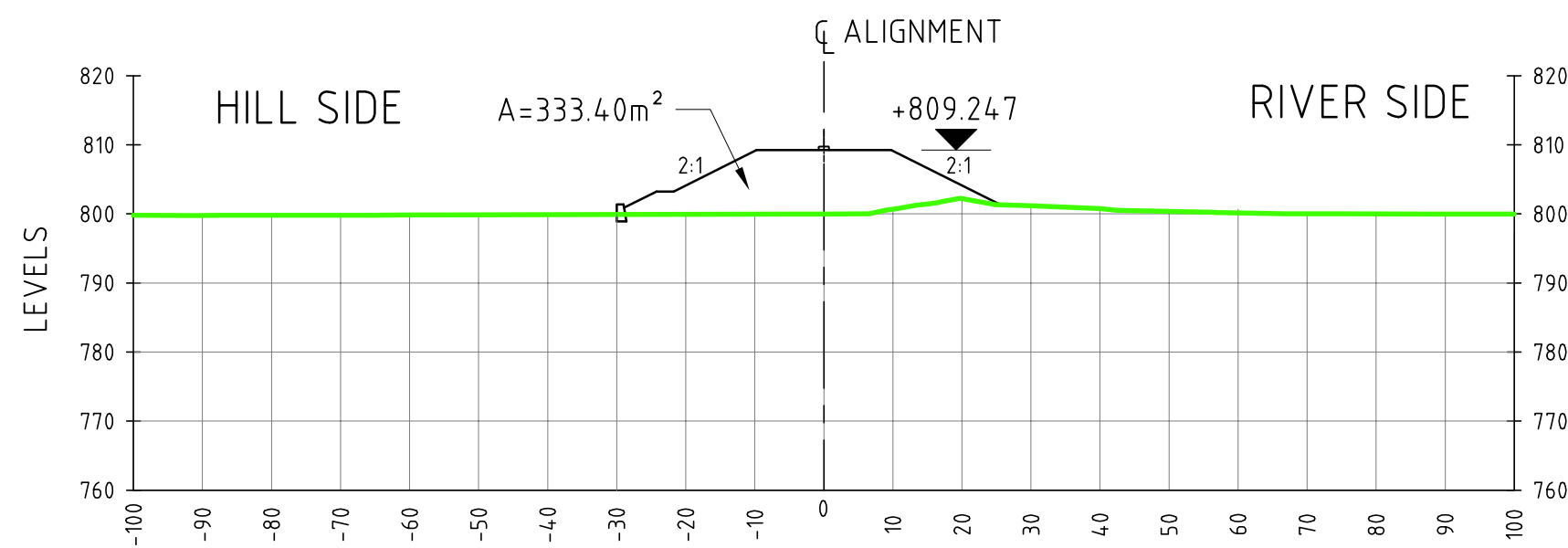
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														DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH: 0+000 TO 1+100			
															PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		
															This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geconsult was commissioned. Geconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		
															GEOCONSULT, P.Ra, R/16000 Projects/16060-Shiradi Ghat/CURRENT/WD-6/SHGA-FS-LAY_1061 TO 1070_B.dwg, 2015-12-16		
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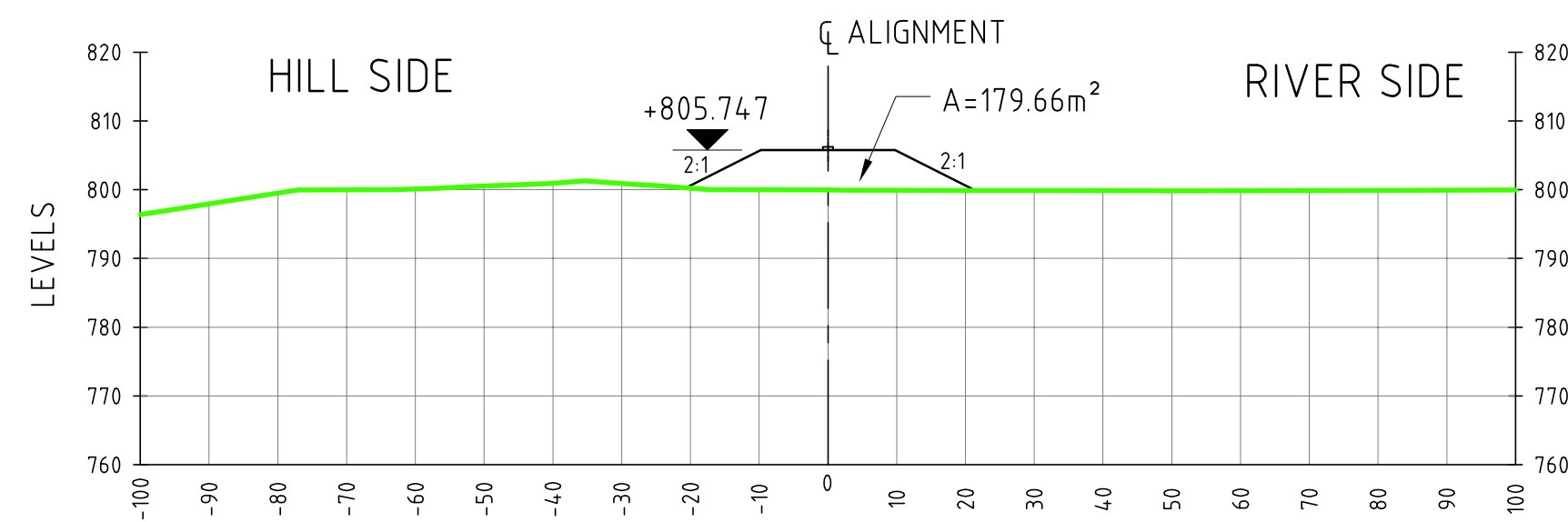
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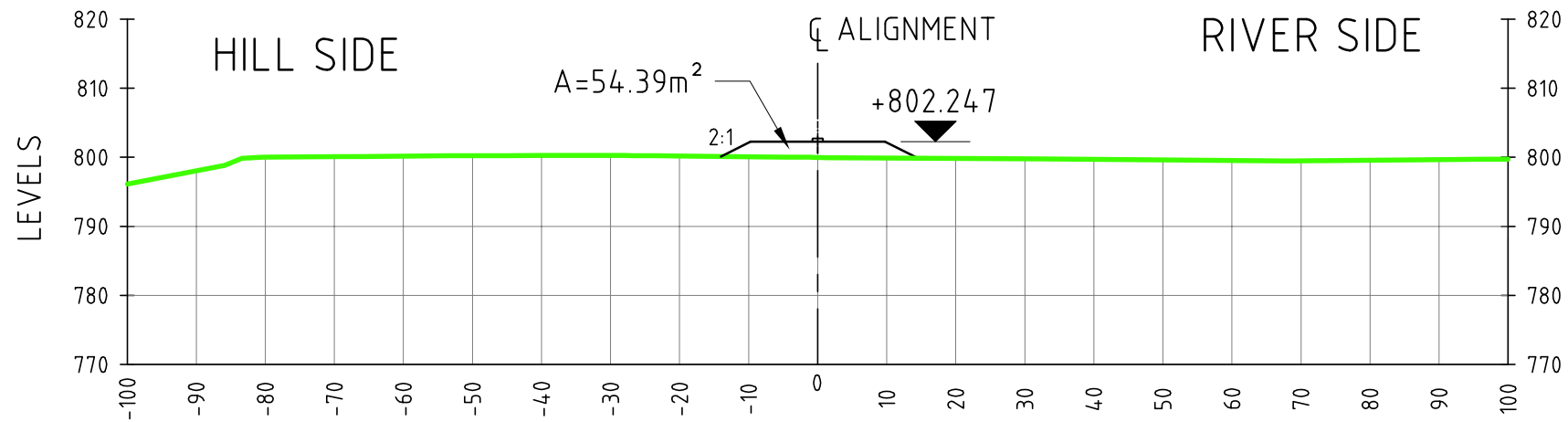
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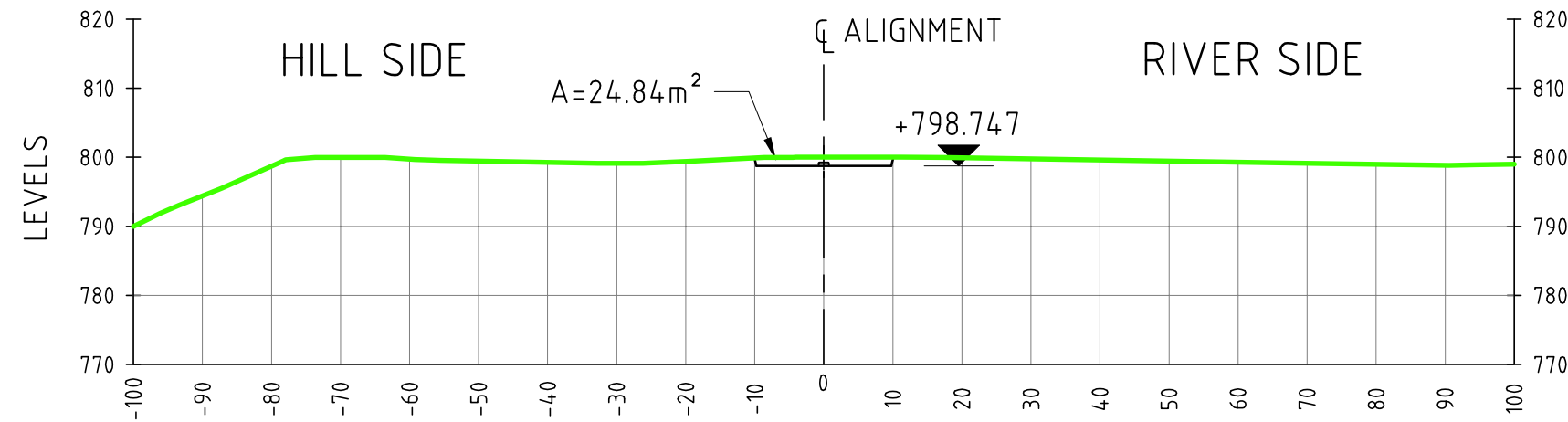
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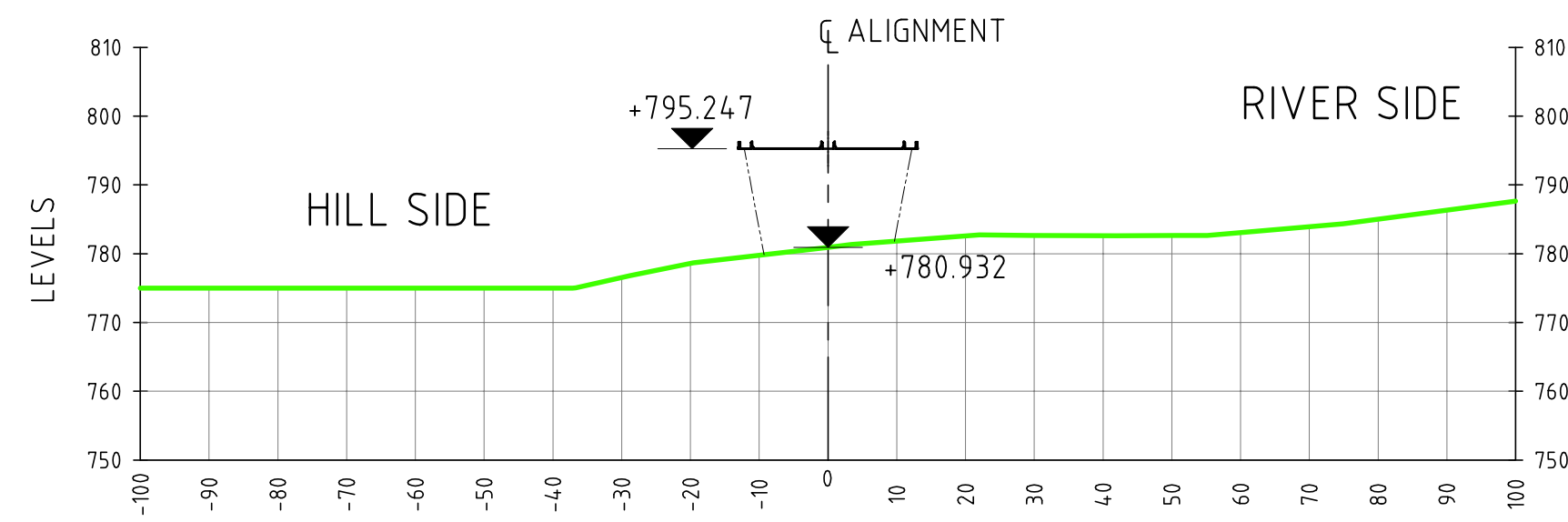
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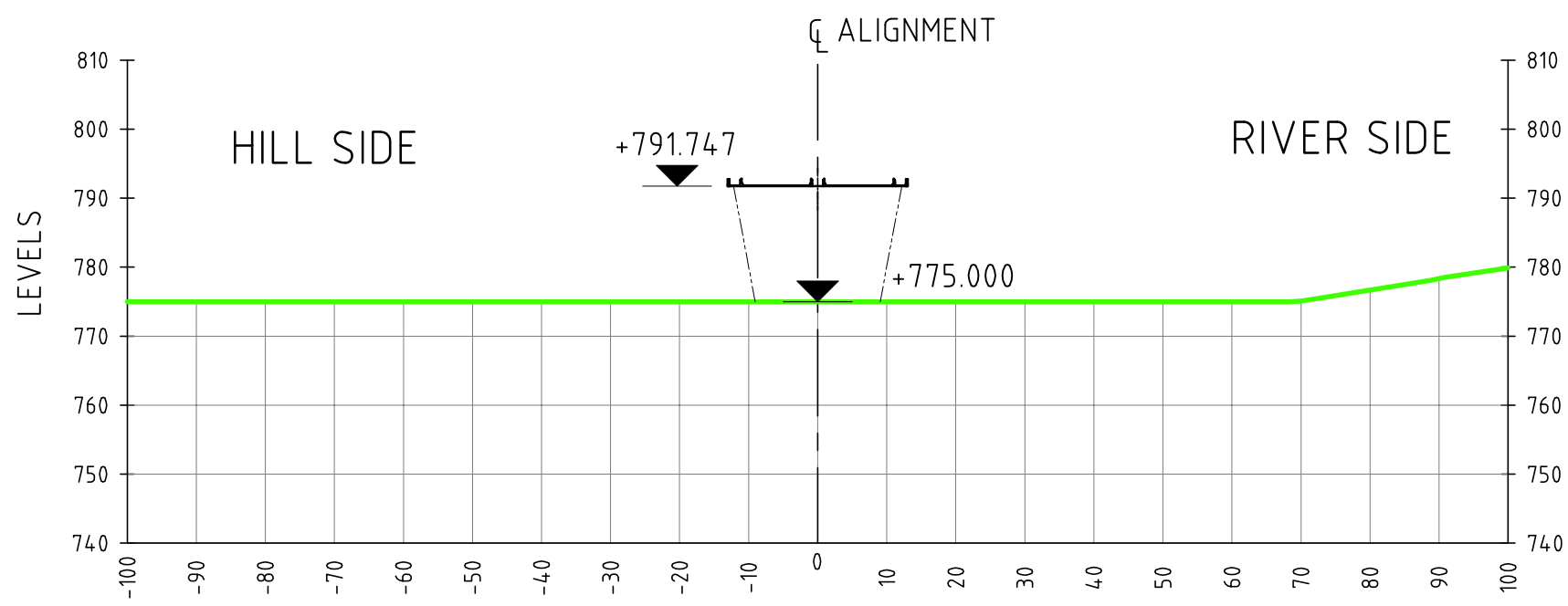
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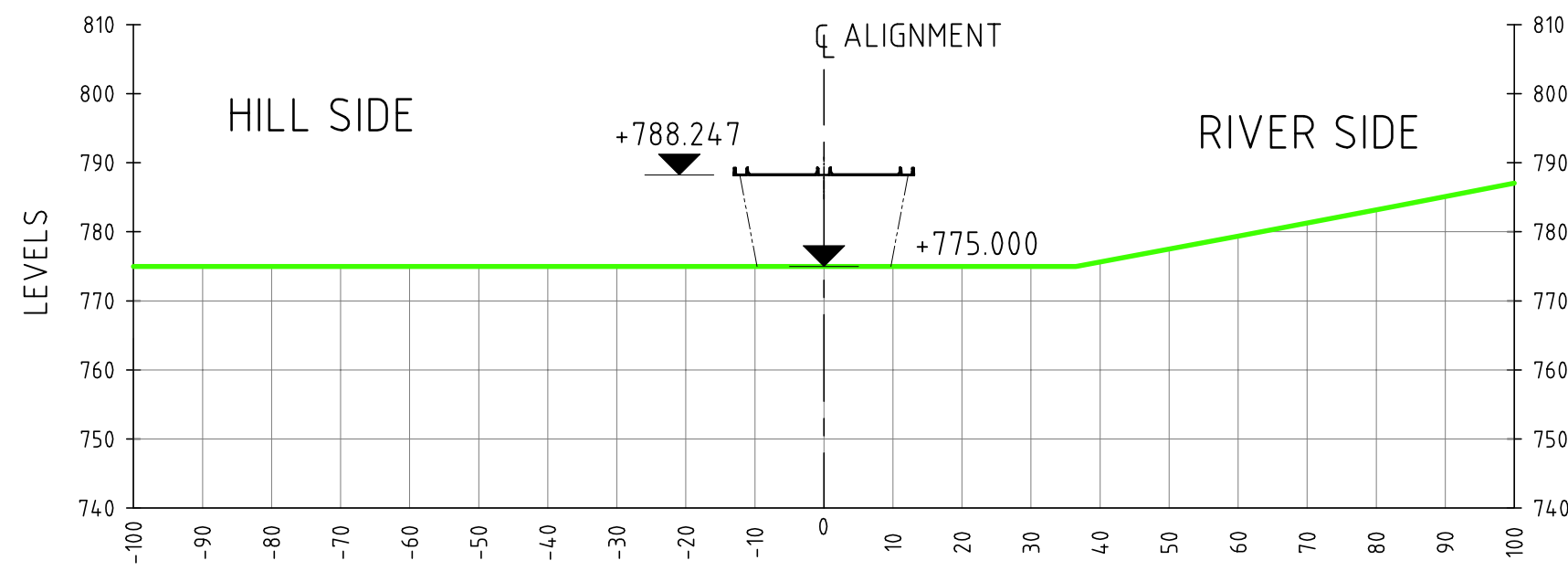
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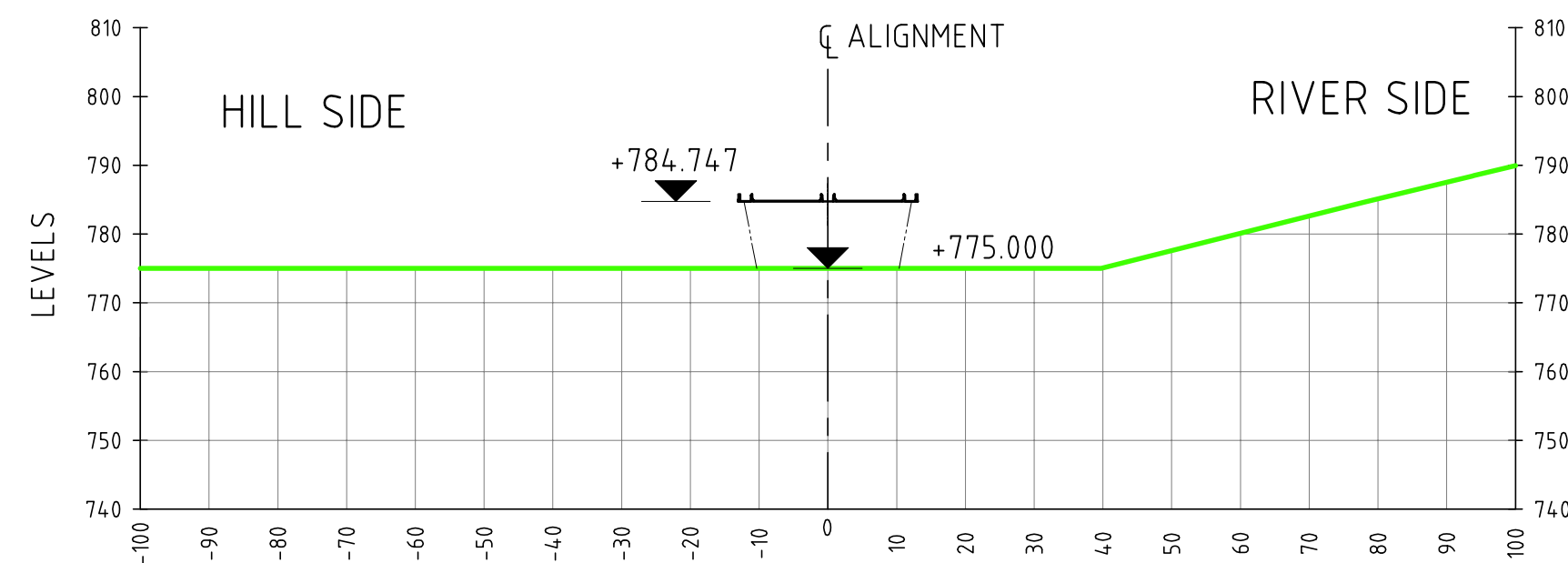
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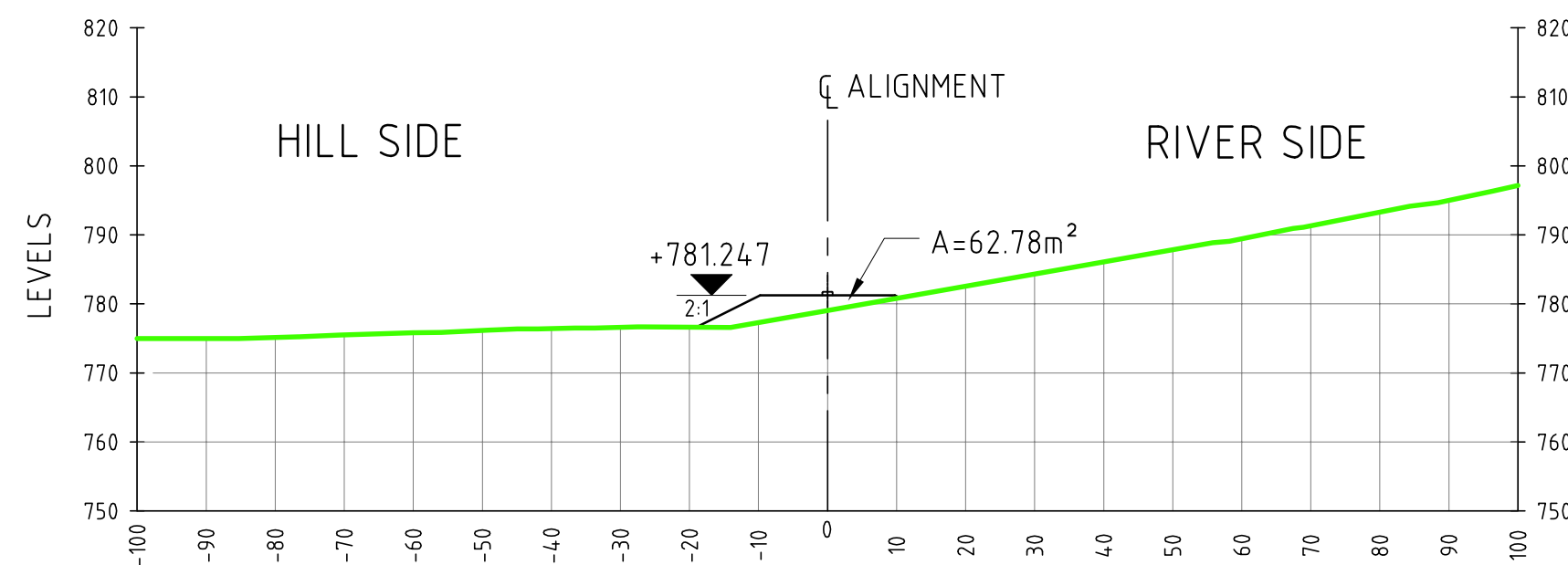
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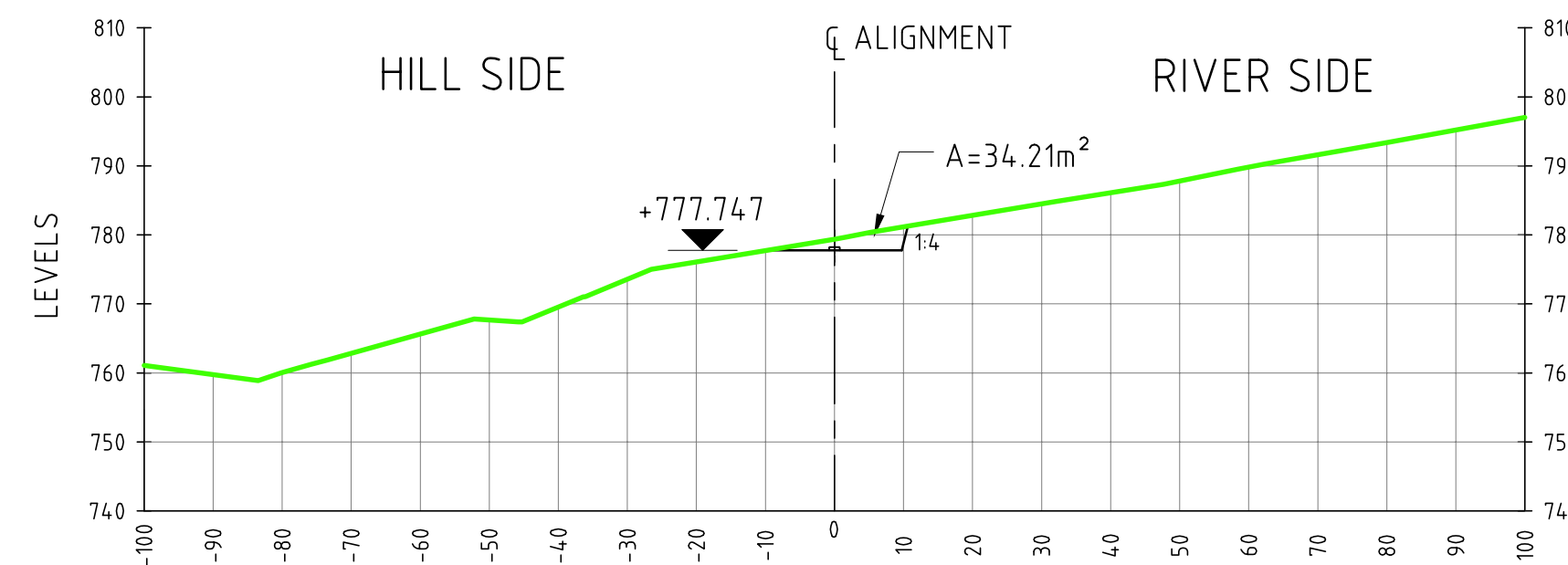
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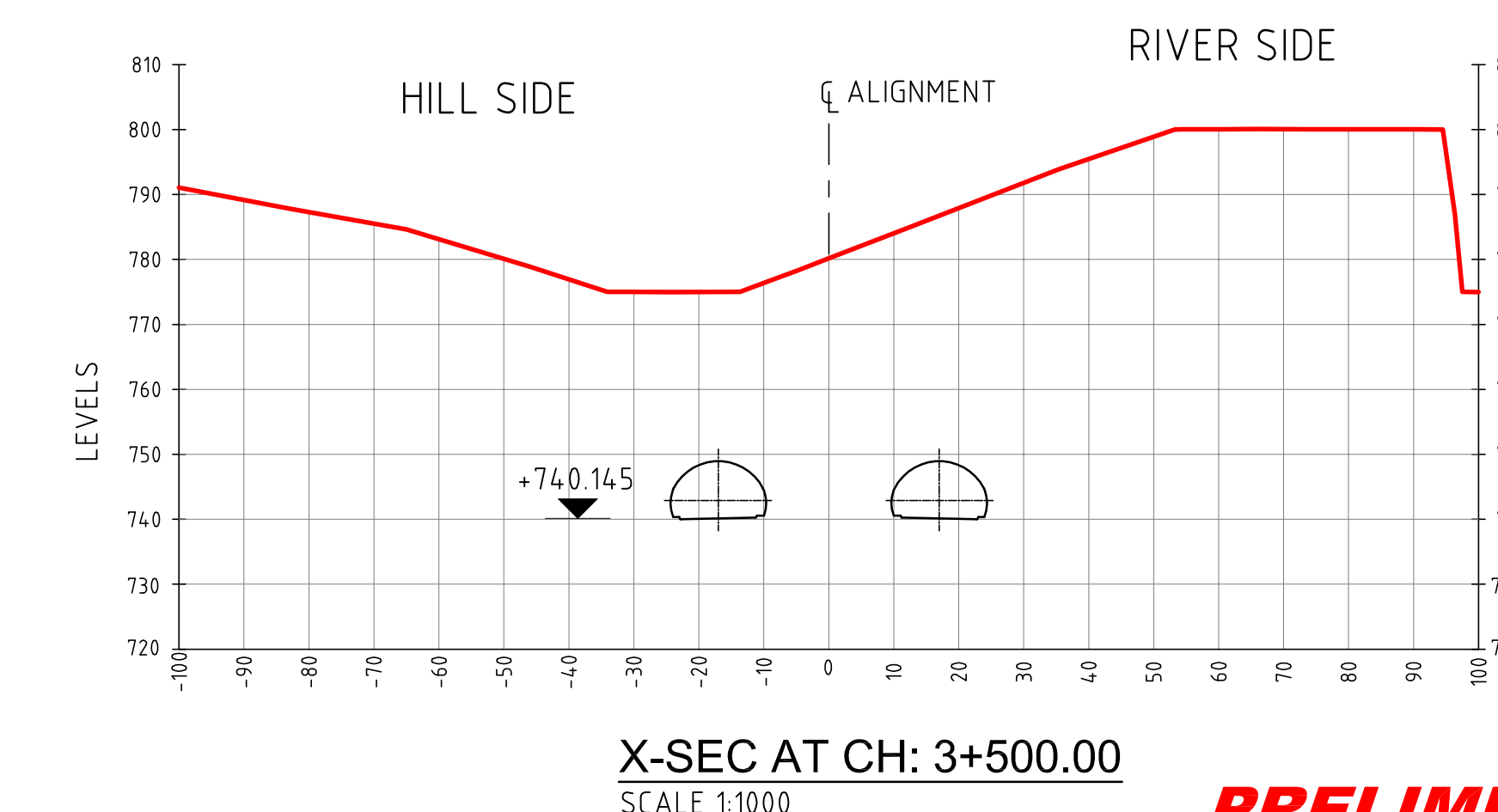
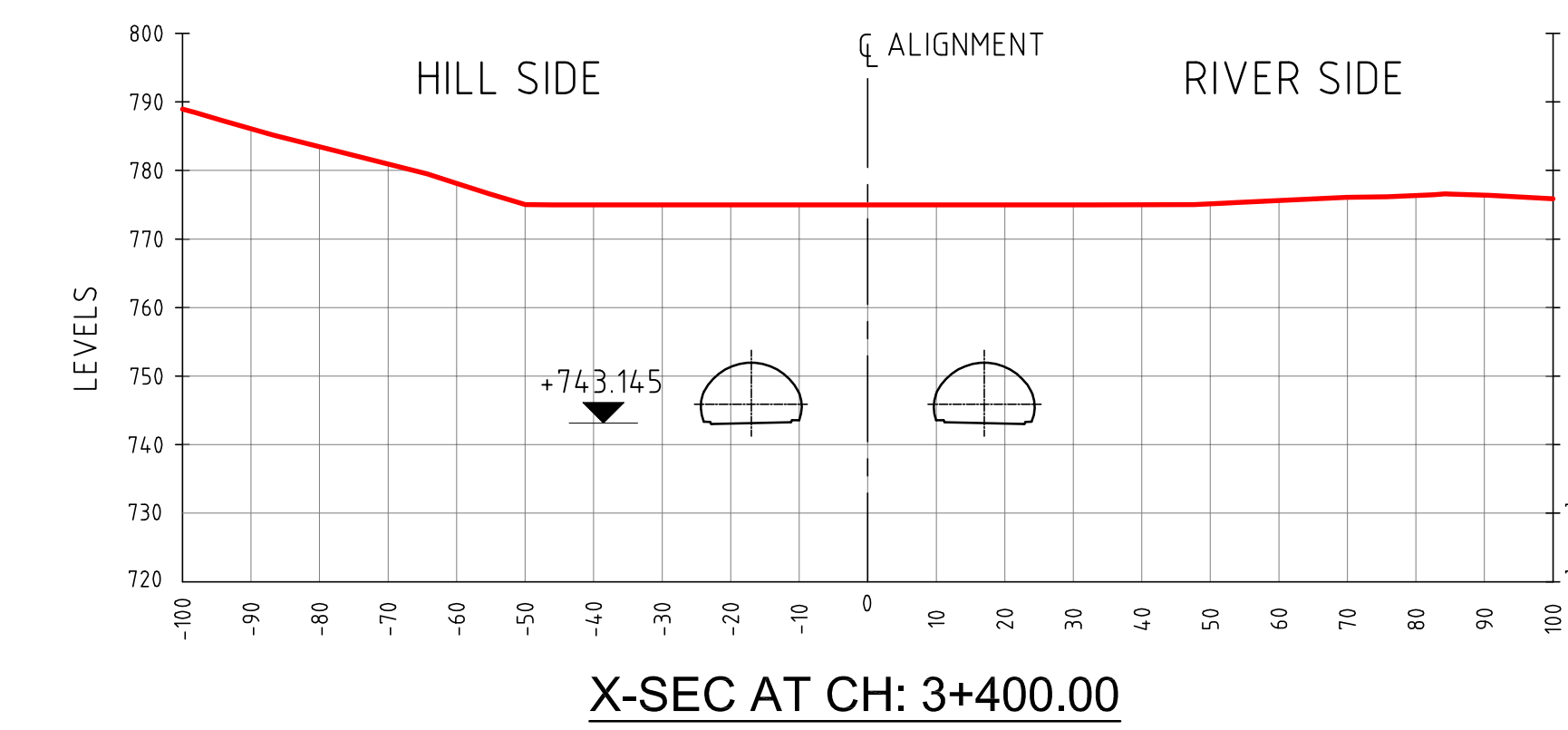
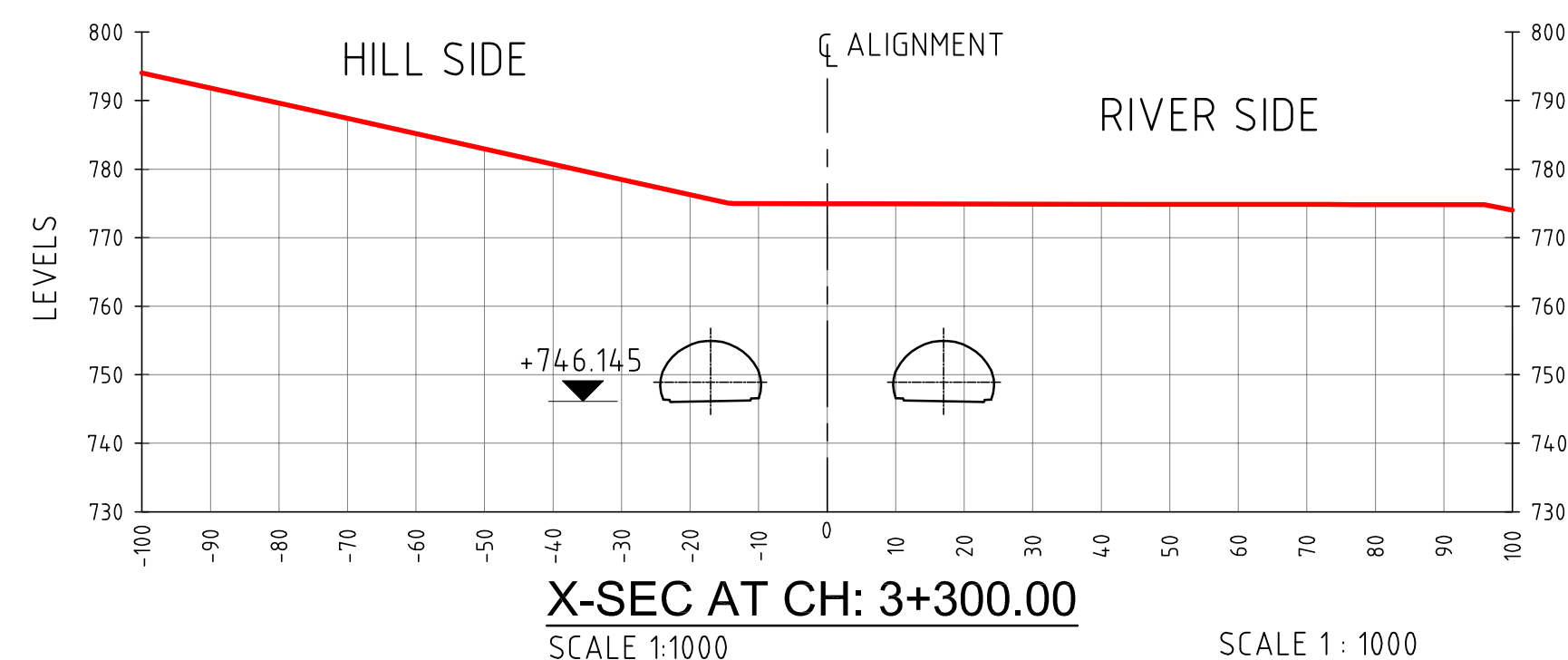
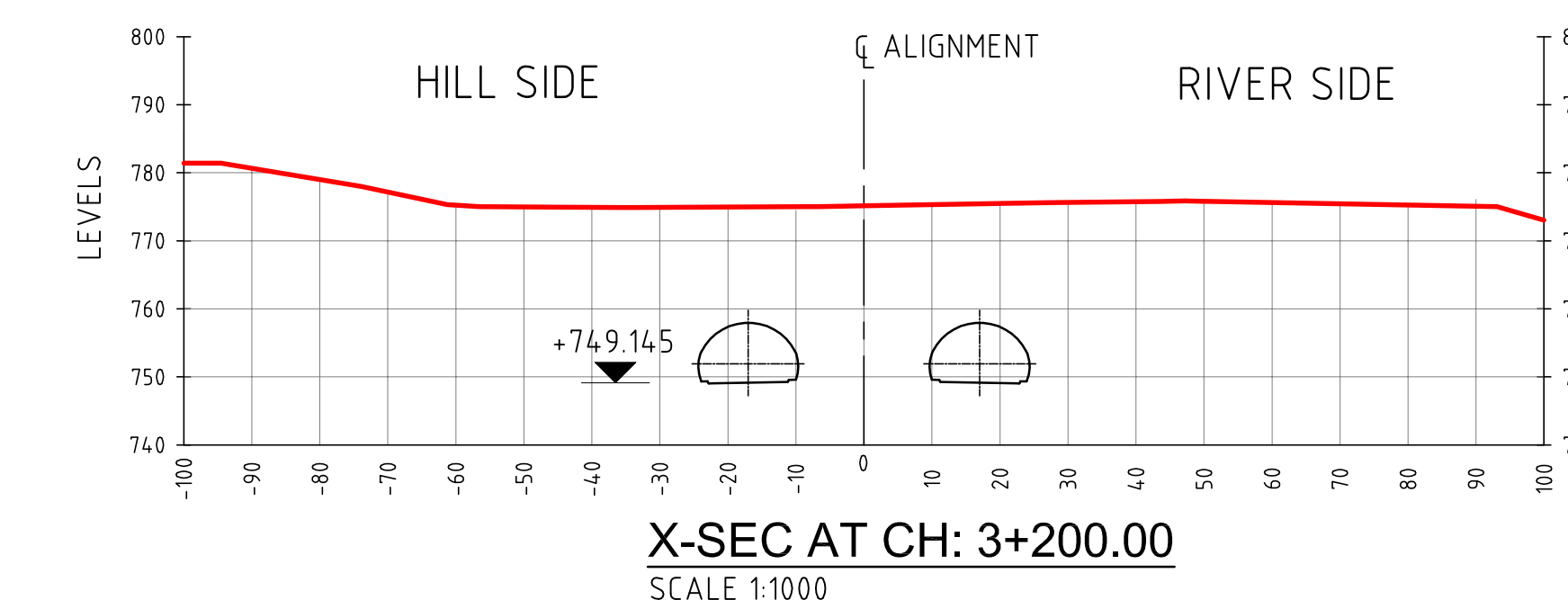
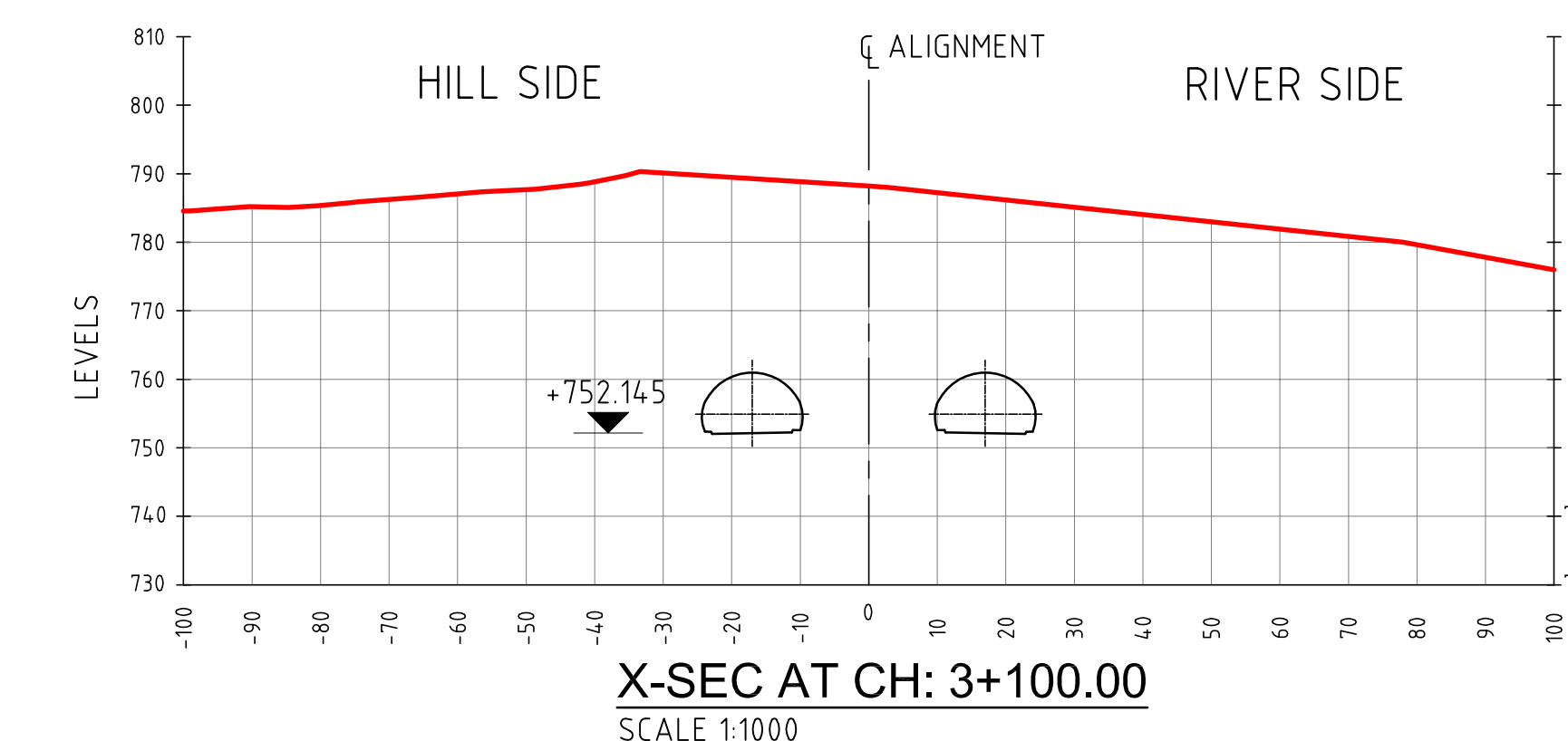
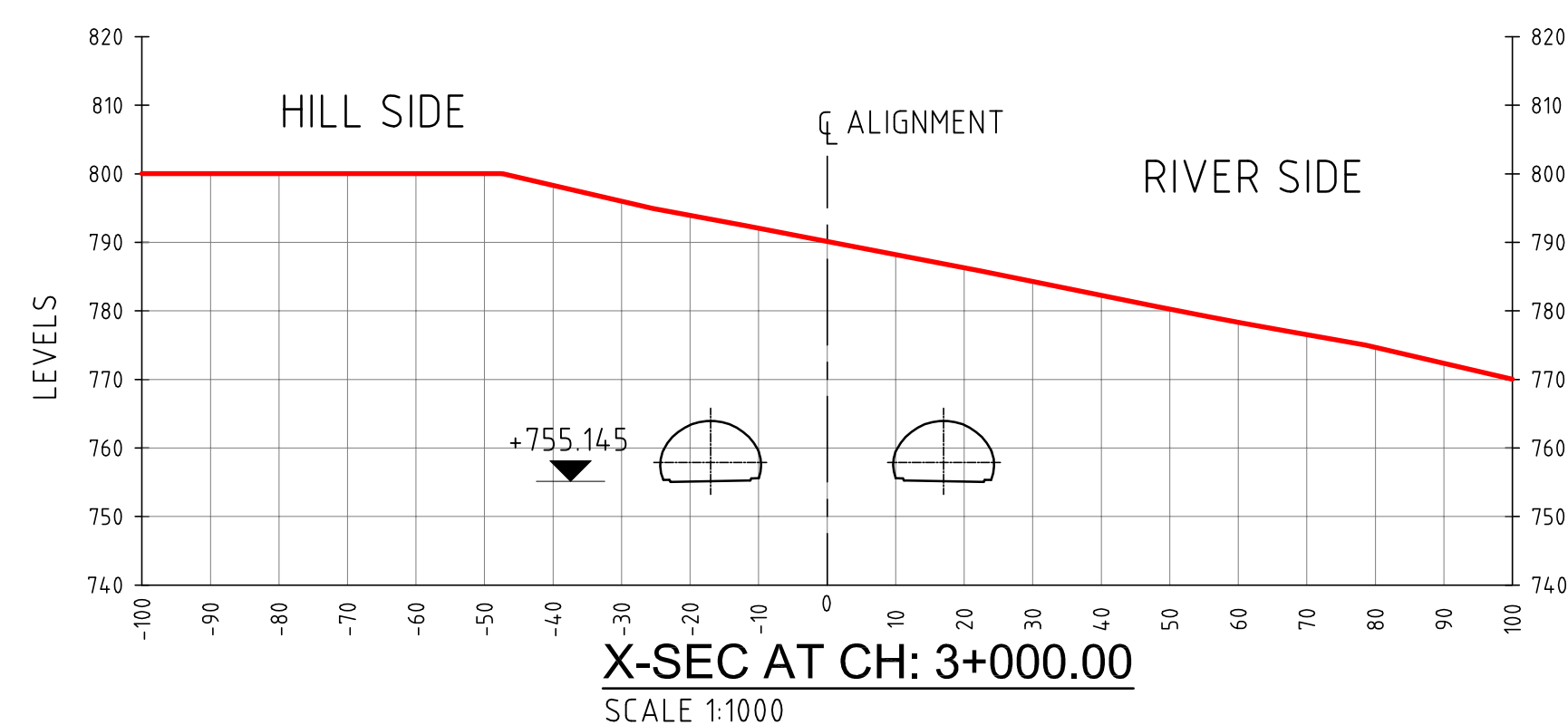
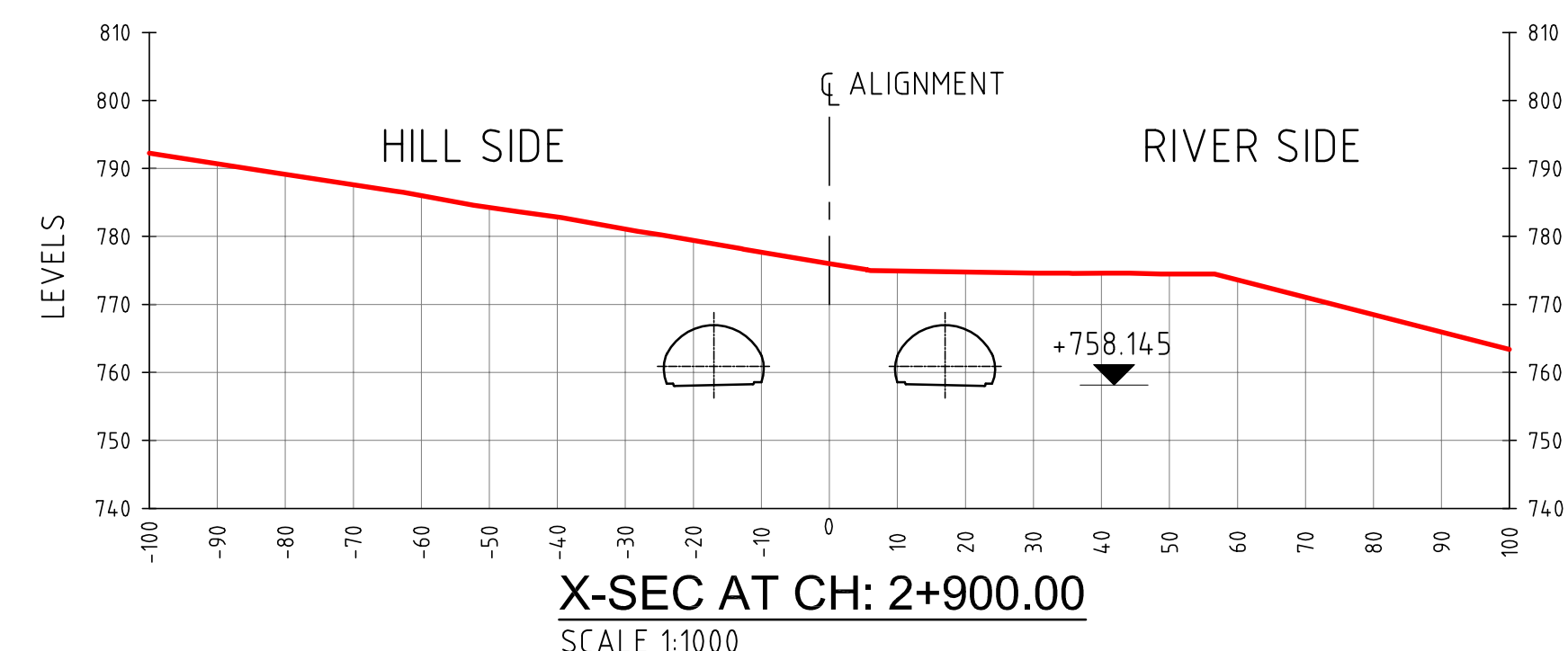
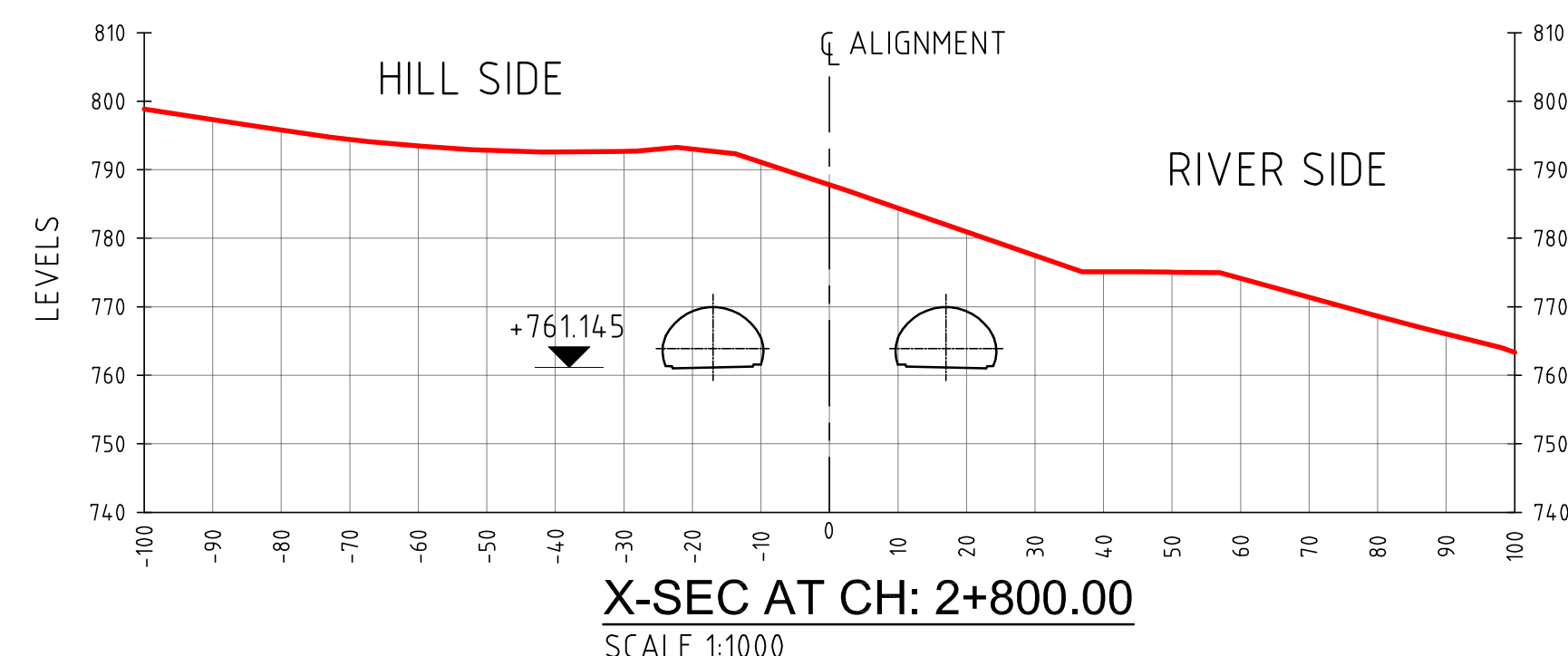
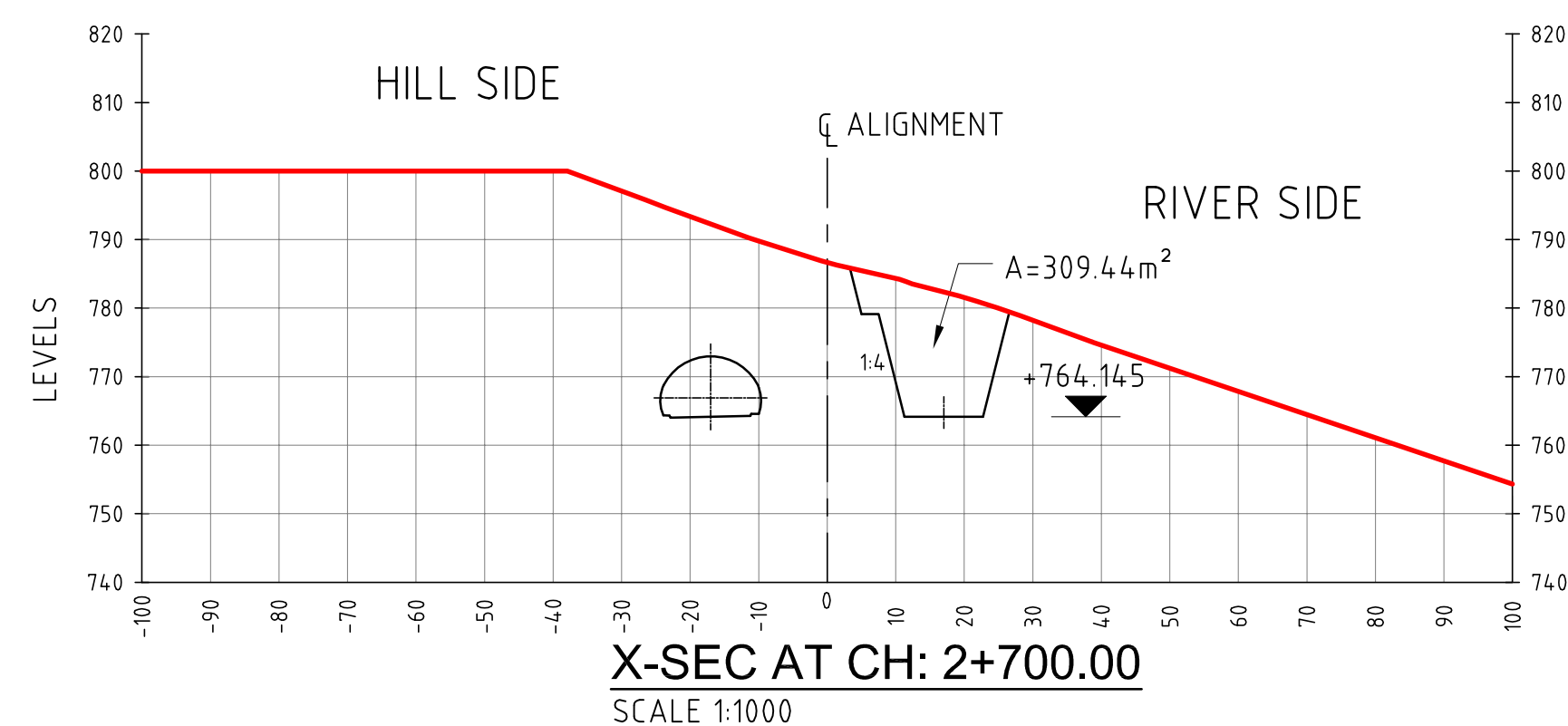
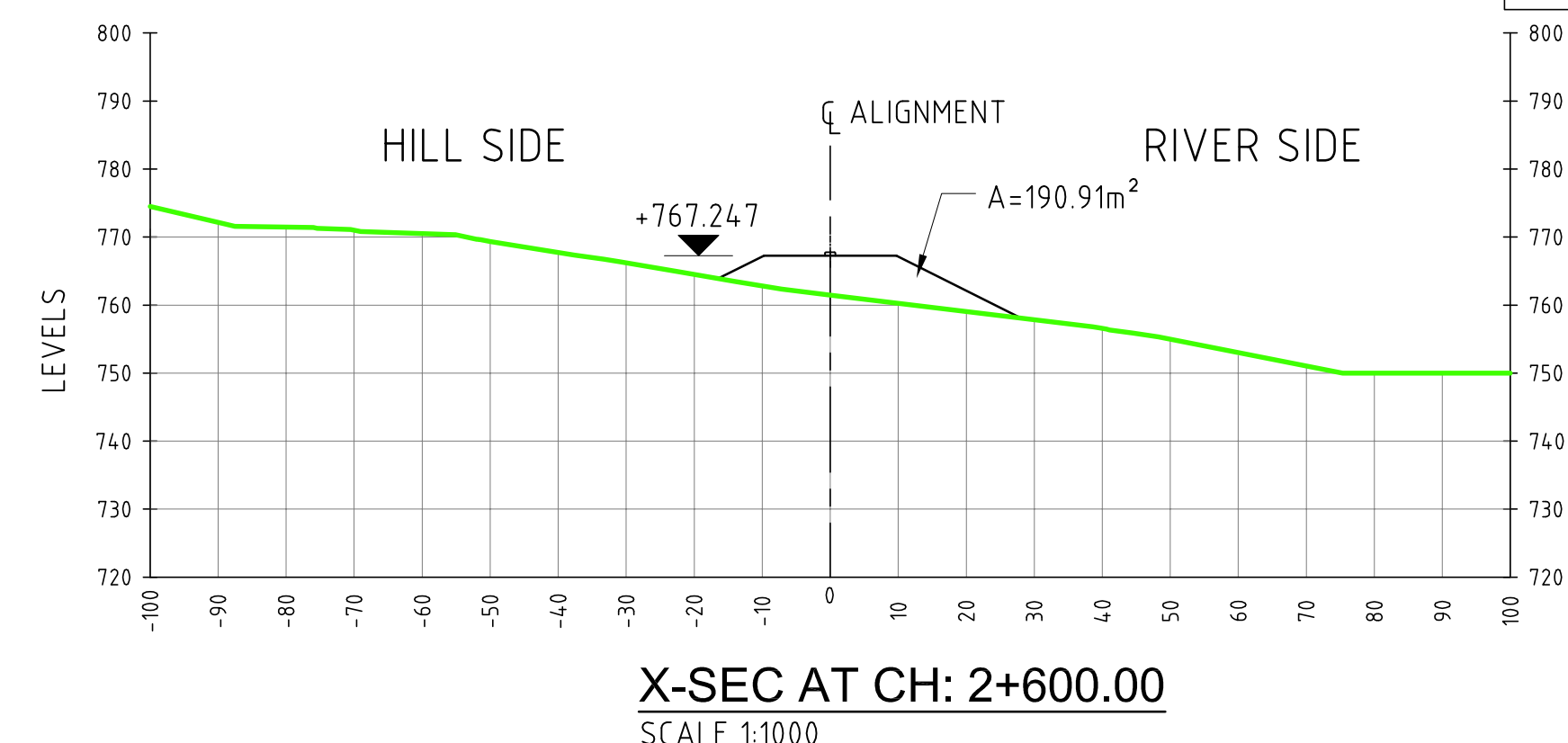
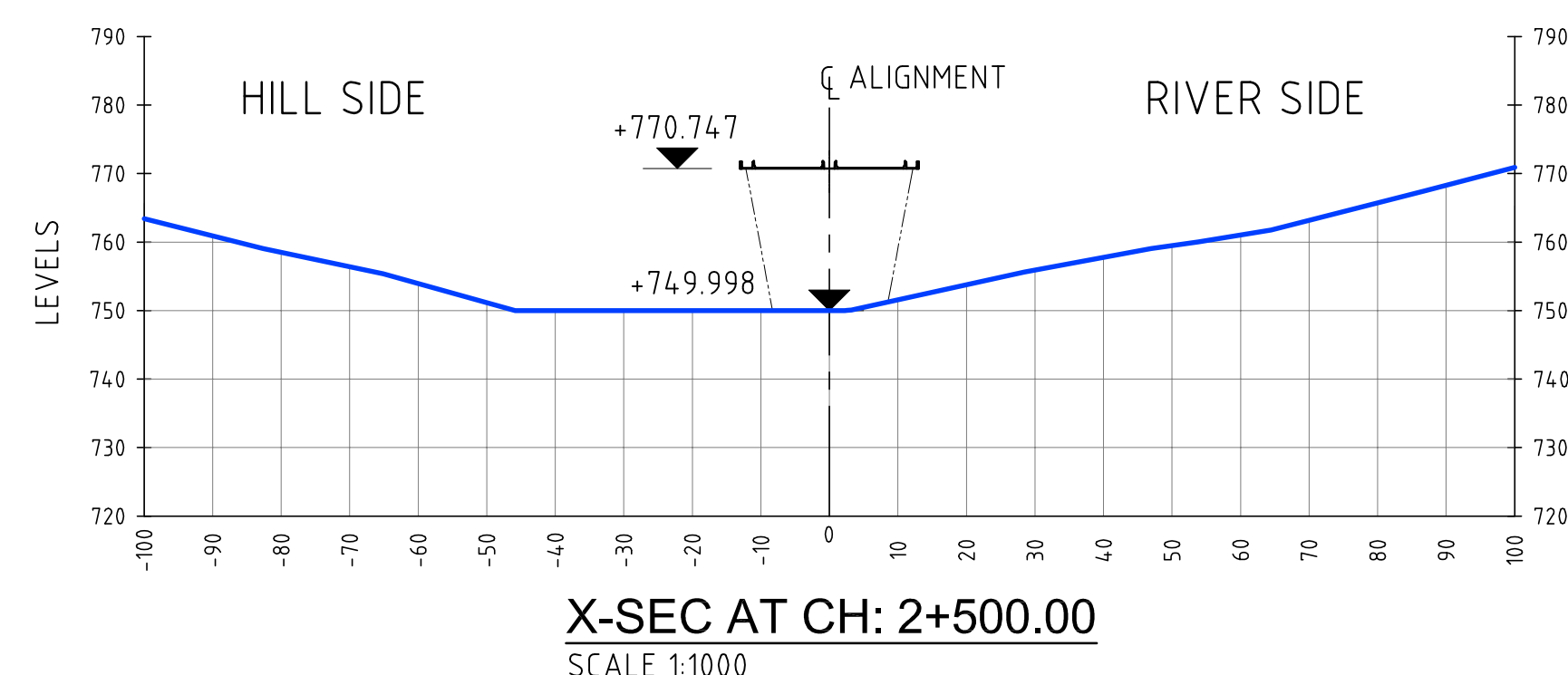
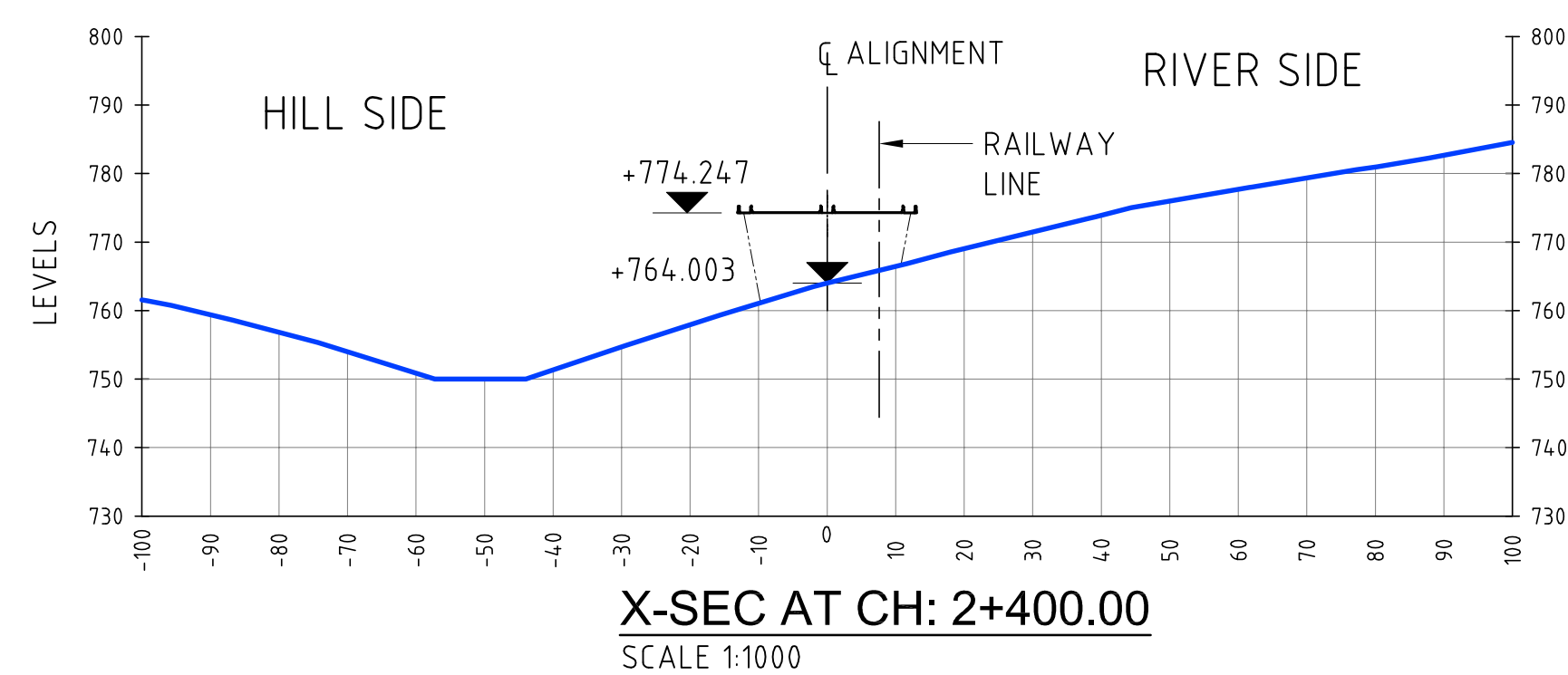


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PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 <
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PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:

----- RAILWAY LINE

— CUT/FILL (C/F)

— BRIDGES (B)

— TUNNELS (T)

REVISION

B	DEC 15	SECOND DRAFT (KD-6)	ABa/PRa	RMe	AKg
A	DEC 15	FIRST DRAFT (KD-5)	ABa/PRa	RMe	AKg
REV.	DATE	PARTICULARS	Drawn	Checked	Approved

QUALITY ASSURANCE

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Date (PRINT ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015
Name	ABA/PRa	RMe	RMe/ADh	AKg/ADh	AKg
	Drawn	Drafting Chk	Designed	Design Chk	Approved
d	Originators				

DESIGN CONSULTANTS :

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEOTECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-78

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GOVERNMENT OF KARNATAKA

DRAWING TITLE

DRAWING TITLE
ALIGNMENT OPTION "A"

CROSS SECTIONS

CROSS SECTIONS
CH: 2+400 TO 3+500

0	DRAWING NUMBER
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SHGA-FS-LAY-1063

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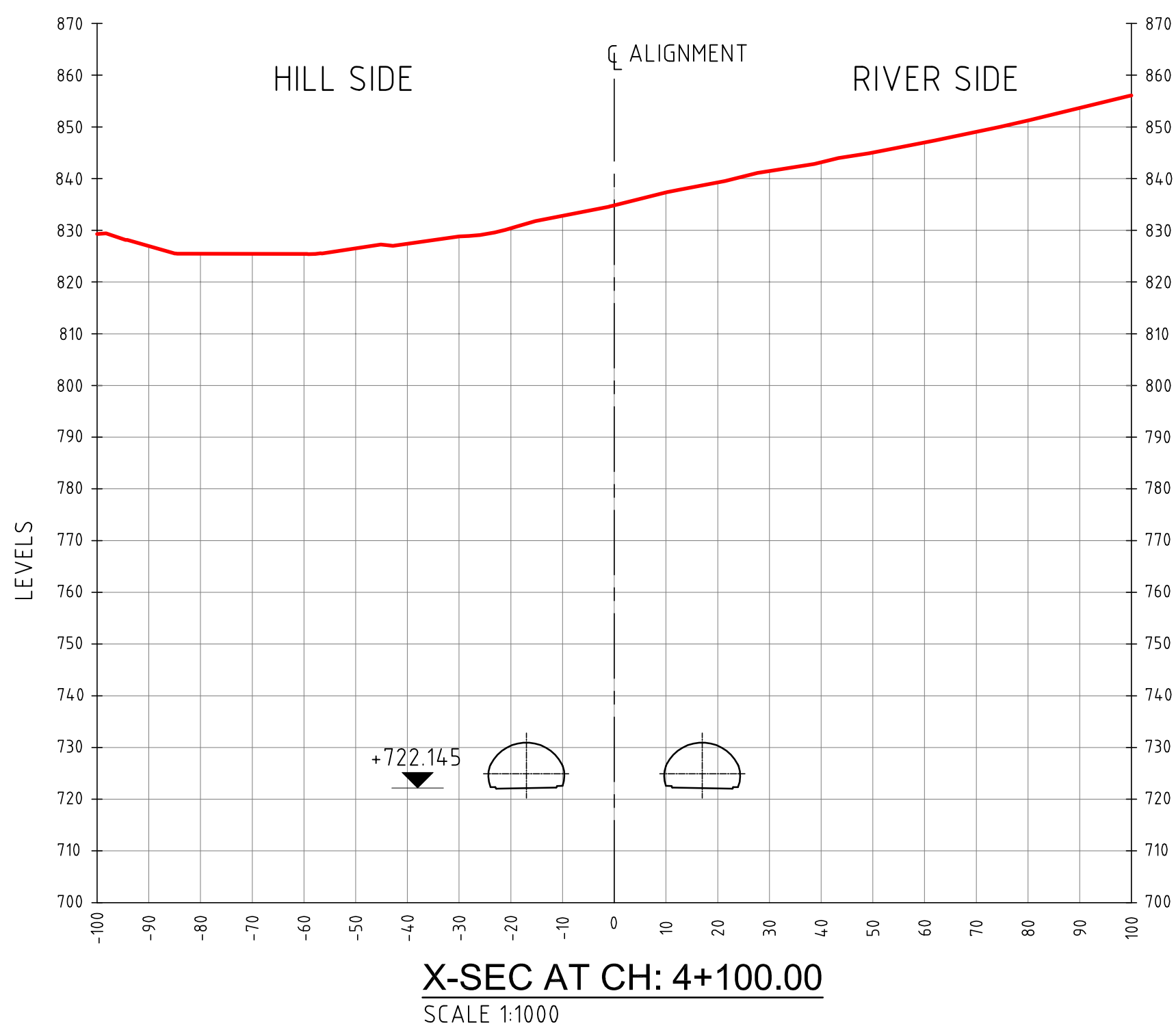
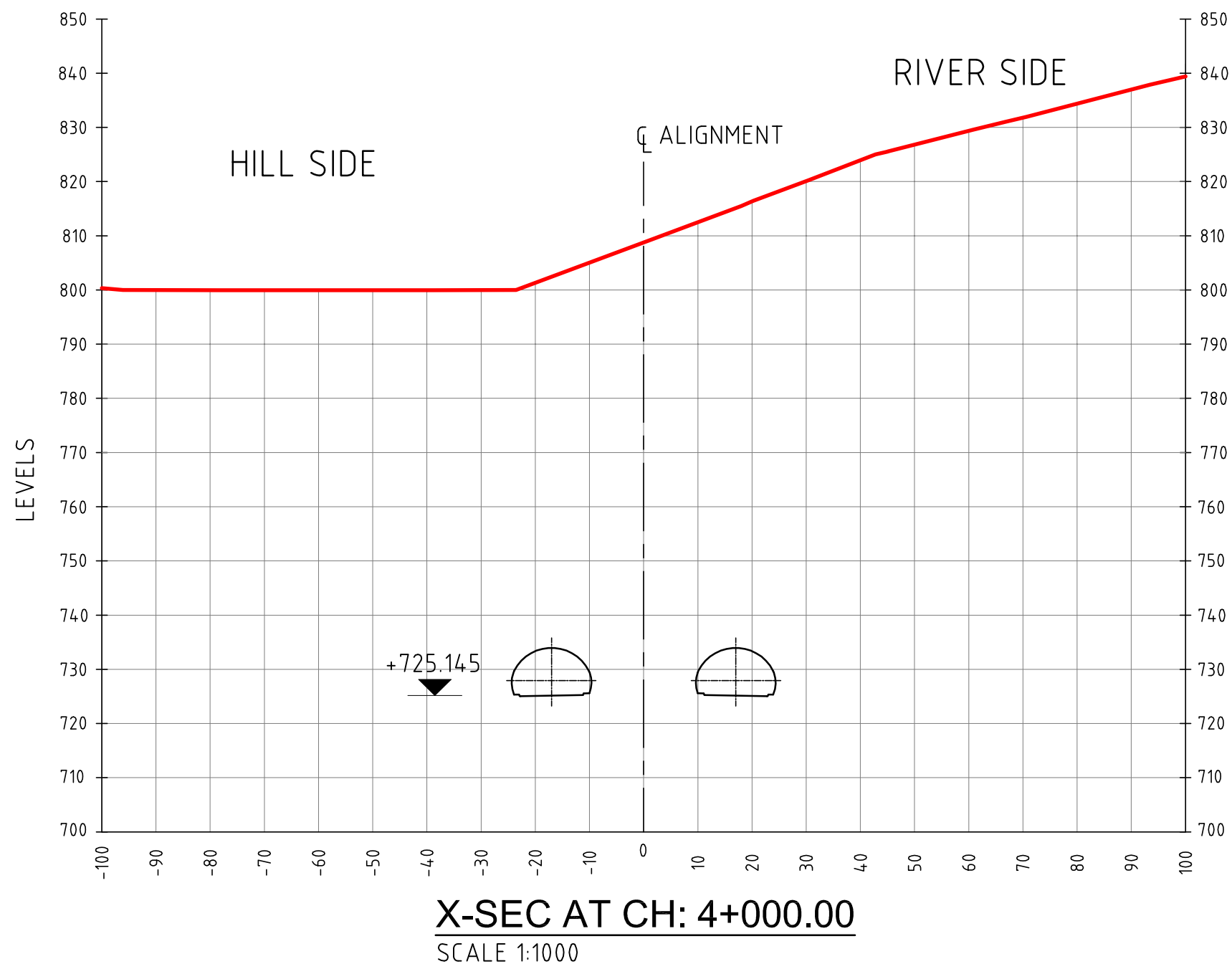
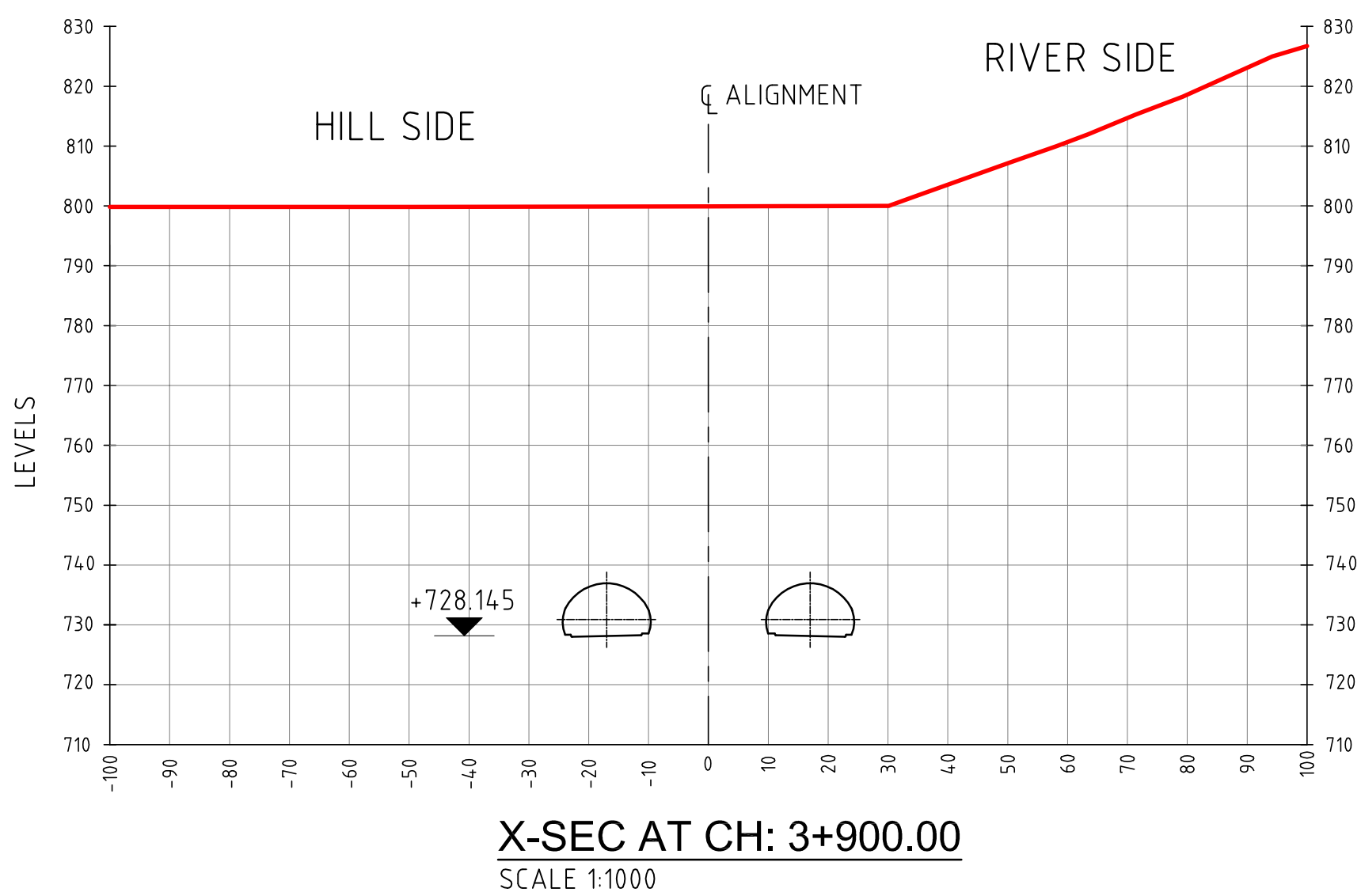
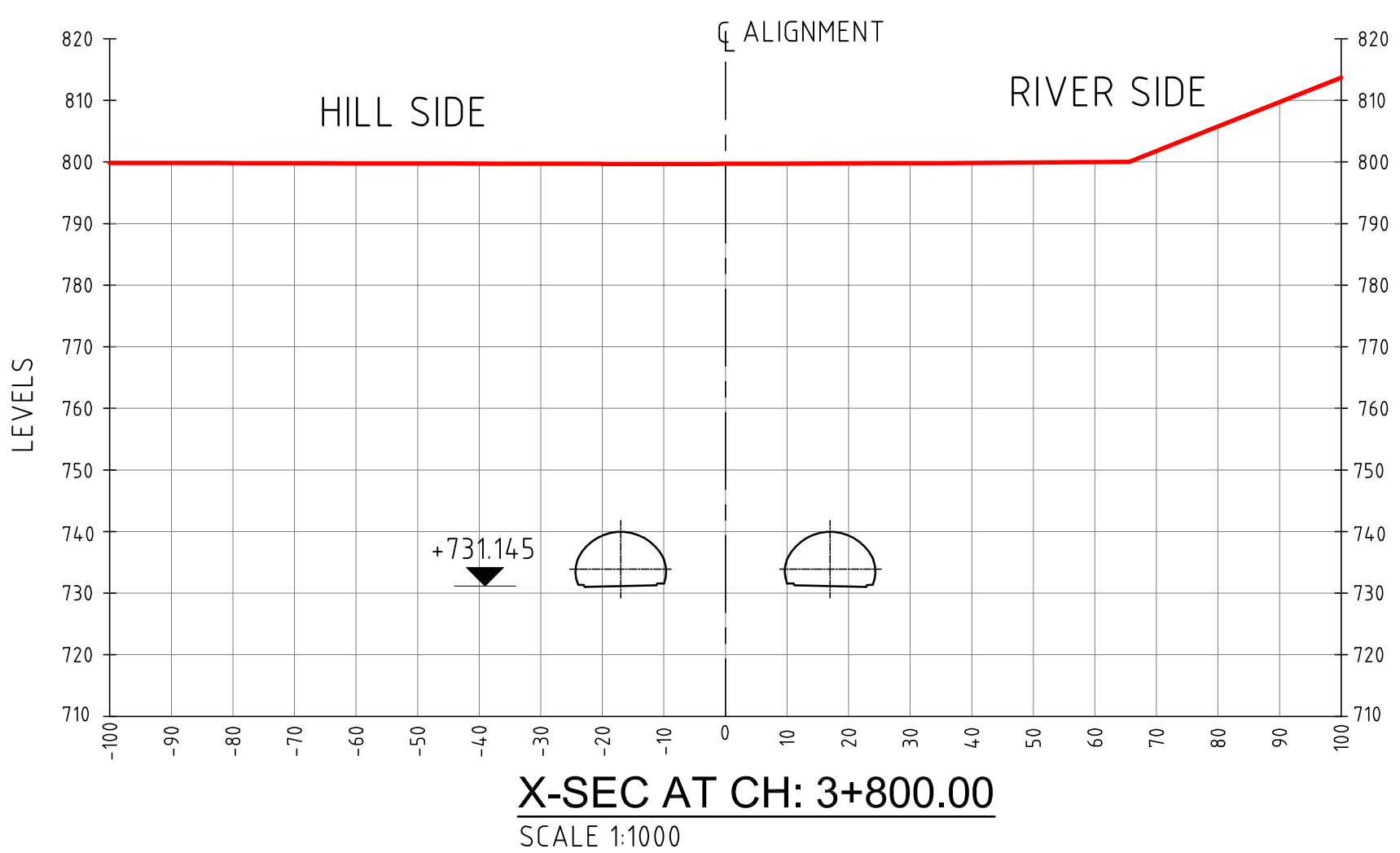
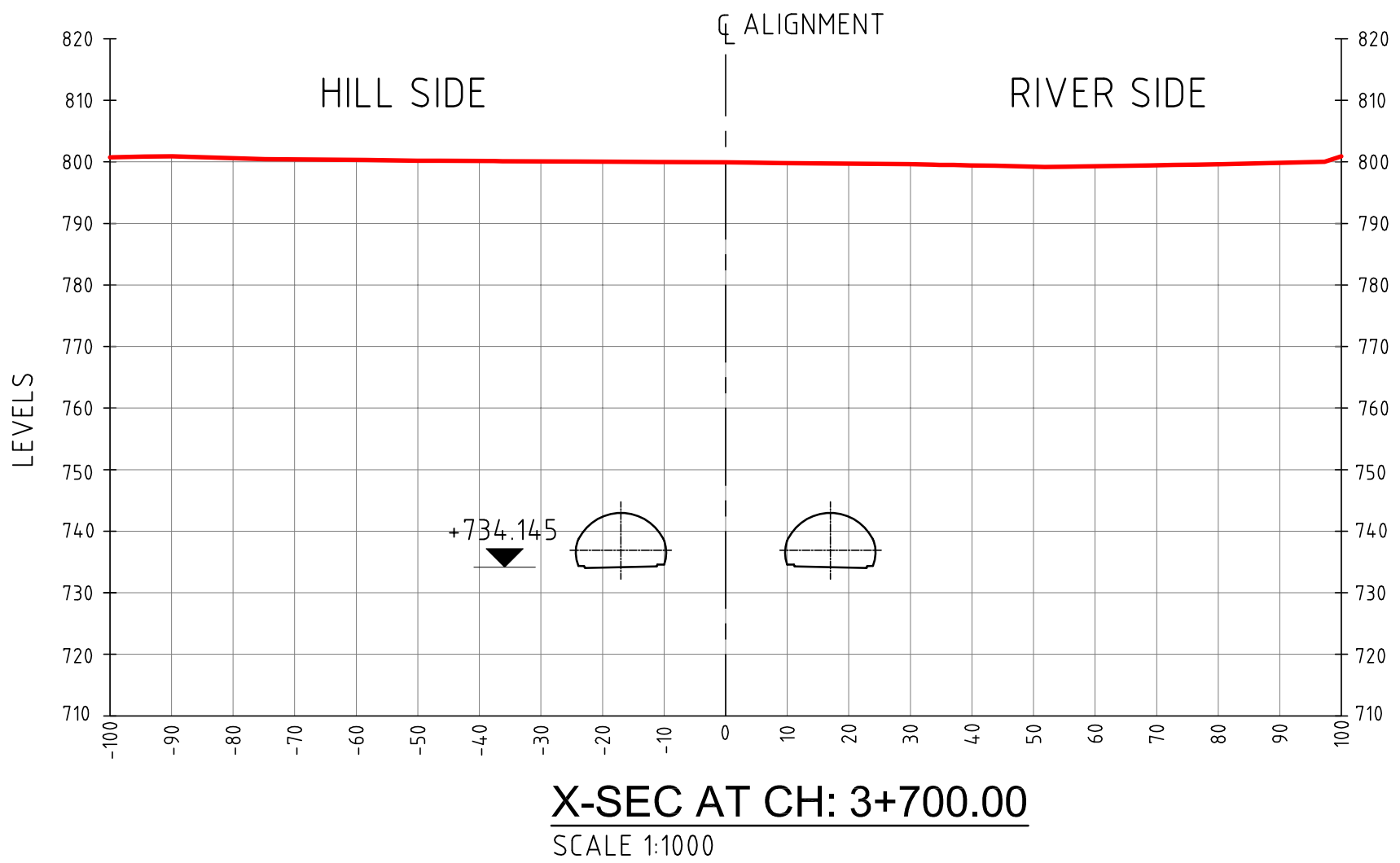
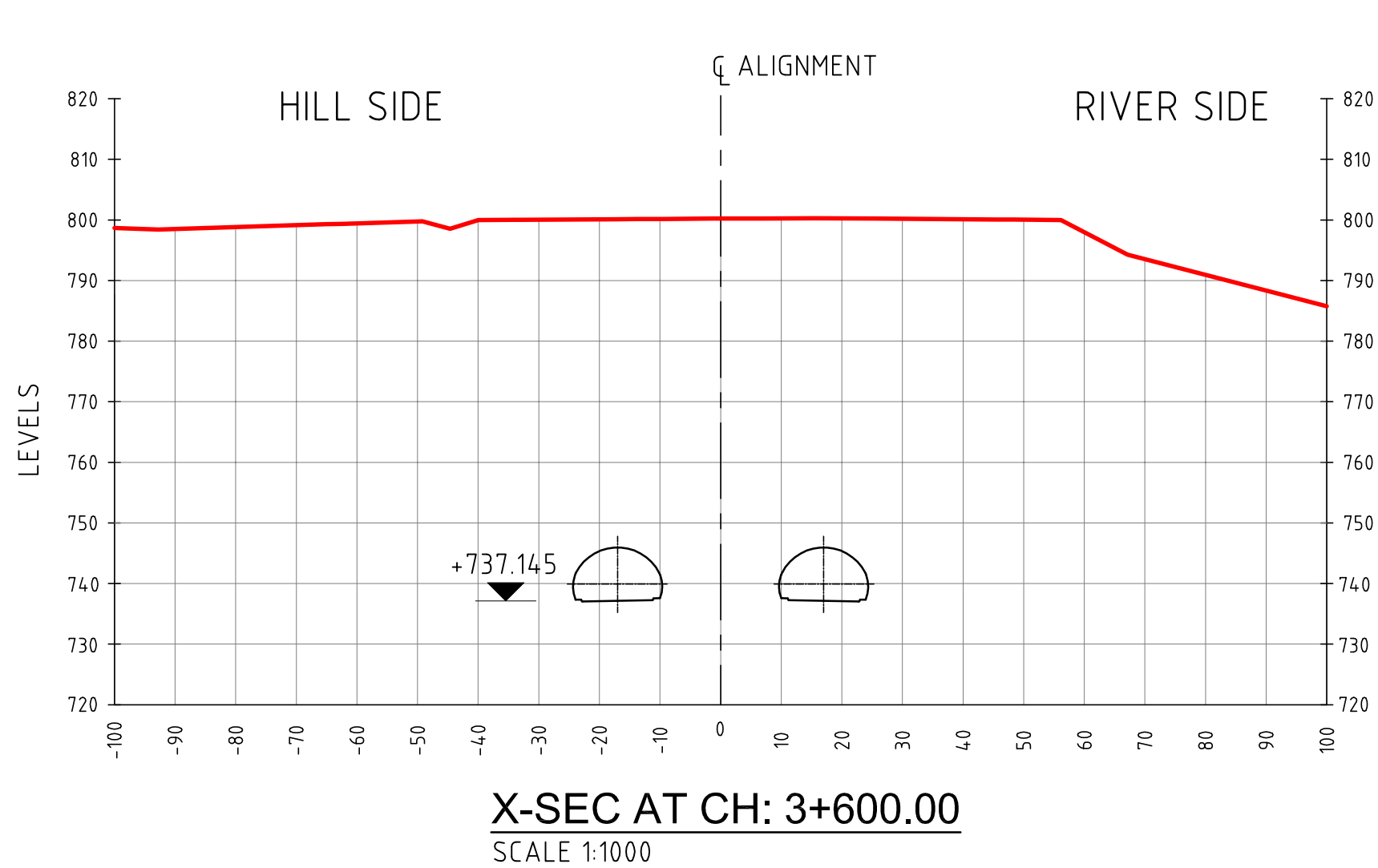
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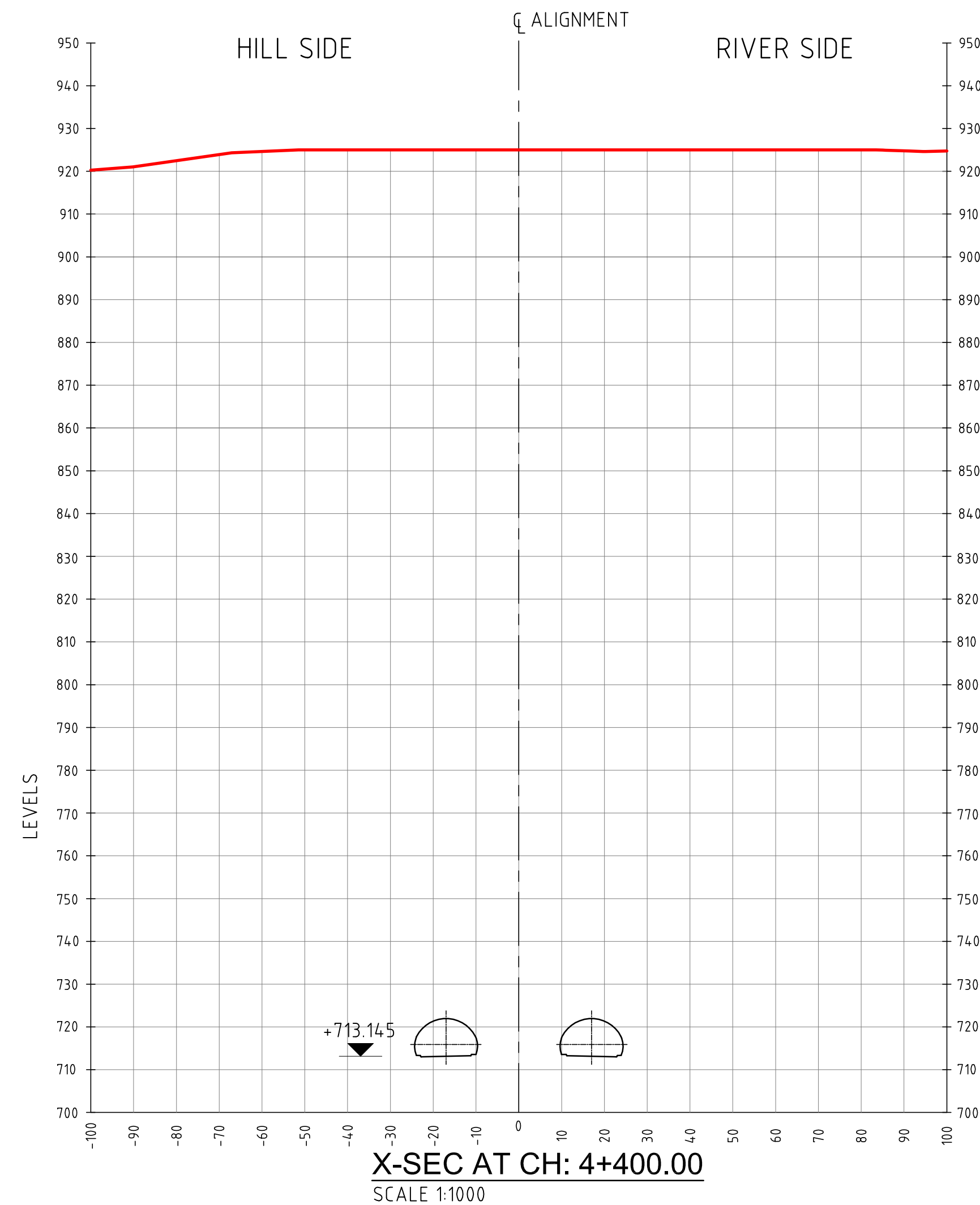
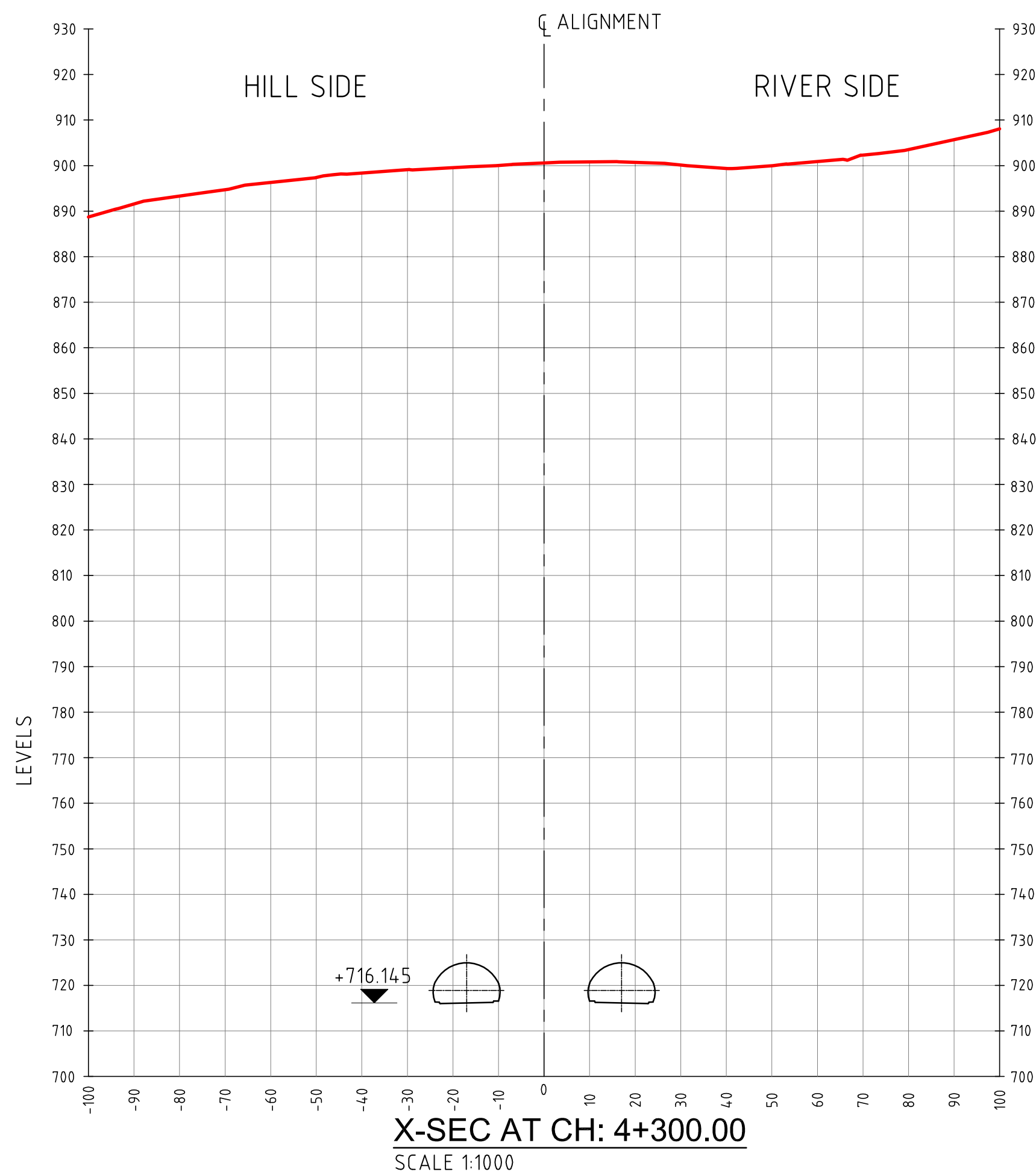
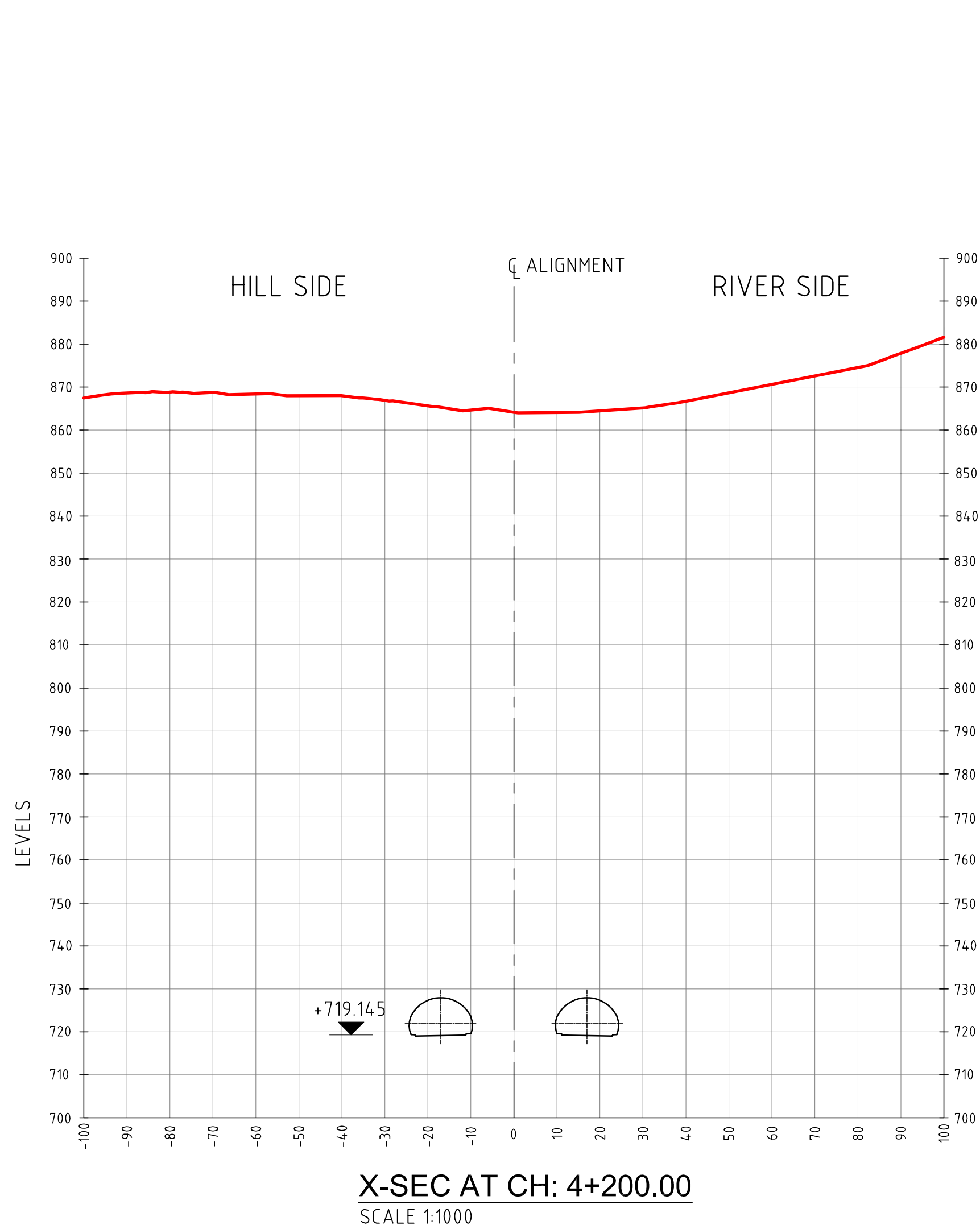
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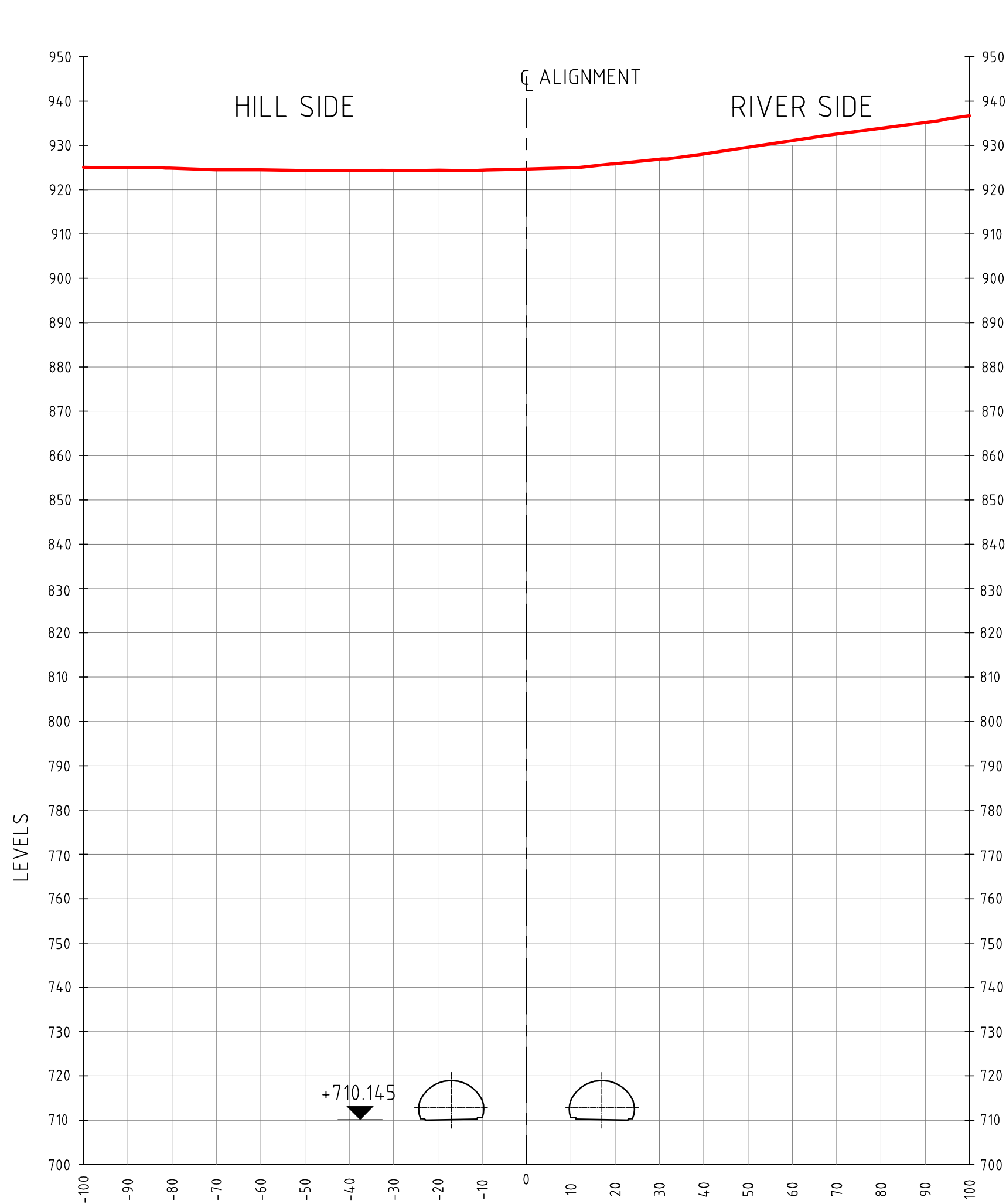
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NOTES:		CUT/FILL (C/F)														PROJECT TITLE		DRAWING TITLE			
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				A DEC 15 FIRST DRAFT (KD-5) ABa/PRa RMe AKg						Drawn Drafting Chk Designed Design Chk Approved						SHGA-FS-LAY-1064		B			
				REV DATE PARTICULARS Drawn Checked Approved						Originators						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		SCALE		MONTH	
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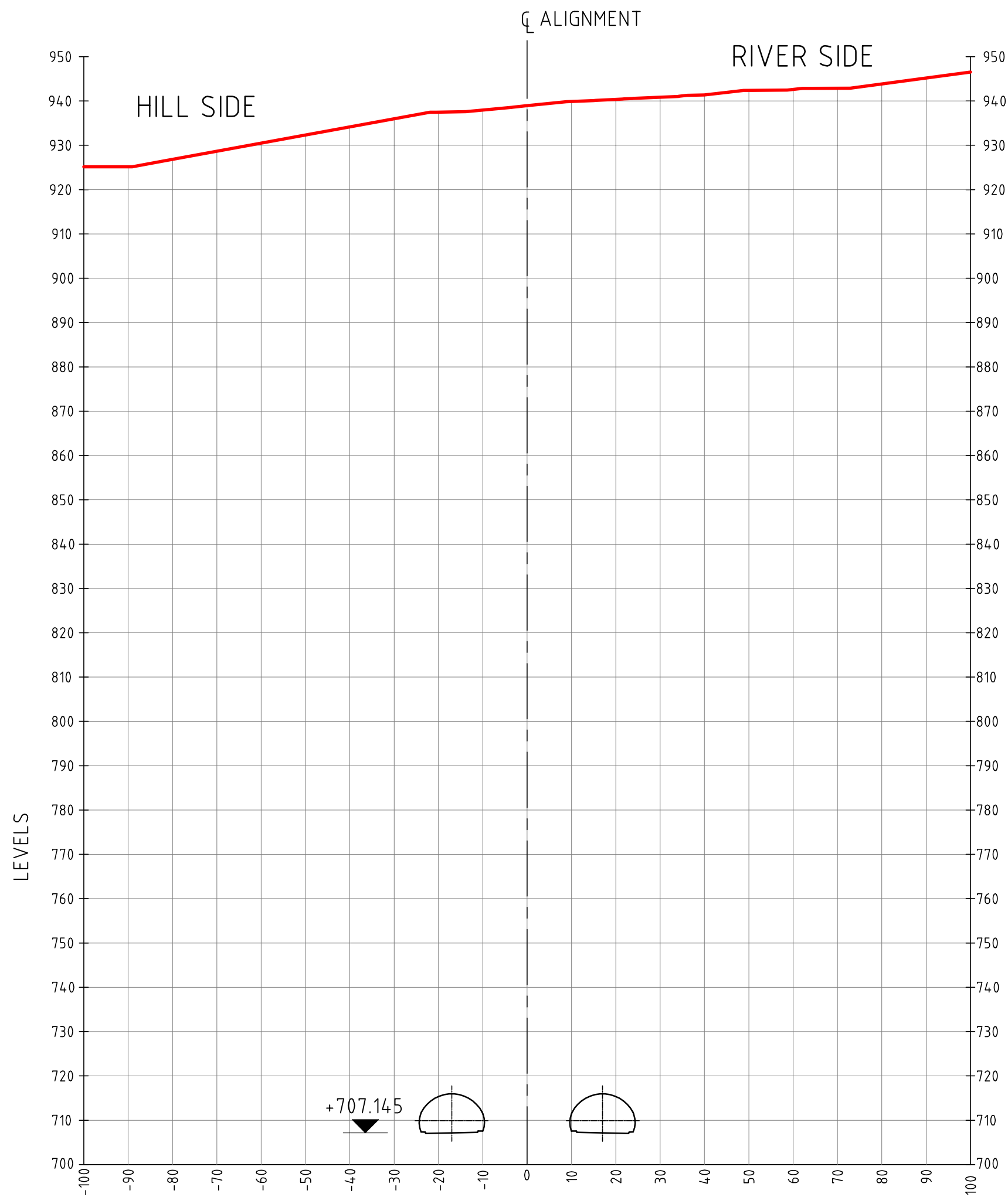


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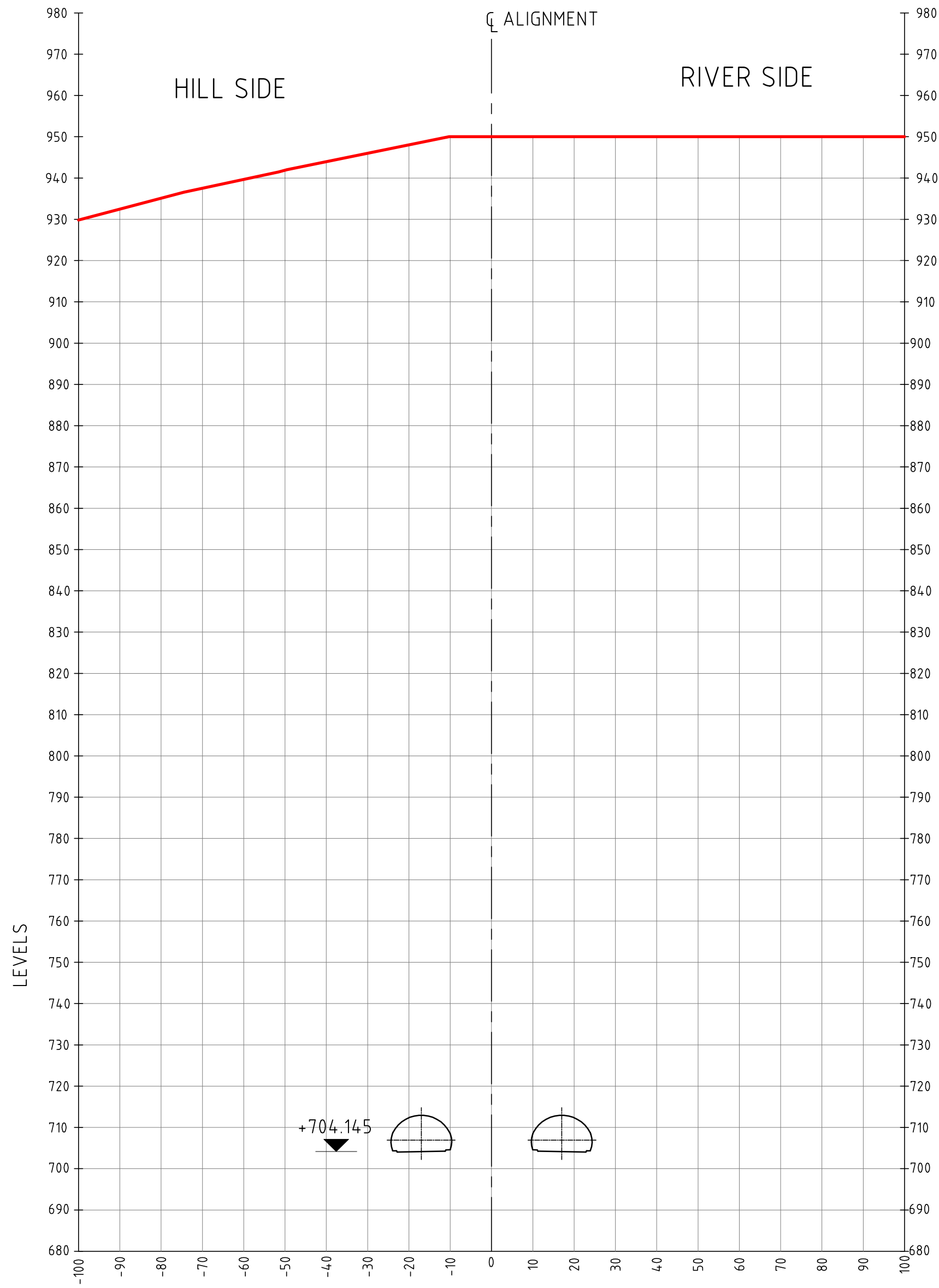
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B	DEC 15	SECOND DRAFT (KD-6)	ABa/PRa	RMe	AKg																																																																																								
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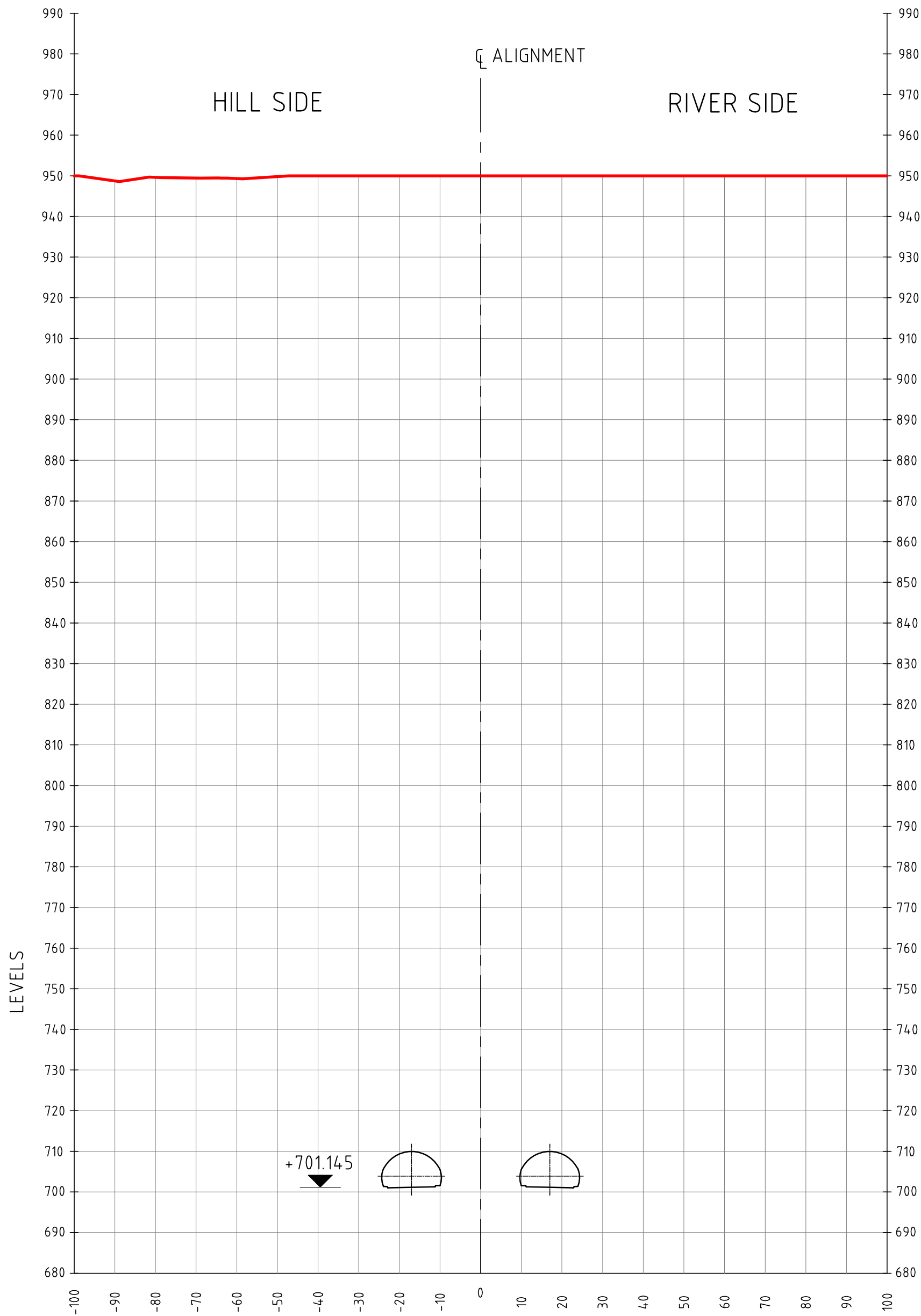


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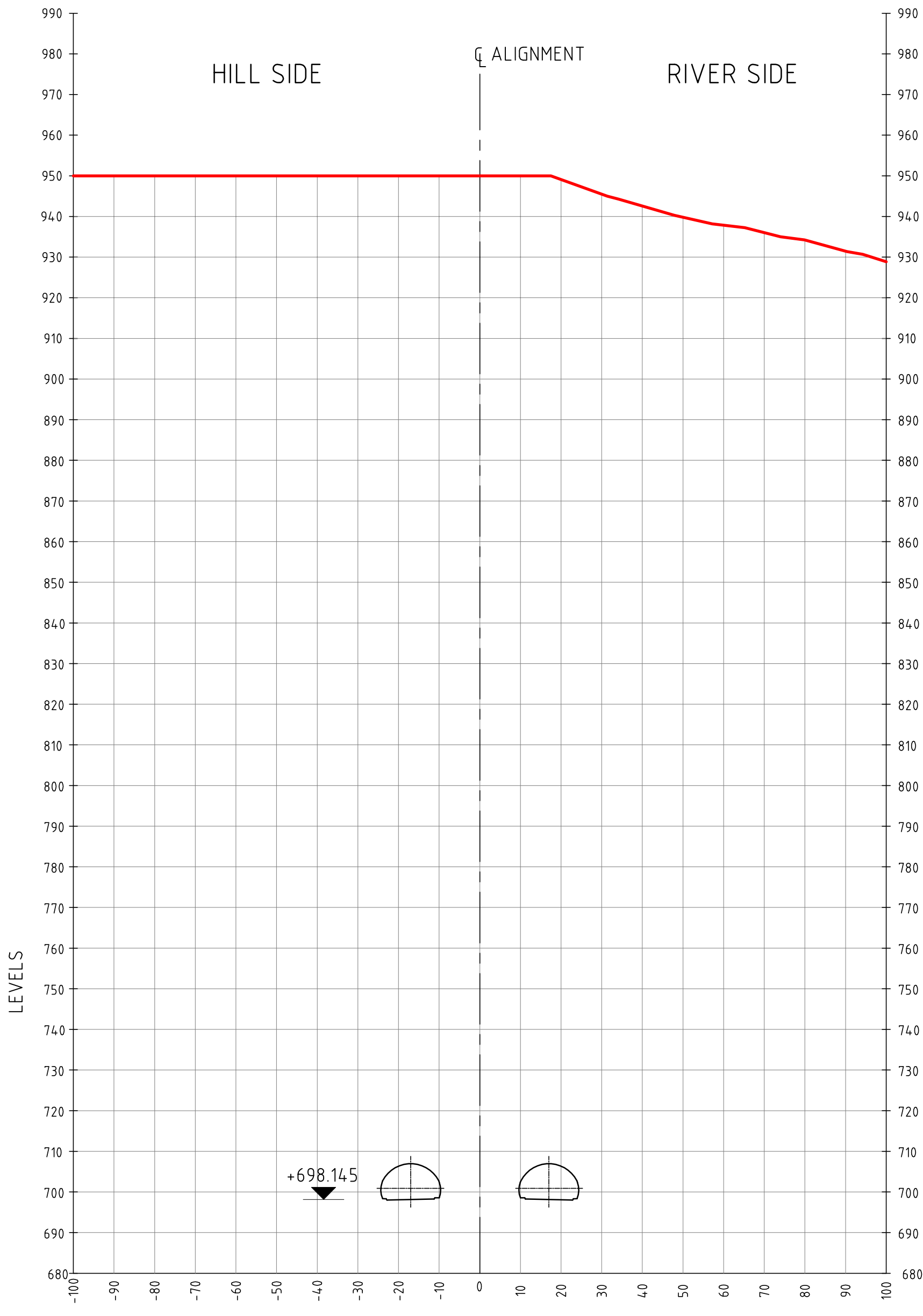


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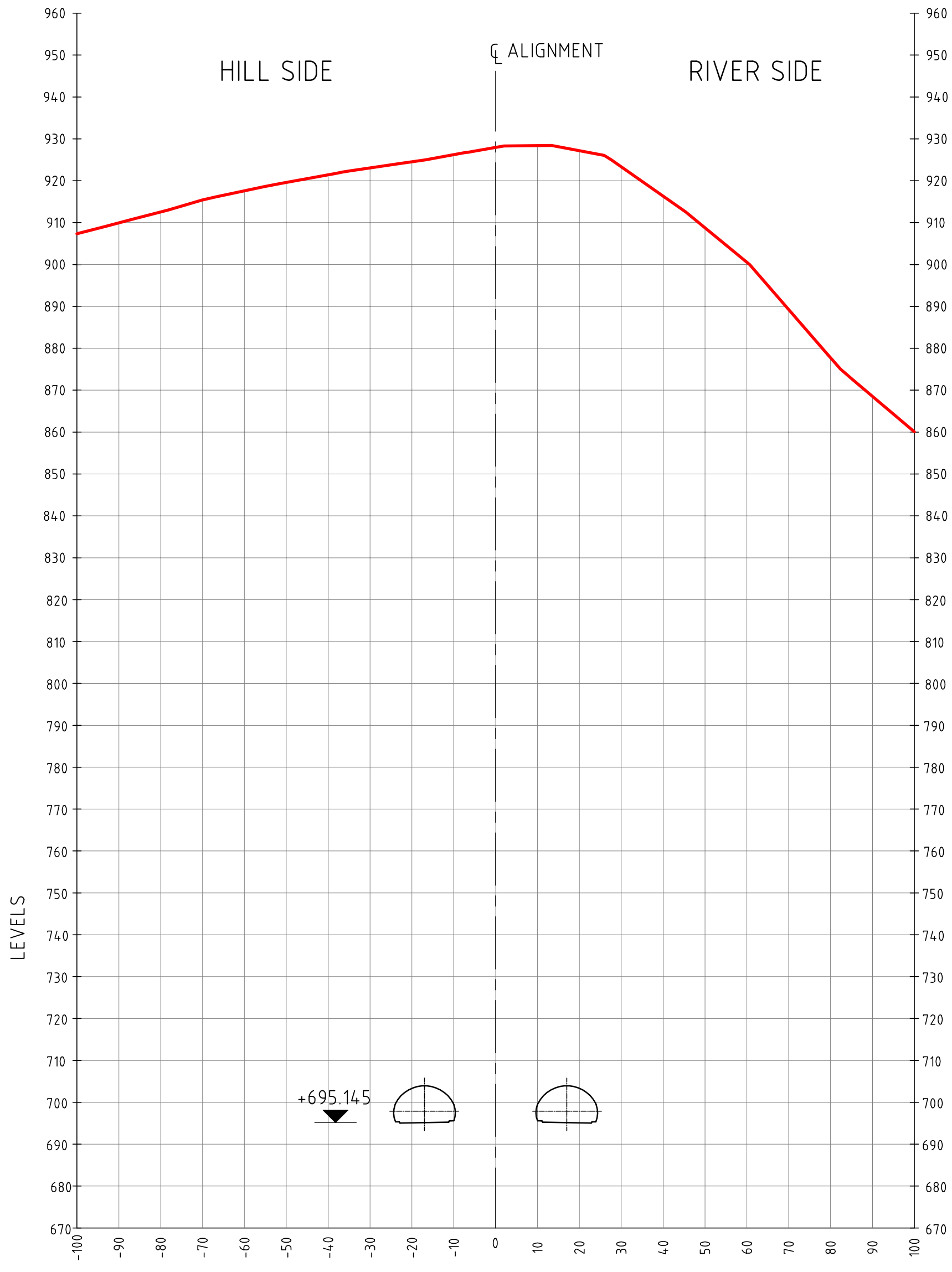
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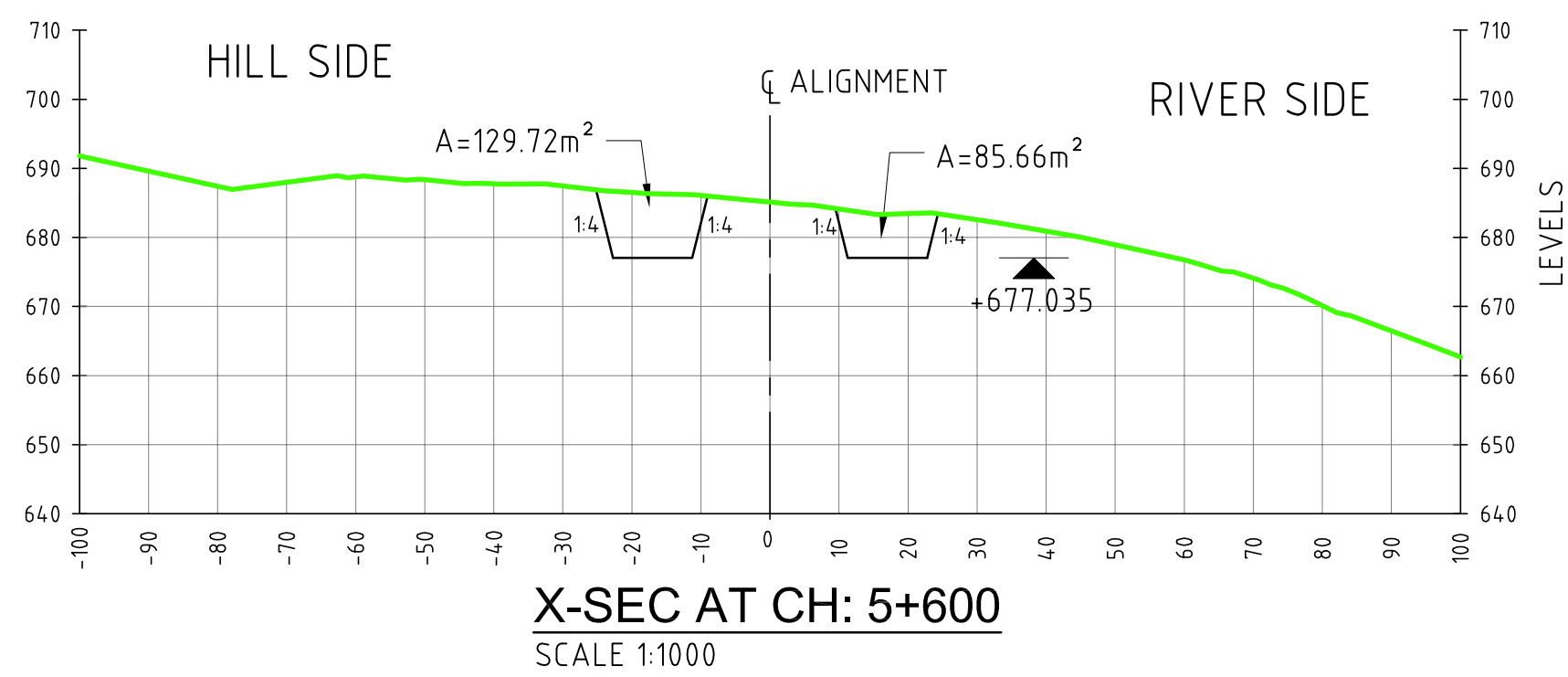
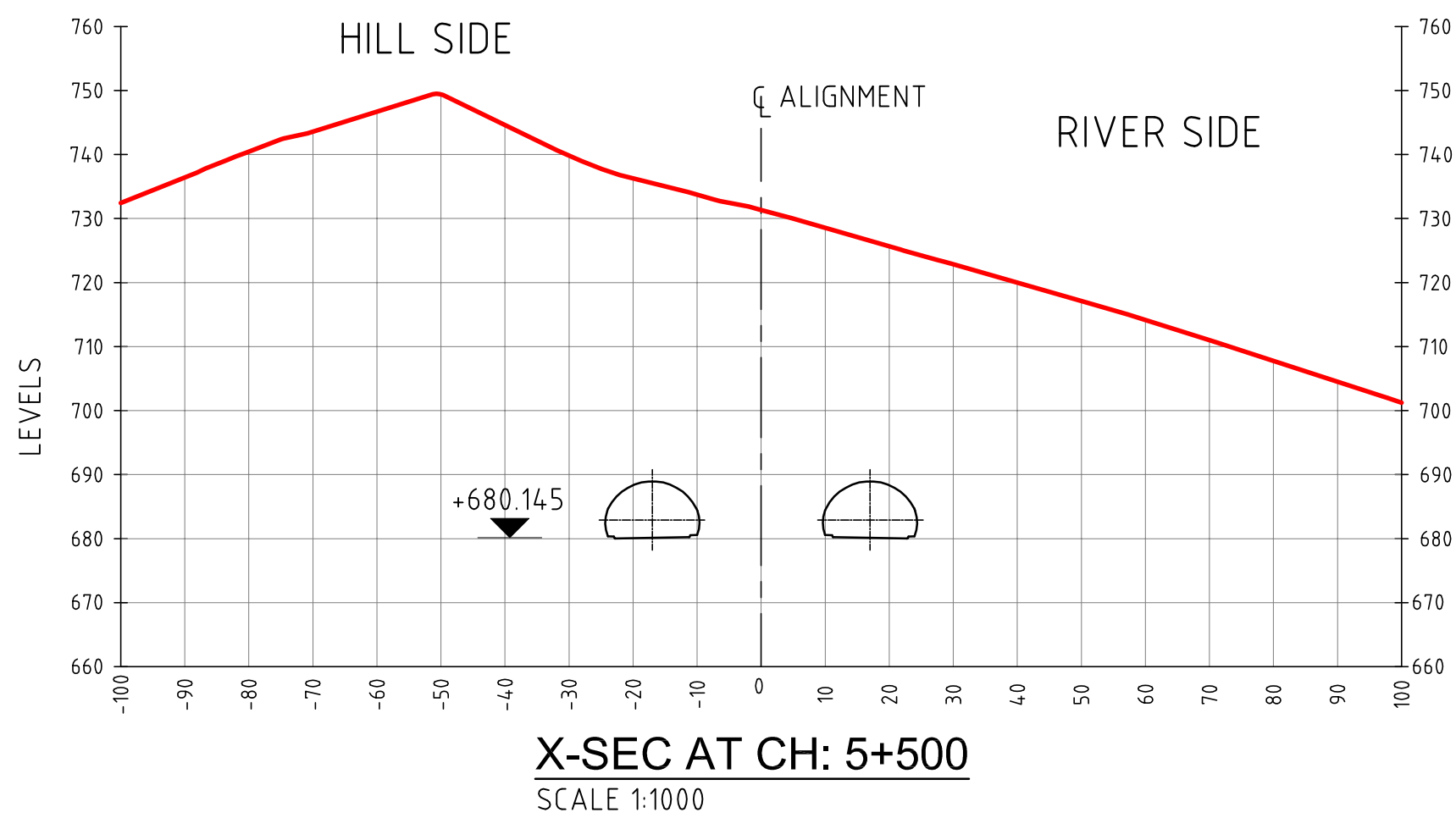
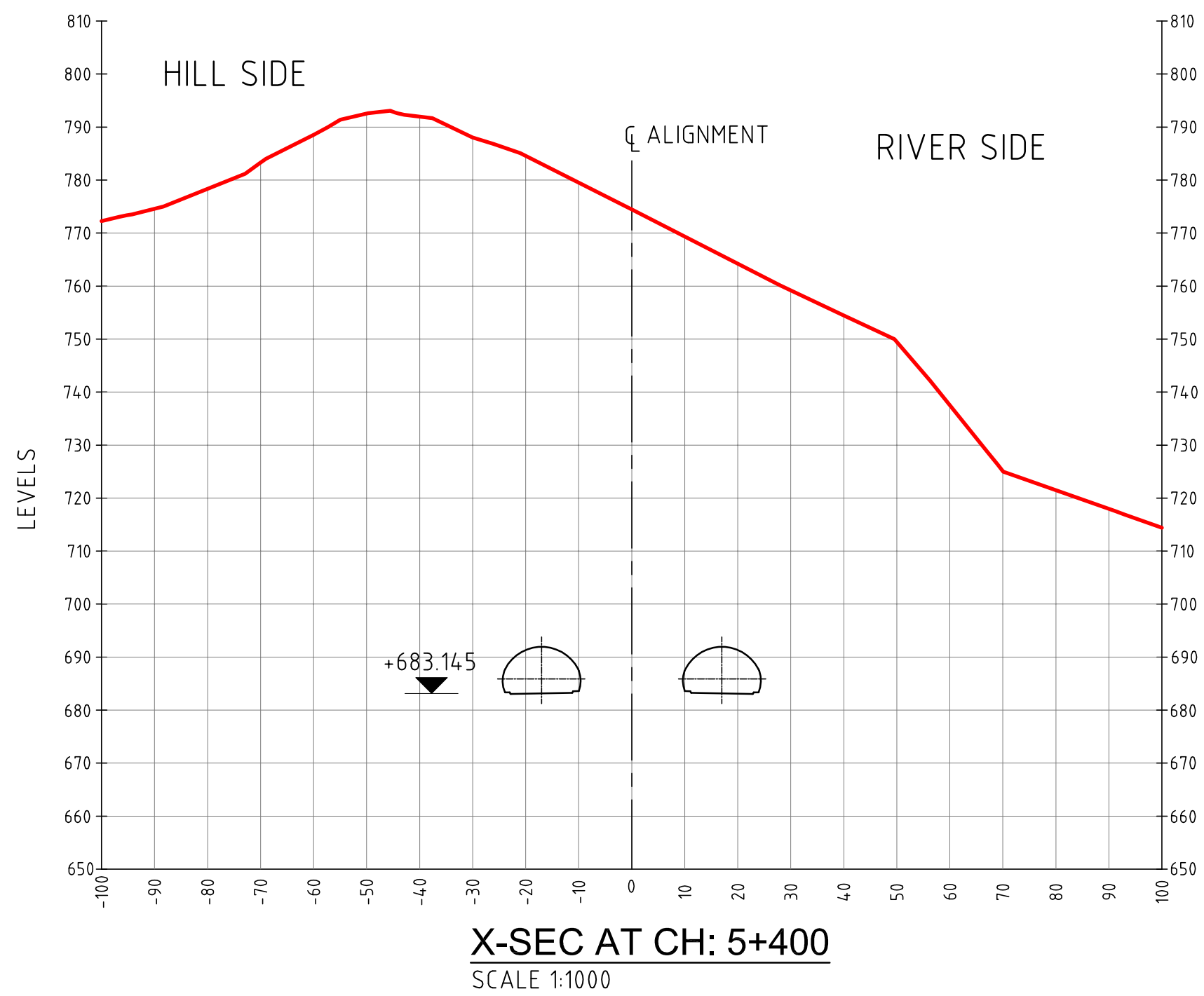
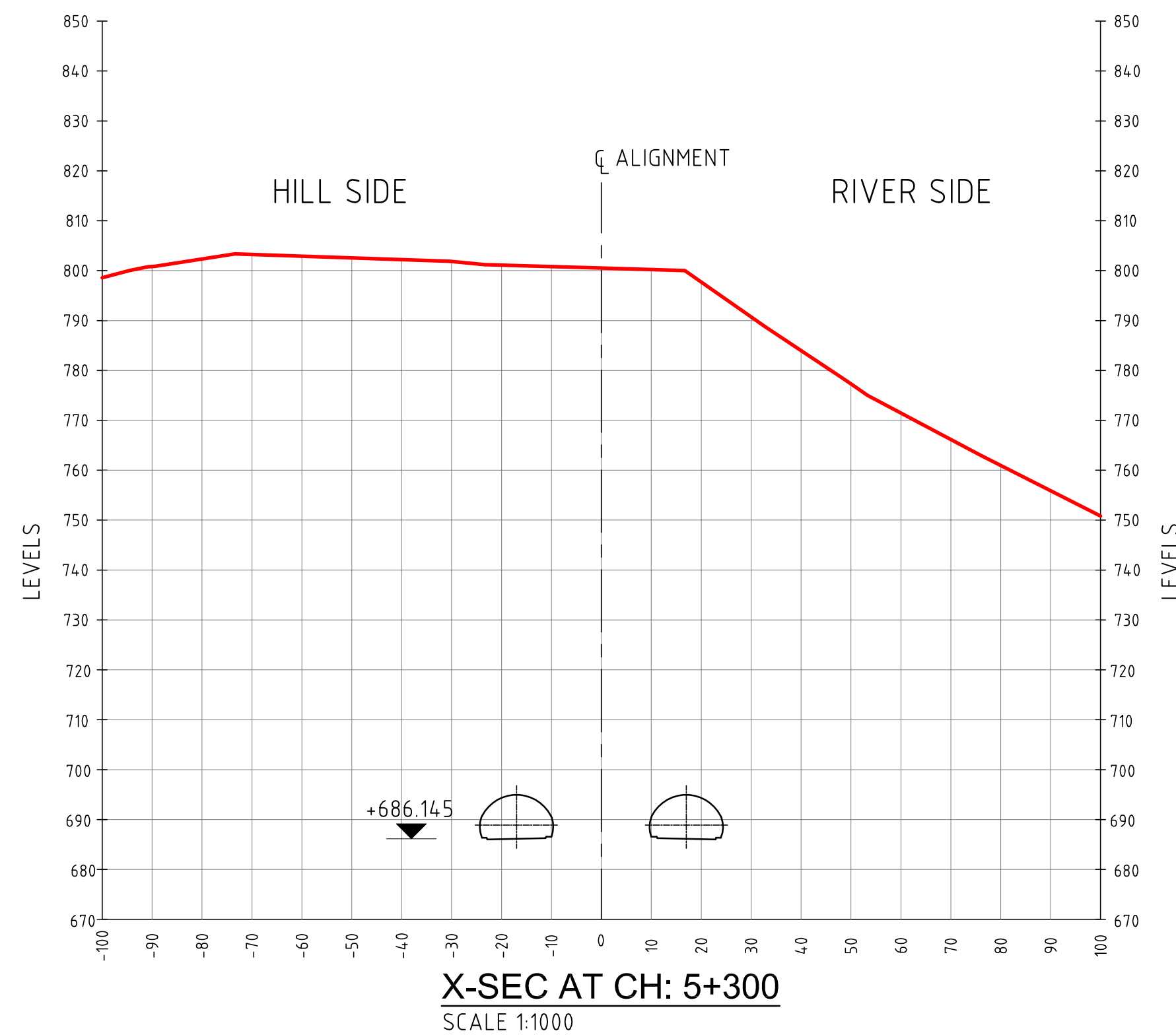
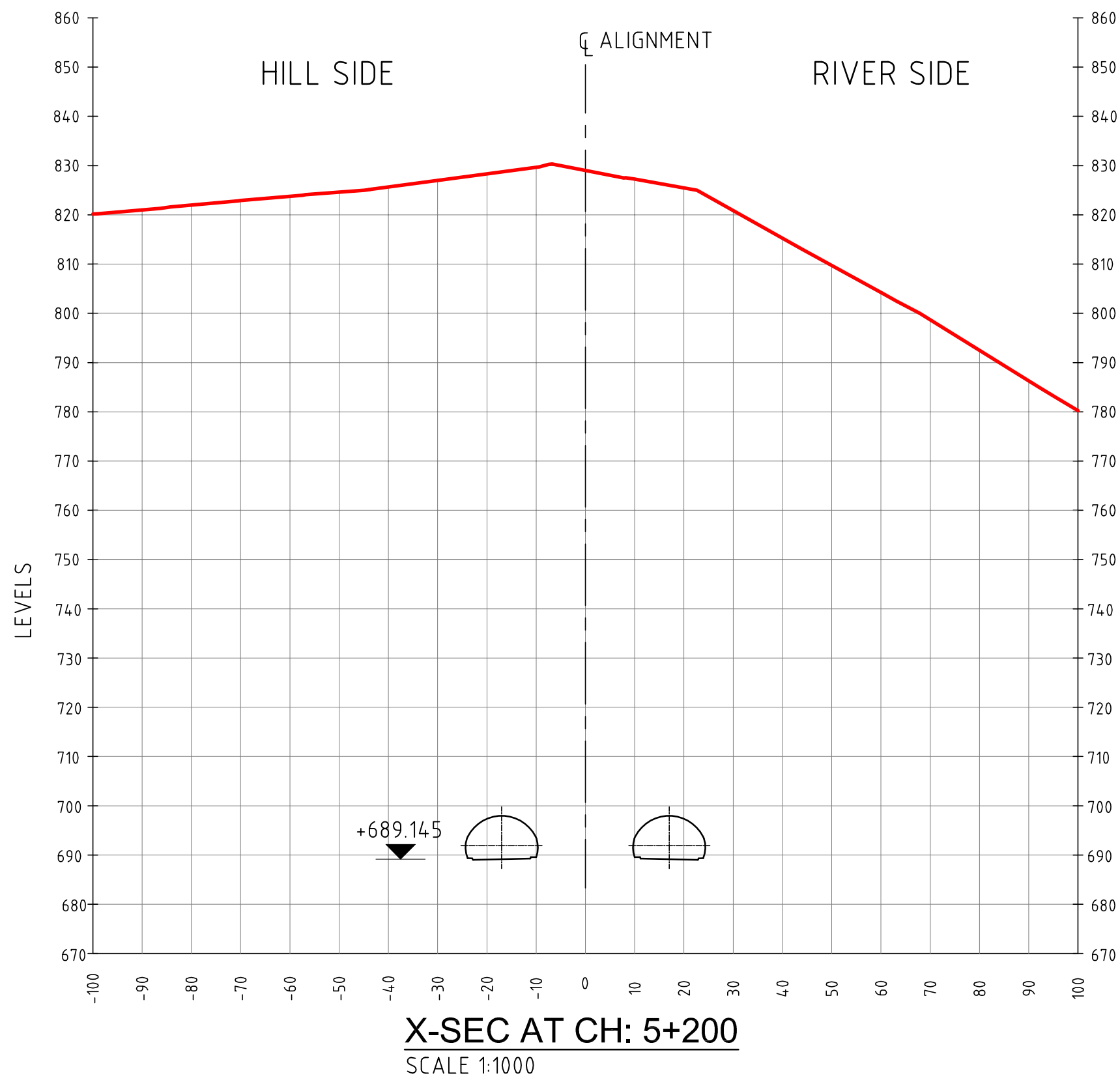
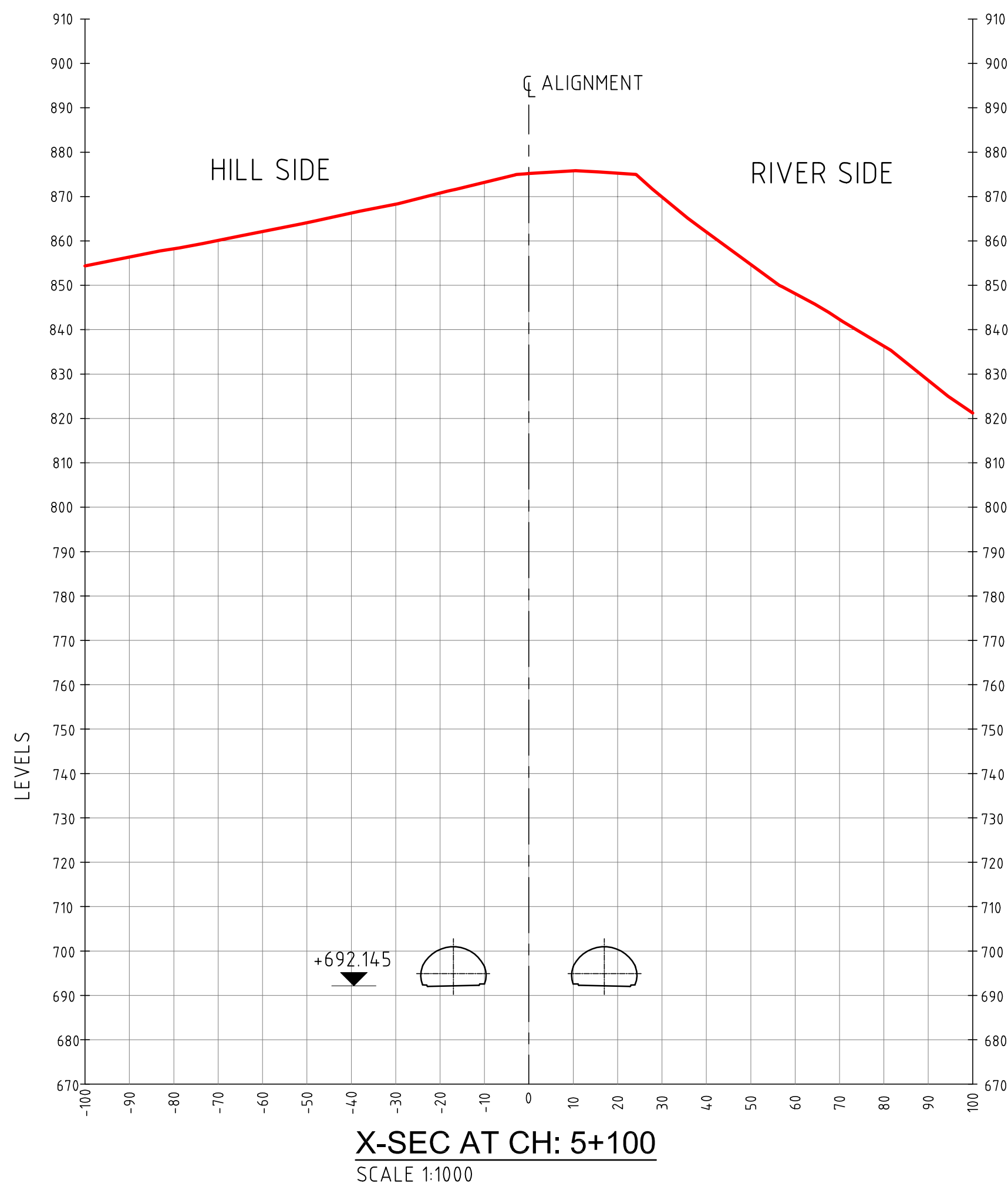


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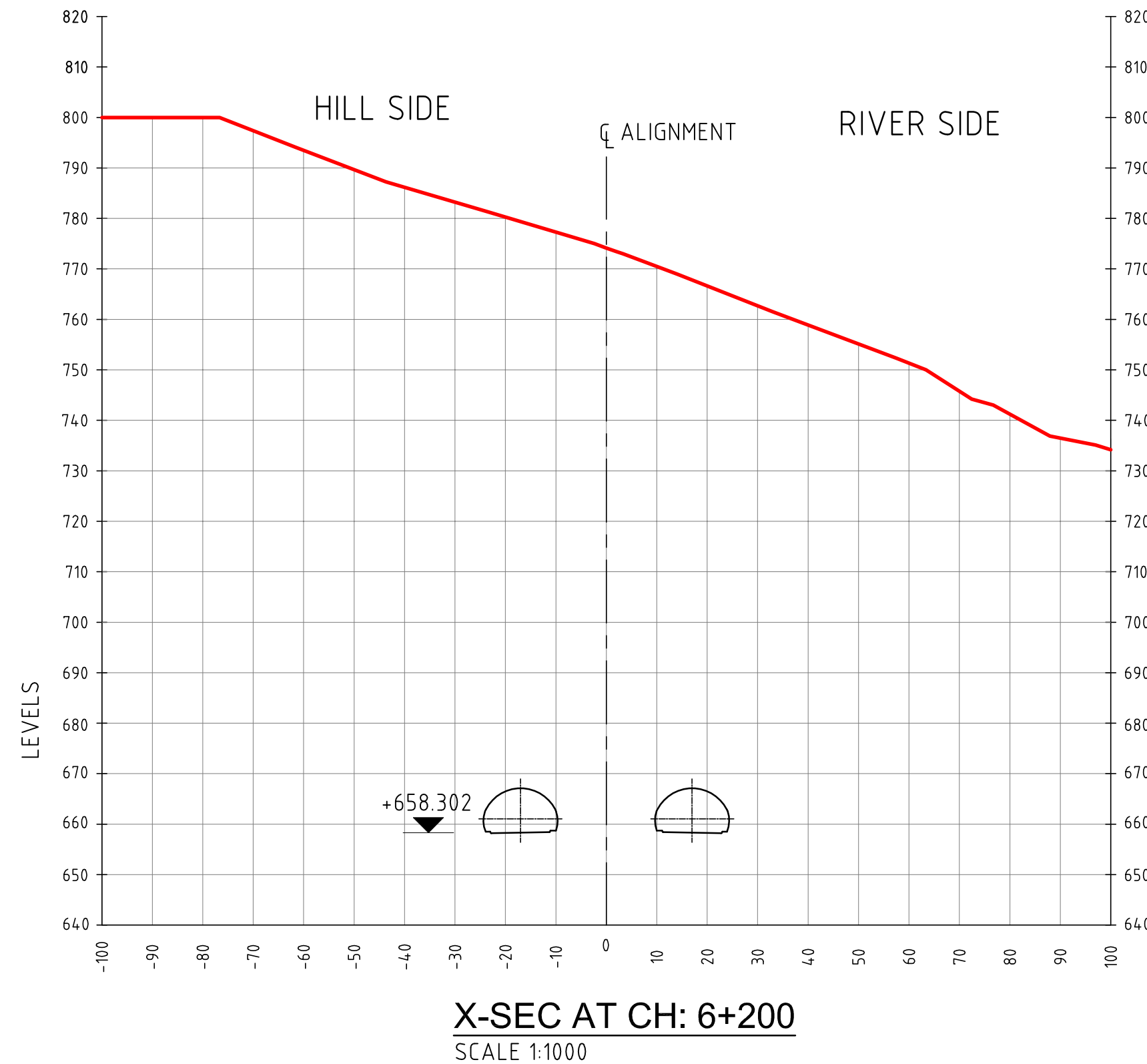
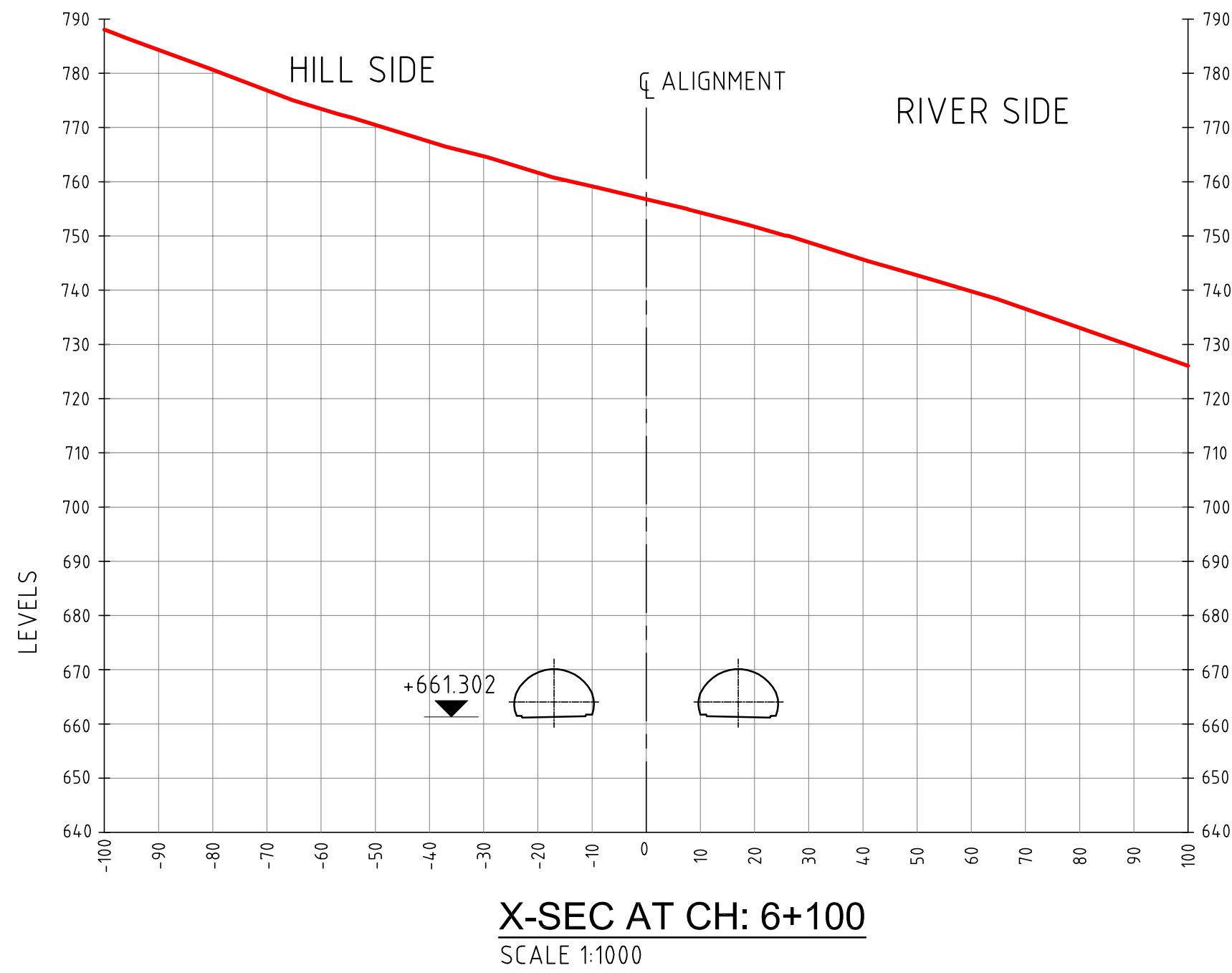
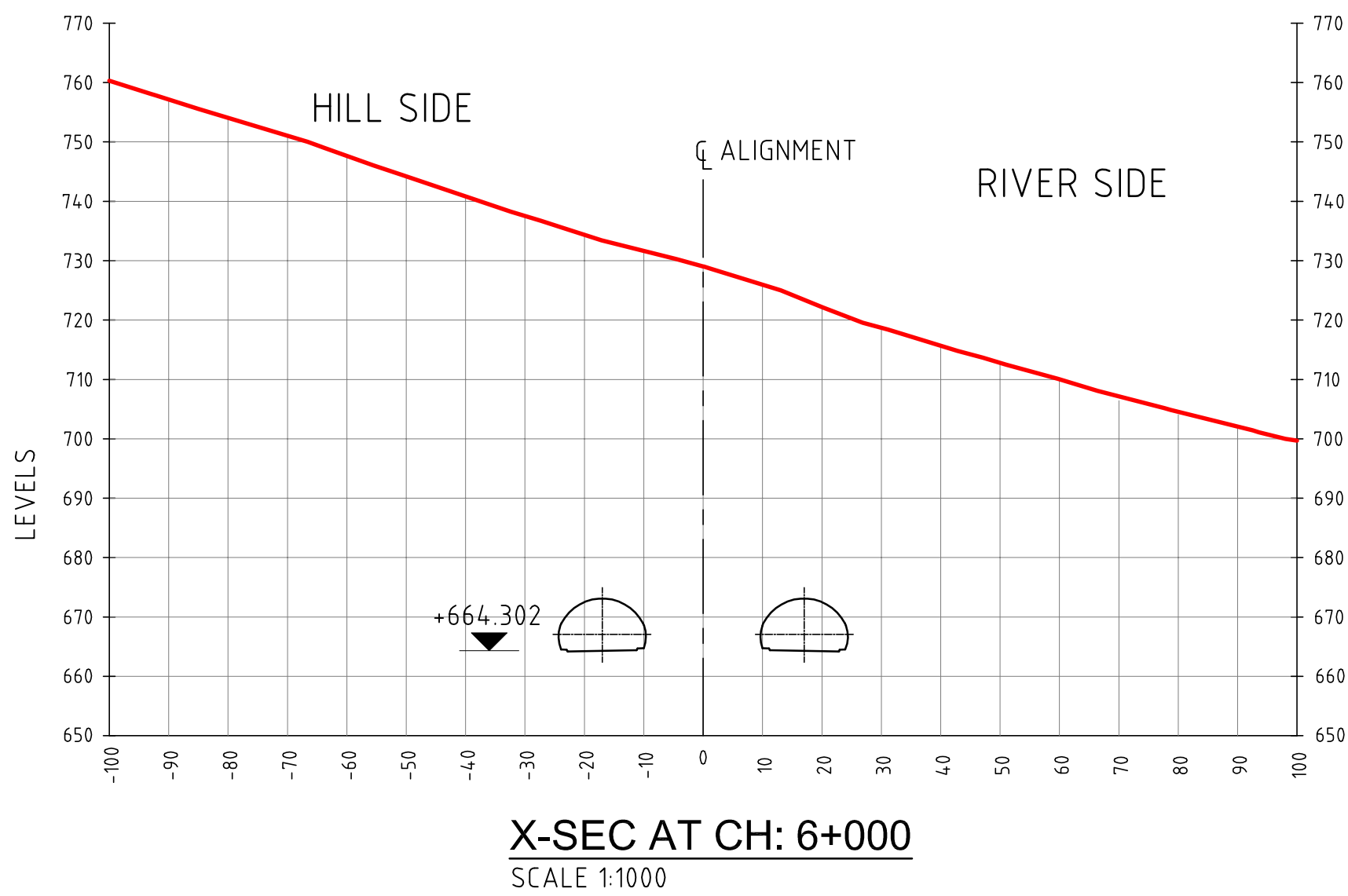
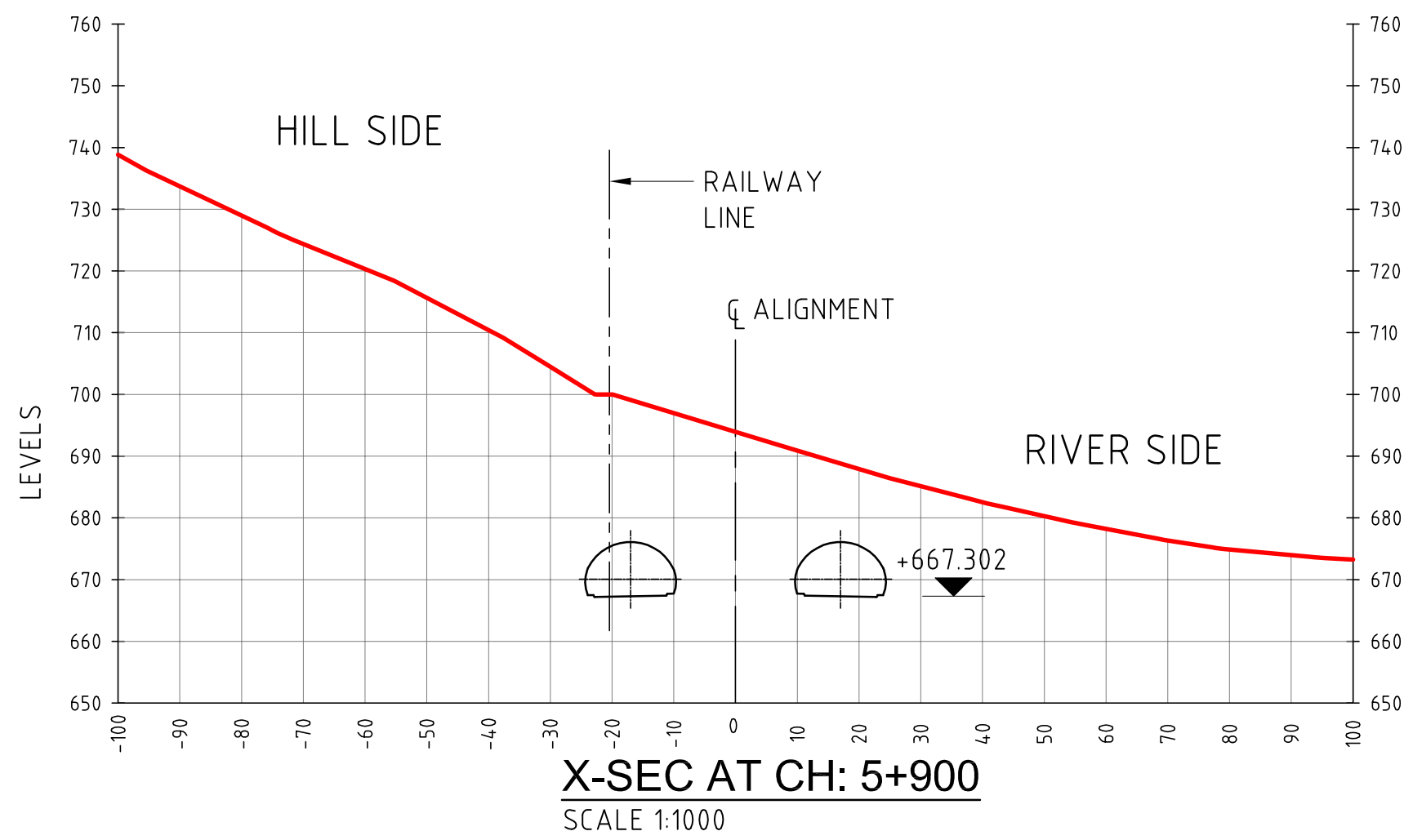
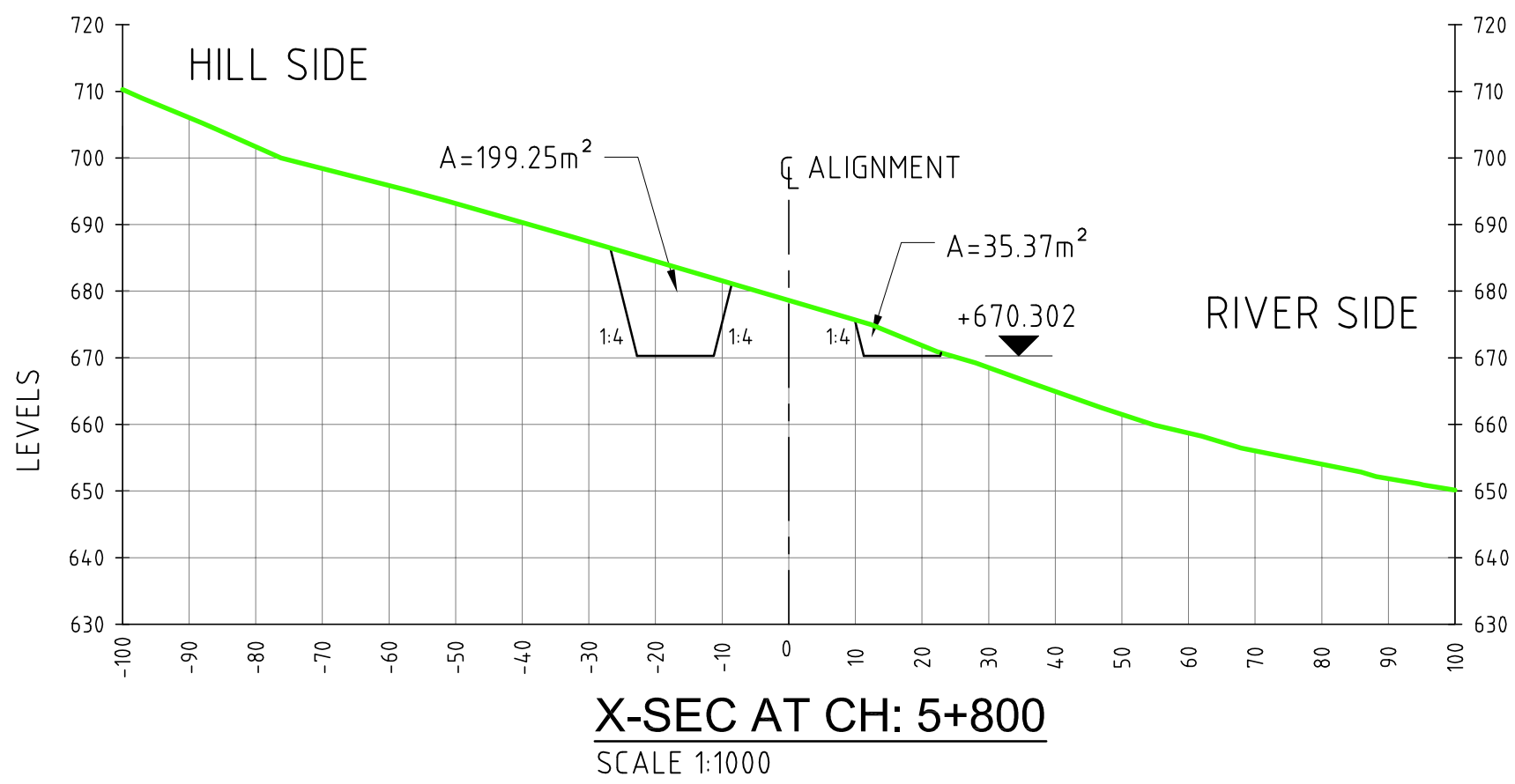
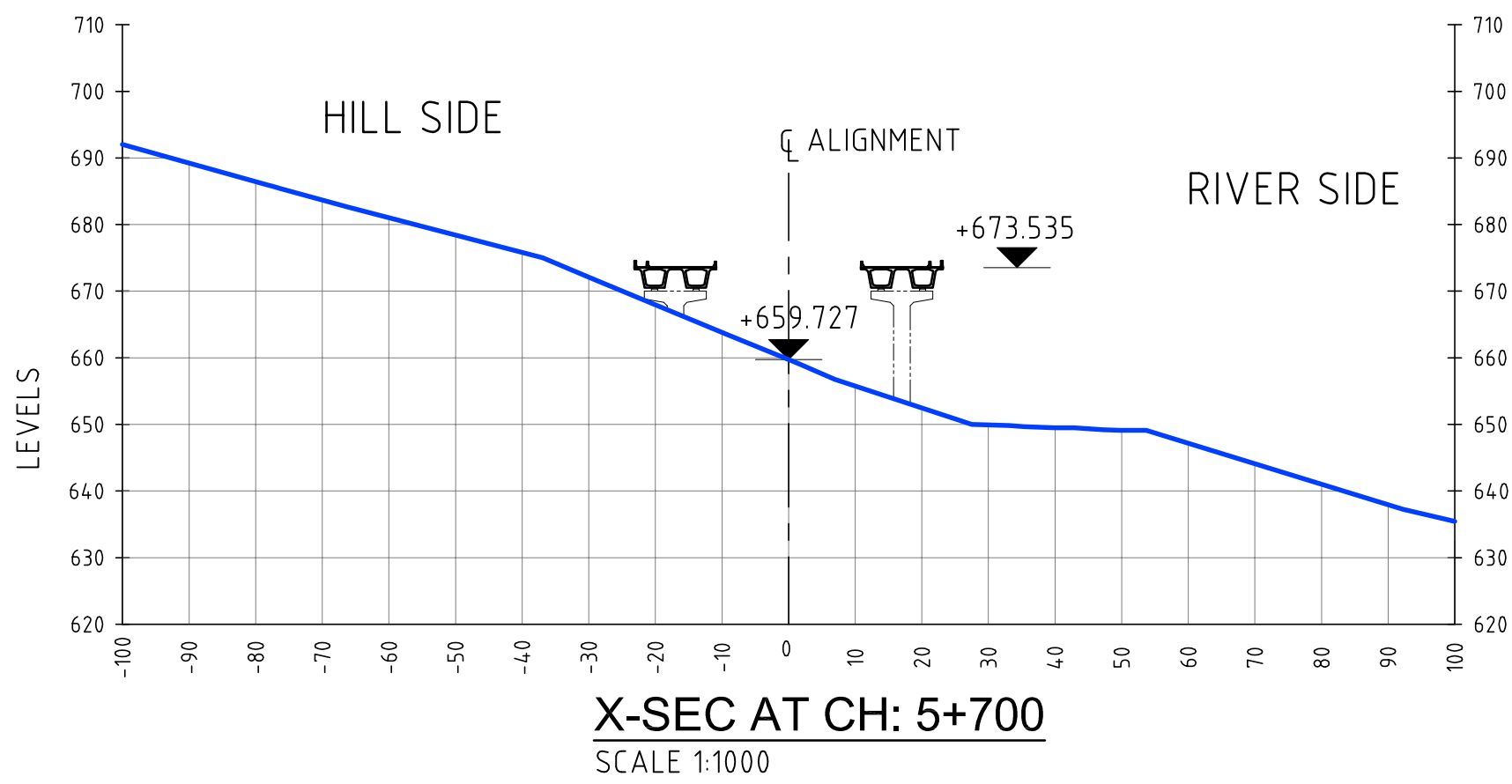
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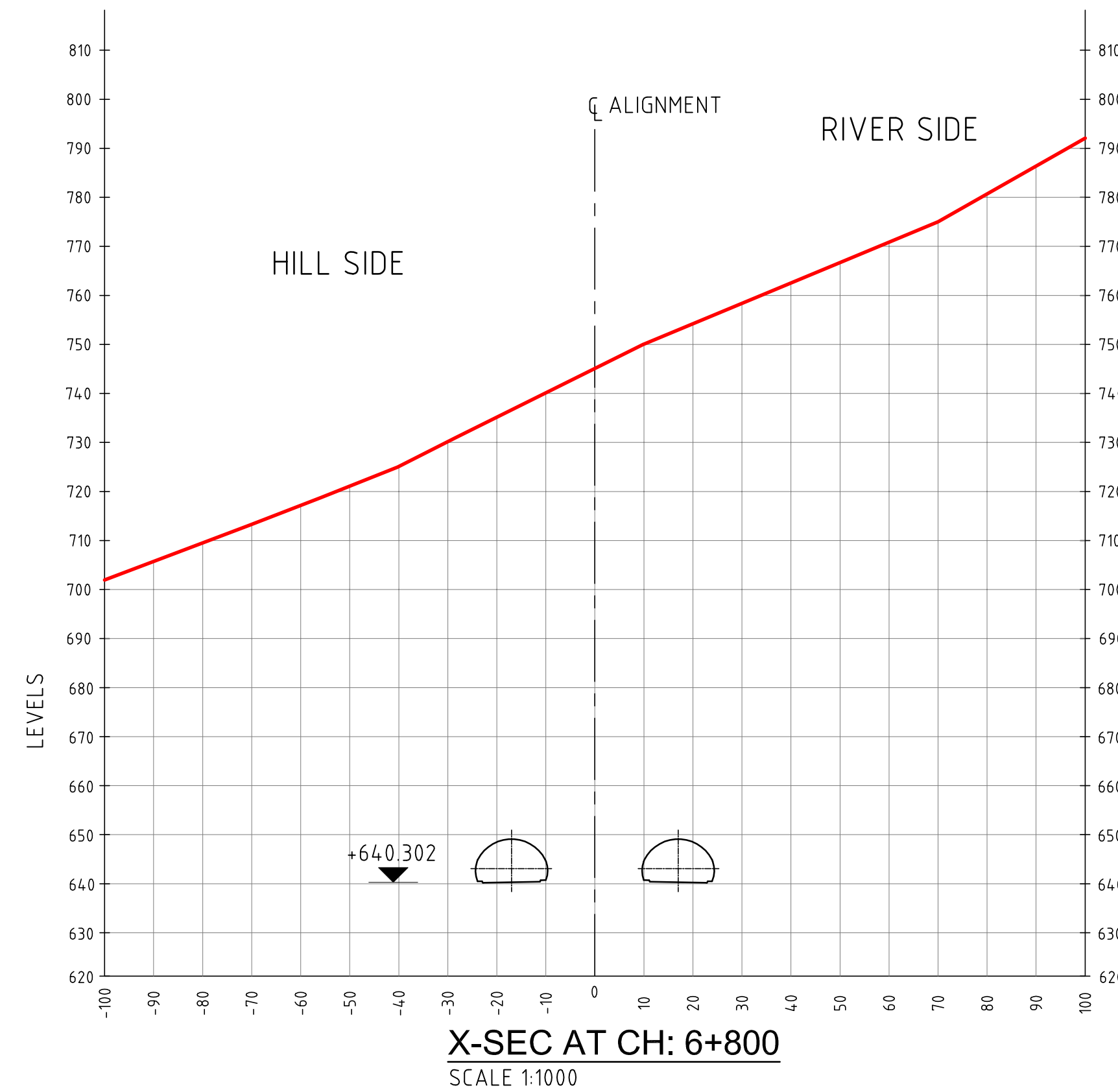
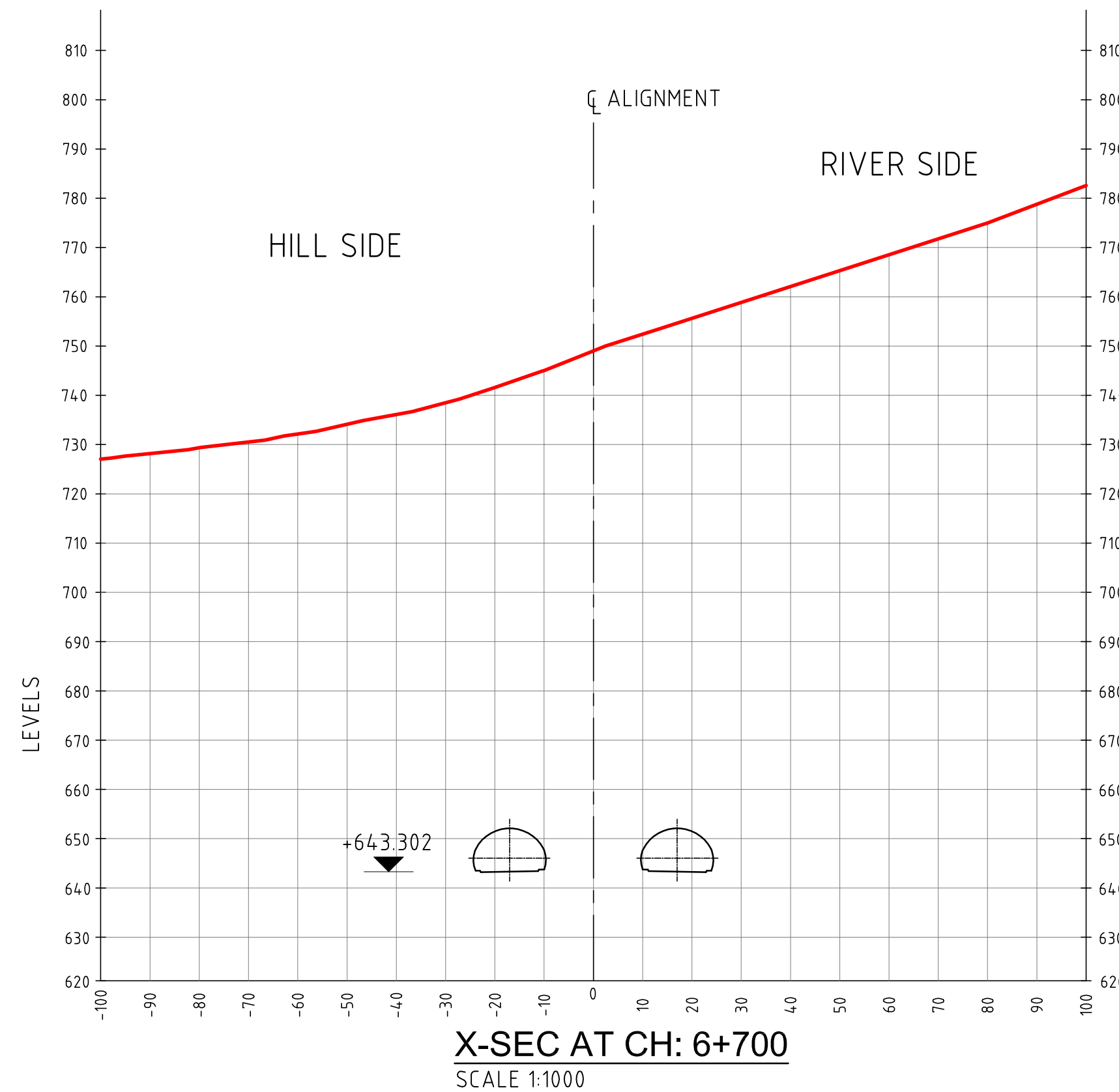
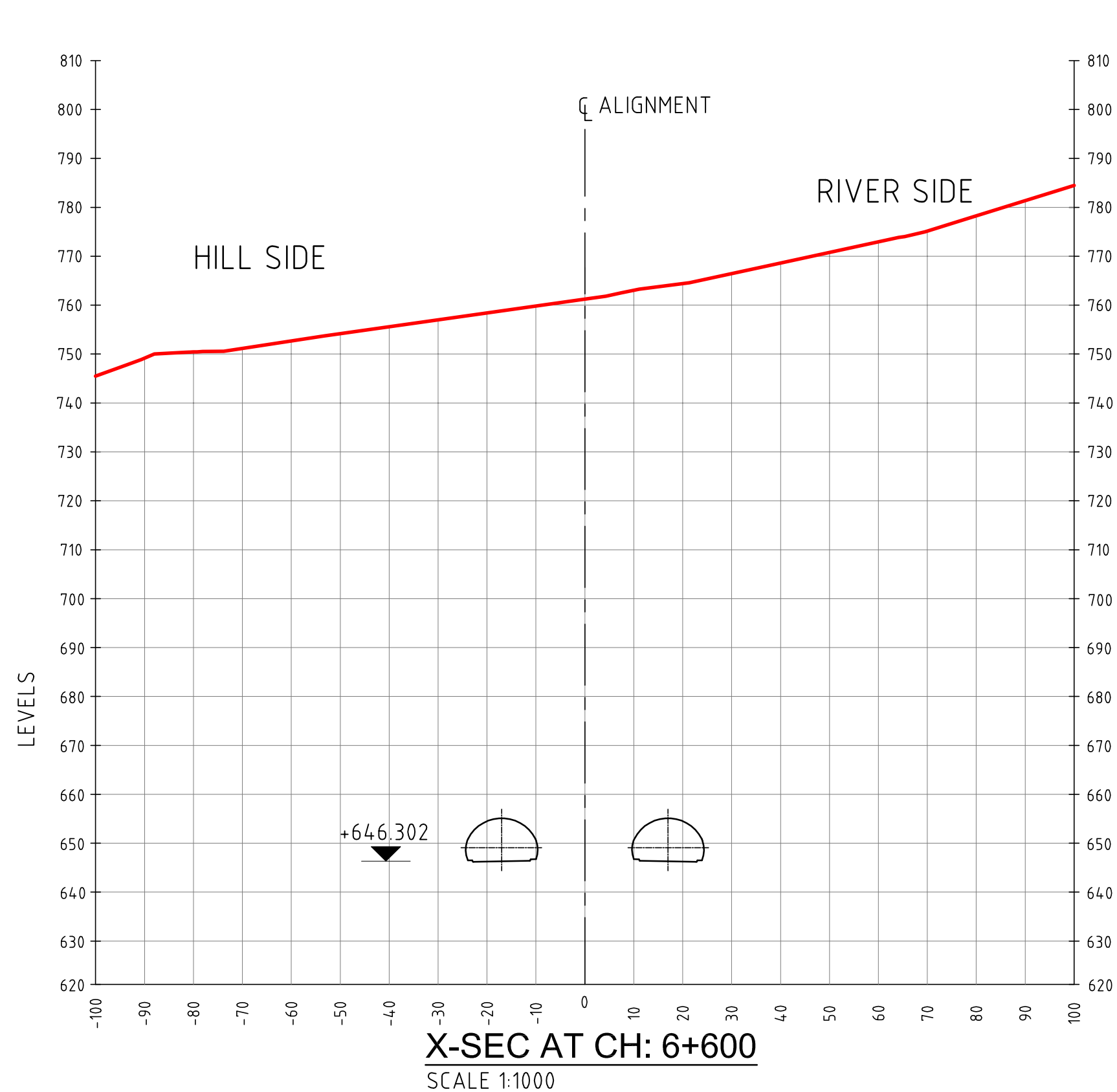
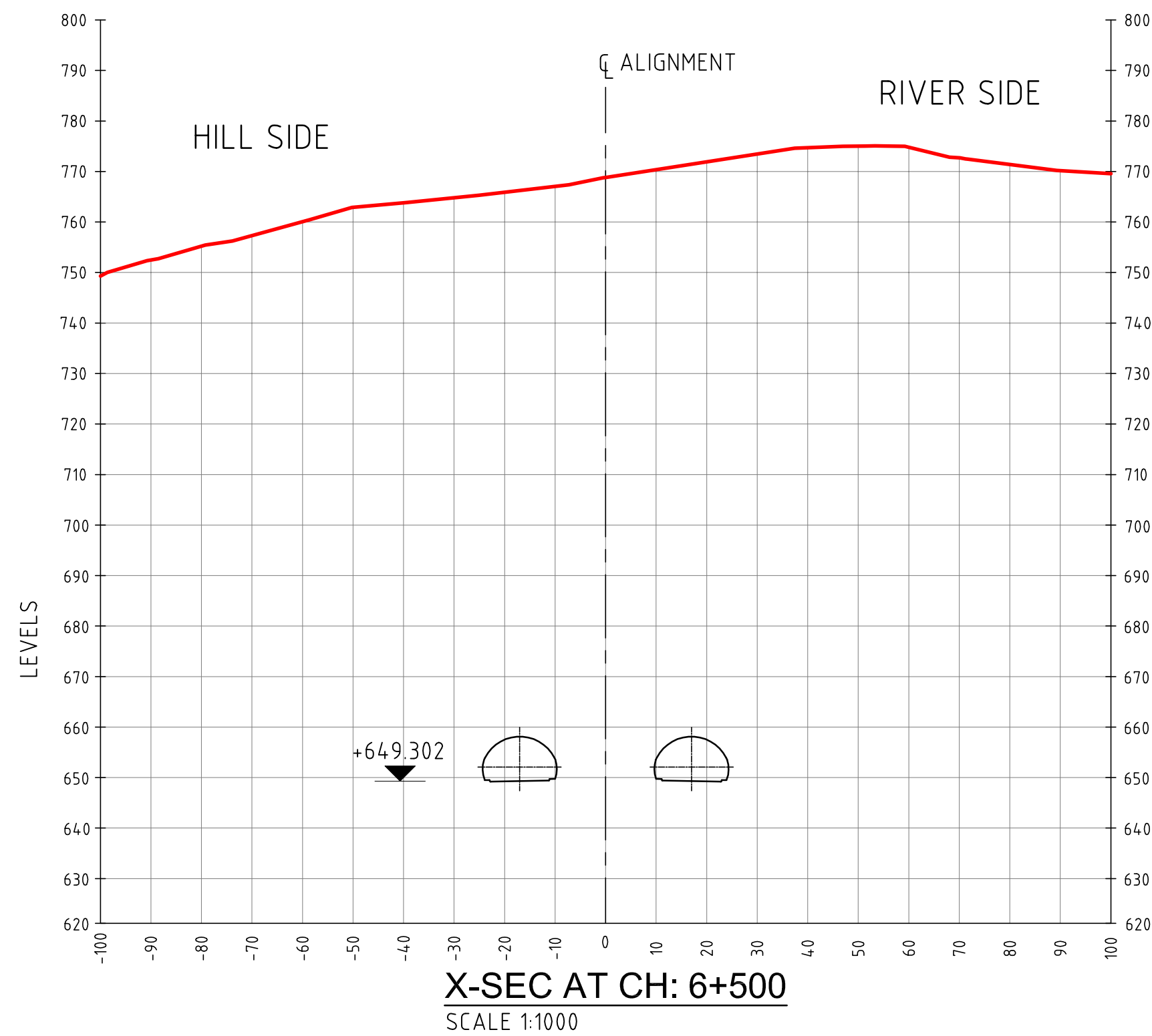
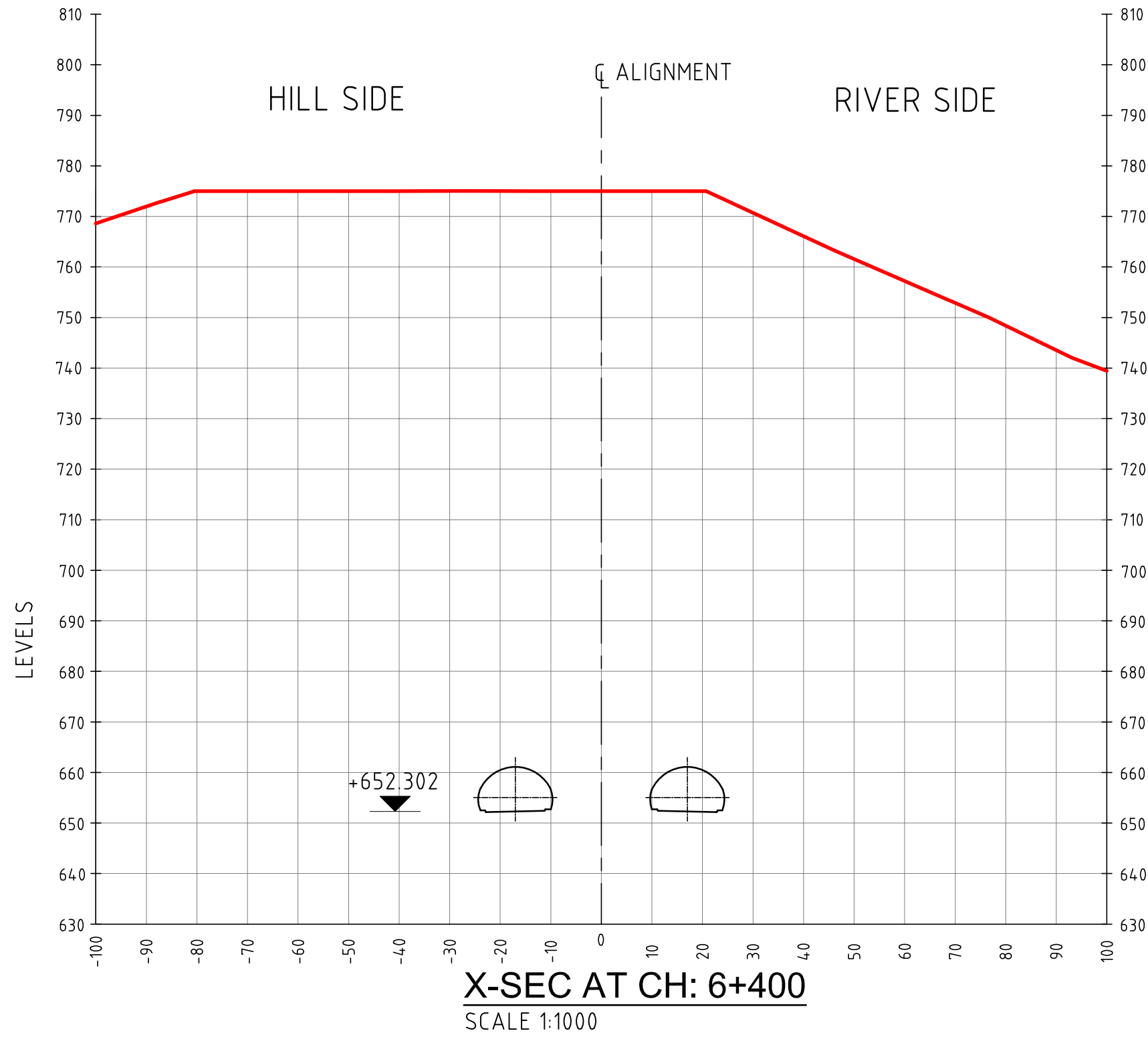
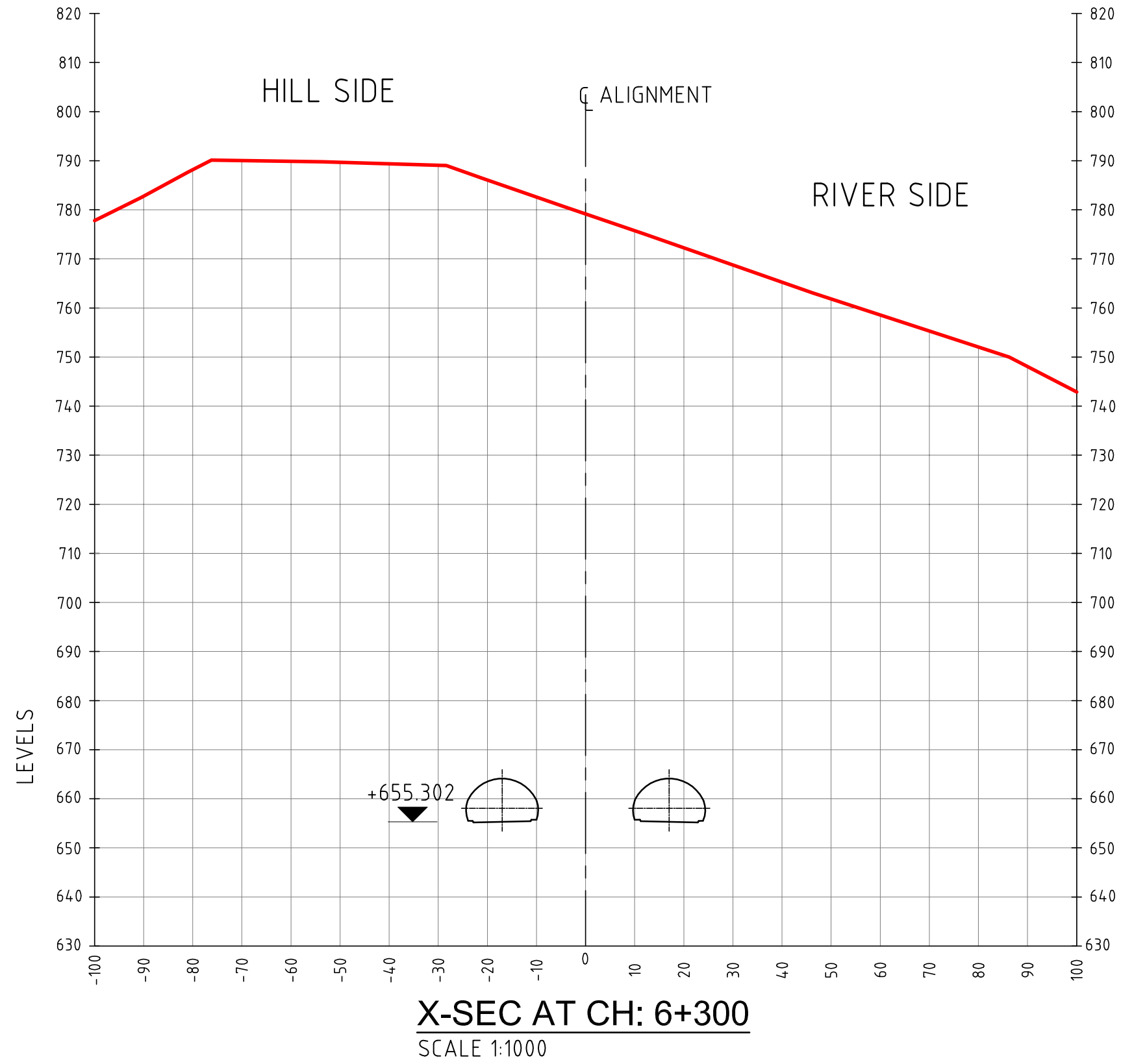
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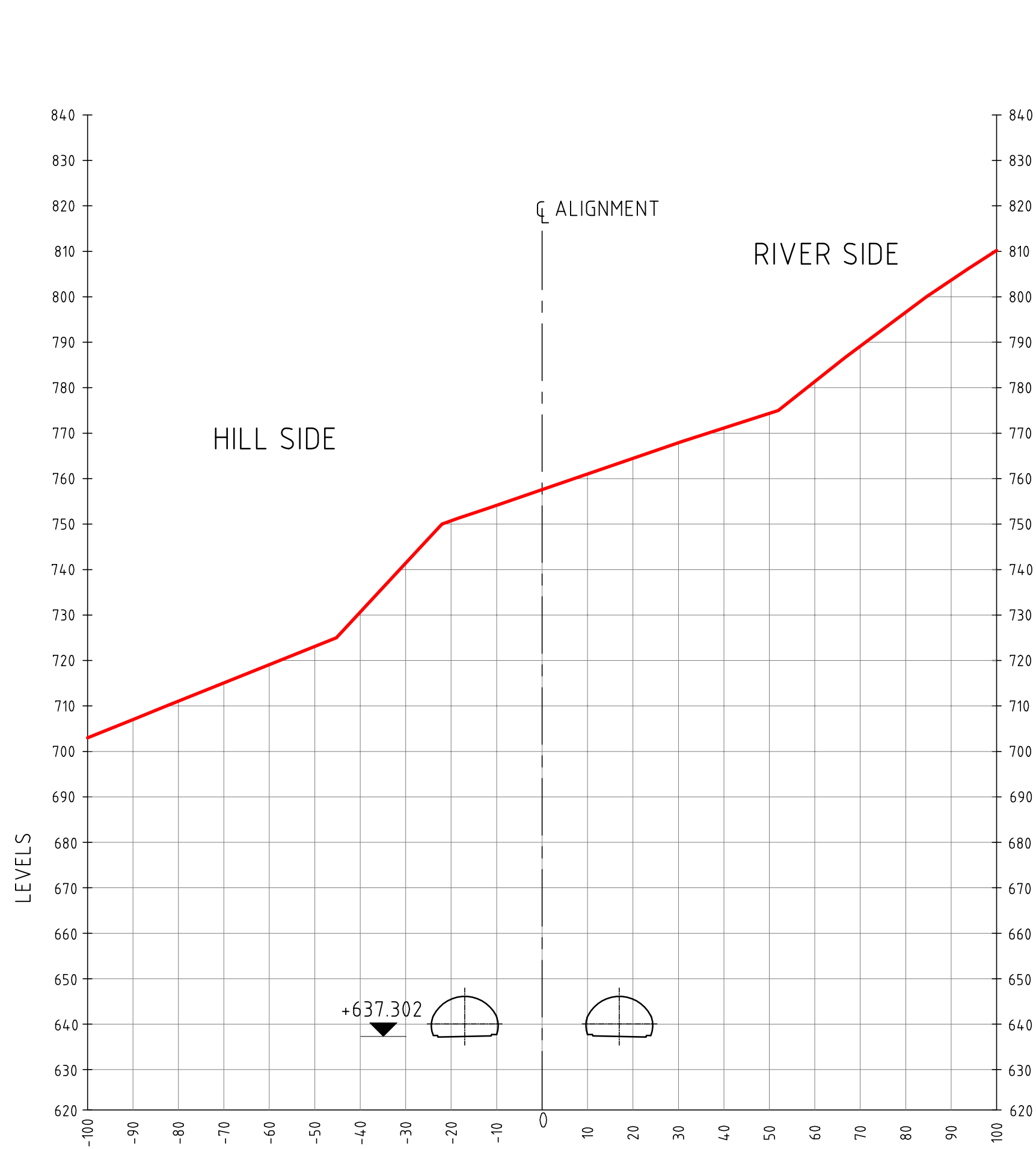
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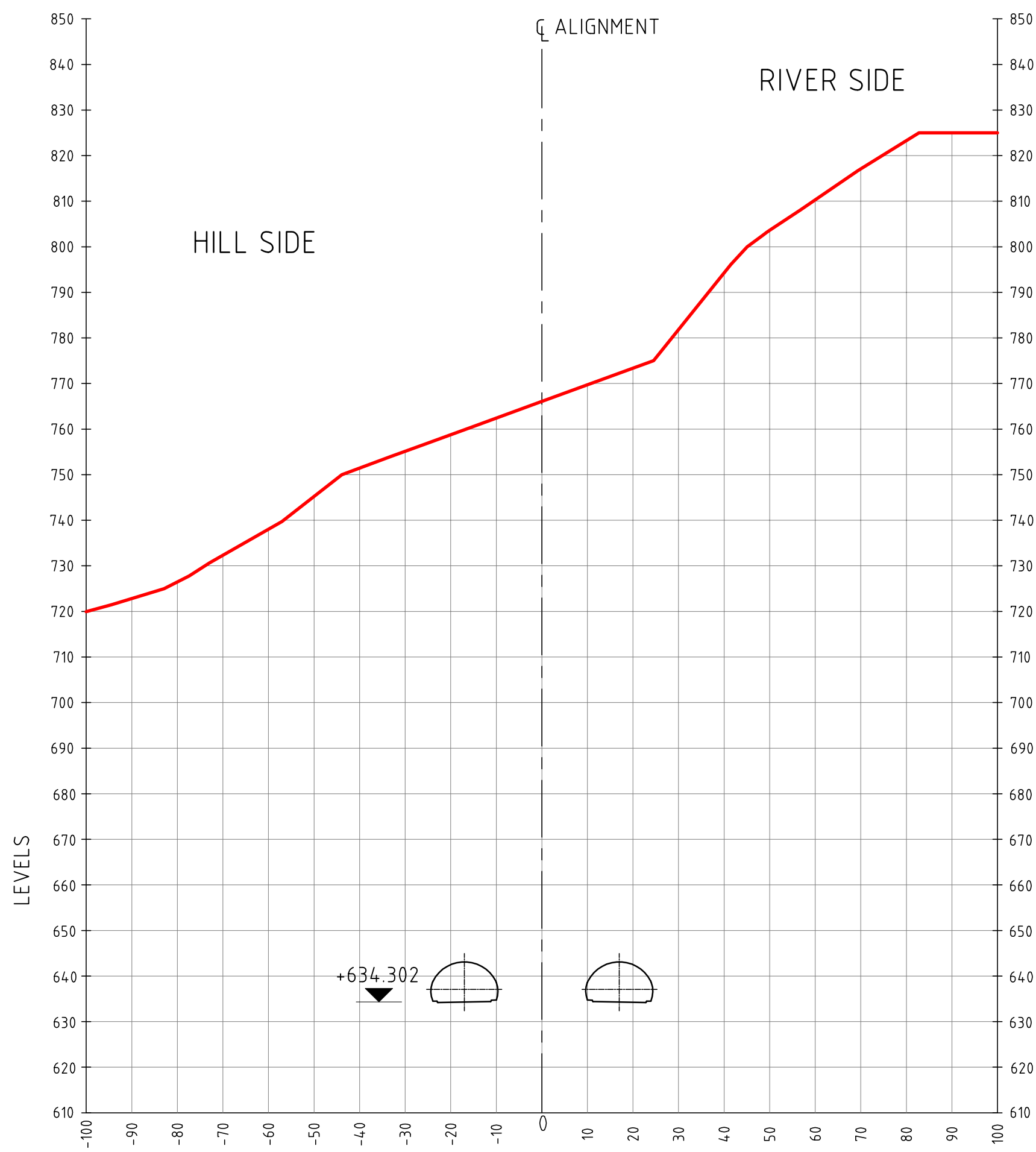


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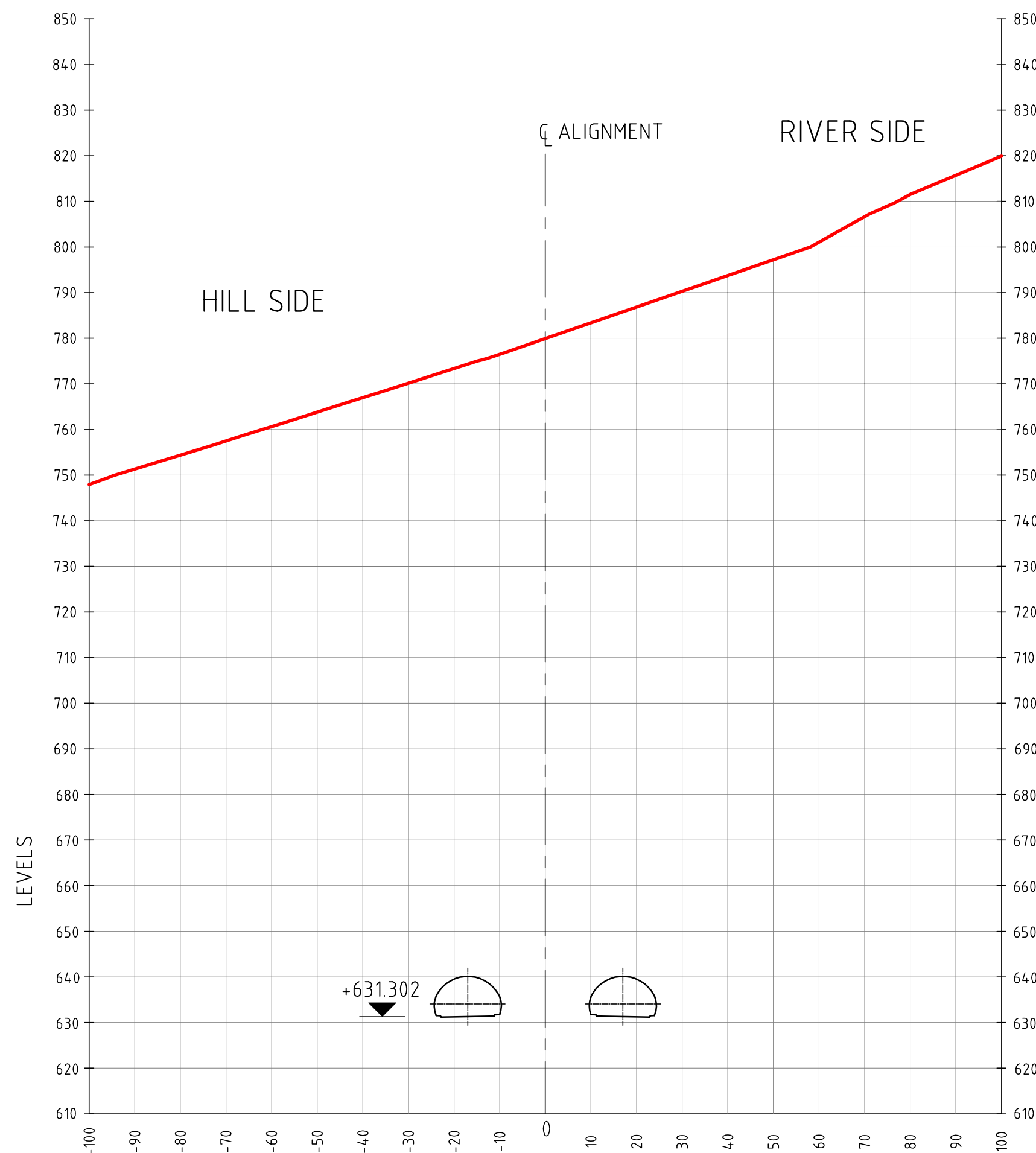
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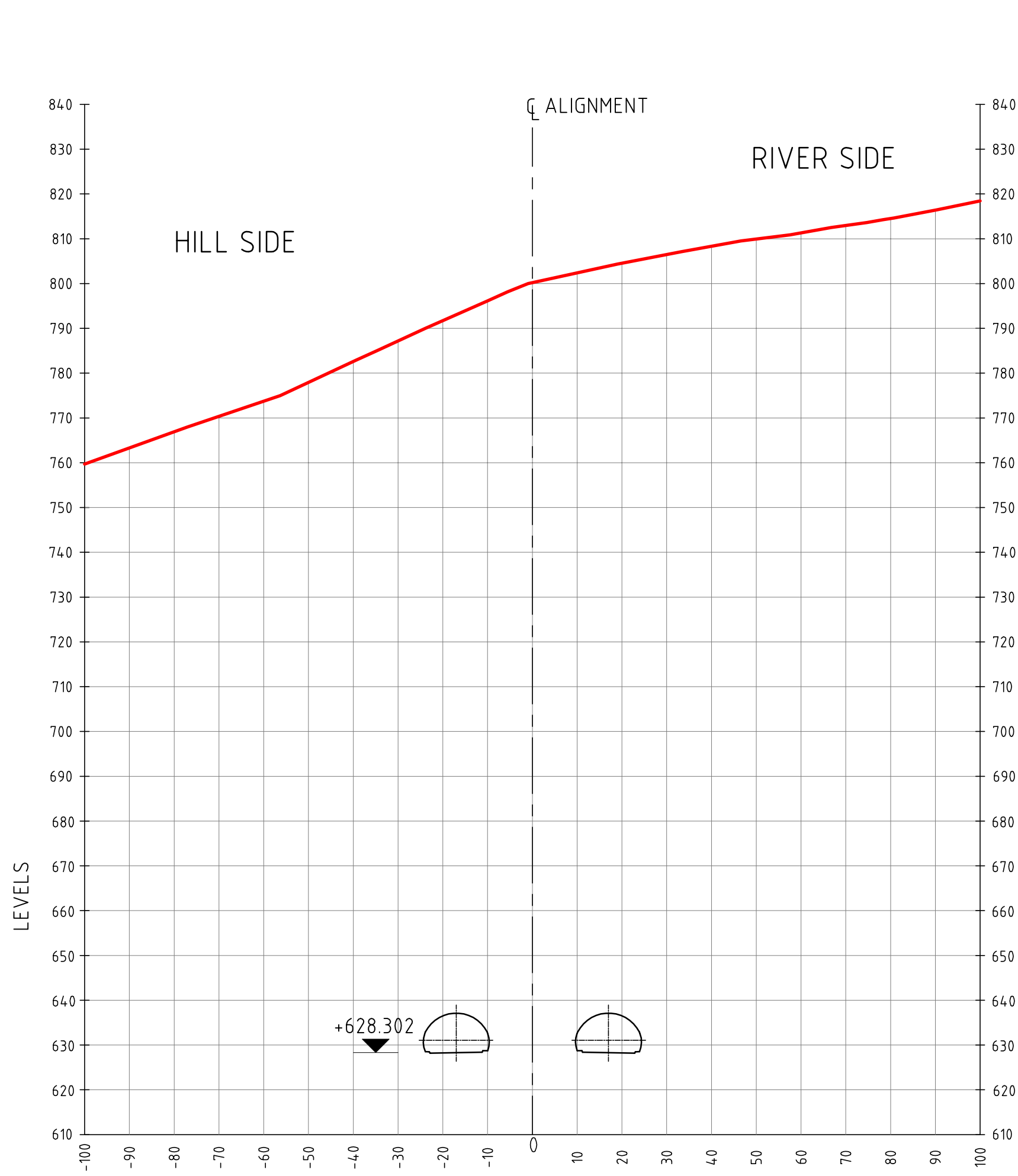


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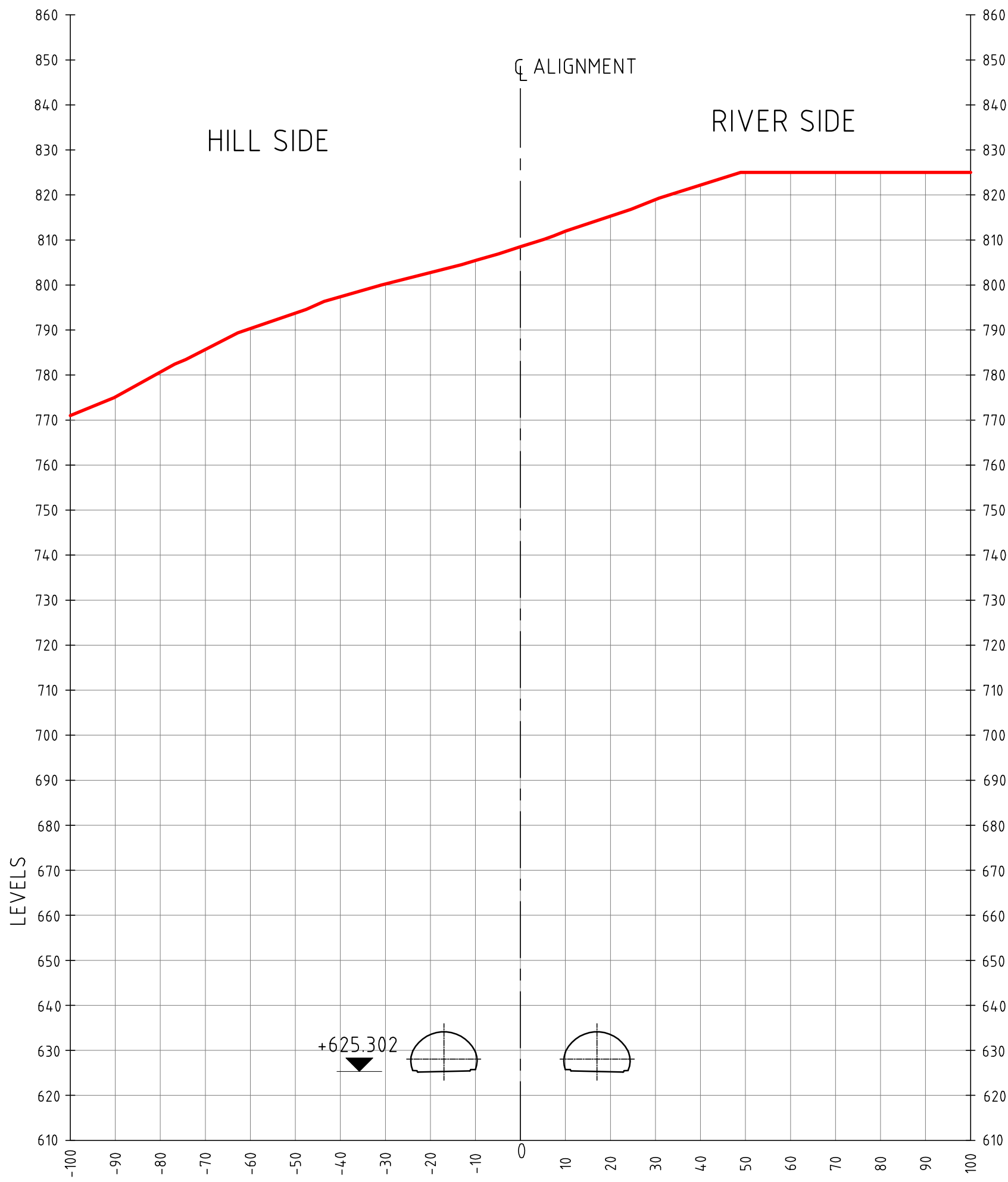


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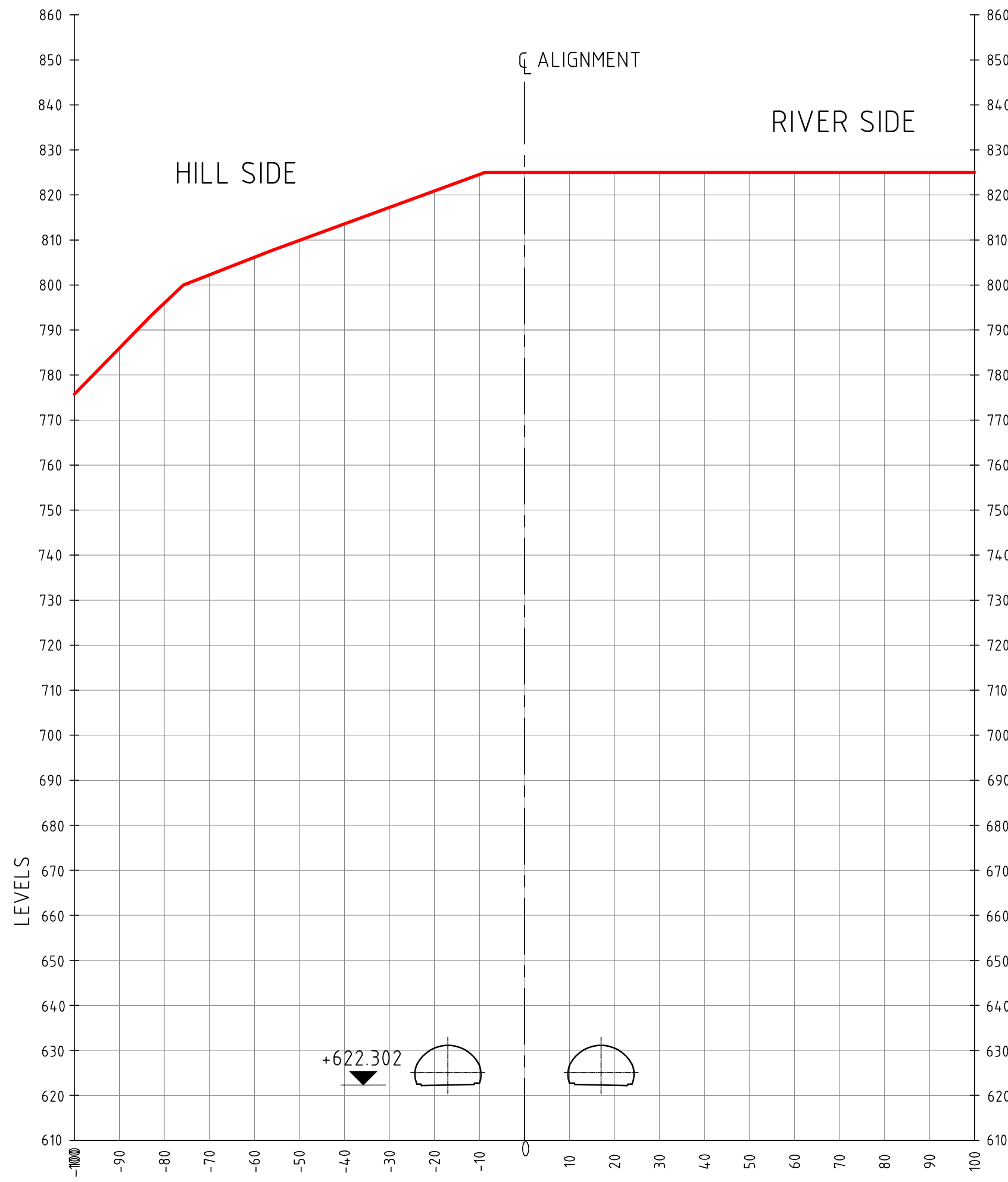
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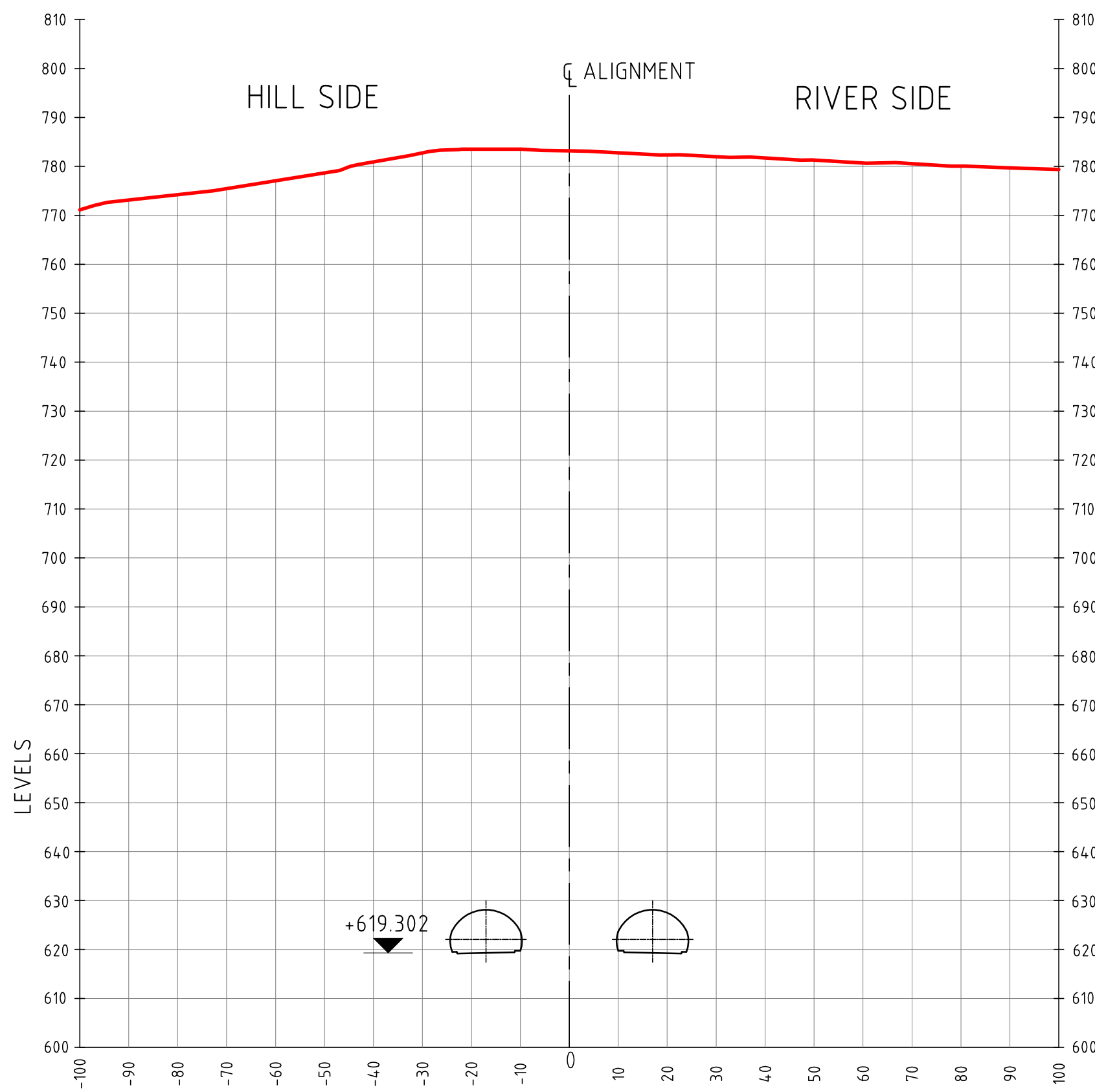
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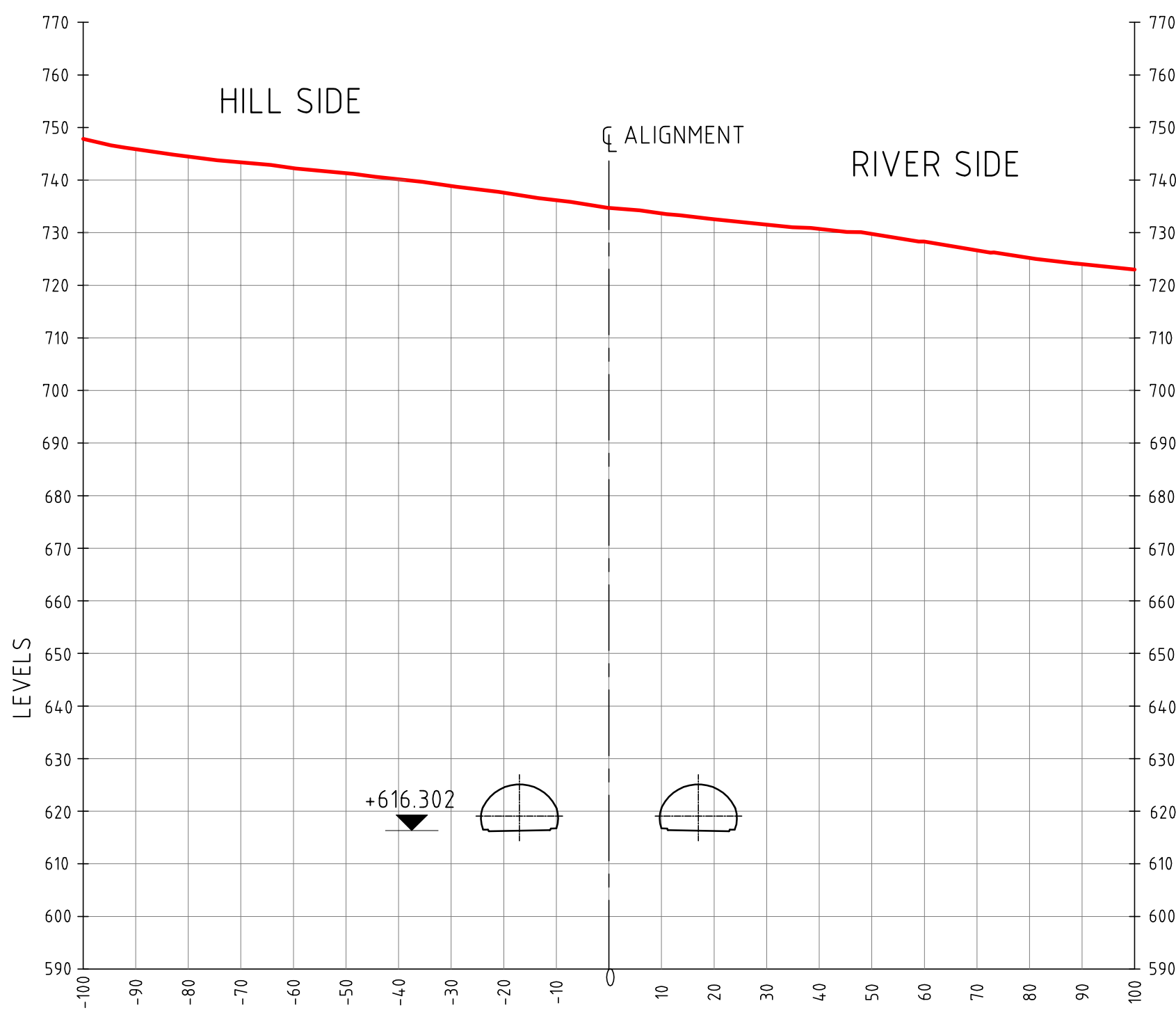
PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000	LEGEND: ----- RAILWAY LINE CUT/FILL (C/F) BRIDGES (B) TUNNELS (T)	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA				
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.		B	DEC 15	SECOND DRAFT (KD-6)			ABa/PRa	RMe	AKg	Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015	PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780 <small>This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.</small> G:\GEOCONSULT_Aba_R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1071 TO 1080_B.dwg, 2015-12-14	DRAWING NUMBER SHGA-FS-LAY-1072	REV B
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										Drawn	Drafting Chk	Designed	Design Chk	Approved				
		REV.	DATE	PARTICULARS			Drawn	Checked	Approved	Originators								

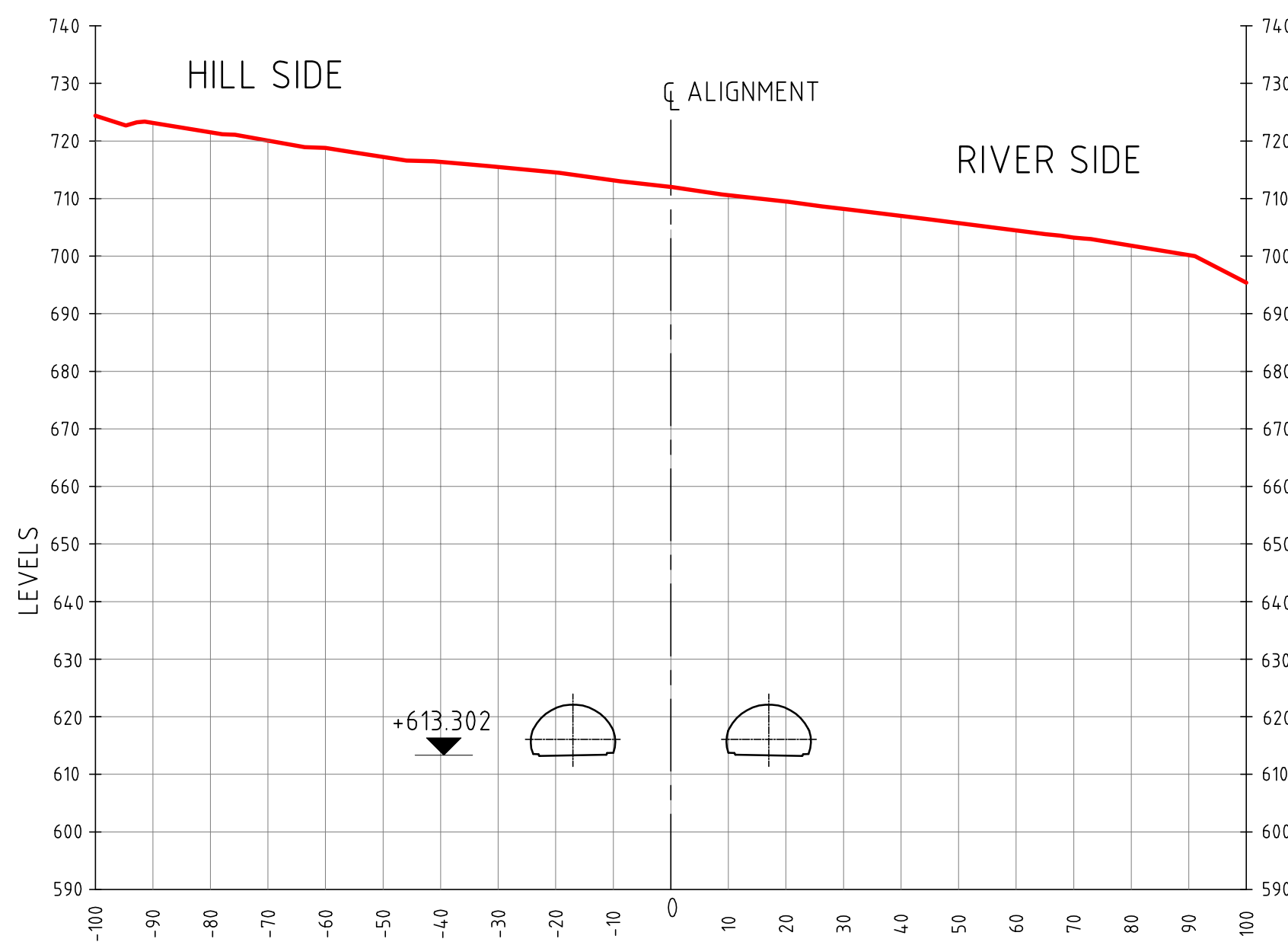
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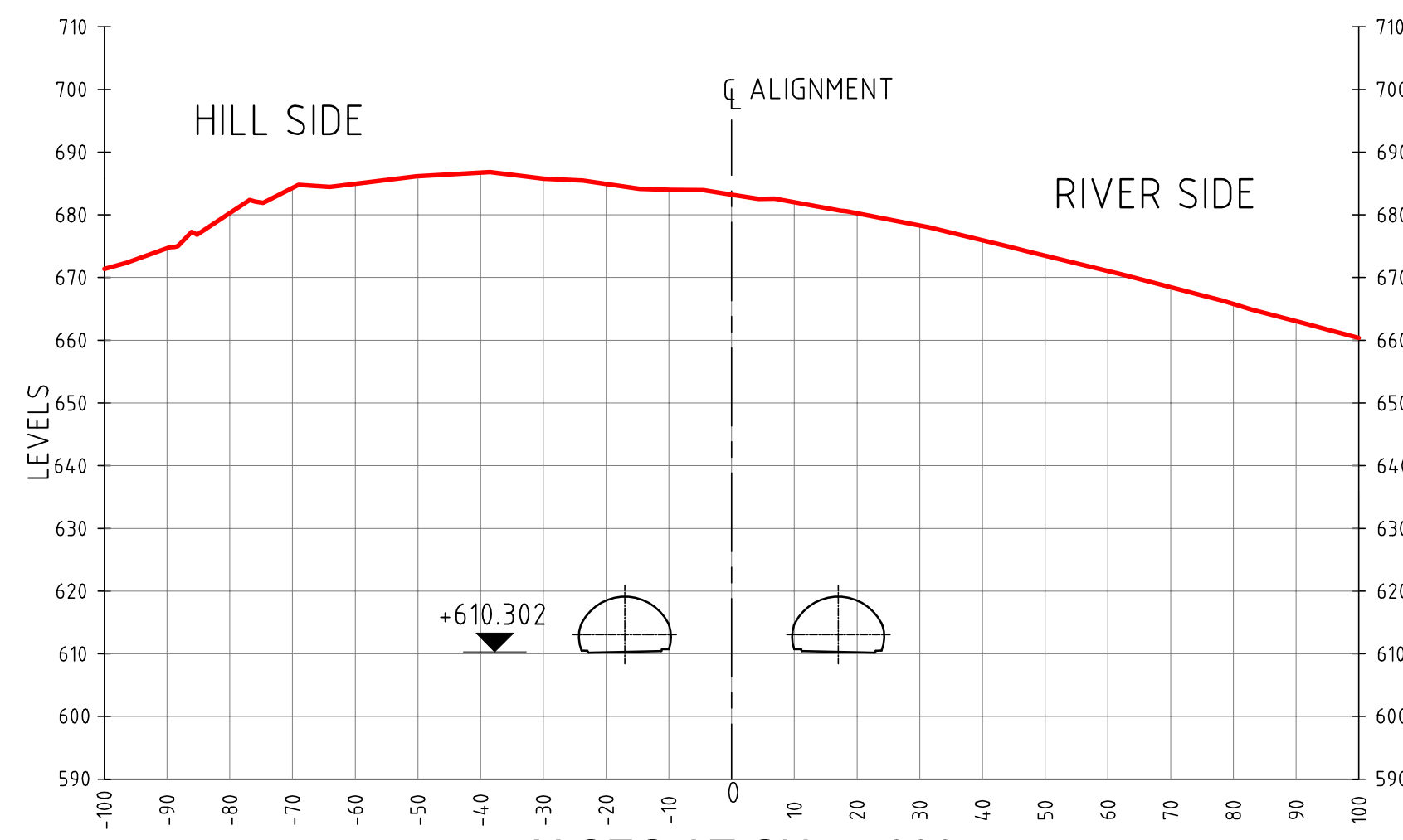
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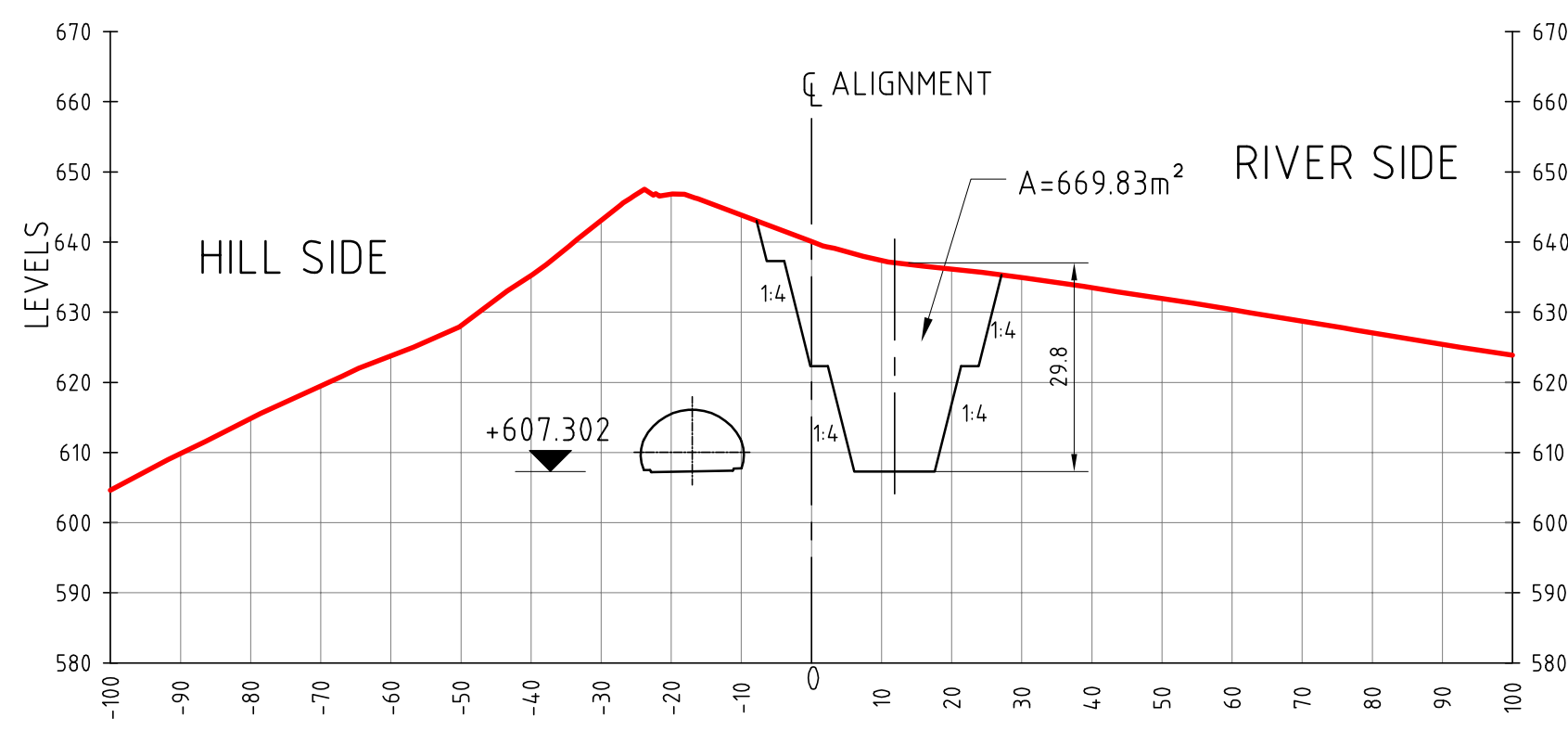
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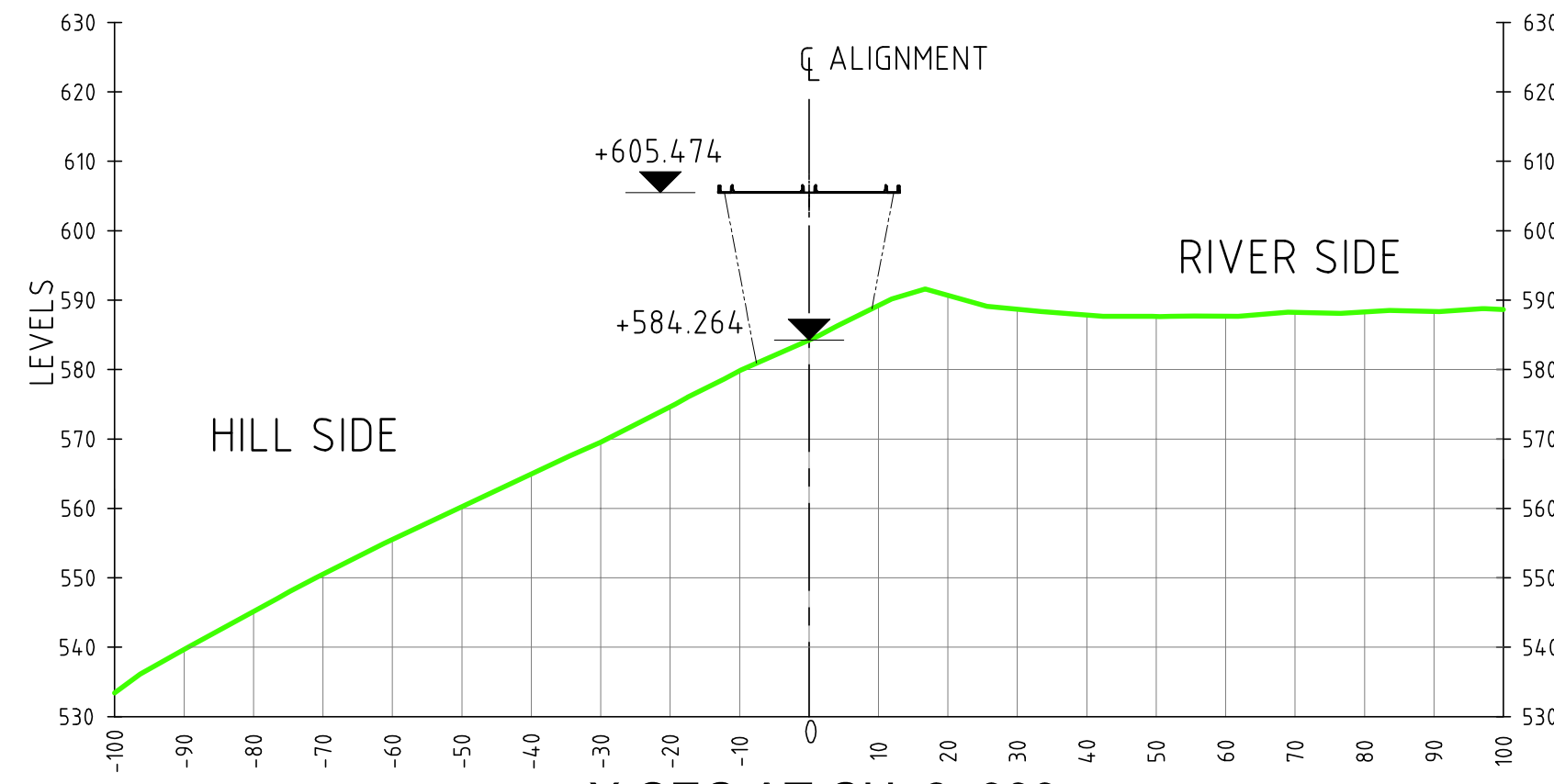
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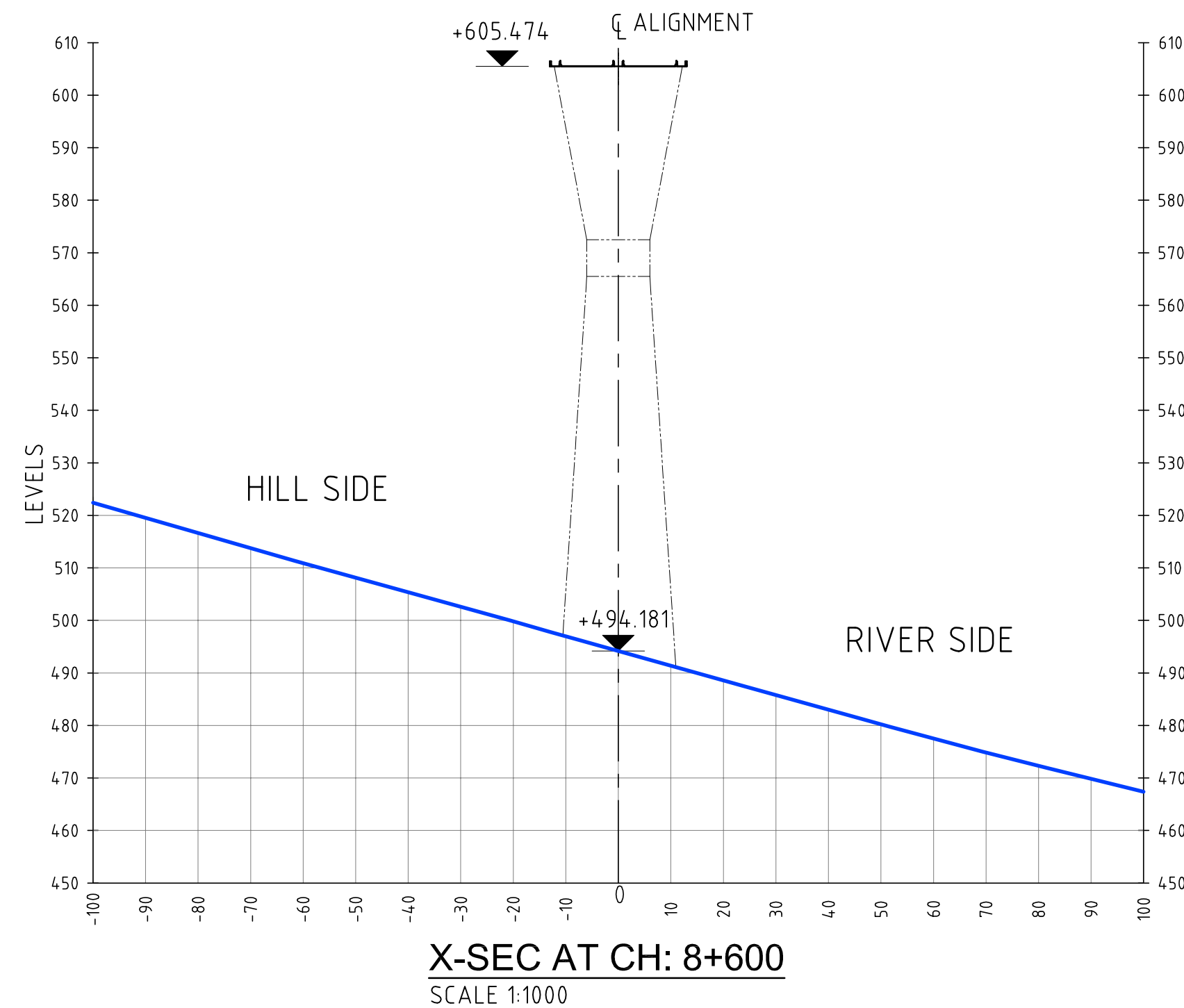
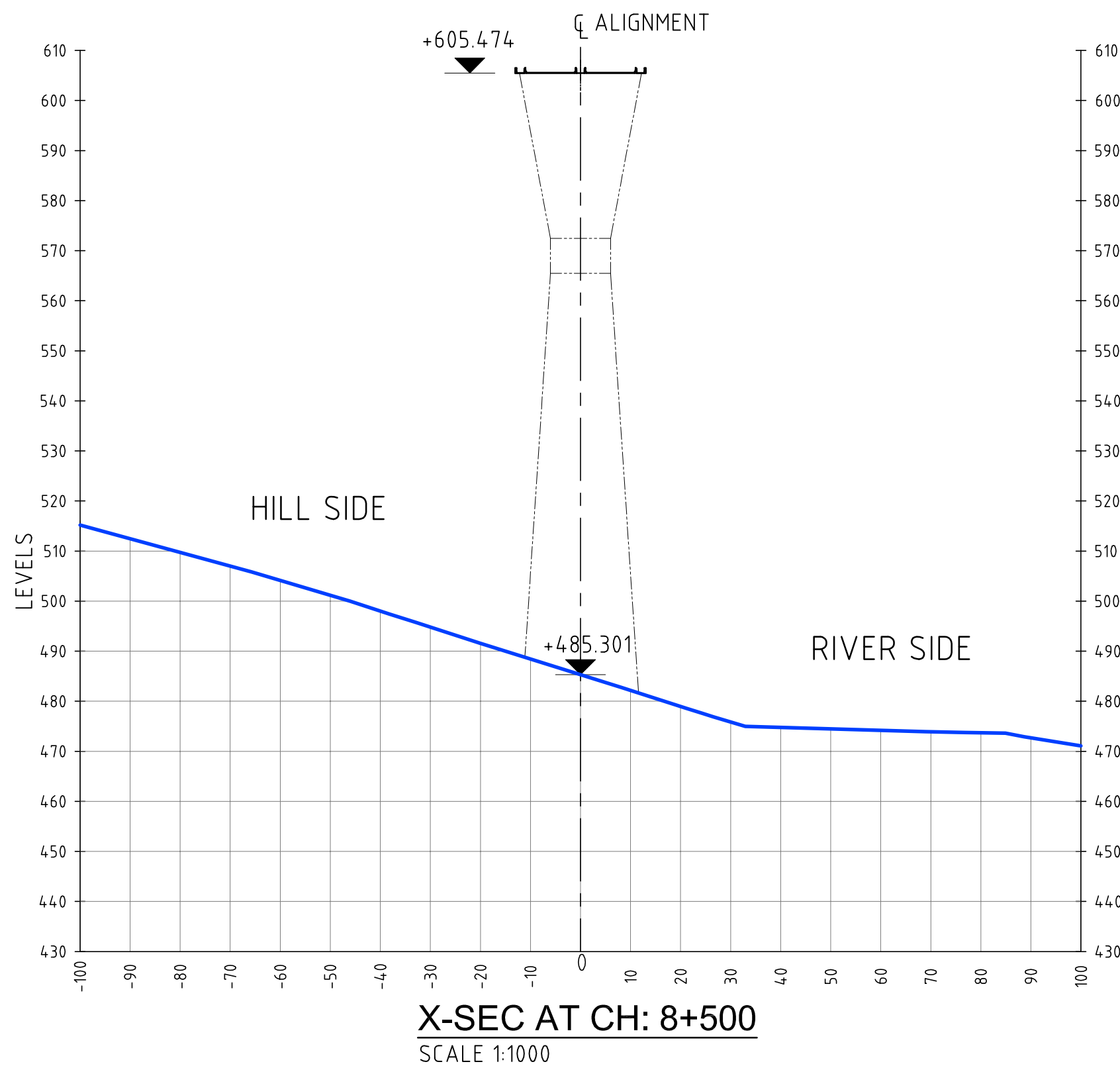
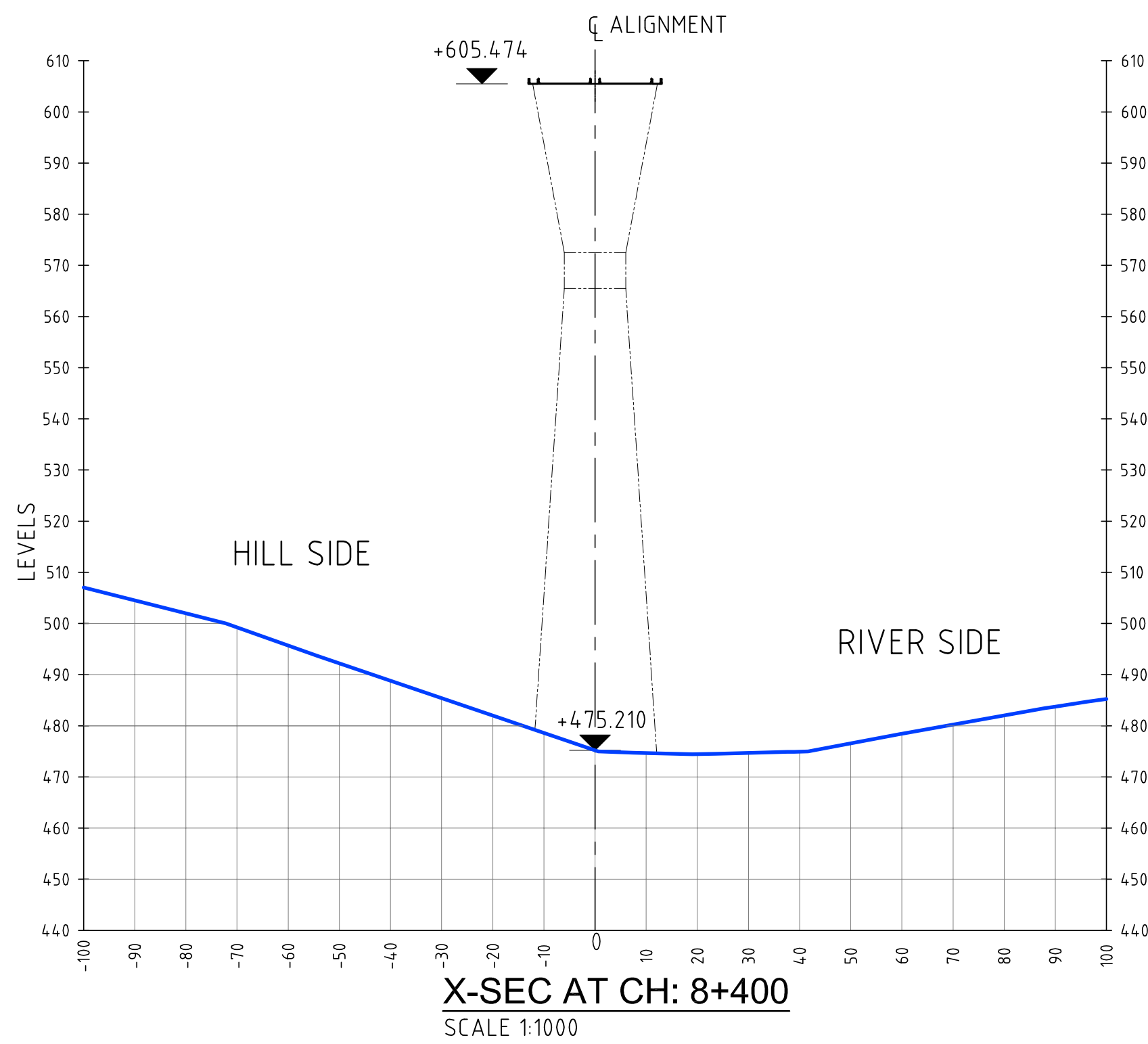
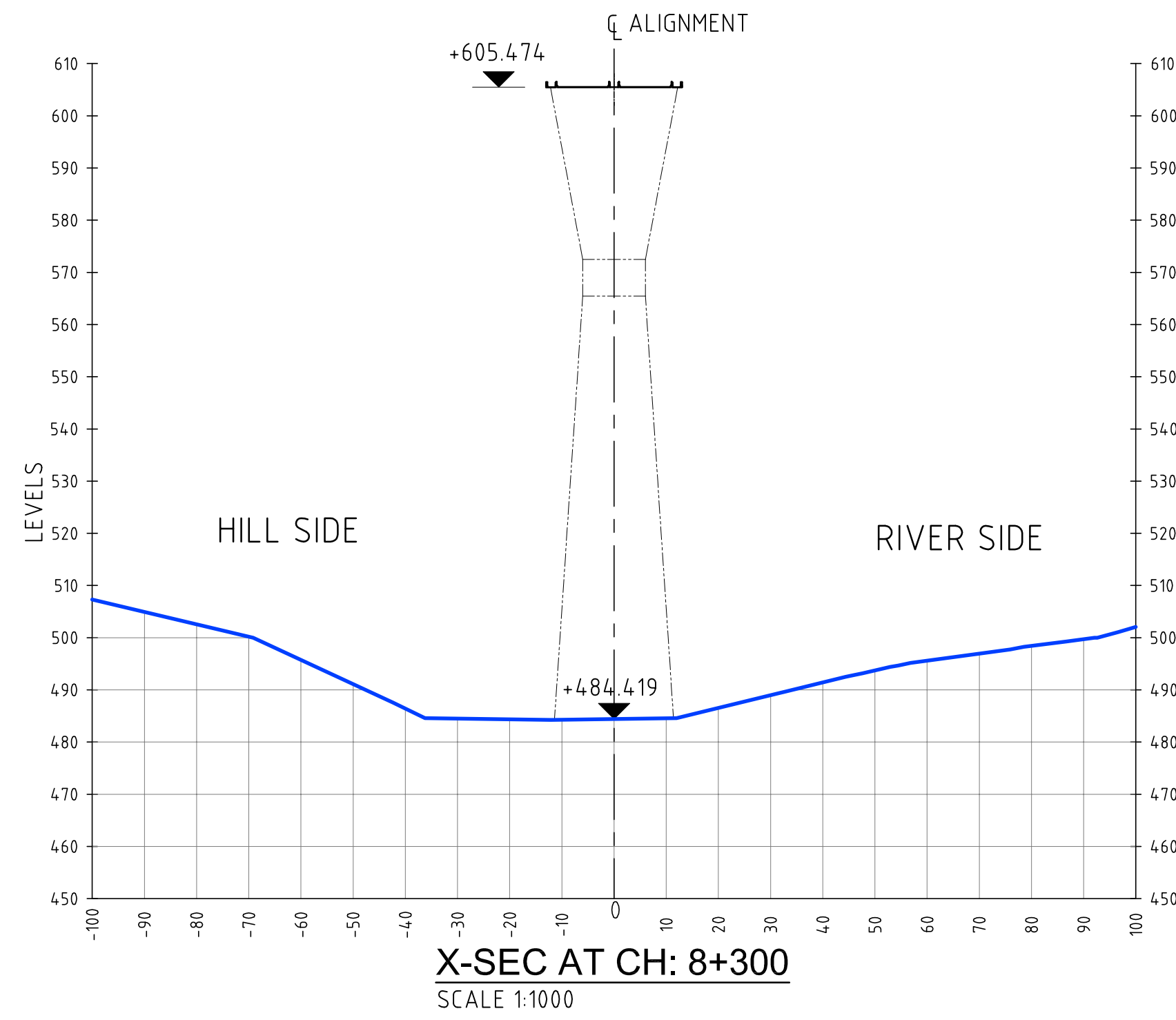
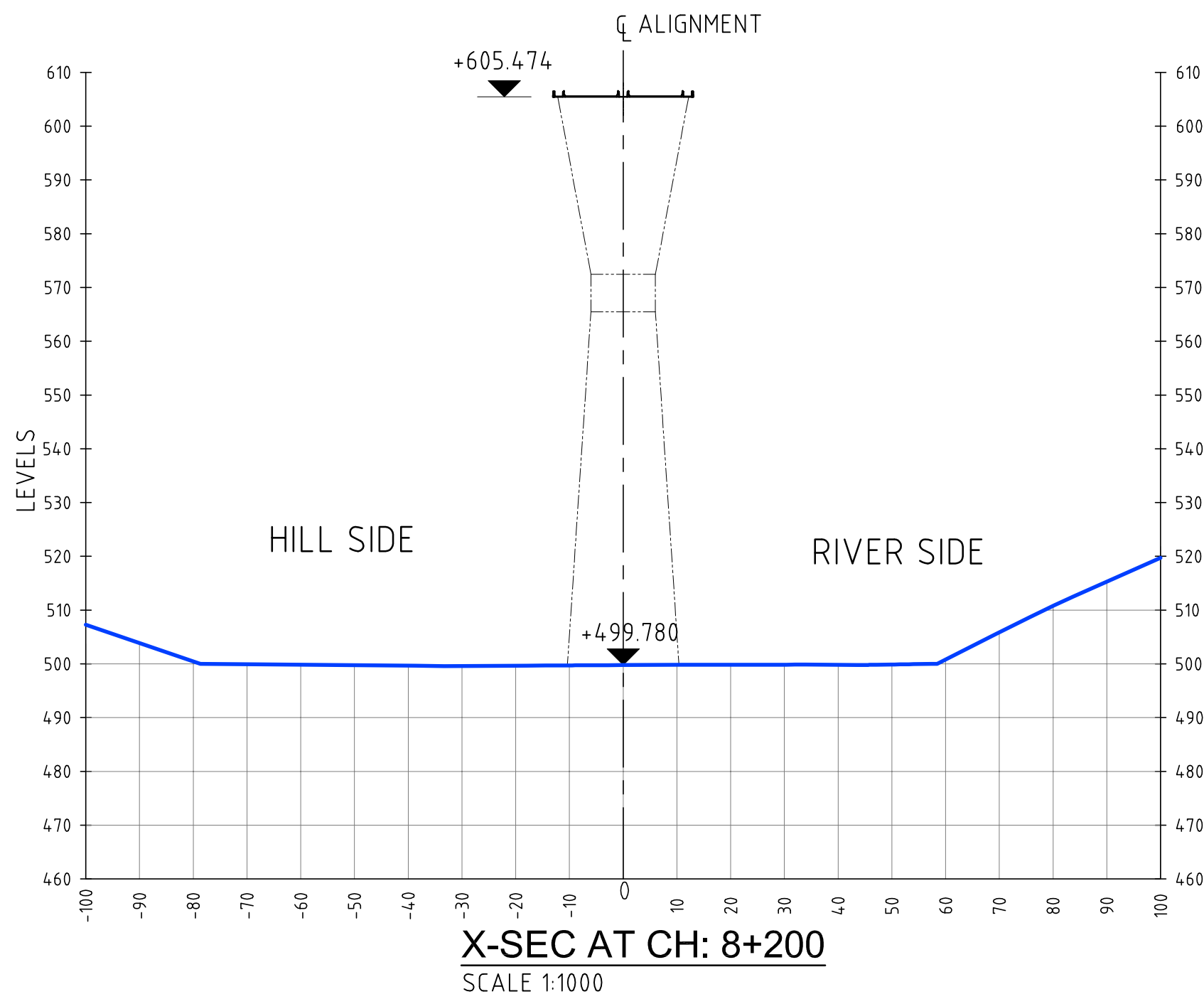
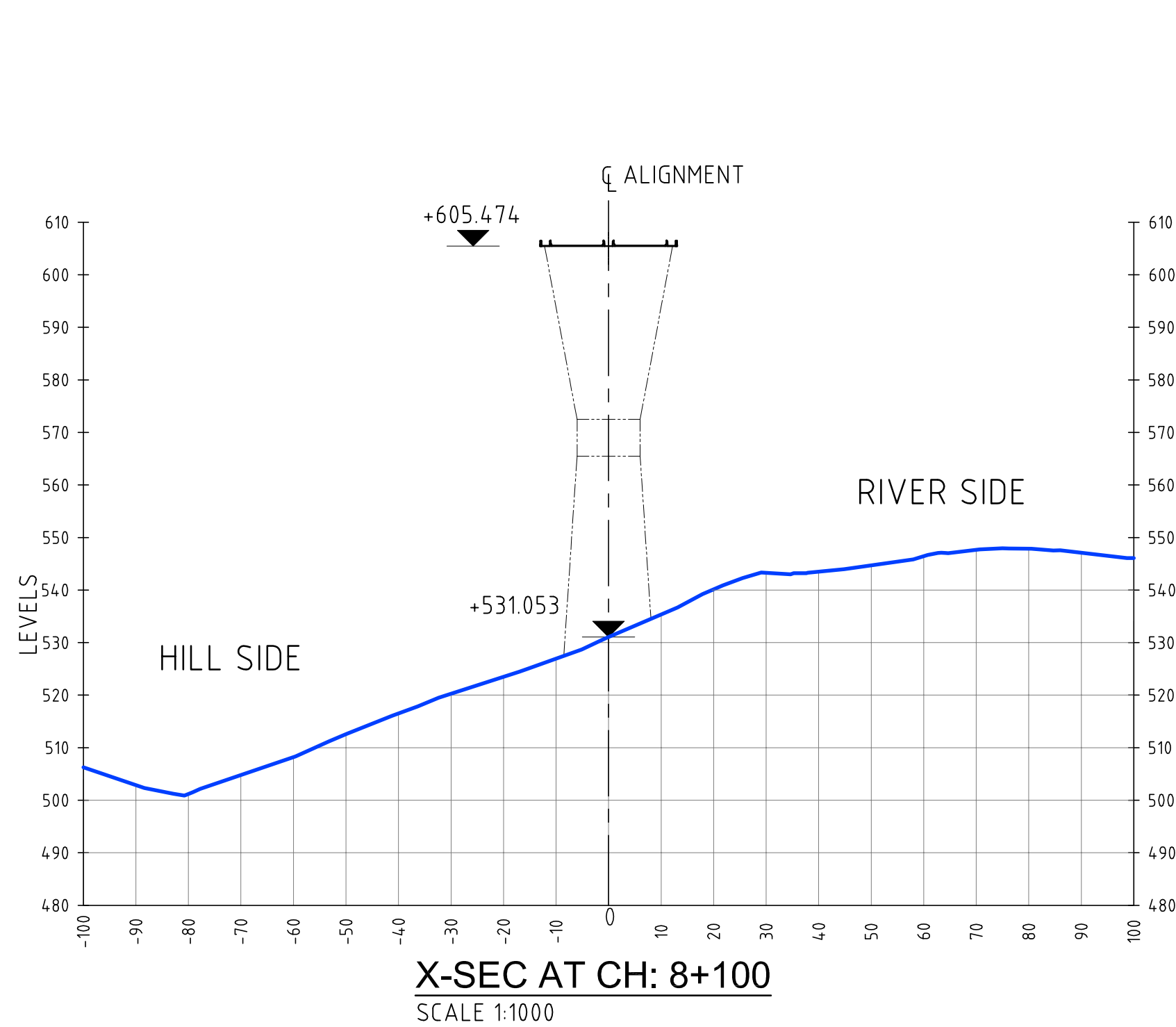


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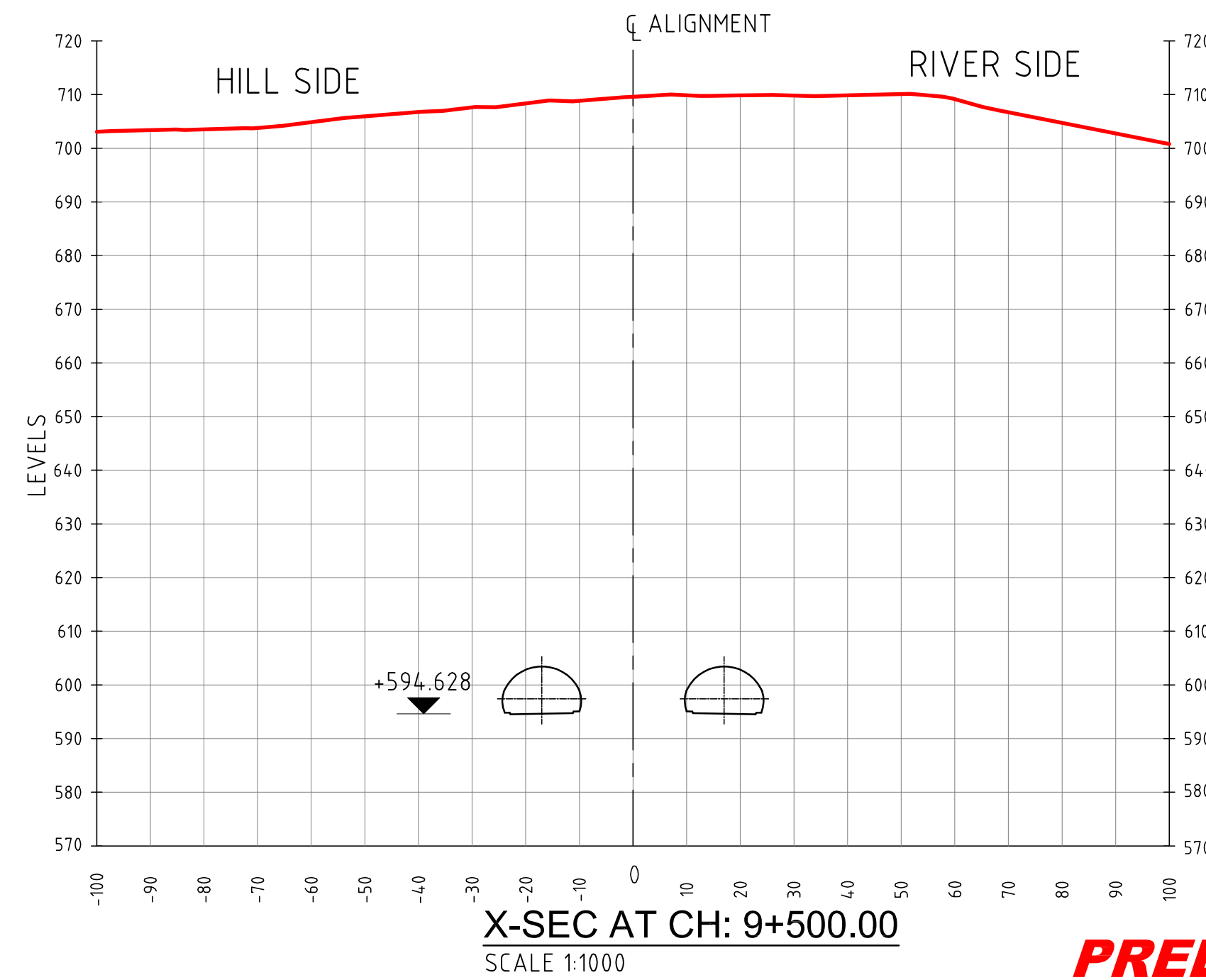
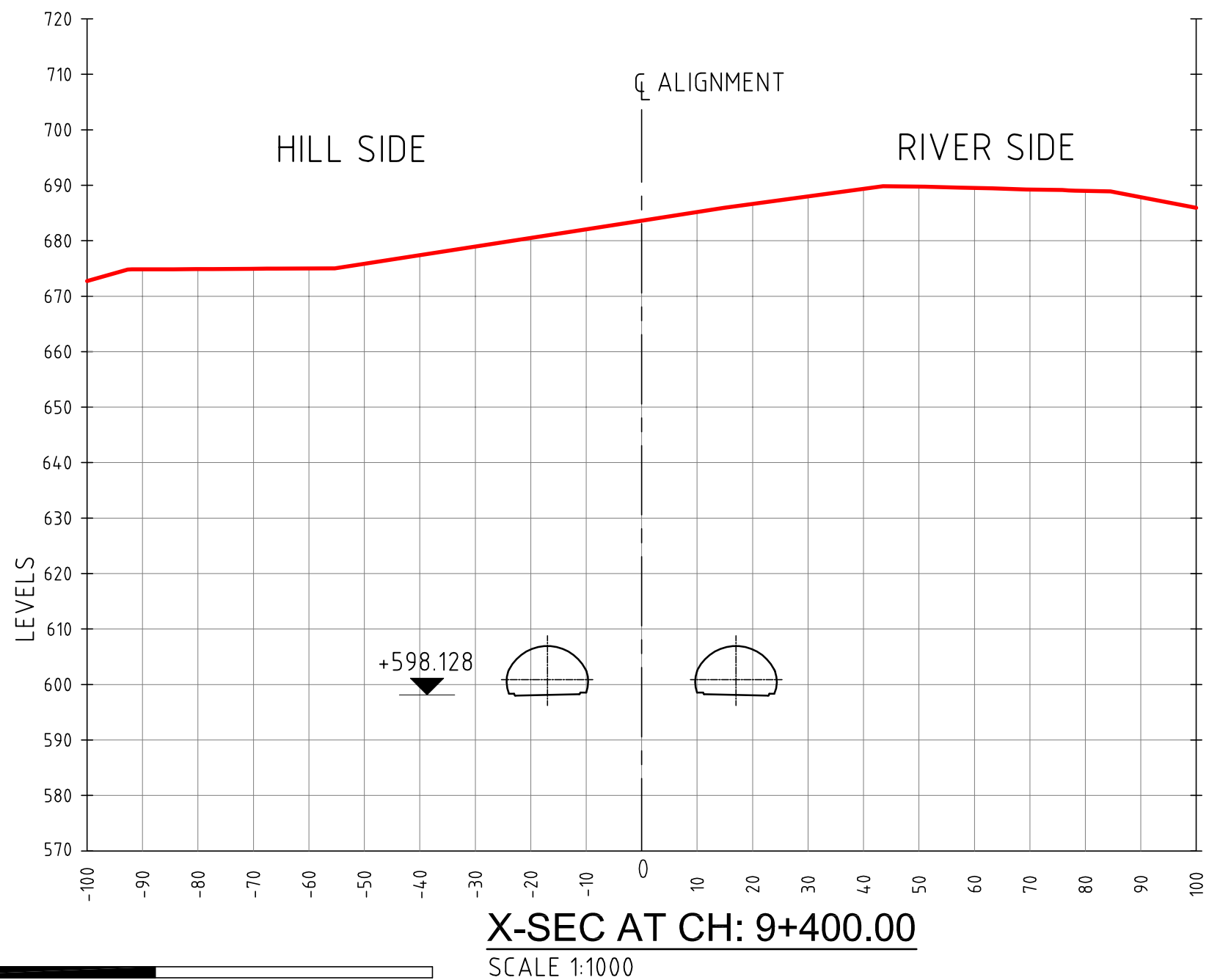
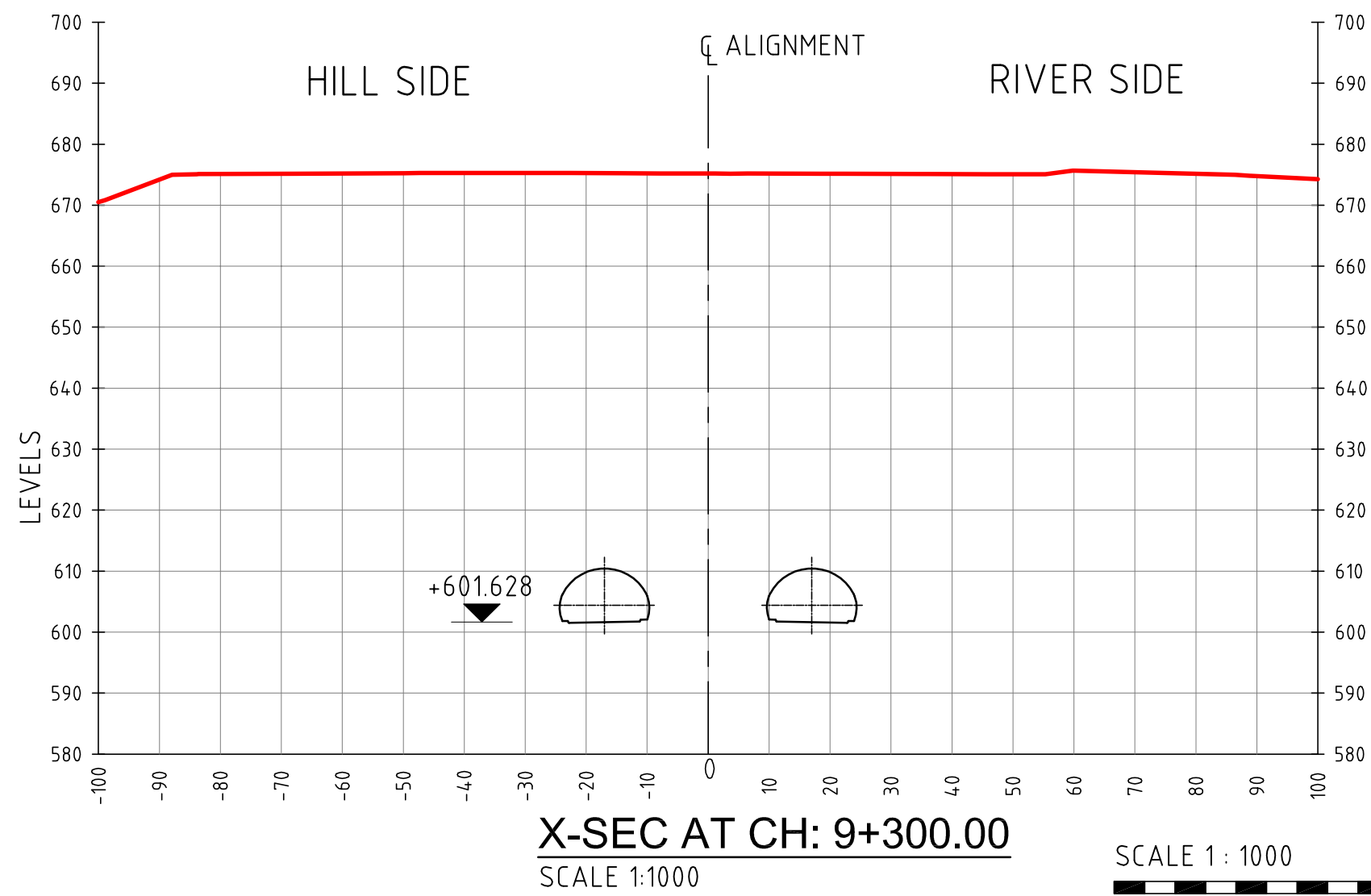
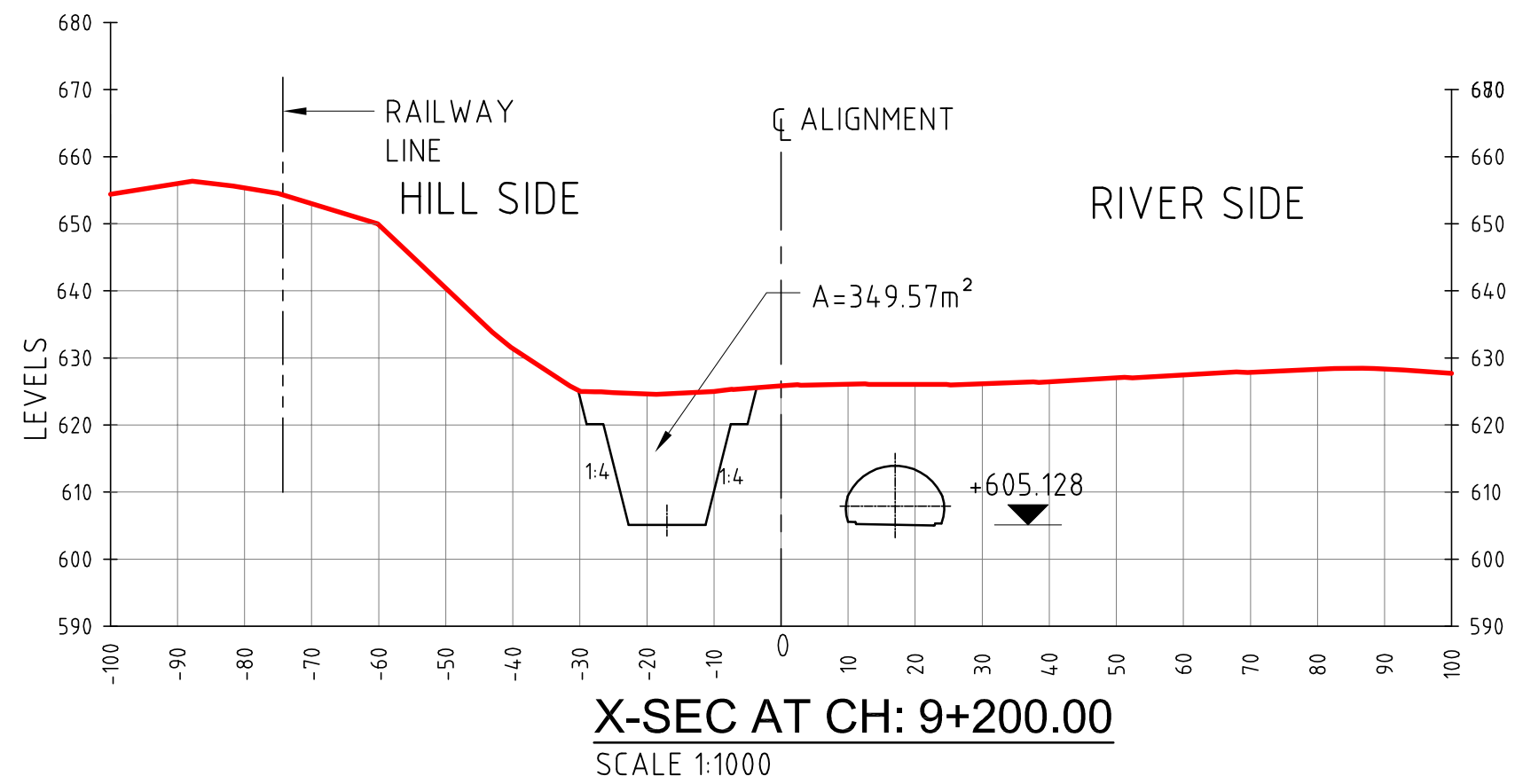
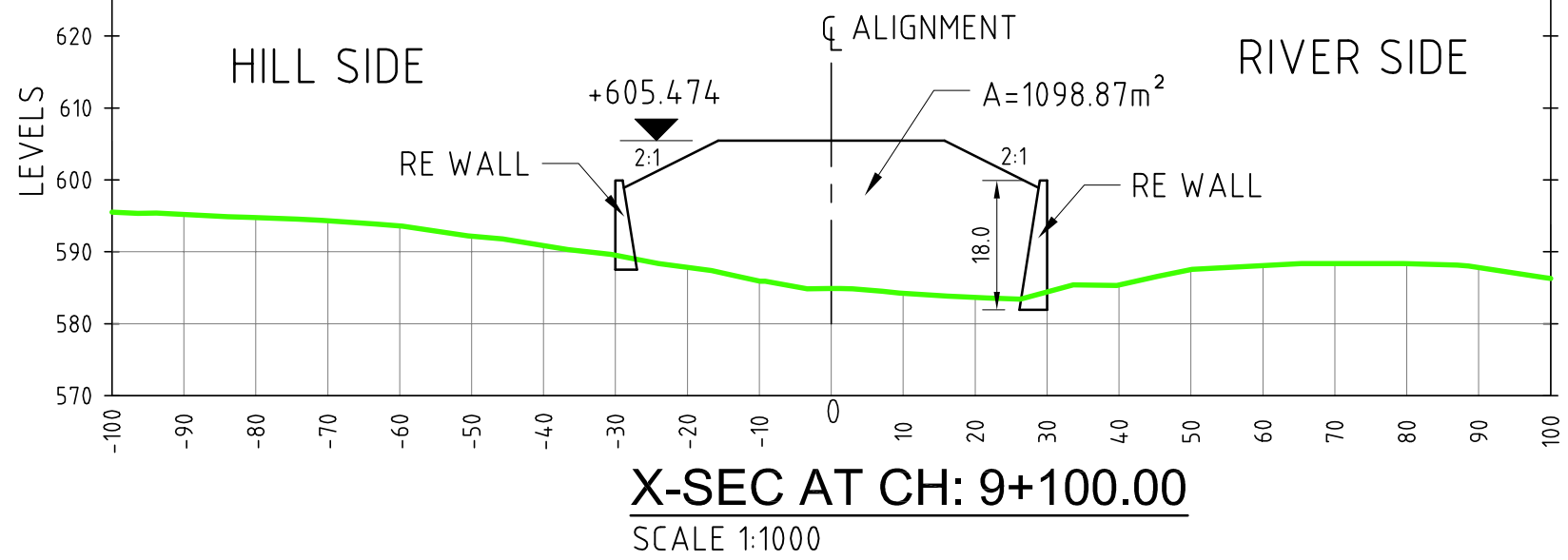
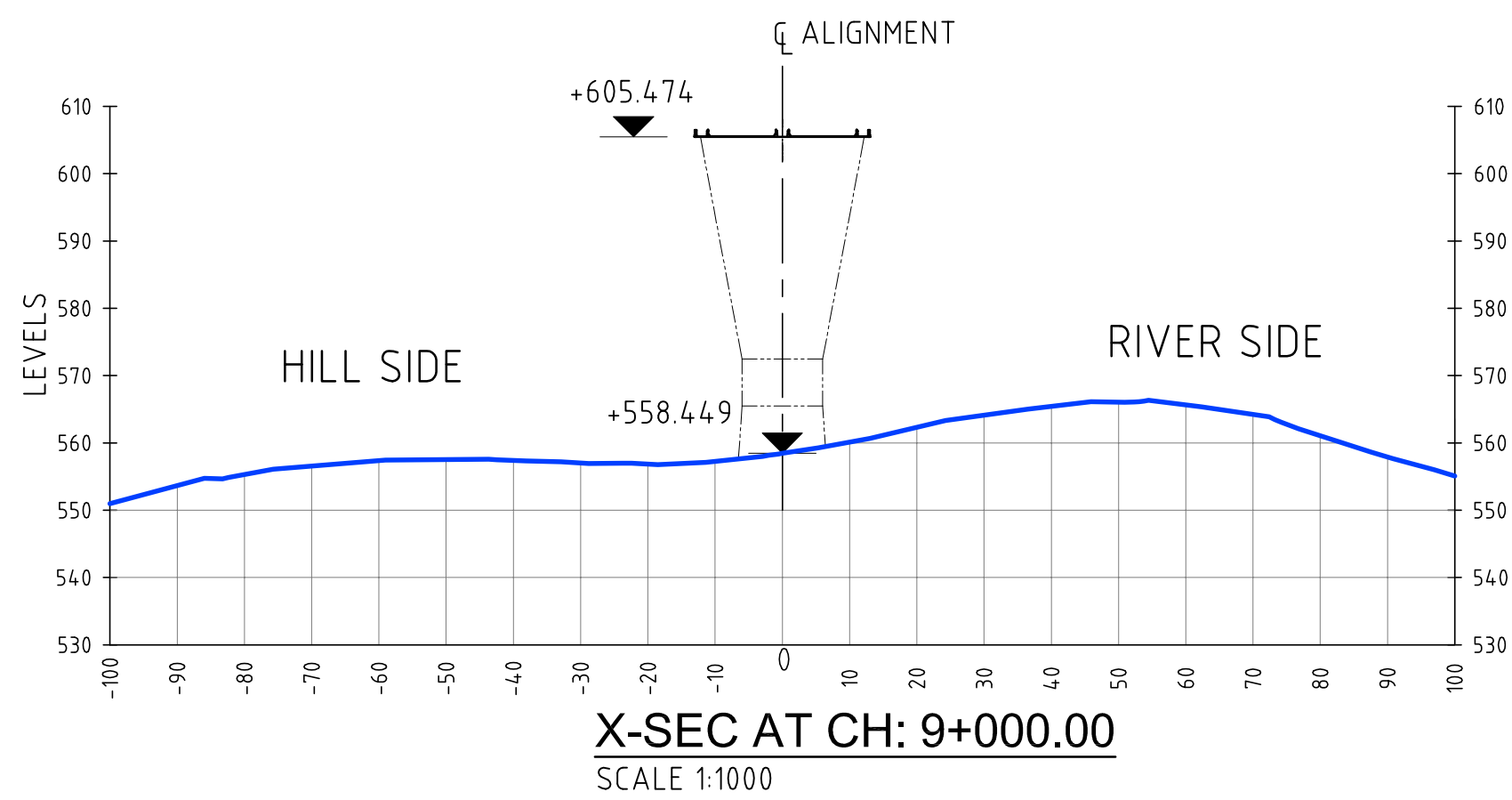
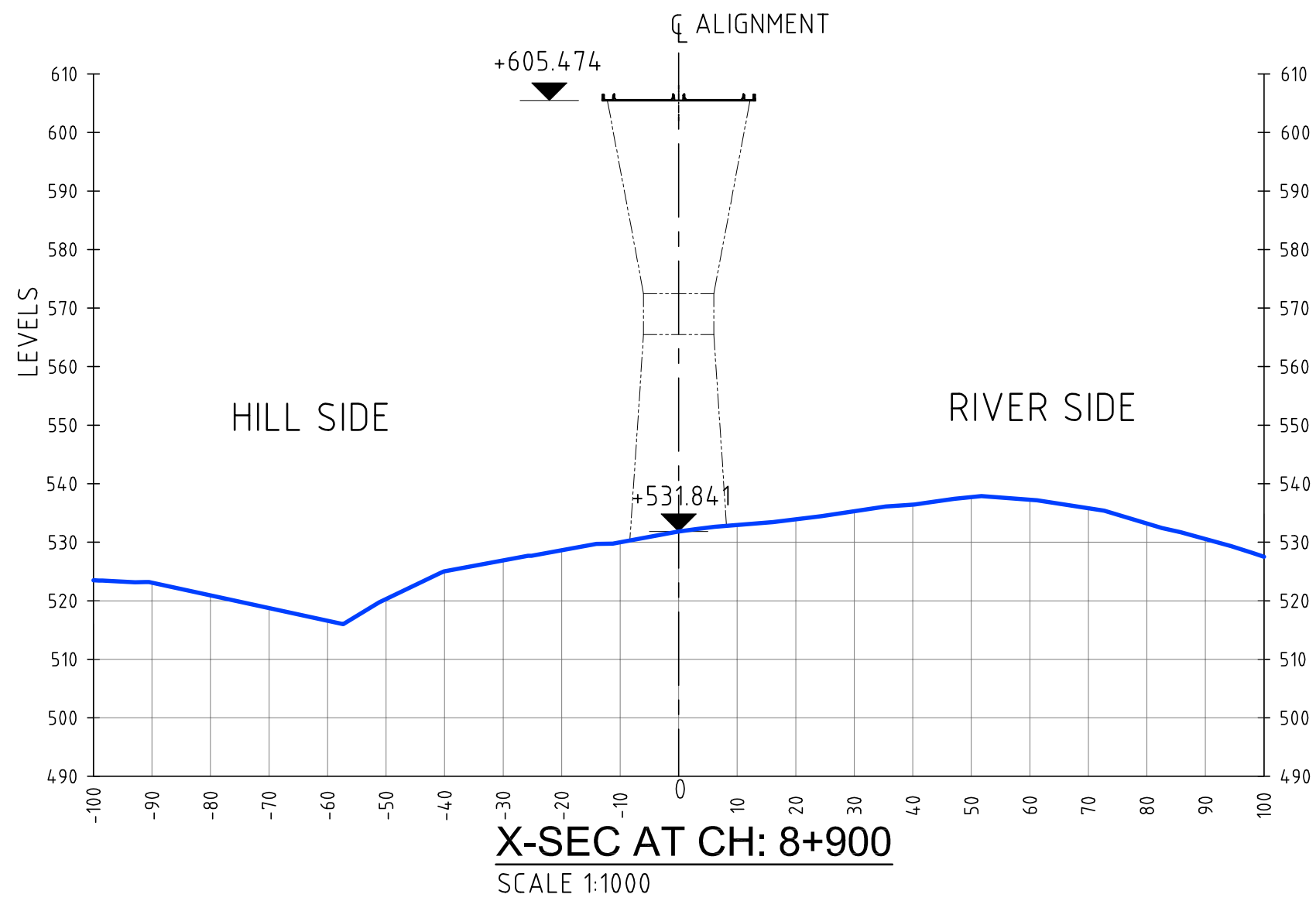
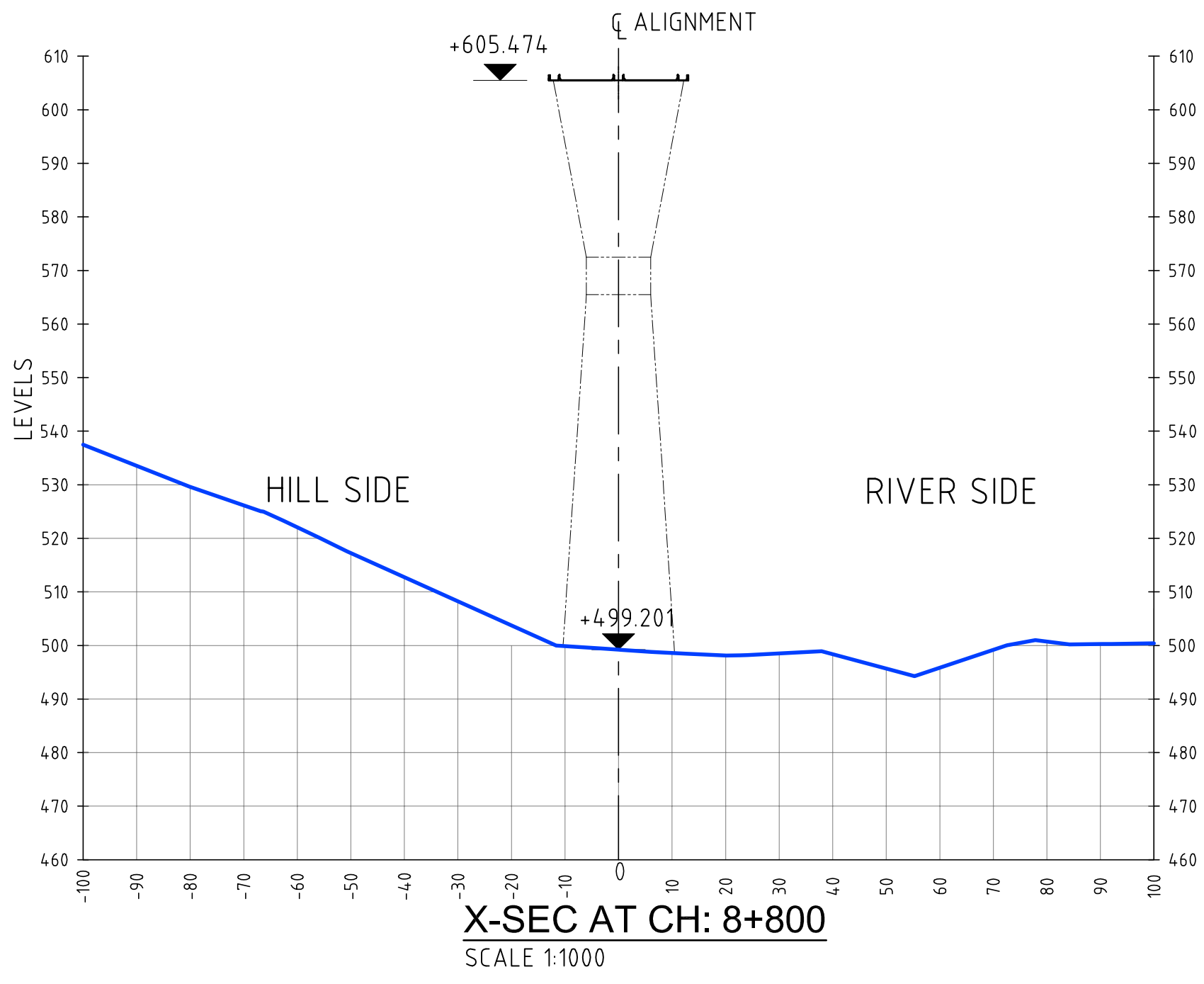
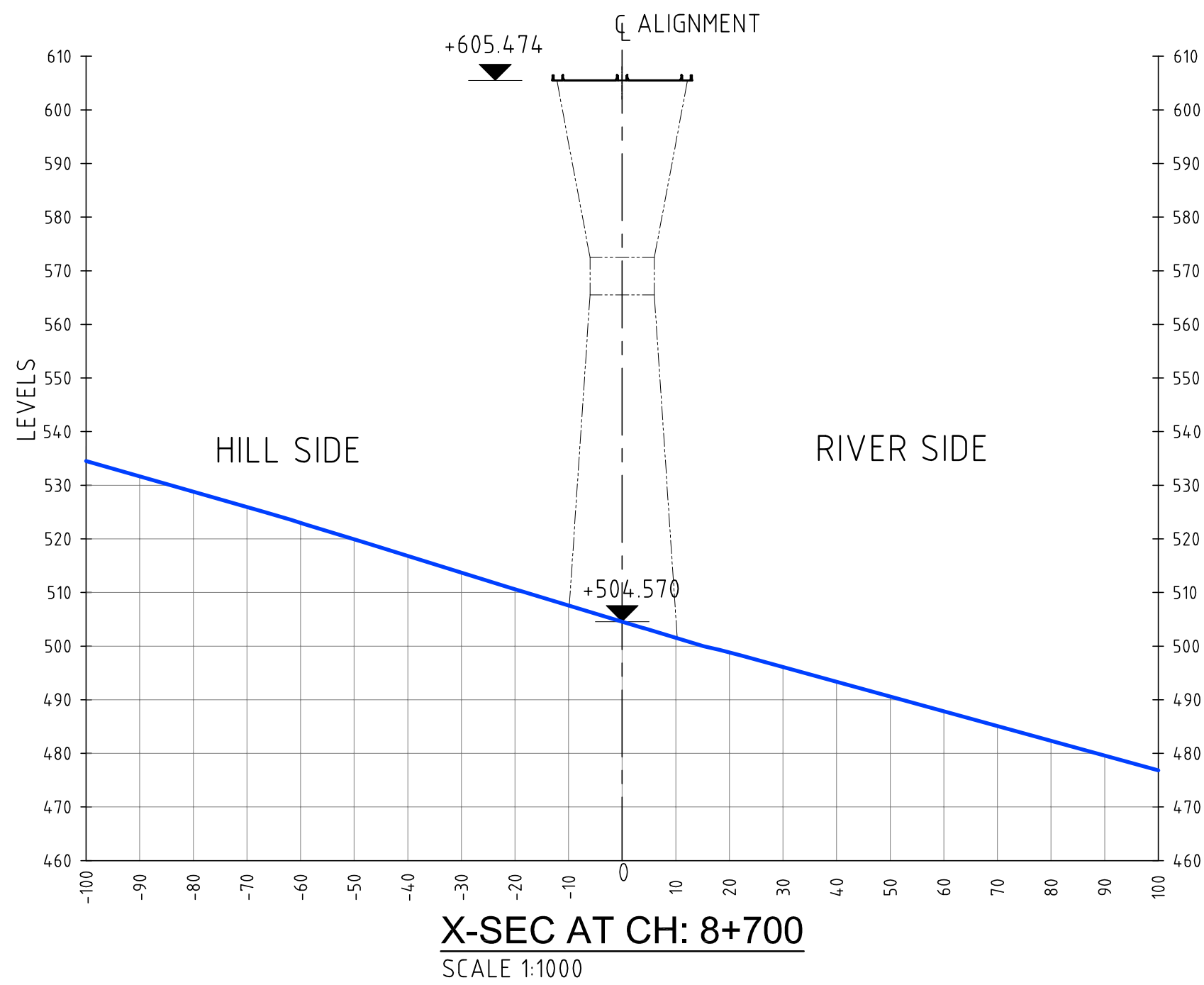
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NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.								PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH: 7+500 TO 8+000	
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								SCALE AS SHOWN		MONTH (Current Issue) DEC 2015	
										REV B	

PRELIMINARY



PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.	LEGEND: ----- RAILWAY LINE ----- CUT/FILL (C/F) ----- BRIDGES (B) ----- TUNNELS (T)	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA	
												DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH: 8+100 TO 8+600				
													PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			
													This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geconsult was commissioned. Geconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.			
													GEOCONSULT, Aba, R\166000 Projects\166060-Shiradi Ghat\CURRENT\WD-6\SHGA-FS-LAY-1071 TO 1080_B.dwg, 2015-12-14			
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		A	DEC 15	FIRST DRAFT (KD-5)	ABa/PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved			
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators		GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)						



PRELIMINARY

REFERENCE DRAWINGS:
SHGA-FS-LAY-1000

NOTES:
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:
- - - - - RAILWAY LINE
- - - - - CUT/FILL (C/F)
- - - - - BRIDGES (B)
- - - - - TUNNELS (T)

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
B	DEC 15	SECOND DRAFT (KD-6)	ABa/PRa	RMe	AKg
A	DEC 15	FIRST DRAFT (KD-5)	ABa/PRa	RMe	AKg

QUALITY ASSURANCE

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Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015
Name	ABa/PRa	RMe	RMe/ADh	AKg/ADh	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

ALIGNMENT OPTION "A"
CROSS SECTIONS
CH: 8+700 TO 9+500

DRAWING NUMBER

SHGA-FS-LAY-1075

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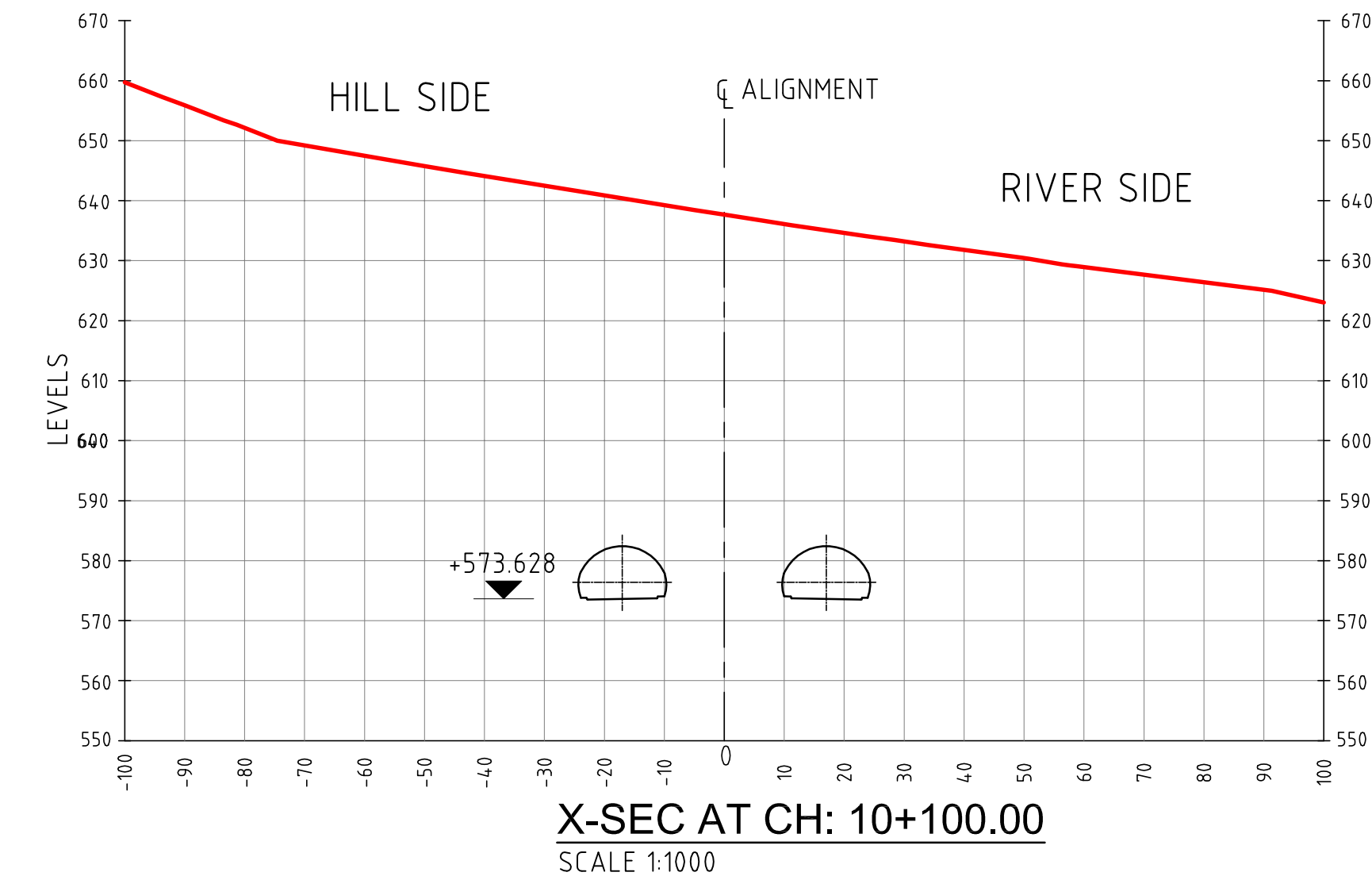
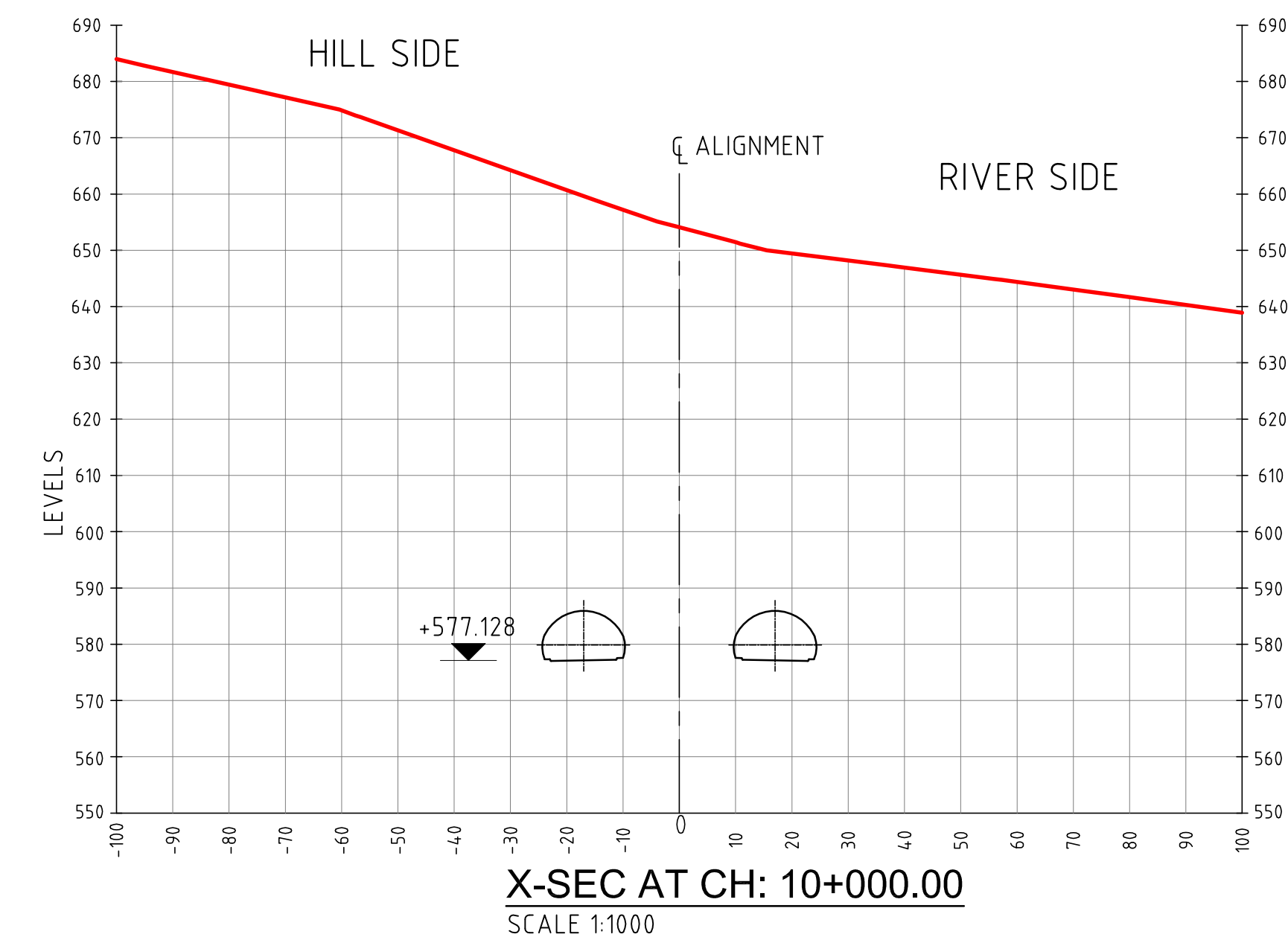
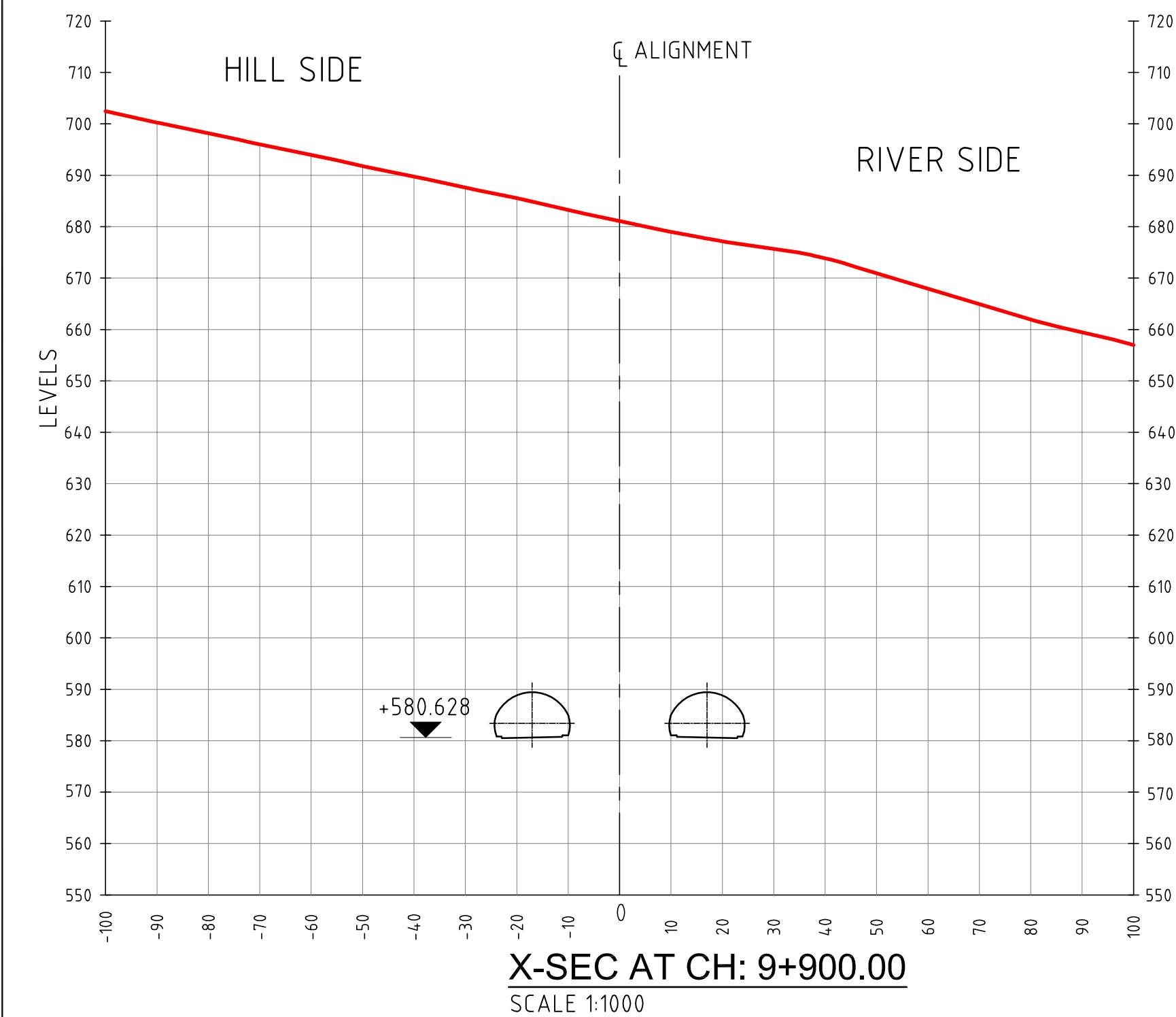
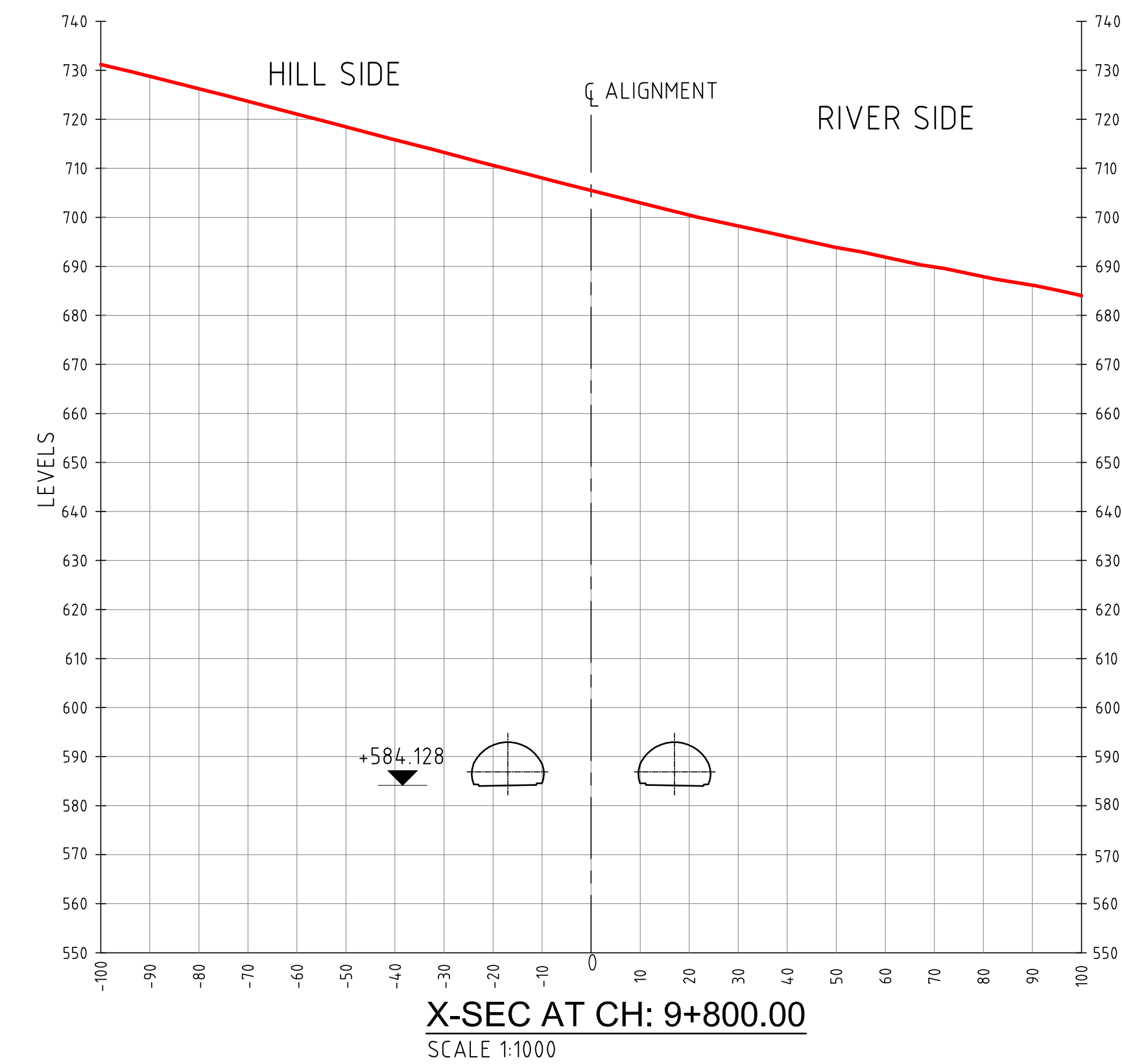
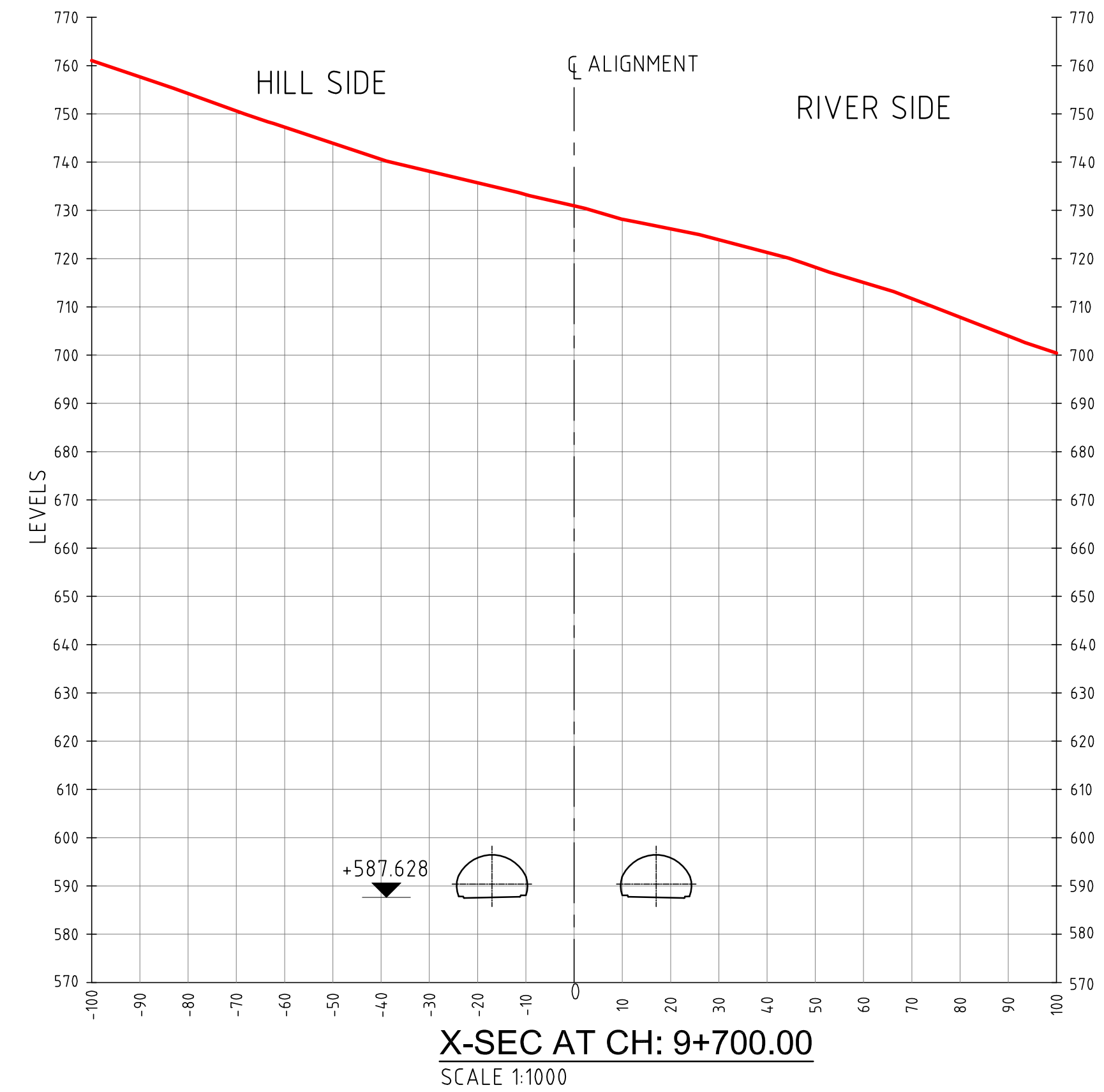
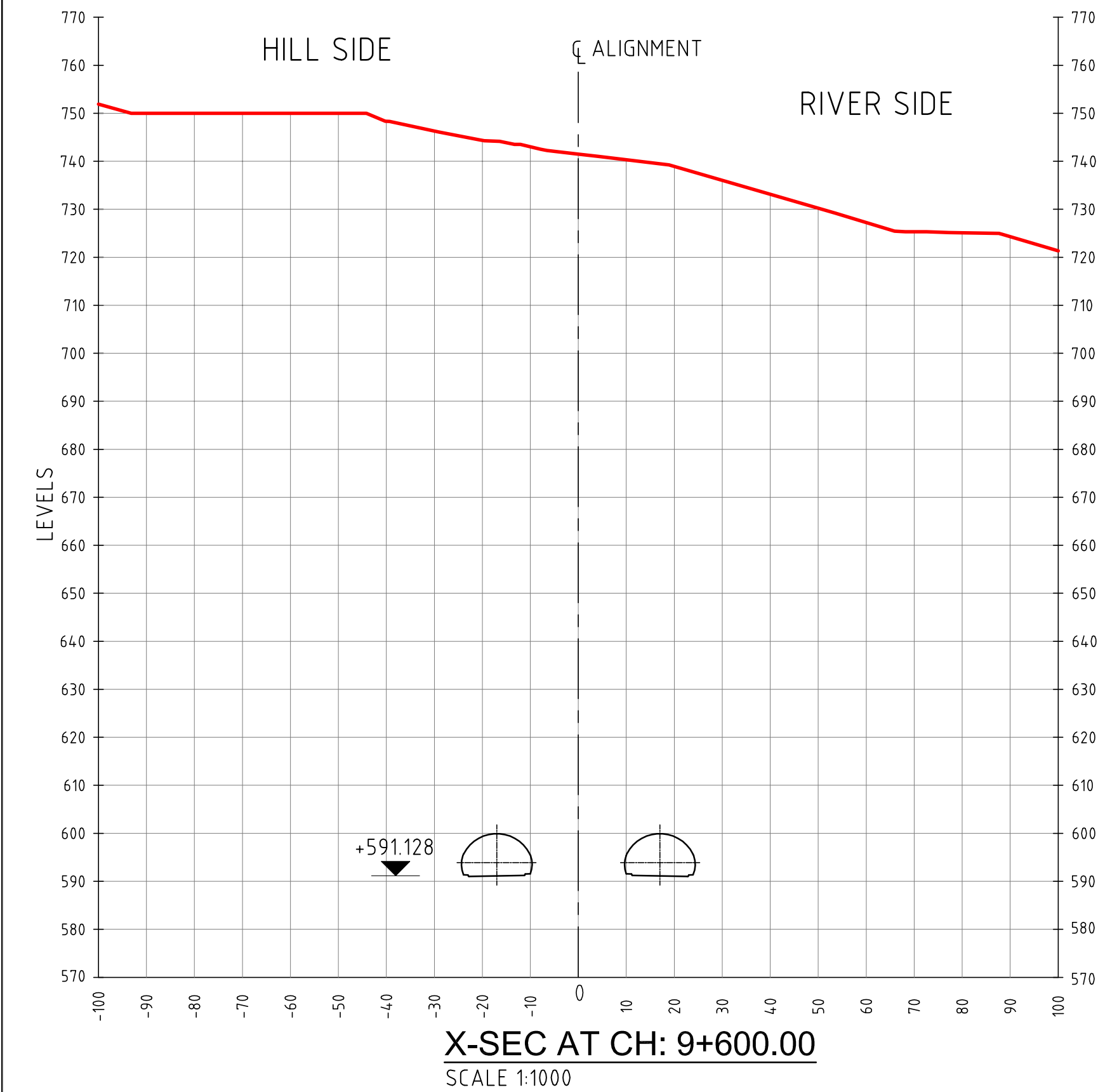
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(Current Issue) DEC 2015

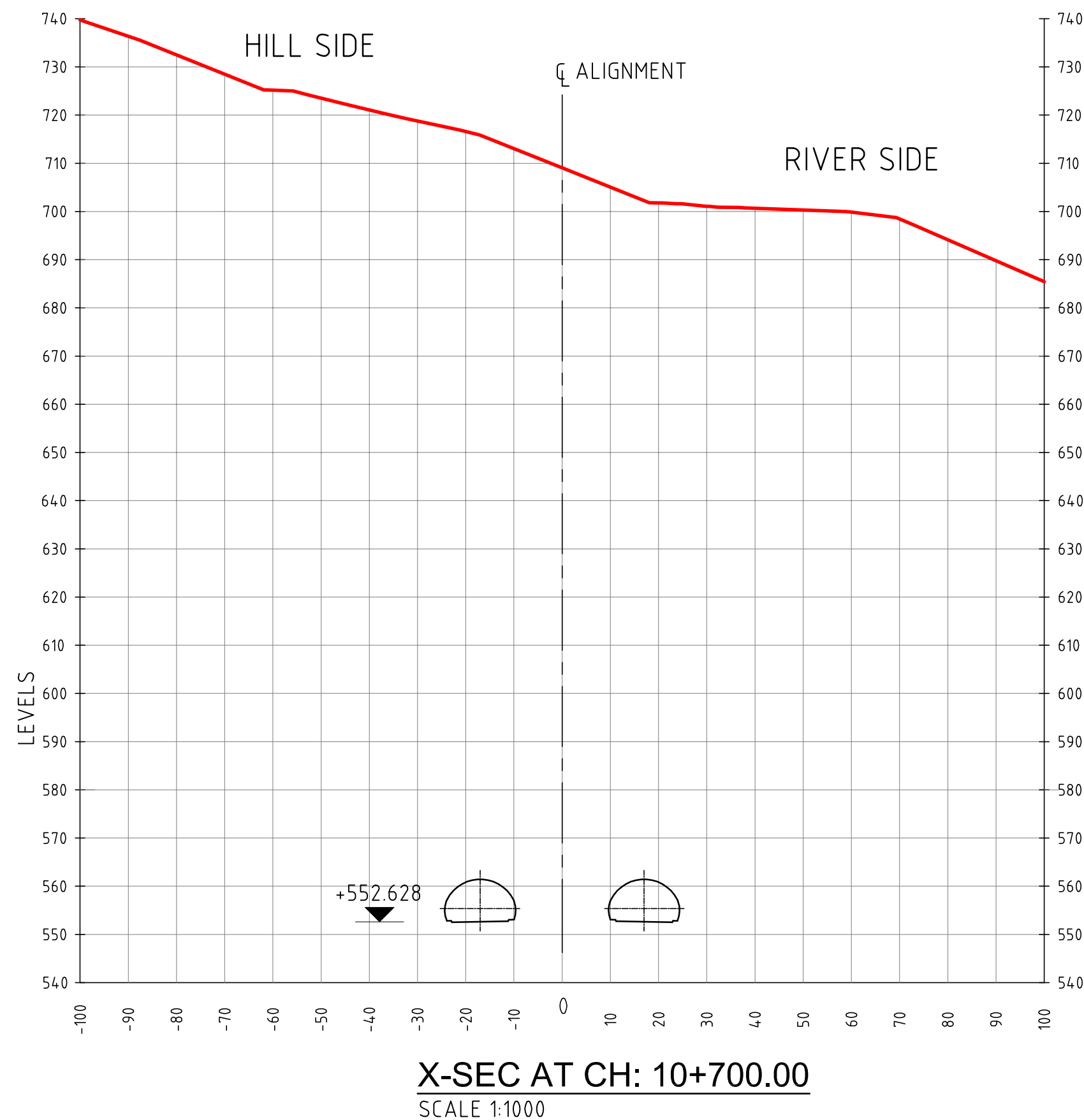
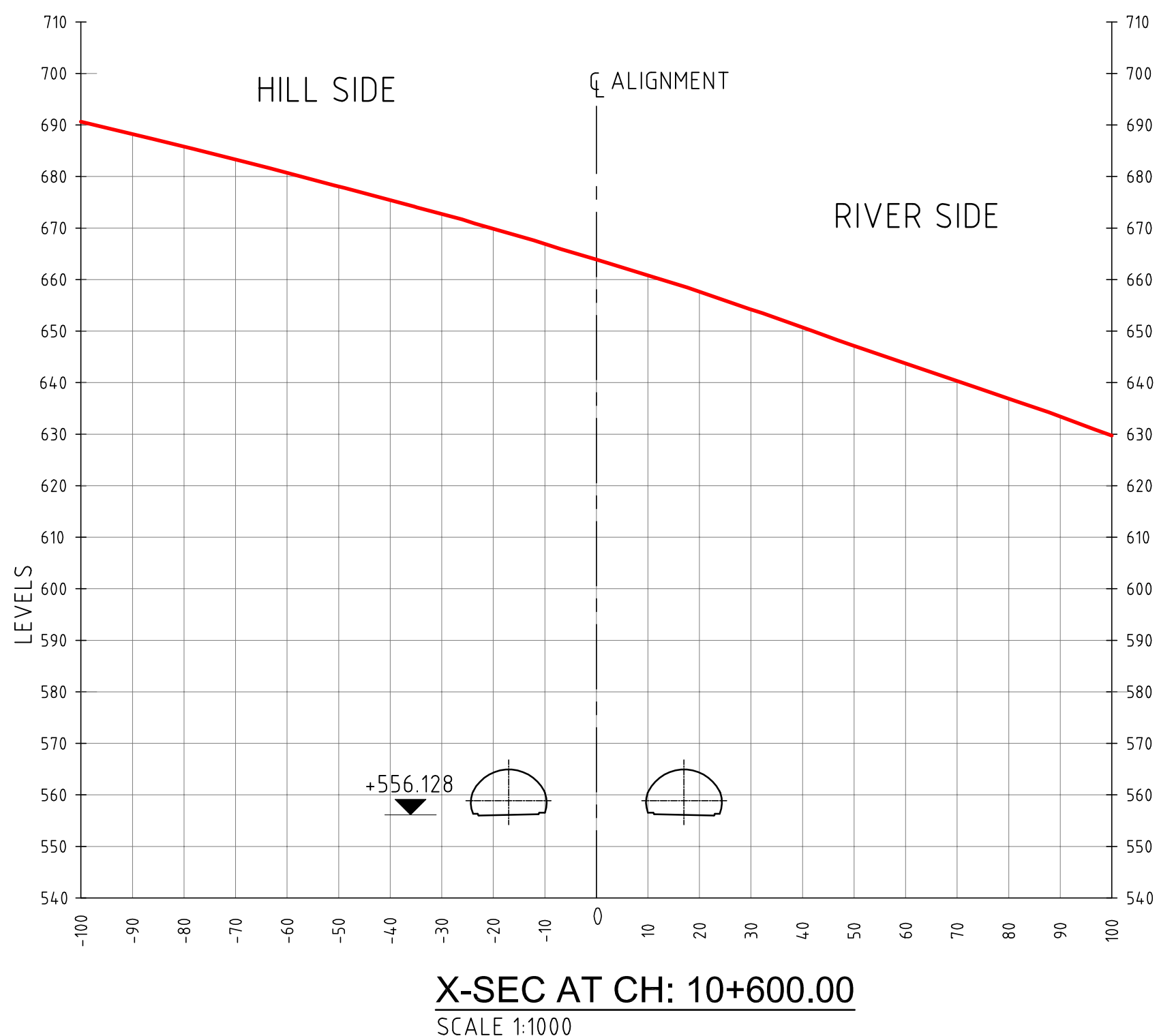
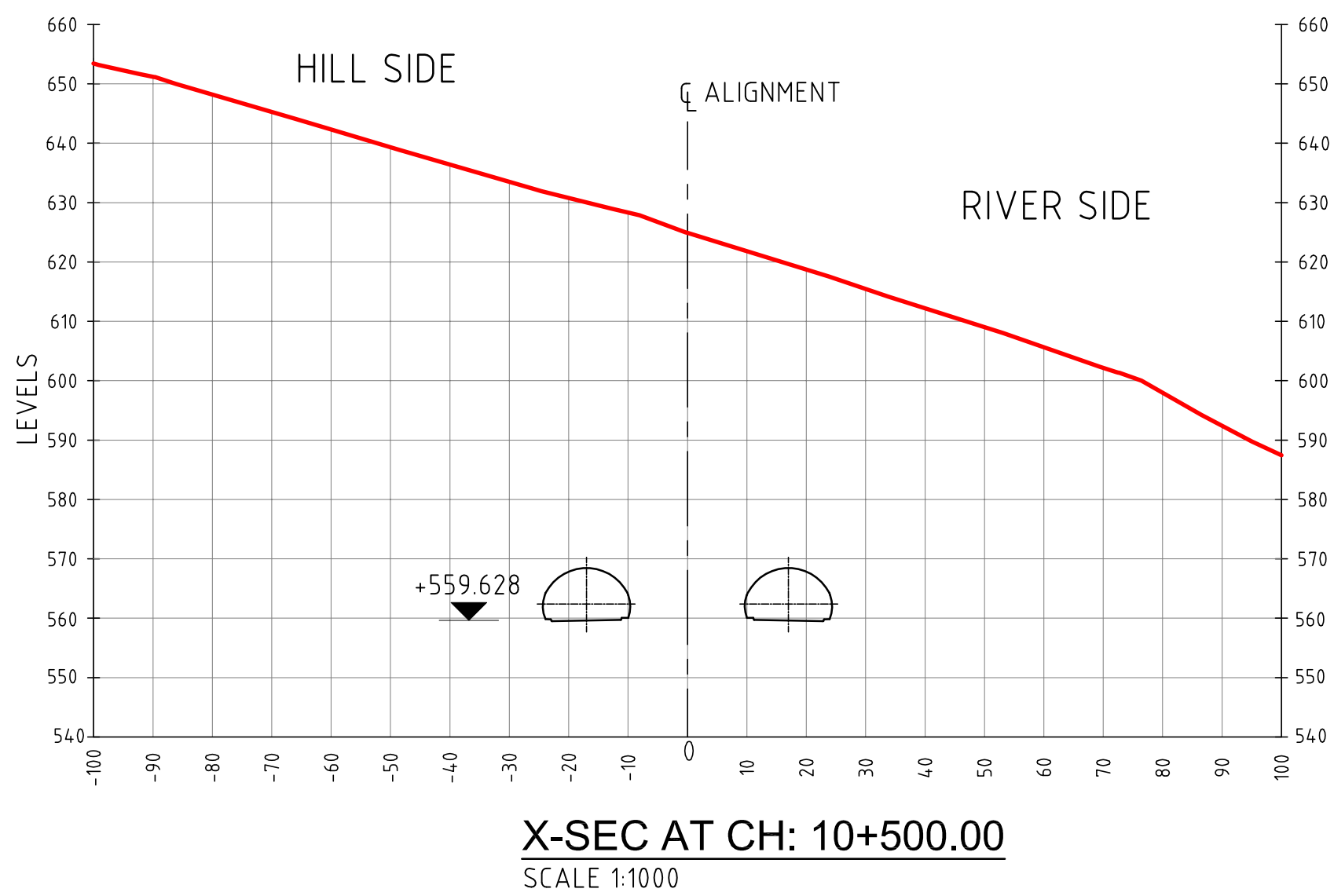
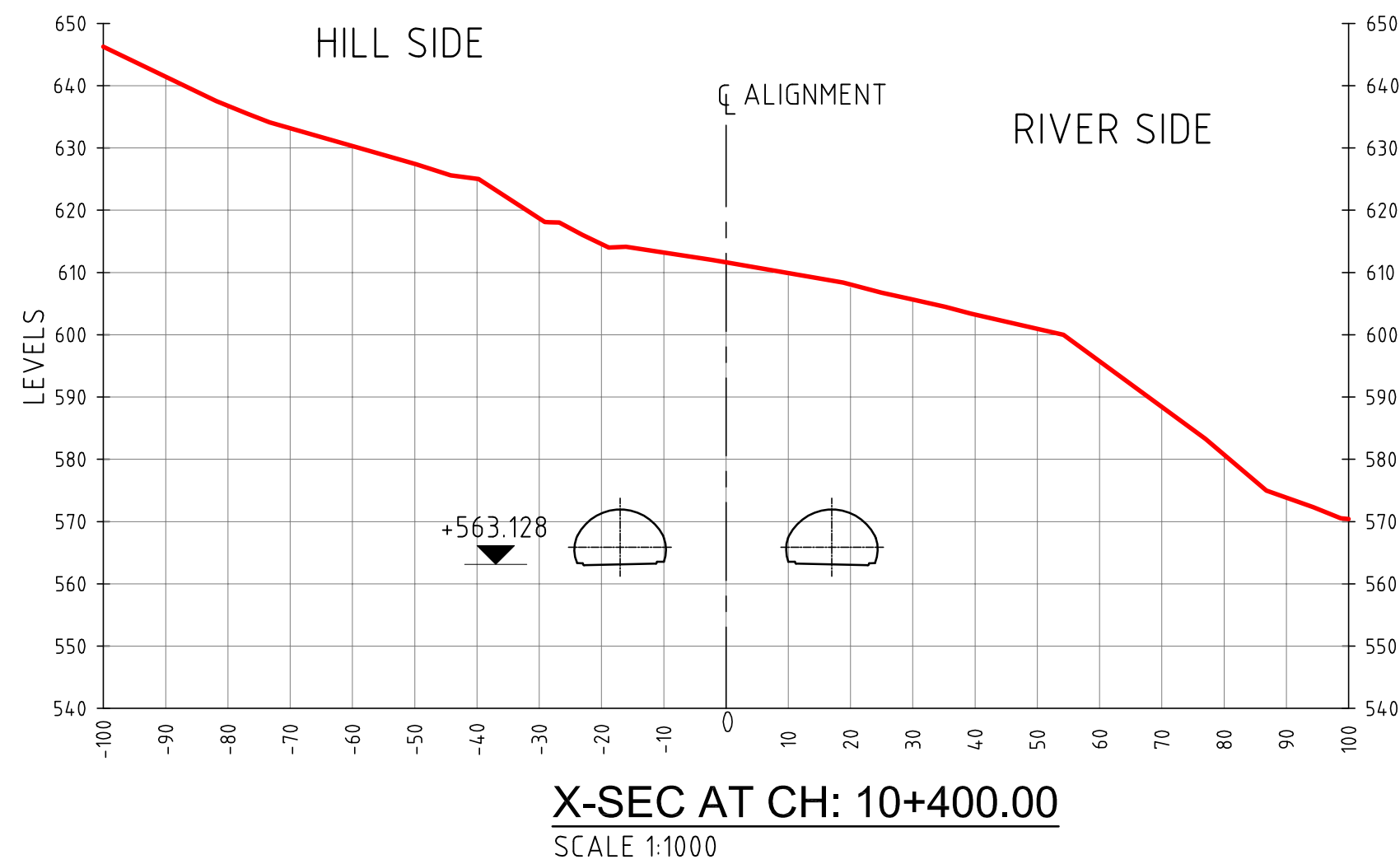
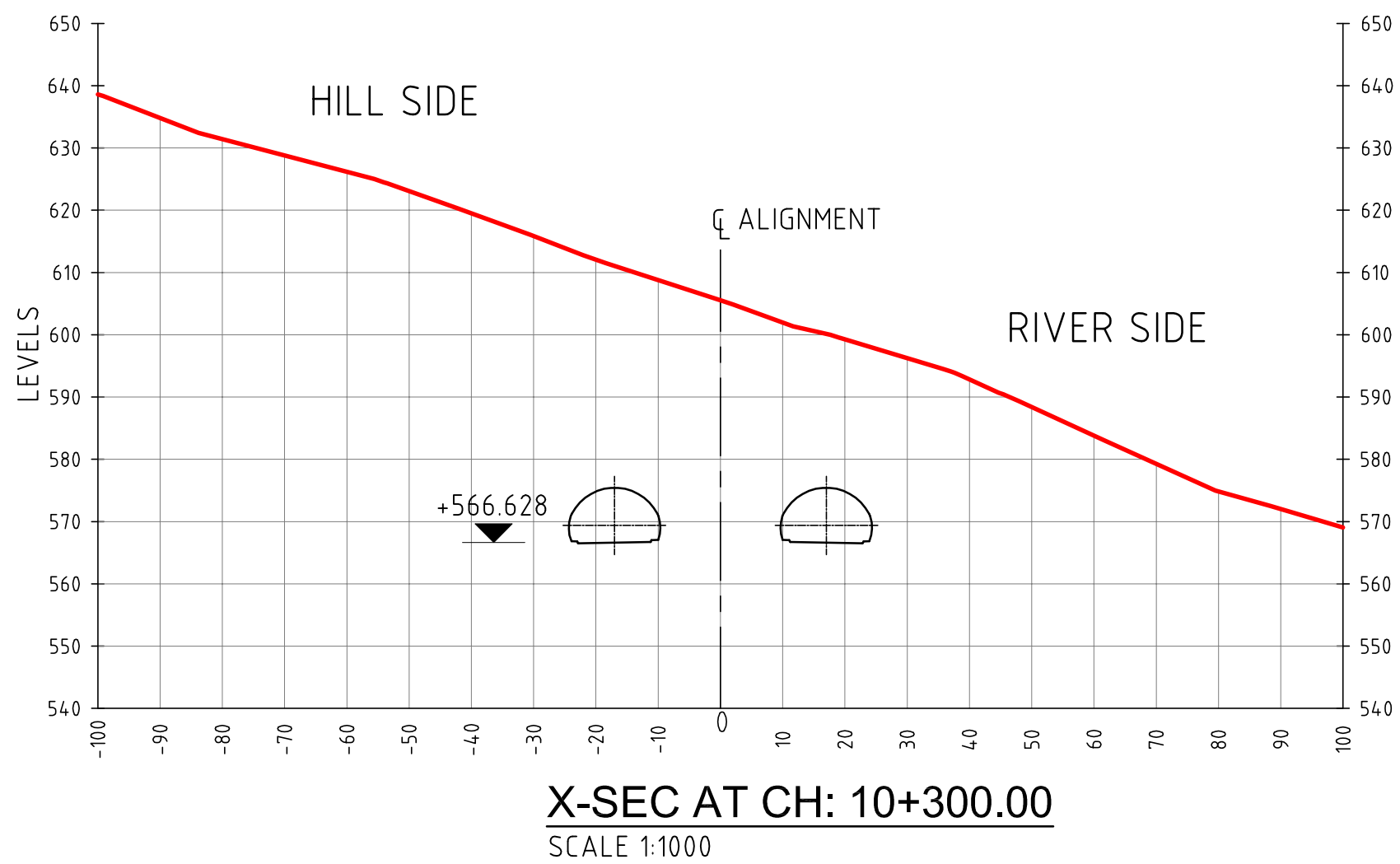
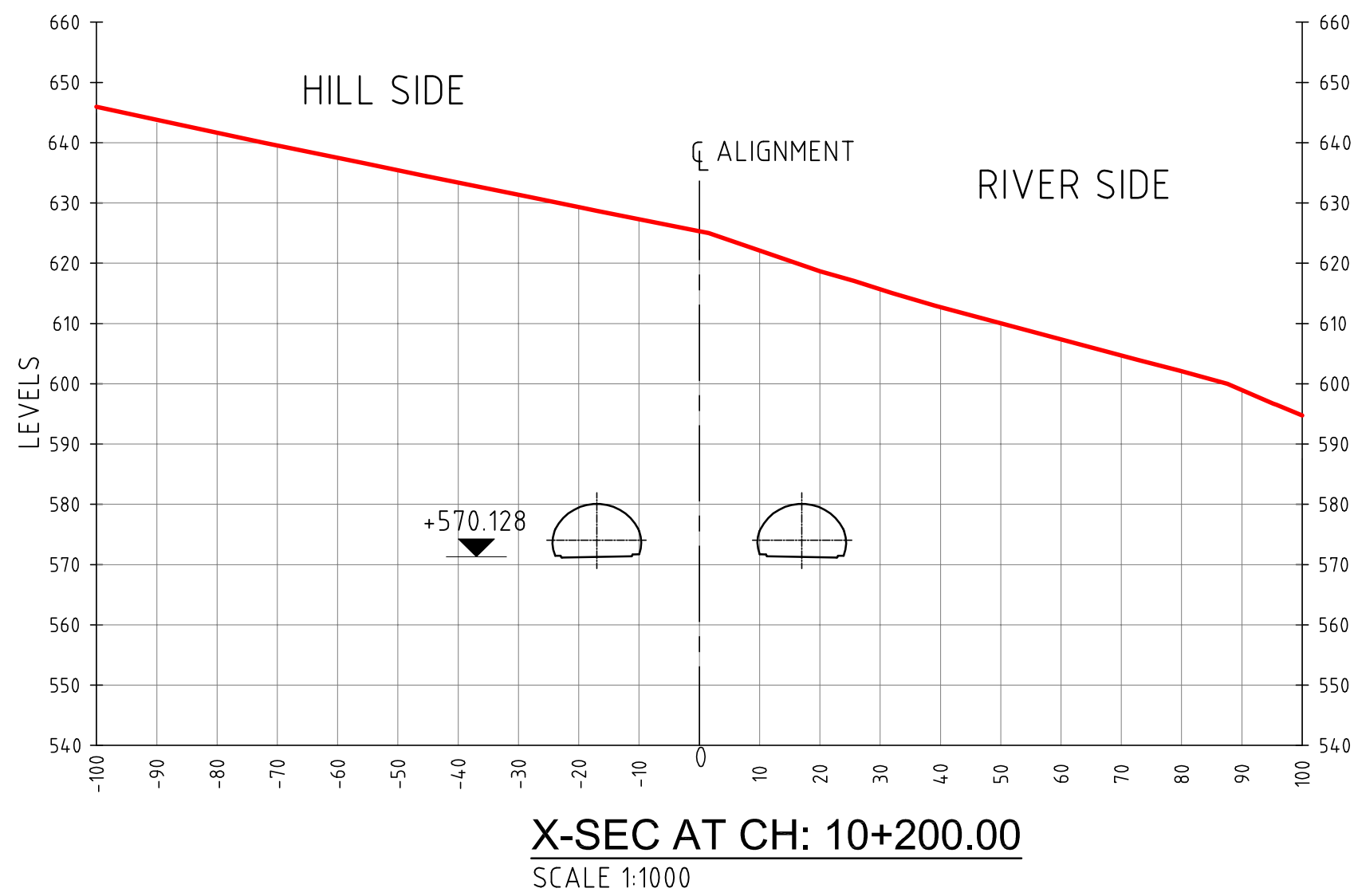
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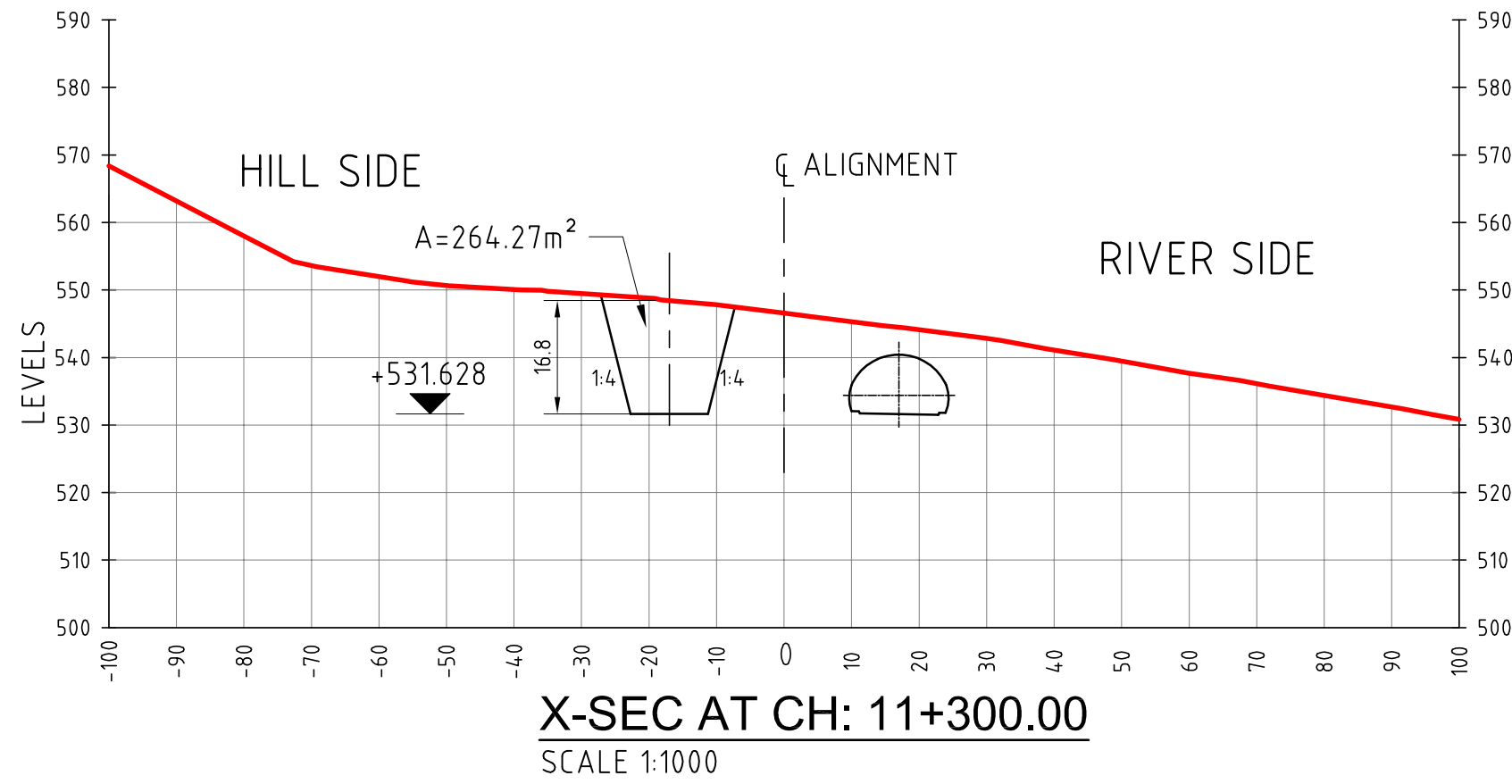
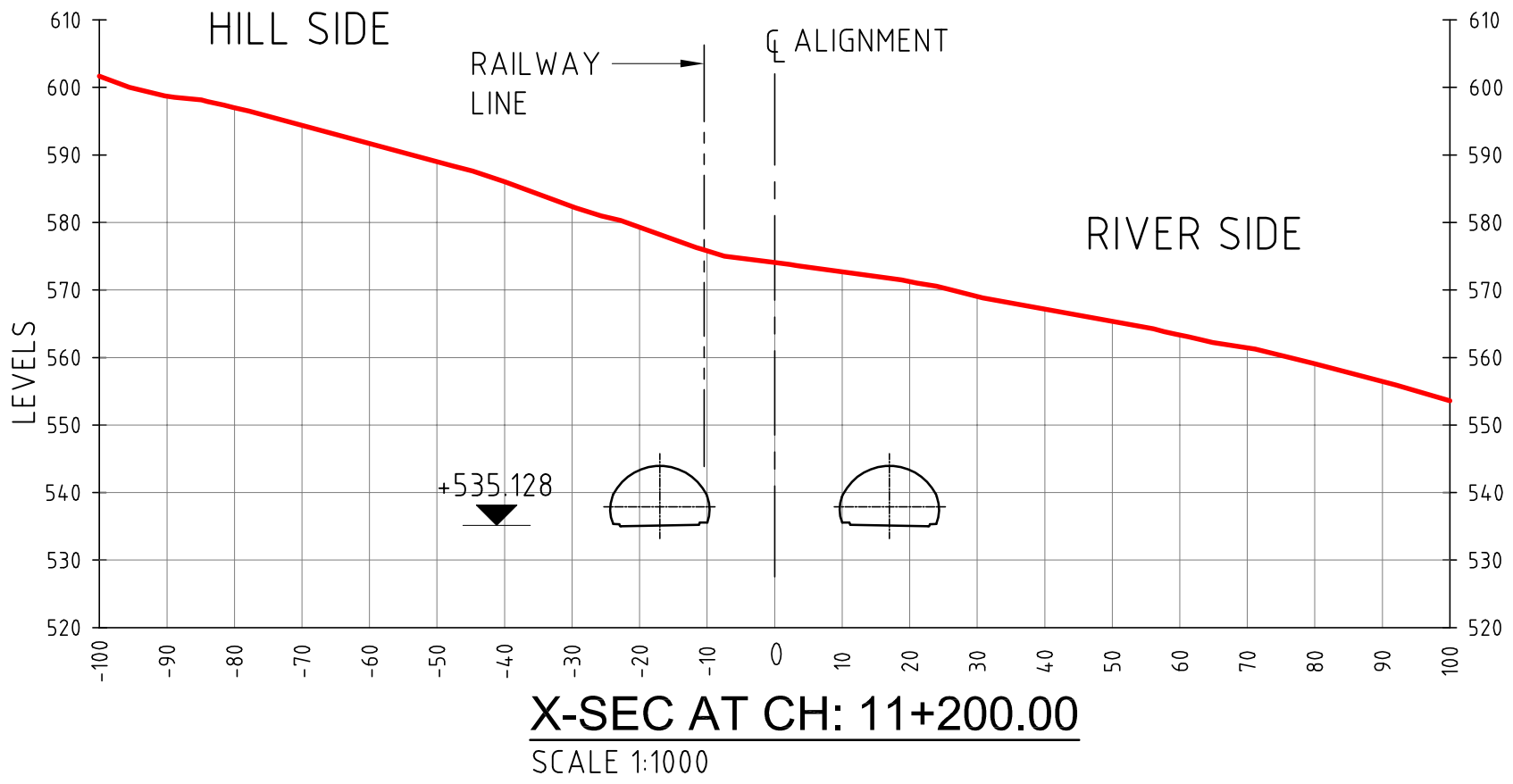
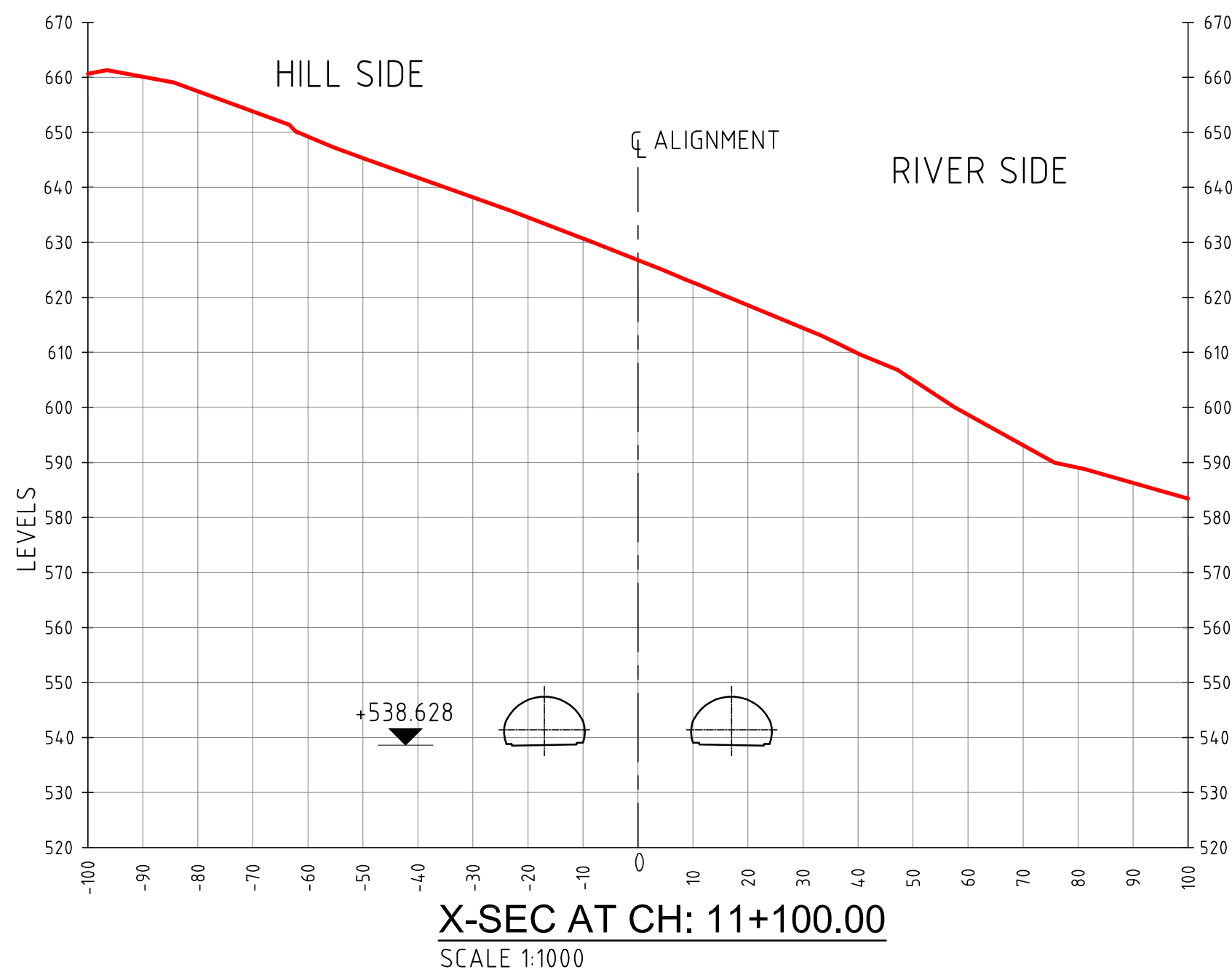
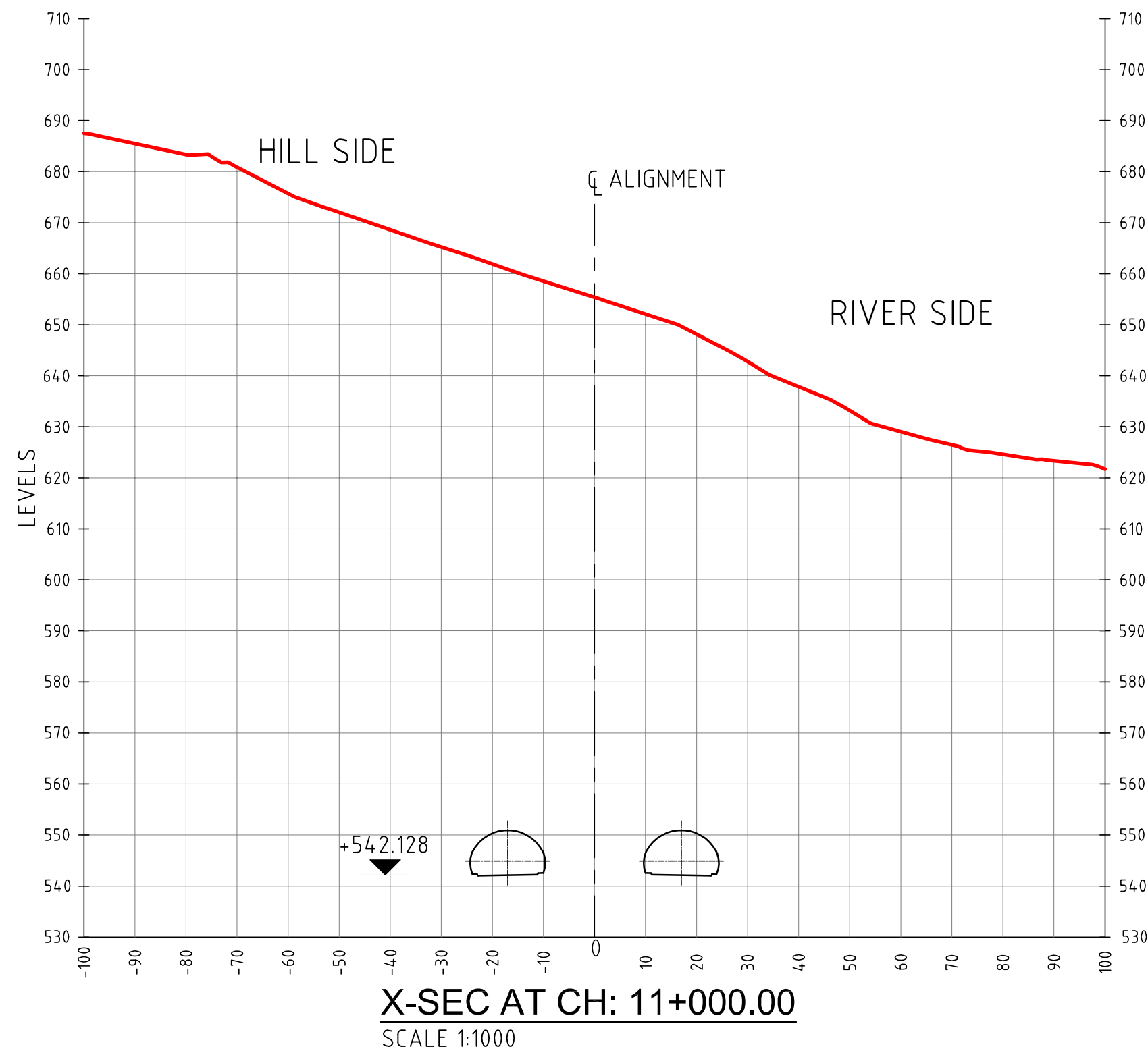
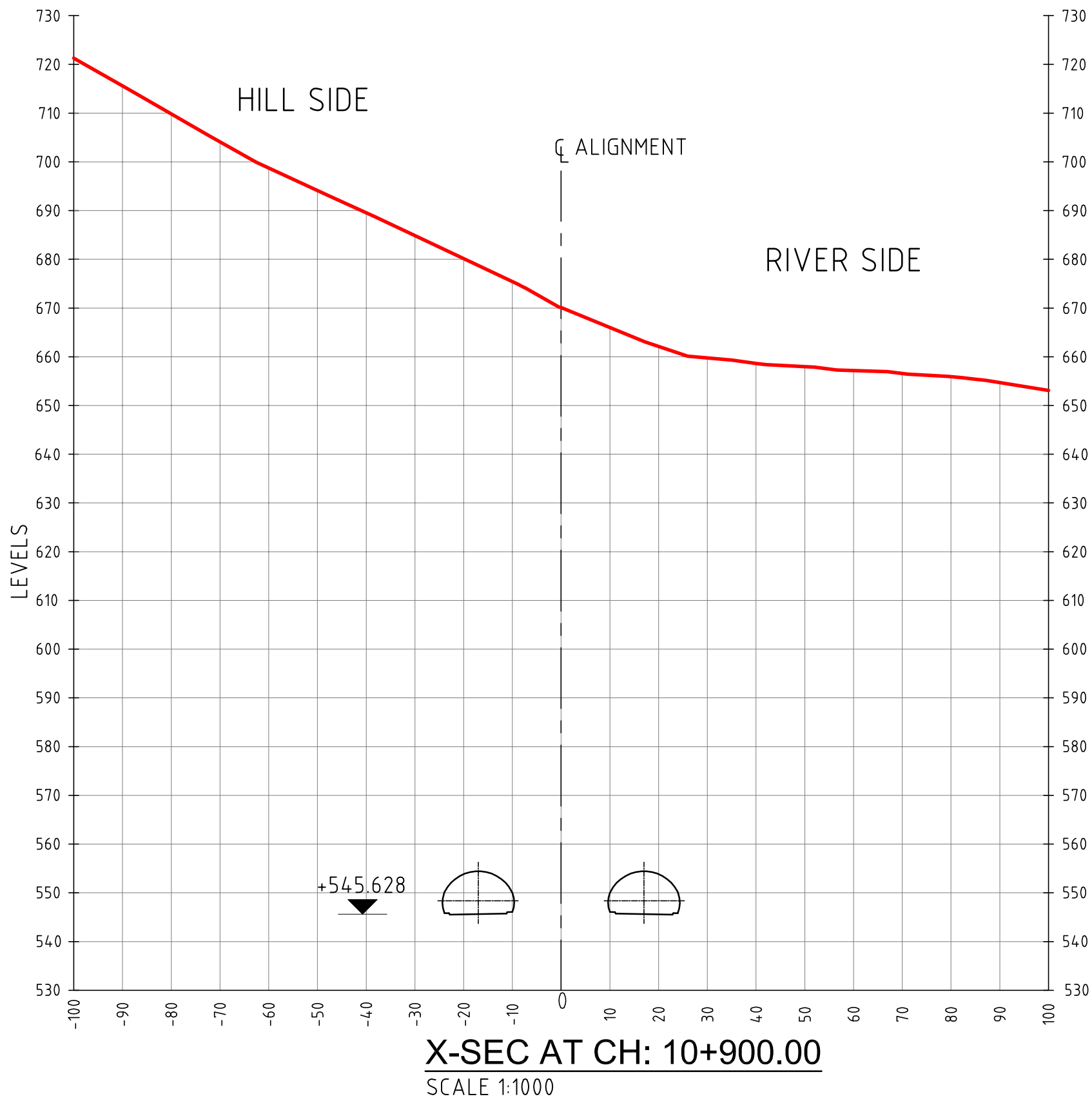
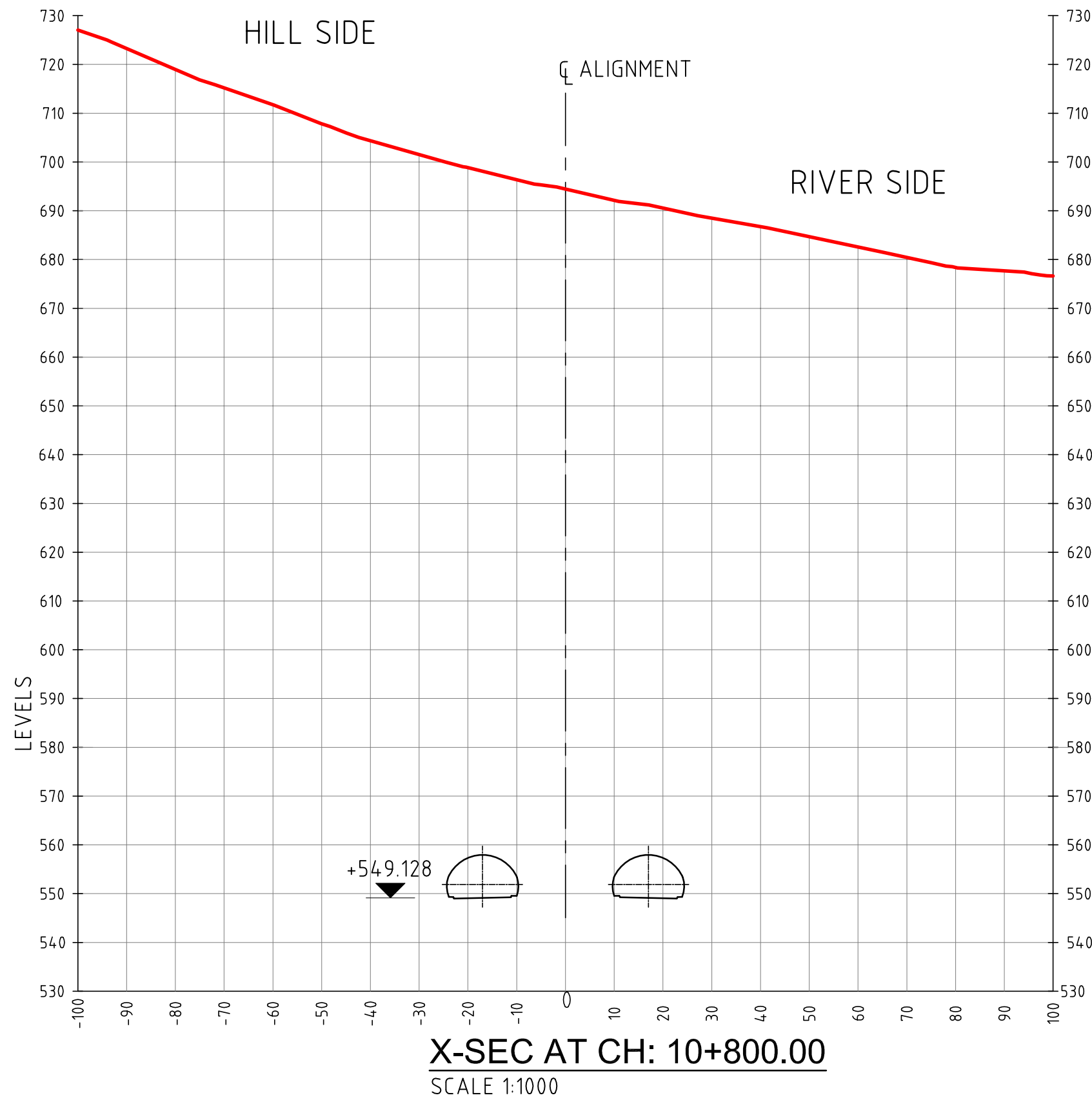
PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000	LEGEND: ----- RAILWAY LINE CUT/FILL (C/F) BRIDGES (B) TUNNELS (T)	REVISION					QUALITY ASSURANCE					DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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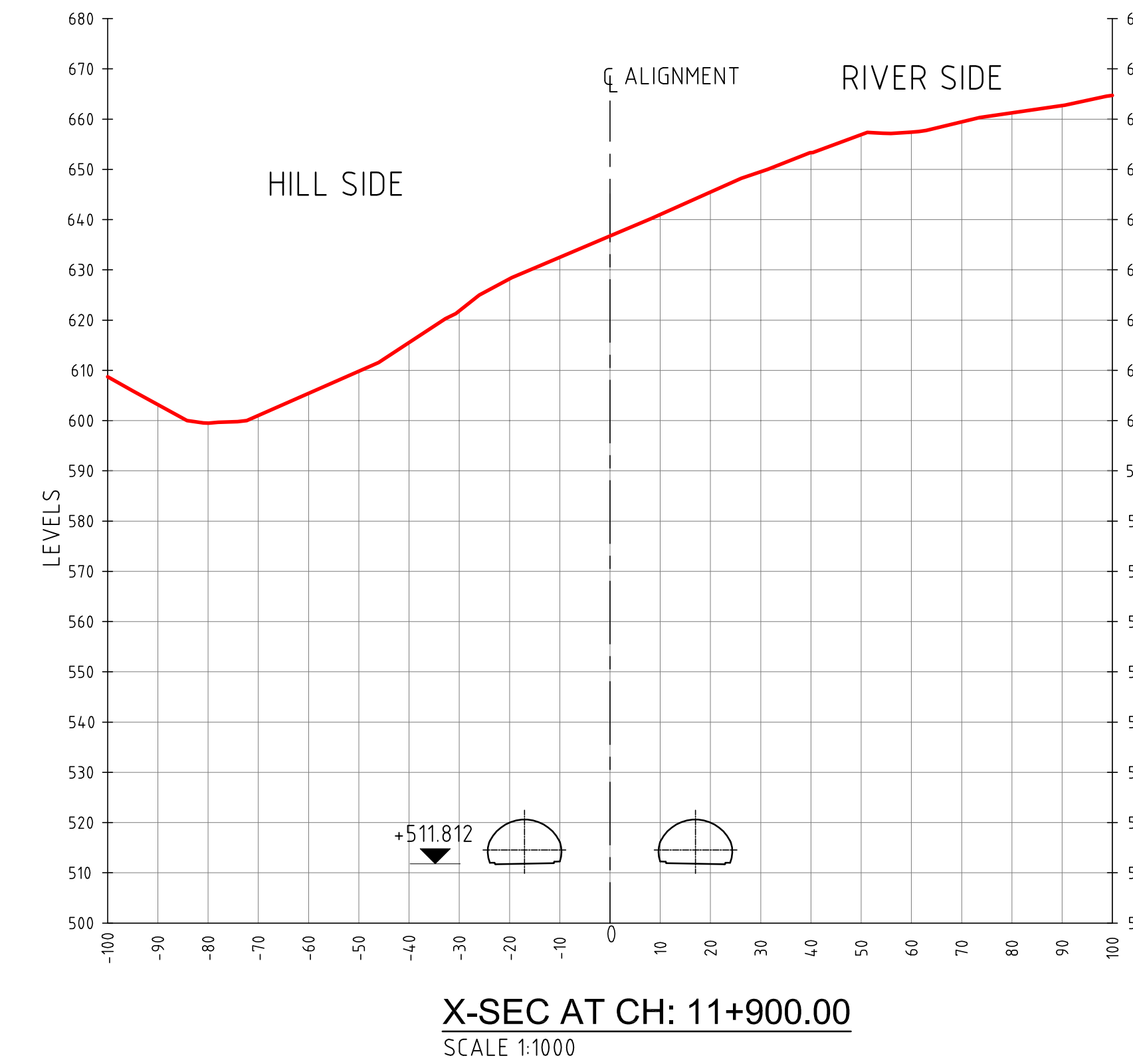
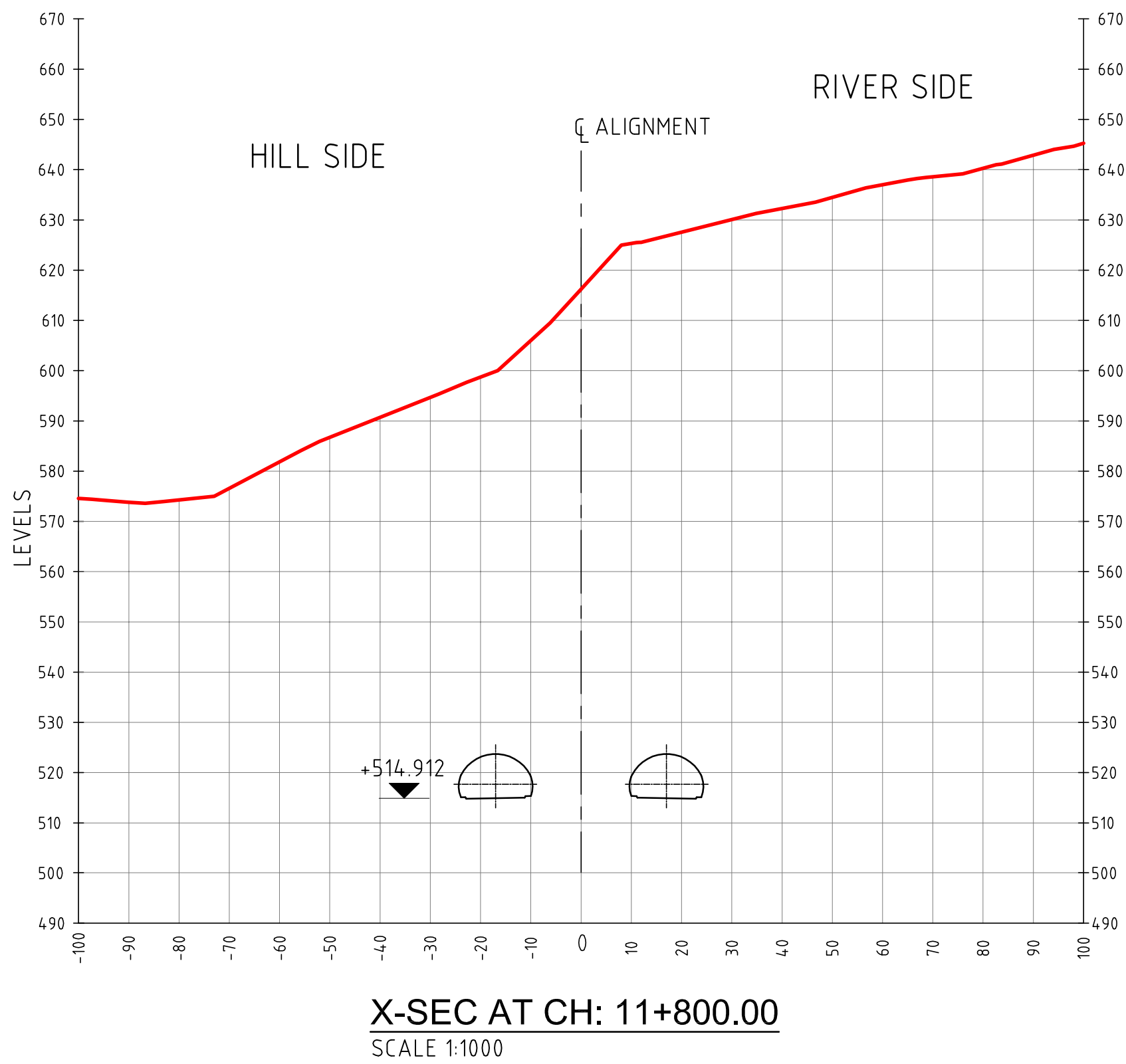
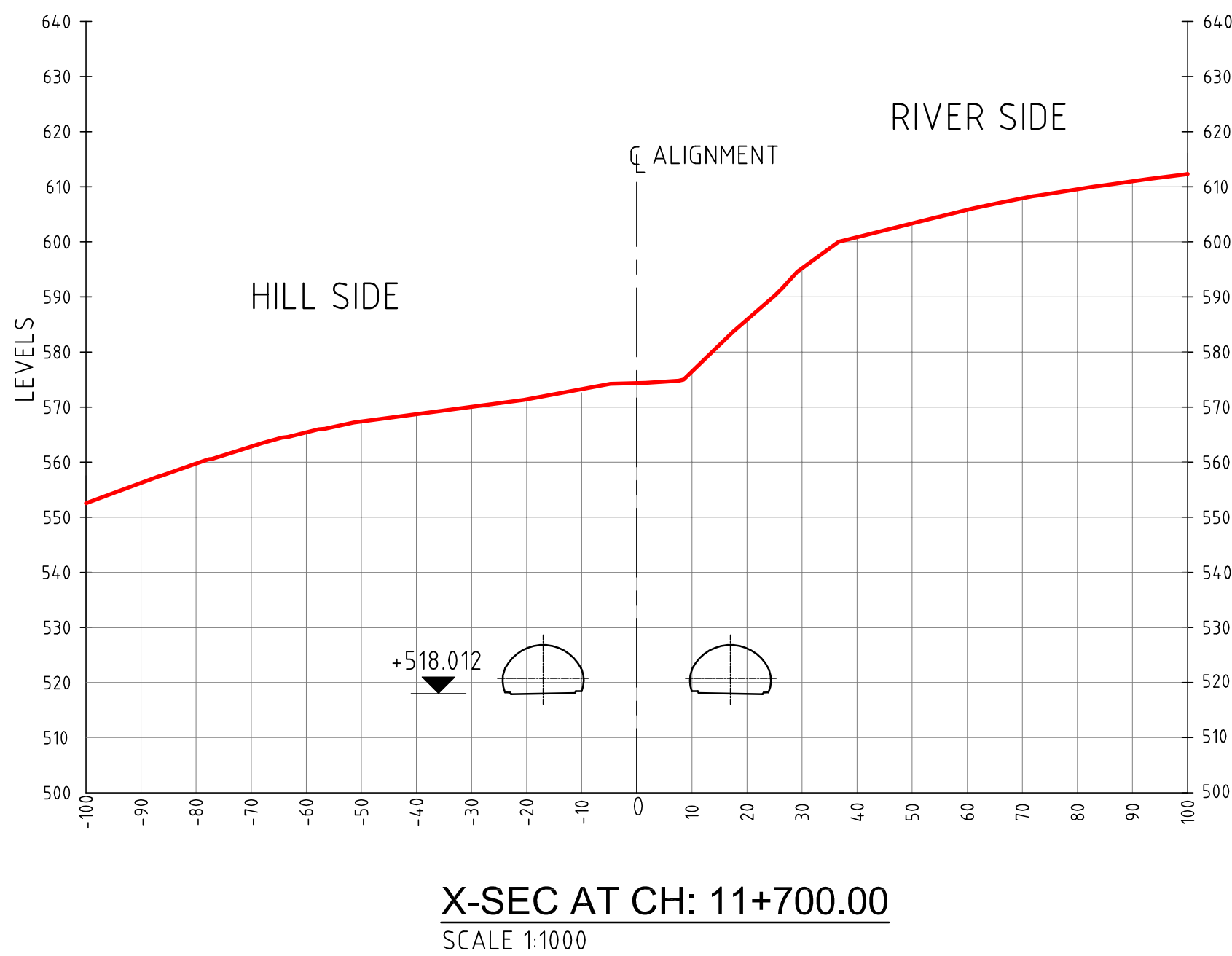
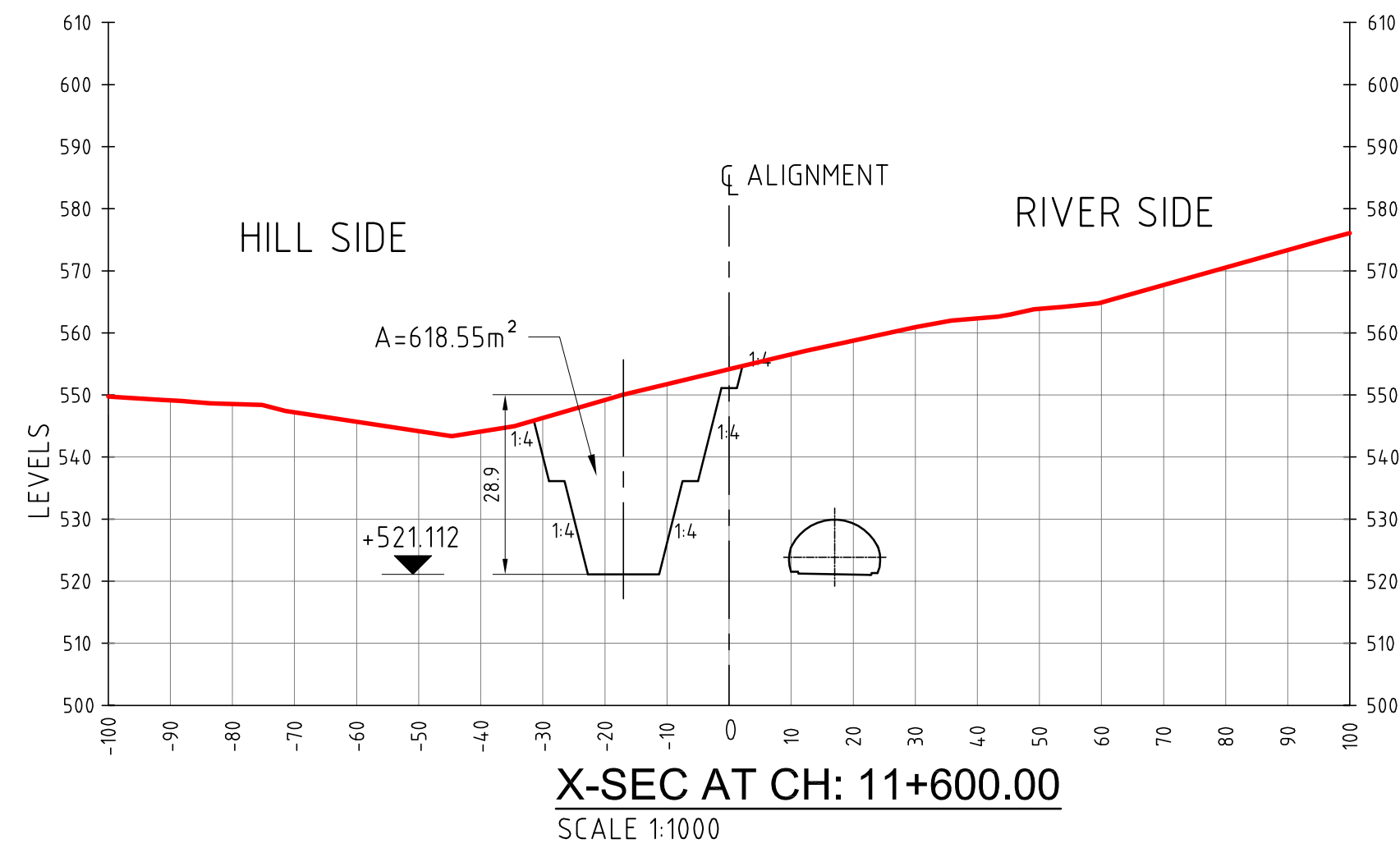
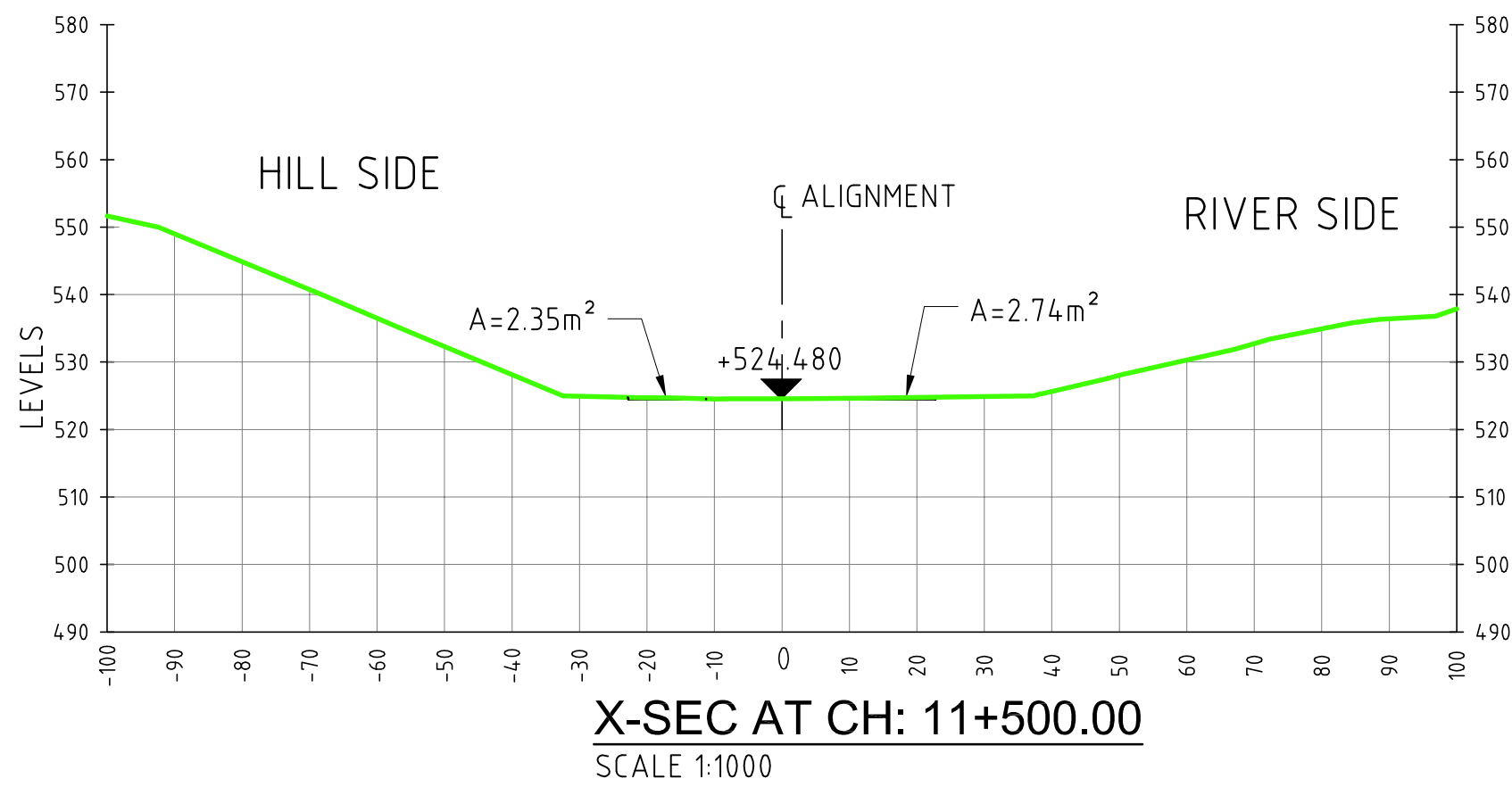
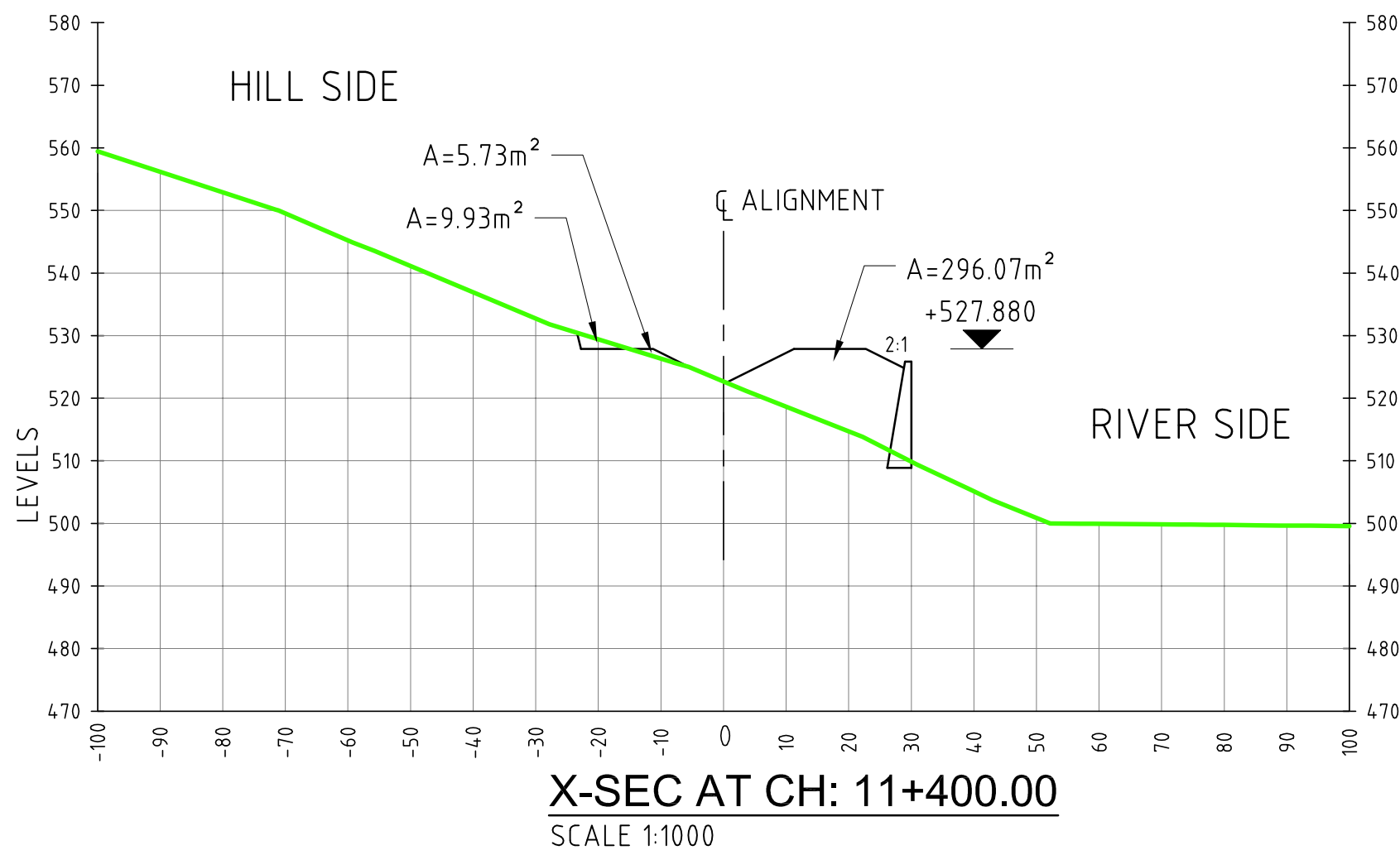
PRELIMINARY

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SHGA-FS-LAY-1000		----- RAILWAY LINE CUT/FILL (C/F) BRIDGES (B) TUNNELS (T)								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						DESIGN CONSULTANTS India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)													
NOTES:										Date (FIRST ISSUE)						PROJECT TITLE		DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH: 10+200 TO 10+700											
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.										Name						CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780													
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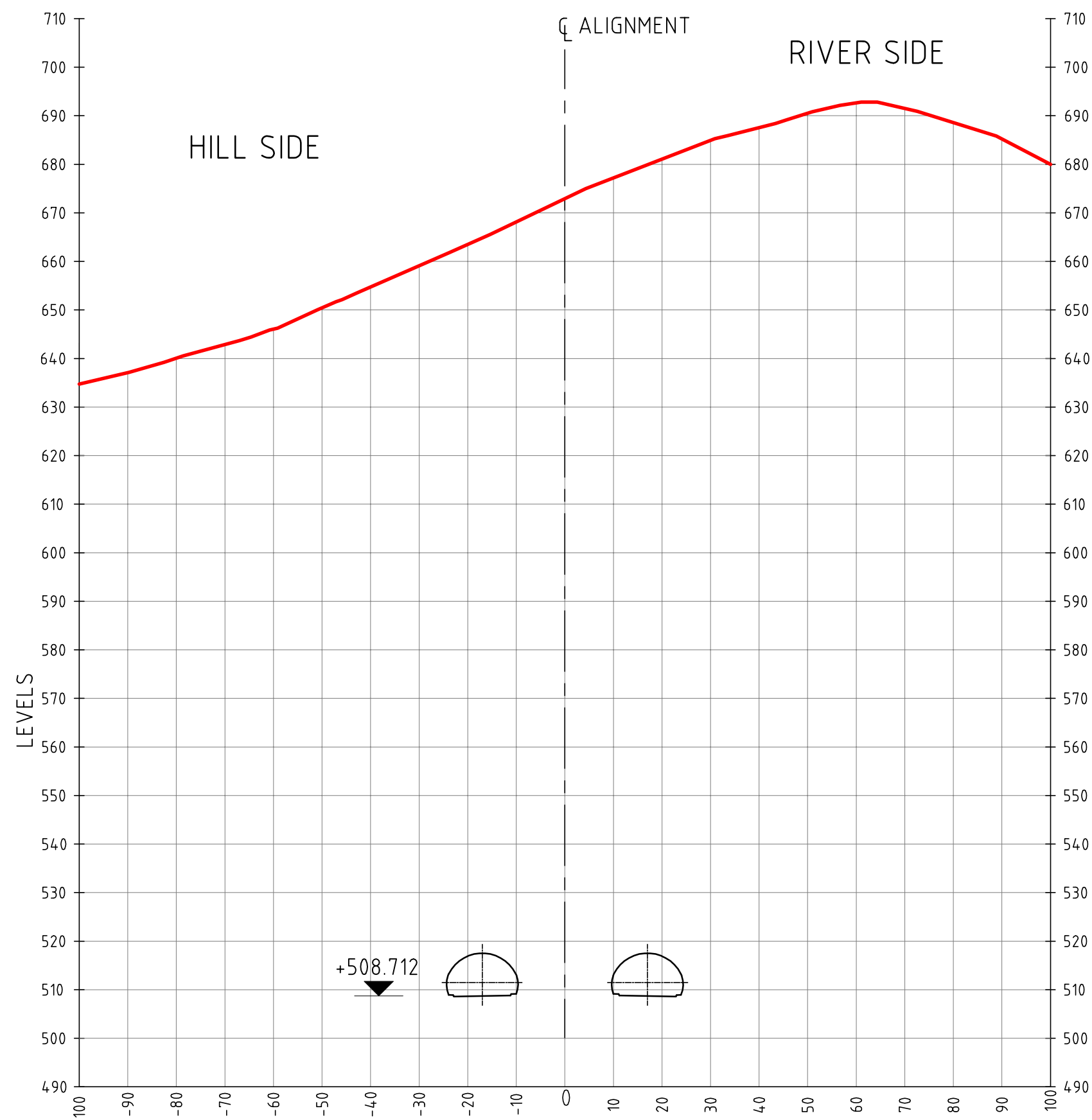
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NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.								PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH: 10+800 TO 11+300	
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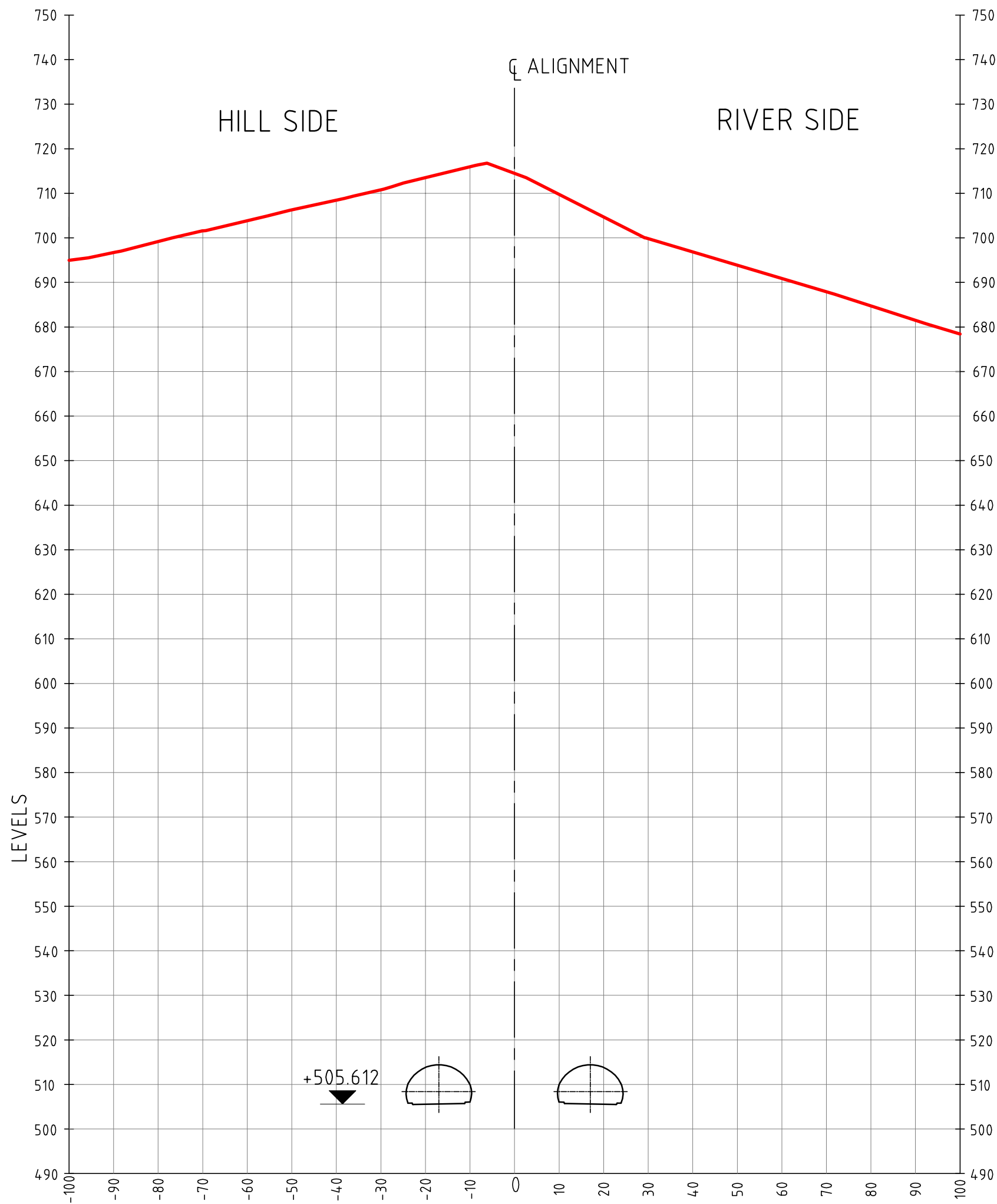


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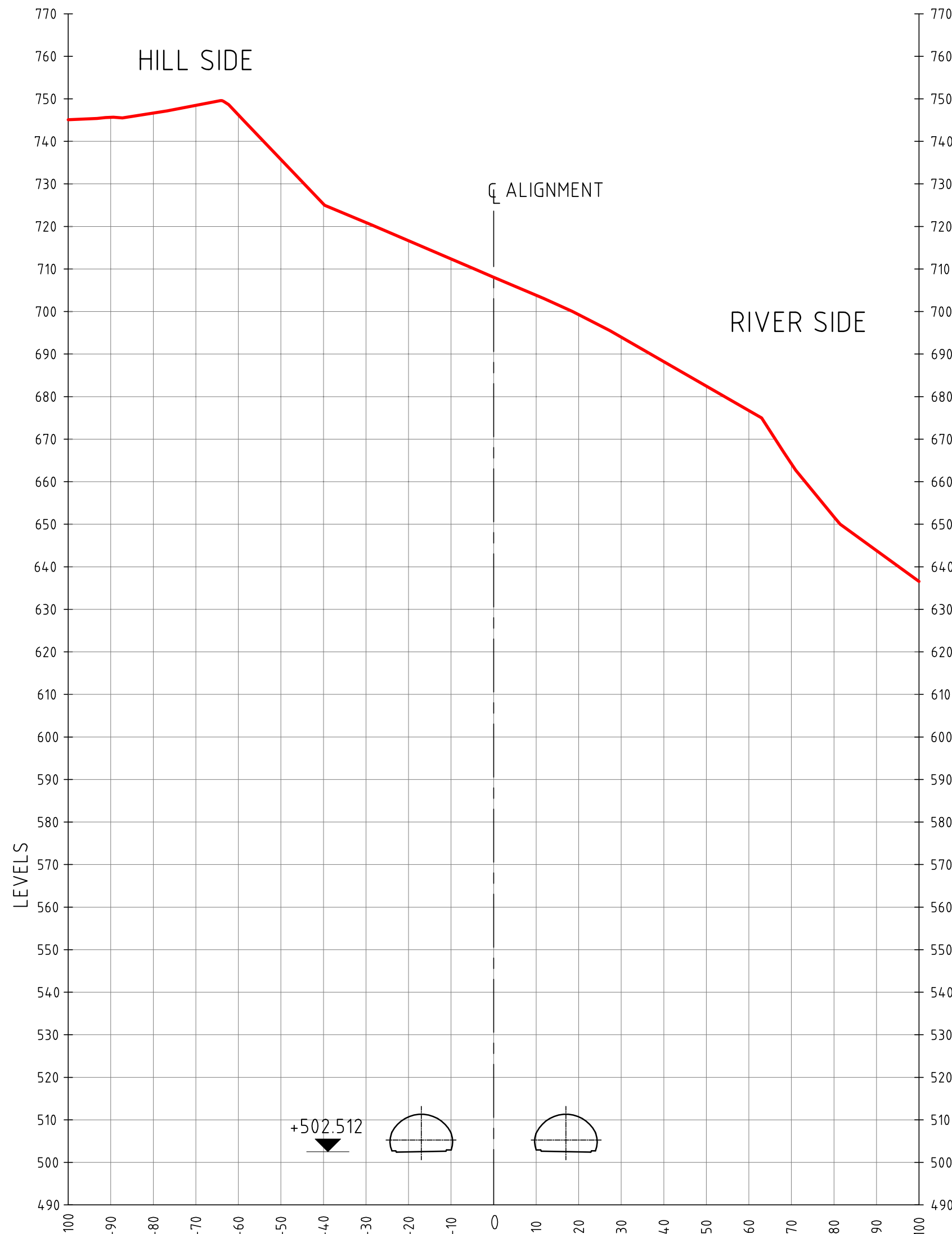
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NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.								PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH: 11+400 TO 11+900	
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X-SEC AT CH: 12+100.00
SCALE 1:1000

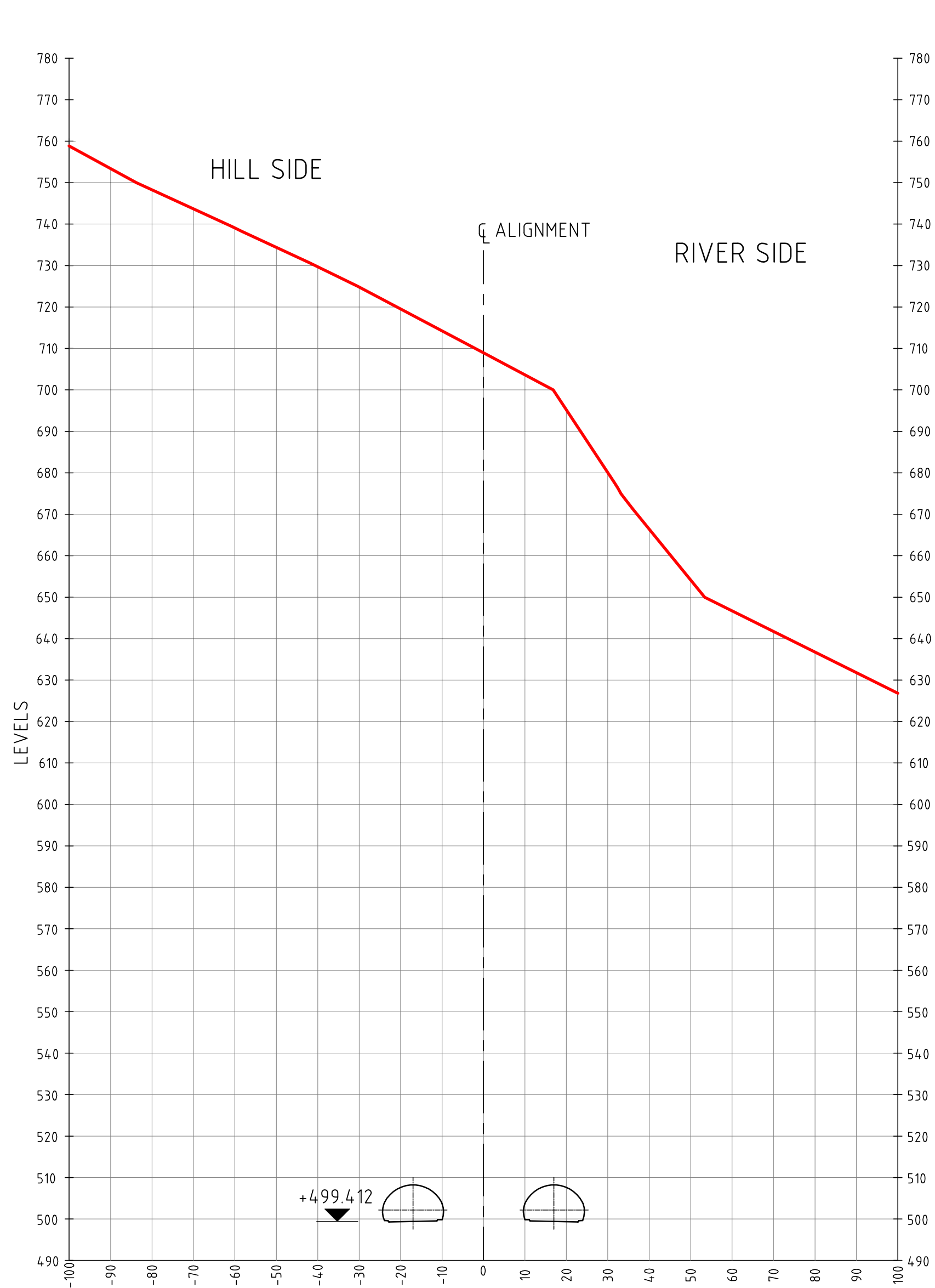


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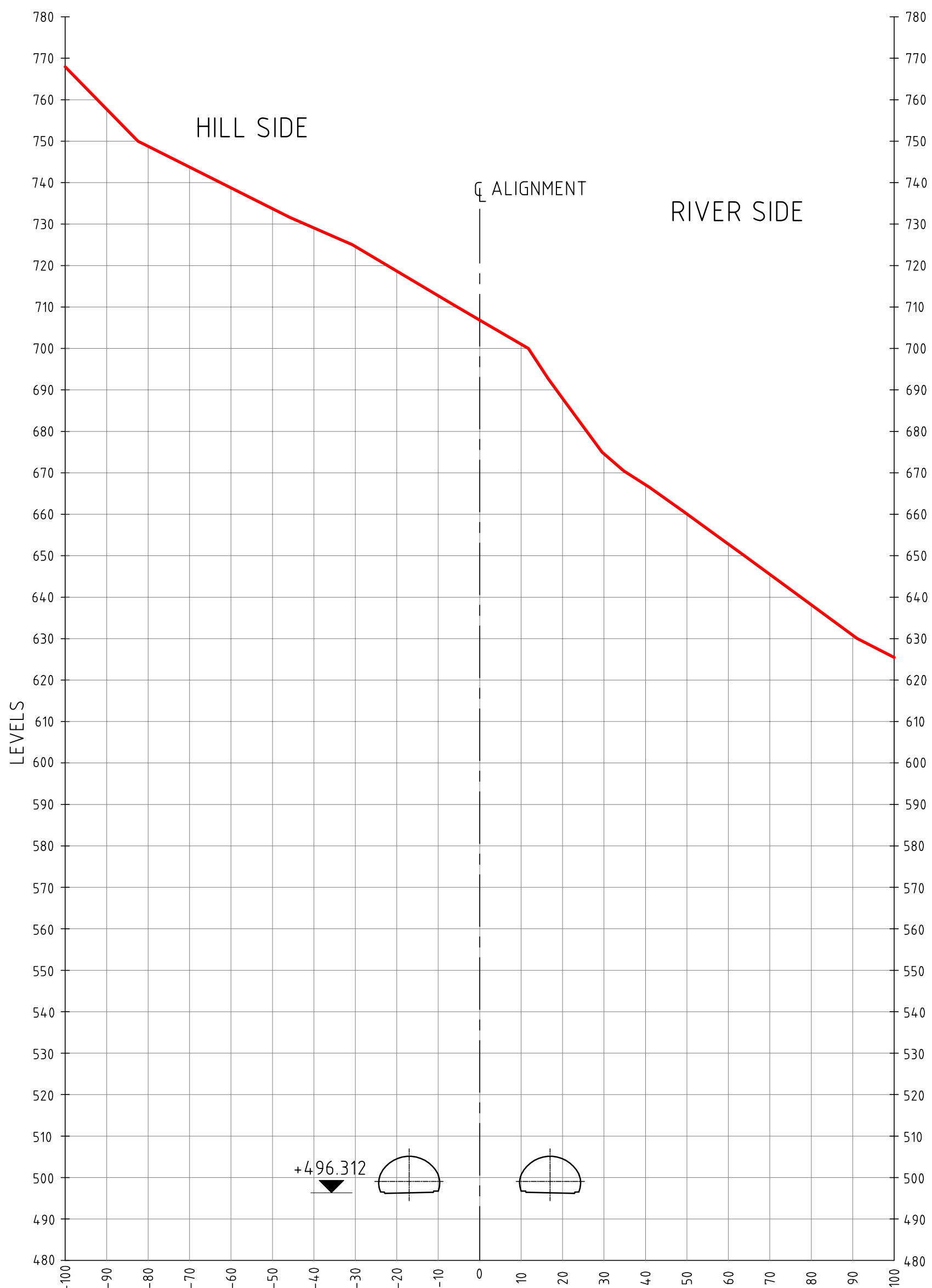


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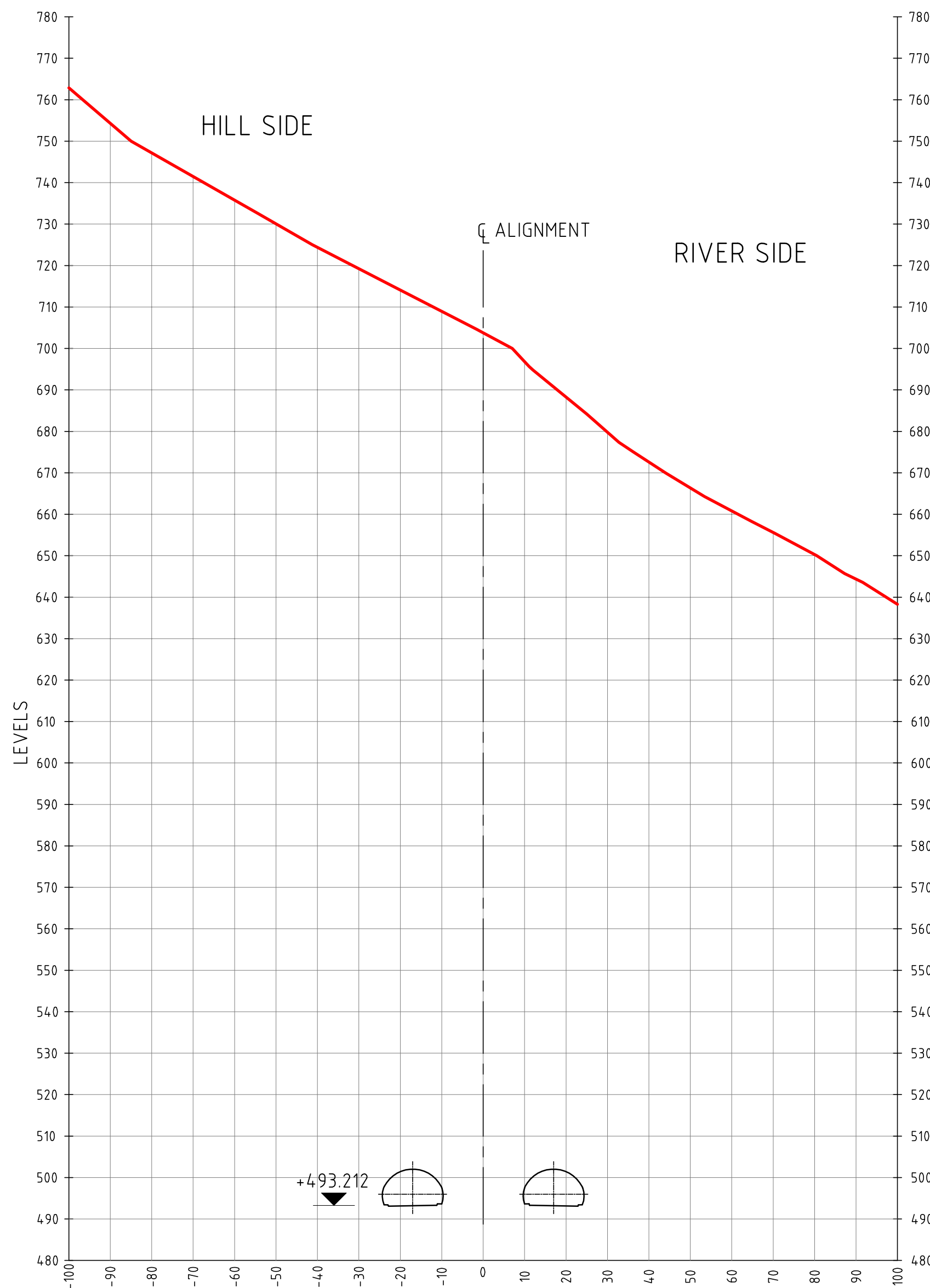
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							The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH: 12+000 TO 12+200					
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							Name	ABa/PRa	RMe	RMe/ADh	AKg/ADh	AKg	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		SCALE AS SHOWN		MONTH (Current Issue) DEC 2015			
							Drawn	Drafting Chk	Designed	Design Chk	Approved	eGEOCONSULT_Aba_R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1071 TO 1080_B.dwg, 2015-12-15								
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REV. DATE PARTICULARS Drawn Checked Approved					Originators															



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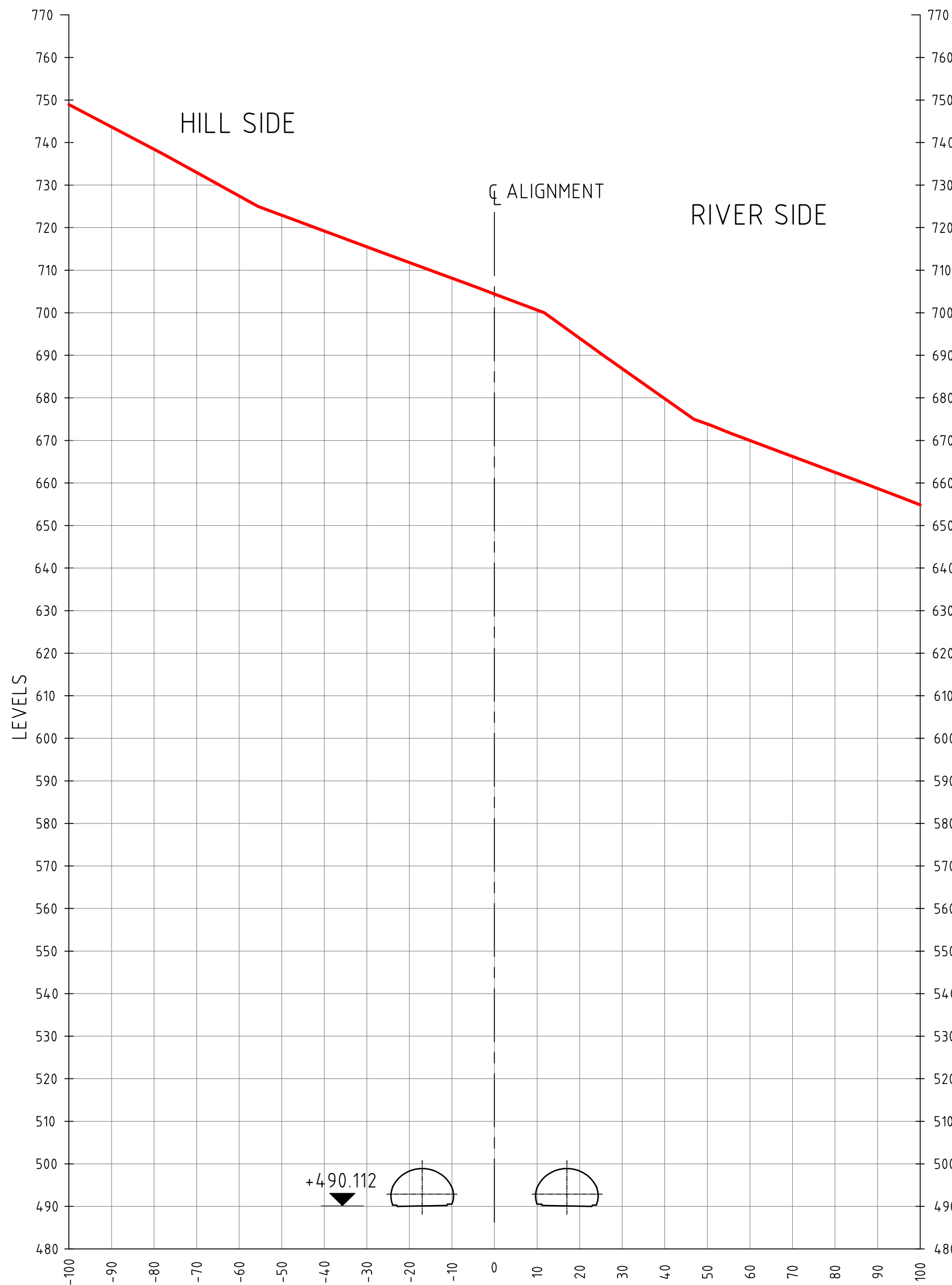


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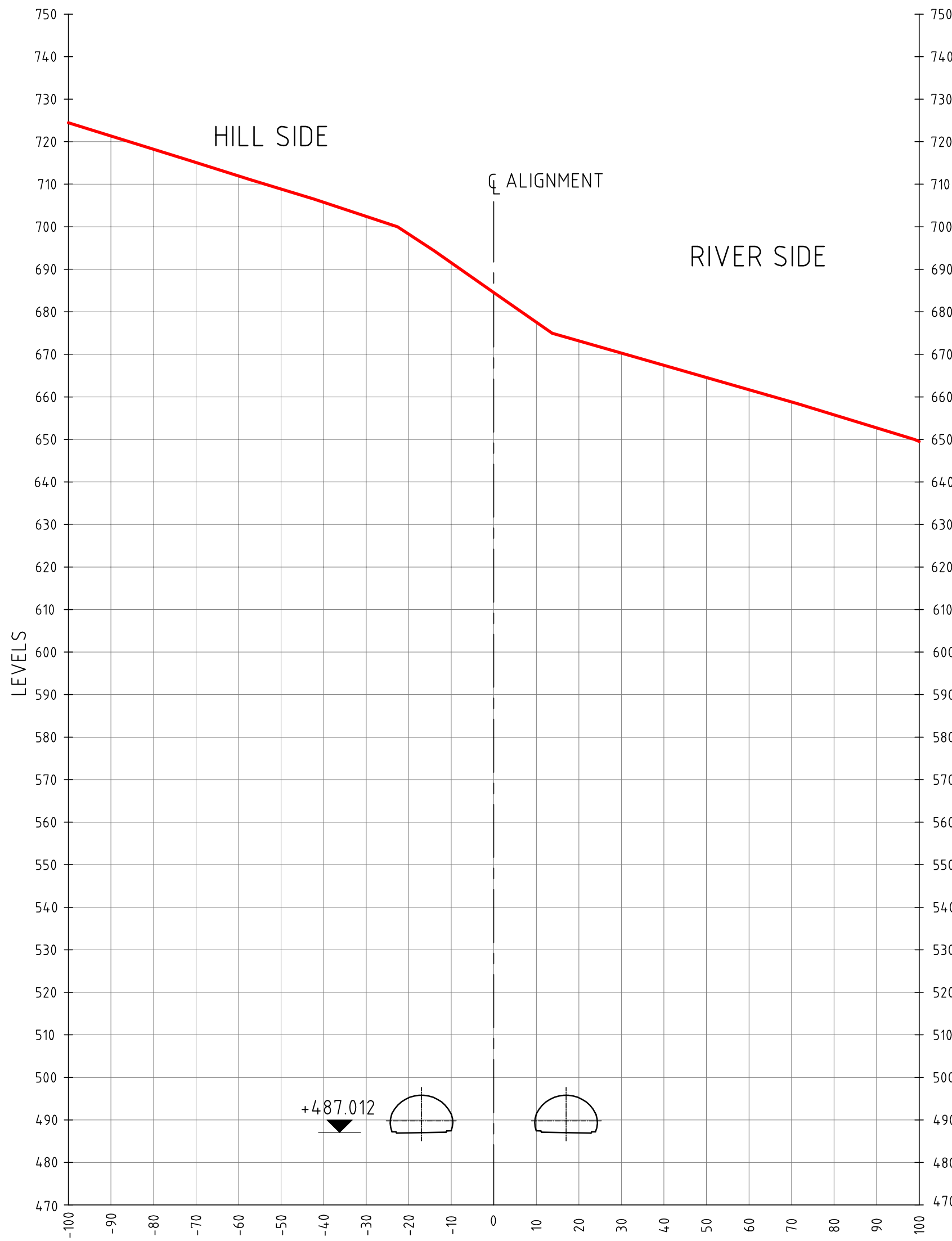


PRELIMINARY

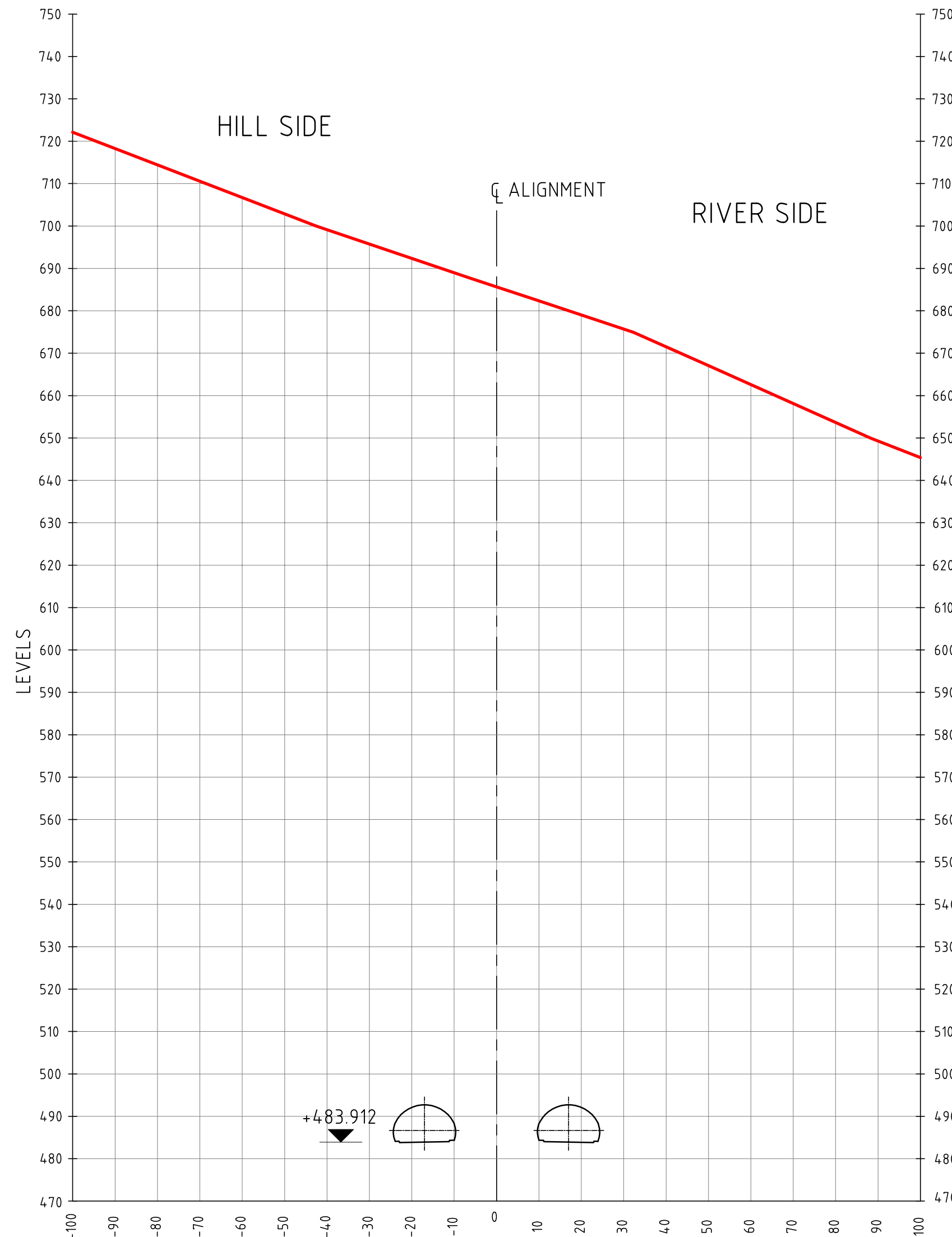
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NOTES:		CUT/FILL (C/F)												Date (FIRST ISSUE)										PROJECT TITLE		DRAWING TITLE											
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.		BRIDGES (B)												Name										CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		ALIGNMENT OPTION "A" CROSS SECTIONS CH:12+300 TO 12+500											
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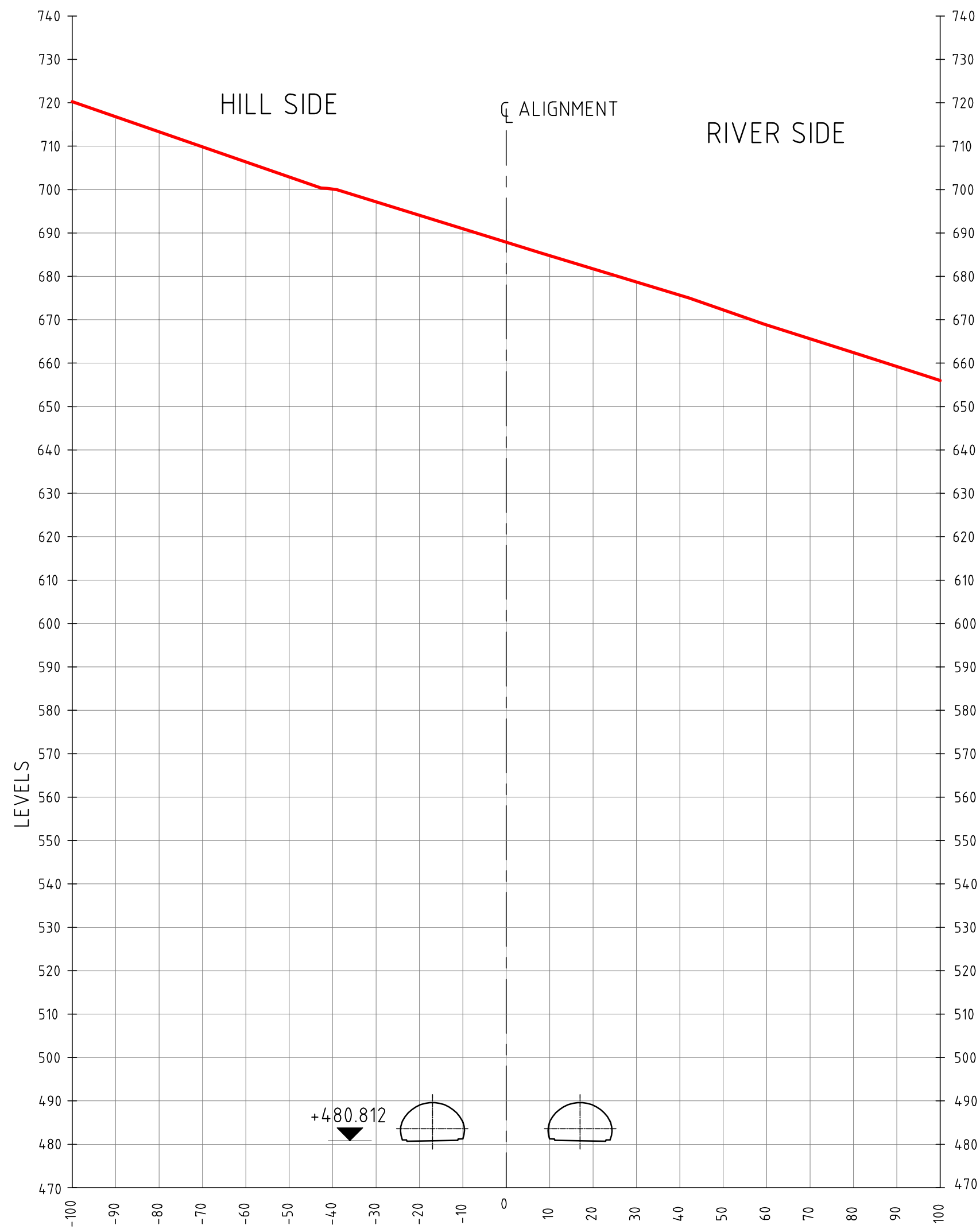
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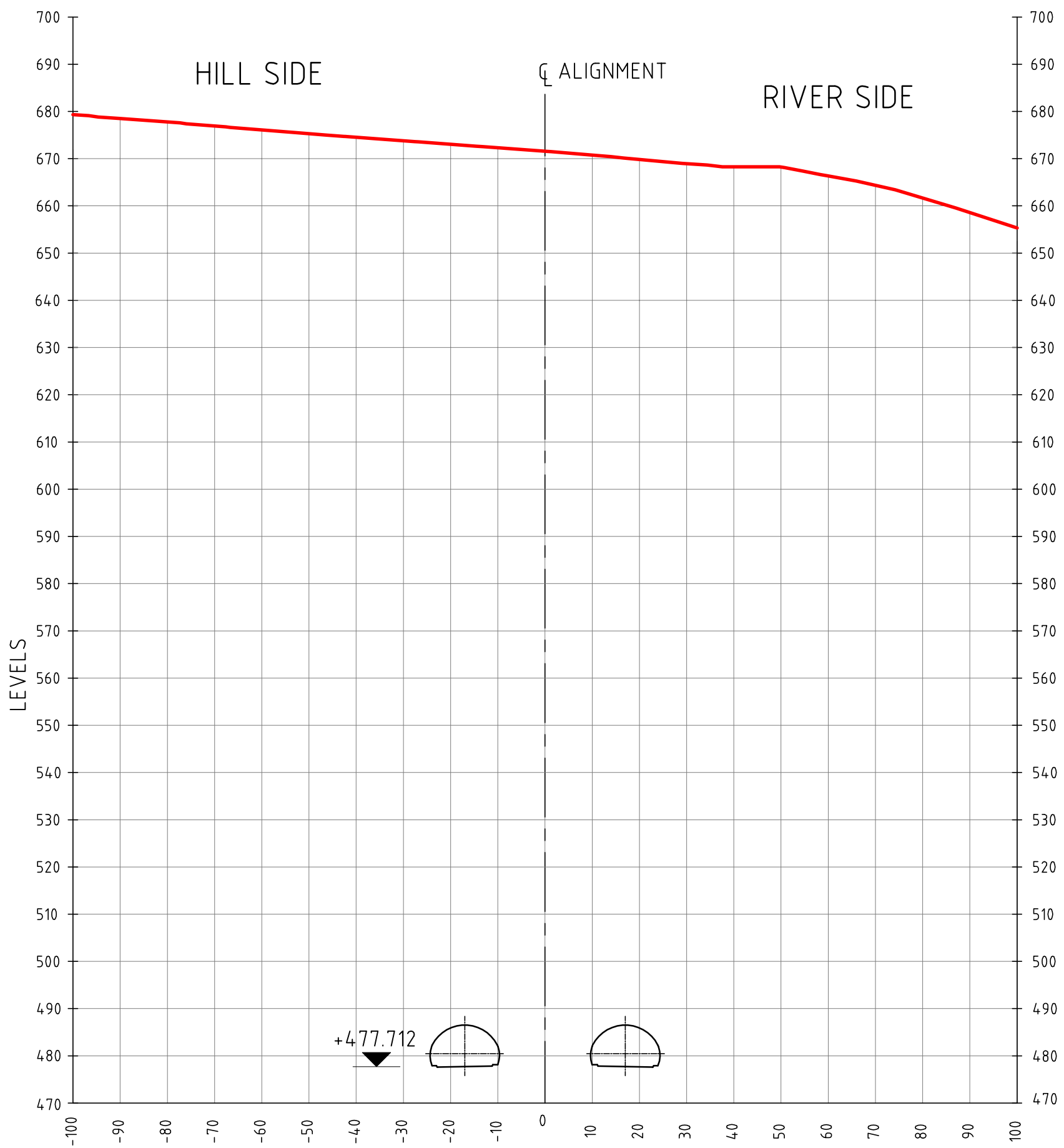


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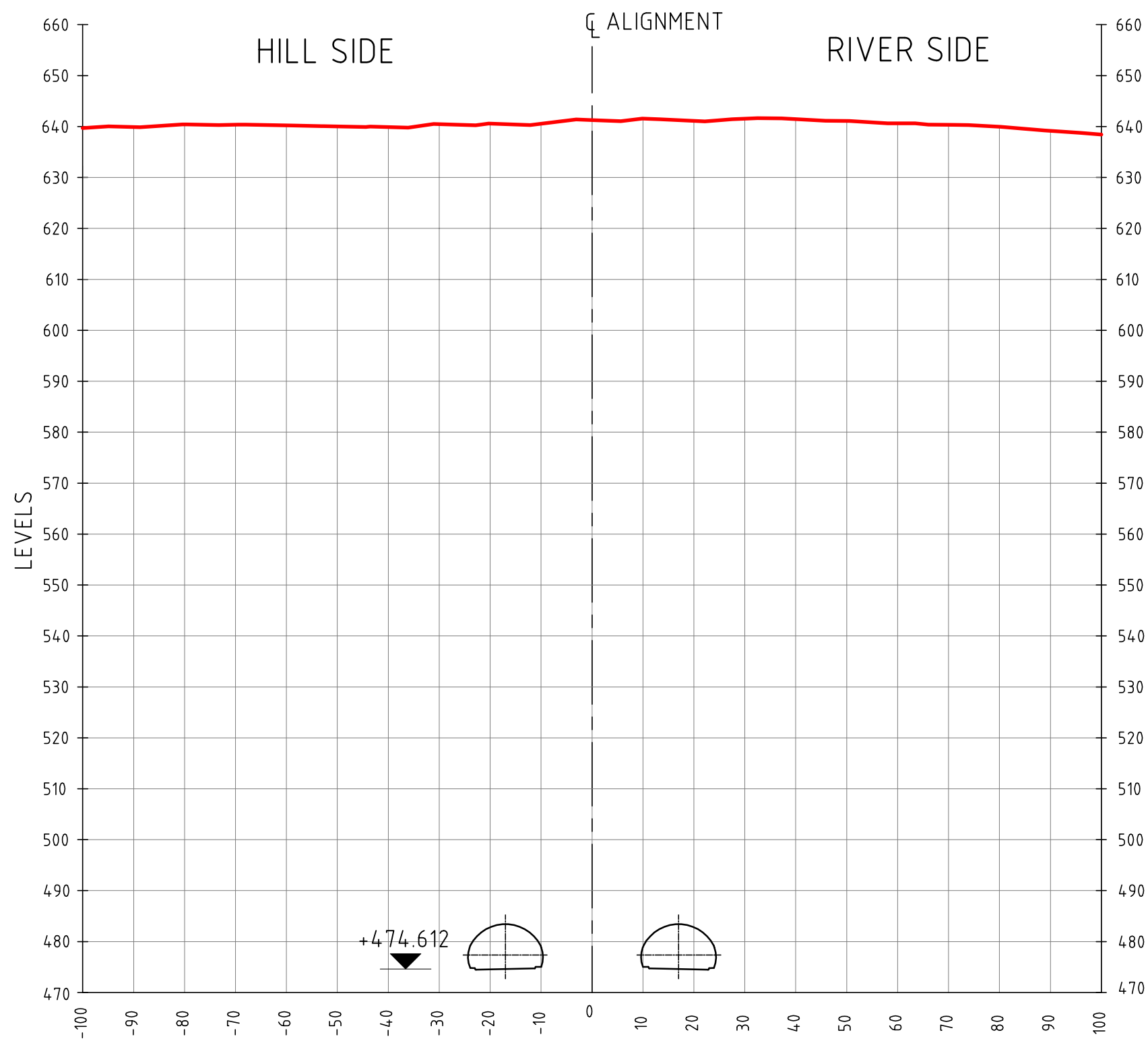
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<div>PROJECT TITLE</div> <div>CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780</div> <div><div>This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.</div><div>R:\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1081 TO 1092_B.dwg, 2015-12-15</div></div>																																																																																			
						<div>SCALE</div> <div>AS SHOWN</div>		<div>MONTH</div> <div>(Current Issue) DEC 2015</div>																																																																											



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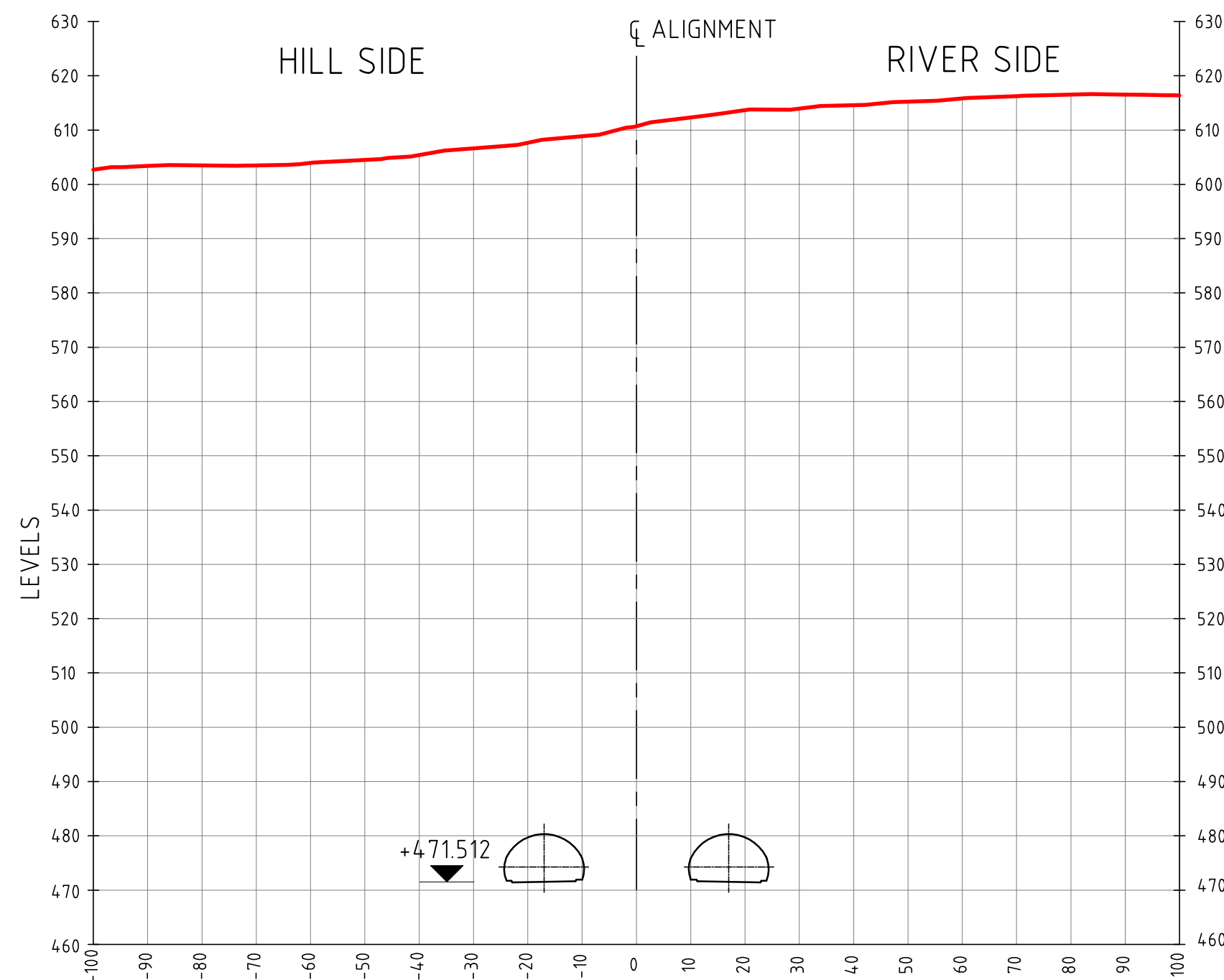
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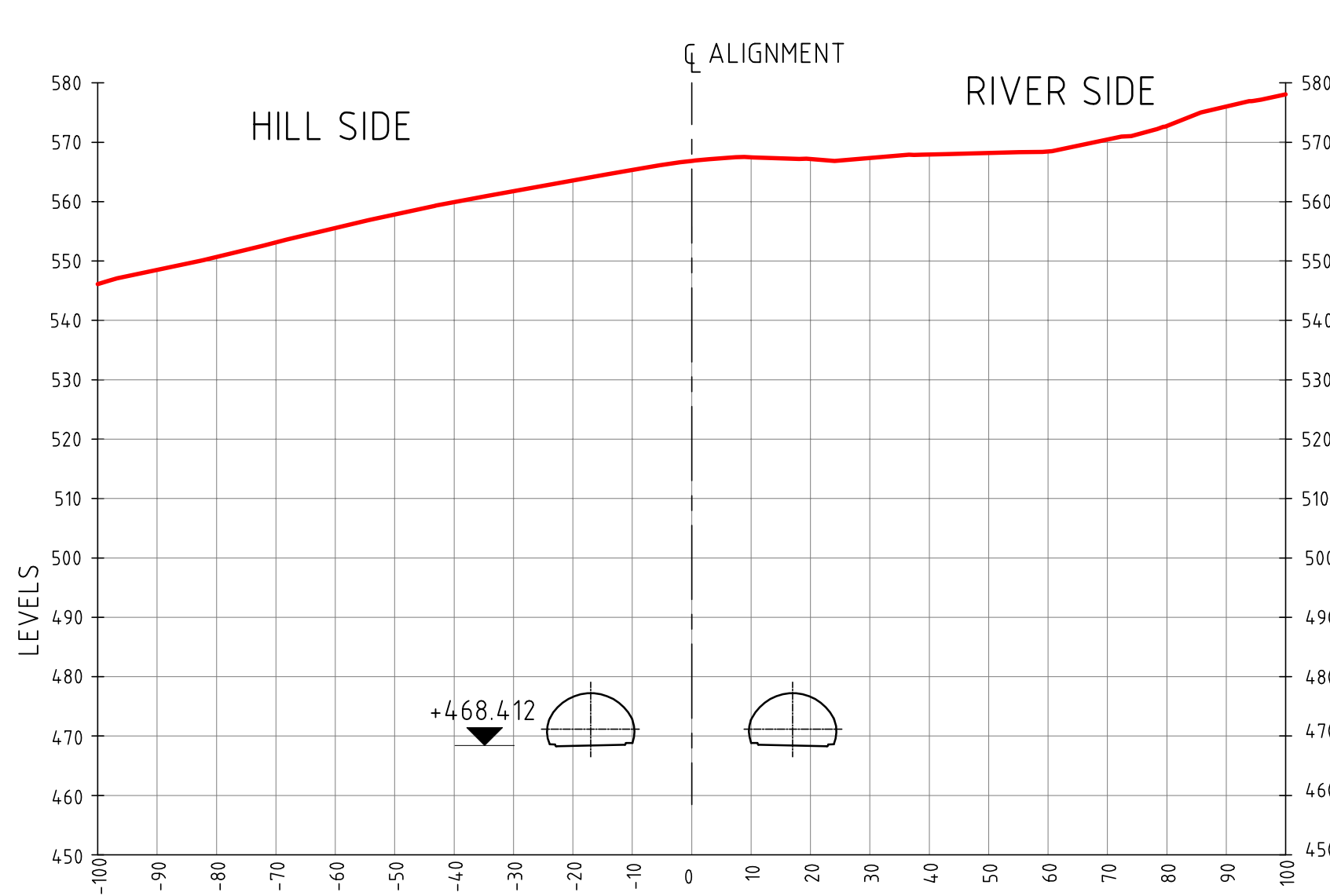


PRELIMINARY

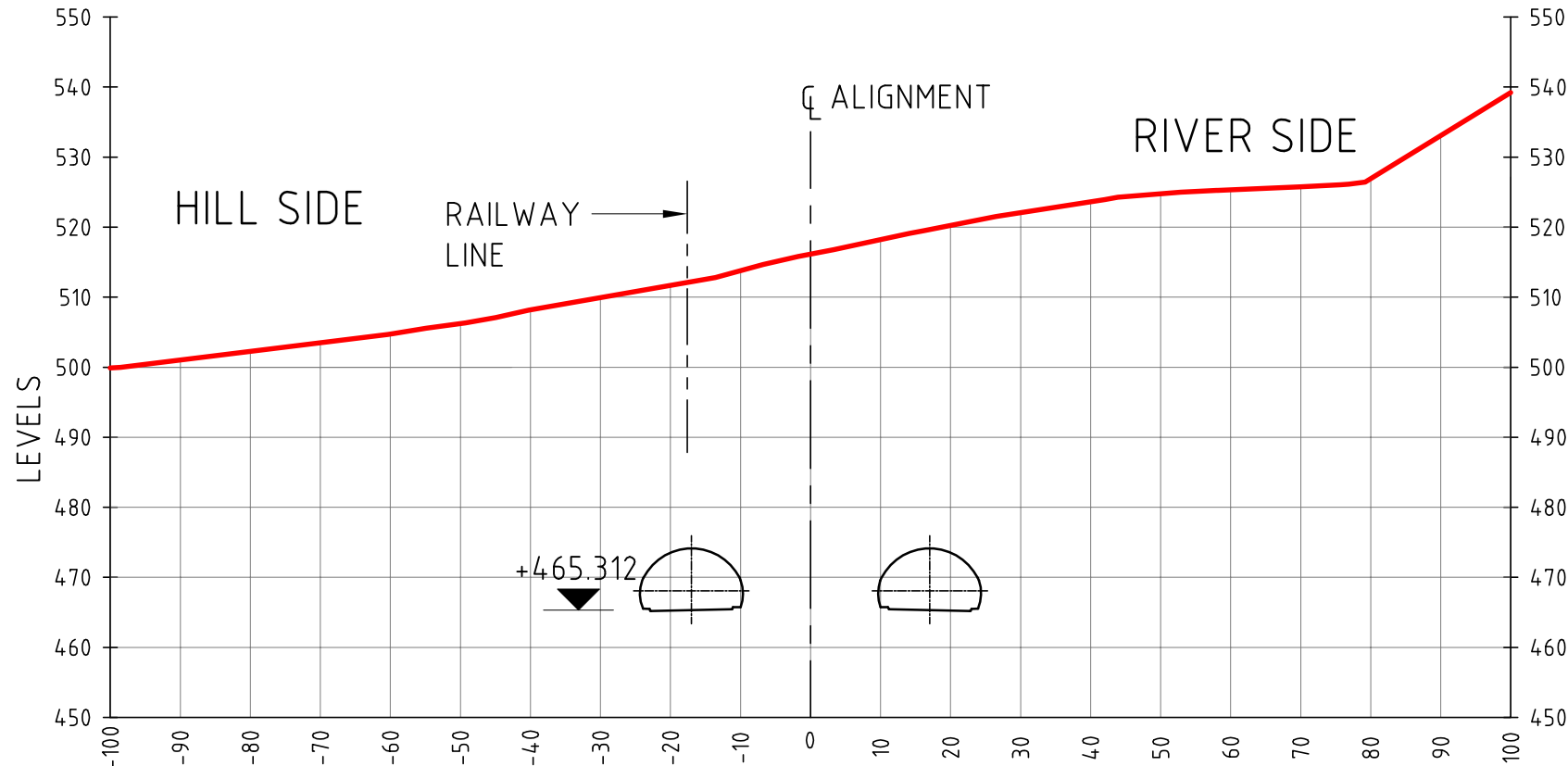
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		A DEC 15 FIRST DRAFT (KD-5)						ABa/PRa		RMe		AKg		Drawn Drafting Chk Designed Design Chk Approved					
		REV		DATE		PARTICULARS				Drawn		Checked		Approved		Originators		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. G:\GEOCONSULT_Aba_R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1081 TO 1092_B.dwg, 2015-12-15	
		SCALE		AS SHOWN				MONTH (Current Issue)		DEC 2015				REV B					



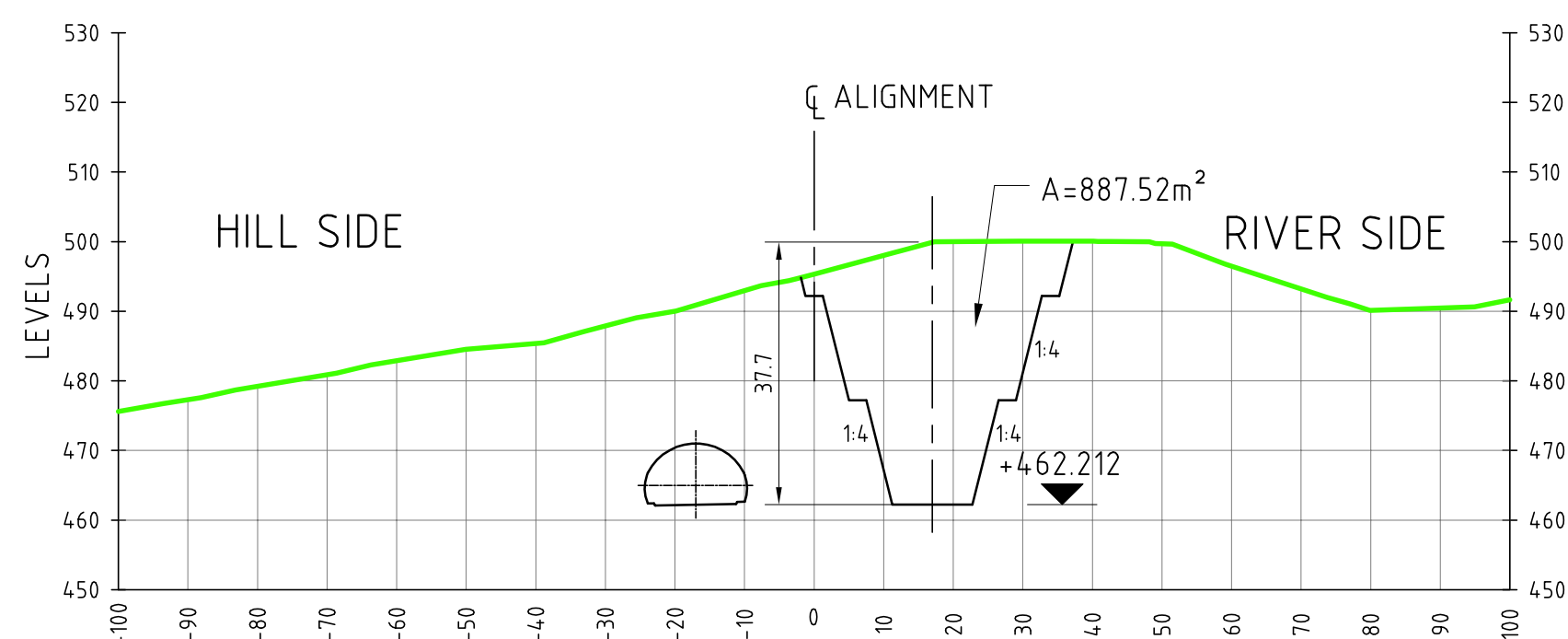
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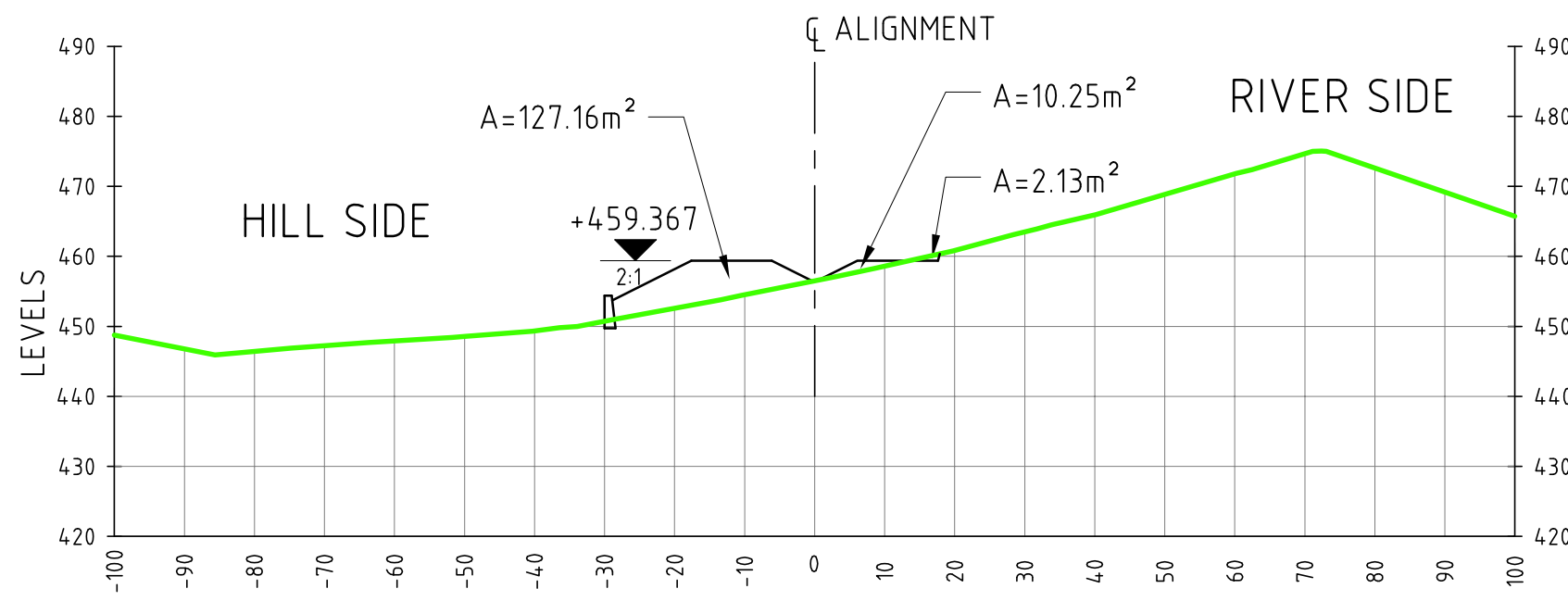
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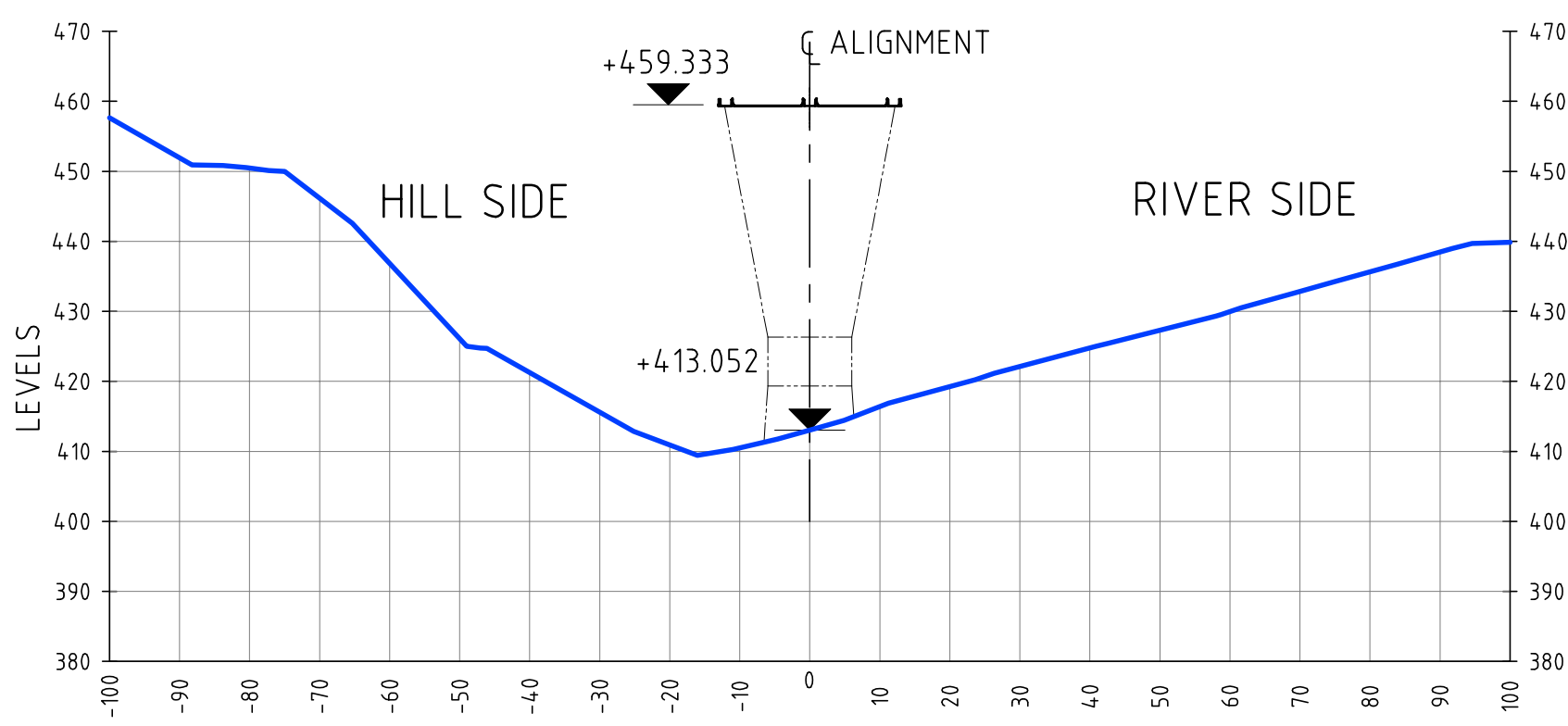
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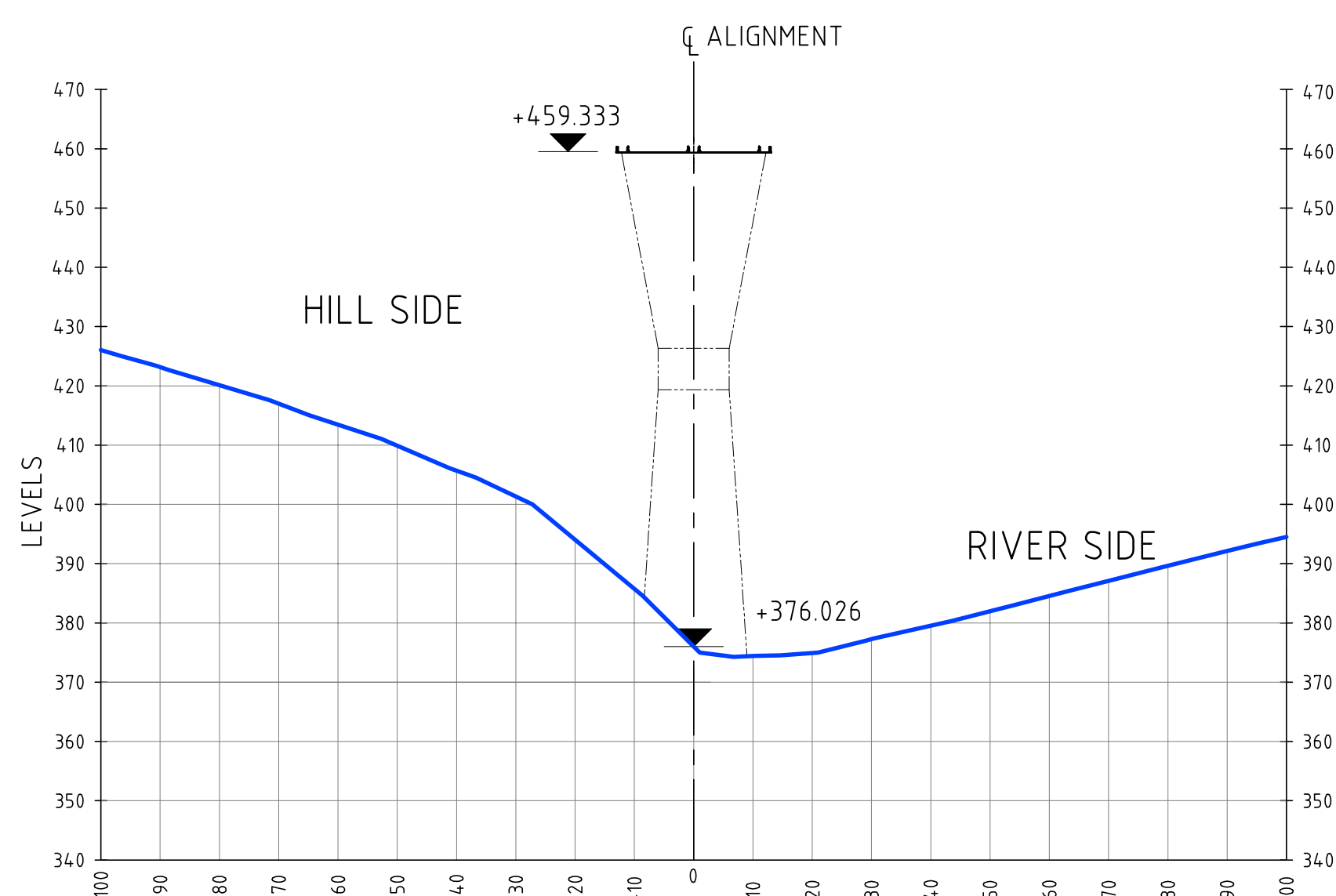
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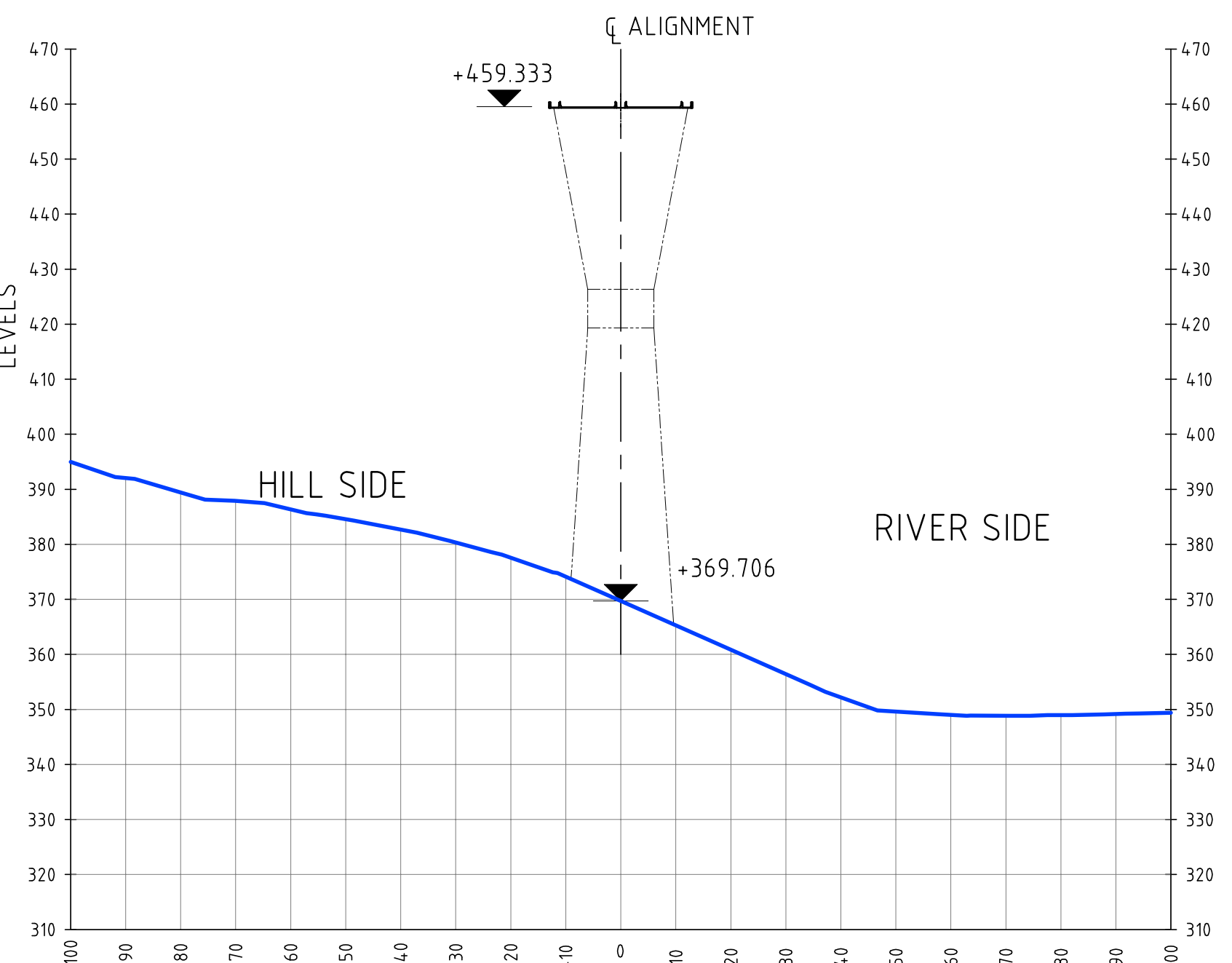
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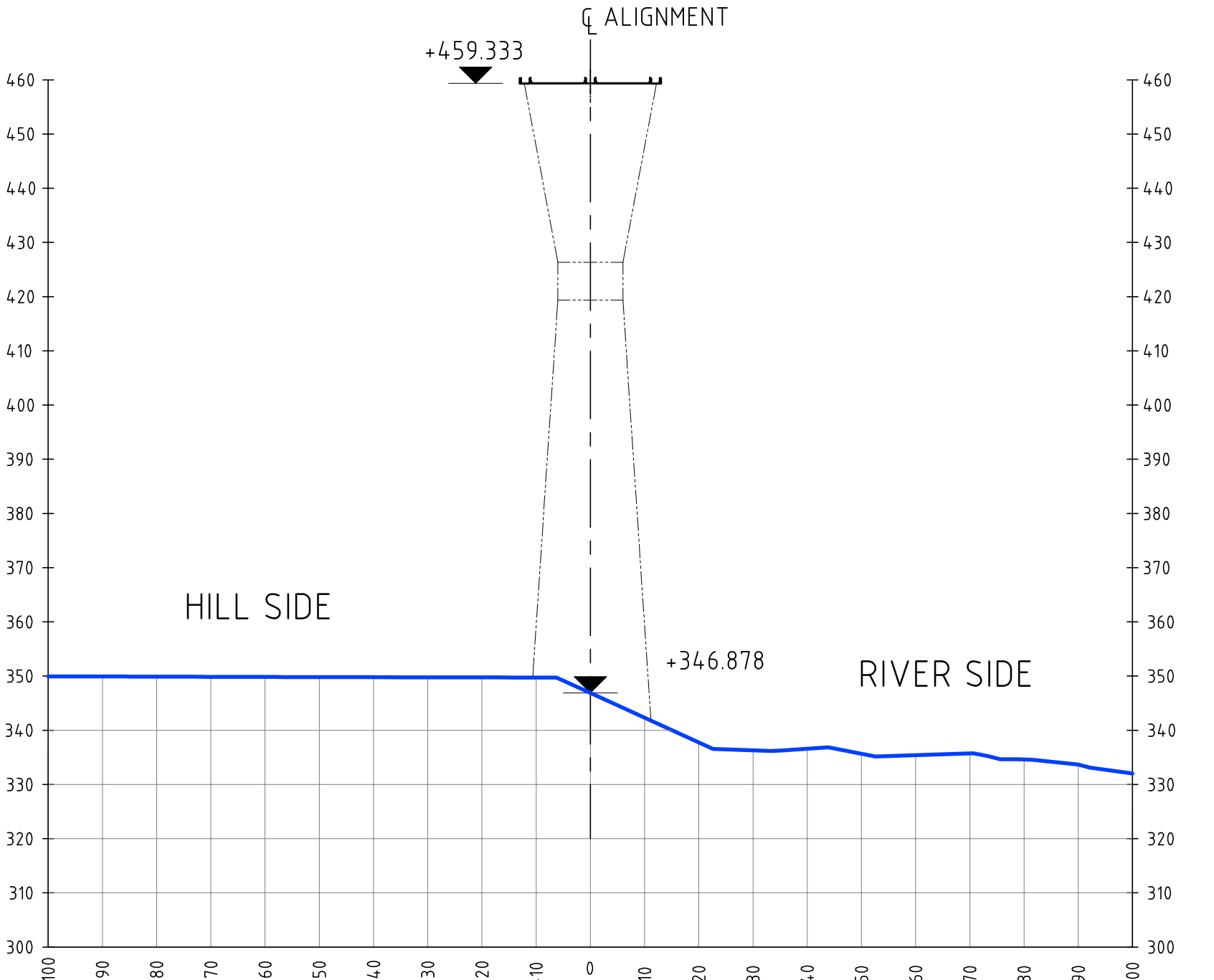
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PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:

- RAILWAY LINE
----- CUT/FILL (C/F)
----- BRIDGES (B)
----- TUNNELS (T)

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
B	DEC 15	SECOND DRAFT (KD-6)	ABa/PRa	RMe	AKg
A	DEC 15	FIRST DRAFT (KD-5)	ABa/PRa	RMe	AKg

QUALITY ASSURANCE

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Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015
Name	ABa/PRa	RMe	RMe/ADh	AKg/ADh
Drawn	Drafting Chk	Designed	Design Chk	Approved
Originators				

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

ALIGNMENT OPTION "A"
CROSS SECTIONS
CH:13+200 TO 14+000

DRAWING NUMBER

SHGA-FS-LAY-1084

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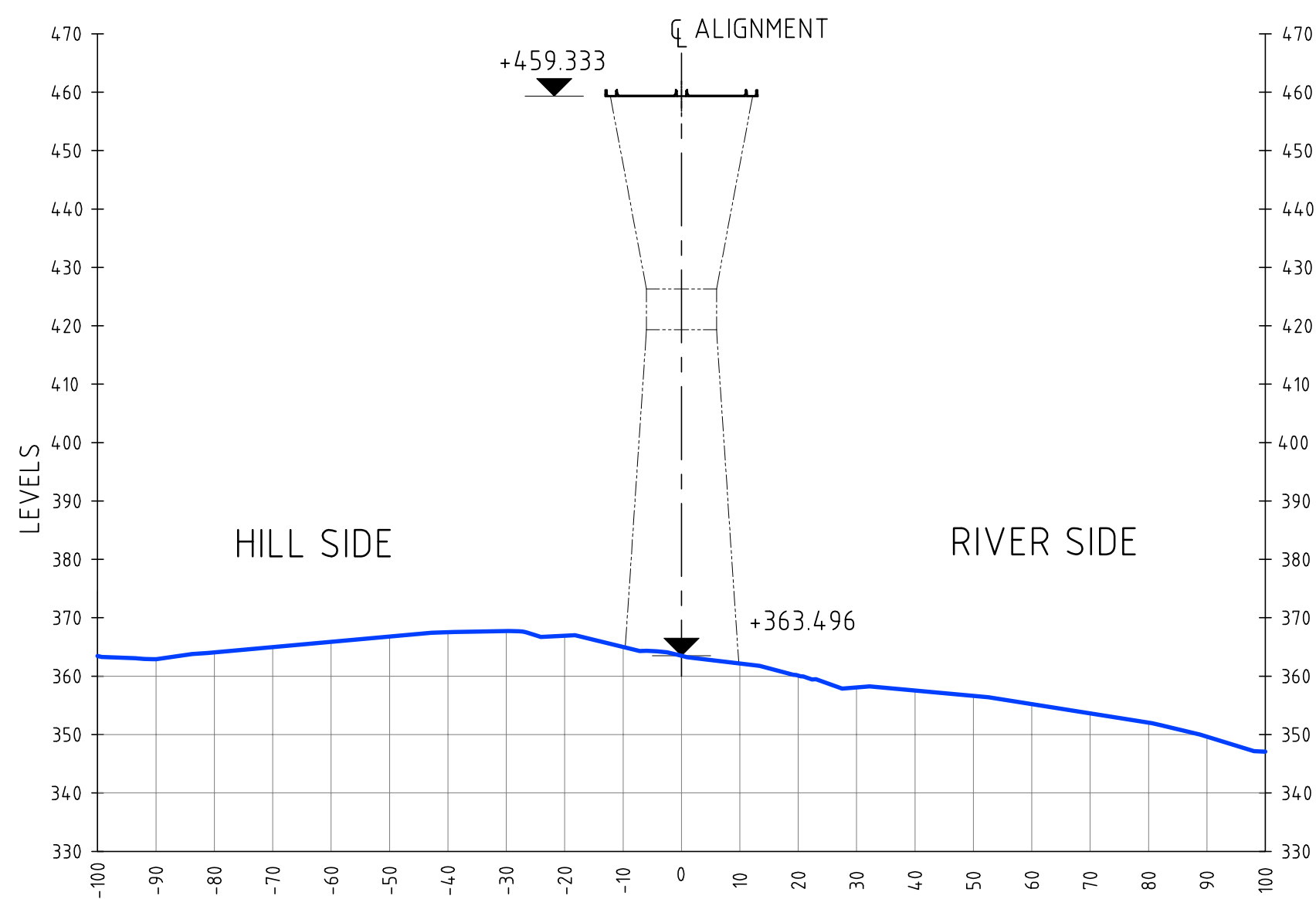
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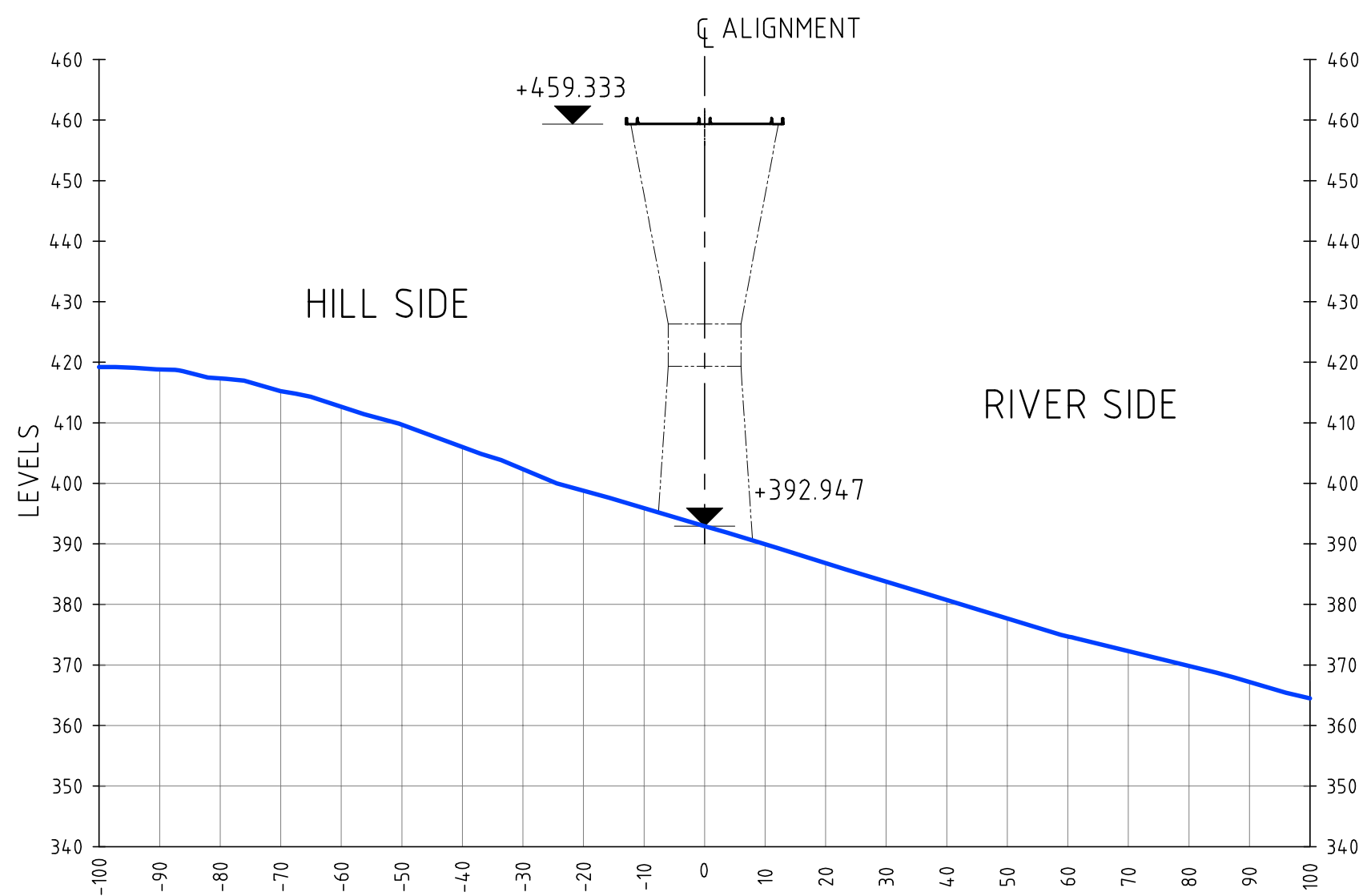
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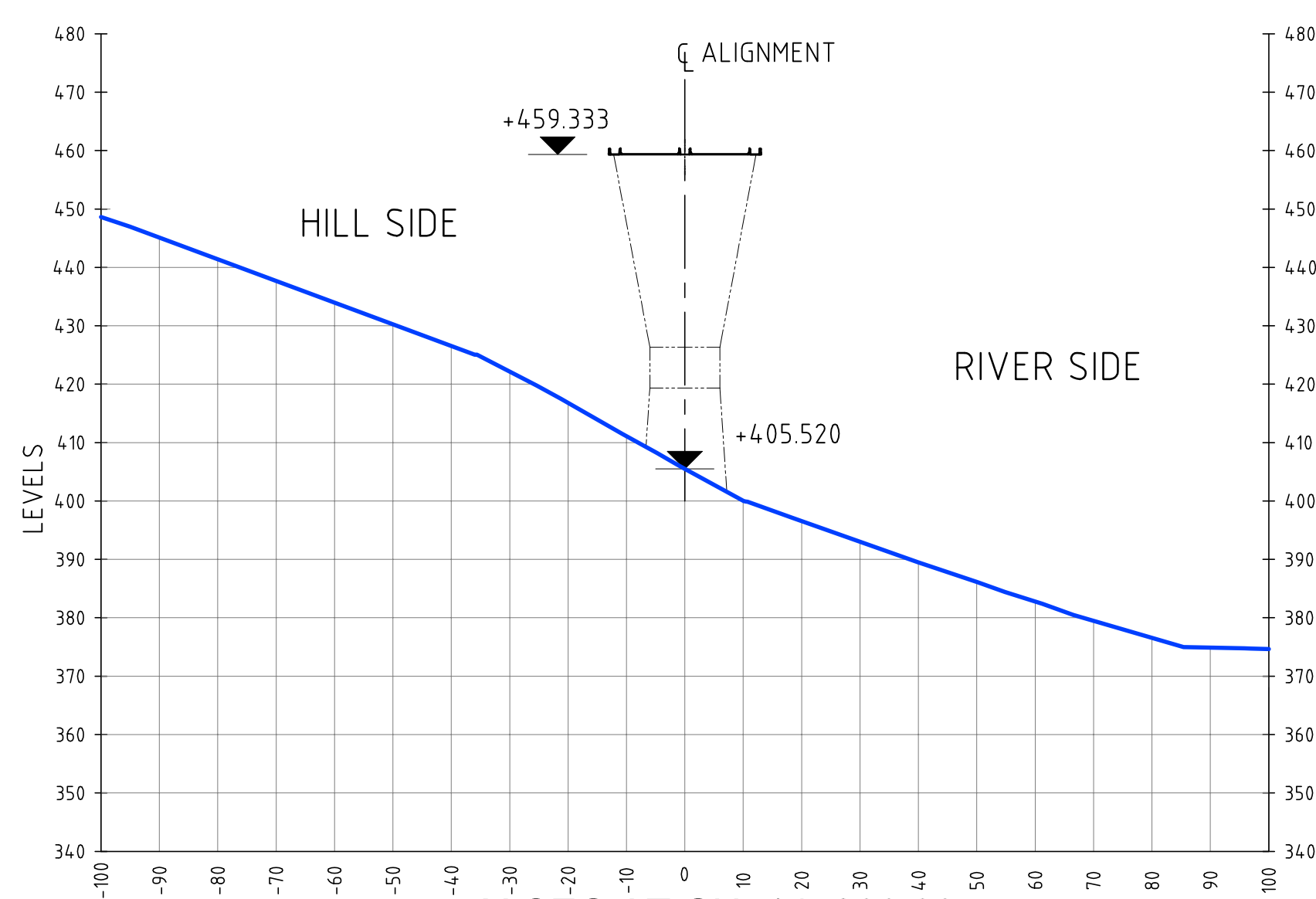
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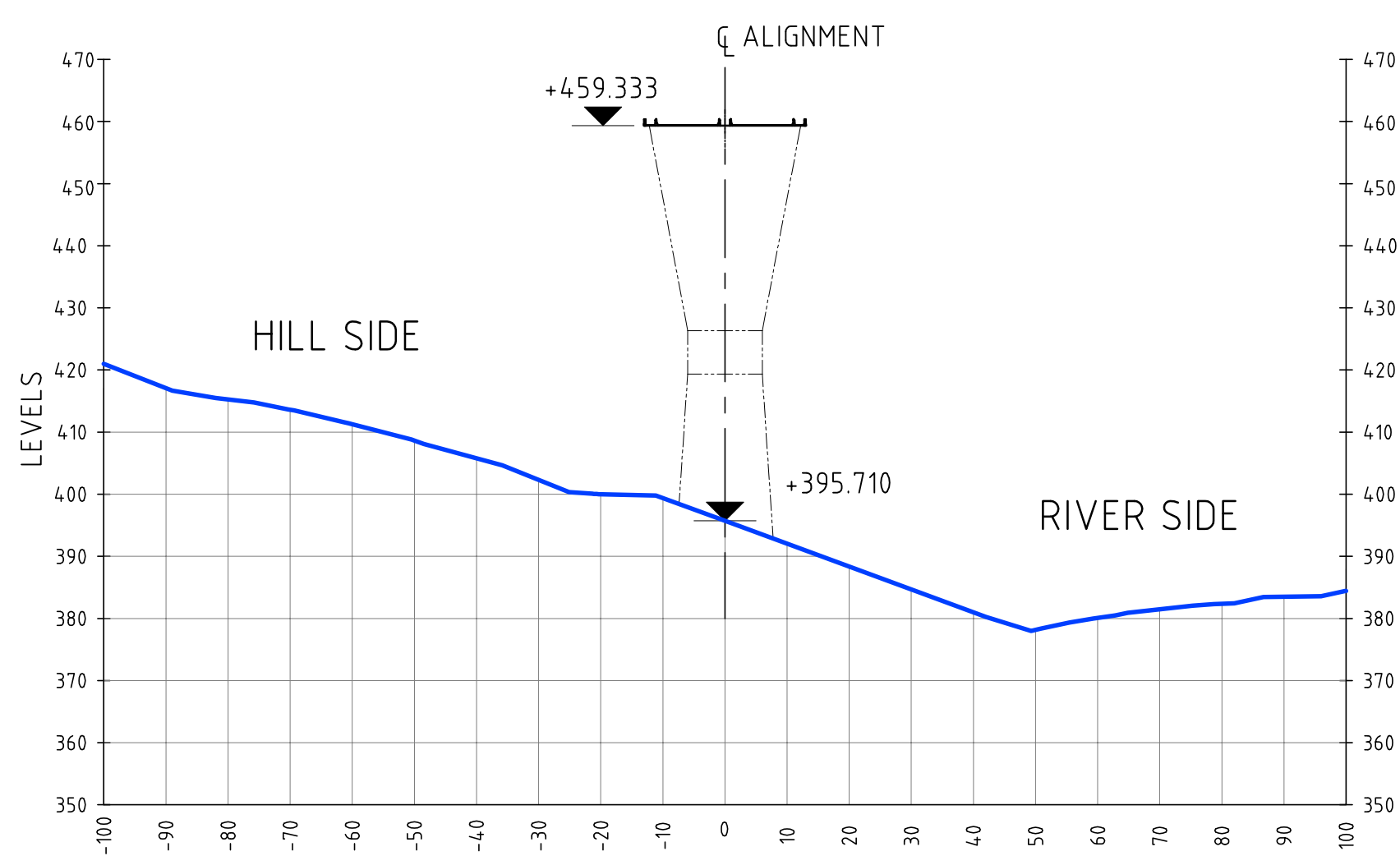
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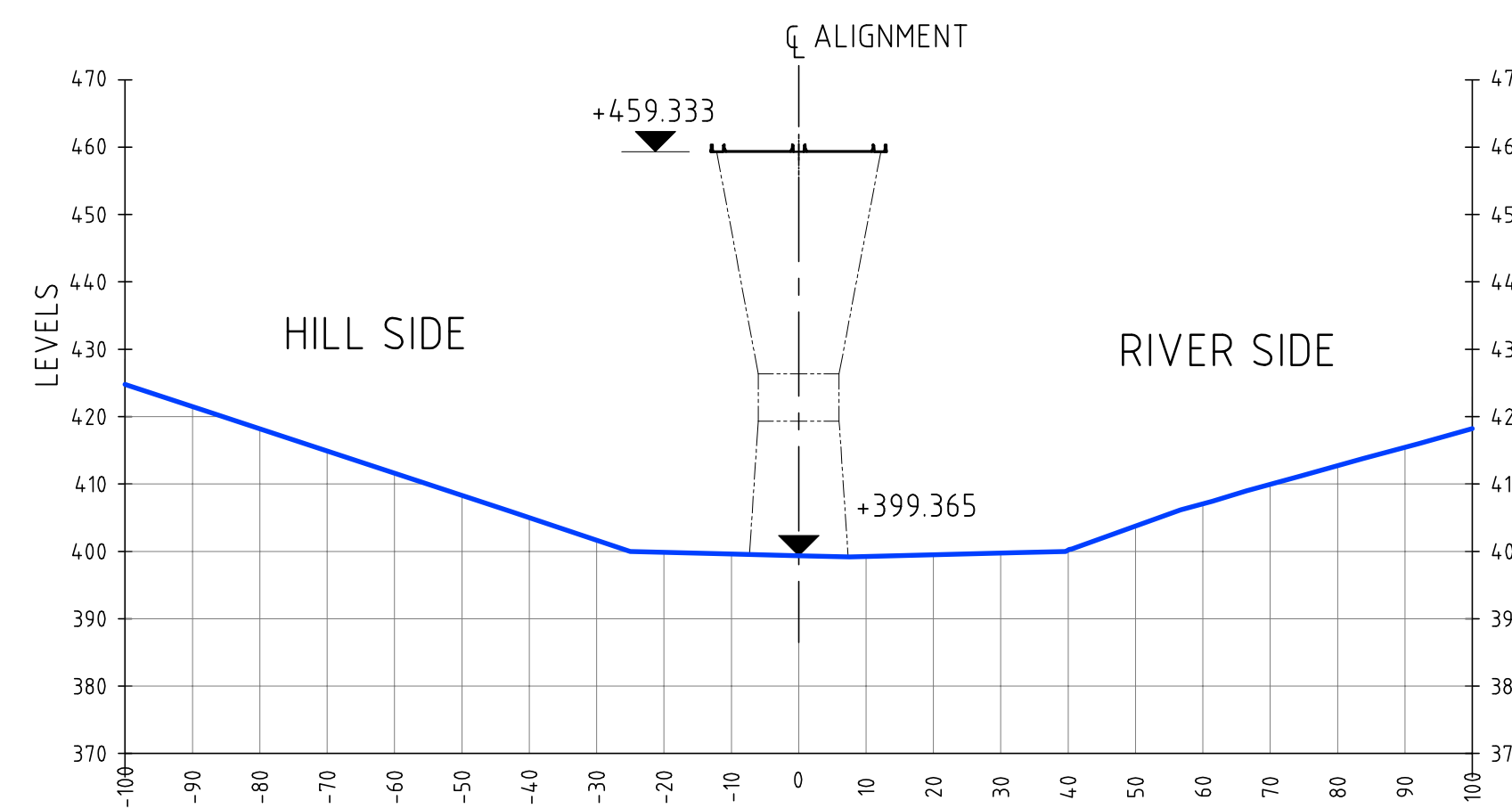
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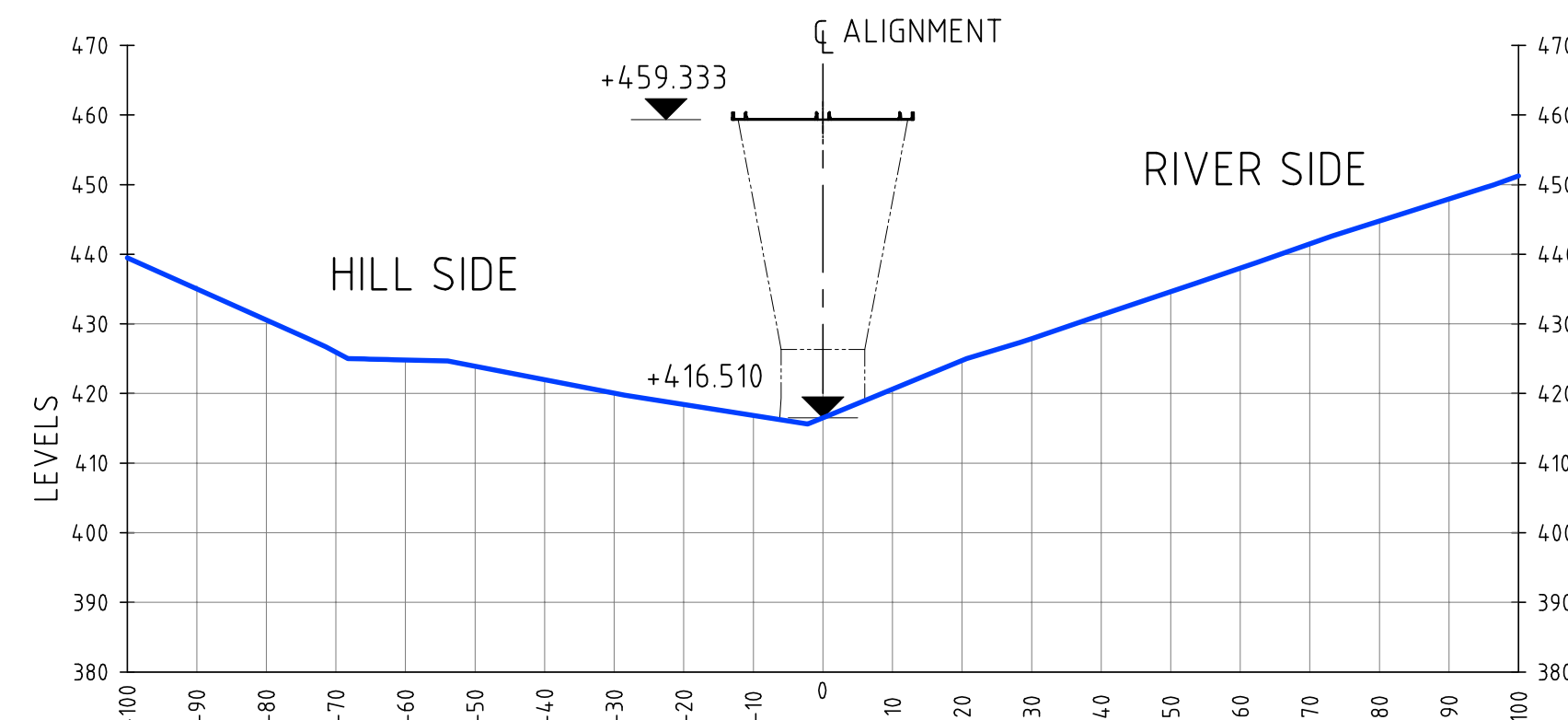
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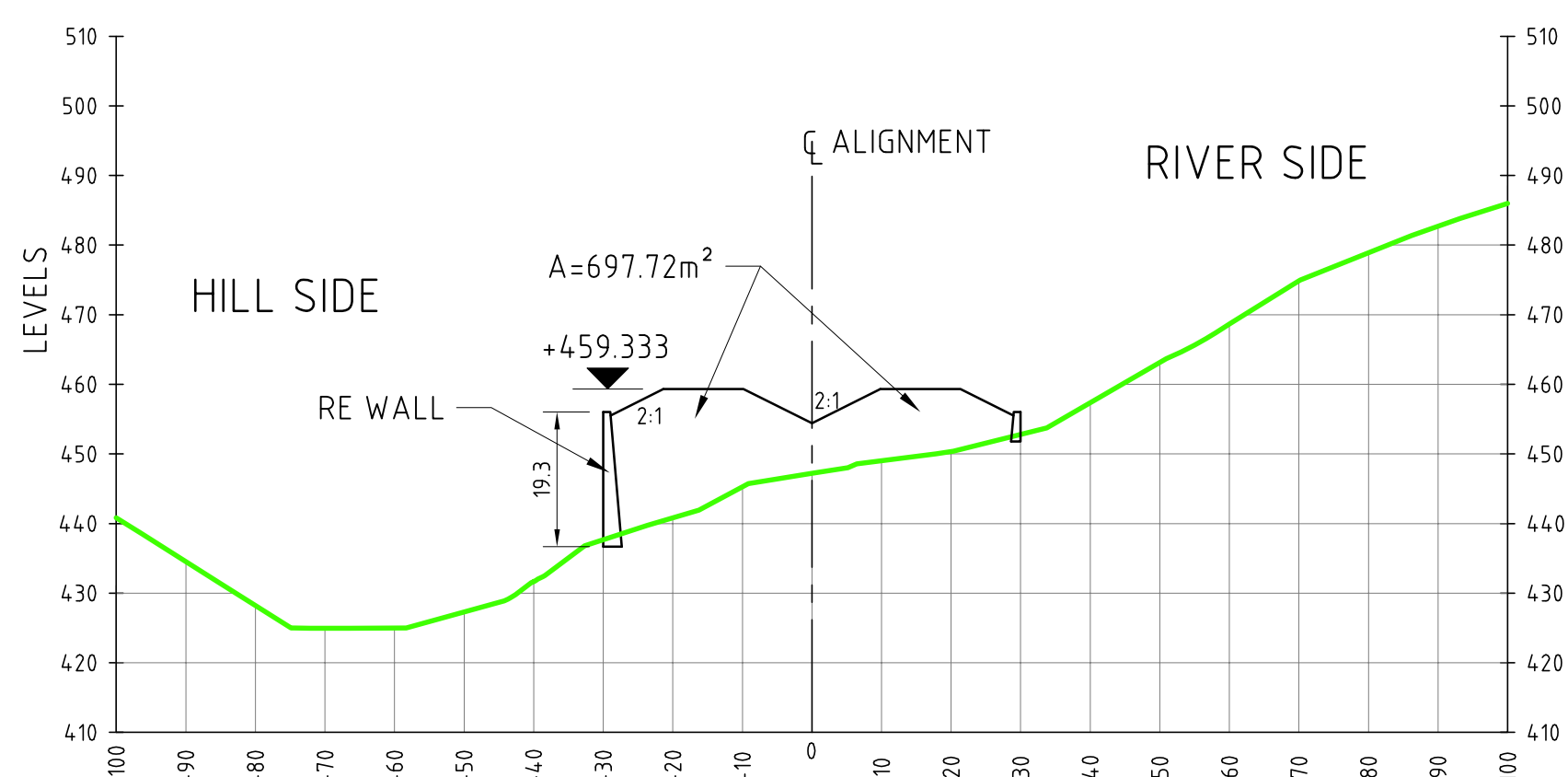
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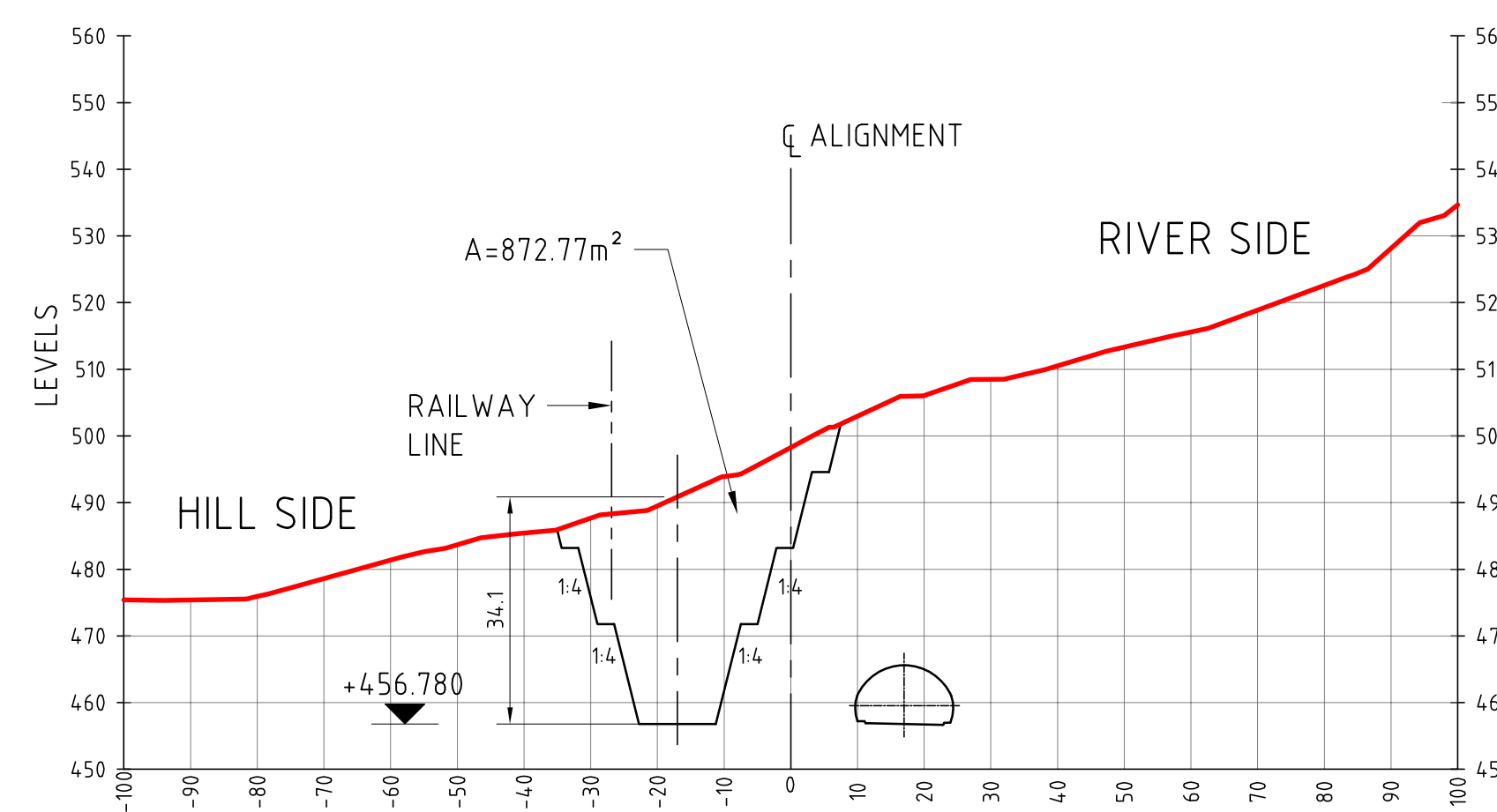
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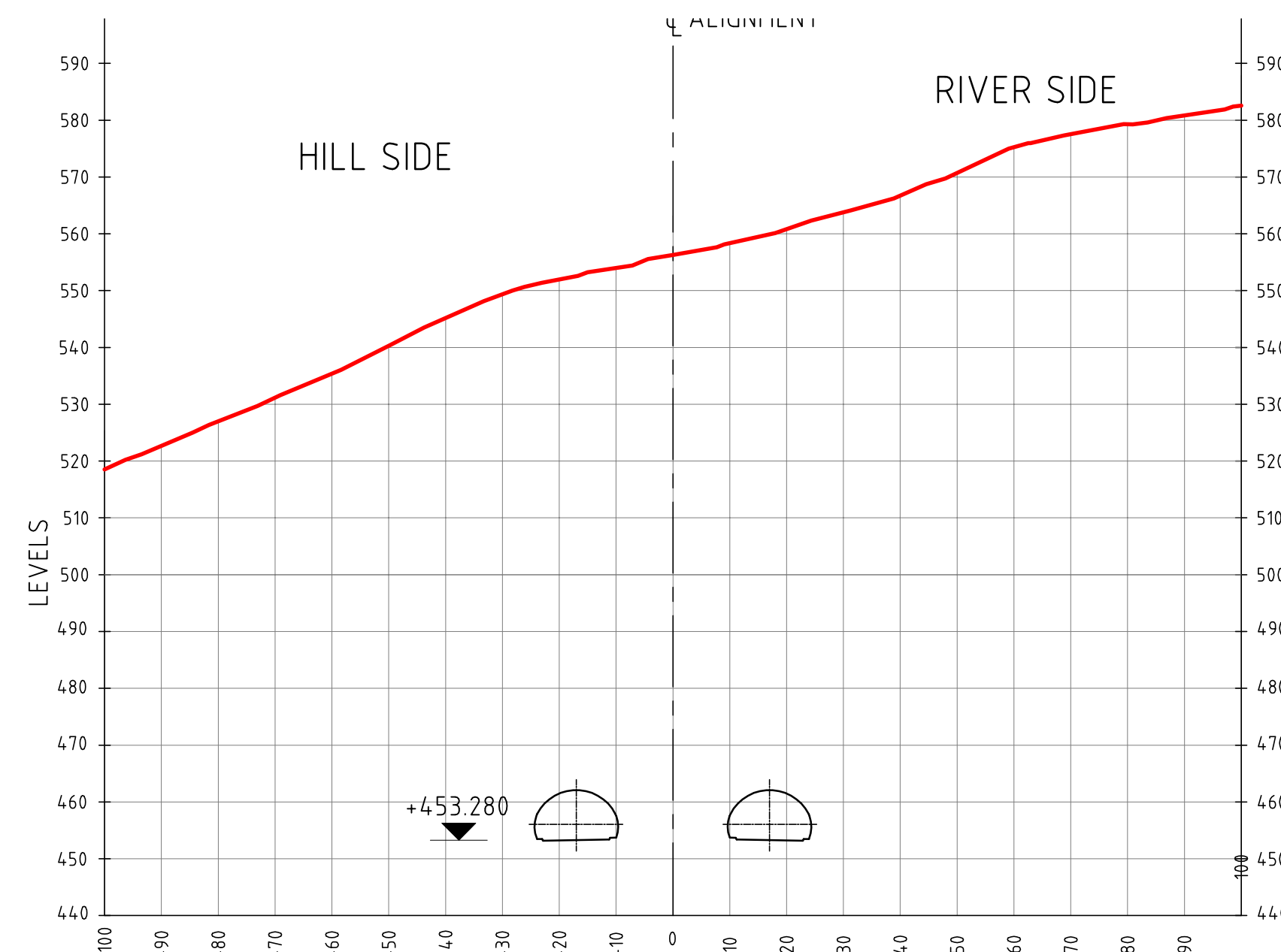
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PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:

- RAILWAY LINE
----- CUT/FILL (C/F)
----- BRIDGES (B)
----- TUNNELS (T)

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
B	DEC 15	SECOND DRAFT (KD-6)	ABa/PRa	RMe	AKg
A	DEC 15	FIRST DRAFT (KD-5)	ABa/PRa	RMe	AKg

QUALITY ASSURANCE

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Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015
Name	ABa/PRa	RMe	RMe/ADh	AKg/ADh	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
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CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

ALIGNMENT OPTION "A"
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CH:14+100 TO 14+900

DRAWING NUMBER

SHGA-FS-LAY-1085

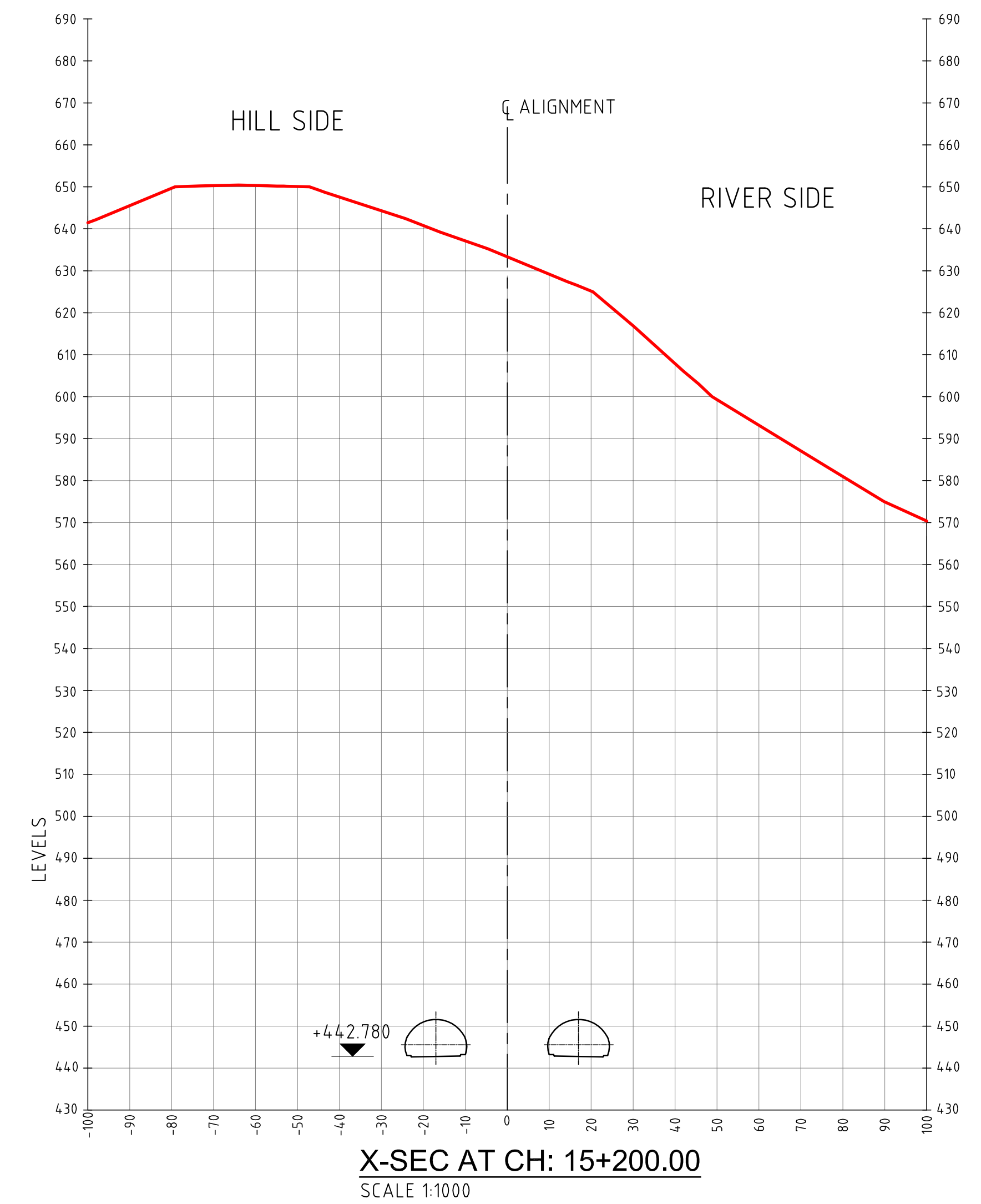
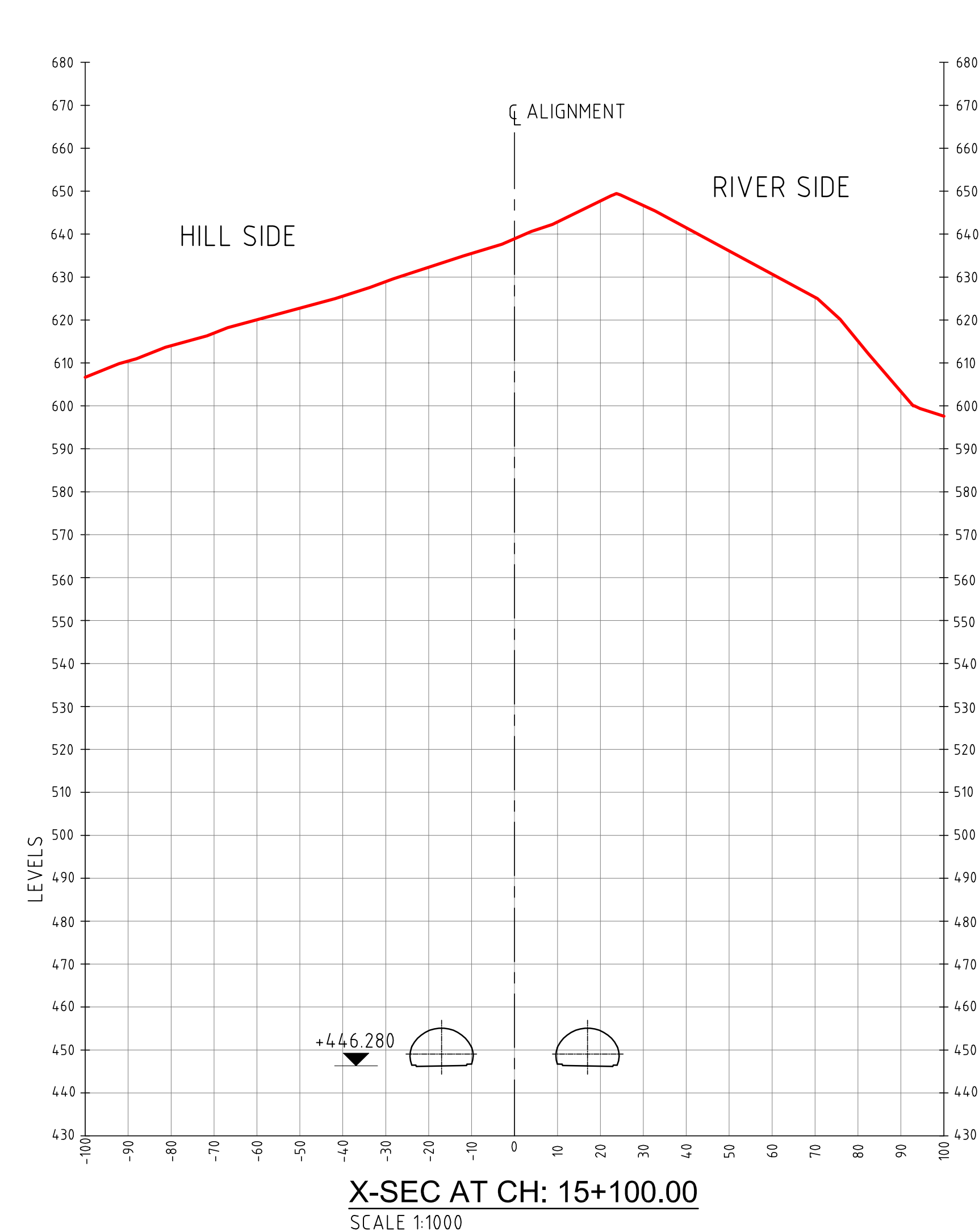
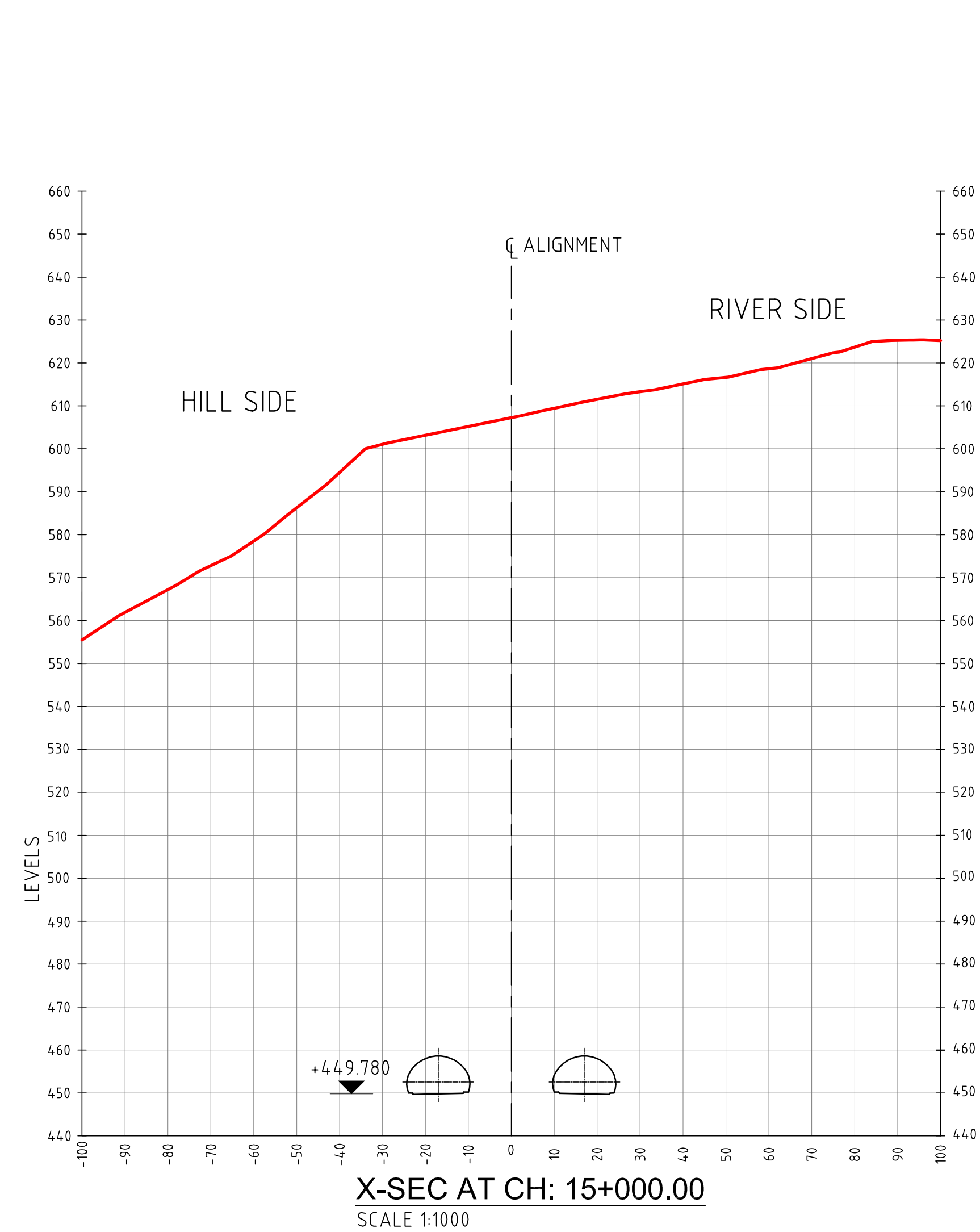
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MONTH

(Current Issue) DEC 2015


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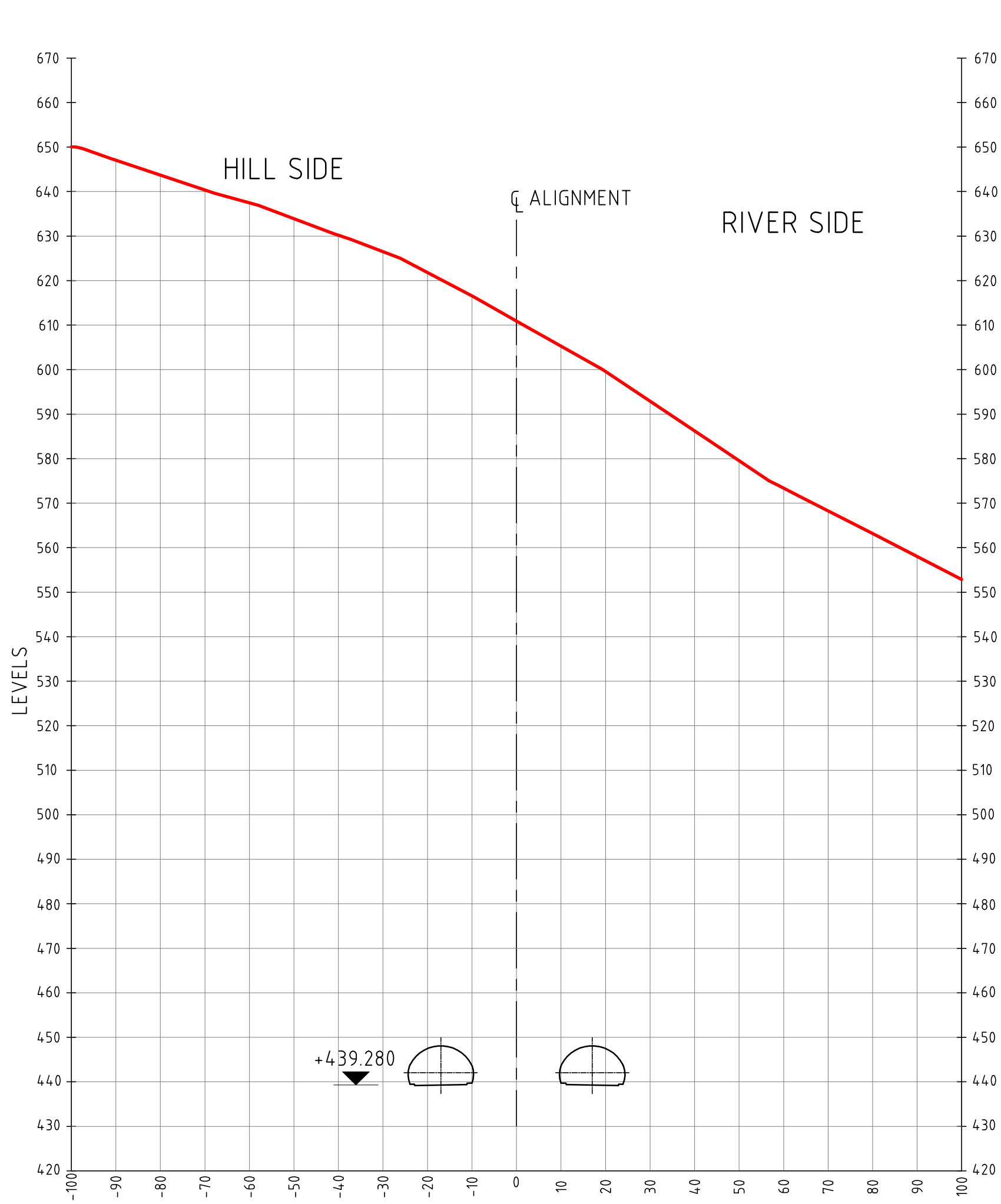


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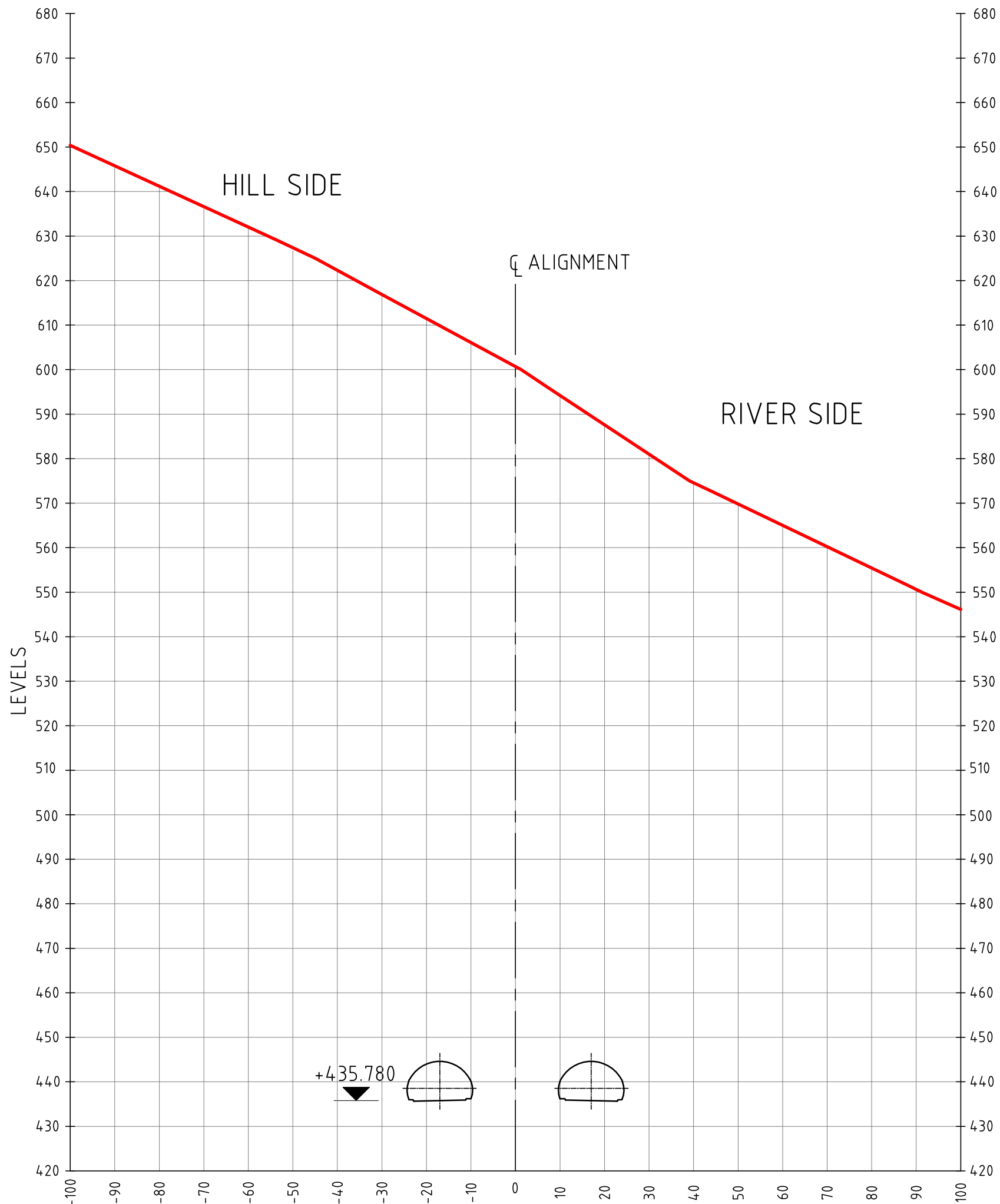


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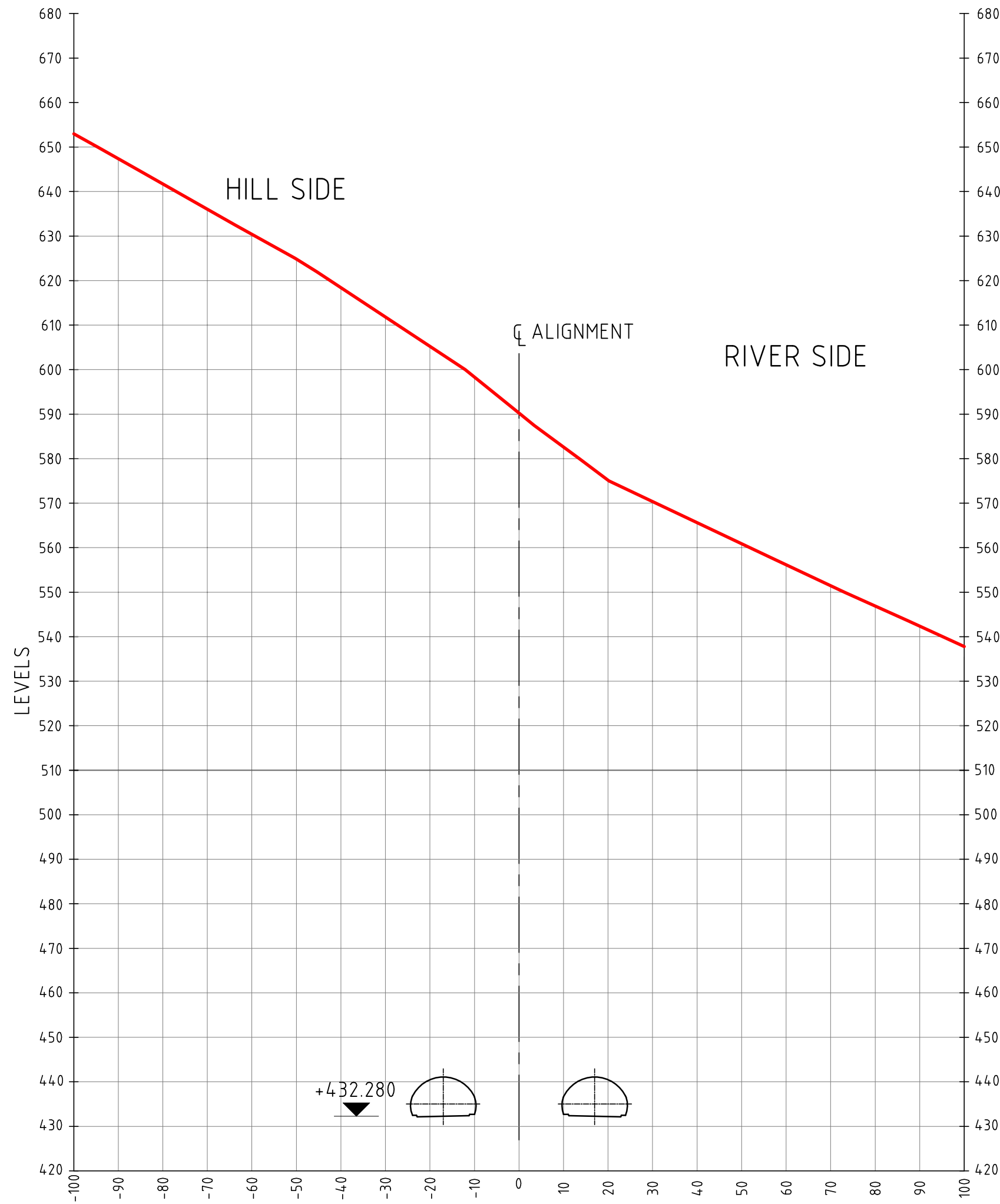
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NOTES:	----- RAILWAY LINE ----- CUT/FILL (C/F) ----- BRIDGES (B) ----- TUNNELS (T)													PROJECT TITLE		DRAWING TITLE		
		1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.						Date (FIRST ISSUE) DEC 2015 DEC 2015 DEC 2015 DEC 2015 DEC 2015						CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		ALIGNMENT OPTION "A" CROSS SECTIONS CH:15+000 TO 15+200		
		B DEC 15 SECOND DRAFT (KD-6) ABa/PRa RMe AKg						Name ABa/PRa RMe RMe/ADh AKg/ADh AKg						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party than the person by whom it was commissioned.		DRAWING NUMBER		
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		REV. DATE PARTICULARS Drawn Checked Approved						Originators						GEOCONSULT, Aba, R/16000 Projects/16060-Shiradi Ghat/CURRENT W/O-6/SHGA-FS-LAY_1081 TO 1092_B.dwg, 2015-12-16		SCALE		
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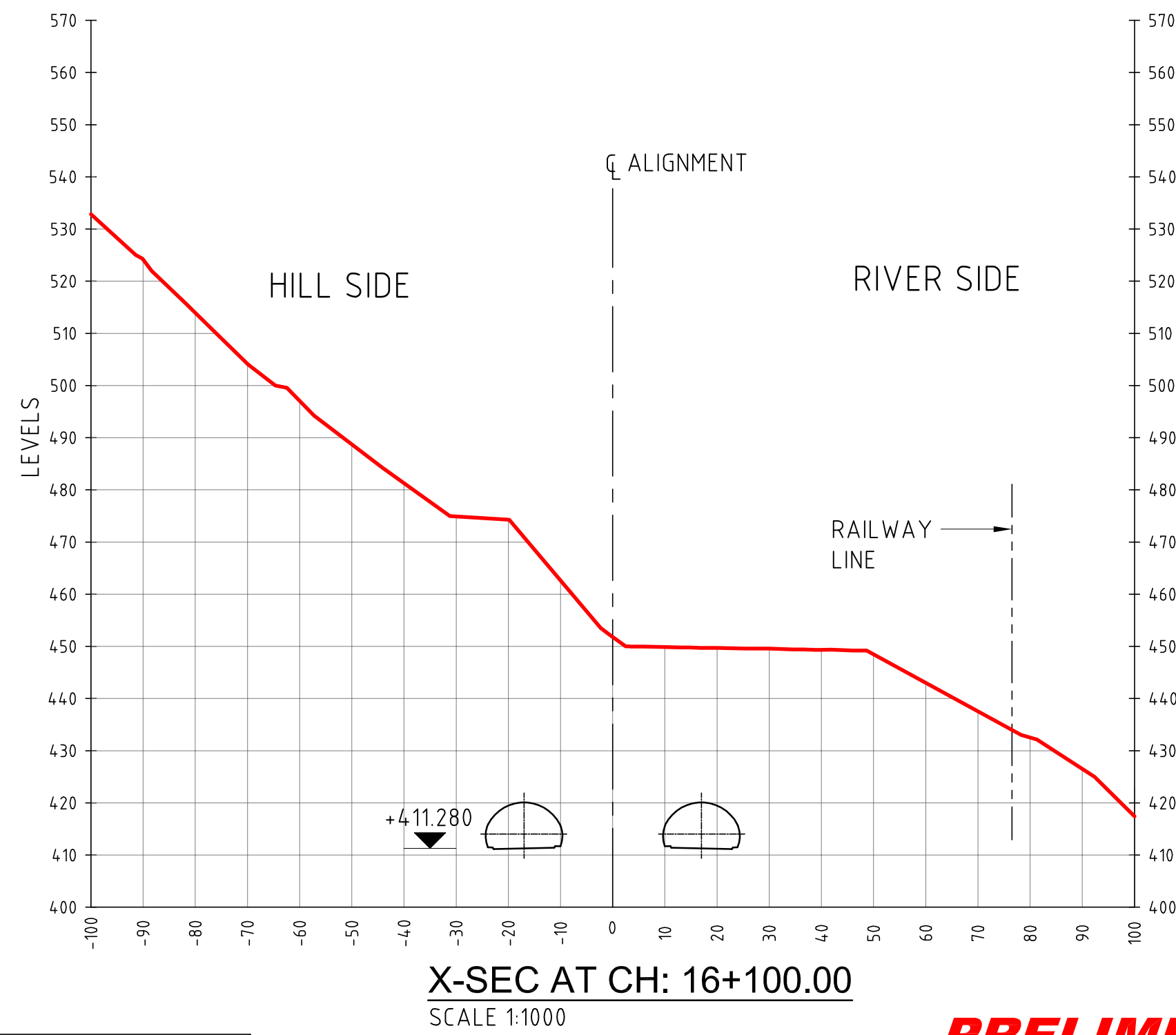
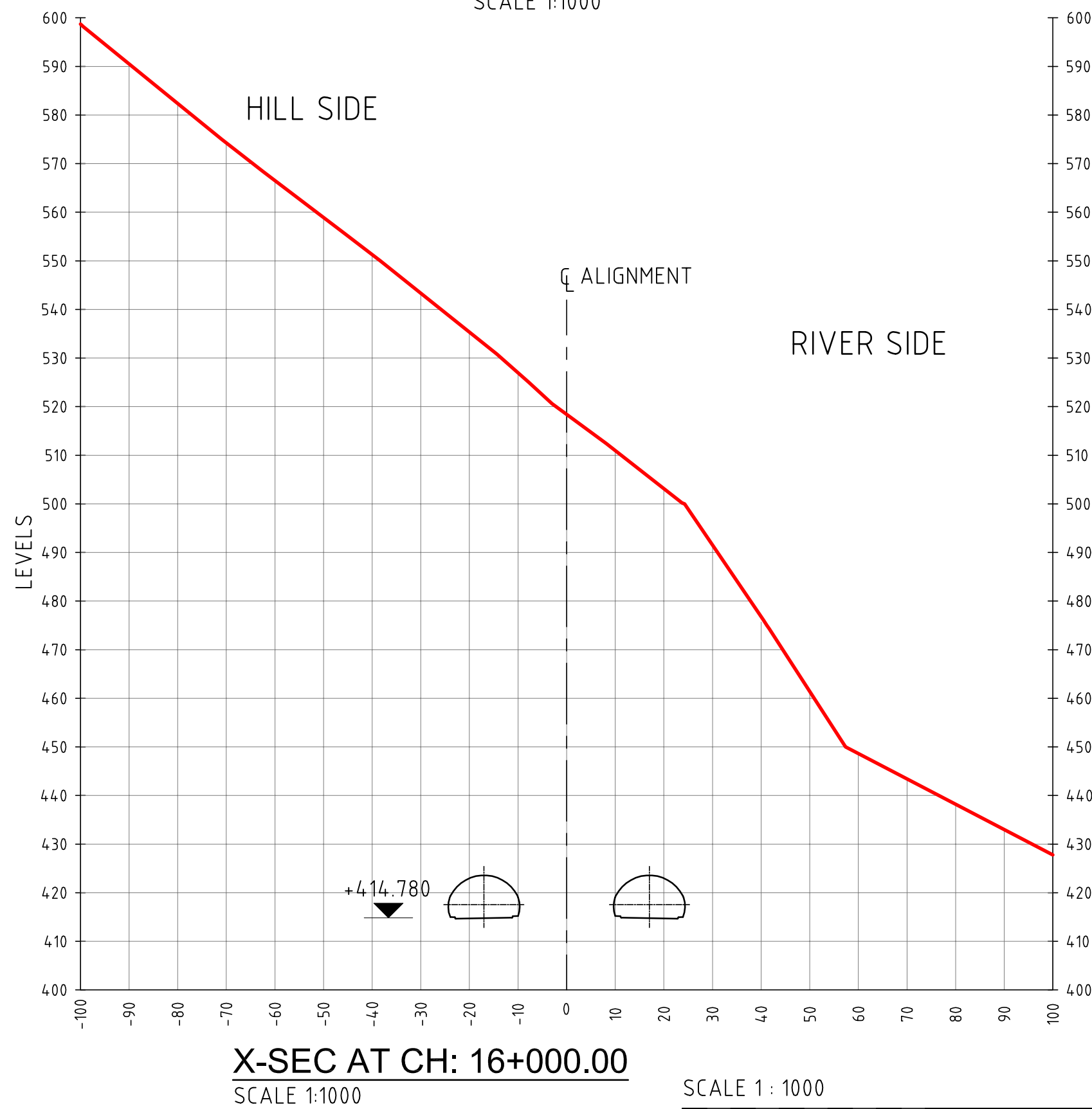
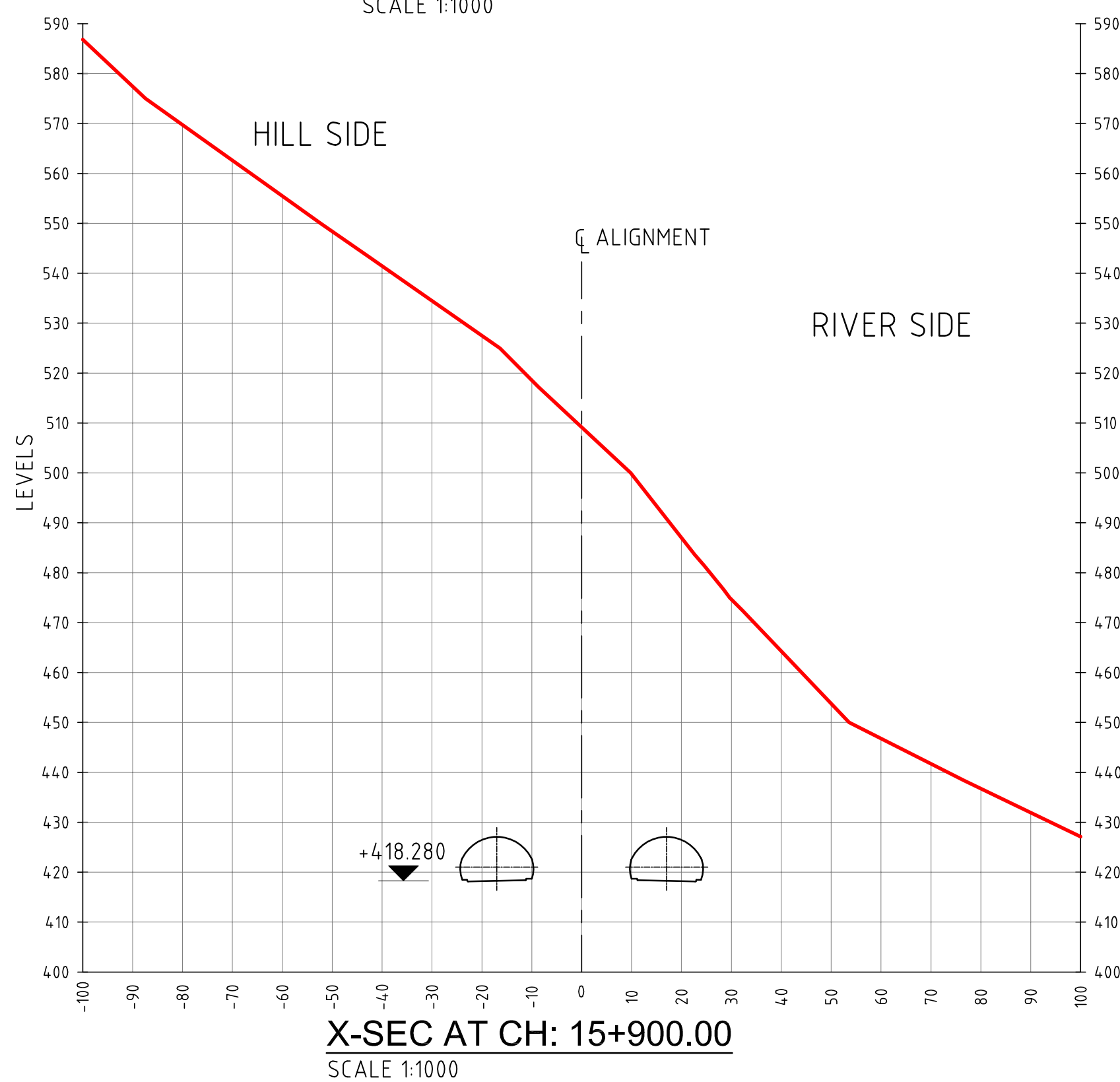
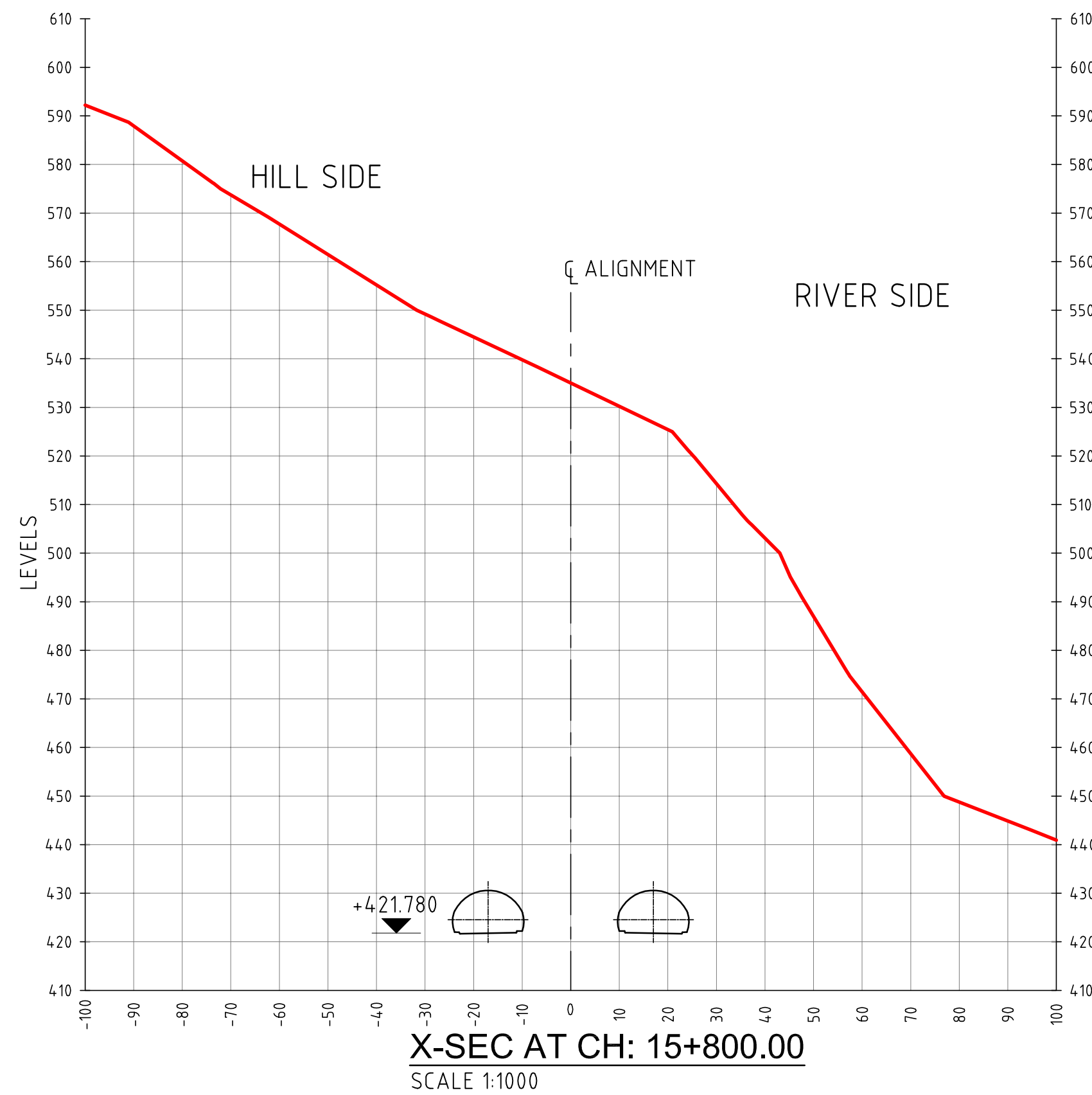
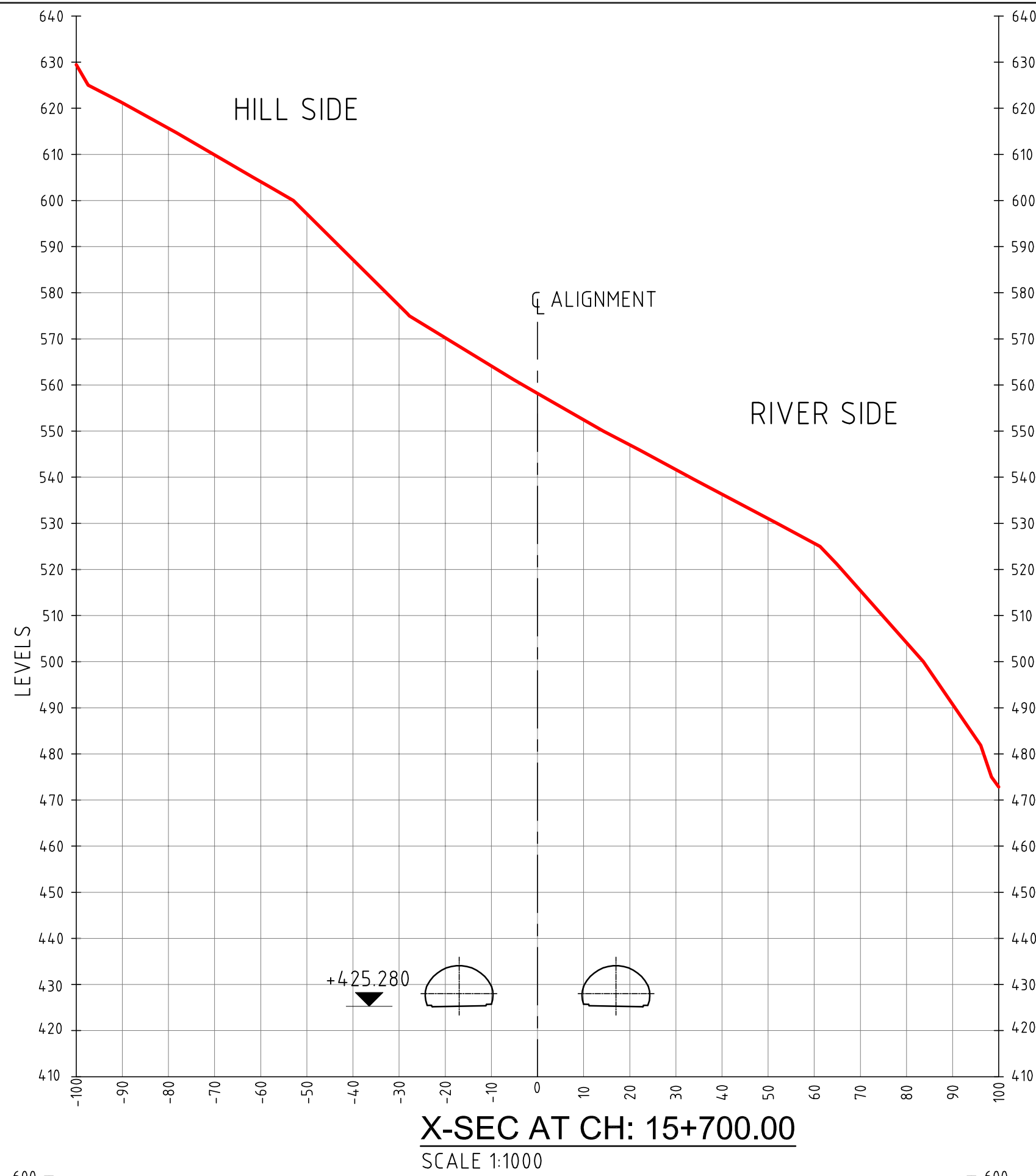
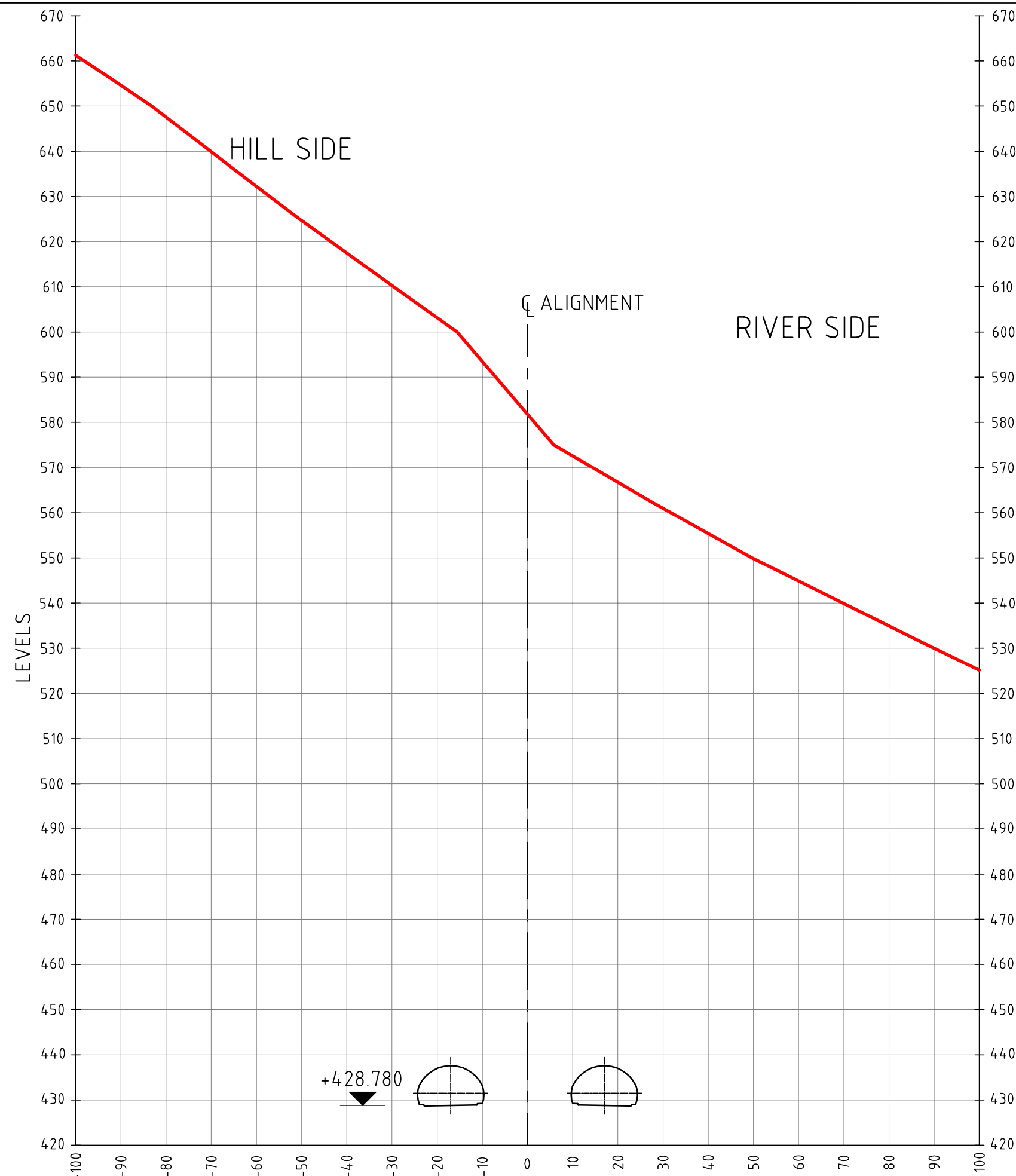


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PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.	LEGEND: ----- RAILWAY LINE CUT/FILL (C/F) BRIDGES (B) TUNNELS (T)	REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA				
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH:15+300 TO 15+500				
								Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015								
		B	DEC 15	SECOND DRAFT (KD-6)				ABa/PRa	RMe	AKg	Name	ABa/PRa	RMe	RMe/ADh	AKg/ADh		AKg				
		A	DEC 15	FIRST DRAFT (KD-5)				ABa/PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk		Approved				
		REV	DATE	PARTICULARS				Drawn	Checked	Approved	Originators		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. G:\GEOCONSULT_Aba_R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1081 TO 1092_B.dwg, 2015-12-15						DRAWING NUMBER SHGA-FS-LAY-1087		REV B
												SCALE AS SHOWN		MONTH (Current Issue) DEC 2015							



PRELIMINARY

REFERENCE DRAWINGS:
SHGA-FS-LAY-1000

NOTES:
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:
----- RAILWAY LINE
----- CUT/FILL (C/F)
----- BRIDGES (B)
----- TUNNELS (T)

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
B	DEC 15	SECOND DRAFT (KD-6)	ABa/PRa	RMe	AKg
A	DEC 15	FIRST DRAFT (KD-5)	ABa/PRa	RMe	AKg

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Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015
Name	ABa/PRa	RMe	RMe/ADh	AKg/ADh	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS:
GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE
CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780


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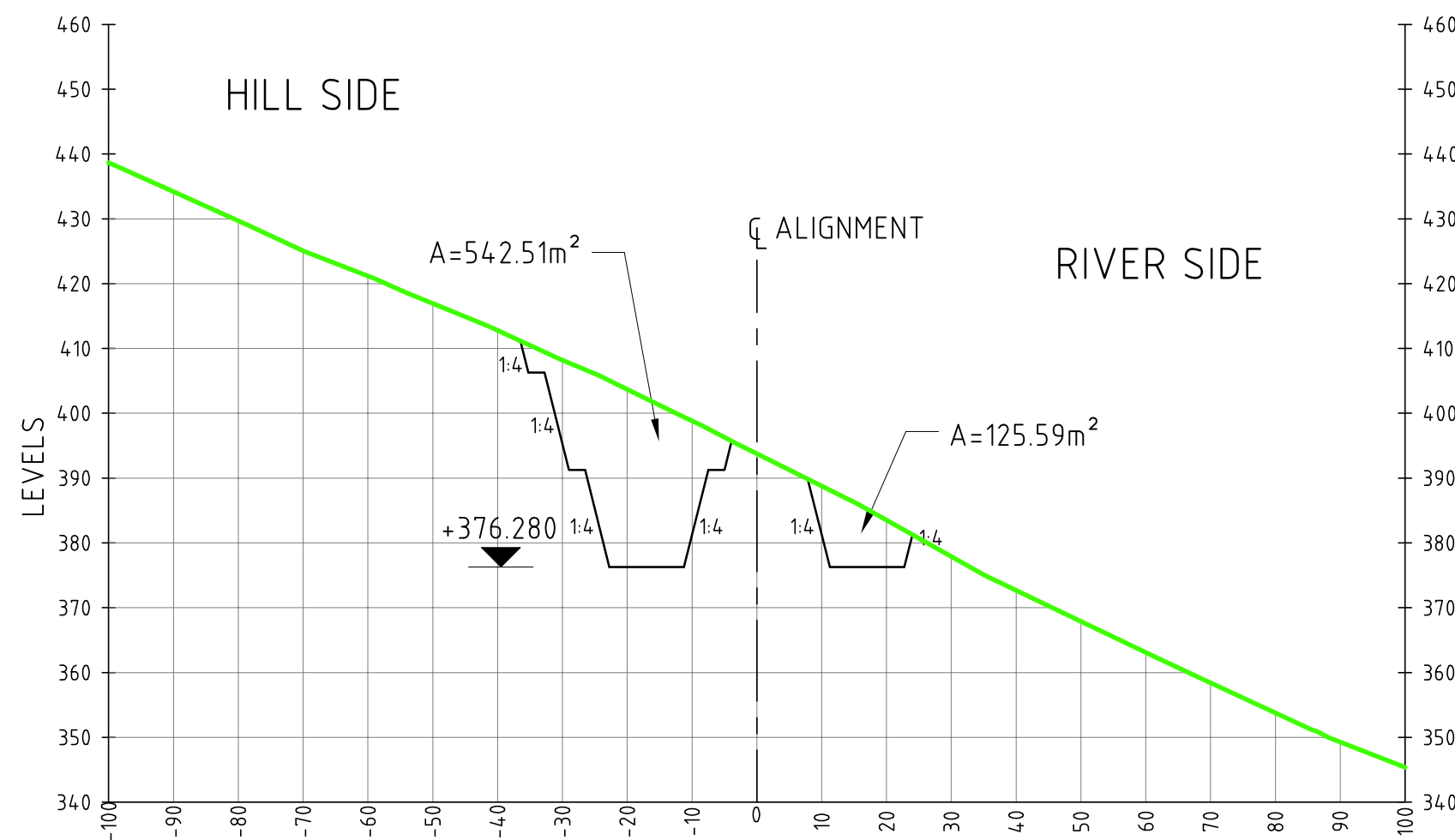
CLIENT
GOVERNMENT OF KARNATAKA

DRAWING TITLE
ALIGNMENT OPTION "A"
CROSS SECTIONS
CH:15+600 TO 16+100

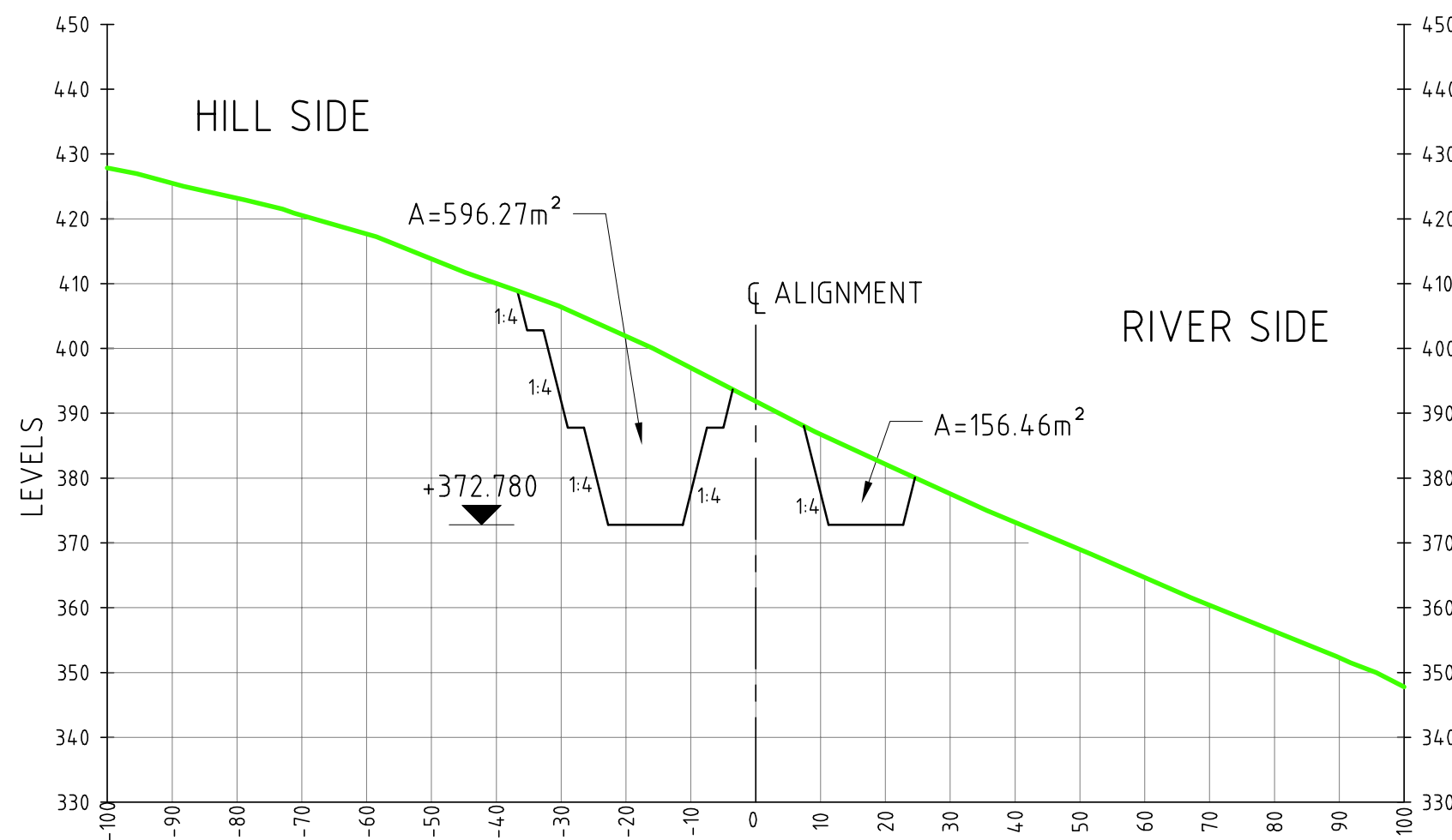
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REV
B

SCALE
AS SHOWN
MONTH
(Current Issue) DEC 2015

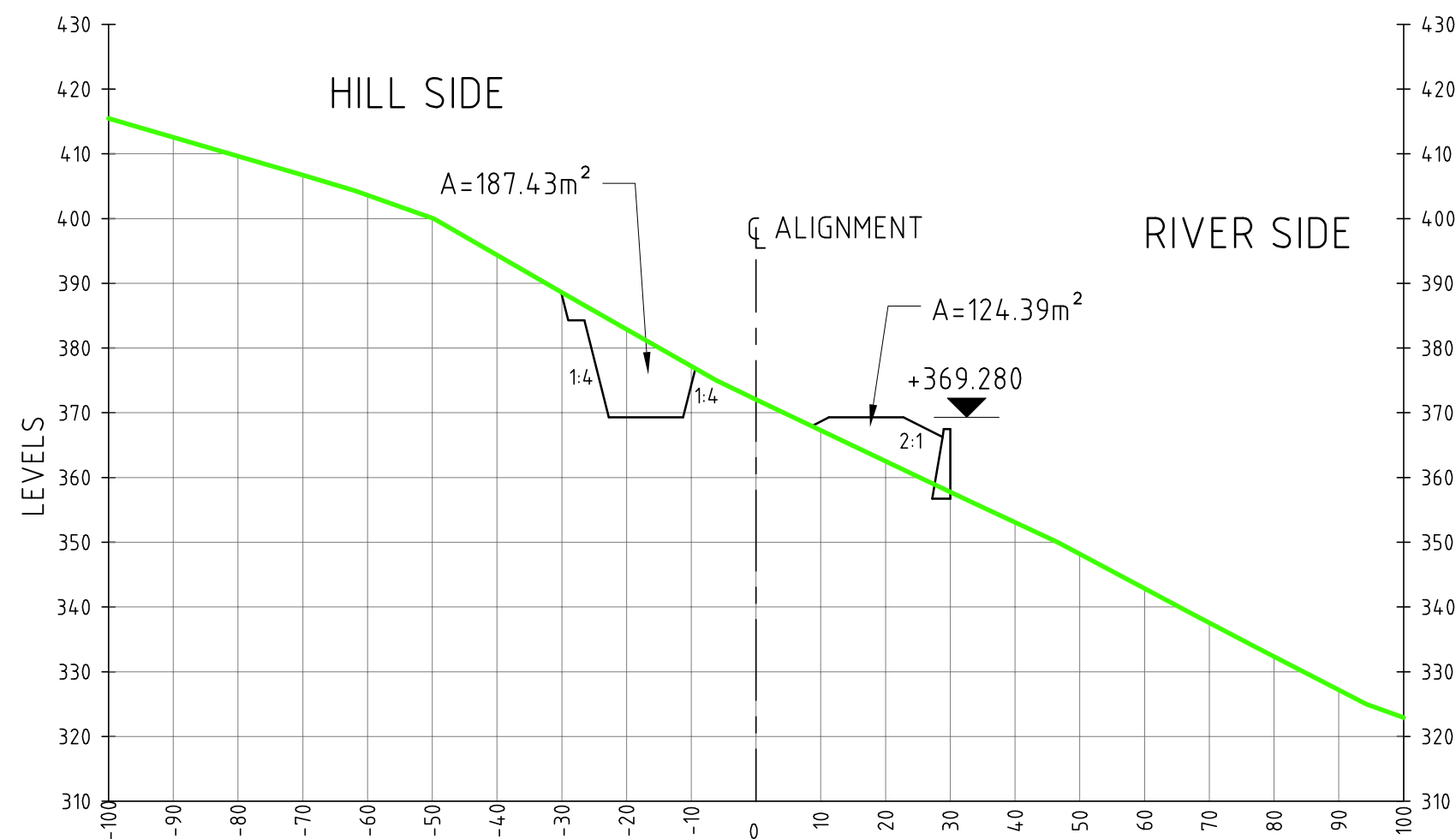
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NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.	----- CUT/FILL (C/F)							Date (FIRST ISSUE)	DEC 2015		DEC 2015	DEC 2015	DEC 2015	DEC 2015	PROJECT TITLE	CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780	
	----- BRIDGES (B)	B	DEC 15	SECOND DRAFT (KD-6)	ABa/P	RMe	AKg	Name	ABa/P	RMe	RMe/ADh	AKg/ADh	AKg		DRAWING NUMBER		REV
	----- TUNNELS (T)	A	DEC 15	FIRST DRAFT (KD-5)	ABa/P	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved		SHGA-FS-LAY-1089		B
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.			
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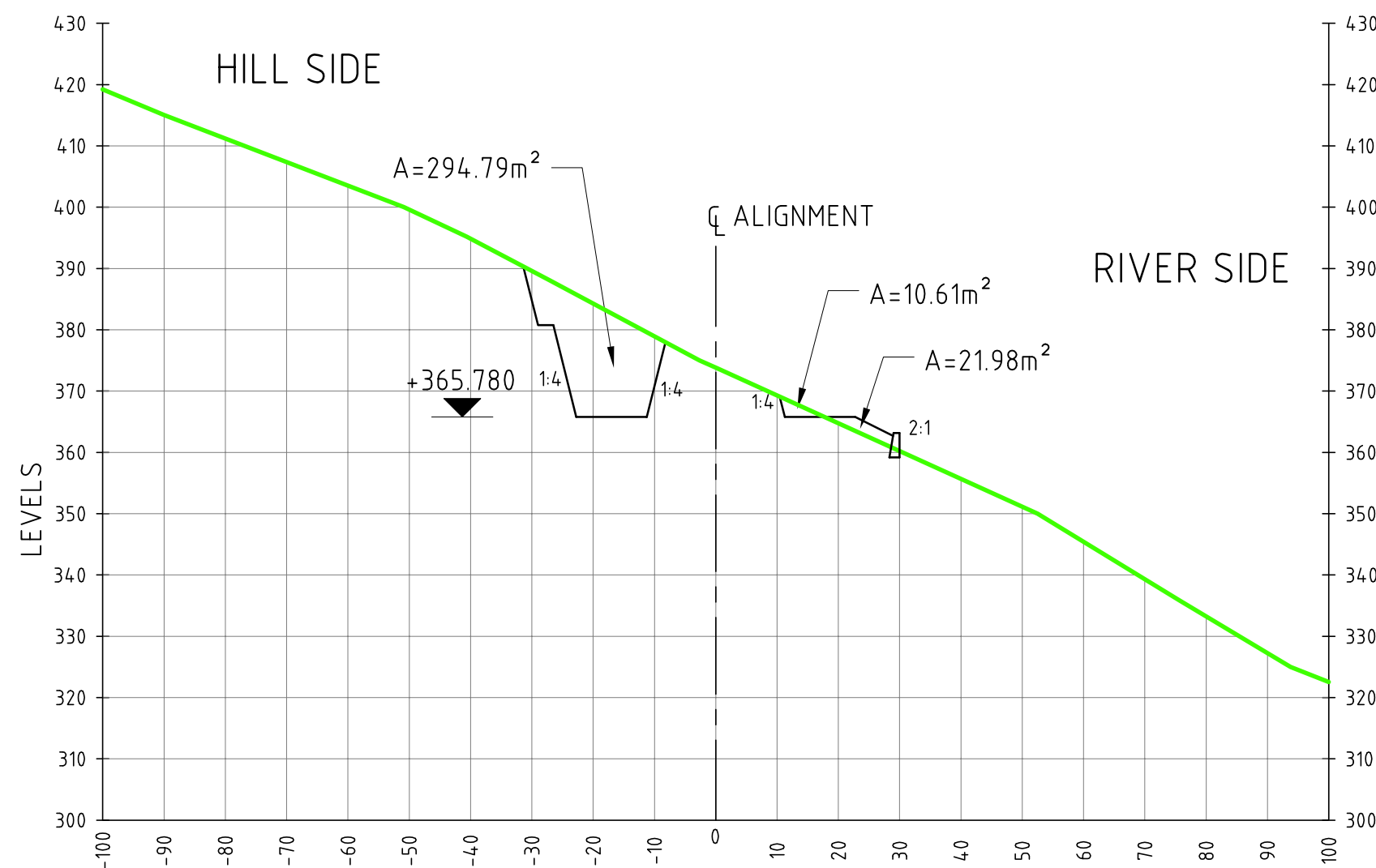
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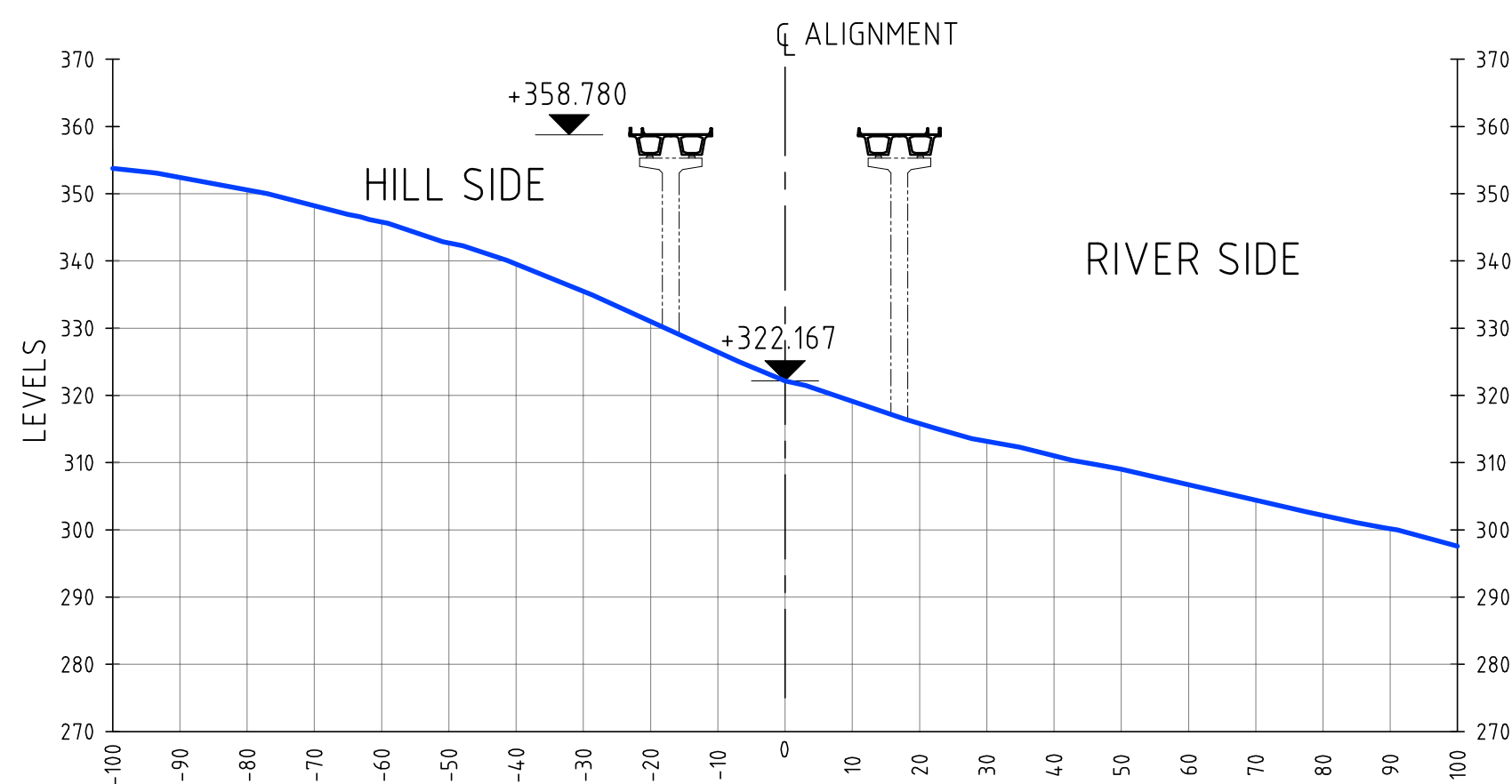
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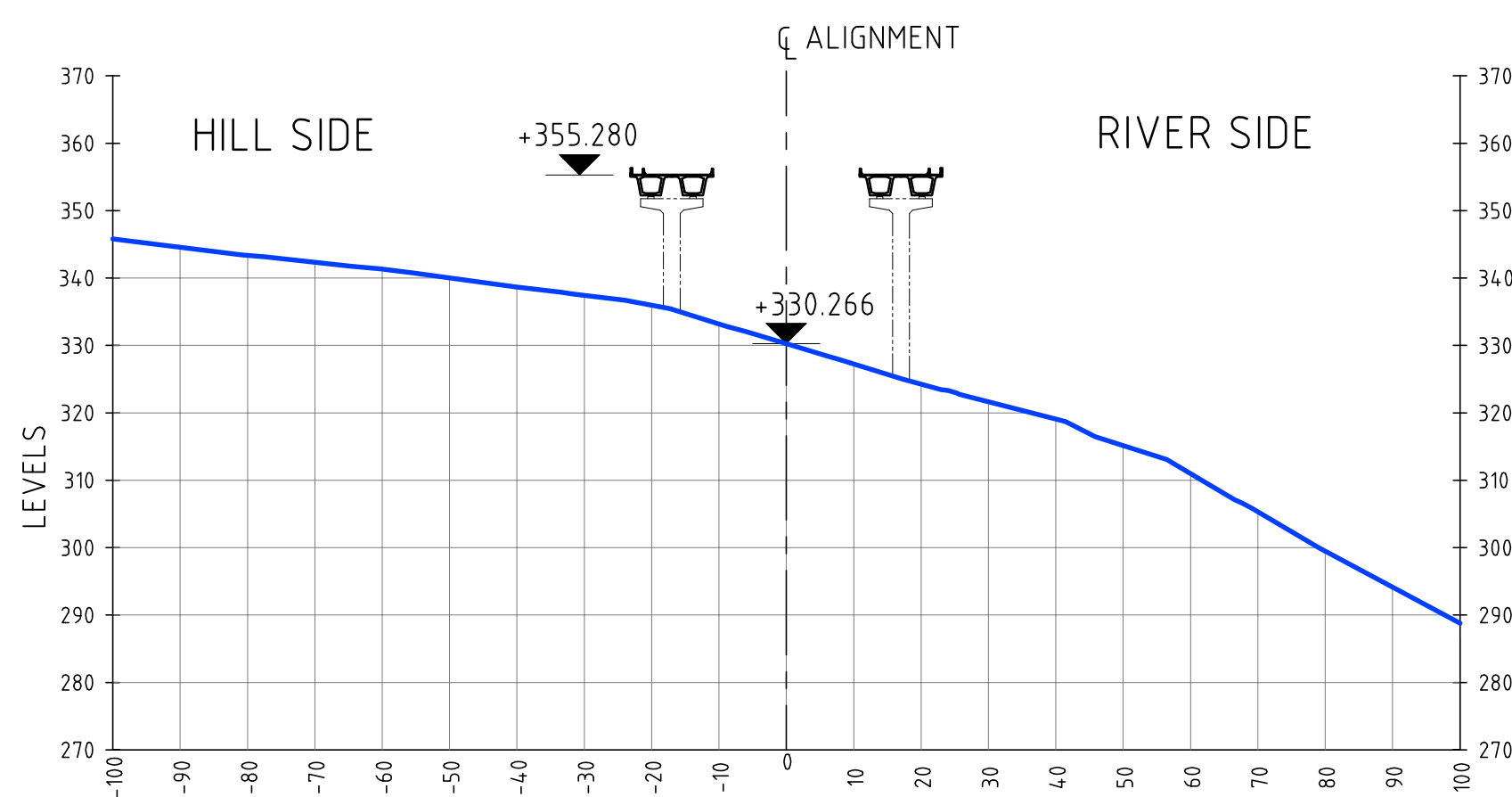
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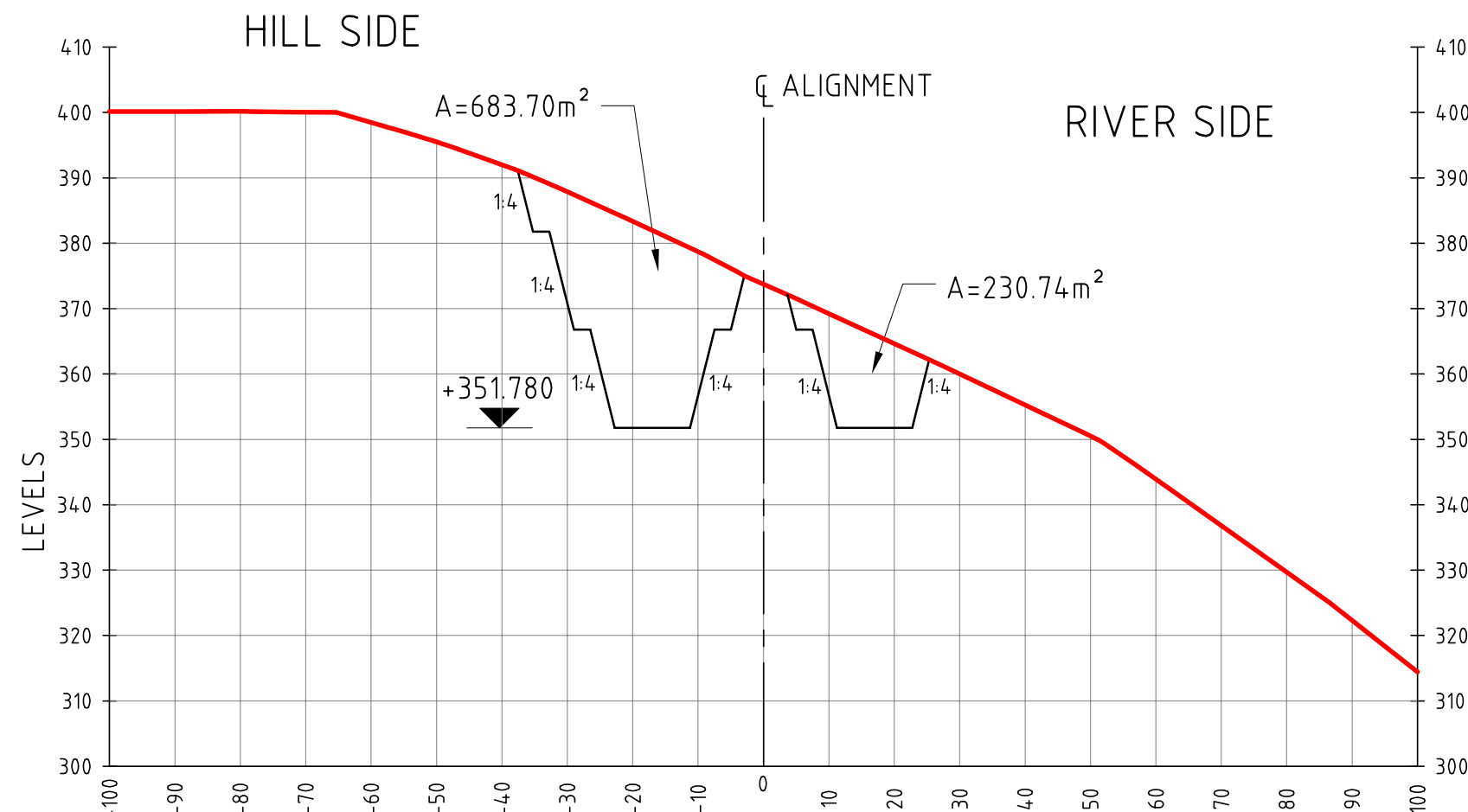
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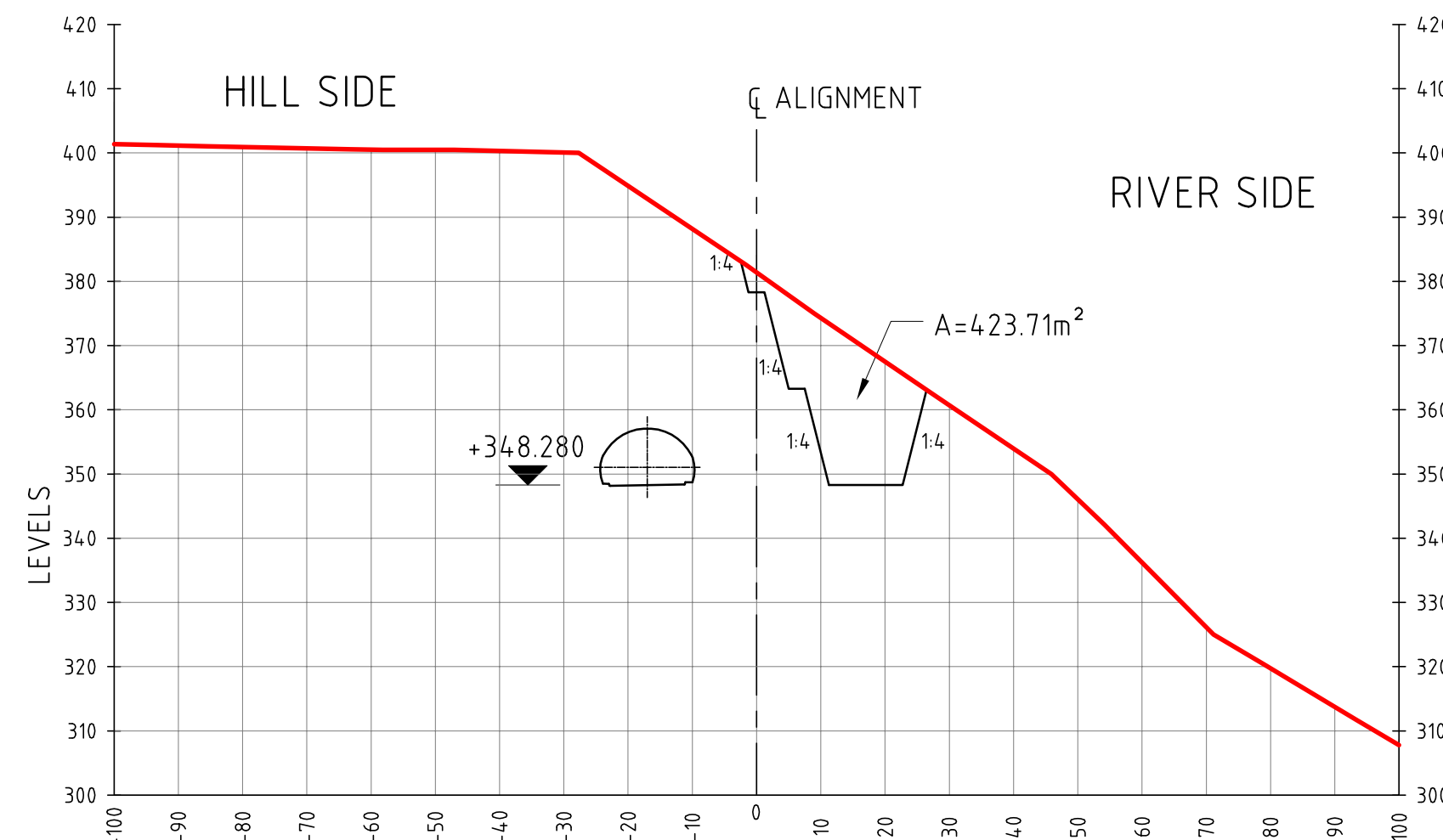
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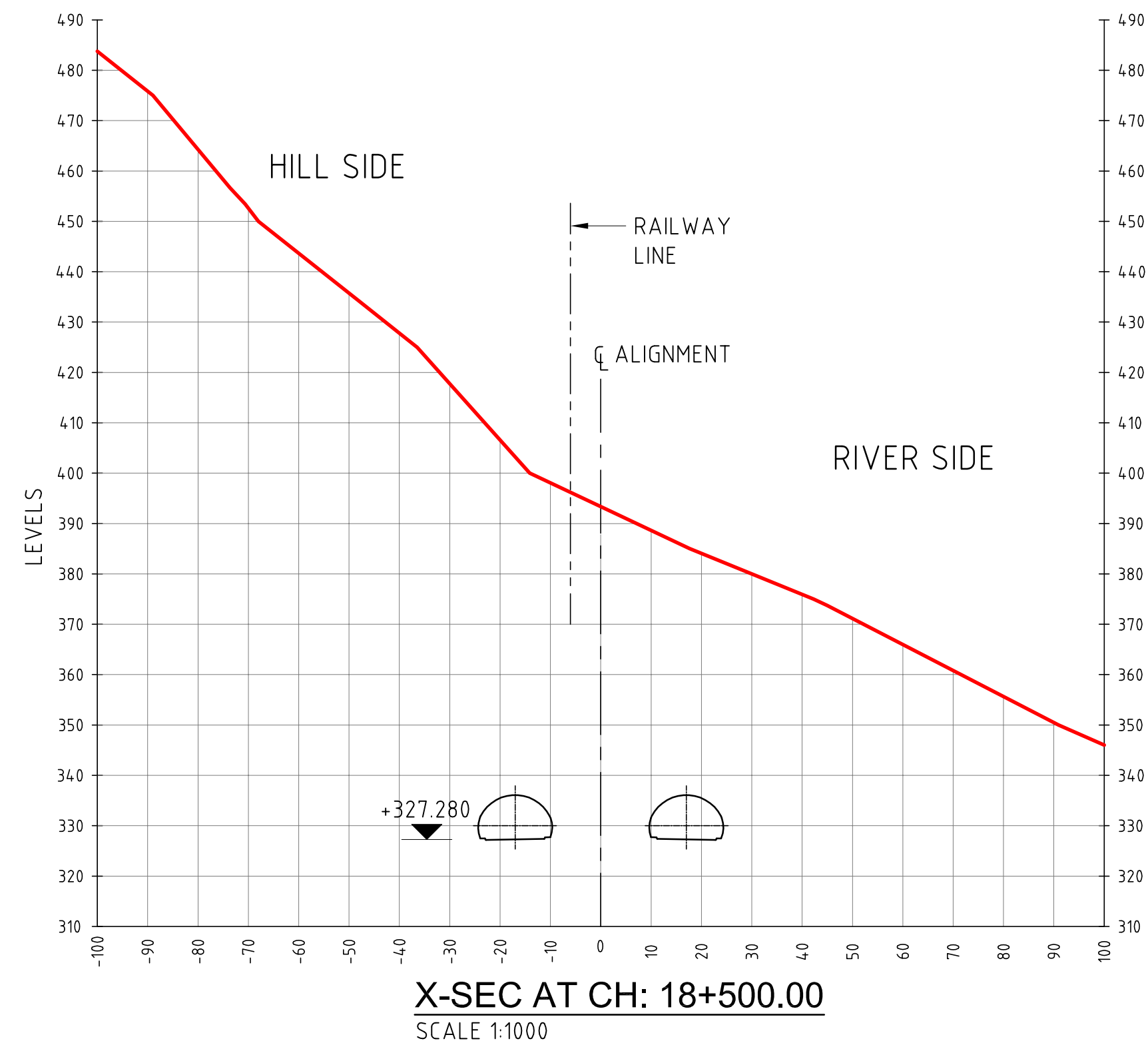
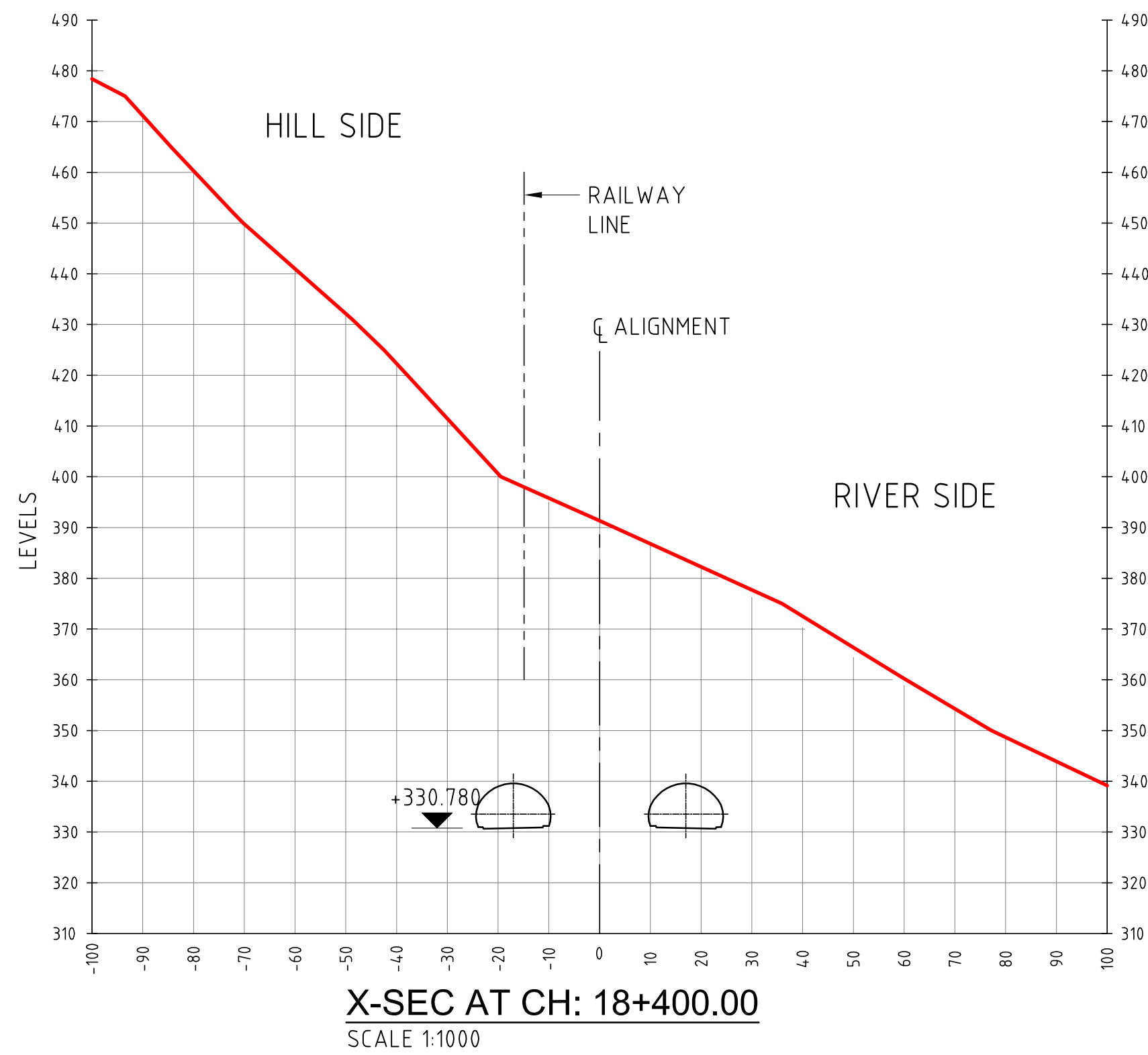
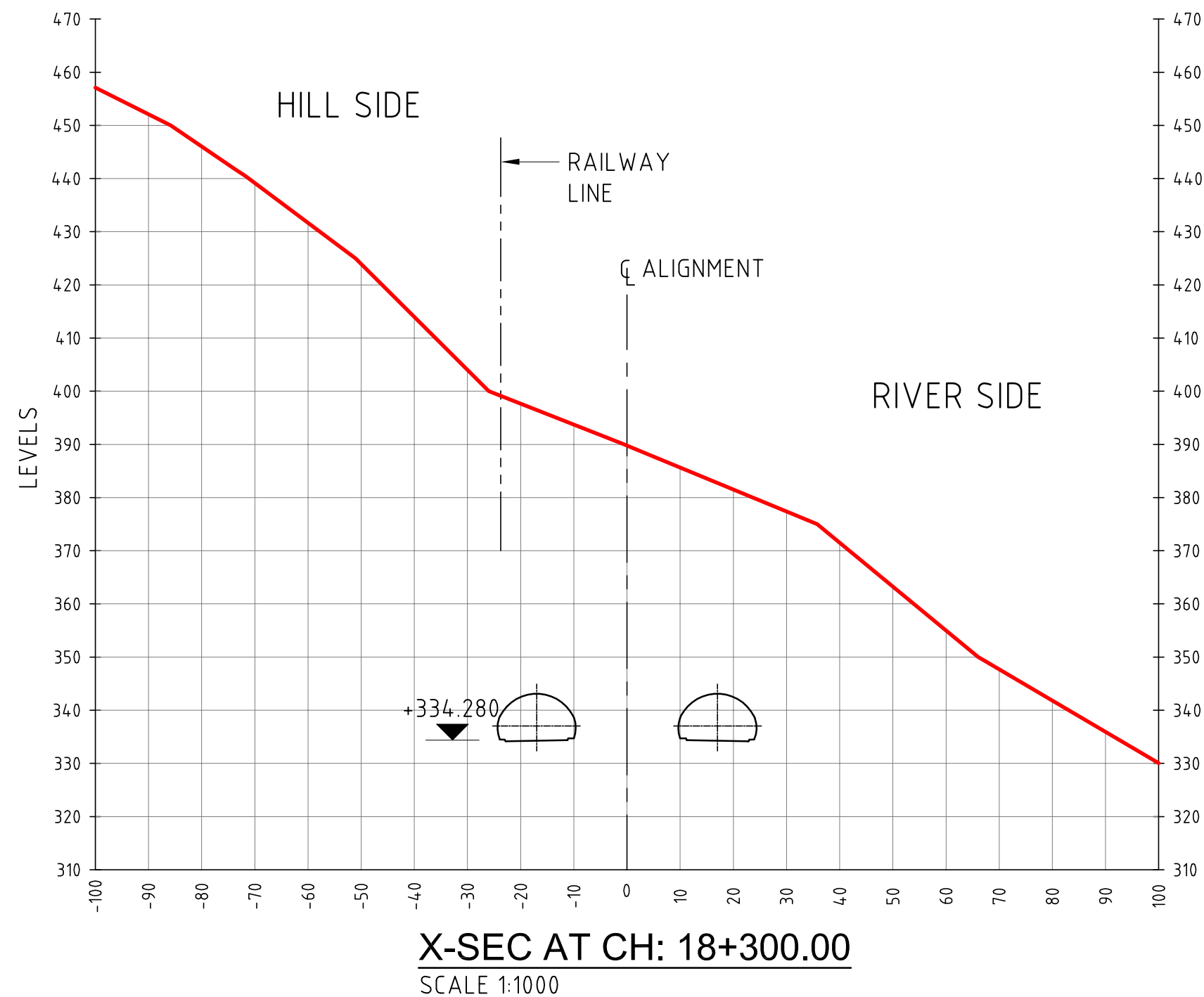
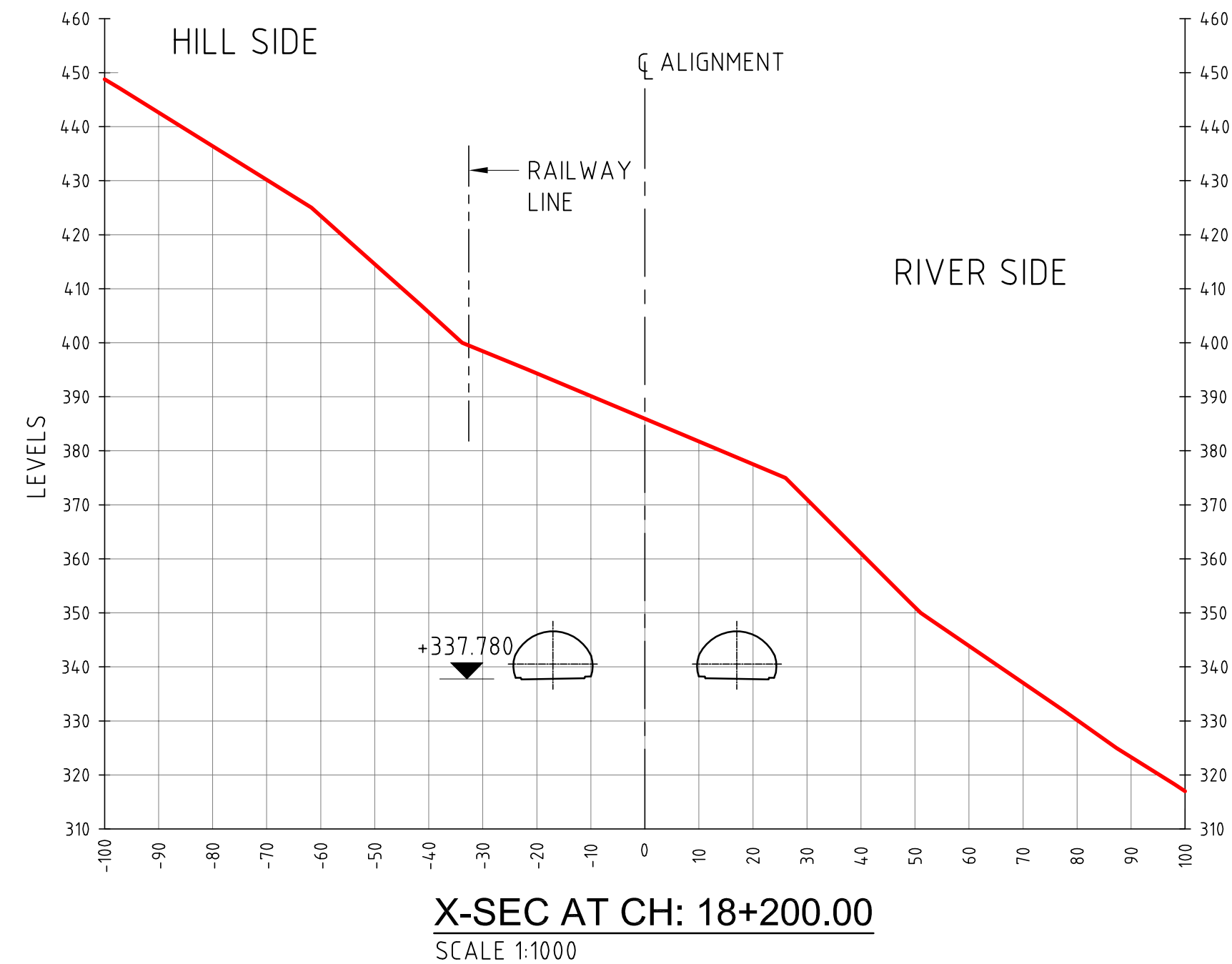
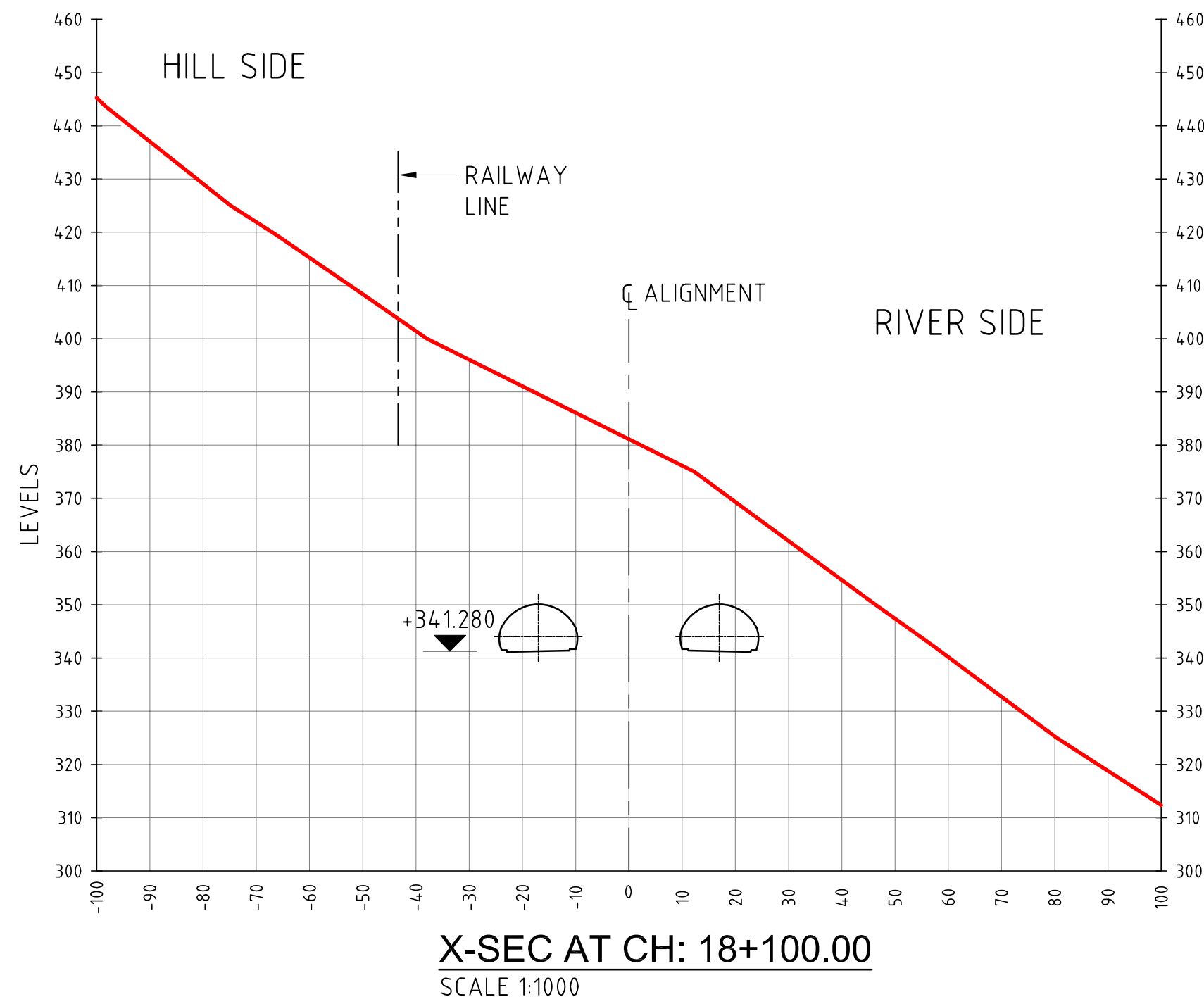
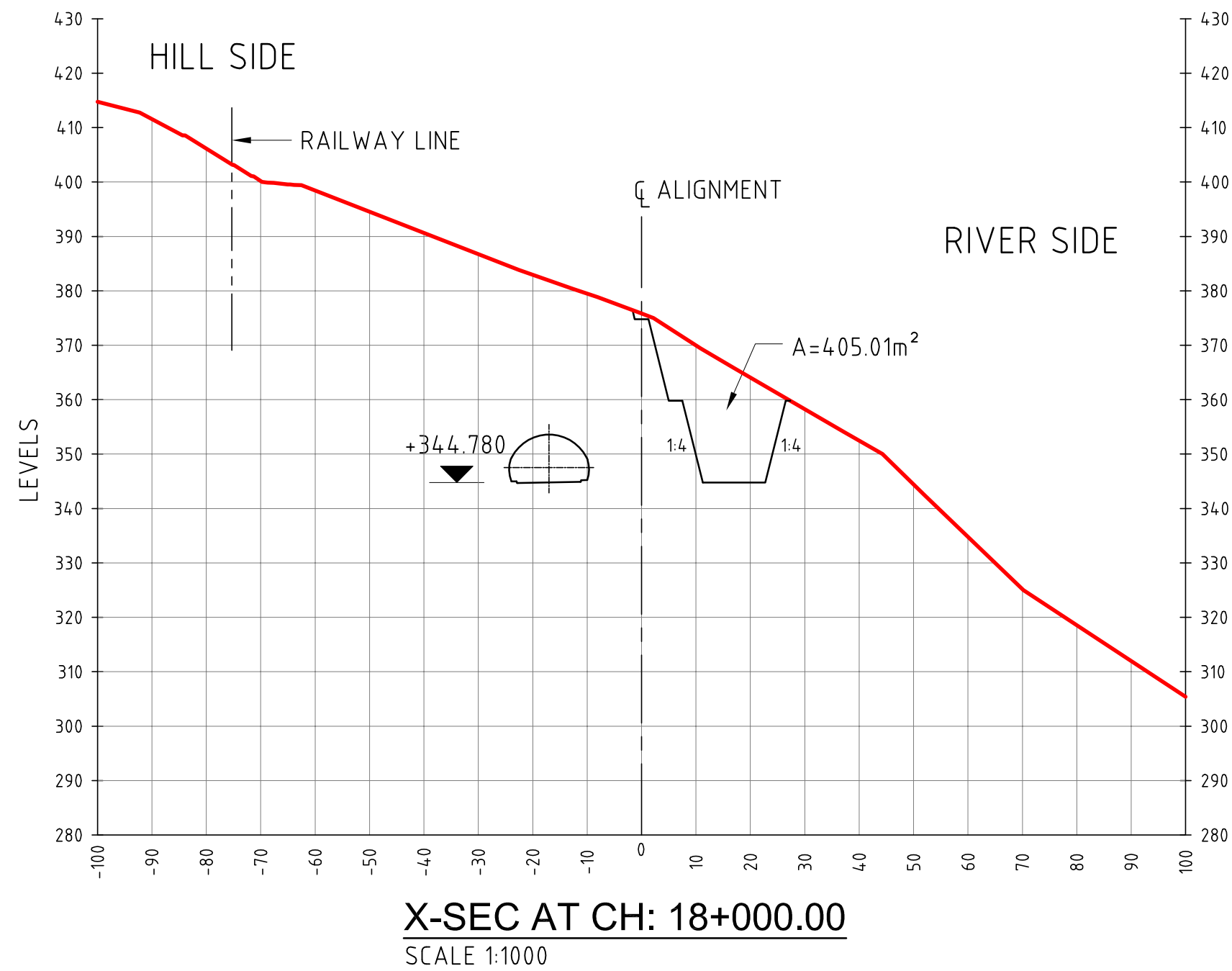


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PRELIMINARY

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					The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.										DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH:17+100 TO 17+900																				
					Date (FIRST ISSUE)						DEC 2015		DEC 2015		DEC 2015		DEC 2015		PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		REV														
											Name		ABa/PRa		RMe		RMe/ADh		AKg/ADh		AKg		DRAWING NUMBER SHGA-FS-LAY-1090		B										
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.		B			DEC 15			SECOND DRAFT (KD-6)			ABa/PRa			RMe		AKg		Drawn		Drafting Chk		Designed		Design Chk		Approved		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party than the person by whom it was commissioned.		SCALE AS SHOWN		MONTH (Current Issue)		DEC 2015	
		A			DEC 15			FIRST DRAFT (KD-5)			ABa/PRa			RMe		AKg												GEOCONSULT, Aba, R\16000 Projects\16060-Shiradi Ghat\CURRENT\WD-6\SHGA-FS-LAY_1081 TO 1092_Dwg, 2015-12-14							
		REV.			DATE			PARTICULARS			Drawn			Checked		Approved		Originators																	



PRELIMINARY


REFERENCE DRAWINGS:
SHGA-FS-LAY-1000

NOTES:
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

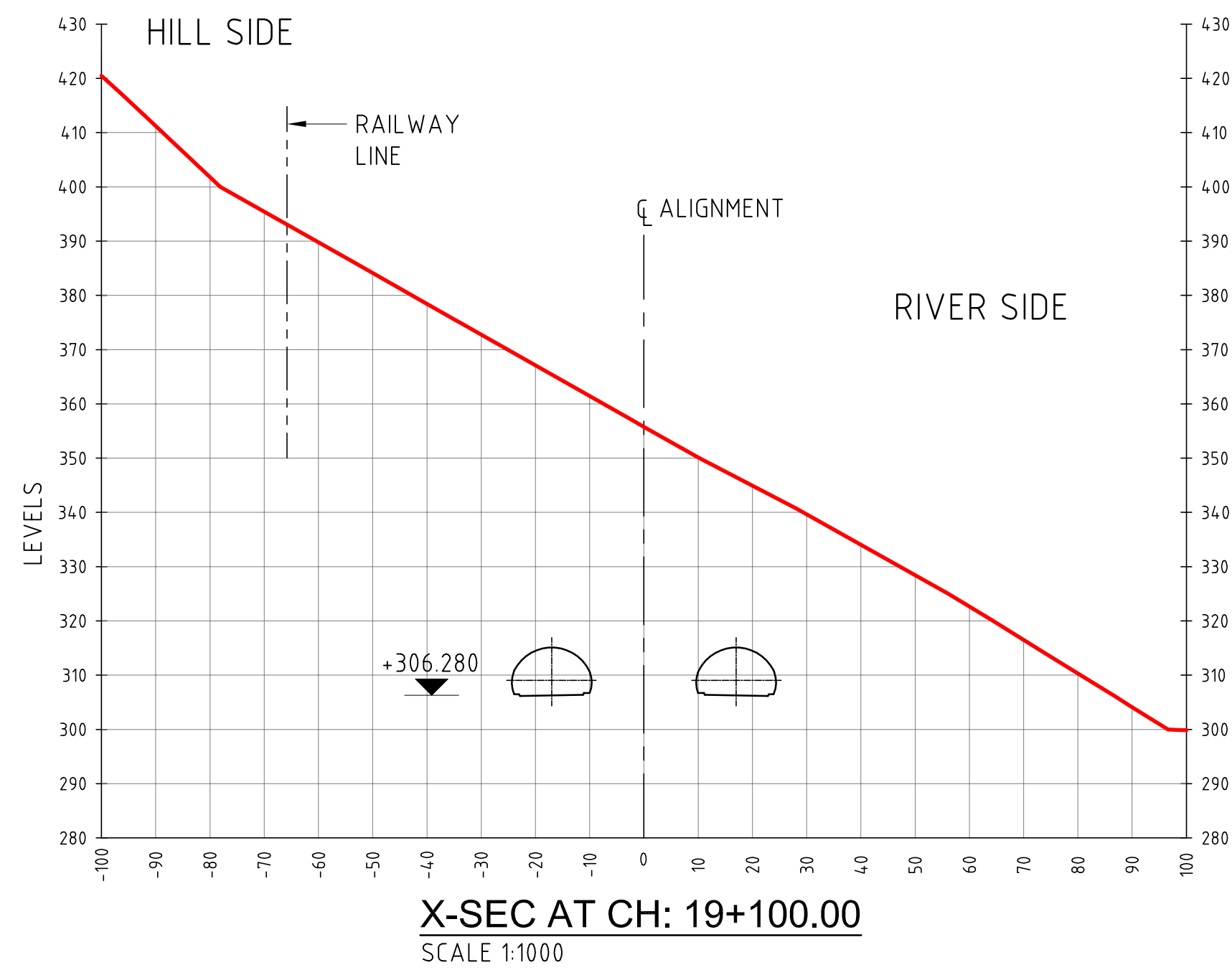
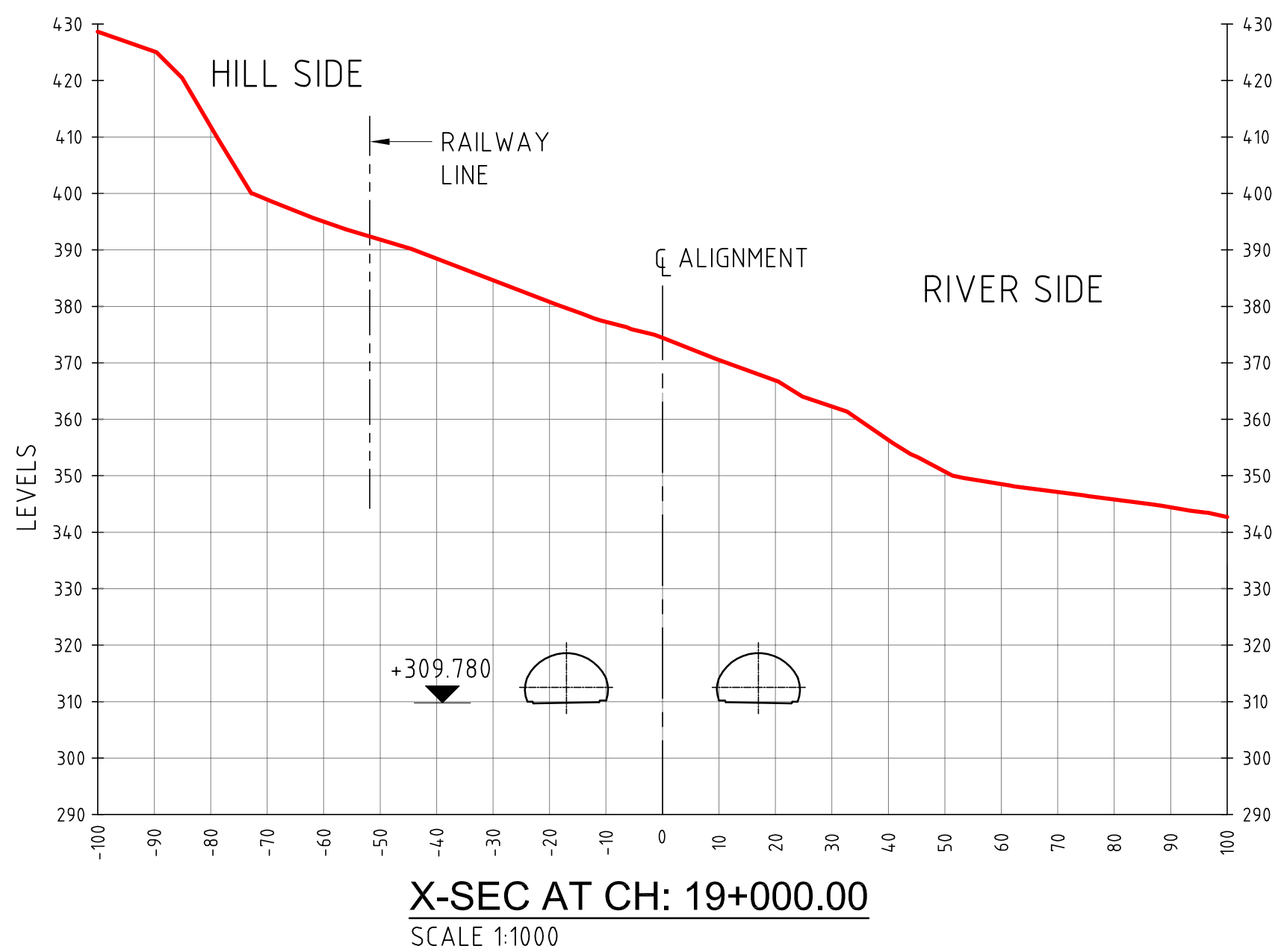
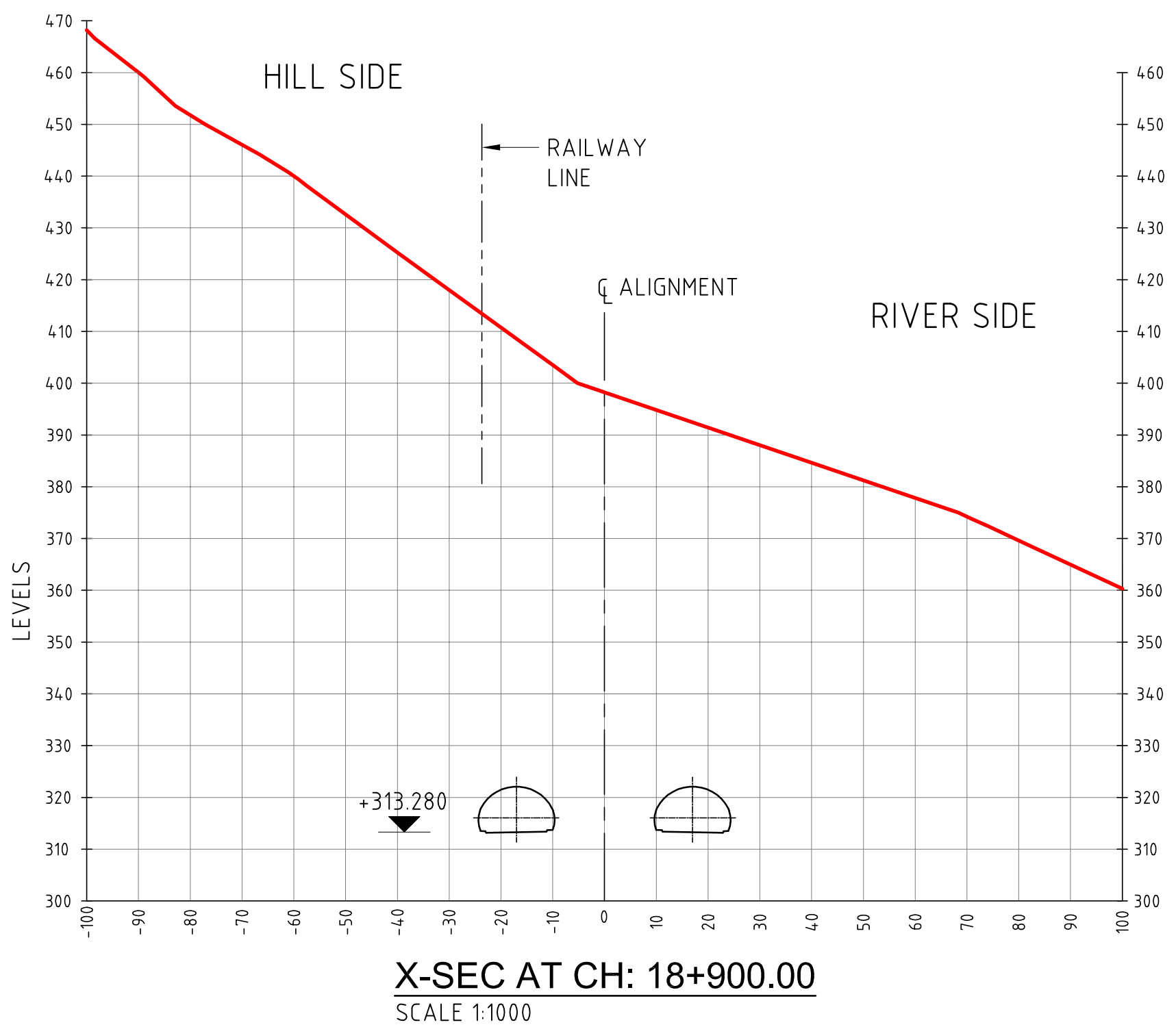
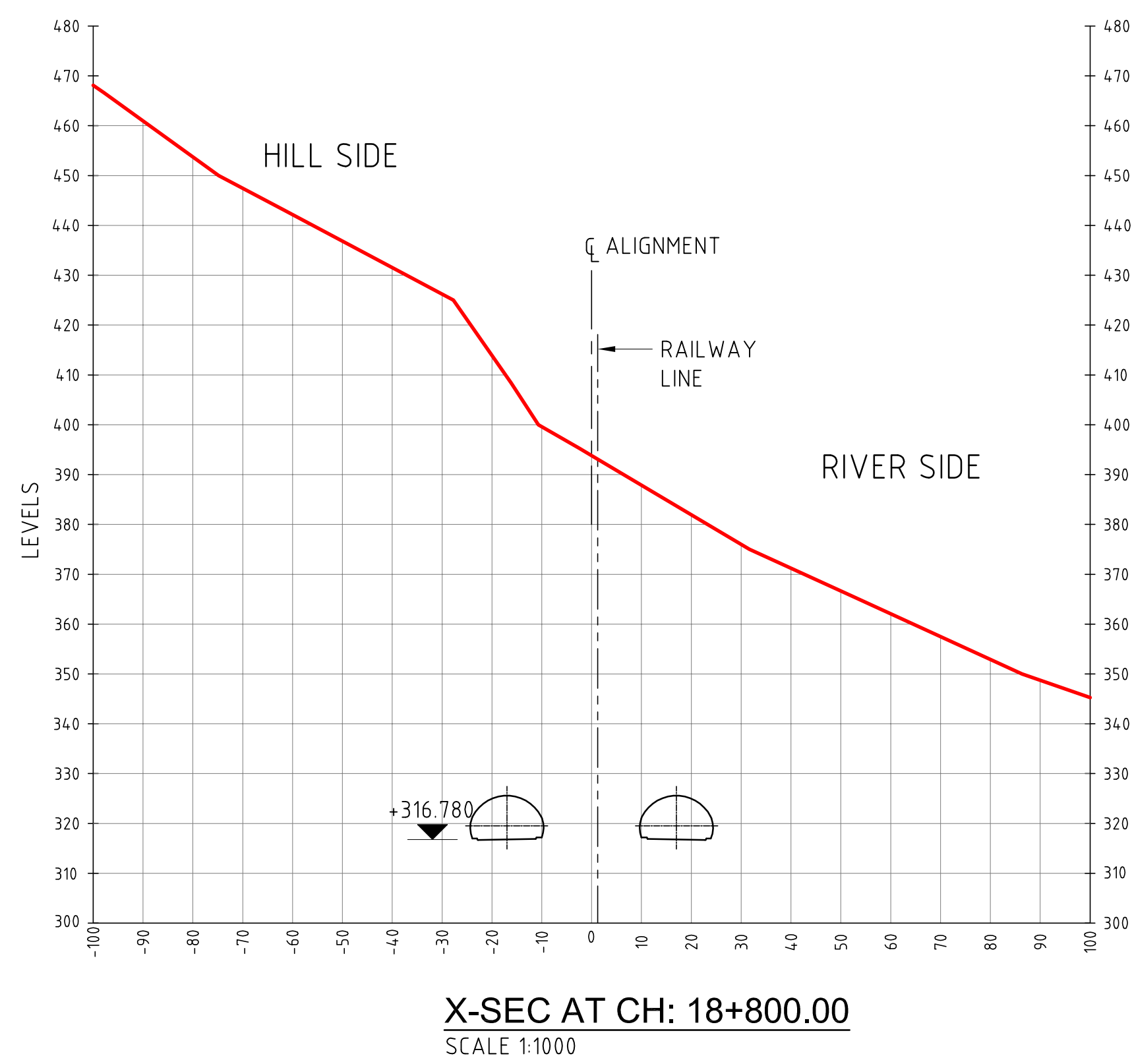
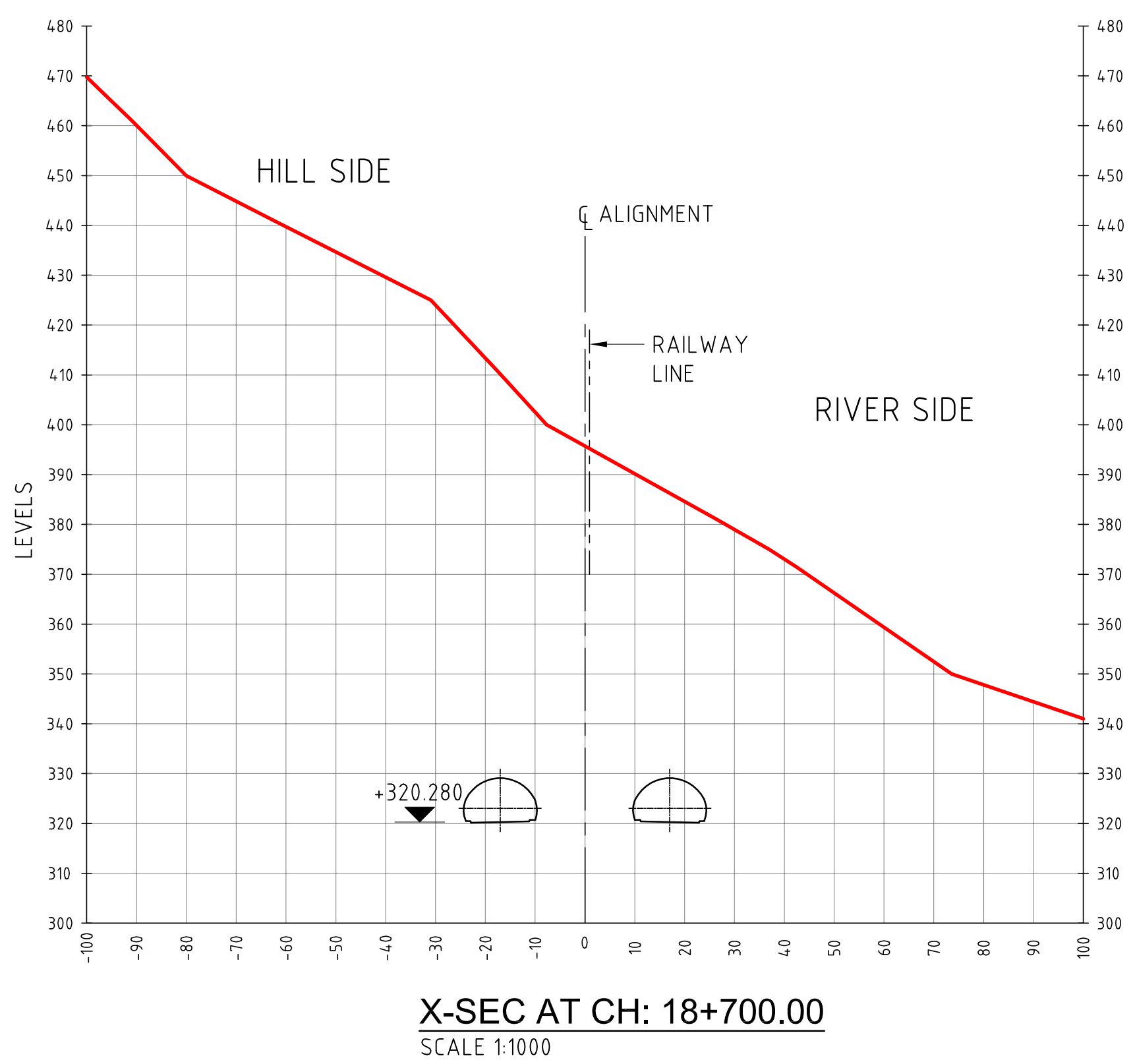
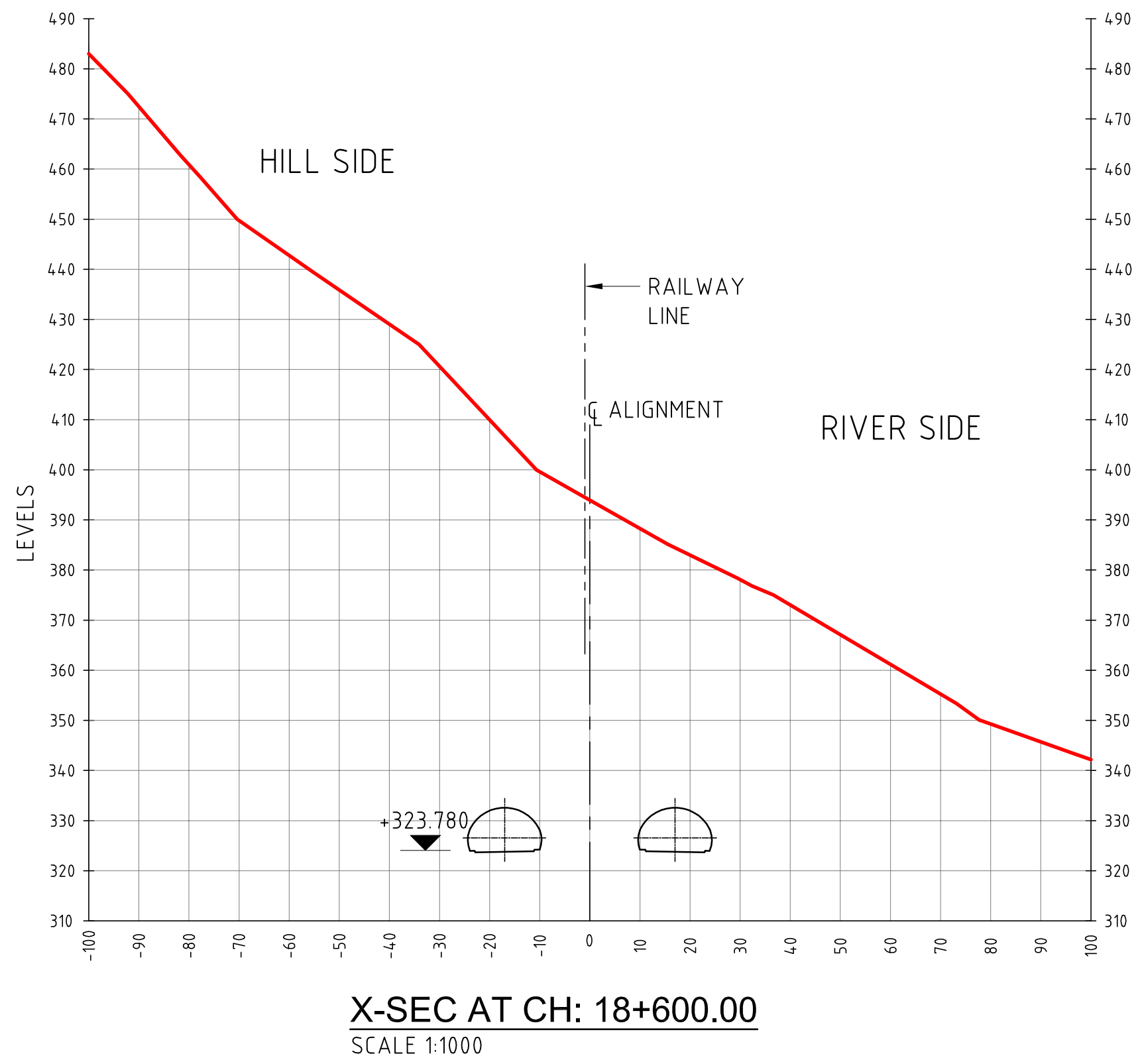
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----- BRIDGES (B)
----- TUNNELS (T)

REVISION				
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REV.	DATE	PARTICULARS	Drawn	Checked Approved

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Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015
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Drawn	Drafting Chk	Designed	Design Chk	Approved
Originators				

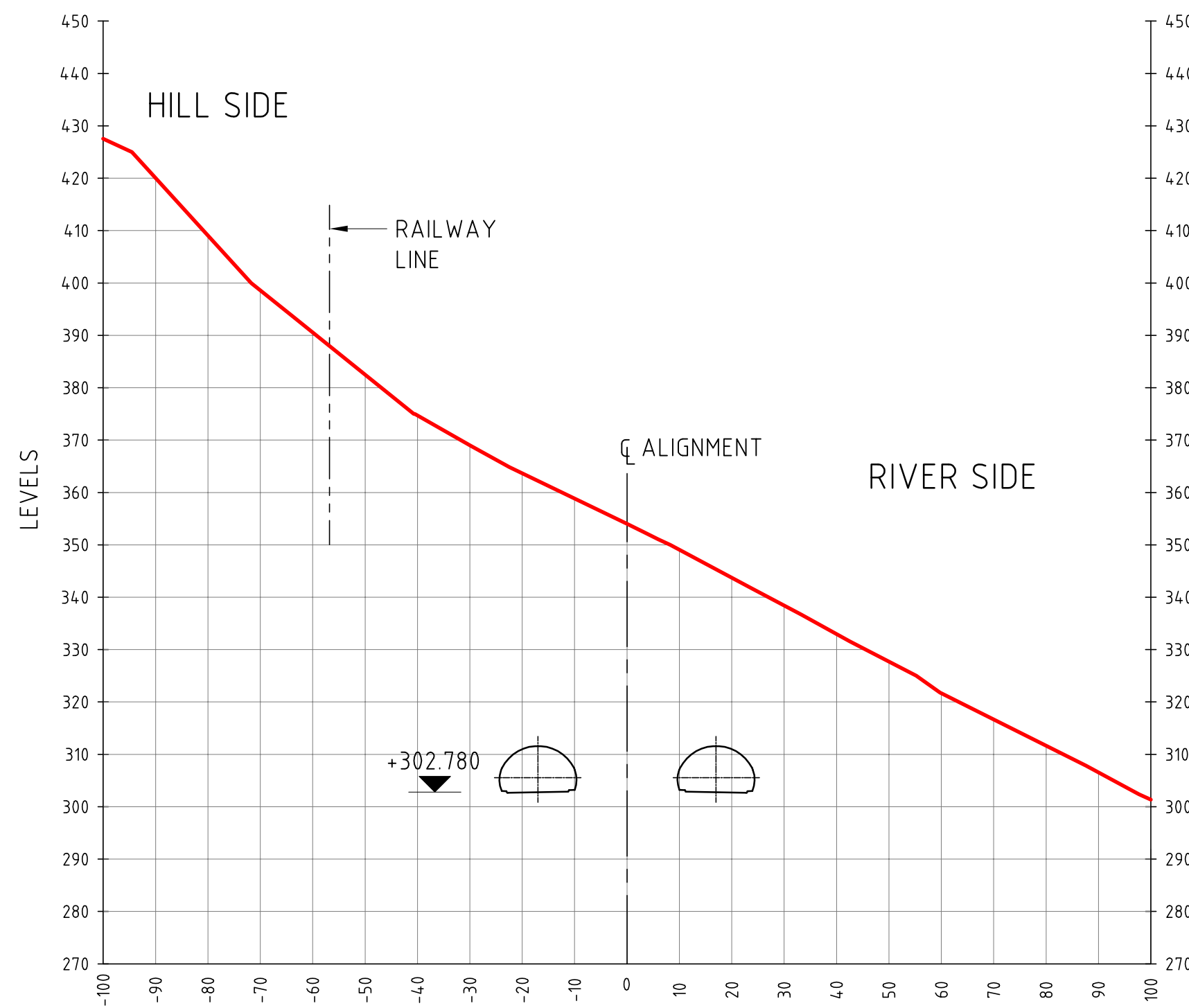
DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)	
PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780	
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CLIENT		
GOVERNMENT OF KARNATAKA		
DRAWING TITLE		
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CROSS SECTIONS		
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DRAWING NUMBER		REV
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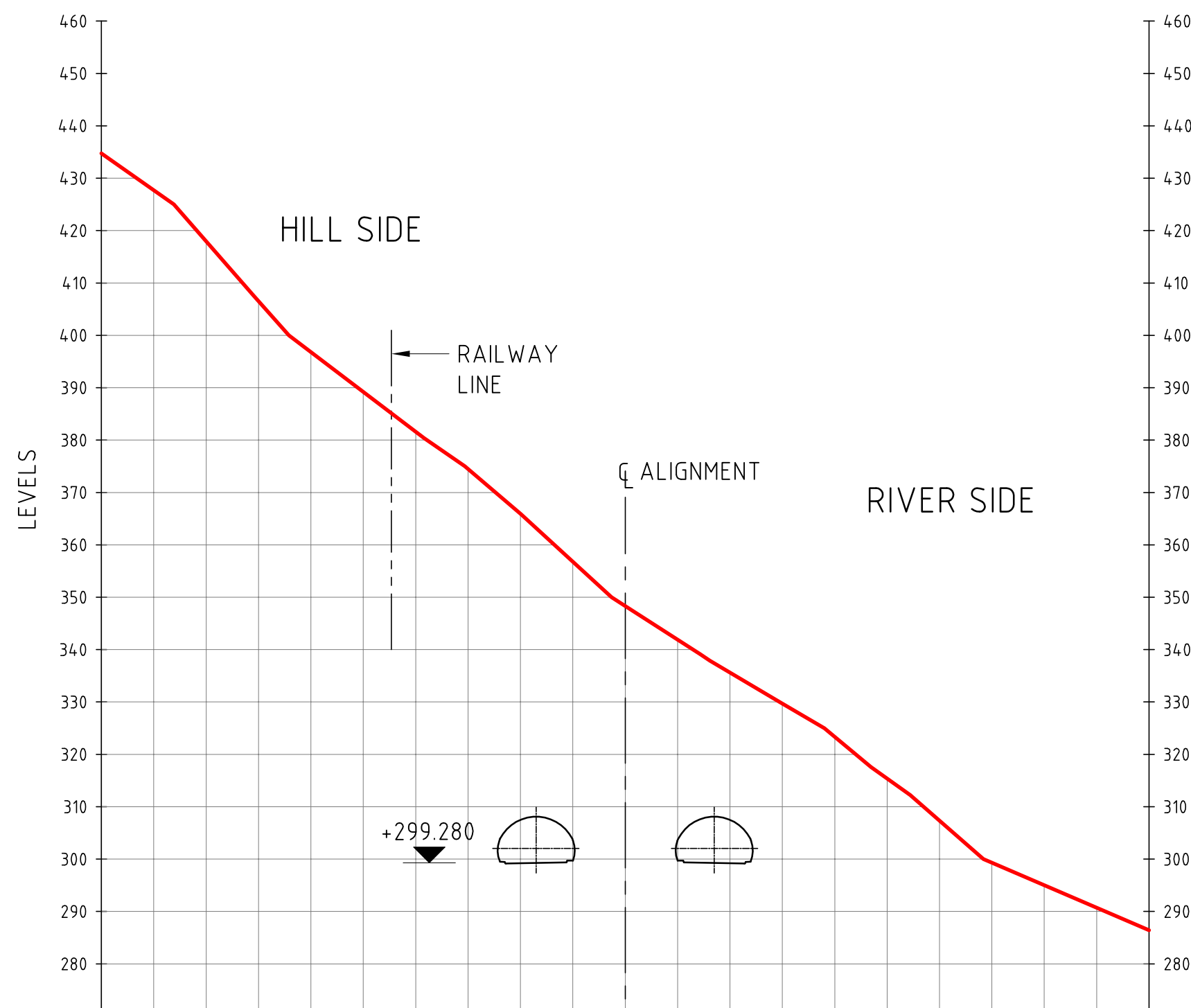


PRELIMINARY

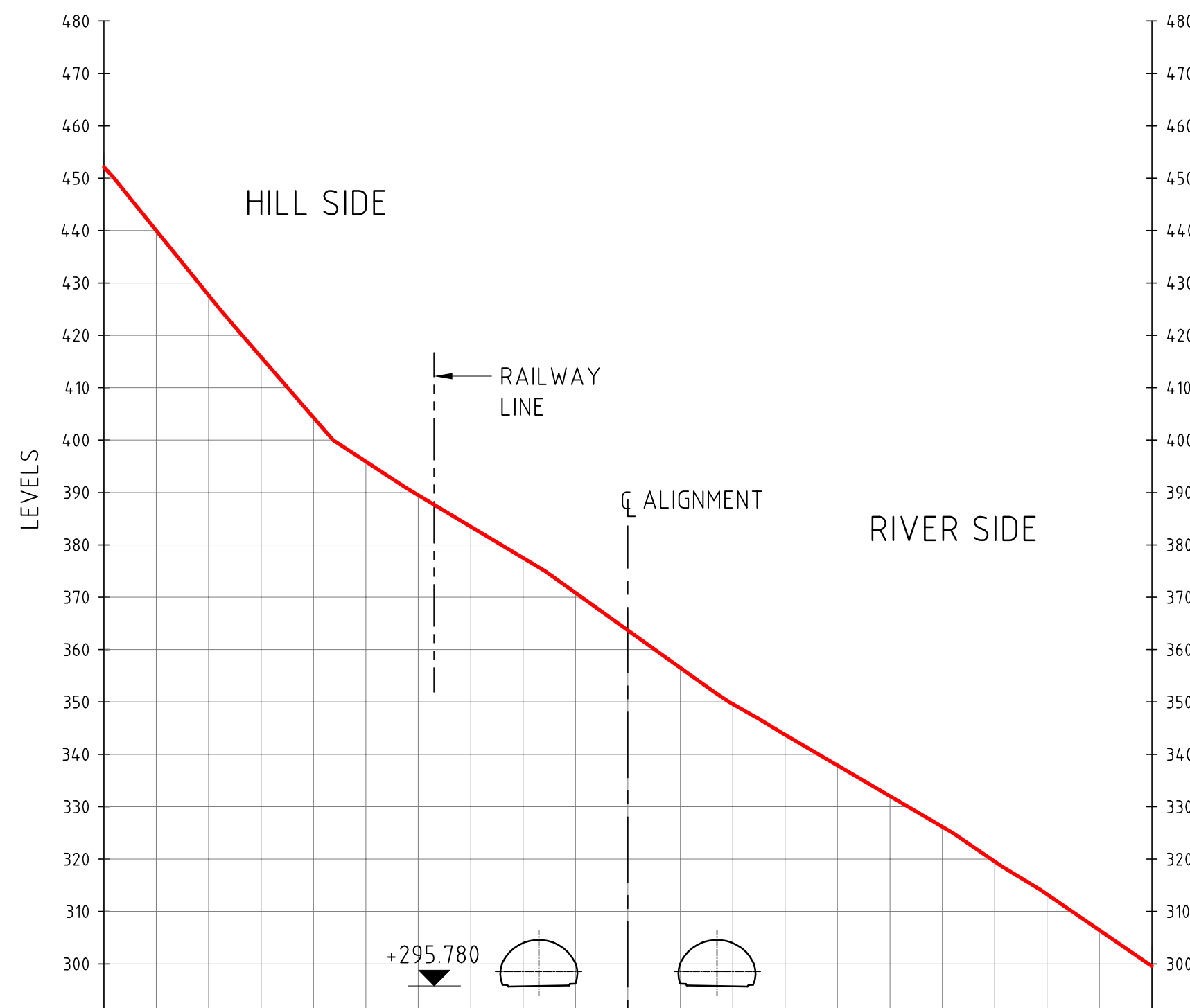
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NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.						The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.		PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH:18+600 TO 19+100	
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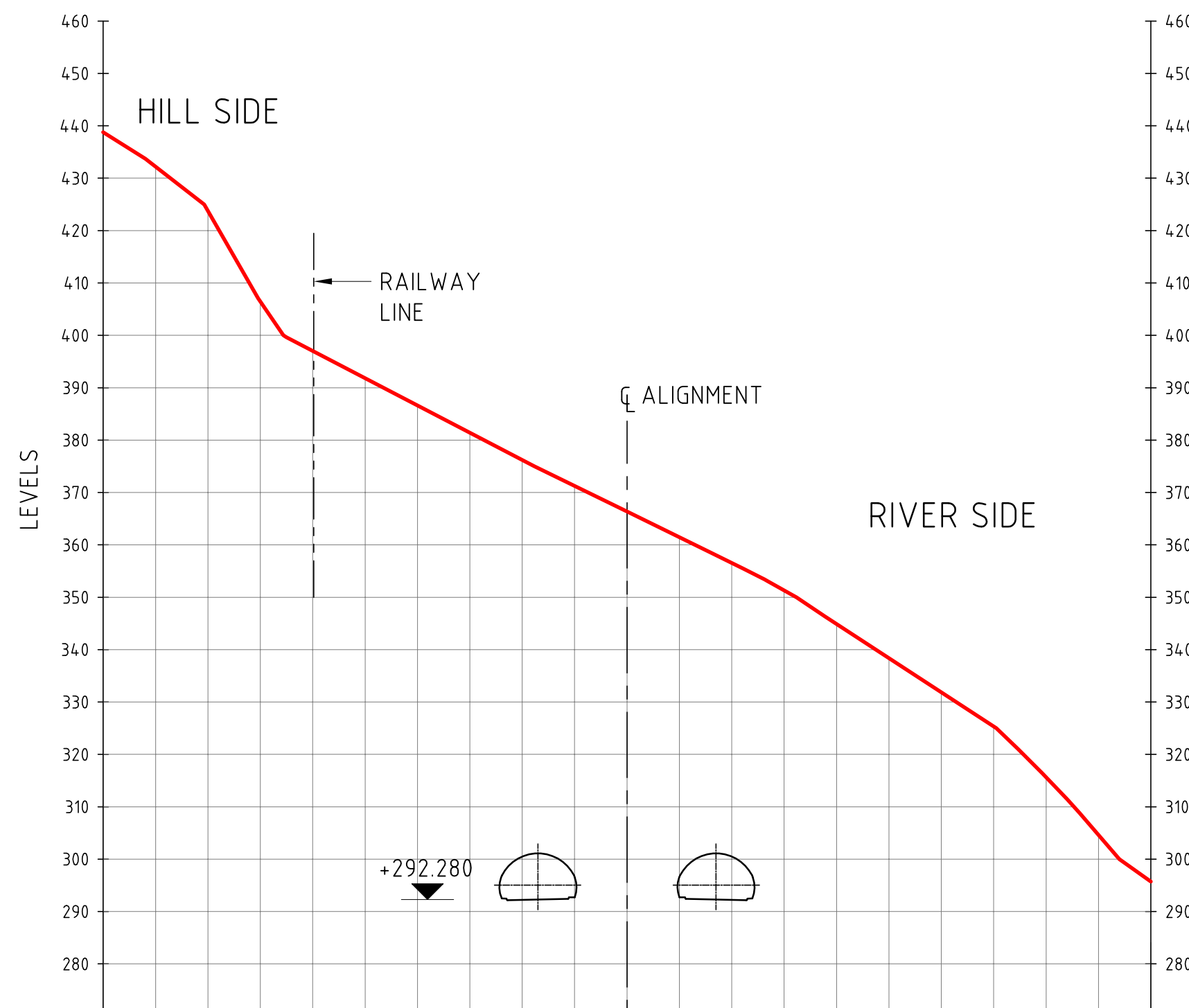
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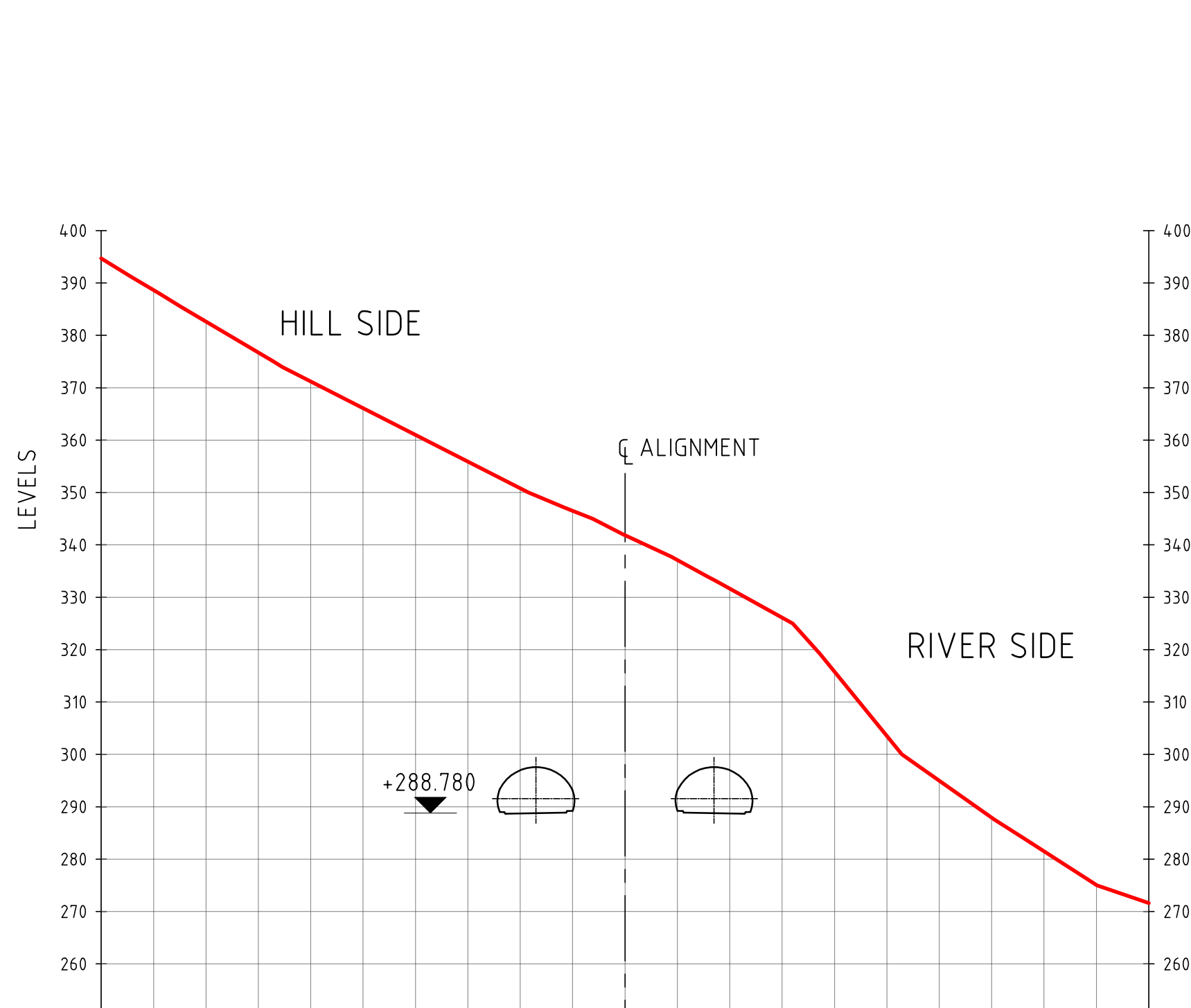
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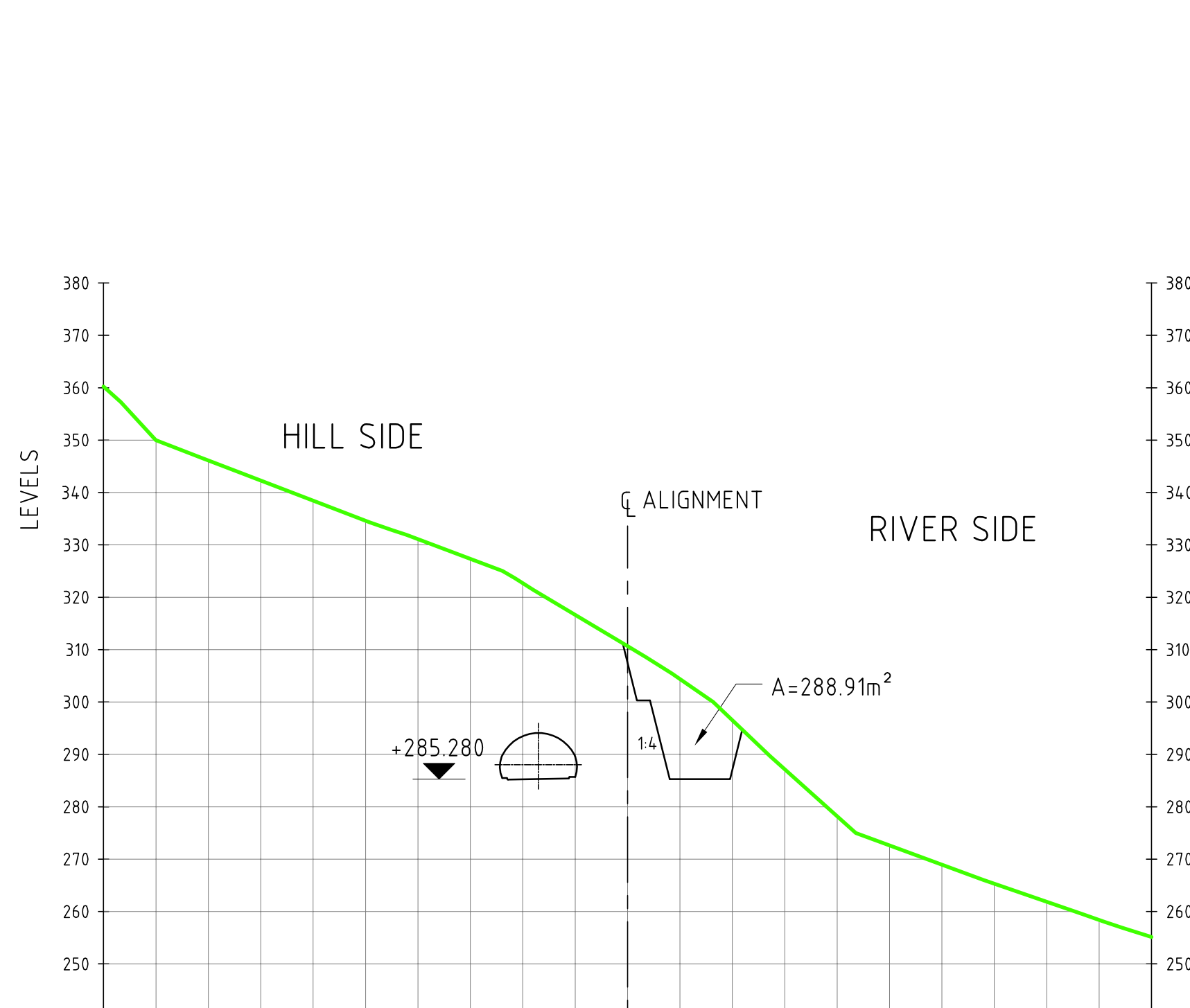
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X-SEC AT CH: 19+700.00
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SCALE 1 : 1000



PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:

- RAILWAY LINE
--- CUT/FILL (C/F)
--- BRIDGES (B)
--- TUNNELS (T)

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
B	DEC 15	SECOND DRAFT (KD-6)	ABa/PRa	RMe	AKg
A	DEC 15	FIRST DRAFT (KD-5)	ABa/PRa	RMe	AKg

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Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015
Name	ABa/PRa	RMe	RMe/ADh	AKg/ADh
Drawn	Drafting Chk	Designed	Design Chk	Approved
Originators				

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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DRAWING TITLE

ALIGNMENT OPTION "A"
CROSS SECTIONS
CH:19+200 TO 19+700

DRAWING NUMBER

SHGA-FS-LAY-1093

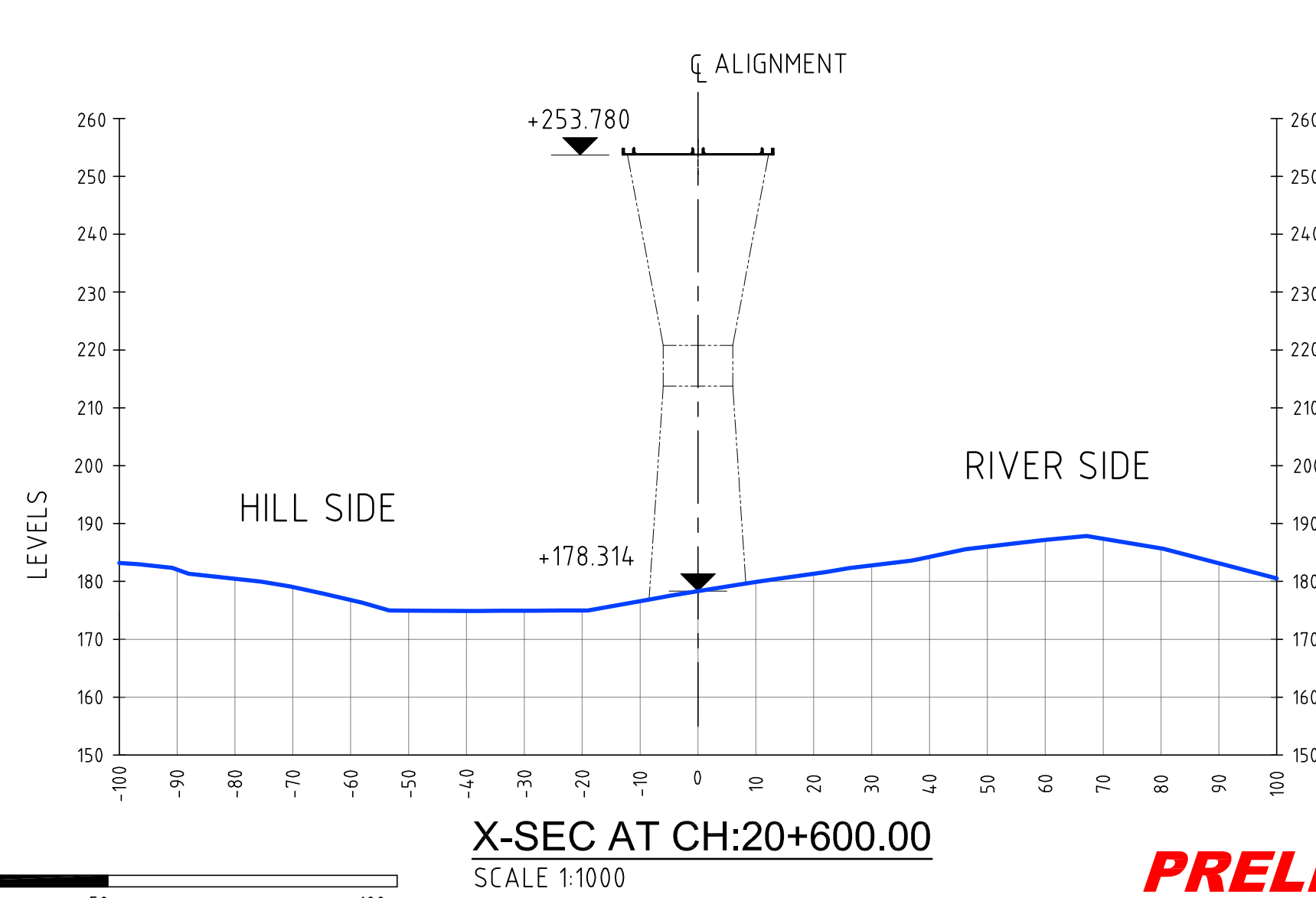
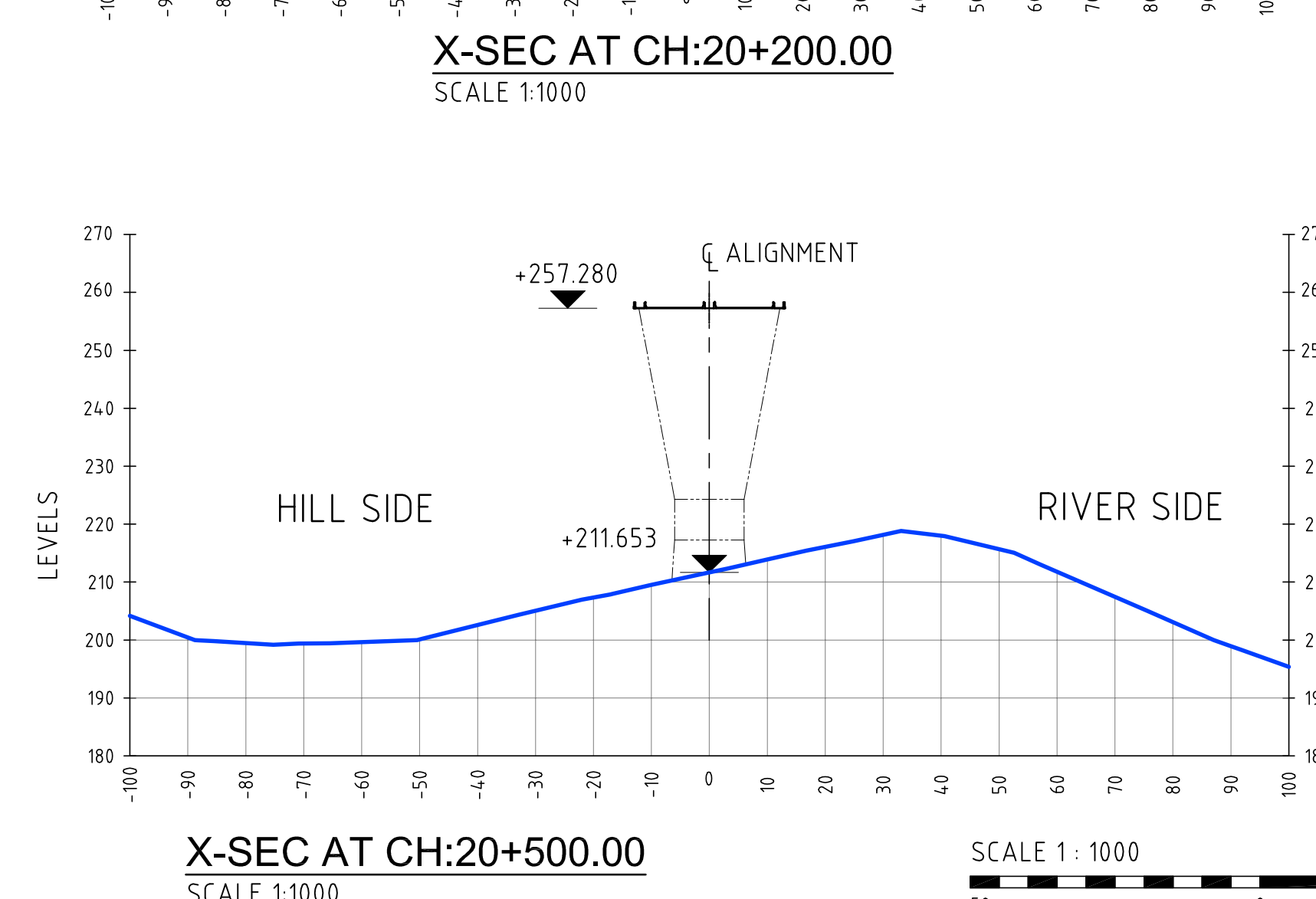
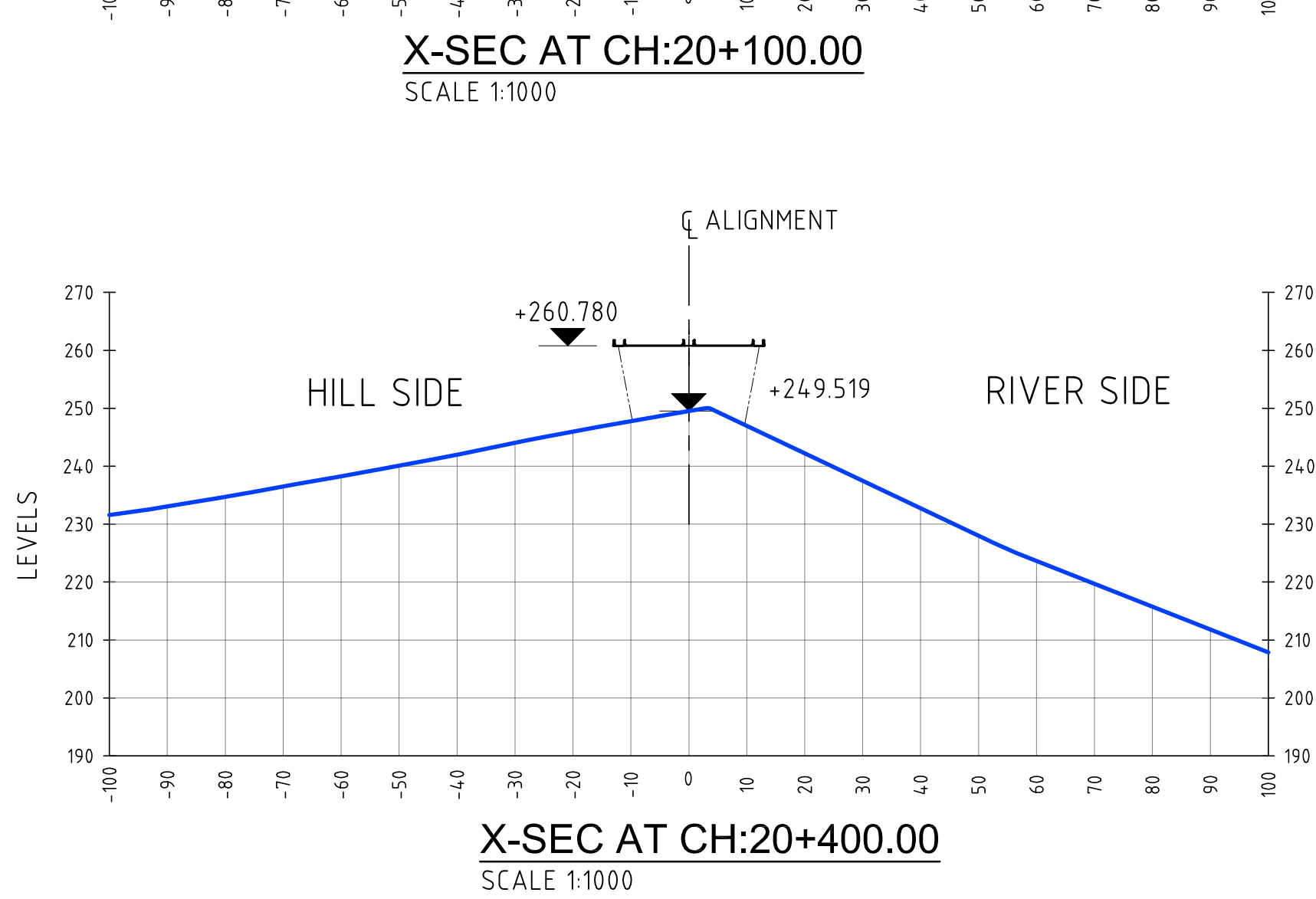
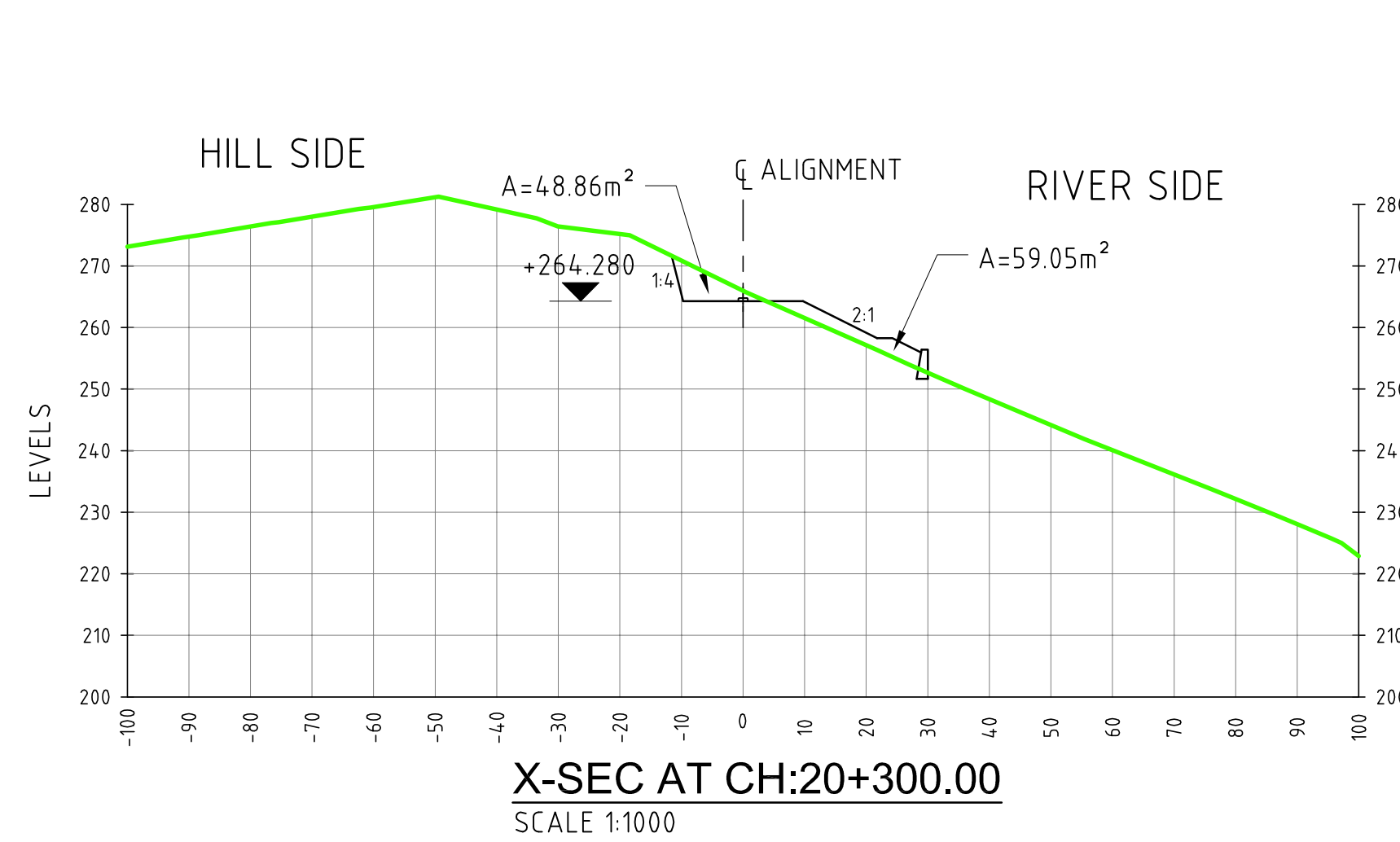
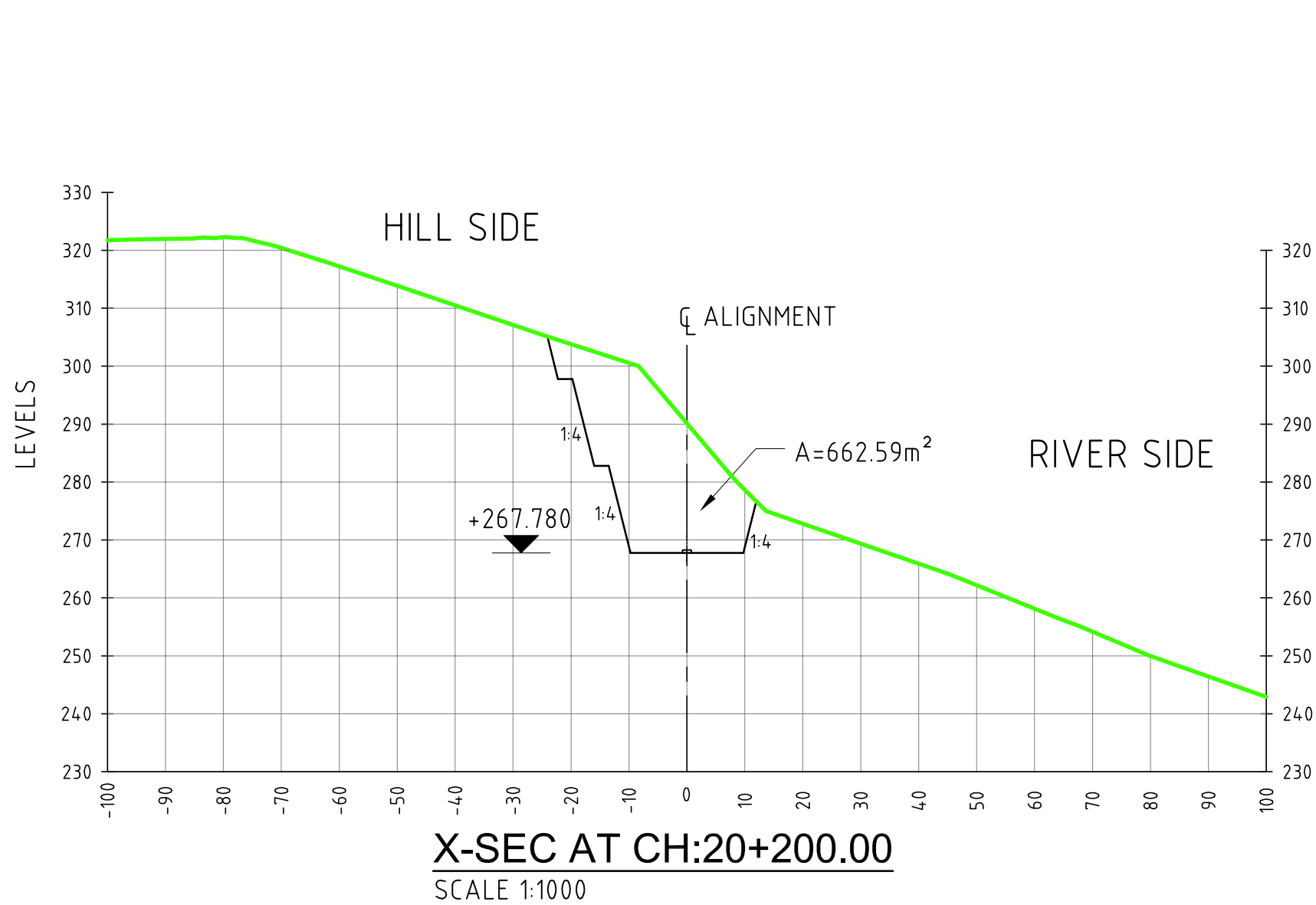
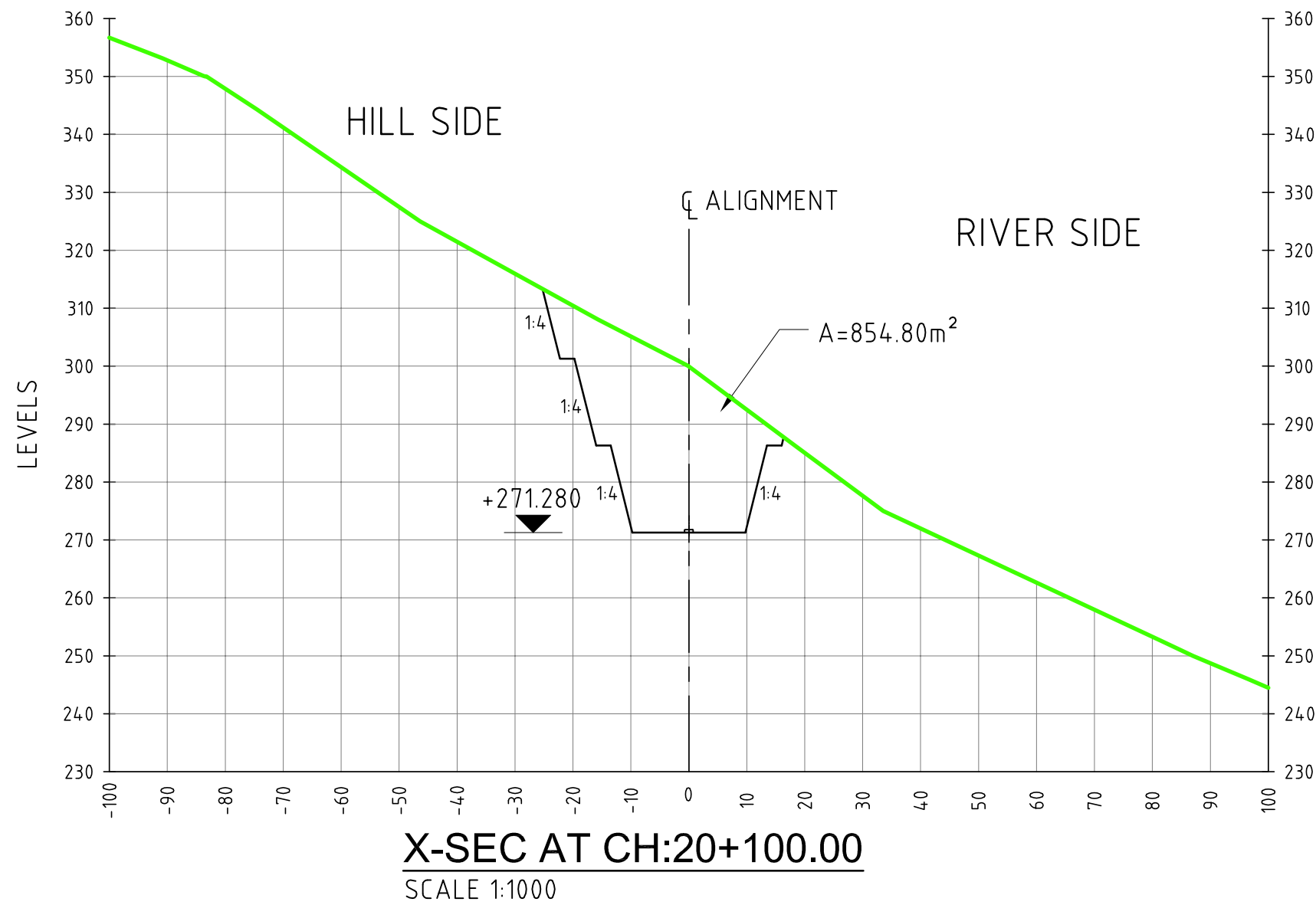
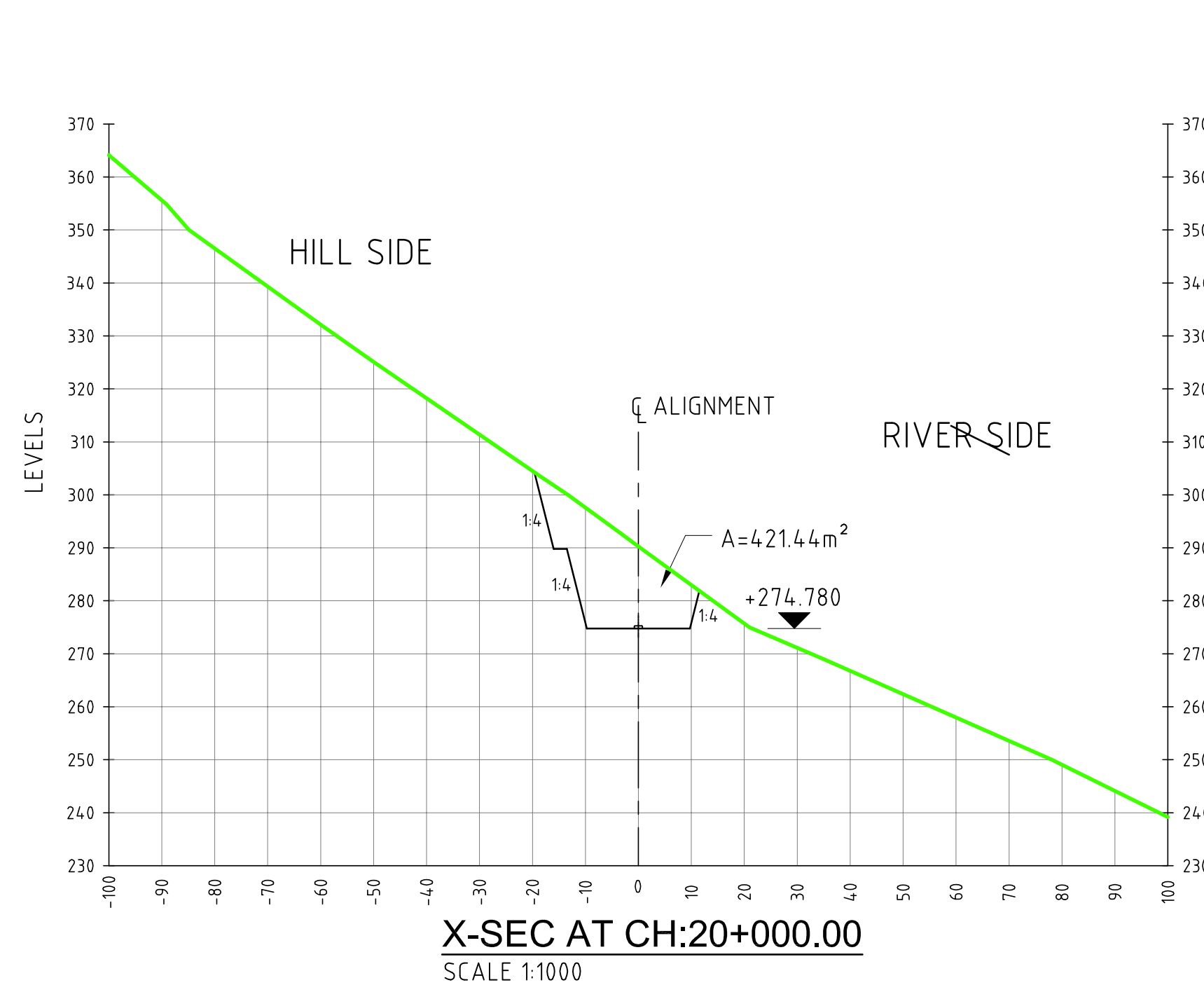
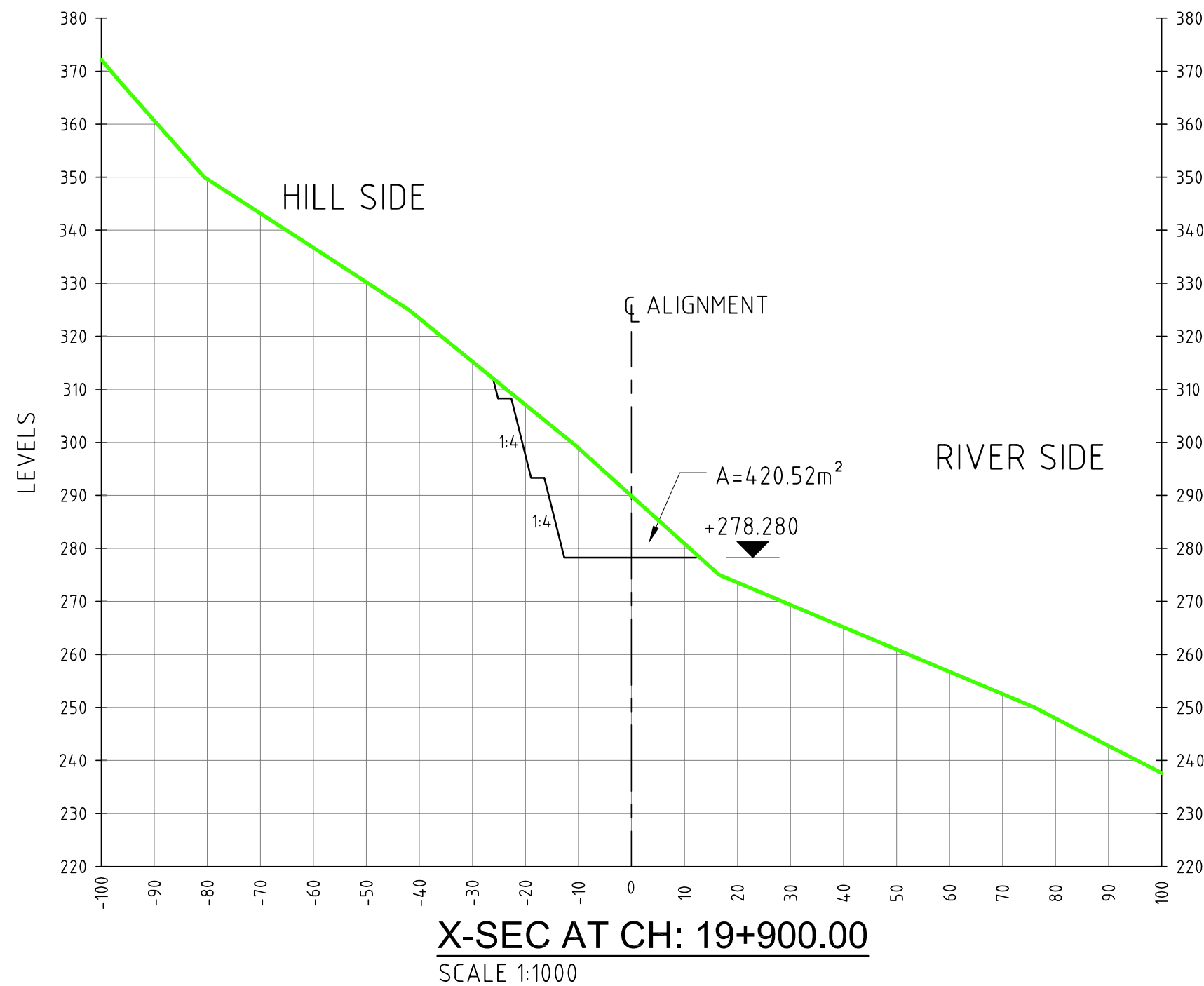
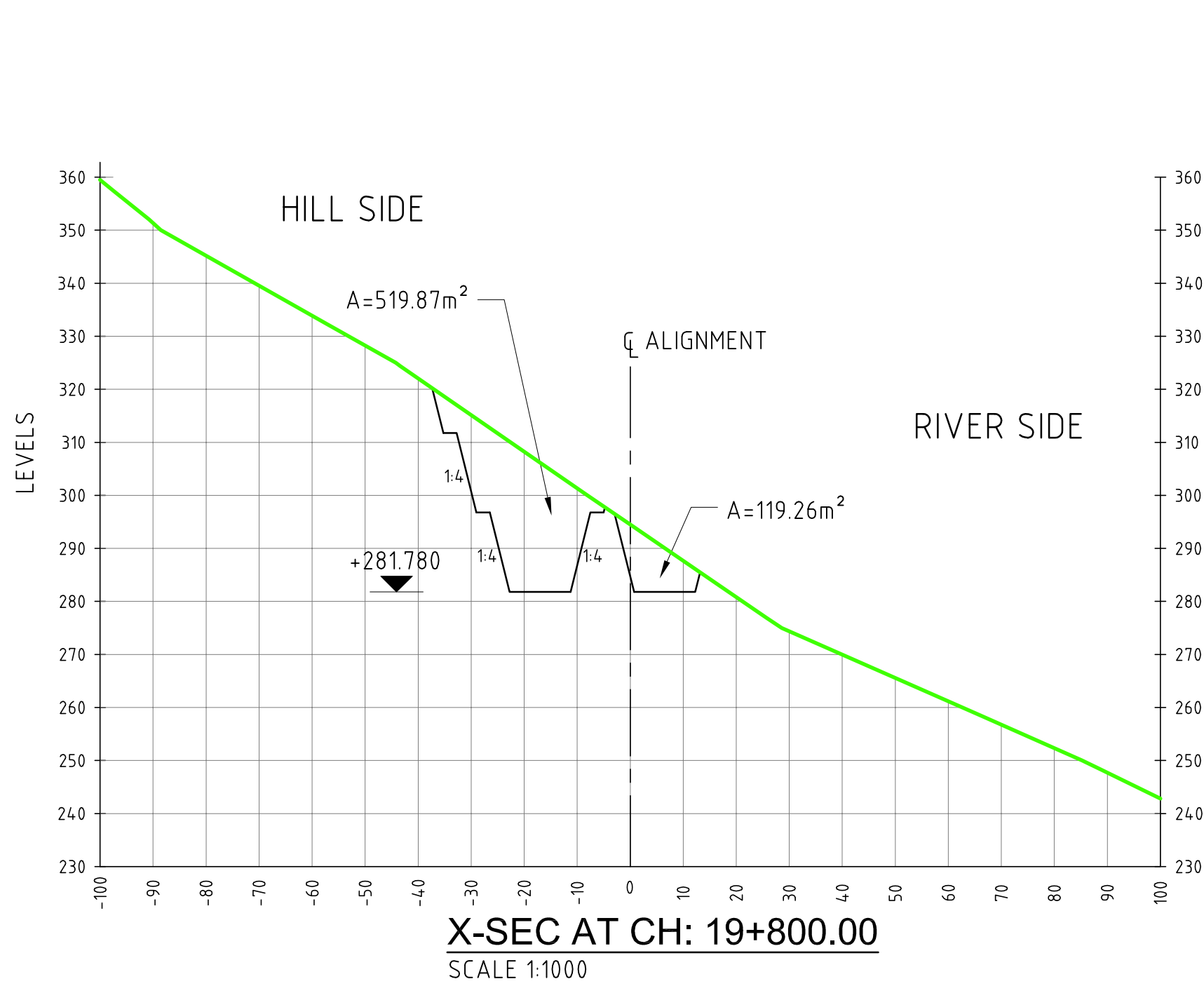
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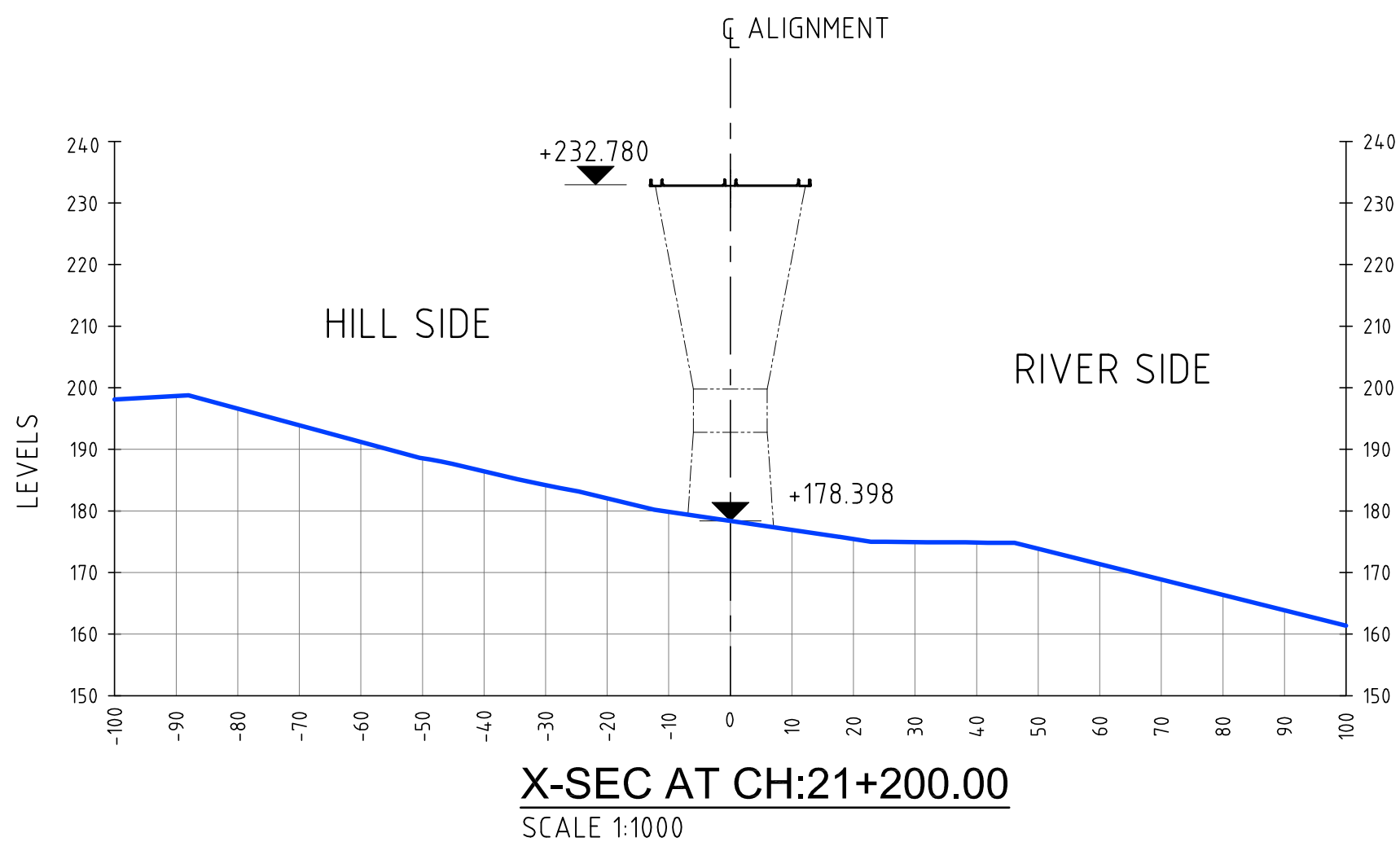
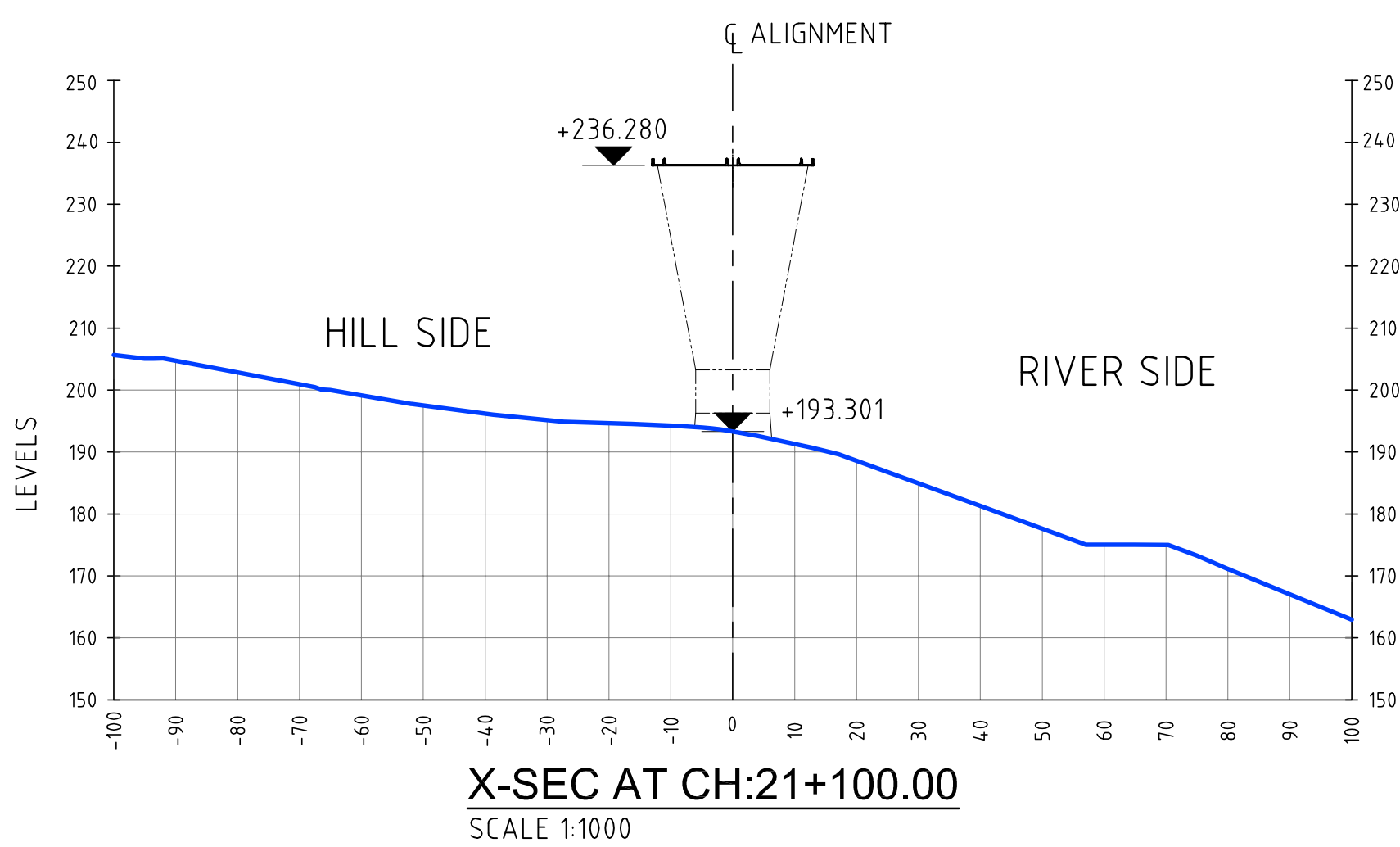
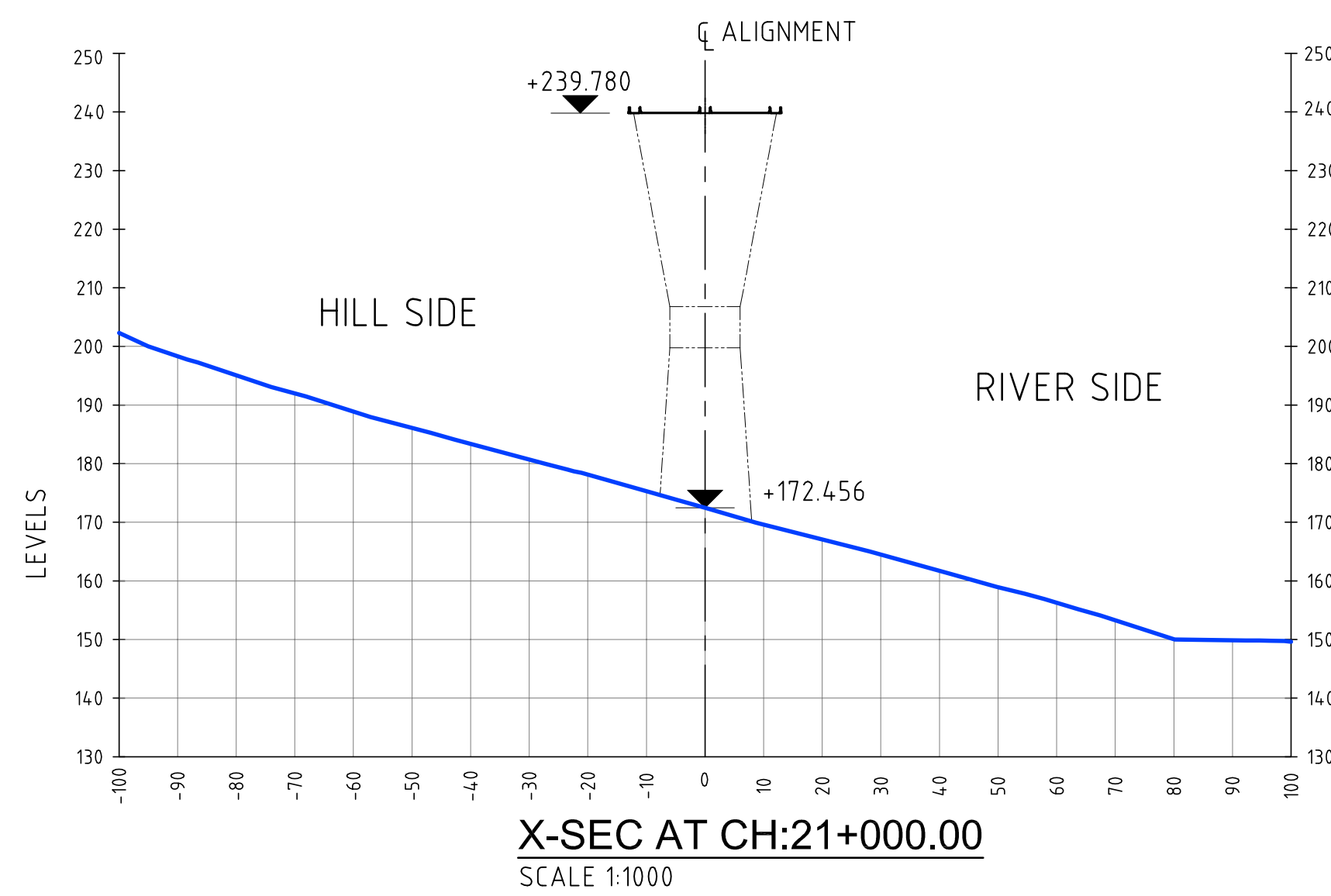
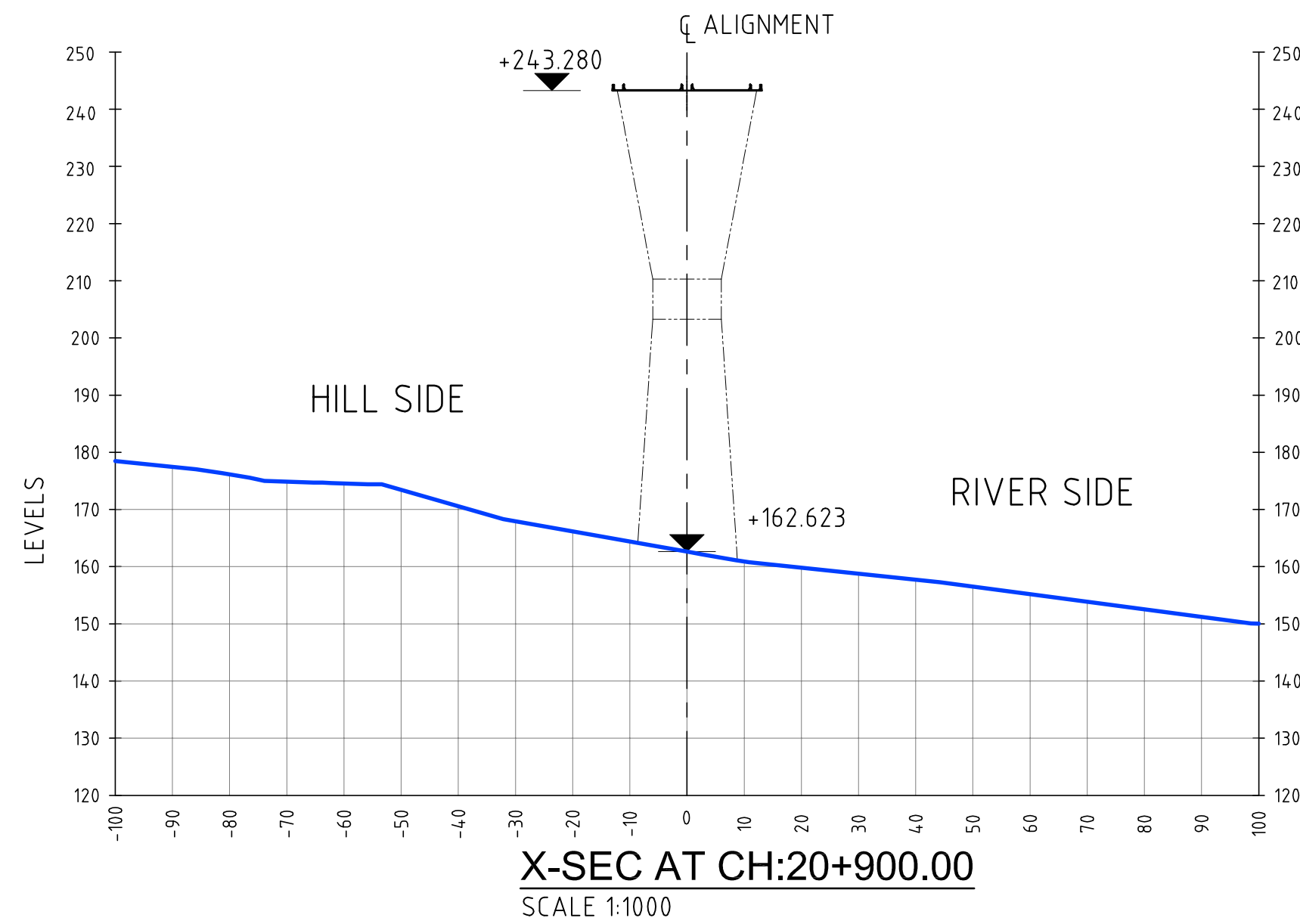
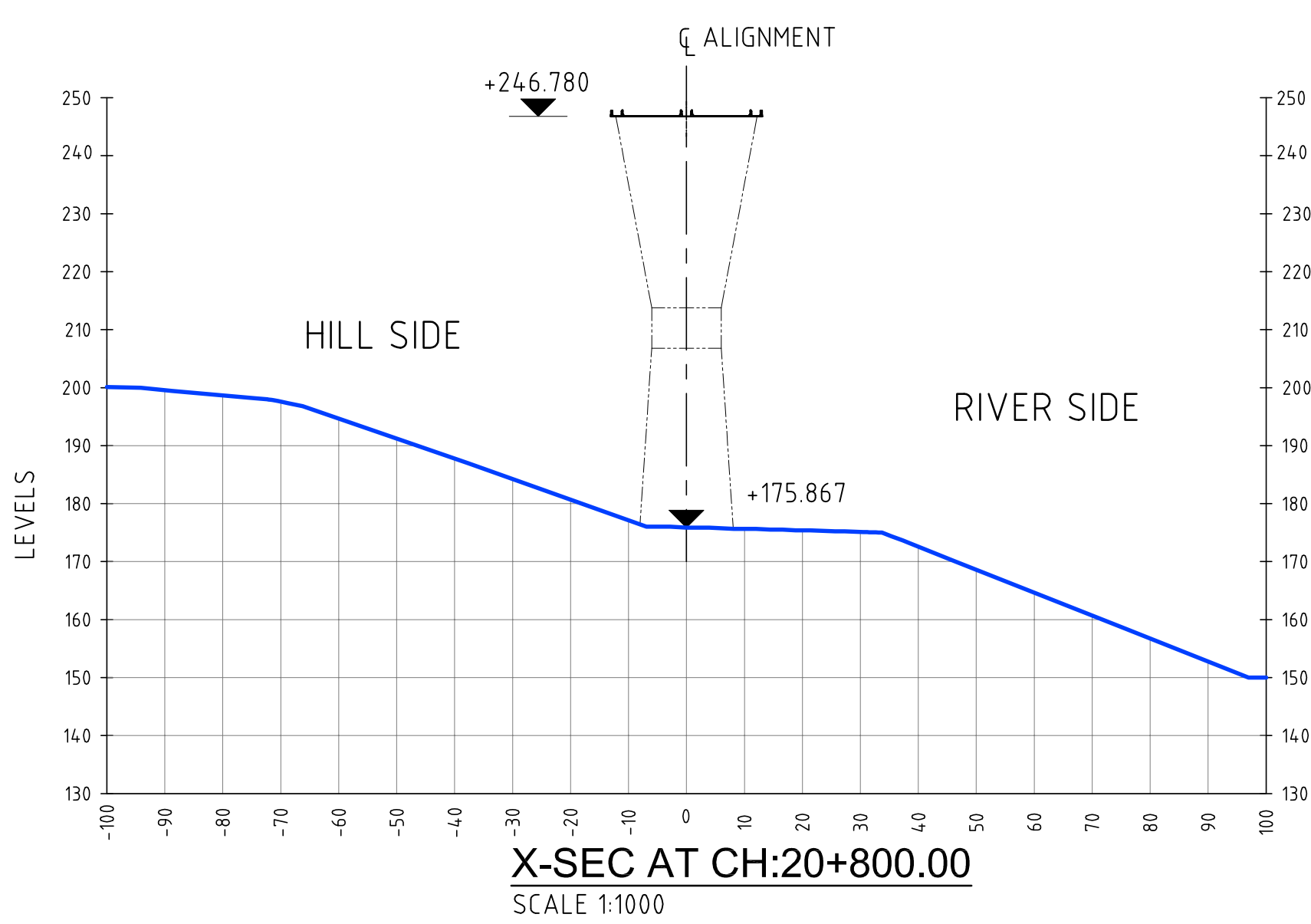
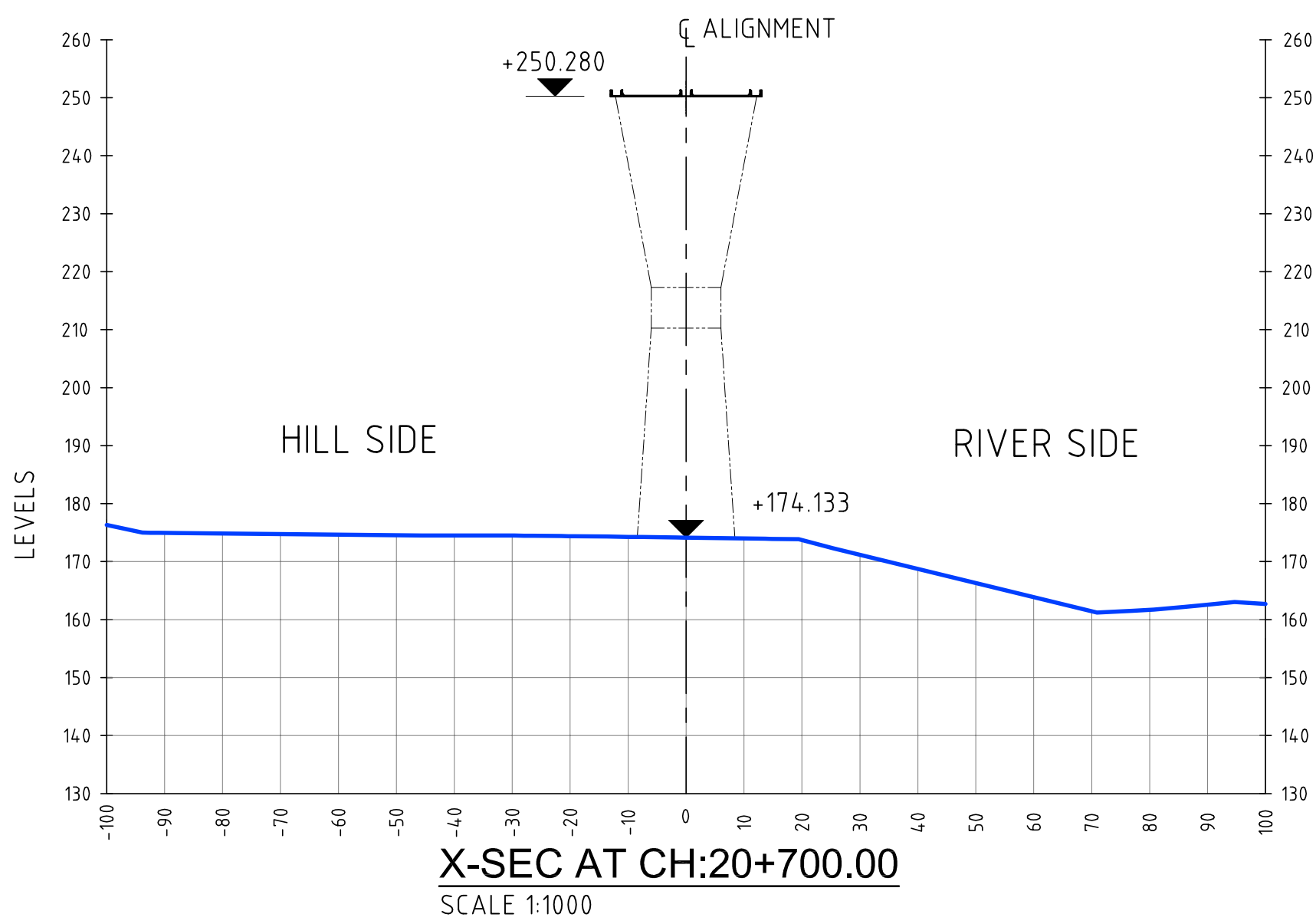
(Current Issue) DEC 2015

REV
B



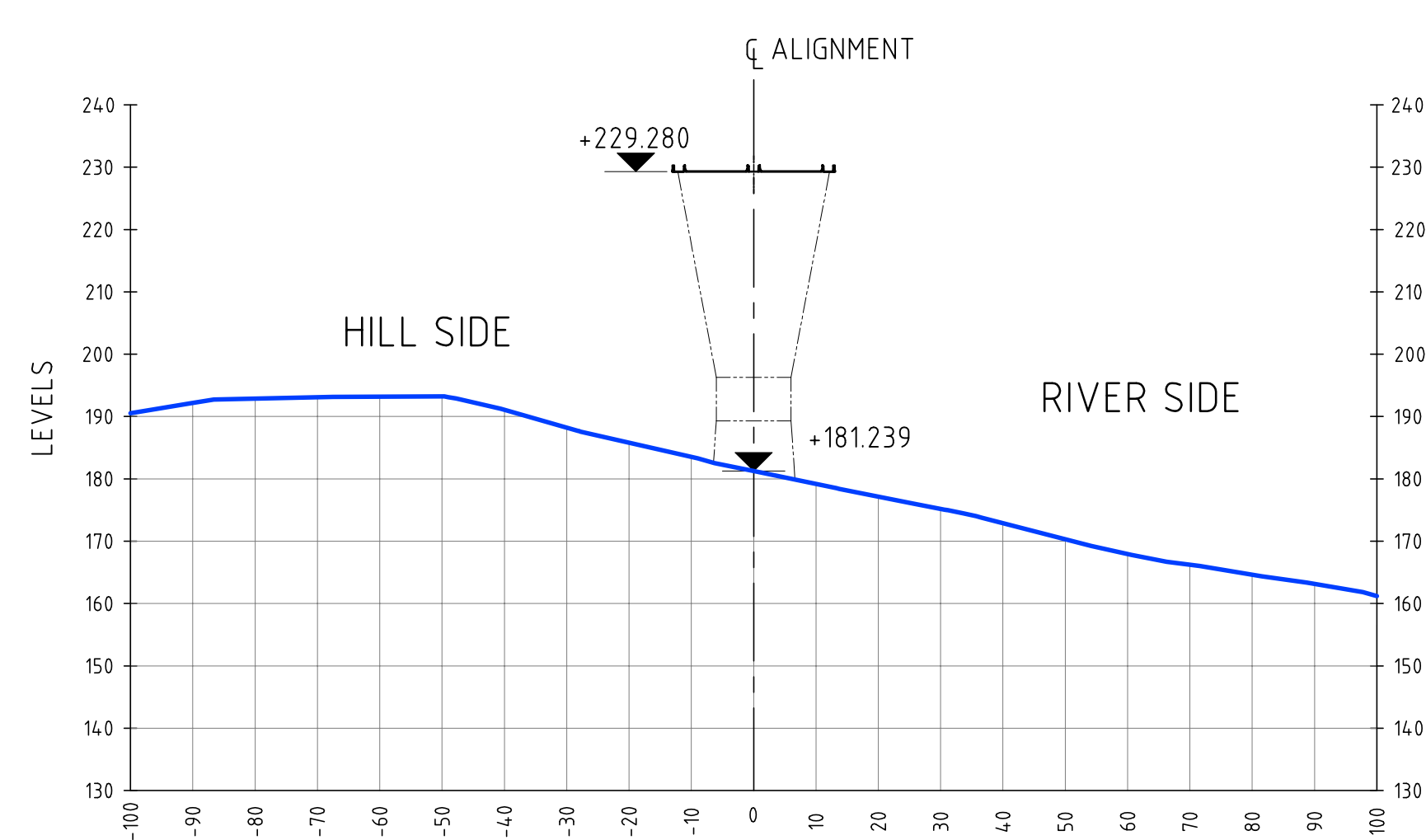
PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000		LEGEND: ----- RAILWAY LINE ----- CUT/FILL (C/F) ----- BRIDGES (B) ----- TUNNELS (T)		REVISION		QUALITY ASSURANCE		DESIGN CONSULTANTS: GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA	
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.								PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH: 19+800 TO 20+600	
								This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		DRAWING NUMBER SHGA-FS-LAY-1094	
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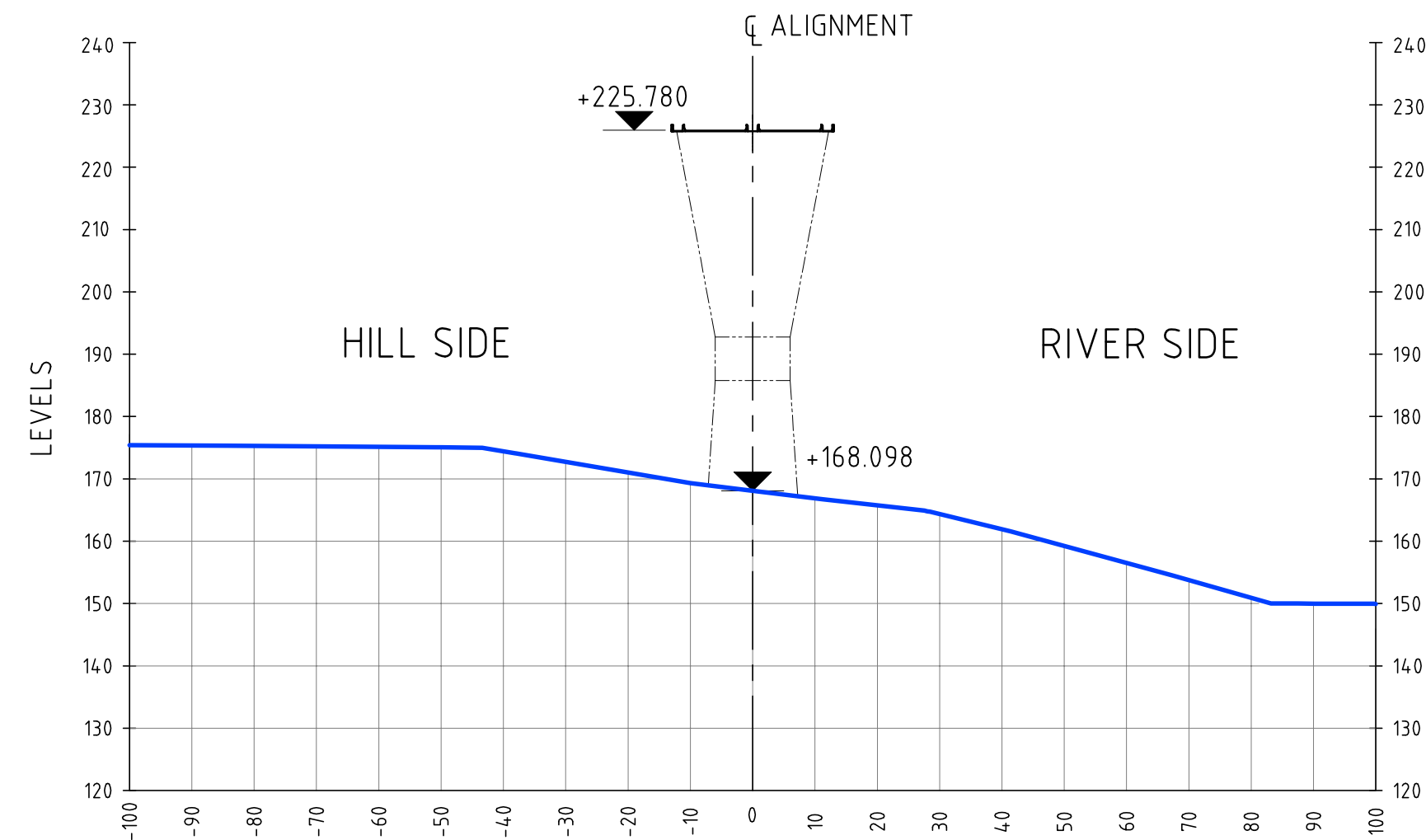


PRELIMINARY

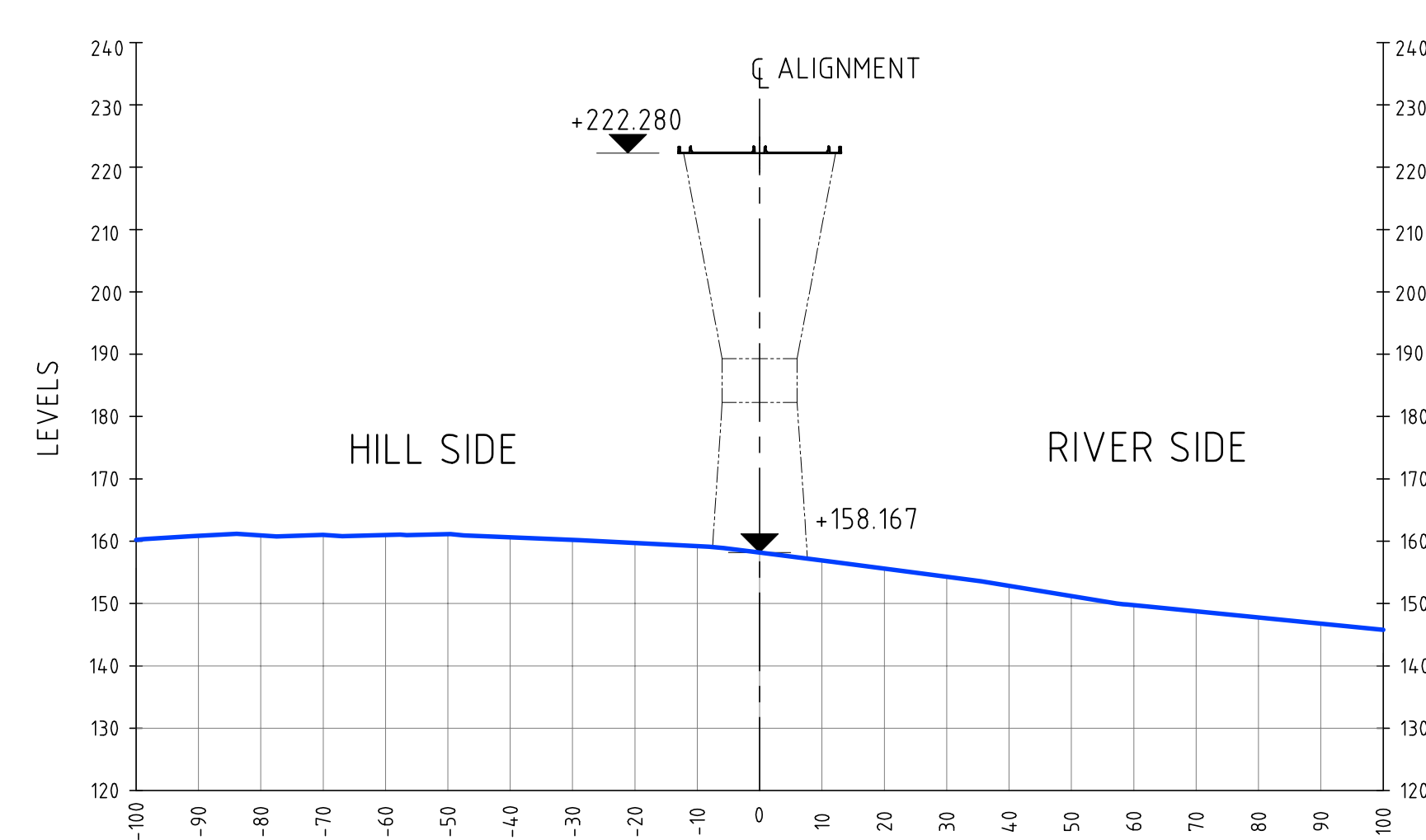
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NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.								PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH:20+700 TO 21+200	
										DRAWING NUMBER SHGA-FS-LAY-1095	
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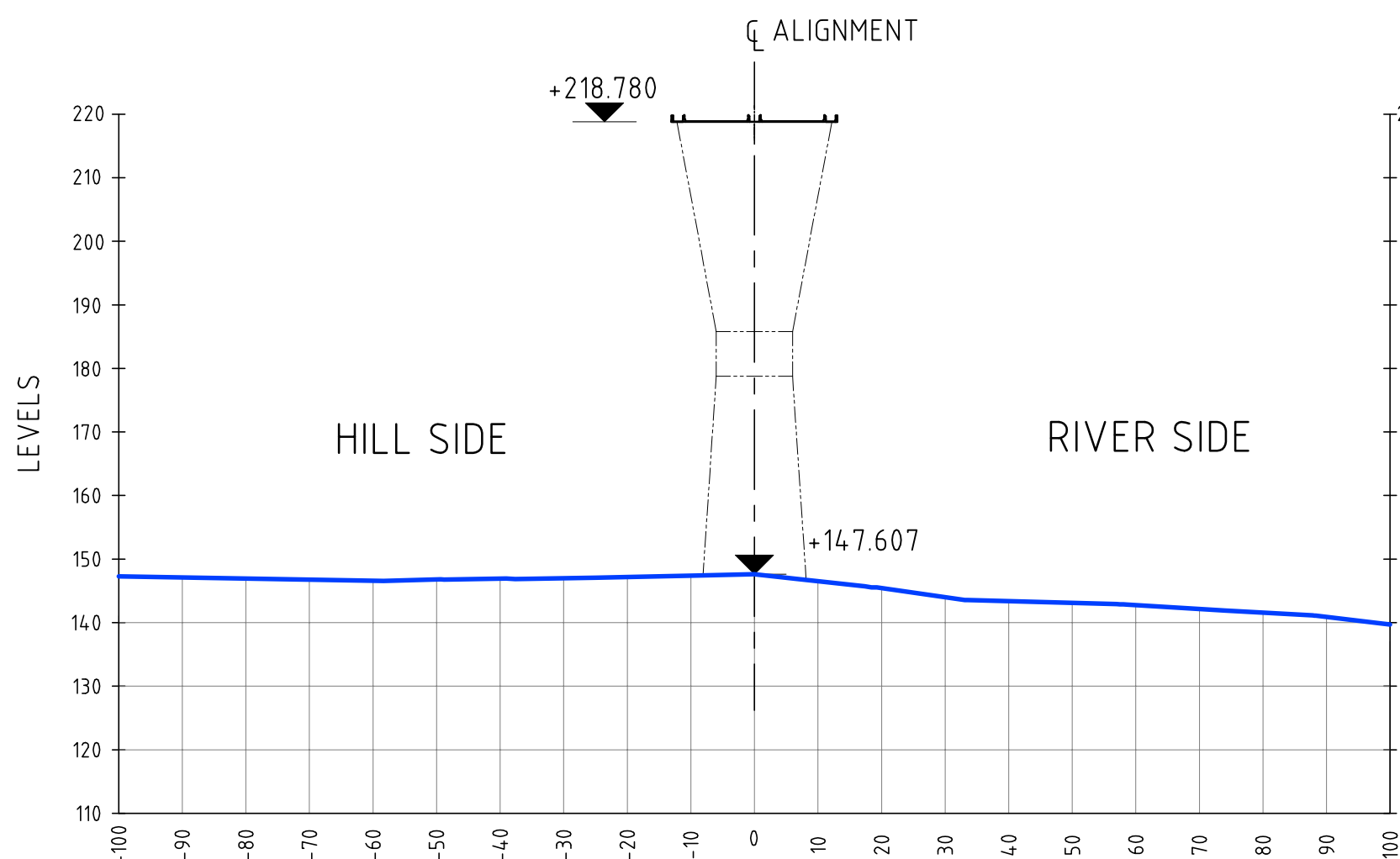
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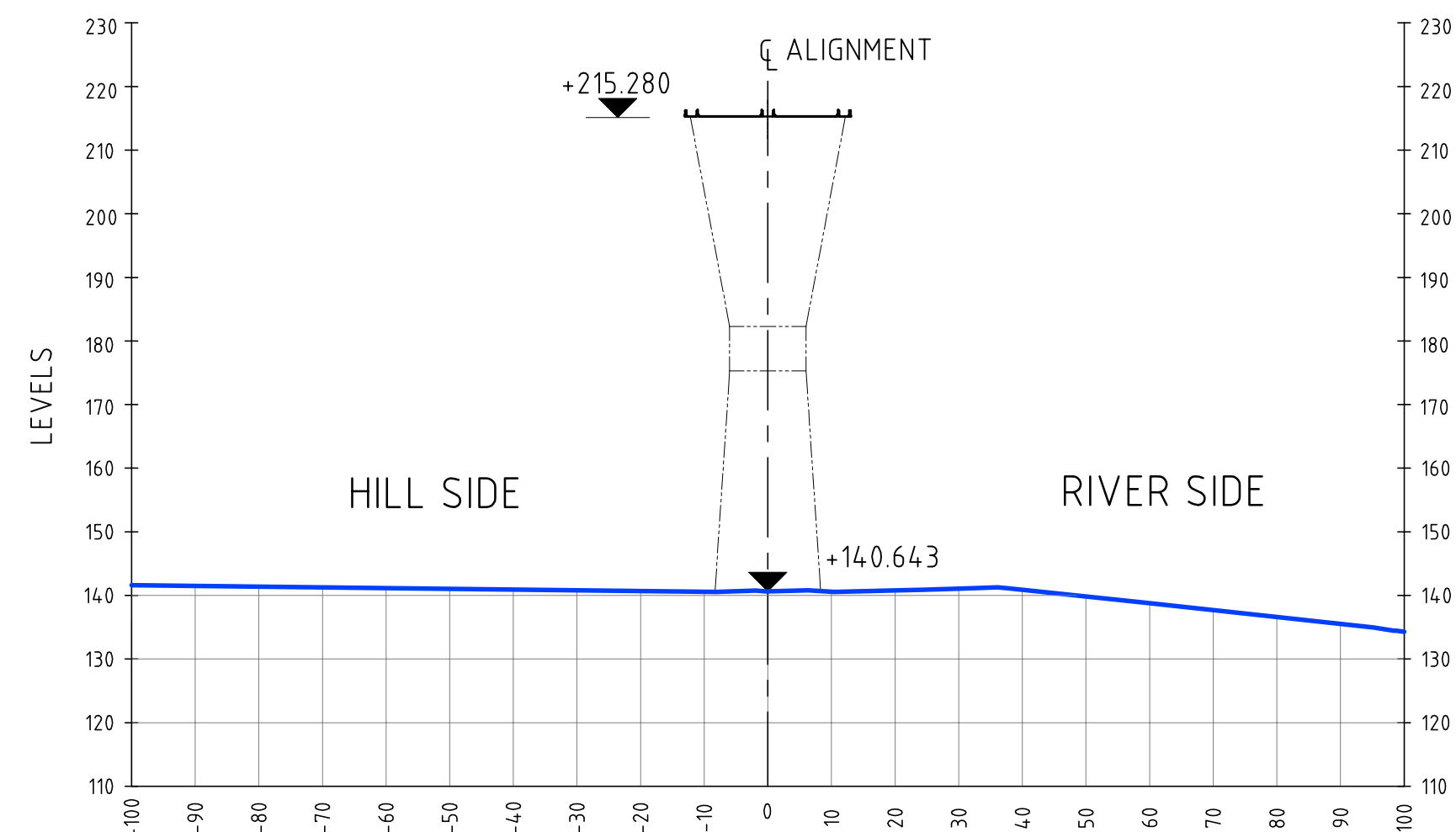
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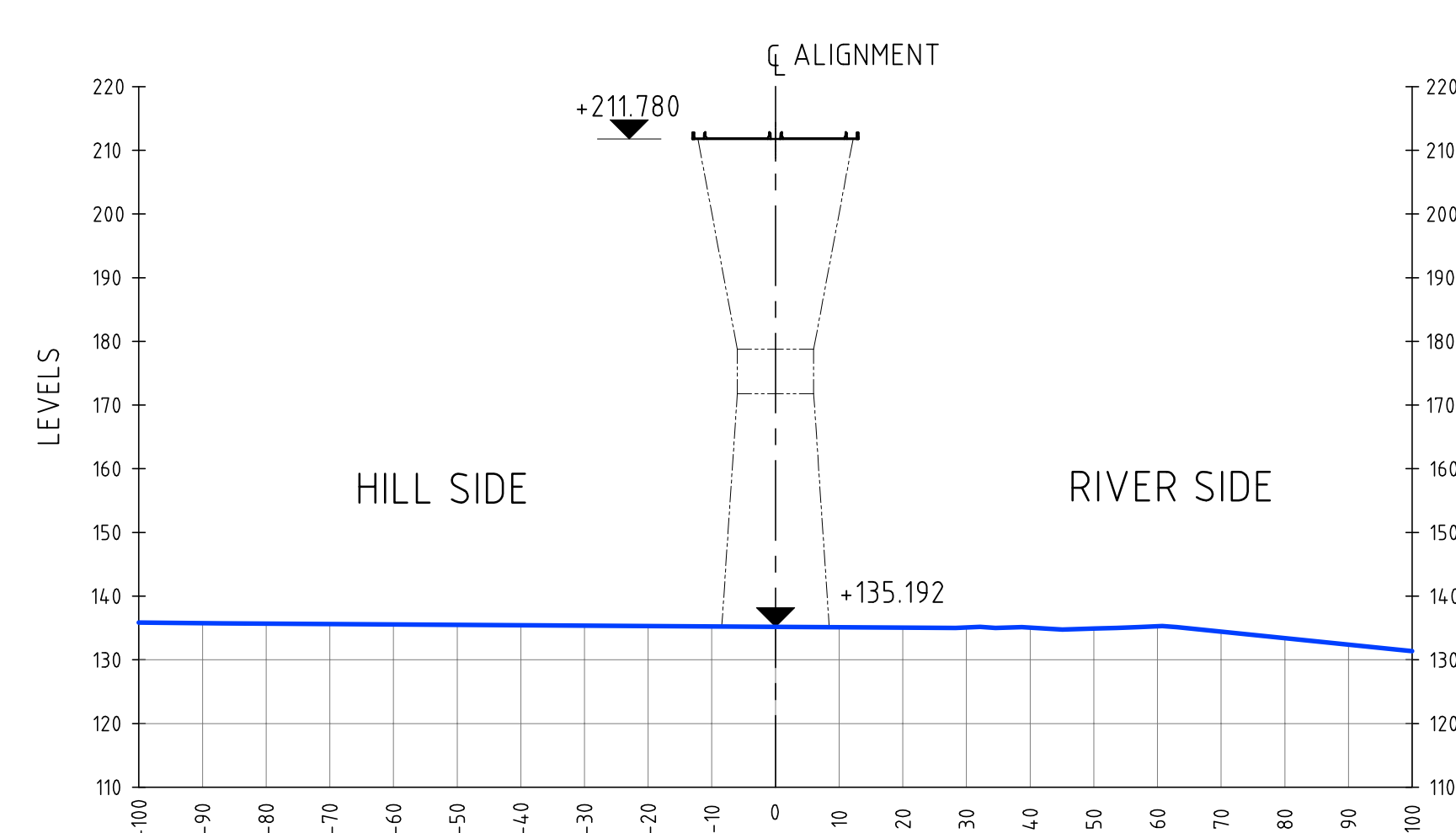
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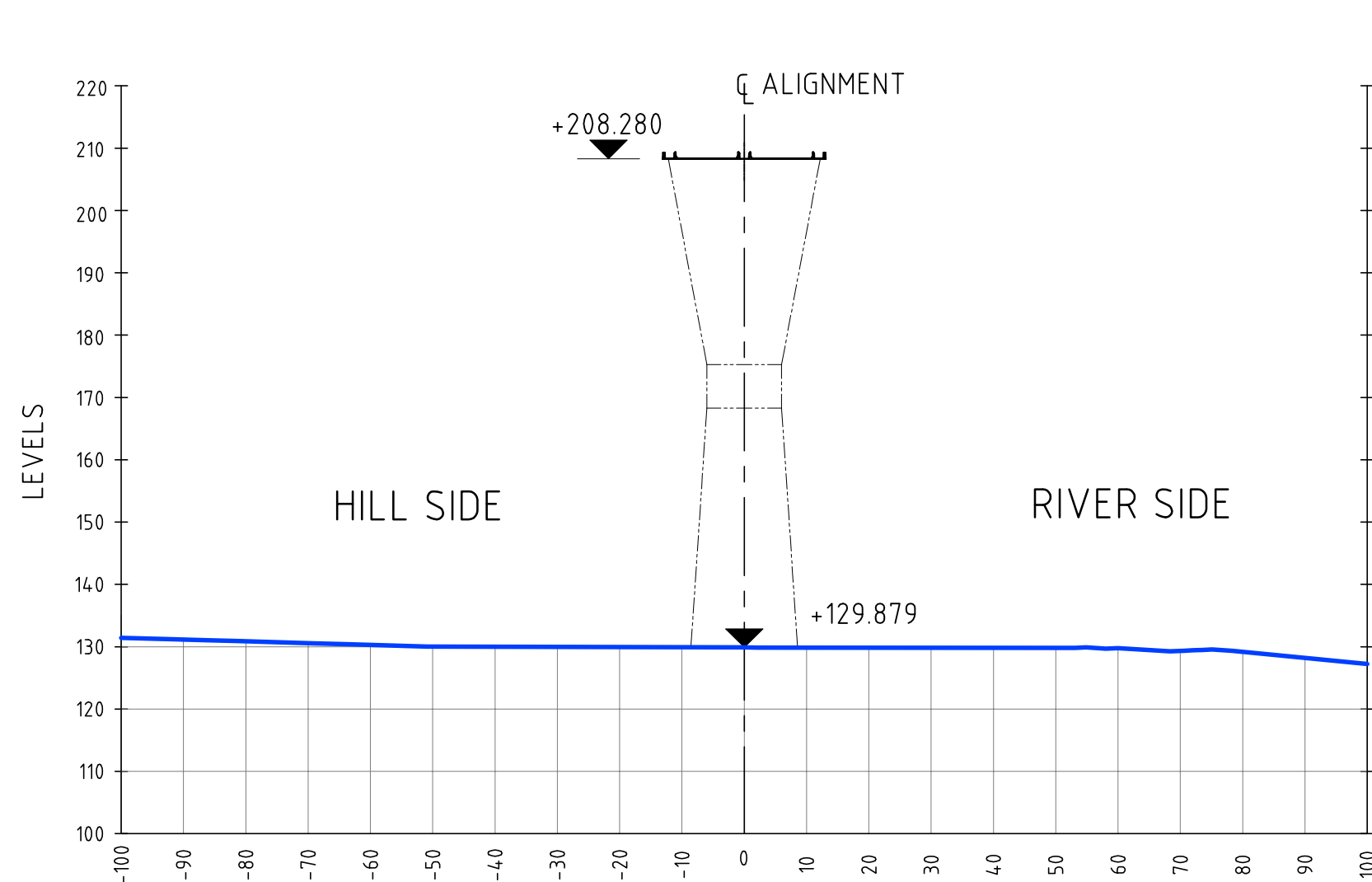
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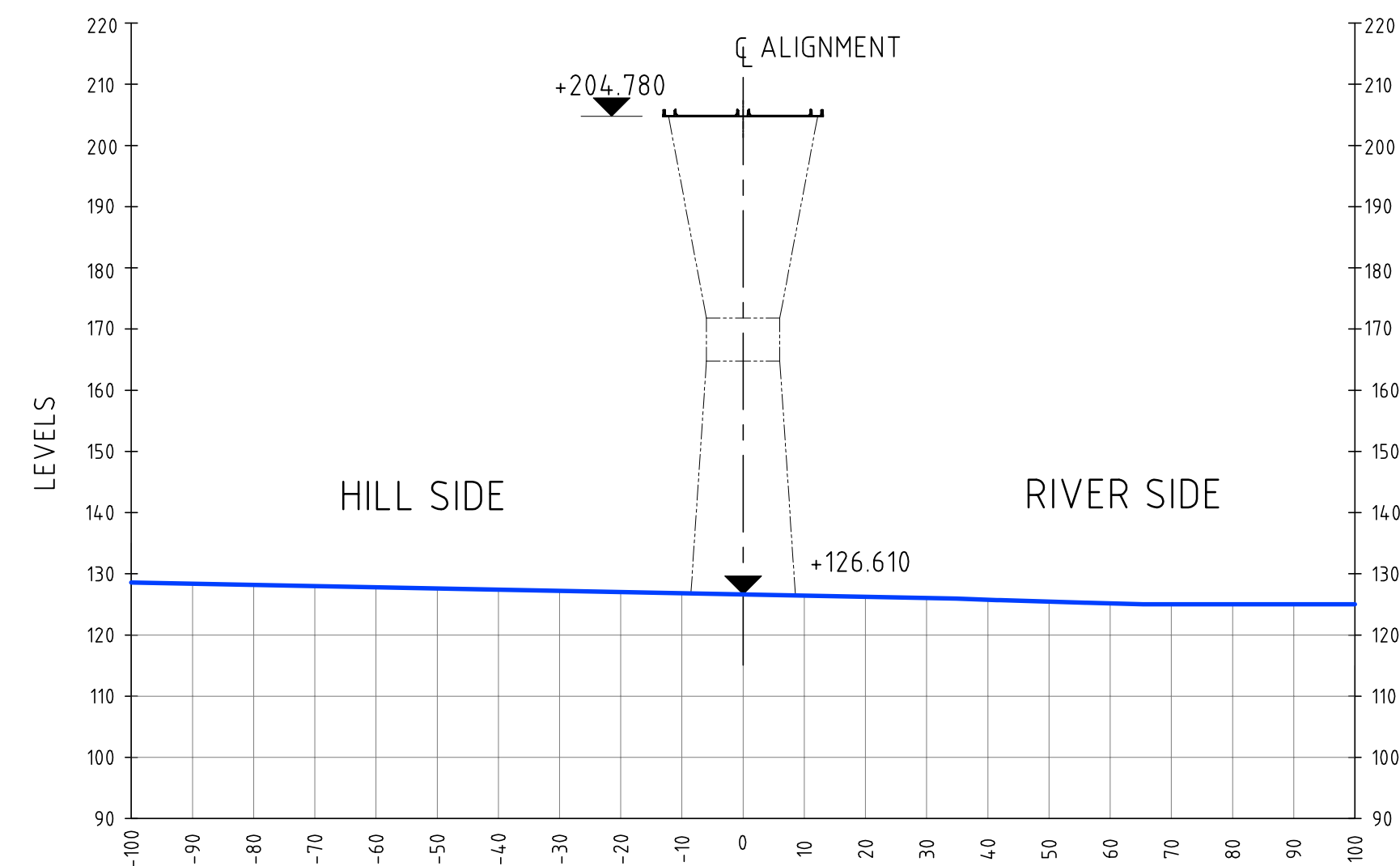
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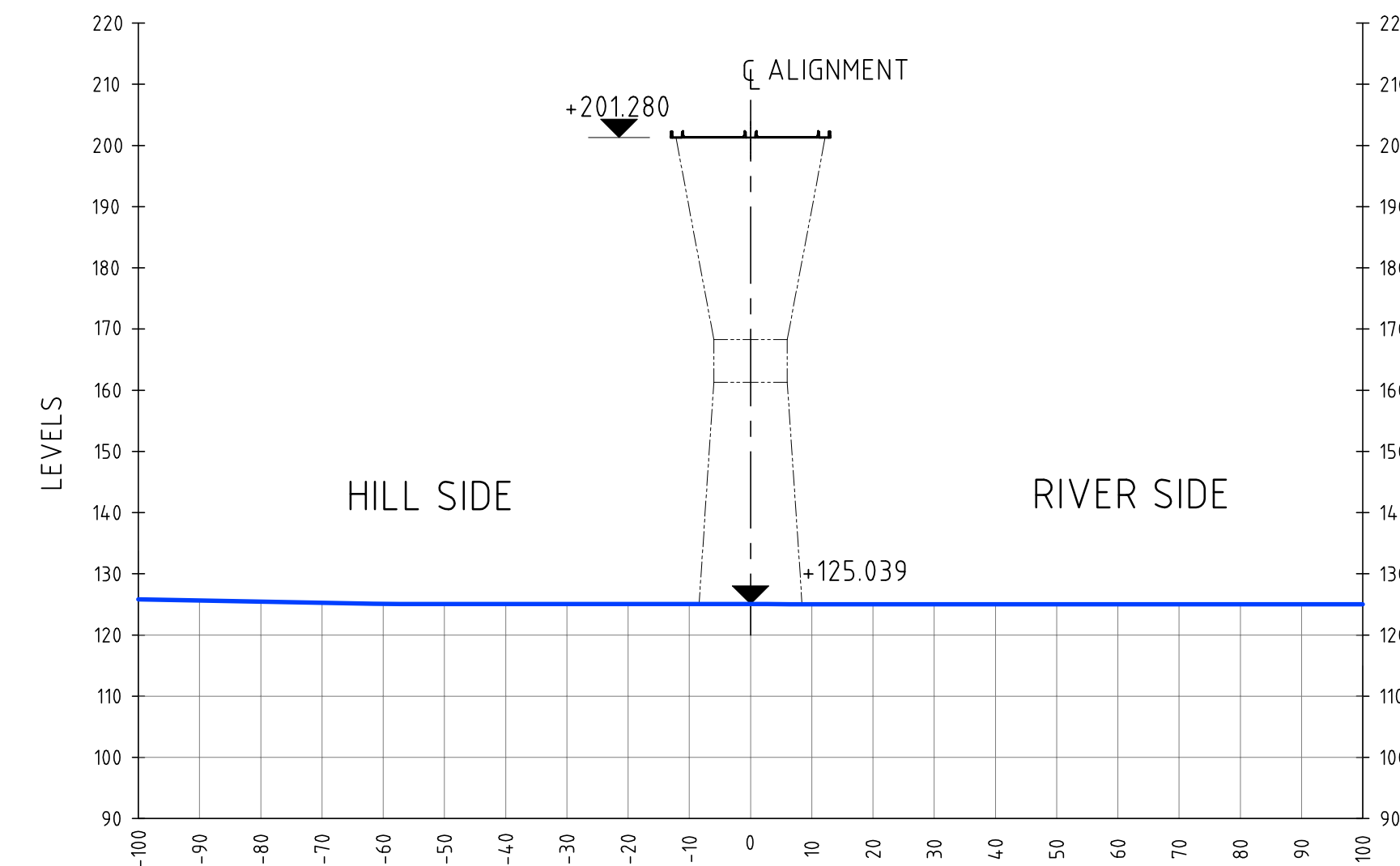
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X-SEC AT CH:21+900.00
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X-SEC AT CH:22+000.00
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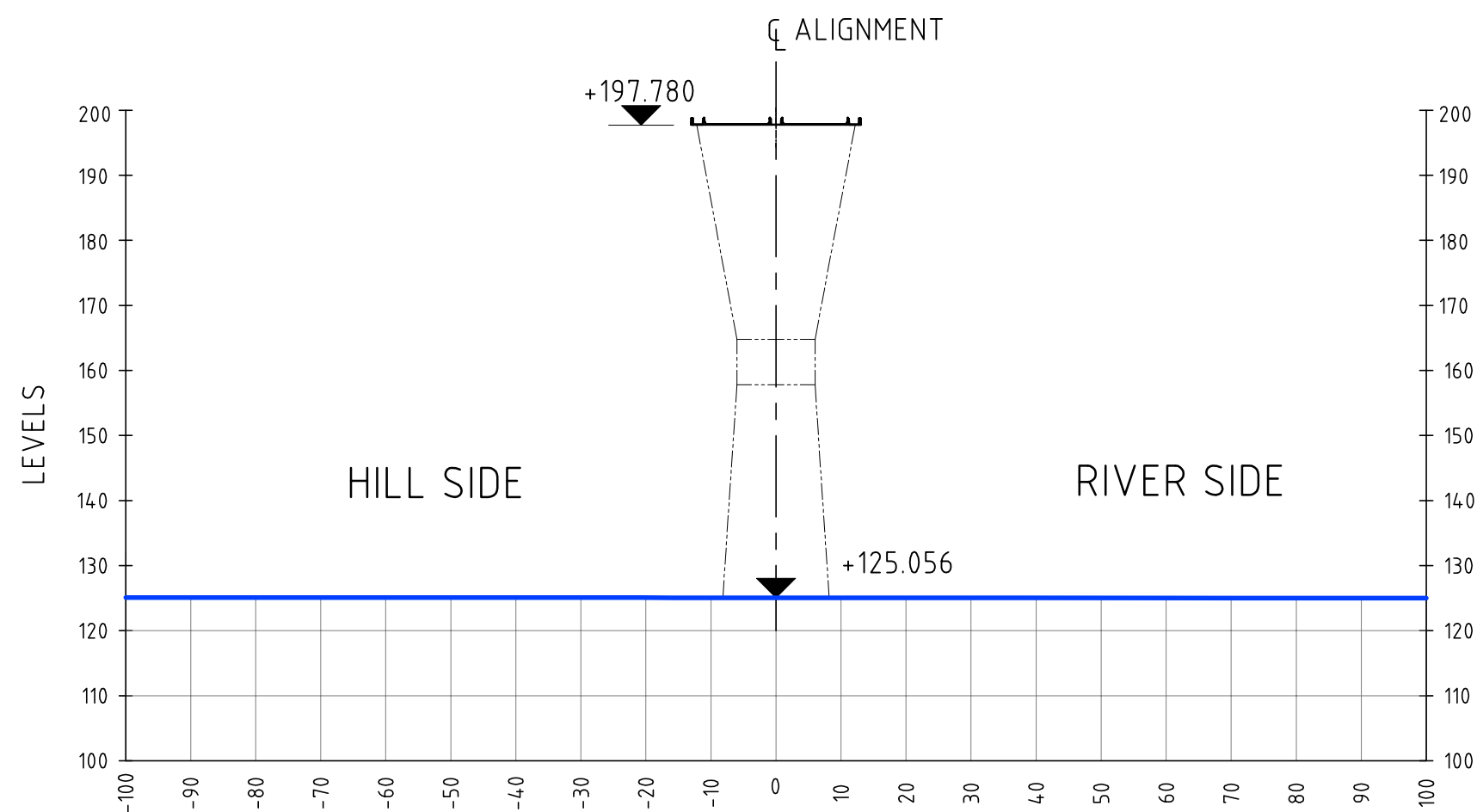


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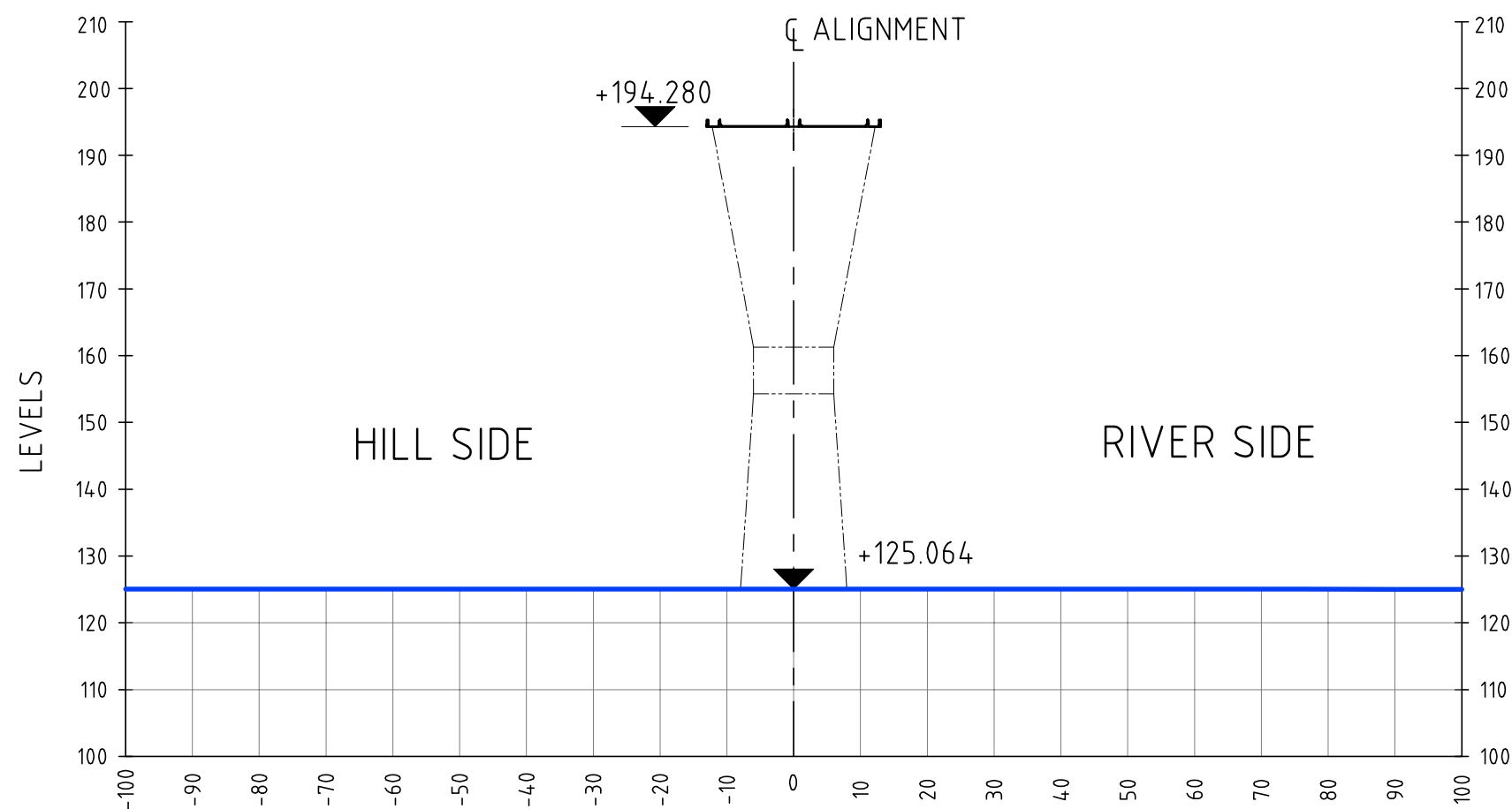


PRELIMINARY

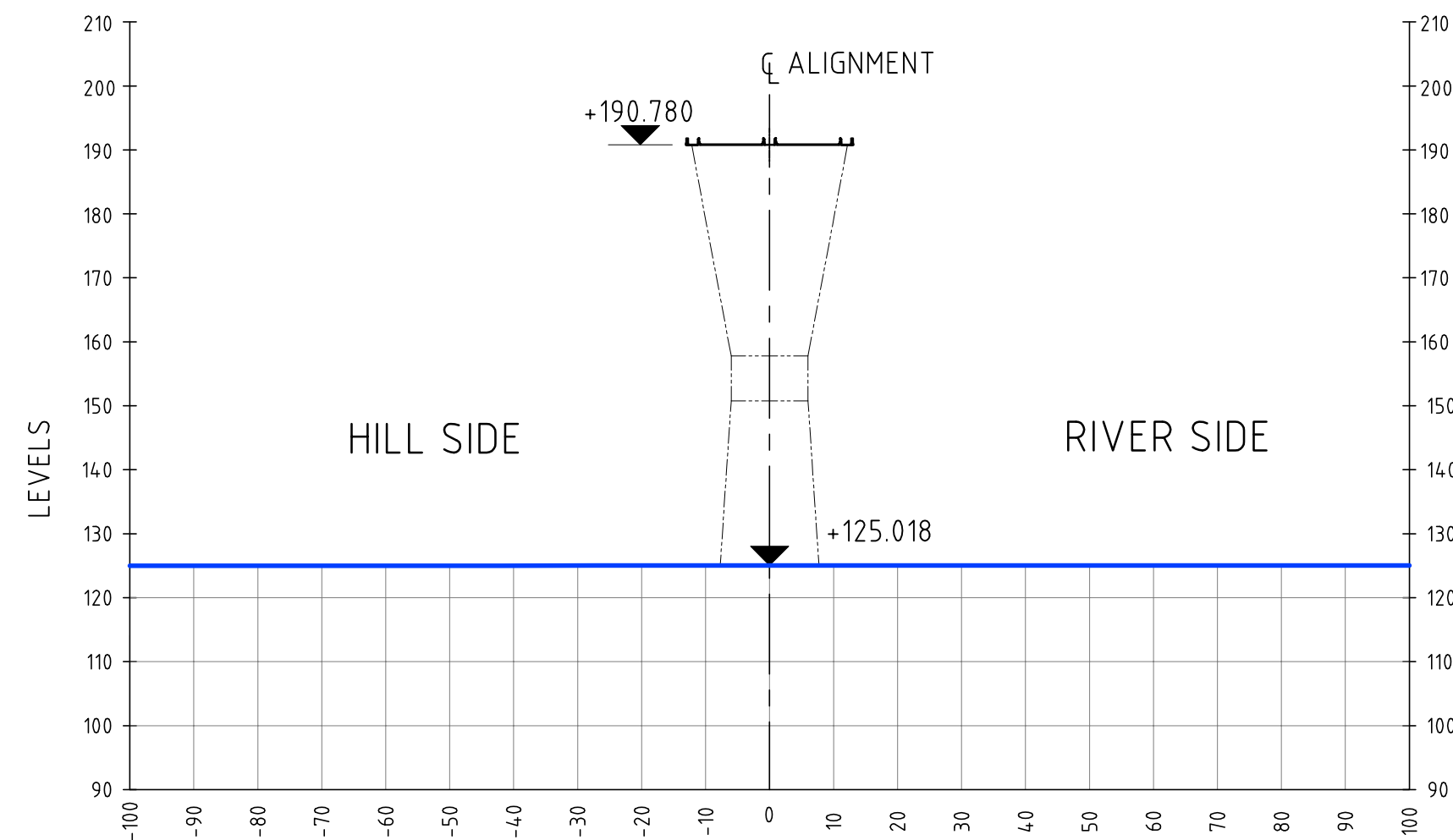
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						The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780																			
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.												Date (FIRST ISSUE)		DEC 2015		DEC 2015		DEC 2015		DEC 2015		DEC 2015									
												Name		ABa/PRA		RMe		RMe/ADh		AKg/ADh		AKg									
												Drawn		Drafting Chk		Designed		Design Chk		Approved											
				REV. DATE		PARTICULARS				Drawn		Checked		Approved		Originators															
				B DEC 15		SECOND DRAFT (KD-6)				ABa/PRA		RMe		AKg																	
				A DEC 15		FIRST DRAFT (KD-5)				ABa/PRA		RMe		AKg																	
										REV.		DATE		PARTICULARS				Drawn		Checked		Approved		Originators							
																								This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.							
																								GEOCONSULT, Aba, R\16600 Project\16600-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-LAY_1093 TO 1098_B.dwg, 2015-12-19							
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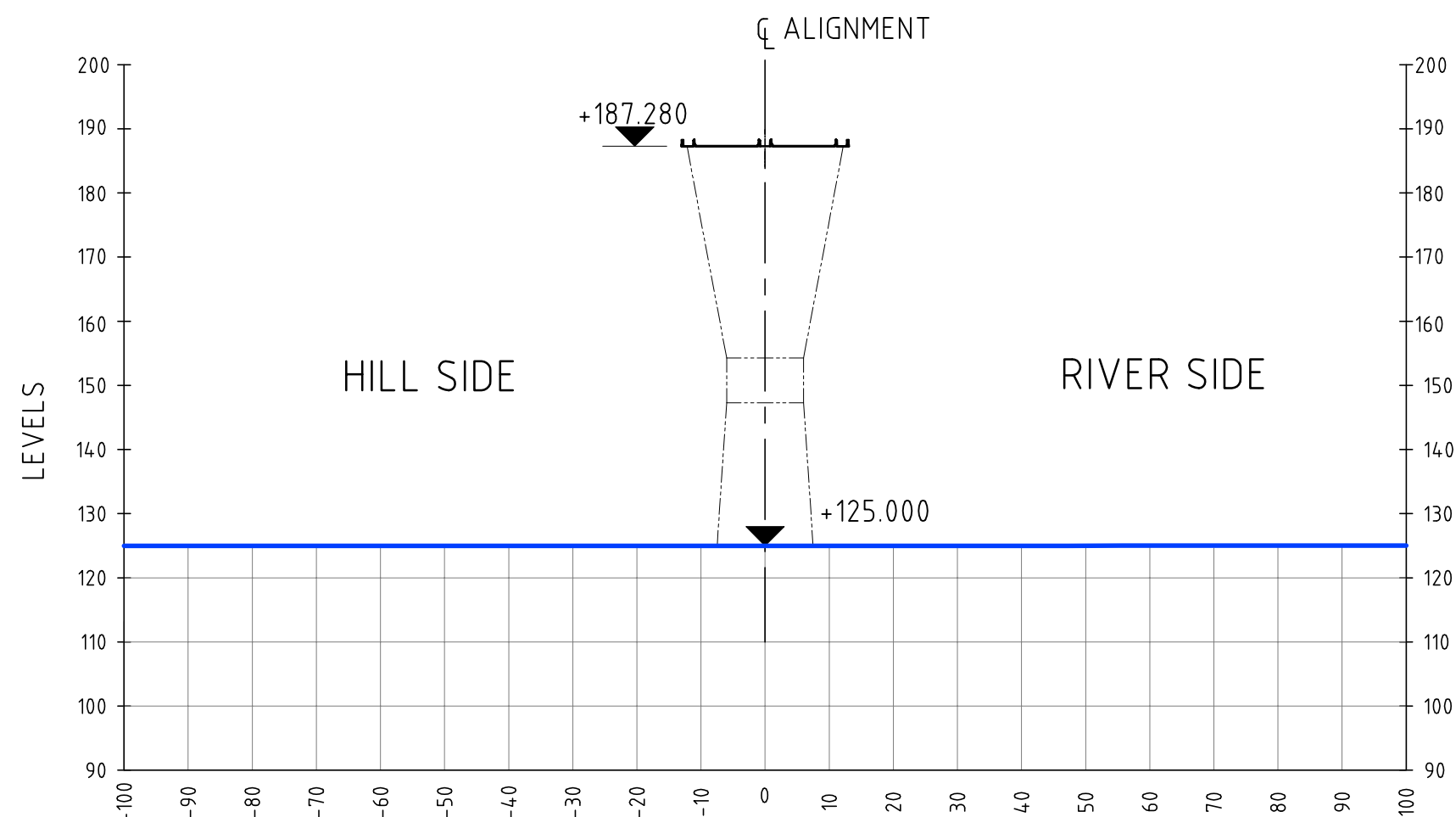
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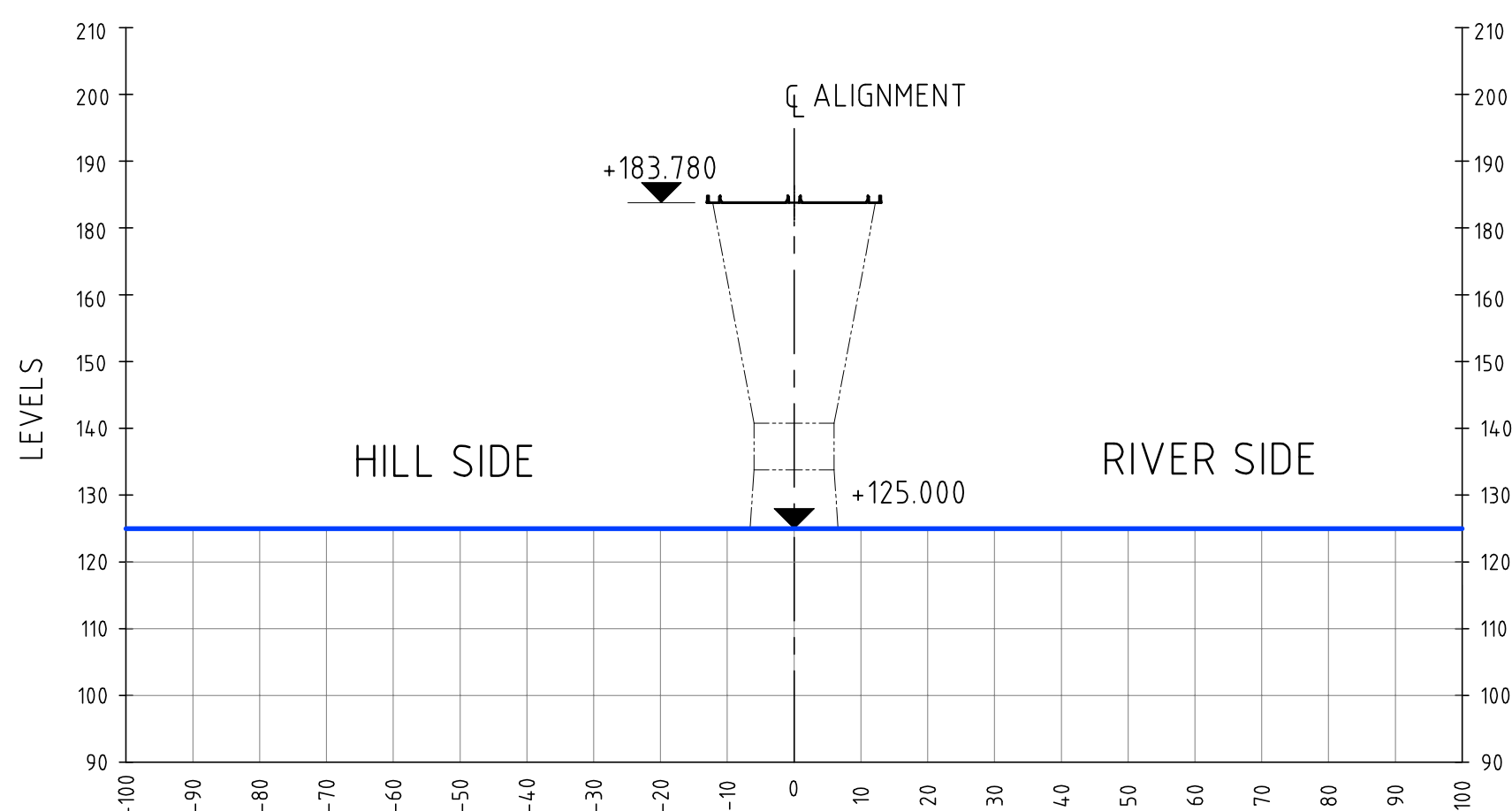
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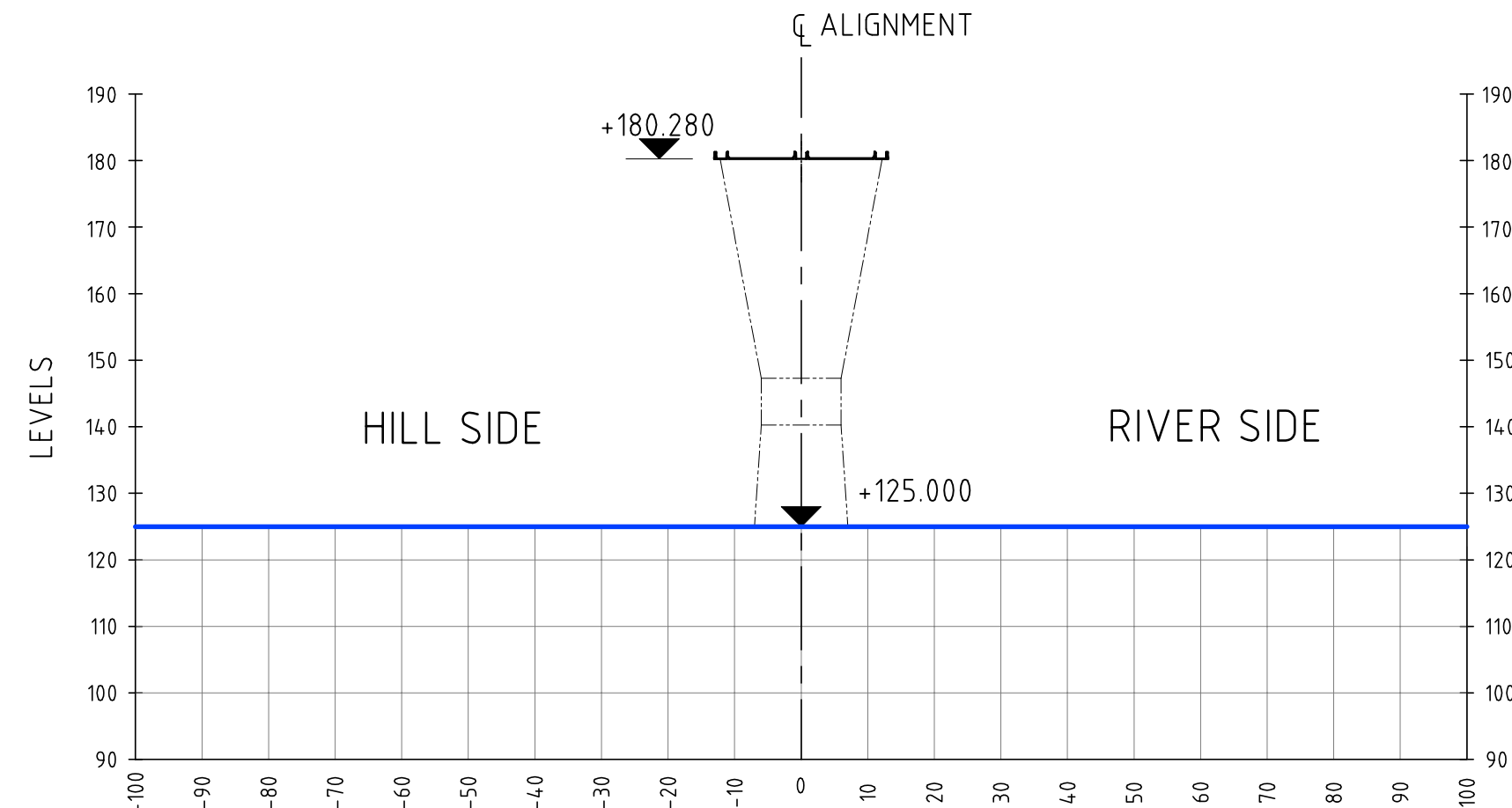
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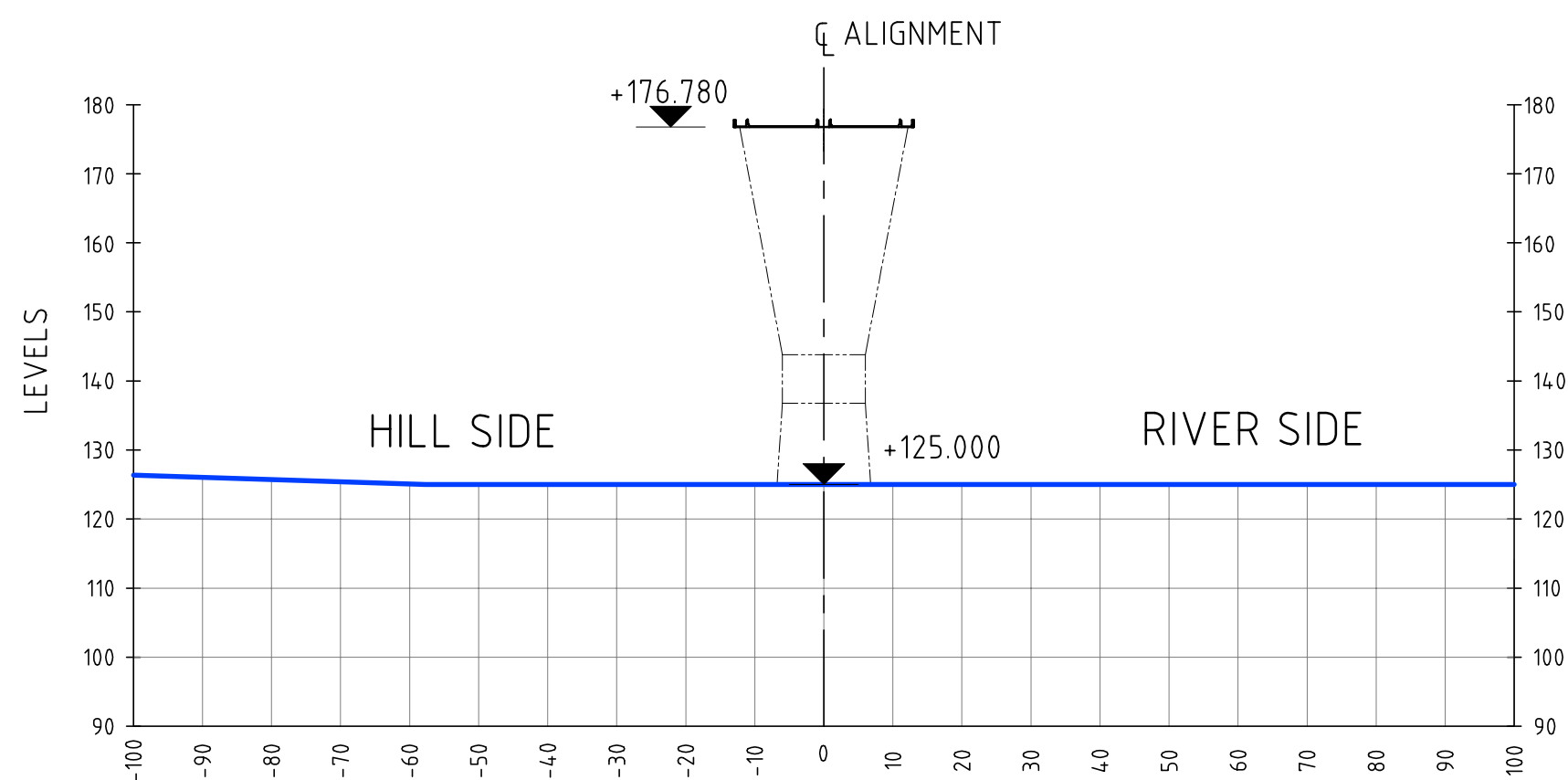
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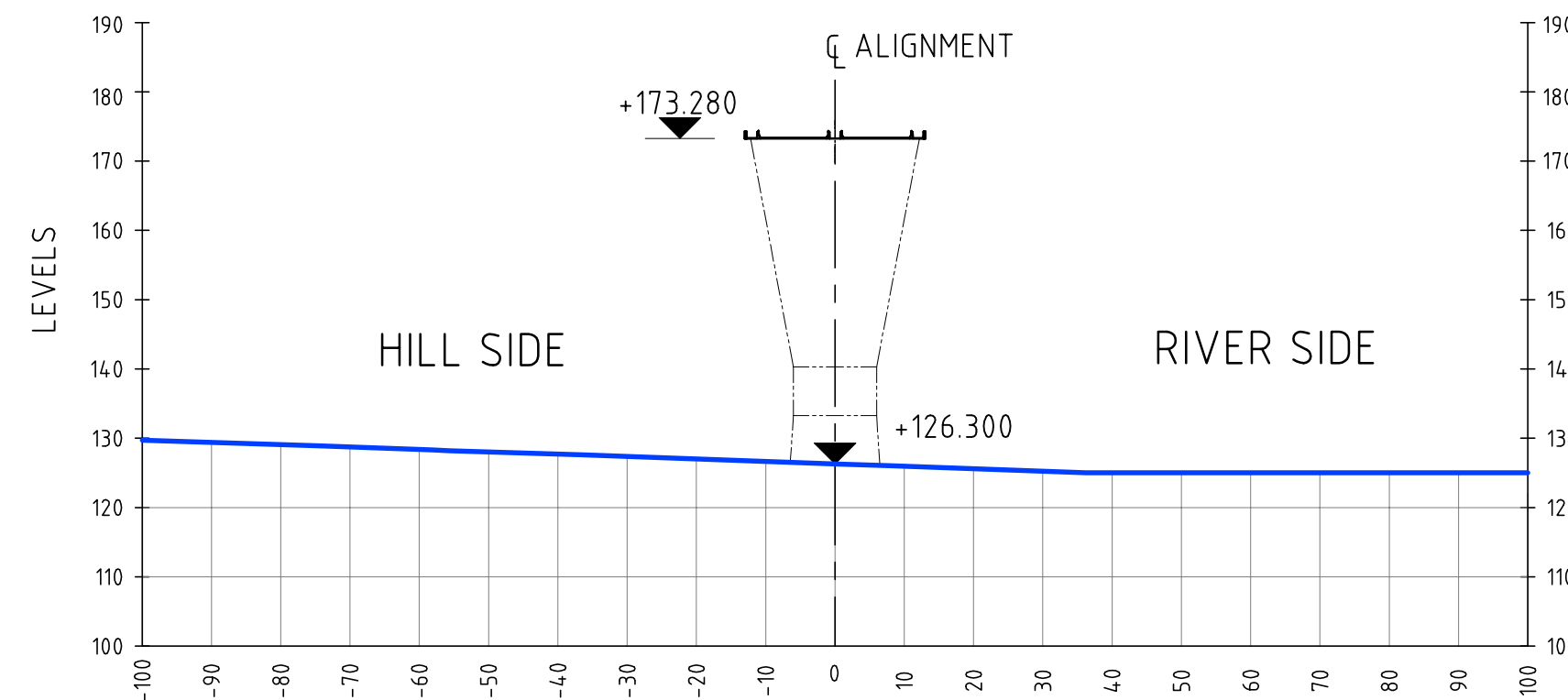
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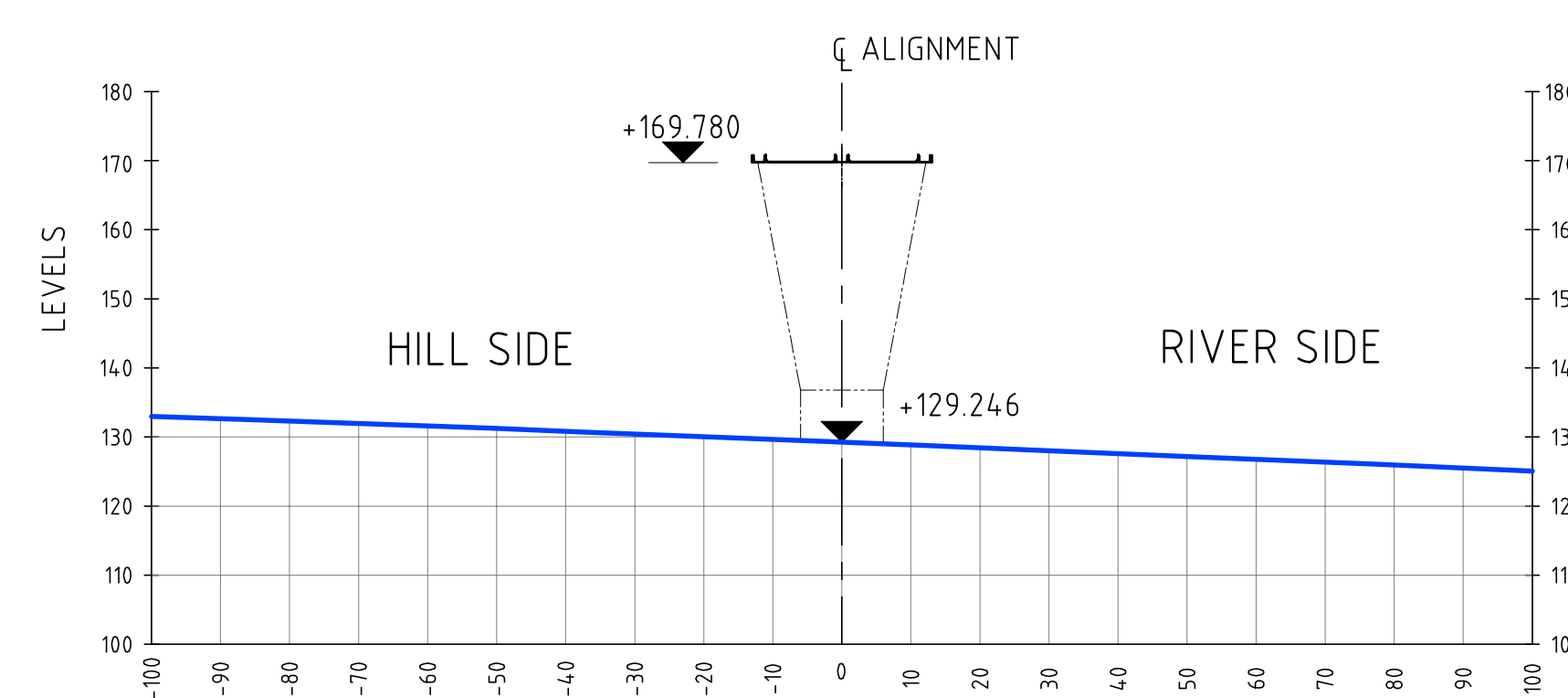
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X-SEC AT CH:22+900.00
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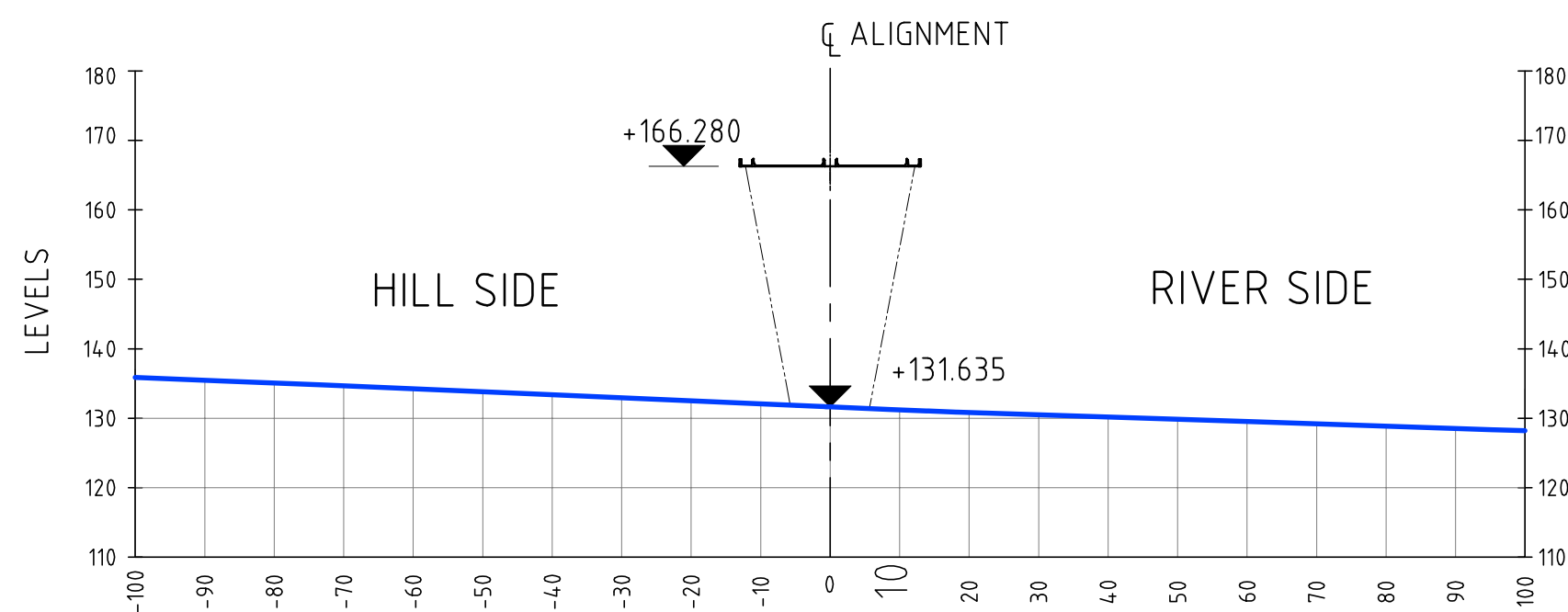


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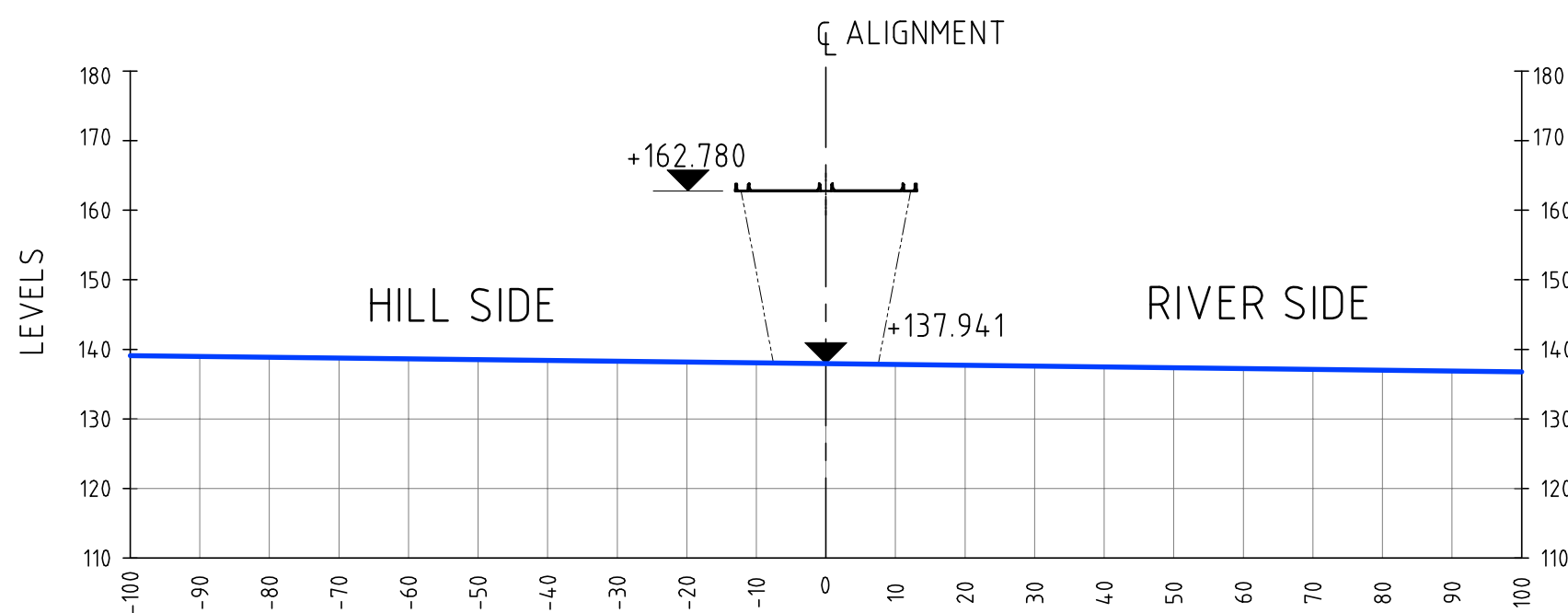


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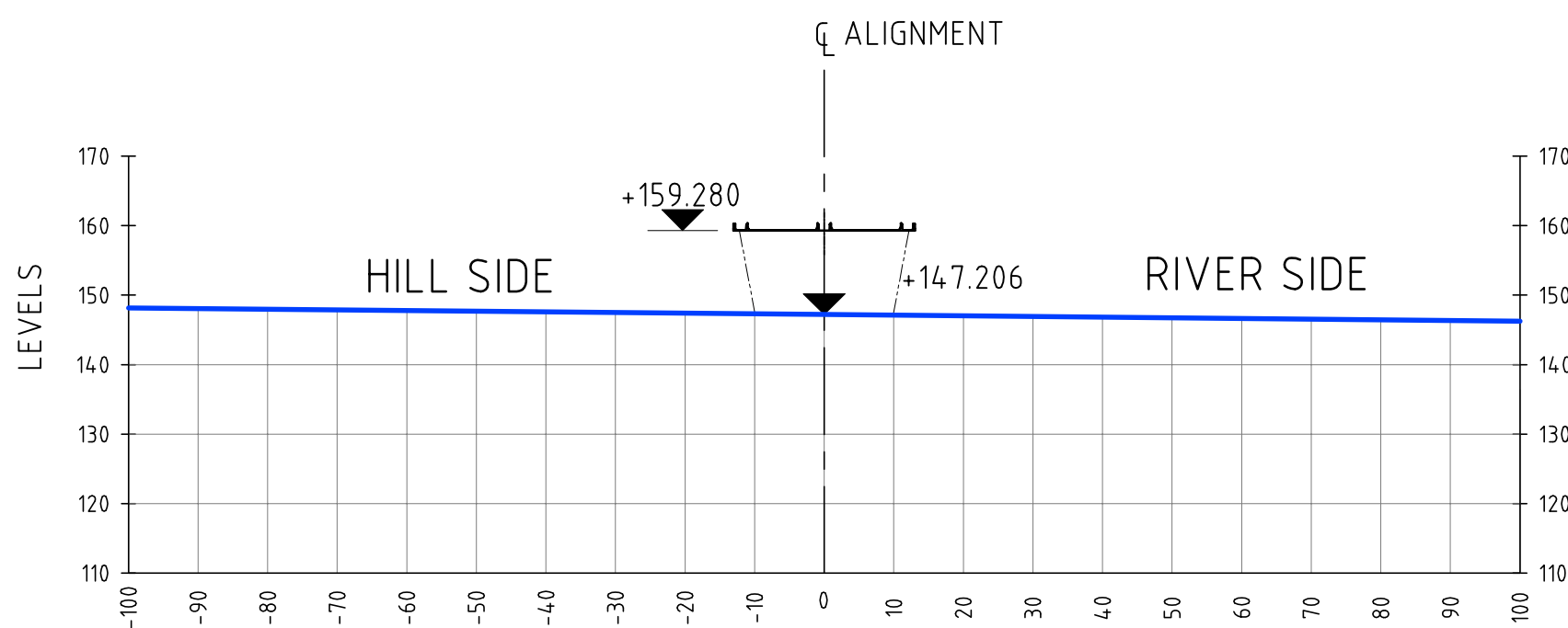
REFERENCE DRAWINGS: SHGA-FS-LAY-1000		LEGEND: - - - - - RAILWAY LINE - - - - - CUT/FILL (C/F) - - - - - BRIDGES (B) - - - - - TUNNELS (T)		REVISION		QUALITY ASSURANCE		DESIGN CONSULTANTS: GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA	
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.								PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING TITLE ALIGNMENT OPTION "A" CROSS SECTIONS CH:22+200 TO 23+000	
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										REV B	
										SCALE AS SHOWN	
										MONTH (Current Issue) DEC 2015	



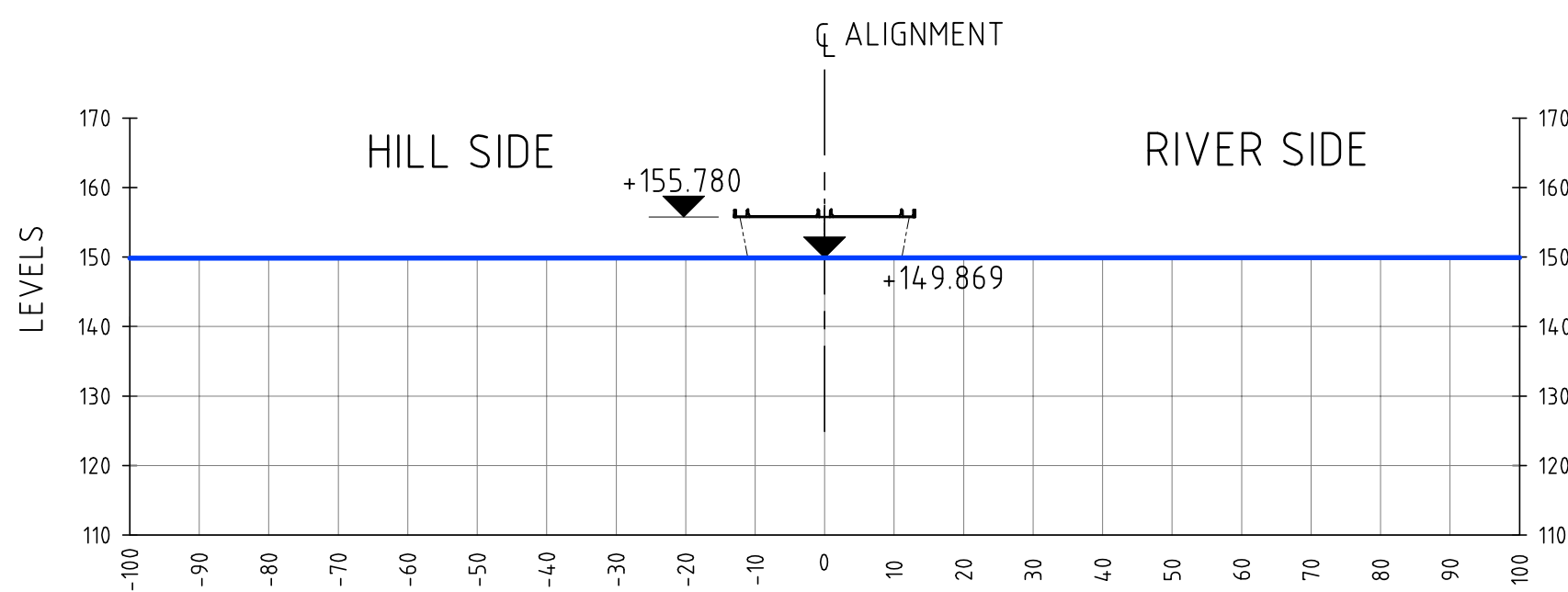
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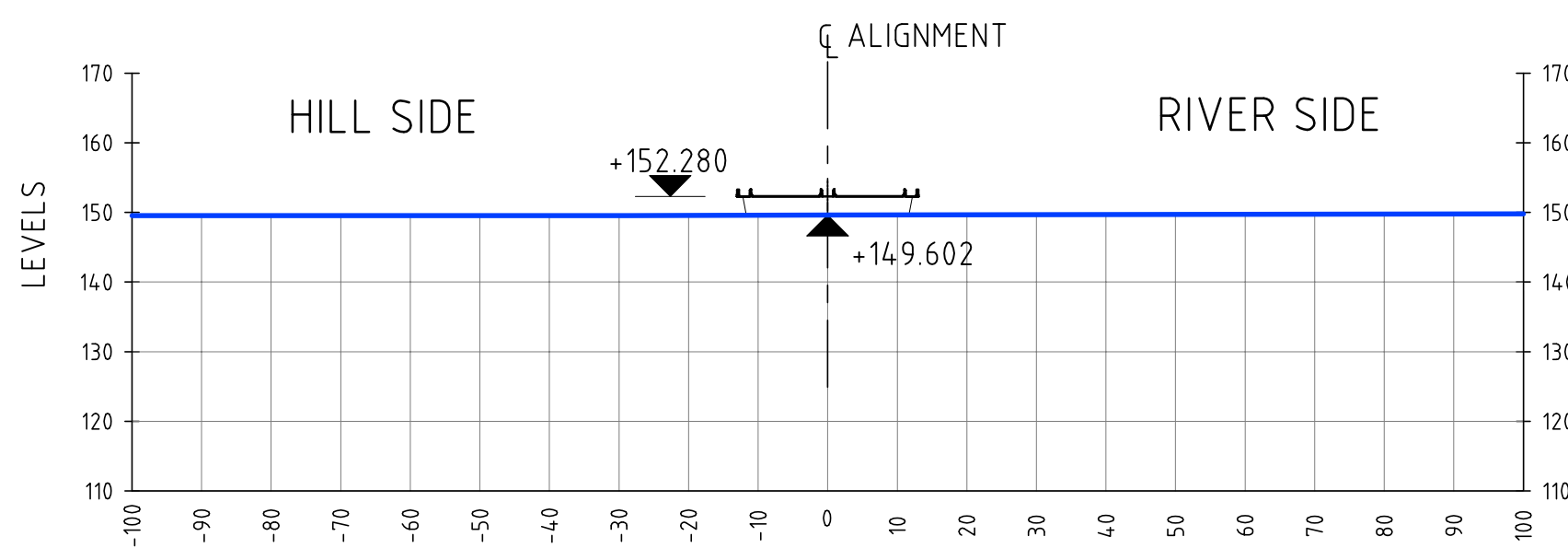
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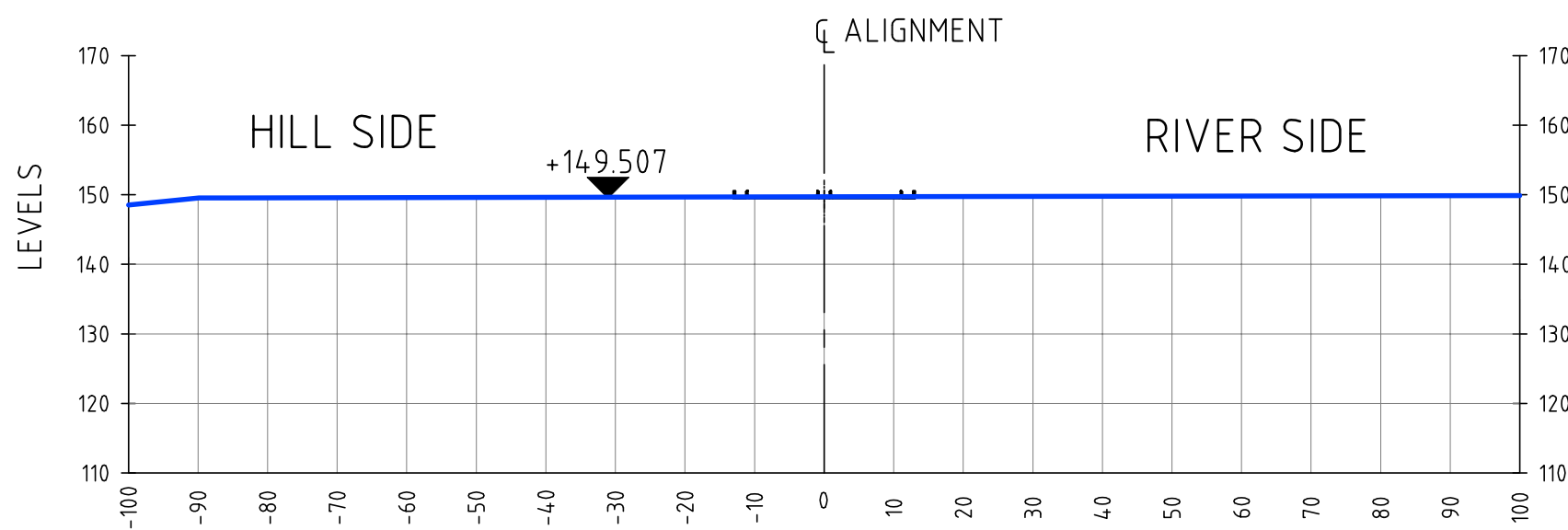
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X-SEC AT CH:23+400.00
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X-SEC AT CH:23+500.00
SCALE 1:1000



X-SEC AT CH:23+579.22
SCALE 1:1000

SCALE 1 : 1000



PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:

- RAILWAY LINE
- CUT/FILL (C/F)
- BRIDGES (B)
- TUNNELS (T)

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
B	DEC 15	SECOND DRAFT (KD-6)	ABa/PRa	RMe	AKg
A	DEC 15	FIRST DRAFT (KD-5)	ABa/PRa	RMe	AKg

QUALITY ASSURANCE

The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					
Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015
Name	ABa/PRa	RMe	RMe/ADh	AKg/ADh	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS :

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

ALIGNMENT OPTION "A"
CROSS SECTIONS
CH:23+100 TO 23+579.22

DRAWING NUMBER

SHGA-FS-LAY-1098

SCALE

AS SHOWN

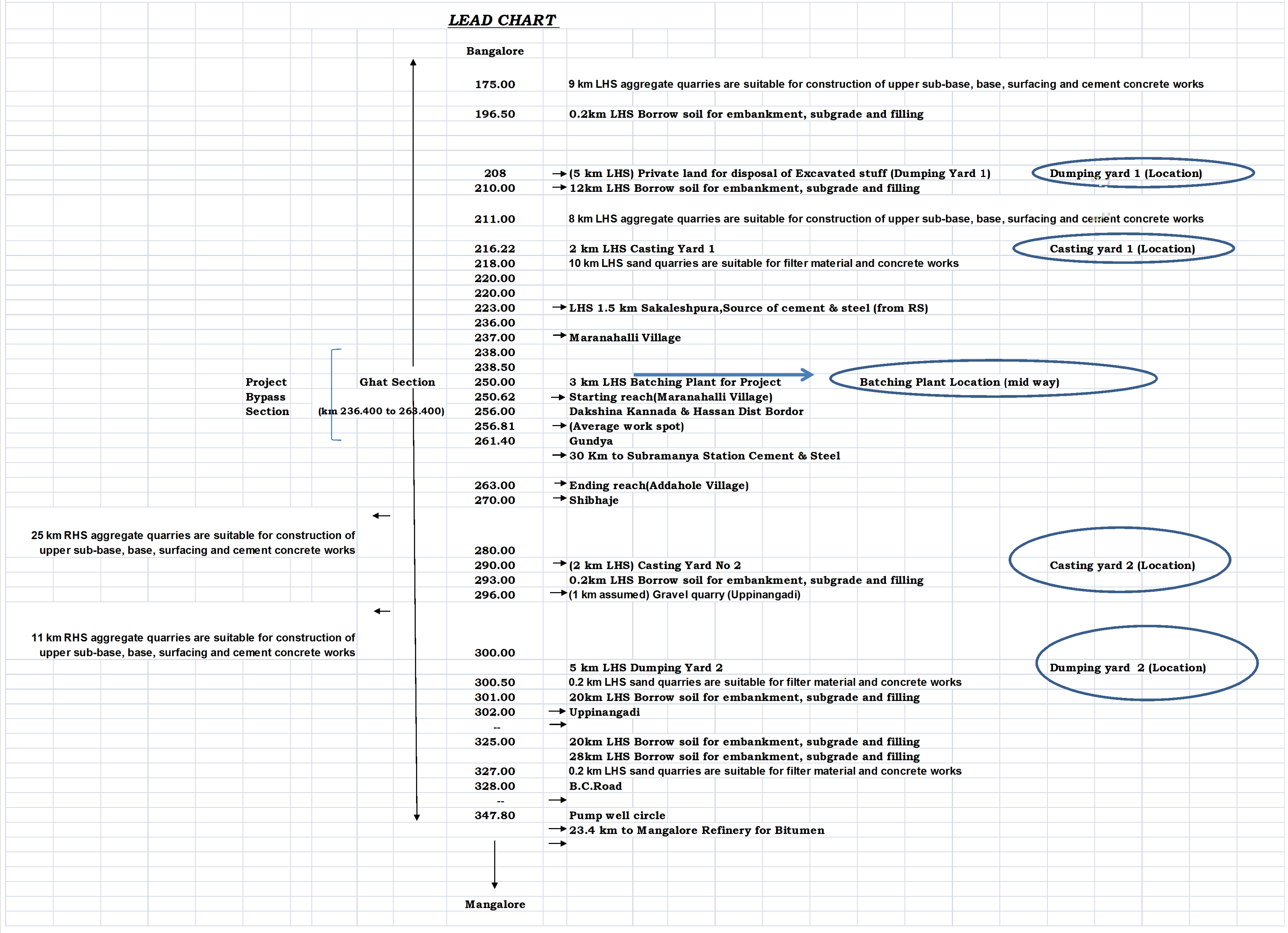
MONTH

DEC 2015


REV

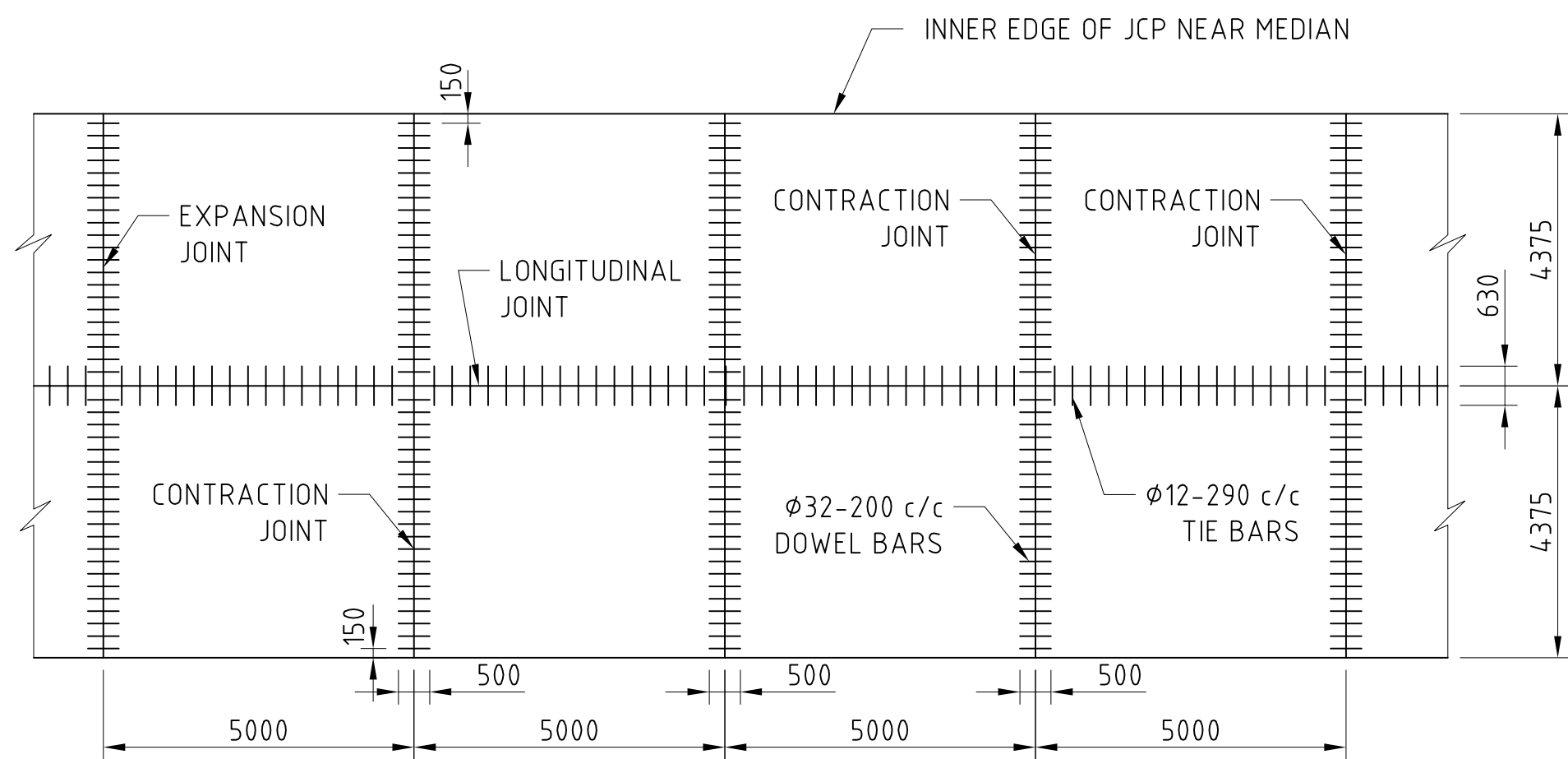
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LEAD CHART FOR QUARRY, BORROW AND RAW MATERIALS FOR Shiradi Ghat BY PASS PROJECT Bangalore - Mangalore section.

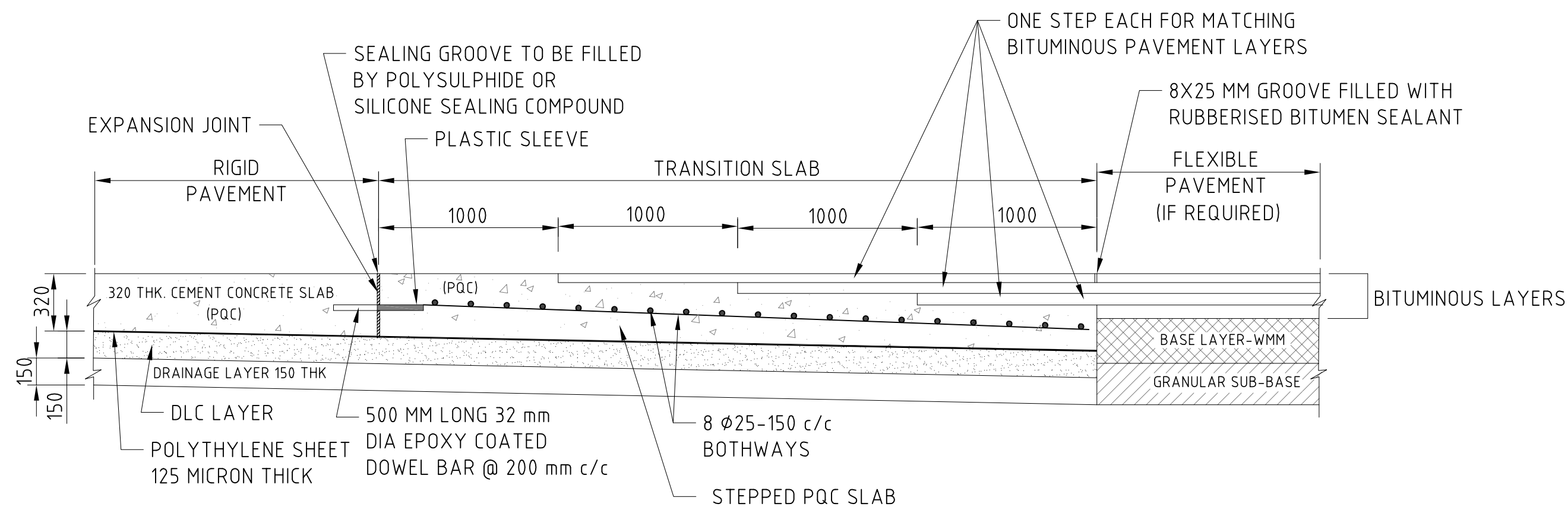


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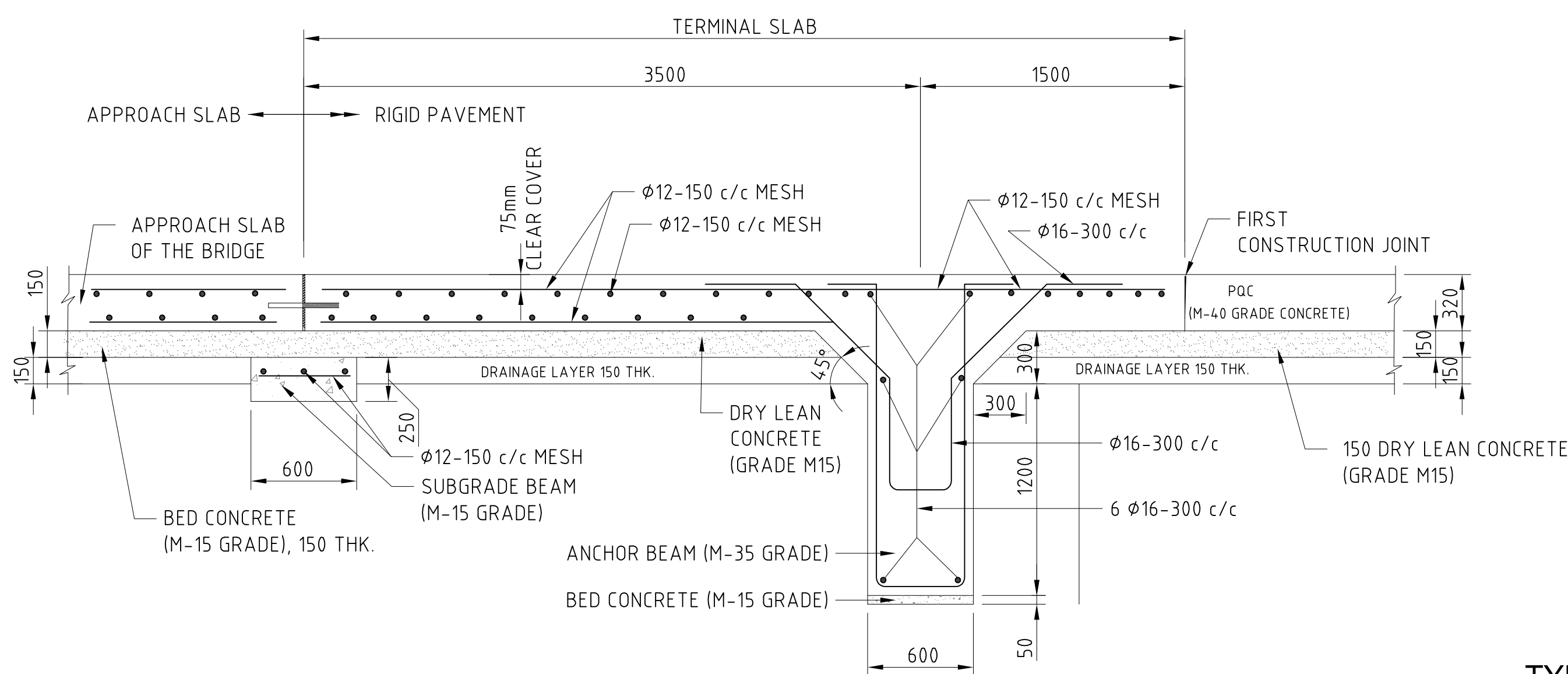
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								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.									



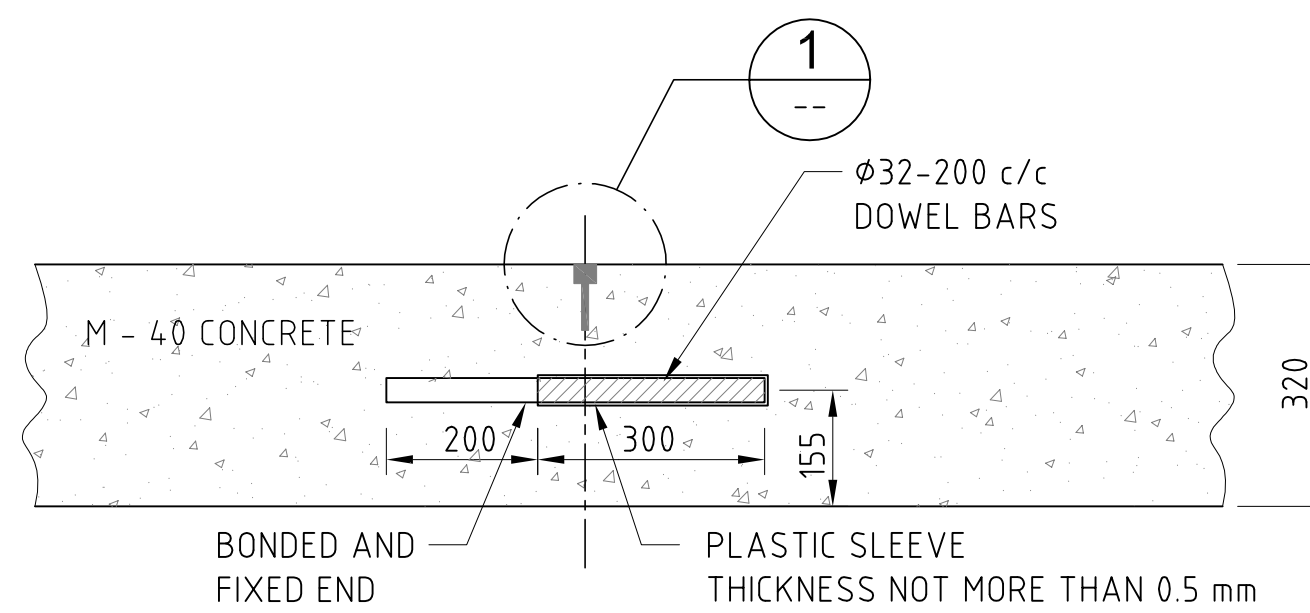
LAYOUT PLAN OF JCP
SCALE 1:100



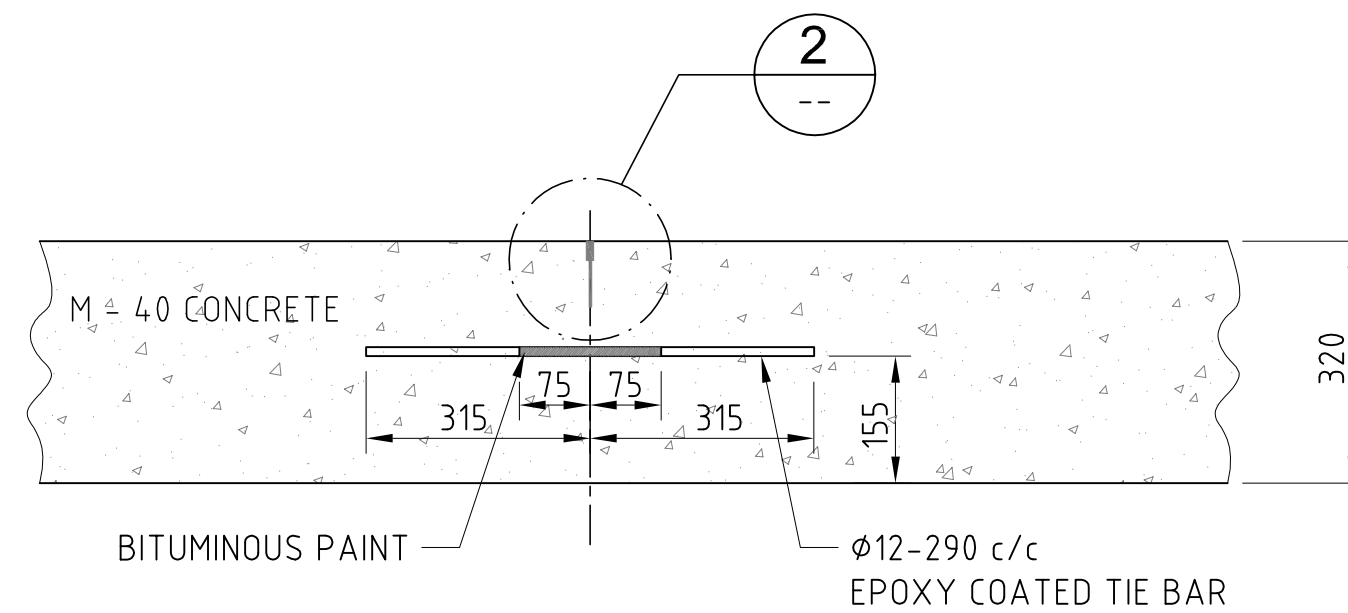
TYPICAL DETAILS OF TRANSITION SLAB BETWEEN RIGID AND FLEXIBLE PAVEMENT (IF REQUIRED)
SCALE 1:25



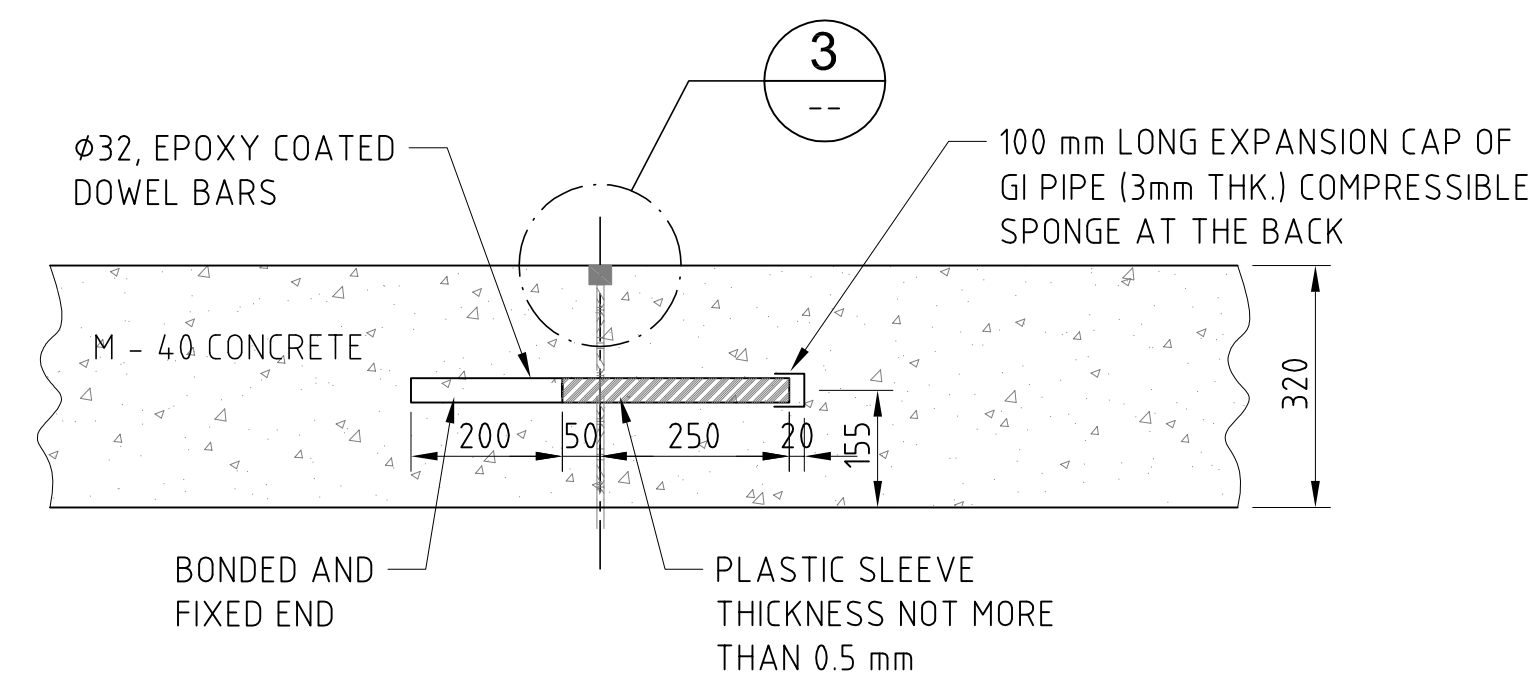
TYPICAL DETAILS OF CONSTRUCTION
SCALE 1:25



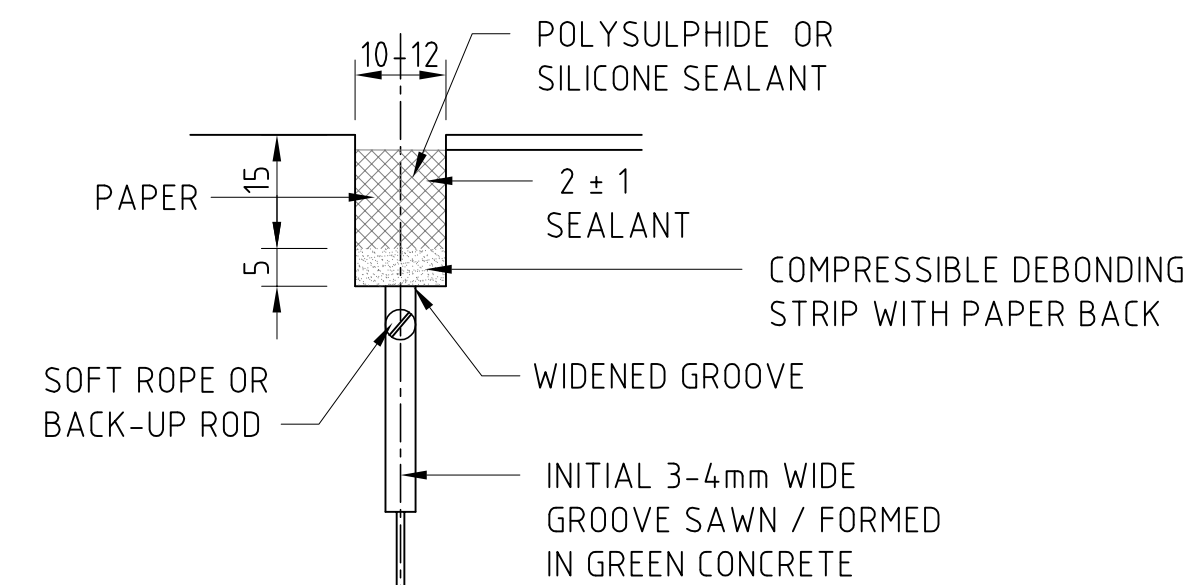
DETAIL OF TRANSVERSE CONTRACTION/ CONSTRUCTION JOINT
SCALE 1:10



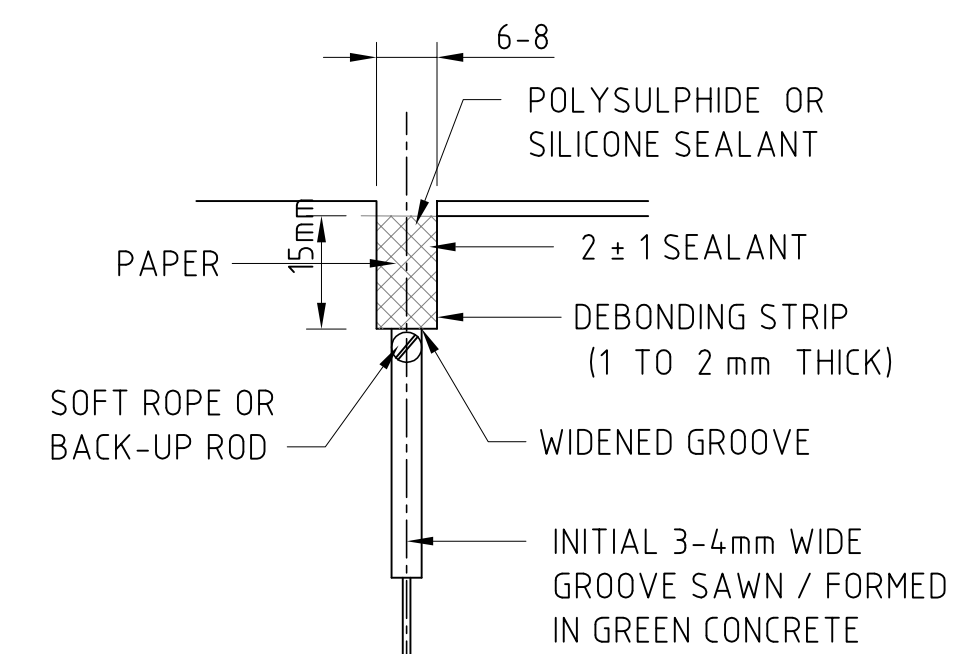
DETAIL OF LONGITUDINAL TIE BARS
SCALE 1:10



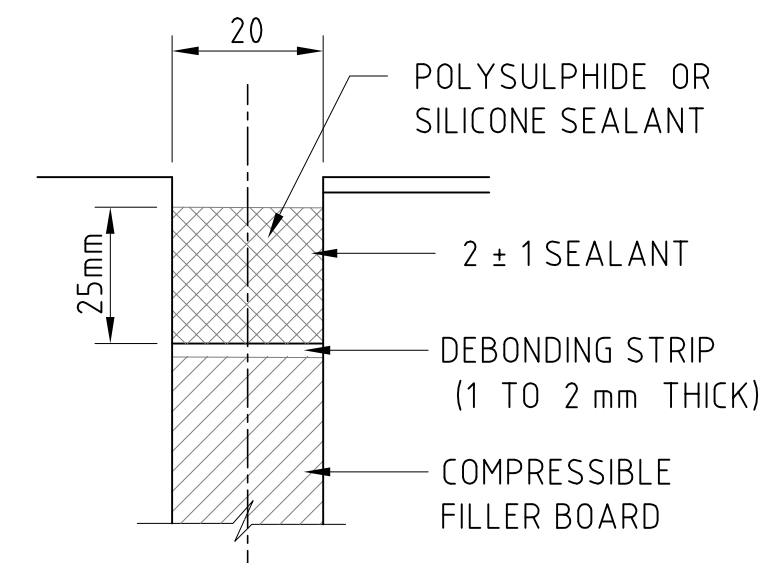
DETAIL OF TRANSVERSE EXPANSION JOINT
SCALE 1:10



DETAIL 1
SCALE 1:1



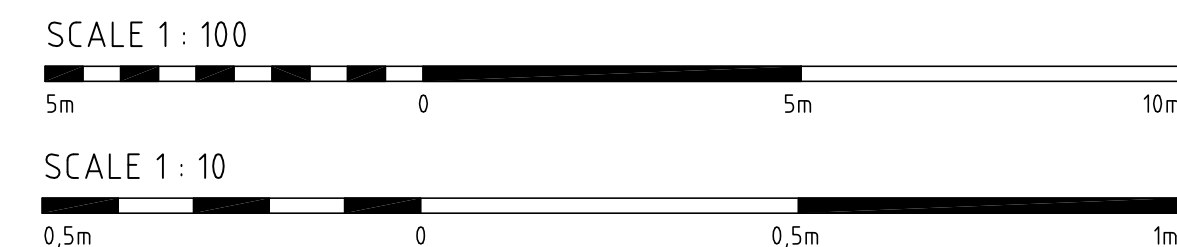
DETAIL 2
SCALE 1:1




DETAIL 3
SCALE 1:1

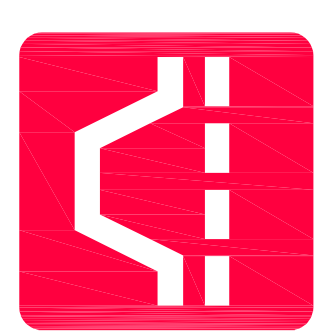
NOTES:

- ALL DIMENSIONS ARE IN mm, UNLESS OTHERWISE STATED.
- CONSTRUCTION OF RIGID PAVEMENT SHALL CONFORM TO IRC 15-2011, IRC 58-2015, "MORTH" SPECIFICATIONS AND OTHER RELEVANT CODES.
- EXPANSION JOINTS WILL BE PROVIDED AT ABUTMENT OF STRUCTURES.



PRELIMINARY

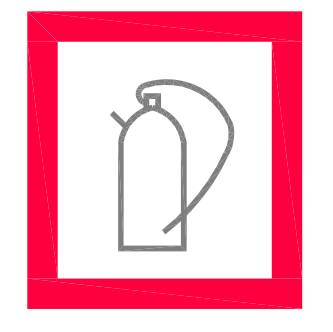
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								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						DRAWING TITLE										
														PROJECT TITLE										
								Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015	CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780										
		B	DEC 15	SECOND DRAFT (KD-6)				PRa	RMe	AKg	Name	PRa	RMe	AKg	AKg		AKg	DRAWING NUMBER SHGA-FS-MISC-1741	REV B					
		A	DEC 15	FIRST DRAFT (KD-5)				PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk		Approved							
		REV.	DATE	PARTICULARS				Drawn	Checked	Approved	Originators						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.							
														©GEOCONSULT, T. 665, B\16000, Project\36060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-MISC-1741_B.dwg, 2015-12-18						SCALE AS SHOWN		MONTH (Current Issue) DEC 2015		



TUNNEL LAY-BYE



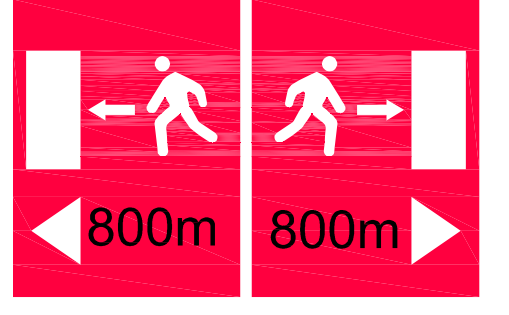
EMERGENCY
TELEPHONE



FIRE EXTINGUISHER




FIRE HYDRANT

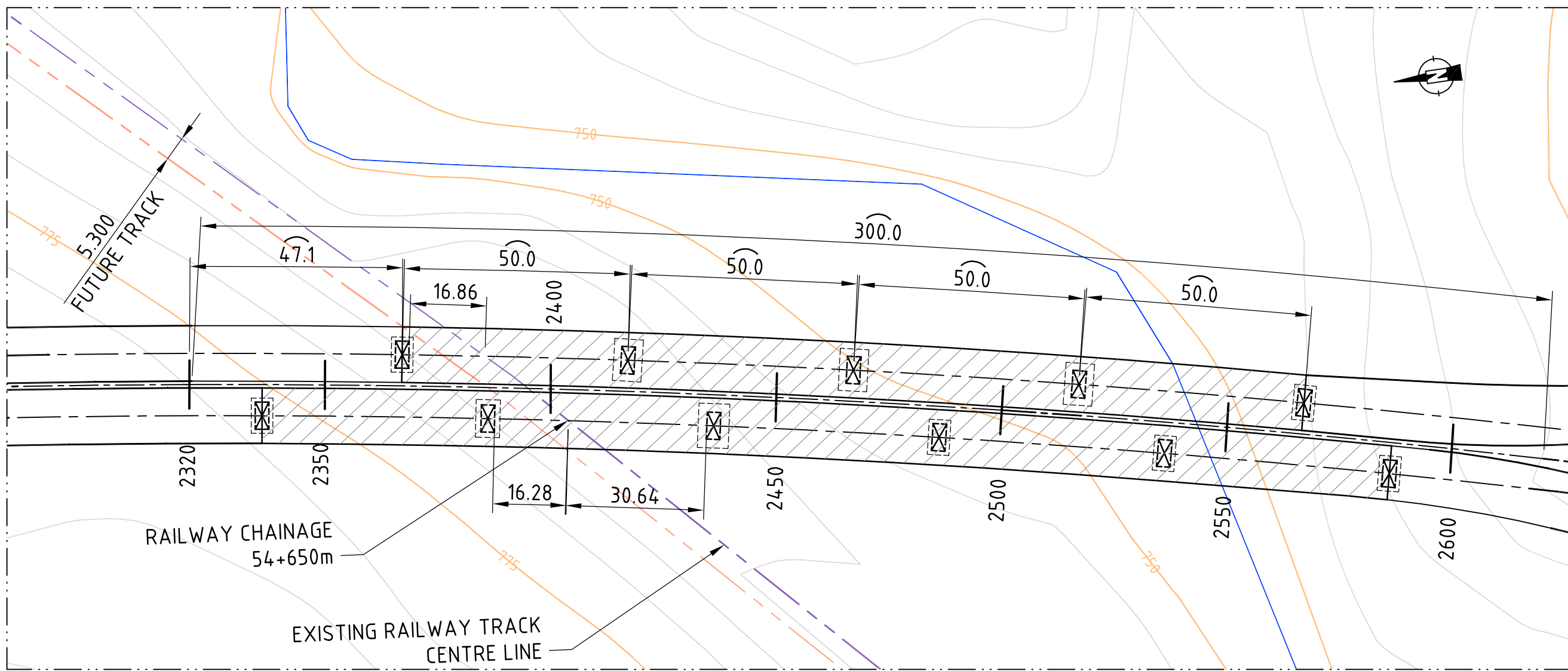


EMERGENCY EXIT

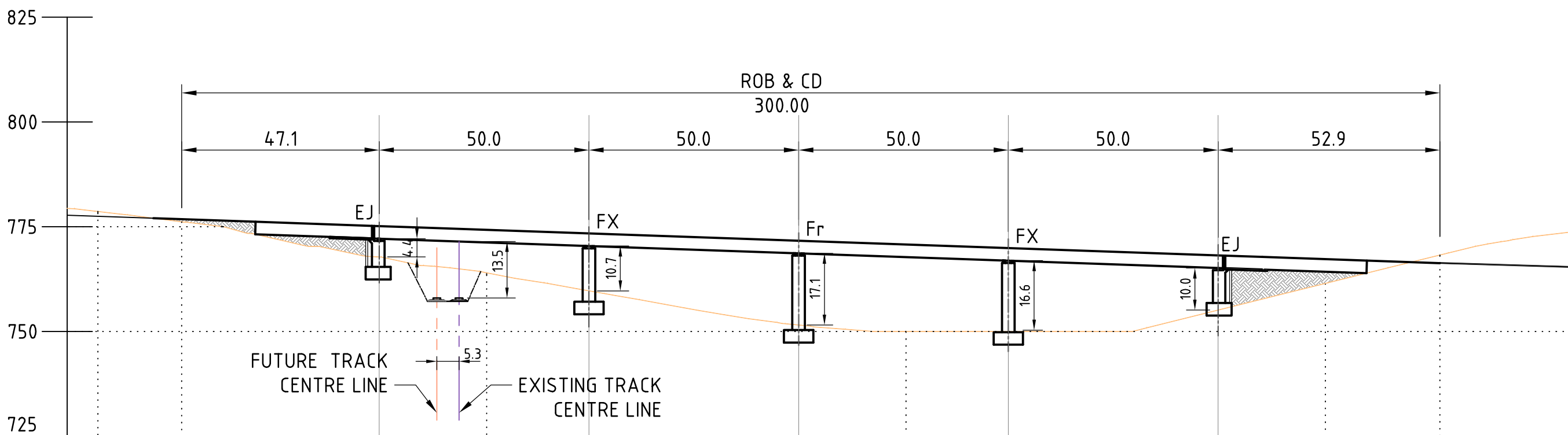


STOP HERE

REFERENCE DRAWINGS:	LEGEND:	REVISION			QUALITY ASSURANCE					DESIGN CONSULTANTS :			CLIENT		
					The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			GOVERNMENT OF KARNATAKA		
											PROJECT TITLE		DRAWING TITLE		
					Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015	CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		ROAD SIGNAGE AND MARKINGS		
		B	DEC 2015	SECOND DRAFT (KD-6)	ABa	RMe	FKr	Name	ABa	RMe	AKg	AKg	AKg	DRAWING NUMBER	
		A	DEC 2015	FIRST DRAFT (KD-5)	ABa	RMe	FKr		Drawn	Drafting Chk	Designed	Design Chk	Approved	SHGA-FS-MISC-1746	
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		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators					This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		SCALE
						GEOCONSULT, Aba, R\16000 Projects\16060-Shiradi Ghat\CURRENT WDO-6\SHGA-FS-MISC-1746_B.dwg, 2015-12-18					MONTH				
											NTS		DEC 2015		



GENERAL ARRANGEMENT PLAN
SCALE 1:1000




CHAINAGE	2300.000	2320.000	2367.090	2400.000	2424.397	2474.397	2500.000	2524.397	2574.397	2600.000	2620.000
GROUND LEVELS	779.387	776.157	767.773	764.003	759.673	751.522	749.998	749.989	755.104	761.478	768.242
FORMATION LEVELS	777.747	776.791	775.143	774.247	773.393	771.643	770.747	769.893	768.143	767.247	766.291
HORIZONTAL ALIGNMENT	R: 2600.000 L: 3320.446										
VERTICAL ALIGNMENT	3.5%										

GENERAL ARRANGEMENT L-SECTION
SCALE 1:1000

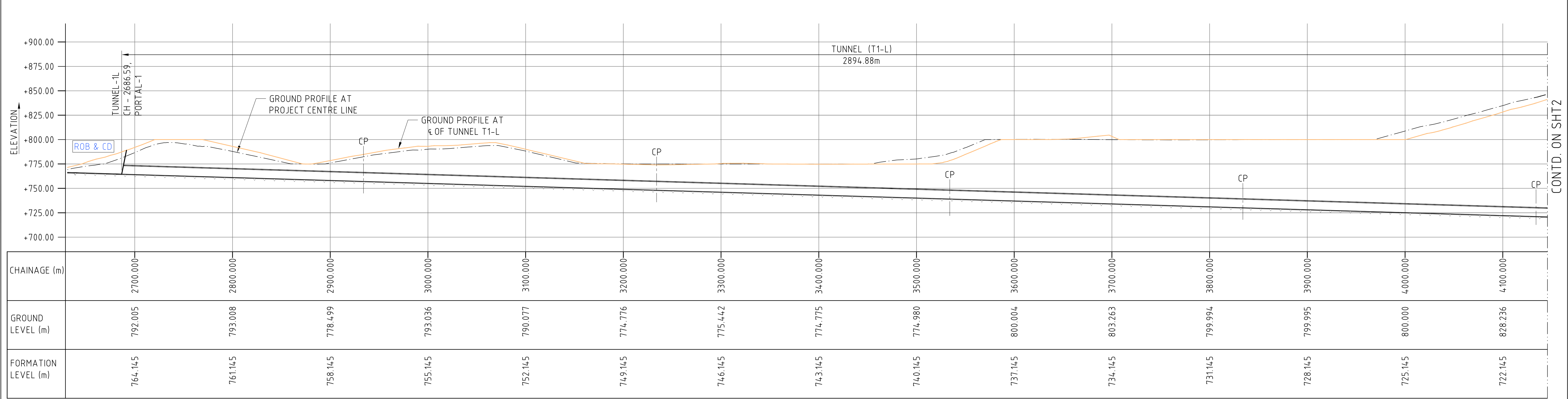
GENERAL NOTES:-

- ALL DIMENSIONS ARE SHOWN IN mm AND LEVELS ARE SHOWN IN METERS UNLESS OTHERWISE SPECIFIED.
- DO NOT SCALE THE DIMENSIONS.
- THE FOUNDATION LEVELS SHOWN IN THE DRAWING ARE TO BE VERIFIED AT SITE BASED ON CONFIRMATORY SUBSOIL INVESTIGATION PRIOR TO COMMENCEMENT OF WORK.
- MAX PRESSURE ON THE SOIL AT FOUNDATION LEVEL IS SPECIFIED IN CONCERNED DETAILED DRAWINGS PERTAINING TO FOUNDATIONS.
- STANDARD OF CARRIAGEWAY LIVE LOAD SHALL BE ONE OF THE FOLLOWING COMBINATIONS WHICH RESULTS IN MOST CRITICAL FORCES.
 - 3-LANES OF CLASS A
 - 1-LANES OF 70 R WHEELED/TRACKED + 1- LANE CLASS A
- STAIR CASES ARE TO BE PROVIDED ON FOOTPATH SIDE OF THE ROB OUTSIDE RAILWAY BOUNDARY TO SUIT PEDESTRIAN TRAFFIC (WHEREVER FOOTPATHS ARE PROVIDED).
- GUARD RAILS SHALL BE PROVIDED ON TRACKS.
- THE GRADE OF CONCRETE FOR VARIOUS RCC/MASS CONCRETE WORKS, & GRADE OF STEEL FOR COMPOSITE STRUCTURES SHALL BE IN ACCORDANCE WITH IRS CONCRETE BRIDGE CODE 1997 & NEW I.S.456-2000 AND IRC CODES AND SPECIFICATIONS ETC.
- EXPANSION JOINT SHALL BE STRIP SEAL JOINTS AS PER MORTH SPECIFICATIONS.
- IN CASE BLASTING TO BE CARRIED OUT IN VICINITY OF RAILWAY LINE, NECESSARY PRECAUTION AND BLOCK SHALL BE OBTAINED AS PER PARA 1006 OF IRW MANUAL.
- DRAINAGE SPOUTS SHALL BE PROVIDED 1.00m AWAY FROM THE CENTRE LINE OF EXISTING/ FUTURE TRACK CONSIDERING THE TRACTION/ FUTURE TRACTION AND SAME HAS TO BE ENSURED IN THE DETAILED DRAWINGS AND BY THE ENGINEER-IN-CHARGE AT SITE.
- DURING CONSTRUCTION A MINIMUM CLEARANCE OF 2360mm TO BE MAINTAINED BETWEEN CENTER LINE OF EXISTING TRACK TO THE FACE OF TEMPORARY ARRANGEMENTS STRUCTURE.
- GRADE OF CONCRETE IN:-
 - DECK SLAB-----= M50
 - SUB STRUCTURE & FOUNDATION -----= M35.
 - APPROACH SLAB -----= M30.
 - PEDESTAL -----= M35.
 - ALL PCC WORK -----= M15.
- THE DETAILS TYPE AND DIMENSIONS OF FOUNDATIONS, SUB-STRUCTURE AND SUPERSTRUCTURE ELEMENTS SHOWN IN THE DRAWING ARE INDICATIVE AND MAY VARY AS PER ACTUAL DESIGN AND DETAILED DRAWINGS. HOWEVER OBLIGATORY CLEARANCES MENTIONED IN THE DRAWINGS SHALL NOT BE REDUCED UNDER ANY CIRCUMSTANCES WITHOUT PRIOR APPROVAL OF DESIGNER.
- SELF SUPPORTING FORM WORK FOR CASTING DECK SLAB SHALL BE ADOPTED IN PLANNING AND DESIGN.
- HIGH CONTAINMENT CRASH BARRIER OF 1.80m HEIGHT WITHIN RAILWAY BOUNDARY AND 1.50M HEIGHT IN APPROACHES BEYOND RAILWAY BOUNDARY FOR MINIMUM LENGTH OF 30.00m SHALL BE PROVIDED AS PER IRC 5 & 6 GUIDE LINES.
- WHEREVER ABUTMENT IS PROPOSED RCC APPROACH SLAB SHALL BE DESIGNED AND PROVIDED TO SATISFY THE CLAUSE 217-3 OF IRC CODE OF PRACTICE. THIS SHALL NOT BE LESS THAN 4.00m IN LENGTH AND SHALL COVER THE FULL WIDTH OF ROAD TO A MINIMUM THICKNESS OF 300mm ON BOTH SIDES OF BRIDGE.
- SOIL FOR REINFORCED EARTH BEHIND MECHANICALLY STABILIZED WALL (MSE WALL) SHALL BE AS PER IRC SPEC.
- THE BEARINGS SHALL BE POT / POT CUM PTFE PIN & METALLIC GUIDED. ALL BEARING SHALL CONFIRM TO MORTH STANDARDS AND SPECIFICATIONS.
- REINFORCEMENT DETAILS OF RCC ABUTMENT AND COMPOSITE GIRDER SHALL BE AS PER APPROVED DESIGN & DRGS BY RAILWAYS.
- TEMPORARY ENGINEERING INDICATOR SHALL BE USED DURING THE EXECUTION OF WORK AS PER RAILWAY MANUAL.
- FOR DETAILS OF DRAINAGE SPOUT, WEARING COURSE & EXPANSION JOINTS REFER RELEVANT DRAWINGS.
- SIZE OF POT/PTFE BEARING SHALL BE AS PER MANUFACTURER'S DESIGN.
- ROB LIES IN SEISMIC ZONE- II
- ROB IS NOT UNDER DEDICATED FREIGHT CORRIDOR.

PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 SHGA-FS-GEN-015 (TYPICAL CROSS-SECTION)	LEGEND: EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT ▣ - BRIDGE DECK --- EXISTING RAILWAY LINE --- FUTURE RAILWAY LINE	REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India) PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780 <small>This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. ©GEOCONSULT, P.Ra, R\16000 Projects\36060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-ROB-1591_C.dwg, 2015-12-18</small>		CLIENT GOVERNMENT OF KARNATAKA
													DRAWING TITLE ROB NEAR CHAINAGE 2400 GENERAL ARRANGEMENT PLAN & SECTION			
		C	DEC 2015	FUTURE TRACK LINE MODIFIED (KD-6)	PRa	RMe	AKg	Date (FIRST ISSUE)	AUG15	AUG15	AUG15	AUG15	AUG15	DRAWING NUMBER SHGA-FS-ROB-1591	REV C	
		B	DEC 2015	ARRANGEMENT AND SPANS MODIFIED (KD-5)	ABa/PRa	RMe	AKg	Name	ABa/PRa	RMe	ADh/AKg	ADh/AKg	AKg			
		A	SEP 2015	FIRST DRAFT	PRa/ABa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved			
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators						SCALE AS SHOWN	MONTH (Current Issue) DEC 2015	


LAYOUT PLAN
SCALE 1:2000

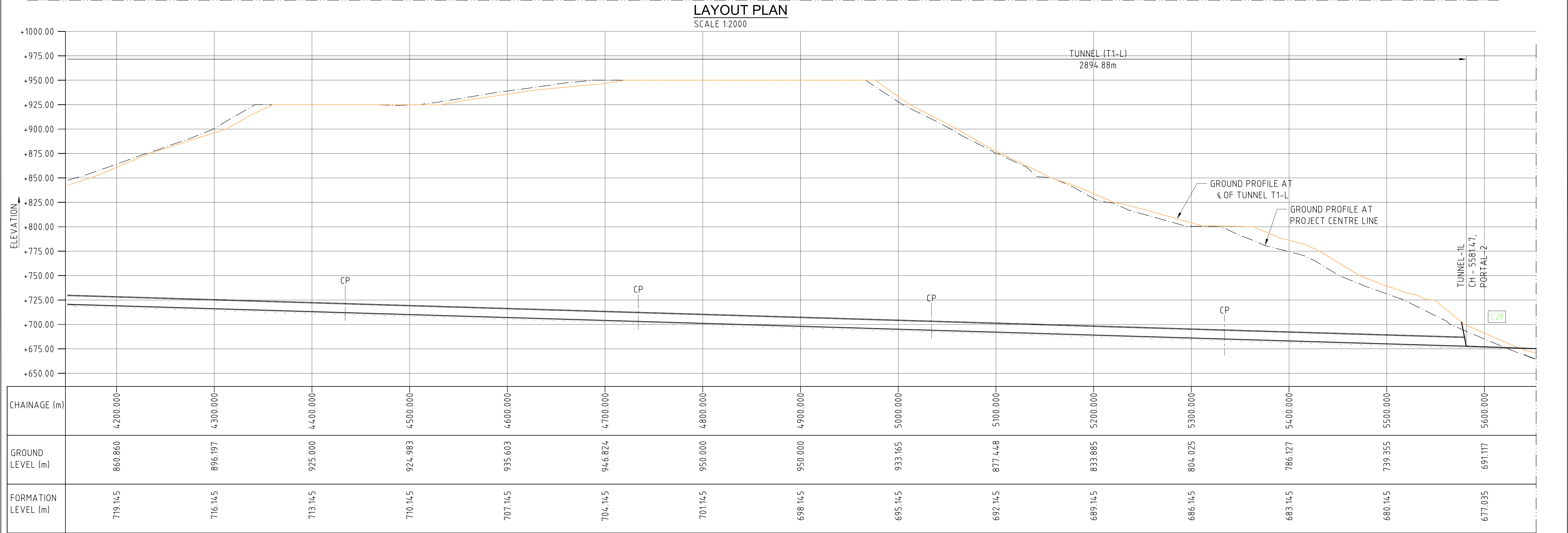
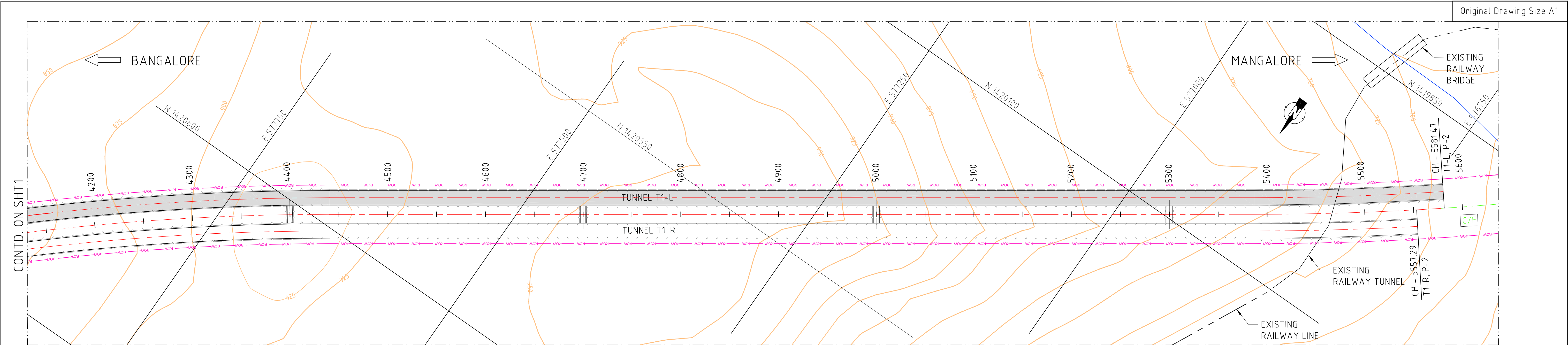


LONGITUDINAL SECTION ALONG T1-L
SCALE 1:2000

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

50m 0 100m 200m

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN M.	LEGEND: <div><div></div> EXISTING ROAD</div> <div><div></div> RIVER/NALA</div> <div><div></div> RAILWAY LINE</div> <div><div></div> ACCESS ROAD</div> <div><div></div> RIGHT OF WAY (ROW)</div>	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA			
					The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.										DRAWING TITLE TUNNEL - T1-L GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT1			
		D	DEC 15	FOURTH SUBMISSION (KD-6)	PRa	RMe	AKg	Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015	SEP 2015	PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING NUMBER SHGA-FS-T1-1100		REV D
		C	DEC 15	THIRD SUBMISSION (KD-5)	PRa	RMe	AKg	Name	PRa	RMe	BRs	BRs	AKg	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		SCALE AS SHOWN		MONTH (Current Issue) DEC 2015
		B	SEP 15	SECOND DRAFT (KD-4)	PRa	RMe	AKg	Drawn	Drafting Chk	Designed	Design Chk	Approved	EGECONSULT, PRa, R\16000 Project\16060-Shiradi Ghat\CURRENT MKD-6\SHGA-FS-T1-L_1100-1151_Dwg, 2015-12-16					
A	AUG 15	FIRST DRAFT (INTERIM PROGRESS-KD3)	PRa	RMe	AKg	Originators												
		REV. DATE	PARTICULARS			Drawn	Checked	Approved										



TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

LONGITUDINAL SECTION ALONG T1-L
SCALE 1:2000

SCALE 1:2000

50m 0 100m 200m

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:

- EXISTING ROAD
- RIVER/NALA
- RAILWAY LINE
- ACCESS ROAD
- ROW
- RIGHT OF WAY (ROW)

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
D	DEC 15	FOURTH SUBMISSION (KD-6)	PRa	RMe	AKg
C	DEC 15	THIRD SUBMISSION (KD-5)	PRa	RMe	AKg
B	SEP 15	SECOND DRAFT (KD-4)	PRa	RMe	AKg
A	AUG 15	FIRST DRAFT (INTERM PROGRESS-KD3)	PRa	RMe	AKg

QUALITY ASSURANCE

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Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015	SEP 2015
Name	PRa	RMe	BRs	BRs	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)

PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

TUNNEL - T1-L
GENERAL ARRANGEMENT
PLAN AND L-SECTION_SHT2

DRAWING NUMBER

SHGA-FS-T1-1100

SCALE

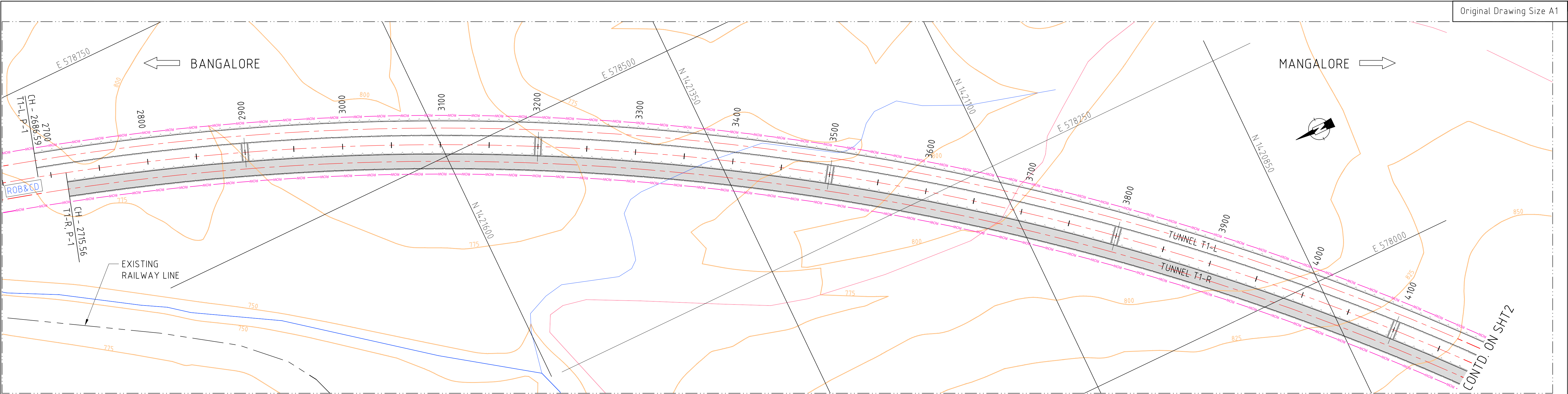
AS SHOWN

MONTH

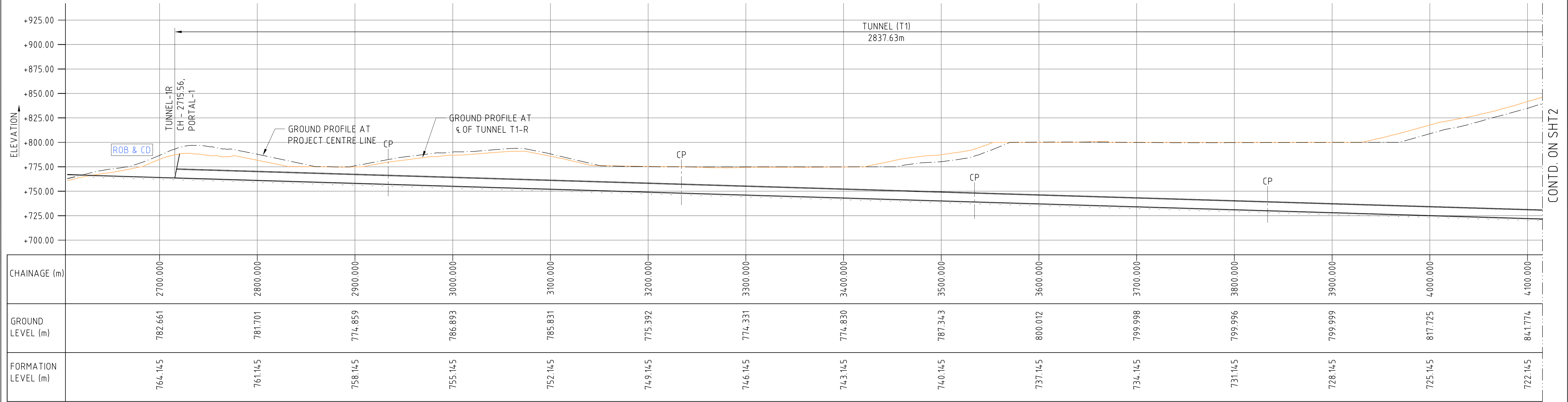
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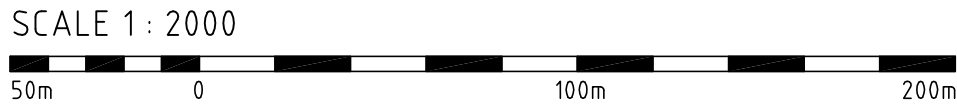


LAYOUT PLAN
SCALE 1:2000




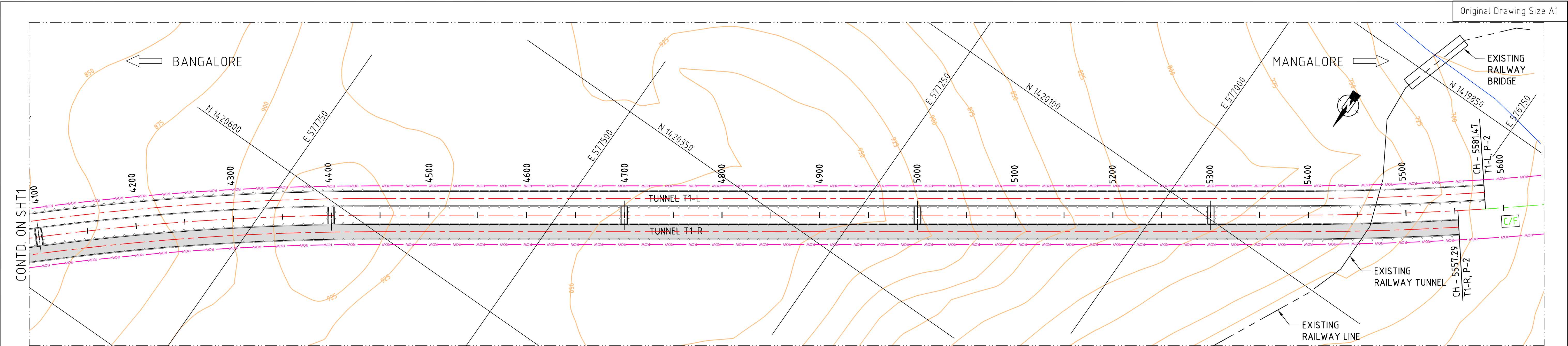
LONGITUDINAL SECTION ALONG T1-R
SCALE 1:2000

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

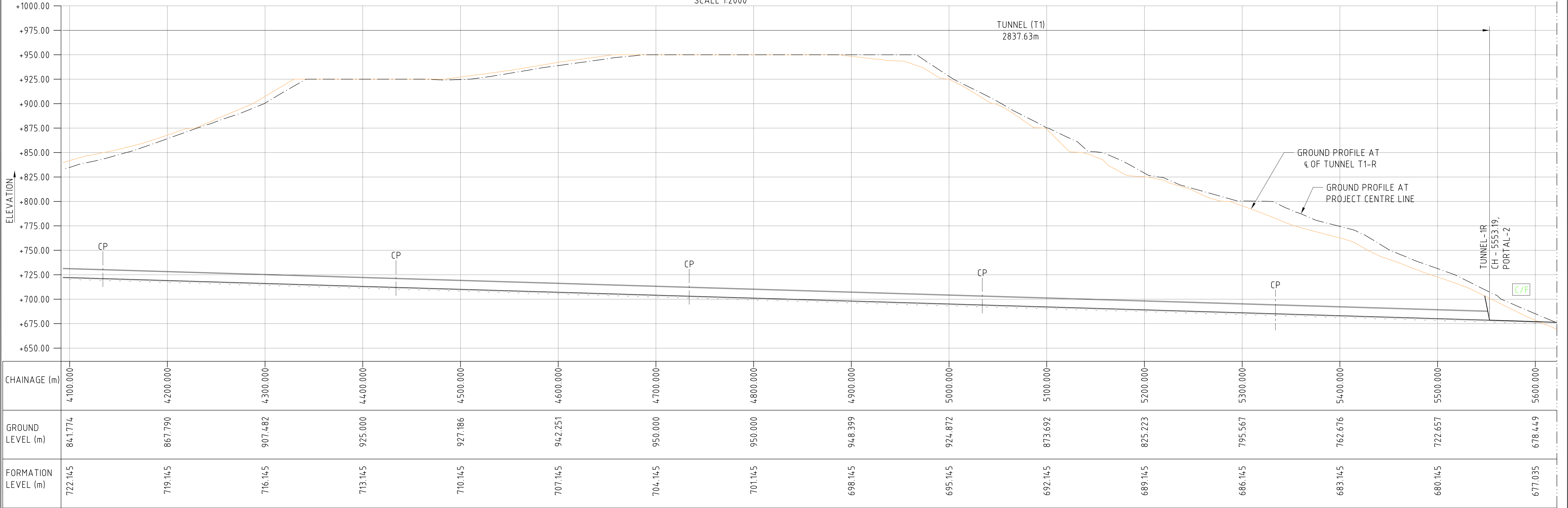


PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION		QUALITY ASSURANCE						DESIGN CONSULTANTS :				CLIENT	
SHGA-FS-LAY-1000		— EXISTING ROAD — RIVER/NALA — RAILWAY LINE — ACCESS ROAD — ROW RIGHT OF WAY (ROW)				The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.										GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)	
NOTES:														PROJECT TITLE		DRAWING TITLE	
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.						D DEC 15 FOURTH SUBMISSION (KD-6) PRa RMe AKg		Date (FIRST ISSUE)		SEP 2015 SEP 2015 SEP 2015 SEP 2015 SEP 2015		CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		TUNNEL - T1-R GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT1			
						C DEC 15 THIRD SUBMISSION (KD-5) PRa RMe AKg		Name		PRa RMe BRs BRs AKg							
						B SEP 15 SECOND DRAFT (KD-4) PRa RMe AKg		Drawn		Drafting Chk Designed Design Chk Approved							
						A AUG 15 FIRST DRAFT (INTERIM PROGRESS-KD3) PRa RMe AKg											
						REV. DATE PARTICULARS Drawn Checked Approved		Originators									

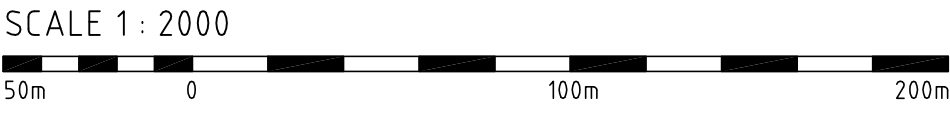


LAYOUT PLAN
SCALE 1:2000





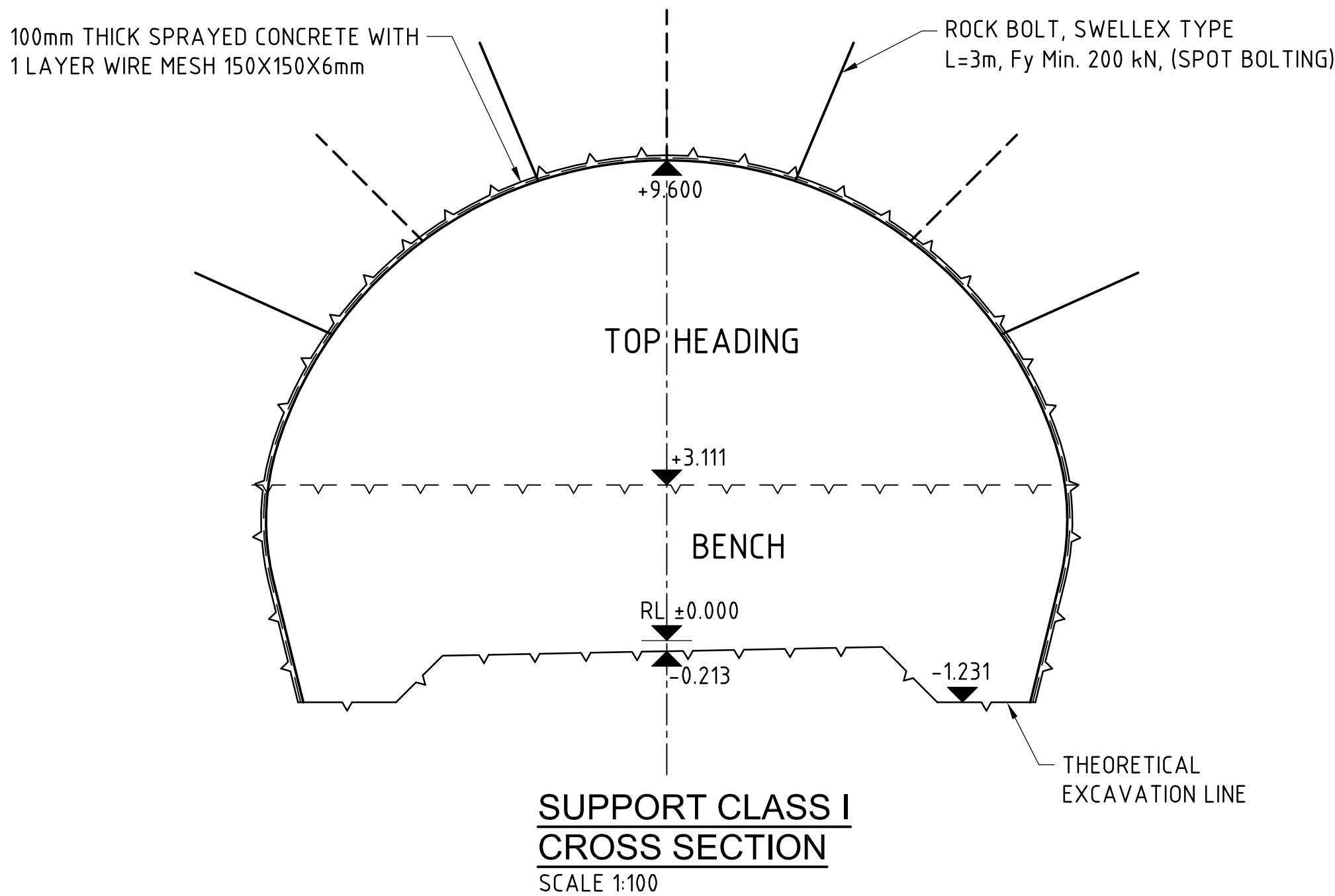
LONGITUDINAL SECTION ALONG T1-R
SCALE 1:2000

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.



PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION		QUALITY ASSURANCE						DESIGN CONSULTANTS :				CLIENT GOVERNMENT OF KARNATAKA					
SHGA-FS-LAY-1000		— EXISTING ROAD — RIVER/NALA - - - RAILWAY LINE — ACCESS ROAD — ROW RIGHT OF WAY (ROW)				The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.												GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN M.				D DEC 15 FOURTH SUBMISSION (KD-6)		PRa RMe AKg		Date (FIRST ISSUE)		SEP 2015 SEP 2015 SEP 2015 SEP 2015 SEP 2015		PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780				DRAWING TITLE TUNNEL - T1-R GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT2					
				C DEC 15 THIRD SUBMISSION (KD-5)		PRa RMe AKg		Name		PRa RMe BRs BRs AKg		CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780						DRAWING NUMBER		REV	
				B SEP 15 SECOND DRAFT (KD-4)		PRa RMe AKg		Drawn		Drafting Chk Designed Design Chk Approved		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.						SHGA-FS-T1-1101		D	
				A AUG 15 FIRST DRAFT (INTERIM PROGRESS-KD3)		PRa RMe AKg						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.				SCALE		MONTH			
				REV. DATE PARTICULARS		Drawn Checked Approved		Originators				GEOCONSULT, PRa, R\16000 Projects\6060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-T1R-T6R_1101-1152_D.dwg, 2015-12-18				AS SHOWN		(Current Issue) DEC 2015			



SUPPORT CLASS I EXCAVATION AND SUPPORT QUANTITIES/m				
TOP HEADING	Excavation	Round Length		>3m
		Theoretical Excavation Volume		79.7 m ³
		Theoretical Excavation Circumference		22.5m
	Support	Sprayed concrete	M25, 100 mm thick	2.2m ³ *
		Swellex bolts	Fy Min. 200 kN, L=3m	1.1 pcs
		Wire Mesh (150x150x6mm)	Outer Layer	22.4m ²
BENCH	Excavation	Round Length		5-6m
		Theoretical Excavation Volume		58.1m ³
		Theoretical Excavation Circumference		24.4m
	Support	Sprayed concrete	M25, 100 mm thick	0.88m ³ *
		Wire Mesh (150x150x6mm)	Outer Layer	8.8m ²

Note : Items marked with * are given In Cu.m/m.

NOTES :

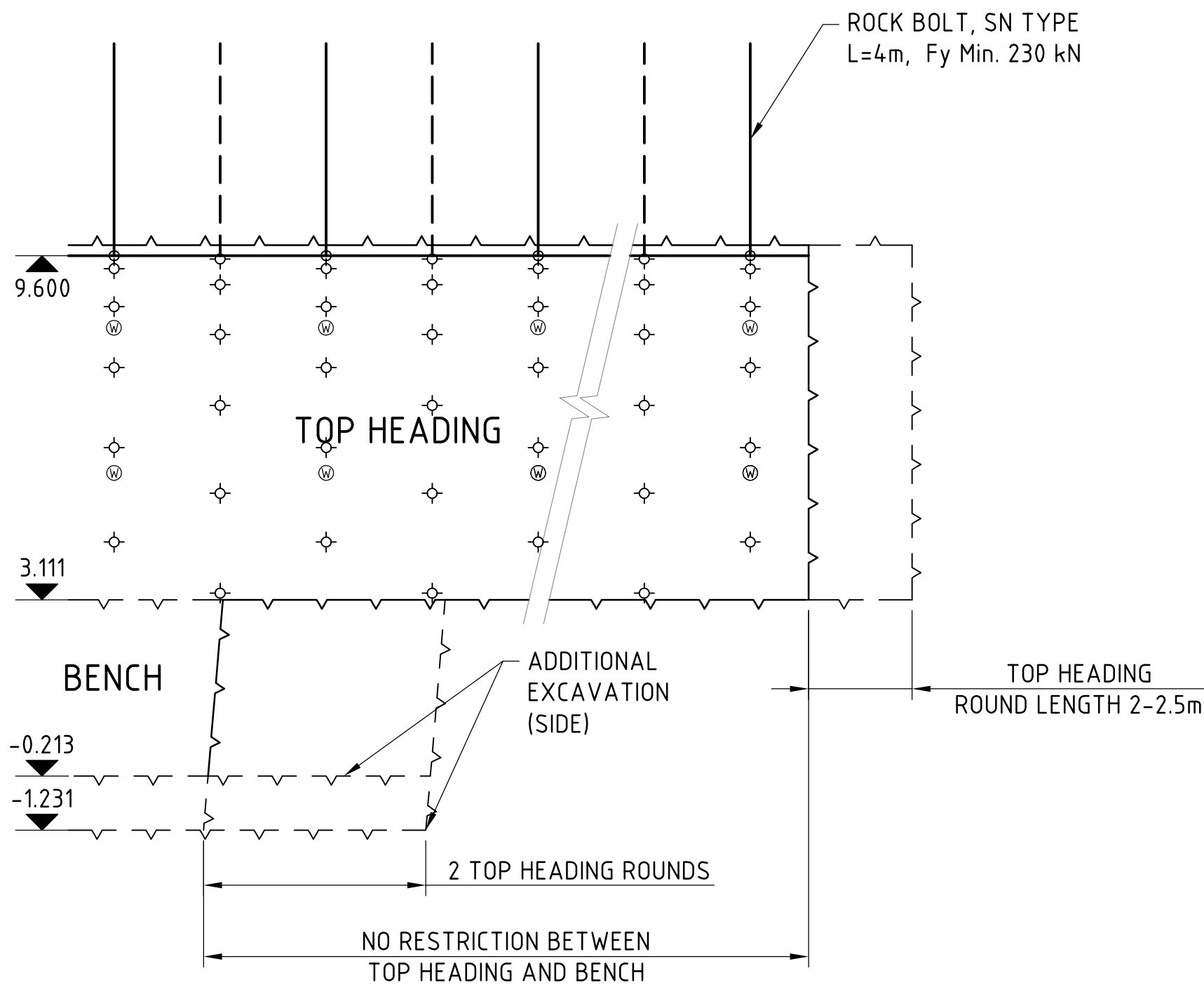
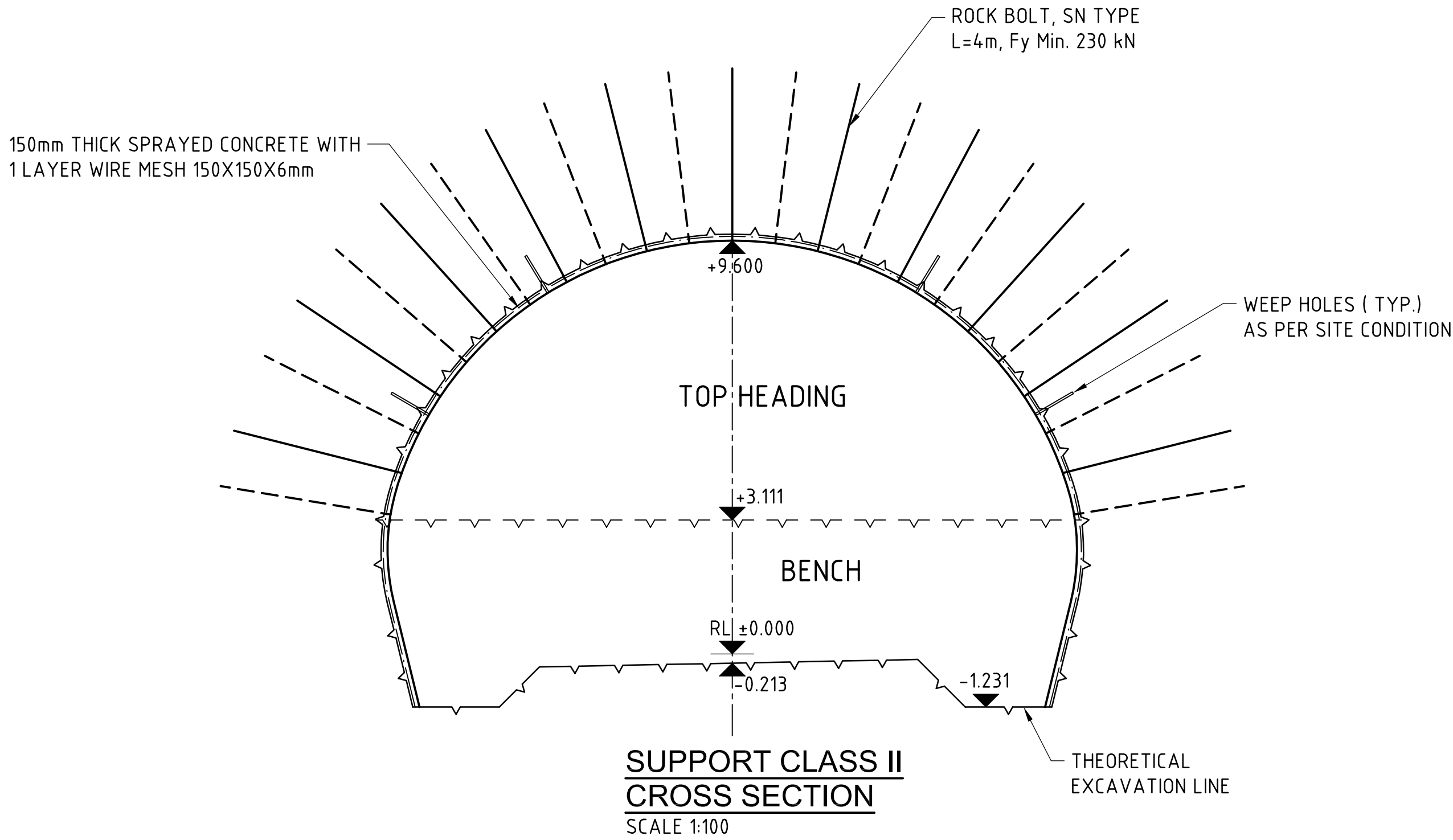
- ALL DIMENSIONS ARE IN METER UNLESS NOTED OTHERWISE.
- EXCAVATION IS TO BE MONITORED ACCORDING TO THE GEOTECHNICAL INSTRUMENTATION PROGRAM.
- SUPPORT MEASURES, ROUND LENGTHS, FACE DISTANCES AND DEFORMATION TOLERANCES HAVE TO BE ADJUSTED TO THE ACTUAL GEOLOGICAL CONDITIONS AND THE MONITORED DEFORMATIONS.
- OVERLAP OF WIRE MESH (R=2 WEBS, L=1 WEB) NOT INCLUDED IN THE QUANTITIES.
- ALL QUANTITIES GIVEN ARE BASED ON AVERAGE ROUND LENGTHS (MEAN VALUE OF RANGE OF ROUND LENGTH GIVEN IN THE RESPECTIVE TABLES).
- SFRS CAN BE UESD IN PLACE OF SPRAYED CONCRETE WITH WIREMESH.

THIS DRAWING IS VALID FOR TUNNEL T1 TO TUNNEL T6

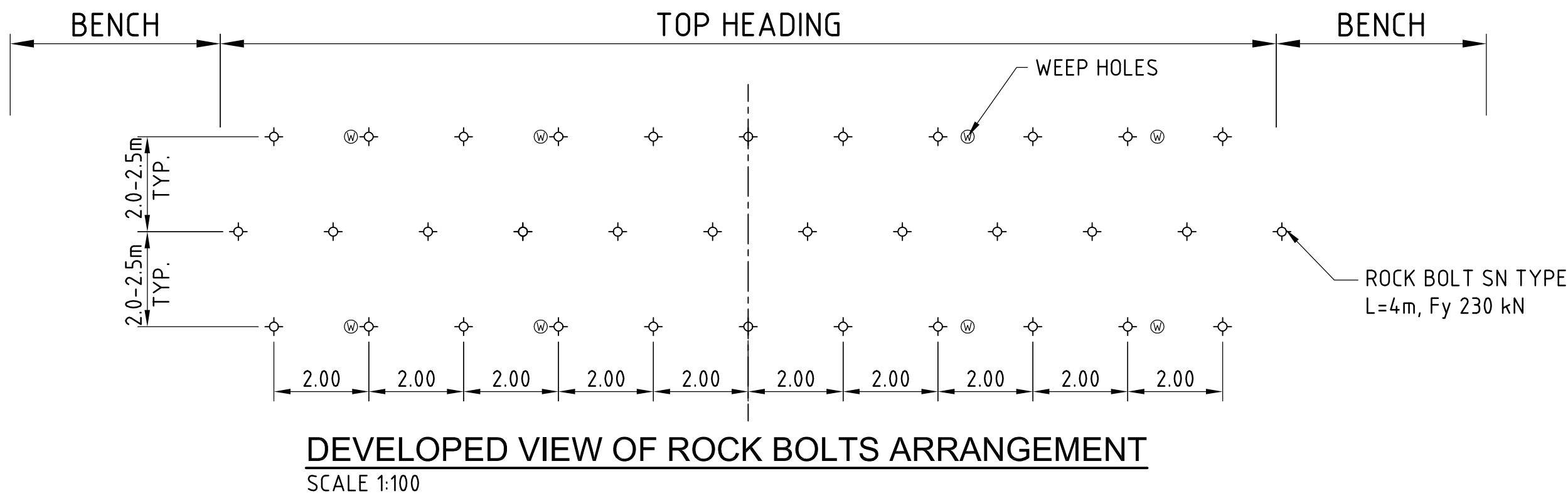


PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS :		GC GEOCONSULT		CLIENT GOVERNMENT OF KARNATAKA	
										The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				DRAWING TITLE MAIN TUNNEL EXCAVATION AND SUPPORT CLASS I	
										PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780										DRAWING NUMBER SHGA-FS-T1-1103	
				B	DEC 2015	SECOND DRAFT (KD 6)	PRa/ABa	RMe	AKg	Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015					REV B	
				A	DEC 2015	FIRST DRAFT (KD 5)	PRa/ABa	RMe	AKg	Name	ABa/PRa	RMe	GMo	PSi	FKr						
				REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators										SCALE 1:100	
																				MONTH (Current Issue) DEC 15	



LONGITUDINAL SECTION
SCALE 1:100



SUPPORT CLASS II EXCAVATION AND SUPPORT QUANTITIES/m					
TOP HEADING	Excavation	Round Length		2-2.5m	
		Theoretical Excavation Volume		80.8 m ³	
		Theoretical Excavation Circumference		22.7 m	
	Support	Sprayed concrete	M25, 150 mm thick	3.3 m ³ *	
		SN Bolts	Fy Min. 230 kN, L=4m	5.1 pcs	
		Wire Mesh (150x150x6mm)	Outer Layer	22.5m ²	
BENCH	Excavation	Round Length		4-5m	
		Theoretical Excavation Volume		58.6m ³	
		Theoretical Excavation Circumference		24.5m	
	Support	Sprayed concrete	M25, 150 mm thick	1.3m ³ *	
		Wire Mesh (150x150x6mm)	Outer Layer	8.8m ²	

Note : Items marked with * are given In Cu.m/m.


NOTES :

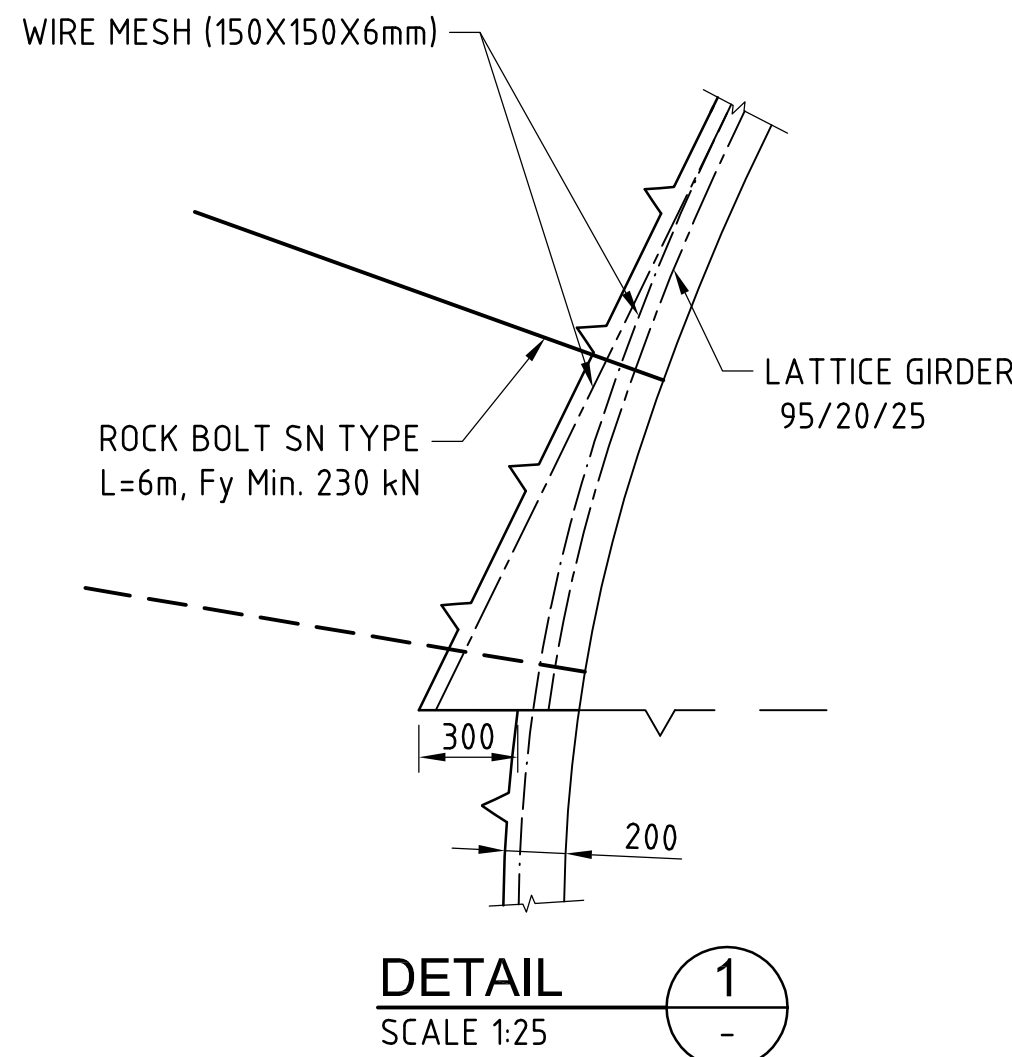
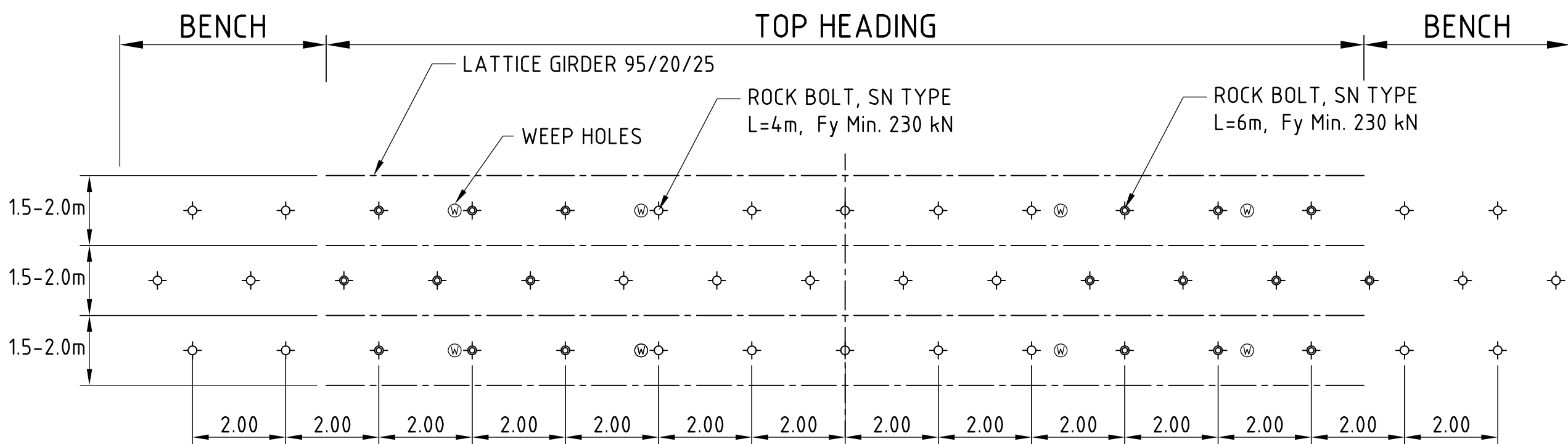
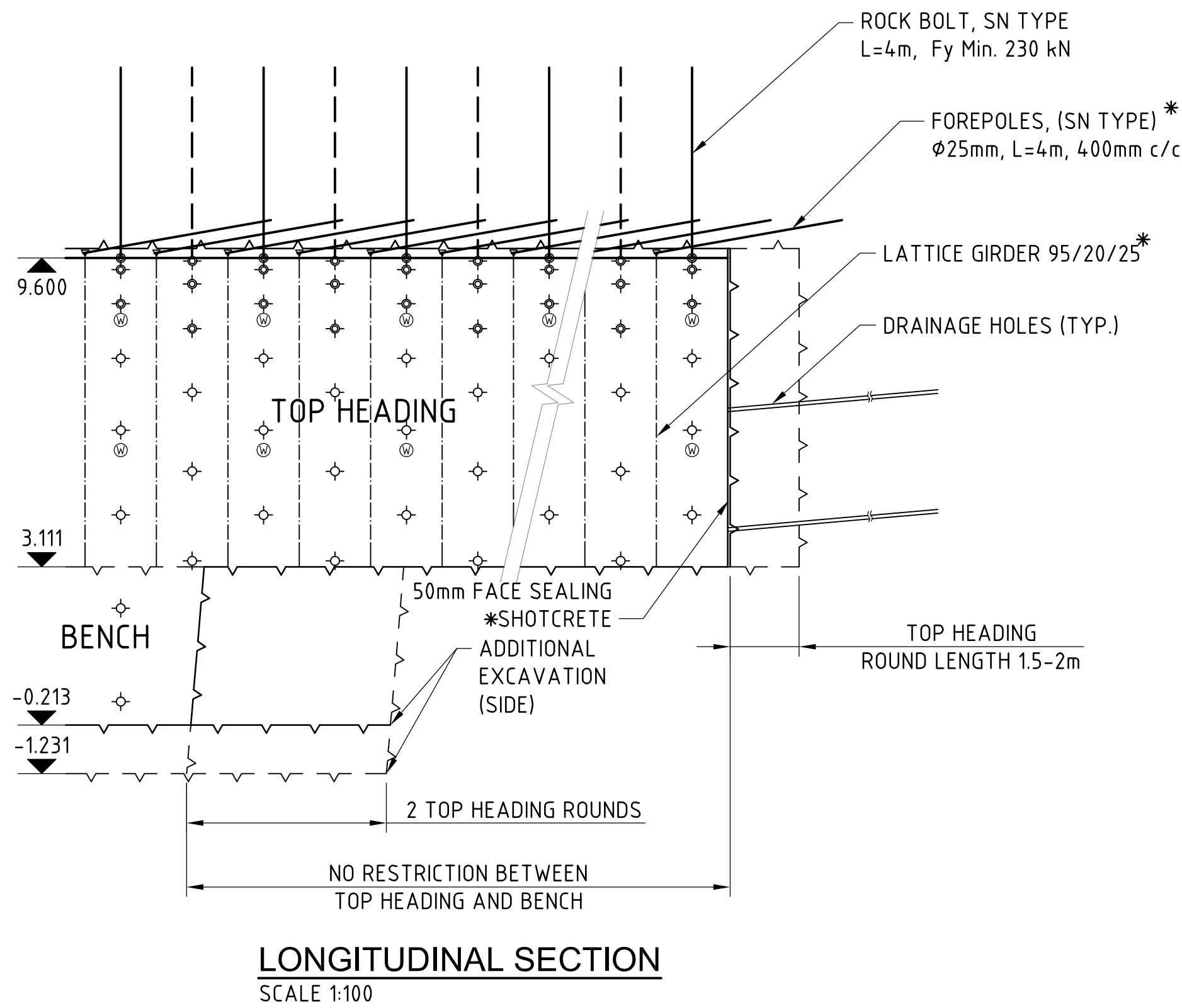
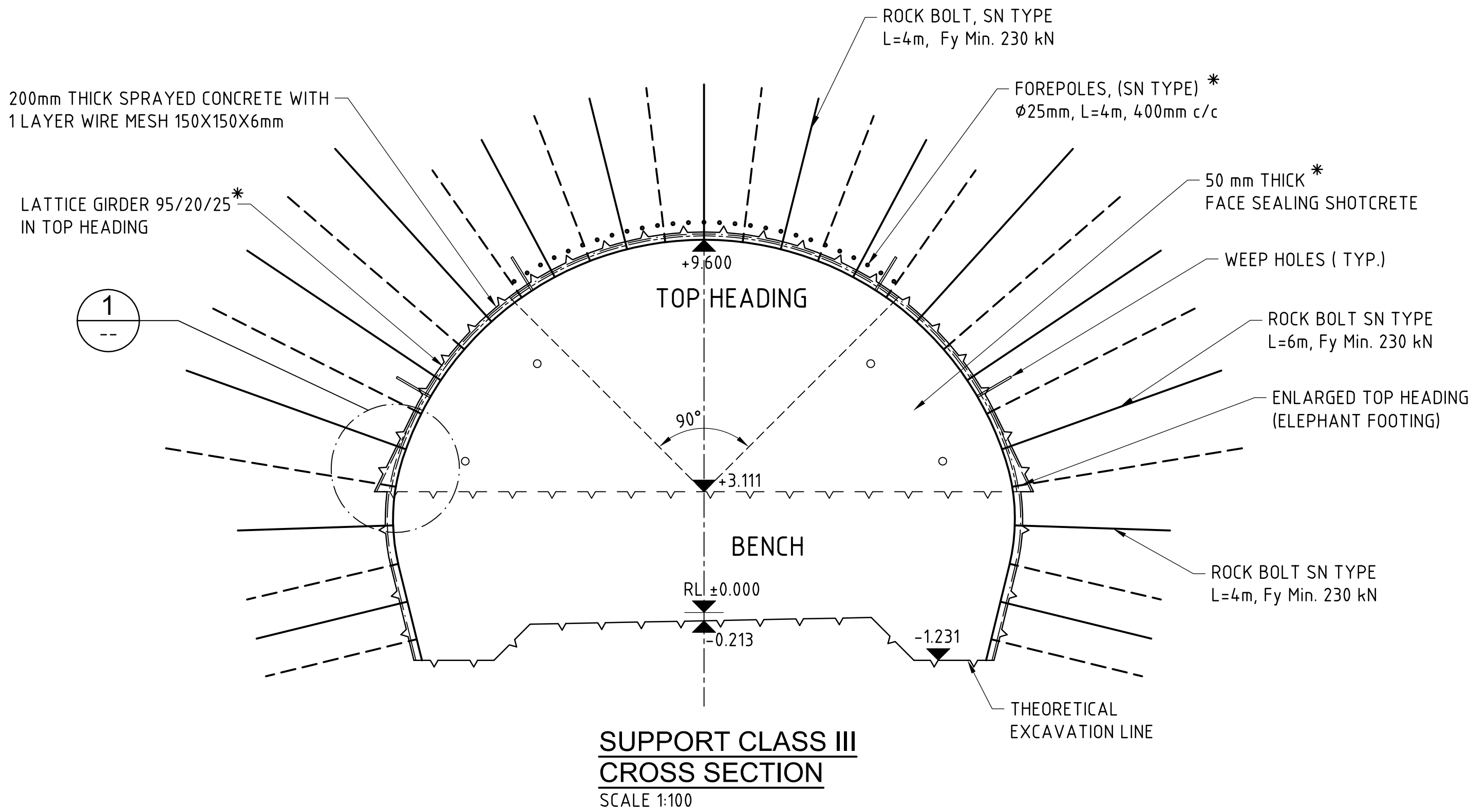
- ALL DIMENSIONS ARE IN METER UNLESS NOTED OTHERWISE.
- EXCAVATION IS TO BE MONITORED ACCORDING TO THE GEOTECHNICAL INSTRUMENTATION PROGRAM.
- SUPPORT MEASURES, ROUND LENGTHS, FACE DISTANCES AND DEFORMATION TOLERANCES HAVE TO BE ADJUSTED TO THE ACTUAL GEOLOGICAL CONDITIONS AND THE MONITORED DEFORMATIONS.
- OVERLAP OF WIRE MESH (R=2 WEBS, L=1 WEB) NOT INCLUDED IN THE QUANTITIES.
- ALL QUANTITIES GIVEN ARE BASED ON AVERAGE ROUND LENGTHS (MEAN VALUE OF RANGE OF ROUND LENGTH GIVEN IN THE RESPECTIVE TABLES).
- SFRS CAN BE UESD IN PLACE OF SPRAYED CONCRETE WITH WIREMESH.



THIS DRAWING IS VALID FOR TUNNEL T1 TO TUNNEL T6

PRELIMINARY

REFERENCE DRAWINGS:	LEGEND: ❖ SN BOLTS, L=4m, Fy = Min. 230kN ⊙ WEEP HOLES	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA	
					The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780				DRAWING TITLE MAIN TUNNEL EXCAVATION AND SUPPORT CLASS II	
					Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015			DRAWING NUMBER		REV	
		B	DEC 2015	SECOND DRAFT (KD 6)	PRa/ABa	RMe	AKg	Name	ABa/PRa	RMe	GMo	PSi	FKr	SHGA-FS-T1-1104		B
		A	DEC 2015	FIRST DRAFT (KD 5)	PRa/ABa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved			
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators						SCALE 1:100		MONTH (Current Issue) DEC15



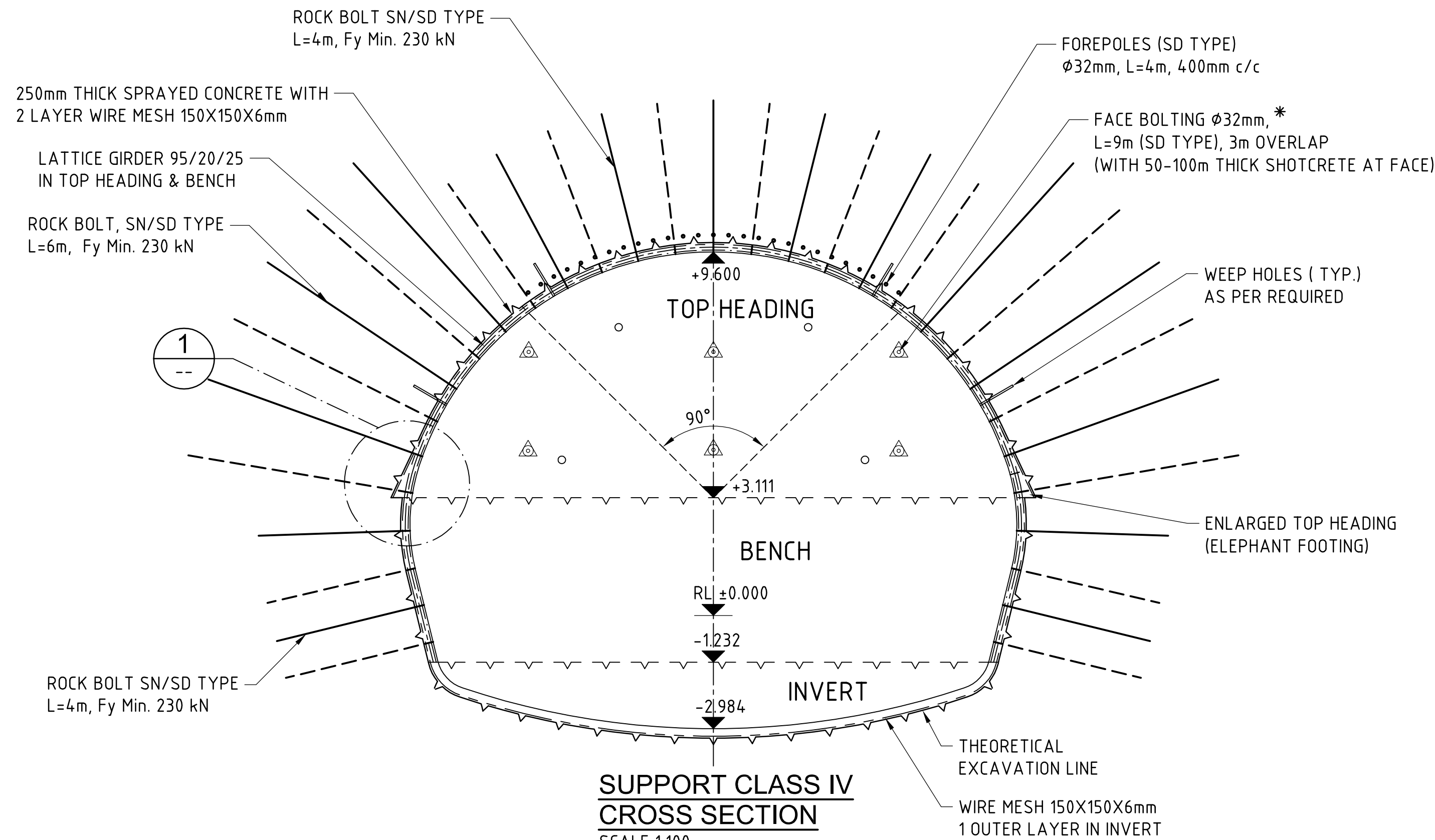
SUPPORT CLASS III EXCAVATION AND SUPPORT QUANTITIES/m				
TOP HEADING	Excavation	Round Length		1.5-2m
		Theoretical Excavation Volume (Including Elephant Footing)		82.4 m ³
		Theoretical Excavation Circumference		23.1 m
	Support	Sprayed concrete	M25, 200 mm thick	4.9 m ³ *
		SN Bolts	Fy Min. 230 kN, L=6m	3.4 pcs
		SN Bolts	Fy Min. 230 kN, L=4m	3.1 pcs
		Lattice Girder 95/20/25 @ 11.5kg/m		12.8 m
		Forepoling SN Bolts (if required)	Ø 25 mm L= 4m	7.7pcs
		Wire Mesh (150x150x6mm)	Outer Layer	26.9 m ²
		Drainage Pipes		6 m
	Face Support	Shotcrete (if required)	M25, 50 mm THICK	1.1 m ³
BENCH	Excavation	Round Length		3-4m
		Theoretical Excavation Volume		59.0m ³
		Theoretical Excavation Circumference		24.6m
	Support	Sprayed concrete	M25, 200 mm thick	1.7m ³ *
		SN Bolts	Fy Min. 230 kN, L=4m	2.2 pcs
	Support	Wire Mesh (150x150x6mm)	Outer Layer	8.8m ²

Note : Items marked with * are given In Cu.m/m.

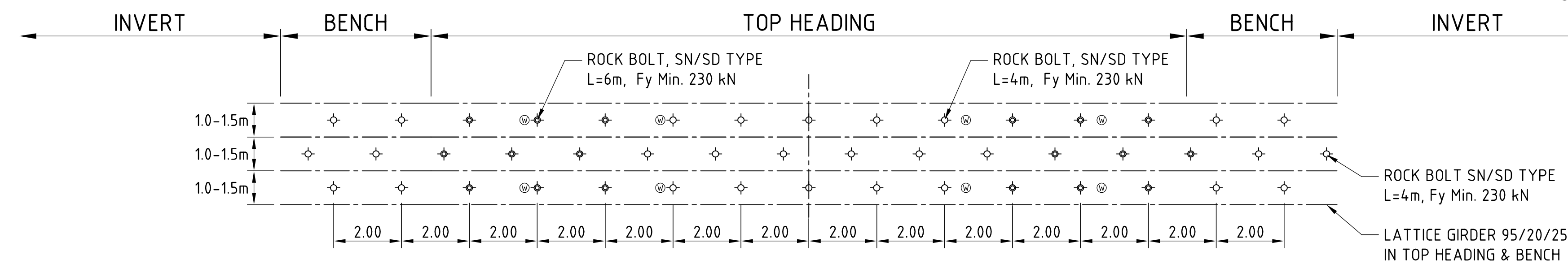
THIS DRAWING IS VALID FOR TUNNEL T1 TO TUNNEL T6

PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION		QUALITY ASSURANCE		DESIGN CONSULTANTS :		CLIENT	
		◇ SN BOLTS, L=4m, Fy = Min. 230kN						GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA	
		◇ SN BOLTS, L=6m, Fy = Min. 230kN						PROJECT TITLE		DRAWING TITLE	
		⊗ WEEP HOLES						CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		MAIN TUNNEL EXCAVATION AND SUPPORT CLASS III	
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								SCALE		SHGA-FS-T1-1105	
								MONTH		REV	
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								DEC 15			



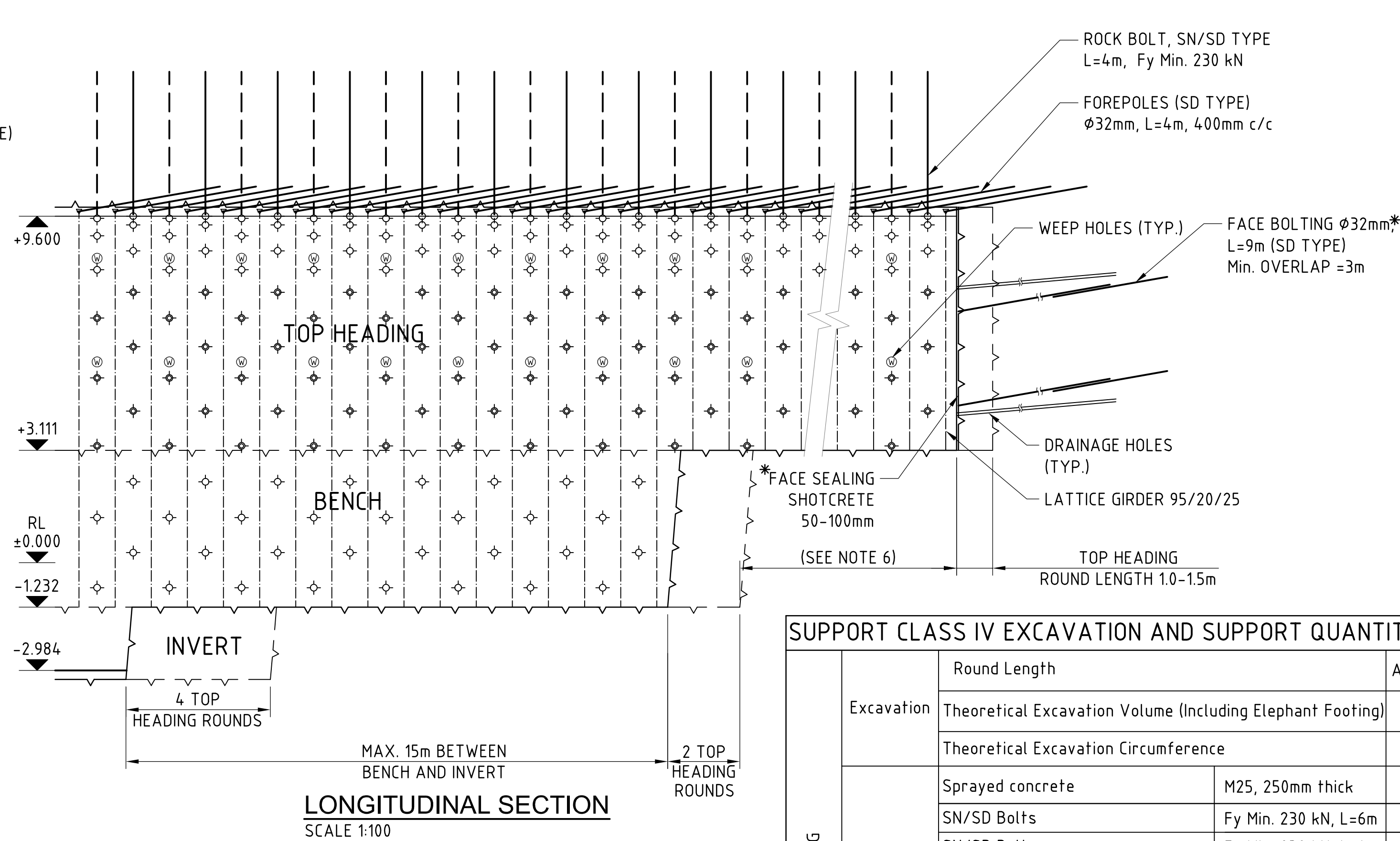
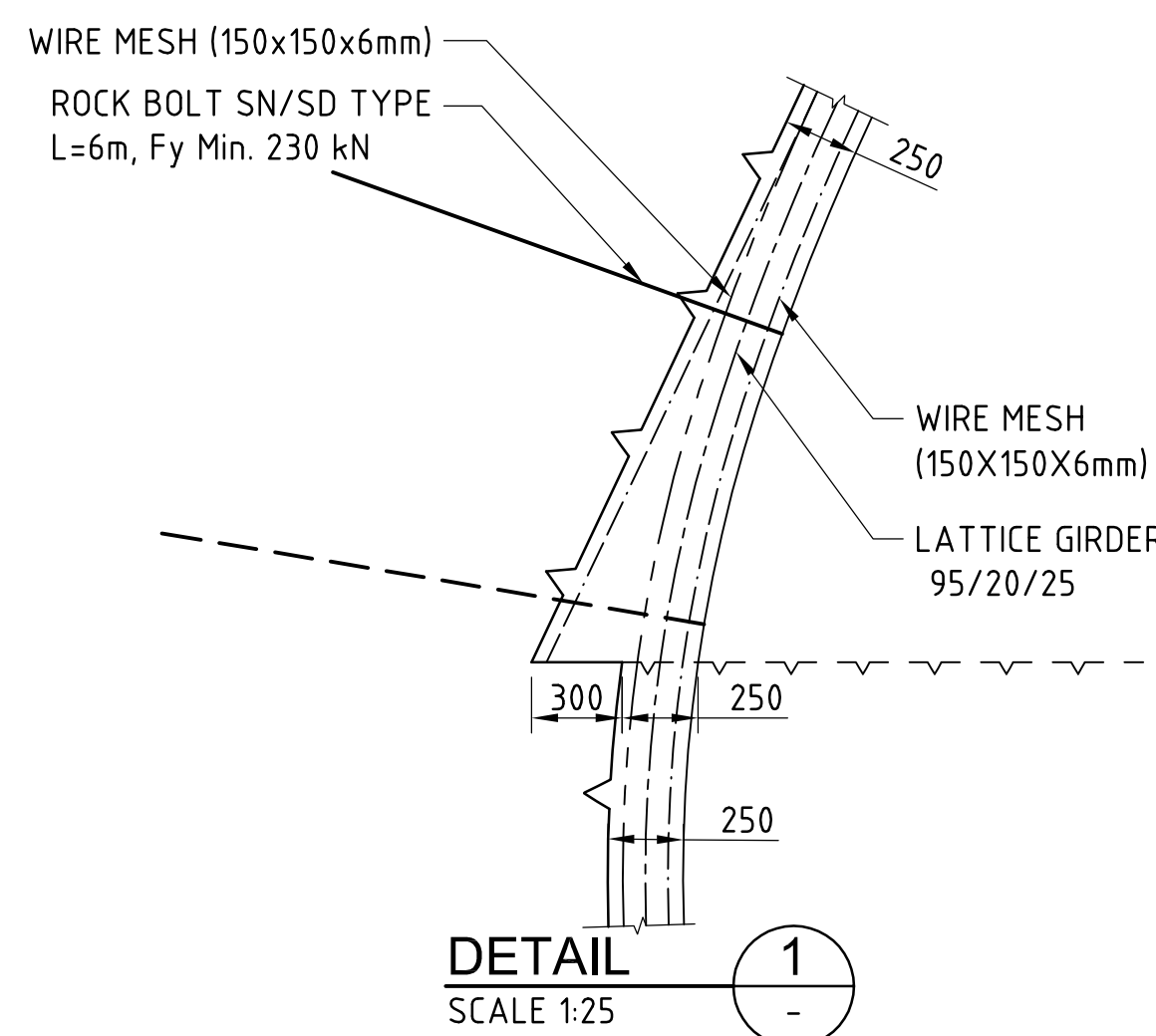
ITEMS MARKED WITH * SHOULD BE PROVIDED IF REQUIRED



DEVELOPED VIEW OF ROCK BOLTS AND LATTICE GIRDER ARRANGEMENT
SCALE 1:100

NOTES :


- ALL DIMENSIONS ARE IN METER UNLESS NOTED OTHERWISE.
- EXCAVATION IS TO BE MONITORED ACCORDING TO THE GEOTECHNICAL INSTRUMENTATION PROGRAM.
- SUPPORT MEASURES, ROUND LENGTHS, FACE DISTANCES AND DEFORMATION TOLERANCES HAVE TO BE ADJUSTED TO THE ACTUAL GEOLOGICAL CONDITIONS AND THE MONITORED DEFORMATIONS.
- OVERLAP OF WIRE MESH (R=2 WEBS, L=1 WEB) NOT INCLUDED IN THE QUANTITIES.
- ALL QUANTITIES GIVEN ARE BASED ON AVERAGE ROUND LENGTHS (MEAN VALUE OF RANGE OF ROUND LENGTH GIVEN IN THE RESPECTIVE TABLES).
- MAXIMUM DISTANCE BETWEEN TOP HEADING AND BENCH TO BE DECIDED BY THE GEOTECHNICAL ENGINEER ACCORDING TO ENCOUNTERED GEOLOGICAL CONDITIONS.
- IN CASE OF BORE HOLE COLLAPSE, SD BOLTS TO BE PROVIDED INSTEAD OF SN BOLTS.
- SFRS CAN BE USED IN PLACE OF SPRAYED CONCRETE WITH WIRE MESH.

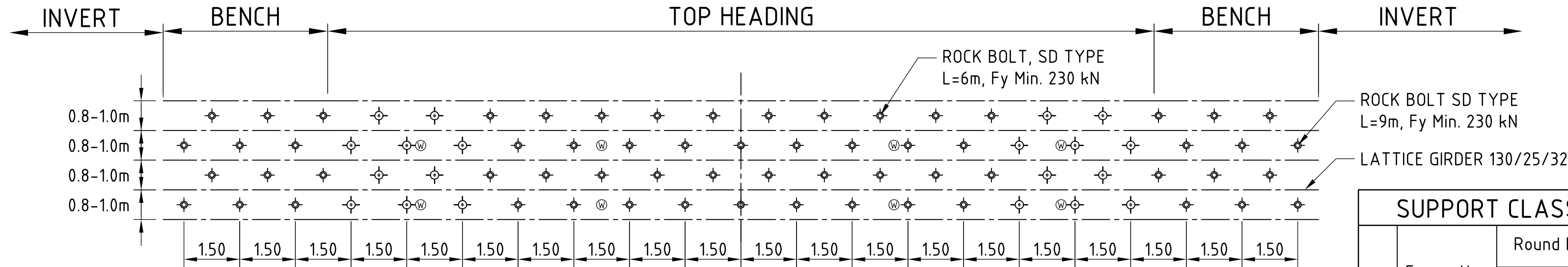
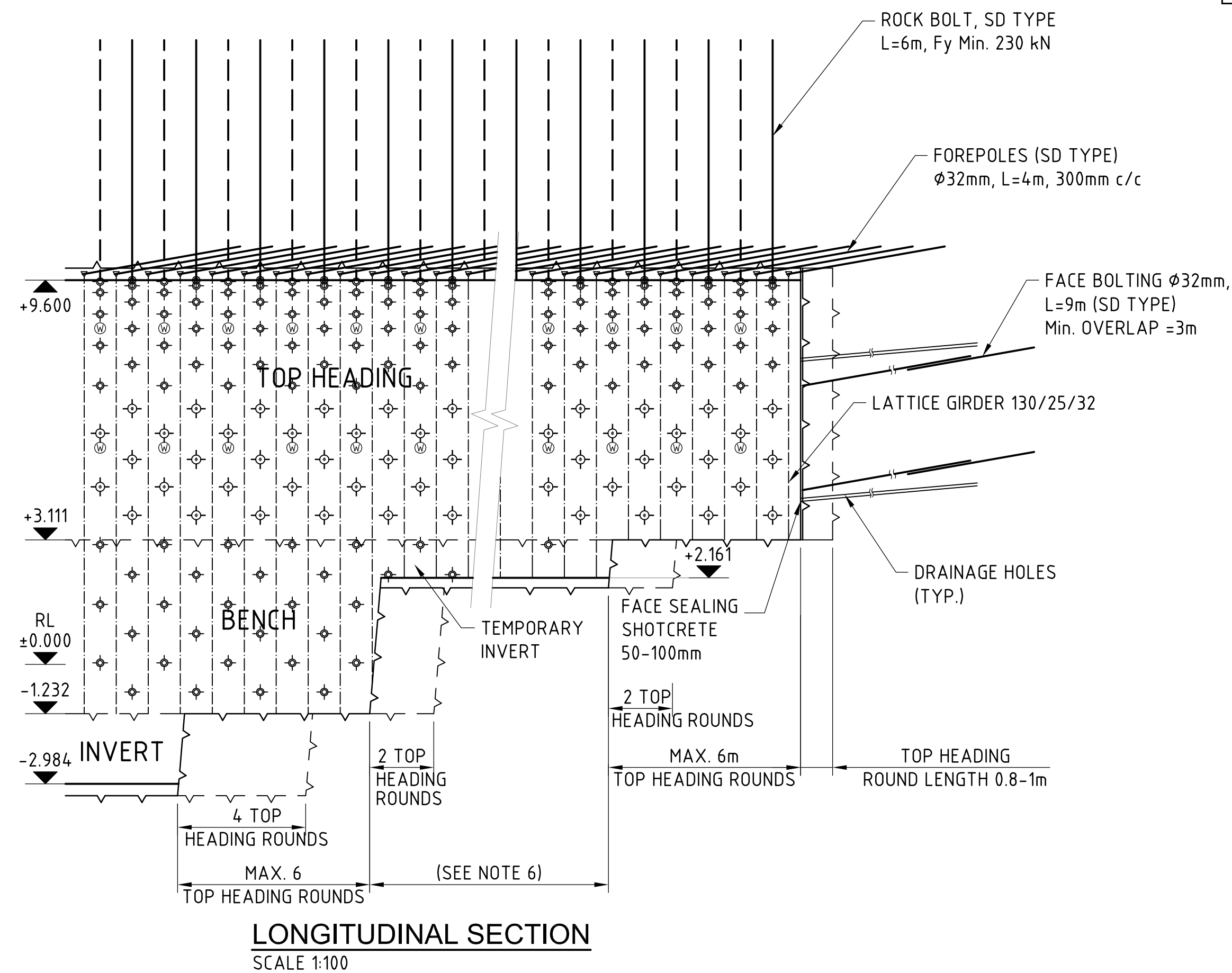
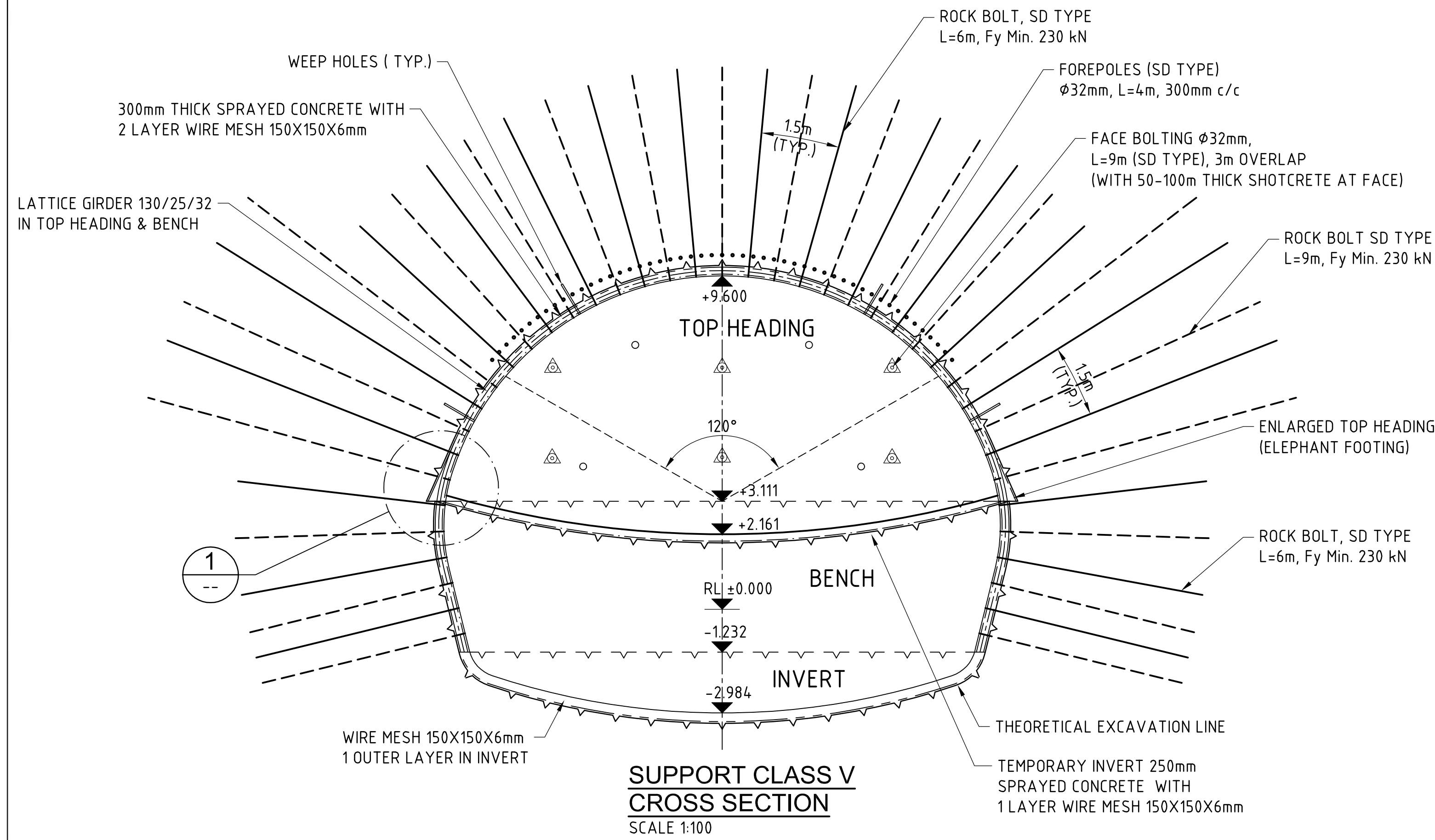


SUPPORT CLASS IV EXCAVATION AND SUPPORT QUANTITIES/m					
TOP HEADING	Excavation	Round Length		Avg. 1-1.5m	
		Theoretical Excavation Volume (Including Elephant Footing)		83.5 m ³	
		Theoretical Excavation Circumference		23.2 m	
	Support	Sprayed concrete	M25, 250mm thick	6.0 m ³ *	
		SN/SD Bolts	Fy Min. 230 kN, L=6m	4.8 pcs	
		SN/SD Bolts	Fy Min. 230 kN, L=4m	4.4 pcs	
		Lattice Girder 95/20/25 @ 11.5kg/m		18.1 m	
		Forepoling SD Bolts	Ø32mm, L=4m	21.6 pcs	
		Wire Mesh (150x150x6mm)	Outer Layer	27.0 m ²	
			Inner Layer	22.4 m ²	
		Drainage Pipes		6 m	
	Face Support	Shotcrete	M25, 50-100mm thick	6.2 m ³	
		SD type Face Bolt (if required)	L=9m, Ø32mm	0.5 pcs	
BENCH	Excavation	Round Length		2-3m	
		Theoretical Excavation Volume		69.4m ³	
		Theoretical Excavation Circumference		8.8m	
	Support	Sprayed concrete	M25, 250mm thick	2.2m ³ *	
		Lattice Girder - 95/20/25 @ 11.5kg/m		7.0m	
		SN/SD Bolts	Fy Min. 230 kN, L=4m	3.2 pcs	
		Wire Mesh (150x150x6mm)	Outer Layer	8.8m ²	
			Inner Layer	8.8m ²	
INVERT	Excavation	Round Length		4-6m	
		Theoretical Excavation Volume		23.0 m ³	
		Theoretical Excavation Circumference		16.2m	
	Support	Sprayed concrete	M25, 250mm thick	3.9m ³ *	
		Wire Mesh (150x150x6mm)	Outer Layer	16.0 m ²	
			Inner Layer	NIL	

Note : Items marked with * are given In Cu.m/m.

PRELIMINARY

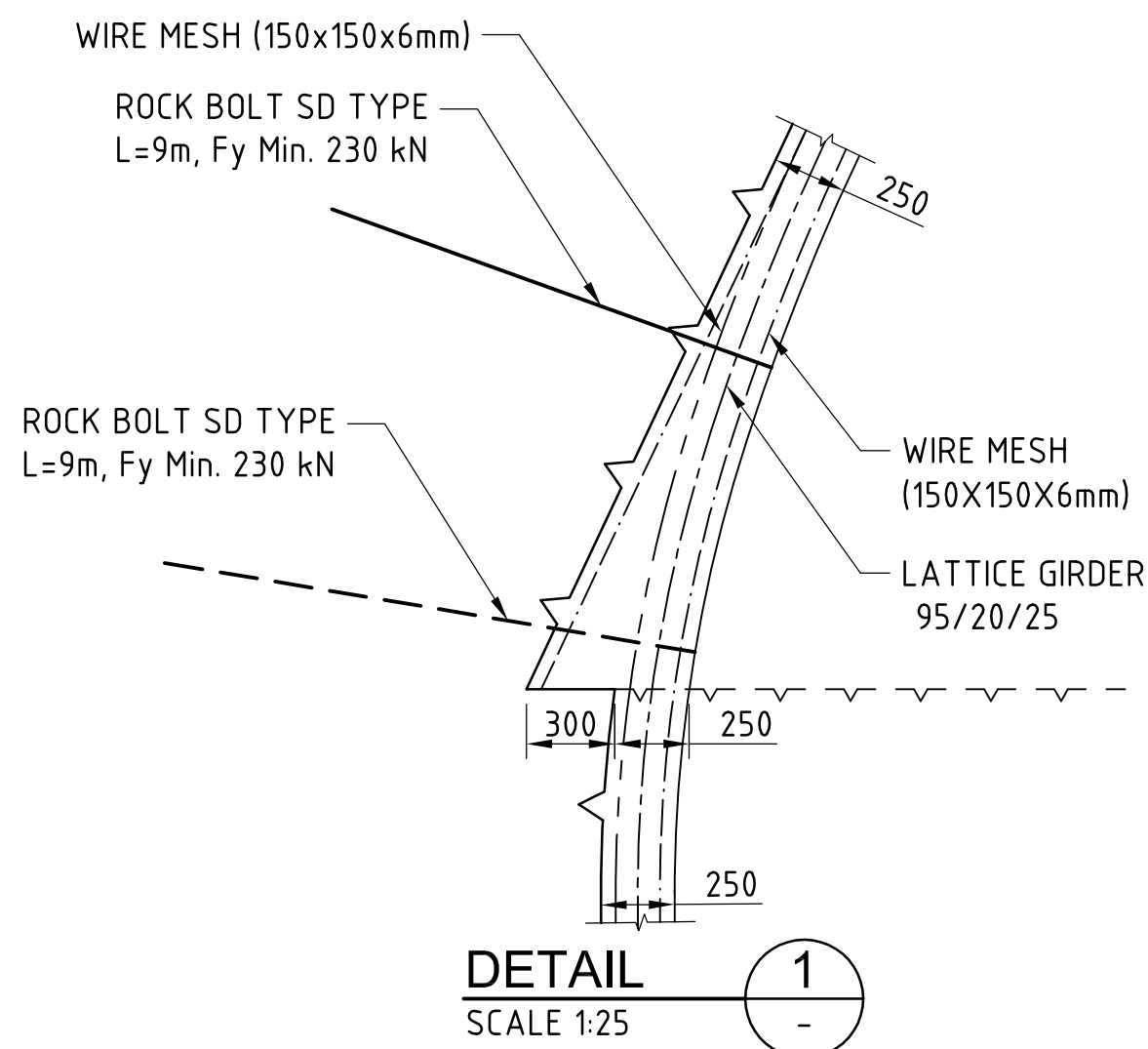
REFERENCE DRAWINGS:	LEGEND: ✧ SN/SD BOLTS, L=4m, Fy = Min. 230kN ✧ SN/SD BOLTS, L=6m, Fy = Min. 230kN △ FACE BOLTING, L=9m, ϕ32mm ⊗ WEEP HOLES	REVISION					QUALITY ASSURANCE					DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA
														DRAWING TITLE MAIN TUNNEL
														EXCAVATION AND SUPPORT
														CLASS IV
														DRAWING NUMBER
														REV
														B
													SCALE 1:100, 1:25	MONTH (Current Issue) DEC 15



DEVELOPED VIEW OF ROCK BOLTS AND LATTICE GIRDER ARRANGEMENT
SCALE 1:100

NOTES :

- ALL DIMENSIONS ARE IN METER UNLESS NOTED OTHERWISE.
- EXCAVATION IS TO BE MONITORED ACCORDING TO THE GEOTECHNICAL INSTRUMENTATION PROGRAM.
- SUPPORT MEASURES, ROUND LENGTHS, FACE DISTANCES AND DEFORMATION TOLERANCES HAVE TO BE ADJUSTED TO THE ACTUAL GEOLOGICAL CONDITIONS AND THE MONITORED DEFORMATIONS.
- OVERLAP OF WIRE MESH (R=2 WEBS, L=1 WEB) NOT INCLUDED IN THE QUANTITIES.
- ALL QUANTITIES GIVEN ARE BASED ON AVERAGE ROUND LENGTHS (MEAN VALUE OF RANGE OF ROUND LENGTH GIVEN IN THE RESPECTIVE TABLES).
- MAXIMUM DISTANCE BETWEEN TOP HEADING AND BENCH TO BE DECIDED BY THE GEOTECHNICAL ENGINEER ACCORDING TO ENCOUNTERED GEOLOGICAL CONDITIONS.
- SFRS CAN BE USED IN PLACE OF SPRAYED CONCRETE WITH WIRE MESH.



SUPPORT CLASS V EXCAVATION AND SUPPORT QUANTITIES/m			
Excavation	Round Length	Avg. 0.8-1m	
	Theoretical Excavation Volume (Including Elephant Footing)	84.5 m ³	
	Theoretical Excavation Circumference (Including Elephant Footing)	23.3 m	
Support	Sprayed concrete (Including Elephant Footing)	M25, 300 mm thick	7.0m ³ *
	SD Bolts	Fy Min. 230 kN, L=9m	5.5 pcs
	SD Bolts	Fy Min. 230 kN, L=6m	10.5 pcs
	Lattice Girder 130/25/32 @ 17.6kg/m		25.2 m
	Forepoling SD Bolts	Ø32mm, L=4m	56.6pcs
	Wire Mesh (150x150x6mm)	Outer Layer	26.8 m ²
		Inner Layer	22.4 m ²
	Drainage Pipes Quantity		6 m
Face Support	Shotcrete	M25, 50-100 mm thick	8.6 m ³
	SD type Face Bolt	L=9m, Ø32 mm	1 pcs
Temporary Invert	Theoretical Excavation Volume		13.2 m ³
	Shotcrete	M25, 250 mm thick	4.0 m ³ *
	Wire Mesh (150x150x6mm)	Outer Layer	16.2 m ²


SUPPORT CLASS V EXCAVATION AND SUPPORT QUANTITIES/m			
Excavation	Round Length	1.6-2m	
	Theoretical Excavation Volume	56.6m ³	
	Theoretical Excavation Circumference	8.8m	
Support	Sprayed concrete	M25, 300 mm thick	2.6m ³ *
	Lattice Girder - 130/25/32 @ 17.6kg/m		9.6m
	SD Bolts	Fy Min. 230 kN, L=6m	6.6 pc
	Wire Mesh (150x150x6mm)	Outer Layer	8.8m ²
		Inner Layer	8.6m ²
Excavation	Round Length	3.2-4m	
	Theoretical Excavation Volume	23.8 m ³	
	Theoretical Excavation Circumference	16.3m	
Support	Sprayed concrete	M25, 300 mm thick	4.7m ³ *
	Wire Mesh (150x150x6mm)	Outer Layer	16.2 m ²

Note : Items marked with * are given in Cu.m/m.

SCALE 1 : 100




PRELIMINARY

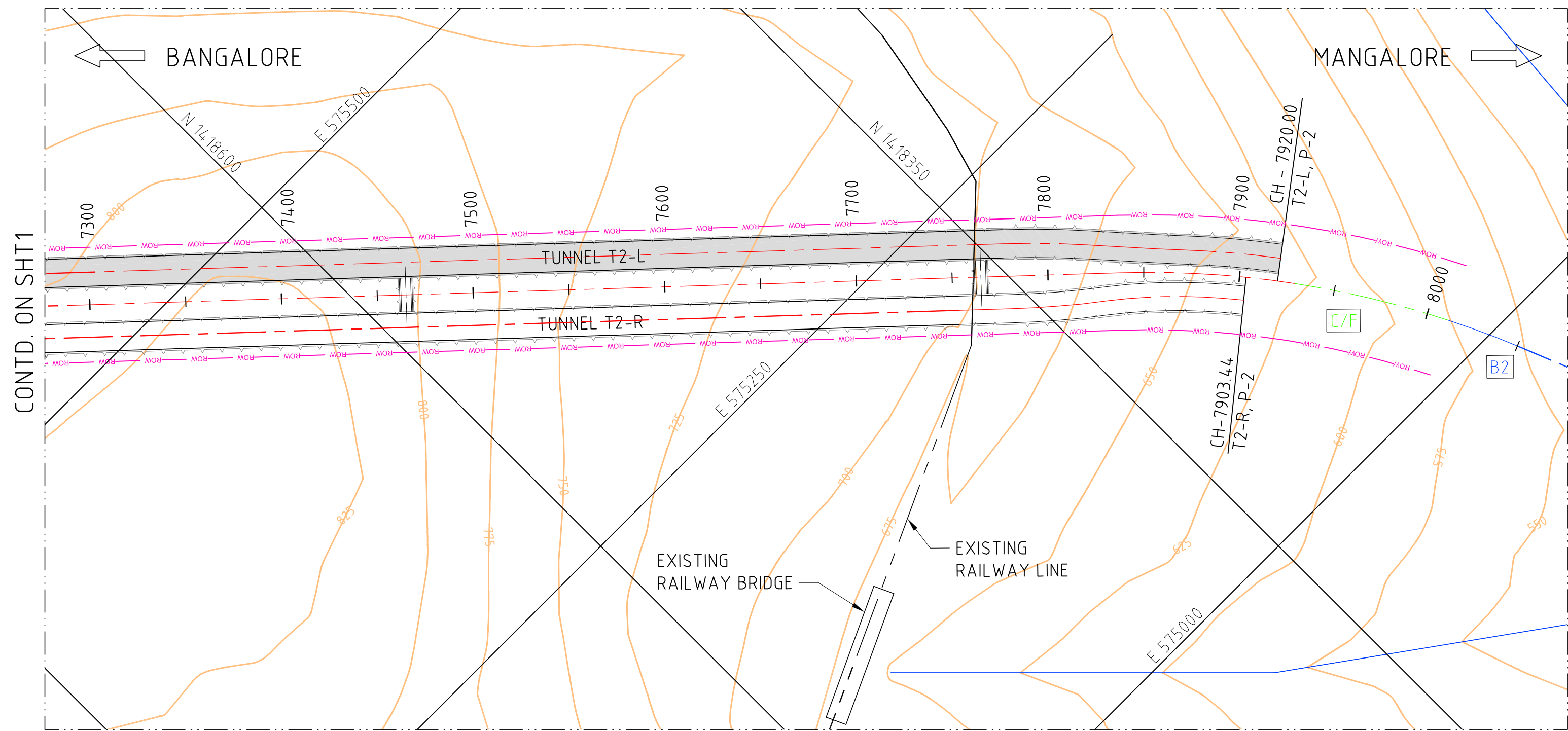
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							The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					PROJECT TITLE			DRAWING TITLE MAIN TUNNEL	
												CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			EXCAVATION AND SUPPORT CLASS V	
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												GEOCONSULT, P.Ra, R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-T1-1106 TO 1107_B.dwg, 2015-12-18			REV B	
															SCALE 1:100,1:25	
															MONTH (Current Issue) DEC 15	

Profile view graph showing ELEVATION (m) vs CHAINAGE (m). The graph displays the ground profile (orange line), the proposed tunnel profile (dashed line), and the formation level (solid line). Key features include 'TUNNEL-2L CH - 5863.07, PORTAL-1' at chainage 5863.07, 'TUNNEL(T2) 2056.93m' at chainage 6056.93, and 'GROUND PROFILE AT CL OF TUNNEL T2-L' at chainage 6863.07. The graph is labeled 'CONTD. ON SHT 2'.

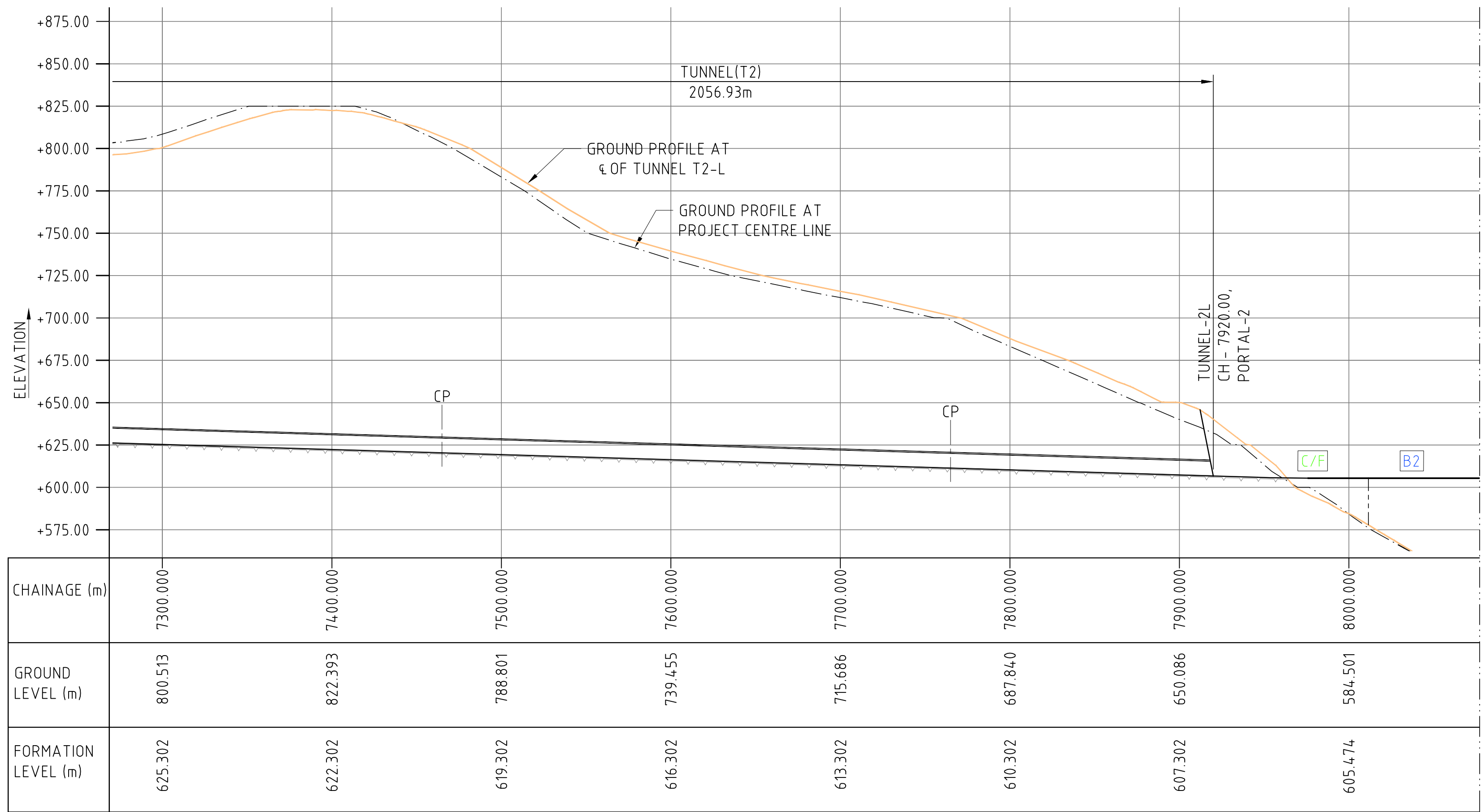
CHAINAGE (m)	GROUND LEVEL (m)	FORMATION LEVEL (m)
5900.000	697.741	667.302
6000.000	730.925	664.302
6100.000	759.182	661.302
6200.000	777.575	658.302
6300.000	785.062	655.302
6400.000	775.020	652.302
6500.000	768.114	649.302
6600.000	759.913	646.302
6700.000	743.897	643.302
6800.000	736.883	640.302
6900.000	751.462	637.302
7000.000	759.000	634.302
7100.000	772.786	631.302
7200.000	791.690	628.302
7300.000	800.513	625.302

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

REFERENCE DRAWINGS: SHGA-FS-LAY-1000	LEGEND: — EXISTING ROAD — RIVER/NALA — RAILWAY LINE — ACCESS ROAD — RIGHT OF WAY (ROW)	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA	
					The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780				DRAWING TITLE TUNNEL - T2-L GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT1	
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.		D	DEC 15	FOURTH SUBMISSION (KD-6)	PRa	RMe	AKg	Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015	SEP 2015	DRAWING NUMBER SHGA-FS-T2-1111		REV D
		C	DEC 15	THIRD SUBMISSION (KD-5)	PRa	RMe	AKg	Name	PRa	RMe	BRs	BRs	AKg	SCALE AS SHOWN		MONTH (Current Issue)
		B	SEP 15	SECOND DRAFT (KD-4)	PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved	This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		
		A	AUG 15	FIRST DRAFT (INTERIM PROGRESS-KD3)	PRa	RMe	AKg							GEOCONSULT, PRa, R/16000 Projects/16060-Shiradi Ghat/CURRENT/WD-6/SHGA-FS-T1-T6L_1100-1151_Dwg, 2015-12-18		
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators								



SCALE 1:2000




LONGITUDINAL SECTION ALONG T2-L

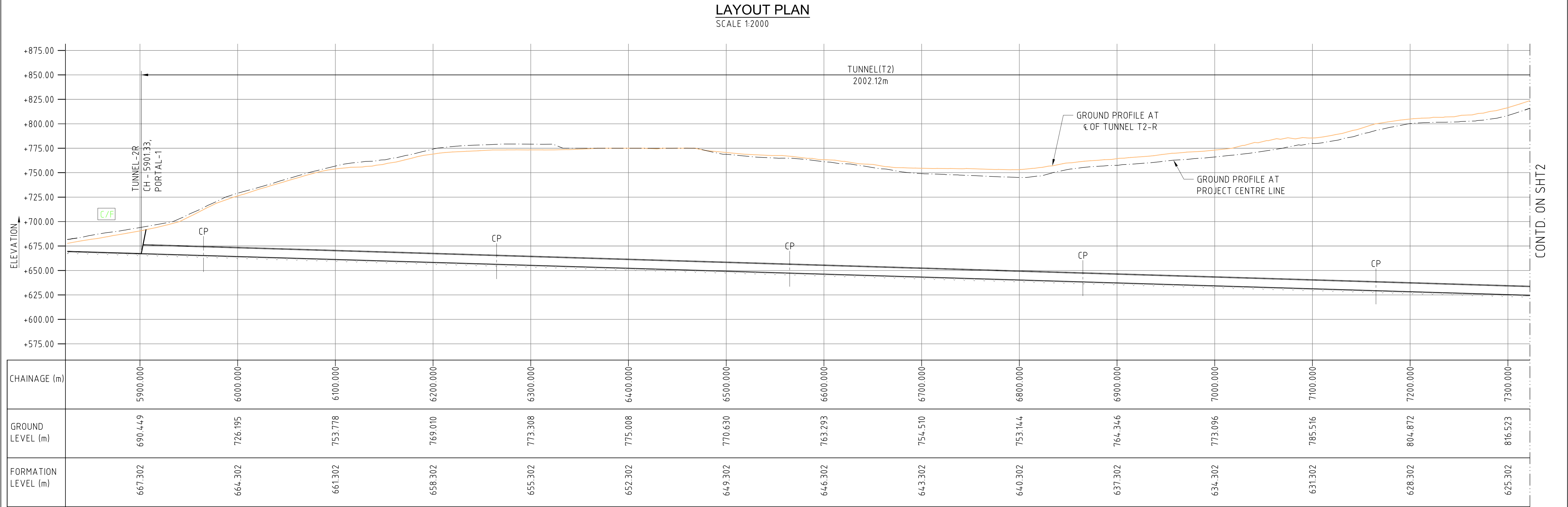
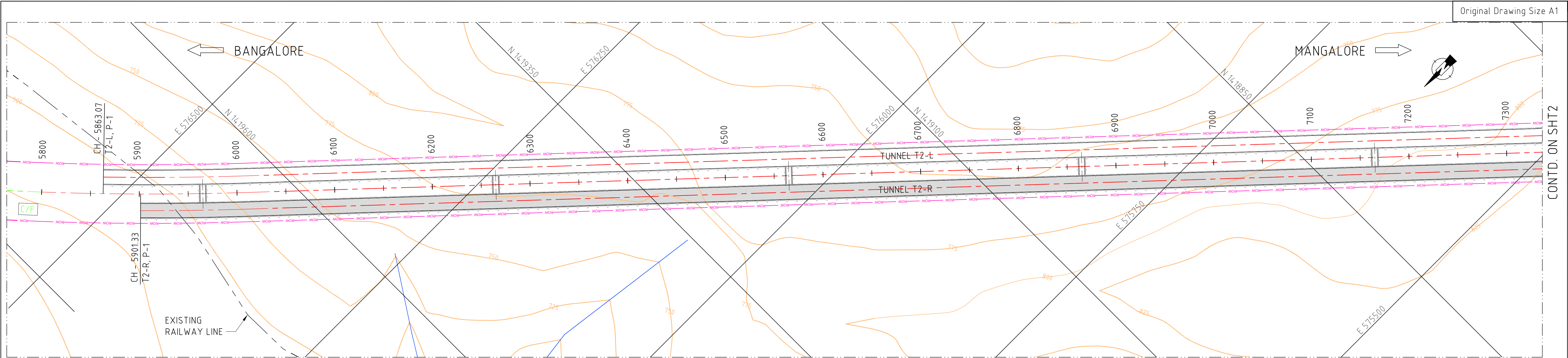
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SCALE 1 : 2000



PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.	LEGEND: — EXISTING ROAD — RIVER/NALA - - - RAILWAY LINE — ACCESS ROAD — RIGHT OF WAY (ROW)	REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA		
													DRAWING TITLE TUNNEL - T2-L				
													GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT2				
		D	DEC 15	FOURTH SUBMISSION (KD-6)	PRa	RMe	AKg							DRAWING NUMBER SHGA-FS-T2-1111			
		C	DEC 15	THIRD SUBMISSION (KD-5)	PRa	RMe	AKg	Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015	SEP 2015	REV D			
		B	SEP 15	SECOND DRAFT (KD-4)	PRa	RMe	AKg	Name	PRa	RMe	BRs	BRs	AKg	SCALE AS SHOWN			
		A	AUG 15	FIRST DRAFT (INTERIM PROGRESS-KD3)	PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved	MONTH (Current Issue) DEC 2015			
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators									
		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.															
		GEOCONSULT, PRa, R/16000 Project/V6060-Shiradi Ghat/CURRENT VKD-6/SHGA-FS-FR-T6L-1100-1151_Dwg, 2015-12-18															



TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

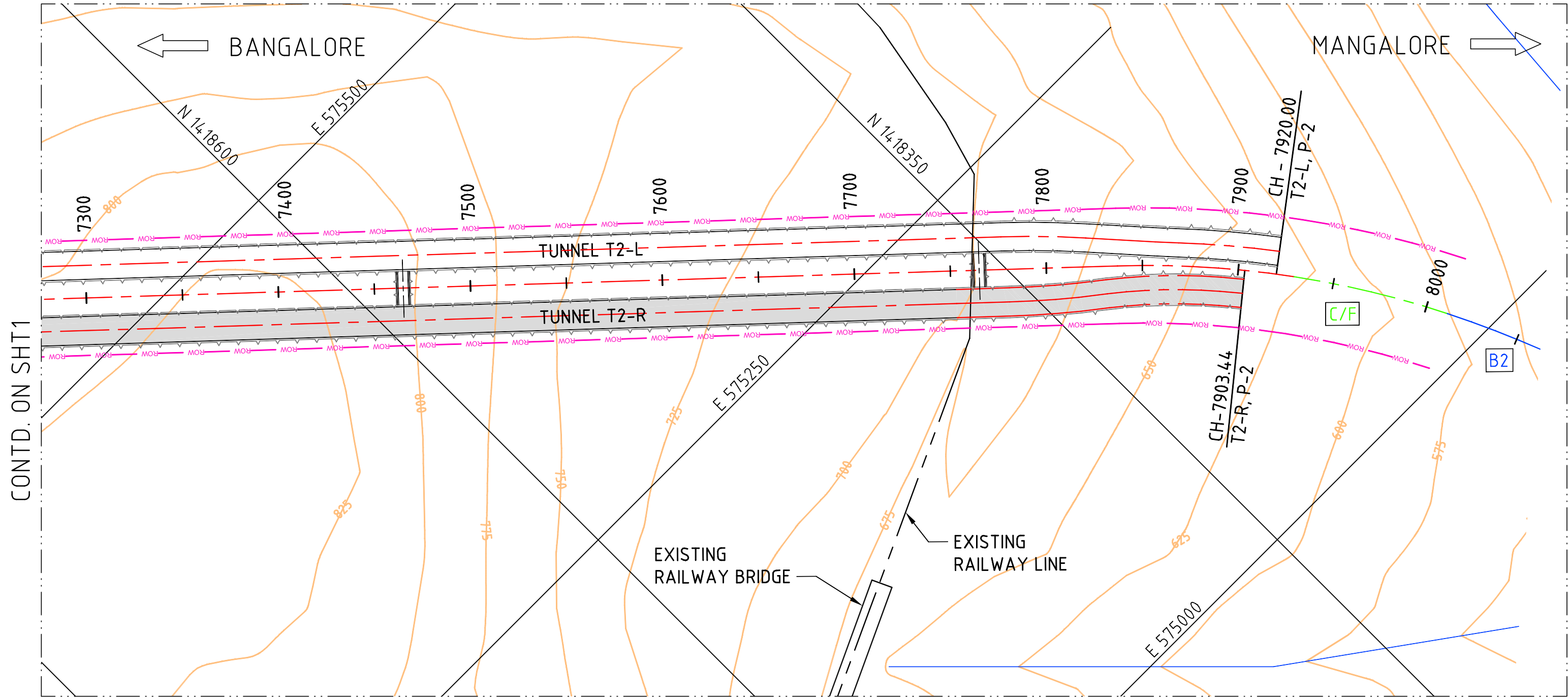
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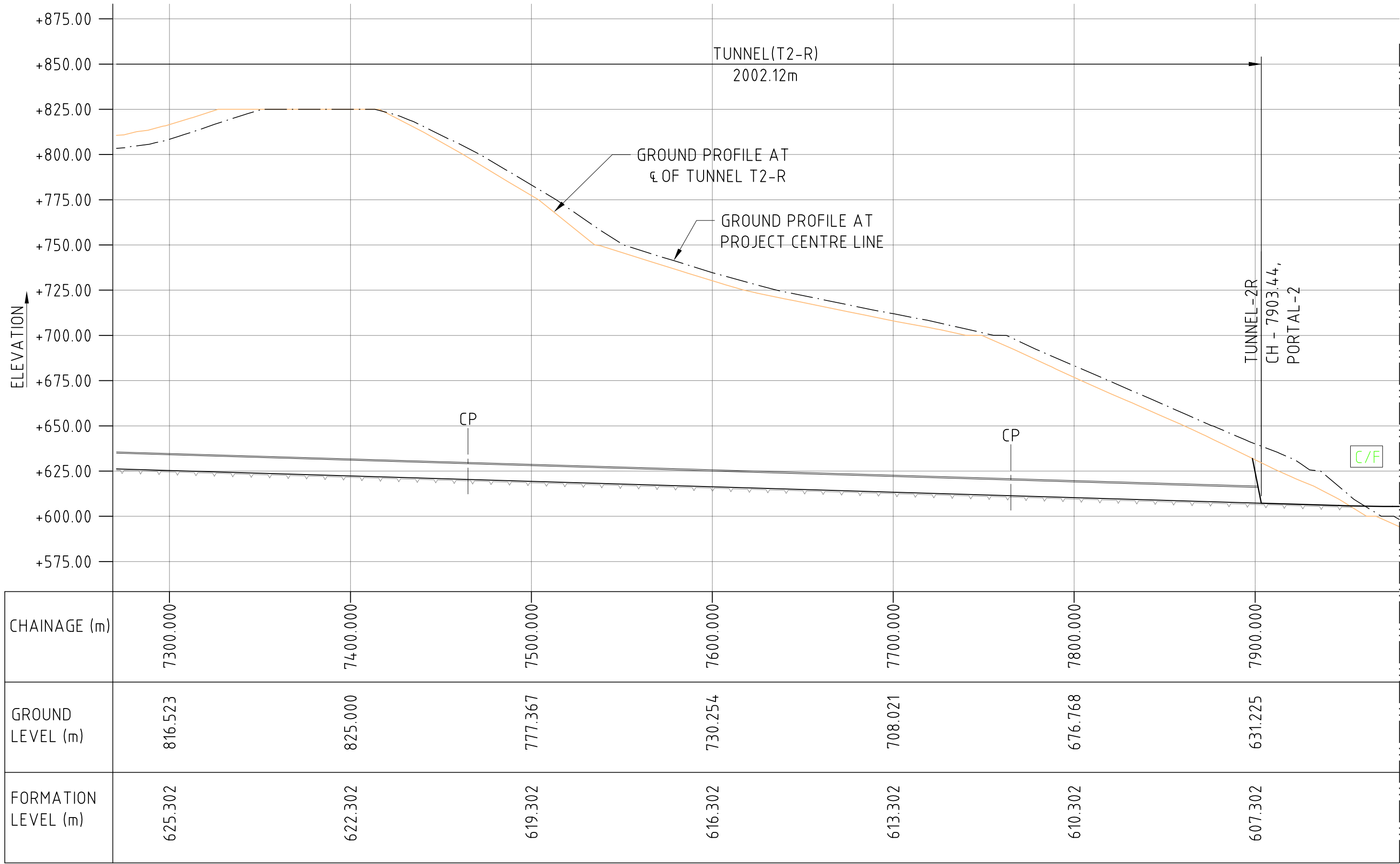
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PRELIMINARY

REFERENCE DRAWINGS:			LEGEND:			REVISION			QUALITY ASSURANCE			DESIGN CONSULTANTS:			CLIENT		
SHGA-FS-LAY-1000			EXISTING ROAD RIVER/NALA RAILWAY LINE ACCESS ROAD RIGHT OF WAY (ROW)						The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.			GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			GOVERNMENT OF KARNATAKA		
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.									Date (FIRST ISSUE)			PROJECT TITLE			DRAWING TITLE		
									Name			CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			TUNNEL - T2-R GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT1		
									Drawn			Drafting Chk			SHGA-FS-T2-1112		
									Designed			Design Chk			D		
									Approved			Approved			AS SHOWN		
									Originators			This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.			MONTH (Current Issue) DEC 2015		



LAYOUT PLAN
SCALE 1:2000



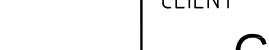
LONGITUDINAL SECTION ALONG T2-R
SCALE 1:2000

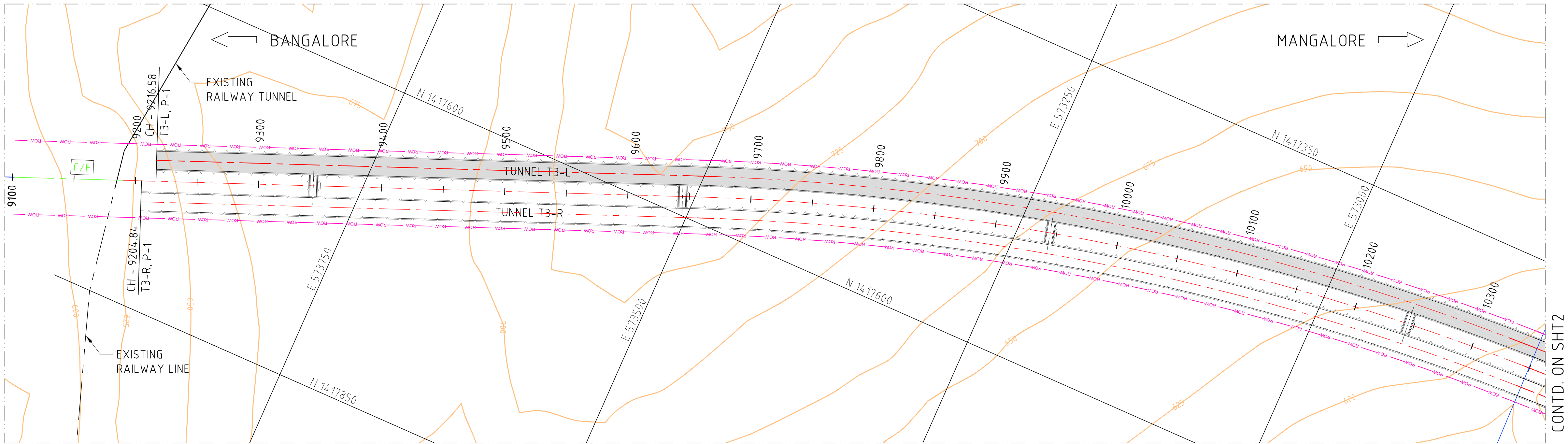
TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

SCALE 1:2000



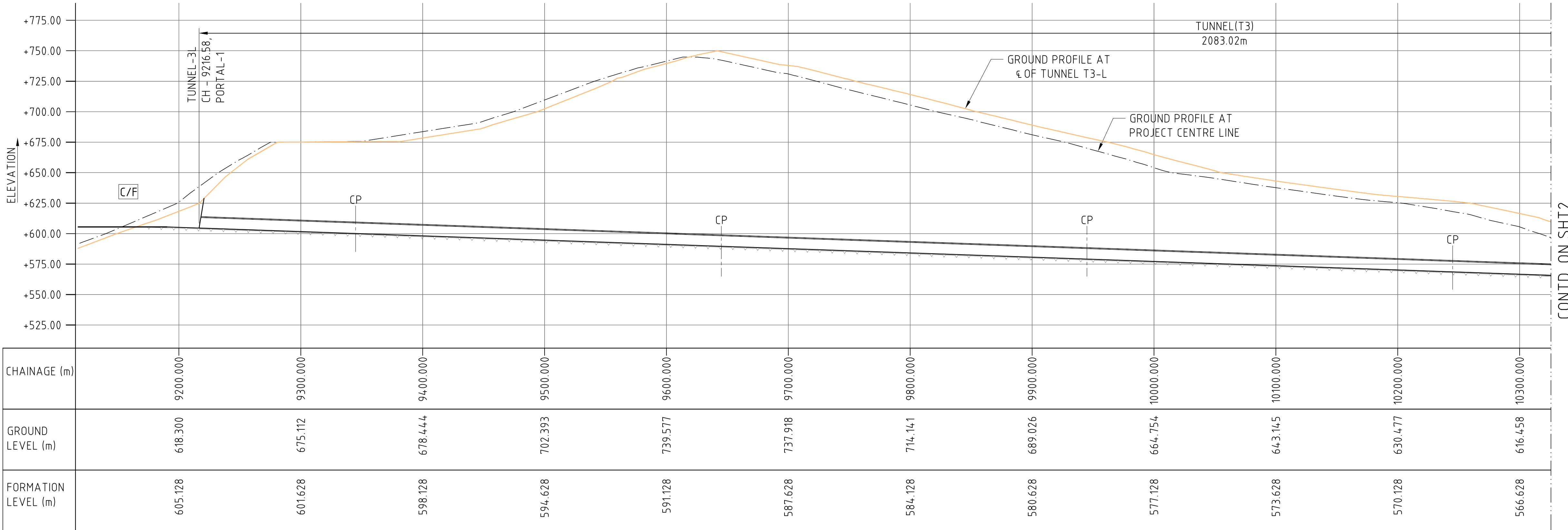
PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION		QUALITY ASSURANCE						DESIGN CONSULTANTS PVT. GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA							
SHGA-FS-LAY-1000		— EXISTING ROAD — RIVER/NALA - - - RAILWAY LINE — ACCESS ROAD — ROW RIGHT OF WAY (ROW)				The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.										DRAWING TITLE TUNNEL - T2-R GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT2							
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.				D DEC 15 FOURTH SUBMISSION (KD-6)		PRa		RMe		AKg		Date (FIRST ISSUE)		SEP 2015		SEP 2015		SEP 2015		SEP 2015		SEP 2015	
				C DEC 15 THIRD SUBMISSION (KD-5)		PRa		RMe		AKg		Name		PRa		RMe		BRs		BRs		AKg	
				B SEP 15 SECOND DRAFT (KD-4)		PRa		RMe		AKg		Drawn		Drafting Chk		Designed		Design Chk		Approved			
				A AUG 15 FIRST DRAFT (INTERIM PROGRESS-KD3)		PRa		RMe		AKg													
				REV. DATE PARTICULARS		Drawn		Checked		Approved		Originators											



LAYOUT PLAN
SCALE 1:2000

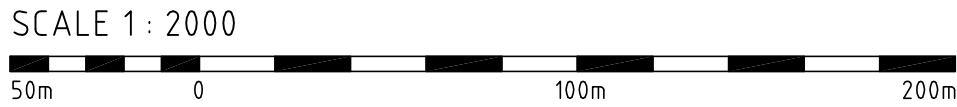
CONTD. ON SHT2



LONGITUDINAL SECTION ALONG T3-L
SCALE 1:2000

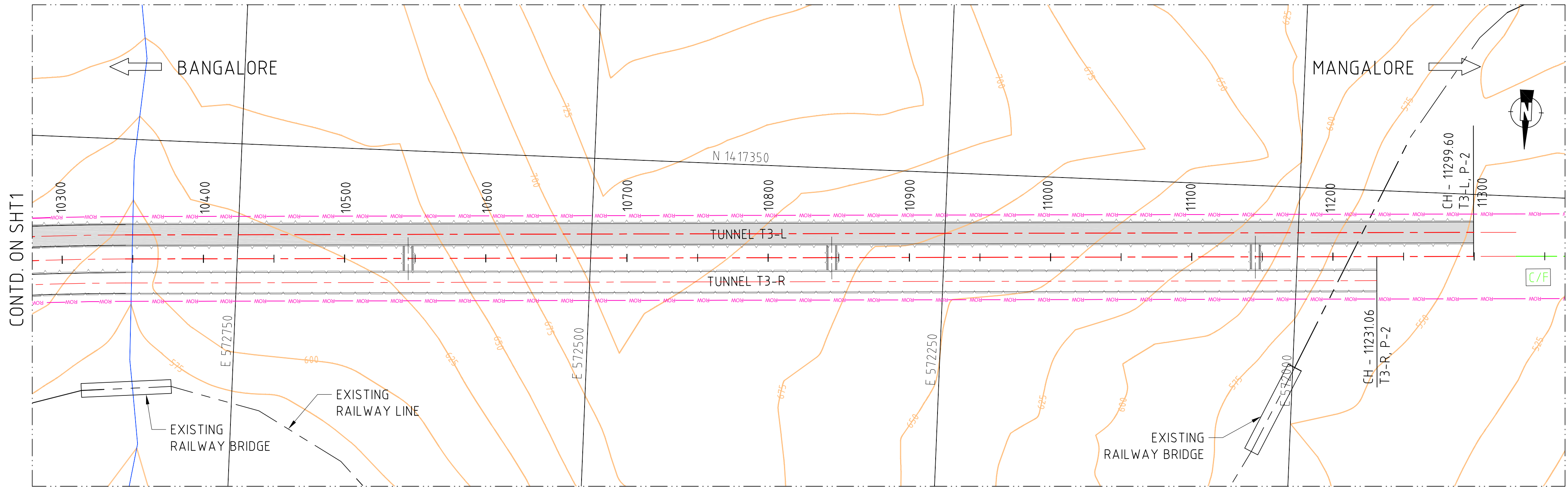
CONTD. ON SHT2

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

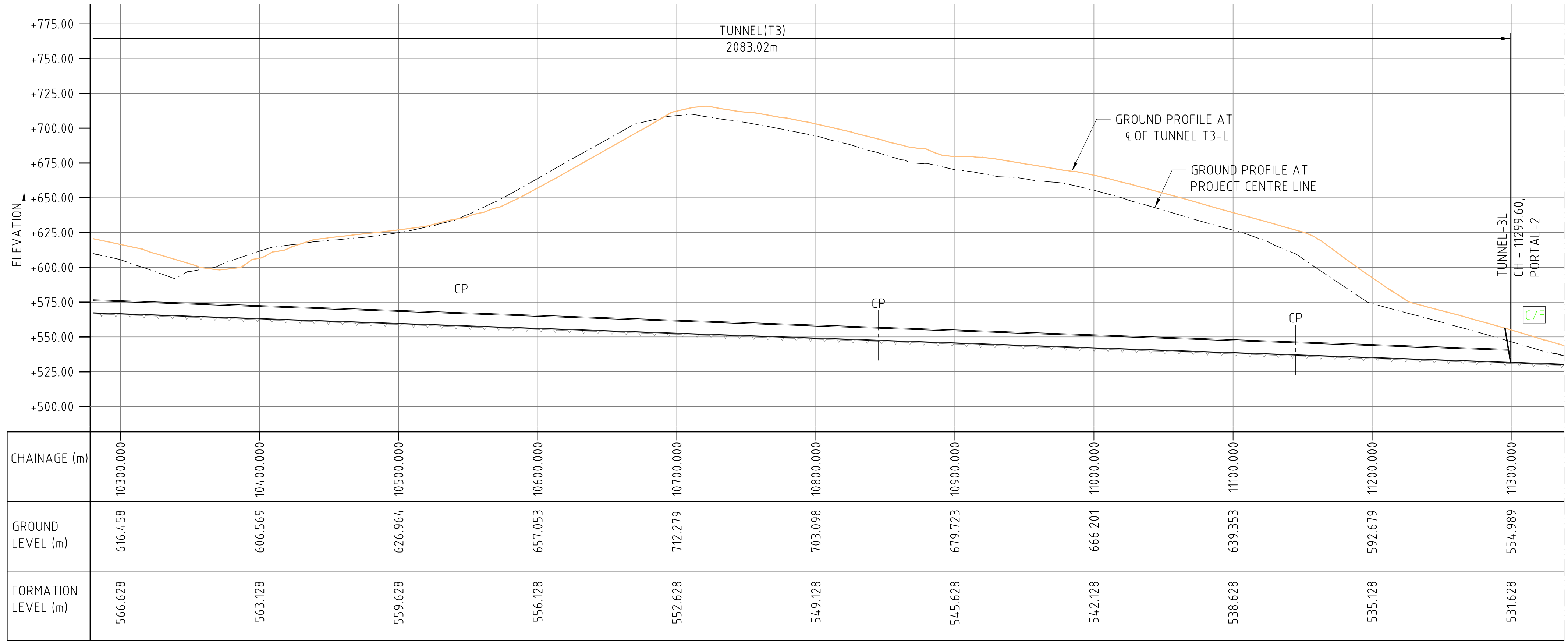


PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000		LEGEND: — EXISTING ROAD — RIVER/NALA - - - RAILWAY LINE — ACCESS ROAD — ROW RIGHT OF WAY (ROW)		REVISION		QUALITY ASSURANCE		DESIGN CONSULTANTS: GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA	
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.				D DEC 15 FOURTH SUBMISSION (KD-6) PRa RMe AKg		The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.		PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING TITLE TUNNEL - T3-L GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT1	
				C DEC 15 THIRD SUBMISSION (KD-5) PRa RMe AKg		Date (FIRST ISSUE) SEP 2015 SEP 2015 SEP 2015 SEP 2015 SEP 2015		Name PRa RMe BRs BRs AKg		DRAWING NUMBER SHGA-FS-T3-1121	
				B SEP 15 SECOND DRAFT (KD-4) PRa RMe AKg		Drawn Drafting Chk Designed Design Chk Approved		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.		REV D	
				A AUG 15 FIRST DRAFT (INTERIM PROGRESS-KD3) PRa RMe AKg		Originators		GEOCONSULT, PRa, R\16000 Project\6060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-T3-L-T4L_1100-1151_D.dwg, 2015-12-8		SCALE AS SHOWN	
				REV. DATE PARTICULARS Drawn Checked Approved						MONTH (Current Issue) DEC 2015	



LAYOUT PLAN
SCALE 1:2000

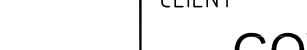


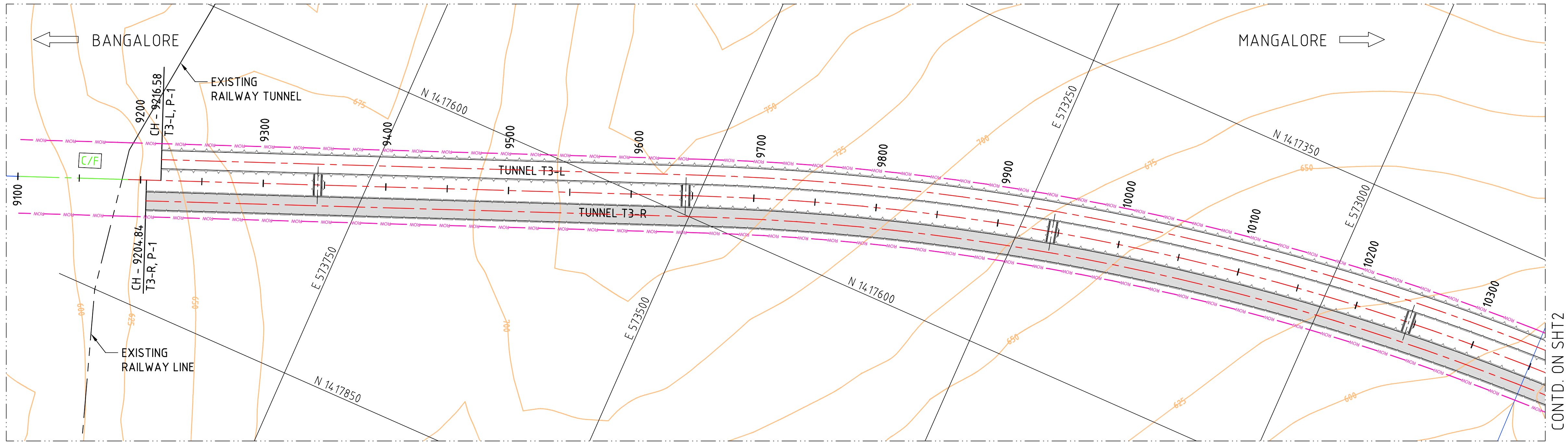
LONGITUDINAL SECTION ALONG T3-L
SCALE 1:2000

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.



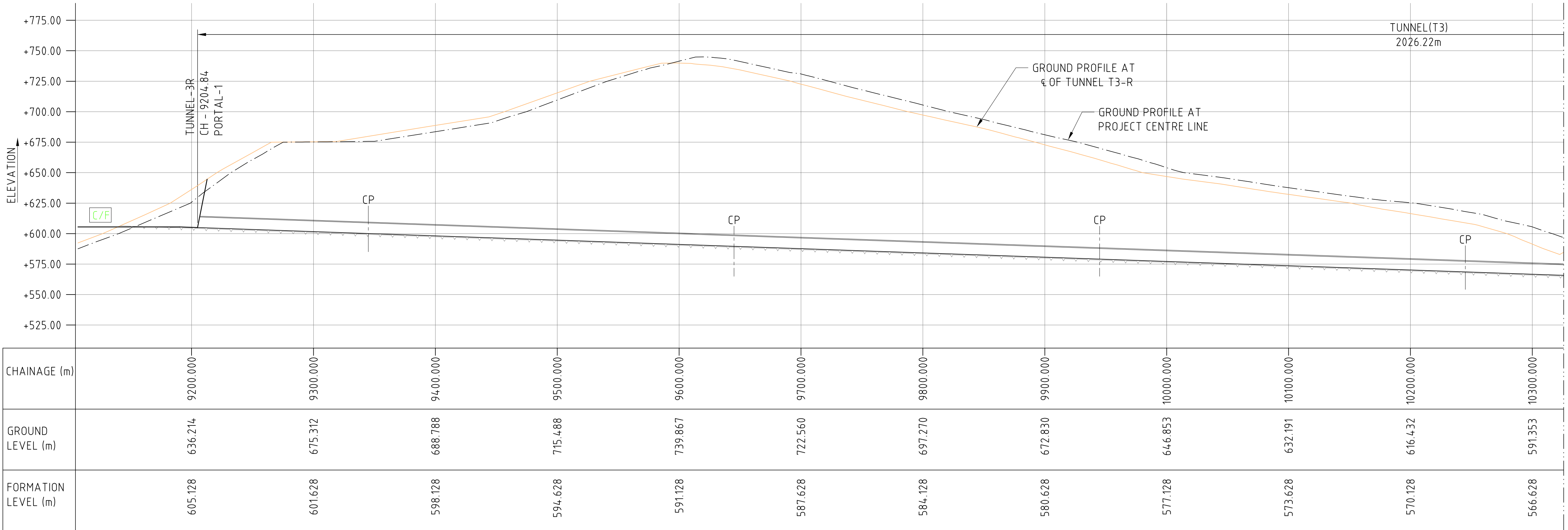
PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000		LEGEND: — EXISTING ROAD — RIVER/NALA - - - RAILWAY LINE — ACCESS ROAD — ROW RIGHT OF WAY (ROW)		REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA	
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.														DRAWING TITLE TUNNEL - T3-L GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT2				
		D	DEC 15	FOURTH SUBMISSION (KD-6)	PRa	RMe	AKg							PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780				
		C	DEC 15	THIRD SUBMISSION (KD-5)	PRa	RMe	AKg	Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015	SEP 2015	DRAWING NUMBER SHGA-FS-T3-1121				
		B	SEP 15	SECOND DRAFT (KD-4)	PRa	RMe	AKg	Name	PRa	RMe	BRs	BRs	AKg	REV D				
		A	AUG 15	FIRST DRAFT (INTERIM PROGRESS-KD3)	PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved	AS SHOWN				
		REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators				This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. GEOCONSULT, PRa, R/16000 Projects/16060-Shiradi Ghat/CURRENT/KD-6/SHGA-FS-T1-T6L/1100-1151_Dwg. 2015-12-8						
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LAYOUT PLAN
SCALE 1:2000

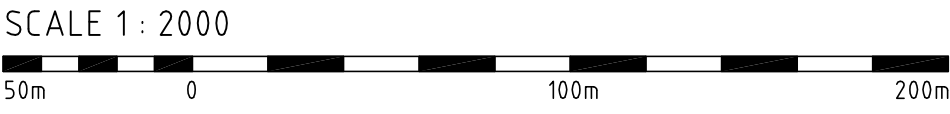
CONTD. ON SHT2



LONGITUDINAL SECTION ALONG T3-R
SCALE 1:2000

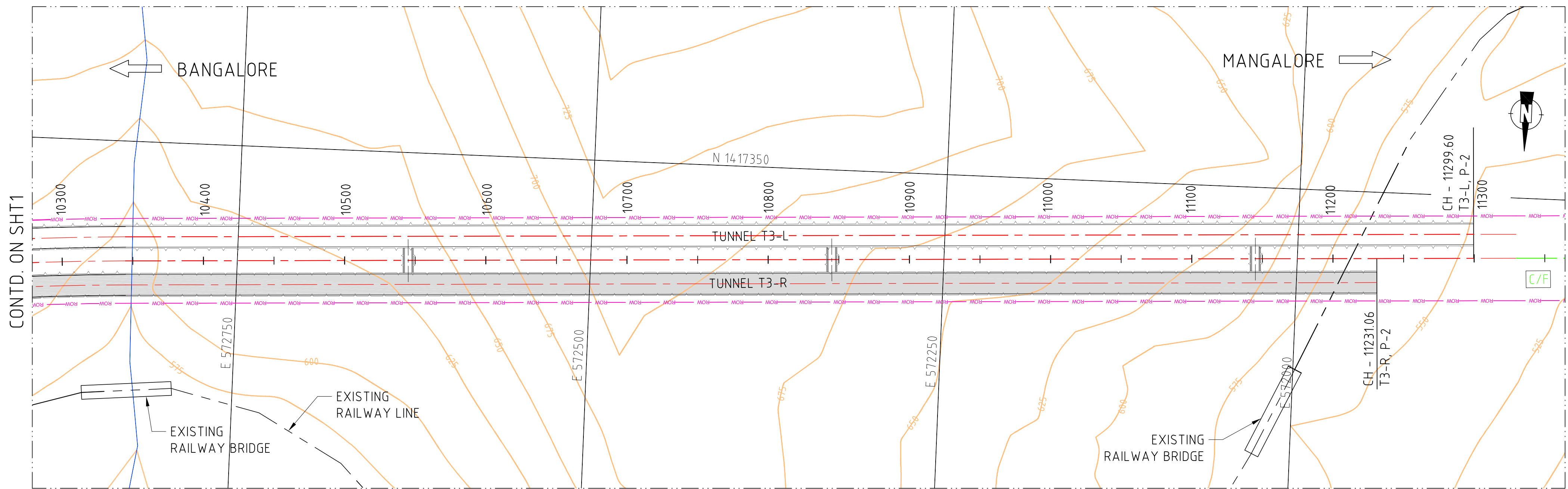
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TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

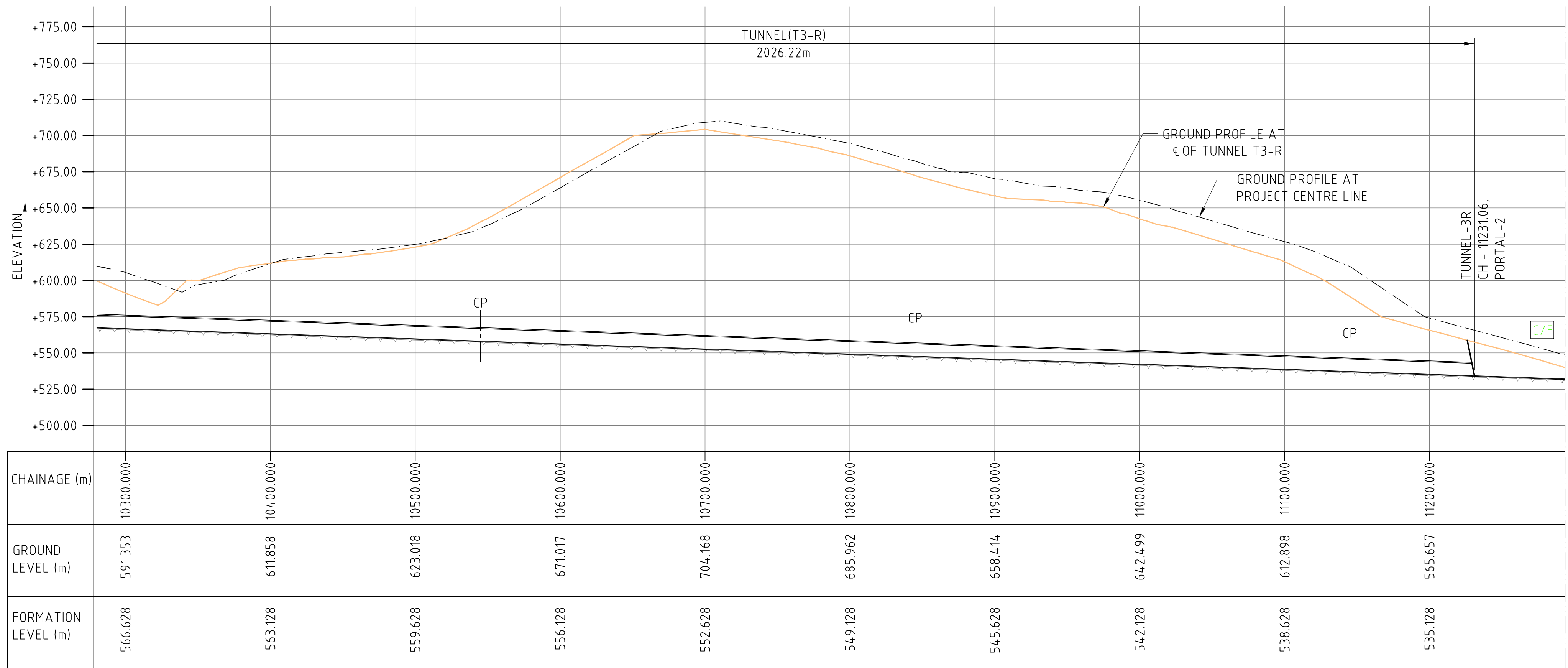


PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000		LEGEND: — EXISTING ROAD — RIVER/NALA - - - RAILWAY LINE — ACCESS ROAD — ROW RIGHT OF WAY (ROW)		REVISION D DEC 15 FOURTH SUBMISSION (KD-6) PRa RMe AKg C DEC 15 THIRD SUBMISSION (KD-5) PRa RMe AKg B SEP 15 SECOND DRAFT (KD-4) PRa RMe AKg A AUG 15 FIRST DRAFT (INTERM PROGRESS-KD3) PRa RMe AKg REV. DATE PARTICULARS Drawn Checked Approved		QUALITY ASSURANCE The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor. Date (FIRST ISSUE) SEP 2015 SEP 2015 SEP 2015 SEP 2015 SEP 2015 Name PRa RMe BRs BRs AKg Drawn Drafting Chk Designed Design Chk Approved		DESIGN CONSULTANTS: GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India) PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780 This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. ©GEOCONSULT, PRa, R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-T3R-T6R_1101-1152_D.dwg, 2015-12-18		CLIENT GOVERNMENT OF KARNATAKA DRAWING TITLE TUNNEL - T3-R GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT1 DRAWING NUMBER SHGA-FS-T3-1122 SCALE AS SHOWN MONTH (Current Issue) DEC 2015		REV D	
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LAYOUT PLAN
SCALE 1:2000




LONGITUDINAL SECTION ALONG T3-R
SCALE 1:2000

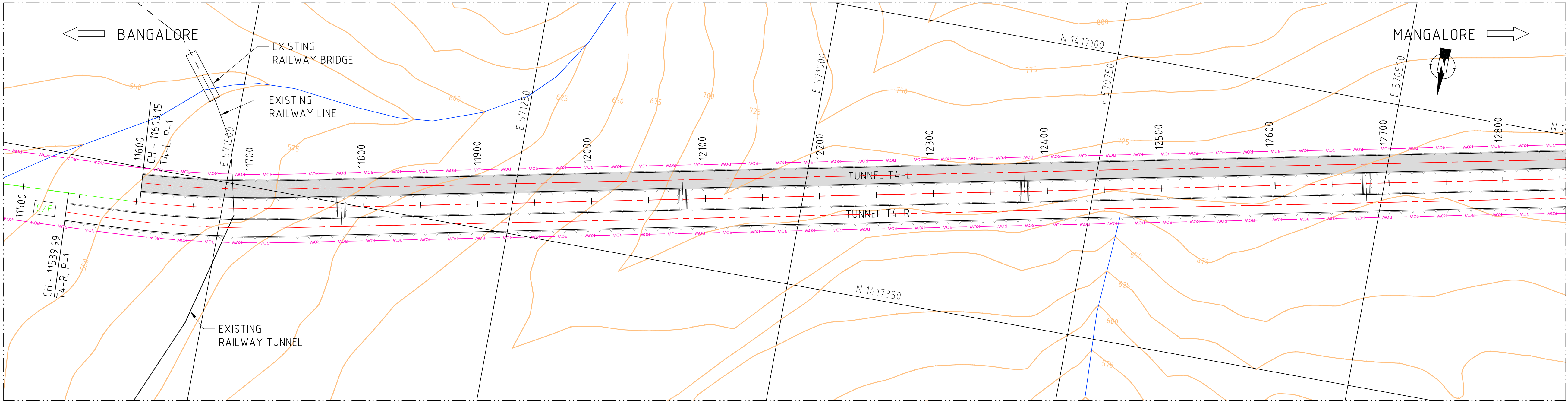
TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

SCALE 1 : 2000

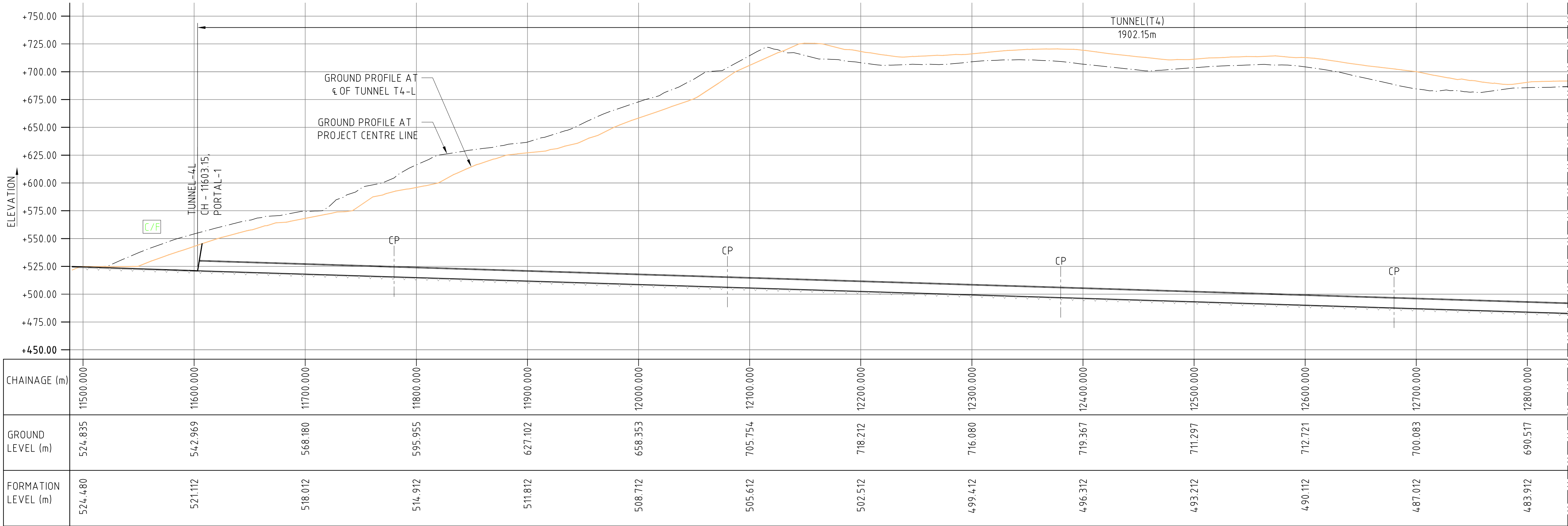


PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS :		CLIENT	
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		— RIVER/NALA													DRAWING TITLE TUNNEL - T3-R	
		- - - RAILWAY LINE														
NOTES:		— ACCESS ROAD		D DEC 15 FOURTH SUBMISSION (KD-6) PRa RMe AKg									PROJECT TITLE		GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT2	
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.		— RIGHT OF WAY (ROW)		C DEC 15 THIRD SUBMISSION (KD-5) PRa RMe AKg			Date (FIRST ISSUE) SEP 2015 SEP 2015 SEP 2015 SEP 2015 SEP 2015						CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780			
				B SEP 15 SECOND DRAFT (KD-4) PRa RMe AKg			Name PRa RMe BRs BRs AKg						DRAWING NUMBER		REV	
				A AUG 15 FIRST DRAFT (INTERIM PROGRESS-KD3) PRa RMe AKg			Drawn Drafting Chk Designed Design Chk Approved						SHGA-FS-T3-1122		D	
				REV. DATE PARTICULARS Drawn Checked Approved			Originators						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.			
													GEOCONSULT, PRa, R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-T3R-T6R_1101-1152_D.dwg, 2015-12-18		SCALE AS SHOWN MONTH (Current Issue) DEC 2015	

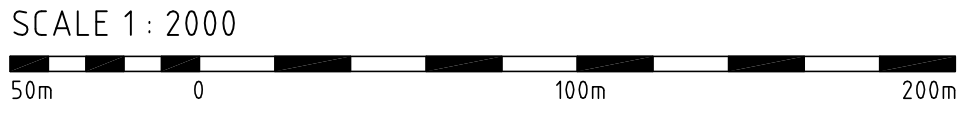


LAYOUT PLAN
SCALE 1:2000



LONGITUDINAL SECTION ALONG T4-L
SCALE 1:2000

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.



PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:

- EXISTING ROAD
- RIVER/NALA
- RAILWAY LINE
- ACCESS ROAD
- ROW
- RIGHT OF WAY (ROW)

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
D	DEC 15	FOURTH SUBMISSION (KD-6)	PRa	RMe	AKg
C	DEC 15	THIRD SUBMISSION (KD-5)	PRa	RMe	AKg
B	SEP 15	SECOND DRAFT (KD-4)	PRa	RMe	AKg
A	AUG 15	FIRST DRAFT (INTERM PROGRESS-KD3)	PRa	RMe	AKg

QUALITY ASSURANCE

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Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015	SEP 2015
Name	PRa	RMe	BRs	BRs	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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GEOCONSULT, PRa, R\16000 Projects\36060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-T4-L-T4L_1100-1151_D.dwg, 2015-12-18

CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

TUNNEL - T4-L
GENERAL ARRANGEMENT
PLAN AND L-SECTION_SHT1

DRAWING NUMBER

SHGA-FS-T4-1131

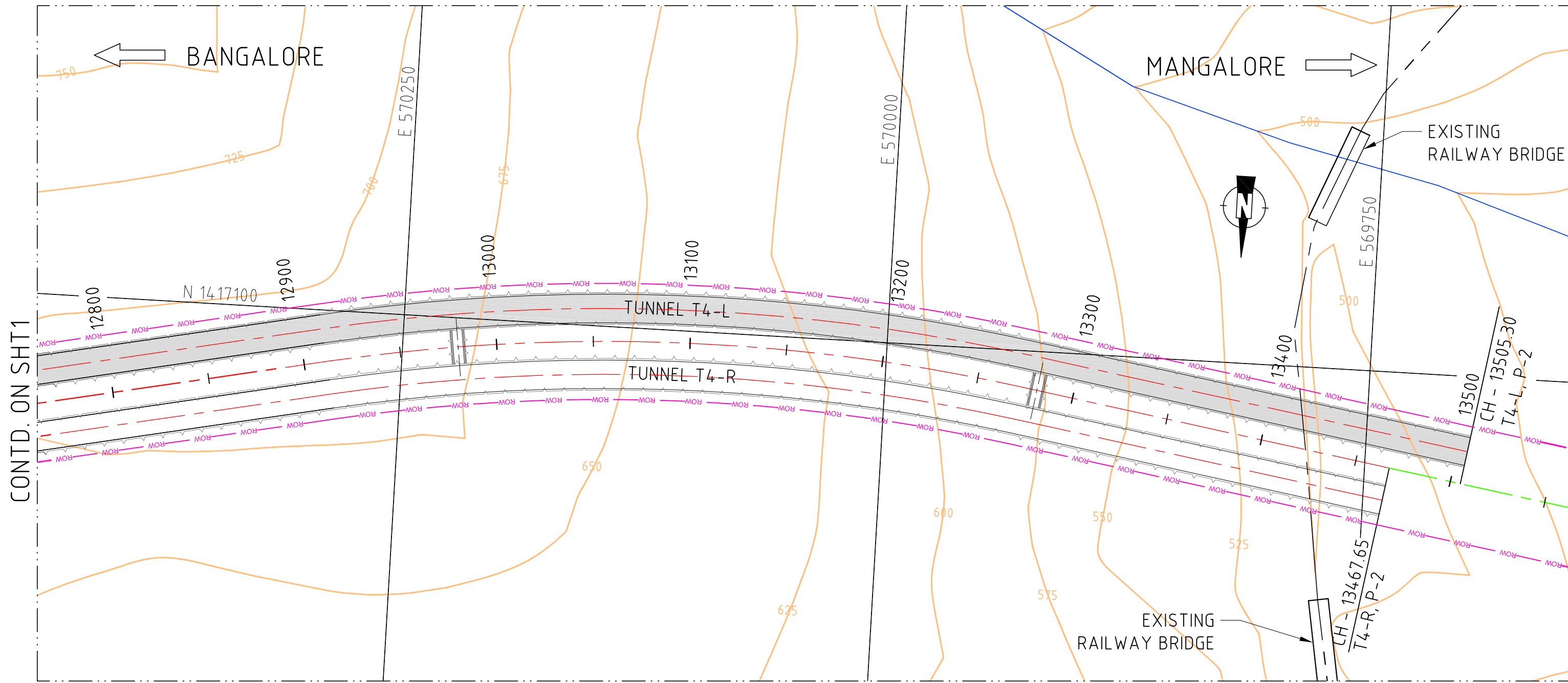
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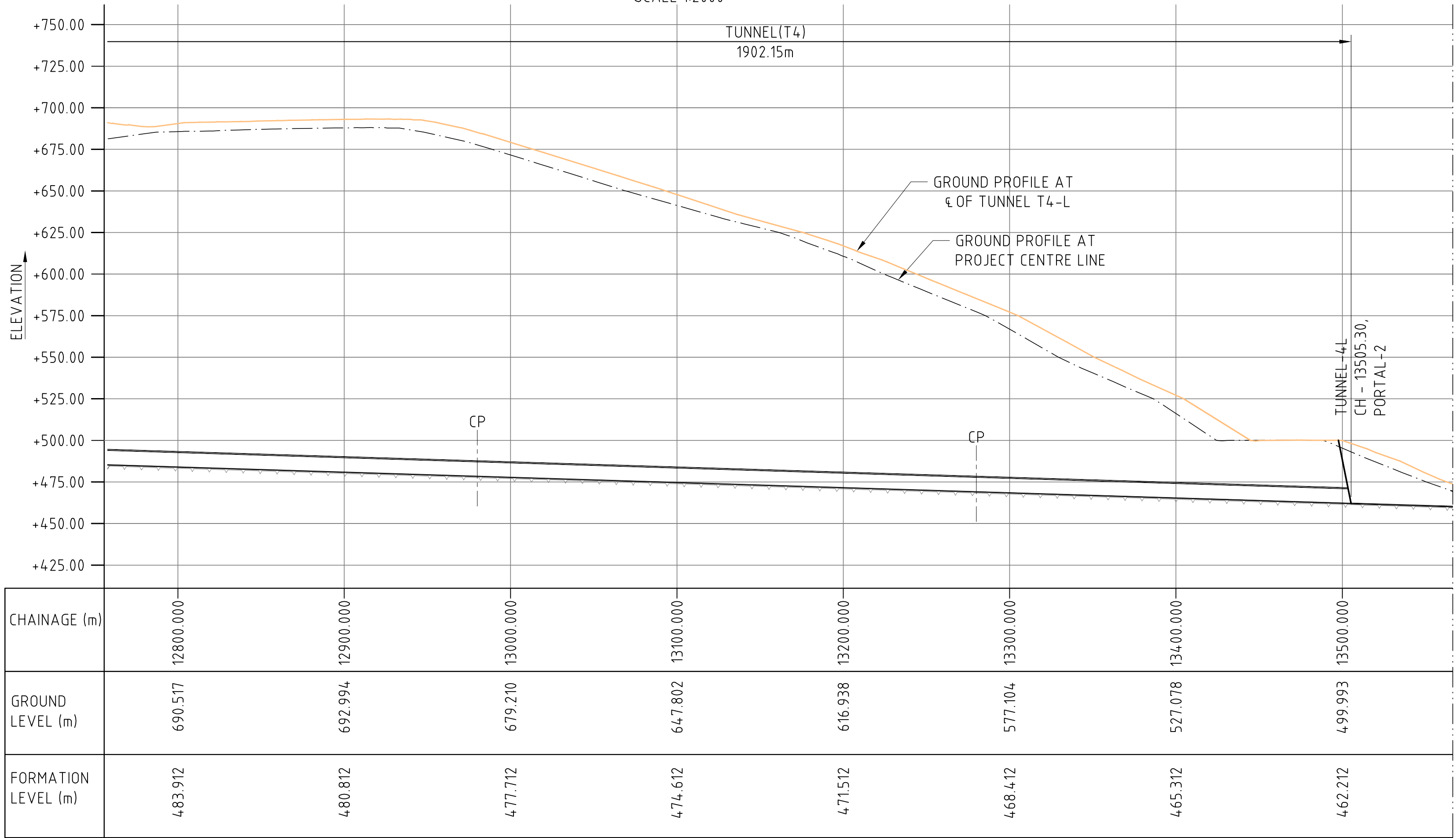
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DEC 2015

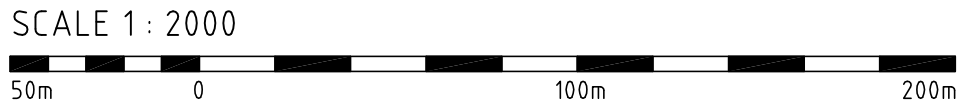
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LAYOUT PLAN
SCALE 1:2000

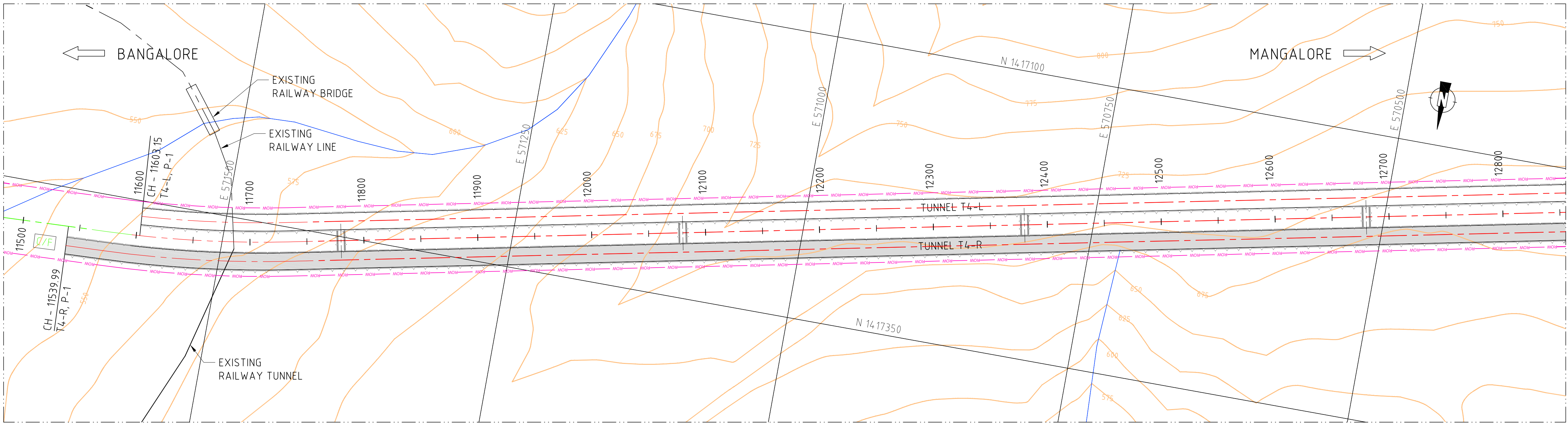


LONGITUDINAL SECTION ALONG T4-L
SCALE 1:2000

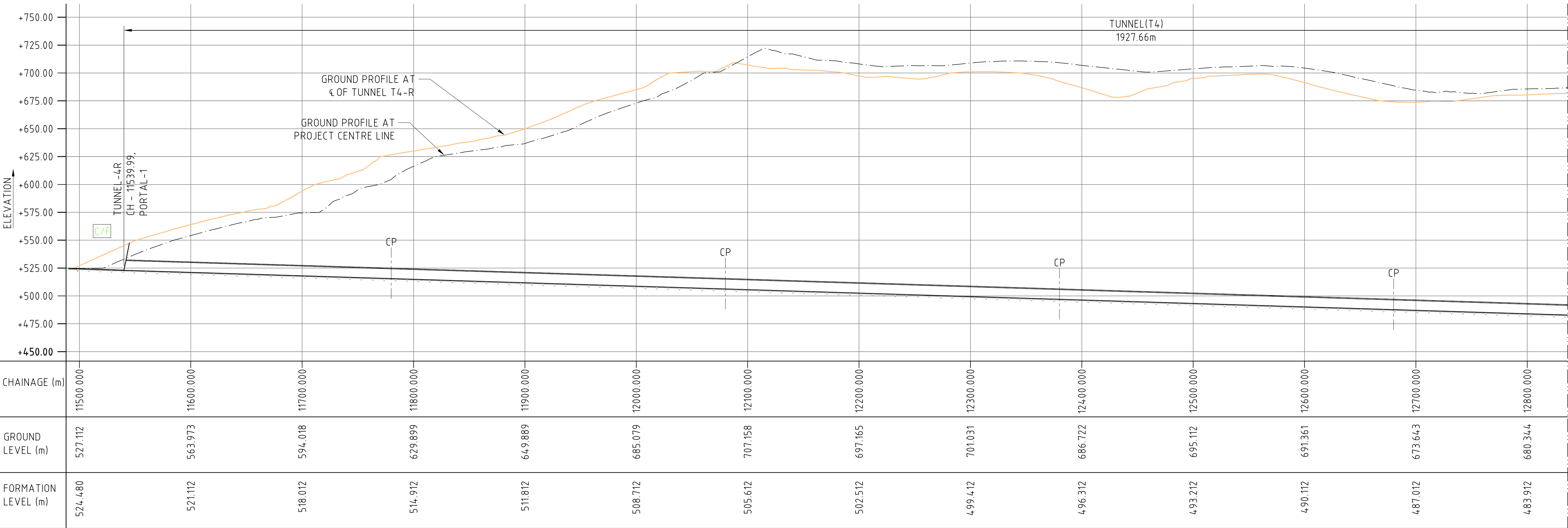


PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION			QUALITY ASSURANCE						DESIGN CONSULTANTS:		CLIENT		
SHGA-FS-LAY-1000		— EXISTING ROAD — RIVER/NALA - - - RAILWAY LINE — ACCESS ROAD — RIGHT OF WAY (ROW)					The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.						GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA		
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.				D	DEC 15	FOURTH SUBMISSION (KD-6)	PRa	RMe	AKg							DRAWING TITLE	
				C	DEC 15	THIRD SUBMISSION (KD-5)	PRa	RMe	AKg	Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015	SEP 2015	TUNNEL - T4-L	
				B	SEP 15	SECOND DRAFT (KD-4)	PRa	RMe	AKg	Name	PRa	RMe	BRs	BRs	AKg	GENERAL ARRANGEMENT	
				A	AUG 15	FIRST DRAFT (INTERIM PROGRESS-KD3)	PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved	PLAN AND L-SECTION_SHT2	
				REV.	DATE	PARTICULARS	Drawn	Checked	Approved	Originators						PROJECT TITLE	
										This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility to any other party other than the person by whom it was commissioned.						CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO	
										GEOCONSULT, PRa, R/16000 Project/16060-Shiradi Ghat/CURRENT/KD-6/SHGA-FS-T4-T6/1100-1101-1151_Dwg. 2015-12-18						TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT	
																FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE	
																OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780	
																DRAWING NUMBER	
																SHGA-FS-T4-1131	
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																MONTH	
																(Current Issue)	
																DEC 2015	



LAYOUT PLAN
SCALE 1:2000



LONGITUDINAL SECTION ALONG T4-R
SCALE 1:2000

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

SCALE 1:2000



PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:

- EXISTING ROAD
- RIVER/NALA
- RAILWAY LINE
- ACCESS ROAD
- RIGHT OF WAY (ROW)

REVISION

REV.	DATE	PARTICULARS	Drawn	Checked	Approved
D	DEC 15	FOURTH SUBMISSION (KD-6)	PRa	RMe	AKg
C	DEC 15	THIRD SUBMISSION (KD-5)	PRa	RMe	AKg
B	SEP 15	SECOND DRAFT (KD-4)	PRa	RMe	AKg
A	AUG 15	FIRST DRAFT (INTERIM PROGRESS-KD3)	PRa	RMe	AKg

QUALITY ASSURANCE

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Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015	SEP 2015
Name	PRa	RMe	BRs	BRs	AKg
Drawn	Drafting Chk	Designed	Design Chk	Approved	
Originators					

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
Udyog Vihar, Phase V
Gurgaon-122016, (India)



PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780

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CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

TUNNEL - T4-R
GENERAL ARRANGEMENT
PLAN AND L-SECTION_SHT1

DRAWING NUMBER

SHGA-FS-T4-1132

REV

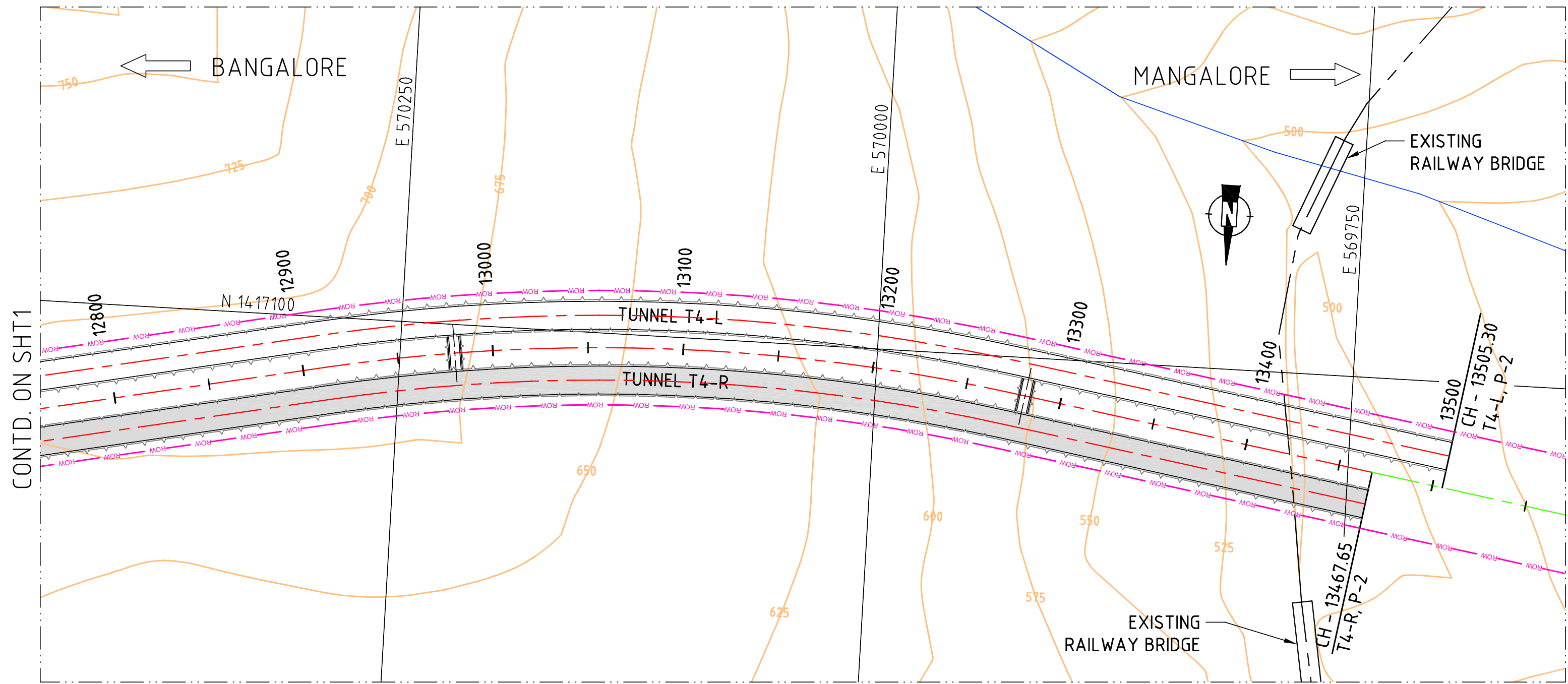
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SCALE

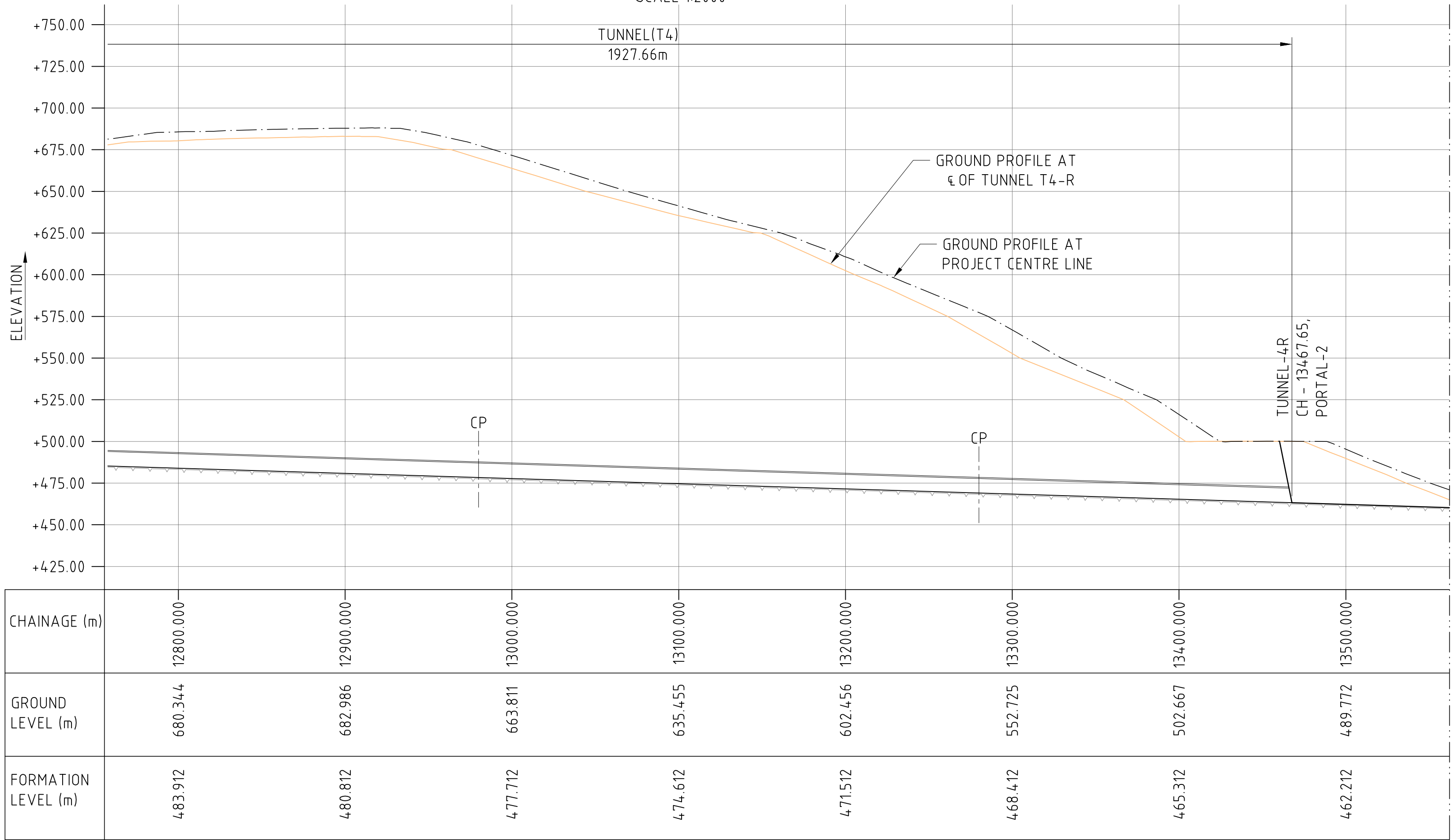
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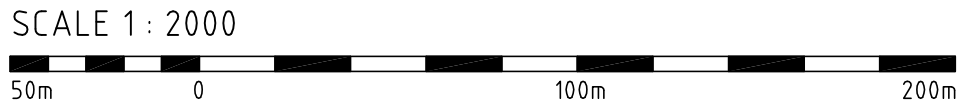
(Current Issue) DEC 2015



LAYOUT PLAN
SCALE 1:2000



LONGITUDINAL SECTION ALONG T4-R
SCALE 1:2000



PRELIMINARY

REFERENCE DRAWINGS:

SHGA-FS-LAY-1000

LEGEND:

- EXISTING ROAD
- RIVER/NALA
- RAILWAY LINE
- ACCESS ROAD
- RIGHT OF WAY (ROW)

NOTES:

1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

REVISION		
D	DEC 15	FOURTH SUBMISSION (KD-6)
C	DEC 15	THIRD SUBMISSION (KD-5)
B	SEP 15	SECOND DRAFT (KD-4)
A	AUG 15	FIRST DRAFT (INTERIM PROGRESS-KD3)
REV.	DATE	PARTICULARS

QUALITY ASSURANCE				
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Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015
Name	PRa	RMe	BRs	BRs
Drawn	Drafting Chk	Designed	Design Chk	Approved
Originators				

DESIGN CONSULTANTS:

GEOCONSULT India Pvt. Ltd.
Plot No. 473, Industrial Estate,
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Gurgaon-122016, (India)

PROJECT TITLE

CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO
TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT
FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE
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CLIENT

GOVERNMENT OF KARNATAKA

DRAWING TITLE

TUNNEL - T4-R

DRAWING NUMBER

SHGA-FS-T4-1132

SCALE

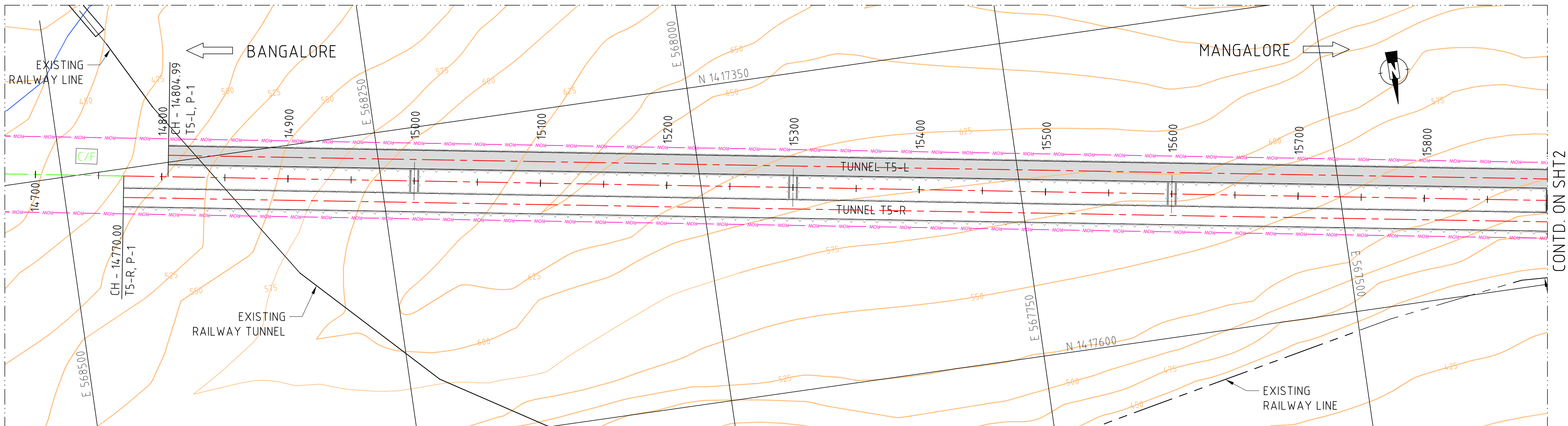
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MONTH

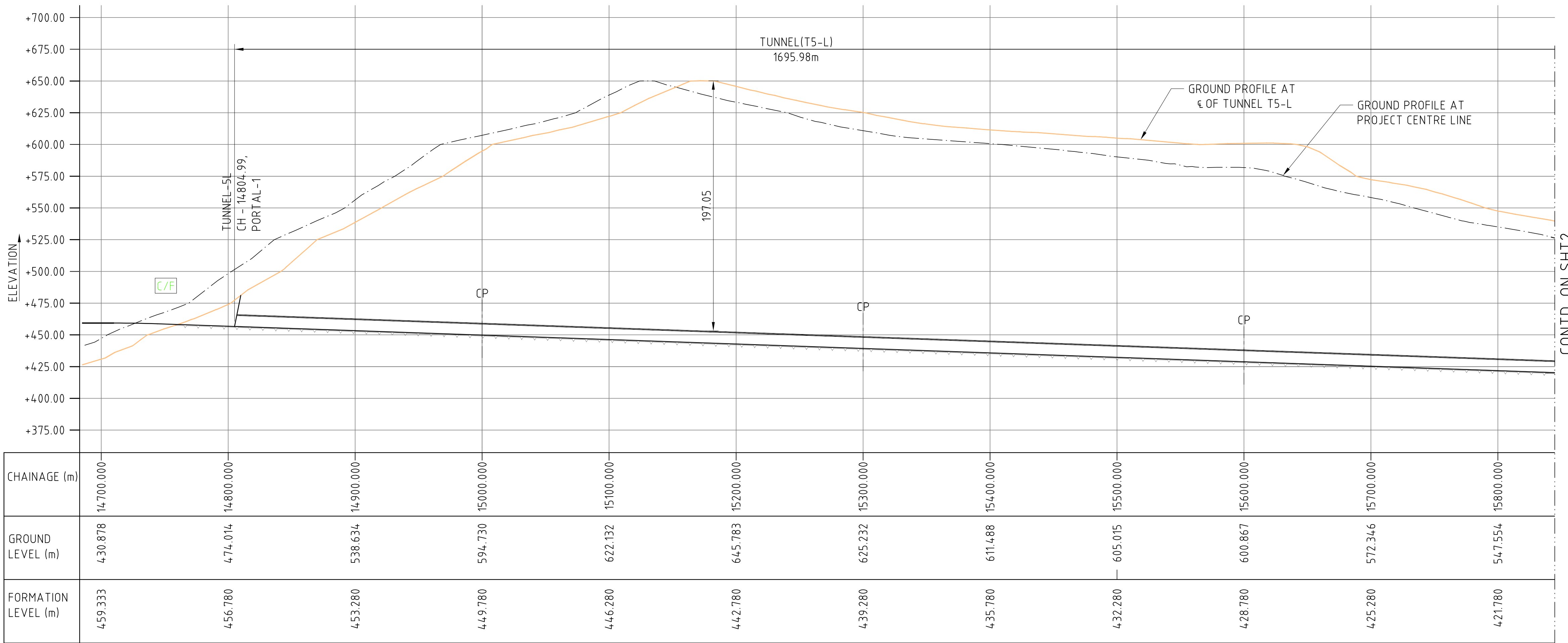
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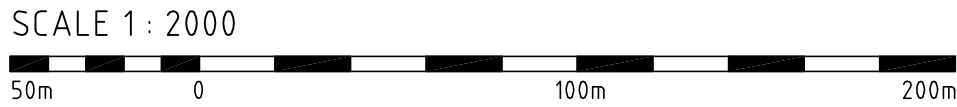


LAYOUT PLAN
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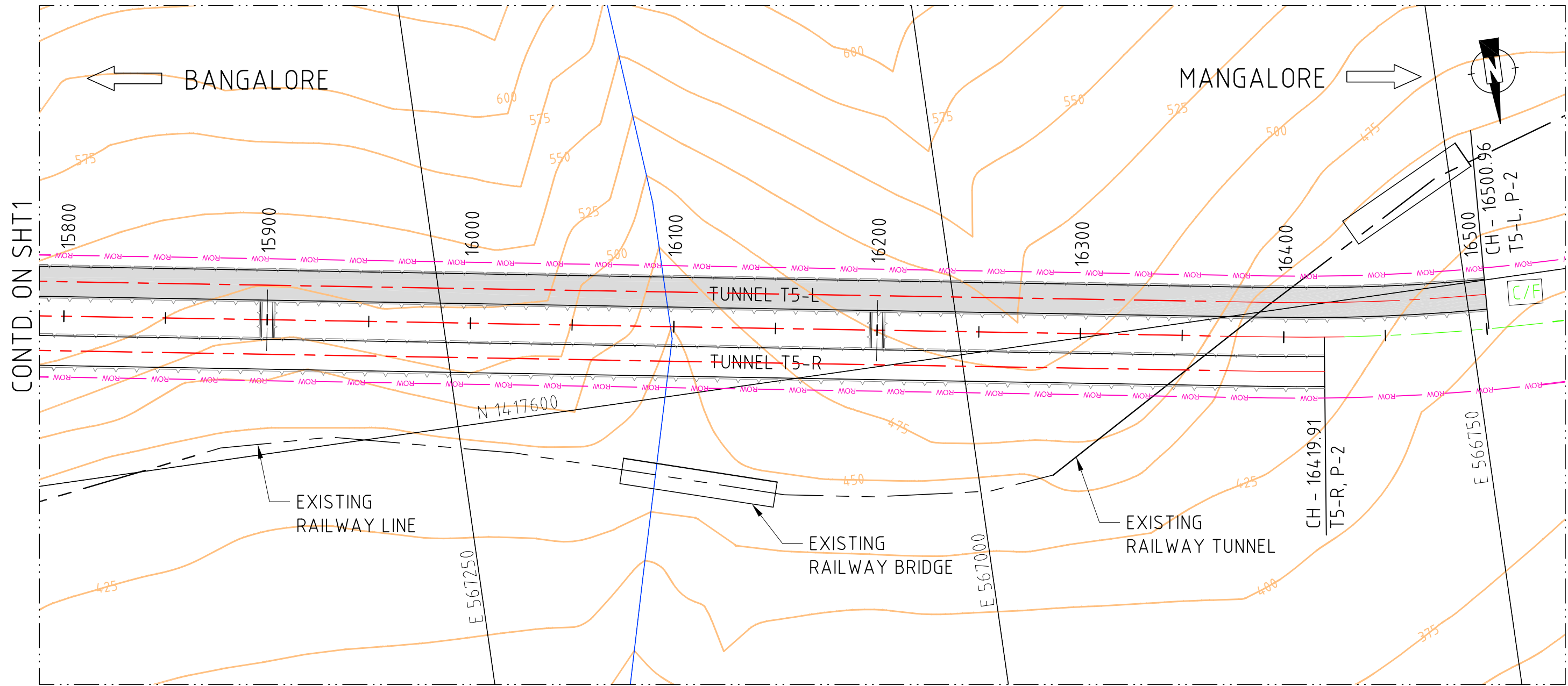
LONGITUDINAL SECTION ALONG T5-L
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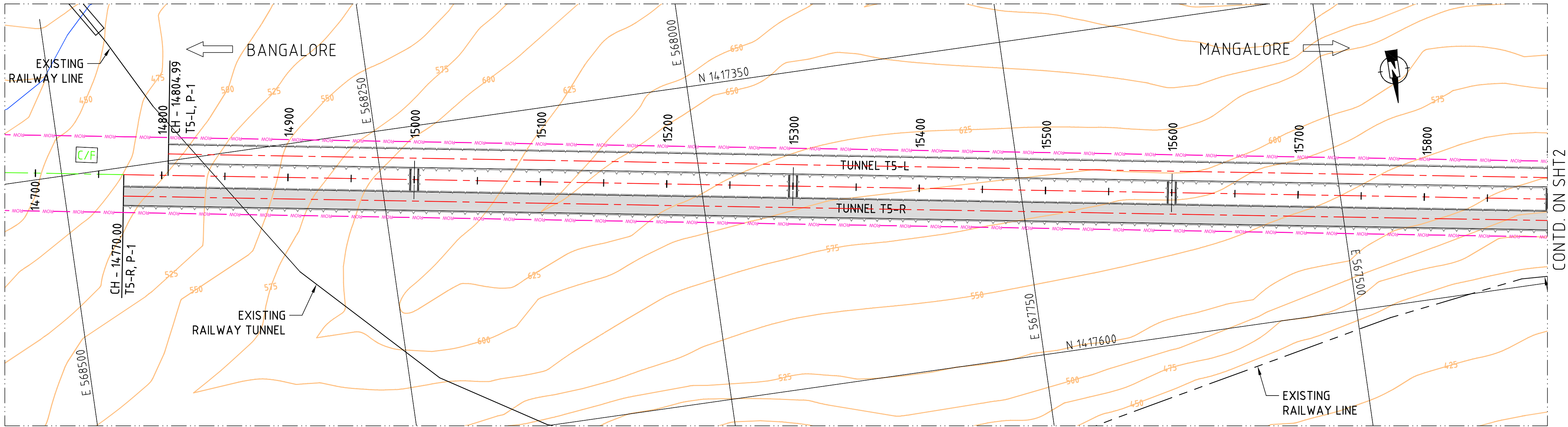
TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.



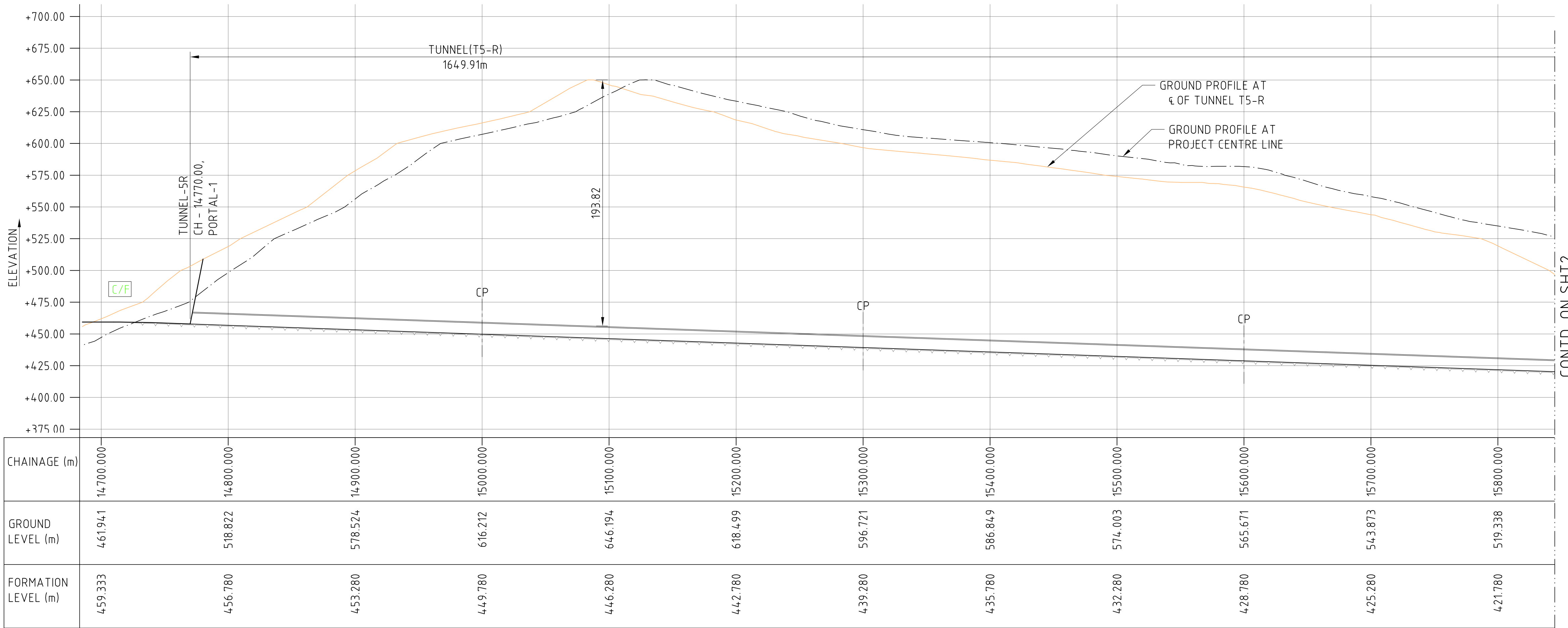
PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS :		CLIENT					
SHGA-FS-LAY-1000		— EXISTING ROAD — RIVER/NALA - - - RAILWAY LINE — ACCESS ROAD — RIGHT OF WAY (ROW)														GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA					
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.				D	DEC 15	FOURTH SUBMISSION (KD-6)				PRa	RMe	AKg						DRAWING TITLE					
				C	DEC 15	THIRD SUBMISSION (KD-5)				PRa	RMe	AKg	Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015	SEP 2015	TUNNEL - T5-L GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT1				
				B	SEP 15	SECOND DRAFT (KD-4)				PRa	RMe	AKg	Name	PRa	RMe	BRs	BRs	AKg	PROJECT TITLE				
				A	AUG 15	FIRST DRAFT (INTERIM PROGRESS-KD3)				PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved	CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780				
				REV.	DATE	PARTICULARS				Drawn	Checked	Approved	Originators						DRAWING NUMBER				
																				SHGA-FS-T5-1141		REV	
																						D	
																						SCALE	
																						AS SHOWN	
																						MONTH	
																						(Current Issue)	
																						DEC 2015	



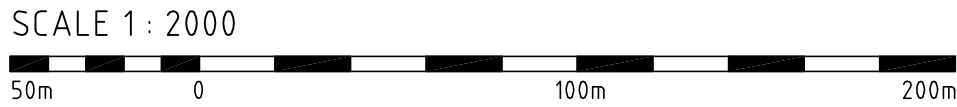


LAYOUT PLAN
SCALE 1:2000




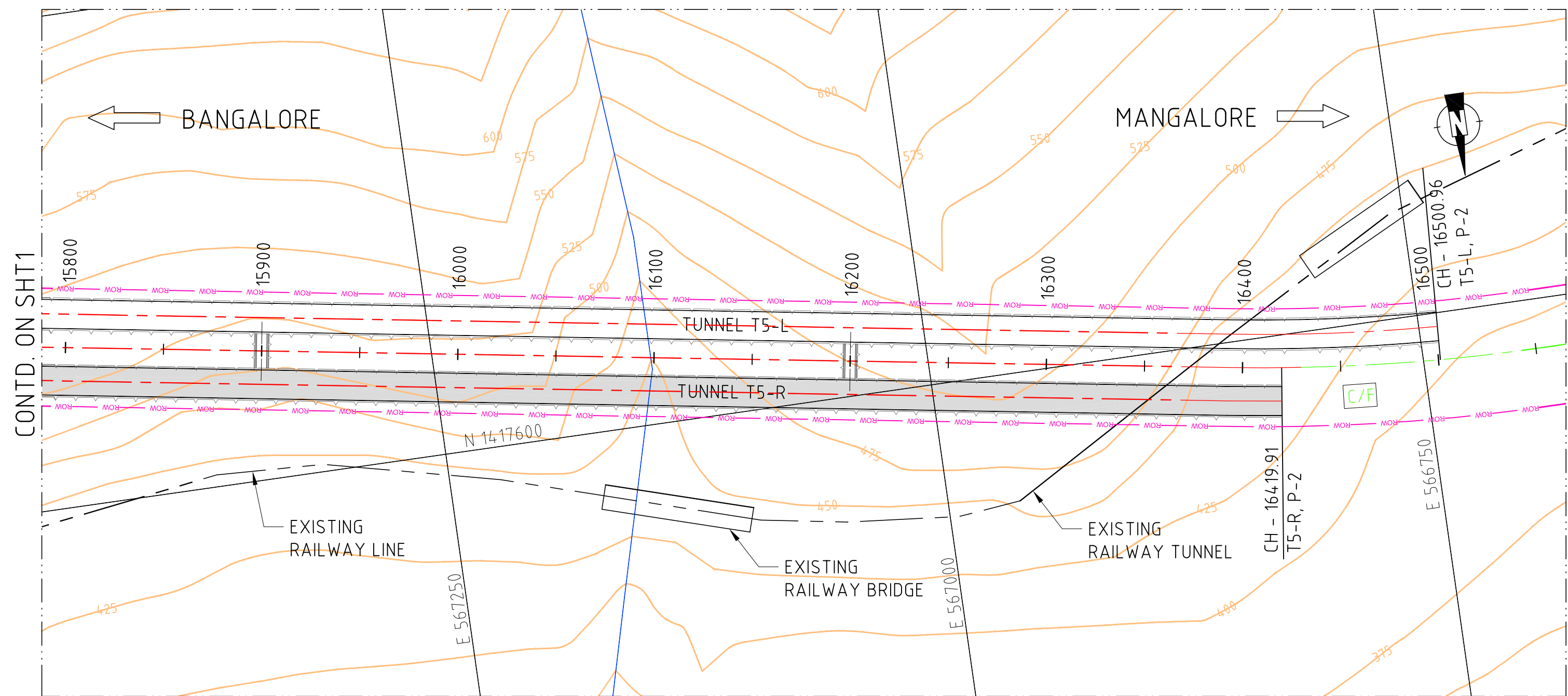
LONGITUDINAL SECTION ALONG T5-R
SCALE 1:2000

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

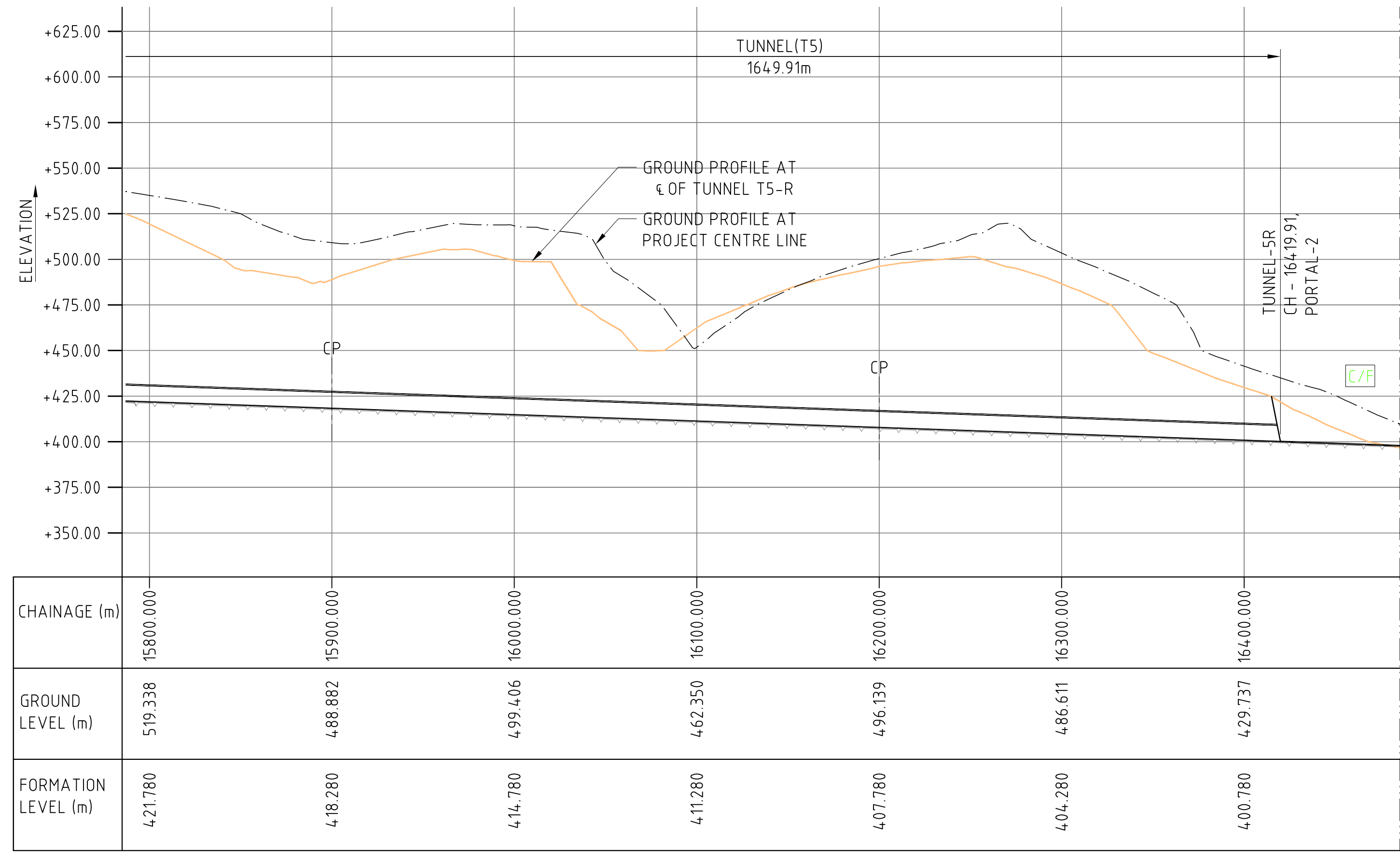


PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS:				CLIENT GOVERNMENT OF KARNATAKA							
SHGA-FS-LAY-1000		— EXISTING ROAD — RIVER/NALA - - - RAILWAY LINE — ACCESS ROAD — RIGHT OF WAY (ROW)														GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)											
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.				D	DEC 15	FOURTH SUBMISSION (KD-6)				PRa	RMe	AKg							PROJECT TITLE		TUNNEL - T5-R GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT1						
				C	DEC 15	THIRD SUBMISSION (KD-5)				PRa	RMe	AKg	Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015	SEP 2015	CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780								
				B	SEP 15	SECOND DRAFT (KD-4)				PRa	RMe	AKg	Name	PRa	RMe	BRs	BRs	AKg			REV D						
				A	AUG 15	FIRST DRAFT (INTERIM PROGRESS-KD3)				PRa	RMe	AKg	Drawn	Drafting Chk	Designed	Design Chk	Approved										
				REV.	DATE	PARTICULARS				Drawn	Checked	Approved	Originators						This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.								
																				©GEOCONSULT, PRa, R\16000 Projects\36060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-T5-T6R_1101-1152_D.dwg, 2015-12-18							
																				SCALE		AS SHOWN		MONTH (Current Issue)		DEC 2015	



LAYOUT PLAN
SCALE 1:2000



LONGITUDINAL SECTION ALONG T5-R
SCALE 1:2000

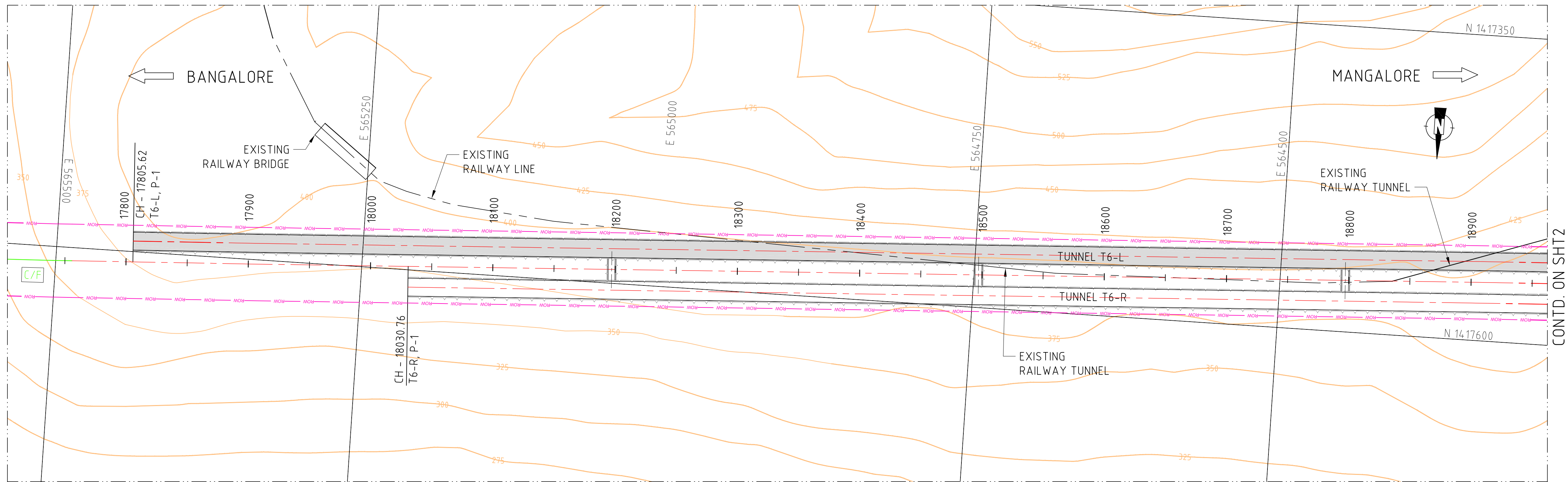
TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

SCALE 1 : 2000

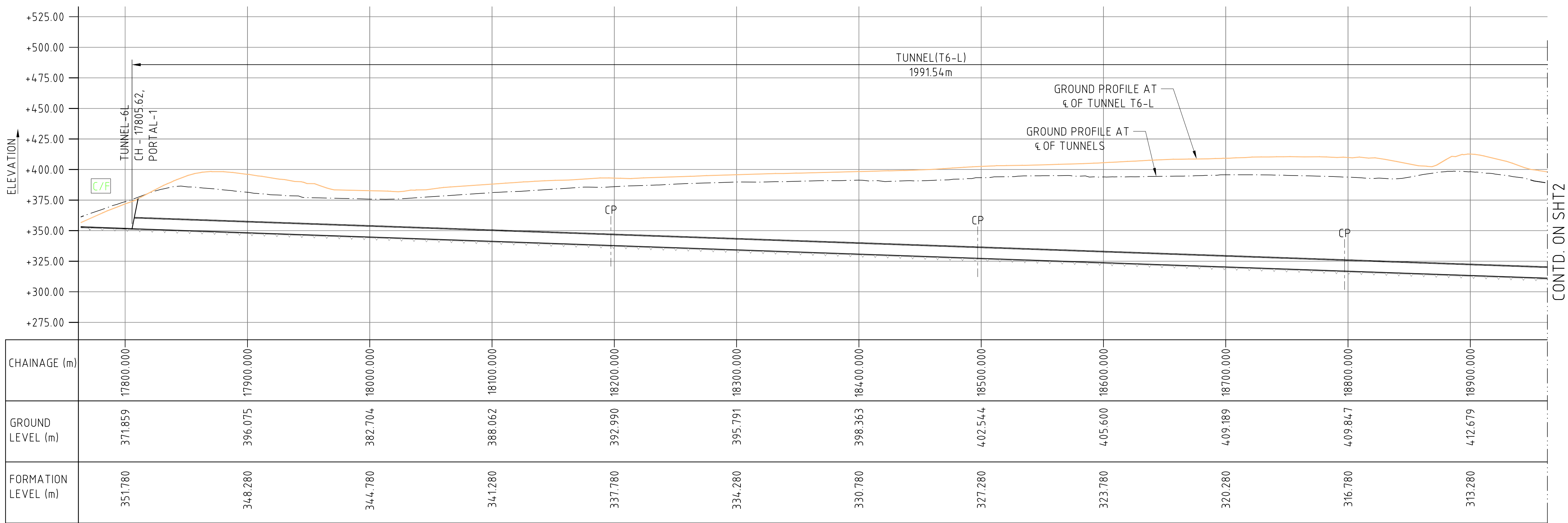


PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION		QUALITY ASSURANCE						DESIGN CONSULTANTS :		CLIENT			
SHGA-FS-LAY-1000		— EXISTING ROAD										GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA			
		— RIVER/NALA															
		- - - RAILWAY LINE				D		DEC 15		FOURTH SUBMISSION (KD-6)		PRa		RMe		AKg	
		— ACCESS ROAD				C		DEC 15		THIRD SUBMISSION (KD-5)		PRa		RMe		AKg	
		— ROW		RIGHT OF WAY (ROW)		B		SEP 15		SECOND DRAFT (KD-4)		PRa		RMe		AKg	
						A		AUG 15		FIRST DRAFT (INTERIM PROGRESS-KD3)		PRa		RMe		AKg	
						REV.		DATE		PARTICULARS		Drawn		Checked		Approved	
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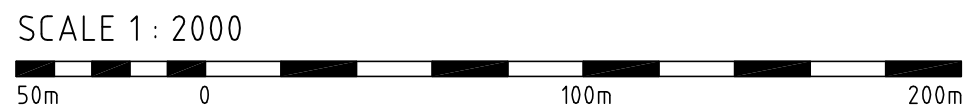


LAYOUT PLAN
SCALE 1:2000



LONGITUDINAL SECTION ALONG T6-L
SCALE 1:2000

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.



PRELIMINARY

REFERENCE DRAWINGS:
SHGA-FS-LAY-1000

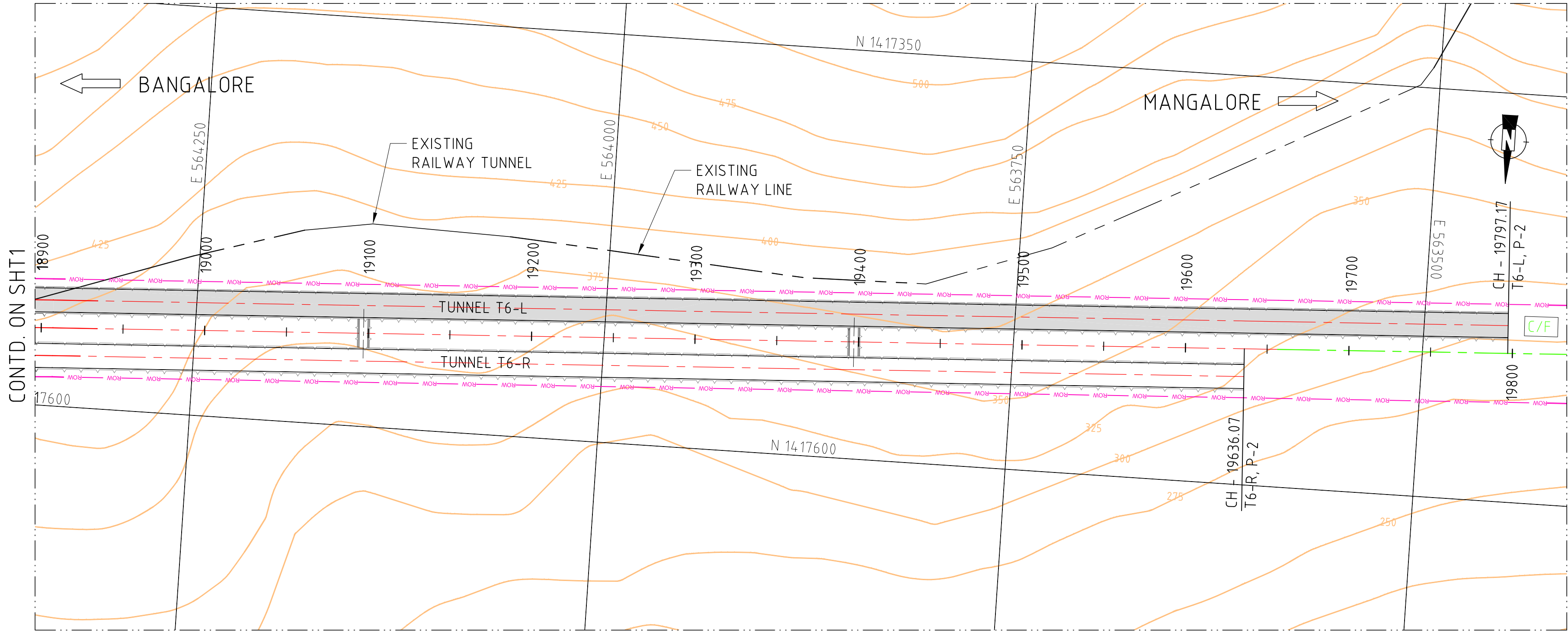
NOTES:
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.

LEGEND:
— EXISTING ROAD
— RIVER/NALA
--- RAILWAY LINE
— ACCESS ROAD
— ROW— RIGHT OF WAY (ROW)

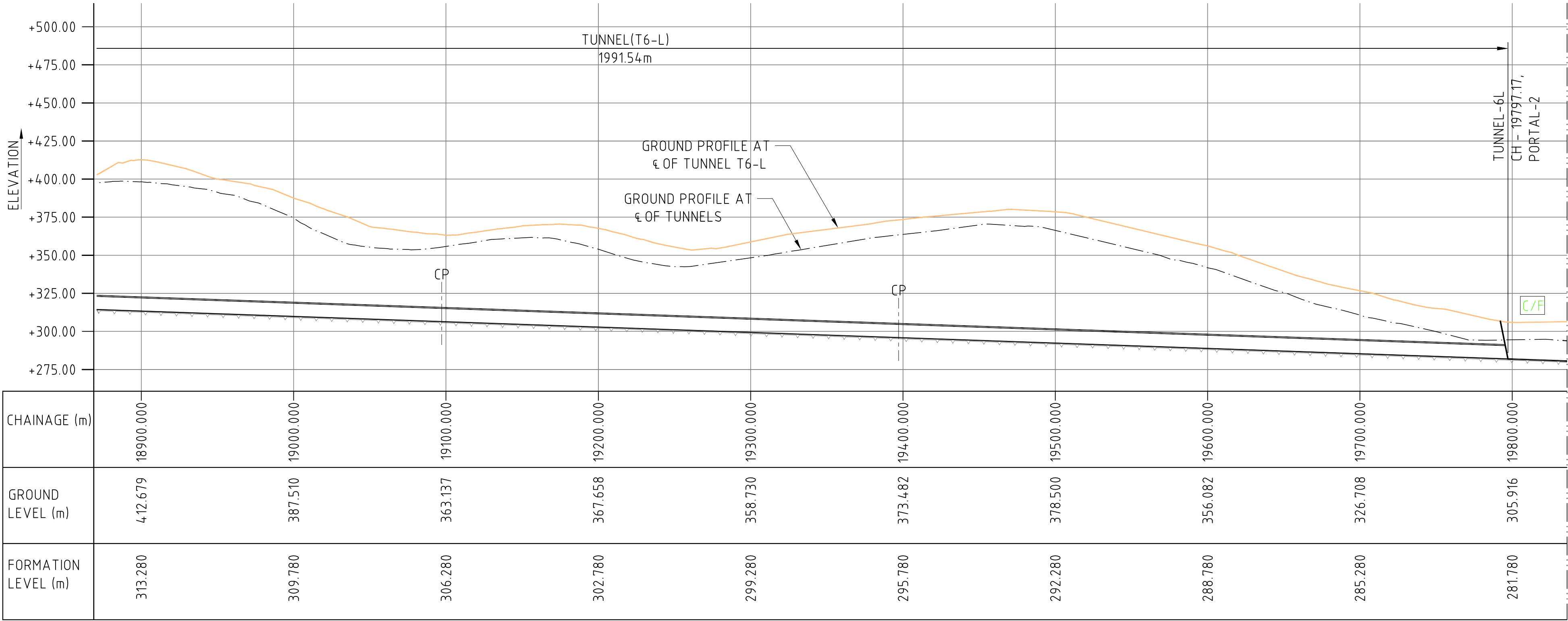
REVISION						QUALITY ASSURANCE					
						The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.					
D	DEC 15	FOURTH SUBMISSION (KD-6)		PRa	RMe	AKg	Date (FIRST ISSUE)	SEP 2015	SEP 2015	SEP 2015	SEP 2015
C	DEC 15	THIRD SUBMISSION (KD-5)		PRa	RMe	AKg	Name	PRa	RMe	BRs	BRs
B	SEP 15	SECOND DRAFT (KD-4)		PRa	RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk
A	AUG 15	FIRST DRAFT (INTERIM PROGRESS-KD3)		PRa	RMe	AKg					Approved
REV.	DATE	PARTICULARS		Drawn	Checked	Approved	Originators				

DESIGN CONSULTANTS: GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)	
PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780	
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GEOCONSULT, PRa, R\16000 Projects\36060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-T6-L_T6L_1100-1151_D.dwg, 2015-12-8	

CLIENT		
GOVERNMENT OF KARNATAKA		
DRAWING TITLE		
TUNNEL - T6-L		
GENERAL ARRANGEMENT		
PLAN AND L-SECTION_SHT1		
DRAWING NUMBER		REV
SHGA-FS-T6-1151		D
SCALE	MONTH	DEC 2015
AS SHOWN	(Current Issue)	

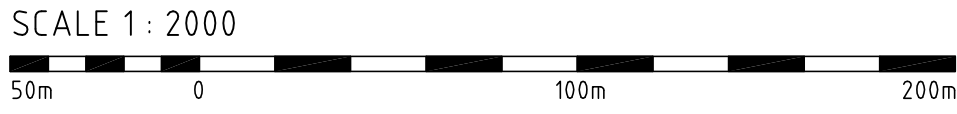


LAYOUT PLAN
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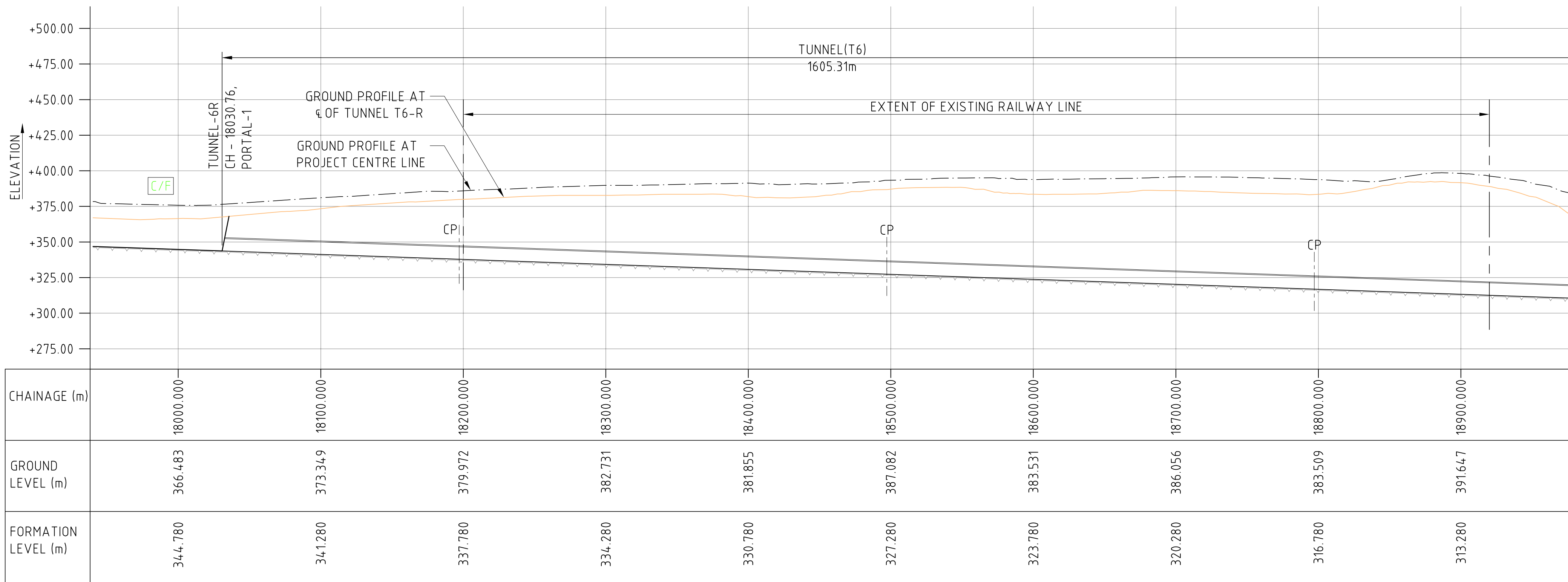
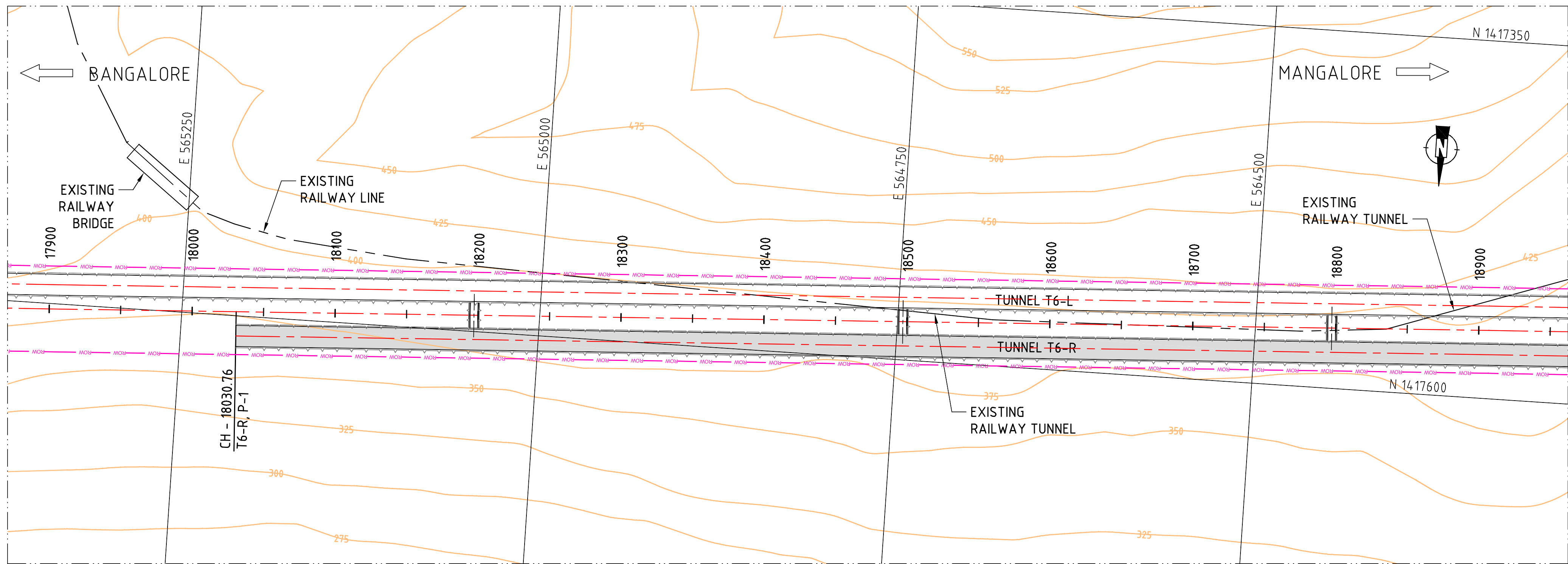
LONGITUDINAL SECTION ALONG T6-L
SCALE 1:2000

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

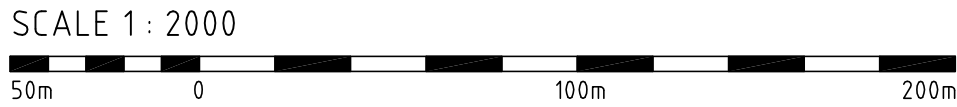


PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS :		CLIENT	
SHGA-FS-LAY-1000		— EXISTING ROAD														GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA	
		— RIVER/NALA																	
		- - - RAILWAY LINE				D		DEC 15		FOURTH SUBMISSION (KD-6)		PRa		RMe		AKg			
		— ACCESS ROAD				C		DEC 15		THIRD SUBMISSION (KD-5)		PRa		RMe		AKg			
		— RIGHT OF WAY (ROW)				B		SEP 15		SECOND DRAFT (KD-4)		PRa		RMe		AKg			
						A		AUG 15		FIRST DRAFT (INTERIM PROGRESS-KD3)		PRa		RMe		AKg			
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												Originators							
												Date (FIRST ISSUE)		SEP 2015		SEP 2015		SEP 2015	
												Name		PRa		RMe		ADh/RMe	
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														Approved					

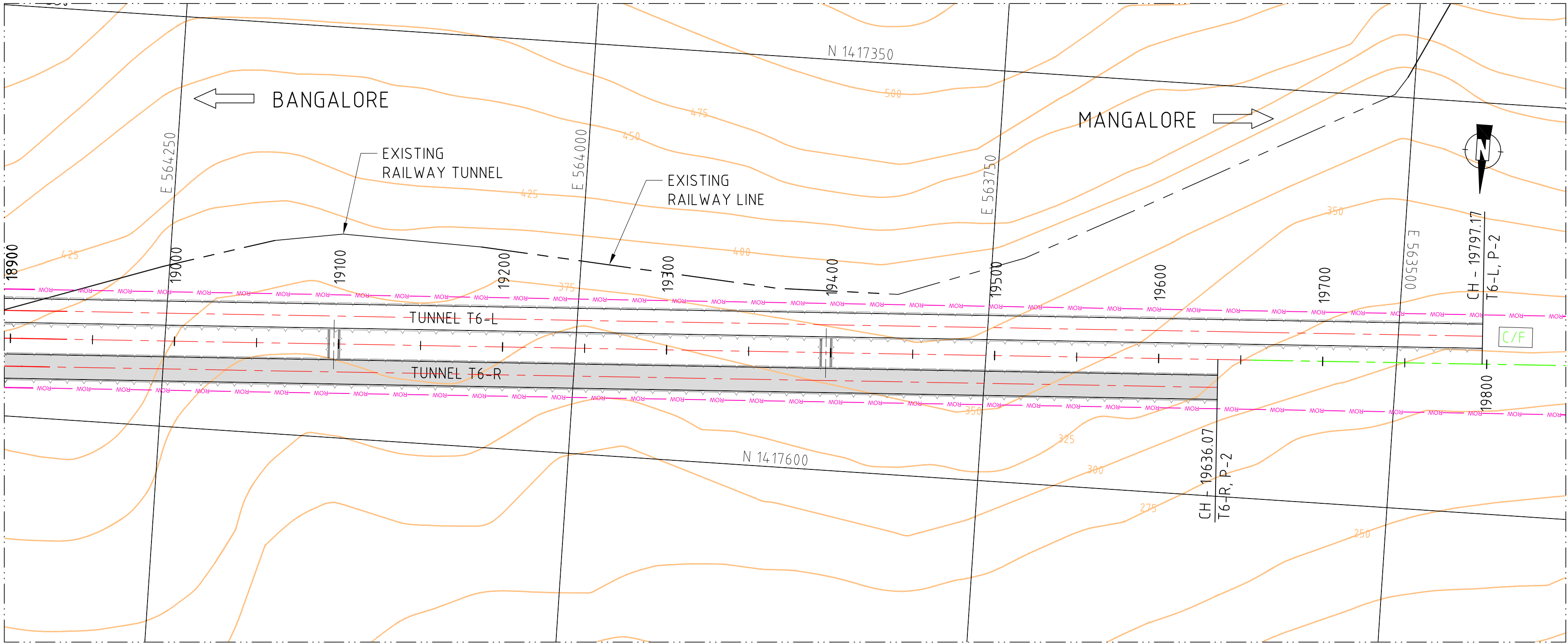


TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

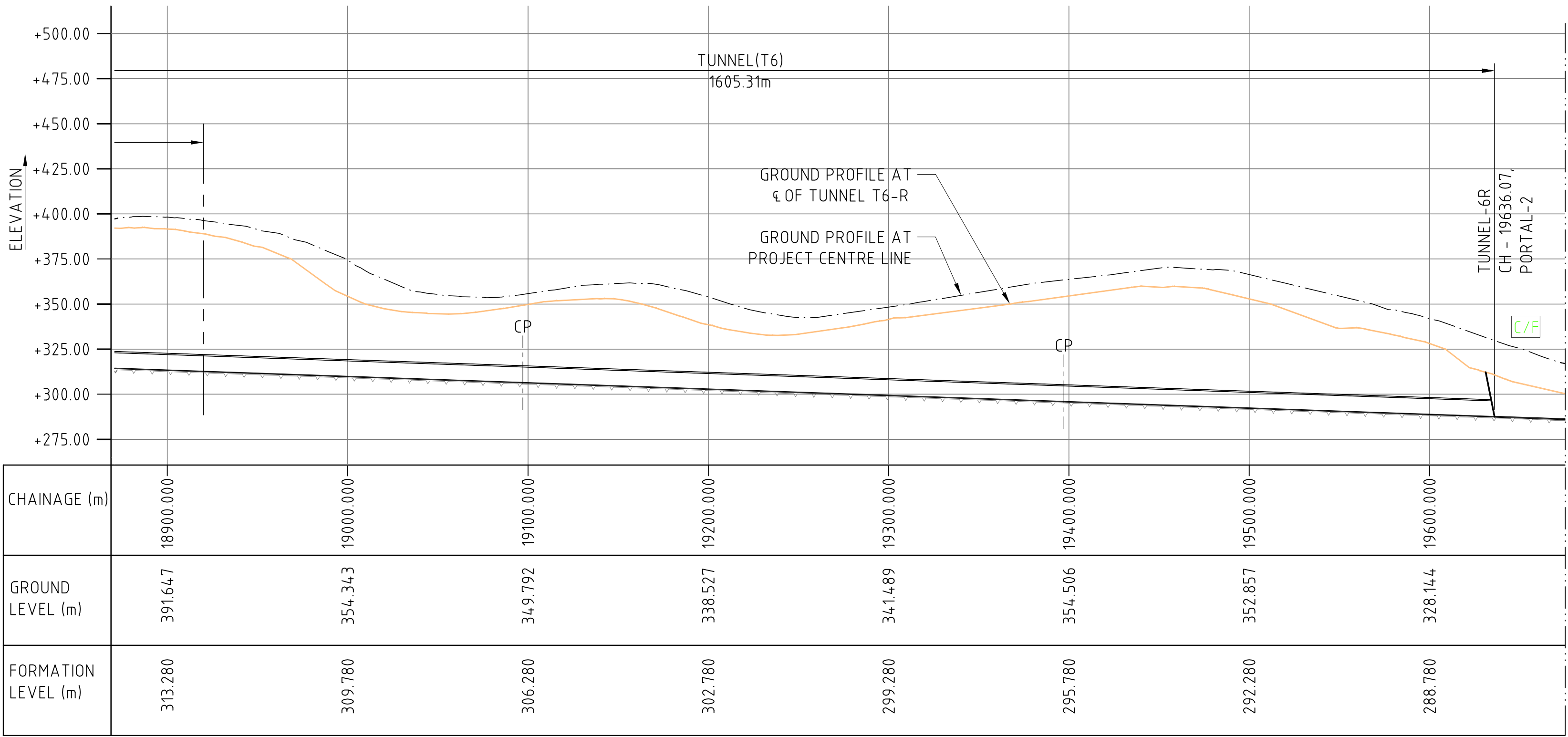


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REFERENCE DRAWINGS:		LEGEND:		REVISION		QUALITY ASSURANCE						DESIGN CONSULTANTS :		CLIENT	
SHGA-FS-LAY-1000		— EXISTING ROAD										GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		GOVERNMENT OF KARNATAKA	
NOTES:		— RIVER/NALA										PROJECT TITLE		DRAWING TITLE	
1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.		--- RAILWAY LINE				D DEC 15		FOURTH SUBMISSION (KD-6)		PRa RMe AKg		CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		TUNNEL - T6-R GENERAL ARRANGEMENT PLAN AND L-SECTION_SHT1	
		— ACCESS ROAD				C DEC 15		THIRD SUBMISSION (KD-5)		PRa RMe AKg		Name PRa RMe BRs BRs AKg		DRAWING NUMBER	
		— ROW RIGHT OF WAY (ROW)				B SEP 15		SECOND DRAFT (KD-4)		PRa RMe AKg		Drawn Drafting Chk Designed Design Chk Approved		SHGA-FS-T6-1152	
						A AUG 15		FIRST DRAFT (INTERIM PROGRESS-KD3)		PRa RMe AKg				REV	
						REV DATE		PARTICULARS		Drawn Checked Approved		Originators		D	
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														AS SHOWN	
														MONTH	
														(Current Issue) DEC 2015	



LAYOUT PLAN
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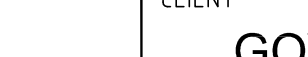


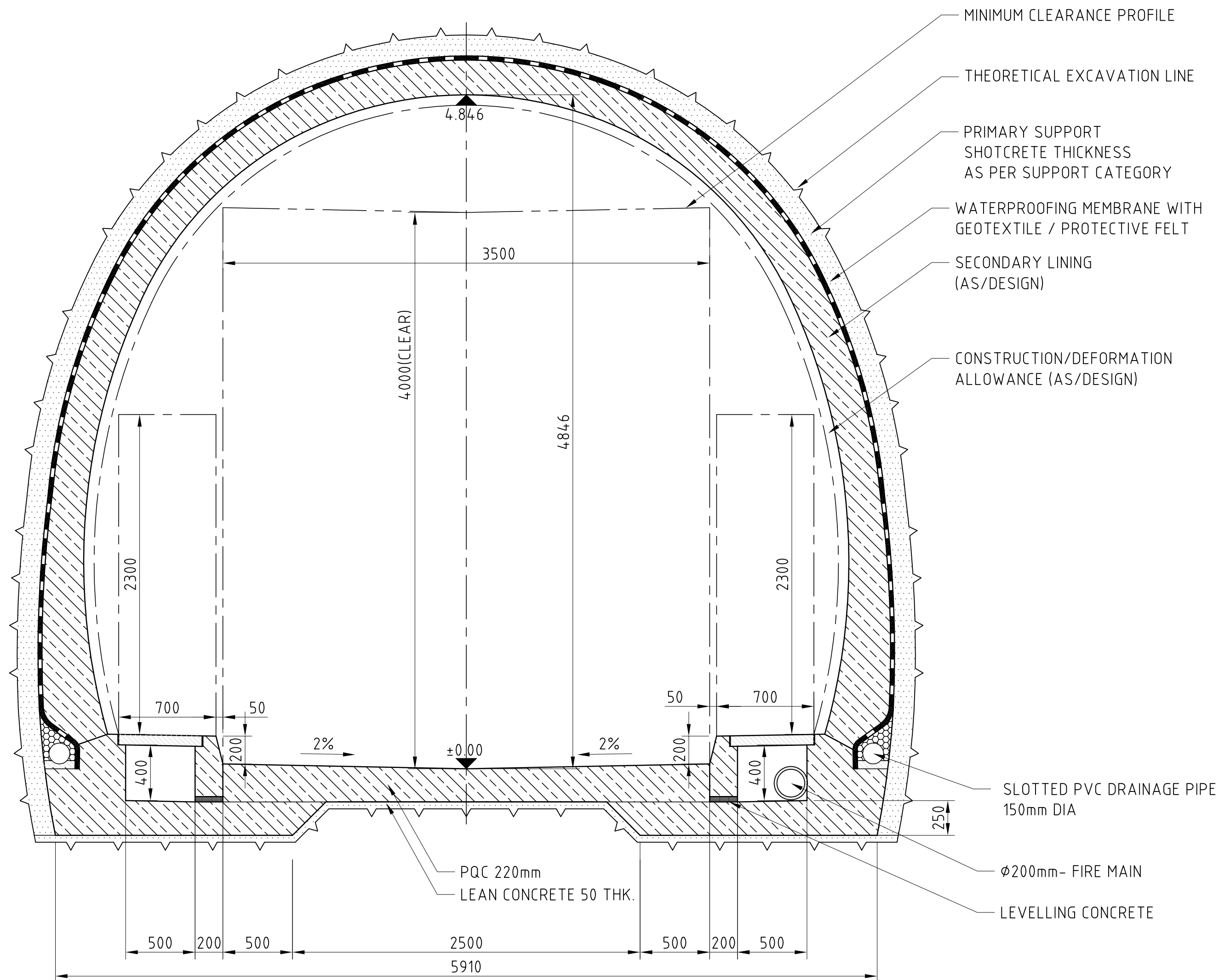
LONGITUDINAL SECTION ALONG T6-R
SCALE 1:2000

TUNNELS PLAN AND SECTIONS ARE BASED ON PRELIMINARY IMAGERY DATA OF THE AREA AND MAY CHANGE AFTER GETTING DETAILED SURVEY DONE.

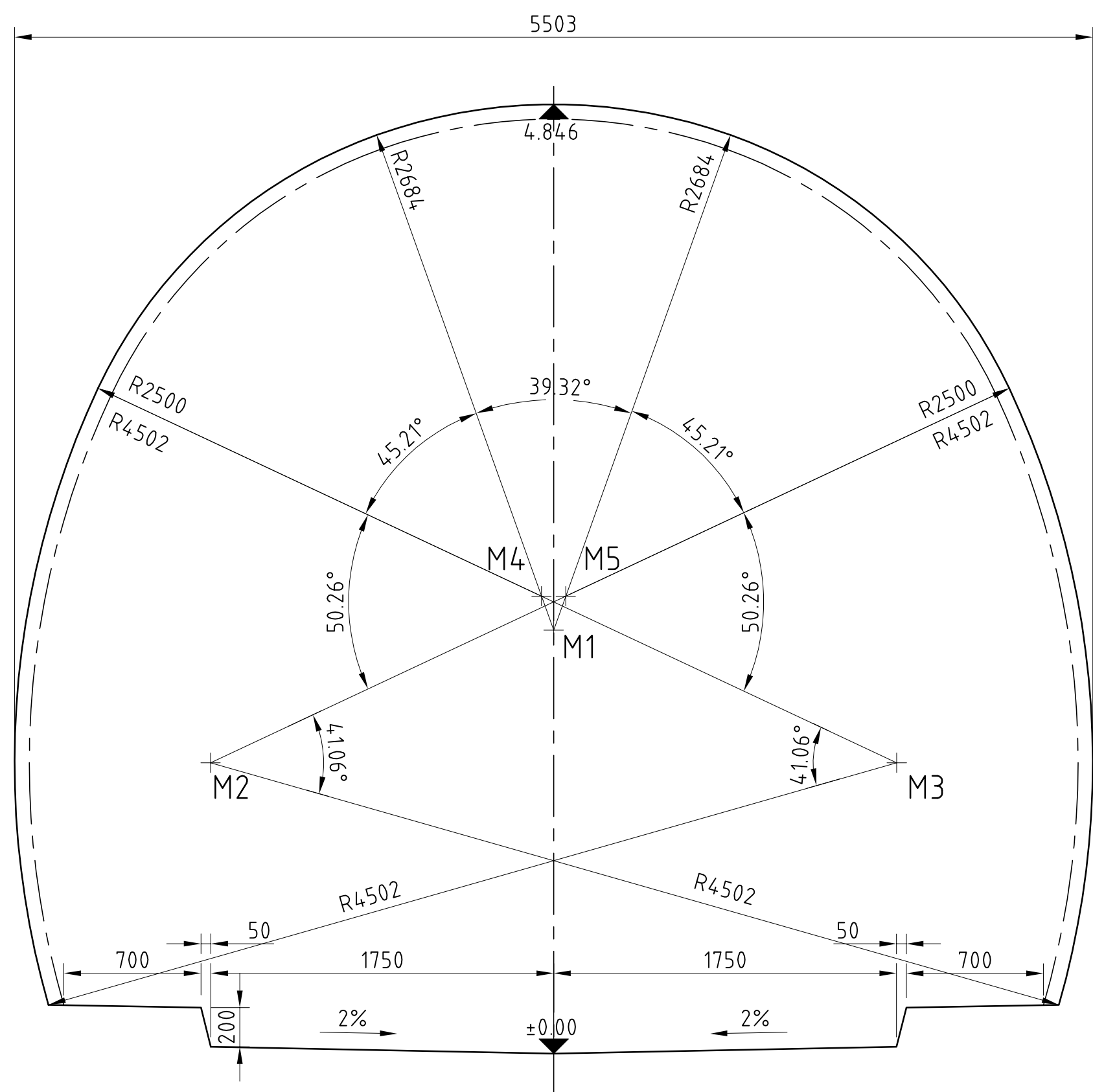


PRELIMINARY

REFERENCE DRAWINGS:		LEGEND:		REVISION		QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA													
SHGA-FS-LAY-1000		— EXISTING ROAD — RIVER/NALA - - - RAILWAY LINE — ACCESS ROAD — ROW RIGHT OF WAY (ROW)				The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.										DRAWING TITLE TUNNEL - T6-R													
NOTES: 1. ALL DIMENSIONS, CHAINAGES AND ELEVATIONS ARE IN m.				D DEC 15 FOURTH SUBMISSION (KD-6)		PRa		RMe		AKg		Date (FIRST ISSUE)		SEP 2015		SEP 2015		SEP 2015		SEP 2015		SEP 2015		PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780		DRAWING NUMBER SHGA-FS-T6-1152		REV D	
				C NOV 15 THIRD DRAFT (KD5)		PRa		RMe		AKg		Name		PRa		RMe		BRs		BRs		AKg							
				B SEP 15 SECOND DRAFT (KD-4)		PRa		RMe		AKg		Drawn		Drafting Chk		Designed		Design Chk		Approved									
				A AUG 15 FIRST DRAFT (INTERIM PROGRESS-KD3)		PRa		RMe		AKg		Originators																	
				REV DATE PARTICULARS		Drawn		Checked		Approved																SCALE AS SHOWN		MONTH (Current Issue) DEC 2015	



REGULAR CROSS SECTION
WITH FLAT INVERT
SCALE 1:25



REGULAR CROSS SECTION
GEOMETRICAL DEFINITION
SCALE 1:25

POINT COORDINATES (mm)		
Point	X	Y
M1	0	+2162
M2	-1751	+1485
M3	+1751	-1485
M4	-62	+2336
M5	+62	+2336


NOTES :

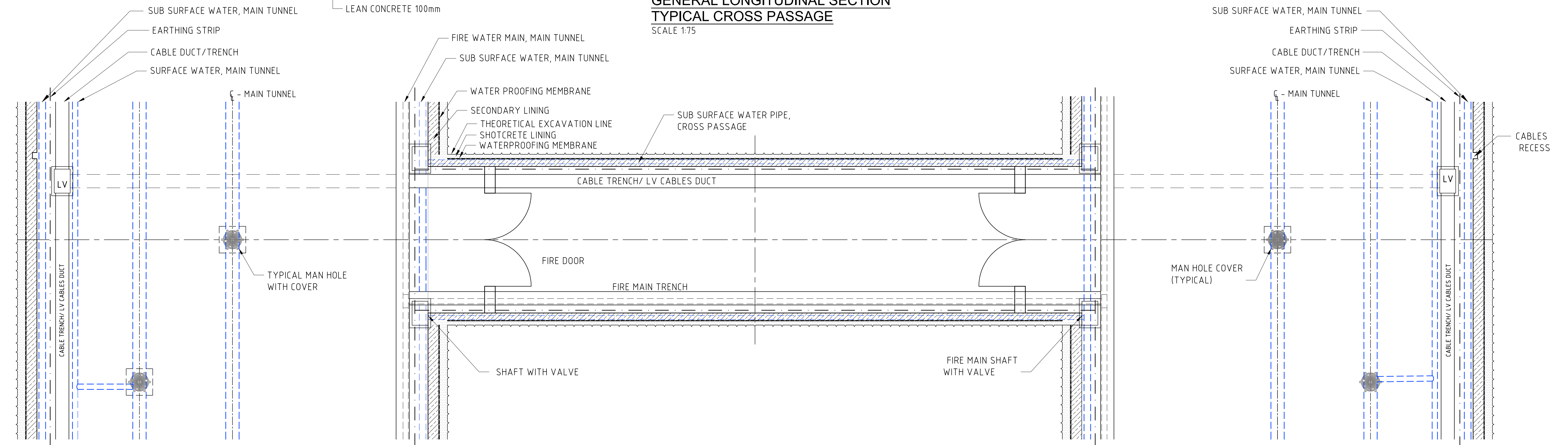
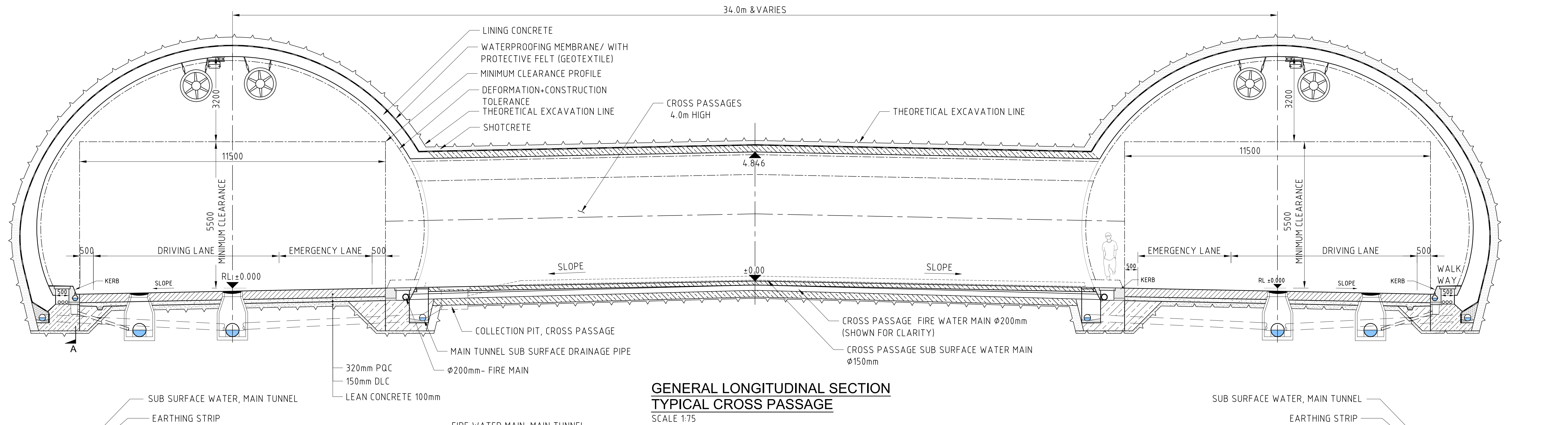
- ALL DIMENSIONS ARE IN m UNLESS NOTED OTHERWISE.
- PAVEMENT CROSS SECTION TAKES IN TO ACCOUNT THAT, ROCK IS BELOW LEAN CONCRETE AND OF SUFFICIENT STIFFNESS.

SCALE 1 : 25



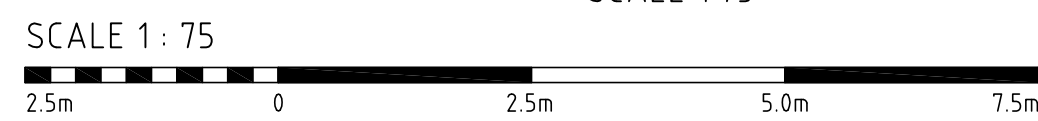
PRELIMINARY


REFERENCE DRAWINGS:	LEGEND:	REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA		
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.											
														PROJECT TITLE					
								Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015	CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780					
		B	DEC 2015	SECOND DRAFT (KD-6)					RMe	BRs	FKr	Name	RMe	RMe	BRs			BRs	FKr
		A	DEC 2015	FIRST DRAFT (KD-5)					RMe	BRs	FKr		Drawn	Drafting Chk	Designed			Design Chk	Approved
		REV. DATE		PARTICULARS					Drawn	Checked	Approved	Originators		This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned. GEOCONSULT, Aba, R/16000 Project+16066-Shiradi Ghat+CURRENT/KD-6/SHGA-FS-VCP-1201_B.dwg, 2015-12-18					
DRAWING NUMBER SHGA-FS-CP-1201												REV B							
SCALE 1:25												MONTH (Current Issue) DEC 2015							

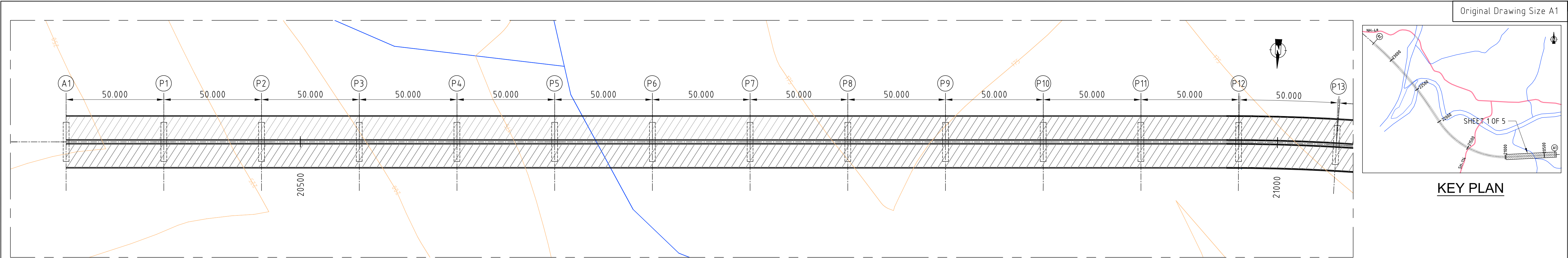


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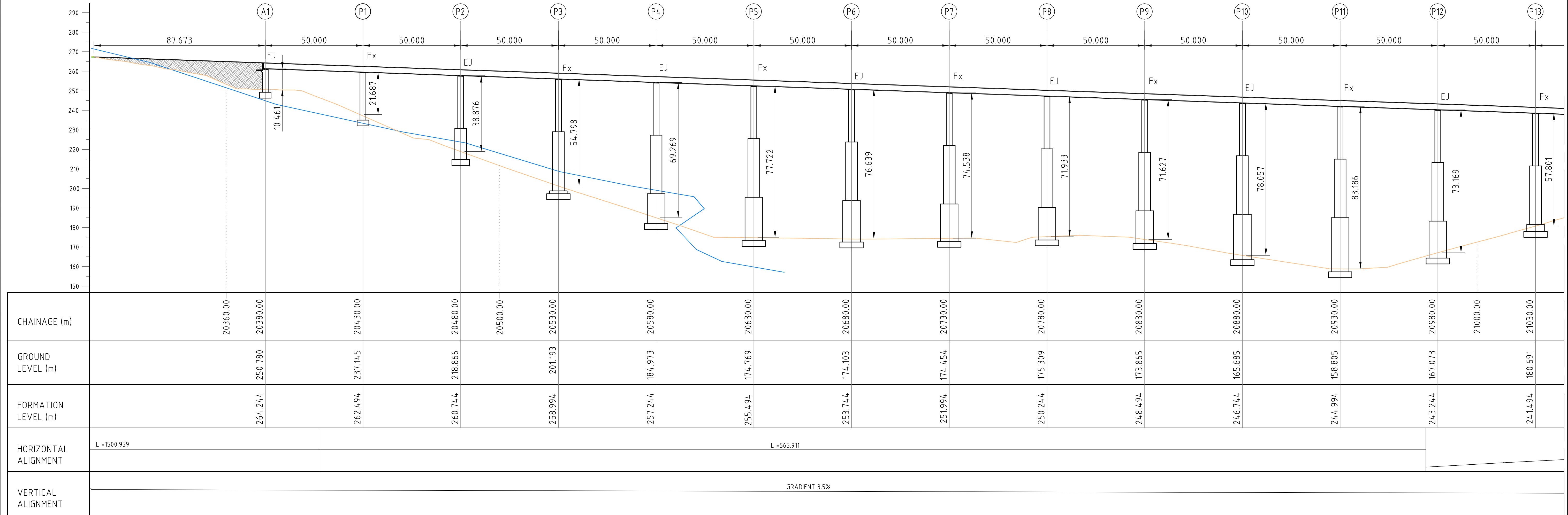
1. ALL DIMENSIONS ARE IN m UNLESS NOTED OTHERWISE.
2. DRAINAGE PIPES ARRANGEMENT IS PRELIMINARY ONLY AND MAY CHANGE AT DEATEDILED DESIGN STAGE.



REFERENCE DRAWINGS:	LEGEND:	REVISION					QUALITY ASSURANCE					DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)			CLIENT GOVERNMENT OF KARNATAKA				
							The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and The contractor.					DRAWING TITLE VEHICULAR CROSS PASSAGE GENERAL ARRANGEMENT PLAN AND L-SECTION							
							Date (FIRST ISSUE)	DEC 2015	DEC 2015	DEC 2015	DEC 2015	DEC 2015	PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780						
		B	DEC 2015	SECOND DRAFT (KD-6)			RMe	BRs	FKr	Name	RMe	RMe	BRs		BRs	FKr	DRAWING NUMBER SHGA-FS-VCP-1211		
		A	DEC 2015	FIRST DRAFT (KD-5)			RMe	BRs	FKr		Drawn	Drafting Chk	Designed		Design Chk	Approved	REV B		
		REV.	DATE	PARTICULARS			Drawn	Checked	Approved	Originators					This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility for this document to any other party other than the person by whom it was commissioned.				
												GEOCONSULT, Aha, R\16000 Projects\16060-Shiradi Ghat\CURRENT\KD-6\SHGA-FS-VCP-1211_B.dwg, 2015-12-18					SCALE 1:75		
																	MONTH (Current Issue) DEC 2015		




PLAN
SCALE 1:1000



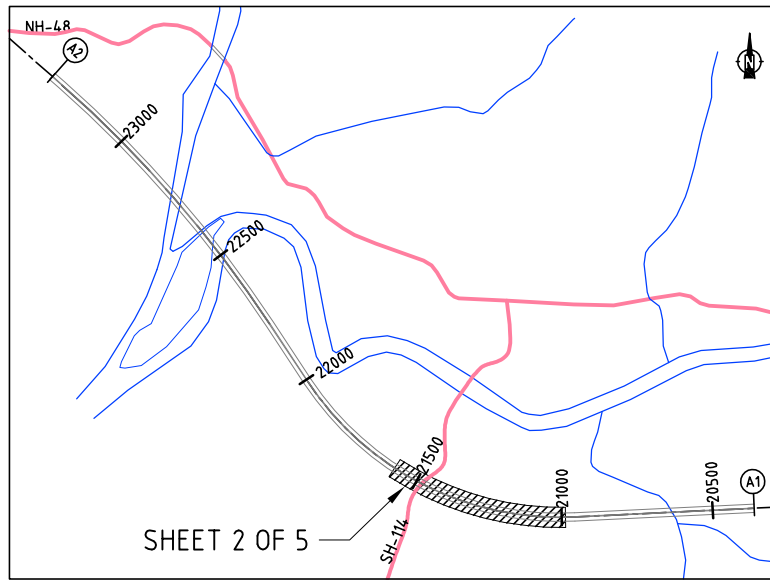
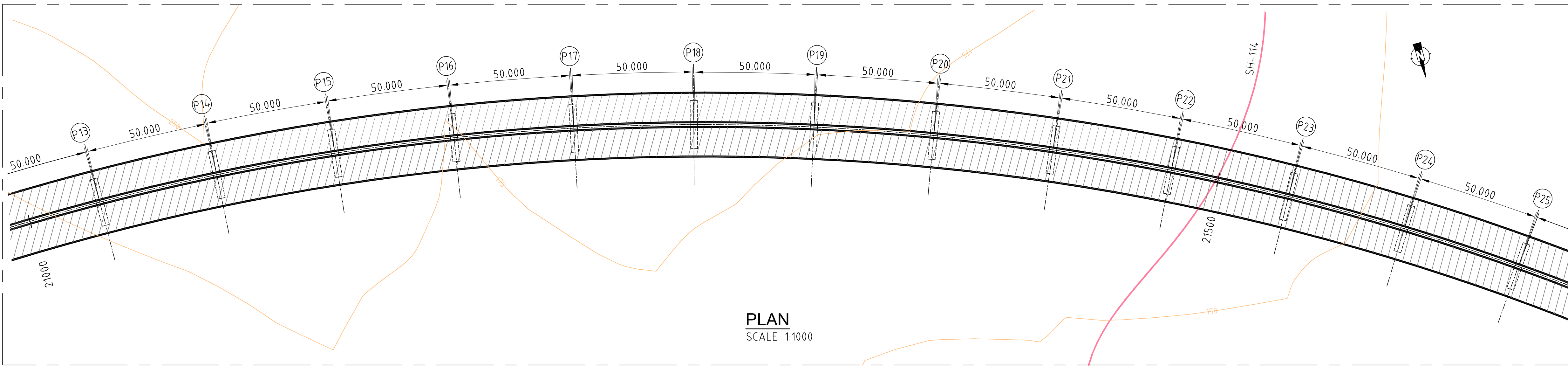
LONGITUDINAL SECTION AT PROJECT CENTRE LINE
SCALE 1:1000

- NOTES:
- SPAN ARRANGEMENTS SHOWN ARE PRELIMINARY AND SHALL BE VERIFIED / FINALISED AFTER DETAILED GEOLOGICAL INVESTIGATION AND TOPOGRAPHIC SURVEY.
 - THIS DRAWING SHALL BE READ ALONGWITH DRAWING NUMBER SHGA-FS-GEN-014, FOR GENERAL PIERS SECTIONS ADAPTABILITY .

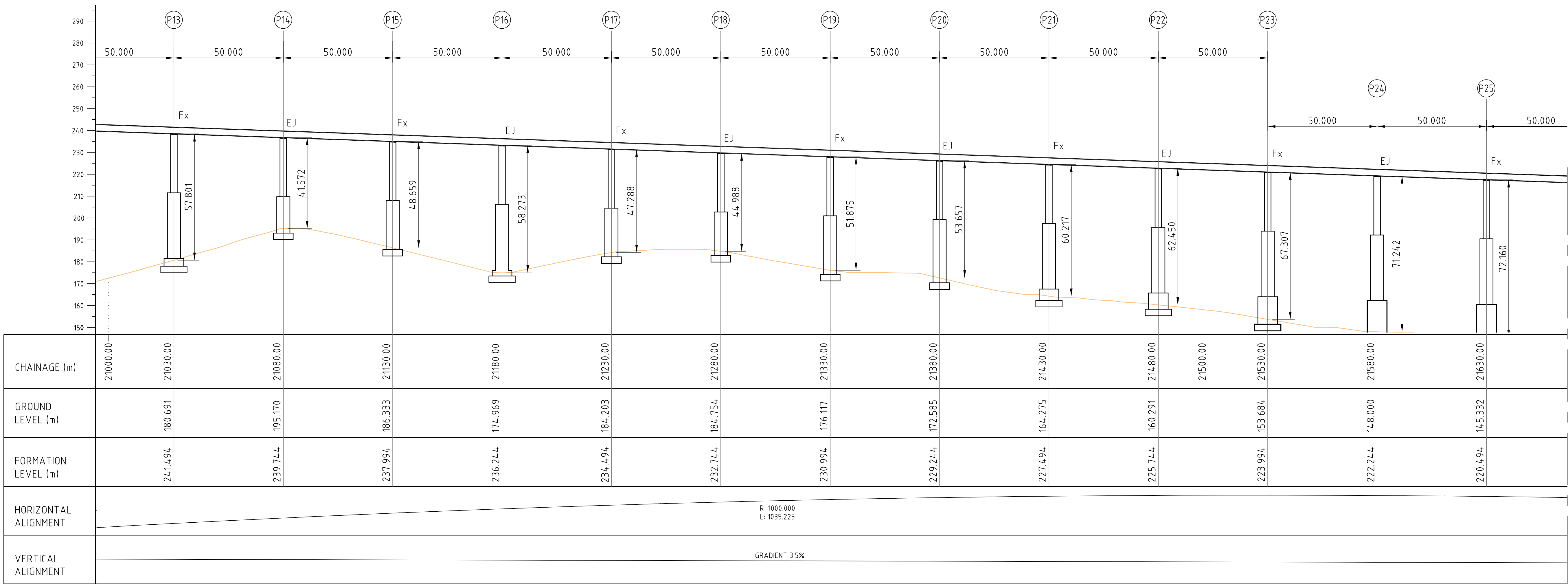
PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 SHGA-FS-GEN-014 (TYPICAL CROSS-SECTION)	LEGEND: EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT ▣ - BRIDGE DECK	REVISION					QUALITY ASSURANCE					DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA			
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.									
													PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780				
		D	DEC 2015	FOURTH SUBMISSION (KD-6)			PRa	ADh/RMe	AKg	Date (FIRST ISSUE)	AUG 15	AUG 15					
		C	DEC 2015	THIRD SUBMISSION (KD-5)			PRa	ADh/RMe	AKg	Name	ABa/PRa	RMe	ADh	ADh/AKg	AKg		
		B	SEP 2015	SECOND DRAFT			PRa	ADh/RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk	Approved		
		A	AUG 2015	FIRST DRAFT			ABa	ADh/RMe	AKg								
		REV.	DATE	PARTICULARS			Drawn	Checked	Approved	Originators							
		EGECONSULT, Aba, R/16000 Project/V6060-Shiradi Ghat/CURRENT VKD-6/SHGA-FS-VD1-1501_D.dwg, 2015-12-18															

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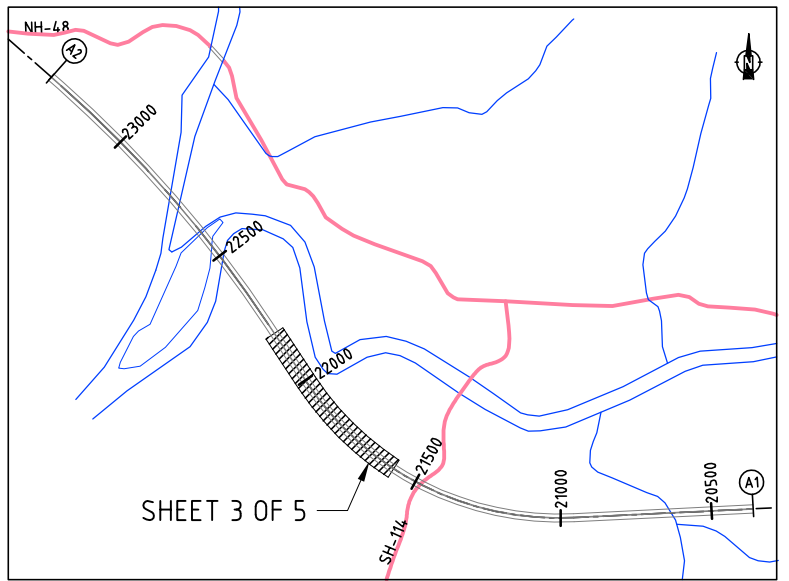
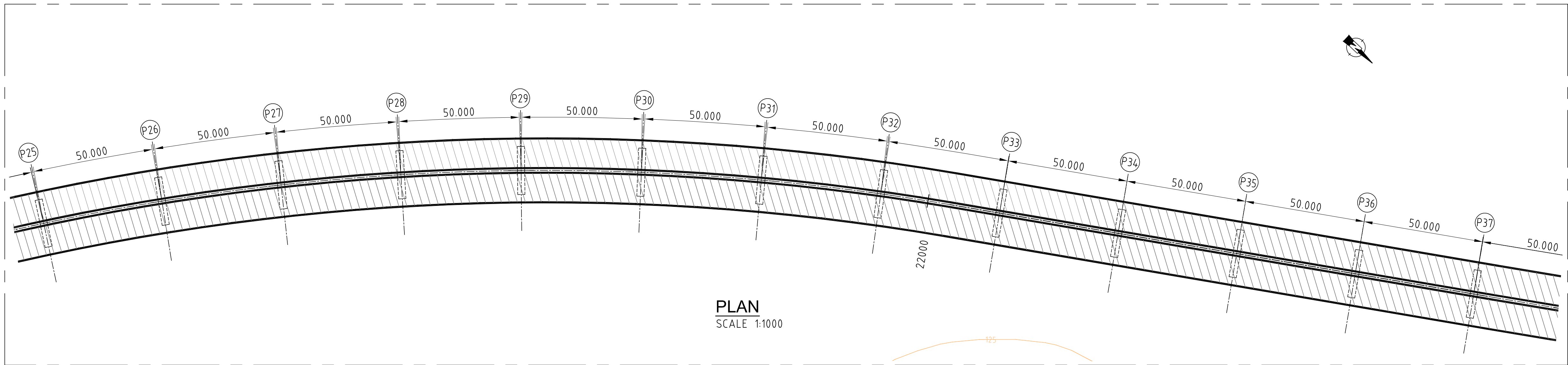
LONGITUDINAL SECTION AT PROJECT CENTRE LINE
SCALE 1:1000

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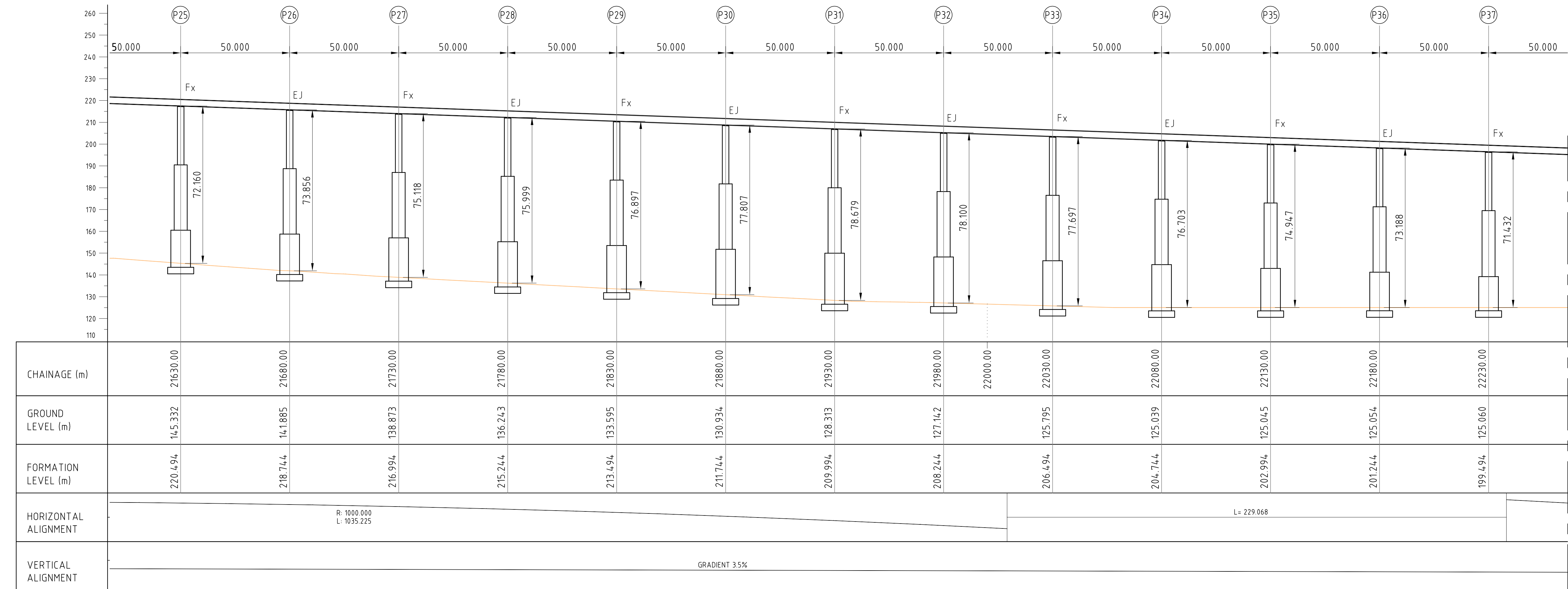
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PRELIMINARY

REFERENCE DRAWINGS: SHGA-FS-LAY-1000 SHGA-FS-GEN-014 (TYPICAL CROSS-SECTION)	LEGEND: EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT ☐ - BRIDGE DECK	REVISION					QUALITY ASSURANCE					DESIGN CONSULTANTS: GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA	
								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.							
		D	DEC 2015	FOURTH SUBMISSION (KD-6)	PRa	ADh/RMe	AKg	Date (FIRST ISSUE)	AUG 15	AUG 15	AUG 15	AUG 15			AUG 15
		C	DEC 2015	THIRD SUBMISSION (KD-5)	PRa	ADh/RMe	AKg	Name	ABa/PRa	RMe	ADh	ADh/AKg			AKg
		B	SEP 2015	SECOND DRAFT	PRa	ADh/RMe	AKg		Drawn	Drafting Chk	Designed	Design Chk			Approved
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PROJECT TITLE CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780												DRAWING NUMBER SHGA-FS-VD1-1501		REV D	
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SCALE 1:1000

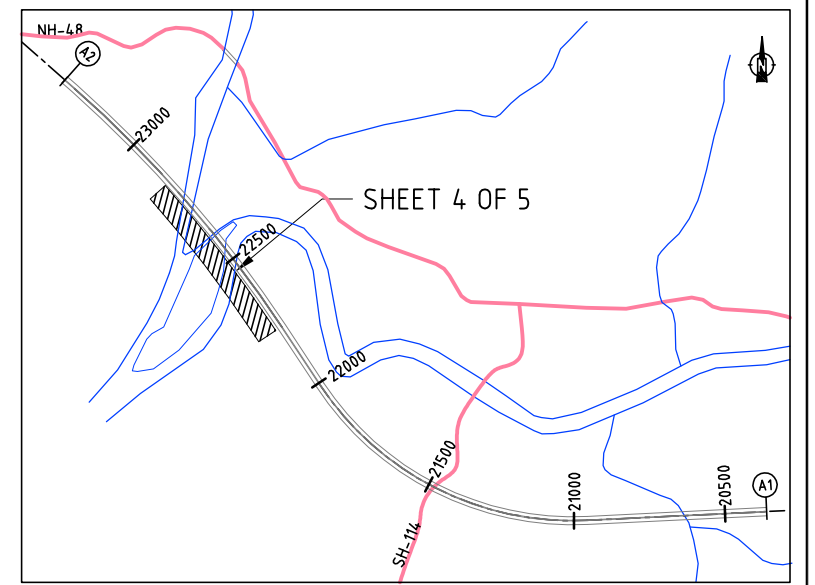
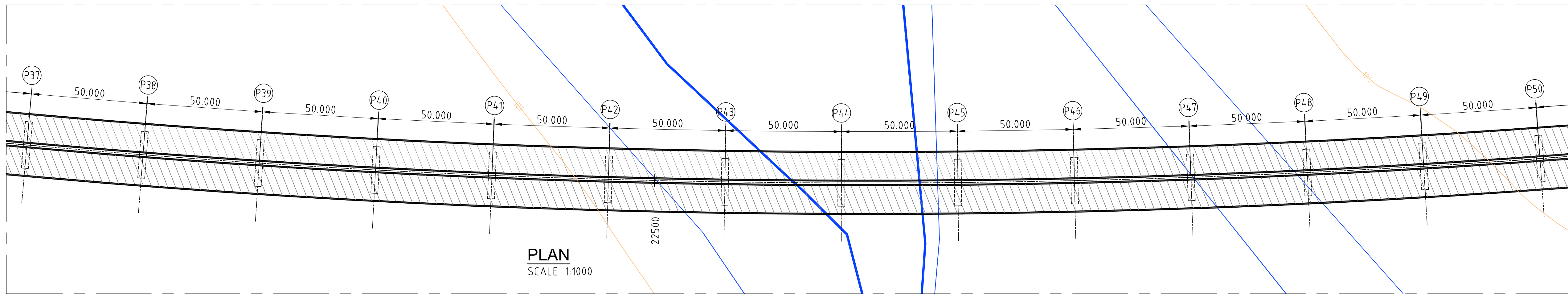


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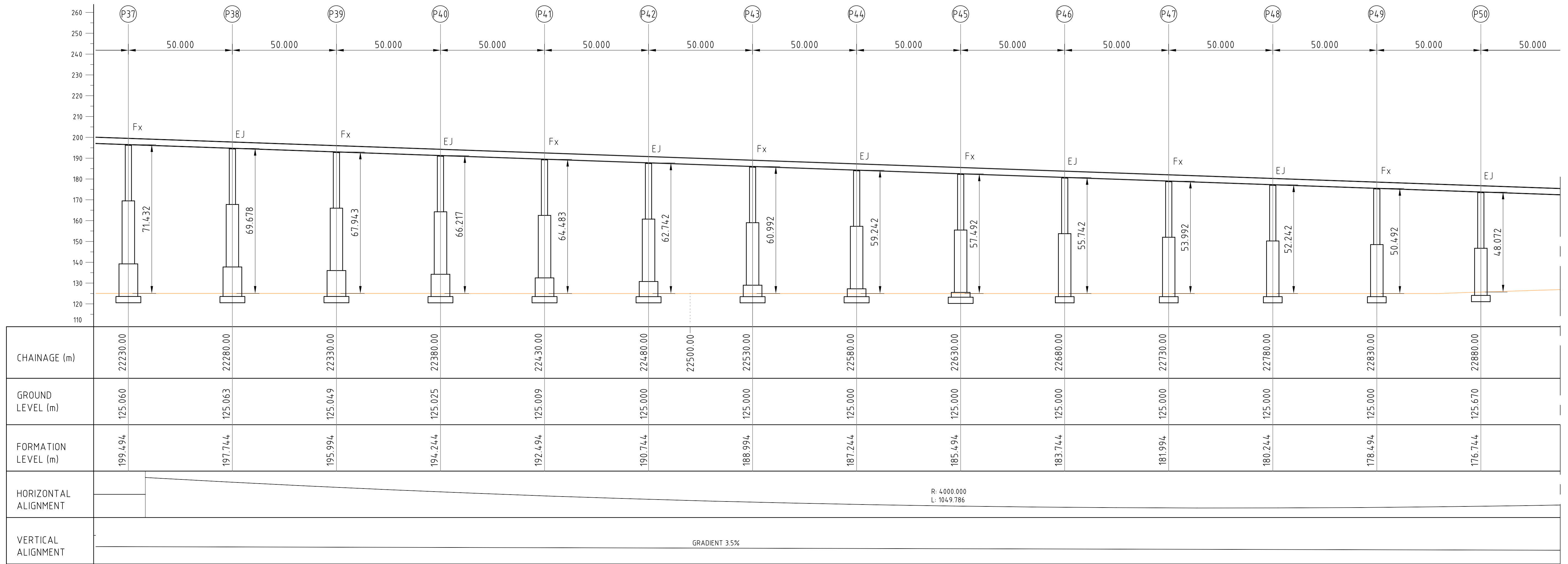
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REFERENCE DRAWINGS: SHGA-FS-LAY-1000 SHGA-FS-GEN-014 (TYPICAL CROSS-SECTION)	LEGEND: EJ- EXPANSION JOINT Fx - FIXED JOINT Fr - FREE JOINT ▤ - BRIDGE DECK	REVISION					QUALITY ASSURANCE					DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)		CLIENT GOVERNMENT OF KARNATAKA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								



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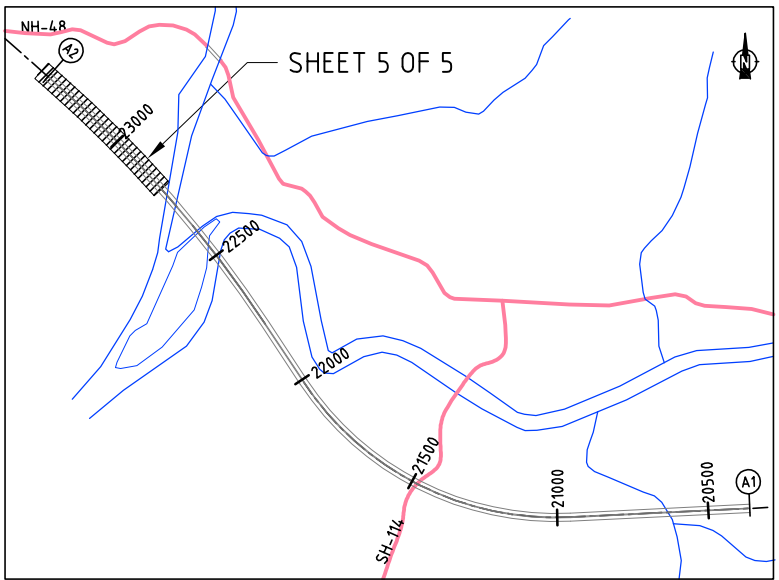
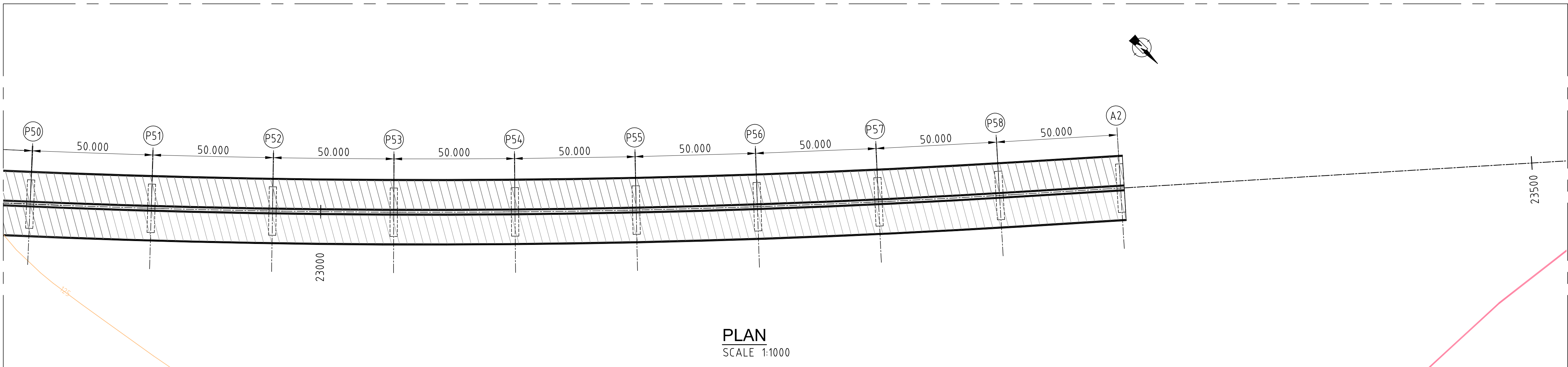
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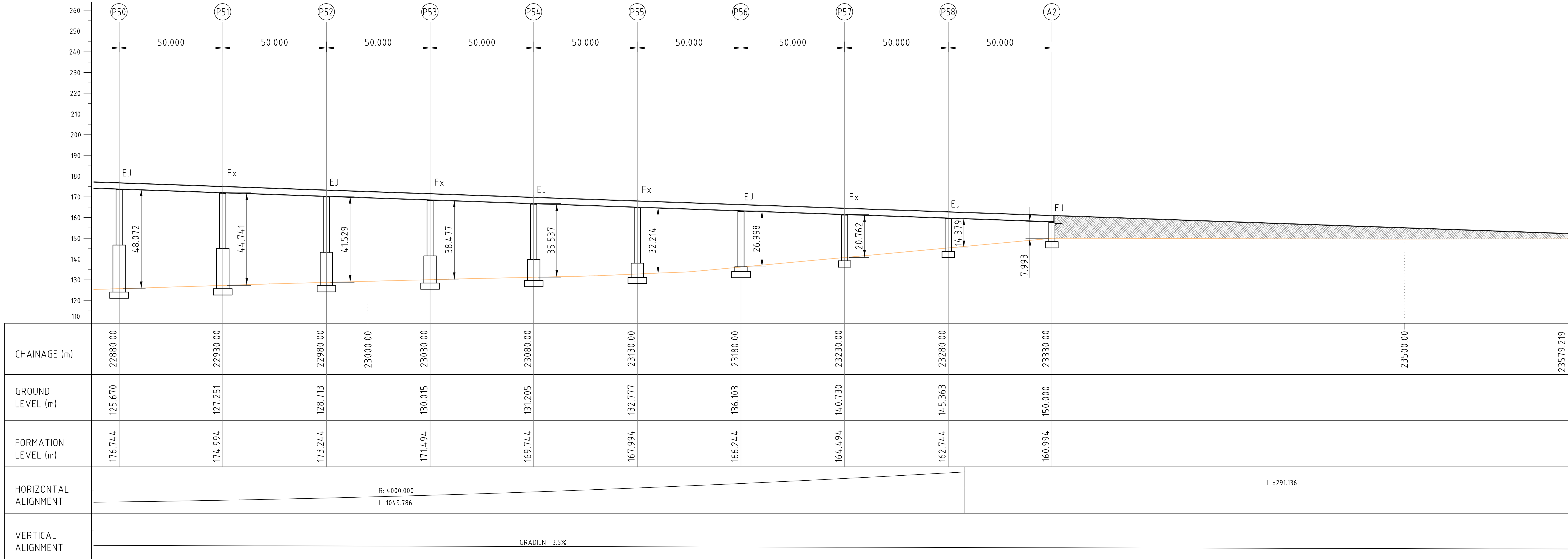


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REFERENCE DRAWINGS:		LEGEND:		REVISION						QUALITY ASSURANCE						DESIGN CONSULTANTS : GEOCONSULT India Pvt. Ltd. Plot No. 473, Industrial Estate, Udyog Vihar, Phase V Gurgaon-122016, (India)				CLIENT GOVERNMENT OF KARNATAKA	
SHGA-FS-LAY-1000		EJ- EXPANSION JOINT								The responsibility of control, check and verification of accuracy, correctness, completeness, integration and full compliance of contract provisions in respect of design analysis and drawings rests with the design consultants and the contractor.										DRAWING TITLE VIADUCT (CH.20362.44 TO 23579.21)	
SHGA-FS-GEN-014 (TYPICAL CROSS-SECTION)		Fx - FIXED JOINT																CONSULTANCY SERVICES FOR FEASIBILITY-CUM-GEO			
		Fr - FREE JOINT								Date (FIRST ISSUE)		AUG 15		AUG 15		AUG 15		AUG 15		TECHNICAL STUDY FOR BYPASS TO SHIRADI GHAT	
		<input checked="" type="checkbox"/> - BRIDGE DECK		D DEC 2015 FOURTH SUBMISSION (KD-6)						PRa		ADh/RMe		AKg						FROM Km 238.00 TO 261.45 ON NH-48 IN THE STATE	
				C DEC 2015 THIRD SUBMISSION (KD-5)						PRa		ADh/RMe		AKg						OF KARNATAKA- JOB NUMBER NH-48-KNT-2015-16-780	
				B SEP 2015 SECOND DRAFT						PRa		ADh/RMe		AKg							
				A AUG 2015 FIRST DRAFT						ABa		ADh/RMe		AKg							
				REV. DATE PARTICULARS						Drawn		Checked		Approved		Originators				This document should not be relied on or used in circumstances other than those for which it was originally prepared and for which Geoconsult was commissioned. Geoconsult accepts no responsibility to any other party other than the person by whom it was commissioned.	
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		B	SEP 2015	SECOND DRAFT			PRa	ADh/RMe	AKg	Name	ABa/PRa	RMe	ADh	ADh/AKg	AKg		
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SCALE												AS SHOWN		MONTH (Current Issue)		DEC 2015	