

APPENDIX

PRV. : *SULAWESI SELATAN*

KAB. : *SOPPENG*

SURVEY YEAR : *1984*

Code No.	KECAMATAN NAME	CULTIVATED AREA : (PA)	YIELD RATE : (Y)	FARMER'S POPULATION : (AP)	CIRCULATED COMMODITY : (PG)
<i>01</i>	<i>MARIO RIWAWO</i>	<i>3,093</i>	<i>4.84</i>	<i>12,500</i>	<i>0</i>
<i>02</i>	<i>LILI RIJAJA</i>	<i>12,310</i>	<i>5.50</i>	<i>14,200</i>	<i>0</i>
<i>03</i>	<i>LILI RILAU</i>	<i>3,273</i>	<i>4.76</i>	<i>12,010</i>	<i>0</i>
<i>04</i>	<i>LALABATA</i>	<i>12,371</i>	<i>5.62</i>	<i>20,160</i>	<i>0</i>
<i>05</i>	<i>MARIO RIAWA</i>	<i>5,415</i>	<i>5.43</i>	<i>7,120</i>	<i>0</i>

	<i>α</i>	<i>β</i>	<i>γ</i>	<i>δ</i>	FARMER'S CONSUMPTION : (Cp)	NON-AGRO REQUIREMENT : (NG)
ANNUAL AVERAGE GROWTH RATE %	<i>3.2</i>	<i>2.4</i>	<i>0.25</i>	<i>5.7</i>	<i>0.12</i> Ton/head/year	<i>0.251</i> Ton/ton

	SEDAN	BUS	TRUCK	MOTOR CYCLE	AVERAGE FREIGHT TONAGE
RATE OF EACH VEHICLE TYPE %	<i>39.44</i>	<i>8.88</i>	<i>8.12</i>	<i>43.55</i>	<i>0.8</i> Ton/Truck

Appendix A-2: Engineering Data

ROAD LINK DATA

PROVINCE : Sulawesi Selatan

KABUPATEN: Soppeng

LINK NO.	BEGINNING POINT (DESA NAME)	END POINT (DESA NAME)	LENGTH (KM)	THROUGH THE KEC. NAME & LENGTH		REMARKS
				KEC. NAME	LENGTH (KM)	
01	Lawo	Maccope	7	Lalabata	7	1
02	Maccile	Malaka	4	Lalabata	4	
03	Galung	Mallanroe	5	Lili Riaja	3	
				Lalabata	2	
04	Maccope	Tessiabeng	7	Lili Riaja	6	
				Lalabata	1	
05	Tessiabeng	Labessi	5	Mario Riawo	1	
				Lili Riaja	4	
06	Lebbae	Tenggapeng - dangge	3	Lili Riaja	3	
07	Congko	Masumpu	9	Mario Riawo	9	
08	Sanuale	Bellalao	8	Mario Riawo	8	
09	Lajoa	Pajalesang	21	Mario Riawo		1
				Lili Riaja		
10	Ujung	Abbanuange	13	Lili Rilau	13	1
11	Mari-mari	B e l o	2	Lili Riaja	2	
12	B e l o	Batas Liu	13	Lili Riaja	3	1
				Lili Rilau	10	
13	B e l o	Ganra	2	Lili Riaja	2	1
14	Cenrana	Tellang	5	Lili Riaja	2.5	
				Lalabata	2.5	
15	Tajuntu	Tellang	7	Lalabata	7	
16	Paddangeng	Leworeng	7	Lalabata	7	
17	Madining	Batu-batu	3	Mario Riawa	3	
18	Latappareng	Lajaroko	5	Mario Riawa	5	
19	Masumpu	Jolle	6	Mario Riawo	5	
				Lalabata	1	
20	Ganra	Tellang	7	Lili Riaja	6	
				Lalabata	1	
21	Ganra	Cenrana	3	Lili Riaja	1.5	1
				Lalabata	1.5	
22	Cenrana	Lapajung	4	Lalabata	4	1
23	Tessiabeng	Lajoa	2	Lili Riaja	2	
24	Maccini	Lawara	3	Lili Riaja	3	

Please note the priority No. in the Remarks of this list for each links No. according to the each Kabupaten's development plan.

ROAD LINK DATA

PROVINCE : Sulawesi Selatan

KABUPATEN: Soppeng

LINK NO.	BEGINNING POINT (DESA NAME)	END POINT (DESA NAME)	LENGTH (KM)	THROUGH THE KEC. NAME & LENGTH		REMARKS
				KEC. NAME	LENGTH (KM)	
25	Patojo	Lamogo	3	Lili Riaja	3	
26	Maccini	Tengngape-dangnge	4	Lili Riaja	4	
27	Appasareng	Danrae	3	Lili Riaja	3	4
28	Pacongkang	Atakka	4	Mario Riawo	2	
				Lili Riaja	2	
29	Jampu	Allimbangeng	9	Lili Riaja	3	
				Lili Rilau	6	
30	Pajalesang	Manu - manu	2	Lili Riaja	0.5	11
				Lili Rilau	1.5	
31	Marossa	Tetewatu	13	Lili Rilau	13	
32	Macanre	Kebo	8	Lili Rilau	8	8
33	Pallapaoe	Kebo	5	Lili Rilau	5	
34	Takku	Lemo - lemo	20	Lili Rilau	20	
35	Tocampu	Peppae	5	Lili Rilau	5	
36	Abbanuange	Berue	3	Lili Rilau	3	
37	Sumpang Alee	Toawo	2	Lili Rilau	2	
38	Cellenge	Cennoe	3	Lili Riaja	3	
39	Labokong	Tokare	10	Lalabata	10	
40	Lajoroko	Galungkalun-ge	5	Mario Riawa	5	
41	Lagoci	Masumpu	6	Mario Riawo	6	
42	Takala	Madekkang	3	Mario Riawo	3	7
43	Cennae	Langkemme	3	Mario Riawo	3	9
44	Jolle	Pangempang-nge	4	Lalabata	4	
45	Dalam Kota	Watansoppeng	14	Lalabata	14	2
46	Lapajung	Cirowali	8	Lalabata	8	
47	Tokebbeng	Masumpu	3	Mario Riawo	3	
48	Amessangeng	Lausa	8	Mario Riawo	8	

Please note the priority No. in the Remarks of this list for each links No. according to the each Kabupaten's development plan.

ROAD LINK DATA

PROVINCE : Sulawesi Selatan

KABUPATEN: Soppeng

LINK NO.	BEGINNING POINT (DESA NAME)	END POINT (DESA NAME)	LENGTH (KM)	THROUGH THE KEC. NAME & LENGTH		REMARKS
				KEC. NAME	LENGTH (KM)	
49	Takala	Atakka	9	Mario Riwawo	9	
50	Laba E	Pajalesang	9	Mario Riwawo	7	
				Lilirilau	2	
51	Tetewatu	Jekka E	12	Lilirilau	12	
52	Pajalesang	Allimbangeng	3	Lilirilau	3	1
53	Panincung	Poleccu	5	Mario Riawa	5	
54	Latappareng	Taneto	2	Mario Riawa	2	
55	Limpo	Lajarella	2	Mario Riawa	2	10
56	Laringgi	Bera	2	Mario Riawa	2	
57	Bellalao	Walimpong	3	Mario Riawo	3	
58	Benteng E	Teppo E	3	Lili Riaja	3	6
59	Dalam Kota	Cangadi	2	Lili Riaja	2	
60	Bellalao	Bunne	3	Mario Riawo	3	
61	Jekka E	Kampiri	5	Lili Riaja	1	
				Lili Rilau	4	
62	Kubba	Lempa	3	Lalabata	3	
63	Dalam Kota	Takala	2	Mario Riawo	2	
64	Citta	Laba E	6	Lili Riaja	6	
65	Galung Kalung E	Lejja	2	Mario Riawo	2	
66	Pemandian Ompo	Ompo	1	Lalabata	1	
67	Pasar Lalo E	Lempa	4	Lalabata	4	
68	Salotungo	Maccupe	1	Lalabata	1	5
69	Pajalesang	Pasar Central Cabeng E	3	Lili Rilau	3	11
70	Dareaju E	Balubu E	5	Lalabata	5	12
71	Poleccu	Manroangin	5	Mario Riawa	5	
72	Walimpong	Jangkali	3	Mario Riawo	3	

Please note the priority No. in the Remarks of this list for each links No. according to the each Kabupaten's development plan.

ROAD LINK DATAPROVINCE : Sulawesi SelatanKABUPATEN: Soppeng

LINK NO.	BEGINNING POINT (DESA NAME)	END POINT (DESA NAME)	LENGTH (KM)	THROUGH THE KEC. NAME & LENGTH		REMARKS
				KEC. NAME	LENGTH (KM)	
73	Lakacere	Ompo	2	Lalabata	2	3
74	Lawo	Galung Langie	4	Lalabata	4	

Please note the priority No. in the Remarks of this list for each links No. according to the each Kabupaten's development plan.

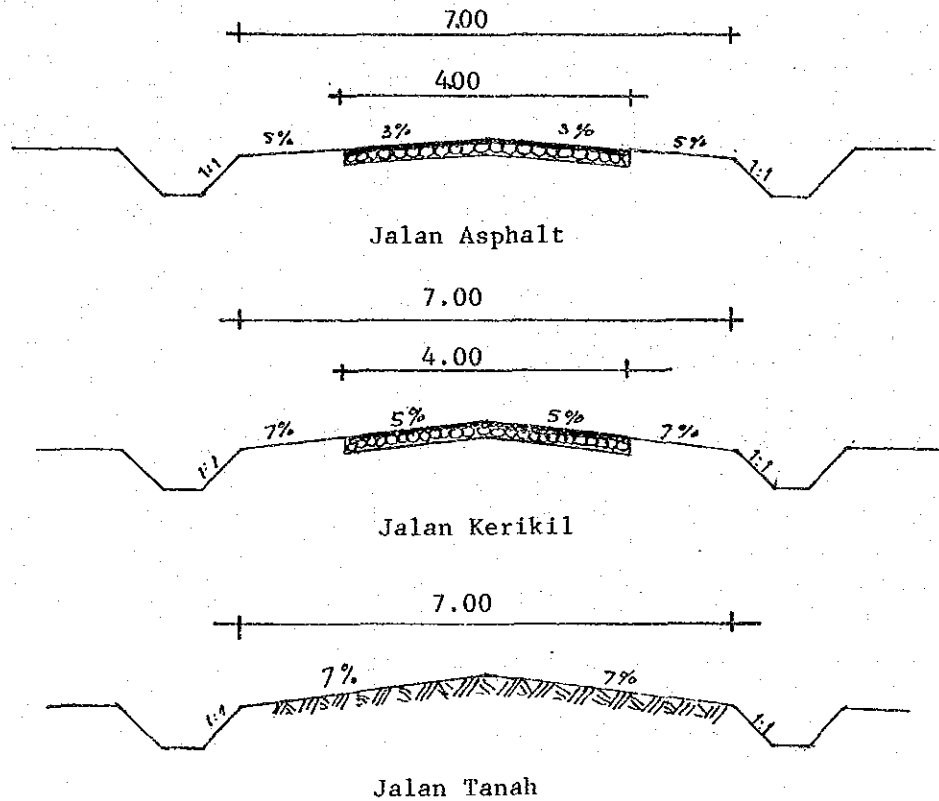
What Kind of Design Criteria has being applied for the new road construction and the improvement for the Kabupaten Road ?

Kriteria Perencanaan yang dipakai pada program penanganan jalan Kabupaten, baik untuk jalan lama maupun pembangunan baru.

Please draw the Typical Cross Section of the Kabupaten Road.

Buat gambar dan penjelasan dari: Typical cross section yang dipakai pada program penanganan jalan selama ini (baik untuk jalan lama, maupun pembangunan baru)

TYPICAL CROSS SECTION.



LINK NO : Nomor Ruas	LOCATION From - To (dari - ke)	Lebar per-kerasan(m)	Type per-kerasan	LENGTH Panjang	COSTS Harga	REMARKS Keterangan
		Lebar Jembatan	Type Jembatan	(KM)	(Rp 10 ⁶)	
45	Mattiro Pole - Sewo	-	-	-	10,150	
		4.5	Beton	10 m		
07	Congko - Masumpu	-	-	-	31,775	
		4	Timber	24.5 m		

* PAVEMENT TYPE : Pls note the appropriate No. below.

- 1. : Asphalt surface / penetrasi macadam
- 2. : Asphalt seal / pelaburan aspal
- 3. : Gravel / kerikil
- 4. : Gravel /ANCAS / kerikil / japat

LOCATION AND COSTS OF THE KABUPATEN

ROADS CONSTRUCTED OR IMPROVED IN 1981/1982

Biaya konstruksi penanganan

jalan dan jembatan Kabupaten thn. 1981/1982

LINK NO. Nomor Ruas	LOCATION From - To (dari - ke)	Lebar perkerasan(m)	Type perkerasan	LENGTH Panjang (KM)	COSTS Harga (Rp 10 ⁶)	REMARKS
		Lebar Jembatan	Type Jembatan			Keterangan

* PAVEMENT TYPE : Pls note the appropriate No. below.

1. : Asphalt surface / penetrasi macadam
2. : Asphalt seal / pelaburan aspal
3. : Gravel / kerikil
4. : Gravel /ANCAS / kerikil / japat

LINK NO Nomor Ruas	L O C A T I O N From - To (dari - ke)	Lebar per-kerasan(m)	Type per-kerasan	LENGTH Panjang (KM)	COSTS Harga (Rp 10 ⁶)	REMARKS Keterangan
		Lebar Jembatan	Type Jembatan			

* PAVENMENT TYPE : Pls note the appropriate No. below.

- 1. : Asphalt surface / penetrasi macadam
- 2. : Asphalt seal / pelaburan aspal
- 3. : Gravel / kerikil
- 4. : Gravel /AWCAS / kerikil / japat

LOCATION AND COSTS OF THE KABUPATEN

ROADS CONSTRUCTED OR IMPROVED IN 1983/1984

Biaya konstruksi penanganan

jalan dan jembatan Kabupaten thn. 1983/1984

LINK NO Nomor Ruas	LOCATION From - To (dari - ke)	Lebar per- kerasan(m)	Type per- kerasan	LENGTH Panjang (KM)	COSTS Harga (Rp 10 ⁶)	REMARKS Keterang- an
		Lebar Jembatan	Type Jembatan			

* PAVEMENT TYPE : Pls note the appropriate No. below.

- 1. : Asphalt surface / penetrasi macadam
- 2. : Asphalt seal / pelaburan aspal
- 3. : Gravel / kerikil
- 4. : Gravel /AWCAS / kerikil / japat

LINK NO : Nomor Ruas	LOCATION From - To (dari - ke)	Lebar per-kerasan(m)	Type per-kerasan	LENGTH Panjang (KM)	COSTS Harga (Rp 10 ⁶)	REMARKS Keterangan
		Lebar Jembatan	Type Jembatan			

* PAVEMENT TYPE : Pls note the appropriate No. below.

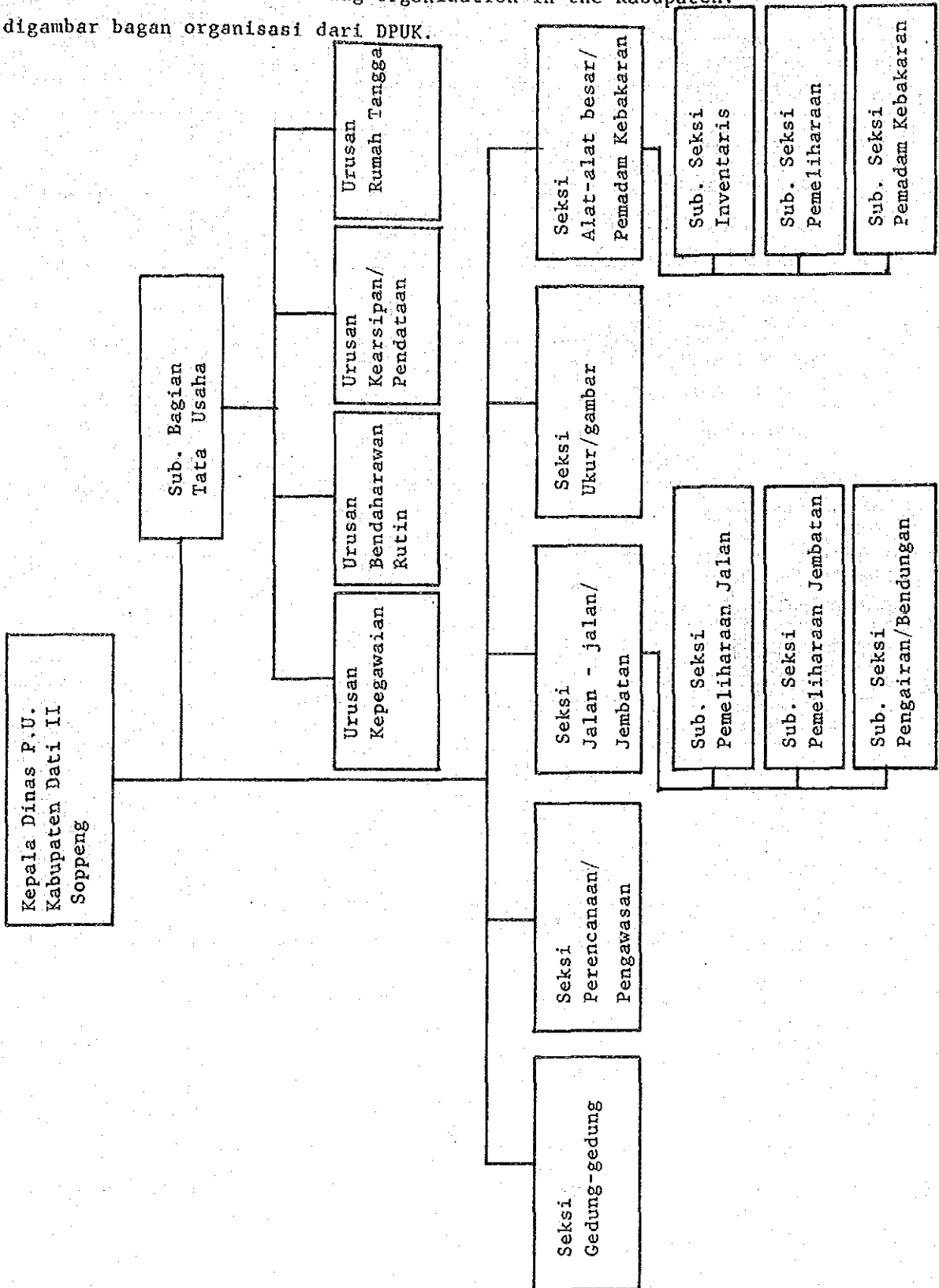
- 1. : Asphalt surface / penetrasi macadam
- 2. : Asphalt seal / pelaburan aspal
- 3. : Gravel / kerikil
- 4. : Gravel /AWCAS / kerikil / japat

EXISTING ORGANIZATION IN KABUPATEN

Struktur Organisasi yang ada dari P.U Kabupaten

Please draw the Cart of the Existing Organization in the Kabupaten.

Harap digambar bagan organisasi dari DPUK.



EXISTING STAFF RESOURCES OF BINA MARGA OF PU KABUPATENTenaga Dinas PUK yang adaPROPINSI: Sulawesi SelatanKABUPATEN: Soppeng

DESCRIPTION /Uraian	NUMBER / Jumlah	REMARKS Keterangan
CONTROLLING STAFF Staff teknis. PUK	(24)	(14)
DPUK ENGINEER Sarjana Teknik		
ASSISTANT ENGINEER Sarjana Muda Teknik	4	4
TECHNICIAN STAFF Staff Teknik (STM)	20	10
ADMINISTRATION Tenaga Administrasi	15	-
SUPERVISOR Tenaga Pengawas	10	7
WORKING FORCE Tenaga Pelaksana Lapangan	(66)	(2)
OPERATORS Operators	11	2
DRIVERS Supir	3	
MECHANICS Mechanic	3	
TRADESMAN Tukang	2	
L A B O U R Buruh / Pekerja	47	
OTHERS Lain-lain		
TOTAL / JUMLAH	115	23

Catatan ; Untuk kolom keterangan harap diisi berapa orang yang telah mendapat Training.

LOCATION AND AREA OF DPUK WORKSHOP

E-06

Lokasi Workshop DPUK
PROPINSI : Sulawesi Selatan

KABUPATEN: Soppeng

LOCATION Lokasi	AREA (m2) Luas	NUMBER Jumlah	REMARKS Keterangan
Pakkanre Bete	20,000	1	Tanah Negara Bebas

PROPINSI: Sulawesi Selatan

E-07

KABUPATEN: Soppeng

LAND ACQUISITION COST
Daftar harga pembebasan tanah

DESCRIPTION Uraian	UNIT Satuan	RATE (RP) Harga	REMARKS Keterangan
CITY/kota	M2	5,000	Tingkat Kecamatan Dalam Kota
VILLAGE / desa	M2	550 - 1000	Tingkat Kecamatan
RICE FIELD/sawah	M2	1,000	Kelas I
DRY FIELD/ladang	M2	400 - 700	
MIX CROPS/panen	M2		
FOREST/hutan	M2		
SWAMP / rawa	M2		
OTHERS / lain-lain	M2	60 - 100	Tanah tandus tidak di garap

PROPINSI: Sulawesi Selatan

E-08

KABUPATEN: Soppeng

Classification of local contractors at Kabupaten level.

Klasifikasi kontraktor di Kabupaten

COMPANY NAME Nama Kontraktor	CLASS Kelas	CAPITAL Modal (Rp)	NUMBER OF EMPLOYEE Jumlah pegawai	REMARKS Keterangan
4	C1	66,200,000	12	
23	C2	40,653,000	7	
36	C3	33,702,000	6	

NOTE: DATI II

LIST OF EXISTING EQUIPMENT OF LOCAL CONTRACTOR

Name of contractor

NAME OF EQUIPMENT Jenis peralatan	EXISTING CONDITION/ Kondisi Peralatan					REASON OF BAD CONDI TION/Sebab Kerusakan	REQUIRE - MENT / Ke- butuhan peralatan baru
	TYPE/ Tipe	P.Y	NUMBER / Jumlah				
			GOOD Baik	BAD Rusak	TOTAL Jumlah		
Bulldozer							
Motor Grader							
Tyre Roller							
Steel Wheel Roller							
Vibration Roller							
Wheal Loader							
Front End Loader and Backhoe							
Mobile Crane							
Concrete Mixer							
Stone Crusher							
Portable Compressor			1	-	1		
Hydraulic Excavator							
Asphalt Paving Machine							
Asphalt Sprayer							
Asphalt Mixing Machine							
Mobile Workshop							
Mechanic Rammer							
Plate Tamper							
Pile Driver							
Leg Drill							
Hand Hammer							
Farm Tractor							
Dump Truck			8	-	8		
Water Tank Truck							
Fuel Tank Truck							
Pick Up			25	-	25		
Jeep			7	-	7		
Motorcycle							
Generator							
Water Pump			1	-	1		
Others (Molen Beton)			11	-	11		

LIST OF EXISTING EQUIPMENT OF P.U KABUPATEN

NAME OF EQUIPMENT Jenis peralatan	EXISTING CONDITION/ Kondisi Peralatan					REASON OF BAD CONDIT TION/Sebab Kerusakan	REQUIRE - MENT / Ke- butuhan peralatan baru
	TYPE/ Tipe	P.Y	NUMBER / Jumlah				
			GOOD Baik	BAD Rusak	TOTAL Jumlah		
Bulldozer							
Motor Grader							
Tyre Roller							
Steel Whell Roller							
Vibration Roller							
Wheel Loader							
Front End Loader and Backhoe							
Mobile Crane							
Concrete Mixer							
Stone Crusher							
Portable Compressor							
Hydraulic Excavator							
Asphalt Paving Machine							
Asphalt Sprayer							
Asphalt Mixing Machine							
Mobile Workshop							
Mechanic Rammer							
Plate Tamper							
Pile Driver							
Leg Drill							
Hand Hammer							
Farm Tractor							
Dump Truck							
Water Tank Truck							
Fuel Tank Truck							
Pick Up							
Jeep							
Motorcycle							
Generator							
Water Pump							
Others							

Appendix A-3

CONSTRUCTION AND MAINTENANCE COST FOR PROPOSED ROAD LINKS

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 1 (TIB-1) LENGTH : 7 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

ITEM	UNIT	QUANTITY	UNIT COST		COST		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in light Bush	m ²	0.0	161	91	0	0	0	
Subgrade Preparation	m ²	0.0	20	11	0	0	0	
Normal Fill	m ³	0.0	1,661	865	0	0	0	
Fill in Swamp	m ³	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m ³	0.0	974	524	0	0	0	
Sub Base Course	m ³	908.0	3,152	1,351	2,862,016	1,226,708	4,088,724	
Base Course	m ³	1960.0	4,319	2,303	8,465,240	4,513,880	12,979,120	
Shoulder	m ²	14000.0	290	146	4,060,000	2,044,000	6,104,000	
Asphalt Patching	m ²	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m ²	28000.0	594	509	16,632,000	14,252,000	30,884,000	
Surface Dressing (Double)	m ²	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m ³	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m ²	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m ³	0.0	40,295	11,611	0	0	0	
Gabion Protection	m ³	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	32,019,256	22,036,588	54,055,844
Overhead (15%)						4,802,888	3,305,488	8,108,376
					TOTAL COST	36,822,144	25,342,076	62,164,220
Manual routine maintenance of road	Km	7.0	132,008	7,260	924,056	50,820	974,876	
Routine maintenance of asphalt road	Km	7.0	352,300	131,200	2,466,100	918,400	3,384,500	
					Sub Total	3,390,156	969,220	4,359,376
Maintenance of Timber Bridge (New)	m ²	0.0	11,342	1,121	0	0	0	
Maintenance of Concrete Bridge (New)	m ²	0.0	2,160	2,934	0	0	0	
Maintenance of Timber Bridge (Exist)	m ²	0.0	9,406	2,405	0	0	0	
Maintenance of Concrete Bridge (Exist)	m ²	16.0	4,167	2,431	66,672	38,896	105,568	
Earthwork & Pavement Unit Cost (Rp/Km)	:						8,880,603	
Timber Bridge Unit Cost (Rp/m ²)	:							
Concrete Bridge Unit Cost (Rp/m ²)	:							
Survived Value (Rp)	:						5,457,930	
Maintenance Rate without Bridge (X)	:						7.01	
New Bridge Cost Rate (X)	:							

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 3 (IIIB-1) LENGTH : 5 Km

UPGRADE : 10.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0	
Subgrade Preparation	m2	0.0	20	11	0	0	0	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	0.0	974	524	0	0	0	
Sub Base Course	m3	802.0	3,152	1,351	2,527,904	1,093,502	3,611,406	
Base Course	m3	1400.0	4,319	2,303	6,046,600	3,224,200	9,270,800	
Shoulder	m2	30000.0	290	146	8,700,000	4,380,000	13,080,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	20000.0	594	509	11,880,000	10,180,000	22,060,000	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Sablon Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					29,154,504	18,867,702	48,022,206	
Overhead (15%)					4,373,175	2,830,155	7,203,330	
					TOTAL COST	33,527,679	21,697,857	55,225,536

Manual routine maintenance of road	Km	5.0	132,008	7,260	660,040	36,300	696,340
Routine maintenance of asphalt road	Km	5.0	352,300	131,200	1,761,500	656,000	2,417,500
					Sub Total		
					2,421,540	892,300	3,113,840
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	48.0	4,167	2,431	200,016	116,688	316,704

Earthwork & Pavement Unit Cost (Rp/Km)	:	11,045,107
Timber Bridge Unit Cost (Rp/m2)	:	
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	4,382,144
Maintenance Rate without Bridge (%)	:	5.64
New Bridge Cost Rate (%)	:	

PROV : BULAWERI SELATAN KAB : SOPRENG

LINK NO : 9 (IIIB-2) LENGTH : 21 Km

UPGRADE : 6.0m road bed, 3.5m road with surface Base Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Site Clearance in Light Bush	m2	15000.0	161	91	2,415,000	1,365,000	3,780,000
Subgrade Preparation	m2	24000.0	20	11	480,000	264,000	744,000
Normal Fill	m3	0.0	1,661	865	0	0	0
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0
Normal Excavation to Spoil	m3	475.0	974	524	462,650	249,900	711,550
Sub Base Course	m3	2178.5	3,152	1,351	6,866,632	2,943,153	9,809,785
Base Course	m3	1050.0	4,319	2,303	4,534,950	2,418,150	6,953,100
Shoulder	m2	52500.0	290	146	15,225,000	7,665,000	22,890,000
Asphalt Patching	m2	290.0	3,523	1,312	1,021,670	380,480	1,402,150
Surface Dressing (Single)	m2	0.0	594	509	0	0	0
Surface Dressing (Double)	m2	0.0	741	800	0	0	0
Earth Drain	m	0.0	827	119	0	0	0
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0
Gabion Protection	m3	0.0	11,079	121	0	0	0
New Bridge (Timber)	SET	1.0	--	--	0	0	0
New Bridge (Concrete)	SET	1.0	--	--	0	0	0
					Sub Total		
					31,005,902	15,284,683	46,290,585
Overhead (15%)					4,650,885	2,292,702	6,943,587
					TOTAL COST		
					35,656,787	17,577,385	53,234,172

Manual routine maintenance of road	Km	21.0	132,008	7,260	2,772,168	152,460	2,924,628
Routine maintenance of gravel road	Km	21.0	186,658	88,186	3,919,818	1,851,906	5,771,724
			Sub Total		6,691,986	2,004,366	8,696,352
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	103.0	4,167	2,431	429,201	250,393	679,594

Earthwork & Pavement Unit Cost (Rp/Km)	:	2,534,961
Timber Bridge Unit Cost (Rp/m2)	:	
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	4,904,892
Maintenance Rate without Bridge (%)	:	16.34
New Bridge Cost Rate (%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG
 LINK NO : 10 (IIB-1) LENGTH : 13 Km
 UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Site Clearance in Light Bush	m ²	0.0	161	91	0	0	0
Subgrade Preparation	m ²	0.0	20	11	0	0	0
Normal Fill	m ³	0.0	1,661	865	0	0	0
Fill in Swamp	m ³	0.0	2,474	1,055	0	0	0
Normal Excavation to Spoil	m ³	0.0	974	524	0	0	0
Sub. Base Course	m ³	340.0	3,152	1,351	1,071,680	459,340	1,531,020
Base Course	m ³	560.0	4,319	2,303	2,418,640	1,289,680	3,708,320
Shoulder	m ²	26000.0	290	146	7,540,000	3,796,000	11,336,000
Asphalt Patching	m ²	495.0	3,523	1,312	1,743,885	649,440	2,393,325
Surface Dressing (Single)	m ²	52000.0	594	509	30,888,000	26,468,000	57,356,000
Surface Dressing (Double)	m ²	0.0	741	800	0	0	0
Earth Drain	m	0.0	827	119	0	0	0
Earth Drain in Swamp (by machine)	m ³	0.0	1,158	475	0	0	0
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0
Retaining Wall and Wing Wall (Timber)	m ²	0.0	18,913	246	0	0	0
Retaining Wall and Wing Wall (Masonry)	m ³	0.0	40,295	11,611	0	0	0
Gabion Protection	m ³	0.0	11,079	121	0	0	0
New Bridge (Timber)	SET	1.0	--	--	0	0	0
New Bridge (Concrete)	SET	1.0	--	--	0	0	0
			Sub Total		43,662,205	32,662,460	76,324,665
Overhead (15%)					6,549,330	4,899,369	11,448,699
			TOTAL COST		50,211,535	37,561,829	87,773,364

Manual routine maintenance of road	Ka	13.0	132,008	7,260	1,716,104	94,380	1,810,484
Routine maintenance of asphalt road	Ka	13.0	352,300	131,200	4,579,900	1,705,600	6,285,500
			Sub Total		6,296,004	1,799,980	8,095,984
Maintenance of Timber Bridge (New)	m ²	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m ²	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m ²	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m ²	135.0	4,167	2,431	645,885	376,805	1,022,690

Earthwork & Pavement	Unit Cost	(Rp/Km)	:	6,751,797
Timber Bridge	Unit Cost	(Rp/m ²)	:	
Concrete Bridge	Unit Cost	(Rp/m ²)	:	
Survived Value		(Rp)	:	1,813,378
Maintenance Rate without Bridge		(%)	:	9.22
New Bridge Cost Rate		(%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 15 (IIB-1) LENGTH : 7 Km

UPGRADE : 7.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		>>>>> TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Site Clearance in light Bush	m ²	0.0	161	91	0	0	0
Subgrade Preparation	m ²	0.0	20	11	0	0	0
Normal Fill	m ³	0.0	1,661	865	0	0	0
Fill in Swamp	m ³	0.0	2,474	1,055	0	0	0
Normal Excavation to Spoil	m ³	0.0	974	524	0	0	0
Sub Base Course	m ³	0.0	3,152	1,351	0	0	0
Base Course	m ³	0.0	4,319	2,303	0	0	0
Shoulder	m ²	21000.0	290	146	6,090,000	3,066,000	9,156,000
Asphalt Patching	m ²	160.0	3,523	1,312	563,680	209,920	773,600
Surface Dressing (Single)	m ²	28000.0	594	509	16,632,000	14,252,000	30,884,000
Surface Dressing (Double)	m ²	0.0	741	800	0	0	0
Earth Drain	m	0.0	827	119	0	0	0
Earth Drain in Swamp (by machine)	m ³	0.0	1,158	475	0	0	0
Pipe Culvert Ø80cm	m	0.0	41,020	49,532	0	0	0
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0
Retaining Wall and Wing Wall (Timber)	m ²	0.0	18,913	246	0	0	0
Retaining Wall and Wing Wall (Masonry)	m ³	0.0	40,295	11,611	0	0	0
Gabion Protection	m ³	0.0	11,079	121	0	0	0
New Bridge (Timber)	SET	1.0	--	--	0	0	0
New Bridge (Concrete)	SET	1.0	--	--	0	0	0
			Sub Total		23,285,680	17,527,920	40,813,600
Overhead (15%)					3,492,852	2,629,188	6,122,040
			TOTAL COST		26,778,532	20,157,108	46,935,640

Manual routine maintenance of road	Ka	7.0	132,008	7,260	924,056	50,820	974,876
Routine maintenance of asphalt road	Ka	7.0	352,300	131,200	2,466,100	918,400	3,384,500
			Sub Total		3,390,156	969,220	4,359,376
Maintenance of Timber Bridge (New)	m ²	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m ²	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m ²	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m ²	66.5	4,167	2,431	277,105	161,661	438,766

Earthwork & Pavement Unit Cost	(Rp/Ka)	:	6,705,091
Timber Bridge Unit Cost	(Rp/m ²)	:	
Concrete Bridge Unit Cost	(Rp/m ²)	:	
Survived Value	(Rp)	:	0
Maintenance Rate without Bridge	(%)	:	9.29
New Bridge Cost Rate	(%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 19 (IIIB-2) LENGTH : 6 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Base Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0	
Subgrade Preparation	m2	0.0	20	11	0	0	0	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	0.0	974	524	0	0	0	
Sub Base Course	m3	1008.0	3,152	1,351	3,177,216	1,361,808	4,539,024	
Base Course	m3	1440.0	4,319	2,303	6,219,360	3,316,320	9,535,680	
Shoulder	m2	12000.0	290	146	3,480,000	1,752,000	5,232,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	0.0	594	509	0	0	0	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert 180x80cm	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	12,876,576	6,430,128	19,306,704
Overhead (15%)						1,931,486	964,519	2,896,005
					TOTAL COST	14,808,062	7,394,647	22,202,709

Manual routine maintenance of road	Km	6.0	132,008	7,260	792,048	43,560	835,608
Routine maintenance of gravel road	Km	6.0	186,658	88,186	1,119,948	529,116	1,649,064
			Sub Total		1,911,996	572,676	2,484,672
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement	Unit Cost	(Rp/Km)	:	3,700,452
Timber Bridge	Unit Cost	(Rp/m2)	:	
Concrete Bridge	Unit Cost	(Rp/m2)	:	
Survived Value		(Rp)	:	2,269,512
Maintenance Rate without Bridge		(%)	:	11.19
New Bridge Cost Rate		(%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 24 (IIIB-2) LENGTH : 3 Km

UPGRADE : 7.0m road bed, 4.0m road with surface Base Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Site Clearance in Light Bush	m ²	0.0	161	91	0	0	0
Subgrade Preparation	m ²	0.0	20	11	0	0	0
Normal Fill	m ³	0.0	1,661	865	0	0	0
Fill in Swamp	m ³	0.0	2,474	1,055	0	0	0
Normal Excavation to Spoil	m ³	0.0	974	524	0	0	0
Sub Base Course	m ³	592.0	3,152	1,351	1,739,904	745,752	2,485,656
Base Course	m ³	720.0	4,319	2,303	3,109,680	1,658,160	4,767,840
Shoulder	m ²	9000.0	290	146	2,610,000	1,314,000	3,924,000
Asphalt Patching	m ²	0.0	3,523	1,312	0	0	0
Surface Dressing (Single)	m ²	0.0	594	509	0	0	0
Surface Dressing (Double)	m ²	0.0	741	800	0	0	0
Earth Drain	m	0.0	827	119	0	0	0
Earth Drain in Swamp (by machine)	m ³	0.0	1,156	475	0	0	0
Pipe Culvert Ø80cm	m	0.0	41,020	49,532	0	0	0
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0
Retaining Wall and Wing Wall (Timber)	m ²	0.0	18,913	246	0	0	0
Retaining Wall and Wing Wall (Masonry)	m ³	0.0	40,295	11,611	0	0	0
Gabion Protection	m ³	0.0	11,079	121	0	0	0
New Bridge (Timber)	SET	1.0	--	--	0	0	0
New Bridge (Concrete)	SET	1.0	--	--	0	0	0
			Sub Total		7,459,584	3,717,912	11,177,496
Overhead (15%)					1,118,937	557,686	1,676,623
			TOTAL COST		8,578,521	4,275,598	12,854,119

Manual routine maintenance of road	Km	3.0	132,008	7,260	396,024	21,780	417,804
Routine maintenance of gravel road	Km	3.0	186,658	88,186	559,974	264,558	824,532
			Sub Total		955,998	286,338	1,242,336
Maintenance of Timber Bridge (New)	m ²	0.0	11,392	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m ²	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m ²	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m ²	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	4,284,707
Timber Bridge Unit Cost (Rp/m ²)	:	
Concrete Bridge Unit Cost (Rp/m ²)	:	
Survived Value (Rp)	:	1,242,828
Maintenance Rate without Bridge (%)	:	9.66
New Bridge Cost Rate (%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 26 (IIC) LENGTH : 4 Km

UPGRADE : 7.0m road bed, 4.0m road with surface Subbase Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0	
Subgrade Preparation	m2	7000.0	20	11	140,000	77,000	217,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	170.0	974	524	165,580	89,080	254,660	
Sub Base Course	m3	700.0	3,152	1,351	2,206,400	945,700	3,152,100	
Base Course	m3	720.0	4,319	2,303	3,109,680	1,658,160	4,767,840	
Shoulder	m2	12000.0	290	146	3,480,000	1,752,000	5,232,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	0.0	594	509	0	0	0	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	1420.0	827	119	1,174,340	168,980	1,343,320	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	10,276,000	4,690,920	14,966,920
Overhead (15%)						1,541,400	703,638	2,245,038
					TOTAL COST	11,817,400	5,394,558	17,211,958

Manual routine maintenance of road	Km	4.0	132,008	7,260	528,032	29,040	557,072
Routine maintenance of gravel road	Km	4.0	186,658	88,186	746,632	352,744	1,099,376
			Sub Total		1,274,664	381,784	1,656,448
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	45.0	4,167	2,431	187,515	109,395	296,910

Earthwork & Pavement Unit Cost (Rp/Km)	:	4,302,990
Timber Bridge Unit Cost (Rp/m2)	:	
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	1,260,840
Maintenance Rate without Bridge (%)	:	9.62
New Bridge Cost Rate (%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 27 (IIIB-1) LENGTH : 3 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0	
Subgrade Preparation	m2	18000.0	20	11	360,000	198,000	558,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	468.0	974	524	455,832	245,232	701,064	
Sub Base Course	m3	1680.0	3,152	1,351	5,295,360	2,269,680	7,565,040	
Base Course	m3	840.0	4,319	2,303	3,627,960	1,934,520	5,562,480	
Shoulder	m2	6000.0	290	146	1,740,000	876,000	2,616,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	12000.0	594	509	7,128,000	6,108,000	13,236,000	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	18,607,152	11,631,432	30,238,584
Overhead (15%)						2,791,072	1,744,714	4,535,786
					TOTAL COST	21,398,224	13,376,146	34,774,370

Manual routine maintenance of road	Ka	3.0	132,008	7,260	396,024	21,780	417,804
Routine maintenance of asphalt road	Ka	3.0	352,300	131,200	1,056,900	393,600	1,450,500
			Sub Total		1,452,924	415,380	1,868,304
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost	(Rp/Ka)	:	11,591,457
Timber Bridge Unit Cost	(Rp/m2)	:	
Concrete Bridge Unit Cost	(Rp/m2)	:	
Survived Value	(Rp)	:	6,408,024
Maintenance Rate without Bridge	(%)	:	5.37
New Bridge Cost Rate	(%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 30 (IIC) LENGTH : 2 Km

UPGRADE : 8.0m road bed, 4.0m road with surface Subbase Course (Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0	
Subgrade Preparation	m2	16000.0	20	11	320,000	176,000	496,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	320.0	974	524	311,680	167,680	479,360	
Sub Base Course	m3	1280.0	3,152	1,351	4,034,560	1,729,280	5,763,840	
Base Course	m3	0.0	4,319	2,303	0	0	0	
Shoulder	m2	8000.0	290	146	2,320,000	1,168,000	3,488,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	0.0	594	509	0	0	0	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	2000.0	827	119	1,654,000	238,000	1,892,000	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x60cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	8,640,240	3,478,960	12,119,200
Overhead (15%)						1,296,056	521,844	1,817,880
					TOTAL COST	9,936,276	4,000,804	13,937,080

Manual routine maintenance of road	Km	2.0	132,008	7,260	264,016	14,520	278,536	
Routine maintenance of gravel road	Km	2.0	186,658	88,186	373,316	176,372	549,688	
					Sub Total	637,332	190,892	828,224
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0	
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0	
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0	
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0	

Earthwork & Pavement Unit Cost	(Rp/Km)	:	6,968,540
Timber Bridge Unit Cost	(Rp/m2)	:	
Concrete Bridge Unit Cost	(Rp/m2)	:	
Survived Value	(Rp)	:	2,305,536
Maintenance Rate without Bridge	(%)	:	5.94
New Bridge Cost Rate	(%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 31 (IIIC) LENGTH : 13 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Subbase Course (Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0	
Subgrade Preparation	m2	0.0	20	11	0	0	0	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	0.0	974	524	0	0	0	
Sub Base Course	m3	348.0	3,152	1,351	1,096,896	470,148	1,567,044	
Base Course	m3	3120.0	4,319	2,303	13,475,280	7,185,360	20,660,640	
Shoulder	m2	26000.0	290	146	7,540,000	3,796,000	11,336,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	0.0	594	509	0	0	0	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,411	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	22,112,176	11,451,508	33,563,684
Overhead (15%)						3,316,826	1,717,726	5,034,552
					TOTAL COST	25,429,002	13,169,234	38,598,236

Manual routine maintenance of road	Km	13.0	132,008	7,260	1,716,104	94,380	1,810,484
Routine maintenance of gravel road	Km	13.0	186,658	88,186	2,426,554	1,146,418	3,572,972
			Sub Total		4,142,658	1,240,798	5,383,456
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	85.0	1,167	2,431	354,195	206,635	560,830

Earthwork & Pavement Unit Cost (Rp/Km)	:	2,969,095
Timber Bridge Unit Cost (Rp/m2)	:	
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	626,817
Maintenance Rate without Bridge (%)	:	13.95
New Bridge Cost Rate (%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 32 (IIC) LENGTH : 8 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Subbase Course (Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Site Clearance in Light Bush	m2	16000.0	161	91	2,576,000	1,456,000	4,032,000
Subgrade Preparation	m2	48000.0	20	11	960,000	528,000	1,488,000
Normal Fill	m3	0.0	1,661	865	0	0	0
Fill in Swamp	m3	4800.0	2,474	1,055	11,875,200	5,064,000	16,939,200
Normal Excavation to Spoil	m3	1280.0	974	524	1,246,720	670,720	1,917,440
Sub Base Course	m3	5120.0	3,152	1,351	16,138,240	6,917,120	23,055,360
Base Course	m3	0.0	4,319	2,303	0	0	0
Shoulder	m2	16000.0	290	146	4,640,000	2,336,000	6,976,000
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0
Surface Dressing (Single)	m2	0.0	594	509	0	0	0
Surface Dressing (Double)	m2	0.0	741	800	0	0	0
Earth Drain	m	0.0	827	119	0	0	0
Earth Drain in Swamp (by machine)	m3	12000.0	1,158	475	13,896,000	5,700,000	19,596,000
Pipe Culvert 880cm	m	0.0	41,020	49,532	0	0	0
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0
Gabion Protection	m3	0.0	11,079	121	0	0	0
New Bridge (Timber)	SET	1.0	--	--	9,579,599	670,621	10,250,220
New Bridge (Concrete)	SET	1.0	--	--	0	0	0
					Sub Total		
					60,911,759	23,342,461	84,254,220
Overhead (15%)					9,136,763	3,501,369	12,638,132
					TOTAL COST		
					70,048,522	26,843,830	96,892,352

Manual routine maintenance of road	Km	8.0	132,008	7,260	1,056,064	58,080	1,114,144
Routine maintenance of gravel road	Km	8.0	186,658	88,186	1,493,264	705,488	2,198,752
			Sub Total		2,549,328	783,568	3,332,896
Maintenance of Timber Bridge (New)	m2	64.0	11,342	1,121	725,888	71,744	797,632
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	10,638,975
Timber Bridge Unit Cost (Rp/m2)	:	184,184
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	9,222,144
Maintenance Rate without Bridge (%)	:	3.89
New Bridge Cost Rate (%)	:	12.17

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 39 (IIIA) LENGTH : 10 Km

UPGRADE : 7.0m road bed, 4.0m road with surface Dressing (2)

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<< COST >>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m ²	0.0	161	91	0	0	0	
Subgrade Preparation	m ²	4050.0	20	11	81,000	44,550	125,550	
Normal Fill	m ³	0.0	1,661	865	0	0	0	
Fill in Swamp	m ³	675.0	2,474	1,055	1,669,950	712,125	2,382,075	
Normal Excavation to Spoil	m ³	0.0	974	524	0	0	0	
Sub Base Course	m ³	1574.0	3,152	1,351	4,961,248	2,126,474	7,087,722	
Base Course	m ³	3200.0	4,319	2,303	13,820,800	7,369,600	21,190,400	
Shoulder	m ²	30000.0	290	146	8,700,000	4,380,000	13,080,000	
Asphalt Patching	m ²	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m ²	0.0	594	509	0	0	0	
Surface Dressing (Double)	m ²	40000.0	741	800	29,640,000	32,000,000	61,640,000	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m ³	3000.0	1,158	475	3,474,000	1,425,000	4,899,000	
Pipe Culvert 880cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m ²	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m ³	0.0	40,295	11,611	0	0	0	
Gabion Protection	m ³	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	62,346,998	48,057,749	110,404,747
Overhead (15%)						9,352,049	7,208,662	16,560,711
					TOTAL COST	71,699,047	55,266,411	126,965,458

Manual routine maintenance of road	Km	10.0	132,008	7,260	1,320,080	72,600	1,392,680
Routine maintenance of asphalt road	Km	10.0	352,300	131,200	3,523,000	1,312,000	4,835,000
			Sub Total		4,843,080	1,384,600	6,227,680
Maintenance of Timber Bridge (New)	m ²	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m ²	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m ²	24.0	9,406	2,405	225,744	57,720	283,464
Maintenance of Concrete Bridge (Exist)	m ²	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	12,696,546
Timber Bridge Unit Cost (Rp/m ²)	:	
Concrete Bridge Unit Cost (Rp/m ²)	:	
Survived Value (Rp)	:	10,967,777
Maintenance Rate without Bridge (%)	:	4.91
New Bridge Cost Rate (%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 40 (IIIB-1) LENGTH : 5 Km

UPGRADE : 8.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0	
Subgrade Preparation	m2	0.0	20	11	0	0	0	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	0.0	974	524	0	0	0	
Sub Base Course	m3	658.0	3,152	1,351	2,074,016	888,958	2,962,974	
Base Course	m3	1400.0	4,319	2,303	6,046,600	3,224,200	9,270,800	
Shoulder	m2	20000.0	290	146	5,800,000	2,920,000	8,720,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	20000.0	594	509	11,880,000	10,180,000	22,060,000	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					25,800,616	17,213,158	43,013,774	
Overhead (15%)					3,870,092	2,581,973	6,452,065	
					TOTAL COST	29,670,708	19,795,131	49,465,839

Manual routine maintenance of road	Km	5.0	132,008	7,260	660,040	36,300	696,340
Routine maintenance of asphalt road	Km	5.0	352,300	131,200	1,761,500	656,000	2,417,500
				Sub Total	2,421,540	692,300	3,113,840
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	9,893,168
Timber Bridge Unit Cost (Rp/m2)	:	
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	3,928,241
Maintenance Rate without Bridge (%)	:	6.29
New Bridge Cost Rate (%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 46 (IIB-1) LENGTH : 8 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Site Clearance in Light Bush	m ²	0.0	161	91	0	0	0
Subgrade Preparation	m ²	0.0	20	11	0	0	0
Normal Fill	m ³	0.0	1,661	865	0	0	0
Fill in Swamp	m ³	0.0	2,474	1,055	0	0	0
Normal Excavation to Spoil	m ³	0.0	974	524	0	0	0
Sub Base Course	m ³	976.0	3,152	1,351	3,076,352	1,310,576	4,394,928
Base Course	m ³	2240.0	4,319	2,303	9,674,560	5,158,720	14,833,280
Shoulder	m ²	16000.0	290	146	4,640,000	2,336,000	6,976,000
Asphalt Patching	m ²	0.0	3,523	1,312	0	0	0
Surface Dressing (Single)	m ²	32000.0	594	509	19,008,000	16,288,000	35,296,000
Surface Dressing (Double)	m ²	0.0	741	800	0	0	0
Earth Drain	m	0.0	827	119	0	0	0
Earth Drain in Swamp (by machine)	m ³	0.0	1,158	475	0	0	0
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0
Retaining Wall and Wing Wall (Timber)	m ²	0.0	10,913	246	0	0	0
Retaining Wall and Wing Wall (Masonry)	m ³	0.0	40,295	11,611	0	0	0
Babion Protection	m ³	0.0	11,079	121	0	0	0
New Bridge (Timber)	SET	1.0	--	--	0	0	0
New Bridge (Concrete)	SET	1.0	--	--	0	0	0
			Sub Total		36,398,912	25,101,296	61,500,208
Overhead (15%)					5,459,836	3,765,194	9,225,030
			TOTAL COST		41,858,748	28,866,490	70,725,238

Manual routine maintenance of road	Km	8.0	132,008	7,260	1,056,064	58,080	1,114,144
Routine maintenance of asphalt road	Km	8.0	352,300	131,200	2,818,400	1,049,600	3,868,000
			Sub Total		3,874,464	1,107,680	4,982,144
Maintenance of Timber Bridge (New)	m ²	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m ²	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m ²	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m ²	0.0	4,167	2,431	0	0	0

Earthwork & Pavement	Unit Cost (Rp/Km)	:	8,840,655
Timber Bridge	Unit Cost (Rp/m ²)	:	
Concrete Bridge	Unit Cost (Rp/m ²)	:	
Survived Value	(Rp)	:	6,043,105
Maintenance Rate without Bridge	(%)	:	7.04
New Bridge Cost Rate	(%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 48 (IIC) LENGTH : 8 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Subbase Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	9000.0	161	91	1,449,000	819,000	2,268,000	
Subgrade Preparation	m2	18000.0	20	11	360,000	198,000	558,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	363.0	974	524	353,562	190,212	543,774	
Sub Base Course	m3	1938.0	3,152	1,351	6,108,576	2,618,238	8,726,814	
Base Course	m3	1200.0	4,319	2,303	5,182,800	2,763,600	7,946,400	
Shoulder	m2	16000.0	290	146	4,640,000	2,336,000	6,976,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	0.0	594	509	0	0	0	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	6000.0	827	119	4,982,000	714,000	5,676,000	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	23,055,938	9,639,050	32,694,988
Overhead (15%)						3,458,390	1,445,857	4,904,247
					TOTAL COST	26,514,328	11,084,907	37,599,235

Manual routine maintenance of road	Km	8.0	132,008	7,260	1,056,064	58,080	1,114,144
Routine maintenance of gravel road	Km	8.0	186,658	88,186	1,493,264	705,488	2,198,752
			Sub Total		2,549,328	763,568	3,312,896
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	4,699,905
Timber Bridge Unit Cost (Rp/m2)	:	
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	3,490,725
Maintenance Rate without Bridge (%)	:	8.81
New Bridge Cost Rate (%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG
 LINK NO : 49 (IIIB-2) LENGTH : 9 Km
 UPGRADE : 6.0m road bed, 4.0m road with surface Base Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0	
Subgrade Preparation	m2	24000.0	20	11	480,000	264,000	744,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	224.0	974	524	218,176	117,376	335,552	
Sub Base Course	m3	2984.0	3,152	1,351	9,405,568	4,031,384	13,436,952	
Base Course	m3	2160.0	4,319	2,303	9,329,040	4,974,480	14,303,520	
Shoulder	m2	19000.0	290	145	5,220,000	2,620,000	7,840,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	0.0	594	509	0	0	0	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80x80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	24,652,784	12,015,240	36,668,024
Overhead (15%)						3,697,917	1,802,286	5,500,203
					TOTAL COST	28,350,701	13,817,526	42,168,227

Manual routine maintenance of road	Km	9.0	132,008	7,280	1,189,072	65,340	1,253,412
Routine maintenance of gravel road	Km	9.0	186,658	88,186	1,679,922	793,674	2,473,596
			Sub Total		2,867,994	859,014	3,727,008
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	48.0	9,906	2,405	451,488	115,440	566,928
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	4,685,359
Timber Bridge Unit Cost (Rp/m2)	:	
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	6,710,476
Maintenance Rate without Bridge (%)	:	8.84
New Bridge Cost Rate (%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 50 (IIB-1) LENGTH : 9 Km

UPGRADE : 9.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0	
Subgrade Preparation	m2	36000.0	20	11	720,000	396,000	1,116,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	640.0	974	524	623,360	335,360	958,720	
Sub Base Course	m3	2842.0	3,152	1,351	8,957,984	3,837,542	12,797,526	
Base Course	m3	2520.0	4,319	2,303	10,883,880	5,803,560	16,687,440	
Shoulder	m2	45000.0	290	146	13,050,000	6,570,000	19,620,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	36000.0	594	509	21,384,000	18,324,000	39,708,000	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	7920.0	827	119	6,547,840	942,480	7,492,320	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert Ø80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	9,199,499	650,073	9,849,572	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	71,368,563	36,861,015	108,229,578
Overhead (15%)						10,705,284	5,529,152	16,234,436
					TOTAL COST	82,073,847	42,390,167	124,464,014

Manual routine maintenance of road	Km	9.0	132,008	7,260	1,188,072	65,340	1,253,412
Routine maintenance of asphalt road	Km	9.0	352,300	131,200	3,170,700	1,180,800	4,351,500
			Sub Total		4,358,772	1,246,140	5,604,912
Maintenance of Timber Bridge (New)	m2	60.0	11,342	1,121	680,520	67,260	747,780
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost	(Rp/Km)	:	12,570,779
Timber Bridge Unit Cost	(Rp/m2)	:	188,783
Concrete Bridge Unit Cost	(Rp/m2)	:	
Survived Value	(Rp)	:	12,295,756
Maintenance Rate without Bridge	(%)	:	4.95
New Bridge Cost Rate	(%)	:	9.10

PROV : SULAWESI SELATAN KAB : BOPPENG

LINK NO : 51 (IIIB-2) LENGTH : 12 Km

UPGRADE : 4.0m road bed, 4.0m road with surface Base Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	12000.0	161	91	1,932,000	1,092,000	3,024,000	
Subgrade Preparation	m2	24000.0	20	11	480,000	264,000	744,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	484.0	974	524	471,416	253,616	725,032	
Sub Base Course	m3	3424.0	3,152	1,351	10,792,448	4,625,824	15,418,272	
Base Course	m3	2880.0	4,319	2,303	12,438,720	6,632,640	19,071,360	
Shoulder	m2	24000.0	290	146	6,960,000	3,504,000	10,464,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	0.0	594	509	0	0	0	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert Ø80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Babion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	33,074,584	16,372,080	49,446,664
Overhead (15%)						4,961,187	2,455,812	7,416,999
					TOTAL COST	38,035,771	18,827,892	56,863,663

Manual routine maintenance of road	Km	12.0	132,008	7,260	1,584,096	87,120	1,671,216
Routine maintenance of gravel road	Km	12.0	186,658	88,186	2,239,896	1,058,232	3,298,128
				Sub Total	3,823,992	1,145,352	4,969,344
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	4,738,639
Timber Bridge Unit Cost (Rp/m2)	:	
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	7,709,136
Maintenance Rate without Bridge (%)	:	8.74
New Bridge Cost Rate (%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 52 (IIIA) LENGTH : 3 Km

UPGRADE : 8.0m road bed, 4.0m road with surface Dressing (2)

(Rp)

ITEM	UNIT	QUANTITY	UNIT COST		COST		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Site Clearance in light Bush	m ²	0.0	161	91	0	0	0
Subgrade Preparation	m ²	0.0	20	11	0	0	0
Normal Fill	m ³	0.0	1,661	885	0	0	0
Fill in Swamp	m ³	0.0	2,474	1,055	0	0	0
Normal Excavation to Spoil	m ³	0.0	974	524	0	0	0
Sub Base Course	m ³	0.0	3,152	1,351	0	0	0
Base Course	m ³	0.0	4,319	2,303	0	0	0
Shoulder	m ²	12000.0	290	146	3,480,000	1,752,000	5,232,000
Asphalt Patching	m ²	375.0	3,523	1,312	1,321,125	492,000	1,813,125
Surface Dressing (Single)	m ²	12000.0	594	509	7,128,000	6,108,000	13,236,000
Surface Dressing (Double)	m ²	0.0	741	800	0	0	0
Earth Drain	m	0.0	827	119	0	0	0
Earth Drain in Swamp (by machine)	m ³	0.0	1,158	475	0	0	0
Pipe Culvert Ø80cm	m	0.0	41,020	49,532	0	0	0
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0
Retaining Wall and Wing Wall (Timber)	m ²	0.0	18,913	246	0	0	0
Retaining Wall and Wing Wall (Masonry)	m ³	0.0	40,295	11,611	0	0	0
Gabion Protection	m ³	0.0	11,079	121	0	0	0
New Bridge (Timber)	SET	1.0	--	--	0	0	0
New Bridge (Concrete)	SET	1.0	--	--	0	0	0
			Sub Total		11,929,125	8,352,000	20,281,125
Overhead (15%)					1,789,368	1,252,800	3,042,168
			TOTAL COST		13,718,493	9,604,800	23,323,293

Manual routine maintenance of road	Km	3.0	132,008	7,260	396,024	21,780	417,804
Routine maintenance of asphalt road	Km	3.0	352,300	131,200	1,056,900	393,600	1,450,500
			Sub Total		1,452,924	415,380	1,868,304
Maintenance of Timber Bridge (New)	m ²	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m ²	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m ²	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m ²	62.9	4,167	2,431	262,104	152,909	415,013

Earthwork & Pavement Unit Cost	(Rp/Km)	:	7,774,431
Timber Bridge Unit Cost	(Rp/m ²)	:	
Concrete Bridge Unit Cost	(Rp/m ²)	:	
Survived Value	(Rp)	:	0
Maintenance Rate without Bridge	(%)	:	8.01
New Bridge Cost Rate	(%)	:	

PROV : SULAWESI SELATAN KAB : SOPRENG
 LINK NO : 53 (IIB-1) LENGTH : 5 Km
 UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Site Clearance in Light Bush	m ²	0.0	161	91	0	0	0
Subgrade Preparation	m ²	0.0	20	11	0	0	0
Normal Fill	m ³	0.0	1,661	965	0	0	0
Fill in Swamp	m ³	0.0	2,474	1,055	0	0	0
Normal Excavation to Spoil	m ³	0.0	974	524	0	0	0
Sub Base Course	m ³	652.0	3,152	1,351	2,055,104	880,852	2,935,956
Base Course	m ³	1400.0	4,319	2,303	6,046,600	3,224,200	9,270,800
Shoulder	m ²	10000.0	290	146	2,900,000	1,460,000	4,360,000
Asphalt Patching	m ²	0.0	3,523	1,312	0	0	0
Surface Dressing (Single)	m ²	20000.0	594	509	11,880,000	10,180,000	22,060,000
Surface Dressing (Double)	m ²	0.0	741	800	0	0	0
Earth Drain	m	0.0	827	119	0	0	0
Earth Drain in Swamp (by machine)	m ³	0.0	1,158	475	0	0	0
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0
Retaining Wall and Wing Wall (Timber)	m ²	0.0	18,913	246	0	0	0
Retaining Wall and Wing Wall (Masonry)	m ³	0.0	40,295	11,611	0	0	0
Babion Protection	m ³	0.0	11,079	121	0	0	0
New Bridge (Timber)	SET	1.0	--	--	0	0	0
New Bridge (Concrete)	SET	1.0	--	--	0	0	0
Sub Total					22,881,704	15,745,052	38,626,756
Overhead (15%)					3,432,255	2,361,757	5,794,012
TOTAL COST					26,313,959	18,106,809	44,420,768

Manual routine maintenance of road	Km	5.0	132,008	7,260	660,040	36,300	696,340
Routine maintenance of asphalt road	Km	5.0	352,300	131,200	1,761,500	656,000	2,417,500
Sub Total					2,421,540	692,300	3,113,840
Maintenance of Timber Bridge (New)	m ²	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m ²	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m ²	32.0	9,406	2,405	300,992	76,960	377,952
Maintenance of Concrete Bridge (Exist)	m ²	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost	(Rp/Km)	:	8,884,154
Timber Bridge Unit Cost	(Rp/m ²)	:	
Concrete Bridge Unit Cost	(Rp/m ²)	:	
Survived Value	(Rp)	:	3,909,329
Maintenance Rate without Bridge	(%)	:	7.01
New Bridge Cost Rate	(%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 55 (IIB-2) LENGTH : 2 Km

UPGRADE : 7.0m road bed, 4.0m road with surface Base Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	8000.0	161	91	1,288,000	728,000	2,016,000	
Subgrade Preparation	m2	14000.0	20	11	280,000	154,000	434,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	242.0	974	524	235,708	126,808	362,516	
Sub Base Course	m3	1120.0	3,152	1,351	3,530,240	1,513,120	5,043,360	
Base Course	m3	480.0	4,319	2,303	2,073,120	1,105,440	3,178,560	
Shoulder	m2	6000.0	290	146	1,740,000	876,000	2,616,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	0.0	594	509	0	0	0	
Surface Dressing (Double)	m2	0.0	741	900	0	0	0	
Earth Drain	m	4000.0	827	119	3,308,000	476,000	3,784,000	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert Ø80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	12,455,068	4,979,368	17,434,436
Overhead (15%)						1,868,260	746,905	2,615,165
					TOTAL COST	14,323,328	5,726,273	20,049,601

Manual routine maintenance of road	Km	2.0	132,008	7,260	264,016	14,520	278,536
Routine maintenance of gravel road	Km	2.0	186,658	88,186	373,316	176,372	549,688
			Sub Total		637,332	190,892	828,224
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement	Unit Cost	(Rp/Km)	:	10,024,801
Timber Bridge	Unit Cost	(Rp/m2)	:	
Concrete Bridge	Unit Cost	(Rp/m2)	:	
Survived Value		(Rp)	:	2,521,680
Maintenance Rate without Bridge		(%)	:	4.13
New Bridge Cost Rate		(%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG
 LINK NO : 61 (IIIB-2) LENGTH : 5 Km
 UPGRADE : 7.0m road bed, 4.0m road with surface Base Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	10000.0	181	91	1,610,000	910,000	2,520,000	
Subgrade Preparation	m2	35000.0	20	11	700,000	385,000	1,085,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	585.0	974	524	569,790	306,540	876,330	
Sub Base Course	m3	2800.0	3,152	1,351	8,825,600	3,782,800	12,608,400	
Base Course	m3	1200.0	4,319	2,303	5,182,800	2,763,600	7,946,400	
Shoulder	m2	15000.0	290	146	4,350,000	2,190,000	6,540,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	0.0	594	509	0	0	0	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert Ø80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total			
						21,238,190	10,337,940	31,576,130
Overhead (1.15%)						3,185,728	1,550,691	4,736,419
					TOTAL COST	24,423,918	11,888,631	36,312,549

Manual routine maintenance of road	Km	5.0	132,008	7,260	660,040	36,300	696,340
Routine maintenance of gravel road	Km	5.0	186,658	89,186	933,290	440,930	1,374,220
			Sub Total		1,593,330	477,230	2,070,560
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	16.0	9,406	2,405	150,496	38,480	188,976
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	7,262,510
Timber Bridge Unit Cost (Rp/m2)	:	
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	6,304,200
Maintenance Rate without Bridge (X)	:	5.70
New Bridge Cost Rate (X)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 62 (IIIB-2) LENGTH : 3 Km

UPGRADE : 9.0m road bed, 4.0m road with surface Base Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0	
Subgrade Preparation	m2	27000.0	20	11	540,000	297,000	837,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	368.0	974	524	358,432	192,832	551,264	
Sub Base Course	m3	1680.0	3,152	1,351	5,295,360	2,269,680	7,565,040	
Base Course	m3	720.0	4,319	2,303	3,109,680	1,638,160	4,747,840	
Shoulder	m2	15000.0	290	146	4,350,000	2,190,000	6,540,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	0.0	594	509	0	0	0	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Babion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	13,653,472	6,607,672	20,261,144
Overhead (15%)						2,048,020	991,150	3,039,170
					TOTAL COST	15,701,492	7,598,822	23,300,314

Manual routine maintenance of road	Km	3.0	132,008	7,260	396,024	21,780	417,804
Routine maintenance of gravel road	Km	3.0	186,659	88,186	559,974	264,558	824,532
			Sub Total		955,998	286,338	1,242,336
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement	Unit Cost	(Rp/Km)	:	7,766,772
Timber Bridge	Unit Cost	(Rp/m2)	:	
Concrete Bridge	Unit Cost	(Rp/m2)	:	
Survived Value		(Rp)	:	3,782,520
Maintenance Rate without Bridge		(%)	:	5.33
New Bridge Cost Rate		(%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 67 (III-1) LENGTH : 4 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m ²	0.0	161	91	0	0	0	
Subgrade Preparation	m ²	24000.0	20	11	480,000	264,000	744,000	
Normal Fill	m ³	0.0	1,661	865	0	0	0	
Fill in Swamp	m ³	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m ³	636.0	974	524	619,464	333,264	952,728	
Sub Base Course	m ³	2240.0	3,152	1,351	7,060,400	3,026,240	10,086,720	
Base Course	m ³	1120.0	4,319	2,303	4,837,280	2,579,360	7,416,640	
Shoulder	m ²	8000.0	290	146	2,320,000	1,168,000	3,488,000	
Asphalt Patching	m ²	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m ²	16000.0	594	509	9,504,000	8,144,000	17,648,000	
Surface Dressing (Double)	m ²	0.0	741	800	0	0	0	
Earth Drain	m	7920.0	827	119	6,549,840	942,480	7,492,320	
Earth Drain in Swamp (by machine)	m ³	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m ²	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m ³	0.0	40,295	11,611	0	0	0	
Gabion Protection	m ³	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	---	---	9,199,499	650,073	9,849,572	
New Bridge (Concrete)	SET	1.0	---	---	0	0	0	
					Sub Total	40,570,563	17,107,417	57,677,980
Overhead (15%)						6,085,584	2,566,112	8,651,696
					TOTAL COST	46,656,147	19,673,529	66,329,676

Manual routine maintenance of road	Km	4.0	132,008	7,260	528,032	29,040	557,072
Routine maintenance of asphalt road	Km	4.0	352,300	131,200	1,409,200	524,800	1,934,000
			Sub Total		1,937,232	553,840	2,491,072
Maintenance of Timber Bridge (New)	m ²	60.0	11,342	1,121	680,520	67,260	747,780
Maintenance of Concrete Bridge (New)	m ²	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m ²	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m ²	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	13,750,667
Timber Bridge Unit Cost (Rp/m ²)	:	188,783
Concrete Bridge Unit Cost (Rp/m ²)	:	
Survived Value (Rp)	:	8,544,032
Maintenance Rate without Bridge (%)	:	4.53
New Bridge Cost Rate (%)	:	17.08

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 70 (IIIB-1) LENGTH : 5 Km

UPGRADE : 7.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	20000.0	161	91	3,220,000	1,820,000	5,040,000	
Subgrade Preparation	m2	35000.0	20	11	700,000	385,000	1,085,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	605.0	974	524	589,270	317,020	906,290	
Sub Base Course	m3	2800.0	3,152	1,351	8,825,600	3,782,800	12,608,400	
Base Course	m3	1400.0	4,319	2,303	6,046,600	3,224,200	9,270,800	
Shoulder	m2	15000.0	290	146	4,350,000	2,190,000	6,540,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	20000.0	574	509	11,880,000	10,180,000	22,060,000	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	10000.0	827	119	8,270,000	1,190,000	9,460,000	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert Ø80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gablon Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	43,881,470	23,089,020	66,970,490
Overhead (15%)						6,582,220	3,463,353	10,045,573
					TOTAL COST	50,463,690	26,552,373	77,016,063

Manual routine maintenance of road	Km	5.0	132,008	7,260	660,040	36,300	696,340
Routine maintenance of asphalt road	Km	5.0	352,300	131,200	1,761,500	656,000	2,417,500
			Sub Total		2,421,540	692,300	3,113,840
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	15,403,213
Timber Bridge Unit Cost (Rp/m2)	:	
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	10,680,040
Maintenance Rate without Bridge (%)	:	4.04
New Bridge Cost Rate (%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG
 LINK NO : 71 (IIIB-1) LENGTH : 5 Km
 UPGRADE : 7.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	20000.0	161	91	3,220,000	1,820,000	5,040,000	
Subgrade Preparation	m2	35000.0	20	11	700,000	385,000	1,085,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	740.0	974	524	720,760	387,760	1,108,520	
Sub Base Course	m3	28000.0	3,152	1,351	8,825,600	3,782,800	12,608,400	
Base Course	m3	1400.0	4,319	2,303	6,046,600	3,224,200	9,270,800	
Shoulder	m2	15000.0	290	146	4,350,000	2,190,000	6,540,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	20000.0	594	509	11,880,000	10,180,000	22,060,000	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	10000.0	827	119	8,270,000	1,190,000	9,460,000	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total	44,012,960	23,159,760	67,172,720
Overhead (15%)						6,601,944	3,473,964	10,075,908
					TOTAL COST	50,614,904	26,633,724	77,248,628

Manual routine maintenance of road	Km	5.0	132,008	7,260	660,040	36,300	896,340
Routine maintenance of asphalt road	Km	5.0	352,300	131,200	1,761,500	656,000	2,417,500
			Sub Total		2,421,540	692,300	3,113,840
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	7,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement	Unit Cost	(Rp/Km)	:	15,449,726
Timber Bridge	Unit Cost	(Rp/m2)	:	
Concrete Bridge	Unit Cost	(Rp/m2)	:	
Survived Value		(Rp)	:	10,680,040
Maintenance Rate without Bridge		(%)	:	4.03
New Bridge Cost Rate		(%)	:	

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 73 (IIIB-2) LENGTH : 2 Km

UPGRADE : 6.0m road bed, 4.0m road with surface Base Course

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Site Clearance in Light Bush	m2	0.0	161	91	0	0	0
Subgrade Preparation	m2	12000.0	20	11	240,000	132,000	372,000
Normal Fill	m3	0.0	1,661	865	0	0	0
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0
Normal Excavation to Spoil	m3	234.0	974	524	227,916	122,616	350,532
Sub Base Course	m3	1120.0	3,152	1,351	3,530,240	1,513,120	5,043,360
Base Course	m3	480.0	4,319	2,303	2,073,120	1,105,440	3,178,560
Shoulder	m2	4000.0	290	146	1,160,000	584,000	1,744,000
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0
Surface Dressing (Single)	m2	0.0	594	509	0	0	0
Surface Dressing (Double)	m2	0.0	741	800	0	0	0
Earth Drain	m	0.0	827	119	0	0	0
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0
Pipe Culvert Ø80cm	m	0.0	41,020	49,532	0	0	0
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0
Gabion Protection	m3	0.0	11,079	121	0	0	0
New Bridge (Timber)	SET	1.0	--	--	3,193,036	323,154	3,516,190
New Bridge (Concrete)	SET	1.0	--	--	0	0	0
			Sub Total		10,424,312	3,180,330	14,204,642
Overhead (15%)					1,563,646	567,049	2,130,695
			TOTAL COST		11,987,958	4,347,379	16,335,337

Manual routine maintenance of road	Km	2.0	132,008	7,260	264,016	14,520	278,536
Routine maintenance of gravel road	Km	2.0	186,658	89,186	373,316	176,372	549,688
			Sub Total		637,332	190,892	828,224
Maintenance of Timber Bridge (New)	m2	4.0	11,342	1,121	45,368	4,484	49,852
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement Unit Cost (Rp/Km)	:	8,145,860
Timber Bridge Unit Cost (Rp/m2)	:	1,010,905
Concrete Bridge Unit Cost (Rp/m2)	:	
Survived Value (Rp)	:	2,521,680
Maintenance Rate without Bridge (%)	:	6.74
New Bridge Cost Rate (%)	:	24.75

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 74 (IIIB-1) LENGTH : 4 Km

UPGRADE : 7.0m road bed, 4.0m road with surface Dressing (1)

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL	
			LOCAL	FOREIGN	LOCAL	FOREIGN		
Site Clearance in Light Bush	m2	8000.0	161	91	1,288,000	728,000	2,016,000	
Subgrade Preparation	m2	28000.0	20	11	560,000	308,000	868,000	
Normal Fill	m3	0.0	1,661	865	0	0	0	
Fill in Swamp	m3	0.0	2,474	1,055	0	0	0	
Normal Excavation to Spoil	m3	468.0	974	524	455,832	245,232	701,064	
Sub Base Course	m3	2240.0	3,152	1,351	7,060,480	3,026,240	10,086,720	
Base Course	m3	1120.0	4,319	2,303	4,837,280	2,579,360	7,416,640	
Shoulder	m2	12000.0	290	146	3,480,000	1,752,000	5,232,000	
Asphalt Patching	m2	0.0	3,523	1,312	0	0	0	
Surface Dressing (Single)	m2	16000.0	594	509	9,504,000	8,144,000	17,648,000	
Surface Dressing (Double)	m2	0.0	741	800	0	0	0	
Earth Drain	m	0.0	827	119	0	0	0	
Earth Drain in Swamp (by machine)	m3	0.0	1,158	475	0	0	0	
Pipe Culvert 80cm	m	0.0	41,020	49,532	0	0	0	
Masonry Culvert (80x80cm)	m	0.0	57,443	39,676	0	0	0	
Retaining Wall and Wing Wall (Timber)	m2	0.0	18,913	246	0	0	0	
Retaining Wall and Wing Wall (Masonry)	m3	0.0	40,295	11,611	0	0	0	
Gabion Protection	m3	0.0	11,079	121	0	0	0	
New Bridge (Timber)	SET	1.0	--	--	0	0	0	
New Bridge (Concrete)	SET	1.0	--	--	0	0	0	
					Sub Total			
						27,185,592	16,782,832	43,968,424
Overhead (15%)						4,077,838	2,517,424	6,595,262
					TOTAL COST	31,263,430	19,300,256	50,563,686

Manual routine maintenance of road	Km	4.0	132,008	7,260	528,032	29,040	557,072
Routine maintenance of asphalt road	Km	4.0	352,300	131,200	1,409,200	524,800	1,934,000
			Sub Total		1,937,232	553,840	2,491,072
Maintenance of Timber Bridge (New)	m2	0.0	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.0	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.0	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.0	4,167	2,431	0	0	0

Earthwork & Pavement	Unit Cost	(Rp/Km)	:	12,640,922
Timber Bridge	Unit Cost	(Rp/m2)	:	
Concrete Bridge	Unit Cost	(Rp/m2)	:	
Survived Value		(Rp)	:	8,544,032
Maintenance Rate without Bridge		(%)	:	4.93
New Bridge Cost Rate		(%)	:	

Appendix A-4

Construction and Maintenance Quantities
for all proposed Road Links
(Construction)

PROV : SULAWESI SELATAN KAB : SOPPENG

I T E M	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
EQUIPMENT :							
Bulldozer/Ripper	hr	272.6	513.1	772.3	693.2	722.8	2974.0
Swamp Bulldozer	hr	0.0	22.5	0.0	160.0	0.0	182.5
Motor Grader	hr	455.3	1156.3	1518.4	1851.8	1494.3	6276.1
Hand-guide Vib. Roller	hr	56.2	0.0	161.4	93.9	74.2	385.7
Tire Roller	hr	433.3	844.3	633.3	533.3	866.6	3310.8
Vibratory Roller (D&T)	hr	331.9	889.8	1051.3	1377.8	1069.2	4720.0
Hydraulic Excavator, Wheel	hr	0.0	225.0	0.0	900.0	0.0	1125.0
Wheel Loader	hr	678.6	1601.2	1856.4	2267.3	1950.1	8353.6
Water Tank Truck	hr	194.2	564.2	528.2	871.6	605.4	2763.6
Dump Truck	hr	5154.1	11782.1	13438.5	17365.1	14359.6	62099.4
Flat Bed Truck with Crane	hr	0.0	0.0	80.9	125.3	0.0	206.2
Flat Bed Truck	hr	520.0	1013.3	791.3	671.3	1040.0	4035.9
Portable Crusher/Screening	hr	148.2	361.1	379.8	394.1	423.6	1706.8
Concrete Mixer	hr	0.0	0.0	0.0	0.0	0.0	0.0
Water Pump	hr	0.0	0.0	0.0	0.0	0.0	0.0
Concrete Vibrator	hr	0.0	0.0	0.0	0.0	0.0	0.0
Asphalt Sprayer	hr	433.3	844.3	633.3	533.3	866.6	3310.8
LABOUR :							
Mandor	man day	459.4	874.3	997.5	1295.8	1027.2	4654.2
Skilled Labourer	man day	297.5	506.6	1147.3	1431.7	569.5	3952.6
Carpenter	man day	0.0	0.0	387.9	599.9	0.0	987.8
Mason	man day	0.0	0.0	0.0	0.0	0.0	0.0
Labourer	man day	5594.0	8973.4	9046.0	10831.6	10822.9	45267.9
Driver	man day	1087.7	2425.0	2647.1	3357.6	2885.7	12403.1
Operator	man day	537.5	1283.0	1522.6	1805.8	1550.3	6699.2
MATERIAL :							
Bitumen	l	89339.5	190333.2	130440.8	109333.3	178334.8	697781.6
Asphalt Oil	l	17766.6	31066.6	25966.6	21866.6	35533.3	132199.7
Kerosene	l	21289.5	40933.2	31100.8	26133.3	42540.8	161997.6
Sand	m ³	269.3	440.0	391.2	320.0	532.3	1952.8
Cement	bag	0.0	0.0	0.0	0.0	0.0	0.0
River Stone	m ³	0.0	0.0	0.0	0.0	0.0	0.0
Steel Moulds	set	0.0	0.0	0.0	0.0	0.0	0.0
Timber	m ³	0.0	0.0	35.1	54.5	0.0	89.6
Paint	l	0.0	0.0	249.2	355.6	0.0	604.8
Reinforcing Steel	kg	0.0	0.0	0.0	0.0	0.0	0.0
Tying Wire	kg	0.0	0.0	0.0	0.0	0.0	0.0
Equivalent Royalty	m ³	7990.1	22179.6	21208.9	34373.5	24412.9	110165.0

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

PROV : SULAWESI SELATAN KAB : BOPPENG

ITEM	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
EQUIPMENT :							
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	401.8	770.0	710.2	789.7	833.2	3504.9
Hand-guide Vib. Roller	hr	780.0	1755.0	1912.5	2025.0	2182.5	8655.0
Tire Roller	hr	401.8	770.0	710.2	789.7	833.2	3504.9
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	190.7	384.9	378.9	424.2	460.1	1838.8
Water Tank Truck	hr	0.0	0.0	0.0	0.0	0.0	0.0
Dump Truck	hr	2703.8	5817.0	6095.4	6592.1	7123.1	28331.4
Flat Bed Truck with Crane	hr	1100.2	2269.5	2128.4	2255.7	2216.9	9970.7
Flat Bed Truck	hr	2109.8	4252.2	4156.2	4529.9	4807.3	19855.4
Portable Crusher/Screening	hr	96.8	193.9	193.1	216.1	234.3	936.2
Concrete Mixer	hr	3.2	6.8	6.2	6.8	6.4	29.4
Water Pump	hr	3.2	6.8	6.2	6.8	6.4	29.4
Concrete Vibrator	hr	3.2	6.8	6.2	6.8	6.4	29.4
Asphalt Sprayer	hr	0.0	0.0	0.0	0.0	0.0	0.0
LABOUR :							
Kandur	man day	938.6	1959.9	1989.4	2145.3	2295.4	9328.6
Skilled Labourer	man day	591.2	1315.3	1420.7	1491.4	1643.1	6461.7
Carpenter	man day	36.0	73.4	74.1	71.3	96.7	351.5
Mason	man day	0.0	0.0	0.0	0.0	0.0	0.0
Labourer	man day	11195.1	23395.3	23766.6	25634.3	27378.3	111369.6
Driver	man day	1027.0	2141.6	2143.2	2313.8	2442.8	10068.4
Operator	man day	198.8	387.7	365.8	407.7	434.2	1794.2
MATERIAL :							
Bitumen	l	7020.0	15795.0	17212.5	18225.0	19642.5	77895.0
Asphalt Oil	l	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene	l	780.0	1755.0	1912.5	2025.0	2182.5	8655.0
Sand	m ³	133.2	299.3	324.9	344.3	370.1	1471.8
Cement	bag	47.9	99.2	91.0	99.2	94.6	431.9
River Stone	m ³	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
Tiaber	m ³	3.0	6.1	6.2	5.9	8.3	29.5
Paint	l	17.8	36.1	37.5	34.8	51.7	177.9
Reinforcing Steel	kg	246.2	509.7	468.0	509.7	486.6	2228.2
Tying Wire	kg	2.2	4.6	4.2	4.6	4.4	20.0
Equivalent Royalty	m ³	2702.7	5451.8	5365.3	6007.5	6517.7	26045.0

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

PROV : SULAWESI BELATAN KAB : SOPPENG

I T E M	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
EQUIPMENT :							
Bulldozer/Ripper	hr	272.6	513.1	772.3	693.2	722.8	2974.0
Swamp Bulldozer	hr	0.0	22.5	0.0	160.0	0.0	182.5
Motor Grader	hr	857.1	1926.3	2228.6	2441.5	2327.5	9781.0
Hand-guide Vib. Roller	hr	836.2	1755.0	2073.9	2118.9	2256.7	9040.7
Tire Roller	hr	835.1	1614.3	1343.5	1323.0	1699.8	6815.7
Vibratory Roller (D&T)	hr	331.9	889.8	1051.3	1377.8	1069.2	4720.0
Hydraulic Excavator; Wheel	hr	0.0	225.0	0.0	900.0	0.0	1125.0
Wheel Loader	hr	869.3	1986.1	2235.3	2691.5	2410.2	10192.4
Water Tank Truck	hr	194.2	564.2	528.2	871.6	605.4	2763.6
Dump Truck	hr	7857.9	17599.1	19533.9	23957.2	21482.7	90430.8
Flat Bed Truck with Crane	hr	1100.2	2269.8	2209.3	2381.0	2216.9	10176.9
Flat Bed Truck	hr	2629.8	5265.5	4947.5	5201.2	5847.3	23891.3
Portable Crusher/Screening	hr	245.0	557.0	572.9	610.2	657.9	2643.0
Concrete Mixer	hr	3.2	6.8	6.2	6.8	6.4	29.4
Water Pump	hr	3.2	6.8	6.2	6.8	6.4	29.4
Concrete Vibrator	hr	3.2	6.8	6.2	6.8	6.4	29.4
Asphalt Sprayer	hr	433.3	844.3	633.3	533.3	866.6	3310.8
LABOUR :							
Handur	man day	1398.0	2834.2	2986.9	3441.1	3322.6	13982.8
Skilled Labourer	man day	888.7	1821.9	2588.0	2923.1	2212.6	10414.3
Carpenter	man day	36.0	73.4	462.0	671.2	96.7	1339.3
Mason	man day	0.0	0.0	0.0	0.0	0.0	0.0
Labourer	man day	16789.1	32368.7	32812.6	36465.9	38201.2	156637.5
Driver	man day	2114.7	4566.6	4790.3	5671.4	5328.5	22471.5
Operator	man day	736.3	1670.7	1888.4	2213.5	1984.5	8493.4
MATERIAL :							
Bitumen	l	96359.5	206128.2	147653.3	127558.3	197977.3	775676.6
Asphalt Oil	l	17766.6	31066.6	25966.6	21866.6	35533.3	132199.7
Kerosene	l	22069.5	42688.2	33013.3	28158.3	44723.3	170652.6
Sand	m ³	402.5	739.3	716.1	664.3	902.4	3424.6
Cement	bag	47.9	99.2	91.0	99.2	94.6	431.9
River Stone	m ³	0.0	0.0	0.0	0.0	0.0	0.0
Steel Koulds	set	0.0	0.0	0.0	0.0	0.0	0.0
Timber	m ³	3.0	6.1	41.3	60.4	8.3	119.1
Paint	l	17.8	36.1	286.7	390.4	51.7	782.7
Reinforcing Steel	kg	246.2	509.7	468.0	509.7	486.6	2220.2
Tying Wire	kg	2.2	4.6	4.2	4.6	4.4	20.0
Equivalent Royalty	m ³	10692.8	27631.4	26574.2	40381.0	30930.6	136210.0

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

PROV : SULAWESI SELATAN KAB : SOPPENG

(1000 Rp)

I T E M	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
EQUIPMENT :		66,966	156,543	174,757	219,608	185,888	803,764
Bulldozer/Ripper	15866	4,325	8,140	12,253	10,998	11,467	47,183
Swamp Bulldozer	11725	0	263	0	1,876	0	2,139
Motor Grader	13555	6,171	15,673	20,581	22,390	20,255	85,070
Hand-guide Vib. Roller	1593	89	0	257	149	118	613
Tire Roller	10796	4,677	9,115	6,837	5,757	9,355	35,741
Vibratory Roller (D&T)	6762	2,244	6,016	7,108	9,316	7,229	31,913
Hydraulic Excavator; Wheel	12709	0	2,859	0	11,438	0	14,297
Wheel Loader	16748	11,365	26,816	31,090	37,972	32,660	139,903
Water Tank Truck	3975	771	2,242	2,099	3,464	2,406	10,982
Dump Truck	5467	28,177	64,412	73,468	94,935	78,503	339,495
Flat Bed Truck with Crane	5030	0	0	406	630	0	1,036
Flat Bed Truck	3314	1,723	3,358	2,622	2,224	3,446	13,373
Portable Crusher/Screening	44036	6,526	15,901	16,724	17,354	18,653	75,158
Concrete Mixer	8963	0	0	0	0	0	0
Water Pump	486	0	0	0	0	0	0
Concrete Vibrator	315	0	0	0	0	0	0
Asphalt Sprayer	2073	898	1,750	1,312	1,105	1,796	6,861
LABOUR :		15,799	28,852	33,155	40,926	34,546	153,278
Mandur	2250	1,033	1,967	2,244	2,915	2,311	10,470
Skilled Labourer	2200	654	1,114	2,524	3,149	1,252	8,693
Carpenter	3000	0	0	1,163	1,799	0	2,962
Mason	3000	0	0	0	0	0	0
Labourer	1700	9,509	15,254	15,378	18,413	18,398	76,952
Driver	2750	2,991	6,668	7,279	9,233	7,935	34,106
Operator	3000	1,612	3,849	4,567	5,417	4,650	20,095
MATERIAL :		43,502	87,416	74,436	72,596	88,988	366,938
Bitumen	250	22,334	47,583	32,610	27,333	44,583	174,443
Asphalt Oil	700	12,436	21,746	18,176	15,306	24,873	92,537
Kerosene	250	5,322	10,233	7,775	6,533	10,635	40,498
Sand	5250	1,413	2,310	2,053	1,680	2,794	10,250
Cement	4250	0	0	0	0	0	0
River Stone	5250	0	0	0	0	0	0
Steel Moulds	7000	0	0	0	0	0	0
Timber	225000	0	0	7,897	12,262	0	20,159
Paint	2500	0	0	623	889	0	1,512
Reinforcing Steel	1000	0	0	0	0	0	0
Tying Wire	1500	0	0	0	0	0	0
Equivalent Royalty	250	1,997	5,544	5,302	8,593	6,103	27,539

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

PROV : SULAWESI SELATAN KAB : SOPPENG

(1000 Rp)

I T E M	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
EQUIPMENT :		45,816	93,988	93,047	101,536	107,872	442,259
Bulldozer/Ripper	15866	0	0	0	0	0	0
Swamp Bulldozer	11725	0	0	0	0	0	0
Motor Grader	13555	5,446	10,437	9,626	10,704	11,294	47,507
Hand-guide Vib. Roller	1593	1,242	2,795	3,046	3,225	3,476	13,784
Tire Roller	10796	4,337	8,312	7,667	8,525	8,995	37,836
Vibratory Roller (D&T)	6762	0	0	0	0	0	0
Hydraulic Excavator; Wheel	12709	0	0	0	0	0	0
Wheel Loader	16748	3,193	6,446	6,345	7,104	7,705	30,793
Water Tank Truck	3975	0	0	0	0	0	0
Dump Truck	5467	14,781	31,801	33,323	36,039	38,941	154,885
Flat Bed Truck with Crane	5030	5,334	11,415	10,705	11,346	11,151	50,151
Flat Bed Truck	3314	6,991	14,091	13,773	15,012	15,931	65,798
Portable Crusher/Screening	41036	4,262	8,626	8,503	9,516	10,317	41,224
Concrete Mixer	8963	28	60	55	60	57	260
Water Pump	486	1	3	3	3	3	13
Concrete Vibrator	315	1	2	1	2	2	8
Asphalt Sprayer	2073	0	0	0	0	0	0
LABOUR :		25,970	54,346	55,216	59,483	63,630	258,645
Mandur	2250	2,111	4,409	4,476	4,826	5,164	20,986
Skilled Labourer	2200	1,300	2,893	3,125	3,281	3,614	14,213
Carpenter	3000	108	220	222	213	290	1,053
Mason	3000	0	0	0	0	0	0
Labourer	1700	19,031	39,772	40,403	43,578	46,543	189,327
Driver	2750	2,824	5,889	5,893	6,362	6,717	27,685
Operator	3000	596	1,163	1,097	1,223	1,302	5,381
MATERIAL :		4,495	9,717	10,175	10,720	11,917	47,024
Bitumen	250	1,755	3,948	4,303	4,556	4,910	19,472
Asphalt Oil	700	0	0	0	0	0	0
Kerosene	250	195	438	478	506	545	2,162
Sand	5250	699	1,571	1,705	1,807	1,943	7,725
Cement	4250	203	421	386	421	402	1,833
River Stone	5250	0	0	0	0	0	0
Steel Moulds	7000	0	0	0	0	0	0
Timber	225000	675	1,372	1,395	1,327	1,867	6,636
Paint	2500	44	90	93	87	129	443
Reinforcing Steel	1000	246	509	468	509	486	2,218
Tying Wire	1500	3	6	6	6	6	27
Equivalent Royalty	250	675	1,362	1,341	1,501	1,629	6,508

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

PROV : SULAWESI SELATAN KAB : SOPPENG

(1000 Rp)

I T E M	UNIT	< 1988 >	< 1989 >	< 1990 >	< 1991 >	< 1992 >	< TOTAL >
EQUIPMENT :		112,782	250,533	267,804	321,144	293,760	1,246,023
Bulldozer/Ripper	15866	4,325	8,140	12,253	10,998	11,467	47,183
Swamp Bulldozer	11725	0	263	0	1,876	0	2,139
Motor Grader	13555	11,617	26,110	30,207	33,094	31,549	132,577
Hand-guide Vib. Roller	1593	1,331	2,795	3,303	3,374	3,594	14,397
Tire Roller	10796	9,014	17,427	14,504	14,282	18,350	73,577
Vibratory Roller (D&T)	6762	2,244	6,016	7,108	9,316	7,229	31,913
Hydraulic Excavator; Wheel	12709	0	2,859	0	11,438	0	14,297
Wheel Loader	16748	14,558	33,262	37,435	45,076	40,365	170,696
Water Tank Truck	3975	771	2,242	2,099	3,464	2,406	10,982
Dump Truck	5467	42,958	96,213	106,791	130,974	117,444	494,380
Flat Bed Truck with Crane	5030	5,534	11,415	11,111	11,976	11,151	51,187
Flat Bed Truck	3314	8,714	17,449	16,395	17,236	19,377	79,171
Portable Crusher/Screening	44036	10,788	24,527	25,227	26,870	28,970	116,382
Concrete Mixer	8963	28	60	55	60	57	260
Water Pump	486	1	3	3	3	3	13
Concrete Vibrator	315	1	2	1	2	2	8
Asphalt Sprayer	2073	898	1,750	1,312	1,105	1,796	6,861
LABOUR :		41,769	83,198	88,371	100,409	98,176	411,923
Handur	2250	3,144	6,376	6,720	7,741	7,475	31,456
Skilled Labourer	2200	1,954	4,007	5,649	6,430	4,866	22,906
Carpenter	3000	108	220	1,385	2,012	290	4,015
Mason	3000	0	0	0	0	0	0
Labourer	1700	28,540	55,026	55,781	61,991	64,941	266,279
Driver	2750	5,815	12,557	13,172	15,595	14,652	61,791
Operator	3000	2,208	5,012	5,664	6,640	5,952	25,476
MATERIAL :		47,997	97,133	84,611	83,316	100,905	413,962
Bitumen	250	24,089	51,531	36,913	31,889	49,493	193,915
Asphalt Oil	700	12,436	21,746	18,176	15,306	24,873	92,537
Kerosene	250	5,517	10,671	8,253	7,039	11,180	42,660
Sand	5250	2,112	3,881	3,758	3,487	4,737	17,975
Cement	4250	203	421	386	421	402	1,833
River Stone	5250	0	0	0	0	0	0
Steel Moulds	7000	0	0	0	0	0	0
Timber	225000	675	1,372	9,292	13,589	1,867	26,795
Paint	2500	44	90	716	976	129	1,955
Reinforcing Steel	1000	246	509	468	509	486	2,218
Tying Wire	1500	3	6	6	6	6	27
Equivalent Royalty	250	2,672	6,906	6,643	10,094	7,732	34,047

Appendix A-6 Quantities of Bridge on Proposed Road Links

PROV : SULAWESI SELATAN KAB : SOPPENG

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 ²)	(NEW) (m ²)			
1	LAND	1	LAND	KB				4.00	1	4.00	4.00	16.00		0	2	IIIB-1
3	LAUNGA	2	BLNG	KB				12.00	1	12.00	4.00	48.00		0	2	IIIB-1
9	N.I	5	LJOA	KB				6.00	2	3.00	5.00	30.00		1	2	IIIB-2
		0	LJOA	KB				5.00	1	5.00	5.00	25.00		0	2	
		13	LJOA	KB				3.00	1	3.00	4.00	12.00		0	2	
		14	LJOA	KB				3.00	1	3.00	4.00	12.00		0	2	
		0	LJOA	KB				3.00	1	3.00	4.00	12.00		0	2	
		0	LJDA	KB				3.00	1	3.00	4.00	12.00		0	2	
10	TUCANPU ABBANUNGE	5	UJUG	KB				16.00	1	16.00	5.00	80.00		0	2	IIIB-1
		14	UJUG	KB				15.00	1	15.00	5.00	75.00		0	2	
15	LABALO KABARO LABOKONG	2	TJC	PB				3.00	1	3.00	4.00	12.00		0	2	IIIB-1
		17	TJC	KB				3.00	1	3.00	4.00	12.00		0	2	
		545	TJC	PB				8.50	1	8.50	5.00	42.50		0	2	
26	LONPOE	3	MCNT	KB				9.00	1	9.00	5.00	45.00		0	2	IIIC
31	S.MAROSSA S.SUNDANGKULO	1	MRS	KB				8.50	1	8.50	5.00	42.50		0	2	IIIC
		1	MRS	KB				8.50	1	8.50	5.00	42.50		0	2	
32	SOPPANG JERUK	2	MCNR	--	TH	10T	(C)	16.00	2	8.00	4.00	0.00	64.00	1	2	IIIC
39	S.AMPALANG SEMPANGAE I	2	LBK	KK				3.00	1	3.00	4.00	12.00		0	2	IIIA
		6	LBK	KK				3.00	1	3.00	4.00	12.00		0	2	
49	SEKKANG N.I SEKKANG	4	SCKG	KK				4.00	1	4.00	4.00	16.00		0	2	IIIB-2
		5	SCKG	KK				4.00	1	4.00	4.00	16.00		0	2	
		6	SCKG	KK				4.00	1	4.00	4.00	16.00		0	2	
50	N.I	6	CABE	--	TH	10T	(C)	15.00	2	7.50	4.00	0.00	60.00	1	2	IIIB-1
52	CABENGE	1	PJLS	KB				17.00	4	4.25	3.70	62.90		3	2	IIIA
53	S.LABULENG	1	PNC	KK				8.00	1	8.00	4.00	32.00		0	2	IIIB-1
61	S.KAMPIRI	2	JKKE	KK				4.00	1	4.00	4.00	16.00		0	2	IIIB-2
67	TABENRO	1	LLL0	--	TH	10T	(C)	15.00	2	7.50	4.00	0.00	60.00	1	2	IIIB-1
73	S.LAKACERE	1	LKCR	--	TH	10T	(A)	1.00	1	1.00	4.00	0.00	4.00	0	2	IIIB-2

Appendix A-7 Construction and Maintenance Cost of Bridges
on Proposed Road Links

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 1 (IIIB-1) LENGTH : 7 Km

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; IOT)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5m; IOT)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; IOT)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3m; BMSO)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BMSO)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BMSO)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BMSO)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BMSO)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BMSO)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BMSO)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BMSO)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; IOT)	NO	0.00	564,031	32,863	0	0	0
Substructure (Abut; for Timber; IOT)	NO	0.00	1,466,984	154,495	0	0	0
Substructure (Pier; for Timber; BMSO)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BMSO)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BMSO)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BMSO)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	16.00	4,167	2,431	66,672	38,896	105,568
(Without Overhead)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0
(Overhead : 15%)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

PROV : SULAWESI SELATAN KAB : SOPPENG

LINE NO : 3 (IIB-1) LENGTH : 5 Km

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; 10T)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5m; 10T)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; 10T)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3m; BM50)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BM50)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BM50)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BM50)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BM50)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BM50)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BM50)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BM50)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; 10T)	NO	0.00	564,031	32,863	0	0	0
Substructure (Abut; for Timber; 10T)	NO	0.00	1,466,984	154,495	0	0	0
Substructure (Pier; for Timber; BM50)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BM50)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BM50)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BM50)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	48.00	4,167	2,431	200,016	116,888	316,704
(Without Overhead)							
			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0
(Overhead : 15%)							
			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

PROV : SULAWESI SELATAN KAB : SOPPENG
 LINK NO : 9 (IIB-2) LENGTH : 21 Km

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; 10T)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5m; 10T)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; 10T)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3m; BM50)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BM50)	m2	0.00	97,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BM50)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BM50)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BM50)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BM50)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BM50)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BM50)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; 10T)	NO	0.00	564,031	32,063	0	0	0
Substructure (Abut; for Timber; 10T)	NO	0.00	1,466,984	154,495	0	0	0
Substructure (Pier; for Timber; BM50)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BM50)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BM50)	NO	0.00	1,723,460	462,748	0	0	0
Substructure (Abut; for Concrete; BM50)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	103.00	4,167	2,431	429,201	250,393	679,594
<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 : SULAWESI SELATAN KAB : SOPPENG
 LINK NO : 10 (TIB-1) LENGTH : 13 Km

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; 10T)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5m; 10T)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; 10T)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3m; BMS0)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BMS0)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BMS0)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BMS0)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BMS0)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BMS0)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BMS0)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BMS0)	m2	0.00	70,703	171,071	0	0	0
Substructure (Pier; for Timber; 10T)	m0	0.00	364,031	32,863	0	0	0
Substructure (Abut; for Timber; 10T)	m0	0.00	1,466,984	134,495	0	0	0
Substructure (Pier; for Timber; BMS0)	m0	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BMS0)	m0	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BMS0)	m0	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BMS0)	m0	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	155.00	4,167	2,431	645,885	376,805	1,022,690

(Without Overhead)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

(Overhead : 15%)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 15 (IIB-1) LENGTH : 7 Km

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3a; 10T)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5a; 10T)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8a; 10T)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3a; BH50)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5a; BH50)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8a; BH50)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3a; BH50)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5a; BH50)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8a; BH50)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10a; BH50)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15a; BH50)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; 10T)	m0	0.00	564,031	32,863	0	0	0
Substructure (Abut; for Timber; 10T)	m0	0.00	1,466,984	154,495	0	0	0
Substructure (Pier; for Timber; BH50)	m0	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BH50)	m0	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BH50)	m0	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BH50)	m0	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	66.50	4,167	2,431	277,105	161,661	438,766
(Without Overhead)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0
(Overhead : 15%)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 24 (IIC) LENGTH : 4 Km

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		>>>>> TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; IOT)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5m; IOT)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; IOT)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3m; BMSO)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BMSO)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BMSO)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BMSO)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BMSO)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BMSO)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BMSO)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BMSO)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; IOT)	NO	0.00	564,031	32,863	0	0	0
Substructure (Abut; for Timber; IOT)	NO	0.00	1,466,984	154,495	0	0	0
Substructure (Pier; for Timber; BMSO)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BMSO)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BMSO)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BMSO)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	45.00	4,167	2,431	187,515	109,395	296,910
(Without Overhead)							
			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0
(Overhead : 15%)							
			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

PROV : SULAWESI SELATAN KAB : GUPPENG

LINK NO : 31 (IIC) LENGTH : 13 Km

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		>>>>> TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3a; 10T)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5a; 10T)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8a; 10T)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3a; BH50)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5a; BH50)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8a; BH50)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3a; BH50)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5a; BH50)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8a; BH50)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10a; BH50)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15a; BH50)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; 10T)	NO	0.00	564,031	32,863	0	0	0
Substructure (Abut; for Timber; 10T)	NO	0.00	1,466,984	154,495	0	0	0
Substructure (Pier; for Timber; BH50)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BH50)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BH50)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BH50)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	85.00	4,167	2,431	354,195	206,635	560,830
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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
<hr/>							
(Overhead : 15%)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 32 (IIC) LENGTH : 0 Km

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber;Span 3m;IOT)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber;Span 5m;IOT)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber;Span 8m;IOT)	m2	64.00	95,025	5,137	6,081,600	328,768	6,410,368
Superstructure (Timber;Span 3m;BHSO)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber;Span 5m;BHSO)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber;Span 8m;BHSO)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete;Span 3m;BHSO)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete;Span 5m;BHSO)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete;Span 8m;BHSO)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete;Span 10m;BHSO)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete;Span 15m;BHSO)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier;for Timber;IOT)	NO	1.00	564,031	32,863	564,031	32,863	596,894
Substructure (Abut;for Timber;IOT)	NO	2.00	1,466,984	154,495	2,933,968	308,990	3,242,958
Substructure (Pier;for Timber;BHSO)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut;for Timber;BHSO)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier;for Concrete;BHSO)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut;for Concrete;BHSO)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	64.00	11,342	1,121	725,888	71,744	797,632
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,167	2,431	0	0	0
(Without Overhead)			TOTAL COST (Timber Bridge)		9,579,599	670,621	10,250,220
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		9,579,599	670,621	10,250,220
(Overhead : 15%)			TOTAL COST (Timber Bridge)		11,016,539	771,214	11,787,753
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		11,016,539	771,214	11,787,753

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 39 (IIIA) LENGTH : 10 Km

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber;Span 3m;10T)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber;Span 5m;10T)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber;Span 8m;10T)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber;Span 3m;BM50)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber;Span 5m;BM50)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber;Span 8m;BM50)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete;Span 3m;BM50)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete;Span 5m;BM50)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete;Span 8m;BM50)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete;Span 10m;BM50)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete;Span 15m;BM50)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier;for Timber;10T)	NO	0.00	564,031	32,863	0	0	0
Substructure (Abut;for Timber;10T)	NO	0.00	1,466,984	154,495	0	0	0
Substructure (Pier;for Timber;BM50)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut;for Timber;BM50)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier;for Concrete;BM50)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut;for Concrete;BM50)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	24.00	9,406	2,405	225,744	57,720	283,464
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,167	2,431	0	0	0
<hr/>							
(Without Overhead)	TOTAL COST (Timber Bridge)				0	0	0
	TOTAL COST (Concrete Bridge)				0	0	0
	TOTAL COST (without Maintenance)				0	0	0
<hr/>							
(Overhead : 15%)	TOTAL COST (Timber Bridge)				0	0	0
	TOTAL COST (Concrete Bridge)				0	0	0
	TOTAL COST (without Maintenance)				0	0	0

PROV : SULAWESI SELATAN KAB : SOPPENS

LINK NO : 49 (IIB-2) LENGTH : 9 Km

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		>>>>> TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; IOT)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5m; IOT)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; IOT)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3m; BMSO)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BMSO)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BMSO)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BMSO)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BMSO)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BMSO)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BMSO)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BMSO)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; IOT)	NO	0.00	564,031	32,863	0	0	0
Substructure (Abut; for Timber; IOT)	NO	0.00	1,466,984	154,495	0	0	0
Substructure (Pier; for Timber; BMSO)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BMSO)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BMSO)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BMSO)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	48.00	9,406	2,405	451,488	115,440	566,928
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,167	2,431	0	0	0
(Without Overhead)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0
(Overhead : 15%)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

PROV : SULAWESI SELATAN KAB : SOPPENG
 LINK NO : 50 (IIB-1) LENGTH : 9 Km

(Rp)

I T E M	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber;Span 3a;10T)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber;Span 5a;10T)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber;Span 8a;10T)	m2	60.00	95,025	5,137	5,701,500	308,220	6,009,720
Superstructure (Timber;Span 3a;BH50)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber;Span 5a;BH50)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber;Span 8a;BH50)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete;Span 3a;BH50)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete;Span 5a;BH50)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete;Span 8a;BH50)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete;Span10a;BH50)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete;Span15a;BH50)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier;for Timber;10T)	NO	1.00	564,031	32,863	564,031	32,863	596,894
Substructure (Abut;for Timber;10T)	NO	2.00	1,466,984	154,495	2,933,968	308,990	3,242,958
Substructure (Pier;for Timber;BH50)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut;for Timber;BH50)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier;for Concrete;BH50)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut;for Concrete;BH50)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	60.00	11,342	1,121	680,520	67,260	747,780
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,167	2,431	0	0	0
(Without Overhead)			TOTAL COST (Timber Bridge)		9,199,499	650,073	9,849,572
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		9,199,499	650,073	9,849,572
(Overhead : 15%)			TOTAL COST (Timber Bridge)		10,579,424	747,584	11,327,008
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		10,579,424	747,584	11,327,008

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 52 (IIIA) LENGTH : 3 Km

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; 10T)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5m; 10T)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; 10T)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3m; BM50)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BM50)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BM50)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BM50)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BM50)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BM50)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BM50)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BM50)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; 10T)	NO	0.00	564,031	32,863	0	0	0
Substructure (Abut; for Timber; 10T)	NO	0.00	1,466,984	154,495	0	0	0
Substructure (Pier; for Timber; BM50)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BM50)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BM50)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BM50)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	62.90	4,167	2,431	262,104	152,909	415,013
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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
<hr/>							
(Overhead : 15%)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

PROV : SULAWESI SELATAN KAB : SOPPENG
 LINK NO : 53 (IIIB-1) LENGTH : 5 Km

(Rp)

ITEM	UNIT	QUANTITY	UNIT COST		COST		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; IOT)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5m; IOT)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; IOT)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3m; BMSO)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BMSO)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BMSO)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BMSO)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BMSO)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BMSO)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BMSO)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BMSO)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; IOT)	NO	0.00	584,031	32,863	0	0	0
Substructure (Abut; for Timber; IOT)	NO	0.00	1,466,984	154,495	0	0	0
Substructure (Pier; for Timber; BMSO)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BMSO)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BMSO)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BMSO)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	32.00	9,406	2,405	300,992	76,960	377,952
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,167	2,431	0	0	0
(Without Overhead)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0
(Overhead : 15%)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 61 (IIB-2) LENGTH : 5 Km

(Rp)

ITEM	UNIT	QUANTITY	UNIT COST		COST		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; IOT)	m2	0.00	64,767	3,541	0	0	0
Superstructure (Timber; Span 5m; IOT)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; IOT)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3m; BMSO)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BMSO)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BMSO)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BMSO)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BMSO)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BMSO)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BMSO)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BMSO)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; IOT)	NO	0.00	564,031	32,863	0	0	0
Substructure (Abut; for Timber; IOT)	NO	0.00	1,466,984	154,495	0	0	0
Substructure (Pier; for Timber; BMSO)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BMSO)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BMSO)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BMSO)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	0.00	11,342	1,121	0	0	0
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	16.00	9,406	2,405	150,496	38,480	188,976
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,167	2,431	0	0	0
(Without Overhead)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0
(Overhead : 15%)			TOTAL COST (Timber Bridge)		0	0	0
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		0	0	0

PROV : SULAWESI SELATAN KAB : SOPPENG

LINK NO : 67 (IIB-1) LENGTH : 4 Km

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<< COST >>>>		TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; 10T)	m2	0.00	84,767	3,541	0	0	0
Superstructure (Timber; Span 5m; 10T)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; 10T)	m2	60.00	95,025	5,137	5,701,500	308,220	6,009,720
Superstructure (Timber; Span 3m; BMSO)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BMSO)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BMSO)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BMSO)	m2	0.00	84,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BMSO)	m2	0.00	86,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BMSO)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BMSO)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BMSO)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; 10T)	NO	1.00	564,031	32,863	564,031	32,863	596,894
Substructure (Abut; for Timber; 10T)	NO	2.00	1,466,984	154,495	2,933,968	308,990	3,242,958
Substructure (Pier; for Timber; BMSO)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BMSO)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BMSO)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BMSO)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	60.00	11,342	1,121	680,520	67,260	747,780
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,167	2,431	0	0	0
(Without Overhead)			TOTAL COST (Timber Bridge)		9,199,499	650,073	9,849,572
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		9,199,499	650,073	9,849,572
(Overhead : 15%)			TOTAL COST (Timber Bridge)		10,579,424	747,584	11,327,008
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		10,579,424	747,584	11,327,008

PROV : SULAWESI BELATAN KAB : SOPPENG

LINK NO : 73 (IIB-2) LENGTH : 2 Km

(Rp)

ITEM	UNIT	QUANTITY	<<< UNIT COST >>>		<<<<< COST >>>>>		>>>>> TOTAL
			LOCAL	FOREIGN	LOCAL	FOREIGN	
Superstructure (Timber; Span 3m; IOT)	m2	4.00	64,767	3,541	259,068	14,164	273,232
Superstructure (Timber; Span 5m; IOT)	m2	0.00	71,740	3,910	0	0	0
Superstructure (Timber; Span 8m; IOT)	m2	0.00	95,025	5,137	0	0	0
Superstructure (Timber; Span 3m; BHSO)	m2	0.00	80,309	4,379	0	0	0
Superstructure (Timber; Span 5m; BHSO)	m2	0.00	87,677	4,745	0	0	0
Superstructure (Timber; Span 8m; BHSO)	m2	0.00	111,198	6,007	0	0	0
Superstructure (Concrete; Span 3m; BHSO)	m2	0.00	64,900	104,672	0	0	0
Superstructure (Concrete; Span 5m; BHSO)	m2	0.00	66,140	117,107	0	0	0
Superstructure (Concrete; Span 8m; BHSO)	m2	0.00	67,742	127,638	0	0	0
Superstructure (Concrete; Span 10m; BHSO)	m2	0.00	73,759	145,092	0	0	0
Superstructure (Concrete; Span 15m; BHSO)	m2	0.00	78,703	171,071	0	0	0
Substructure (Pier; for Timber; IOT)	NO	0.00	564,031	32,863	0	0	0
Substructure (Abut; for Timber; IOT)	NO	2.00	1,466,984	154,495	2,933,968	308,990	3,242,958
Substructure (Pier; for Timber; BHSO)	NO	0.00	829,502	48,632	0	0	0
Substructure (Abut; for Timber; BHSO)	NO	0.00	1,666,871	171,666	0	0	0
Substructure (Pier; for Concrete; BHSO)	NO	0.00	1,723,460	462,948	0	0	0
Substructure (Abut; for Concrete; BHSO)	NO	0.00	3,594,081	976,181	0	0	0
Demolition of Bridge (Timber->Timber)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Timber->Concrete)	m2	0.00	17,549	1,374	0	0	0
Demolition of Bridge (Concrete)	m2	0.00	90,131	79,067	0	0	0
Maintenance of Timber Bridge (New)	m2	4.00	11,342	1,121	45,368	4,484	49,852
Maintenance of Concrete Bridge (New)	m2	0.00	2,160	2,934	0	0	0
Maintenance of Timber Bridge (Exist)	m2	0.00	9,406	2,405	0	0	0
Maintenance of Concrete Bridge (Exist)	m2	0.00	4,167	2,431	0	0	0
(Without Overhead)			TOTAL COST (Timber Bridge)		3,193,036	323,154	3,516,190
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		3,193,036	323,154	3,516,190
(Overhead : 15%)			TOTAL COST (Timber Bridge)		3,671,991	371,627	4,043,618
			(Concrete Bridge)		0	0	0
			TOTAL COST (without Maintenance)		3,671,991	371,627	4,043,618

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