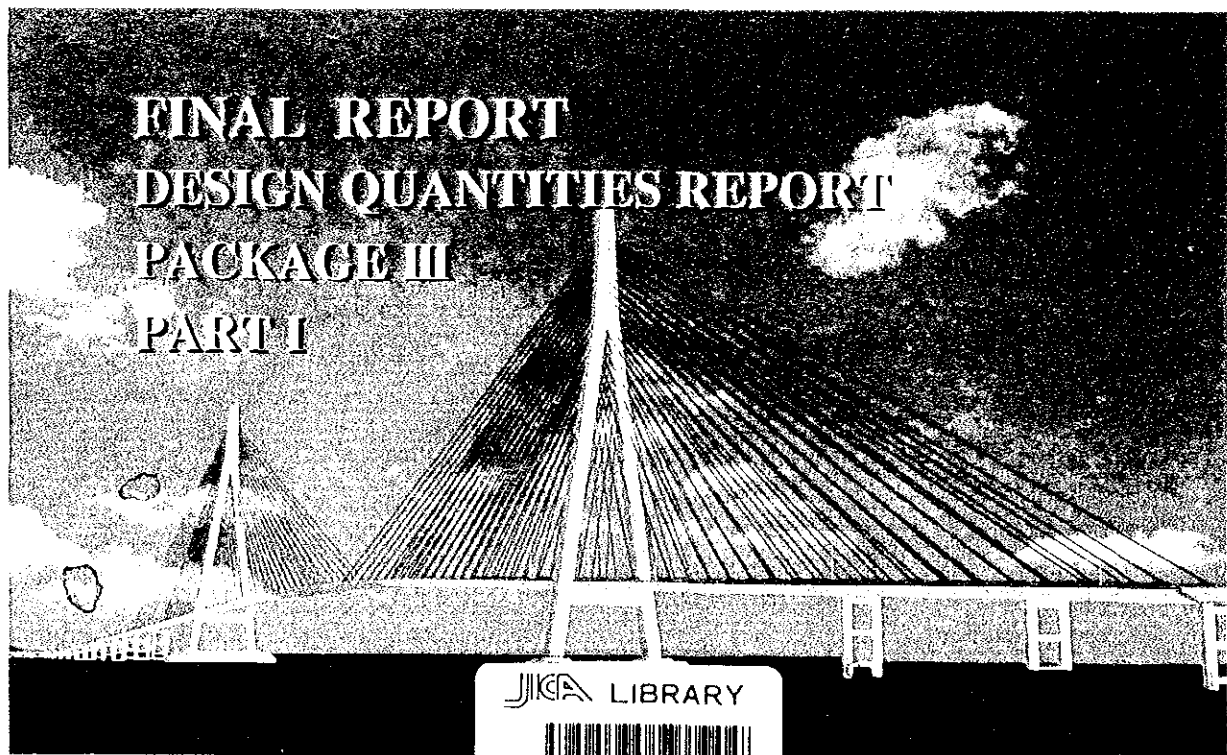


JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
MINISTRY OF TRANSPORT
SOCIALIST REPUBLIC OF VIET NAM

THE DETAILED DESIGN
ON
THE CAN THO BRIDGE CONSTRUCTION
IN
SOCIALIST REPUBLIC OF VIET NAM



FINAL REPORT
DESIGN QUANTITIES REPORT
PACKAGE III
PART I

JICA LIBRARY



J 1161256 (1)

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

MINISTRY OF TRANSPORT

SOCIALIST REPUBLIC OF VIET NAM

**THE DETAILED DESIGN
ON
THE CAN THO BRIDGE CONSTRUCTION
IN
SOCIALIST REPUBLIC OF VIET NAM**

**FINAL REPORT
DESIGN QUANTITIES REPORT
PACKAGE III
PART I**

OCTOBER 2000

NIPPON KOEI CO., LTD.



1161256(1)

Table of Contents

Package III

Part - 1

1.	Road Works	
1.1.	Site Clearing And Demolition	
	Quantity of Clearing (Throughway)	1-1-1
	Quantity of Clearing (Interchange3)	1-1-2
1.2.	Earth Works	
	Quantity of Earth Work	1-2-1
	Quantity of Earth Work (Throughway)	1-2-2
	Quantity of Earth Work (Interchange3)	1-2-13
	Quantity of Earth Work (Service Area)	1-2-23
	Quantity of Settlement, Surcharge and Removal Surcharge (Throughway)	1-2-24
	Quantity of Settlement, Surcharge and Removal Surcharge (Interchange3)	1-2-32
	Quantity of Settlement, Surcharge and Removal Surcharge (Intersection)	1-2-39
	Quantity of Instrumentation	1-2-41
	Quantity of PVD	1-2-46
	Quantity of Preloading Abutments	1-2-51
	Quantity of Preloading Culverts	1-2-52
	Quantity of Relocation Canal	1-2-53
1.3.	Pavement	
	Quantity of Pavement	1-3-1
	Quantity of Pavement (Throughway)	1-3-3
	Quantity of Pavement (Interchange 3)	1-3-13
	Quantity of Pavement (Service Area)	1-3-23
	Quantity of Pavement (Service Road)	1-3-24
1.4.	Miscellaneous	
1.4.1	Quantity of Guardrails	1-4-1
1.4.2	Quantity of Signboards	1-4-4
1.4.3	Quantity of Signposts & Components	1-4-7
1.5.	Appendix	
1.5.1	Stone Masonry for Slope Protection	1-5-1

Table of Contents

1.5.2	Unit Quantity of Drainage System	1-5-2
1.5.3	Unit Quantity of Island (Toll Gate)	1-5-6
1.5.4	Unit Quantity of Concrete Pavement (Toll Gate)	1-5-6
1.5.5	Unit Quantity of Vehicle Guard Rail	1-5-7
1.5.6	Unit Quantity of Warning Signs	1-5-8
1.5.7	Unit Quantity of Traffic Control Utility	1-5-10
1.5.8	Unit Quantity of Landscaping Works	1-5-10
1.5.9	Calculation Result of Settlement	1-5-11
1.5.10	Height and Area of Removing Surcharge	1-5-23
1.6.	Summary	
1.6.1	Summary of Quantity	1-6-1
2.	Drainage system	
2.1.	Box culvert at station 7+820	2-1-1
2.2.	Box culvert at station 7+950	2-2-1
2.3.	Box culvert at station 8+820	2-3-1
2.4.	Box culvert at station 9+326	2-4-1
2.5.	Box culvert at station 9+760	2-5-1
2.6.	Box culvert at station 10+310	2-6-1
2.7.	Box culvert at station 10+690	2-7-1
2.8.	Box culvert at station 10+950	2-8-1
2.9.	Box culvert at station 11+451	2-9-1
2.10.	Box culvert at station 11+690	2-10-1
2.11.	Box culvert at station 11+976.5	2-11-1
2.12.	Box culvert at station 12+180	2-12-1
2.13.	Box culvert at station 12+592.5	2-13-1
2.14.	Box culvert at station 12+756	2-14-1
2.15.	Box culvert at station 13+600	2-15-1
2.16.	Box culvert at station 14+247	2-16-1
2.17.	Box culvert at station 14+450	2-17-1
2.18.	Box culvert at station 14+625	2-18-1
2.19.	Box culvert at station 14+890	2-19-1
2.20.	Box culvert at interchange 3 - ramp "A" - station 0+154	2-20-1
2.21.	Box culvert at interchange 3 - ramp "B" - station 0+286.5	2-21-1
2.22.	Box culvert at interchange 3 - ramp "C" - station 0+300	2-22-1

Table of Contents

2.23.	Box culvert at interchange 3 - ramp "D" - station 0+100	2-23-1
2.24.	Box culvert at interchange 3 - ramp "F" - station 0+180	2-24-1
2.25.	Box culvert at intersection 4 - ramp "B" - station 0+223	2-25-1
2.26.	Summary of quantities for Culverts - Package 3	2-26-1

Notes

1. General

Unless otherwise noted these notes are applied to all design quantities.

2. Concrete

Concrete strengths are specified as followings base on 28 days cylinder strength.

Concrete class	Strength	Typical use
Concrete class E	24MPa	Wing wall, Retaining wall, Box culvert, Pipe culvert
Concrete class G	15MPa	Lean concrete, Plain concrete

3. Reinforcement

Reinforcements are specified as SD345.

1. Road Works

1.1. Site Clearing And Demolition

QUANTITY OF CLEARING (throughway)

SECTION No.	BRIDGE NAME	STATION	SECTION LENGTH (m)		QUANTITY (m ²)		REMARKS
			BRIDGE	EARTH WORK	REMOVAL OF EXISTING TREE	RICE FIELD	
1	MAIN-BRIDGE	7 + 660.00	185.9	796.85	42 786	42 511	
	CAI TAC 1	8 + 456.85					
2	CAI TAC 2	8 + 642.75	37.1	788.70	69 352	9 371	
		9 + 431.45					
3	CAI D.A	9 + 468.55	93.5	947.70			
		10 + 416.25					
4	BA MANG	10 + 509.75	25.1	692.70	39 543		
		11 + 202.45					
5	CAI NAI	11 + 227.55	93.5	1 108.70	66 266		
		12 + 336.25					
6	AP MY	12 + 429.75	140.9	679.80	30 781	16 034	
		13 + 109.55					
7	CAI RANG	13 + 250.45	258.5	555.95	32 073	6 405	
		13 + 806.40					
8	E.P	14 + 64.90		1 285.10	61 588	5 299	
		15 + 350.00					
TOTAL			834.50	6 855.50	342 389	79 621	

QUANTITY OF CLEARING (interchange)

No	ITEM	QUANTITY (m2)		REMARKS
		REMOVAL OF EXISTING TREE	RICE FIELD	
1	INTERCHANGE NH No.91(IC3)	105 041	162 297	
2	INTERSETION NH No.1(IS)	13 359	-	
TOTAL		118 400	162 297	

1.2. Earth Works

QUANTITY OF EARTH WORK (throughway+interchange+service area +service road)

No	ITEM	SAND BLANKET	CLAY	SAND FILL	SELECTED MATERIAL	EXCAVATION SOIL	GRAVEL	REMARKS
		m2	m3	m3	m3	m3	m3	
1	THROUGHWAY	290 249	55 214	324 438	56 268	10 039		
2	INTERCHANGE	72 175	18 133	119 109	13 497	5 367		
3	SERVICE AREA	22 643	588	7 501	2 884	0		
4	SERVICE ROAD			38 352			1 916	
	TOTAL	385 067	73 935	489 400	72 629	15 406	1 916	

QUANTITY OF EARTH WORK (throughway)

No	BRIDGE NAME	STATION	SECTION LENGTH (m)		AREA (m2)	QUANTITY OF EARTH WORK (m3)				REMARKS
			BRIDGE	EARTH WORK		SAND BLANKET	EXCAVATION SOIL	SAND (FILL+BLANKET)	SELECTED MATERIAL	
1	MAIN-BRIDGE	7 + 660.00	185.9	796.85	45 248		68 669	9 667	5 866	
	CAI TAC 1	8 + 456.85								
2	CAI TAC 2	8 + 642.75	37.1	788.70	35 024		57 770	6 166	5 733	
		9 + 431.45								
3	CAI D.A	9 + 468.55	93.5	947.70	37 893		54 435	7 758	5 915	
		10 + 416.25								
4	BA MANG	10 + 509.75	25.1	692.70	24 790		38 472	5 381	4 651	
		11 + 202.45								
5	CAI NAI	11 + 227.55	93.5	1 108.70	46 897		111 554	8 282	11 091	
		12 + 336.25								
6	AP MY	12 + 429.75	140.9	679.80	34 305		77 575	5 078	8 288	
		13 + 109.55								
7	CAI RANG	13 + 250.45	258.5	555.95	27 538		53 647	4 153	6 068	
		13 + 806.40								
8	E.P	14 + 64.90		1 285.10	38 554	10 039	65 491	9 784	7 602	
		15 + 350.00								
TOTAL			834.5	6 855.50	290 249	10 039	527 612	56 268	55 214	

* Quantity sand fill = Sand (fill + blanket) - Area of sand blanket x 0.7m

* Quantity sand fill : $527\ 612 - 290\ 249 \times 0.7 = 324\ 438$

QUANTITY OF EARTH WORK
MAIN BRIDGE - CAITAC 1 (KM7+660,00 - KM8+456,85)

No.	Station	Distance (m)	Length of talus	Width of pavement surface	Area(m ²)				Quantity (m ³)			
					Total	Sand (fill+blanket)	Selected material	Pavement	Clay	Sand (fill+blanket)	Selected material	Clay
1	Km7+ 660		49.86	21.50	275.43	224.74	7.47	18.29	24.93	4 162.95	149.40	476.70
2	Km7+ 680	20.00	45.48	21.50	240.05	191.55	7.47	18.29	22.74	3 772.30	149.40	445.35
3	Km7+ 700	20.00	43.59	21.50	233.23	185.68	7.47	18.29	21.80	5 172.60	298.80	582.90
4	Km7+ 740	40.00	14.70	21.50	106.06	72.95	7.47	18.29	7.35	2 839.70	298.80	300.60
5	Km7+ 780	40.00	15.36	21.50	102.47	69.03	7.47	18.29	7.68	2 911.10	298.80	325.20
6	Km7+ 820	40.00	17.16	21.50	110.86	76.52	7.47	18.29	8.58	2 693.20	298.80	286.70
7	Km7+ 860	40.00	11.51	21.50	89.65	58.14	7.47	18.29	5.76	2 070.00	298.80	225.10
8	Km7+ 900	40.00	11.00	21.50	76.82	45.36	7.47	18.29	5.50	1 969.50	298.80	223.40
9	Km7+ 940	40.00	11.34	21.50	84.54	53.11	7.47	18.29	5.67	1 621.85	309.90	213.60
10	Km7+ 980	40.00	10.02	23.35	60.69	27.98	8.03	19.68	5.01	1 081.15	399.90	163.50
11	Km8+ 020	40.00	6.33	36.50	70.75	26.08	11.97	29.54	3.17	1 293.10	517.20	147.60
12	Km8+ 060	40.00	8.43	42.90	91.02	38.58	13.89	34.34	4.22	1 902.66	605.64	229.30
13	Km8+ 100	40.00	14.50	51.24	120.79	56.56	16.39	40.59	7.25	2 330.96	729.24	201.40
14	Km8+ 140	40.00	5.64	63.50	132.67	59.99	20.07	49.79	2.82	4 315.20	817.20	194.10
15	Km8+ 180	40.00	13.77	65.90	235.03	155.77	20.79	51.59	6.89	3 204.85	415.80	139.20
16	Km8+ 200	20.00	14.07	65.90	244.13	164.72	20.79	51.59	7.04	2 900.45	415.80	111.50
17	Km8+ 220	20.00	8.23	65.90	201.82	125.33	20.79	51.59	4.12	4 718.40	822.00	189.30
18	Km8+ 260	40.00	10.70	64.30	186.64	110.59	20.31	50.39	5.35	4 212.66	734.04	214.50
19	Km8+ 300	40.00	10.75	51.24	162.40	100.04	16.39	40.59	5.38	3 307.06	605.64	252.50
20	Km8+ 340	40.00	14.50	42.90	120.79	65.31	13.89	34.34	7.25	3 442.70	517.20	281.60
21	Km8+ 380	40.00	13.66	36.50	155.16	106.82	11.97	29.54	6.83	4 308.95	399.90	312.50
22	Km8+ 420	40.00	17.59	23.35	145.12	108.63	8.03	19.68	8.80	4 437.25	285.50	349.80
23	Km8+ 457	36.85	20.38	21.50	168.15	132.20	7.47	18.29	10.19			
SUM					68 669	9 667	5 866					

QUANTITY OF EARTH WORK

CAI TAC1 - CAI TAC2 (KM8+642,75 - KM9+431,45)

No.	Station	Distance (m)	Length of talus	Width of pavement surface	Area(m ²)				Quantity (m ³)			
					Total	Sand (fill+blanket)	Selected material	Pavement	Clay	Sand (fill+blanket)	Selected material	Clay
1	Km8+ 642.75		47.38	21.50	305.53	256.08	7.47	18.29	23.69	4 319.79	128.86	400.46
2	Km8+ 660.00	17.250	45.48	21.50	293.26	244.76	7.47	18.29	22.74	8 951.23	311.82	971.50
3	Km8+ 700.00	40.000	51.67	23.67	256.67	202.80	8.12	19.92	25.84	3 042.42	155.91	347.35
4	Km8+ 740.00	20.000	17.80	21.50	136.10	101.44	7.47	18.29	8.90	3 442.90	298.80	315.60
5	Km8+ 780.00	40.000	13.76	21.50	103.34	70.70	7.47	18.29	6.88	2 578.34	320.76	267.90
6	Km8+ 820.00	40.000	13.03	25.16	94.33	58.21	8.57	21.03	6.52	2 399.84	359.76	235.10
7	Km8+ 860.00	40.000	10.48	28.00	99.60	61.78	9.42	23.16	5.24	1 904.40	337.80	151.40
8	Km8+ 900.00	40.000	4.66	21.50	64.86	33.44	7.47	21.62	2.33	1 041.40	298.80	88.50
9	Km8+ 940.00	40.000	4.19	21.50	52.78	18.63	7.47	24.59	2.10	1 143.70	298.80	117.80
10	Km8+ 980.00	40.000	7.59	21.50	80.51	38.56	7.47	30.69	3.80	1 635.10	298.80	113.20
11	Km9+ 20.00	40.000	3.73	21.50	80.42	43.20	7.47	27.89	1.87	1 829.60	298.80	76.50
12	Km9+ 60.000	40.000	3.92	21.50	88.10	48.28	7.47	30.39	1.96	987.98	298.80	64.60
13	Km9+ 100.00	40.000	2.54	21.50	39.65	1.12	7.47	29.79	1.27	118.64	298.80	54.70
14	Km9+ 140.00	40.000	2.87	21.50	42.71	4.82	7.47	28.99	1.44	486.46	298.80	48.20
15	Km9+ 180.00	40.000	1.95	21.50	48.84	19.51	7.47	20.89	0.98	669.89	332.46	81.80
16	Km9+ 220.00	40.000	6.23	27.11	48.75	13.99	9.15	22.50	3.12	894.83	352.02	149.80
17	Km9+ 260.00	40.000	8.75	24.76	64.31	30.75	8.45	20.73	4.38	1 998.37	345.18	215.00
18	Km9+ 300.00	40.000	12.75	25.97	105.99	69.16	8.81	21.64	6.38	1 728.02	179.69	170.06
19	Km9+ 322.00	22.000	18.17	21.68	122.96	87.93	7.52	16.42	9.09	1 788.58	139.54	169.29
20	Km9+ 340.00	18.000	19.45	23.20	148.07	110.80	7.98	19.56	9.73	5 951.00	342.00	596.70
21	Km9+ 380.00	40.000	40.22	27.00	238.39	186.75	9.12	22.41	20.11	8 264.60	364.80	843.50
22	Km9+ 420.00	40.000	44.13	27.00	280.08	226.48	9.12	22.41	22.07	2 593.12	105.12	254.54
23	Km9+ 431.45	11.450	44.79	27.41	280.82	226.46	9.24	22.72	22.40			
SUM						57 770	6 166	5 733				

QUANTITY OF EARTH WORK
CAI TAC 2 - CAI DA (KM9+468,45 - KM10+416,25)

No.	Station	Distance (m)	Length of talus	Width of pavement surface	Area(m ²)			Quantity (m ³)				
					Total	Sand (fill+blanket)	Selected material	Pavement	Clay	Sand (fill+blanket)	Selected material	Clay
1	Km9+ 468.55		43.32	21.50	271.14	223.72	7.47	18.29	21.66	2 506.75	95.12	246.14
2	Km9+ 480	11.45	42.67	27.08	267.09	214.14	9.14	22.47	21.34	7 451.15	381.90	634.50
3	Km9+ 520	40.00	20.78	29.77	203.25	158.42	9.95	24.49	10.39	5 133.53	348.42	386.50
4	Km9+ 560	40.00	17.87	21.50	132.95	98.26	7.47	18.29	8.94	3 345.30	298.80	306.80
5	Km9+ 600	40.00	12.81	21.50	101.17	69.01	7.47	18.29	6.41	2 675.50	298.80	268.00
6	Km9+ 640	40.00	13.99	21.50	97.52	64.77	7.47	18.29	7.00	2 382.86	305.24	257.60
7	Km9+ 680	40.00	11.77	22.74	87.32	54.38	7.84	19.22	5.89	2 229.96	339.24	241.60
8	Km9+ 720	40.00	12.39	27.00	94.85	57.12	9.12	22.41	6.20	2 120.63	371.82	222.30
9	Km9+ 760	40.00	9.84	28.17	86.59	48.91	9.47	23.29	4.92	1 598.27	414.00	184.20
10	Km9+ 800	40.00	8.58	34.03	95.02	51.82	11.23	27.69	4.29	900.30	298.80	156.40
11	Km9+ 840	40.00	8.33	21.50	58.02	28.10	7.47	18.29	4.17	797.00	298.80	155.90
12	Km9+ 880	40.00	7.31	21.50	46.33	16.92	7.47	18.29	3.66	724.20	298.80	148.90
13	Km9+ 920	40.00	8.28	21.50	52.83	22.93	7.47	18.29	4.14	537.10	298.80	127.40
14	Km9+ 960	40.00	6.61	21.50	42.34	13.28	7.47	18.29	3.31	598.70	298.80	126.60
15	Km10+ 000	40.00	6.13	21.50	42.40	13.58	7.47	18.29	3.07	613.60	298.80	131.30
16	Km10+ 040	40.00	6.53	21.50	45.38	16.36	7.47	18.29	3.27	576.80	298.80	132.30
17	Km10+ 080	40.00	6.60	21.50	43.38	14.32	7.47	18.29	2.84	716.00	298.80	123.10
18	Km10+ 120	40.00	6.63	21.50	43.59	14.52	7.47	18.29	3.32	1 142.93	361.02	141.60
19	Km10+ 160	40.00	5.68	21.50	49.88	21.28	7.47	18.29	2.84	1 406.27	384.18	165.80
20	Km10+ 200	40.00	8.48	31.87	76.75	35.86	10.58	26.07	4.24	1 621.99	341.46	176.60
21	Km10+ 240	40.00	8.10	25.36	68.41	34.55	8.63	21.18	4.05	2 156.27	325.98	216.50
22	Km10+ 280	40.00	9.56	24.75	80.50	46.55	8.45	19.25	6.05	3 200.52	306.48	294.30
23	Km10+ 320	40.00	12.09	22.78	94.41	61.26	7.85	18.29	8.67	5 304.10	298.80	570.60
24	Km10+ 360	40.00	17.34	21.50	133.19	98.76	7.47	18.29	19.86	2 678.62	121.39	330.90
25	Km10+ 400	40.00	39.72	21.50	212.06	166.44	7.47	18.29	20.87			
26	Km10+ 416	16.25	41.73	21.50	209.88	163.26	7.47	18.29	20.87			
SUM					54 435	7 758	5 915					

QUANTITY OF EARTH WORK
CAI DA - BA MANG (KM10+509,75 - KM11+202,45)

No.	Station	Distance (m)	Length of talus	Width of pavement surface	Area(m ²)			Quantity (m ³)				
					Total	Sand (fill+blanket)	Selected material	Pavement	Clay	Sand (fill+blanket)	Selected material	Clay
1	Km10+ 509.75		39.25	21.50	217.33	171.95	7.47	18.29	19.63			
2	Km10+ 540	30.25	36.47	21.50	201.93	157.94	7.47	18.29	18.24	4 989.52	225.97	572.64
3	Km10+ 580	40.00	16.94	26.92	140.50	100.58	9.10	22.35	8.47	5 170.38	331.32	534.10
4	Km10+ 620	40.00	11.46	24.75	63.72	28.82	8.45	20.73	5.73	2 588.03	350.82	284.00
5	Km10+ 660	40.00	10.02	24.75	61.72	27.54	8.45	20.73	5.01	1 127.20	337.80	214.80
6	Km10+ 700	40.00	4.69	24.75	39.08	7.57	8.45	20.73	2.35	702.10	337.80	147.10
7	Km10+ 740	40.00	5.26	23.51	44.21	13.71	8.07	19.80	2.63	425.54	330.36	99.50
8	Km10+ 780	40.00	5.21	21.50	48.66	20.30	7.47	18.29	2.61	660.19	310.86	104.70
9	Km10+ 820	40.00	6.41	21.50	53.23	24.27	7.47	18.29	3.21	891.30	298.80	116.20
10	Km10+ 840	20.00	6.54	21.50	42.82	13.79	7.47	18.29	3.27	380.60	149.40	64.75
11	Km10+ 880	40.00	5.64	21.50	37.30	8.72	7.47	18.29	2.82	450.30	298.80	121.80
12	Km10+ 920	40.00	6.55	21.50	66.94	37.91	7.47	18.29	3.28	932.60	298.80	121.90
13	Km11+ 000	80.00	6.28	21.50	40.99	12.09	7.47	18.29	3.14	2 000.00	597.60	256.60
14	Km11+ 040	40.00	4.26	21.50	63.68	35.79	7.47	18.29	2.13	957.70	298.80	105.40
15	Km11+ 080	40.00	10.74	21.50	84.17	53.04	7.47	18.29	5.37	1 776.70	298.80	150.00
16	Km11+ 120	40.00	14.44	21.50	104.49	71.51	7.47	18.29	7.22	2 491.10	298.80	251.80
17	Km11+ 140	20.00	37.85	21.50	188.27	143.59	7.47	18.29	18.93	2 151.00	149.40	261.45
18	Km11+ 160	20.00	39.13	21.50	227.92	182.60	7.47	18.29	19.57	3 261.85	149.40	384.90
19	Km11+ 180	20.00	38.62	21.50	219.87	174.80	7.47	18.29	19.31	3 574.00	149.40	388.75
20	Km11+ 200	20.00	44.53	21.50	222.58	174.56	7.47	18.29	22.27	3 493.60	149.40	415.75
21	Km11+ 202	2.45	44.60	21.50	222.94	174.88	7.47	18.29	22.30	428.06	18.30	54.59
SUM										38 472	5 381	4 651

QUANTITY OF EARTH WORK
BA MANG - CAI NAI (KM11+227.55 - KM12+336.25)

No.	Station	Distance (m)	Length of talus	Width of pavement surface	Area(m ²)				Quantity (m ³)				
					Total	Sand (fill+blanket)	Selected material	Pavement	Clay	Sand (fill+blanket)	Selected material	Clay	
1	Km11+ 227.55		40.96	21.50	211.86	165.62	7.47	18.29	20.48				
2	Km11+ 240	12.45	40.63	21.50	210.16	164.09	7.47	18.29	20.32		93.00	253.94	
3	Km11+ 260	20.00	41.75	21.50	203.81	157.18	7.47	18.29	20.88		149.40	411.90	
4	Km11+ 280	20.00	37.08	21.50	182.96	138.66	7.47	18.29	18.54		149.40	394.15	
5	Km11+ 300	20.00	35.94	21.50	176.65	132.92	7.47	18.29	17.97		149.40	365.10	
6	Km11+ 340	40.00	13.30	21.50	105.26	72.85	7.47	18.29	6.65		298.80	492.40	
7	Km11+ 380	40.00	10.20	21.50	73.62	42.76	7.47	18.29	5.10		298.80	235.00	
8	Km11+ 420	40.00	6.72	21.50	50.01	20.89	7.47	18.29	3.36		298.80	169.20	
9	Km11+ 460	40.00	8.56	21.50	58.86	28.82	7.47	18.29	4.28		298.80	152.80	
10	Km11+ 500	40.00	8.72	21.50	57.52	27.40	7.47	18.29	4.36		298.80	172.80	
11	Km11+ 540	40.00	9.80	21.50	66.23	35.57	7.47	18.29	4.90		298.80	185.20	
12	Km11+ 580	40.00	10.99	21.50	74.98	43.73	7.47	18.29	5.49		298.80	207.80	
13	Km11+ 620	40.00	14.66	21.50	104.21	71.12	7.47	18.29	7.33		298.80	256.40	
14	Km11+ 660	40.00	12.70	21.50	92.53	60.42	7.47	18.29	6.35		298.80	273.60	
15	Km11+ 700	40.00	13.86	21.50	97.73	65.04	7.47	18.29	6.93		298.80	265.60	
16	Km11+ 740	40.00	13.85	21.50	97.16	64.48	7.47	18.29	6.93		298.80	277.10	
17	Km11+ 780	40.00	15.94	21.50	115.10	81.37	7.47	18.29	7.97		298.80	297.90	
18	Km11+ 820	40.00	17.77	21.50	130.07	95.43	7.47	18.29	8.89		298.80	337.10	
19	Km11+ 860	40.00	17.79	21.50	149.62	114.97	7.47	18.29	8.90		298.80	355.60	
20	Km11+ 900	40.00	18.56	21.50	138.16	103.12	7.47	18.29	9.28		298.80	363.50	
21	Km11+ 940	40.00	19.61	21.50	148.41	112.85	7.47	18.29	9.81		298.80	381.70	
22	Km12+ 000	60.00	20.86	21.50	158.48	122.29	7.47	18.29	10.43		448.20	607.05	
23	Km12+ 040	40.00	21.20	21.50	176.53	140.17	7.47	18.29	10.60		298.80	420.60	
24	Km12+ 080	40.00	21.00	21.50	165.42	129.16	7.47	18.29	10.50		298.80	422.00	

No,	Station	Distance (m)	Length of talus	Width of pavement surface	Area(m ²)				Quantity (m ³)			
					Total	Sand (fill+blanket)	Selected material	Pavement	Clay	Sand (fill+blanket)	Selected material	Clay
25	Km12+ 120	40.00	21.67	21.50	173.15	136.56	7.47	18.29	10.84	5 314.40	298.80	426.70
26	Km12+ 160	40.00	21.79	21.50	180.09	143.44	7.47	18.29	10.90	5 599.90	298.80	434.60
27	Km12+ 200	40.00	22.53	21.50	187.36	150.34	7.47	18.29	11.27	5 875.50	298.80	443.20
28	Km12+ 240	40.00	42.66	21.50	231.33	184.24	7.47	18.29	21.33	6 691.60	298.80	651.90
29	Km12+ 280	40.00	42.18	21.50	222.75	175.90	7.47	18.29	21.09	7 202.90	298.80	848.40
30	Km12+ 320	40.00	31.22	21.50	225.69	184.32	7.47	18.29	15.61	7 204.50	298.80	734.00
31	Km12+ 336	16.25	31.31	21.50	226.36	184.94	7.47	18.29	15.66	3 000.28	121.39	254.04
SUM										111 554	8 282	11 091

QUANTITY OF EARTH WORK
CAI NAI - AP MY (KM12+429,75 - KM13+109,55)

No.	Station	Distance (m)	Length of talus	Width of pavement surface	Area(m2)			Quantity (m3)				
					Total	Sand (fill+blanket)	Selected material	Pavement	Clay	Sand (fill+blanket)	Selected material	Clay
1	Km12+ 429.75		43.37	21.50	233.62	186.17	7.47	18.29	21.69	1900.15	76.57	221.46
2	Km12+ 440	10.25	43.05	21.50	231.87	184.59	7.47	18.29	21.53	6884.50	298.80	838.40
3	Km12+ 480	40.00	40.79	21.50	205.79	159.64	7.47	18.29	20.40	6567.90	298.80	832.00
4	Km12+ 520	40.00	42.41	21.50	215.72	168.76	7.47	18.29	21.21	2996.80	149.40	320.35
5	Km12+ 540	20.00	21.66	21.50	167.51	130.92	7.47	18.29	10.83	5101.00	298.80	425.30
6	Km12+ 580	40.00	20.87	21.50	160.32	124.13	7.47	18.29	10.44	4705.00	298.80	396.10
7	Km12+ 620	40.00	18.74	21.50	146.25	111.12	7.47	18.29	9.37	4257.40	298.80	372.30
8	Km12+ 660	40.00	18.49	21.50	136.75	101.75	7.47	18.29	9.25	4113.00	298.80	375.70
9	Km12+ 700	40.00	19.08	21.50	139.20	103.90	7.47	18.29	9.54	3792.20	298.80	351.70
10	Km12+ 740	40.00	16.09	21.50	119.51	85.71	7.47	18.29	8.05	3573.10	298.80	314.20
11	Km12+ 780	40.00	15.33	21.50	126.37	92.95	7.47	18.29	7.67	3244.30	298.80	287.60
12	Km12+ 820	40.00	13.43	21.50	101.74	69.27	7.47	18.29	6.72	2745.50	298.80	277.60
13	Km12+ 860	40.00	14.33	21.50	100.93	68.01	7.47	18.29	7.17	2381.10	298.80	277.80
14	Km12+ 900	40.00	13.45	21.50	83.53	51.05	7.47	18.29	6.73	2036.20	298.80	253.90
15	Km12+ 940	40.00	11.94	21.50	82.49	50.76	7.47	18.29	5.97	2317.50	298.80	257.20
16	Km12+ 980	40.00	13.78	21.50	97.76	65.11	7.47	18.29	6.89	1497.35	149.40	150.20
17	Km13+ 000	20.00	16.26	21.50	118.51	84.62	7.47	18.29	8.13	2199.90	149.40	281.15
18	Km13+ 020	20.00	39.97	21.50	181.11	135.37	7.47	18.29	19.99	6567.50	298.80	861.00
19	Km13+ 060	40.00	46.13	21.50	241.83	193.01	7.47	18.29	23.07	8466.30	298.80	955.20
20	Km13+ 100	40.00	49.39	21.50	280.76	230.31	7.47	18.29	24.70	2228.44	71.34	238.63
21	Km13+ 110	9.55	50.56	21.50	287.42	236.38	7.47	18.29	25.28			
SUM										77 575	5 078	8 288

QUANTITY OF EARTH WORK
AP MY - CAI RANG (KM13+250,45 - KM13+806,40)

No.	Station	Distance (m)	Length of talus	Width of pavement surface	Area(m ²)			Quantity (m ³)					
					Total	Sand (fill+blanket)	Selected material	Pavement	Clay	Sand (fill+blanket)	Selected material	Clay	
1	Km13+ 250,45		50.97	21.50	303.06	251.82	7.47	18.29	25.48				
2	Km13+ 260	9.55	49.91	21.50	296.76	246.05	7.47	18.29	24.96	2 377.30	71.34	240.85	
3	Km13+ 300	40.00	45.35	21.50	233.84	185.41	7.47	18.29	22.68	8 629.10	298.80	952.60	
4	Km13+ 320	20.00	43.13	21.50	218.36	171.04	7.47	18.29	21.57	3 564.45	149.40	442.40	
5	Km13+ 360	40.00	16.60	21.50	126.83	92.77	7.47	18.29	8.30	5 276.20	298.80	597.30	
6	Km13+ 400	40.00	11.38	21.50	80.66	49.21	7.47	18.29	5.69	2 839.70	298.80	279.80	
7	Km13+ 440	40.00	8.39	21.50	58.32	28.37	7.47	18.29	4.20	1 551.60	298.80	197.70	
8	Km13+ 480	40.00	8.92	21.50	59.52	29.30	7.47	18.29	4.46	1 153.40	298.80	173.10	
9	Km13+ 520	40.00	7.60	21.50	58.72	29.16	7.47	18.29	3.80	1 169.30	298.80	165.20	
10	Km13+ 560	40.00	7.97	21.50	57.47	27.73	7.47	18.29	3.99	1 137.80	298.80	155.70	
11	Km13+ 600	40.00	7.99	21.50	57.34	27.59	7.47	18.29	4.00	1 106.30	298.80	159.60	
12	Km13+ 640	40.00	9.80	21.50	67.19	36.53	7.47	18.29	4.90	1 282.40	298.80	177.90	
13	Km13+ 680	40.00	14.00	21.50	100.25	67.49	7.47	18.29	7.00	2 080.50	298.80	238.00	
14	Km13+ 720	40.00	21.02	21.50	150.22	113.95	7.47	18.29	10.51	3 628.90	298.80	350.20	
15	Km13+ 740	20.00	43.48	21.50	220.63	173.13	7.47	18.29	21.74	2 870.85	149.40	322.50	
16	Km13+ 780	40.00	49.37	21.50	284.77	234.33	7.47	18.29	24.69	8 149.20	298.80	928.50	
17	Km13+ 800	20.00	53.36	21.50	324.15	271.71	7.47	18.29	26.68	5 060.40	149.40	513.65	
18	Km13+ 806	6.40	55.05	21.50	334.45	281.16	7.47	18.29	27.53	1 769.20	47.81	173.46	
SUM											53 647	4 153	6 068

QUANTITY OF EARTH WORK
CAI RANG - E.P (KM14+064,90 - KM15+350,00)

No.	Station	Distance (m)	Length of talus	Width of pavement surface	Area(m ²)					Quantity (m ³)				
					Total	Ex. soil	Sand (fill+blanket)	Selected material	Pavement	Clay	Ex. soil	Sand (fill+blanket)	Selected material	Clay
1	Km14+ 64.9		52.55	21.50	328.75		276.72	7.47	18.29	26.28	0.00	4 069.30	112.80	390.52
2	Km14+ 080	15.10	50.90	21.50	313.47		262.26	7.47	18.29	25.45	0.00	5 108.65	149.40	531.70
3	Km14+ 100	20.00	55.44	21.50	302.08		248.60	7.47	18.29	27.72	0.00	9 279.80	298.80	1 042.30
4	Km14+ 140	40.00	48.79	21.50	265.54		215.39	7.47	18.29	24.40	0.00	8 237.50	298.80	927.80
5	Km14+ 180	40.00	43.99	21.50	244.24		196.49	7.47	18.29	22.00	0.00	6 399.50	298.80	648.40
6	Km14+ 220	40.00	20.85	21.50	159.67		123.49	7.47	18.29	10.43	0.00	4 659.20	298.80	394.70
7	Km14+ 260	40.00	18.62	21.50	144.54		109.47	7.47	18.29	9.31	0.00	3 908.20	298.80	336.90
8	Km14+ 300	40.00	15.07	21.50	119.23		85.94	7.47	18.29	7.54	0.00	3 047.70	298.80	268.80
9	Km14+ 340	40.00	13.81	21.50	99.11		66.45	7.47	18.29	6.91	0.00	2 101.40	298.80	231.10
10	Km14+ 380	40.00	9.30	21.50	69.03		38.62	7.47	18.29	4.65	0.00	1 855.40	298.80	205.90
11	Km14+ 420	40.00	11.29	21.50	85.55		54.15	7.47	18.29	5.65	0.00	1 080.60	298.80	130.90
12	Km14+ 460	40.00	1.80	21.50	26.54		-0.12	7.47	18.29	0.90	0.00	226.10	298.80	85.00
13	Km14+ 500	40.00	6.70	21.50	40.53		11.42	7.47	18.29	3.35	0.00	622.10	298.80	136.40
14	Km14+ 540	40.00	6.94	21.50	48.91		19.68	7.47	18.29	3.47	0.00	825.70	298.80	140.00
15	Km14+ 580	40.00	7.06	21.50	50.89		21.60	7.47	18.29	3.53	0.00	979.10	298.80	152.60
16	Km14+ 620	40.00	8.20	21.50	57.21		27.35	7.47	18.29	4.10	0.00	893.70	298.80	148.80
17	Km14+ 660	40.00	6.68	21.50	46.43		17.33	7.47	18.29	3.34	0.00	802.40	298.80	133.10
18	Km14+ 700	40.00	6.63	21.50	51.86		22.79	7.47	18.29	3.32	0.00	797.20	298.80	145.30
19	Km14+ 740	40.00	7.90	21.50	46.78		17.07	7.47	18.29	3.95	0.00	734.70	298.80	167.80
20	Km14+ 780	40.00	8.88	21.50	49.86		19.66	7.47	18.29	4.44	0.00	1 044.50	298.80	151.20
21	Km14+ 820	40.00	6.24	21.50	61.44		32.56	7.47	18.29	3.12	0.00	874.70	298.80	142.60
22	Km14+ 860	40.00	8.02	21.50	40.94		11.17	7.47	18.29	4.01	0.00	487.90	298.80	138.00
23	Km14+ 900	40.00	5.78	21.50	41.87		13.22	7.47	18.29	2.89	0.00	531.20	298.80	134.30
24	Km14+ 940	40.00	7.65	21.50	42.92		13.34	7.47	18.29	3.83	0.00			

No.	Station	Distance (m)	Length of talus	Width of pavement surface	Area(m ²)				Quantity (m ³)						
					Total	Ex. soil	Sand (fill+blanket)	Selected material	Pavement	Clay	Ex. soil	Sand (fill+blanket)	Selected material	Clay	
25	Km15+ 000	60.00	6.46	21.50	42.80		13.81	7.47	18.29	3.23	0.00	814.50	448.20	211.65	
26	Km15+ 020	20.00	5.51	21.50	46.65	18.74	18.14	7.47	18.29	2.76	187.40	319.50	149.40	59.85	
27	Km15+ 040	20.00	2.51	29.85	61.41	46.57	25.63	9.98	24.55	1.26	653.10	437.68	174.45	40.10	
28	Km15+ 080	40.00	2.44	26.69	53.07	42.45	20.64	9.03	22.18	1.22	1 780.40	925.46	380.04	49.50	
29	Km15+ 120	40.00	2.54	26.00	51.32	32.78	19.57	8.82	21.66	1.27	1 504.60	804.21	356.94	49.80	
30	Km15+ 160	40.00	3.83	26.00	52.46	29.29	20.06	8.82	21.66	1.92	1 241.40	792.60	352.80	63.70	
31	Km15+ 200	40.00	4.94	26.00	52.98	24.67	20.03	8.82	21.66	2.47	1 079.20	601.80	352.80	87.70	
32	Km15+ 240	40.00	3.65	24.25	47.82	29.50	17.35	8.30	20.35	1.83	1 083.40	747.55	342.30	85.90	
33	Km15+ 350	110.00	1.78	10.75	21.31	16.12	5.95	4.25	10.23	0.89	2 509.10	1 281.50	689.70	149.33	
SUM						10 039	65 491	9 784							7 602

Quantity of Earth Work (Ramp) IC3- IS - P3

SECTION No.	RAMP NAME	CHAINAGE	SECTION LENGTH (m)		AREA (m ²)		QUANTITY OF EARTH WORK (m ³)				REMARKS
			BRIDGE	EARTH WORK	SAND BLANKET	SAND BLANKET	SAND (FILL+BLANKET)	SELECTED MATERIAL	EX. SOIL	CLAY	
IC - 3	"A" RAMP	0 + 40.00		302.05	6,389.70	14,432.20	978.63			1,880.93	
		0 + 342.05									
	"B" RAMP	0 + 54.28		445.72	12,861.79	29,310.74	3,243.11			3,336.24	
		0 + 500.00									
	"C" RAMP	0 + 66.07		354.10	6,171.36	6,689.45	1,206.00			1,705.85	
		0 + 420.17									
"D" RAMP	0 + 40.00		369.58	5,265.75	8,992.48	645.56			1,848.60		
	0 + 409.38	93.50									
"E" RAMP	0 + 45.43		96.57	3,229.66	2,346.32	562.69			751.17		
	0 + 140.00										
"F" RAMP	0 + 60.00		150.00	9,197.59	19,118.12	2,142.11			1,785.28		
	0 + 210.00										
NH No.91	0 + 40.00		500.00	26,861.52	83,974.00	2,975.26			6,075.67		
	0 + 540.00	100.1									
IS	"A" ROAD	0 + 12.05		87.95	2,197.88	2,181.56	572.17		1,423.84	261.59	
		0 + 100.00									
	"B" ROAD	0 + 0.00		326.69	0.00	2,586.64	1,171.34		3,945.36	489.42	
		0 + 326.69									
	TOTAL		193.60	2,652.45	72,175.25	169,631.32	13,496.87		5,367.20	18,132.77	

Sand fill quantity = Sand (fill+blanket) quantity - Sand blanket area x 0.70m

Sand fill quantity = 169,631.32 - 72,175.25 x 0.70 = 119,108.64 m³

INTERCHANGE 3 - "A" RAMP
QUANTITY OF EARTH WORK

No	Chainage	Distance(m)	Length of Talus	Width of pavement surface (m)	Area (m ²)			Quantity (m ³)					
					Total	Sand (fill+blanket)	Selected Material	Clay	Sand (fill+blanket)	Selected Material	Clay		
1	Km0+ 40.000		17.34	9.00	92.03	72.79	3.24	8.67					
2	Km0+ 80.000	40.000	15.14	9.00	71.76	53.62	3.24	7.57	2528.20	129.60		324.80	
3	Km0+ 120.000	40.000	12.20	9.00	65.98	49.31	3.24	6.10	2058.60	129.60		273.40	
4	Km0+ 160.000	40.000	10.23	9.00	39.33	23.65	3.24	5.12	1459.10	129.60		224.30	
5	Km0+ 200.000	40.000	6.93	9.00	27.96	13.93	3.24	3.47	751.40	129.60		171.60	
6	Km0+ 240.000	40.000	8.29	9.00	30.63	15.92	3.24	4.15	596.80	129.60		152.20	
7	Km0+ 280.000	40.000	14.42	9.00	100.96	83.18	3.24	7.21	1981.90	129.60		227.10	
8	Km0+ 320.000	40.000	16.57	9.00	96.80	77.95	3.24	8.29	3222.50	129.60		309.90	
9	Km0+ 342.045	22.045	19.29	9.00	108.63	88.42	3.24	9.65	1833.70	71.45		197.63	
TOTAL										14432.20	978.63		1880.93

INTERCHANGE 3 - "B" RAMP
QUANTITY OF EARTH WORK

No	Chainage	Distance(m)	Length of Talus	Width of pavement surface (m)	Area (m ²)			Quantity (m ³)			
					Total	Sand (fill+blanket)	Selected Material	Clay	Sand (fill+blanket)	Selected Material	Clay
1	Km0+ 54.283		9.77	6.00	25.48	13.20	2.34	4.89			
2	Km0+ 80.000	25.717	5.29	6.00	11.68	1.64	2.34	2.65	190.69	60.18	96.82
3	Km0+ 120.000	40.000	7.16	6.00	17.17	6.19	2.34	3.58	156.50	93.60	124.50
4	Km0+ 160.000	40.000	8.75	6.00	20.86	9.09	2.34	4.38	305.50	93.60	159.10
5	Km0+ 200.000	40.000	6.55	6.00	15.61	4.92	2.34	3.28	280.00	93.60	153.00
6	Km0+ 240.000	40.000	7.18	6.00	17.67	6.66	2.34	3.59	231.50	93.60	137.30
7	Km0+ 280.000	40.000	8.03	6.00	16.70	5.27	2.34	4.07	238.50	93.60	152.10
8	Km0+ 320.000	40.000	8.15	6.00	33.65	22.17	2.34	4.07	548.60	93.60	161.60
9	Km0+ 360.000	40.000	10.18	6.00	26.89	14.38	2.34	5.09	730.90	93.60	183.10
10	Km0+ 400.000	40.000	13.52	6.15	55.70	41.38	2.39	6.76	1115.10	94.50	237.00
11	Km0+ 440.000	40.000	15.09	6.80	62.94	47.15	2.58	7.55	1770.40	99.30	286.10
12	Km0+ 480.000	40.000	16.72	6.80	72.51	55.90	2.58	8.36	2060.90	103.20	318.10
13	Km0+ 500.000	20.000	15.55	6.00	65.24	50.05	2.34	7.78	1059.45	49.20	161.35
	Intersection								20622.70	2181.53	1166.17
	TOTAL								29310.74	3243.11	3336.24

INTERCHANGE 3 - "C" RAMP
QUANTITY OF EARTH WORK

No	Chainage	Distance(m)	Length of Talus	Width of pavement surface (m)	Area (m ²)			Quantity (m ³)					
					Total	Sand (fill+blanket)	Selected Material	Clay	Sand (fill+blanket)	Selected Material	Clay		
1	Km0+ 66.073		10.16	9.00	34.97	19.38	3.24	3.24	5.08				
2	Km0+ 80.000	13.927	7.90	9.00	25.55	11.09	3.24	3.24	3.95	212.18	45.12	62.88	
3	Km0+ 120.000	-40.000	7.09	9.00	26.31	12.20	3.24	3.24	3.55	465.70	129.60	149.90	
4	Km0+ 160.000	-40.000	8.15	9.00	23.55	8.97	3.24	3.24	4.08	423.20	129.60	152.40	
5	Km0+ 200.000	-40.000	8.83	9.00	30.11	15.19	3.24	3.24	4.42	483.00	129.60	169.80	
6	Km0+ 240.000	-40.000	12.52	9.00	49.46	32.69	3.24	3.24	6.26	957.50	129.60	213.50	
7	Km0+ 280.000	-40.000	10.33	9.00	34.87	19.20	3.24	3.24	5.17	1037.70	129.60	228.50	
8	Km0+ 320.000	-40.000	13.04	9.00	46.93	29.90	3.24	3.24	6.52	981.90	129.60	233.70	
9	Km0+ 360.000	-40.000	9.77	9.00	32.05	16.66	3.24	3.24	4.89	951.10	129.60	228.10	
10	Km0+ 400.000	-40.000	8.40	14.50	44.36	24.19	4.89	4.89	4.20	816.90	162.60	181.70	
11	Km0+ 420.171	20.171	8.53	12.00	30.75	13.32	4.14	4.14	4.27	380.27	91.07	85.37	
TOTAL										6689.45	1206.00	1705.85	

INTERCHANGE 3 - "D" RAMP
QUANTITY OF EARTH WORK

No	Chainage	Distance(m)	Length of Talus	Width of pavement surface (m)	Area (m ²)			Quantity (m ³)					
					Total	Sand (fill+blanket)	Selected Material	Clay	Sand (fill+blanket)	Selected Material	Clay		
1	Km0+ 40.000		13.79	6.00	56.81	42.50	2.34	6.90					
2	Km0+ 80.000	40.000	11.30	6.00	33.12	20.05	2.34	5.65	1250.90	93.60		250.90	
3	Km0+ 120.000	40.000	8.74	6.00	22.62	10.83	2.34	4.37	617.60	93.60		200.40	
4	Km0+ 160.000	40.000	6.23	6.00	14.46	3.93	2.34	3.12	293.10	93.60		149.70	
5	Km0+ 200.000	40.000	8.68	6.00	25.28	13.52	2.34	4.34	348.90	93.60		149.10	
6	Km0+ 240.000	40.000	16.98	6.00	61.88	45.97	2.34	8.49	1189.80	93.60		256.60	
7	Km0+ 252.250	12.250	44.61	6.00	139.83	110.11	2.34	22.31	955.96	28.67		188.62	
	"D" Ramp Bridge	93.500											
8	Km0+ 345.750		42.90	6.00	162.11	133.24	2.34	21.45					
9	Km0+ 360.000	14.250	17.15	6.00	65.90	49.91	2.34	8.58	1304.91	33.35		213.93	
10	Km0+ 400.000	40.000	18.52	6.00	90.20	73.52	2.34	9.26	2468.50	93.60		356.70	
11	Km0+ 409.382	9.382	16.72	6.00	61.79	46.03	2.34	8.36	560.81	21.95		82.66	
TOTAL										8992.48	645.56		1848.60

INTERCHANGE 3 - "E" RAMP
 QUANTITY OF EARTH WORK

No	Chainage	Distance(m)	Length of Talus	Width of pavement surface (m)	Area (m ²)			Quantity (m ³)			
					Total	Sand (fill+blanket)	Selected Material	Clay	Sand (fill+blanket)	Selected Material	Clay
1	Km0+ 43.428		9.58	6.80	26.96	13.93	2.58	4.79			
2	Km0+ 80.000	36.572	8.98	6.12	24.46	12.43	2.38	4.49	482.09	90.63	169.69
3	Km0+ 120.000	40.000	8.77	6.00	24.52	12.72	2.34	4.39	502.98	94.32	177.50
4	Km0+ 140.000	20.000	7.91	6.00	20.33	8.96	2.34	3.96	216.70	46.80	83.40
5	intersection								1144.55	330.94	320.58
TOTAL									2346.32	562.69	751.17

INTERCHANGE 3 - "F" RAMP
 QUANTITY OF EARTH WORK

No	Chainage	Distance(m)	Length of Talus	Width of pavement surface (m)	Area (m ²)			Quantity (m ³)			
					Total	Sand (fill+blanket)	Selected Material	Clay	Sand (fill+blanket)	Selected Material	Clay
1	Km0+ 60.000		4.72	9.00	16.99	4.06	3.24	2.36			
2	Km0+ 80.000	20.000	8.79	9.00	27.43	12.47	3.24	4.40	165.25	64.80	67.55
3	Km0+ 120.000	40.000	9.59	9.00	33.42	18.06	3.24	4.80	610.40	129.60	183.80
4	Km0+ 160.000	40.000	18.27	9.00	118.03	98.33	3.24	9.14	2327.60	129.60	278.60
5	Km0+ 200.000	40.000	17.79	9.00	106.70	87.24	3.24	8.90	3711.20	129.60	360.60
6	Km0+ 210.000	10.000	17.79	9.00	106.70	87.24	3.24	8.90	872.35	32.40	88.95
	Intersection								11431.32	1656.11	805.78
	TOTAL								19118.12	2142.11	1785.28

INTERCHANGE 3 - NATIONAL HIGHWAY No.91
QUANTITY OF EARTH WORK

No	Chainage	Distance(m)	Length of Talus	Width of pavement surface (m)	Area (m ²)			Quantity (m ³)				
					Total	Sand (fill+blanket)	Selected Material	Clay	Sand (fill+blanket)	Selected Material	Clay	
1	Km0+ 40.000		11.49	23.00	97.32	65.76	7.44	5.75				
2	Km0+ 80.000	40.000	13.60	23.00	84.17	51.55	7.44	6.80	2346.10	297.60		250.90
3	Km0+ 120.000	40.000	15.65	23.00	164.73	131.09	7.44	7.83	3652.70	297.60		292.50
4	Km0+ 160.000	40.000	13.60	23.00	229.43	196.81	7.44	6.80	6557.90	297.60		292.50
5	Km0+ 200.000	40.000	47.17	23.00	324.33	274.93	7.44	23.59	9434.70	297.60		607.70
6	Km0+ 240.000	40.000	53.33	23.00	361.04	308.56	7.44	26.67	11669.60	297.60		1005.00
7	Km0+ 259.970	19.970	55.55	23.00	457.68	404.09	7.44	27.78	7115.71	148.58		543.58
	Fly Over Bridge	100.100										
8	Km0+ 360.070		56.35	23.00	445.78	391.79	7.44	28.18				
9	Km0+ 400.000	39.930	50.09	23.00	403.62	352.76	7.44	25.05	14864.74	297.08		1062.54
10	Km0+ 440.000	40.000	43.48	23.00	300.40	252.84	7.44	21.74	12111.90	297.60		935.70
11	Km0+ 480.000	40.000	16.12	23.00	172.20	138.32	7.44	8.06	7823.20	297.60		596.00
12	Km0+ 520.000	40.000	16.14	23.00	171.45	137.56	7.44	8.07	5517.60	297.60		322.60
13	Km0+ 540.000	20.000	16.79	23.00	184.64	150.43	7.44	8.40	2879.85	148.80		164.65
TOTAL										83974.00	2975.26	6073.67

INTERSECTION - "A" ROAD
QUANTITY OF EARTH WORK

No	Chainage	Distance(m)	Length of Talus	Width of pavement surface (m)	Area (m ²)				Quantity (m ³)					
					Total	Sand (fill+blanket)	Ex. Soil	Selected Material	Clay	Sand (fill+blanket)	Ex. Soil	Selected Material	Clay	
1	Km0+ 12.050		7.89	32.34	76.81	37.79	8.62	10.24	3.95					
2	Km0+ 40.000	27.950	7.35	17.10	44.93	21.88	10.46	5.67	3.68	833.86	266.64	222.37	106.49	
3	Km0+ 80.000	40.000	4.08	17.90	44.69	22.75	23.70	5.91	2.04	892.50	683.20	231.60	114.30	
4	Km0+ 100.000	20.000	4.08	17.90	44.69	22.75	23.70	5.91	2.04	453.00	474.00	118.20	40.80	
TOTAL										2181.36	1423.84	572.17	261.59	

INTERSECTION - "B" ROAD
QUANTITY OF EARTH WORK

No	Chainage	Distance(m)	Length of Talus	Width of pavement surface (m)	Area (m ²)				Quantity (m ³)					
					Total	Sand (fill+blanket)	Ex. Soil	Selected Material	Clay	Sand (fill+blanket)	Ex. Soil	Selected Material	Clay	
1	Km0+ 0.000		0.00	11.00	8.85	-3.84	8.85	3.84	0.00					
2	Km0+ 60.000	60.000	0.44	15.97	23.73	5.63	21.62	5.33	0.22	53.67	914.10	275.13	6.60	
3	Km0+ 80.000	20.000	1.45	25.36	37.34	8.87	27.39	8.15	0.73	144.96	490.10	134.79	9.45	
4	Km0+ 120.000	40.000	1.88	7.00	18.26	8.85	14.60	2.64	0.94	354.34	839.80	215.76	33.30	
5	Km0+ 160.000	40.000	2.40	7.00	18.33	8.66	13.46	2.64	1.20	350.20	561.20	105.60	42.80	
6	Km0+ 200.000	40.000	7.30	7.00	24.70	12.58	2.87	2.64	3.65	424.80	326.60	105.60	97.00	
7	Km0+ 240.000	40.000	4.71	7.00	21.15	10.33	4.14	2.64	2.36	458.10	140.20	105.60	120.10	
8	Km0+ 280.000	40.000	5.09	7.00	20.15	9.20	6.90	2.64	2.55	390.40	220.80	105.60	98.00	
9	Km0+ 326.690	46.690	1.95	7.00	17.76	8.38	12.40	2.64	0.98	+10.17	450.56	123.26	82.17	
TOTAL										2586.64	3943.36	1171.34	489.42	

QUANTITY OF EARTH WORK
SERVICE AREA (KM8+880 - KM9+185)

No.	Station	Distance (m)	Length of talus	Area(m ²)			Quantity (m ³)		
				Total	Sand (fill+blanket)+selected material + pavement	Clay	Sand (fill+blanket)+selected material +pavement (A)	Clay	
1	Km8+ 880.00		5.71	29.85	27.00	2.86			
2	Km8+ 900.00	20.000	5.71	29.85	27.00	2.86	539.90	57.10	
3	Km8+ 940.00	40.000	3.46	159.97	158.24	1.73	3 704.70	91.70	
4	Km8+ 980.00	40.000	3.08	138.24	136.70	1.54	5 898.80	65.40	
5	Km9+ 020.00	40.000	4.00	162.96	160.96	2.00	5 953.20	70.80	
6	Km9+ 060.00	40.000	3.15	140.31	138.74	1.58	5 993.90	71.50	
7	Km9+ 100.00	40.000	4.75	156.71	154.34	2.38	5 861.40	79.00	
8	Km9+ 140.00	40.000	3.22	47.69	46.08	1.61	4 008.30	79.70	
9	Km9+ 185.00	45.000	3.27	18.51	16.88	1.64	1 416.49	73.01	
SUM								33 377	588

*Area sand blanket : 22643 m²

*Area pavement : 9548 m²

*Quantity seleted material : $9548 \times 0.3 =$ 2864 m³

*Quantity sand fill = A - sand blanket - pavement - seleted material 7501 m³

**QUANTITY OF FINAL SETTLEMENT, SURCHARGE AND REMOVING SURCHARGE
PACKAGE 3 - CAN THO SIDE
MAIN WAY**

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
1/ MAIN BRIDGE (CAN THO) - CAI TAC 1										
KM7+660		0.950	7.200	6.250	126.28	40.20	24.55			
KM7+680	20.00	0.930	6.406	5.476	111.63	40.20	27.54	2379.10	804.00	520.94
KM7+700	20.00	0.880	5.752	4.872	103.37	31.65	28.85	2150.09	718.50	563.93
KM7+710	10.00	1.140	5.498	4.358	103.27	31.65	26.64	1033.23	316.50	277.45
KM7+720	10.00	1.400	5.293	3.893	99.32	22.10	24.74	1012.94	268.75	256.88
KM7+730	10.00	1.100	5.136	4.036	103.21	31.65	25.25	1012.62	268.75	249.96
KM7+740	10.00	1.440	5.027	3.587	88.21	22.10	23.70	957.08	268.75	244.75
KM7+760	20.00	0.820	4.902	4.082	103.22	31.65	25.45	1914.25	537.50	491.48
KM7+780	20.00	1.440	4.783	3.343	79.35	22.10	22.87	1825.67	537.50	483.19
KM7+800	20.00	1.590	4.664	3.074	69.59	22.10	21.95	1489.37	442.00	448.18
KM7+820	20.00	1.740	4.545	2.805	60.09	0.00	0.00	1296.81	221.00	219.52
KM7+840	20.00	1.090	4.425	3.335	79.06	22.10	22.84	1391.55	221.00	228.39
KM7+850	10.00	1.100	4.366	3.266	76.56	22.10	22.60	778.08	221.00	227.22
KM7+860	10.00	1.140	4.306	3.166	72.93	22.10	22.26	747.41	221.00	224.34
KM7+880	20.00	0.350	4.187	3.837	97.28	22.10	24.55	1702.09	442.00	468.10
KM7+900	20.00	-0.370	4.068	4.438	103.29	31.65	26.98	2005.71	537.50	515.29
KM7+920	20.00	0.340	3.949	3.609	89.01	22.10	23.77	1922.94	537.50	507.54
KM7+930	10.00	0.700	3.889	3.189	73.76	22.10	22.34	813.84	221.00	230.57
KM7+940	10.00	1.780	3.830	2.050	33.75	0.00	0.00	537.53	110.50	111.71
KM7+960	20.00	1.190	3.710	2.520	50.15	0.00	0.00	838.93	0.00	0.00
KM7+980	20.00	1.760	3.591	1.831	28.55	0.00	0.00	787.00	0.00	0.00
KM8+000	20.00	0.760	3.487	2.727	57.37	0.00	0.00	859.25	0.00	0.00
KM8+020	20.00	0.880	3.434	2.554	51.33	0.00	0.00	1087.07	0.00	0.00
KM8+040	20.00	1.650	3.435	1.785	27.61	0.00	0.00	789.49	0.00	0.00
KM8+060	20.00	1.450	3.487	2.037	33.29	0.00	0.00	609.05	0.00	0.00
KM8+080	20.00	0.660	3.554	2.894	63.20	0.00	0.00	964.92	0.00	0.00
KM8+100	20.00	1.380	3.621	2.241	40.41	0.00	0.00	1036.12	0.00	0.00
KM8+120	20.00	1.510	3.687	2.177	38.18	0.00	0.00	785.88	0.00	0.00
KM8+140	20.00	1.400	3.754	2.354	44.35	0.00	0.00	825.32	0.00	0.00
KM8+160	20.00	1.270	3.821	2.551	51.23	0.00	0.00	955.85	0.00	0.00
KM8+180	20.00	0.990	3.888	2.898	63.34	0.00	0.00	1145.70	0.00	0.00
KM8+200	20.00	1.540	3.955	2.415	46.48	0.00	0.00	1098.24	0.00	0.00
KM8+220	20.00	1.330	4.022	2.692	56.15	0.00	0.00	1026.34	0.00	0.00
KM8+240	20.00	1.170	4.096	2.926	64.32	0.00	0.00	1204.68	0.00	0.00
KM8+260	20.00	1.280	4.156	2.876	62.57	0.00	0.00	1268.90	0.00	0.00
KM8+270	10.00	1.200	4.189	2.989	66.52	0.00	0.00	645.44	0.00	0.00
KM8+280	10.00	1.130	4.223	3.093	70.28	22.10	22.02	683.96	110.50	110.08
KM8+300	20.00	1.120	4.289	3.169	73.03	22.10	22.27	1433.11	442.00	442.91
KM8+320	20.00	1.110	4.356	3.246	75.83	22.10	22.54	1488.65	442.00	448.11
KM8+340	20.00	1.100	4.423	3.323	78.62	22.10	22.80	1544.55	442.00	453.35
KM8+360	20.00	1.060	4.519	3.459	83.56	22.10	23.26	1621.87	442.00	460.59
KM8+380	20.00	1.040	4.716	3.676	91.44	22.10	24.00	1750.01	442.00	472.59
KM8+400	20.00	1.090	5.016	3.926	100.51	22.10	24.85	1919.53	442.00	488.47
KM8+420	20.00	1.260	5.417	4.157	103.23	31.65	25.78	2037.45	537.50	506.24
KM8+440	20.00	1.310	5.847	4.537	103.31	31.65	27.41	2065.39	633.00	531.84
KM8+456	16.85	1.100	6.210	5.110	105.30	40.20	28.97	1757.54	605.34	475.00
TOTAL (I)								57200	11433	10659

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
2/ CAI TAC 1 - CAI TAC 2										
KM8+642.75		0.310	7.690	7.380	149.88	40.20	20.22			
KM8+660	17.25	0.330	7.412	7.082	144.48	40.20	21.38	2538.87	693.45	358.78
KM8+680	20.00	1.060	7.008	5.948	119.80	40.20	25.70	2642.85	804.00	470.83
KM8+700	20.00	1.410	6.578	5.168	106.31	40.20	28.74	2261.07	804.00	544.48
KM8+720	20.00	1.310	6.148	4.838	103.37	31.65	28.70	2096.74	718.50	574.48
KM8+740	20.00	1.570	5.718	4.148	103.23	31.65	25.74	2065.97	633.00	544.40
KM8+760	20.00	1.630	5.288	3.658	90.79	22.10	23.94	1940.15	537.50	496.74
KM8+780	20.00	1.680	4.858	3.178	73.36	22.10	22.31	1641.47	442.00	462.42
KM8+790	10.00	0.750	4.643	3.893	99.32	22.10	24.74	863.39	221.00	235.21
KM8+800	10.00	1.480	4.428	2.948	65.09	0.00	0.00	822.01	110.50	123.68
KM8+820	20.00	1.630	3.998	2.368	44.84	0.00	0.00	1099.28	0.00	0.00
KM8+840	20.00	1.380	3.614	2.234	40.17	0.00	0.00	850.10	0.00	0.00
KM8+860	20.00	1.390	3.386	1.996	31.92	0.00	0.00	720.85	0.00	0.00
KM8+880	20.00	1.570	3.322	1.752	26.94	0.00	0.00	588.59	0.00	0.00
KM8+900	20.00	0.480	3.414	2.934	64.60	0.00	0.00	915.37	0.00	0.00
KM8+920	20.00	0.660	3.552	2.892	63.13	0.00	0.00	1277.27	0.00	0.00
KM8+940	20.00	1.590	3.690	2.100	35.49	0.00	0.00	986.21	0.00	0.00
KM8+960	20.00	1.370	3.828	2.458	47.98	0.00	0.00	834.74	0.00	0.00
KM8+980	20.00	1.180	3.966	2.786	59.43	0.00	0.00	1074.16	0.00	0.00
KM9+000	20.00	-0.650	4.104	4.754	103.35	31.65	28.34	1627.82	316.50	283.42
KM9+020	20.00	1.310	4.220	2.910	63.76	0.00	0.00	1671.10	316.50	283.42
KM9+040	20.00	1.460	4.260	2.800	59.92	0.00	0.00	1236.79	0.00	0.00
KM9+060	20.00	-0.640	4.221	4.861	103.37	31.65	28.80	1632.92	316.50	288.02
KM9+080	20.00	1.380	4.106	2.726	57.34	0.00	0.00	1607.10	316.50	288.02
KM9+100	20.00	1.390	3.968	2.578	52.17	0.00	0.00	1095.10	0.00	0.00
KM9+120	20.00	1.420	3.831	2.411	46.34	0.00	0.00	985.16	0.00	0.00
KM9+140	20.00	0.930	3.694	2.764	58.66	0.00	0.00	1050.08	0.00	0.00
KM9+160	20.00	1.040	3.557	2.517	50.04	0.00	0.00	1087.07	0.00	0.00
KM9+180	20.00	1.040	3.420	2.380	45.26	0.00	0.00	953.05	0.00	0.00
KM9+200	20.00	1.100	3.283	2.183	38.39	0.00	0.00	836.49	0.00	0.00
KM9+220	20.00	1.400	3.168	1.768	27.27	0.00	0.00	656.54	0.00	0.00
KM9+245	25.00	1.130	3.252	2.122	36.26	0.00	0.00	794.06	0.00	0.00
KM9+260	15.00	1.100	3.439	2.339	43.83	0.00	0.00	600.67	0.00	0.00
KM9+280	20.00	1.090	3.848	2.758	58.45	0.00	0.00	1022.85	0.00	0.00
KM9+290	10.00	1.090	4.098	3.008	67.19	22.10	21.73	628.22	110.50	108.64
KM9+300	10.00	1.050	4.347	3.297	77.68	22.10	22.71	724.36	221.00	222.19
KM9+320	20.00	1.250	4.847	3.597	88.57	22.10	23.73	1662.52	442.00	464.40
KM9+322	2.00	0.530	4.821	4.291	103.26	31.65	26.35	191.83	53.75	50.08
KM9+340	18.00	1.250	5.266	4.016	103.20	31.65	25.17	1858.15	569.70	463.68
KM9+360	20.00	1.300	5.753	4.453	103.29	31.65	27.05	2064.94	633.00	522.17
KM9+380	20.00	1.110	6.153	5.043	104.14	40.20	29.23	2074.35	718.50	562.80
KM9+400	20.00	1.240	6.452	5.212	107.07	40.20	28.57	2112.12	804.00	578.06
KM9+420	20.00	0.910	6.652	5.742	116.24	40.20	26.51	2233.04	804.00	550.79
KM9+431	11.45	0.910	6.720	5.810	117.41	40.20	26.24	1337.64	460.29	301.98
TOTAL (II)								56963	11047	8779
3/ CAI TAC 2 - CAI DA										
KM9+468.55		1.080	6.720	5.640	114.47	40.20	26.90			
KM9+480	11.45	1.080	6.652	5.572	113.30	40.20	27.17	1303.97	460.29	309.57
KM9+500	20.00	1.170	6.453	5.283	108.30	40.20	28.30	2215.92	804.00	554.66
KM9+520	20.00	1.410	6.153	4.743	103.35	31.65	28.29	2116.45	718.50	565.91
KM9+540	20.00	1.500	5.754	4.254	103.25	31.65	26.19	2065.99	633.00	544.87

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM9+560	20.00	1.360	5.267	3.907	99.82	22.10	24.78	2030.75	537.50	509.76
KM9+580	20.00	1.110	4.798	3.688	91.87	22.10	24.04	1916.99	442.00	488.23
KM9+600	20.00	0.470	4.437	3.967	102.00	22.10	24.99	1938.77	442.00	490.27
KM9+620	20.00	1.390	4.185	2.795	59.75	0.00	0.00	1617.48	221.00	249.88
KM9+640	20.00	0.850	4.040	3.190	73.80	22.10	22.35	1335.43	221.00	223.46
KM9+660	20.00	0.960	3.926	2.966	65.71	0.00	0.00	1395.10	221.00	223.46
KM9+680	20.00	0.960	3.813	2.853	61.77	0.00	0.00	1274.83	0.00	0.00
KM9+700	20.00	0.960	3.699	2.739	57.79	0.00	0.00	1195.61	0.00	0.00
KM9+720	20.00	0.980	3.585	2.605	53.11	0.00	0.00	1109.06	0.00	0.00
KM9+732	12.00	0.900	3.514	2.614	53.43	0.00	0.00	639.26	0.00	0.00
KM9+740	8.00	0.880	3.471	2.591	52.63	0.00	0.00	424.22	0.00	0.00
KM9+760	20.00	0.900	3.357	2.457	47.95	0.00	0.00	1005.75	0.00	0.00
KM9+780	20.00	0.940	3.243	2.303	42.57	0.00	0.00	905.24	0.00	0.00
KM9+800	20.00	0.180	3.129	2.949	65.12	0.00	0.00	1076.95	0.00	0.00
KM9+820	20.00	0.880	3.015	2.135	36.71	0.00	0.00	1018.32	0.00	0.00
KM9+840	20.00	0.890	2.902	2.012	32.42	0.00	0.00	691.30	0.00	0.00
KM9+860	20.00	0.950	2.788	1.838	28.70	0.00	0.00	611.14	0.00	0.00
KM9+870	10.00	0.960	2.732	1.772	27.35	0.00	0.00	280.22	0.00	0.00
KM9+880	10.00	0.960	2.683	1.723	26.35	0.00	0.00	268.49	0.00	0.00
KM9+900	20.00	0.980	2.611	1.631	24.47	0.00	0.00	508.22	0.00	0.00
KM9+920	20.00	1.200	2.573	1.373	19.21	0.00	0.00	436.82	0.00	0.00
KM9+940	20.00	0.870	2.567	1.697	25.82	0.00	0.00	450.28	0.00	0.00
KM9+960	20.00	1.150	2.570	1.420	20.17	0.00	0.00	459.87	0.00	0.00
KM9+980	20.00	1.040	2.574	1.534	22.49	0.00	0.00	426.62	0.00	0.00
KM10+000	20.00	1.020	2.577	1.557	22.96	0.00	0.00	454.56	0.00	0.00
KM10+020	20.00	1.000	2.580	1.580	23.43	0.00	0.00	463.95	0.00	0.00
KM10+040	20.00	0.990	2.584	1.594	23.72	0.00	0.00	471.50	0.00	0.00
KM10+060	20.00	0.970	2.587	1.617	24.19	0.00	0.00	479.04	0.00	0.00
KM10+080	20.00	1.030	2.591	1.561	23.04	0.00	0.00	472.31	0.00	0.00
KM10+100	20.00	1.000	2.594	1.594	23.72	0.00	0.00	467.62	0.00	0.00
KM10+120	20.00	1.040	2.684	1.644	24.74	0.00	0.00	484.55	0.00	0.00
KM10+140	20.00	1.080	2.775	1.695	25.78	0.00	0.00	505.16	0.00	0.00
KM10+142	2.00	1.110	2.787	1.677	25.41	0.00	0.00	51.19	0.00	0.00
KM10+160	18.00	1.060	2.865	1.805	28.02	0.00	0.00	480.90	0.00	0.00
KM10+180	20.00	1.140	2.955	1.815	28.23	0.00	0.00	562.48	0.00	0.00
KM10+200	20.00	1.300	3.046	1.746	26.82	0.00	0.00	550.44	0.00	0.00
KM10+220	20.00	1.220	3.136	1.916	30.29	0.00	0.00	571.05	0.00	0.00
KM10+240	20.00	1.160	3.226	2.066	34.30	0.00	0.00	645.90	0.00	0.00
KM10+260	20.00	1.180	3.316	2.136	36.75	0.00	0.00	710.50	0.00	0.00
KM10+280	20.00	1.190	3.430	2.240	40.38	0.00	0.00	771.22	0.00	0.00
KM10+300	20.00	1.370	3.705	2.335	43.69	0.00	0.00	840.68	0.00	0.00
KM10+320	20.00	1.300	4.166	2.866	62.22	0.00	0.00	1059.15	0.00	0.00
KM10+340	20.00	1.380	4.782	3.402	81.49	22.10	23.07	1437.16	221.00	230.67
KM10+360	20.00	1.360	5.343	3.983	102.58	22.10	25.04	1840.76	442.00	481.09
KM10+380	20.00	1.100	5.805	4.705	103.34	31.65	28.13	2059.24	537.50	531.74
KM10+400	20.00	1.420	6.167	4.747	103.35	31.65	28.31	2066.90	633.00	564.44
KM10+416	16.25	1.470	6.390	4.920	103.38	31.65	29.06	1679.71	514.31	466.12
TOTAL (III)								49845	7048	6434
4/ CAI DA - BA MANG										
KM10+509.75		1.690	6.390	4.700	103.34	31.65	28.11			
KM10+520	10.25	0.950	6.256	5.306	108.69	40.20	28.21	1086.67	368.23	288.62
KM10+540	20.00	1.160	5.924	4.764	103.35	31.65	28.39	2120.47	718.50	565.92
KM10+560	20.00	-0.030	5.491	5.521	112.41	40.20	27.37	2157.66	718.50	557.53

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM10+580	20.00	0.540	4.960	4.420	103.28	31.65	26.91	2156.97	718.50	542.74
KM10+600	20.00	0.920	4.335	3.415	81.96	22.10	23.11	1852.49	537.50	500.17
KM10+620	20.00	1.900	3.709	1.809	28.10	0.00	0.00	1100.68	221.00	231.11
KM10+640	20.00	0.640	3.222	2.582	52.31	0.00	0.00	804.15	0.00	0.00
KM10+650	10.00	0.940	3.038	2.098	35.42	0.00	0.00	438.66	0.00	0.00
KM10+660	10.00	1.250	2.894	1.644	24.74	0.00	0.00	300.79	0.00	0.00
KM10+680	20.00	1.140	2.724	1.584	23.51	0.00	0.00	482.51	0.00	0.00
KM10+700	20.00	1.380	2.692	1.312	17.96	0.00	0.00	414.78	0.00	0.00
KM10+720	20.00	0.750	2.681	1.931	30.59	0.00	0.00	485.57	0.00	0.00
KM10+740	20.00	0.840	2.669	1.829	28.51	0.00	0.00	591.04	0.00	0.00
KM10+760	20.00	1.240	2.658	1.418	20.13	0.00	0.00	486.39	0.00	0.00
KM10+780	20.00	0.510	2.646	2.136	36.75	0.00	0.00	568.74	0.00	0.00
KM10+800	20.00	1.030	2.635	1.605	23.94	0.00	0.00	606.88	0.00	0.00
KM10+820	20.00	1.180	2.623	1.443	20.64	0.00	0.00	445.79	0.00	0.00
KM10+840	20.00	1.010	2.612	1.602	23.88	0.00	0.00	445.18	0.00	0.00
KM10+860	20.00	1.100	2.600	1.500	21.80	0.00	0.00	456.81	0.00	0.00
KM10+880	20.00	1.180	2.589	1.409	19.94	0.00	0.00	417.44	0.00	0.00
KM10+900	20.00	1.450	2.577	1.127	14.19	0.00	0.00	341.34	0.00	0.00
KM10+920	20.00	0.350	2.566	2.216	39.54	0.00	0.00	537.29	0.00	0.00
KM10+939	19.00	0.280	2.555	2.275	41.60	0.00	0.00	770.79	0.00	0.00
KM10+940	1.00	0.280	2.554	2.274	41.56	0.00	0.00	41.58	0.00	0.00
KM10+948	6.00	0.600	2.550	1.950	30.98	0.00	0.00	217.63	0.00	0.00
KM10+960	14.00	1.350	2.623	1.273	17.17	0.00	0.00	337.04	0.00	0.00
KM10+980	20.00	0.540	2.666	2.126	36.40	0.00	0.00	535.67	0.00	0.00
KM11+00	20.00	1.410	2.818	1.408	19.92	0.00	0.00	563.21	0.00	0.00
KM11+00		1.410	2.818	1.408	15.85	0.00	0.00			
KM11+20	20.00	1.310	3.079	1.769	21.73	0.00	0.00	375.85	0.00	0.00
KM11+40	20.00	0.500	3.448	2.948	55.36	0.00	0.00	770.97	0.00	0.00
KM11+60	20.00	1.050	3.872	2.822	51.39	0.00	0.00	1067.55	0.00	0.00
KM11+060	0.50	0.470	3.883	3.413	70.96	22.10	30.48	30.59	5.53	7.62
KM11+80	19.50	1.500	4.296	2.796	50.57	0.00	0.00	1184.95	215.48	297.20
KM11+100	20.00	1.450	4.720	3.270	66.13	22.10	29.80	1167.00	221.00	297.96
KM11+120	20.00	1.580	5.145	3.565	76.10	22.10	31.21	1422.23	442.00	610.08
KM11+140	20.00	1.310	5.556	4.246	86.50	31.65	34.51	1625.92	537.50	657.17
KM11+160	20.00	0.100	5.880	5.780	82.35	40.20	36.56	1688.43	718.50	710.67
KM11+180	20.00	1.340	6.105	4.765	77.41	31.65	37.05	1597.61	718.50	736.11
KM11+200	20.00	0.200	6.230	6.030	85.33	40.20	36.04	1627.45	718.50	730.86
KM11+202	2.45	0.200	6.240	6.040	85.48	40.20	36.02	209.24	98.49	88.26
TOTAL (IV)								33532	6958	6822
5/ BA MANG - CAI NAI										
KM11+227.55		0.450	6.240	5.790	82.46	40.20	36.54			
KM11+230	2.45	0.450	6.230	5.780	82.35	40.20	36.56	201.89	98.49	89.55
KM11+240	10.00	1.550	6.180	4.630	79.78	31.65	36.39	810.62	359.25	364.75
KM11+260	20.00	1.010	6.005	4.995	73.39	31.65	38.18	1531.63	633.00	745.63
KM11+280	20.00	1.400	5.731	4.331	85.01	31.65	34.92	1583.95	633.00	730.97
KM11+300	20.00	1.200	5.357	4.157	88.05	31.65	34.07	1730.60	633.00	689.91
KM11+320	20.00	0.350	4.932	4.582	80.62	31.65	36.15	1686.68	633.00	702.21
KM11+340	20.00	1.190	4.508	3.318	67.75	22.10	30.03	1483.63	537.50	661.78
KM11+360	20.00	0.400	4.030	3.630	78.29	22.10	31.52	1460.42	442.00	615.50
KM11+370	10.00	0.960	3.872	2.912	54.23	0.00	0.00	662.61	110.50	157.62
KM11+380	10.00	0.970	3.660	2.690	47.24	0.00	0.00	507.32	0.00	0.00
KM11+400	20.00	0.980	3.278	2.298	34.89	0.00	0.00	821.22	0.00	0.00

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM11+420	20.00	0.990	3.042	2.052	27.14	0.00	0.00	620.25	0.00	0.00
KM11+440	20.00	1.230	2.955	1.725	21.02	0.00	0.00	481.56	0.00	0.00
KM11+460	20.00	0.380	3.014	2.634	45.47	0.00	0.00	664.89	0.00	0.00
KM11+480	20.00	0.960	3.115	2.155	30.38	0.00	0.00	758.54	0.00	0.00
KM11+500	20.00	1.070	3.216	2.146	30.10	0.00	0.00	604.82	0.00	0.00
KM11+520	20.00	0.990	3.317	2.327	35.80	0.00	0.00	659.00	0.00	0.00
KM11+540	20.00	0.980	3.418	2.438	39.30	0.00	0.00	750.98	0.00	0.00
KM11+560	20.00	0.960	3.519	2.559	43.11	0.00	0.00	824.06	0.00	0.00
KM11+580	20.00	0.920	3.620	2.700	47.55	0.00	0.00	906.59	0.00	0.00
KM11+600	20.00	1.300	3.721	2.421	38.76	0.00	0.00	863.12	0.00	0.00
KM11+620	20.00	0.300	3.822	3.522	74.64	22.10	31.01	1134.05	221.00	310.06
KM11+640	20.00	1.030	3.923	2.893	53.63	0.00	0.00	1282.73	221.00	310.06
KM11+660	20.00	0.820	4.024	3.204	63.90	22.10	29.48	1175.25	221.00	294.79
KM11+680	20.00	0.840	4.125	3.285	66.63	22.10	29.87	1305.28	442.00	593.47
KM11+700	20.00	0.880	4.226	3.346	68.69	22.10	30.16	1353.28	442.00	600.29
KM11+720	20.00	1.110	4.327	3.217	64.33	22.10	29.54	1330.29	442.00	597.02
KM11+740	20.00	1.100	4.428	3.328	68.09	22.10	30.07	1324.21	442.00	596.16
KM11+760	20.00	0.910	4.529	3.619	77.92	22.10	31.47	1460.09	442.00	615.46
KM11+780	20.00	0.810	4.630	3.820	84.72	22.10	32.44	1626.38	442.00	639.07
KM11+800	20.00	0.810	4.731	3.921	88.13	22.10	32.92	1728.46	442.00	653.57
KM11+820	20.00	0.100	4.832	4.732	77.99	31.65	36.89	1661.20	537.50	698.08
KM11+840	20.00	0.970	4.933	3.963	89.55	22.10	33.12	1675.39	537.50	700.09
KM11+860	20.00	-0.130	5.034	5.164	75.20	40.20	37.86	1647.52	623.00	709.78
KM11+880	20.00	0.860	5.135	4.275	85.99	31.65	34.65	1611.90	718.50	725.03
KM11+900	20.00	0.850	5.236	4.386	84.05	31.65	35.19	1700.33	633.00	698.39
KM11+920	20.00	0.740	5.337	4.597	80.35	31.65	36.23	1643.98	633.00	714.17
KM11+940	20.00	0.800	5.438	4.638	79.64	31.65	36.43	1599.88	633.00	726.52
KM11+960	20.00	0.660	5.539	4.879	75.42	31.65	37.61	1550.53	633.00	740.33
KM11+980	20.00	0.470	5.640	5.170	75.27	40.20	37.84	1506.90	718.50	754.50
KM12+000	20.00	0.830	5.709	4.879	75.42	31.65	37.61	1506.90	718.50	754.50
KM12+010	10.00	0.800	5.744	4.944	74.28	31.65	37.93	748.49	316.50	377.66
KM12+020	10.00	0.800	5.779	4.979	73.67	31.65	38.10	739.74	316.50	380.11
KM12+040	20.00	0.240	5.848	5.608	80.35	40.20	36.92	1540.20	718.50	750.20
KM12+060	20.00	0.910	5.918	5.008	73.39	40.20	38.18	1537.46	804.00	751.06
KM12+080	20.00	0.860	5.987	5.127	74.77	40.20	37.93	1481.66	804.00	761.17
KM12+100	20.00	0.910	6.057	5.147	75.01	40.20	37.89	1497.78	804.00	758.25
KM12+120	20.00	0.910	6.126	5.216	75.81	40.20	37.75	1508.11	804.00	756.38
KM12+140	20.00	0.920	6.196	5.276	76.50	40.20	37.62	1523.07	804.00	753.67
KM12+147	7.00	0.900	6.221	5.321	77.02	40.20	37.53	537.34	281.40	263.01
KM12+150	3.00	0.900	6.231	5.331	77.14	40.20	37.50	231.24	120.60	112.55
KM12+160	10.00	0.920	6.265	5.345	77.30	40.20	37.48	772.21	402.00	374.90
KM12+180	20.00	0.410	6.335	5.925	84.03	40.20	36.26	1613.32	804.00	737.33
KM12+200	20.00	0.580	6.404	5.824	82.86	40.20	36.47	1668.88	804.00	727.27
KM12+220	20.00	0.490	6.474	5.984	84.71	40.20	36.13	1675.73	804.00	726.03
KM12+240	20.00	1.160	6.543	5.383	77.74	40.20	37.40	1624.57	804.00	735.29
KM12+260	20.00	1.420	6.613	5.193	75.54	40.20	37.79	1532.82	804.00	751.90
KM12+280	20.00	1.650	6.681	5.031	73.66	40.20	38.13	1491.98	804.00	759.30
KM12+300	20.00	1.330	6.736	5.406	78.01	40.20	37.35	1516.69	804.00	754.82
KM12+320	20.00	1.560	6.773	5.213	75.77	40.20	37.75	1537.80	804.00	751.00
KM12+330	10.00	1.480	6.786	5.306	76.85	40.20	37.56	763.10	402.00	376.55
KM12+336	6.25	1.390	6.790	5.400	77.94	40.20	37.36	483.72	251.25	234.12
TOTAL (V)								75465	27483	29782

Chainage	Distance	Ground level	Design level	Embankment height	Area of settlement	Area of surcharge	Area of removing surcharge	Quantity of settlement	Quantity of surcharge	Quantity of removing surcharge
	(m)			(m)	(m ²)	(m ²)	(m ²)	(m ³)	(m ³)	(m ³)
6/ CAI NAI - AP MY										
KM12+429.75		1.330	6.670	5.340	77.24	40.20	37.49			
KM12+440	10.25	0.630	6.634	6.004	84.96	40.20	36.09	831.28	412.05	377.09
KM12+460	20.00	0.610	6.550	5.940	84.20	40.20	36.23	1691.62	804.00	723.18
KM12+480	20.00	1.460	6.449	4.989	73.49	31.65	38.15	1576.97	718.50	743.72
KM12+500	20.00	1.000	6.332	5.332	77.15	40.20	37.50	1506.44	718.50	756.49
KM12+520	20.00	0.750	6.211	5.461	78.65	40.20	37.23	1557.99	804.00	747.35
KM12+540	20.00	1.230	6.090	4.860	75.75	31.65	37.51	1543.98	718.50	747.46
KM12+560	20.00	1.380	5.969	4.589	80.49	31.65	36.19	1562.43	633.00	737.00
KM12+580	20.00	0.930	5.848	4.918	74.74	31.65	37.80	1552.28	633.00	739.84
KM12+590	10.00	0.900	5.787	4.887	75.28	31.65	37.65	750.06	316.50	377.22
KM12+600	10.00	1.220	5.727	4.507	81.93	31.65	35.78	786.03	316.50	367.15
KM12+620	20.00	1.000	5.606	4.606	80.20	31.65	36.27	1621.23	633.00	720.54
KM12+640	20.00	1.000	5.485	4.485	82.31	31.65	35.68	1625.08	633.00	719.46
KM12+660	20.00	0.990	5.364	4.374	84.26	31.65	35.13	1665.68	633.00	708.09
KM12+680	20.00	0.460	5.243	4.783	77.10	31.65	37.14	1613.53	633.00	722.69
KM12+700	20.00	0.150	5.122	4.972	73.79	31.65	38.06	1508.88	633.00	752.00
KM12+720	20.00	1.330	5.000	3.670	79.65	22.10	31.72	1534.36	537.50	697.79
KM12+740	20.00	1.010	4.879	3.869	86.37	22.10	32.67	1660.18	442.00	643.87
KM12+750	10.00	1.200	4.819	3.619	77.92	22.10	31.47	821.47	221.00	320.71
KM12+760	10.00	0.720	4.758	4.038	90.14	31.65	33.49	840.29	268.75	324.79
KM12+780	20.00	0.840	4.637	3.797	83.94	22.10	32.33	1740.74	537.50	658.12
KM12+800	20.00	0.870	4.516	3.646	78.83	22.10	31.60	1627.73	442.00	639.26
KM12+820	20.00	0.930	4.395	3.465	72.72	22.10	30.73	1515.52	442.00	623.33
KM12+834	14.00	1.210	4.306	3.096	60.24	22.10	28.96	930.73	309.40	417.85
KM12+840	6.00	0.910	4.274	3.364	69.30	22.10	30.25	388.64	132.60	177.62
KM12+860	20.00	0.760	4.153	3.393	70.28	22.10	30.39	1395.87	442.00	606.34
KM12+880	20.00	0.880	4.032	3.152	62.14	22.10	29.23	1324.21	442.00	596.16
KM12+900	20.00	0.870	3.911	3.041	58.39	22.10	28.70	1205.23	442.00	579.26
KM12+920	20.00	0.910	3.796	2.886	53.41	0.00	0.00	1117.95	221.00	286.97
KM12+940	20.00	0.840	3.814	2.974	56.18	0.00	0.00	1095.90	0.00	0.00
KM12+950	10.00	0.900	3.892	2.992	56.75	0.00	0.00	564.65	0.00	0.00
KM12+960	10.00	0.960	4.016	3.056	58.89	22.10	28.77	578.20	110.50	143.84
KM12+970	10.00	0.980	4.187	3.207	64.00	22.10	29.49	614.45	221.00	291.31
KM12+980	10.00	1.000	4.403	3.403	70.62	22.10	30.43	673.09	221.00	299.64
KM13+000	20.00	1.070	4.976	3.906	87.62	22.10	32.85	1582.44	442.00	632.83
KM13+020	20.00	0.370	5.681	5.311	76.91	40.20	37.55	1645.30	623.00	703.96
KM13+040	20.00	1.030	6.389	5.359	77.46	40.20	37.45	1543.72	804.00	749.93
KM13+060	20.00	1.510	7.027	5.517	79.30	40.20	37.11	1567.62	804.00	745.60
KM13+080	20.00	1.310	7.566	6.256	88.59	40.20	35.56	1678.84	804.00	726.77
KM13+100	20.00	1.600	8.008	6.408	90.78	40.20	35.24	1793.62	804.00	708.06
KM13+109	9.55	1.600	8.190	6.590	93.40	40.20	34.86	879.42	383.91	334.75
TOTAL (VI)								51714	19337	21848
7/ AP MY - CAI RANG										
KM13+250.45		1.100	8.190	7.090	100.36	40.20	33.82			
KM13+260	9.55	1.100	8.008	6.908	97.98	40.20	34.19	947.06	383.91	324.76
KM13+280	20.00	0.350	7.567	7.217	101.86	40.20	33.57	1998.36	804.00	677.59
KM13+300	20.00	1.690	7.027	5.337	77.21	40.20	37.49	1790.70	804.00	710.58
KM13+320	20.00	1.470	6.390	4.920	74.70	31.65	37.81	1519.09	718.50	753.00
KM13+340	20.00	1.340	5.681	4.341	84.83	31.65	34.97	1595.33	633.00	727.79
KM13+360	20.00	0.440	4.970	4.530	81.53	31.65	35.90	1663.58	633.00	708.68
KM13+380	20.00	1.170	4.265	3.095	60.21	22.10	28.96	1417.36	537.50	648.53
KM13+400	20.00	1.040	3.684	2.644	45.79	0.00	0.00	1059.97	221.00	289.56

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM13+415	15.00	1.110	3.362	2.252	33.44	0.00	0.00	594.18	0.00	0.00
KM13+420	5.00	1.110	3.277	2.167	30.76	0.00	0.00	160.50	0.00	0.00
KM13+440	20.00	1.120	3.043	1.923	24.24	0.00	0.00	550.05	0.00	0.00
KM13+460	20.00	1.260	2.978	1.718	20.90	0.00	0.00	451.48	0.00	0.00
KM13+480	20.00	0.740	2.962	2.222	32.49	0.00	0.00	533.96	0.00	0.00
KM13+500	20.00	0.650	2.945	2.295	34.79	0.00	0.00	672.86	0.00	0.00
KM13+520	20.00	0.730	2.929	2.199	31.77	0.00	0.00	665.61	0.00	0.00
KM13+522	2.00	0.730	2.927	2.197	31.71	0.00	0.00	63.47	0.00	0.00
KM13+540	18.00	1.110	2.913	1.803	22.29	0.00	0.00	485.95	0.00	0.00
KM13+560	20.00	1.100	2.896	1.796	22.17	0.00	0.00	444.64	0.00	0.00
KM13+580	20.00	0.630	2.880	2.250	33.38	0.00	0.00	555.50	0.00	0.00
KM13+600	20.00	0.070	2.869	2.799	50.67	0.00	0.00	840.44	0.00	0.00
KM13+620	20.00	0.420	2.986	2.566	43.33	0.00	0.00	939.98	0.00	0.00
KM13+635	15.00	0.640	3.189	2.549	42.79	0.00	0.00	645.92	0.00	0.00
KM13+665	30.00	0.670	3.895	3.225	64.61	22.10	29.58	1610.98	331.50	443.70
KM13+680	15.00	1.170	4.392	3.222	64.50	22.10	29.57	968.31	331.50	443.59
KM13+700	20.00	1.070	5.084	4.014	90.56	31.65	33.37	1550.59	537.50	629.34
KM13+720	20.00	1.300	5.776	4.476	82.47	31.65	35.63	1730.25	633.00	690.01
KM13+740	20.00	1.250	6.468	5.218	75.83	40.20	37.74	1582.99	718.50	733.75
KM13+744	4.00	1.360	6.634	5.274	76.48	40.20	37.62	304.61	160.80	150.73
KM13+760	16.00	0.410	7.161	6.751	95.71	40.20	34.52	1377.54	643.20	577.18
KM13+780	20.00	1.350	7.853	6.503	92.14	40.20	35.04	1878.58	804.00	695.67
KM13+800	20.00	0.670	8.495	7.825	109.04	40.20	32.35	2011.78	804.00	673.94
KM13+806	6.40	0.670	8.680	8.010	111.22	40.20	32.00	704.81	257.28	205.92
TOTAL (VII)								33316	9956	10084
8/ CAI RANG - END POINT										
KM14+064.9		0.370	8.500	8.130	112.63	40.20	32.00			
KM14+080	15.10	0.470	8.268	7.798	108.72	40.20	32.40	1671.20	607.02	486.25
KM14+100	20.00	1.310	7.963	6.653	94.30	40.20	34.73	2030.20	804.00	671.33
KM14+107	7.00	1.480	7.848	6.368	90.20	40.20	35.33	645.76	281.40	245.20
KM14+120	13.00	1.370	7.659	6.289	89.06	40.20	35.49	1165.20	522.60	460.33
KM14+140	20.00	1.360	7.354	5.994	84.83	40.20	36.11	1738.92	804.00	716.06
KM14+160	20.00	1.410	7.049	5.639	80.71	40.20	36.86	1655.43	804.00	729.71
KM14+175	15.00	1.250	6.821	5.571	79.92	40.20	37.00	1204.77	603.00	553.94
KM14+180	5.00	1.210	6.745	5.535	79.51	40.20	37.08	398.57	201.00	185.19
KM14+200	20.00	0.870	6.440	5.570	79.91	40.20	37.00	1594.18	804.00	740.80
KM14+220	20.00	1.200	6.136	4.936	74.42	31.65	37.89	1543.32	718.50	748.89
KM14+240	20.00	1.370	5.831	4.461	82.73	31.65	35.56	1571.53	633.00	734.45
KM14+247	7.00	1.490	5.715	4.225	86.86	31.65	34.40	593.58	221.55	244.86
KM14+260	13.00	1.210	5.527	4.317	85.25	31.65	34.85	1118.75	411.45	450.16
KM14+280	20.00	1.230	5.222	3.992	90.53	22.10	33.26	1757.82	537.50	681.15
KM14+300	20.00	0.910	4.918	4.008	90.66	31.65	33.34	1811.90	537.50	666.01
KM14+320	20.00	1.160	4.613	3.453	72.31	22.10	30.67	1629.71	537.50	640.14
KM14+340	20.00	1.150	4.309	3.159	62.37	22.10	29.26	1346.86	442.00	599.38
KM14+360	20.00	1.210	4.004	2.794	50.51	0.00	0.00	1128.85	221.00	292.63
KM14+370	10.00	1.410	3.852	2.442	39.42	0.00	0.00	449.67	0.00	0.00
KM14+380	10.00	1.310	3.700	2.390	37.79	0.00	0.00	386.04	0.00	0.00
KM14+400	20.00	0.400	3.395	2.995	56.84	0.00	0.00	946.28	0.00	0.00
KM14+420	20.00	0.900	3.115	2.215	32.27	0.00	0.00	891.15	0.00	0.00
KM14+440	20.00	0.360	2.917	2.557	43.05	0.00	0.00	753.18	0.00	0.00
KM14+460	20.00	0.580	2.805	2.225	32.59	0.00	0.00	756.33	0.00	0.00
KM14+470	10.00	1.370	2.781	1.411	15.90	0.00	0.00	242.43	0.00	0.00
KM14+480	10.00	1.380	2.776	1.396	15.65	0.00	0.00	157.77	0.00	0.00

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM14+500	20.00	1.360	2.771	1.411	15.90	0.00	0.00	315.54	0.00	0.00
KM14+520	20.00	1.160	2.766	1.606	19.08	0.00	0.00	349.77	0.00	0.00
KM14+540	20.00	0.800	2.761	1.961	24.86	0.00	0.00	439.42	0.00	0.00
KM14+560	20.00	0.860	2.755	1.895	23.79	0.00	0.00	486.53	0.00	0.00
KM14+580	20.00	0.780	2.750	1.970	25.01	0.00	0.00	488.00	0.00	0.00
KM14+600	20.00	0.600	2.745	2.145	30.07	0.00	0.00	550.79	0.00	0.00
KM14+620	20.00	0.690	2.740	2.050	27.08	0.00	0.00	571.43	0.00	0.00
KM14+640	20.00	-0.120	2.735	2.855	52.43	0.00	0.00	795.08	0.00	0.00
KM14+660	20.00	-0.190	2.730	2.920	54.48	0.00	0.00	1069.13	0.00	0.00
KM14+680	20.00	0.620	2.725	2.105	28.81	0.00	0.00	832.88	0.00	0.00
KM14+693	13.00	0.820	2.722	1.902	23.90	0.00	0.00	342.62	0.00	0.00
KM14+700	7.00	0.970	2.720	1.750	21.43	0.00	0.00	158.65	0.00	0.00
KM14+720	20.00	1.800	2.715	1.115	11.07	0.00	0.00	325.00	0.00	0.00
KM14+740	20.00	1.270	2.710	1.440	16.37	0.00	0.00	274.47	0.00	0.00
KM14+760	20.00	0.860	2.704	1.844	22.96	0.00	0.00	393.29	0.00	0.00
KM14+780	20.00	0.980	2.699	1.719	20.92	0.00	0.00	438.77	0.00	0.00
KM14+800	20.00	0.460	2.694	2.234	32.87	0.00	0.00	537.91	0.00	0.00
KM14+820	20.00	1.170	2.689	1.519	17.66	0.00	0.00	505.31	0.00	0.00
KM14+840	20.00	1.220	2.684	1.464	16.76	0.00	0.00	344.23	0.00	0.00
KM14+860	20.00	1.260	2.679	1.419	16.03	0.00	0.00	327.93	0.00	0.00
KM14+880	20.00	1.580	2.674	1.094	10.73	0.00	0.00	267.62	0.00	0.00
KM14+900	20.00	1.310	2.669	1.359	15.05	0.00	0.00	257.84	0.00	0.00
KM14+920	20.00	1.260	2.664	1.404	15.79	0.00	0.00	308.37	0.00	0.00
KM14+940	20.00	1.410	2.659	1.249	13.26	0.00	0.00	290.44	0.00	0.00
KM14+960	20.00	1.370	2.654	1.284	13.83	0.00	0.00	270.88	0.00	0.00
KM14+980	20.00	1.260	2.648	1.388	15.52	0.00	0.00	293.54	0.00	0.00
KM15+000	20.00	1.110	2.643	1.533	17.89	0.00	0.00	334.12	0.00	0.00
KM15+020	20.00	1.460	2.638	1.178	12.10	0.00	0.00	299.89	0.00	0.00
KM15+040	20.00	2.360	2.633	0.273	2.51	0.00	0.00	146.13	0.00	0.00
KM15+060	20.00	2.440	2.628	0.188	1.73	0.00	0.00	42.41	0.00	0.00
KM15+080	20.00	2.080	2.623	0.543	5.00	0.00	0.00	67.25	0.00	0.00
KM15+100	20.00	1.940	2.618	0.678	6.24	0.00	0.00	112.33	0.00	0.00
KM15+120	20.00	1.810	2.613	0.803	7.39	0.00	0.00	136.25	0.00	0.00
KM15+140	20.00	1.990	2.608	0.618	5.69	0.00	0.00	130.73	0.00	0.00
KM15+160	20.00	1.950	2.603	0.653	6.01	0.00	0.00	116.93	0.00	0.00
KM15+170	10.00	1.940	2.600	0.660	6.07	0.00	0.00	60.40	0.00	0.00
KM15+180	10.00	1.950	2.574	0.624	5.74	0.00	0.00	59.06	0.00	0.00
KM15+200	20.00	1.950	2.522	0.572	5.26	0.00	0.00	110.03	0.00	0.00
KM15+220	20.00	2.010	2.469	0.459	4.22	0.00	0.00	94.85	0.00	0.00
KM15+240	20.00	1.980	2.417	0.437	4.02	0.00	0.00	82.43	0.00	0.00
KM15+260	20.00	2.040	2.365	0.325	2.99	0.00	0.00	70.10	0.00	0.00
KM15+280	20.00	2.090	2.313	0.223	2.05	0.00	0.00	50.42	0.00	0.00
KM15+300	20.00	2.100	2.261	0.161	1.48	0.00	0.00	35.33	0.00	0.00
KM15+320	20.00	2.100	2.208	0.108	0.99	0.00	0.00	24.75	0.00	0.00
KM15+340	20.00	2.156	2.156	0.000	0.00	0.00	0.00	9.94	0.00	0.00
KM15+350	10.00	2.130	2.130	0.000	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL (VIII)								42408	9691	9846
TOTAL (I+II+III+IV+V+VI+VII+VIII)								400443	102953	104254

**QUANTITY OF FINAL SETTLEMENT, SURCHARGE AND REMOVING SURCHARGE
PACKAGE 3 - CAN THO SIDE
INTERCHANGE 3 - RAMP A**

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM0+000.0		1.090	4.700	3.610	67.98	22.10	9.01			
KM0+020.0	20.00	1.150	4.700	3.550	66.08	22.10	8.95	1340.56	442.00	179.60
KM0+040.0	20.00	0.530	4.700	4.170	79.55	31.65	9.62	1456.32	537.50	185.71
KM0+060.0	20.00	0.370	4.700	4.330	78.85	31.65	9.83	1584.00	633.00	194.50
KM0+080.0	20.00	1.330	4.632	3.302	58.24	22.10	8.70	1370.91	537.50	185.31
KM0+100.0	20.00	0.920	4.427	3.507	64.72	22.10	8.91	1229.64	442.00	176.09
KM0+120.0	20.00	1.150	4.085	2.935	46.87	0.00	0.00	1115.88	221.00	89.07
KM0+140.0	20.00	0.490	3.606	3.116	52.37	22.10	8.52	992.33	221.00	85.16
KM0+160.0	20.00	0.310	3.086	2.776	42.38	0.00	0.00	947.49	221.00	85.16
KM0+180.0	20.00	0.820	2.748	1.928	19.53	0.00	0.00	619.11	0.00	0.00
KM0+200.0	20.00	0.540	2.620	2.080	22.76	0.00	0.00	422.84	0.00	0.00
KM0+220.0	20.00	0.710	2.700	1.990	20.37	0.00	0.00	431.21	0.00	0.00
KM0+240.0	20.00	0.530	2.990	2.460	33.47	0.00	0.00	538.37	0.00	0.00
KM0+260.0	20.00	1.210	3.522	2.312	29.30	0.00	0.00	627.70	0.00	0.00
KM0+280.0	20.00	-0.450	3.963	4.413	78.48	31.65	9.94	1077.81	316.50	99.37
KM0+300.0	20.00	1.460	4.462	3.002	48.76	22.10	8.40	1272.46	537.50	183.39
KM0+320.0	20.00	0.650	4.961	4.311	78.93	31.65	9.80	1276.95	537.50	182.06
KM0+342.0	22.04	0.530	5.511	4.981	75.98	31.65	10.68	1707.17	697.57	225.69
TOTAL								18011	5344	1871

**QUANTITY OF FINAL SETTLEMENT, SURCHARGE AND REMOVING SURCHARGE
PACKAGE 3 - CAN THO SIDE
INTERCHANGE 3 - RAMP B**

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM0+000.0		1.290	3.264	1.974	17.69	0.00	0.00			
KM0+054.3	54.28	0.740	2.859	2.119	21.18	0.00	0.00	1054.80	0.00	0.00
KM0+060.0	5.72	1.230	2.807	1.577	12.92	0.00	0.00	97.53	0.00	0.00
KM0+070.0	10.00	1.970	2.683	0.713	4.28	0.00	0.00	86.01	0.00	0.00
KM0+080.0	10.00	1.390	2.669	1.279	9.35	0.00	0.00	68.13	0.00	0.00
KM0+100.0	20.00	1.580	2.623	1.043	6.52	0.00	0.00	158.64	0.00	0.00
KM0+120.0	20.00	0.980	2.623	1.643	13.72	0.00	0.00	202.32	0.00	0.00
KM0+140.0	20.00	0.970	2.623	1.653	13.84	0.00	0.00	275.52	0.00	0.00
KM0+160.0	20.00	0.800	2.623	1.823	15.88	0.00	0.00	297.12	0.00	0.00
KM0+180.0	20.00	0.880	2.623	1.743	14.92	0.00	0.00	307.92	0.00	0.00
KM0+200.0	20.00	1.110	2.623	1.513	12.16	0.00	0.00	270.72	0.00	0.00
KM0+220.0	20.00	1.250	2.623	1.373	10.48	0.00	0.00	226.32	0.00	0.00
KM0+240.0	20.00	1.040	2.623	1.583	13.00	0.00	0.00	234.72	0.00	0.00
KM0+260.0	20.00	1.540	2.655	1.115	7.38	0.00	0.00	203.76	0.00	0.00
KM0+280.0	20.00	1.190	2.753	1.563	12.76	0.00	0.00	201.36	0.00	0.00
KM0+300.0	20.00	1.380	2.915	1.535	12.42	0.00	0.00	251.76	0.00	0.00
KM0+320.0	20.00	0.860	3.142	2.282	25.53	0.00	0.00	379.49	0.00	0.00
KM0+340.0	20.00	1.070	3.402	2.332	26.86	0.00	0.00	523.94	0.00	0.00
KM0+360.0	20.00	1.340	3.661	2.321	26.57	0.00	0.00	534.35	0.00	0.00
KM0+380.0	20.00	0.980	3.921	2.941	43.12	0.00	0.00	696.95	0.00	0.00
KM0+390.0	10.00	1.320	4.107	2.787	39.01	0.00	0.00	410.69	0.00	0.00
KM0+400.0	10.00	0.980	4.181	3.201	50.85	22.10	5.52	449.32	110.50	27.60
KM0+420.0	20.00	1.330	4.408	3.078	47.09	22.10	5.45	979.37	442.00	109.67
KM0+430.0	10.00	1.330	4.418	3.088	47.39	22.10	5.45	472.40	221.00	54.50
KM0+440.0	10.00	1.260	4.570	3.310	54.19	22.10	5.59	507.89	221.00	55.19
KM0+460.0	20.00	1.050	4.668	3.618	63.61	22.10	5.77	1177.97	442.00	113.57
KM0+480.0	20.00	1.240	4.700	3.460	58.78	22.10	5.68	1223.87	442.00	114.47
KM0+490.0	10.00	0.870	4.700	3.830	70.10	22.10	5.90	644.37	221.00	57.87
KM0+500.0	10.00	0.940	4.700	3.760	67.96	22.10	5.86	690.27	221.00	58.77
KM0+510.0	10.00	1.290	4.700	3.410	57.25	22.10	5.65	626.01	221.00	57.51
KM0+520.0	10.00	1.330	4.700	3.370	56.02	22.10	5.62	566.34	221.00	56.34
KM0+540.3	20.26	1.280	4.700	3.420	57.55	22.10	5.65	1150.56	447.77	114.21
TOTAL								14970	3210	820

**QUANTITY OF FINAL SETTLEMENT, SURCHARGE AND REMOVING SURCHARGE
PACKAGE 3 - CAN THO SIDE
INTERCHANGE 3 - RAMP C**

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM0+066.1		0.890	2.849	1.959	19.95	0.00	0.00			
KM0+070.0	3.93	0.870	2.849	1.979	20.22	0.00	0.00	78.86	0.00	0.00
KM0+080.0	10.00	0.880	2.730	1.850	18.48	0.00	0.00	193.46	0.00	0.00
KM0+090.0	10.00	0.880	2.684	1.804	17.85	0.00	0.00	181.65	0.00	0.00
KM0+100.0	10.00	0.890	2.688	1.798	17.77	0.00	0.00	178.14	0.00	0.00
KM0+120.0	20.00	0.880	2.794	1.914	19.34	0.00	0.00	371.12	0.00	0.00
KM0+140.0	20.00	0.810	2.906	2.096	23.21	0.00	0.00	425.46	0.00	0.00
KM0+160.0	20.00	1.330	3.017	1.687	16.27	0.00	0.00	394.82	0.00	0.00
KM0+180.0	20.00	1.290	3.129	1.839	18.33	0.00	0.00	346.01	0.00	0.00
KM0+200.0	20.00	1.330	3.241	1.911	19.30	0.00	0.00	376.25	0.00	0.00
KM0+220.0	20.00	0.680	3.353	2.673	39.48	0.00	0.00	587.77	0.00	0.00
KM0+240.0	20.00	0.350	3.465	3.115	52.33	22.10	8.52	918.13	221.00	85.15
KM0+260.0	20.00	1.030	3.576	2.546	35.90	0.00	0.00	882.31	221.00	85.15
KM0+280.0	20.00	1.380	3.688	2.308	29.19	0.00	0.00	650.83	0.00	0.00
KM0+300.0	20.00	-0.580	3.726	4.306	78.95	31.65	9.80	1081.39	316.50	97.98
KM0+320.0	20.00	0.730	3.617	2.887	45.51	0.00	0.00	1244.67	316.50	97.98
KM0+340.0	20.00	0.860	3.434	2.574	36.69	0.00	0.00	822.00	0.00	0.00
KM0+350.0	10.00	0.570	3.339	2.769	42.19	0.00	0.00	394.36	0.00	0.00
KM0+360.0	10.00	1.150	3.251	2.101	23.35	0.00	0.00	327.67	0.00	0.00
KM0+380.0	20.00	0.770	3.068	2.298	28.90	0.00	0.00	522.52	0.00	0.00
KM0+400.0	20.00	0.530	2.885	2.355	30.51	0.00	0.00	594.15	0.00	0.00
KM0+408.3	8.28	0.680	2.700	2.020	21.06	0.00	0.00	213.44	0.00	0.00
TOTAL								10785	1075	366

**QUANTITY OF FINAL SETTLEMENT, SURCHARGE AND REMOVING SURCHARGE
PACKAGE 3 - CAN THO SIDE
INTERCHANGE 3 - RAMP D**

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM0+000.0		1.110	3.900	2.790	39.09	0.00	0.00			
KM0+020.0	20.00	0.350	3.900	3.550	61.53	22.10	5.73	1006.23	221.00	57.30
KM0+040.0	20.00	0.850	3.900	3.050	46.23	22.10	5.43	1077.60	442.00	111.60
KM0+060.0	20.00	0.720	3.877	3.157	49.50	22.10	5.49	957.34	442.00	109.24
KM0+080.0	20.00	1.040	3.773	2.733	37.57	0.00	0.00	870.75	221.00	54.94
KM0+100.0	20.00	1.210	3.585	2.375	28.01	0.00	0.00	655.84	0.00	0.00
KM0+120.0	20.00	1.270	3.317	2.047	19.25	0.00	0.00	472.67	0.00	0.00
KM0+140.0	20.00	1.230	3.026	1.796	15.55	0.00	0.00	348.07	0.00	0.00
KM0+160.0	20.00	1.270	2.735	1.465	11.58	0.00	0.00	271.32	0.00	0.00
KM0+180.0	20.00	1.270	2.692	1.422	11.06	0.00	0.00	226.44	0.00	0.00
KM0+185.0	5.00	1.250	2.735	1.485	11.82	0.00	0.00	57.21	0.00	0.00
KM0+190.0	5.00	1.210	2.857	1.647	13.76	0.00	0.00	63.96	0.00	0.00
KM0+200.0	10.00	0.630	3.146	2.516	31.78	0.00	0.00	227.71	0.00	0.00
KM0+220.0	20.00	1.330	4.098	2.768	38.51	0.00	0.00	702.83	0.00	0.00
KM0+240.0	20.00	1.560	5.298	3.738	67.28	22.10	5.84	1057.88	221.00	58.43
KM0+252.4	12.40	1.450	6.000	4.550	74.48	31.65	6.28	878.90	333.25	75.13
RAMP "D" BRIDGE										
KM0+345.6		1.370	6.000	4.630	74.36	31.65	6.32			
KM0+360.0	14.40	1.340	5.231	3.891	71.96	22.10	5.93	1053.50	387.00	88.20
KM0+370.0	10.00	0.640	4.876	4.236	74.95	31.65	6.12	734.55	268.75	60.26
KM0+380.0	10.00	1.090	4.784	3.694	65.94	22.10	5.82	704.41	268.75	59.67
KM0+400.0	20.00	0.860	5.090	4.230	74.96	31.65	6.12	1408.91	537.50	119.31
KM0+409.4	9.38	1.420	5.274	3.854	70.83	22.10	5.91	683.74	252.09	56.41
TOTAL								13460	3594	850

**QUANTITY OF FINAL SETTLEMENT, SURCHARGE AND REMOVING SURCHARGE
PACKAGE 3 - CAN THO SIDE
INTERCHANGE 3 - RAMP E**

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM0+043.4		0.460	2.655	2.195	23.21	0.00	0.00			
KM0+050.0	6.58	0.520	2.700	2.180	22.81	0.00	0.00	151.38	0.00	0.00
KM0+060.0	10.00	0.530	2.704	2.174	22.65	0.00	0.00	227.26	0.00	0.00
KM0+080.0	20.00	0.550	2.702	2.152	22.06	0.00	0.00	447.04	0.00	0.00
KM0+090.0	10.00	0.660	2.698	2.038	19.01	0.00	0.00	205.37	0.00	0.00
KM0+100.0	10.00	0.590	2.681	2.091	20.43	0.00	0.00	197.22	0.00	0.00
KM0+120.0	20.00	0.470	2.660	2.190	23.07	0.00	0.00	435.03	0.00	0.00
KM0+140.0	20.00	0.480	2.639	2.159	22.25	0.00	0.00	453.18	0.00	0.00
KM0+160.0	20.00	0.710	2.619	1.909	16.91	0.00	0.00	391.53	0.00	0.00
KM0+177.0	17.00	0.780	2.600	1.820	15.84	0.00	0.00	278.36	0.00	0.00
TOTAL								2786	0	0

**QUANTITY OF FINAL SETTLEMENT, SURCHARGE AND REMOVING SURCHARGE
PACKAGE 3 - CAN THO SIDE
INTERCHANGE 3 - RAMP F**

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM0+000.0		0.670	2.600	1.930	19.56	0.00	0.00			
KM0+020.0	20.00	0.830	2.600	1.770	17.40	0.00	0.00	369.50	0.00	0.00
KM0+040.0	20.00	0.680	2.600	1.920	19.42	0.00	0.00	368.15	0.00	0.00
KM0+060.0	20.00	0.650	2.614	1.964	20.01	0.00	0.00	394.34	0.00	0.00
KM0+080.0	20.00	0.840	2.722	1.882	18.91	0.00	0.00	389.21	0.00	0.00
KM0+100.0	20.00	0.990	2.939	1.949	19.81	0.00	0.00	387.19	0.00	0.00
KM0+120.0	20.00	0.920	3.250	2.330	29.81	0.00	0.00	496.18	0.00	0.00
KM0+140.0	20.00	0.600	3.534	2.934	46.84	0.00	0.00	766.45	0.00	0.00
KM0+160.0	20.00	-0.280	3.738	4.018	80.22	31.65	9.42	1270.60	316.50	94.23
KM0+180.0	20.00	-1.270	3.859	5.129	77.76	40.20	10.55	1579.78	718.50	199.69
KM0+200.0	20.00	0.310	3.900	3.590	67.34	22.10	8.99	1451.02	623.00	195.35
KM0+220.0	20.00	1.050	3.900	2.850	44.47	0.00	0.00	1118.14	221.00	89.90
KM0+240.0	20.00	1.030	3.900	2.870	45.03	0.00	0.00	895.04	0.00	0.00
KM0+257.0	17.00	1.190	3.900	2.710	40.52	0.00	0.00	727.23	0.00	0.00
TOTAL								10213	1879	579

**QUANTITY OF FINAL SETTLEMENT, SURCHARGE AND REMOVING SURCHARGE
PACKAGE 3 - CAN THO SIDE
INTERCHANGE 3 - OVERROAD**

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM0+000.0		1.050	3.900	2.850	70.37	0.00	0.00			
KM0+020.0	20.00	1.060	3.909	2.849	70.33	0.00	0.00	1407.02	0.00	0.00
KM0+040.0	20.00	1.090	3.918	2.828	69.53	0.00	0.00	1398.61	0.00	0.00
KM0+060.0	20.00	0.640	3.927	3.287	87.21	22.10	29.79	1567.37	221.00	297.92
KM0+080.0	20.00	0.890	3.937	3.047	77.92	22.10	28.71	1651.26	442.00	585.03
KM0+100.0	20.00	0.880	3.946	3.066	78.65	22.10	28.80	1565.73	442.00	575.09
KM0+120.0	20.00	0.760	3.996	3.236	85.23	22.10	29.56	1638.87	442.00	583.59
KM0+140.0	20.00	0.580	4.335	3.755	105.32	22.10	31.90	1905.52	442.00	614.60
KM0+160.0	20.00	0.370	5.005	4.635	116.45	31.65	36.81	2217.70	537.50	687.08
KM0+180.0	20.00	1.170	5.964	4.794	116.86	31.65	37.76	2333.15	633.00	745.74
KM0+200.0	20.00	1.210	6.920	5.710	130.68	40.20	35.10	2475.41	718.50	728.59
KM0+220.0	20.00	1.280	7.721	6.441	146.51	40.20	31.30	2771.85	804.00	663.90
KM0+240.0	20.00	1.310	8.361	7.051	160.69	40.20	28.23	3071.97	804.00	595.25
KM0+260.0	19.97	0.990	8.842	7.852	176.23	40.20	23.98	3364.13	802.79	521.36
FLYOVER BRIDGE							0.00		0.00	
KM0+360.1		1.290	8.843	7.553	170.43	40.20	25.57		0.00	
KM0+380.0	19.93	1.150	8.363	7.213	163.83	40.20	27.37	3330.90	801.19	527.55
KM0+400.0	20.00	1.140	7.723	6.583	149.86	40.20	30.59	3136.91	804.00	579.56
KM0+420.0	20.00	1.140	6.922	5.782	132.02	40.20	34.70	2818.82	804.00	652.84
KM0+440.0	20.00	1.120	5.975	4.855	117.02	31.65	38.13	2490.46	718.50	728.29
KM0+460.0	20.00	0.940	5.220	4.280	115.53	31.65	34.68	2325.51	633.00	728.10
KM0+465.0	5.00	0.920	5.075	4.155	115.20	31.65	33.93	576.83	158.25	171.53
KM0+480.0	15.00	0.910	4.798	3.888	110.47	22.10	32.50	1692.51	403.13	498.20
KM0+500.0	20.00	1.150	4.700	3.550	97.39	22.10	30.98	2078.51	442.00	634.71
KM0+520.0	20.00	1.040	4.700	3.660	101.64	22.10	31.47	1990.27	442.00	624.45
KM0+540.0	20.00	1.270	4.700	3.430	92.74	22.10	30.44	1943.83	442.00	619.05
KM0+560.0	20.00	0.810	4.700	3.890	110.54	22.10	32.51	2032.84	442.00	629.40
KM0+580.0	20.00	0.870	4.700	3.830	108.22	22.10	32.24	2187.64	442.00	647.40
KM0+588.0	8.00	1.000	4.700	3.700	103.19	22.10	31.65	845.64	176.80	255.54
TOTAL								54819	12998	13895

**QUANTITY OF FINAL SETTLEMENT, SURCHARGE AND REMOVING SURCHARGE
PACKAGE 3 - CAN THO SIDE
INTERSECTION NH No.1 - RAMP A**

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM0+000.0		-0.430	2.689	3.119	56.39	22.10	22.93			
KM0+020.0	20.00	1.120	2.582	1.462	14.79	0.00	0.00	711.83	221.00	229.28
KM0+040.0	20.00	1.070	2.477	1.407	13.98	0.00	0.00	287.74	0.00	0.00
KM0+060.0	20.00	0.230	2.368	2.138	26.81	0.00	0.00	407.95	0.00	0.00
KM0+070.0	10.00	0.870	2.335	1.465	14.84	0.00	0.00	208.24	0.00	0.00
KM0+080.0	10.00	1.250	2.261	1.011	8.16	0.00	0.00	114.99	0.00	0.00
KM0+100.0	20.00	1.670	2.154	0.484	3.87	0.00	0.00	120.34	0.00	0.00
KM0+110.0	10.00	1.800	2.076	0.276	2.21	0.00	0.00	30.40	0.00	0.00
KM0+120.0	10.00	1.820	2.047	0.227	1.82	0.00	0.00	20.12	0.00	0.00
KM0+141.3	21.31	1.890	1.933	0.043	0.34	0.00	0.00	23.01	0.00	0.00
TOTAL								1925	221	229

**QUANTITY OF FINAL SETTLEMENT, SURCHARGE AND REMOVING SURCHARGE
PACKAGE 3 - CAN THO SIDE
INTERSECTION NH No.1 - RAMP B**

Chainage	Distance (m)	Ground level	Design level	Embankment height (m)	Area of settlement (m ²)	Area of surcharge (m ²)	Area of removing surcharge (m ²)	Quantity of settlement (m ³)	Quantity of surcharge (m ³)	Quantity of removing surcharge (m ³)
KM0+000.0		1.880	1.880	0.000	0.00	0.00	0.00			
KM0+020.0	20.00	1.890	1.910	0.020	0.11	0.00	0.00	1.08	0.00	0.00
KM0+040.0	20.00	1.890	1.940	0.050	0.27	0.00	0.00	3.78	0.00	0.00
KM0+050.0	10.00	1.830	1.951	0.121	0.65	0.00	0.00	4.62	0.00	0.00
KM0+060.0	10.00	1.860	1.970	0.110	0.59	0.00	0.00	6.24	0.00	0.00
KM0+080.0	20.00	1.900	2.000	0.100	0.54	0.00	0.00	11.34	0.00	0.00
KM0+100.0	20.00	1.870	2.030	0.160	0.86	0.00	0.00	14.04	0.00	0.00
KM0+120.0	20.00	1.830	2.060	0.230	1.24	0.00	0.00	21.06	0.00	0.00
KM0+140.0	20.00	1.890	2.131	0.241	1.30	0.00	0.00	25.43	0.00	0.00
KM0+150.0	10.00	1.950	2.296	0.346	1.87	0.00	0.00	15.85	0.00	0.00
KM0+160.0	10.00	1.930	2.341	0.411	2.22	0.00	0.00	20.44	0.00	0.00
KM0+180.0	20.00	1.790	2.591	0.801	4.33	0.00	0.00	65.45	0.00	0.00
KM0+200.0	20.00	1.770	2.738	0.968	5.23	0.00	0.00	95.53	0.00	0.00
KM0+220.0	20.00	1.070	2.675	1.605	11.99	0.00	0.00	172.22	0.00	0.00
KM0+240.0	20.00	1.000	2.508	1.508	10.94	0.00	0.00	229.32	0.00	0.00
KM0+250.0	10.00	0.840	2.399	1.559	11.49	0.00	0.00	112.15	0.00	0.00
KM0+260.0	10.00	0.890	2.342	1.452	10.33	0.00	0.00	109.10	0.00	0.00
KM0+280.0	20.00	1.250	2.217	0.967	5.22	0.00	0.00	155.49	0.00	0.00
KM0+300.0	20.00	1.320	2.232	0.912	4.92	0.00	0.00	101.47	0.00	0.00
KM0+320.0	20.00	1.660	2.289	0.629	3.40	0.00	0.00	83.21	0.00	0.00
KM0+326.7	6.69	1.800	2.308	0.508	2.74	0.00	0.00	20.54	0.00	0.00
TOTAL								1268	0	0

**QUANTITY OF INSTRUMENTATION
PACKAGE 3 - CAN THO SIDE**

No.	CHAINAGE	Day/section	SSP		AS		DSP		INC		EP		OW	
			(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)
1/ MAIN WAY														
1/ MAIN BRIDGE (CAN THO) - CAI TAC 1														
1	KM7+660	232	3	696	8	1856	1	232	2	464	2	464		
2	KM7+720	180	3	540										
3	KM7+780	180	1	180										
4	KM7+820	232	3	696	8	1856								
5	KM7+900	180	1	180									1	180
6	KM7+950	232	3	696	8	1856								
7	KM8+020	180	1	180										
8	KM8+080	180	3	540										
9	KM8+140	180	1	180										
10	KM8+200	180	3	540										
11	KM8+260	180	1	180										
12	KM8+320	180	3	540	8	1440								
13	KM8+380	180	1	180										
14	KM8+456.85	232	3	696	8	1856								
SUB-TOTAL			30	6024	40	8864	1	232	2	464	2	464	1	180
2/ CAI TAC 1 - CAI TAC 2														
15	KM8+642.75	232	3	696	8	1856	1	232	2	464	2	464		
16	KM8+720	180	3	540	8	1440								
17	KM8+780	180	1	180										
18	KM8+820	232	3	696	8	1856								
19	KM8+900	180	1	180										
20	KM8+940	180	6	1080										
21	KM9+000	180	4	720									1	180
22	KM9+060	180	6	1080										
23	KM9+120	180	4	720										
24	KM9+180	180	3	540										
25	KM9+240	180	1	180										
26	KM9+326	232	3	696	8	1856								
27	KM9+360	180	1	180										
28	KM9+431.45	232	3	696	8	1856								
SUB-TOTAL			42	8184	40	8864	1	232	2	464	2	464	1	180

No.	CHAINAGE	Day/section	SSP		AS		DSP		INC		EP		OW	
			(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)
	3/ CAI TAC 2 - CAI DA													
29	KM9+468.55	232	3	696	8	1856	1	232	2	464	2	464		
30	KM9+540	180	1	180										
31	KM9+600	180	3	540	8	1440								
32	KM9+660	180	1	180										
33	KM9+720	180	1	180										
34	KM9+760	232	3	696	8	1856								
35	KM9+780	232											1	232
35	KM9+840	180	1	180										
36	KM9+900	180	3	540										
37	KM9+960	180	1	180										
38	KM10+020	180	3	540										
39	KM10+080	180	1	180										
40	KM10+100	180	3	540										
41	KM10+160	180	1	180										
42	KM10+220	180	3	540										
43	KM10+280	180	1	180										
44	KM10+310	232	3	696	8	1856								
45	KM10+416.25	232	3	696	8	1856	1	232	2	464	2	464		
	SUB-TOTAL		35	6924	40	8864	2	464	4	928	4	928	1	232
	4/ CAI DA - BA MANG													
46	KM10+509.75	232	3	696	8	1856								
47	KM10+580	180	1	180									1	180
48	KM10+640	180	3	540										
49	KM10+690	232	3	696	8	1856								
50	KM10+760	180	1	180										
51	KM10+820	180	3	540										
52	KM10+880	180	1	180										
53	KM10+946.919	232	3	696	8	1856								
54	KM11+000	180	1	180										
55	KM10+060	180	3	540										
56	KM11+120	180	1	180										
57	KM11+202.45	232	3	696	8	1856	1	232	2	464	2	464	1	232
	SUB-TOTAL		26	5304	32	7424	1	232	2	464	2	464	2	412
	5/ BA MANG - CAI NAI													
58	KM11+227.55	232	3	696	8	1856								
59	KM11+300	180	1	180										

No.	CHAINAGE	Day/section	SSP		AS		DSP		INC		EP		OW	
			(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)		
60	KM11+360	180	3	540										
61	KM11+420	180	1	180										
62	KM11+451	232	3	696	8	1856								
63	KM11+540	180	1	180										
64	KM11+600	180	3	540										
65	KM11+690	232	3	696	8	1856								
66	KM11+720	180	1	180										
67	KM11+780	180	3	540										
68	KM11+840	180	1	180								1	180	
69	KM11+900	180	3	540										
70	KM11+976.5	232	3	696	8	1856								
71	KM12+020	180	2	360										
72	KM12+080	180	3	540										
73	KM12+140	180	3	540										
74	KM12+180	232	3	696	8	1856								
75	KM12+260	180	1	180										
76	KM12+336.25	232	3	696	8	1856	1	232	2	464	2	464		
	SUB-TOTAL		44	8856	48	11136	1	232	2	464	2	464	1	180
6/ CAI NAI - AP MY														
77	KM12+429.75	232	3	696	8	1856								
78	KM12+500	180	1	180										
79	KM12+592.5	232	3	696	8	1856								
80	KM12+680	180	1	180									1	180
81	KM12+756	232	3	696	8	1856								
82	KM12+800	180	1	180										
83	KM12+860	180	3	540										
84	KM12+920	180	1	180										
85	KM12+980	180	3	540	8	1440								
86	KM13+040	180	1	180										
87	KM13+109.55	232	3	696	8	1856	1	232	2	464	2	464		
	SUB-TOTAL		23	4764	40	8864	1	232	2	464	2	464	1	180
7/ AP MY - CAI RANG														
88	KM13+250.45	232	3	696	8	1856								
89	KM13+320	180	1	180										
90	KM13+380	180	3	540	8	1440								
91	KM13+440	180	1	180									1	180
92	KM13+500	180	3	540										
93	KM13+560	180	1	180										

No.	CHAINAGE	Day/section	SSP		AS		DSP		INC		EP		OW	
			(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)
94	KM13+600	232	3	696	8	1856	-	-	-	-	-	-	-	-
95	KM13+660	180	1	180	-	-	-	-	-	-	-	-	-	-
96	KM13+720	180	3	540	8	1440	-	-	-	-	-	-	-	-
97	KM13+780	232	1	232	-	-	-	-	-	-	-	-	-	-
98	KM13+806.4	232	3	696	8	1856	-	-	-	-	-	-	-	-
	SUB-TOTAL		23	4660	40	8448							1	180
	8/ CAI RANG - END POINT													
99	KM14+064.9	232	3	696	8	1856	1	232	2	464	2	464	-	-
100	KM14+140	180	3	540	8	1440	-	-	-	-	-	-	-	-
101	KM14+200	180	1	180	-	-	-	-	-	-	-	-	-	-
102	KM14+247	232	3	696	8	1856	-	-	-	-	-	-	1	180
103	KM14+260	180	-	-	-	-	-	-	-	-	-	-	-	-
104	KM14+320	180	1	180	-	-	-	-	-	-	-	-	-	-
105	KM14+380	180	3	540	-	-	-	-	-	-	-	-	-	-
106	KM14+440	232	1	232	-	-	-	-	-	-	-	-	-	-
107	KM14+450	232	3	696	8	1856	-	-	-	-	-	-	-	-
108	KM14+560	180	1	180	-	-	-	-	-	-	-	-	-	-
109	KM14+620	180	3	540	8	1440	-	-	-	-	-	-	-	-
110	KM14+680	180	1	180	-	-	-	-	-	-	-	-	-	-
111	KM14+740	180	3	540	-	-	-	-	-	-	-	-	-	-
112	KM14+800	180	1	180	-	-	-	-	-	-	-	-	-	-
113	KM14+890	232	3	696	8	1856	-	-	-	-	-	-	-	-
114	KM14+980	180	1	180	-	-	-	-	-	-	-	-	-	-
115	KM15+040	180	3	540	-	-	-	-	-	-	-	-	1	180
116	KM15+100	180	1	180	-	-	-	-	-	-	-	-	-	-
117	KM15+160	180	3	540	-	-	-	-	-	-	-	-	-	-
118	KM15+220	180	1	180	-	-	-	-	-	-	-	-	-	-
119	KM15+280	180	3	540	-	-	-	-	-	-	-	-	-	-
120	KM15+340	180	1	180	-	-	-	-	-	-	-	-	-	-
	SUB-TOTAL		43	8416	48	10304	1	232	2	464	2	464	2	360
	II/ INTERCHANGE 3-OVERROAD													
121	KM0+000	180	1	180	-	-	-	-	-	-	-	-	-	-
122	KM0+060	180	3	540	-	-	-	-	-	-	-	-	-	-
123	KM0+120	180	1	180	-	-	-	-	-	-	-	-	-	-
124	KM0+180	180	3	540	-	-	-	-	-	-	-	-	-	-
125	KM0+240	232	1	232	-	-	-	-	-	-	-	-	-	-
126	KM0+259.97	232	3	696	8	1856	-	-	-	-	-	-	-	-
127	KM0+360.07	232	3	696	8	1856	1	232	2	464	2	464	2	464

No.	CHAINAGE	Day/section	SSP		AS		DSP		INC		EP		OW	
			(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)	(each)	(day)
128	KM0+380	232	1	232										
129	KM0+440	180	3	540										
130	KM0+500	180	1	180										
131	KM0+560	180	3	540										
	SUB-TOTAL		23	4556	16	3712	1	232	2	464	2	464	-	-
	III/ INTERCHANGE 3-RAMPWAY "D"													
132	KM0+000	180	3	540										
133	KM0+060	180	1	180										
134	KM0+100	232	3	696	8	1856								
135	KM0+180	180	3	540										
136	KM0+240	232	1	232										
137	KM0+252.25	232	3	696	8	1856	1	232	2	464	2	464		
138	KM0+345.75	232	3	696	8	1856								
139	KM0+420	180	3	540										
	SUB-TOTAL		20	4120	24	5568	1	232	2	464	2	464	-	-
	TOTAL		309	61808	368	82048	10	2320	20	4640	20	4640	10	1904

NOTES:

- SSP : SURFACE SETTLEMENT PLATE
- AS : ALIGNMENT STAKES
- DSP : DEEP SETTLEMENT PLATE
- INC : INCLINOMETER
- EP : ELECTRICAL PIEZOMETER
- OW : OBSERVATION WELL

PVD QUANTITY OF PACKAGE 3 - CAN THO SIDE

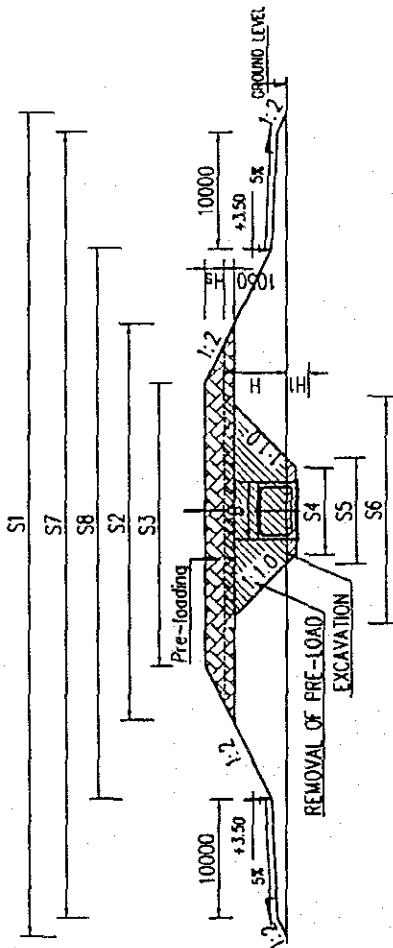
No	CHAINAGE	PVD LENGTH (m)	LEFT COUNTERWEIGHT BERM				EMBANKMENT				RIGHT COUNTERWEIGHT BERM				SUB-TOTAL LENGTH (m)
			SPACING (m)	AREA (m ²)	UNIT (each)	TOTAL LENGTH (m)	SPACING (m)	AREA (m ²)	UNIT (each)	TOTAL LENGTH (m)	SPACING (m)	AREA (m ²)	UNIT (each)	TOTAL LENGTH (m)	
1	MAIN WAY														
1/ MAIN BRIDGE (CAN THO) - CAI TAC 1															
1	Km7+660 - Km7+740.3	25	1.70	681.23	272	6804.64	1.10	3420.86	3265	81612.99	1.70	655.83	262	6550.93	94968.56
2	Km7+740.3 - K7+870.0	25	-	-	-	-	1.10	4684.55	4470	111761.41	-	-	-	-	111761.41
3	Km7+870 - Km7+920	25	-	-	-	-	1.10	1752.47	1672	41809.46	-	-	-	-	41809.46
4	K8+300 - Km8+410	25	-	-	-	-	1.10	6015.00	5740	143502.56	-	-	-	-	143502.56
5	Km8+410 - Km8+448	25	-	-	-	-	1.10	1705.73	1628	40694.37	-	-	-	-	40694.37
6	Km8+448 - Km8+456.85	25	-	-	-	-	1.10	531.72	507	12685.48	-	-	-	-	12685.48
SUB-TOTAL															
445422															
2/ CAI TAC 1 - CAI TAC 2															
7	Km8+642.75 - Km8+750	25	1.70	1102.28	440	11010.41	1.10	5896.71	5627	140680.46	1.70	983.01	393	9819.05	161509.92
8	Km8+750 - Km8+800	25	1.70	-	-	-	1.10	2028.68	1936	48399.13	1.70	653.83	262	6550.93	54950.06
9	Km8+980 - Km9+080	25	-	-	-	-	1.10	12810.82	12225	305633.49	-	-	-	-	305633.49
10	Km9+280 - Km9+361.5	25	-	-	-	-	1.10	3397.35	3242	81052.10	-	-	-	-	81052.10
11	Km9+361.5 - Km9+431.45	25	1.70	689.03	275	6882.55	1.10	3649.61	3483	87070.38	1.70	555.63	222	5550.05	99502.99
SUB-TOTAL															
702649															
3/ CAI TAC 2 - CAIDA															
12	Km9+468.55 - Km9+510	25	1.70	436.76	175	4362.69	1.10	2158.28	2060	51491.06	1.70	421.14	168	4206.67	60060.41
13	Km9+510 - Km9+570	25	1.70	222.60	89	2223.50	1.10	3109.64	2968	74188.08	1.70	424.77	170	4242.93	80654.50
14	Km9+570 - Km9+620	25	-	-	-	-	1.10	3502.08	3342	83550.70	-	-	-	-	83550.70
15	Km10+320 Km10+370	23	-	-	-	-	1.10	1882.10	1796	41309.94	-	-	-	-	41309.94
16	Km10+370 - Km10+416.25	23	-	-	-	-	1.10	2007.12	1915	44053.98	-	-	-	-	44053.98
SUB-TOTAL															
309630															
4/ CAIDA - BA MANG															
17	Km10+509.45 - Km10+550	23	-	-	-	-	1.10	397.11	379	8716.11	-	-	-	-	8716.11

No	CHAINAGE	PVD LENGTH (m)	LEFT COUNTERWEIGHT BERM				EMBANKMENT				RIGHT COUNTERWEIGHT BERM				SUB-TOTAL LENGTH (m)
			SPACING (m)	AREA (m2)	UNIT (each)	TOTAL LENGTH (m)	SPACING (m)	AREA (m2)	UNIT (each)	TOTAL LENGTH (m)	SPACING (m)	AREA (m2)	UNIT (each)	TOTAL LENGTH (m)	
18	Km10+550 - Km10+620	23	-	-	-	1.10	2358.34	2251	51762.86	-	-	-	-	51762.86	
19	Km11+100 - Km11+150	17	-	-	-	1.30	2006.09	1371	23301.40	-	-	-	-	23301.40	
20	Km11+150 - Km11+190	17	-	-	-	1.30	2430.05	1660	28225.83	-	-	-	-	28225.83	
21	Km11+190 - Km11+202.45	17	-	-	-	1.30	804.77	550	9347.67	-	-	-	-	9347.67	
SUB-TOTAL															
5/ BA MANG - CAI NAI															
22	Km11+227.45 - Km11+234	17	-	-	-	1.30	429.68	294	4990.88	-	-	-	-	4990.88	
23	Km11+234 - Km11+330	17	-	-	-	1.30	5064.69	3460	58828.05	-	-	-	-	58828.05	
24	Km11+330 - Km11+380	17	-	-	-	1.30	1678.21	1147	19492.96	-	-	-	-	19492.96	
25	Km11+640 - Km11+870	17	-	-	-	1.30	8602.47	5878	99920.54	-	-	-	-	99920.54	
26	Km11+870 - Km12+050	17	-	-	-	1.30	7478.95	5110	86870.48	-	-	-	-	86870.48	
27	Km12+050 - Km12+212.10	17	-	-	-	1.30	7647.55	5225	88828.82	-	-	-	-	88828.82	
28	Km12+212.10 - Km12+336.25	17	2.00	997.73	288	1.30	5522.35	3773	64143.92	2.00	10034.23	2897	49242.76	118283.02	
SUB-TOTAL															
6/ CAI NAI - AP MY															
29	Km12+429.75 - Km12+540	17	2.00	1035.88	299	1.30	5484.38	3747	63702.89	2.00	1023.75	296	5024.03	73810.48	
30	Km12+540 - Km12+590	17	-	-	-	1.30	2088.71	1427	24261.06	-	-	-	-	24261.06	
31	Km12+590 - Km12+710	17	-	-	-	1.30	4927.48	3367	57234.31	-	-	-	-	57234.31	
32	Km12+710 - Km12+880	17	-	-	-	1.30	6446.51	4405	74878.35	-	-	-	-	74878.35	
33	Km12+960 - Km12+992.5	17	-	-	-	1.30	1192.39	815	13850.00	-	-	-	-	13850.00	
34	Km12+992.5 - Km13+070	17	2.00	668.44	267	1.30	2787.40	1905	32376.57	2.00	682.96	273	4638.91	41555.76	
35	Km13+070 - Km13+109.55	17	2.00	557.87	223	1.30	2495.50	1705	28986.06	2.00	555.18	222	3770.98	36546.29	
SUB-TOTAL															
7/ AP MY - CAI RANG															
36	Km13+250.45 - Km13+350	17	2.00	1007.76	403	1.30	5331.16	3643	61923.19	2.00	1027.41	411	6978.53	75746.79	
37	Km13+350 - Km13+400	17	-	-	-	1.30	555.18	379	6448.60	-	-	-	-	6448.60	
38	Km13+640 - Km13+709	17	-	-	-	1.30	2422.71	1655	28140.58	-	-	-	-	28140.58	

No	CHAINAGE	PVD LENGTH (m)	LEFT COUNTERWEIGHT BERM			EMBANKMENT				RIGHT COUNTERWEIGHT BERM				SUB-TOTAL LENGTH (m)	
			SPACING (m)	AREA (m ²)	UNIT (each)	TOTAL LENGTH (m)	SPACING (m)	AREA (m ²)	UNIT (each)	TOTAL LENGTH (m)	SPACING (m)	AREA (m ²)	UNIT (each)		TOTAL LENGTH (m)
39	Km13+709 - Km13+806.4	17	2.00	987.83	285	4847.75	1.30	5236.25	3578	60820.78	2.00	1099.55	317	5396.02	71064.55
SUB-TOTAL															
8/ CAI RANG - END POINT															
40	Km14+064.9 - Km14+195	17	2.00	1069.29	427	7263.00	1.30	7036.96	4808	81736.62	2.00	1553.19	621	10549.82	99549.44
41	Km14+195 - Km14+230	17	-	-	-	-	1.30	1644.80	1124	19104.90	-	-	-	-	19104.90
42	Km14+230 - Km14+290	17	-	-	-	-	1.30	2568.87	1755	29838.27	-	-	-	-	29838.27
43	Km14+290 - Km14+340	17	-	-	-	-	1.30	1959.46	1339	22759.78	-	-	-	-	22759.78
SUB-TOTAL															
TOTAL (I)															
II INTERCHANGE 3 - OVERROAD															
44	Km0+00 - Km0+164.06	23	-	-	-	-	1.10	7070.37	6747	155186.51	-	-	-	-	155186.51
45	Km0+164.06 - Km0+259.97	23	1.70	1224.78	489	11255.31	1.10	6645.88	6342	145869.44	1.70	745.98	298	6855.30	163980.06
46	Km0+360.07 - Km0+352.6	23	1.70	738.94	303	6974.40	1.10	7351.02	7015	161346.46	1.70	1276.00	510	11726.00	180046.86
47	Km0+352.6 - Km0 +580	23	-	-	-	-	1.10	6647.88	5202	119649.45	-	-	-	-	119649.45
TOTAL (II)															
III. INTERCHANGE 3 - RAMP "D"															
48	Km0+040 - Km0+140	23	-	-	-	-	1.10	1992.98	1902	43743.63	-	-	-	-	43743.63
49	Km0+220 - Km0+252.25	23	-	-	-	-	1.10	616.13	588	13523.35	-	-	-	-	13523.35
50	Km0+345.75 - Km0+440	23	-	-	-	-	1.10	2128.95	2032	46728.01	-	-	-	-	46728.01
TOTAL (III)															
TOTAL (I+II+III)															
3453916															

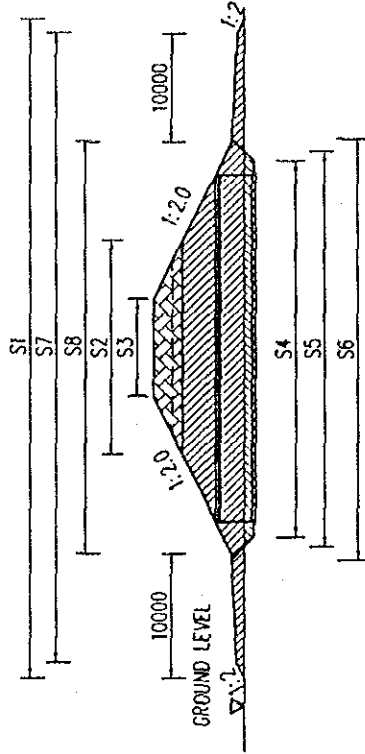
LONGITUDINAL SECTION B-B

NOT TO SCALE



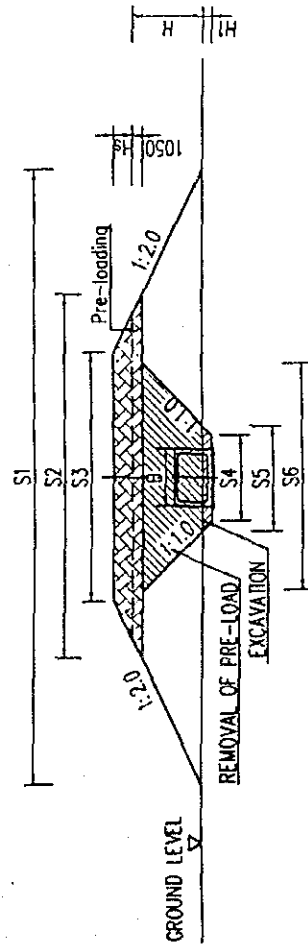
CROSS SECTION A-A

NOT TO SCALE



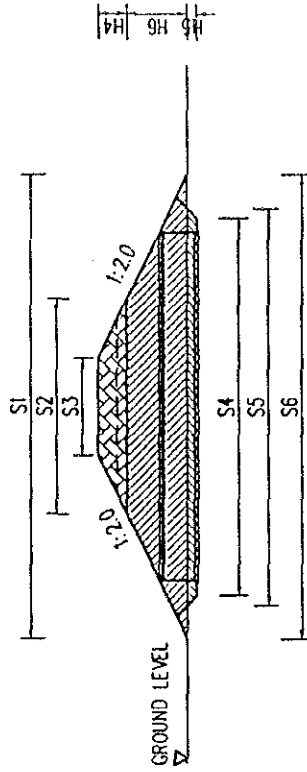
LONGITUDINAL SECTION

NOT TO SCALE



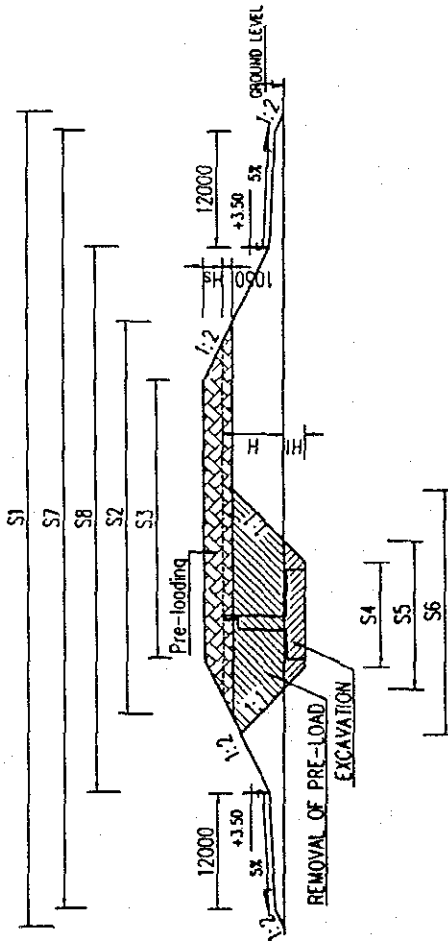
CROSS SECTION

NOT TO SCALE



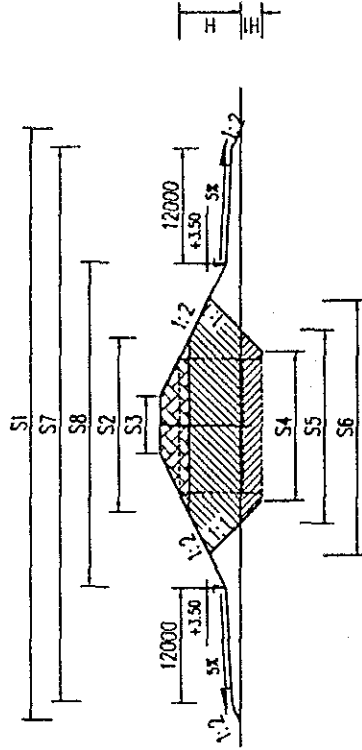
LONGITUDINAL SECTION B-B

NOT TO SCALE



CROSS SECTION A-A

NOT TO SCALE



**QUANTITY OF PRE-LOADING ABUTMENTS
PACKAGE 3 - CAN THO SIDE**

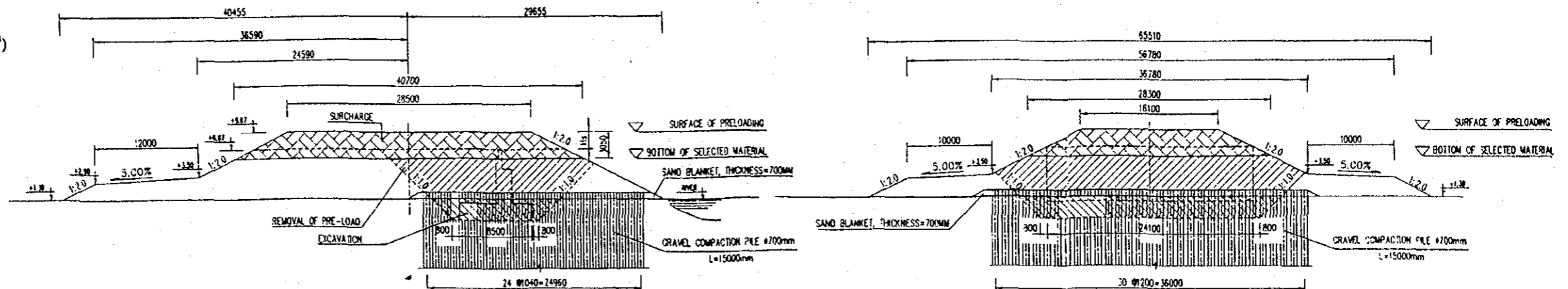
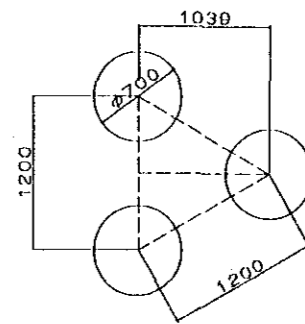
No.	ITEMS	B (m)	LENGTH (m)	H (m)	H1	So(m ²)	S1(m ²)	S2(m ²)	S3(m ²)	S4(m ²)	S5(m ²)	S6(m ²)	S7(m ²)	S8(m ²)	v1(m ³)	v2(m ³)	V1(m ³)	V2(m ³)	V3(m ³)	V4(m ³)	V5(m ³)	V6(m ³)	REMARKS
1	Can Tho Bridge "A2"	7.5	24.1	6.2	2.31	79.73	6145.47	1123.51	442.75	233.87	415.81	975.43	5008.51	1956.67	16627.5	6721.2	4301.8	12326	2309.4	4193.7	2096.8	739.7	
2	Cai Tac 1 Bridge "A1"	7.5	24.1	4.47	2.49	41.32	2240.89	1123.51	442.75	233.87	431.97	784.92	0.00	0.00	5644.3	2205.7	1568.6	4076	2309.4	2851.1	1425.5	816.5	
3	Cai Tac 1 Bridge "A2"	7.5	24.1	7.38	1.82	104.23	6909.73	1123.51	442.75	233.87	373.79	1066.80	5290.67	2135.34	22942.5	9278.6	4836.8	18106	2309.4	4890.4	2445.2	548.0	
4	Cai Tac 2 Bridge "A1" & "A2"	7.5	31.63	5.81	2.11	78.52	9983.24	3464.76	1996.74	1565.13	498.83	2021.71	8374.77	4690.46	30924.3	10783.9	6988.3	23936	8226.6	12287.4	4095.8	2073.1	
5	Interchange 3 Flyover Bridge "A1"	7.5	31	7.85	1.35	93.23	7853.76	1397.44	632.50	296.66	416.54	1242.06	6557.56	2977.19	25707.4	8474.6	5497.6	20210	3019.6	5829.3	2914.6	479.1	
6	Interchange 3 Flyover Bridge "A2"	7.5	31	7.55	1.65	101.97	7642.44	1397.44	632.50	296.66	445.16	1242.06	6557.56	2977.19	23383.0	9146.7	5349.7	18033	3019.6	5829.3	2914.6	607.9	
7	Interchange 3 Rampway "D" : "A1"	5.4	7.5	4.44	3.16	68.86	1241.78	439.92	38.10	63.70	205.39	446.22	0.00	0.00	2735.5	3385.1	869.3	1866	617.6	1481.4	740.7	403.9	
8	Interchange 3 Rampway "D" : "A2"	5.4	7.5	4.66	2.94	68.89	1308.05	439.92	38.10	63.70	192.94	446.22	0.00	0.00	3016.2	3447.2	915.6	2101	617.6	1481.4	740.7	360.2	
9	Cai Da Bridge "A1"	7.5	25.1	4.92	2.60	68.92	2381.40	1163.21	525.25	242.97	456.17	873.67	0.00	0.00	6719.6	3665.3	1667.0	5053	2511.3	3401.9	1700.9	894.5	
10	Cai Da Bridge "A2"	7.5	25.1	4.7	2.82	58.21	2295.97	1163.21	525.25	242.97	476.69	873.67	0.00	0.00	6197.0	3044.4	1607.2	4590	2511.3	3401.9	1700.9	996.4	
11	Bamang Bridge "A1" & "A2"	7.5	24.1	6.44	1.76	94.50	8251.71	2419.65	1180.13	902.07	368.76	1269.58	6300.19	3814.84	29049.4	11908.7	5776.2	23273	5377.8	7726.3	2575.4	1083.9	
12	Cai Nai Bridge "A1"	7.5	24.1	5.28	2.80	67.56	4749.88	1123.51	442.75	233.87	460.11	920.84	3953.80	1772.06	11280.0	4636.0	3324.9	7955	2309.4	3793.3	1896.7	953.9	
13	Cai Nai Bridge "A2"	7.5	24.1	5.34	2.86	66.47	4783.02	1123.51	442.75	233.87	465.64	936.00	3953.80	1772.06	11566.0	4577.1	3348.1	8218	2309.4	3903.3	1951.6	981.5	
14	Ap My Bridge "A1"	7.5	24.1	6.59	2.61	71.52	6393.14	1123.51	442.75	233.87	442.77	1066.80	5586.51	2325.58	16230.3	6140.7	4475.2	11755	2309.4	4890.4	2445.2	868.6	
15	Ap My Bridge "A2"	7.5	24.1	7.09	2.11	85.43	6717.78	1123.51	442.75	233.87	398.53	1066.80	5586.51	2325.58	19507.7	7505.9	4702.5	14805	2309.4	4890.4	2445.2	659.5	
16	Cai Rang Bridge "A1"	7.5	24.1	7.33	1.19	96.17	6876.44	1123.51	442.75	233.87	322.36	976.99	5473.15	2252.35	21699.0	8541.8	4813.5	16885	2309.4	4205.3	2102.6	329.6	
17	Cai Rang Bridge "A2"	7.5	24.1	8.13	1.07	107.37	7418.65	1123.51	442.75	233.87	312.92	1066.80	5773.95	2447.55	25926.7	9880.2	5193.1	20734	2309.4	4890.4	2445.2	291.5	
TOTAL																	65235	213921	46686	79947	36638	13088	

NOTES:

- GRAVEL COMPACTION D700mm - CAI NAI-ABUTMENT "A1":
- GRAVEL COMPACTION D700mm - CAI NAI-ABUTMENT "A2":
- So : Average area of settlement (m²)
- v1: Quantity of embankment including sand blanket that calculated from cross-section (m³)
- v2: Quantity of final settlement (m³)
- V1: Quantity of sand blanket (m³)
- V2: Quantity of sand fill (m³)
- V3: Quantity of Pre-loading (m³)
- V4: Quantity of removing Pre-loading (m³)
- V5: Quantity of back fill (m³)
- V6: Quantity of mud excation (m³)

NUMBER: 755 nos
 TOTAL LENGTH: 11325 m
 NUMBER: 755 nos
 TOTAL LENGTH: 11325 m

WIDTH OF SCP INSTALLING: 36.00m+0.70m =36.70m
 LENGTH OF SCP INSTALLING: 24.96m+0.70m =25.66m
 OCCUPIES AREA OF SCP: 1.200 X1.039 = 1.247m²/Nos.
 NUMBER: 36.70 x 25.66 / 1.247 = 755Nos.
 LENGTH OF SCP: 15.00m/Nos.
 TOTAL LENGTH: 755 x 15.00 = 11,325 m



**QUANTITY OF PRE-LOADING CULVERTS
PACKAGE 3 - CAN THO SIDE**

No.	CHAINAGE	TYPE	W1xH1(m)	LENGTH(m)	H (m)	H1	So(m ²)	S1(m ²)	S2(m ²)	S3(m ²)	S4(m ²)	S5(m ²)	S6(m ²)	S7(m ²)	S8(m ²)	v1(m ³)	v2(m ³)	V1(m ³)	V2(m ³)	V3(m ³)	V4(m ³)	V5(m ³)	V6(m ³)	RMARKS																	
	Main Way																																								
1	Km7+820	SINGLE	3.0x3.8	26.94	4.91	0.70	68.92	2158.1	959.37	428.97	180.50	218.21	426.19	0.00	0.00	5862.6	3400.5	1510.7	7752.4	1725.4	1137.5	693.9	139.3																		
2	Km7+950	DOUBLE	2.5x2.0	26.7	2.99	0.65	44.37	1509.5	965.03	520.59	237.63	272.34	375.94	0.00	0.00	2380.7	1857.3	1056.6	3181.4	1499.5	590.1	196.2	165.6																		
3	Km8+820	DOUBLE	2.5x2.0	30.96	3.19	0.65	49.20	1572.5	965.03	520.59	275.54	315.79	448.30	0.00	0.00	2688.8	2098.9	1100.7	3686.9	1499.5	767.1	310.4	192.0																		
4	Km9+326	DOUBLE	2.5x2.0	37.85	4.22	0.65	68.83	1999.0	1021.63	468.79	336.87	386.07	626.04	0.00	0.00	4701.9	3357.5	1399.3	6660.1	1855.1	1502.7	944.4	234.8																		
5	Km9+760	DOUBLE	2.5x1.5	36.11	2.58	0.65	34.83	1246.7	851.83	624.19	321.38	368.32	478.82	0.00	0.00	1595.8	1261.5	872.7	1984.7	771.8	608.2	171.4	224.0																		
6	Km10+310	DOUBLE	2.5x2.0	31.24	3.27	0.65	51.13	1598.0	965.03	520.59	278.04	318.65	457.35	0.00	0.00	2815.6	2197.6	1118.6	3894.6	1499.5	808.1	430.2	193.8																		
7	Km10+690	DOUBLE	2.5x1.5	31.53	2.5	0.65	32.97	1224.2	851.83	624.19	280.62	321.61	413.04	0.00	0.00	1497.0	1183.6	856.9	1823.7	771.8	499.8	118.5	195.6																		
8	Km10+950	DOUBLE	2.5x1.5	26.7	2.5	0.65	32.97	1224.2	851.83	624.19	237.63	272.34	349.77	0.00	0.00	1497.0	1183.6	856.9	1823.7	771.8	423.3	100.3	165.6																		
9	Km11+451	DOUBLE	2.5x1.5	26.7	2.5	0.65	32.97	1224.2	851.83	624.19	237.63	272.34	349.77	0.00	0.00	1497.0	1183.6	856.9	1823.7	771.8	423.3	100.3	165.6																		
10	Km11+690	DOUBLE	2.5x2.0	31.2	4.12	0.65	68.82	1719.8	851.83	624.19	277.68	318.24	509.81	0.00	0.00	3870.2	2916.6	1203.9	5583.0	771.8	1190.9	813.5	193.5																		
11	Km11+976.5	SINGLE	5.0x4.0	27.14	5.18	0.85	88.52	4830.4	1075.40	415.38	238.83	284.97	509.15	3489.41	1365.53	11268.0	6596.7	3381.3	14483.4	2195.1	2025.8	1278.1	222.3																		
12	Km12+180	DOUBLE	2.5x2.0	38.44	5.93	0.65	95.01	5264.2	1078.23	416.99	342.12	392.09	767.26	3614.49	1601.69	14192.4	7374.6	3684.9	17882.1	2201.9	2973.0	2406.0	238.4																		
13	Km12+592.5	SINGLE	5.0x4.0	28.69	4.79	0.85	68.91	2208.9	1021.63	468.79	255.34	304.11	518.72	0.00	0.00	5900.1	3518.5	1546.2	7872.4	1855.1	1418.7	628.3	237.5																		
14	Km12+756	SINGLE	3.0x3.8	29.49	4.94	0.70	68.91	2265.8	1021.63	468.79	262.46	303.75	533.18	0.00	0.00	6235.5	3559.9	1586.1	8209.4	1855.1	1516.7	1031.2	198.0																		
15	Km13+600	DOUBLE	2.5x1.5	26.7	2.5	0.65	32.97	1224.2	851.83	624.19	237.63	272.34	349.77	0.00	0.00	1497.0	1183.6	856.9	1823.7	771.8	423.3	100.3	165.6																		
16	Km14+247	SINGLE	5.0x4.0	28.69	4.88	0.85	68.92	2242.9	1021.63	468.79	255.34	304.11	523.88	0.00	0.00	6100.3	3543.9	1570.1	8074.1	1855.1	1461.7	671.3	237.5																		
17	Km14+450	DOUBLE	2.5x1.5	26.7	2.5	0.65	32.97	1224.2	851.83	624.19	237.63	272.34	349.77	0.00	0.00	1497.0	1183.6	856.9	1823.7	771.8	423.3	100.3	165.6																		
18	Km14+625	DOUBLE	2.5x1.5	26.7	2.5	0.65	32.97	1224.2	851.83	624.19	237.63	272.34	349.77	0.00	0.00	1497.0	1183.6	856.9	1823.7	771.8	423.3	100.3	165.6																		
19	Km14+890	DOUBLE	2.5x1.5	28.56	2.5	0.65	32.97	1224.2	851.83	624.19	254.18	291.31	374.14	0.00	0.00	1497.0	1183.6	856.9	1823.7	771.8	452.7	107.3	177.2																		
	Inter. 3																																								
20	Ramp "A"																																								
	Km0+154	DOUBLE	2.5x1.5	13.1	2.39	0.65	30.41	1193.6	851.83	624.19	116.59	133.62	168.73	0.00	0.00	1364.0	1078.3	835.5	1606.8	771.8	190.1	31.7	81.3																		
21	Ramp "B"																																								
	Km0+286.5	DOUBLE	2.5x1.5	10.12	2.36	0.65	29.71	1185.3	851.83	624.19	90.07	103.22	129.74	0.00	0.00	1328.3	1050.0	829.7	1548.6	771.8	143.2	20.8	62.8																		
22	Ramp "C"																																								
	Km0+300	SINGLE	5.0x4.0	13.46	4.7	0.85	68.89	2175.0	1021.63	468.79	119.79	142.68	240.93	0.00	0.00	5702.9	3492.7	1522.5	7673.1	1855.1	645.6	274.8	111.4																		
23	Ramp "D"																																								
	Km0+100	DOUBLE	2.5x2.0	10.12	2.86	0.65	41.34	1327.1	851.83	624.19	90.07	103.22	139.86	0.00	0.00	1956.1	1543.6	928.9	2570.8	771.8	206.4	57.2	62.8																		
24	Ramp "F"																																								
	Km0+180	SINGLE	5.0x4.0	18.52	5.11	0.85	104.34	4275.1	849.00	621.78	162.98	194.46	344.84	2298.48	780.48	9513.0	6911.5	2992.6	13431.8	769.1	1930.1	1419.9	151.7																		
	Inter. 4																																								
25	Ramp "B"																																								
	Km0+223	DOUBLE	2.5x1.5	12.5	2.36	0.65	29.71	1185.3	851.83	624.19	111.25	127.50	160.25	0.00	0.00	1328.3	1050.0	829.7	1548.6	771.8	176.9	25.7	77.5																		
TOTAL																		33968	130410	30699	22361	12132	4225																		

QUANTITY OF RELOCATION CANAL (EXVACATION)

No	CHAINAGE		LENGTH (m)	WIDTH (m)	EXISTING LEVEL (m)	BOTTOM ELEVATION (m)	QUANTITY (m ³)
	FROM	TO					
1	7+820	8+210	440	10	1.3	-0.36	6092
2	8+893	9+097	200	17	1.3	-0.50	5472
3	9+450	9+634	298	15	1.41	-0.50	7451
4	11+086	11+220	164	11	1.1	-0.50	2467
5	13+898	14+228	404	9	1.2	-0.70	5450
6	14+239	14+284	82	9	1.2	-0.70	1106
7	14+888	14+940	69	5	1.3	0.18	300
TOTAL							28337