Table 4-3-5 Plan for Bridge Design and Implementation

Bridge Name	No. 5 (Dalupitiya ～ Karagahamuna)				Distance from Batcher Plant			L.=10.0km
Super-Structure	Type	Box culvert (B 3.5×H 2.95×2 barrels)		Span Length	L= 8.0m	Width		B=7.7 m
	Manner of laying girder							
	Remark	Design	According to design standards of Ministry of Construction.					
		Work execution						
Sub-structure	Abutment type	Box culvert	Foundation type	R.C square pile	L= 8.5 m (follower length L= 3.5 m)			
	Execution	Open cut (H=3.5m).						
	Remark	Design	--					
		Work execution	Drainage pump is needed.					
Temporary work	Earth retaining	No		Temporary Cofferdam	Channel diversion			
	River crossing	For passage and construction work	Struc-ture	Back-filling	Location	Up and downstream	Length	L= 10 m
	Remark	Coffering by channel diversion, with the provision of two hume pipes of ϕ1000 (or corrugated steel pipes).						
Retaining wall	Structure	Wet stone masonry		Total length	L=40m	Height	H=3.0 m	
	Execution	--						
	Remark	--						
Geological condition	Depth to bearing stratum	GL -10.70 m (Right)	Ground water level	GL -1.06 m (Right)	Loose sand, silty clay N = 1 ～ 2			
Public service facilities	Electric	240 V	Yes (along the stream)		33000V	Yes (along the stream)		
	W. Pipe	No			Telcom	No		
Others	For Design	Invert elevation of box culvert is required on local agreement with Irrigation Dept.						
	For execution	--						

Table 4-3-6 Plan for Bridge Design and Implementation

Bridge Name	No. 6 (Dalupitiya ～ Karagahamuna)					Distance from Batcher Plant		L=9.0km
Super-Structure	Type	Box culvert (B 4.0 ×H 2.95×1 barrel)			Span Length	L= 4.6 m	Width	B=7.7 m
	Manner of laying girder	--						
	Remark	Design	According to design standards of Ministry of Construction					
		Work execution						
Sub-structure	Abutment type	Box culvert	Foundation type	R.C square pile	L= 8.5m (follower length 3.5 m)			
	Execution	Open cut on both sides (H=2.5m).						
	Remark	Design	--					
		Work execution	Drainage pump is needed.					
Temporary work	Earth retaining	No		Temporary Cofferdam	Channel diversion			
	River crossing	For passage	Structure	Back-filling	Location	Up and downstream	Length	L= 10 m
	Remark	Coffering by channel diversion with the provision of two hume pipes of φ1000 (or corrugated steel pipes).						
Retaining wall	Structure	Wet stone masonry		Total length	L=40m	Height	H=3.0 m	
	Execution	--						
	Remark	--						
Geological condition	Depth to bearing stratum	GL -9.00 m (Right)	Ground water level	GL -1.10 m (Right)	Soil to be excavated	Loose sand, laterite N=3 ～ 4		
Public service facilities	Electric	240V	Yes (upstream)		33000V	Yes (Crossing)		
	W.Pipe	No			Telcom	No		
Others	For Design	Invert elevation of box culvert is required on local agreement with Irrigation Dept.						
	For execution							

Table 4-3-7 Plan for Bridge Design and Implementation

Bridge Name	No. 7 (Ja-Ela～ Oragolla)					Distance from Batcher Plant		L=20.0km
Super-Structure	Type	Box culvert (B 4.4 ×H 4.5 ×3 barrels)			Span Length	L= 14.7 m	Width	B=7.7 m
	Manner of laying girder	--						
	Remark	Design	According to design standards of Ministry of Construction					
		Work execution						
Sub-structure	Abutment type	Box culvert	Foundation type	R.C square pile		L=7.5 m (follower length 3.0 m)		
	Execution	Open cut on both sides (H=3.0m)						
	Remark	Design	--					
		Work execution	Backfilling and leveling is needed at water pits washed around the left side. Demolished volume of the existing piers is big.					
Temporary work	Earth retaining	No		Temporary Cofferdam	Channel diversion			
	River crossing	For passage	Struc-ture	Back-filling	Location	Downstream	Length	L=10m
	Remark	Coffering by backfilling						
Retaining wall	Structure	Wet stone masonry		Total length	L=40m	Height	H=3.0 m	
	Execution							
	Remark	Small volume of water flow.						
Geological condition	Depth to bearing stratum	GL -9.00m (Left)	Ground water level	GL -1.00m (Left)	Soil to be excavated	N = 3 (loose sand) N = 18～50 (sandy prephite)		
Public service facilities	Electric	240V	Yes (upstream)		66000V	Yes (crossing)		
	W. Pipe	No			Telcom	No		
Others	For Design	To connect the new access road with the existing road.						
	For execution	--						

Table 4-3-8 Plan for Bridge Design and Implementation

Bridge Name	No. 8 (Doranagoda ～ Udugampo:New Bridge)				Distance from Batcher Plant			L=29.0km
Super Structure	Type	Composite Girder bridge Number of Girders : 4		Span Length	L= 30.0 m	Width		B=6.2 m
	Manner of laying girder	By crane (assembled girder at one time). Crane capacity : 45 tons×2 units (W=7.83t/girder)						
	Remark	Design	--					
		Work execution	Assemble main girders on the temporary bridge and hoist them into place one girder by one girder.					
Sub-structure	Abutment type	Reversed T-type		Foundation type	R.C square pile	L= 5.5m (both banks, follower length 2.5 m)		
	Execution	Open cut on both sides (H=2.5m)						
	Remark	Design	--					
		Work execution	--					
Temporary work	Earth retaining	No			Temporary Cofferdam	No		
	River crossing	For construction work	Structure		H-beam temporary bridge	Location	Downstream	Length L= 30 m
	Remark	Temporary access roads of L/B will be made by Sri Lanka sides, totalling 0.6 km and the roads will be for permanent use with simple pavement after completion.						
Retaining wall	Structure	Wet stone masonry			Total length	66m	Height	H=4.0 m
	Execution	--						
	Remark	--						
Geological condition	Depth to bearing stratum	GL- 8.45 m (Right)	Ground water level	GL- 1.40 m (Right)	Soil to be excavated	Loose sand, laterrite N = 5		
Public service facilities	Electric	240V	No		33000V	No		
	W.Pipe	No			Telcom	No		
Others	For Design	After completion of access roads to be made by Sri Lanka side, bridge construction works should be commenced.						
	For execution	Observed are some narrow parts of access road and small horizontal curve radius, for which improvements are needed.						

Table 4-3-9 Plan for Bridge Design and Implementation

Bridge Name	No. 9 (Aswana ～ Minuwangoda, Kalawana)				Distance from Batcher Plant			L=30.0km
Super-Structure	Type	Composite girder bridge Number of girders : 4		Span Length	L= 32.0 m	Width		B=6.2 m
	Manner of laying girder	By crane (assembled girder at one time). Each crane capacity : 45 tons ×2 units (W = 8.58 t/girder)						
	Remark	Design	Minimize the length and weight of materials for transportation.					
		Work execution	Assemble main girders on the temporary bridge and hoist them int o place one girder by one girder.					
Sub-structure	Abutment type	Reversed T-type	Foundation type	R.C square pile	L=5.0 m (both banks, follower length 3.5 m)			
	Execution	Open cut on both sides (H=3.5m)						
	Remark	Design	--					
		Work execution	--					
Temporary work	Earth retaining	No		Temporary Cofferdam	Steel Sheet Pile Type III (Total length L=5.0m)			
	River crossing	For construction work and passage	Struc-ture	H-beam temporary bridge	Loca-tion	Down-stream	Length	L= 30m
	Remark	Launching erection is adopted with the provision of the temporary bridge. (W = 6.0 m)						
Retaining wall	Structure	Wet stone masonry		Total length	L=50m	Height	H= 3.0m	
	Execution							
	Remark	--						
Geological condition	Depth to bearing stratum	GL- 8.00 m (Right)	Ground water level	GL- 2.00 m (Right)	Soil to be excavated	Gravity sand, laterite N = 16 ～21		
Public service facilities	Electric	240V	No		33000V	No		
	W.Pipe	No			Telcom	No		
Others	For Design	--						
	For execution	There are narrow and sharp curve segments on the access road which require improvement. The present width is 2.2 m for traversed portion and 3 m overall.						

Table 4-3-10 Plan for Bridge Design and Implementation

Bridge Name	No.10 (Wudamulla ～ Niwala)				Distance from Batcher Plant			L=41.5km
Super-Structure	Type	Box culvert (B 4.5×H 3.0 ×2 barrels)		Span Length	L= 10.0 m	Width		B=6.2 m
	Manner of laying girder	--						
	Remark	Design	According to design standards of Ministry of Construction					
		Work execution	--					
Sub-structure	Abutment type	Box culvert	Foundation type	R.C square pile	L= 4.0 m (follower length 4.0 m)			
	Execution	Open cut for both sides (H=4.0m).						
	Remark	Design	--					
		Work execution	--					
Temporary work	Earth retaining	No		Temporary Cofferdam	Channel diversion			
	River crossing	For construction work	Structure	Back-filling	Location	Downstream	Length	L= 50 m
	Remark	Coffering by channel diversion with the provision of three hume pipes of φ1000 (or corrugated steel pipes).						
Retaining wall	Structure	Wet stone masonry		Total length	L=40m	Height	H=3.0 m	
	Execution							
	Remark	--						
Geological condition	Depth to bearing stratum	GL -14.00 m (Right)	Ground water level	GL -1.80 m (Right)	Soil to be excavated	Loose sand, laterite N= 5		
Public service facilities	Electric	240V	Yes (upstream)		33000V	No		
	W.Pipe	No			Telcom	No		
Others	For Design	--						
	For execution	--						

Table 4-3-11 Plan for Bridge Design and Implementation

Bridge Name	No.11 (Bonagola ～ Rukgahawala)					Distance from Batcher Plant		L= 36.5 km
Super-Structure	Type	Composite girder bridge Number of girders : 4			Span Length	L= 32.0 m	Width	B=6.2 m
	Manner of laying girder	Launching erection is adopted, because cross sectional vertical slope of the river is too steep, preventing the access of heavy equipment. (W = 8.58 t/girder)						
	Remark	Design	--					
		Work execution	Ground assembly and laying girder will be done on the left side bank.					
Sub-structure	Abutment type	Reversed T-type	Foundation type	R.C square pile	L= 5.5 m (left bank, follower length 4.0 m) L= 5.0 m (right bank, follower length 4.0 m)			
	Execution	Open cut on both sides (H=4.0 m)						
	Remark	Design	--					
		Work execution	Minimize the demolition of the right side bank downstream.					
Temporary work	Earth retaining	No		Temporary Cofferdam	Steel Sheet Pile Type III (L=7.5 m)			
	River crossing	For passage	Struc-ture	H-beam temporary bridge	Location	Downstream	Length	L=25 m
	Remark	The bridge is for people and motor cycles, not for vehicles. (B=2.0m)						
Retaining wall	Structure	Wet stone masonry			Total length	L=52m	Height	H=4.5 m
	Execution	Coffering with steel sheet pile						
	Remark	--						
Geological condition	Depth to bearing stratum	GL- 9.35 (Left) ……m 8.00 (Right)	Ground water level	GL- 4.60 (Left) ……m 4.30 (Right)		Soil to be excavated	N = 12 , medium sand (laterite) N = 12 , medium sand	
Public service facilities	Electric	240V	No	33000V		No		
	W. Pipe	No		Telcom		No		
Others	For Design	Careful study is needed for the structure and the range of the bank protection works due to the large scale of scouring on the left side upstream.						
	For execution	--						

Table 4-3-12 Plan for Bridge Design and Implementation

Bridge Name	No.13 (Gonahena ～ Ruppagoda)				Distance from Batcher Plant			L = 14.5 km
Super-Structure	Type	Box culvert (B 3.5×H 3.0 m ×2 barrels)		Span Length	L = 8.0 m	Width		B=6.2 m
	Manner of laying girder	--						
	Remark	Design	According to design standards of Ministry of Construction					
		Work execution	--					
Sub-structure	Abutment type	Box culvert	Foundation type	R.C square pile	L = 7.5 m (follower length 3.5 m)			
	Execution	Open cut on both sides (H=3.5 m)						
	Remark	Design	--					
		Work execution	--					
Temporary work	Earth retaining	No		Temporary Cofferdam	Channel diversion			
	River crossing	For construction work	Structure	Back-filling	Location	Upstream	Length	L = 10 m
	Remark	Temporary cofferdam with the provision of two hume pipes, φ1000 (or corrugated steel pipes).						
Retaining wall	Structure	Wet stone masonry		Total length	40 m	Height		H=3.0 m
	Execution	--						
	Remark	--						
Geological condition	Depth to bearing stratum	GL -10.00 m (Left)	Ground water level	GL -1.75 m (Left)	Soil to be excavated	Loose sand and medium sand N =7～16		
Public service facilities	Electric	240V	Yes (upstream)		33000V	No		
	W.Pipe	No			Telcom	No		
Others	For Design	The present condition of the canal structure 10 m from the bridge site on the right bank (where the approach road is routed) must be preserved.						
	For execution	Since there are narrow points on the approach road, careful attention should be taken for the access of the heavy machinery. (The width is 3～3.5m with 2.0m roadway)						

Table 4-3-13 Plan for Bridge Design and Implementation

Bridge Name	No.14 (Malwana ～ Samanabedda)				Distance from Batcher Plant			L=16.5km
Super-Structure	Type	Composite girder bridge Number of girders : 4		Span Length	L= 22.0 m		Width	B=7.7 m
	Manner of laying girder	By two cranes (assembled girder at one time). Crane capacity : 40 tons×2 units, W=7.63 t/girder						
	Remark	Design	--					
		Work execution	Ground assembly of main girders will be done on the temporary piers, and they will then be hoisted into the place one girder by one girder.					
Sub-structure	Abutment type	Reversed T-type		Foundation type	R.C square pile	L= 8.5m (right bank, follower length 3.5 m) L= 5.0m (left bank, follower length 3.5 m)		
	Execution	Open cut on both sides (H=3.5 m)						
	Remark	Design	--					
		Work execution	--					
Temporary work	Earth retaining	No			Temporary Cofferdam	No		
	River crossing	For passage and constraction work	Struc-ture	H-beam temporary bridge	Location	Down-stream	Length	L=20m
	Remark	--						
Retaining wall	Structure	Wet stone masonry			Total length	L=62m	Height	H=5.0m
	Execution	Temporary coffering by backfilling. Careful study for excavation is needed for the rock exposed largely on right side bank downstream.						
	Remark	--						
Geological condition	Depth to bearing stratum	7.00 (Left) GL- ····· m 10.00(Right)	Ground water level	3.80 (Left) GL- ····· m 4.20 (Right)	Soil to be excavated	N = 3 (silty sand) N = 1 (loose sand and soft clay)		
Public service facilities	Electric	240V	Yes (upstream)		33000V	Yes (upstream)		
	W.Pipe	Yes (ϕ250) upstream			Telcom	No		
Others	For Design	--						
	For execution	There is an anicut upstream. Cast-in-place concrete is planned.						

Table 4-3-14 Plan for Bridge Design and Implementation

Bridge Name	No.15 (Malwana ～ Samanabedda)				Distance from Batcher Plant			L=17.0km
Super-Structure	Type	Box culvert (B 5.0×H 2.5 ×1 barrel)		Span Length	L= 5.7 m	Width		B=7.7 m
	Manner of laying girder	--						
	Remark	Design	According to design standards of Ministry of Construction					
		Work execution	--					
Sub-structure	Abutment type	Box culvert	Foundation type	R.C square pile	L= 5.8 m (follower length= 4.0 m)			
	Execution	Open cut on both sides (H=4.0 m)						
	Remark	Design	--					
		Work execution	--					
Temporary work	Earth retaining	No		Temporary Cofferdam	No			
	River crossing	For construc-tion work	Structure	Back-filling	Location	Up-stream	Length	L= 10 m
	Remark	Cofferdam with the provision of two hume pipes, ϕ1000 (corrugated steel pipes).						
Retaining wall	Structure	Wet stone masonry		Total length	L=20m	Height	H=2.0 m	
	Execution	--						
	Remark	Little water in dry season.						
Geological condition	Depth to bearing stratum	GL -7.00 m (Left)	Ground water level	GL -1.60 m (Left)	Soil to be excavated	N =12 (gravelly sand) N =10 (medium hard clay)		
Public service facilities	Electric	240V	No		33000V	No		
	W. Pipe	No			Telcom	No		
Others	For Design	--						
	For execution	--						

Table 4-3-15 Plan for Bridge Design and Implementation

Bridge Name	No.16 (Samanabedda ～ Walgama ～ Kahatagoda)					Distance from Batcher Plant		L=25.0km
Super-Structure	Type	Composite girder bridge Number of girders : 3			Span Length	L= 17.0 m	Width	B=6.2 m
	Manner of laying girder	By crane (assembled girder at one time). Crane capacity : 25 tons (W = 4.47t/girder)						
	Remark	Design	--					
		Work execution	Ground assembly and laying of girders will be done on the right side bank.					
Sub-structure	Abutment type	Reversed T -type	Foundation type	R.C square pile	L= 7.0m (both banks, follower length = 3.5 m)			
	Execution	Open cut on both sides (H=3.5 m).						
	Remark	Design	--					
		Work execution	--					
Temporary work	Earth retaining	No		Temporary Cofferdam	Steel Sheet Pile Type III (L=7.5 m)			
	River crossing	For passage	Struc-ture	H-beram temporary bridge	Location	Down stream	Length	L= 7m
	Remark	--						
Retaining wall	Structure	Wet stone masonry			Total length	L=74 m	Height	H=3.0m
	Execution	Coffering with steel sheet pile.						
	Remark	--						
Geological condition	Depth to bearing stratum	GL -9.45 m (Left)	Ground water level	GL -3.30 m (Left)	Soil to be excavated	N=7 ～16 medium sand		
Public service facilities	Electric	240V	Yes (downstream)		33000V	No		
	W. Pipe	No			Telcom	No		
Others	For Design	--						
	For execution	Cast-in-place concrete is planned. Brick factory and its borrow pit exist upstream.						

Table 4-3-16 Plan for Bridge Design and Implementation

Bridge Name	No.17 (Pallegama ~Ranwallameethirigala)					Distance from Batcher Plant		L=35.5km
Super-Structure	Type	Composite Girder bridge Number of girders : 4			Span Length	L= 23.0 m	Width	B=7.7 m
	Manner of laying girder	By two cranes (assembled girder at one time). Crane capacity : 40 tons (W = 7.9 t/girder)						
	Remark	Design	--					
		Work execution	Ground assembly and laying of girder to be done on the right side bank.					
Sub-structure	Abutment type	Reversed T-type	Foundation type	R.C square pile	L= 5.0m (both banks, follower length 3.5m)			
	Execution	Open cut on both banks (H=3.5m)						
	Remark	Design	--					
		Work execution	--					
Temporary work	Earth retaining	No			Temporary Cofferdam	Steel Sheet Pile Type III (Total length= 7.5 m)		
	River crossing	For passage and construction work	Struc-ture	H-beam temporary bridge	Location	Upstream	Length	L=15m
	Remark	--						
Retaining wall	Structure	Wet stone masonry			Total length	L= 79 m	Height	H=2.0 m
	Execution	Coffering with steel sheet piles.						
	Remark	--						
Geological condition	Depth to bearing stratum	GL -6.00 m (Left)	Ground water level	GL -1.00 m (Left)	Soil to be excavated	Clay sand, gravelly sand N = 5		
Public service facilities	Electric	240 V	Yes		33000V	No		
	W. Pipe	No			Telcom	No		
Others	For Design	--						
	For execution	Cast-in-place concrete is planned.						

4-3-2 Design of Plate Girder Bridge

The following are the design conditions for plate girder bridge in conformity with road bridge criteria of the Japan Road Association.

Item	Design Condition
1. Structure	Composite plate girder bridge
2. Class	First and Second class bridge
3. Bridge length	Refer to the atttached table
4. Skewed angle	$\theta = 90°$
5. Crossfall	2.0%
6. Load	
1) Dead load	

United Weight of Materials kgf/m³

Material	Unit weight	Material	Unit weight
Steel, Cast steel	7,850	Concrete	2,350
Cast Iron	7,250	Cement Motar	2,150
Aluminum	2,800	Timber	800
R. Concrete	2,500	Asphalt (water proofing)	1,100
PC concrete	2,500	Asphalt pavement	2,300

2) Live load	
Carriageway	TL-20 and TL-14
Walkway	When designing bed slab: 500kgf/m²;
	When designing main girder: 350kgf/m²
3) Impact	$i = \frac{20}{50+L}$ (L: Span Length)
4) Seismic	Not considered
5) Horizontal load	To be considered at detailed design stage (wind load).
6) Effect of Temperature	To be considered at detailed design stage (floor slab concrete and main girder)
7. Allowable Stress	
1) Steel	(kgf/cm²)

		σ_a	τ_a
Material	SM 490 Y	2100	1200
	SM 400	1400	800

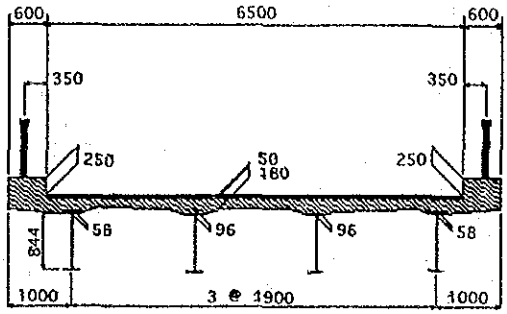
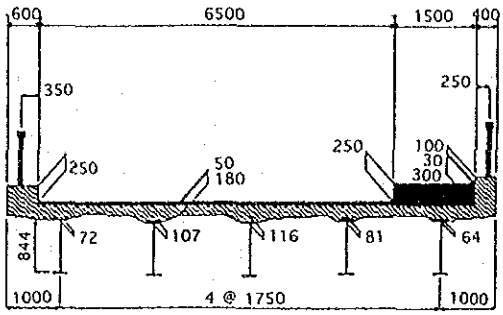
The reduction of the allowable compressibe strength due to buckling refers to the road bridge criteria.

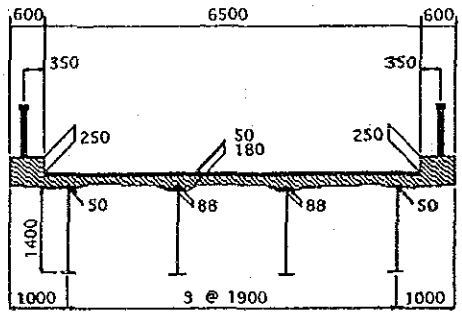
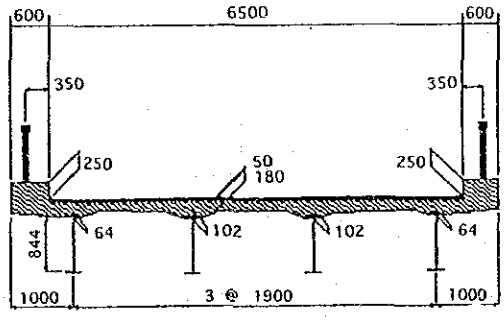
2) Concrete	σ_{ck} = 270 kgf/cm² σ_{ca} = 75 kgf/cm²
3) Steel Bar	SD 295A, σ_a =1,400 kgf/cm² allow for marginal strength of 200 kgf/cm²
4) High tension bolt	F10T, M22 ρ_a = 4,800kgf (for a frictional surface of a bolt)
7. Allowable Deflection	$\delta_a = \frac{L}{20{,}000/L}$ (L : Span Length, 10m < L 40m)
8. Others	
1) Min. thickness of slab	180 mm
2) Capable length for transportation	$\ell_{max} \geq 10m$
3) Shoe type	Rubber bearing
4) Expansion joint	Rubber joint

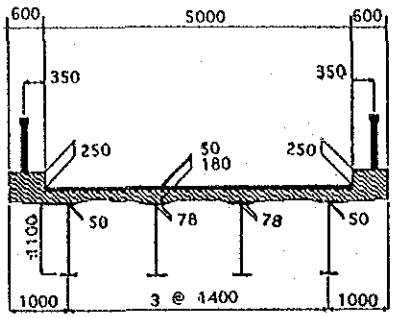
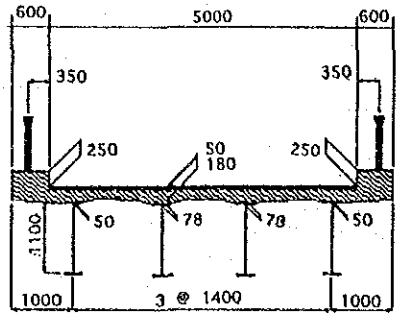
9. Span of plate girder bridge and cross-sectional components

Bridge No.	Road Class	Width (m)	Load	Span length
1	C	6.5	1st class	20.0 m
2	C	6.5+1.5	1st class	23.0 m
3	C	6.5	1st class	32.0 m
4	C	6.5	1st class	23.0 m
8	E	5.0	2nd class	30.0 m
9	E	5.0	2nd class	32.0 m
11	C	5.0	2nd class	32.0 m
14	C	6.5	1st class	22.0 m
16	C	5.0	2nd class	17.0 m
17	C	6.5	1st class	23.0 m

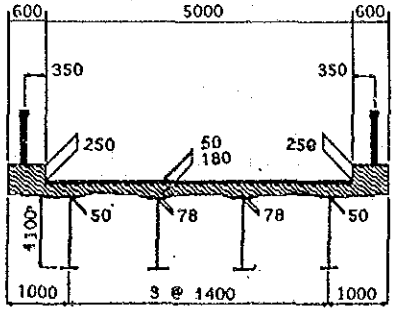
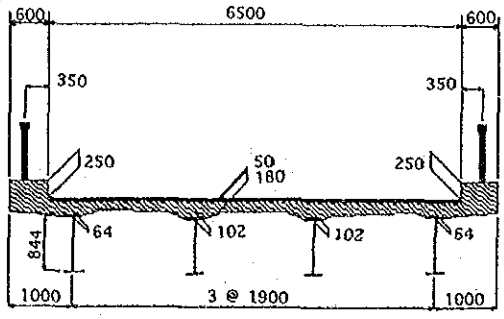
(10) Cross Section of Main Girder

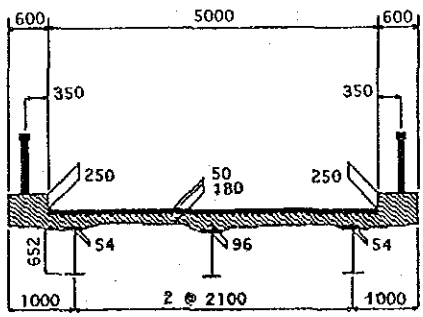
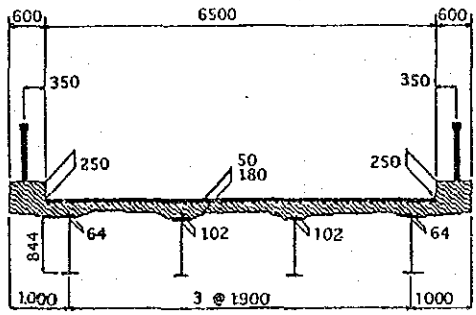
Bridge no.	No.1	Span length 20.0 m (1st class bridge)	No. 2	Span length 23.0 m (1st class bridge)
Cross section of main girder				
No. of main girders	4		5	
Girder depth (mm)	900		912	
Thickness of floor slab (mm)	180		180	
Material	SM 490 Y		SM 490 Y	
Dimension of web	H-900 × 300 × 16 × 28		H-912 × 302 × 18 × 34	
Weight of main girder (t)	22.4		35.0	
Weight of others (t)	2.2		3.2	

Bridge no.	No.3	Span length 32.0 m (1st class bridge)	No. 4	Span length 23.0 m (1st class bridge)
Cross section of main girder				
No. of main girders	4		5	
Girder depth (mm)	1,400		912	
Thickness of floor slab (mm)	180		180	
Material	SM 490 Y		SM 490 Y	
Dimension of web	H-1400 × 9		H-912 × 302 × 18 × 34	
Weight of main girder (t)	31.6		29.3	
Weight of others (t)	5.0		2.4	

Bridge no.	No.8 Span length 30.0 m (2nd class bridge)	No. 9 Span length 32.0 m (2nd class bridge)
Cross section of main girder		
No. of main girders	4	4
Girder depth (mm)	1,100	1,100
Thickness of floor slab (mm)	180	180
Material	SM 490 Y	SM 490 Y
Dimension of web	H-1100 × 9	H-1100 × 9
Weight of main girder (t)	26.8	29.5
Weight of others (t)	4.5	4.8

* Weight of others : Cross beam, Sway bracing, HTB, Drainage pipe etc.

Bridge no.	No.11	Span length 32.0 m (2nd class bridge)	No. 14	Span length 22.0 m (1st class bridge)
Cross section of main girder				
No. of main girders	4		4	
Girder depth (mm)	1,100		912	
Thickness of floor slab (mm)	180		180	
Material	SM 490 Y		SM 490 Y	
Dimension of web	H-1100 × 9		H-912 × 302 × 18 × 34	
Weight of main girder (t)	29.5		28.0	
Weight of others (t)	4.8		2.5	

Bridge no.	No.16	Span length 17.0 m (2nd class bridge)	No. 17	Span length 23.0 m (1st class bridge)
Cross section of main girder				
No. of main girders	3		3	
Girder depth (mm)	700		912	
Thickness of floor slab (mm)	180		180	
Material	SM 490 Y		SM 490 Y	
Dimension of web	H-700 × 300 × 13 × 24		H-912 × 302 × 18 × 34	
Weight of main girder (t)	11.6		29.3	
Weight of others (t)	1.8		2.4	

4-3-3 Design of Box Culvert Bridge

The following are the design conditions of box culvert bridge in conformity with Specifications for Highway Bridges of Japan Road Association and design standards of the Ministry of Construction.

Item	Design Condition
1. Structure	Box Culvert
2. Class	First and second class bridge (in accordance with road and bridge design criteria of the Japan Highway Association)
3. Bridge Length	Refer to the attached table
4. Skewed Angle	$\theta = 90°$
5. Load	
1) Dead Load	
2) Live Load	TL-20 (1st class road), TL-14 (2nd class road)
3) Impact	T-load $i = \frac{20}{50+L}$ L-load $i = \frac{7}{20+L}$
4) Seismic	Not a consideration
5) Effect of Temperature	To be considered at detailed design stage
6. Allowable Stress	
1) Concrete	

Unit Weight of Materials (kgf/m³)

Material	Unit weight	Material	Unit weight
Steel, Cast steel, Cast iron	7,850	Concrete	2,350
Cast Iron	7,250	Cement Motar	2,150
Aluminum	2,800	Timber	800
R.Concrete	2,500	Asphalt(water proofing)	1,100
PC concrete	2,500	Asphalt pavement	2,300

Allowable Compressive Strength and Allowable Shear Stress for Concrete

(unit: kgf/cm²)

Stress type		210	240	270	300
Compressive strength	Bending compressive stress	70	80	90	100
	Axial compressive stress	55	65	75	85
Shear strength	Where shear is borne by the concrete alone (τ_{a1})	3.6	3.9	4.2	4.5
	Where shear is borne by both concrete and diagonal tensile rebar (τ_{a2})	16	17	18	19

Concrete Allowable Adhesion Stress (kg/cm²)

Type of steel	Design standard strength of concrete σ_{ck} 210	240	270	300
Standard round steel	7	8	8.5	9
Deformed bar steel	14	16	17	18

3) Steel Bar

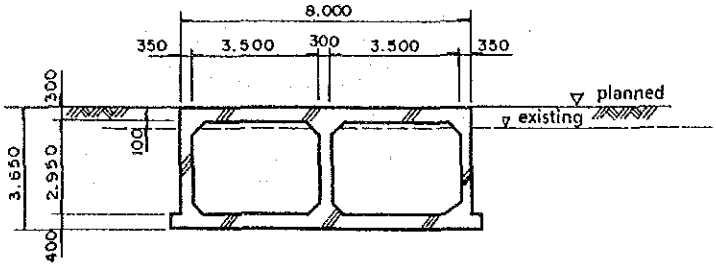
Allowable strength of rebar (kg/cm²)

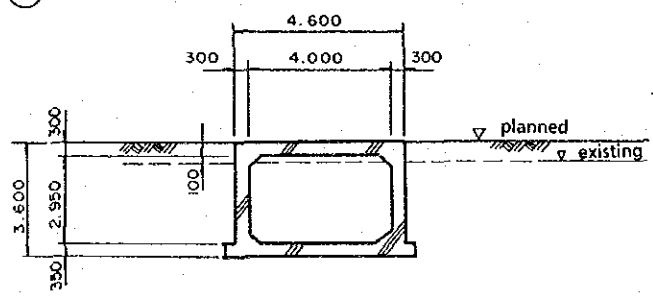
Types of stress, materials \ Type of rebar			SR235	SD 295A	SD345
Tensile stress	*Where neither* shock load nor seismic effect are included in the load *formula*	1) Standard materials	1400	1800	1800
		2) Materials submerged in *water or set below the* groundwater table	1400	1600	1600
	3) Basic value for allowable stress where shock load or seismic effect is included in the load formula		1400	1800	2000
	4) Where length of overlap portion of rebar at joints and anchor portion of rebar are included in calculation		1400	1800	2000
5) Compressive strength			1400	1800	2000

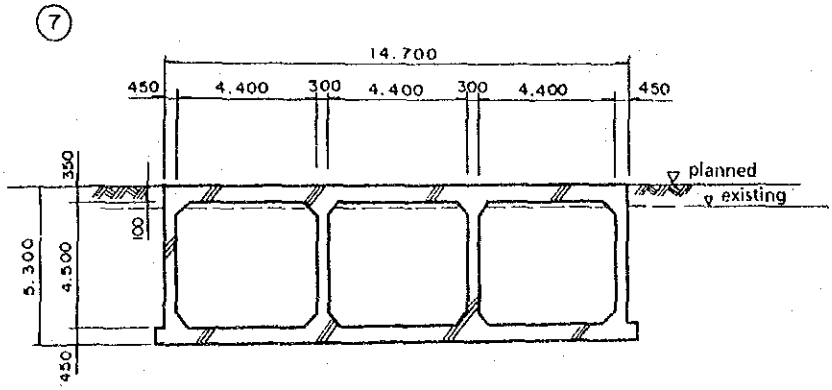
7. Length of Box Culvert bridge and cross-sectional components

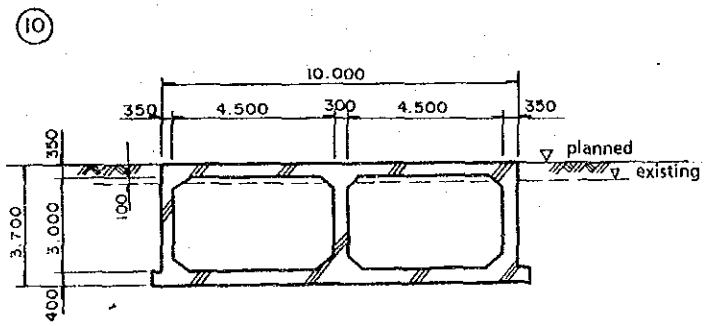
Bridge No.	Road Class	Width (m)	Load	Span length
5	C	6.5	TL-20	8.0
6	C	6.5	TL-20	4.6
7	C	6.5	TL-20	14.7
10	C	5.0	TL-14	10.0
13	C	5.0	TL-14	8.0
15	C	6.5	TL-20	5.7

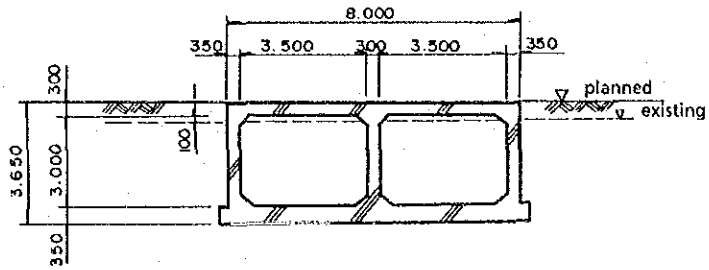
8. Cross Section for Box Culvert

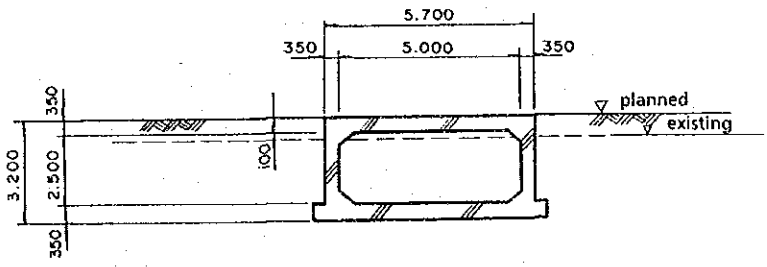
Bridge no. 5	Span length: 8.0 m (vehicle traffic width: 6.5 m)
	⑤ 
No. of culvert barrels	2
Slab height (mm)	300
Grade	1st class bridge
Weight (t)	23.0 t/m Σ = 177.1 t
Foundation	RC square pile 400 × 400

Bridge no. 6	Span length: 4.6 m (vehicle traffic width: 6.5 m)
	⑥ 
No. of culvert barrels	1
Slab height (mm)	300
Grade	1st class bridge
Weight (t)	13.0 t/i Σ = 100.1 t
Foundation	RC square pile 400 × 400

Bridge no. 7	Span length: 14.7 m (vehicle traffic width: 6.5 m)
	
No. of culvert barrels	3
Slab height (mm)	350
Grade	1st class bridge
Weight (t)	48.4 t/m Σ = 372.7 t
Foundation	RC square pile 400 × 400

Bridge no. 10	Span length: 10.0 m (vehicle traffic width: 5.0 m)
	
No. of culvert barrels	2
Slab height (mm)	350
Grade	2nd class bridge
Weight (t)	26.5 t/m Σ = 164.3 t
Foundation	RC square pile 400 × 400

Bridge no. 13	Span length: 8.0 m (vehicle traffic width: 5.0 m)
	⑬ 
No. of culvert barrels	2
Slab height (mm)	300
Grade	2nd class bridge
Weight (t)	22.0 t/m Σ = 136.4 t
Foundation	RC square pile 400 × 400

Bridge no. 15	Span length: 5.7 m (vehicle traffic width: 6.5 m)
	⑮ 
No. of culvert barrels	1
Slab height (mm)	300
Grade	1st class bridge
Weight (t)	15.4 t/m Σ = 118.6 t
Foundation	RC square pile 400 × 400

4-3-4 Equipment Plan

(1) Equipment List

Equipment to be procured under the Project is indicated in Tables 4-3-17~19.

(2) Selection of Equipment

The following type of equipment is determined according to the road maintenance programmes of the relevant offices:

<Equipment list I-I, I-II>

In principal, a total of 4 units of each equipment are to be deployed (one to each of the 4 EEO's under PRDA in the District responsible for the maintenance of class C, D, and E roads). However, equipment for communal use by all the EEO's including that for hauling (1 unit of trailer), site preparation (2 units of bulldozer), and paving works (1 unit of mixer and 1 unit of crusher) are to be deployed to the PRDA workshop, to be mobilized to specific EEO's when so required.

<Equipment list II>

In principal, a total of 12 units of each equipment are to be deployed (one to each of the 12 PS's responsible for maintenance of class F roads) to facilitate minor road repair work. However, 2 wheel tractors (with trailer) are to be deployed to only 8 PS's under the Project as the other 4 already have this item on hand.

Destination office	Road class	Pavement width of the existing road (m)	Type of equipment
EEO	C,D,E	3.0 ~ 3.7 or less 3.0m	Heavy equipment and transportation equipment for the improvement of road bed and subbase
Pradeshiya Sabhas	F	less than 3.0m	Surfacing equipment for small scale work

(3) Destination of Equipment

Destination of equipment is the following offices under the control of provincial and local administration.

Administration	Concerned organization	Destination of equipment	
		Office level	Total No.
Provincial government	PRDA (Provincial Road Development Authority)	EEO (Executive Engineer's Office)	4
Local government	Local authority	Pradeshiya Sabha	12

Table 4-3-17 Equipment (I~I)

- Equipment for PRDA (EEO) -

Item	No.	Specification	Usage/Others	Destination
A. 8 ~ 10 ton static roller	4	-Power steering -Tandem roller -Water cooled engine	Compaction of subbase and road base	4 EEO's
B. Medium size motor grader	4	-ROPS canopy -Articulation frame -Blade size 3100 × 610 × 16 mm -Engine: 115 Hp / 2,500 rpm -6 speed transmission forward and reverse -1 set of tools	Compaction of subbase	4 EEO's
C. Low bed trailer	1	-6 speed transmission -tire size: 11.00-20-14 Reverse warning buzzer 9 ton couper 20 ton low bed semi-trailer	Transportation of heavy equipment	PRDA (workshop)
D. Bulldozer	2	-D4 power shift -ROPS canopy -Power angle -Tild brake -Multi-shank ripper	Leveling	PRDA (workshop)
E. Backhoe loader	4	-Breaker attachable -ROPS canopy -0.2 m^2 buck hoe bucket -0.76 m^3 loader bucket -Loader: gross power 57.4 kw/77 hp; breakforce 40 KN -Backhoe: Digging force 52 KN; digging depth 5500 mm	Excavation	4 EEO's (To be procured from 3rd country as this item no longer manufactured in Japan)

F. Mechanical grass cutters	8	Engine : 4,800 rpm Blade : 5,000 rpm/ϕ230 mm 60.2 m/s	Cutting grass and trees	4 EEO's (2 each)

PRDA: Provincial Road Development Authority
EEO : Executive Engineering Office
P.S : Pradeshiya Sabha

Table 4-3-18 Equipment (I-II)

- Equipment for PRDA (EEO) -

Item	No.	Specification	Usage/Others	Destination
G. 750 kg pedestrian vibrating roller	4	-Hand guided type -Gross W/T : 750 KG -0~3.5 Km/h -3,000 vpm for vibration -Tandem type rolling -7.0 PS/2,400 rpm -Natural water head sprinkler	Compaction of subbase and road bed	4 EEO's
H. Medium size mobile premix plant	1	-5 ~ 10 ton cap -Twin shaft pugmil mixer -Automatic and Manual operation	Mixing asphalt and aggregate (for pavement)	PRDA (workshop)
I. Dump truck	4	-5 speed transmission -Tire size: 8.25-20-14 (lug) -Reverse warning buzzer -Power steering -3 side openable	Transportation of construction materials and wastes	4 EEO's
J. Mechanical tamper	4	-Gross W/T : 70 KG -6,000 rpm -Over 1.3 km/hr -Max. 3.5 PS	Compaction of subbase	4 EEO's
K. Mobile tar kettle with sprayer	4	-Towed type W/H 2 pneumatic tyred wheels -600 liters cap. -Kerosene fuel/preheating -Fuel consumption: 2.5~5.1 -Tube fire heating -Hand pressure pump -Hand spray equipment	Melting and spraying asphalt (for asphalt pavement)	4 EEO's
L. Cargo truck with crane	1	-5-speed transmission -Tire size: 8.25-20-14 (rib or lug) -Reverse warning buzzer -Power steering -With crane (pay load: 5 ton, crane cap.: 3 ton)	Transportation of equipment and materials	PRDA (workshop)
M. Mobile crasher unit w/ compressor, breaker, and generator	1	-10 ton/h -Single toggle jaw crusher (16"X 10"---410 mm X 250 mm) -Rotary screen: 500 mm × 1,800 mm -20 HP, air cooled diesel E/G -Max. size of input material 180 × 230 × 405 mm -Mobile type with tires.	Production of crushed stone	PRDA (workshop)

N. 4W-Double Cab pick up	1	-5sheet, 2500cc, Diesel type 60 HP, 0.7t load capacity	Transportation of staff and materials	PRDA (workshop)
O. Survey Instrument Theodolite Level Electro Distance Meter	 2 4 1	 Reading 20' Deviation (1 km / ±1.0 mm) 1 prism, accuracy / ±3 mm)	Survey instruments of road rehabilitation	PRDA (workshop)
P. Mobile workshop	1	-Automobile (2400 cc, Diesel type) -Equipment / tools	Site repair workshop	PRDA (workshop)

Table 4-3-19 Equipment (II)

- Equipment for local authority (Pradeshiya Sabhas) -

Item	No.	Specification	Usage/Others	Destination
A. 750 kg pedestrian vibrating roller	12	-Hand guided type -Gross W/T : 750 KG -0- 3.5 Km/h -3,000 vpm for vibration -Tandem type rolling -7.0 PS/2,400 rpm -Natural water head sprinkler	Compaction of subbase and road bed	12 PS's
B. Tar boiler	12	-Hand cart type W/H type 2 pneumatic tyred wheels -200 liters kettler capacity oil burner (kerosene type) -Spray pump: 50 ℓ /min. (gear pump) (hand pressure pump)	Melting asphalt (for asphalt pavement)	12 PS's
C. 4W-tractor with trailer	12	-Speed transmission: forward: 8 speeds; reverse: 2 speeds -Output: 43 HP (PTO Power) -With 4 ton trailer -Tipping Type	The transportation of small volume of materials	12 PS's
D. 2W-tractor with trailer	8	-Speed transmission: forward: 6 speeds; reverse: 2 speeds -Rated output: 7 HP (max: 8.5 HP -With 0.5 ton trailer -(Stationary Type)	Short distance and small volume transport materials	8 PS's*

[* This is not needed for Katana, Attanagal, Dompe, and Mirigama pradeshiya sabhas]

4-3-5 Basic Design Drawings

Refer to the attached general drawings for 16 bridges.

4-4 Implementation Plan

4-4-1 Execution

A Japanese consultant will perform the work for the detailed design, assistance in tendering procedure and supervision, and a Japanese contractor will be chosen by tendering for the Project.

Upon the decision to proceed with Project implementation and the Exchange of Notes for the grant between the governments, the consultant shall enter into contract with the Government of Sri Lanka for design work, assistance in tendering procedure and supervision, and proceed with these immediately in consultation with IRDP officers. The contractor will make contract with the Government of Sri Lanka, then commence the construction work. The Project shall be completed within the designated period and be handed over to the Government. However, the contracts for consultant and contractor will be effective only after the approval of the Japanese government.

MPPI will take action and give coordination where necessary for smooth start-up and execution of the project.

Obligations of the concerned governments are as follows:

(1) Government of Japan

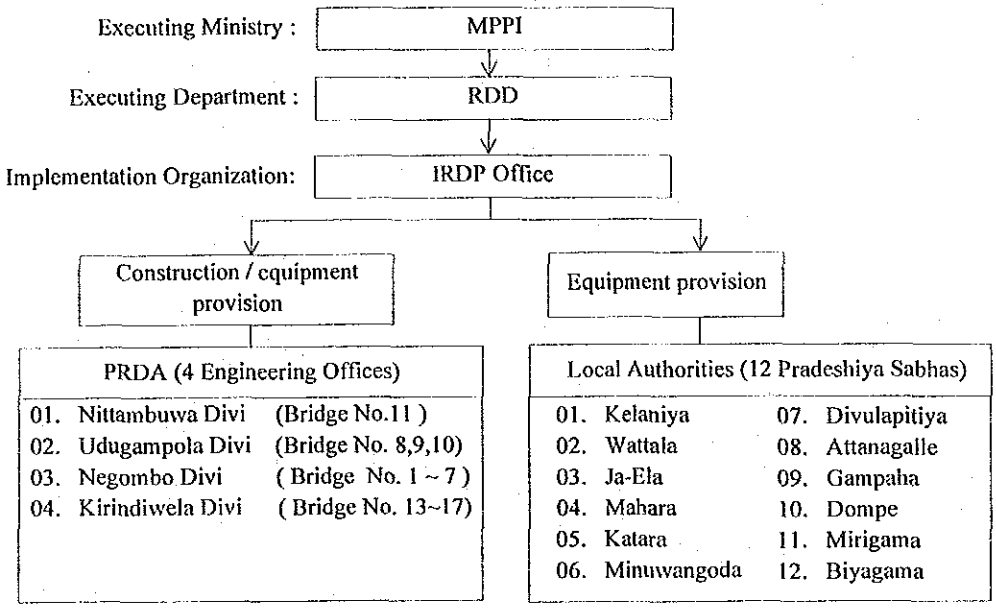
1. Bridge construction (including the demolition of existing bridges)
2. Establishment of access road
3. Facilities in the project sites

(2) Government of Sri Lanka

1. Acquisition of land for site offices, stock yards, and workshops, etc.
2. Demolition and evacuation of obstructions at the sites.
3. Acquisition of land for borrow pits for backfill materials.
4. Transferring and restoration of power supply lines, telephone lines, and city water pipes.
5. Payment to the bank for commission on B/A.
6. Help in obtaining necessary permits and visas for Japanese concerned with the Project to enter, exit and stay in Sri Lanka, and prompt arrangements for custom clearance and inland transportation.
7. Arrangement for tax exemption for equipment and materials to be used for the Project and by the Japanese staff under the Project, as well as other domestically required surcharges.
8. Maintenance of the access roads and bridges after completion.
9. Improvement of the approach roads.
10. Preparation and maintenance of detours during the construction period.
11. Securing dumping places for refuse.
12. Provision of the services mentioned in the Minutes signed on August 3, 1993 and January 20, 1994.

(3) Implementation Structure of the Government of Sri Lanka

The Project comprises Phase II of the Integrated Rural Development Project in Gampaha which is executed under the Grant Aid programme of the Japanese Government. Thus the implementation structure of the Government of Sri Lanka will be the same as for Phase I of the Gampaha IRDP.



4-4-2 Points of Special Note in Execution

The followings are comments on execution of the Project, taking into consideration general conditions in Sri-Lanka, locality of the region and special features of the Project:

(a) There are two rainy seasons each year: April to June, and October to November. As the rivers in the area are natural, the construction schedule should be carefully prepared to avoid problems to be posed by high water level.

Likewise, a careful temporary facilities plan must be formulated to ensure that no damage from inundation occurs to residents in the areas.

(b) Limited term for the construction under the Grant Aid program may require work during the rainy season, which will require the preparation of steel sheet piles for cofferdam, with drainage pumps in the execution of the abutment construction. The schedule for plate girder and box culvert superstructure construction must be formulated to minimize problems during the rainy season.

(c) Japanese workers will be assigned for important functions under the works. There are few examples of plate girder bridges in Sri Lanka and thus it is difficult to get skilled workers for this kind of work.

(d) The construction schedule should be minimized, because roads needed in the daily life of area residents become closed during the Project.

(e) The supervision of foundation pile driving must take into careful consideration the method for confirming the bearing capacity of ground.

(f) Majority of the main equipment for construction will be brought from Japan, because of the short construction period requiring maximum mechanization, and the local construction conditions as described in the preceding chapter.

(g) Since the schedule is tight due to the construction for 16 bridges during the implementation period, careful schedule management is needed. Therefore, the land for head office (one hectar), stock yards, and construction sites, and moving of power supply lines, telephone lines and city water supply pipes should be arranged promptly.

(h) The main contractor shall be a Japanese firm with sub-contracting of work to the local contractor, in order to transfer engineering technology to the sub-contractor.

(i) Since there is a concentration of houses and public facilities around no.1 and no.2 bridges, countermeasures to prevent noise and vibration from diesel hammer at the time of pile driving should be carefully taken. Likewise, while driving the sheet piles by vibro-hammer, safety measures should also be taken against ground settlement with reference to leveling data taken prior to the placement of the sheet piles.

(j) Concrete work:

Ready mixed concrete will be used in the range of area allowed to transport it. Otherwise concrete mixing will be adopted. Truck crane with bucket will be used for placing concrete. In order to control quality, instruction should be given to the local contractor with regards to preventing cold joint and curing cast concrete

(k) Laying of superstructure:

The longest main girder is 32 m. Plate girder exceeding 10 m should be disassembled into sections less than 10 m length for the sake of transportation and assembled at the site. Crane is to be normally used for direct girder laying, except no.11 bridge where the "pushing out" of girder is to be adopted, due to the fact that the geographical condition does not allow access for the crane to the site.

(l) Access road:

It is needed for the sub-contractor to reconfirm the locations of borrow pits for subbase material immediately after the establishment of the contract, since it appears to be difficult to secure such items near the sites. Road base material will be procured from a crushing plant, but the material should be stocked enough prior to the work commencement because of the small plant capacity.

(m) Demolition of existing bridge:

Demolition should be done after establishing detours, and all the refuse shall be transported to the designated dumping place.

4-4-3 Implementation and Management Plan

(1) Detail Design Work

Based upon the basic design, the consultant will prepare the contract documents which consist of the detail design drawings, bills of quantity and the Project budget. During this period, the consultant should proceed with the work in consultation with the concerned organizations of the Government of Sri Lanka where duly required. Three months are required for this.

Upon the completion of the detail design work, the tender invitation shall be announced in the newspaper and the prequalification examination (PQ) of the prospective bidders will be done in Japan

.

The bidding will be opened in the presence of all the bidders in Japan. The contractor with the lowest bid amount will be accepted and enter into contract with the Government of Sri Lanka. One month is required for this tender and contract procedure.

(2) Plan of Supervision

In conformity with the principles of the Grant Aid programme of the Japanese government, the consultant will proceed with the project supervision immediately after the detail design work is completed. During the construction period, the consultant will dispatch the contracted number of engineers with appropriate experience and qualifications, who will be stationed in the country for the supervision of the work.

Further, the consultant will also dispatch engineers in accordance with the progress of the project under the contract, for inspection and technology transfer.

① Policy of Supervision

- Close contact with the persons in charge of the concerned organizations of both governments will be maintained for smooth communication.
- Higher priority shall be given to local materials and manners of construction as far as conditions permit.
- To give appropriate advice to the counterparts in order for them to maintain the bridges and other facilities after completion and handing over.

② Management Work

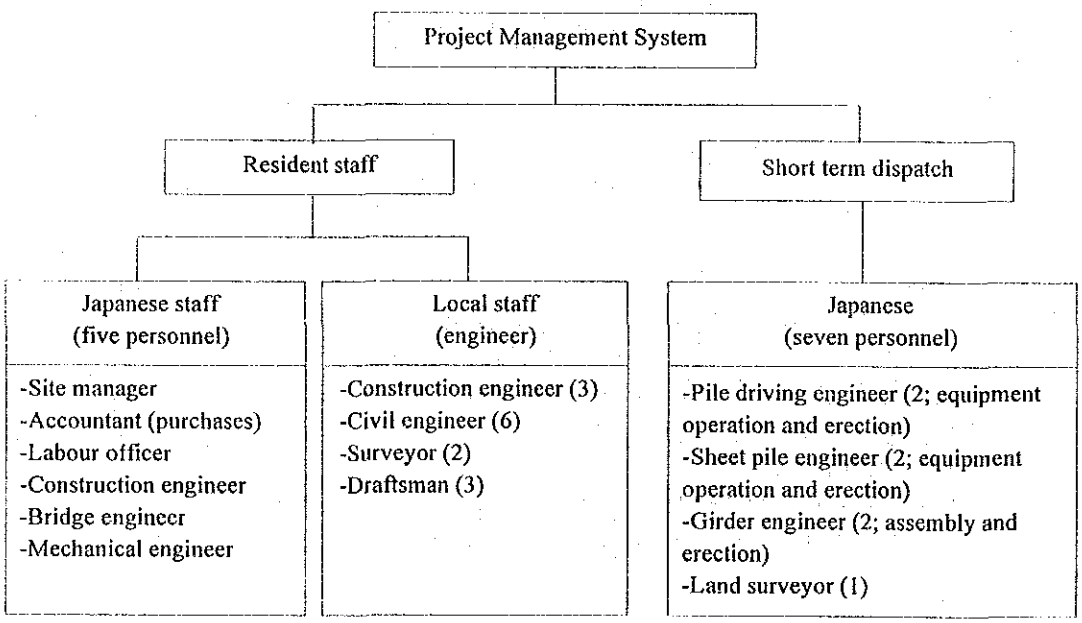
- Assistance in tendering procedures
- Supervision of construction work
- Witnessing of plant test for the prepared materials and confirmation of delivery
- Intermediate and final inspection
- Inspection and approval of construction drawings
- Report on progress of the Project to the governments
- Assistance in the process of payment approval

③ System of Supervision

Supervision will be performed by two consultant staff, one Japanese engineer and another local staff stationed in the country, and additionally a project leader and two mechanical engineers will visit for their concerned portions of the Project according to the schedule and progress.

(3) Implementation System

The resident Japanese staff of the contractor is composed of a site manager, an accountant (purchases), a labour officer, a construction engineer, a civil engineer, a bridge engineer, and a mechanical engineer. Two engineers each for foundation pile work, steel sheet pile driving and laying of girder, and one engineer for land survey supervision will be dispatched on a short term basis when needed. Local staff will assist these experts.



4-4-4 Equipment Delivery Plan

<Procurement from Japan>

With the exception of the backhoe loader, all road repair and maintenance equipment is to be procured from Japan.

<Procurement from Third Country>

Backhoe loaders will be procured from England for the following reasons:

Requested back hoe can attach a hoe bucket (0.2 m^3), a loader bucket (0.8 m^3), a ripper and a braker. Some such machines are available in Sri Lanka now, but not available in the Western Province yet. The introduction of the machine would enhance the maintenance work for C, D, and E class roads.

In Japan, since the same type of the machine is either no longer produced or large modification of attachment is required for the use of braker and so on, the provision of the Japanese product would raise problems in maintaining the machines and supply of the spare parts after delivery. Furthermore, the selected maker has a local agent in Sri Lanka, and has had experience in the maintenance of the machine. The spare parts are also attainable through the local agent.

(1) Delivery Details

① Colombo port

<Parties present at customs: >

Japanese side:	personnel of the consultant and the trading company (its local agent)
Sri Lankan side:	officials of the MPPI (RDA) and the Gampaha District (IRDP Office)

<Tasks:>

- Confirmation of quantities of packed equipment and containers, and visual inspection of items.
- Photographing of damaged machinery and equipment for insurance coverage. (This will be done by personnel of the Japanese trading company.)

② From Colombo port to depot

Personnel of the Japanese trading company will make arrangements for the costs incurred for loading the equipment, drivers, transportation of equipment by trailers or otherwise, registration of vehicle license numbers, insurance, fuel, and unloading at the next destination.

③ Depot (site in Colombo city designated by the MPPI)

<Parties present at inspection:>

Japanese side: personnel of the consultant and the trading company (its local agent)
Sri Lankan side: officials of the MPPI (RDA) and the Gampaha District (IRDP Office)

<Tasks:>

- Photographing unpacked machinery and equipment for possible insurance coverage in the case of damage.
- Visual inspection of all procured machinery and equipment.
- The Sri Lankan side will make arrangements and bear expenses for employing security personnel.

<Inspection Certificates:>

- Upon completion of the inspection of all the procured machinery and equipment and application for insurance, the consultant will receive an inspection certificate issued by the MPPI.

④ From depot to deployment destinations (4 EEO's and 12 PS's)

<Inland Transportation>

The Sri Lankan government will be responsible for inland transportation of the equipment.

<Confirmation:>

The consultant will confirm transportation of the equipment from the depot to deployment destinations.

⑤ Submission of Final Report

The consultant will submit to the MPPI a final report together with all the certificates and inspection lists received through the steps (1) to (3) above and receive a final confirmation certificate from the MPPI.

(2) Equipment for Bridge Construction

① Japan will procure equipment for bridge construction.
② Items included in the procured equipment will be grouped according to the following types of work they are intended for:
<temporary works and demolition> <foundation pile driving and provisional pier construction> <abutment and levee construction> <construction of access roads>
③ The contractor will bear all the costs incurred for customs clearance, insurance, registration of vehicle license numbers and inland transportation from Colombo port to destinations.
④ The consultant will check the number of units of equipment and the operational condition of the units.
⑤ Grouped equipment (procured from Japan) according to function are as follows:

(Temporary work, demolition work)

Work item	Breakdown	Machinery
Backfilling for temporary road	-Loading at borrow pit -Transportation -Compaction	-Back hoe (0.6 m^3) -Dump truck (8 tons) -Bulldozer (15 tons)
Removal of temporary pier	-Pile driving -Placing of girder -Loading & transportation	-Vibro-hammer (40 kw) -Power generator (125 kva) -Crawler crane (35 ton) -Crawler crane (35 ton) -Electric welder (300A) -Power generator (125 kva) -Truck (11 ton) -Truck crane (25 tons)
Laying of hume pipe	-Small scale transportation	-Truck crane (4 tons) -Back hoe (0.6m^3) -Pump (50m^3/m.)
Excavation for channel diversion	-Excavation -Transportation	-Back hoe (0.6m^3) -Dump truck (8 tons) -Pump (100 m^3/m.)
Demolition of existing bridge	-Demolition of concrete structure	-Heavy braker (600 kg) -Back hoe (0.4m^3) -Braker (20 kg) -Pick hammer -Compressor (3.5-3.7 m^3/min.)
Transport of refuse	-Loading and transportation -Demolition of steel structure -Transportation of steel material	-Back hoe (0.6m^3) -Dump truck (8 tons) -Crawler crane (35 tons) -Truck (11 tons)

(For steel sheet pile, foundation pile and pier works)

Work item	Breakdown	Machinery
Steel sheet pile driving	-Steel pile driving in and pulling out -Sheet pile loading and transport	-Vibro hammer (40 kw) -Crawler crane (35 tons) -Power generator (125 kva) -Truck (11 tons) -Truck crane (25 tons)
RC pile driving	-Loading and transport -Pile driving -Pile head braking -Pile jointing	-Truck (11 tons) -Truck crane (25 tons) -Diesel hammer (2.5 tons) -Crawler type pile driver (boom type) -Braker (20 kg) -Compressor (3.5-3.7m³/min.) -Semi-automatic welder 500A -Power generator (60 kva)
RC pile manufacturing		-Power generator (60 kva) -Electrical welder (300A) -Truck crane (25 tons)
Temporary pier	-Driving in and pulling out -Walling -Transport	-Vibro hammer (40 kw) -Crawler crane (35 tons) -Power generator (125 kva) -Crawler crane (35 tons) -Truck (11 tons) -Truck crane (25 tons)
Common work	-Loading and transport	-Trailer (32 tons) -Truck (11 tons) -Truck (4 tons) -Truck crane

(Abutment and embankment protection works)

Work item	Breakdown	Machinery
Excavation for abutment	-Excavation and loading -Transport	-Back hoe (0.6 m^3) -Pump (50-100m^3/min.) -Pump (80m^3/min.) -Dump truck (8 tons)
Placing concrete for abutment	-Form, rebar and scaffolding -Concrete casting	-Truck crane (15 tons) -Pump (50-100m^3in.) -Bucket (0.6 m^3) -Truck crane (25 tons) -Vibrator
Placing gabion	-Excavation and gravel filling	-Back hoe (0.6 m^3) -Pump (50 m^3/min.)
RC retaining wall	-Excavation, -Form, rebar and scaffolding -Concrete casting	-Back hoe (0.6 m^3) -Truck crane (15 tons)

(Erection of girder and surfacing)

Work items	Breakdown	Machinery
Laying of girder	-Ground assembly -Laying of girder	-Truck crane (40-45 tons) -Compressor (3.5 m^3/min.) -Truck crane (25 tons) -Truck crane (40-45 tons) -Power wrench -Torque wrench -Machine for launching of a girder
Slab concrete work		-Power generator (15 kVA) -Vibrator (0.75 kw)
Surfacing work	-Drainage pipe	-Concrete cutter -Pick hammer -Hammer drill
Common work		-Trailer (32 tons) -Truck (11 tons) -Truck (4 tons) -Truck crane

(Access Road)

Work items	Breakdown	Machinery
Access road	-Loading and transportation -Compaction -Work for road bed and surfacing	-Back hoe (0.6m³) -Dump truck (8 tons) -Bull dozer (15 tons) -Tire roller (10 tons) -Motor grader (3.1m) -Sprinkling cart (5.5-5.6 kℓ) -Grass cutter -Chain saw -Road roller(10-12 tons) -Tire roller (10-12 tons) -Asphalt distributor(3-4.5kℓ) -Motor grader(3.1m) -Sprinkling cart (5.5-6.5kℓ) -Vibrating roller (1.1 tons)
Common work		-Trailer (32 tons) -Truck (11 tons) -Truck (4 tons) -Truck crane

4-4-5 Construction Period

(1) Bridge Construction

Of the total of 16 bridges, 10 are to be plate girder and 6 are to be concrete (box culvert). In the case of plate girder bridges, construction schedule must be coordinated with marine shipment from Japan of girder materials. In the case of concrete bridges, coordination of construction schedule is facilitated by the fact that locally produced materials are to be used. Taking into account the requirements for construction for both types of bridge, cost effectiveness, and the planning schedules of the executing agencies of the Sri Lankan side, it is concluded that the implementation of the Project should be split into the following two rounds:

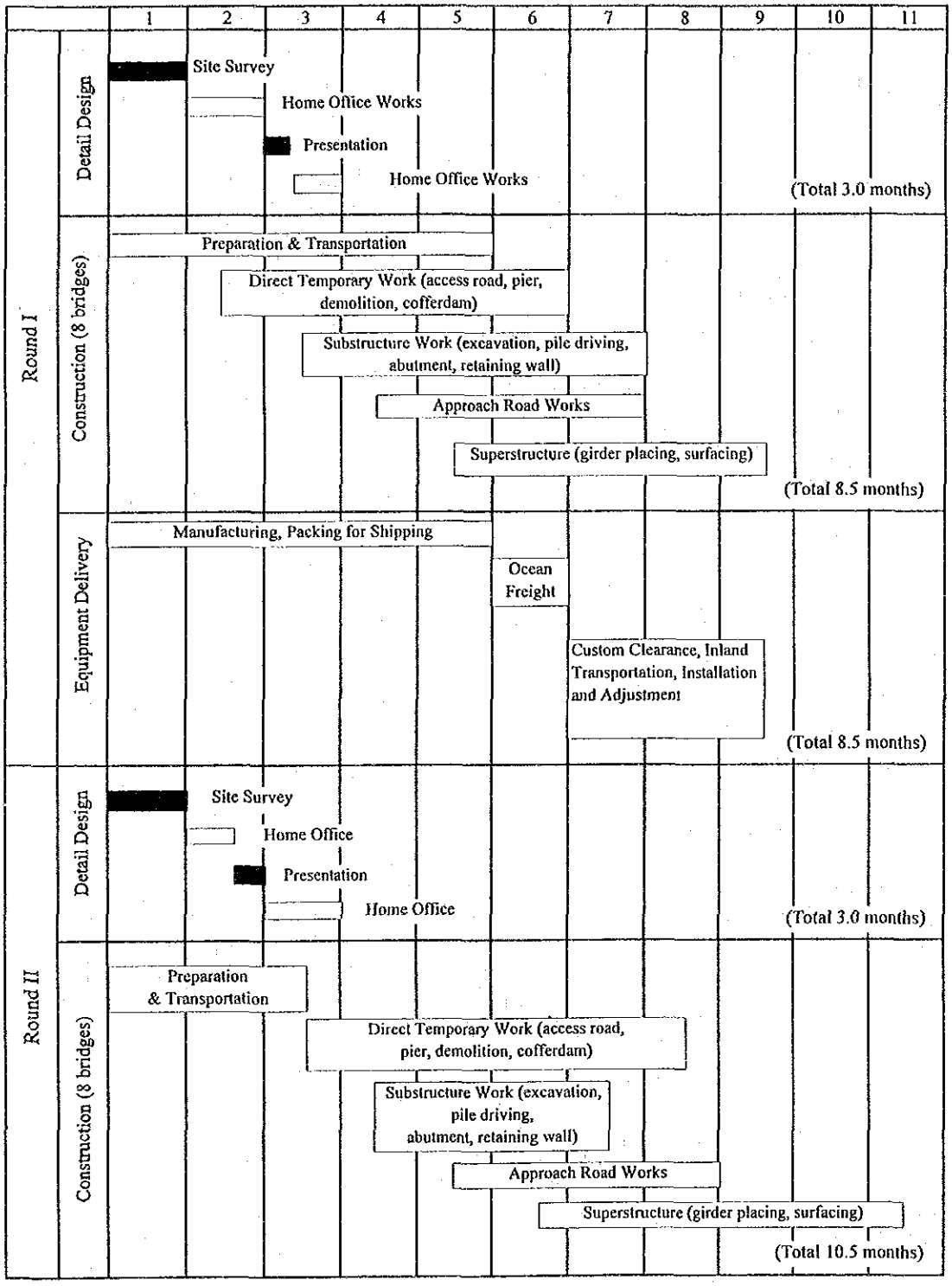
1st round	8 bridges	(bridges no. 1~7,9)	plate girder: 5 bridges; box culvert: 3 bridges
2nd round	8 bridges	(bridges no. 8,10~11, 13~17)	plate girder: 5 bridges; box culvert: 3 bridges

(2) Equipment Plan

Due to a lack of equipment on hand by Government agencies, road repair works are performed largely through equipment rental from the private sector. Budgetary constraints consequently limit effective planning and execution of such road maintenance and repair activities. In conjunction with the above described bridge construction works under the Project, road maintenance equipment will also be provided to further heighten the effectiveness of the reconstructed bridges. This equipment will be provided during Round II of the Project.

The overall schedule of the Project is shown below.

<Overall Implementation Schedule>



CHAPTER 5 PROJECT EVALUATION AND CONCLUSION

5-1 Benefit of the Project

The ultimate aim of the Project is the establishment of rural infrastructure, contributing to expansion of employment opportunities and the increase of farm income, as well as promoting stabilization of rural living standards and alleviation of poverty through improved rural living environment. Establishment of agricultural production infrastructure was the objective under Phase I of the Project implemented under Grant Aid from the Japanese government in 1989~1991. Phase II is designed to further disseminate the benefits under Phase I throughout the rural area of Gampaha District. In its integrated nature with Phase I, Phase II is anticipated to produce the following impacts.

(1) Improved Farm Productivity and Farmer Income

Under Phase I, the following were carried out to diversify agriculture and improve farm productivity: ① transfer of agricultural technology (Morenna area), ② construction of Morenna model farm for irrigation, ③ establishment of seedling production capacity for minor export crops (Walpita district, center), and ④ strengthening of farmer support.

Through the extension activities at 26 existing Agrarian Service Centers in the district, information on new farm technology and model cropping patterns developed under Phase I is disseminated, and seedlings for minor export crops produced at the Walpita nursery are distributed to the district farmers. The aforementioned Agrarian Service Centers are furthermore directly engaged in the supply of fertilizer, agro-chemicals and seeds to farmers, as well as providing guidance in farm management. These activities by the Agrarian Service Centers are aimed at equal distribution of the benefits achieved under Phase I to all farmers of Gampaha district.

The road construction envisioned under Phase II is the cornerstone for support of the Agrarian Service Center activities described above by improving mobility and access in rural Gampaha.

Accordingly, full achievement of the targets under Phase I will rely heavily on the implementation of Phase II. Improved rural mobility will be a major factor in farmers gaining independence in terms of production activity and life-style.

Farm income as a result of the implementation of Phase I is envisioned as follows:

Estimated Farm Income by Farm Size

	Present (Rs)		Projected (Rs)			
	Gross Income	Net Income	Gross Income	Increase Factor *	Net Income	Increase Factor*
10 acres	35,390	17,866	209,720	5.93	144,824	8.11
4 acres	15,868	7,752	113,585	7.16	79,040	10.20
1.0 acres	7,051	3,222	39,423	5.59	23,649	7.34
0.5 acres	3,212	1,667	16,222	5.05	11,205	6.72
0.25 acres	444	282	3,840	8.65	2,895	10.26

*Indicates number-of-fold increase over present

The strategy for increasing farm income should not be limited to simply farm product diversification and improved production, but must also achieve an appropriate farm gate price for farmers while still maintaining the competitiveness of farm products in both the international and domestic markets.

At present, poor transportability for farm products due to unsatisfactory rural road network including superannuated bridges, inadequate road maintenance, etc. lengthens the time required for produce to reach markets, resulting in damaged items particularly in the case of vegetables and fruits. Furthermore, as a result of constrained access to markets due to the poor road network in rural areas, farmers are in many cases forced to sell their produce to go-between merchants at unfairly low prices. The differences between farm gate and market prices (Colombo, Gampaha city) for main agricultural and fishery products from Gampaha district are as shown in Table 5-1-1.

Table 5-1-1 Market and Farm Gate Prices for Main Agricultural and Fishery Products from Gampaha District (as of August 1993)

PRODUCT	① MARKET PRICE (RS.)	② FARM GATE PRICE (RS.)	②/① (%)
Paddy	10.50/kg	7.50/kg	71.4 %
Coconut	15.00/Nut	5.00/Nut	33.3
Pineapple	20/ to 25/	7/ to 8/	32 ~35
Beetle	20/ for 40 leaves	7/	35
Sweet Pepper/ Capsicum	20/ kg	8/ kg	40
Ladies Fingers	14/ 〃	5/ 〃	35.7
Pumpkin	12/ 〃	5/ 〃	41.7
Hot Pepper	30/ 〃	15/ 〃	50
Manioc	8/ 〃	2/ 〃	25
Yams	16/ 〃	10/ 〃	62.5
Sweet Potatoe	10/ 〃	3/ 〃	30
Egg Plant	15/ 〃	8/ 〃	53.3
Raddish	12/ 〃	3/ 〃	25
Caupi	NOT AVAILABLE IN THE MARKET		
Chillies	140/ 〃	80/ 〃	57.1
Bitter Gourd	15/ 〃	8/ 〃	53.3
Snake Gourd	12/ 〃	7/ 〃	58.3
Ginger	40/ 〃	20/ 〃	50
Tamarin	30/ 〃	20/ 〃	66.7
Banana	25/ 〃	7/ 〃	28
Passion Fruit	NOT AVAILABLE IN THE MARKET		
Fish(Seer)	220/ kg	70/ kg	31.8
Shrimp	350/ to 450/	150/ to 200/	42.8~44.4

As can be seen from the above table, there are numerous cases of marked difference between farm gate and city prices. Accordingly, an important issue which must be addressed is the achievement of appropriate prices for farm products through the upgrading of the distribution structure. Under Phase II, transport capacity for farm products will be improved through construction and rehabilitation of road network facilities in rural areas, with anticipated positive impact on shifting prices for farm products to a more advantageous level for the farmer.

Although the appropriate ratio of farm gate price to city price would depend on the item, it is considered that an equitable ratio for products with a current farm gate price / market price ratio of 20~40% (fresh produce) would be around 50%, and around 65% for those products with a current ratio of 50~60% (easily damaged produce).

In order to achieve the above levels, both improvement of transport capability and the distribution system (including construction of storage facilities for farm products which are available to farmers) are necessary. However, at this initial stage, upgrading of transport facilities is anticipated to contribute greatly to attaining the above envisioned improved price levels at the farm gate.

(2) Creation of Employment Opportunities

Under Phase I, employment opportunities (including that for family labor) have been expanded through the introduction of intensive cultivation in upland fields and intercropping of minor export crops among coconut trees. It is anticipated that 17,000 new jobs were generated as a result of Phase I. As a result of the infrastructure construction under the subject Phase II, mobility of rural labor will be improved making the expanded employment opportunities established under Phase I more available to workers throughout the rural area of Gampaha district.

A work shop is further planned for construction at Asgiriya in the district. The work shop will provide new jobs for 26 workers.

(3) *Improvement of the* Rural Living Environment

Upgrading of the level of social services available in rural area will contribute significantly to enhancing the rural living environment. Infrastructure construction and rehabilitation under Phase II will make facilities related to social and welfare services such as hospitals, clinics, schools, etc. more readily available to the rural population of the district. It is anticipated that this will deepen overall consciousness in rural areas regarding the importance of health and sanitary measures and contribute to a sounder rural living environment.

Although the school enrollment rate for Gampaha district is at a high level on a par with that for Colombo, there still remains a high incidence of middle school dropout. Improved transportation is expected to facilitate and promote greater school attendance.

(4) Reduction in Costs for Rural Road O/M

Procurement of road repair and maintenance equipment under the Project will eliminate the need for costly equipment rental and materials purchases (premix), which have been the practice in the past and which have contributed to a major portion of road repair costs. It is expected that this will reduce rural road repair costs per annum in Gampaha District by about 30% (Rs 10 million).

(5) Other Impacts

Strengthened transportation facilities will foster population movement, extending the benefits achieved under Phase I to a greater segment of the rural population and further stimulate the rural economy. Opportunities for farmers to act on their own initiative will be enhanced, which is anticipated to provide an impetus to further development in rural areas.

Implementation of Phase II would be expected to improve, by facilitating transportation, the attendance in home economics courses for females at agricultural training facilities. This would promote better nutrition in rural areas and greatly contribute to the nutritional improvement programme of the Government at the national level.

PROJECT IMPACTS

Present Condition	Countermeasures under the Project	Project Impact
Due to deterioration of the road network in Gampaha district, transport of materiel and human mobility are constrained, resulting in restricted access of commercial crops to both domestic and international markets and population to hospitals, schools and other social service. Gate price for farm produce is in many cases greatly lower than the market price, a factor aggravating poverty in the district	16 bridges are to be reconstructed under the Project. The impassability and dangerous nature of these bridges is a major cause of the deteriorated road network in rural area of Gampaha district. In addition, the existing road maintenance and repair structure in the district is to be upgraded through the procurement of road repair equipment to enable maintenance of roads in satisfactory condition.	Of the 16 bridges under the Project, 4 are impassable at present and the remaining 12 are in dangerous condition (considered susceptible to imminent collapse). Accordingly, reconstruction of these 16 bridges will serve to restore the road network of the district to functional status with estimated direct benefit to 5,000 households per bridge. Transport capability will be improved fostering an improved distribution system for farm products and leading to an anticipated 10~20% increase in farm gate prices
Under Phase I of the IRDP, agricultural production infrastructure has been improved, and crop diversification and productivity upgraded. Degraded condition of the rural road network is a serious constraint to the extension of these benefits throughout the district	Upgrading of the functionabiltiy of the rural road network will, through improved mobility, more broadly extend availability to district farmers of the various agricultural support services now in effect.	The minor export crop training course under Phase I commenced in 1991, and as of the present there are 48 courses with 788 participants. Improved mobility as a result of the Project will promote enrollment in these courses to an anticipated total of 1,500 trainees.
Damage to farm roads in the district is marked as these are only simple surface to begin with. In the case of unpaved roads, damage frequently extends below the surface to the road bed itself due to the twice annual rainy seasons and resultant inundation by flood.	Paving material consists of pre-mix presently procured from the private sector. Under the Project, the PRDA will be given the capability to produce its own paving materials. Road bed preparation and compacting equipment will be deployed at the EEO's for rapid response to road repair requirements.	At present, purchase of road repair materials accounts for 40% of the road repair budget of the EEO's. Including labor, paving repairs account for 60~90% of the said budget. Project implementation is expected to reduce such repair costs by 20~30%.
The 4 EEO's under PRDA are currently in possession of only obsolete road roller equipment for maintenance of trunk farm roads. Consequently these offices rely heavily on the rental of equipment from the private sector which in turn puts heavy stress on limited budget resources. Furthermore, it is often difficult to arrange rental on short notice for emergencies, resulting in serious delays in badly needed road repair.	Equipment for both unpaved and paved road repair will be equally distributed to the 4 EEO's. Equipment will likewise be deployed to the 12 PS's. in the district to upgrade the efficiency of road repair works now being carried out manually. A workshop will be established in the district for inspection, maintenance and repair of the equipment to be procured under the Project.	It is expected that deployment of road repair equipment under the Project will reduce the current time required to execute repairs by about 30%. Furthermore, a savings in rental cost for such equipment from the private sector is estimated at about Rs 2 million for each EEO.

5-2 Conclusions and Recommendations

As described in the previous section 5-1, the Project will have a considerable beneficial impact. Particularly the extension under Phase II of the benefits achieved in the design model areas under Phase I throughout the rural area of the district will give the Project a truly integrated rural development impact, and contribute to improved rural income.

The rural infrastructure construction plan which comprises Phase II is a continuation under the Project of Phase I, the agricultural promotion plan. The two projects are inseparable in that Phase II, as discussed above, ensures the widespread beneficial impact of Phase I.

Furthermore, the executing agency for the Project, the Regional Development Division of the Ministry of Policy Planning and Implementation, has extensive experience in the carrying out of IRDP's, having supervised and coordinated the various related agencies on such projects in 16 districts of the country.

In light of the above, it is concluded that Phase II of the Project is well suited for implementation under the Grant Aid program of the Japanese government.

The procurement of equipment for maintenance of farm roads is a major component under Phase II. Accordingly, the proper maintenance and repair of this equipment will be a prerequisite in the capability to effectively maintain rural roads.

To this end, a work shop is to be constructed under Phase II for the maintenance, inspection and repair of the various above mentioned equipment. This is important not only for the immediate Phase II, but for further development to be pursued under the IRDP in the future as well. Also, it will be important to proceed with training of the necessary technical personnel to operate the work shop at existing training facilities as this is anticipated to require a lengthy period time.

It is also strongly recommended that the executing agency take the necessary steps to address its responsibilities under the Project including (i) movement of power poles and water pipelines in preparation for bridge construction works, (ii) acquisition of borrow pit sites, depot space for construction materials/equipment, sites for disposal of removed bridge components and debris in the course of bridge construction works, and land acquisition for access roads, (iii) work shop construction, (iv) expediting of procedures for import of construction materials and equipment to be provided under the Project, and (v) budgetary measures to cover costs to be borne by the Sri Lankan side.

In particular, selection of borrow pit and disposal sites has to be carefully considered for not resulting in environmental deterioration. After completion of bridge reconstruction works, uninterrupted planting in these sites would be needed.

ANNEX

1. Members of Survey Team

1-1 For the survey of basic design

1.	Leader	Narihide Nagayo Development Specialist, JICA
2.	Agriculture Development Planner	Syuji Sannabe Deputy Director of East Iburi Agricultural Development Office Department of Construction for Development Muroran, Hokkaido Development Bureau, Hokkaido Development Agency
3.	Project Coordinator	Akira Nakamura First Basic Design Study Division, Grant Aid Study & Design Department, JICA
4.	Chief Consultant	Masamitsu Fujioka Chuo Kaihatsu Corporation
5.	Road & Bridge Designer	Sadayoshi Takahashi Chuo Kaihatsu Corporation
6.	Facility Plan	Naofumi Honma Chuo Kaihatsu Corporation
7.	Execution Plan	Michio Yoshimaru Chuo Kaihatsu Corporation

1.2 For the presentation of Draft Final Report

1.	Leader	Takeo Kai Development Specialist, JICA
2.	Agriculture Development Planner	Syuji Sannabe Deputy Director of East Iburi Agricultural Development Office Department of Construction for Development Muroran, Hokkaido Development Bureau, Hokkaido Development Agency
3.	Project Coordinator	Akira Nakamura First Basic Design Study Division, Grant Aid Study & Design Department, JICA
4.	Chief Consultant	Masamitsu Fujioka Chuo Kaihatsu Corporation
5.	Road & Bridge Designer	Kuniki Iwata Chuo Kaihatsu Corporation

2. Members List for Sri-Lanka Side (Basic Design Study)

Prime Minister & Minister of Industries and Scientific Affair

Hon. Ranil Wickramasinghe

Ministry of finance

Mrs. S. Kuruppu	Director External Resources Dept.

Ministry of Policy Planning and Implementation (MPPI)

Mr. C. Maliyadde	Director General
Mr. S. Amarasekara	Director Regional Development Division (Rdd)
Mr. K. Jayalath	Additional Director Do.
Mr. T.V.K. Jagathsoma	Deputy Director do

Ministry of local Government, Land, Agricultural and Cooperatives

Mr. Ratnasiri Wickramanayake	Provincial Minister
Mr. Cyril Gunapala	Secretary
Mr. G. V. S. Perera	Director
Mr. S. H. Ferdinandis Director	Gampaha Att Center

Western Province

Hon. Mrs. Chandrica Bandaranai	Chief Minister
Mr. Senarath Dissanayake	Chief Secretary

Provincial Road Development Authority (PRDA)

Mr. N. Wijesesekara	Chairman	Western Province
Mr. H. P. Bandaranayake	Executive Eng.	Kirindiwela
Mr. S. Jayasekara	Executive Eng.	Nittambo And Negombo
Mr. W. R. F. C. Botheju	Executive Eng.	Udugampola

Gampaha District

Mr. J. A. M. Karunaratne	Director Gampaha Irdp Office
Mr. P. Perera	Irrigation Engineer Gampaha Irrigation Office
Mr. H. A. A. S. Ranasinghe	Statistician Gampaha Kacheri
Mr. H. A. Ariyadasa	Assistant Divisional Secretary Ahanagalls

Japanese Embassy

Mr. Kunihiro Doi	First Secretary

JICA Colombo Office

Mr. Yoshiaki Sakamaki	Directory / Resident Representative
Mr. Jiro Iida	Assistant Resident Representative
Mr. Mitsuyoshi Kawasaki	Assistant Resident Representative

2. Members List for Sri-Lanka Side (Draft Final Report)

(External Resources Division-MOF)

Mrs. S. L. Kuruppu	Director General ERD
Mrs. D. D. J. Kudaligama	Director ERD
Mr. Upali Dissanayake	Deputy Director ERD
Mr. A.M.P.K.Attanayake	Assistant Director ERD

(Regional Development Division-MPPI)

Mr. C. Maliyadde	Director General, Ministry of Policy Planning and Implementation
Mr. S.Amarasekara	Director RDD-MPPI
Mr. S.Rahudedda	Additional Director RDD
Mr. T.V.K.Jagathsoma	Deputy Director RDD
Mrs. N.Pathirana	Additional Director RDD
Mrs. A.Wanasinghe	Additional Director RDD
Mr. K.Jayalath	Director - Admini - MPPI

(Western Province Council)

Mr. S.Dissanayake	Chief Secretary WPC
Mr. S.H.Ferdinandez	Deputy Chief Secretary WPC
Mr. G.V.S. Perera	Director/Planning WPC
Mr. N.Wijesekara	Chairman PRDA-W.P.
Mr. D.P. Senanayake	General Manager PRDA-W.P.
Mr. H.P.Bandaranayake	Executive Engineer, Dompe Division
Mr. W. Botheju	Executive Engineer, Udugampala Division
Mr. W.Jayasekara	Executive Engineer, Nittambuwa Division

(Gampaha District)

Mr. J.A.M.Karunaratne	Director IRDP Gampaha
Mr. S.A.Gunasekara	Additional Director IRDP Gampaha
Mr. A. Jayasekara	Additional Director IRDP Gampaha
Mr. K. Wanasihgha	Additional Director IRDP Gampaha
Mr. K.A.M. Kaulawathie	Additional Director IRDP Gampaha A.T.T.

3. Minutes of Discussion (Basic Design Study)

MINUTES OF DISCUSSIONS
BASIC DESIGN STUDY
ON THE INTEGRATED RURAL DEVELOPMENT PROJECT(II)
IN GAMPAHA DISTRICT
OF
DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

In response to the request of the Government of Democratic Socialist Republic of Sri Lanka, the Government of Japan decided to conduct a Basic Design study on the Integrated Rural Development Project(II) in Gampaha District (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Sri Lanka a study team, headed by Mr. Narihide Nagayo, Agricultural Development Specialist of JICA from July 27 to August 29, 1993.

The team held discussions with the officials concerned of the Government of Sri Lanka and conducted a field survey at the study area.

In the course of discussions and field survey, both parties have confirmed the main items on the attached sheets. The team will proceed to further works and prepare the Basic Design Study Report.

Colombo, August 3, 1993

Mr. Narihide Nagayo
Leader,
Basic Design Study Team,
JICA

Mr. C.Maliyadde
Director General,
Ministry of Policy Planning
and Implementation

ATTACHMENT

1. The Objective of the Project

The objective of the Project is to improve the living condition of the rural population and enhance the circulation of agricultural product through the improvement of accessibility and procurement of road maintenance equipment.

2. The Project Site

The Project area is located in Gampaha District. (See Annex I.)

3. Executing Agencies

Regional Development Division of the Ministry of Policy Planning and Implementation will be the National Executing Agency for the Project and the Western Provincial Council will be responsible for the Project Implementation.

4. Items requested by the Government of Sri Lanka

After discussions with the Basic Design Study Team, the following items were finally requested by the Sri Lanka side.

1) Reconstruction or construction of 17 bridges with approach roads.

NO. 1 -Reconstruction of 1/1 Bridge on Uswetakeiyama-Bopitiya Road.

NO. 2 -Reconstruction of 1/1 Bridge on Palliyawatte-Lansiyawatte Road.

NO. 3 -Reconstruction of 1/2 Bridge on Averiwatte-Yagodamulla Road.

NO. 4 -Reconstruction of 2/1 Bridge on Averiwatte-Yagodamulla Road.

NO. 5 -Reconstruction of 2/3 Bridge on Dalupitiya-Karagahamuna Road.

NO. 6 -Reconstruction of 2/4 Bridge on Dalupitiya-Karagahamuna Road.

NO. 7 -Reconstruction of 3/4 Bridge on Ja-ela-Oragolla Road.

NO. 8 -Construction of a new bridge(Dee Eli-Oya Bridge) on Doranagoda-Udugampola Road.

NO. 9 -Reconstruction of Kalawana Bridge on Aswana-Miniwangoda Road.

NO.10 -Reconstruction of Esella Bridge on Wadamulla-Niwala Road.

NO.11 -Reconstruction of Ogodapola Bridge on Walpola-Mylawalana Road.

NO.12 -Reconstruction of bridge along Walpola-Mailawalana Road.

NO.13 -Reconstruction of 1/5 Bridge on Gonahena-Ruppagoda Road.

NO.14 -Reconstruction of 1/1 Bridge on Malwana-Samanabedda Road.

NO.15 -Reconstruction of 1/5 Bridge on Malwana-Samanabedda Road.

NO.16 -Reconstruction of 1/1 Bridge on Samanabedda-Walgama-Kahatagoda Road.

NO.17 -Reconstruction of 1/3 Bridge on Pallegama-Ranawala Meethirigala Road.

2) Provision of Road Maintenance Equipment for 12 Pradeshiya Sabhas including one managed by the Board of Investment.(Local Authorities)

A) — Vibrator roller 1.5ton [1]
B) — Tar boiler [1]
C) — 4W-tractor with trailer [1]
D) — 2W-tractor with trailer [1]

01. — Kelaniya Pradeshiya Sabha ..... (A,B,C,D)
02. — Wattala Pradeshiya Sabha ..... (A,B,C,D)
03. — Ja-Ela Pradeshiya Sabha ..... (A,B,C,D)
04. — Mahara Pradeshiya Sabha ..... (A,B,C,D)
05. — Katana Pradeshiya Sabha ..... (A,B,C)
06. — Minuwangoda Pradeshiya Sabha ..... (A,B,C,D)
07. — Divulapitiya Pradeshiya Sabha ..... (A,B,C,D)
08. — Attanagalle Pradeshiya Sabha ..... (A,B,C)
09. — Gampaha Pradeshiya Sabha ..... (A,B,C,D)
10. — Dompe Pradeshiya Sabha ..... (A,B,C)
11. — Mirigama Pradeshiya Sabha ..... (A,B,C)
12. — Biyagama Pradeshiya Sabha ..... (A,B,C,D)

3) Provision of Road Maintenance Equipment for 4 Divisional Engineering Offices of Road Development Authority.

A) — 7 Ton Vibrating Tandem Rollers
B) — Medium Size Motor Graders
C) — Low Bed Trailers
D) — Bull Dozers D.4 Type
E) — Backhoe Loaders
F) — Mechnical Grass Cutters

However, the final components of the Project will be decided after further studies.

5. Other Relevant Issues

1) The bridge should be limited to 2 lanes at maximum.

2) The land acquisition of approach span of bridge should be secured by the Government of Sri Lanka before commencement of the Project.

3) In case there are no access roads to the bridges (No.8, No.9, No.13), the Government of Sri Lanka should construct them by its own budget.

4) The Government of Sri Lanka should provide necessary facilities for proposed road maintenance equipment.

5) The Government of Sri Lanka has requested construction of 2 warehouses and complex of storages with a cold room. However the Mission was at the view that this proposal needs a basic strategy dealing with pre-requisite conditions such as marketing control plan, participation of farmer's organization, and quality control technique before consideration for grant assistance.

6) Government of Sri Lanka has made a strong justification and placed high priority for inclusion of the bridge listed on item 12 as a final component of the Project. As a temporary measure, a bailey bridge has been placed on the abutments of the old bridge which has been damaged few years back. The Mission would convey this to the authorities in Japan for favourable consideration.

7) The Government of Sri Lanka agreed to provide buildings for workshops and garages, staff and budgetory allocations for operation and maintenance as a pre-requisit to recieve heavy equipment. Also the Government of Sri Lanka agreed to utilize these heavy equipment for maintenance and improvement of E and F class roads, which are maintain by Pradeshiya Sabha,(Local Authorities) at operational cost.

6. Japan's Grant Aid System

1) The Government of Sri Lanka has understood the system of Japanese Grant Aid Programme explained by the Team.

2) The Government of Sri Lanka will take the necessary measures described in Annex II for smooth implementation of the Project, on condition that the Grant Aid Assistance by the Government of Japan is extended to the Project.

7. Schedule of the Study

1) The consultants will proceed to further studies in Sri Lanka until August 29, 1993.

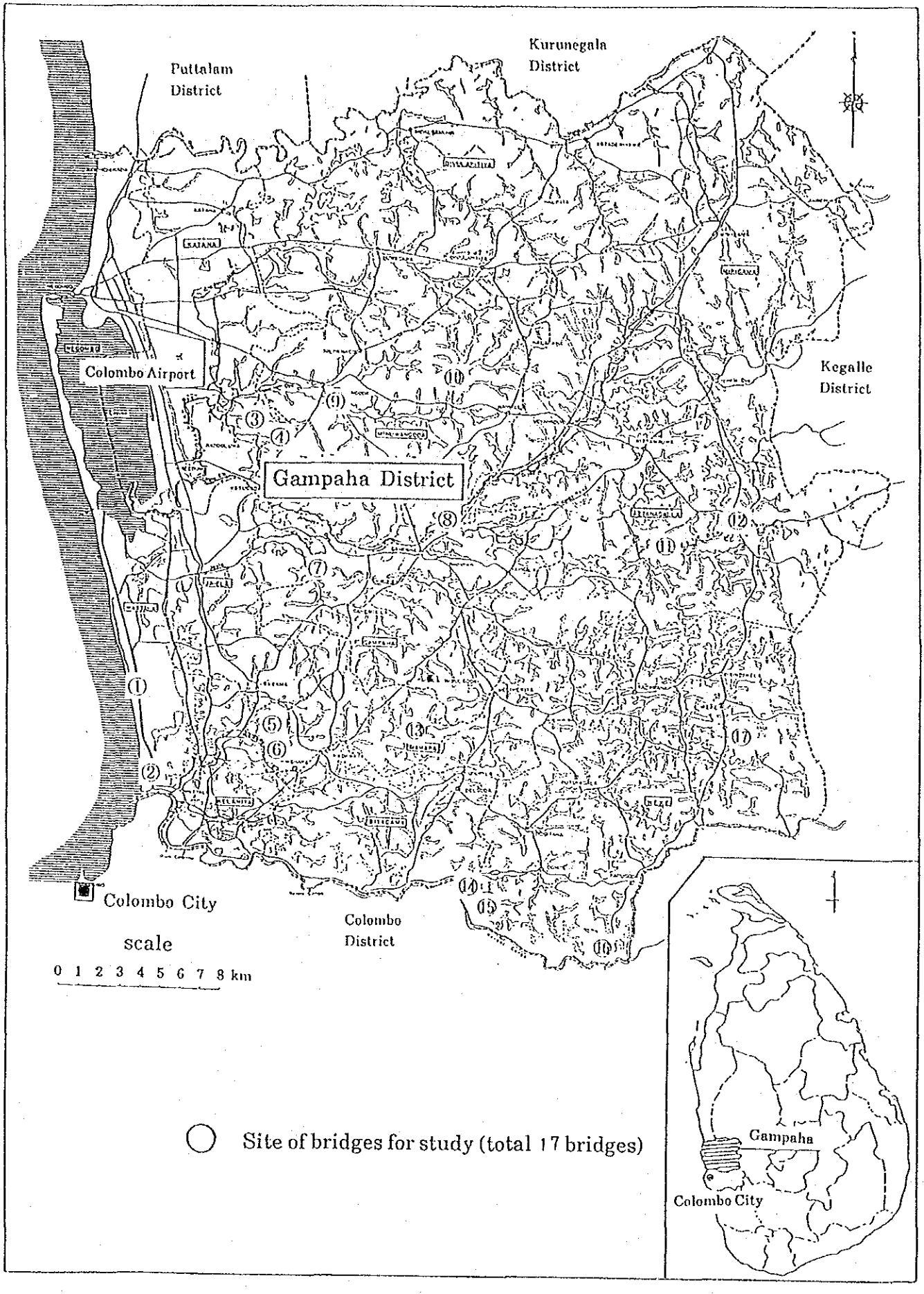
2) JICA will prepare the draft report on the Project in English and dispatch a mission to Sri Lanka in order to explain the contents of the report in around November, 1993.

3) In case that the contents of the report accepted in principle by the Government of Sri Lanka, JICA will compile the final report on the Project and send it to the Government of Sri Lanka by the end of January, 1994.

ANNEX I :

Location Map of Project Sites

Location Map



ANNEX II : Necessary measures to be taken by the Government of Sri Lanka in case Japan's Grant Aid is extended.

1. To secure the site for the Project.

2. To clear, level and reclaim the site before commencement of construction.

3. To provide the land for a temporary site office, warehouse and stock yard during implementation of the project.

4. To provide necessary facilities for the Project such as access roads, electricity, water supply, drainage, and other incidental facilities.

5. To bear commissions to the Japanese foreign exchange bank for the banking services based upon the Banking Arrangement.

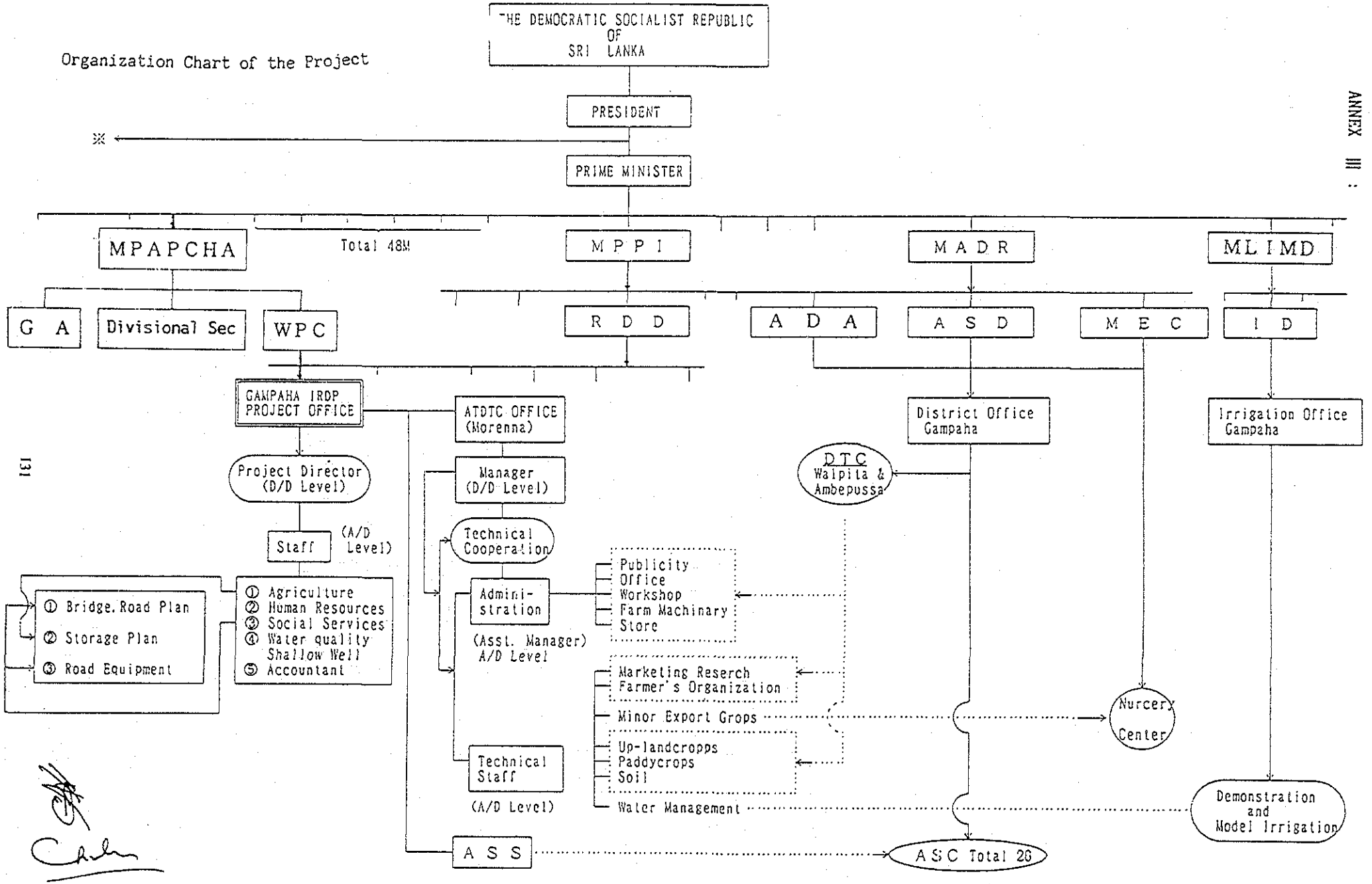
6. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the project at the port of disembarkation.

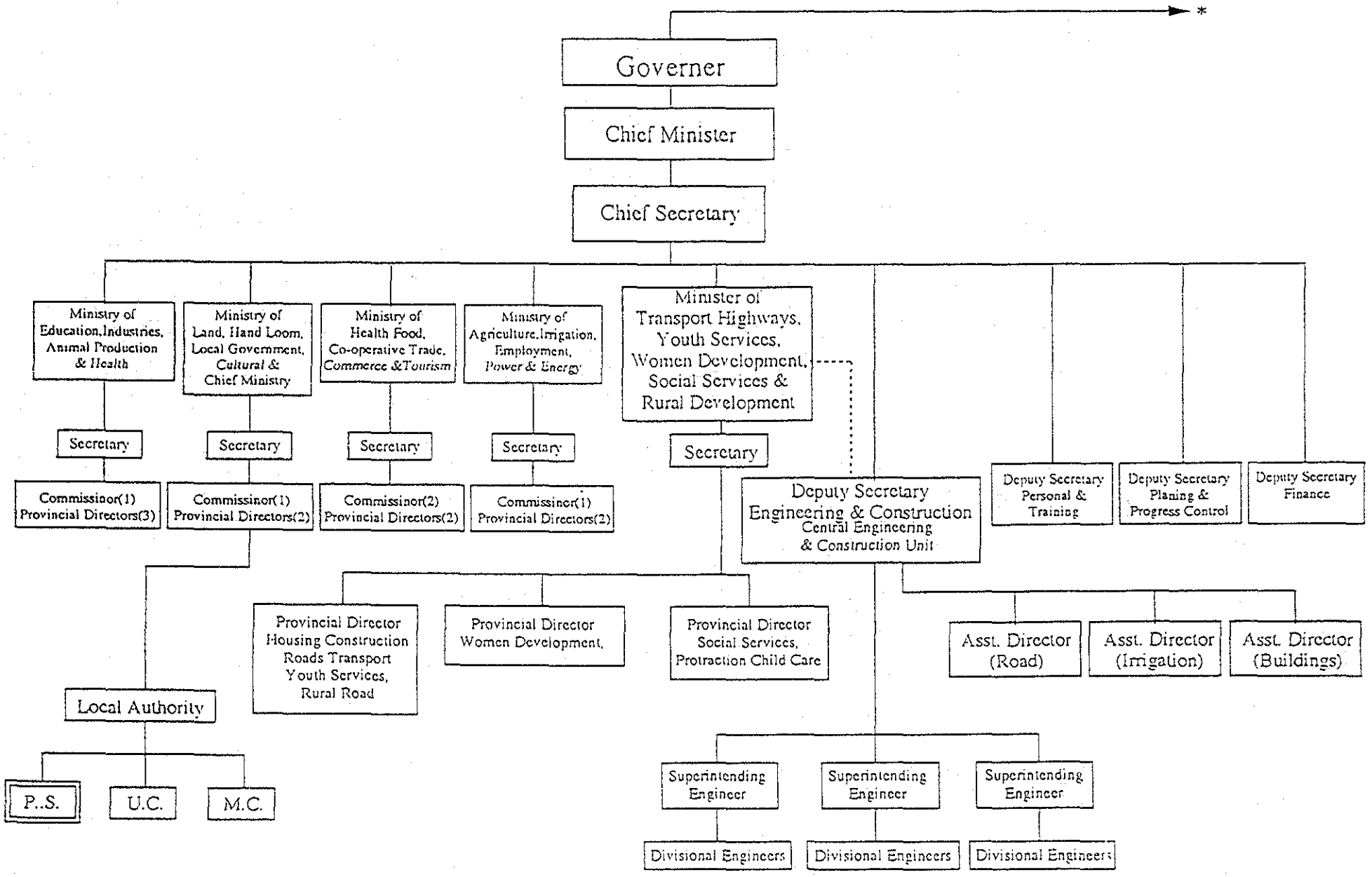
7. To accord Japanese Nationals whose services may be required in connection with the supply of products and the services under the verified contract such facilities as may be necessary for their entry into Sri Lanka and stay therein for the performance of their work.

8. To maintain and use properly and effectively the facilities constructed and equipment purchased under the Grant.

9. To bear all expenses other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and the installation of the equipment.

Organization Chart of the Project




Governer
Chief Minister
Chief Secretary
Ministry of Education, Industries, Animal Production & Health
Ministry of Land, Hand Loom, Local Government, Cultural & Chief Ministry
Ministry of Health Food, Co-operative Trade, Commerce & Tourism
Ministry of Agriculture, Irrigation, Employment, Power & Energy
Minister of Transport Highways, Youth Services, Women Development, Social Services & Rural Development
Secretary
Secretary
Secretary
Secretary
Secretary
Commissinor(1) Provincial Directors(3)
Commissinor(1) Provincial Directors(2)
Commissinor(2) Provincial Directors(2)
Commissinor(1) Provincial Directors(2)
Deputy Secretary Engineering & Construction
Central Engineering & Construction Unit
Deputy Secretary Personal & Training
Deputy Secretary Planing & Progress Control
Deputy Secretary Finance
Provincial Director Housing Construction Roads Transport Youth Services, Rural Road
Provincial Director Women Development,
Provincial Director Social Services, Protraction Child Care
Asst. Director (Road)
Asst. Director (Irrigation)
Asst. Director (Buildings)
Local Authority
P..S.
U.C.
M.C.
Superintending Engineer
Superintending Engineer
Superintending Engineer
Divisional Engineers
Divisional Engineers
Divisional Engineers

ANNEX IV : List of Participants

Mr. C.Maliyadde,	Director General, MPPI.
Mr. M.S.Amarasekara,	Director, Regional Development Division, MPPI.
Mr. S.H.Ferdinandez,	Director, Agricultural Technology, Transfer Centre-Morenna.
Mr. T.V.K.Jagathsoma,	Deputy Director, Regional Development Division, MPPI.
Mr. Narihide Nagayo,	Leader, Agricultural Development Specialist, JICA
Mr. Shuji Sannabe,	Agriculture Development Planner, Deputy, Director of East Iburi Agricultural Development Office Department of Construction for Development of Muroran, Hokkaido Development Bureau.
Mr. Akira Nakamura,	Grant Aid Planner, First Basic Study Division, Grant Aid Study and Design Department. JICA
Mr. Masamitsu Fujioka,	Executive Engineer, Director for Agricultural Development International Product Department, Chuo Kaihatsu Corporation.
Mr. Sadayoshi Takahashi,	Road and Bridge Planner, Manager, Planning Department, Chuo Kaihatsu Corporation.
Mr. Michio Yoshimaru,	Construction Planner, Manager, Facilities Planning, Chuo Kaihatsu Corporation.
Mr. Naofumi Homma,	Facility Planner, Chief, Facilities Planning, Chuo Kaihatsu Corporation.

දුරකථන/தொலைபேசி/Telephones—
අධ්‍යක්ෂ பணிப்பாளர் Director 562530
කාර්යාල அலுவலகம் Office 564770 565290 563101 563102
විදුලි පණිවුඩ தந்தி Telegrams පොපිසෙක් Popisec

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கொள்கைத் திட்டமிடல், அமுலாக்கல் அமைச்சு
MINISTRY OF POLICY PLANNING & IMPLEMENTATION
ප්‍රාදේශීය සංවර්ධන අංශය
பிரதேச அபிவிருத்திப் பிரிவு
Regional Development Division

මගේ අංකය எனது இல. My No. RDD/GM/PH-2
ඔබේ අංකය உமது இல. Your No.
තැ. පෙ. අංකය அ. பெ. இல. P. O. Box No. 1532
"සෙත්සිරිපාය" "செத்திரிபாய" "Sethsiripaya"
බත්තරමුල්ල பத்தரமுல்ல Battaramulla

20th August, 1993.

Mr. N. Nagoyo,
The Japan International Cooperation Agency (JICA),
Shinjuku Mitsui Bldg.,
1-1 Nishi - Shinjuku, 2- Chome,
Shinjuku - ku, Tokyo 163-04, Japan.

Construction of Centralized Workshop in Gampaha

Regarding the proposed road maintenance equipment, it has been agreed that the Government of Sri Lanka should provide necessary facilities and maintain them as stipulated in the minutes.

To establish a suitable maintenance systems following alternative proposals were studied.

1. To establish a garage at each D.E. Office to keep the machinery and repairs to attend at PRDA Workshop in Colombo.

2. Each D.E. Office to have its own Workshop for maintenance of proposed equipment.

3. To establish a centralized Workshop in Gampaha in a central location to all 4 divisions for maintenance and repair of equipment.

At the time of preparing minutes, we thought either proposal 1 or 2 would be suitable but upon further discussions, we reached the final conclusion that alternative 3, was the most suitable efficient and cost effective arrangement in maintenance of equipment. Therefore we decided to proceed the plan on providing a Workshop in a central place of Gampaha District.

The above conclusion has induced partial alteration of the list of machinery indicated in the minutes. As described in the PRDA Chairman's report as per attached, we proposed additional Workshop tools that are difficult to procure in Sri Lanka.

We would appreciate your understanding and agreement to the above matters. Further this Ministry is in fully agreement with Chairman's report and strongly recommended.

S. Amarasekera,
Director,
Regional Development.

4. P. R. D. A. - Chairman's Report

To: Mr. M. Fujioka,
JICA Basic Design Team,
3-13-5 Nishiwaseda,
Shinjuku-ku,
Tokyo 169,

Fax. 03-3232-3625

From: S. Amaraaekara,
Director/RDD,
MPP&I,COLOMBO.

Re: Your fax on PRDA - Workshop at Asgiriya,Gampaha
I.R.D.P. Gampaha

Please find attached replies from PRDA and RDD/MPP&I.

Chairman PRDA indicated that Rs. 1.75 million allocated to construct the proposed workshop in Gamapha.

This Ministry guarantee that the construction of workshop will be completed before suggested equipment arrivee in Sri Lanka.

Best Regards.

දුරකථන/தொலைபேசி/Telephones—
අධ්‍යක්ෂ பணிப்பாளர் Director 562530
කාර්යාල அலுவலகம் Office 564770, 565290, 563101, 563102
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கொள்கைத் திட்டமிடல், அமுலாக்கல் அமைச்சு
MINISTRY OF POLICY PLANNING & IMPLEMENTATION
ප්‍රාදේශීය සංවර්ධන අංශය
மாகாண அபிவிருத்திப் பிரிவு
Regional Development Division

මගේ අංකය எனது இல. My No. RDD/GM/PH-2
ඔබේ අංකය உமது இல. Your No.
තැ. පෙ. අංකය அ. பெ. இல. P. O. Box No. 1532
"සෙත්සිරිපාය" "செத்சிறிபாய" "Sethsiripaya"
බත්තරමුල්ල பத்தரமுல்ல Battaramulla

27th Sept, 1993.

Mr. M. Fujioka,
JICA, Basic Design Team,
3-13-5 Nichiwaseda,
Shinjuku-ku,
Tokyo 169.

Construction of Centralized Workshop in Gampaha

Regarding the proposed road maintenance equipment, it has been agreed that the Government of Sri Lanka should provide necessary facilities and maintain them as stipulated in the minutes.

To establish a suitable maintenance systems following alternative proposals were studied.

1. To establish a garage at each D.E. Office to keep the machinery and repairs to attend at PRDA Workshop in Colombo.
2. Each D.E. Office to have its own Workshop for maintenance of proposed equipment.
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At the time of preparing minutes, we thought either proposal 1 or 2 would be suitable but upon further discussions, we reached the final conclusion that alternative 3, was the most suitable efficient and cost effective arrangement in maintenance of equipment. Therefore we decided to proceed the plan on providing a Workshop in a central place of Gampaha District.

The above conclusion has induced partial alteration of the list of machinery indicated in the minutes. As described in the PRDA Chairman's report as per attached, we proposed additional Workshop tools that are difficult to procure in Sri Lanka.

We would appreciate your understanding and agreement to the above matters. Further this Ministry is in fully agreement with Chairman's report and strongly recommended.

S. Amarasekara,
Director,
Regional Development

RO/27/9.

The proposed construction of centralized work shop for the maintanance and repairs of equipment to be gifted by the Japanese Government (J.I.C.A).

With regard to the proposed work shop for the maintainance of Machinery and Equipment,it was agreed with the Japanese delegation that the proposed work shop building on one acre of land at Asgiriya Gampaha will be constructed by the Shri Lankan Govenment and will be handle by P.R.D.A (W.P) as stipulated in the minutes.

The above decision was taken after discusing at length the following 3 options.

Option 1	Each Executive Engineer to get all the machinery repaired at the central work shop in Colombo (Borupana Road Ratmalana).
Option 2	Each Executive Engineer's office to have it's own work shop in their premises (Total 4 work shops).
Option 3	To established a central work shop at Asgiriya in Gampaha District to service all the 4 Executive Engineer's divisions and also the machinery of 12 Pradeshiya Sabas.

It was the unanimous decision of the Japanese and the Shri Lankan delegates that the option 3 to be addopted as it is.

Central to all the places where mechinery is to be housed and it is economical and efficient.

I am pleased to announce that in respect of the above that P.R.D.A has allocated a sum of Rs.1.75 Million from 1994 budget of the Authority towards the construction of the garage and work shop at Asgiriya Gampaha that could accomodate all the machinery to be gifted by the donor.The extract of the budget pertaining to this is attached herewith.

We are in the process of designing the garage,work shop and buildings.

Conclusion

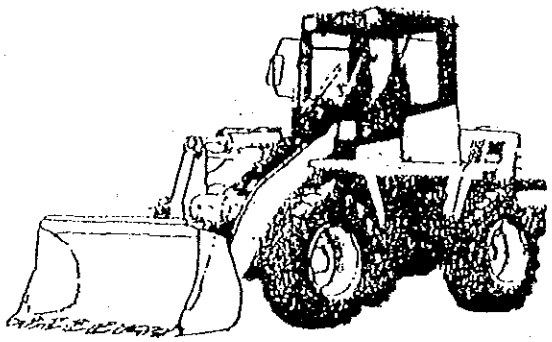
P.R.D.A (W.P) has been using very few machinery in the Gampaha District and it was not fruitful to organise a central work shop in that District and now that we ~~have~~ are getting this consignment of machinery, having a centralised work shop will help us to speed up the servicing and maintanance of the above machinery.

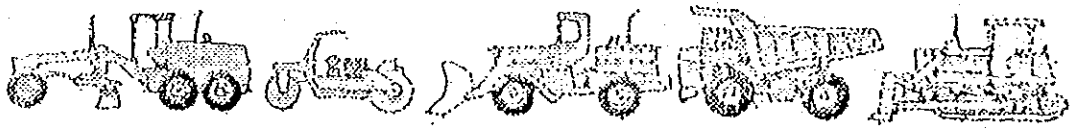
NANDANA WIJAYASEKARA
(Chairman)
Provincial Road Development Authority (W.P)
128 High Level Rd.
Nugegoda.

P.R.D.A-CHAIRMAN'S REPORT

ON I.R.D.P(11)

GAMPAHA DISTRICT





PROVINCIAL ROAD DEVELOPMENT AUTHORITY

WESTERN PROVINCE

128 HIGH LEVEL ROAD NUGEGODA

TEL-810663 821790 821791 FAX-94-1-821790

PROJECT REPORT - INTERGRATED RURAL DEVELOPMENT
PROJECT(11) - GAMPAHA DISTRICT.

INTRODUCTION

We are pleased of the proposed development project to be funded by the Japanese Government under the auspicious of J.I.C.A.

We firmly beleive the above project will also be successfully implemented similar to previous projects and would like to mention that Provincial Road Development Authority has used the previously received aid to improve the C,D,E and F roads.

Utilizing the proposed package the badly needed vital and basic infrastructure of the country in general and Gampaha District in perticular can be further improved.

We have no doubt the benefits of the I.R.D.P (11) project will permeate to all sections of the people, specially the farmers. Gampaha District is one of areas where various kinds of fruits are grown on commercial scale and also a very important basin for rice production. The infrastructure to be provided will help all sectors of the public to improve their educational social and religious activities in addition to the tremendous boost to the economy.

Statistics show higher average rain fall in the Gampaha District compared to Colombo and Kalutara Districts in the Western Province and therefore accounts for higher agricultural produce, while contributing to damages to bridges and roads built on poor foundations years ago. With bridges and roads build with proper foundation utilizing the aid package the flood damages can be minimised and dependable road net work for the villagers can be provided.

The project to be funded by the Japanese Government through J.I.C.A has consented the following.

1 Reconstruction or construction of 17 bridges with approach roads.

2 Provision of road maintenance equipment to the following 4 divisional offices of the P.R.D.A.

(1) LIST OF DIVISIONAL OFFICERS

(a) EE NEGOMBO
(b) EE UDUGAMPOLA
(c) EE NITTAMBUWA
(d) EE KIRINDIWELA

(11) LIST OF EQUIPMENT FOR 4 DIVISIONAL OFFICES

(a) 7 Ton Vibrating Tandem Roller	4 nos
(b) Meduim Size Motor Grader	4 nos
(c) Low Bed Trailer	4 nos *
(d) D-4 Type Bull Dozer	4 nos *
(e) Back Hoe Loader	4 nos
(f) Mechanical Bush Cutter	4 nos

In addition to the above the Japanese Government had made provisions for Road Maintenance Equipment for 12 Pradeshiya Sabhas in the Gampaha District.

(111) LIST OF EQUIPMENT FOR EACH P.S

(a) 1.5 Ton Vibrating Roller	1 no
(b) Tar Boiler	1 no
(c) 4 W - Tractor with Trailor	1 no
(d) 2 W - Tractor with Trailor	1 no

12 P.S will receive each of the above except 2-W Tractor with Trailer for 4 P.S.

* please refer page 4 for details.

The Chairman of the P.R.D.A met the Japanese delegation on 7th August 93 and had discussions on the above aid package.

The delegation was of the view that all the equipment should be housed in a central workshop in Gampaha District. The Chairman of PRDA was impressed with the opinion of the delegation and agreed to the setting up of the central workshop in the Gampaha District.

P.R.D.A has a land of about one acre in extent at Asgiriya, Gampaha facing the main road. It was the common opinion of the suitability of this block for the setting up of the workshop to speed up the implementation of I.R.D.P (II) projects. The workshop building can be completed by PRDA to house all the machinery and equipment, despite the existing PRDA workshop at Borupana, Ratmalana in the Colombo District.

PRESENT STAFF AT BORUPANA WORKSHOP - RATMALANA

(a) Mechanical Engineer	1
(b) Technical Officer	1
(c) Mechanics	6
(d) Machinist	1
(e) Welder/Tinker	3
(f) Operators	25
(g) Greaser	5
(h) Crusher Operator	1
(i) Crusher Labourer	4
(j) Electrician	1

STAFF TO BE RECRUITED FOR THE PROPOSED WORKSHOP AT ASGIRIYA, GAMPAHA

(a) Mechanics	3
(b) Electrician	1
(c) Operators	16
(d) Driver	1
(e) Service Crews	5

COMMENTS AND SUGGESTIONS ON PROPOSED EQUIPMENT

(a) Instead of 7 ton Vibrating Tandem Rollers, 8-10, Ton Static Roller is preferred. refer 2(11)a

(b) Meduim Size Motor Graders are preferred and suitable for C,D,E and F roads. refer 2(11)b

(c) One Low Bed Trailer is sufficient for the entire district instead of 4. refer 2(11)c

(d) Two D-4 type Bull Dozer is sufficient for the entire district instead of 4. refer 2(11)d

(e) Back Hoe Loader for each E.E Division with extra pneumatic hammer and breaker is preferred. refer 2(11)e

(f) Mechanical Bush Cutter - at least 2 each for Divisional Engineer Division instead of one. refer 2(11)f

We would like to obtain if possible the items of equipment and machinery (listed bellow) utilizing the reduction of machinery of 2(11) (c)* and (d)* as per our comments and suggestions on proposed equipment. The entire districts requirement is listed below.

PROPOSED SUPPLEMENTARY LIST OF MACHINERY AND EQUIPMENT REQUIRED

(a) 1.5 Ton Padestrian Vibrating Roller	4 nos
(b) Tar Boiler	4 nos
(c) 4-W Tractor with Trailer	4 nos
(d) Meduim Size Mobile Premix Plant	1 no
(e) Premix Pavour, small size with Laying machine	1 no
(f) Dump Truck	4 nos
(g) Engine Driven Mobile Beam Vibrator	1 no
(h) Concrete Mixer 4/3	2
(i) Concrete Mixer 7/5	2
(j) Machanical Tamper	4 nos
(k) Mobile Tar Kettle with Sprayer	2 nos
(l) Cargo Truck with Crane	1 no
(m) Mobile Crusher Unit with Compressor, breaker and generator etc.	2 nos
(n) Mechanical - Sludge Pump	4 nos
(o) 4-W Double cab	2 nos

For speedy rehabilitation of C,D,E and F roads which are used mostly for the transport of village produce to market places,transport of fertilizers to fields and for commuting of specially school children ,our supplimentary list of equipment and machinery are most suited to implement the project. Living standard of villegers by providing one of the most important items of infrastructure facilities will improve tremendously as a result of the proposed project funded by the Government of Japan through J.I.C.A.

RECONSTRUCTION OR CONSTRUCTION OF 17 BRIDGES

We would like to suggest that the following machinery and equipment are made available to us.

(a) Mechanical pile driver	1 no
(b) Boring unit (complete)	1 no
(c) Mini Lab and equipment for soil and aggregate testing	1 no
(d) 40 ft span Temporary Setting Bridge (Baily type)	

The following office equipment is also appreciated.

OFFICE EQUIPMENT

Fax Machine	1 no
Photo copying machine	1 no
Personal Computer I.B.M Compatible	1 no
Roneo Machine	1 no

PROPOSED WORKSHOP AT ASGIRIYA GAMPAHA

As proposed by the Japanese aid group, to set up a Mechanical Engineering workshop to carry out repairs and maintenance work on Machinery, Equipment and Vehicles, the supply of following tools and implements are appreciated.

WORKSHOP TOOLS

1	Light duty workshop tools Consisting, Double end spanners Ring spanners, Combination Spanners Box spanners, Screw drivers, hammers Pliers , filler gauges, set of punch, voltage tester Strap wrener	2 nos
2	Heavy duty workshop tools [consisting same as item (1)]	2 nos
3	Injector tester	1 no
4	Valve refacer	1 no
5	Bench drilling machine	1 no
6	Portable drilling machine	1 no
7	Bench grinder	2 nos
8	Angle grinder	1 no
9	Bench vise	4 nos
10	Arc welding plant (with accessories)	1
11	Mobile arc welding plant (with accessories)	1
12	Hydraulic press (10 ton)	1
13	Torque wrener (10-200 NM)	2 nos
14	Screw drive set Including difference sizes (flat and star screw drivers)	2 nos
15	Impact screw driver	2 nos

16	Piston ring compressor (big)	1 no
17	Piston ring compressor (small)	1 no
18	Piston ring squeezers	1 no
19	Valve squeezers	1 no
20	Vernier caliper (small)	1 no
21	Vernier caliper (big)	1 no
22	Micro meter (big)	1 no
23	Micro meter (small)	1 no
24	Electricians tool kits	2 nos
25	Multi meter	1 no
26	Diode tester	1 no
27	Alternater tester	1 no
28	Volt - ampere meter	1 no
29	Battery tester	2 no
30	Battery charger	1 no

Service station

Including a hoist, 3 phase compressor, high pressure washing machine, oil pump, oil spray gun, vacume cleaner.

JAPANESE AID PREVIOUSLY RECEIVED BY P.R.D.A.

Under National Housing Development Authority in connection with the village reawakenning programme in 1990 and also under the Provincial Councial aid Package in 1993 The P.R.D.A. was a recipient of Japanese Aid. The Machinery, Equipment and Vehicles donated are being used to carry out repairs and maintenance of C,D.E and F class roads in the District.

The Chairman P.R.D.A explained the difficulty of obtaining certain spares ex-stock from the agents and also for reasons of financial contraints, the Authority is unable to make optimum use of the items supplied under the above mentioned schemes and in persuant to the discussion, the Japanese delegation requested a list of spares badly needed by the Authority.
The list is attached.

EQUIPMENT PREVIOUSLY DONATED BY THE JAPANESE GOVERNMENT

	ITEM		PRESENT DEPLOYMENT
1 st Donation in 1990 through NHDA	1 Bull Dozer	1 no	* L.I.M -I.R.D.P Project
	2 Grader	1 nos	do
	3 Tipper	3 nos	do
	4 Loader	1 no	do
	5 Sakai Roller	1 no	do
	6 Vibrating Roller	6 nos	do
	7 Cargo Truck	1 no	Transport of bituman for sites in W.P
	8 Water Bowser	1 no	Transport of water
2 nd Donation in 1993 through P.C	1 Bull Dozer	1 no	EE Nittambuwa used in P.S
	2 Back Hoe	1 no	do
	3 Dump Truck	1 no	do
	4 Crusher	1 no	L.I.M- I.R.D.P Project
	5 Compressor	1 no	do
	6 Breaker	1 no	do
	7 Cargo Truck	1 no	Transport of Bitumen
	8 Generator and Welding Equipment	1 no	Trailer Mounted used in various project in W.P
	9 Concrete Mixer		Various work sites in W.P
	10 Double Cab		H.O use

The machinery and equipment have been used extensively in the road building work and the items of the 1 st consignment have already worked over 5000 hours without any major repairs.

*(L.I.M-Lewanduwa, Ittapana, Meegahatenna)

SPARES FOR WHEEL LOADER WPWL 01

Komatsu WA 180-1
Serial no 12248
Engine no 6D95L-69403

1	Piston and rings	4 nos (complete set)
2	Cylinder liner	4 nos (complete set)
3	Main Bearing (U/S-25)	5 nos (do)
4	By end Bearing (U/S-25)	4 nos (do)
5	Thrust Bearing	1 complete set
6	Inlet Valves	4 nos
7	Exhaust Valves	4 nos
8	Injector nozzels	8 nos
9	Water pump repair kit	1 no
10	Oil pump (complete)	1 no
11	Turbor charger(complete)	1 no
12	Hydraulic pump repair kit	1 no
13	Transmission pump repair kit	1 no
14	Steering pump repair kit	1 no
15	Seal kit for blade lift cylinder	2 nos
16	Seal kit for blade tilting cylinder	2 nos
17	Universal joints	2 nos
18	Starter motor(complete)	1 no
19	Brake booster	1 no
20	Brake wheel cylinder	complete set
21	Brake wheel cylinder repair kit	4 nos

SPARE PARTS FOR MOTOR GRADER

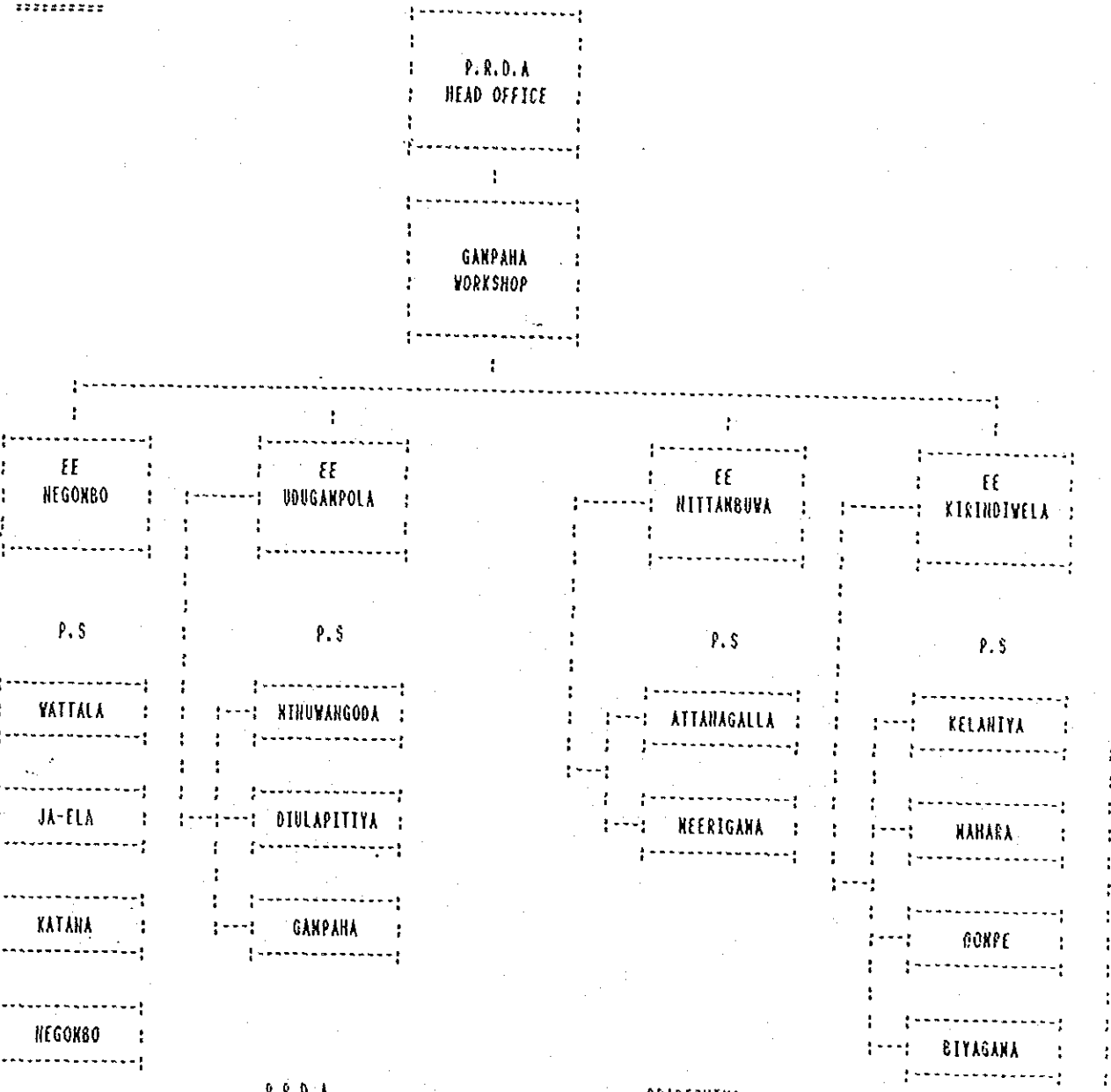
Komatsu GD 511R
Serial no 10088
Engine No 6D95L-68940

1	Pistons and rings (STD)	6 nos (complete)
2	Cylinder liner (STD)	6 nos (do)
3	Main Bearing (U/S 25)	7 nos (do)
4	Big end Bearing (U/S 25)	6 nos (do)
5	Thrust Bearing	1 complete set
6	Inlet Valves	6 nos
7	Exhaust Valves	6 nos
8	Injector nozzels	12 nos
9	Water pump repair kit	2 nos
10	Oil pump (complete)	1 unit
11	Turborcharger(complete)	1 unit
12	Hydraulic pump repair kit	1
13	Transmission pump repair kit	1
14	Tendom drive chains	4 nos
15	Stearing pump repair kit	1
16	Steering cylinder(complete)	1
17	Leaning cylinder(complete)	1
18	Seal kit for steering cylinder	1
19	Seal kit for leaning cylinder	1
20	Seal kit for blade side shift cylinder	1
21	Seal kit for blade lift cylinder	1

22	Circle reverse gear assy	1
23	Starter motor	1
24	Brake master cylinder	1
25	Brake wheel cylinder	4 nos
26	Brake booster	1
27	Air master	1

FLOW CHART

PROPOSED GAMPAHA MECHINERY WORK SHOP.



MINIMUM NO OF EQUIPMENT SERVISED BY THE WORKSHOP	P.R.D.A (ASSUMING OUR PROPOSAL IS ACCEPTED)		PRADESHIYA SABA	
	TENDEM ROLLER	4 NOS	VIBRATING ROLLER	12 NOS
	GRADER	2 NOS	TAR BOILER	12 NOS
	LOW BED	2 NOS	4-W TRACTOR WITH TRAILER	12 NOS
	BULL DOZER	2 NOS	2-W TRACTOR WITH TRAILER	8 NOS
	BUSH CUTTER	8 NOS		
TOTAL		18 NOS		44 NOS

GAMPAHA DISTRICT

EE'S OFFICE	MILEAGE
EE UDUGAMPOLA	150
EE NITTAMBUWA	180
EE KIRINDIWELA	177
EE NEGOMBO	117
TOTAL	624

- PRADESHIYA SABHAS
- MECH. WORKSHOP
- GCEC AREA
- EE'S OFFICE

ROADS AS PER GAZETTE (GAMPAHA DIS\UDUGAMPOLA EE'S DIV.)

CODE	STAGE	YEAR	TYPE	EE'S	ITM	DIV.SEC	COUNT	EL	PR	GR	ITEM	NAME OF THE ROAD	MILEAGE FROM	TO	SECTION	TOTAL
NTIP			D	U	16	DIULAPITIYA	1				16	HETTIMULLA-BIRIOANKANA	0.00	2.52	2.52	
NTIP			D	U	10	DIULAPITIYA	2				10	DIYULAPITIYA CIRCULAR ROAD	0.00	0.50	0.50	
NTIP			D	U	23	DIULAPITIYA	3				23	KALUARAPPUWA-EAST KONGODAMULLA	0.00	3.00	3.00	
NTIP			D	U	18	DIULAPITIYA	4				18	HUKUMULLA-BALAGALLA	0.00	1.10	1.10	
NTIP			D	U	26	DIULAPITIYA	5				26	KEHELELLA-HORAKANDAVILLA	0.00	2.75	2.75	
NTIP			D	U	15	DIULAPITIYA	6				15	HALPE-KOSAYADENIYA	0.00	1.00	1.00	
NTIP			D	U	30	DIULAPITIYA	7				30	KULEEGEDARA-MAYANA	0.00	1.00	1.00	
NTIP			D	U	9	DIULAPITIYA	8				9	DISAGEWATTA-KATANA	0.00	1.50	1.50	
NTIP			D	U	3	DIULAPITIYA	9				3	ASSENNAVATHA-KEMPITAGEDARA	0.00	1.03	1.03	
NTIP			D	U	25	DIULAPITIYA	10				25	KEHELELLA-DEWALWAGURA-BARAWAVILA	0.00	4.65	4.65	
NTIP			C	U	25	DIULAPITIYA	11				25	PAHALANADAMPELLA-KUNDUKSAHANAMYADA	0.00	1.00	1.00	
NTIP			D	U	43	DIULAPITIYA	12				43	TANKITA-DELWAGURA	0.00	1.00	1.00	
NTIP			D	U	38	DIULAPITIYA	13				38	PALLIYAPITIYA-HUKUMULLA	0.00	2.00	2.00	
NTIP			D	U	48	DIULAPITIYA	14				48	YARADALA-HERALUGEDARA	0.00	1.60	1.60	
NTIP			D	U	47	DIULAPITIYA	15				47	BILAPOLA-HIRIKUBUWA	0.00	1.00	1.00	
NTIP			D	U	7	DIULAPITIYA	16				7	GAGONNA-KIMBULAPITIYA	0.00	2.05	2.05	
NTIP			D	U	39	DIULAPITIYA	17				39	PARANAHANDIYA-MAYANA	0.00	4.00	4.00	
NTIP			D	U	33	DIULAPITIYA	18				33	KAKANDURA-BADALGAMA	0.00	1.30	1.30	
NTIP			D	U	32	DIULAPITIYA	19				32	PAHALANADAMPELLA-KADAWALA	0.00	2.30	2.30	
NTIP			D	U	36	DIULAPITIYA	20				36	MAILLA-KITALAWALANA	0.00	1.00	1.00	
NTIP			C	U	28	DIULAPITIYA	21				28	PTHMAKELEWATTA COLONY ROAD	0.00	1.70	1.70	
NTIP			C	U	1	DIULAPITIYA	22				1	AKKARAGAMA QUARRY ROAD	0.00	1.25	1.25	
NTIP			C	U	20	DIULAPITIYA	23				20	MARANAGAHAHULLA-GUKAGAHA	0.00	0.50	0.50	
NTIP			C	U	8	DIULAPITIYA	24				8	DUNAGAHA-GODIGAMUWA	0.00	3.00	3.00	
NTIP			C	U	22	DIULAPITIYA	25				22	MALLA-MAYANA	0.00	1.50	1.50	
NTIP			C	U	6	DIULAPITIYA	26				6	DIYULAPITIYA NEW CIRCULAR ROAD	0.00	0.30	0.30	
NTIP			C	U	19	DIULAPITIYA	27				19	MARANDAGAHAKULLA-KADUTTAGAMA	0.00	2.50	2.50	
NTIP			D	U	17	GAMPAHA	1				17	HORAGALLA-MAKILANGAMUWA	0.00	1.25	1.25	
NTIP			C	U	16	GAMPAHA	2				16	JA-ELA-HORAGALLA	3.25	5.59	2.34	
NTIP			D	U	21	GAMPAHA	3				21	IMBULGODA -IHALAYAGODA-HORAGODA	0.00	2.40	2.40	
NTIP			C	U	27	GAMPAHA	4				27	KANDANA-GANEMULLA	2.25	5.50	3.25	
NTIP			D	U	14	GAMPAHA	5				14	GODAGEDARA-TEMPLE ROAD	0.00	1.00	1.00	
NTIP			D	U	13	GAMPAHA	6				13	GANEMULLA-BULUGAHAGODA	0.00	2.12	2.12	
NTIP			D	U	20	GAMPAHA	7				20	IHALAYAGODA NEW ROAD	0.00	1.34	1.34	
NTIP			D	U	24	GAMPAHA	8				24	KASAGAHAWATTE-IHALAGAMA	0.00	1.00	1.00	
NTIP			D	U	22	GAMPAHA	9				22	IMBULGODA-PAHALAYAGODA	0.00	3.00	3.00	
NTIP			C	U	14	GAMPAHA	10				14	IMBULGODA-GANEMULLA	0.00	2.50	2.50	
NTIP			C	U	15	GAMPAHA	11				15	THOTGOLLA-MARUPOLA	0.00	1.40	1.40	
NTIP			C	U	12	GAMPAHA	12				12	GANEMULLA-BATUWATTA	0.00	0.56	0.56	
NTIP			D	U	27	GAMPAHA	13				27	KIRIKITTA-DANAUWKANDA-ETTAKEHELGALLA	0.00	0.50	0.50	
NTIP			C	U	10	GAMPAHA	14				10	GAMPAHA-ORUTOTA-BELLUNNAHARA	0.00	3.43	3.43	
NTIP			D	U	35	GAMPAHA	15				35	MADUNGAHAHENA-ANGARALUVA	1.00	2.03	2.03	
NTIP			C	U	5	GAMPAHA	16				5	BANDARAWATTA-MIRISWATTA	0.00	1.05	1.05	
NTIP			D	U	11	GAMPAHA	17				11	GALAHETTIYAWA-KUDAGOLLATHA	0.00	1.50	1.50	
NTIP			D	U	51	GAMPAHA	18				51	YAGODA-THONDUWA	0.00	0.75	0.75	
NTIP			C	U	29	GAMPAHA	19				29	RATHUPASWALA-HENEGAMA	0.00	2.00	2.00	
NTIP			D	U	4	GAMPAHA	20				4	BADUWATUGODA KARAHAKANDULLA	0.00	1.75	1.75	
NTIP			C	U	26	GAMPAHA	21				26	PARAYANDENIYA-KOSSINNA-GANEMULLA	0.00	2.69	2.69	
NTIP			C	U	37	GAMPAHA	22				37	PERERA MAWATHA	0.00	0.22	0.22	
NTIP			C	U	34	GAMPAHA	23				34	WELIGAMPITIYA-GANEMULLA	2.80	5.83	3.03	
NTIP			D	U	5	GAMPAHA	24				5	BANDARAWATTA-IHALAGAMA	0.00	1.00	1.00	
NTIP			D	U	6	GAMPAHA	25				6	BOLLATHA-CHURCH ROAD	0.00	1.25	1.25	
NTIP			C	U	2	GAMPAHA	26				2	ALUTHGAMA-KOSHENA	0.00	1.75	1.75	

NTIP		C	U	33	GAMPAHA	27				33	URUVELA-VELIVERIYA		0.00	0.81	0.81	
NTIP		C	U	21	MINUVANGODA	1				21	MINUVANGODA CROSS ROAD		0.00	0.25	0.25	
NTIP		C	U	7	MINUVANGODA	2				7	DORANEGODA-BENNULLA		0.00	1.00	1.00	
NTIP		C	U	9	MINUVANGODA	3				9	OUNAGAMA-NALAPAHA		0.00	5.50	5.50	
NTIP		D	U	40	MINUVANGODA	4				40	PENDIPOLA-VATUMULLA		0.00	1.38	1.38	
NTIP		D	U	41	MINUVANGODA	5				41	POLVATTE-MEDAVALA		0.00	2.20	2.20	
NTIP		D	U	34	MINUVANGODA	6				34	MATANNANA-PANUNUVA		0.00	0.55	0.55	
NTIP		D	U	42	MINUVANGODA	7				42	SIYANBALAPITIYA-LOKILANGAMUVA-KALUVALGODA		0.00	0.85	0.85	
NTIP		C	U	11	MINUVANGODA	8				11	GAMANIMULLA-RANBARAGODA-GALKANDE		0.00	2.00	2.00	
NTIP		D	U	45	MINUVANGODA	9				45	UGGALBODA-DEVALA MAVATHA		0.00	1.15	1.15	
NTIP		D	U	46	MINUVANGODA	10				46	USGALGODA-PATHANDUVANA		0.00	1.02	1.02	
NTIP		C	U	4	MINUVANGODA	11				4	ASGIRIYA-VATUMULLA-DORENEGODA		0.00	3.07	3.07	
NTIP		D	U	49	MINUVANGODA	12				49	VATUMULLA-ESSELLA-NATVALA		0.00	3.30	3.30	
NTIP		D	U	50	MINUVANGODA	13				50	VEEDIYAVATTA-HENDINAHARA		0.00	1.05	1.05	
NTIP		D	U	44	MINUVANGODA	14				44	TAKKITA-KATUSESTHERA		0.00	1.25	1.25	
NTIP		D	U	8	MINUVANGODA	15				8	DEVALPOLA-NAGODALE		0.00	2.60	2.60	
NTIP		C	U	30	MINUVANGODA	16				30	SAMARAKKODY MAVATHA		0.00	0.18	0.18	
NTIP		C	U	36	MINUVANGODA	17				36	YATIHENA-KOTUGEDARA		0.00	0.50	0.50	
NTIP		C	U	35	MINUVANGODA	18				35	YAGODAMULLA-PATHANDUVANA		0.00	1.60	1.60	
NTIP		D	U	12	MINUVANGODA	19				12	GALOLUVA-POLVATTA		0.00	1.25	1.25	
NTIP		D	U	2	MINUVANGODA	20				2	ASGIRIYA-VALPOLA		0.00	1.05	1.05	
NTIP		C	U	24	MINUVANGODA	21				24	PAHALAGAMA-RATHALVITA-MAKILANSAMUVA		0.00	0.50	0.50	
NTIP		D	U	19	MINUVANGODA	22				19	HURIGAHAMULLA-BULUGAHAMULLA		0.00	1.70	1.70	
NTIP		C	U	37	MINUVANGODA	23				37	YATIHENA-VELPOLA		0.00	2.00	2.00	
NTIP		D	U	32	MINUVANGODA	24				32	KADELGAMUVA-NEEGODATHANNITA		0.00	2.25	2.25	
NTIP		D	U	31	MINUVANGODA	25				31	KADELGAMUVA-BATAPOTHA		0.00	0.71	0.71	
NTIP		C	U	13	MINUVANGODA	26				13	GOIGAMA-MAKLANDANA-BALABOVA		0.00	1.12	1.12	
NTIP		C	U	32	MINUVANGODA	27				32	UNNARUVA-KALAHUGODA		0.00	1.45	1.45	
NTIP		C	U	31	MINUVANGODA	28				31	UDUGAMPOLA-DEVALAPOLA		0.00	2.25	2.25	
NTIP		D	U	20	MINUVANGODA	29				20	KORASE-BENNULLA		0.00	1.50	1.50	
NTIP		D	U	29	MINUVANGODA	30				29	KORASE-VADUMULLA		0.00	1.50	1.50	
NTIP		C	U	18	MINUVANGODA	31				18	MAKEVITA-MATANNANA		0.00	6.00	6.00	
NTIP		C	U	23	MINUVANGODA	32				23	MILPANAGODA-VALANENA		0.00	3.50	3.50	
NTIP		D	U	1	MULTI	1				1	APPROACH ROADS-UDUGAMPOLA DIVISION				0.13	
NTIP		C	U	3	MULTI	2				3	APPROACH ROADS-UDUGAMPOLA DIVISION			0.52	0.52	150.11

ROADS AS PER GAZETTE (GAMPAHA DIS\NITTAMBUVA EE'S DIV.)

CODE	STAGE	YEAR	TYPE	EE'S	ITN	DIV.SEC	COUN	EL	PR	GR	ITEM	NAME OF THE ROAD	MILEAGE FROM	TO	SECTION	TOTAL
NTIP			O	NT	6	ATHANAGALLA	1				6	BONAGALA-RUKGAHAVILA	0.00	2.90	2.90	
NTIP			O	NT	20	ATHANAGALLA	2				20	NANGALA-THIRIYA-BOGAMUVA	0.00	1.80	1.80	
NTIP			O	NT	23	ATHANAGALLA	3				23	MIYANITTAMBA-KARASNAGALA	0.00	2.00	2.00	
NTIP			O	NT	22	ATHANAGALLA	4				22	HEEWETIGAMMANA-BOPAGANA	0.00	2.25	2.25	
NTIP			O	NT	3	ATHANAGALLA	5				3	ATTANAGALLA-GALAPITAMADA	0.00	5.75	5.75	
NTIP			O	NT	4	ATHANAGALLA	6				4	BENNULLA-PITIYAGEDARA	0.00	1.55	1.55	
NTIP			O	NT	5	ATHANASALLA	7				5	BERUWNA-PARANAGANA	0.00	1.00	1.00	
NTIP			C	NT	18	ATHANAGALLA	8				18	WALPOLA-HAGGALLA	0.00	2.00	2.00	
NTIP			O	NT	21	ATHANAGALLA	9				21	NARAPOLA-BENNULLA-BATAPOLA	0.00	3.34	3.34	
NTIP			C	NT	17	ATHANAGALLA	10				17	VEYANGODA-DIULGASHANDIYA-KOSGAHAKULLA	0.00	1.00	1.00	
NTIP			O	NT	9	ATHANAGALLA	11				9	DARALUVA-OBESEKARA KAVATHA	0.00	0.30	0.30	
NTIP			O	NT	19	ATHANAGALLA	12				19	KONGASDENIYA-PAHAVALA	0.00	1.50	1.50	
NTIP			O	NT	11	ATHANAGALLA	13				11	MALAGAMPITIYA-THIRIVANAGANA	0.00	1.62	1.62	
NTIP			O	NT	13	ATHANAGALLA	14				13	KALAGEDIHENA-NAGALEGODA	0.00	2.00	2.00	
NTIP			O	NT	14	ATHANAGALLA	15				14	KALAGEDIHENA-SAPUSASTENNE	0.00	1.62	1.62	
NTIP			C	NT	19	ATHANASALLA	16				19	WATTADDARA-HEENDENIYA-EPANULLA	0.00	2.00	2.00	
NTIP			O	NT	16	ATHANAGALLA	17				16	KITTANNAHARA-WATUPITIWALA	0.00	1.30	1.30	
NTIP			C	NT	16	ATHANAGALLA	18				16	THIHARIYA-VEYANGODA	0.00	1.60	1.60	
NTIP			O	NT	12	ATHANAGALLA	19				12	KONGASDENIYA-HUNBUTIYAVA	0.00	0.95	0.95	
NTIP			C	NT	3	ATHANAGALLA	20				3	DADAGANUVA VIHARA ROAD	0.00	0.75	0.75	
NTIP			C	NT	4	ATHANAGALLA	21				4	ELUVAPITIYA QUARRY ROAD	0.00	0.33	0.33	
NTIP			O	NT	33	ATHANAGALLA	22				33	WATTADDARA-DADAGANUVA	0.00	1.00	1.00	
NTIP			O	NT	31	ATHANAGALLA	23				31	THIRIWANAGANA-KANDALOTUWAVA	0.00	1.10	1.10	
NTIP			O	NT	30	ATHANAGALLA	24				30	TIHARIYA-RUGGAHAVILA	0.00	3.50	3.50	
NTIP			C	NT	1	ATHANAGALLA	25				1	ALUTHGAMA-KOSHENA	1.75	3.25	1.50	
NTIP			O	NT	28	ATHANAGALLA	26				28	SAPUGASTENNE-KARASNAGALA	0.00	0.75	0.75	
NTIP			C	NT	13	ATHANAGALLA	27				13	MADAKOTUWA-WALGAMMULLA	0.00	1.25	1.25	
NTIP			O	NT	25	ATHANAGALLA	28				25	OPATHAELLA-WARAPALAMA	0.00	2.70	2.70	
NTIP			O	NT	24	ATHANAGALLA	29				24	NITTAMBUVA-HUNBUTIYAVA	0.00	2.03	2.03	
NTIP			O	NT	27	NEERIGAMA	1				27	PASYALA-VEERASURIYAMADA	0.00	2.34	2.34	
NTIP			O	NT	26	NEERIGAMA	2				26	PALLEVELA-BOKALAGAMA	0.50	1.50	1.00	
NTIP			O	NT	32	NEERIGAMA	3				32	VEYANGODA-DIYULGASHANDIYA-KASAGAMAKULLA	1.00	4.65	4.65	
NTIP			O	NT	10	NEERIGAMA	4				10	KONGASDENIYA-KALLAHENA	0.00	2.25	2.25	
NTIP			O	NT	29	NEERIGAMA	5				29	TALGASKOTE-KUKKALOLUVA	0.00	2.25	2.25	
NTIP			O	NT	8	NEERIGAMA	6				8	BOTALE-MADABOVITA	0.00	2.75	2.75	
NTIP			C	NT	11	NEERIGAMA	7				11	KURUKOTUWA-BOVGAMA	0.00	1.30	1.30	
NTIP			C	NT	14	NEERIGAMA	8				14	NAPEWATTHA-PALMADA	0.00	1.55	1.55	
NTIP			C	NT	5	NEERIGAMA	9				5	GASPE-MIRIVALA	0.00	2.50	2.50	
NTIP			C	NT	6	NEERIGAMA	10				6	HAGGALA-NEDIDEDIKANDA	0.00	4.50	4.50	
NTIP			C	NT	7	NEERIGAMA	11				7	HORAGASWANKADA-ALGAMA	0.00	1.00	1.00	
NTIP			C	NT	8	NEERIGAMA	12				8	KAL-ELIYA-BATALEEYA	0.00	2.00	2.00	
NTIP			C	NT	9	NEERIGAMA	13				9	KOSETADENIYA-GANEGODA	0.00	1.00	1.00	
NTIP			C	NT	10	NEERIGAMA	14				10	KOTTALA-ILUKHENA-BANDURAGODA	0.00	6.42	6.42	
NTIP			O	NT	15	NEERIGAMA	15				15	KANDALANA-KADURUPITIYA	0.00	3.00	3.00	
NTIP			C	NT	12	NEERIGAMA	16				12	LOLUWAGODA-OELWALA	0.00	1.00	1.00	
NTIP			O	NT	12	NEERIGAMA	17				12	HANCHAPOLA-WITHANAKULLA	0.00	1.37	1.37	
NTIP			C	NT	15	NEERIGAMA	18				15	PALLEWALA-KUMBALOLUVA	0.00	1.75	1.75	
NTIP			O	NT	1	NEERIGAMA	19				1	AMBEPUSSA FARM ROAD	0.00	1.75	1.75	
NTIP			O	NT	7	NEERIGAMA	20				7	BOTALE-AMOUPE-KEENADENIYA	0.00	1.75	1.75	
NTIP			O	NT	10	NEERIGAMA	21				10	ELLAKKALA-NEEWITIYA	0.00	1.40	1.40	
NTIP			O	NT	34	NEERIGAMA	22				34	WEWELDENIYA-WADUWATTHA	0.00	1.50	1.50	
NTIP			O	NT	2	KULTI	1				2	APPROACH ROADS-NITTAMBUVA DIVISION			0.40	
NTIP			C	NT	2	KULTI	2				2	APPROACH ROADS-NITTAMBUVA DIVISION		6.91	6.91	106.53

ROADS AS PER GAZETTE (GAMPAHA DIS\NEGOMBO EE'S DIV.)

CODE	STAGE	YEAR	TYPE	EE'S	ITN	DIV.SEC	COUNT	EL	PR	GR	ITEM	NAME OF THE ROAD	MILEAGE FROM	TO	SECTION	TOTAL
NTIP			C	NG	11	JA-ELA	1				11	JA-ELA-HORAGALLA	0.00	1.25	1.25	
NTIP			D	NG	23	JA-ELA	2				23	LANKA MATHA ROAD	0.00	1.50	1.50	
NTIP			C	NG	31	JA-ELA	3				31	VELIGAMPITIYA-GANEMULLA	0.00	2.00	2.00	
NTIP			C	NG	29	JA-ELA	4				29	VALPOLA-RAGAMA	0.00	1.60	1.60	
NTIP			C	NG	28	JA-ELA	5				28	VALPOLA-KEHOALIYADDAPALUVA	0.00	2.00	2.00	
NTIP			C	NG	25	JA-ELA	6				25	KILAULLA-BATAGAMA	0.00	1.00	1.00	
NTIP			C	NG	24	JA-ELA	7				24	RAGAMA-KARAGAHAMUNA	0.00	2.00	2.00	
NTIP			C	NG	13	JA-ELA	8				13	KANDANA-USWETAKEIYAWA	0.00	2.52	2.52	
NTIP			C	NG	12	JA-ELA	9				12	KANDANA-GANEMULLA	0.00	2.25	2.25	
NTIP			D	NG	4	JA-ELA	10				4	BADUWATTHA-NIVANDAMA	0.00	1.00	1.00	
NTIP			D	NG	33	JA-ELA	11				33	NIVANDAMA-MAKEVITA	0.00	0.93	0.93	
NTIP			D	NG	5	JA-ELA	12				5	BATAGAMA-NIVANDAMA	0.00	1.80	1.80	
NTIP			D	NG	44	JA-ELA	13				44	WALPOLA-BOLLETHE	0.00	1.00	1.00	
NTIP			D	NG	40	JA-ELA	14				40	TALAGOLLA ROAD	0.00	0.87	0.87	
NTIP			C	NG	7	JA-ELA	15				7	EKALA-DANDUGAMA	0.00	2.08	2.08	
NTIP			D	NG	32	JA-ELA	16				32	MARANGODAPALUWA-BOLLETHE	0.00	1.00	1.00	
NTIP			D	NG	10	KATANA	1				10	DEVANOTTAWA-KALAHUPITIYA	0.00	1.16	1.16	
NTIP			D	NG	37	KATANA	2				37	RADDOLUWA-KUTUWADIYA	0.00	2.00	2.00	
NTIP			D	NG	6	KATANA	3				6	DAGONNA-KIMBULAPITIYA	0.00	1.00	1.00	
NTIP			D	NG	7	KATANA	4				7	GALUPOTHA-TIMBIRIGASKATUWA	0.00	1.53	1.53	
NTIP			D	NG	36	KATANA	5				36	RODDOLUWA-KUSVALA	0.00	2.75	2.75	
NTIP			D	NG	9	KATANA	6				9	DEKANHANDIYA-KONDAGAMMULLA	0.00	1.20	1.20	
NTIP			D	NG	41	KATANA	7				41	TIMBIRIGASKATUVA MAHA VIDYALA ROAD	0.00	0.47	0.47	
NTIP			D	NG	31	KATANA	8				31	MURUTHANA-DAMBUKULIYA	0.00	2.15	2.15	
NTIP			D	NG	8	KATANA	9				8	DANDUGAMA-KINDIGGODA	0.00	0.75	0.75	
NTIP			D	NG	13	KATANA	10				13	EGODA DEVANOTTAVA ROAD	0.00	0.60	0.60	
NTIP			D	NG	22	KATANA	11				22	KOVINNA-MUTUVADIYA	0.00	0.60	0.60	
NTIP			D	NG	30	KATANA	12				30	MUKALANGAMUVA ROAD	0.00	0.70	0.70	
NTIP			D	NG	16	KATANA	13				16	KANDAWALA-ETHGALA	0.00	1.00	1.00	
NTIP			D	NG	26	KATANA	14				26	KANAHUNUPITIYA-MUGAGAHAMULLA	0.00	1.38	1.38	
NTIP			D	NG	18	KATANA	15				18	KATUWAPITIYA SOUTH ROAD	0.00	0.38	0.38	
NTIP			D	NG	20	KATANA	16				20	KOVINNA-SANGARAMA	0.00	1.50	1.50	
NTIP			D	NG	21	KATANA	17				21	KOVINNA-KALAHUPITIYA	0.00	1.00	1.00	
NTIP			D	NG	17	KATANA	18				17	KATIYALA-KIMBULAPITIYA	0.00	1.25	1.25	
NTIP			C	NG	1	KATANA	19				1	ANDIAMBALAMA-KIMBULAPITIYA	0.00	1.25	1.25	
NTIP			D	NG	46	KATANA	20				46	W.A.DE SILVA MAWATHA	0.00	0.45	0.45	
NTIP			C	NG	28	KATANA	21				28	ST.THERESA ROAD	0.00	1.40	1.40	
NTIP			C	NG	20	KATANA	22				20	MUTHUWADIYA ROAD	0.00	0.25	0.25	
NTIP			D	NG	2	KATANA	23				2	ANDIAMBALAMA -WALPOLA	0.00	2.15	2.15	
NTIP			C	NG	16	KATANA	24				16	KATANA ROAD	0.00	1.00	1.00	
NTIP			C	NG	15	KATANA	25				15	KANDAWALA-SEEDUWA(SECTION 1)	0.00	2.60	2.60	
NTIP			C	NG	14	KATANA	26				14	KANDAWALA-SEEDUWA(SECTION 2)	4.55	7.10	2.55	
NTIP			C	NG	17	KATANA	27				17	KATUNAYAKE-KADIRANA	0.00	1.00	1.00	
NTIP			C	NG	6	KATANA	28				6	DANDUGAMA-RADDOLUWA	0.00	2.60	2.60	
NTIP			C	NG	4	KATANA	29				4	AVERIWATTA-YAGODAMULLA	0.00	4.15	4.15	
NTIP			D	NG	1	KATANA	30				1	AMBALAMMULLA-KATUNAYAKE	0.00	3.50	3.50	
NTIP			C	NG	3	MULTI	1				3	APPROACH ROADS-NEGOMBO DIVISION		2.75	2.75	
NTIP			D	NG	35	NEGOMBO	1				35	PITIPANE,FISHERIES ROAD	0.00	0.18	0.18	
NTIP			C	NG	9	NEGOMBO	2				9	ETHUKALA ROAD	0.00	0.50	0.50	
NTIP			D	NG	38	NEGOMBO	3				38	SEA STREET-NEGOMBO	0.00	1.00	1.00	
NTIP			D	NG	27	NEGOMBO	4				27	MAITHRIPALA SENANAYAKE MAWATHA,NEGOMBO	0.00	0.85	0.85	
NTIP			D	NG	24	NEGOMBO	5				24	LEWIS PLACE,NEGOMBO	0.00	1.09	1.09	
NTIP			D	NG	3	NEGOMBO	6				3	AVEMARIYA ROAD	0.00	0.59	0.59	

:MTIP :	:	:	O	: MG	:	11	:NEGOMBO	:	7	:	:	:	:	11	:OUVA CHURCH ROAD	:	0.60	:	0.25	:	0.25	:	:
:MTIP :	:	:	O	: MG	:	19	:NEGOMBO	:	8	:	:	:	:	19	:KOCHCHIKADE-WELIHENA-GALUPOTHA	:	0.90	:	3.18	:	3.18	:	:
:MTIP :	:	:	C	: MG	:	19	:NEGOMBO	:	9	:	:	:	:	19	:KOCHCHIKADE-PALLANSENA	:	0.00	:	1.00	:	1.00	:	:
:MTIP :	:	:	C	: MG	:	22	:NEGOMBO	:	10	:	:	:	:	22	:PALANGATURAI ROAD	:	0.00	:	0.85	:	0.85	:	:
:MTIP :	:	:	C	: MG	:	30	:VATTALA	:	1	:	:	:	:	30	:VATTALA-IELENGAPATHA	:	0.00	:	0.50	:	0.50	:	:
:MTIP :	:	:	O	: MG	:	39	:VATTALA	:	2	:	:	:	:	39	:SHANTHI ROAD	:	0.00	:	0.00	:	0.00	:	:
:MTIP :	:	:	C	: MG	:	5	:VATTALA	:	3	:	:	:	:	5	:GALUPITIYA-KARAGAHAKUHA	:	0.00	:	1.82	:	1.82	:	:
:MTIP :	:	:	O	: MG	:	43	:VATTALA	:	4	:	:	:	:	43	:USVETAKEIYAVA CHURCH ROAD	:	0.00	:	0.12	:	0.12	:	:
:MTIP :	:	:	O	: MG	:	42	:VATTALA	:	5	:	:	:	:	42	:TOV PATH	:	0.00	:	1.63	:	1.63	:	:
:MTIP :	:	:	O	: MG	:	34	:VATTALA	:	6	:	:	:	:	34	:PILLIYAVATTE-DIKKOWITA	:	0.00	:	1.50	:	1.50	:	:
:MTIP :	:	:	C	: MG	:	2	:VATTALA	:	7	:	:	:	:	2	:APPROACH ROAD TO WELISARA FARM	:	0.00	:	4.39	:	4.39	:	:
:MTIP :	:	:	O	: MG	:	45	:VATTALA	:	8	:	:	:	:	45	:WELISARA-ELPITIWALA	:	0.00	:	0.82	:	0.82	:	:
:MTIP :	:	:	C	: MG	:	27	:VATTALA	:	9	:	:	:	:	27	:USVETAKEIYAVA-KOPITIYA	:	0.00	:	4.20	:	4.20	:	:
:MTIP :	:	:	C	: MG	:	18	:VATTALA	:	10	:	:	:	:	18	:KERAWALAPITIYA-MAHABAGE	:	0.00	:	2.52	:	2.52	:	:
:MTIP :	:	:	O	: MG	:	29	:VATTALA	:	11	:	:	:	:	29	:MATAGODA ROAD	:	0.00	:	0.94	:	0.94	:	:
:MTIP :	:	:	O	: MG	:	15	:VATTALA	:	12	:	:	:	:	15	:HORAPE-SIRIWARDANE MAWATHA	:	0.00	:	1.30	:	1.30	:	:
:MTIP :	:	:	C	: MG	:	21	:VATTALA	:	13	:	:	:	:	21	:MUSAPE-KOPITIYA	:	0.00	:	1.97	:	1.97	:	:
:MTIP :	:	:	O	: MG	:	28	:VATTALA	:	14	:	:	:	:	28	:MANGALAVATTE ROAD	:	0.00	:	0.75	:	0.75	:	:
:MTIP :	:	:	C	: MG	:	8	:VATTALA	:	15	:	:	:	:	8	:EPANULLA-PANUWGAMA	:	0.00	:	1.75	:	1.75	:	:
:MTIP :	:	:	C	: MG	:	23	:VATTALA	:	16	:	:	:	:	23	:PALLIYAVATTA-LANSIYAVATTA	:	0.00	:	0.57	:	0.57	:	:
:MTIP :	:	:	O	: MG	:	12	:VATTALA	:	17	:	:	:	:	12	:OUVA-PANUWGAMA	:	0.00	:	0.66	:	0.66	:	:
:MTIP :	:	:	C	: MG	:	10	:VATTALA	:	18	:	:	:	:	10	:IRRIGATION BUND ROAD	:	0.00	:	0.50	:	0.50	:	:
:MTIP :	:	:	O	: MG	:	14	:VATTALA	:	19	:	:	:	:	14	:HENDALA-BALAGALLA	:	0.00	:	0.80	:	0.80	:	:
:MTIP :	:	:	O	: MG	:	25	:VATTALA	:	20	:	:	:	:	25	:MABOLE-WELIKADAWULLA	:	0.00	:	0.75	:	0.75	:	111.25 :
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:		:		:		:	

ROADS AS PER GAZETTE (GANPAHA DIS\DOMPE EE'S DIV.)

CODE	STAGE	YEAR	TYPE	EE'S	ITM	DIV.SEC	COUNT	EL	PR	GR	ITEM	NAME OF THE ROAD	MILEAGE FROM	TO	SECTION	TOTAL
NTIP			0	0	5	BIYAGAMA	1				5	COLLEGALA-VEJEGAMA MAWATHA	0.00	0.25	0.25	
NTIP			0	0	8	BIYAGAMA	2				8	DARAMAGAMA-MEEGAHAWATTA	0.00	1.50	1.50	
NTIP			0	0	44	BIYAGAMA	3				44	PATTIWELA-MAKOLA	0.77	1.89	1.12	
NTIP			C	0	28	BIYAGAMA	4				28	SAPUGASKANDE-PALWATTA	0.70	2.75	2.05	
NTIP			C	0	31	BIYAGAMA	5				31	VALGAMA-MALWANA	0.00	0.70	0.70	
NTIP			D	0	4	BIYAGAMA	6				4	BIYAGAMAA-KOTIGAMA	0.00	2.01	2.01	
NTIP			D	0	51	BIYAGAMA	7				51	SIYAMBALAPE-NEEYANIGODUWA	0.00	1.50	1.50	
NTIP			0	0	23	BIYAGAMA	8				23	GONAWALA-KOHOLWELA	0.00	0.80	0.80	
NTIP			0	0	35	BIYAGAMA	9				35	MAKOLA-KOHOLWELA	0.00	1.50	1.50	
NTIP			C	0	2	BIYAGAMA	10				2	BIYAGAMA MALWANA	0.00	2.00	2.00	
NTIP			D	0	29	BIYAGAMA	11				29	KANGUDOOA-VALGAMA	0.00	1.09	1.09	
NTIP			0	0	28	BIYAGAMA	12				28	KANGUDOOA TEMPLE ROAD	0.00	0.90	0.90	
NTIP			0	0	50	BIYAGAMA	13				50	SIYAMBALAPE-DARAMGAMA	0.00	1.50	1.50	
NTIP			D	0	24	BIYAGAMA	14				24	NEEYANIGODUWA-KIMIPITIYA	0.00	1.20	1.20	
NTIP			D	0	56	BIYAGAMA	15				56	UDUPILA-AKUDUWELA	0.00	1.00	1.00	
NTIP			C	0	13	BIYAGAMA	16				13	MADIWA-GANEWALA	0.00	1.63	1.63	
NTIP			D	0	58	BIYAGAMA	17				58	VALGAMA TEMPLE ROAD	0.00	0.57	0.57	
NTIP			D	0	59	BIYAGAMA	18				59	VALGAMA-ULHITIWALA	0.00	1.25	1.25	
NTIP			C	0	6	KELANIYA	1				6	ELDENIYA CHURCH ROAD	0.00	1.11	1.11	
NTIP			C	0	10	KELANIYA	2				10	KELANIYA-KOHOLWILA	0.00	2.00	2.00	
NTIP			C	0	32	KELANIYA	3				32	WATTALA-IELENGAPATHA	0.50	1.37	0.87	
NTIP			C	0	5	KELANIYA	4				5	OLIPITIGODA-HUNUPITIYA	0.00	1.38	1.38	
NTIP			C	0	33	KELANIYA	5				33	WATTALA-WANAYASALA	0.50	1.25	0.75	
NTIP			D	0	34	KELANIYA	6				34	LUKSIRI MAWATHA	0.00	0.98	0.98	
NTIP			0	0	2	KELANIYA	7				2	APPROACH ROAD TO KIRIBATHGODA HOUSING SCHEME	0.00	0.97	0.97	
NTIP			0	0	33	KELANIYA	8				33	KOHOLWILA-PANSALA ROAD	0.00	0.63	0.63	
NTIP			D	0	7	KELANIYA	9				7	DALUGAMA-WEVELDUWA	0.00	1.18	1.18	
NTIP			C	0	3	KELANIYA	10				3	DALUGAMA-KELANIYA	0.00	1.37	1.37	
NTIP			C	0	45	KELANIYA	11				45	PELAPITIYA-GONAGANPOLA	0.00	0.35	0.35	
NTIP			D	0	30	KELANIYA	12				30	KIRIBATHGODA-IRIYAWATTA	0.00	1.00	1.00	
NTIP			0	0	17	KELANIYA	13				17	GALBODELLA-POLHENA	0.00	1.25	1.25	
NTIP			0	0	62	MAHARA	1				62	WEBODA-BATAHENA NORTH	0.00	0.75	0.75	
NTIP			0	0	25	MAHARA	2				25	HORAPE-SERIWARGANE MAWATHA	1.30	1.50	0.20	
NTIP			0	0	31	MAHARA	3				31	KIRIKETTA-DANAUYANGA-ETIKEHELGOLLA	0.50	2.00	1.50	
NTIP			D	0	20	MAHARA	4				20	GONAHENA-KUPPAGODA	0.00	1.30	1.30	
NTIP			0	0	36	MAHARA	5				36	KAVARAWANDITA-GONAHENA	0.00	0.80	0.80	
NTIP			D	0	21	MAHARA	6				21	GONAHENA-TALGASSARA	0.00	1.20	1.20	
NTIP			C	0	7	MAHARA	7				7	GONAHENA-MEEGAHAWATTA	0.00	2.00	2.00	
NTIP			0	0	22	MAHARA	8				22	GONAHENA WEBODA	0.00	1.00	1.00	
NTIP			0	0	1	MAHARA	9				1	ANUGANKANA ROAD	0.00	1.75	1.75	
NTIP			D	0	52	MAHARA	10				52	SIYANE-NEELAKANAHARA-POLHENA-PASGANKANA	0.46	2.46	2.00	
NTIP			C	0	26	MAHARA	11				26	RANNUTUGALLA-GONAHENA	0.00	2.25	2.25	
NTIP			C	0	27	MAHARA	12				27	RATHUPASWALA-HENEGAMA	2.00	4.00	2.00	
NTIP			0	0	48	MAHARA	13				48	ROAD TO GONSITOTA HOUSING SCHEME	0.00	0.93	0.93	
NTIP			C	0	19	MAHARA	14				19	MIHINDU MAWATHA	0.00	1.10	1.10	
NTIP			C	0	20	MAHARA	15				20	HUGEGODA-KENDALIYADDAPALUWA	0.00	2.00	2.00	
NTIP			0	0	43	MAHARA	16				43	PASGANNANA-ANDAGASPELIYA	0.00	2.75	2.75	
NTIP			0	0	41	MAHARA	17				41	PADILIYADUWA-HUNUPITIYA	0.00	1.95	1.95	
NTIP			0	0	40	MAHARA	18				40	NELIGANA-MAHARA-HUGEGODA-KARAGAHAMUNA	0.00	1.60	1.60	
NTIP			0	0	6	MAHARA	19				6	GUTHPITIYA-GINIGAMA	0.00	1.50	1.50	
NTIP			0	0	38	MAHARA	20				38	HARANWALA-HELUWAHARA	0.00	2.03	2.03	
NTIP			C	0	11	MAHARA	21				11	KIRILLAVELA-DOUPILA	0.00	3.90	3.90	
NTIP			0	0	63	MAHARA	22				63	WELIKADULA-MALWATHUHIRIPELIYA-ALUHENA	0.00	5.25	5.25	

NTIP		C	D	30	NAHARA	23				30	UEUVALA-PILLIKUTTUVA	0.00	1.22	1.22	
NTIP		C	D	34	NAHARA	24				34	VEBODA-ENBARALUYA	0.00	1.11	1.11	
NTIP		D	D	39	NAHARA	25				39	HEDUNGAHAHENA-EKEURALUWA	0.00	1.00	1.00	
NTIP		D	D	53	NAHARA	26				53	SURIYAPALUWA-KERILLAVALA	0.00	1.43	1.43	
NTIP		C	D	29	NAHARA	27				29	TEVALTE-KENDALIYADDAPALUWA	2.00	3.15	1.15	
NTIP		C	D	1	MULTI	1				1	APPROACH ROADS DONPE DIVISION		0.93	0.93	
NTIP		D	D	3	MULTI	2				3	APPROACH ROADS-DONPE DIVISION			2.70	
NTIP		D	D	54	VEKE	1				54	UDAKANANPELLA-TARALA	0.00	0.14	0.14	
NTIP		D	D	55	VEKE	2				55	UDANAPITIGANA-NEFFAYITA	0.00	3.97	3.97	
NTIP		C	D	18	VEKE	3				18	NEDAGANA-HISSELLA	0.00	2.75	2.75	
NTIP		D	D	49	VEKE	4				49	SAKANABEDDA-VALGANA-KAHATAGEDARA	0.00	1.35	1.35	
NTIP		C	D	17	VEKE	5				17	NANDAVALA-PUGODA	0.00	2.90	2.90	
NTIP		C	D	16	VEKE	6				16	NANDAVALA-PEPILIYAVALA	0.00	3.27	3.27	
NTIP		C	D	15	VEKE	7				15	NALVANA-SANANABEDDE	0.00	8.04	8.04	
NTIP		C	D	14	VEKE	8				14	NALVANA-DONPE	0.00	2.60	2.50	
NTIP		D	D	46	VEKE	9				46	PUGODA-BANDRANAYAKE ROAD	0.00	0.25	0.75	
NTIP		C	D	22	VEKE	10				22	PANAVALA-KERAGALA	0.00	3.05	3.05	
NTIP		C	D	12	VEKE	11				12	KIRINDIVELA-KANNINAHARA	0.00	1.80	1.80	
NTIP		D	D	57	VEKE	12				57	VAHARAKA-PUTUPAGALA	0.00	1.50	1.50	
NTIP		C	D	9	VEKE	13				9	IDDANALDENIYA-LANSIYAHENA	0.00	1.55	1.55	
NTIP		C	D	8	VEKE	14				8	HENEGANA-VANALUVAVA	0.00	3.35	3.35	
NTIP		D	D	60	VEKE	15				60	VALPOLA-NANDAVALA	0.00	2.15	2.15	
NTIP		D	D	61	VEKE	16				61	VANALUVAVA-PELPITA	0.00	2.97	2.97	
NTIP		C	D	4	VEKE	17				4	DEKATANA-RADAVANA	0.00	6.80	6.80	
NTIP		D	D	47	VEKE	18				47	PUNCHINANDAVELA-POLGASLANDA	0.00	0.50	0.50	
NTIP		D	D	19	VEKE	19				19	GAMPOLAGEDARA-VANALUVAVA	0.00	1.63	1.63	
NTIP		C	D	21	VEKE	20				21	PALLEGANA-NEETIRIGALLA-RANVALA	0.00	1.25	1.25	
NTIP		D	D	12	VEKE	21				12	DIYAVALA-DELOVITA	0.00	1.85	1.85	
NTIP		D	D	10	VEKE	22				10	GENALAGANA-MADURUVA	0.00	0.50	0.50	
NTIP		D	D	27	VEKE	23				27	KALUGNDAYAVA ROAD	0.00	0.38	0.38	
NTIP		D	D	18	VEKE	24				18	GAMPOLAGEDARA-PEPOLGARADENIYA	0.00	3.35	3.35	
NTIP		D	D	16	VEKE	25				16	DONPE-TELKEKUNA	0.00	2.37	2.37	
NTIP		D	D	15	VEKE	26				15	DONPE-NAPITIGANA	0.00	2.03	2.03	
NTIP		D	D	13	VEKE	27				13	DONPE-DEGAVATTA	0.00	0.90	0.90	
NTIP		D	D	32	VEKE	28				32	KIRINDIVELA-VALUEUGANA	0.00	2.85	2.85	
NTIP		D	D	26	VEKE	29				26	IDDANALDENIYA-FELKEKUNA	0.00	1.70	1.70	
NTIP		D	D	11	VEKE	30				11	DIYAGODELLA TINDIRIGANA	0.00	1.75	1.75	
NTIP		C	D	23	VEKE	31				23	PATTIYAGANA-UDAKANANPELLA	0.00	1.53	1.53	
NTIP		D	D	9	VEKE	32				9	DEKATANA-DENKALAGANA	0.00	1.62	1.62	
NTIP		D	D	37	VEKE	33				37	NELLATHNHA-BULATHVELDENIYA	0.00	2.50	2.50	
NTIP		C	D	35	VEKE	34				35	YATTIHENA-DEKATANA	0.00	4.13	4.13	
NTIP		C	D	25	VEKE	35				25	RADAVANA-CROSS ROAD	0.00	0.06	0.06	
NTIP		C	D	24	VEKE	36				24	PEPILIYAVALA-NITTRIGALLA	0.00	2.50	2.50	
NTIP		D	D	42	VEKE	37				42	PAHALA NAPITIGANA-KERAGALA	0.00	1.70	1.70	
NTIP		D	D	14	VEKE	38				14	DONPE-INDOLAMULLA	0.00	3.50	3.50	177.71

PAYMENTS ON NTIP PROJECTS UP TO 31 JULY-93
UDUGAMPOLA EE DIVISION.

1993\NTIP\GAMPAHA DIS.\UDUGAMPOLA EE'S DIV.

PROJECT REFERANCE

VOU 1	VOU 2	VOU 3	CODE	STA	YEAR	DI	NO	L	NAME OF THE ROAD	ALLOCATION	JAN.1-JUNE 30 EX.U.TO.CU.	CURRENT EXPENDITURE JULY 1-31 AM.VOU 1	AM.VOU 2	AM.VOU 3	VOU.TOT	JAN.1 JULY 31 TOT.TO.DATE
			NTIP	1	93	U	20		AKARAGAMA GALVALA		58210.00				0.00	58210.00
			NTIP	2	92	U	9		ASGIRIYA VALPOLA	34914.99	1517.71				0.00	1517.71
			NTIP	1	93	U	2		ASGIRIYA VATUKULLA DORANAGAMA	900000.00	821111.11				0.00	821111.11
1056			NTIP	2	92	U	6		BANDARAVATTA IHALAGAMA	235000.00	11065.59	13055.33			13055.33	24120.92
916			NTIP	1	93	U	4		DEVALAPOLA KABODALA	125000.00	115019.70	500.00			500.00	115519.70
			NTIP	2	92	U	16		DIYULAPITIYA CIRCULAR RD.	4707.50	1386.91				0.00	1386.91
			NTIP	1	93	U	3		DORAGODA BEKKULLA	425000.00	342217.37				0.00	342217.37
			NTIP	2	92	U	16	A	FIX.MB IN DIULAPITIYA PSA	-	15000.00				0.00	15000.00
			NTIP	2	92	U	7	A	FIX.MB IN GAMPAHA PSA	125000.00	20000.00				0.00	20000.00
			NTIP	2	92	U	21	A	FIX.MB IN MINUVANGODA PSA		15000.00				0.00	15000.00
			NTIP	3	93	U	9		GALAHITIYAVA KUDAGOLLAYA	200000.00	100666.00				0.00	100666.00
			NTIP	1	93	U	16		GAMPAHA ORUTHOTA BELUMMAHARA	170000.00	115936.20				0.00	115936.20
			NTIP	3	93	U	15		GAMPAHA ORUTOTA		625.00				0.00	625.00
			NTIP	1	92	U	16		GAMPAHA ORUTOTA BELUMMAHARA	170000.00	8198.80				0.00	8198.80
			NTIP	3	92	U	3		HETTIMULLA GINIDAMKAMA		38318.26				0.00	38318.26
			NTIP	1	92	U	7		IBULGODA GANEMULLA	600000.00	232308.00				0.00	232308.00
			NTIP	2	92	U	14		IHALAYAGODA RD.	550000.00	51554.00				0.00	51554.00
			NTIP	1	93	U	6	C	IMBULGODA PAHALAYAGODA	321000.00	169526.00				0.00	169526.00
			NTIP	2	92	U	6	A	IMBULGODA PAHALAYAGODA	368000.00	162486.09				0.00	162486.09
			NTIP	1	93	U	6	B	IMBULGODA PAHALAYAGODA	331000.00	152442.00				0.00	152442.00
			NTIP	1	93	U	5		IMBULGODA PAHALAYAGODA RD.	100000.00	42120.00				0.00	42120.00
			NTIP	1	93	U	18		KADAVALA PAHALA MADAMPELLA		3402.00				0.00	3402.00
916			NTIP	1	93	U	10		KASAGAHAVATTA IHALAGAMA	150000.00	63504.00	725.00			725.00	64229.00
			NTIP	3	92	U	4		KEHELELLA BARAVAHULA		66660.42				0.00	66660.42
			NTIP	2	92	U	14		KEHELELLA BARAVAVILLA		0.00				0.00	0.00
			NTIP	3	92	U	14		KEHELELLA BARAVAVILLA		162548.29				0.00	162548.29
			NTIP	2	91	U	10		KIRIKITTA DUNUVIKANDA		13595.00				0.00	13595.00
			NTIP	3	92	U	8		KORABE WEDUKULLA		223551.40				0.00	223551.40
			NTIP	3	92	U	7		MAKEVITA MAGAMKAMA		71551.90				0.00	71551.90
1106			NTIP	3	92	U	1		MARADHAGAHAMULA MADITTAGAMA	412938.09	82688.75	105858.66			105858.66	188547.41
			NTIP	3	92	U	2		MATAMMANA		3314.16				0.00	3314.16
			NTIP	1	93	U	1		MINUVANGODA TOWN PAVEMENT	200000.00	194339.50				0.00	194339.50
			NTIP	1	93	U	13		MALLA MAVANA	600000.00	361701.00				0.00	361701.00
			NTIP	1	93	U	15		ORUTOTA BELUMMAHARA		137865.85				0.00	137865.85
			NTIP	2	92	U	12		PAHALAMADAMPELLA KUDUKGAHAMANKADA	21453.82	10073.26				0.00	10073.26
930			NTIP	1	93	U	12		RATUPASVALA HENEGAMA	400000.00	350244.16	500.00			500.00	350744.16
			NTIP	2	92	U	22		RECO.BRIDGE IN MINUVANGODA PSA	21000.00	14506.79				0.00	14506.79
			NTIP	1	93	U	1	A	SAMARAKKODI MAVATHA		85241.59				0.00	85241.59
916			NTIP	1	93	U	14		VARADALA MEERALUGEDARA	850000.00	402608.00	500.00			500.00	403108.00
930	966		NTIP	1	93	U	8		VELISAMPITIYA GANEMULLA	200000.00	45686.00	652.50	864.47		1516.97	47202.97
			NTIP	2	92	U	11		KADAVALA MADAMPELLA ROAD		2272.10				0.00	2272.10
			NTIP	1	93	U	18		KADAVALA MADAMPELLA ROAD		48943.13				0.00	48943.13
			NTIP	1	93	U	5		IMBULGODA IHALAYAGODA		47872.99				0.00	47872.99
			NTIP	2	92	U	22		DEDLAPOLA KABODALE		7238.98				0.00	7238.98
916			NTIP	1	93	U	6		IMBULGODA PAHALAYAGODA		255344.30	1211.76			1211.76	256556.06
			NTIP	3	92	U	2		AKARAGAMA GALVALA RD.		25963.74				0.00	25963.74
			NTIP	1	93	U	19		AKARAGAMA GALVALA RD.		56221.06				0.00	56221.06
			NTIP	2	92	U	8		GAMPAHA ORUTOTA BELUMMAHARA		15561.21				0.00	15561.21
			NTIP	2	92	U	19		ASGIRIYA VALPOLA		153792.85				0.00	153792.85
			NTIP	2	92	U	20		UNNARUVA KELANIGODA		41195.47				0.00	41195.47
916			NTIP	1	93	U	7		IMBULGODA GANEMULLA		103685.55	500.00			500.00	104185.55

		NTIP	1	93	U	16		GAMPAHA ORUTOTA BELUMMAHARA		29531.15					0.00	29531.15
930		NTIP	1	93	U	19		IMBULGODA PAHALAYAGODA			1126.55			1126.55	1126.55
930		NTIP	1	93	U	11		IMBULGODA EHGALA			1074.91			1074.91	1074.91
930		NTIP	1	93	U	9		GALHITIYAWA KUDABOLLATHA			500.00			500.00	500.00
980		NTIP	1	93	U	6	O	IMBULGODA PAHALAYAGODA			157871.30			157871.30	157871.30
1054		NTIP	2	92	U	7		BANDUWATUGODA KARANAYAKA MULLA			15081.55			15081.55	15081.55
1055		NTIP	1	93	U	11		IHALAYAGODA RD			65892.48			65892.48	65892.48
1057		NTIP	2	92	U	1		ALUTHGAMA KOSHENA			26580.21			26580.21	26580.21
										5582991.09	391930.48	866.47	0.00	392796.95	5975788.04

PAYMENTS ON NTIP PROJECTS UP TO 31 JULY-93
NITTAMBUWA EE DIVISION.

1993\NTIP\GAMPAHA DTS.\NITTAMBUWA EE'S DIV.

PROJECT REFERANCE

YOU 1	YOU 2	YOU 3	CODE	STA	YEAR	DI	NO	L	NAME OF THE ROAD	ALLOCATION	JAN.1-JUNE 30 EX.U.TO.C.	CURRENT EXPENDITURE JULY 1-31 AM.YOU 1	AM.YOU 2	AM.YOU 3	YOU.TOT	JAN.1 JULY 31 TOT.SO.FAR
			NTIP	3	92	NT	11		MARAPOLA BENNULLA	100000.00	55797.25				0.00	55797.25
			NTIP	3	92	NT	14		MALVATHA KATTOTA	43539.23	17471.31				0.00	17471.31
			NTIP	3	92	NT	2		MANGALATHIRIYA BOGANVA	129138.67	45570.49				0.00	45570.49
			NTIP	3	93	NT	4		DANOUGANA RADEOLUGANA	161681.93	99350.58				0.00	99350.58
			NTIP	1	92	NT	5		DANOUGANA TEMPAL ROAD	78467.05	2072.40				0.00	2072.40
			NTIP	3	92	NT	13		THIVANAGANA KANDAOLUVAVA	100000.00	55232.28				0.00	55232.28
			NTIP	SP	92	NT			JA-ELA TEMPLE RD.	500000.00	259122.67				0.00	259122.67
			NTIP	2	92	NT	9	C	FIX.NB IN MEERIGAMA PSA		25000.00				0.00	25000.00
			NTIP	2	92	NT	21	C	FIX.NB IN ATTANAGALLA PSA	25000.00	25000.00				0.00	25000.00
			NTIP	2	92	NT	14		KALAGEDIHENA NAGALEGODA	246029.68	14335.25				0.00	14335.25
			NTIP	2	92	NT	20		SAPUGASKANDA KARASHAGALA	38750.00	7950.57				0.00	7950.57
			NTIP	2	92	NT	3		HORAGASMANKADA ALGAMA	174186.50	3372.78				0.00	3372.78
			NTIP	2	92	NT	23		ATTANAGALLA GALAPITAMADA	175000.00	12666.22				0.00	12666.22
			NTIP	2	92	NT	13		KANDAVALA ETHGALA	150000.00	5427.27				0.00	5427.27
			NTIP	2	92	NT	18		ATTANAGALLA GALAPITAMADA	450000.00	247363.59				0.00	247363.59
			NTIP	2	92	NT	25		KALAGEDEHANA NAGALEGODA	25000.00	1010.28				0.00	1010.28
			NTIP	1	92	NT	9		NAPEVATTA PALNADA	221430.98	10385.43				0.00	10385.43
			NTIP	1	93	NT	20		NITTAMBUVA HUNBUTIYAVA	150000.00	97279.61				0.00	97279.61
			NTIP	1	93	NT	10		PALLEVELA BOTHALAGAMA	75000.00	53999.78				0.00	53999.78
			NTIP	1	93	NT	22		KOONGASDENIYA PANAVALA	150000.00	71430.81				0.00	71430.81
			NTIP	EXE		NT	2		JA-ELA TEMPLE RD.	500000.00	27107.20				0.00	27107.20
			NTIP	1	93	NT	21		KONGASDENIYA HUBUTIYAVA	100000.00	68310.58				0.00	68310.58
			NTIP	1	93	NT	31		MALVATTA KATTOTA	150000.00	30756.05				0.00	30756.05
			NTIP	1	93	NT	24		ELUVAPITIYA GALVALA RD.	500000.00	29394.00				0.00	29394.00
			NTIP	1	93	NT	2		VEVELDENIYA VADUVATTA	200000.00	64062.00				0.00	64062.00
			NTIP	1	93	NT	27		BONAGALA RUKGAHAVILA	275000.00	127260.00				0.00	127260.00
			NTIP	1	93	NT	1		HANGALLA HEDIDEDIKANDA	400000.00	40140.00				0.00	40140.00
			NTIP	1	93	NT	26		BERUTTA PARAMAGAMA	200000.00	110250.00				0.00	110250.00
977			NTIP	1	93	NT	19		KITTAMMAHARA VETHUPETIVALA	225000.00	186677.11	8755.36			8755.35	195433.47
1096			NTIP	1	93	NT	6		DIULGASHANDIYA KASASAMAMULLA	360000.00	258751.31	72537.69			72537.69	331289.00
			NTIP	1	93	NT	23		THINARIYA RUKGAHAVILA	150000.00	93790.46				0.00	93790.46
935	1097		NTIP	1	93	NT	3		KOTTALA ELUKHENA	525000.00	250380.00	60000.00	62876.56		122876.56	373256.56
			NTIP	1	93	NT	1		HANVAPOLA VITANAMULLA	200000.00	66234.00				0.00	66234.00
			NTIP	1	93	NT	16		VALPOLA HAGGALLA	250000.00	110044.00				0.00	110044.00
			NTIP	1	93	NT	29		MARAPOLA BEKNULLA	300000.00	136754.00				0.00	136754.00
			NTIP	1	93	NT	4		PASYALA VISUREYAKANDA	200000.00	72900.00				0.00	72900.00
547	929		NTIP	1	93	NT	5		GASPE HIRIVALA (NITTAMBUVA)	250000.00	107820.00	34000.00	40492.32		74492.32	182312.32
			NTIP	1	93	NT	17		NEEPATHELLA VARAPALANA	350000.00	162900.00				0.00	162900.00
			NTIP	1	93	NT	28		KALAGEDIHENA SAPUGASTENNA	150000.00	27844.47				0.00	27844.47
934			NTIP	1	93	NT	14		KIRIKOTUVA VOUGAMA	150000.00	175251.01	18356.13			18356.13	193607.14
			NTIP	1	93	NT	13		GOLUVAGODA OELVALA	100000.00	74430.69				0.00	74430.69
			NTIP	1	93	NT	12		ADUPE KIRANDENIYA	150000.00	127175.44				0.00	127175.44
			NTIP	2	92	NT	2		ENTRY RD TO AMBEPUSSA		20937.64				0.00	20937.64
			NTIP	2	92	NT	9	B	KANDALAMA MADURUPITIYA		20213.95				0.00	20213.95
			NTIP	3	92	NT	3		ALUTHGAMA KOSHENA		44925.75				0.00	44925.75
1028			NTIP	3	92	NT	6		BENNULLA PITIYEGEDARA		32460.87	27162.56			27162.56	59623.43
			NTIP	2	92	NT	2		ENTRY RD. TO AMBEPUSSA		154857.75				0.00	154857.75
			NTIP	3	92	NT	3		ALUTGAMA KOSHENA RD.		50901.00				0.00	50901.00
			NTIP	2	92	NT	9	A	KUMBUKDUVA		121275.00				0.00	121275.00
1035			NTIP	2	92	NT	9	C	KANDALAMA MADURUPITIYA		35182.00	11664.00			11664.00	46846.00
			NTIP	2	92	NT	9	D	TALGASKOTE KUBALOLUVA		682.90				0.00	682.90

PAYMENTS ON NTIP PROJECTS UP TO 31 JULY-93
NITTAMBUWA EE DIVISION(CONT.)

			NTIP		92	NT			JA-ELA IMPLE RD.		40177.78				0.00	40177.78
			NTIP		92	NT	1		JA-ELA IMPLE RD.		39165.56				0.00	39165.56
			NTIP		92	NT	3		JA-ELA IMPLE RD.		29049.61				0.00	29049.61
			NTIP		92	NT	3		JA-ELA IMPLE RD.		41177.78				0.00	41177.78
			NTIP		92	NT	3		JA-ELA IMPLE RD.		9002.10				0.00	9002.10
			NTIP	2	92	NT	21	A	NITTAMBUWA HUNBUTIYAVA ROAD		41531.93				0.00	41531.93
			NTIP	3	92	NT	8		HALGANPITIYA TIRIVANAGANA		32438.62				0.00	32438.62
			NTIP	3	92	NT	1		MANGALATIRIYA BOGAMUVA		53041.25				0.00	53041.25
			NTIP	3	92	NT	12		NITTAMBUWA HUNBUTIYAVA		45991.52				0.00	45991.52
			NTIP	3	92	NT	10		KONGASDENIYA HUNBUTIYAVA		17024.83				0.00	17024.83
			NTIP	1	93	NT	3		KOTTALA ILUKHENA		110135.02				0.00	110135.02
			NTIP	1	93	NT	11		HANWAPOLA WITANAWULLA		25228.52				0.00	25228.52
			NTIP	3	92	NT	20		TALGASKOTE KUMBALOLUVA		31395.00				0.00	31395.00
			NTIP	2	92	NT	9	A	TALGASKOTE KUMBALOLUVA		122060.90				0.00	122060.90
978			NTIP	1	93	NT	8		TALGASKOTE KUMBALOLUVA		258362.41	39605.10			39605.10	[illegible]
			NTIP	2	92	NT	6		JA-ELA MORAGOLLA		3606.57				0.00	3606.57
			NTIP	2	92	NT	12		TALGASKOTE KUMBALOLUVA		1292.50				0.00	1292.50
			NTIP	1	92	NT	6		KOTTALA ILUKHENA		361.25				0.00	361.25
			NTIP	2	92	NT	6		PASYALA VEERASOORIYAKANDA ROAD		25357.75				0.00	25357.75
			NTIP	2	92	NT	8		ELLAKKALA NEEVITIYA		21210.00				0.00	21210.00
			NTIP	2	92	NT	17		NEEVITIGANMANA BOPEGAMA		92335.33				0.00	92335.33
			NTIP	3	92	NT	7		GARALUVA OBESEKARA MAWATHA		25773.45				0.00	25773.45
			NTIP	3	92	NT	5		WALPOLA MAGSALLA		61051.78				0.00	61051.78
			NTIP	3	92	NT	4		MADAKOTUVA VALGAMMULLA		57405.85				0.00	57405.85
			NTIP:SP		92	NT	11		NITTAMBUWA		1151.94				0.00	1151.94
			NTIP	3	92	NT	17		GURALUVA OBESEKARA MAWATHA		10407.97				0.00	10407.97
			NTIP:SP		92	NT	2		KAPUVAGARA ROAD		151647.27				0.00	151647.27
			NTIP	2	91	NT	5		KALGEDIHENA SAPUGASTENNA		10111.97				0.00	10111.97
			NTIP	1	93	NT	34		MANGALATIRIYA BOGAMUVA		183740.14				0.00	183740.14
967	976		NTIP	1	93	NT	25		NEDAKOTUVA VALGAMMULLA			1702.30	53523.73		55226.03	55226.03
1027			NTIP	1	92	NT	3		WATADDARA MEEHOENIYA			40500.00			40500.00	40500.00
1029			NTIP	2	92	NT	15		KITTAMMAHARA WATUPITIWALA			7188.66			7188.66	7188.66
1030			NTIP	2	92	NT	7		ATTANAGALA GALAPITAMADA			29808.00			29808.00	29808.00
1031			NTIP	2	92	NT	5		ATTANAGALLA GALMADA			25920.00			25920.00	25920.00
1032			NTIP	1	92	NT	15		KERAWALAPITIYA MAHABAGE			114180.00			114180.00	114180.00
											5427554.60	562381.91	156832.61	0.00	319277.52	[illegible]

PAYMENTS ON MTIP PROJECTS UP TO 31 JULY-93
NEGOMBO EE DIVISION.

1993\MTIP\GAMPAHA DIS.\NEGOMBO EE'S DIV.

VOU 1	VOU 2	VOU 3	VOU 4	CODE	STA	YEAR	DIS	NO	L	NAME OF THE ROAD	ALLOCATION	EX.U.TO.CU.	AM.VOU 1	AM.VOU 2	AM.VOU 3	AM.VOU 4	VOU.TOT	TOT.EQ.PAY
				MTIP	2	92	NG	5		HORAGOLLA JA-ELA	101838.44	325937.11					0.00	325937.11
967				MTIP	3	92	NG	2		JA-ELA HORAGOLLA	500000.00	278158.83	3677.80				3677.80	281836.63
1311				MTIP	3	92	NG	11		ANDALANKULLA KATUNAYAKE	500000.00	157111.24	268912.39				268912.39	386023.63
				MTIP	2	92	NG	16	A	DENANHANDIYA KONDAGANNULLA	103350.00	89913.11					0.00	89913.11
				MTIP	2	92	NG	26		KOCHCHIKADE PALLANSENA	94980.61	2751.10					0.00	2751.10
				MTIP	2	92	NG	7		HORAPE SIRIWARDANA MAWATHA	125475.00	6878.03					0.00	6878.03
				MTIP	2	92	NG	25		EKALA RD.	24771.13	7065.68					0.00	7065.68
842				MTIP	1	93	NG	4		PALANGATHURE RD.	300000.00	114856.00	143361.34				143361.34	258219.34
852	865			MTIP	1	93	NG	8		RAGAMA KARAGAHAKUNA	150000.00	33048.00	680.00	96101.77			96781.77	129829.77
852	867			MTIP	1	93	NG	3		NEGOMBO SEA STREET	300000.00	1015542.12	1275.00	1299.28			2574.28	1018116.40
				MTIP	1	93	NG	7		EKALA DANDUGAMA	300000.00	182995.67					0.00	182995.67
				MTIP	1	92	NG	1		BELADULLA BATAGAMA	129300.00	104443.79					0.00	104443.79
				MTIP	EMI	92	NG	3		JA ELA TEMPLE RD.	500000.00	397832.83					0.00	397832.83
1099				MTIP	3	92	NG	7		EVARIYAWATTA YAGODAMULLA	396319.17	316028.98	31973.48				31973.48	348002.46
1098				MTIP	1	93	NG	11		ANDIAMBALAWA WALPOLA	300000.00	129436.00	150657.59				150657.59	280093.59
				MTIP	1	93	NG	1		DALUPOTA THIBIRIGASKATTUWA	275000.00	206399.00					0.00	206399.00
				MTIP	1	93	NG	5		KANDANA GAMENULLA .	350000.00	314454.57					0.00	314454.57
				MTIP	1	93	NG	18		GOVINNA GANGARAMA	350000.00	175122.00					0.00	175122.00
				MTIP	3	91	NG	9		WATADDARA HEENDENIYA		10160.21					0.00	10160.21
				MTIP	1	93	NG	25		KADAKOTUWA WALAGAMMULLA	275000.00	9216.00					0.00	9216.00
				MTIP	1	93	NG	32		APPROACH ROADS TO GOVERNMENT BUILDINGS	90000.00	49590.00					0.00	49590.00
				MTIP	1	93	NG	16		MORGAM RD.	200000.00	178903.41					0.00	178903.41
				MTIP	1	93	NG	30		THISIYANAGALA KANDAWALANULLA	300000.00	55530.00					0.00	55530.00
				MTIP	1	93	NG	14		GADAGAMUWA RADDOLUWA	300000.00	123930.00					0.00	123930.00
				MTIP	1	93	NG	7		KANDALANA MADURUPITIYA	100000.00	33046.00					0.00	33046.00
				MTIP	1	93	NG	10		KANDAWALA SEEDUWA	500000.00	339822.51					0.00	339822.51
				MTIP	1	93	NG	16		KANDANA USWETAKEIYAWA	200000.00	258876.00					0.00	258876.00
				MTIP	1	93	NG	27		NEGOMBO EXECUTIVE ENGINEERING OFFICE		48000.00					0.00	48000.00
				MTIP	1	92	NG	2		MUHUDU WEEDIYA		1125.00					0.00	1125.00
				MTIP	2	92	NG	13		KANDALANA ETHGALA		69896.00					0.00	69896.00
				MTIP	1	93	NG	3	B	NEGOMBO SEA STREET		108405.75					0.00	108405.75
				MTIP	2	92	NG	18		WATTALA TELAGAPATHA		207975.73					0.00	207975.73
				MTIP	2	92	NG	24		DODANGODA TEDUWANA	200000.00	25000.00					0.00	25000.00
				MTIP	3	92	NG	8		MUDUKANA DANUKULIYA RD.		98847.00					0.00	98847.00
				MTIP	2	92	NG	1		JA-ELA TEMPLE		2325.00					0.00	2325.00
				MTIP	3	92	NG	3		WELIGAMPITIYA GAMENULLA		666247.00					0.00	666247.00
				MTIP	1	93	NG	2		SEA RD.		534.86					0.00	534.86
				MTIP		92	NG	1		KAPUWAGAMA RD.		75000.00					0.00	75000.00
				MTIP	EMI	92	NG	2		JA-ELA TMPLE ROAD		675.00					0.00	675.00
				MTIP	2	92	NG	2		WALPOLA BOLLATAVA ROAD		67624.08					0.00	67624.08
				MTIP	2	92	NG	3		WELIGAMPITIYA GAMEKULLA		92168.40					0.00	92168.40
				MTIP	2	92	NG	8		KATAGODA ROAD		51342.52					0.00	51342.52
				MTIP	EX	91	NG	TBA		LUVIS PLACE		11665.21					0.00	11665.21
				MTIP	EX	91	NG	TBA		LUVIS PLACE		11124.75					0.00	11124.75
				MTIP	2	92	NG	21		THIMBIRIGASKOTUWA COLLEGE		34666.00					0.00	34666.00
				MTIP	2	92	NG	6		JA-ELA HORAGOLLA		15051.98					0.00	15051.98
				MTIP	2	92	NG	11		USMETAKEIYAYA CHURCH ROAD		1321.25					0.00	1321.25
				MTIP	2	92	NG	19		WEEYANGODA DIULGASHANDIYA		711.50					0.00	711.50
				MTIP	2	92	NG	14		EVARIYAWATTA YAGODAMULLA		2137.50					0.00	2137.50
1034				MTIP	1	93	NG	12		ANDALANKULLA KATUNAYAKE ROAD		1303.35	385560.00				385560.00	386863.35
				MTIP	3	92	NG	6		ANDIAMBALAWA WALPOLA		822.50					0.00	822.50

				MTIP	ENI	92	NG	1		JA-ELA TMPLE ROAD			1122.00				0.00	1122.00
1083				MTIP	2	92	NG	3		VALPOLA KENDALIYADDAPALUWA			56913.94	8432.25			8432.25	65346.19
				MTIP	2	92	NG	3	D	VELIGAMPITIYA GANEMULLA			670836.73				0.00	670836.73
				MTIP	3	92	NG	4		DIPPITIYA KARAGAHAKUNA			98533.86				0.00	98533.86
				MTIP	2	91	NG	3		KANDANA USVETAKEIYAWA			13911.96				0.00	13911.96
				MTIP	2	92	NG	11	B	KERAWALAPITIYA MAHABAGE			380885.72				0.00	380885.72
967				MTIP	1	93	NG	13		NEGOMBO GOVINNA GANGARAMA			191111.89	205.00			205.00	191316.89
				MTIP	2	92	NG	3	B	BATAGANA NIVANDANA			44035.45				0.00	44035.45
				MTIP	2	92	NG	16	C	DAGONNA KIMBULAPITIYA			75000.00				0.00	75000.00
				MTIP	3	92	NG	4		ANDIANGALANA KIMBULAPITIYA			32375.00				0.00	32375.00
953				MTIP	SP	92	NG	3		PALLIYAWATTA				59818.20			59818.20	59818.20
972				MTIP	3	92	NG	10		OUVA TEMPLE RD				185546.94			185546.94	185546.94
1033				MTIP	1	92	NG	9		VELIGAMPITIYA GANEMULLA				446040.00			446040.00	446040.00
1084				MTIP	2	92	NG	16		DAGONNA KIMBULAPITIYA				83779.40			83779.40	83779.40
1087				MTIP	3	92	NG	6		ANDI ANGALANA				59842.38			59842.38	59842.38
1088				MTIP	1	93	NG	6		KANDANA USVETAKEIYAWA				75000.00			75000.00	75000.00
													8035757.61	1904761.77	97401.05	0.00	2002162.82	10037920.43

1993\MTIP\GAMPAHA DIS.\DOMPE EE'S DIV.

PAYMENTS ON MTIP PROJECTS UP TO 31 JULY-93
DOMPE EE DIVISION.

PROJECT REFERANCE

VOU 1	VOU 2	VOU 3	CODE	STA	YEAR	DI	NO	L	NAME OF THE ROAD	ALLOCATION	JAN.1-JUNE 30 EX.U.TO.CU.	CURRENT EXPENDITURE JULY 1-31 AM.VOU 1	AM.VOU 2	AM.VOU 3	VOU.TOT	JAN.1-JULY 31 TOT.SO.FAR
			MTIP	3	92	D	8		SIYABALAPE HEIYANTHUDUWA	150497.63	80073.45				0.00	80073.45
1042	1089		MTIP	3	92	D	15		MILLATHE BULATHWELDENIYA	135323.46	53916.66	40320.00	22361.49		62681.49	126600.15
945	1050		MTIP	3	92	D	4		DIPPITIGODA HUNUPITIYA	137121.31	64077.63	22123.23	40320.00		62443.23	126520.86
938	983		MTIP	3	92	D	2		MARANWALA BELUMMAHARA	258235.52	81201.90	163620.00	13107.60		176727.60	257929.50
			MTIP	2	92	D	7	B	GONAHENA MEEGAHAWATHA	176762.18	114322.32				0.00	114322.32
			MTIP	2	92	D	5		WILIBULA KALWATHUHIRIPITIYA	154458.89	154458.89				0.00	154458.89
			MTIP	2	92	D	9		MAHARA DOMPE KELANIYA FARM & CUL.	326951.85	200571.51				0.00	200571.51
			MTIP	2	92	D	15		DOMPE KALWANA	223192.97	167303.43				0.00	167303.43
1049			MTIP	3	92	D	6		KIRIBATHGODA HOSPITAL RD.	71907.28	115076.08	30240.00			30240.00	145316.08
1051			MTIP	3	92	D	3		KIRIKITTA ETIKEHELGALLA	400000.00	304523.54	50400.00			50400.00	354923.54
1043	1044		MTIP	3	92	D	14		PATTIYAGALA UDAKANAMPELLA	300000.00	239033.23	10080.00	22680.00		32760.00	271793.23
			MTIP	2	92	D	4	A	FIX.NB IN DOMPE PSA		10000.00				0.00	10000.00
			MTIP	2	92	D	7	A	FIX.NB IN MAHARA PSA	10000.00	10000.00				0.00	10000.00
			MTIP	2	92	D	10	A	FIX.NB IN BIYAGAMA PSA	10000.00	10000.00				0.00	10000.00
			MTIP	2	92	D	13	A	FIX.NB IN KELANIYA PSA	125000.00	10000.00				0.00	10000.00
			MTIP	2	92	D	15	A	FIX.NB IN DOMPE PSA		10000.00				0.00	10000.00
			MTIP	1	93	D	1		PALLEGAMA RANWALA	750000.00	324000.00				0.00	324000.00
			MTIP	2	93	D	22		DEKATANA DEMALAGAMA	400000.00	121500.00				0.00	121500.00
			MTIP	1	93	D	14		PILIPITIYA GONAGAMPALA	150000.00	138988.21				0.00	138988.21
			MTIP	2	92	D	13		DIPPITIGODA HUNUPITIYA	100000.00	35640.00				0.00	35640.00
			MTIP	1	93	D	12		DOMPE TELKEKUNA	400000.00	155520.00				0.00	155520.00
			MTIP	1	92	D	10		WILIBULA KALWATUHIRIPITIYA	600000.00	237240.00				0.00	237240.00
			MTIP	1	93	D	8		PASGAMMANA ANGAGASPITIYA	650000.00	307800.00				0.00	307800.00
			MTIP	1	93	D	7		BIYAGAMA KOTTUNNA	150000.00	35640.00				0.00	35640.00
			MTIP	1	93	D	4		PUGODA BANDARANAYAKE RD.	75000.00	53640.00				0.00	53640.00
			MTIP	1	93	D	3		MALWANA SAMANABODA	600000.00	288000.00				0.00	288000.00
			MTIP	1	93	D	9		BUTHPITIYA GINIGESMA RD	500000.00	210600.00				0.00	210600.00
			MTIP	1	93	D	16		MEDDEGAMA HISSELLA	150000.00	129144.26				0.00	129144.26
999			MTIP	1	93	D	15		GONSITOTA HOUSING SCHEME	150000.00	19640.00	105398.25			105398.25	124838.25
			MTIP	2	92	D	9		MAKOLA KOHOLWILA RD.	120022.39	34337.08				0.00	34337.08
			MTIP	3	92	D	14		PATTIYAGAMA KAMPELLA		0.00				0.00	0.00
			MTIP	2	92	D	10		MABIMA MAKOLA		75044.22				0.00	75044.22
			MTIP	3	92	D	2		RATUPASWALA HENEGAMA		66387.96				0.00	66387.96
			MTIP	1	93	D	6	B	YATIHENA DEKATANA		88938.00				0.00	88938.00
			MTIP	3	92	D	7		TALWATTA SAPUGASTENNA		86332.46				0.00	86332.46
			MTIP	1	93	D	1		PALLEGAMA RANWALA		12150.00				0.00	12150.00
			MTIP	3	92	D	9		MAKOLA KEHALAWILLA		42675.13				0.00	42675.13
			MTIP	3	92	D	6		KIRIBATHGODA HOSPITAL ENTRY RD.		40031.48				0.00	40031.48
			MTIP	1	92	D	5		PATTIWILLA MAKOLA		115983.00				0.00	115983.00
1038			MTIP	2	92	D	14		ANGODA MANGAWALA		77163.11	17640.00			17640.00	94803.11
			MTIP	2	92	D	13		MEDDEGAMA HISELLA		65309.46				0.00	65309.46
			MTIP	2	92	D	10	C	ULHITIYALA ROAD		191538.63				0.00	191538.63
			MTIP	3	92	D	13		MEDDEGAMA HISSELLA		34337.08				0.00	34337.08
			MTIP	2	92	D	10	C	WALGAMA ULHITIYALA		25041.31				0.00	25041.31
940			MTIP	2	92	D	10	B	MABIMA GANEWALA ROAD		67890.00	150660.00			150660.00	218550.00
			MTIP	3	91	D	10	B	MABIMA MAKOLA RD\RANMUTUGALA GONAHENA		14280.00				0.00	14280.00
			MTIP	3	91	D	10	B	MABIMA MAKOLA RD\RANMUTUGALA GONAHENA		10132.00				0.00	10132.00
			MTIP	1	93	D	13		DIPPITIYA HUNUPITIYA		53061.67				0.00	53061.67
			MTIP	3	92	D	16		WALGAMA MALWANA		83935.77				0.00	83935.77
			MTIP	2	92	D	11		SAKANABODA WELGAMA		50799.72				0.00	50799.72
			MTIP	1	93	D	5		BIYAGAMA MALWANA		274674.65				0.00	274674.65

PAYMENTS ON MTIP PROJECTS UP TO 31 JULY-93
DOMPE EE DIVISION(CONT.)

			MTIP	FE	92	D	2		ENDERAMULLA ROSVILLA PARK ENTRY RD.	37892.20				0.00	37892.20
1041			MTIP	1	92	D	5		WALGANA KALWANA	56034.17	37800.00			37800.00	93834.17
			MTIP	2	92	D	15	A	DOMPE KALWANA	56686.47				0.00	56686.47
1048			MTIP	3	92	D	7		YATIHENA DEKATANA	37827.82	126000.00			126000.00	153827.82
			MTIP	1	93	D	7	B	BIYAGAMA KOTTUNNA	99420.02				0.00	99420.02
			MTIP	3	92	D	5		DALUGAMA KELANIYA	133117.71				0.00	133117.71
			MTIP	1	93	D	2		DEKATANA DEMALAGAMA	141224.92				0.00	141224.92
975	1061		MTIP	SP	92	D	3		KADAWATA ST ANDRU		23257.29	15120.00		38377.29	38377.29
982	1046		MTIP	3	92	D	8		WALGAMA TEMPLE RD		29936.80	37800.00		67736.80	67736.80
998			MTIP	1	93	D	10		WILIMBULA MALWATUHIRIPITIYA		89265.36			89265.36	89265.36
1000			MTIP	3	92	D	14		DOMPE DEGAWATTA		14757.44			14757.44	14757.44
1003			MTIP	2	92	D	8		KELANIYA KOHOLWILA		29904.09			29904.09	29904.09
1036			MTIP	2	92	D	7		SURIYAPALUWA KIRILLAWALA		25200.00			25200.00	25200.00
1037			MTIP	2	92	D	10	D	MABIMA MAKOLA		12600.00			12600.00	12600.00
1039			MTIP	2	92	D	10	C	MABIMA GANEWELA		7560.00			7560.00	7560.00
1040			MTIP	2	92	D	10	B	YATIHENA DEKATANA		15120.00			15120.00	15120.00
1045			MTIP	3	92	D	18		MEDDEGAMA HISSELLA		27720.00			27720.00	27720.00
1047			MTIP	3	92	D	9		BIYAGAMA		27720.00			27720.00	27720.00
1052			MTIP	3	92	D	1		RATUPASWALA HENEGAMA		32760.00			32760.00	32760.00
1059			MTIP	2	92	D	8		KIRINDIWELA MAHARA DOMPE		2520.00			2520.00	2520.00
1060			MTIP	2	92	D	10		KIRINDIWELA MAHARA DOMPE		2520.00			2520.00	2520.00
1062			MTIP	SP	92	D	2		KIRINDIWELA ROSWILA UYANA		20160.00			20160.00	20160.00
1063			MTIP	3	92	D	9		KANDUBODA WALGAMA		10080.00			10080.00	10080.00
										5773759.03	1125352.46	151389.09	0.00	1276751.55	7050510.58

CONCLUSION
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Chairman of P.R.D.A's views were sought on 7 th August 93 and in addition I hope this report will help you to formulate the proposed I.R.D.P.(11) in Gampaha District and hope you will consider favourably to my observations and recomendations. Based on years of experience in rural, Suburban and Urban road building.

5. Minutes of Discussion (Draft Final Report)

MINUTES OF DISCUSSIONS

BASIC DESIGN STUDY

ON

THE INTEGRATED RURAL DEVELOPMENT PROJECT (II)

IN GAMPAHA DISTRICT

IN

DEMOCRATIC SOCIALIST REPUBLIC OF SRI LANKA

(CONSULTATION ON DRAFT REPORT)

In July 1993, the Japan International Cooperation Agency(JICA) dispatched a Basic Design Study team on the Integrated Rural Development Project in Gampaha District(hereinafter referred to as "the Project") to Democratic Socialist Republic of Sri Lanka, and through discussions, field survey, and technical examination of the results in Japan, has prepared the draft report of the study.

In order to explain and to consult the Sri Lanka side on the components of the draft report, JICA sent to Sri Lanka a study team, which is headed by Mr. Takeo Kai, Development Specialist of JICA, and is scheduled to stay in the country from January 12 to 21, 1994.

As a result of discussions, both parties confirmed the main items described on the attached sheets.

Colombo, January 20, 1994

Mr. Takeo Kai
Leader,
Draft Report Explanation
Team, JICA

Mr. C. Maliyadde
Director General,
Ministry of Policy Planning
and Implementation

Mr. S.H. Perdinandez
Deputy Chief Secretary
for Chief Secretary,
Western Provincial Council

ATTACHMENT

1. Components of Draft Report

The Government of Sri Lanka has agreed and accepted in principle the components of the Draft Report proposed by the team.

The components of the Project agreed upon by both parties are as shown in Annex I .

2. Japan's Grant Aid System

1) The Government of Sri Lanka has understood the system of Japanese Grant Aid Programme explained by the Team.

2) The Government of Sri Lanka will take the neccesary measures described in Annex II for smooth implementation of the Project on condition that the Grant Aid Assistance by the Government of Japan is extended to the Project.

3. Summary of Discussions

The following issues were discussed and confirmed by both parties.

1) The name of the access road of Bridge No.11 in the Minutes of Discussions signed on 3rd October,1993 should be corrected from Walpola-Mylawalana road to Bonagala-Rukgahawila road.

2) The Government of Sri Lanka will construct a workshop and garage for farm road maintenance equipment within 5 months after Exchange of Note(E/N).

3) The Government of Sri Lanka will acquire the land necessary for access road of each bridge before commencement of construction.

4) The Government of Sri Lanka will carry out periodical painting work for the steel bridge after completion.

5) Provincial Road Development Authority of Western Provincial Council will explain the designed sill level of each box culvert to officials concerned of Department of Irrigation and obtain the consent before commencement of construction.

6) The soffit of upper slab of box culvert will be at least 10 cm above the existing road surface.

7) The Government of Sri Lanka requested to include the following equipment to the Project. The team will convey such proposal to the Government of Japan.

(1)4W-Double cab (1 no.)

(2)Surveying Equipment

-Theodolite(2 nos.)

-Levelling Instrument(4 nos.)

-Electro Optical Distance Meter(1 no.)

(3)Mobile Workshop(1 no.)

4. Further Schedule

The team will make the final report in accordance with a result of discussions, and send it to the Government of Sri Lanka by March, 1994.

ANNEX I : Components of the Project

1) Reconstruction/construction of 16 bridges(including improvement of access roads)

Bridge No.	Name of Road	Number of lane	Bridge Type
No. 1	1/1 Bridge on Uswetakeiyawa-Bopitiya Road	2	Steel Br.
No. 2	1/1 Bridge on Palliyawatte-Lansiyawatte Road	2	Steel Br.
No. 3	1/2 Bridge on Averiwatte-Yagodamulla Road	2	Steel Br.
No. 4	2/1 Bridge on Averiwatte-Yagodamulla Road	2	Box Clvt.
No. 5	2/3 Bridge on Dalupitiya-Karagahamuna Road	2	Box Clvt.
No. 6	2/4 Bridge on Dalupitiya-Karagahamuna Road	2	Box Clvt.
No. 7	3/4 Bridge on Ja-ela-Horagolla Road	2	Box Clvt.
No. 8	New bridge on Doranagoda-Udugampola Road	1	Steel Br.
No. 9	Kalawana Bridge on Aswana-Minuwangoda Road	1	Steel Br.
No. 10	Esella Bridge on Wadumulla-Naiwala Road	1	Box Clvt.
No. 11	Ogodapola bridge on Bonagola-Rukgahawala Road	1	Steel Br.
No. 13	1/5 Bridge on Gonahena-Ruppagoda Road	1	Box Clvt.
No. 14	1/1 Bridge on Malwana-Samanabedda Road	2	Steel Br.
No. 15	1/5 Bridge on Malwana-Samanabedda Road	2	Box Clvt.
No. 16	1/1 Bridge on Samanabedda Walgama-Kahatagoda Road	1	Steel Br.
No. 17	1/3 Bridge on Pallegama-Ranawala-Meethirigala Road	2	Steel Br.

2) Provision of Equipment for Farm Road Maintenance

1) Equipment (I~I)

Item	No.	Specification	Usage/Others	Destination
A. 8 ~ 10 ton static roller	4	-Power steering -Tandem roller -Water cooled engine	Compaction of subbase and road base	4 EEO's
B. Medium size motor grader	4	-ROPS canopy -Articulation frame -Blade size 3100 × 610 × 16 mm -Engine: 115 Hp / 2,500 rpm -6 speed transmission forward and reverse -1 set of tools	Compaction of subbase	4 EEO's
C. Low bed trailer	1	-6 speed transmission -tire size: 11.00-20-14 Reverse warning buzzer 9 ton couper 20 ton low bed semi-trailer	Transportation of heavy equipment	PRDA (workshop)
D. Bulldozer	2	-D4 power shift -ROPS canopy -Power angle -Tild brake -Multi-shank ripper	Leveling	PRDA (workshop)
E. Backhoe loader	4	-Breaker attachable -ROPS canopy -0.2 m³ buck hoe bucket -0.76 m³ loader bucket -Loader: gross power 57.4 kw/77 hp; breakforce 40 KN -Backhoe: Digging force 52 KN; digging depth 5500 mm	Excavation (from 3rd country)	4 EEO's
F. Mechanical grass cutters	8	Engine : 9,000 rpm Blade : 6,800 rpm/ϕ230 mm 82.8 m/s	Cutting grass and trees	4 EEO's (2 each)

PRDA: Provincial Road Development Authority
EEO : Executive Engineering Office
P.S : Pradeshiya Sabha

Equipment (I-II)

Item	No.	Specification	Usage/Others	Destination
G. 750 kg pedestrian vibrating roller	4	-Hand guided type -Gross W/T : 750 KG -0~3.5 Km/h -3,000 vpm for vibration -Tandem type rolling -7.0 PS/2,400 rpm -Natural water head sprinkler	Compaction of subbase and road bed	4 EEO's
H. Medium size mobile premix plant	1	-5 ~ 10 ton cap -Twin shaft pugmil mixer -Manual operation -Hand spray equipment	Mixing asphalt and aggregate (for pavement)	PRDA (workshop)
I. Dump truck	4	-5 speed transmission -Tire size: 8.25-20-14 (lug) -Reverse warning buzzer -Power steering -3 side openable	Transportation of construction materials and wastes	4 EEO's
J. Mechanical tamper	4	-Gross W/T : 70 KG -6,000 rpm -Over 1.3 km/hr -Max. 3.5 PS	Compaction of subbase	4 EEO's
K. Mobile tar kettle with sprayer	4	-Hand cart W/H 2 pneumatic tyred wheels -600 liters cap. -Kerosene fuel/preheating -Fuel consumption: 2.5~5.1 -Tube fire heating	Melting and spraying asphalt (for asphalt pavement)	4 EEO's
L. Cargo truck with crane	1	-5-speed transmission -Tire size: 8.25-20-14 (rib or lug) -Reverse warning buzzer -Power steering -With crane (pay load: 5 ton, crane cap.: 3 ton)	Transportation of equipment and materials	PRDA (workshop)
M. Mobile crasher unit w/ compressor, breaker, and generator	1	-10 ton/h -Single toggle jaw crusher (16"X 10"---410 mm X 250 mm) -Rotary screen: 500 mm × 1,800 mm -20 HP, air cooled diesel E/G -Max. size of input material 180 × 230 × 405 mm -Mobile type with tires.	Production of crushed stone	PRDA (workshop)

Equipment (II)

Item	No.	Specification	Usage/Others	Destination
A. 750 kg pedestrian vibrating roller	12	-Hand guided type -Gross W/T : 750 KG -0- 3.5 Km/h -3,000 vpm for vibration -Tandem type rolling -7.0 PS/2,400 rpm -Natural water head sprinkler	Compaction of subbase and road bed	12 PS's
B. Tar boiler	12	-Handy mobile type -200 liters kettler capacity oil burner (kerosene type) -Spray pump: 50 ℓ /min. (gear pump) (hand pressure pump)	Melting asphalt (for asphalt pavement)	12 PS's
C. 4W-tractor with trailer	12	-Speed transmission: forward: 6 speeds; reverse: 2 speeds -Output: 43 PS -With 4 ton trailer -Lifting capacity: 1.8 tons	The transportation of small volume of materials	12 PS's
D. 2W-tractor with trailer	8	-Speed transmission: forward: 6 speeds; reverse: 2 speeds -Rated output: 7 hp (max: 8.5 hp -With 0.5 ton trailer -Lifting capacity: 1.8 ton	Short distance and small volume transport materials	8 PS's

ANNEX II : Necessary measures to be taken by the Government of Sri Lanka in case Japan's Grant Aid is extended.

1. To secure the site for the Project.

2. To clear, level and reclaim the site before commencement of construction.

3. To provide the land for a temporary site office, warehouse and stock yard during implementation of the project

4. To provide necessary facilities for the Project such as electricity, water supply, drainage, and other incidental facilities.

5. To bear commissions to the Japanese foreign exchange bank for the banking services based upon the Banking Arrangement.

6. To exempt taxes and to take necessary measures for customs clearance of the materials and equipment brought for the project at the port of disembarkation.

7. To accord Japanese Nationals whose services may be required in connection with the supply of products and the services under the verified contract such facilities as may be necessary for their entry into Sri Lanka and stay therein for the performance of their work.

8. To maintain and use properly and effectively the facilities constructed and equipment purchased under the Grant.

9. To bear all expenses other than those to be borne by the Grant, necessary for the execution of the Project.

6. Letters from the Government of Sri Lanka..

Minister 562361

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இராஜாங்க அமைச்சர்
Minister of State 562378

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செயலாளர்
Secretary 562412 562394

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இராஜாங்க அமைச்சரின் செயலாளர்
Secretary to Minister of State 562478

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அலுவலகம்
Office 562721 562825 562834

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MINISTRY OF POLICY PLANNING & IMPLEMENTATION

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எனது இல.
My No. RDD/GM/PH-2

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உமது இல.
Your No.

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அ. பெ. இல.
P. O. Box No. 6

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"செத்சிரிபாய"
"Sethsiripaya"

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பத்தரமுல்ல
Battaramulla 19th Jan. 1994.

Mr. Takeo Kai,
Team Leader,
JICA.

Dear Sir,

GAMPAHA INTEGRATED RURAL DEVELOPMENT PROJECT II
WORKSHOP AT ASGIRIYA

Provincial Road Development Authority of the Western Province Provincial Council has informed me that P.P.D.A. has allocated a sum of Rs. 1.75 million from the 1994 budget for the construction of the garage and the workshop at Asgiriya to accommodate all the machinery which are to be provided under the Project.

We guarantee that the construction of the workshop will be completed before the equipment arrives in Sri Lanka.

Thanking you,

Yours faithfully,

C. Maliyadde,
Director General,
Ministry of Policy Planning & Implementation.

RO/19/1.

දුරකථන/தொலைபேசி/Telephones :

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அமைச்சர்
Minister
25306
562361

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இராஜாங்க அமைச்சர்
Minister of State
562378

ලේකම්
செயலாளர்
Secretary
562412
562394

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இராஜாங்க அமைச்சரின்
செயலாளர்
Secretary to Minister of State
562478

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அலுவலகம்
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கொள்கைத் திட்டமிடல், அமுலாக்கல் அமைச்சு
MINISTRY OF POLICY PLANNING & IMPLEMENTATION

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எனது இல.
My No.

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Your No.

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அ. பெ. இல.
P. O. Box No.
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"සෙත්සිරිපාය"
"செத்சிறிபாய"
"Sethsiripaya"

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பத்தரமுல்ல
Battaramulla

19.01.1994

Mr. Takeo Kai
Team Leader.(JICA)

Dear Sir,

Gampaha Integrated Rural Development Project II Additional Support for Surveying Equipments, One Double Cab, and a Mobile Workshop

I submit herewith the additional facilities requested by P.R.D.A. for your kind consideration please.

1. Surveying equipment

P.R.D.A. in the Gampaha District, covers 556 miles of roads at present. These roads are subject to floods and action is being taken to raise these roads above minor flood level. In addition P.R.D.A. is making arrangements to upgrade and improve the roads in areas where bridges are constructed under the project.

Following basic surveying instruments have been requested for this purpose.

2 Nos. Theodolite.

4 Nos. Levelling Instrument,

1 No. Electro Optical Distance Meter

2. <u>One Double Cab and One Mobile Workshop</u>

P.R.D.A. carry out a large volume of work annually in road Maintenance in the Gampaha District. Maintenance Engineers attached to the P.R.D.A. need to travel long distance for the maintenance of equipment. As such it is very necessary to improve the transport facilities for the proposed workshop in order to carry out a preventive maintenance programme, running repairs and regular inspections for machinery and equipment.

The provision of a Mobile workshop will avoid unnecessary delays and will enable us to attend Minor Repairs at the site.

Thanking you,

Yours sincerely,

C. Maliyadde,
Director General,
Ministry of Policy Planning & Implementation.

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128, அமரா நகரம்
ஹைலெவல் வீதி, நுகேகொட
128 AMARA NAGARAYA
HIGH LEVEL ROAD NUGEGODA

☎ 510663

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WESTERN PROVINCE
PROVINCIAL ROAD DEVELOPMENT AUTHORITY

BASIC DESIGN STUDY REPORT ON THE INTEGRATED RURAL DEVELOPMENT PROJECT (II)

GAMPAHA DISTRICT

CONSTRUCTION OF 16 BRIDGES.

The Provincial Road Development Authority will upgrade all the roads where the above Bridges are constructed to the required width in 1994 itself. Where two lane bridges are constructed those roads will also be widened in all the narrow places to the required two lane traffic.

Bridge Nos. 3, 4 & 17.

.....

(Nandana Wijayasekera)
Chairman.

17.01.1994.

English Translation

Watumulla
Udugampola.
15th January,1994.

Chairman,

Pradeshiya Saba,
Minuwangoda

Consent for the donation of required land from the paddy fields owned by farmers along proposed road extention from Dee-Ella Oya Daraluwa Railway Station on off Doranagoda Udugampola Road

We undersigned farmers who are the owners of the paddy fields along the proposed road do hereby sign and promise to donate necessary lands to the Pradeshiya Saba from our paddy fields to construct the above road at the width of 10 metres, for the construction of above road.

We also give our consent toengage in construciton works on participatory basis for civil works.

No.of the allotment	Name	Name of paddy field	Signature
01	Leela de Alwis	Makullagaha Kumbura	
02	D.Arthur Perera	Muruthgaha Kumbura	
03	D.Martin Perera	Muruthgaha Kumbura	
04	D.P.Angammana	Makullagaha Kumbura	
05	K.K.A.L.C.kumarasinghe	-do-	
06	D.Wilbert Perera	-do-	
07	H.A.Gunawathie	Muruthagaha Kumbura	
08	Premalatha Chandraseeli Senanayaka	Halgaha Kumbura	

I do hereby certify that the above declaration has made in my presence after explaining its contents to each and every person.

Sgd:

S.A.M.Abeyratna
Wattumulla
Udugampola.
Justice of Peace.

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1994.01.15

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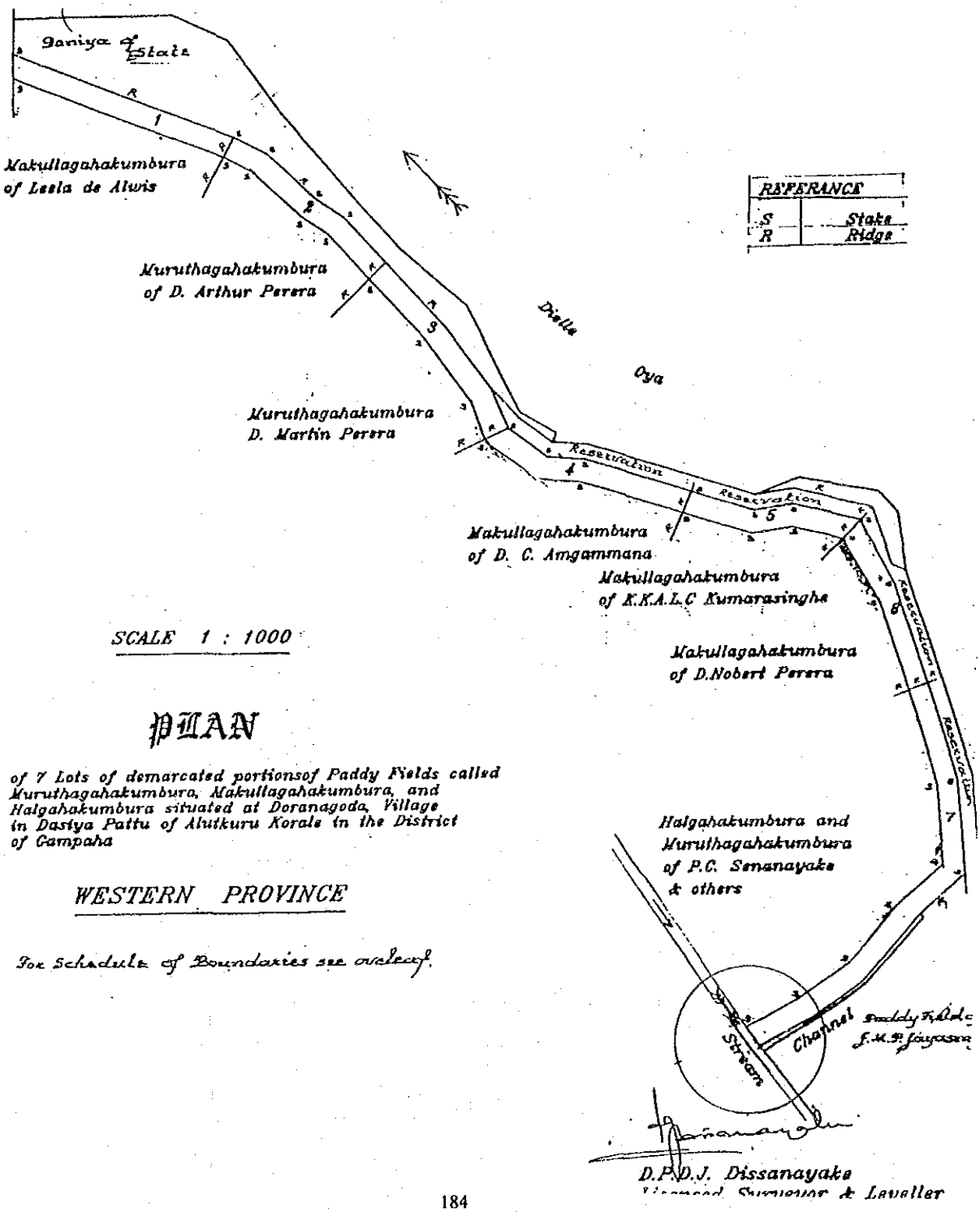
D.P.D.J. Dissanayake
Licensed Surveyor & Leveller
Malwatta Road
Asgiriya
Campaha

Plan No 976

PROPOSED ROADWAY 4.6 METERS WIDE



REFERANCE	
S	State
R	Ridge

SCALE 1 : 1000

PLAN

of 7 Lots of demarcated portionsof Paddy Fields called Muruthagahakumbura, Makullagahakumbura, and Halgahakumbura situated at Doranagoda, Village in Dasiya Pattu of Alutkuru Korale in the District of Campaha

WESTERN PROVINCE

For Schedule of Boundaries see overleaf

Lot No.	North	East	South	West	Name of Paddy Field	Name of claiment	EXTENT Sq.meters	A	R	P
1	Deniya of State	Lot 2	Balance portion of the same land	Balance portion of the same land	Makullagahakumbura	Leela de Alwis	206	0	0	08.14
2	—— do ——	Deniya of State	Balance portion of the same land & Lot 3	—— do ——	Muruthagahakumbura	D.Arthur Perera	175	0	0	06.92
3	Lot 2 & do ——	—— do ——	Lot 4 & Balance portion of the same land	—— do ——	Muruthagahakumbura	D.Martin Perera	184	0	0	07.27
4	Lot 3 and Reservation for road & oya	Lot 5	Balance portion of the same land	Balance portion of the same land	Makullagahakumbura	D.C.Angammana	184	0	0	07.27
5	Reservation for Road and Oya	Lot 6	—— do ——	Lot 4	—— do ——	K.K.A.L.C.Kumarasinghe	154	0	0	06.09
6	Lot 5	Reservation for Oya and Road	Paddyfield of J.M.P. Jayasinghe and Channel	Balance portion of the same land	—— do ——	D.Nobert Perera	152	0	0	06.00
7	Balance portion of the same land & Lot 6	Reservation for Oya & Road Paddy Field of J.M.P. Jayasinghe & Channel	Paddyfield of J.M.P. Jayasinghe and Channel	Lot 5 and —— do ——	Helgahakumbura & Muruthagahakumbura	P.C.Senanayake & Others	405	0	0	16.01
						Total	1460	0	1	17.70

D.P.D.J.Dissanayake
Licensed Surveyer,Leveller
Court Commissioner and Valuer

185