

CONSTRUCTION AND MAINTENANCE QUANTITIES  
FOR ALL PROPOSED ROAD LINKS  
(MAINTENANCE)

PROV : RIAU      KAB : INDRAGIRI HULU

I.T.E.M	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
<b>EQUIPMENT :</b>							
Bulldozer/Ripper	hr	0.0	0.0	0.0	0.0	0.0	0.0
Swamp Bulldozer	hr	0.0	0.0	0.0	0.0	0.0	0.0
Motor Grader	hr	759.2	1518.5	1653.5	1653.5	1703.0	7287.7
Hand-guide Vib. Roller	hr	232.5	465.0	465.0	1035.0	1455.0	3652.5
Tire Roller	hr	759.2	1518.5	1653.5	1653.5	1703.0	7287.7
Vibratory Roller (D&T)	hr	0.0	0.0	0.0	0.0	0.0	0.0
Hydraulic Excavator; Wheel	hr	0.0	0.0	0.0	0.0	0.0	0.0
Wheel Loader	hr	276.1	552.4	600.1	644.4	701.0	2774.0
Water Tank Truck	hr	0.0	0.0	0.0	0.0	0.0	0.0
Dump Truck	hr	2122.2	4244.6	4530.5	5935.5	7114.0	23946.8
Flat Bed Truck with Crane	hr	2134.5	4269.2	4269.2	4274.1	5596.8	20543.8
Flat Bed Truck	hr	2979.5	5959.2	6454.2	6910.2	7421.8	29724.9
Portable Crusher/Screening	hr	138.5	277.1	301.0	324.2	353.2	1394.0
Concrete Mixer	hr	1.1	2.3	2.3	2.3	2.6	10.6
Water Pump	hr	1.1	2.3	2.3	2.3	2.6	10.6
Concrete Vibrator	hr	1.1	2.3	2.3	2.3	2.6	10.6
Asphalt Sprayer	hr	0.0	0.0	0.0	0.0	0.0	0.0
<b>LABOUR :</b>							
Handur	man day	1059.9	2120.2	2270.7	2621.7	2979.6	11052.1
Skilled Labourer	man day	664.9	1329.8	1329.8	1720.0	2337.4	7381.9
Carpenter	man day	273.0	546.0	546.0	551.5	732.4	2648.9
Mason	man day	0.0	0.0	0.0	0.0	0.0	0.0
Labourer	man day	12023.5	24047.4	25835.9	30079.7	33980.3	125966.8
Driver	man day	1303.3	2607.0	2737.1	3049.1	3611.3	13306.8
Operator	man day	345.4	691.0	751.9	767.2	802.9	3358.4
<b>MATERIAL :</b>							
Bitumen	l	2092.5	4185.0	4185.0	9315.0	13095.0	32872.5
Asphalt Oil	l	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene	l	232.5	465.0	465.0	1035.0	1455.0	3652.5
Sand	m <sup>3</sup>	39.8	79.8	79.8	174.8	245.1	619.3
Cement	bag	16.9	33.8	33.8	33.8	38.1	156.4
River Stone	m <sup>3</sup>	0.0	0.0	0.0	0.0	0.0	0.0
Steel Houlds	set	0.0	0.0	0.0	0.0	0.0	0.0
Timber	m <sup>3</sup>	24.7	49.4	49.4	49.9	66.3	239.7
Paint	l	174.9	349.8	349.8	353.3	470.0	1697.8
Reinforcing Steel	kg	86.8	173.7	173.7	173.7	195.8	803.7
Tying Wire	kg	0.7	1.5	1.5	1.5	1.7	6.9
Equivalent Royalty	m <sup>3</sup>	3913.8	7827.8	8502.8	9129.8	9929.8	39304.0

CONSTRUCTION AND MAINTENANCE QUANTITIES  
FOR ALL PROPOSED ROAD LINKS  
(TOTAL)

PROV : RIAU      KAB : INDRAGIRI HULU

ITEM	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
<b>EQUIPMENT :</b>							
Bulldozer/Ripper	hr	690.1	1256.2	1033.5	1293.0	1164.2	5437.0
Swamp Bulldozer	hr	24.8	24.8	24.8	24.8	24.8	124.0
Motor Grader	hr	2086.0	4312.0	4031.7	4816.9	4234.6	19481.2
Hand-guide Vib. Roller	hr	550.3	895.5	864.1	1437.2	1879.3	5626.4
Tire Roller	hr	1429.2	2895.3	3652.5	3935.7	3582.9	15495.6
Vibratory Roller (D&T)	hr	1089.0	2262.0	1917.3	2537.3	2009.0	9814.6
Hydraulic Excavator; Wheel	hr	180.0	185.5	185.5	184.6	185.7	921.3
Wheel Loader	hr	2205.4	4361.8	4096.9	5318.7	4536.4	20519.2
Water Tank Truck	hr	725.5	1505.3	1320.6	1804.2	1398.3	6753.9
Dump Truck	hr	16981.7	33505.5	31436.3	40994.0	36402.5	159320.0
Flat Bed Truck with Crane	hr	2374.8	4645.3	4628.0	4661.7	6019.2	22329.0
Flat Bed Truck	hr	3890.5	7762.1	8993.3	9791.6	9829.5	40267.0
Portable Crusher/Screening	hr	487.3	993.9	1090.6	1392.5	1220.5	5184.8
Concrete Mixer	hr	89.6	170.1	170.1	187.7	209.6	827.1
Water Pump	hr	72.8	303.2	303.2	349.9	411.5	1440.6
Concrete Vibrator	hr	39.3	59.7	59.7	65.9	71.8	296.4
Asphalt Sprayer	hr	670.0	1376.8	1999.0	2282.2	1879.9	8207.9
<b>LABOUR :</b>							
Mandur	man day	2437.6	4645.5	4755.2	5568.6	5657.6	23064.5
Skilled Labourer	man day	1310.9	2748.8	2966.6	3608.8	4063.1	14698.2
Carpenter	man day	333.7	754.5	671.6	708.5	919.7	3388.0
Mason	man day	83.8	159.6	159.6	174.9	195.0	772.9
Labourer	man day	26767.8	50678.2	52797.7	60748.8	63179.2	254171.7
Driver	man day	4272.6	8477.2	8402.7	10290.4	9673.2	41116.1
Operator	man day	1898.2	3678.1	3586.6	4381.0	3813.7	17357.6
<b>MATERIAL :</b>							
Bitumen	l	165404.9	329643.2	481309.8	565606.6	471344.9	2013309.4
Asphalt Oil	l	22110.0	47539.1	68072.5	75313.3	62040.0	275074.9
Kerosene	l	32392.4	66820.7	96687.3	110581.6	91694.9	398176.9
Sand	m <sup>3</sup>	555.3	1013.2	1293.2	1494.1	1400.9	5756.7
Cement	bag	606.7	939.8	939.8	1035.3	1131.1	4652.7
River Stone	m <sup>3</sup>	83.8	174.2	174.2	191.9	215.8	839.9
Steel Moulds	set	223.2	244.2	244.2	253.8	260.6	1226.0
Tiaber	m <sup>3</sup>	29.3	66.1	58.6	61.6	80.3	295.9
Paint	l	204.4	409.7	349.8	353.3	470.0	1787.2
Reinforcing Steel	kg	7206.8	12652.0	12652.0	14400.5	16001.9	62913.2
Tying Wire	kg	65.4	114.9	114.9	130.8	145.3	571.3
Equivalent Royalty	m <sup>3</sup>	31106.9	63720.5	60301.8	80133.1	65415.4	300677.7

## Appendix A-5:

CONSTRUCTION AND MAINTENANCE COSTS  
FOR ALL PROPOSED ROAD LINKS  
(CONSTRUCTION)

PROV : RIAU		KAB : INDRAGIRI HULU					( 1000 Rp )
ITEM	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
<b>EQUIPMENT :</b>		191,675	378,424	361,253	467,475	388,078	1,786,905
Bulldozer/Ripper	16527	11,405	20,761	17,080	21,369	19,240	89,855
Swamp Bulldozer	12115	300	300	300	300	300	1,500
Motor Grader	14037	18,624	39,212	33,382	44,404	35,536	171,158
Hand-guide Vib. Roller	1571	499	676	626	631	666	3,098
Tire Roller	11544	7,734	15,893	23,076	26,345	21,701	94,749
Vibratory Roller (D&T)	6981	7,602	15,791	13,384	17,712	14,024	68,513
Hydraulic Excavator; Wheel	13339	2,401	2,474	2,474	2,462	2,477	12,288
Wheel Loader	17168	33,122	65,399	60,033	80,248	65,846	304,648
Water Tank Truck	4225	3,065	6,359	5,579	7,622	5,907	28,532
Dump Truck	5679	84,387	166,172	152,798	199,097	166,329	768,783
Flat Bed Truck with Crane	5324	1,279	2,002	1,910	2,063	2,248	9,502
Flat Bed Truck	3632	3,308	6,548	9,222	10,465	8,744	38,287
Portable Crusher/Screening	45284	15,795	32,459	35,756	48,376	39,274	171,660
Concrete Mixer	8539	755	1,432	1,432	1,583	1,767	6,969
Water Pump	497	35	149	149	172	203	708
Concrete Vibrator	335	12	19	19	21	23	94
Asphalt Sprayer	2018	1,352	2,778	4,033	4,605	3,793	16,561
<b>LABOUR :</b>		67,711	126,446	126,016	148,772	136,018	604,963
Handur	4400	6,061	11,111	10,931	12,966	11,783	52,852
Skilled Labourer	3300	2,131	4,682	5,401	6,233	5,694	24,141
Carpenter	4400	267	917	552	690	824	3,250
Mason	4400	368	702	702	769	858	3,399
Labourer	2750	40,546	73,234	74,144	84,340	80,296	352,560
Driver	3300	9,798	19,371	18,696	23,899	20,004	91,768
Operator	5500	8,540	16,429	15,590	19,875	16,559	76,993
<b>MATERIAL :</b>		125,604	253,242	351,485	404,534	337,995	1,472,860
Bitumen	400	65,324	130,183	190,849	222,516	183,299	792,171
Asphalt Oil	1500	33,165	71,308	102,108	112,969	93,060	412,610
Kerosene	250	8,039	16,588	24,055	27,386	22,559	98,627
Sand	4000	2,062	3,733	4,853	5,277	4,623	20,548
Cement	4500	2,654	4,077	4,077	4,506	4,918	20,232
River Stone	20000	1,676	3,484	3,484	3,838	4,316	16,798
Steel Moulds	8000	1,785	1,953	1,953	2,030	2,084	9,805
Timber	85000	391	1,419	782	994	1,190	4,776
Paint	2500	73	149	0	0	0	222
Reinforcing Steel	500	3,560	6,239	6,239	7,113	7,903	31,054
Tying Wire	1200	77	136	136	155	172	676
Equivalent Royalty	250	6,798	13,973	12,949	17,750	13,871	65,341

CONSTRUCTION AND MAINTENANCE COSTS  
FOR ALL PROPOSED ROAD LINKS  
(MAINTENANCE)

PROV : RIAU

KAB : INDRAGIRI HULU

( 1000 Rp )

I T E M	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
<b>EQUIPMENT :</b>		65,041	130,102	138,878	151,246	171,052	656,319
Bulldozer/Ripper	16527	0	0	0	0	0	0
Swamp Bulldozer	12115	0	0	0	0	0	0
Motor Grader	14037	10,656	21,315	23,210	23,210	23,905	102,296
Hand-guide Vib. Roller	1571	365	730	730	1,625	2,285	5,735
Tire Roller	11544	8,764	17,529	19,088	19,088	19,659	84,128
Vibratory Roller (D&T)	6981	0	0	0	0	0	0
Hydraulic Excavator; Wheel	13339	0	0	0	0	0	0
Wheel Loader	17168	4,740	9,483	10,302	11,063	12,034	47,622
Water Tank Truck	4225	0	0	0	0	0	0
Dump Truck	5679	12,051	24,105	25,728	33,707	40,400	135,991
Flat Bed Truck with Crane	5324	11,364	22,729	22,729	22,755	29,797	109,374
Flat Bed Truck	3632	10,821	21,643	23,441	25,097	26,955	107,957
Portable Crusher/Screening	45284	6,271	12,548	13,630	14,681	15,994	63,124
Concrete Mixer	8539	9	19	19	19	22	88
Water Pump	497	0	1	1	1	1	4
Concrete Vibrator	335	0	0	0	0	0	0
Asphalt Sprayer	2018	0	0	0	0	0	0
<b>LABOUR :</b>		47,321	94,651	100,996	116,633	133,822	493,423
Handur	4400	4,663	9,328	9,991	11,535	13,110	48,627
Skilled Labourer	3300	2,194	4,388	4,388	5,676	7,713	24,359
Carpenter	4400	1,201	2,402	2,402	2,426	3,222	11,653
Mason	4400	0	0	0	0	0	0
Labourer	2750	33,064	66,130	71,048	82,719	93,445	346,406
Driver	3300	4,300	8,603	9,032	10,058	11,917	43,910
Operator	5500	1,899	3,800	4,135	4,219	4,415	18,468
<b>MATERIAL :</b>		4,687	9,377	9,546	12,328	16,143	52,081
Bitumen	400	837	1,674	1,674	3,726	5,238	13,149
Asphalt Oil	1500	0	0	0	0	0	0
Kerosene	250	58	116	116	258	363	911
Sand	4000	159	319	319	699	980	2,476
Cement	4500	76	152	152	152	171	703
River Stone	20000	0	0	0	0	0	0
Steel Houlds	8000	0	0	0	0	0	0
Timber	85000	2,099	4,199	4,199	4,241	5,635	20,373
Paint	2500	437	874	874	883	1,175	4,243
Reinforcing Steel	500	43	86	86	86	97	398
Tying Wire	1200	0	1	1	1	2	5
Equivalent Royalty	250	978	1,956	2,125	2,282	2,482	9,823

CONSTRUCTION AND MAINTENANCE COSTS  
FOR ALL PROPOSED ROAD LINKS  
(TOTAL)

PROV : RIAU      KAB : INDRAGIRI HULU

( 1000 Rp )

I T E M	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
<b>EQUIPMENT :</b>		256,716	508,526	500,131	618,721	559,130	2,443,224
Bulldozer/Ripper	16527	11,405	20,761	17,080	21,369	19,240	89,855
Swamp Bulldozer	12115	300	300	300	300	300	1,500
Motor Grader	14037	29,280	60,527	56,592	67,614	59,441	273,454
Hand-guide Vib. Roller	1571	864	1,406	1,356	2,256	2,951	8,833
Tire Roller	11544	16,498	33,422	42,164	45,433	41,360	178,877
Vibratory Roller (D&T)	6981	7,602	15,791	13,384	17,712	14,024	68,513
Hydraulic Excavator; Wheel	13339	2,401	2,474	2,474	2,462	2,477	12,288
Wheel Loader	17168	37,862	74,882	70,335	91,311	77,880	352,270
Water Tank Truck	4225	3,065	6,359	5,579	7,622	5,907	28,532
Dump Truck	5679	96,438	190,277	178,526	232,804	206,729	904,774
Flat Bed Truck with Crane	5324	12,643	24,731	24,639	24,818	32,045	118,876
Flat Bed Truck	3632	14,129	28,191	32,663	35,562	35,699	146,244
Portable Crusher/Screening	45284	22,066	45,007	49,386	63,057	55,268	234,784
Concrete Mixer	8539	764	1,451	1,451	1,602	1,789	7,057
Water Pump	497	35	150	150	173	204	712
Concrete Vibrator	335	12	19	19	21	23	94
Asphalt Sprayer	2018	1,352	2,778	4,033	4,605	3,793	16,561
<b>LABOUR :</b>		115,032	221,097	227,012	265,405	269,840	1,098,386
Mandur	4400	10,724	20,439	20,922	24,501	24,893	101,479
Skilled Labourer	3300	4,325	9,070	9,789	11,909	13,407	48,500
Carpenter	4400	1,468	3,319	2,954	3,116	4,046	14,903
Mason	4400	368	702	702	769	858	3,399
Labourer	2750	73,610	139,364	145,192	167,059	173,741	698,966
Driver	3300	14,098	27,974	27,728	33,957	31,921	135,678
Operator	5500	10,439	20,229	19,725	24,094	20,974	95,461
<b>MATERIAL :</b>		130,291	262,619	361,031	416,862	354,138	1,524,941
Bitumen	400	66,161	131,857	192,523	226,242	188,537	805,320
Asphalt Oil	1500	33,165	71,308	102,108	112,969	93,060	412,610
Kerosene	250	8,097	16,704	24,171	27,644	22,922	99,538
Sand	4000	2,221	4,052	5,172	5,976	5,603	23,024
Cement	4500	2,730	4,229	4,229	4,658	5,089	20,935
River Stone	20000	1,676	3,484	3,484	3,838	4,316	16,798
Steel Houlds	8000	1,785	1,953	1,953	2,030	2,084	9,805
Timber	85000	2,490	5,618	4,981	5,235	6,825	25,149
Paint	2500	510	1,023	874	883	1,175	4,465
Reinforcing Steel	500	3,663	6,325	6,325	7,199	8,000	31,452
Tying Wire	1200	77	137	137	156	174	681
Equivalent Royalty	250	7,776	15,929	15,074	20,032	16,353	75,164

## Appendix A-6

## QUANTITIES OF BRIDGE ON PROPOSED ROAD LINKS

PROV : RIAU      KAB : INDRAGIRI HULU

LINK NO	BRIDGE NAME	Km	From	(( TYPE ))		DESIGN LOAD CLASS	SPAN CLASS	LENGTH (m)	SPAN NO	SPAN LENGTH (m)	WIDTH (m)	AREA	AREA	PIER (no)	ABUT (no)	ROAD CLASS
				(EXIST)	(NEW)							(EXIST) (m <sup>2</sup> )	(NEW) (m <sup>2</sup> )			
21	BONDAR	5	X		KK			15.10	5	3.02	4.00	60.40		4	2	IIIA
	KECUNDUNG	12	LBJB		KK			27.00	7	3.86	4.00	108.00		6	2	
	BATANG ANTAN 2	13	LBJB		KK			16.70	4	4.19	4.00	66.80		3	2	
	TERATAK TINGGI	14	LBJB		KK			13.80	4	3.45	4.00	55.20		3	2	
	NANTI	15	LBJB		KK			15.80	4	3.95	4.00	63.20		3	2	
	DODOK	15	LBJB		KK			12.00	3	4.00	4.00	48.00		2	2	
	TANJUNG PUTUS	16	LBJB		KK			18.00	5	3.60	4.00	72.00		4	2	
	AMBACANG	17	LBJB		KK			7.60	2	3.80	4.00	30.40		1	2	
	BULUH	17	LBJB		KK			17.00	5	3.40	4.00	68.00		4	2	
	BATANG ANTAN	18	LBJB		KK			22.40	5	4.48	4.00	89.60		4	2	
	BOTUANG	18	LBJB		KK			15.80	4	3.95	4.00	63.20		3	2	
	KELAPA KOTO	19	LBJB		KK			22.10	4	5.53	4.00	88.40		3	2	
	SANGAU	1	LBJB		LL			30.00	4	7.50	5.00	150.00		3	2	
SALU	2	LBJB		LL			30.00	5	6.00	5.00	150.00		4	2		
CENGAR	5	LBJB		KK			8.00	4	2.00	4.00	32.00		3	2		
23	SEKONDA	10	MRLB	--	TH	10T	(B)	4.00	1	4.00	4.00	0.00	16.00	0	2	IIIB-2
37	ANAK S. RAYA	0	X		KK			5.00	1	5.00	4.00	20.00		0	2	IIIB-2
	RAYA	3	TLJJ		KK			10.50	1	10.50	4.00	42.00		0	2	
	LOPAK	5	TLJJ		KK			8.60	1	8.60	4.00	34.40		0	2	
	TOLANG	6	TLJJ		KK			8.40	1	8.40	4.00	33.60		0	2	
41	DANAU 3	2	DNTG	--	RC	BH50	(E)	15.00	1	15.00	4.50	0.00	67.50	0	2	IIIA
47	N.I	0	**	--	RC	BH50	(E)	22.00	2	11.00	4.50	0.00	99.00	1	2	IIIA
51	N.I	16	X		KB			20.00	1	20.00	4.00	80.00		0	2	IIIB-2

Appendix A-7 CONSTRUCTION AND MAINTENANCE COST OF BRIDGES  
ON PROPOSAL ROAD LINKS

PRDV : RIAU KAD : INDRAGIRI HULU

LINK NO : 21 (IIIA) LENGTH : 2.9 Km

( Rp )

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		>>>>> TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; 10T)	m2	0.00	47,841	3,540	0	0	0
Superstructure (Timber; Span 5m; 10T)	m2	0.00	52,990	3,909	0	0	0
Superstructure (Timber; Span 8m; 10T)	m2	0.00	70,185	5,136	0	0	0
Superstructure (Timber; Span 3m; BMSO)	m2	0.00	59,320	4,377	0	0	0
Superstructure (Timber; Span 5m; BMSO)	m2	0.00	64,750	4,744	0	0	0
Superstructure (Timber; Span 8m; BMSO)	m2	0.00	82,130	6,005	0	0	0
Superstructure (Concrete; Span 3m; BMSO)	m2	0.00	56,851	64,668	0	0	0
Superstructure (Concrete; Span 5m; BMSO)	m2	0.00	58,566	71,958	0	0	0
Superstructure (Concrete; Span 8m; BMSO)	m2	0.00	80,465	78,193	0	0	0
Superstructure (Concrete; Span 10m; BMSO)	m2	0.00	66,307	88,519	0	0	0
Superstructure (Concrete; Span 15m; BMSO)	m2	0.00	71,757	103,897	0	0	0
Substructure (Pier; for Timber; 10T)	N0	0.00	416,857	32,854	0	0	0
Substructure (Abut; for Timber; 10T)	N0	0.00	1,184,284	154,288	0	0	0
Substructure (Pier; for Timber; BMSO)	N0	0.00	613,092	48,620	0	0	0
Substructure (Abut; for Timber; BMSO)	N0	0.00	1,332,636	171,456	0	0	0
Substructure (Pier; for Concrete; BMSO)	N0	0.00	2,643,323	466,720	0	0	0
Substructure (Abut; for Concrete; BMSO)	N0	0.00	5,287,354	981,821	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	113,679	54,439	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	8,755	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,099	2,312	0	0	0
Maintenance of Timber Bridge (Exist)	m2	1145.20	8,518	2,403	9,754,813	2,751,915	12,506,728
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,560	2,305	0	0	0
<hr/>							
( Without Overhead )	TOTAL COST (Timber Bridge)				0	0	0
	(Concrete Bridge)				0	0	0
	TOTAL COST (without Maintenance)				0	0	0
<hr/>							
( Overhead : 15% )	TOTAL COST (Timber Bridge)				0	0	0
	(Concrete Bridge)				0	0	0
	TOTAL COST (without Maintenance)				0	0	0

PROV : RIAU KAB : INDRAGIRI HULU

LINK NO : 23 (LIIB-2) LENGTH : 30 Km

( Rp )

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		>>>>> TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; IOT)	m2	0.00	47,841	3,540	0	0	0
Superstructure (Timber; Span 5m; IOT)	m2	16.00	52,990	3,909	847,840	62,544	910,384
Superstructure (Timber; Span 8m; IOT)	m2	0.00	70,185	5,136	0	0	0
Superstructure (Timber; Span 3m; BH50)	m2	0.00	59,320	4,377	0	0	0
Superstructure (Timber; Span 5m; BH50)	m2	0.00	64,758	4,744	0	0	0
Superstructure (Timber; Span 8m; BH50)	m2	0.00	82,130	6,005	0	0	0
Superstructure (Concrete; Span 3m; BH50)	m2	0.00	58,851	64,668	0	0	0
Superstructure (Concrete; Span 5m; BH50)	m2	0.00	58,566	71,958	0	0	0
Superstructure (Concrete; Span 8m; BH50)	m2	0.00	60,465	78,193	0	0	0
Superstructure (Concrete; Span 10m; BH50)	m2	0.00	66,307	88,519	0	0	0
Superstructure (Concrete; Span 15m; BH50)	m2	0.00	71,757	103,897	0	0	0
Substructure (Pier; for Timber; IOT)	NO	0.00	416,857	32,854	0	0	0
Substructure (Abut; for Timber; IOT)	NO	2.00	1,184,284	154,288	2,368,568	308,576	2,677,144
Substructure (Pier; for Timber; BH50)	NO	0.00	613,092	48,620	0	0	0
Substructure (Abut; for Timber; BH50)	NO	0.00	1,332,636	171,456	0	0	0
Substructure (Pier; for Concrete; BH50)	NO	0.00	2,643,323	466,720	0	0	0
Substructure (Abut; for Concrete; BH50)	NO	0.00	5,287,354	981,821	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	113,679	54,439	0	0	0
Maintenance of Timber Bridge (New)	m2	16.00	8,755	1,121	140,080	17,936	158,016
Maintenance of Concrete Bridge (New)	m2	0.00	2,099	2,312	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	8,518	2,403	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,560	2,305	0	0	0
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( Without Overhead )			TOTAL COST (Timber Bridge)		3,216,408	371,120	3,587,528
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		3,216,408	371,120	3,587,528
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( Overhead : 15% )			TOTAL COST (Timber Bridge)		3,698,869	426,788	4,125,657
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		3,698,869	426,788	4,125,657



PROV : RIAU KAB : INDRAGIRI HULU

LINK NO : 37 (IIIB-2) LENGTH : 15 Km

( Rp )

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber;Span 3a;10t)	m2	0.00	47,841	3,540	0	0	0
Superstructure (Timber;Span 5a;10t)	m2	0.00	52,990	3,909	0	0	0
Superstructure (Timber;Span 8a;10t)	m2	0.00	70,185	5,136	0	0	0
Superstructure (Timber;Span 3a;BH50)	m2	0.00	59,320	4,377	0	0	0
Superstructure (Timber;Span 5a;BH50)	m2	0.00	64,758	4,744	0	0	0
Superstructure (Timber;Span 8a;BH50)	m2	0.00	82,130	6,005	0	0	0
Superstructure (Concrete;Span 3a;BH50)	m2	0.00	56,851	64,660	0	0	0
Superstructure (Concrete;Span 5a;BH50)	m2	0.00	58,566	71,958	0	0	0
Superstructure (Concrete;Span 8a;BH50)	m2	0.00	60,465	78,193	0	0	0
Superstructure (Concrete;Span 10a;BH50)	m2	0.00	66,307	88,519	0	0	0
Superstructure (Concrete;Span 15a;BH50)	m2	0.00	71,757	103,897	0	0	0
Substructure (Pier;for Timber;10t)	NO	0.00	416,857	32,854	0	0	0
Substructure (Abut;for Timber;10t)	NO	0.00	1,184,284	154,288	0	0	0
Substructure (Pier;for Timber;BH50)	NO	0.00	613,072	48,620	0	0	0
Substructure (Abut;for Timber;BH50)	NO	0.00	1,332,636	171,456	0	0	0
Substructure (Pier;for Concrete;BH50)	NO	0.00	2,643,323	466,720	0	0	0
Substructure (Abut;for Concrete;BH50)	NO	0.00	5,287,354	981,821	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	113,679	54,439	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	8,755	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,077	2,312	0	0	0
Maintenance of Timber Bridge (Exist)	m2	130.00	8,518	2,403	1,107,340	312,390	1,419,730
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,560	2,305	0	0	0
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( Without Overhead )	TOTAL COST (Timber Bridge)				0	0	0
	(Concrete Bridge)				0	0	0
	TOTAL COST (without Maintenance)				0	0	0
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( Overhead : 15% )	TOTAL COST (Timber Bridge)				0	0	0
	(Concrete Bridge)				0	0	0
	TOTAL COST (without Maintenance)				0	0	0

PROV : RIOW KAB : INDRAGIRI HULU  
 LINK NO : 41 (LIIA) LENGTH : 20 Km

( Rp )

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; 101)	m2	0.00	47,841	3,540	0	0	0
Superstructure (Timber; Span 5m; 101)	m2	0.00	52,990	3,909	0	0	0
Superstructure (Timber; Span 8m; 101)	m2	0.00	70,185	5,136	0	0	0
Superstructure (Timber; Span 3m; BM50)	m2	0.00	59,320	4,377	0	0	0
Superstructure (Timber; Span 5m; BM50)	m2	0.00	64,758	4,744	0	0	0
Superstructure (Timber; Span 8m; BM50)	m2	0.00	82,130	6,005	0	0	0
Superstructure (Concrete; Span 3m; BM50)	m2	0.00	56,851	64,668	0	0	0
Superstructure (Concrete; Span 5m; BM50)	m2	0.00	58,566	71,958	0	0	0
Superstructure (Concrete; Span 8m; BM50)	m2	0.00	60,465	78,193	0	0	0
Superstructure (Concrete; Span 10m; BM50)	m2	0.00	66,307	88,519	0	0	0
Superstructure (Concrete; Span 15m; BM50)	m2	67.50	71,757	103,897	4,843,597	7,013,047	11,856,644
Substructure (Pier; for Timber; 101)	NO	0.00	416,857	32,854	0	0	0
Substructure (Abut; for Timber; 101)	NO	0.00	1,184,284	154,288	0	0	0
Substructure (Pier; for Timber; BM50)	NO	0.00	613,092	48,620	0	0	0
Substructure (Abut; for Timber; BM50)	NO	0.00	1,332,636	171,456	0	0	0
Substructure (Pier; for Concrete; BM50)	NO	0.00	2,643,323	466,720	0	0	0
Substructure (Abut; for Concrete; BM50)	NO	2.00	5,287,354	981,821	10,574,708	1,963,642	12,538,350
Demolition of Bridge (Timber->Timber)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	113,679	54,439	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	8,755	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	67.50	2,099	2,312	141,682	156,060	297,742
Maintenance of Timber Bridge (Exist)	m2	0.00	8,518	2,403	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,580	2,305	0	0	0

( Without Overhead )

TOTAL COST (Timber Bridge)	0	0	0
(Concrete Bridge)	15,418,305	8,976,689	24,394,994
TOTAL COST (without Maintenance)	15,418,305	8,976,689	24,394,994

( Overhead : 15% )

TOTAL COST (Timber Bridge)	0	0	0
(Concrete Bridge)	17,731,051	10,323,192	28,054,243
TOTAL COST (without Maintenance)	17,731,051	10,323,192	28,054,243

PROV : RIAU KAB : INDRAGIRI HULU

LINK NO : 47 (IIIA) LENGTH : 33 Km

( Rp )

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; IOT)	m2	0.00	47,841	3,540	0	0	0
Superstructure (Timber; Span 5m; IOT)	m2	0.00	52,990	3,909	0	0	0
Superstructure (Timber; Span 8m; IOT)	m2	0.00	70,185	5,136	0	0	0
Superstructure (Timber; Span 3m; BHSO)	m2	0.00	59,320	4,377	0	0	0
Superstructure (Timber; Span 5m; BHSO)	m2	0.00	64,758	4,744	0	0	0
Superstructure (Timber; Span 8m; BHSO)	m2	0.00	82,130	6,005	0	0	0
Superstructure (Concrete; Span 3m; BHSO)	m2	0.00	56,851	64,668	0	0	0
Superstructure (Concrete; Span 5m; BHSO)	m2	0.00	58,566	71,958	0	0	0
Superstructure (Concrete; Span 8m; BHSO)	m2	0.00	60,465	78,193	0	0	0
Superstructure (Concrete; Span 10m; BHSO)	m2	0.00	66,307	88,519	0	0	0
Superstructure (Concrete; Span 15m; BHSO)	m2	99.00	71,757	103,897	7,103,943	10,285,803	17,389,746
Substructure (Pier; for Timber; IOT)	NO	0.00	416,857	32,854	0	0	0
Substructure (Abut; for Timber; IOT)	NO	0.00	1,184,284	154,288	0	0	0
Substructure (Pier; for Timber; BHSO)	NO	0.00	613,092	48,620	0	0	0
Substructure (Abut; for Timber; BHSO)	NO	0.00	1,332,636	171,456	0	0	0
Substructure (Pier; for Concrete; BHSO)	NO	1.00	2,643,323	466,720	2,643,323	466,720	3,110,043
Substructure (Abut; for Concrete; BHSO)	NO	2.00	5,287,354	981,821	10,574,708	1,963,642	12,538,350
Demolition of Bridge (Timber->Timber)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	113,679	54,439	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	8,755	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	99.00	2,099	2,312	207,801	228,888	436,689
Maintenance of Timber Bridge (Exist)	m2	0.00	8,518	2,403	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,560	2,305	0	0	0
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( Without Overhead )	TOTAL COST (Timber Bridge)				0	0	0
	(Concrete Bridge)				20,321,974	12,716,165	33,038,139
	TOTAL COST (without Maintenance)				20,321,974	12,716,165	33,038,139
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( Overhead : 15% )	TOTAL COST (Timber Bridge)				0	0	0
	(Concrete Bridge)				23,370,270	14,623,590	37,993,860
	TOTAL COST (without Maintenance)				23,370,270	14,623,590	37,993,860

PROV : RIAU KAB : INDRAGIRI HULU  
 LINK NO : 51 (IIIB-2) LENGTH : 18 Km

( Rp )

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber;Span 3a;LOT)	m2	0.00	47,841	3,540	0	0	0
Superstructure (Timber;Span 5a;LOT)	m2	0.00	52,990	3,909	0	0	0
Superstructure (Timber;Span 8a;LOT)	m2	0.00	70,185	5,136	0	0	0
Superstructure (Timber;Span 3a;BH50)	m2	0.00	59,320	4,377	0	0	0
Superstructure (Timber;Span 5a;BH50)	m2	0.00	64,758	4,744	0	0	0
Superstructure (Timber;Span 8a;BH50)	m2	0.00	82,130	6,005	0	0	0
Superstructure (Concrete;Span 3a;BH50)	m2	0.00	56,851	64,668	0	0	0
Superstructure (Concrete;Span 5a;BH50)	m2	0.00	58,566	71,958	0	0	0
Superstructure (Concrete;Span 8a;BH50)	m2	0.00	60,465	78,193	0	0	0
Superstructure (Concrete;Span 10a;BH50)	m2	0.00	66,307	88,519	0	0	0
Superstructure (Concrete;Span 15a;BH50)	m2	0.00	71,757	103,897	0	0	0
Substructure (Pier;for Timber;LOT)	NO	0.00	416,857	32,854	0	0	0
Substructure (Abut;for Timber;LOT)	NO	0.00	1,184,284	154,288	0	0	0
Substructure (Pier;for Timber;BH50)	NO	0.00	613,092	48,620	0	0	0
Substructure (Abut;for Timber;BH50)	NO	0.00	1,332,636	171,456	0	0	0
Substructure (Pier;for Concrete;BH50)	NO	0.00	2,643,323	466,720	0	0	0
Substructure (Abut;for Concrete;BH50)	NO	0.00	5,287,354	981,821	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	13,511	1,372	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	113,679	54,439	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	8,755	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,099	2,312	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	8,518	2,403	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	80.00	4,560	2,305	364,800	184,400	549,200
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( Without Overhead )			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0
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( Overhead : 15% )			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0







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