

THE PROJECT FOR REDUCTION OF NON REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : MK/GR-6 : LAYING AND INSTALLATION OF DI PIPES AND FITTINGS FOR VALVE HOUSE

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 6 - 36	700 mm PE Pipe with Puddle Flange 2030 mm long	Nr	1						
GR 6 - 37	700 mm Coupling	Nr	1						
	<u>To 20" Existing Kirulapone</u>								
GR 6 - 38	1000 mm x 500 mm Flanged Taper	Nr	1						
GR 6 - 39	500 mm Flanged Adapter	Nr	1						
GR 6 - 40	500 mm PE Pipe with Puddle Flange 2240 mm long	Nr	1						
GR 6 - 41	500 mm Coupling	Nr	1						
	<u>From New Circular Tank</u>								
GR 6 - 42	1000 mm x 800 mm Flanged Taper	Nr	1						
GR 6 - 43	800 mm dia 1200 mm long D/F Pipe Piece	Nr	1						
GR 6 - 44	800 mm Flanged Adapter	Nr	1						
GR 6 - 45	800 mm PE Pipe with Puddle Flange 2237 mm long	Nr	1						
GR 6 - 46	800 mm Coupling	Nr	1						
	<u>To Old Borella 30"</u>								
GR 6 - 47	1000 mm x 800 mm Flanged Taper	Nr	1						
	Total of Page A - 140 Carried to Bill Summary								

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BILL OF QUANTITIES

BILL NO : MK/GR-6 : LAYING AND INSTALLATION OF DI PIPES AND FITTINGS FOR VALVE HOUSE

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 6 - 48	800 mm dia 1200 mm long D/F Pipe Piece	Nr	1						
GR 6 - 49	800 mm Flanged Adapter	Nr	1						
GR 6 - 50	800 mm PE Pipe with Puddle Flange, 2200 mm long	Nr	1						
GR 6 - 51	800 mm Coupling	Nr	1						
	<u>To Mount Mary</u>								
GR 6 - 52	300 mm x 250 mm Flanged Taper	Nr	1						
GR 6 - 53	250 mm dia 1650 mm long D/F Pipe Piece	Nr	1						
GR 6 - 54	250 mm Flanged Adapter	Nr	1						
GR 6 - 55	250 mm PE pipe with Puddle Flange 2400 mm long	Nr	1						
GR 6 - 56	250 mm Coupling	Nr	1						
	<u>From Existing Circular Tank</u>								
GR 6 - 57	1000 mm x 800 mm Flanged Taper	Nr	1						
GR 6 - 58	800 mm D/F Pipe Piece, 1200mm long	Nr	1						
GR 6 - 59	800 mm Flanged Adapter	Nr	1						
GR 6 - 60	800 mm PE Pipe with Puddle Flange 2165 mm long	Nr	1						
	Total of Page A - 141 Carried to Bill Summary								

THE PROJECT FOR REDUCTION OF NON REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : MK/GR-6 : LAYING AND INSTALLATION OF DI PIPES AND FITTINGS FOR VALVE HOUSE

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 6 - 61	800 mm Coupling	Nr	1						
GR 6 - 62	1000 mm Butterfly Valve with Extension Stem	Nr	2						
GR 6 - 63	800 mm Butterfly Valve with Extension Stem	Nr	4						
GR 6 - 64	700 mm Butterfly Valve with Extension Stem	Nr	1						
GR 6 - 65	500 mm Butterfly Valve with Extension Stem	Nr	1						
GR 6 - 66	150 Double Orifice Air Valve	Nr	1						
GR 6 - 67	250 mm Gate Valve with Extension Stem	Nr	2						
GR 6 - 68	300 mm Gate Valve with Extension Stem	Nr	1						
Total of Page A - 142 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : MK/GR-6 SUM

LAYING AND INSTALLATION OF PIPES AND FITTINGS IN VALVE HOUSE

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 6	Page A - 137 of Bill GR 6			
	Page A - 138 of Bill GR 6			
	Page A - 139 of Bill GR 6			
	Page A - 140 of Bill GR 6			
	Page A - 141 of Bill GR 6			
	Page A - 142 of Bill GR 6			
MK/GR-6	Total of MK/GR-6 Summary to MK/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. MK/GR-7 : MODIFICATION OF EXISTING CHLORINATION HOUSE

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p><u>Demolition</u></p> <p>(i) In this bill of quantities many items are quantified as items. Therefore the Contractor's rate should include for the complete execution of the works as depicted in specifications as per site conditions.</p> <p>(ii) For these items Contractor is not entitle for any other additional payments.</p> <p>(iii) For demolishing works, rate shall include for removal and transporting materials as directed by the Engineer.</p>								
GR 7 - 1	Allow for removal of existing ceiling and clearing all debris from site	Item							
GR 7 - 2	Chip off and remove existing concrete floor and clearing all debris from site.	Item							
GR 7 - 3	Allow for removal 225mm existing ventilation pipes and clearing all debris from site.	Item							
GR 7 - 4	Cut and remove existing down pipe and clearing all debris from site.	Item							
GR 7 - 5	Allow for removal of existing double folding wooden door.	Item							
GR 7 - 6	Allow for removal 225 mm thick existing concrete wall and clearing all debris from site	Item							
GR 7 - 7	Allow for removal of 900 kg existing cylinders and concrete saddles and making good.	Item							
	Total of Page A - 144 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. MK/GR-7 : MODIFICATION OF EXISTING CHLORINATION HOUSE

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 7 - 8	Allow for removal of all existing chlorine gas line's, water piping, pumps, chlorinators and panel boards, and sealed off water lines.	Item							
	Masonry Work								
GR 7 - 9	200 mm thick block wall	m ²	14						
	Ceiling Work								
	All timber work in ceiling in class 1 timber and should be treated with two coats of good quality wood preservative approved by the Engineer								
GR 7 - 10	Flat asbestos sheet ceiling fixed on class 1 timber frame including 100 x 50 mm joists at 1200 mm centers, etc., treated with two coats of good quality wood preservative approved by the Engineer to all timber work.	m ²	58						
	Surface Finishers								
GR 7 - 11	Cement rendering in floors 40 mm average thick cement sand mortar 1:3 finished smooth with red cement float	m ²	76						
GR 7 - 12	Repair all damaged walls and make good as existing one.	Item							
	Joinery								
GR 7 - 13	Folding door with open mesh (Type D2)	Nr	1						
GR 7 - 14	Glazed window (Type W1)	Nr	1						
Total of Page A - 145 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. MK/GR-7 : MODIFICATION OF EXISTING CHLORINATION HOUSE

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 7 - 15	Repair existing glass louvered window <u>Rain Water Disposal</u> Rain water should dispose to the drain around the building and connect to the waste water line	Nr	3						
GR 7 - 16	100mm dia. PVC down pipe with necessary fittings , bends , shoes , etc. fixed complete to the wall <u>Painting</u>	Item							
GR 7 - 17	Apply one under coat and two finishing coats of approved water proof emulsion paint on all surfaces of external walls weather shades etc.	Item							
GR 7 - 18	Apply one under coat and two finishing coats of approved emulsion paint on all surfaces of internal walls.	Item							
GR 7 - 19	Apply one under coat and two finishing coats of approved emulsion paint on all surfaces of asbestos ceiling. <u>Electrical installation</u> Rate to include for all materials (all uPVC conduits and wiring as specified, fitting of approved make & approved by the Engineer) supplied, fixed and complete to the working order as depicted in Drawings and directed by the Engineer.	m ²	58						
GR 7 - 20	Allow for re wiring lamps, socket outlet, lightning protection system etc., all complete to working order as depicted in Drgn. Nos.	Item							
	Total of Page A - 146 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. MK/GR-7 : MODIFICATION OF EXISTING CHLORINATION HOUSE

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Miscellaneous item								
GR 7 - 21	Water proofing membrane, 200 mm thick 20 mm round pebble layer as depicted in drawing complete	m ²	65						
GR 7 - 22	Close existing ventilation openings	Item							
GR 7 - 23	Enlarge existing ventilation openings and make good for new existing fan.	Item							
GR 7 - 24	Clean and repair existing surface drains.	m	45						
GR 7 - 25	Repair all cracks and make good , over hanging weather shades.	Item							
GR 7 - 26	Provide stainless steel mesh for existing areation openings.	Item							
GR 7 - 27	Power supply arrangement to chlorination house as depicted in drawing.	Item							
Total of Page A - 147 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : MK/GR-7 SUM

MODIFICATION OF EXISTING CHLORINATION HOUSE

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 7	Page A - 144 of Bill GR 7			
	Page A - 145 of Bill GR 7			
	Page A - 146 of Bill GR 7			
	Page A - 147 of Bill GR 7			
MK/GR-7	Total of MK/GR-7 Summary to MK/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : MK/GR-8 : SUPPLY AND DELIVERY OF CHLORINATION EQUIPMENT

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 8 - 1	Vacuum type manually adjustable gas Chlorinators (one duty one standby) for feeding a solution of Chlorine into the inlet piping with a maximum dosage rate of 2.0 kg/hr and with a minimum meter range of 1:20 consisting of, 02 Nos. wall mounted type vacuum regulators, automatic switchover unit, 02 Nos. ejectors, 02 Nos. injectors, vacuum tubing, PVC motive water & solution delivery piping & valves, necessary fittings for inlet water tapping point, pressure gauges, Chlorine gas filters and all other accessories as per the specifications & as shown in the drawings.	Nr.	2						
GR 8 - 2	Multistage vertical in-line type centrifugal motive water pumps (one duty, two standby) with suitable capacities to operate the Chlorinators as recommended by the manufacturers, complete with inlet and outlet flanges and accessories.	Nr.	3						
GR 8 - 3	Electrical starter panel common for pumps supplied under item 02 above consisting of DOL starters, protective relays, circuit breakers, etc. Rate to include for motor cables, incoming cables to the starter panel and accessories.	Nr.	1						
GR 8 - 4	Platform type dual cylinder weighing machine with suitable arrangement to mount 65 kg Chlorine cylinders.	Nr.	1						
GR 8 - 5	Air cylinder type gas respirators with full face safety masks complete with spare cylinder for each mask.	Nr.	3						
GR 8 - 6	Chlorine gas leakage detector and alarm system consisting of 02 Nos. gas sensors, audible and visual alarm system interconnected with ventilation fans.	Item	1						
	Total of Page A - 149 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : MK/GR-8 : SUPPLY AND DELIVERY OF CHLORINATION EQUIPMENT

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 8 - 7	Wall mounted type axial flow ventilation fans including necessary starter switches, cables and other installation accessories.	Nr.	2						
GR 8 - 8	Steel fabricated cylinder storage support stand to store 10 Nos. cylinders.	Nr.	1						
GR 8 - 9	Residual Chlorine test kits with comparators and necessary reagents for 500 tests.	Nr.	2						
GR 8 - 10	Providing technical literature including Operation and Maintenance manuals & Spare parts manual.	Sets	3						
GR 8 - 11	Spare parts for four years operation of Chlorination equipment and motive water pumps not limiting to the spare specified under clause —.	Sets	1						
Total of Page A - 150 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : MK/GR-8 SUM

SUPPLY AND DELIVERY OF CHLORINATION EQUIPMENT

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 8	Page A - 149 of Bill GR 8 Page A - 150 of Bill GR 8			
MK/GR-8	Total of MK/GR-8 Summary to MK/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : MK/GR-9 : INSTALLATION OF CHLORINATION EQUIPMENT

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 9 - 1	Installation of Gas chlorinators & accessories supplied under BOQ Item No. MK/GR-8-01.	Nr	2						
GR 9 - 2	Installation of motive water pumps supplied under BOQ Item No. MK/GR-8-02.	Nr	3						
GR 9 - 3	Installation of electrical starter panel supplied under BOQ Item No. MK/GR-8-03	Nr	1						
GR 9 - 4	Installation of cylinder weighing machine supplied under BOQ Item No. MK/GR-8-04.		1						
GR 9 - 5	Installation of chlorine gas leakage detectors supplied under BOQ Item No. MK/GR-8-06.	Item	Sum						
GR 9 - 6	Installation of ventilation fans supplied under BOQ Item No. MK/GR-8-07	Nr	2						
GR 9 - 7	Installation of cylinder storage support stand supplied under BOQ Item No. MK/GR-8-08	Nr	1						
GR 9 - 8	Testing, commissioning and test to work of all the equipment installed under Bill No. MK/GR-8-01 to MK/GR-8-08	Item	Sum						
	Total of Page A - 152 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : MK/GR-9 SUM

INSTALLATION OF CHLORINATION EQUIPMENT

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 9	Page A - 152 of Bill GR 9			
MK/GR-9	Total of MK/GR-9 Summary to MK/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. MK/GR-10 : SUPPLY & DELIVERY OF LOCAL CONTROL PANEL

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. RS./Cts.	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. RS./Cts.
GR 10 - 1	<u>Local Control Panel</u> Supply & Deliver to Contractor's Stores Chlorination Switch Board	Panel	1						
Total of Page A - 154 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : MK/GR-10 SUM

SUPPLY AND DELIVERY OF LOCAL CONTROL PANEL

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 10	Page A - 154 of Bill GR 10			
MK/GR-10	Total of MK/GR-10 Summary to MK/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. MK/GR-11 : INSTALLATION OF LOCAL CONTROL PANEL

MALIGAKANDA NEW RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 11 - 1	<p><u>Local Control Panel</u> Supply & Deliver to Contractor's Stores Installation of all Items in MK/GR-10</p>	Lot	1						
	Total of Page A - 156 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : MK/GR-11 SUM

INSTALLATION OF LOCAL PANEL

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 11	Page A - 156 of Bill GR 11			
MK/GR-11	Total of MK/GR-11 Summary to MK/GR Grand Summary			

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**Maligakanda Rehabilitation of the Roof Structure of the
Existing Reservoir**

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO . MK/RF - 1 : REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR - DEMOLITION

MALIGAKANDA REHABILITATION OF THE ROOF STRUCTURE
OF THE EXISTING RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p>Preliminaries</p> <p>Note:</p> <p>(i) This bill, quantities are quantified as items. Therefore the contractors rate should include for the complete execution of the works as depicted in drawings, as specified in specification and as per site conditions.</p> <p>(ii) For these items contractor is not entitle for any other additional payments.</p> <p>(iii) For this rehabilitation work contractor has to take extra measure to safeguard and protect the existing structure without any damage / disturbance.</p> <p>(iv) For demolishing works rate shall include for reusable steel items storing & transporting as directed by the Engineer. Concrete and reinforcement debris, stockpiling, transporting, clearing as directed by the Engineer.</p> <p>Demolishing</p>								
RF 1 - 1	Allow for removal of existing reinforced concrete "Barrel Vault", 225 mm thick roof structure in pieces. All roof structure should be cut into pieces by high pressure water jet, electrically or mechanically operated diamond tipped circular saw or an approved equivalent by Engineer (3400 m2 Approx.)	Item							
	Total of Page A - 159 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO . MK/RF - 1 : REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR - DEMOLITION

MALIGAKANDA REHABILITATION OF THE ROOF STRUCTURE
OF THE EXISTING RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF 1 - 2	Allow for removal of existing steel girders which support the "Barrel Vault" roof structure part by part. All steel girders to be cut into pieces by Oxy-Acetylene Flame or electric saw or an approved equivalent by the Engineer.	Item							
RF 1 - 3	Allow for removing existing cast iron columns and bases which support roof structure (121 Nr. 225 mm dia. 12500 mm long)	Item							
RF 1 - 4	Allow for removing existing independent concrete bases for cast iron columns. (121 Nr.)	Item							
RF 1 - 5	Allow for removing existing perimeter concrete wall as depicted in Drg. No. MK/RF/ST/01 should be cut with the help of a high pressure water jet or diamond tipped circular saw, to 50 mm below the bottom level of the proposed new RC Roof Slab & roughening (1250 mm wide 240 m long)	Item							
RF 1 - 6	Allow for removal of existing reinforced concrete "Barrel Vault" intake structure roof slab in pieces. Roof structure should be cut into pieces by high pressure waterjet or electrically or mechanically operated diamond tipped circular saw or approved equivalent by Engineer (40 m ² Approx.)	Item							
RF 1 - 7	Allow for removal of existing 12 mm thick M.S. Sheet and frame work in intake structure as depicted in Drg. No. MK/RF/ST/02 (13 m ² approx.)	Item							
RF 1 - 8	Allow for removal of existing 1 No. 1200 x 1900 mm high door and form opening 1200 x 2000 to fix new steel door.	Item							
Total of Page A - 160 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO . MK/RF - 1 : REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR - DEMOLITION

MALIGAKANDA REHABILITATION OF THE ROOF STRUCTURE
OF THE EXISTING RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Temporary Work								
RF 1 - 9	Allow for erection of temporary platform under the existing steel girders of the "Barrel Vault" roof, method and process as depicted in Drg. MK/RF/ST/01. Rate to include for dismantle the platform on completion.	Item							
	Improvements & Additional Work								
RF 1 - 10	Allow for clearing inside reservoir and intake structure free of debris and dust and chipping base slab (if necessary) to receive new concrete slab.	Item							
RF 1 - 11	Allow for applying approved bonding agent on top of perimeter concrete wall and supplying and placing 50 mm thick concrete Grade 35 (A) . Rate to include for formwork (1250 mm wide 240 m long)	Item							
RF 1 - 12	Allow for supplying and filling approved earth fill on existing reservoir embankment depression and forming constant slope as depicted in Drg. Nr. MK/RF/ST /01 complete	Item							
RF 1 - 13	Allow for supplying and placing approved grass turfing on to sloping sides of reservoir embankment . Rate to include for preparation ground for turfing (6400 m2 approx.)	Item							
RF 1 - 14	Allow for repairing and cleaning existing perimeter drain to have a constant gradient for the water to flow into the nearest manhole. (330 m long approx.)	Item							
RF 1 - 15	Allow for cleaning existing steel wier by sand blast to BS 7079 - Sa - 2.5 or by other approved method including two coats of epoxy coating.	Item							
	Total of Page A - 161 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : MK/RF-1 SUM

**REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR
- DEMOLITION**

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs /cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs /cts
RF 1	Page A - 159 of Bill RF 1 Page A - 160 of Bill RF 1 Page A - 161 of Bill RF 1			
MK/RF-1	Total of MK/RF-1 Summary to MK/RF Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO . MK/RF -2 : REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR - CONCRETE WORKS

MALIGAKANDA

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Concrete Work								
	Concrete Grade as depicted in drawings Rate to include for supplying and placing concrete (with Temperature Control) and curing as specified. (Reinforcement and formwork measured separately)								
RF 2 - 1	In 300 mm thick base slab on top of existing base slab.	m ³	895						
RF 2 - 2	In 600 mm dia. Columns, including column head.	m ³	440						
RF 2 - 3	In 200 mm thick baffle wall	m ³	440						
RF 2 - 4	In 450 x 750 mm beam including 300 x 500 mm corbel (RB1, RB1a, RB2, RB2a and RB3)	m ³	265						
RF 2 - 5	In 250 mm thick roof slab.	m ³	845						
RF 2 - 6	In 200 x 450 mm high kerb around roof slab.	m	245						
	Reinforcement								
	Rate to include for supply and delivery to the site, cleaning as specified, cutting and bent to shape, placed in position tied with GI binding wire complete as depicted in drawing.								
	Tor Steel (460 N/mm²)								
RF 2 - 7	10 mm dia.	MT	65						
	Total of Page A - 163 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO . MK/RF -2 : REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR - CONCRETE WORKS

MALIGAKANDA

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF 2 - 8	12 mm dia.	MT	215						
RF 2 - 9	16 mm dia.	MT	56						
RF 2 - 10	20 mm dia.	MT	70						
RF 2 - 11	25 mm dia.	MT	4						
RF 2 - 12	32 mm dia.	MT	160						
	Mild Steel (250 N/mm2)								
RF 2 - 13	10 mm dia	MT	20						
	Form Work								
	Form work in approved timber. Rate to include for splayed edges, battens, strutting, bolting, wedging, easing striking and removal.								
	Wrought								
RF 2 - 14	For sides of circular columns including column head.	m ²	2865						
RF 2 - 15	For sides of baffle wall.	m ²	4355						
RF 2 - 16	For sides and soffit of beams (RB1, RB1a., RB2, RB2a & RB3)	m ²	1120						
RF 2 - 17	For sides and soffit of roof slab.	m ²	3700						
RF 2 - 18	For sides of kerb around reservoir slab.	m ²	220						
	Total of Page A - 164 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. MK/RF -2 : REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR - CONCRETE WORKS

MALIGAKANDA

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>Sundries</u>								
	Supplying and laying or fixing following items as shown detail on Drawings.								
RF 2 - 19	32 mm dia. GI hand rail 1250 mm high as depicted in Drg. No. STD/ST/01 Complete.	m	245						
RF 2 - 20	Allow for forming 4 Nr. 900 x 900 mm Access manhole with opening, covers as depicted in Drg. STD/ST/02 complete.		Item						
RF 2 - 21	Allow for forming 12 Nr. 600 x 600 mm air vent opening, concrete side walls, cover slab, stainless steel mesh as depicted in Drg. No. STD/ST/02 complete.		Item						
RF 2 - 22	Allow for supply and install 300 mm wide 4 No Stainless Steel Ladder Type I ₁ - 12500 mm high including R.C platform as depicted in Drg. NO. STD/ST/02 complete.		Item						
RF 2 - 23	200 mm (Ave) thick concrete Grade 35 (A) benching laid to fall and cross fall on reservoir base slab, reinforced with BRC A 252 mesh on top layer.	m ³	595						
RF 2 - 24	150 mm (Ave) thick concrete Grade 35 (A) benching on reservoir roof slab to slope 1:200 and forming hip as shown in drawing. Rate to include for one layer of reinforcement with BRC A 252 mesh, water proof membrane, 200 mm thick 20 mm round pebble layer as depicted in drawing complete.	m ²	3595						
	Total of Page A - 165 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO . MK/RF -2 : REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR - CONCRETE WORKS

MALIGAKANDA

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF 2 - 25	Allow for supply and install 16 Nr. 150 mm dia. GI rain water outlet pipe, fixed to roof slab, 23 m long, laid along reservoir embankment lead to existing storm water drain. Rate to include for necessary excavation, strainer, bends, anchor blocks, brackets etc. complete. <u>Expansion Joints</u> Rate to include for supplying, laying or fixing in position expansion joint as specified in technical specification and as depicted in Drg. No. STD/ST/03		Item						
RF 2 - 26	Expansion joint Type I in base slab (20 mm thick)	m	220						
RF 2 - 27	Expansion joint Type IV in Roof Slab. (20 mm thick)	m	580						
Total of Page A - 166 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : MK/RF-2 SUM

**REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR
- CONCRETE WORKS**

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF 2	Page A - 163 of Bill RF 2 Page A - 164 of Bill RF 2 Page A - 165 of Bill RF 2 Page A - 166 of Bill RF 2			
MK/RF-2	Total of MK/RF-2 Summary to MK/RF Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO . MK/RF - 3 : REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR - INTAKE STRUCTURE

MALIGAKANDA

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Concrete Work								
	Concrete Grade 15 (40)								
RF 3 - 1	Rate to include for supplying and placing of concrete as specified and with necessary form work. 50 mm thick blinding at base level.	m ²	20						
	Concrete Grade 25 (20)								
RF 3 - 2	Rate to include for supplying and placing concrete (with Temperature Control) and curing as specified. (Reinforcement and formwork measured separately) In 150 mm thick base slab	m ³	3						
RF 3 - 3	In 200 mm thick roof slab	m ³	10						
RF 3 - 4	In 150x200 mm high kerb around roof slab.	m	28						
	Reinforcement								
	Rate to include for supply and delivery to the site, cleaning as specified, cutting and bent to shape, placed in position tied with GI binding wire complete as depicted in drawing.								
	Tor Steel (460 N/mm²)								
RF 3 - 5	10 mm dia.	Kg.	520						
	Total of Page A - 168 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO . MK/RF - 3 : REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR - INTAKE STRUCTURE

MALIGAKANDA

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF 3 - 6	12 mm dia. Form Work Form work in approved timber . Rate to include for splayed edges, battens, strutting, bolting, wedging, easing striking and removal.	Kg.	590						
RF 3 - 7	For side of base slab Wrought	m ²	3						
RF 3 - 8	For side and soffit of roof slab	m ²	41						
RF 3 - 9	For sides of kerb Metal Work	m ²	11						
RF 3 - 10	Supplying and Fixing 203 x 135 x 25 Kg/m hot dip galvanised Universal beam on existing block wall as depicted in drawing MK/RT/ST 02. Rate to include for concrete Pad, two coats of approved Anti Corrosive Paint etc. Complete.	m	26						
RF 3 - 11	Supplying and Fixing 10 mm thick grill type floor top of universal beam as depicted in drawing Nr. MK/RF/ST/02 complete.	m ²	30						
RF 3 - 12	Supplying and fixing 750 mm wide steel step ladder from reservoir new roof to level 1 as depicted in Drg. No. MR/RF/ST/02	Nr	2						
Total of Page A - 169 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO . MK/RF - 3 : REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR - INTAKE STRUCTURE

MALIGAKANDA

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF 3 - 13	Supplying and fixing 300 mm wide aluminium ladder 2500 mm high approx. From reservoir roof slab to inlet structure roof slab as depicted in Drg. No. MK/RF/ST/02	Nr	2						
RF 3 - 14	Supplying and fixing 300 mm wide steel ladder 3000 mm high approx. As depicted in Drg. No. MK/RF/ST/02 Level I to II complete.	Nr.	2						
RF 3 - 15	Supplying and fixing 1200 x 2000 mm overall size steel door as depicted in Drg. No. MK/RF/ST/02 complete.	Nr	1						
	Sundries								
RF 3 - 16	75 mm (Ave) thick concrete Grade 25 (20) benching on top of roof slab to slope 1:250 towards roof drain as shown in drawing. Rate to include for one layer of BRC A 252 reinforcement, water proof membrane, 200 mm thick 20 mm round pebble layer as depicted in drawing complete.	m ²	43						
RF 3 - 17	150 mm dia. GI Rain water outlet pipe fixed to roof slab, 20 m long, laid along reservoir embankment. Rate to include for necessary strainer bends, brackets, anchor block etc. as shown in standards drawing complete.	Nr.	1						
	Total of Page A - 170 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : MK/RF-3 SUM

REHABILITATION OF ROOF STRUCTURE OF EXISTING RESERVOIR
- INTAKE STRUCTURE

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF 3	Page A - 168 of Bill RF 3 Page A - 169 of Bill RF 3 Page A - 170 of Bill RF 3			
MK/RF-3	Total of MK/RF-3 Summary to MK/RF Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. MK/RF-4 : SUPPLY AND DELIVERY OF PIPES AND FITTINGS, INSTALLATION AND REFURBISHMENT
OF PIPE WORK

MALIGAKANDA REHABILITATION OF THE ROOF
STRUCTURE OF THE EXISTING RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p>Note:</p> <p>(i) This bill of quantities are quantified as items . Therefore the contractors rate should include supply and delivery laying, installation and refurbishment of pipe work , for the complete execution of the works as depicted in drawings, as specified in specification and as per the site conditions.</p> <p>(ii) For these items contractor is not entitle for any other additional payments.</p> <p>30" Outlet</p>								
RF 4 - 1	<p>30" x 3' long CI Flange and Plain Ended Pipe Piece & 30" Blank Flange</p> <p>Rate to include for supply & delivery of the above items, making the plain end to suit the existing 30" CI Socket for jointing with Lead, jointing new 30" Flange and Plain ended pipe with the existing 30" CI Socket and flanged pipe and with Blank Flange, (jointing of Socketted end with Lead and Flanged end of new flanged pipe to the Blank Flange),making good of any damage to the existing structure and all necessary items of work required to complete installation as depicted in Drg. No. MK/RF/C-1 and as specified.</p>	Item	1						
	Total of Page A - 172 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. MK/RF-4 : SUPPLY AND DELIVERY OF PIPES AND FITTINGS, INSTALLATION AND REFURBISHMENT
OF PIPE WORKMALIGAKANDA REHABILITATION OF THE ROOF
STRUCTURE OF THE EXISTING RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF 4 - 2	<p><u>20" Outlet</u></p> <p>20" x 3' long CI Flange and Plain Ended Pipe Piece & 20" Blank Flange</p> <p>Rate to include for supply & delivery of the above items, making the plain end to suit the existing 20" CI Socket for jointing with Lead, jointing new 20" Flange and Plain ended pipe with the existing 20" CI Socket and flanged pipe and with Blank Flange, (jointing of Socketted end with Lead and Flanged end of new flanged pipe to the Blank Flange), making good of any damage to the existing structure and all necessary items of work required to complete installation as depicted in Drg. No. MK/RF/C-1 and as specified.</p>	Item	1						
RF 4 - 3	<p><u>40" Outlet</u></p> <p>40" Penstock Gate</p> <p>Allow for refurbish and re-install 40" Penstock Gate to the working condition.</p>	Item	1						
RF 4 - 4	<p>Valve Stem</p> <p>Rate to include for supply and replace existing valve stem with 1.5m long new stainless steel valve stem, install the same by fixing it to the reservoir wall, with 4 nos. wall brackets by replacing the existing 4 nos of brackets to working condition.</p>	Item	1						
RF 4 - 5	<p>Head Stock</p> <p>Rate to include for Supply, Delivery and Install new head stock to suit above penstock gate and valve stem</p>	Item	1						
Total of Page A - 173 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

**BILL NO. MK/RF-4 : SUPPLY AND DELIVERY OF PIPES AND FITTINGS, INSTALLATION AND REFURBISHMENT
OF PIPE WORK**

**MALIGAKANDA REHABILITATION OF THE ROOF
STRUCTURE OF THE EXISTING RESERVOIR**

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF 4 - 6	<u>24" Overflow / Washout</u> 24" Penstock Gate Allow for refurbish and re-install 24" Penstock Gate to the working condition.	Item	1						
RF 4 - 7	Valve Stem Rate to include for supply and replace existing valve stem with 15m long new stainless steel valve stem, install the same by fixing it to the overflow pipe, with 4 nos. brackets by replacing the existing 4 nos of brackets to working condition.	Item	1						
RF 4 - 8	Head Stock Rate to include for Supply, Delivery and Install new head stock to suit above penstock gate and valve stem	Item	1						
RF 4 - 9	Refurbishments to 24" Overflow Pipe Rate to include for removing of all rust and painting with two coatings of thick non-toxic bitumen paint.	Item	1						
RF 4 - 10	Existing drain holes on overflow pipe Rate to include for disconnecting and removing the existing drain lines and capping the holes on overflow pipe line.	Item	1						
RF 4 - 11	24" CI Flanged Bell Mouth Rate to include for Supply, Delivery and install new 24" CI Flanged bell mouth and complete installation as depicted in Drawing.	Item	1						
	Total of Page A - 174 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. MK/RF-4 : SUPPLY AND DELIVERY OF PIPES AND FITTINGS, INSTALLATION AND REFURBISHMENT
OF PIPE WORK

MALIGAKANDA REHABILITATION OF THE ROOF
STRUCTURE OF THE EXISTING RESERVOIR

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF 4 - 12	30" Steel Blank Flange Rate to include for Suplly & Delivery of 30" steel blank flange to suit Existing 30" steel pipe flange and fixing the new blank flange on the existing flange on the steel pipe.	Item	1						
Total of Page A - 175 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : MK/RF-4 SUM

SUPPLY AND DELIVERY OF PIPES AND FITTINGS, INSTALLATION AND REFURBISHMENT OF PIPE WORK

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
RF	Page A - 172 of Bill RF 4 Page A - 173 of Bill RF 4 Page A - 174 of Bill RF 4 Page A - 175 of Bill RF 4			
MK/RF-4	Total of MK/RF-4 Summary to MK/RF Grand Summary			

Ellie House Reservoir

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-1 : GROUND RESERVOIR

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>Excavation and Earth Work</u>								
	Excavation in any material other than rock. Rate to include for shoring, dewatering (where necessary), backfilling, ramming, compacting and disposal of surplus excavated material else where as directed by the Engineer.								
GR1 - 1	From formation level to 1.0 m depth	m ³	1950						
GR1 - 2	From 1.0 m to 2.0 m depth	m ³	1950						
GR1 - 3	From 2.0 m to 4.0 m depth	m ³	3875						
GR1 - 4	From 4.0 m to 6.0 m depth	m ³	3875						
GR1 - 5	From 6.0 m to 8.0 m depth	m ³	5000						
GR1 - 6	Extra over for excavation in rock for Items 1 to 5 (Provisional Quantity)	m ³	3000						
GR1 - 7	Approved earth filling with selected excavated materials in 150 mm thick layers around reservoir well rammed and consolidated.	m ³	5825						
GR1 - 8	Approved earth filling, (from borrow site) around reservoir, rammed and compacted in 150 mm thick layers grade level.	m ³	3825						
	<u>Concrete Work</u>								
	Concrete Grade 15 (40)								
	(Rate to include for supplying and placing of concrete as specified and with necessary formwork)								
	Total of Page A - 177 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-1 : GROUND RESERVOIR

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR1 - 9	75 mm thick screed in reservoir base & sump.	m ²	7235						
GR1 - 10	Mass concrete Grade 15 fill in sloping sides of foundation, beams & slab. Concrete Grade 35A (20) Rate to include for supplying and placing concrete (with temperature control) and curing as specified. (Reinforcement and formwork measured separately).	m ³	440						
GR1 - 11	In foundation beam	m ³	340						
GR1 - 12	In 750 mm thick wall foundation	m ³	2065						
GR1 - 13	In 750 mm thick sump base.	m ³	140						
GR1 - 14	In 400 mm thick base slab.	m ³	1715						
GR1 - 15	In 750 - 300 mm thick tapered external walls including bottom chamfer and corbel.	m ³	1355						
GR1 - 16	In 750- 300 mm thick tapered internal walls including bottom chamfer and wall head.	m ³	440						
GR1 - 17	In 750 mm thick chamber walls.	m ³	400						
GR1 - 18	In 300 mm thick channel walls.	m ³	30						
GR1 - 19	In 300 mm thick suspended slab at 27.85 level including beam.	m ³	20						
	Total of Page A - 178 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-1 : GROUND RESERVOIR

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR1 - 20	In 200 mm thick baffle wall.	m ³	265						
GR1 - 21	In 500 mm dia circular columns including bottom chamfer.	m ³	205						
GR1 - 22	In beams to support ladder and platform.	m ³	30						
GR1 - 23	In 450 x 750 mm roof beams and corbel.	m ³	690						
GR1 - 24	In 200 mm thick roof slab.	m ³	1175						
GR1 - 25	In 200 mm thick channel cover slab at 30.75 m level .	m ³	10						
GR1 - 26	In 500 mm thick chamber cover slab.	m ³	50						
GR1 - 27	In 150 x 450 mm high kerb around reservoir roof slab.	m ³	25						
	Reinforcement Rate to include for supply and delivery to the site cleaning as specified, cutting and bent to shape, placed in position tied with GI binding wire complete as depicted in drawings. TOR steel bar (460 N/mm2)								
GR1 - 28	10 mm dia	MT	21						
GR1 - 29	12 mm dia	MT	175						
GR1 - 30	16 mm dia	MT	325						
GR1 - 31	20 mm dia	MT	530						
	Total of Page A - 179 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-1 : GROUND RESERVOIR

ELLIE HOUSE

ITEM No	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs/cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc Rs/cts	Local Component Rs/cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs/cts
GR1 - 32	25 mm dia	MT	425						
GR1 - 33	32 mm dia	MT	110						
	Mild Steel Bar (250 N/mm²)								
GR1 - 34	10mm dia	MT	64						
	Form Work								
	<i>Form work in approved timber Rate to include for splayed, edges, battens, strutting, bolting, wedging, easing striking and removal</i>								
	Rough								
GR1 - 35	For sides of foundation beam	m ²	900						
GR1 - 36	For sides of wall foundation & sump	m ²	635						
	Wrought								
GR1 - 37	For sides of external wall & corbel.	m ²	4970						
GR1 - 38	For sides of internal wall & wall head	m ²	1600						
GR1 - 39	For sides of Chamber walls.	m ²	930						
GR1 - 40	For sides and soffit of suspended channel base slab	m ²	200						
GR1 - 41	For sides of channel walls	m ²	55						
	Total of Page A - 180 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-1 : GROUND RESERVOIR

ELLIE HOUSE

ITEM No	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs /cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc Rs /cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc Rs /cts
GR1 - 42	For sides of baffle wall	m ²	2640						
GR1 - 43	For sides of circular column	m ²	1385						
GR1 - 44	For sides & soffit of beams to support ladder and platform	m ²	235						
GR1 - 45	For sides & soffit of roof beams	m ²	3020						
GR1 - 46	For sides & soffit of roof slab	m ²	5800						
GR1 - 47	For sides & soffit of channel cover slab	m ²	50						
GR1 - 48	For sides & soffit of Chamber cover slab	m ²	95						
GR1 - 49	For sides of kerb	m ²	330						
	Sundries								
	Supplying and laying or fixing following items as shown detail on drawings								
GR1 - 50	32 mm dia Aluminium hand rail 250 mm high as depicted in Drg No.STD/ST/01 complete.	M	40						
GR1 - 51	Allow for forming 16 Nr. 900 x 900 mm Access manhole with opening covers as depicted in Drg No STD/ST/02 complete		Item						
GR1 - 52	Allow for construction of 24 Nr 600 x 600 mm air vent opening , concrete side walls, cover slab with stainless steel mesh as depicted in Drg No. STD/ST/02 complete		Item						
	Total of Page A - 181 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-1 : GROUND RESERVOIR

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR1 - 53	Allow for supply and install 16 Nr. 300 mm wide Aluminium ladder overall height 7500 mm including RC platform as depicted in Drg. No. STD/ST/02 complete.		Item						
GR1 - 54	Allow for supply and install 2 Nr. 300 mm wide Stainless steel ladder overall height 3500 mm including RC pad at bottom as depicted in Drg. No. STD/ST/02 complete.		Item						
GR1 - 55	Supplying and laying 150 mm dia PVC perforated pipe (50 mm dia surface area 12 mm dia holes) wrapped in Geotextile under drain laid to slope 1: 250, embraced in granular fill (550 x 550 mm in section) under foundation slab and base slab as depicted in Drg. No. EH/GR/ST/01 & 03 complete.	m	830						
GR1 - 56	125 mm (AVE) thick concrete Grade 25, bencing laid to fall and cross fall or reservoir base slab reinforced with BRC Mesh A- 393 complete.	m ²	6275						
GR1 - 57	100 mm (AVE) thick concrete Grade 20 bencing on reservoir roof slab to slope 1: 250 and forming valley side drain as shown in Drg. Nr. EH/GR/ST/01 & 03 reinforced with BRC mesh A 393 on top layer, Rate to include for water proof membrane, 300 mm thick 20 mm round pebble layer as depicted in drawing complete.	m ²	7170						
GR1 - 58	Allow for supplying and install 22 Nr. 100 mm dia Strainer, 100 mm dia DI pipe, bends etc. as depicted in drawing No STD/ST/03 complete.		Item						
Total of Page A - 182 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-1 : GROUND RESERVOIR

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Water proofing membrane and expansion joints. Rate to include for supplying and laying or fixing in position damp proof membrane , water bar, bearing pad, expansion joints, as specified in technical specification and as depicted in Drg. No. STD/ST/ 03								
GR1 - 59	1000 Gauge polythene sheet (one layer) under base slab, beams etc.	m ²	8850						
GR1 - 60	Expansion joint type II in base slab.	M	660						
GR1 - 61	Expansion joint type III between wall and roof.	M	460						
GR1 - 62	Expansion joint type IV in roof slab.	M	108						
GR1 - 63	Expansion joint type V in roof beams.	M	745						
	Total of Page A - 183 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : EH/GR-1 SUM

CONSTRUCTION OF NEW GROUND RESERVOIR - CAPACITY 36,600 M³

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 1	Page A - 177 of Bill GR 1			
	Page A - 178 of Bill GR 1			
	Page A - 179 of Bill GR 1			
	Page A - 180 of Bill GR 1			
	Page A - 181 of Bill GR 1			
	Page A - 182 of Bill GR 1			
	Page A - 183 of Bill GR 1			
EH/GR-1	Total of EH/GR-1 Summary to EH/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p>All pipes (except flange pipes) shall be Class - K9 Flange pipes and all fittings except Tees shall be Class - K12 All Tees shall be Class - K14 All Flanges shall be of PN 16</p> <p>Supply and Delivery at site all DI pipes and fittings including rubber rings, lubricant, gaskets, bolts & nuts, Denso primer, paste, protection tape and all other associated material required for complete installation.</p> <p><u>Inlet to Reservoir and Connection to Existing Main.</u></p>								
GR 2 - 1	500 mm Dia DI flanged Bell- mouth	Nr	2						
GR 2 - 2	500 mm Dia DI D/F pipe piece 850 mm long.	Nr	2						
GR 2 - 3	500 mm Dia DI D/F Duck foot 90° bend	Nr	2						
GR 2 - 4	500 mm dia DI F/PE pipe piece 1900 mm long with puddle flange.	Nr	2						
GR 2 - 5	500 mm dia couplings.	Nr	4						
GR 2 - 6	500 mm dia DI P/E pipe piece 5000 mm long (to suit site)	Nr	2						
GR 2 - 7	500 mm dia DI P/E pipe piece 1560 mm long with puddle flange.	Nr	2						
GR 2 - 8	500 mm dia flange adapter for DI pipe.	Nr	6						
GR 2 - 9	500 x500 mm DI all flanged tee.	Nr	2						
	Total of Page A - 185 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2 - 10	500 mm Dia DI P/E pipe piece 500 mm long.	Nr	4						
GR 2 - 11	500 mm dia DI /20° dia CI stepped couplings.	Nr	4						
GR 2 - 12	500 mm dia DI butterfly valve.	Nr	2						
	<u>Outlet from Reservoir</u>								
	<u>NR2 & NR3</u>								
GR 2 - 13	1000 mm Dia DI /F/PE pipe piece 1640 mm long with puddle flange.	Nr	1						
GR 2 - 14	1000 mm dia Flange Adapter for DI pipe.	Nr	3						
GR 2 - 15	1000 mm dia DI D/F 90° bend	Nr	1						
GR 2 - 16	1000 mm dia DI F/PE pipe piece 625 mm long.	Nr	1						
GR 2 - 17	1000 x 1000 mm Dia DI all Flanged Tee	Nr	1						
GR 2 - 18	1000 mm dia DI F/PE pipe piece 3385 mm long with puddle flange.	Nr	1						
GR 2 - 19	1000 mm Dia coupling.	Nr	1						
GR 2 - 20	1000 mm dia DI F/PE pipe piece 1800 mm long with puddle flange.	Nr	1						
	Total of Page A - 186 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>Overflow and Washout Pipe (NR 2 & NR3)</u>								
GR 2 - 21	500 mm dia DI P/E pipe piece 2575 mm long with puddle flange.	Nr	1						
GR 2 - 22	500 mm dia flange adapter for DI pipe	Nr	4						
GR 2 - 23	500 mm dia DI D/F duck foot bend.	Nr	1						
GR 2 - 24	500 mm dia DI F/PE pipe piece 1385 mm long with puddle flange.	Nr	1						
GR 2 - 25	500 mm dia DI F/PE pipe piece 1240 mm long.	Nr	1						
GR 2 - 26	500 mm Dia DI D/F 90° bend	Nr	2						
GR 2 - 27	500 mm DI D/F pipe piece 3185 mm long with puddle flange.	Nr	1						
GR 2 - 28	500 x500 mm dia DI all flanged tee.	Nr	2						
GR 2 - 29	500 mm dia DI F/PE pipe piece 4315 mm long with puddle flange.	Nr	1						
GR 2 - 30	500 mm dia DI F/PE pipe piece 2125 mm with puddle flange	Nr	1						
GR 2 - 31	500mm dia DI S/PE piece 1950 mm long with puddle flange.	Nr	2						
GR 2 - 32	500 mm dia DI D/F pipe piece 1795 mm long.	Nr	2						
GR 2 - 33	500 mm dia couplings.	Nr	2						
	Total of Page A - 187 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2 - 34	500 mm dia DI D/F pipe piece 750 mm long.	Nr	1						
GR 2 - 35	1000 mm dia wall mounted penstock gate.	Nr	2						
GR 2 - 36	1000 mm dia Butterfly valve	Nr	2						
GR 2 - 37	500 mm dia Butterfly valve	Nr	2						
	<u>Outlet from Reservoir (NR. 1 & NR. 2)</u>								
GR 2 - 38	1000 mm dia DI F/PE pipe piece 1775 mm long with puddle flange.	Nr	1						
GR 2 - 39	1000 mm dia flange adapter for DI pipe	Nr	1						
GR 2 - 40	1000x 1000 mm dia DI all flanged tee	Nr	1						
GR 2 - 41	1000 mm dia coupling	Nr	2						
GR 2 - 42	1000 mm dia DI F/PE pipe piece 2475 mm long with puddle flange.	Nr	1						
GR 2 - 43	1000 mm dia DI F/PE Pipe piece 3400 mm long with puddle flange.	Nr	1						
	<u>Overflow and washout Pipe</u>								
	<u>(NR 1 and NR 2)</u>								
GR 2 - 44	500 mm dia DI P/E Pipe piece 2575 mm long with puddle flange.	Nr	1						
GR 2 - 45	500 mm dia flange adapter for DI pipe.	Nr	2						
	Total of Page A - 188 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2 - 46	500 mm dia DI D/F duck foot bend.	Nr	1						
GR 2 - 47	500 mm dia DI F/PE pipe piece 1400 mm long with puddle flange.	Nr	1						
GR 2 - 48	500 mm dia couplings.	Nr	3						
GR 2 - 49	500 mm dia DI F/PE pipe piece 1215 mm long.	Nr	1						
GR 2 - 50	500 mm dia DI d/f 90° bend.	Nr	1						
GR 2 - 51	500 mm dia DI D/F pipe piece 1250 mm long.	Nr	1						
GR 2 - 52	500 x 500 mm dia DI all flanged tee.	Nr	2						
GR 2 - 53	500 mm dia DI F/PE pipe piece 2110 mm long	Nr	1						
GR 2 - 54	500 mm dia DI F/PE pipe piece 5000 mm long with puddle flange.	Nr	1						
GR 2 - 55	500 mm dia DI F/PE pipe piece 2270 mm long with puddle flange.	Nr	1						
GR 2 - 56	500 mm dia DI S/PE pipe piece 2000 mm long	Nr	1						
GR 2 - 57	500 mm dia DI D/F pipe piece 1750 mm long.	Nr	1						
GR 2 - 58	1000 mm dia wall mounted penstock gate.	Nr	1						
GR 2 - 59	1000 mm dia butterfly valve	Nr	1						
Total of Page A - 189 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2 - 60	500 mm dia butterfly valve.	Nr	1						
	<u>Outlet Pipe from Reservoir (Chambers)</u>								
GR 2 - 61	1000 mm dia DI F/PE pipe piece 4400 mm long.	Nr	1						
GR 2 - 62	1000 mm dia DI D/F pipe 6000 mm long.	Nr	4						
GR 2 - 63	1000 mm dia DI F/PE pipe 6000 mm long	Nr	1						
	<u>Overflow and Washout from Reservoir (Chambers)</u>								
GR 2 - 64	500 mm dia DI P/E pipe piece 950 mm long	Nr	1						
GR 2 - 65	500 mm dia DI S/S pipe 5500 mm long.	Nr	5						
GR 2 - 66	500 mm dia DI S/S pipe piece 1740 mm long.	Nr	1						
GR 2 - 67	500 mm dia DI P/E pipe piece 1500 mm long.	Nr	1						
GR 2 - 68	500-600 mm dia socketed taper.	Nr	1						
GR 2 - 69	600 mm dia DI P/E pipe piece 1200 mm long	Nr	1						
GR 2 - 70	600 mm dia DI S/S pipe 5500 mm long.	Nr	4						
GR 2 - 71	600 mm dia DI S/S 90° bend.	Nr	1						
	<u>Inlet to Valve House</u>								
GR 2 - 72	1000 mm dia DI S/S pipe	m	100						
	Total of Page A - 190 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2 - 73	1000 mm dia DI S/S 45° Bend <u>Outlet from Reservoir</u> <u>(Valve House)</u>	Nr	2						
GR 2 - 74	1000 mm dia coupling	Nr	1						
GR 2 - 75	1000 mm dia DI P/E pipe piece 1988 mm long with puddle flange.	Nr	1						
GR 2 - 76	1000 mm dia flange adapter for DI pipe.	Nr	7						
GR 2 - 77	1000 x 300 mm dia DI all flange Tee.	Nr	2						
GR 2 - 78	300 x150 mm dia DI D/F Taper	Nr	1						
GR 2 - 79	1000 x 1000 mm dia DI all flanged tee.	Nr	5						
GR 2 - 80	1000 mm dia DI F/PE pipe piece 1285 mm long.	Nr	1						
GR 2 - 81	1000 mm dia DI F/PE pipe piece 845 mm long.	Nr	1						
GR 2 - 82	1000 mm dia DI F/PE pipe piece 750 mm long.	Nr	1						
GR 2 - 83	1000 mm dia DI F/PE pipe piece 950 mm long.	Nr	1						
GR 2 - 84	1000 mm dia DI F/PE pipe piece 1070 mm long.	Nr	1						
GR 2 - 85	1000 x 450 mm dia DI all flange tee.	Nr	1						
	Total of Page A - 191 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2 - 86	1000 mm dia DI F/PE Pipe piece 763 mm long.	Nr	1						
GR 2 - 87	1000 - 600 mm dia DI D/F taper.	Nr	1						
GR 2 - 88	600 mm dia DI F/PE pipe piece 2500 mm long with puddle flange.	Nr	1						
GR 2 - 89	600 mm dia coupling	Nr	1						
GR 2 - 90	600 mm dia DI F/PE pipe piece 1050 mm long	Nr	1						
GR 2 - 91	600 mm dia DI blank flange.	Nr	1						
	<u>Outlet from valve house 500 DI to 20" CI main.</u>								
GR 2 - 92	1000-500 mm dia DI D/F taper.	Nr	1						
GR 2 - 93	500 mm dia flange adapter for DI pipe	Nr	1						
GR 2 - 94	500 mm dia DI P/E pipe piece 2325 mm long with puddle flange.	Nr	1						
GR 2 - 95	500 mm dia DI /20" dia stepped couplings.	Nr	1						
	<u>900 mm DI to Walls Lane</u>								
GR 2 - 96	1000-900 mm dia DI D/F taper	Nr	1						
GR 2 - 97	900 mm dia DI D/F pipe piece 500 mm long.	Nr	1						
GR 2 - 98	900 mm dia flange adapter for DI pipe.	Nr	1						
	Total of Page A - 192 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2 - 99	900 mm dia DI P/E pipe piece 2220 mm long with puddle flange.	Nr	1						
GR 2 - 100	900 mm dia coupling.	Nr	1						
	<u>600 mm DI to Fort and walls Lane</u>								
GR 2 - 101	1000 -600 mm dia DI D/F taper	Nr	1						
GR 2 - 102	600 mm dia flange Adapter for DI pipe	Nr	1						
GR 2 - 103	600 mm dia DI P/E pipe piece 2635 mm long with puddle flange .	Nr	1						
GR 2 - 104	600 mm dia coupling	Nr	1						
	<u>300 mm DI to Kotahena</u>								
GR 2 - 105	300 mm dia DI D/F pipe piece 1340 mm long.	Nr	1						
GR 2 - 106	300 mm dia Flange Adapter for DI Pipe.	Nr	1						
GR 2 - 107	300 mm dia DI P/E pipe piece 2360 mm long with puddle flange.	Nr	1						
GR 2 - 108	300 mm dia coupling.	Nr	1						
	<u>500 mm DI Blank Flange for Future</u>								
GR 2 - 109	1000- 500 mm dia DI D/F taper .	Nr	1						
GR 2 - 110	500 mm dia flange Adapter for DI pipe	Nr	1						
	Total of Page A - 193 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2 - 111	500 mm dia DI P/E pipe piece 5265 mm long puddle flange.	Nr	1						
GR 2 - 112	500 mm dia coupling	Nr	1						
	<u>450 mm DI to Muthuwela.</u>								
GR 2 - 113	450 mm dia DI D/F pipe piece 2620 mm long.	Nr	1						
GR 2 - 114	450 mm dia flange adapter	Nr	1						
GR 2 - 115	450 mm dia DI P/E pipe piece 4785 mm long.	Nr	1						
GR 2 - 116	450 mm dia coupling.	Nr	1						
	<u>500 mm DI to Mattakkuliya</u>								
GR 2 - 117	1000 - 500 mm dia DI D/F Taper	Nr	1						
GR 2 - 118	500 mm dia flange Adapter	Nr	1						
GR 2 - 119	500 mm dia DI P/E pipe piece 4590 mm long with puddle flange.	Nr	1						
GR 2 - 120	500 mm dia coupling.	Nr	1						
	<u>Valves</u>								
GR 2 - 121	150 mm dia double orifice air valve.	Nr	1						
GR 2 - 122	300 mm dia Butterfly Valve	Nr	1						
	Total of Page A - 194 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2 - 123	450 mm dia Butterfly Valve	Nr	1						
GR 2 - 124	500 mm dia Butterfly Valve	Nr	3						
GR 2 - 125	600 mm dia Butterfly Valve	Nr	2						
GR 2 - 126	900 mm dia Butterfly Valve	Nr	1						
GR 2 - 127	1000 mm dia Butterfly Valve	Nr	1						
	900 mm dia Outlet to wall Lane								
GR 2 - 128	900 mm dia DI S/S pipe	m	80						
GR 2 - 129	900 mm dia DI F/S pipe piece 1500 mm long.	Nr	1						
GR 2 - 130	900 mm dia DI S/S 45° bend	Nr	2						
GR 2 - 131	900 mm dia DI D/F 45° bend	Nr	1						
GR 2 - 132	900 mm dia DI Flange adapter for DI pipe.	Nr	1						
GR 2 - 133	900 mm dia DI /900 dia steel stepped couplings.	Nr	1						
GR 2 - 134	900 mm dia DI Coupling	Nr	2						
GR 2 - 135	900 mm dia P/E Pipe Piece 4000 mm long	Nr	1						
	Total of Page A - 195 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>600 mm DI Outlet to Fort and Walls Lane</u>								
GR 2 - 136	600 mm dia S/S pipe	m	80						
GR 2 - 137	600 mm dia DI S/S 45° bend	Nr	3						
GR 2 - 138	600 mm dia flange adapter for DI pipe	Nr	1						
GR 2 - 139	600 -500 mm dia DI D/F taper	Nr	1						
GR 2 - 140	500 mm dia DI flange spigot 1000 mm long.	Nr	1						
GR 2 - 141	500 mm dia DI D/F 45° bend.	Nr	1						
GR 2 - 142	500 mm DI /20° CI stepped couplings.	Nr	1						
GR 2 - 143	600 mm DI Coupling	Nr	2						
GR 2 - 144	600 mm dia DI P/E Pipe Piece 4000 mm long	Nr	1						
	<u>300 mm DI outlet to Kotahena</u>								
GR 2 - 145	300 mm dia DI S/S pipe	m	75						
GR 2 - 146	300 mm dia DI S/S 45° bend.	Nr	3						
GR 2 - 147	300 mm dia flange Adapter for DI pipe	Nr	1						
GR 2 - 148	300 -250 mm dia DI D/F taper	Nr	1						
	Total of Page A - 196 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	450 mm DI to Muthuwela.								
GR 2 - 149	250 mm dia DI flanged spigot 500 mm long.	Nr	1						
GR 2 - 150	250 mm dia DI D/F 45° bend.	Nr	1						
GR 2 - 151	250 mm DI /10° CI stepped couplings.	Nr	1						
GR 2 - 152	300 mm DI Coupling	Nr	2						
GR 2 - 153	300 mm dia DI P/E Pipe Piece 4000 mm long	Nr	1						
GR 2 - 154	450 mm dia DI S/S pipe	m	105						
GR 2 - 155	450 mm dia DI S/S 90° bend	Nr	1						
GR 2 - 156	450 mm dia DI S/S 45° bend	Nr	4						
GR 2 - 157	450 mm dia DI S/S 22 1/2° bend	Nr	1						
GR 2 - 158	450 mm dia flange adapter for DI pipe	Nr	1						
GR 2 - 159	450 -300 mm dia DI D/F taper	Nr	1						
GR 2 - 160	300 mm dia DI D/F 45° bend.	Nr	1						
GR 2 - 161	300 mm dia DI Flange spigot 600 mm long.	Nr	1						
GR 2 - 162	300 mm DI /12° CI stepped coupling.	Nr	1						
	Total of Page A - 197 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>500 mm DI Mattakkuliya</u>								
GR 2 - 163	500 mm dia DI S/S pipe	m	102						
GR 2 - 164	500 mm dia DI S/S 90° bend	Nr	1						
GR 2 - 165	500 mm dia DI S/S 45° bend	Nr	4						
GR 2 - 166	500 mm dia DI S/S 221/2° bend	Nr	1						
GR 2 - 167	500 mm dia flange adapter for DI pipe	Nr	1						
GR 2 - 168	500-400 mm dia DI D/F taper	Nr	1						
GR 2 - 169	400 mm dia DI D/F 45° bend.	Nr	1						
GR 2 - 170	400 mm dia DI Flange spigot 500 mm long.	Nr	1						
GR 2 - 171	400 mm DI /400 mm DI coupling.	Nr	1						
	<u>500 mm DI outlet for Future Extension</u>								
GR 2 - 172	500 mm dia DI S/S Pipe	m	50						
GR 2 - 173	500 mm dia DI S/S 45° bend	Nr	2						
GR 2 - 174	500 mm dia DI blank flange	Nr	1						
GR 2 - 175	500 mm DI Coupling	Nr	2						
GR 2 - 176	500 mm dia DI P/E Pipe Piece 4000 mm long	Nr	1						
	Total of Page A - 198 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>500/600 mm dia Overflow and Washout Pipe.</u>								
GR 2 - 177	600 mm dia DI S/S Pipe	m	135						
GR 2 - 178	600 mm dia DI S/S 45° bend	Nr	1						
GR 2 - 179	600 x 150 mm dia DI socketted tee with 150 mm dia flange branch.	Nr	1						
GR 2 - 180	150 mm dia DI, D/F 90° bend	Nr	1						
GR 2 - 181	150 mm dia flange adapter for PVC pipe.	Nr	1						
GR 2 - 182	500 x 500 mm dia DI all flanged tee	Nr	1						
GR 2 - 183	500 mm dia DI flanged spigot 800 mm long	Nr	2						
GR 2 - 184	500 mm DI /500 mm CI stepped couplings	Nr	1						
GR 2 - 185	600 mm dia flange adapter for DI pipe	Nr	1						
GR 2 - 186	600-500 mm dia DI D/F Taper	Nr	1						
	<u>Connection to Existing 20" CI Main</u>								
GR 2 - 187	500 mm dia DI F/PE pipe piece 2810 mm long.	Nr	1						
GR 2 - 188	500 mm dia DI D/F 90° bend.	Nr	2						
GR 2 - 189	500 mm dia DI F/PE pipe piece 2100 mm long	Nr	1						
	Total of Page A - 199 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-2 : SUPPLY AND DELIVERY OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2 - 190	500 mm dia flange Adapter for DI pipe.	Nr	1						
GR 2 - 191	500 mm dia DI F/PE pipe piece 1950 mm long.	Nr	1						
GR 2 - 192	500 mm DI / 20" CI stepped couplings.	Nr	1						
GR 2 - 193	500 DI Butterfly Valve	Nr	1						
GR 2 - 194	500 mm x 20" Stepped Coupling	Nr	2						
GR 2 - 195	500 mm dia flange adapter for DI pipe	Nr	1						
GR 2 - 196	500 mm dia P/E Pipe Piece 2000 mm long	Nr	1						
GR 2 - 197	500 mm dia Flow Meter	Nr	2						
GR 2 - 198	900 mm dia Flow Meter	Nr	1						
	Total of Page A - 200 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : EH/GR-2 SUM

SUPPLY AND DELIVERY OF DI PIPES AND FITTINGS - YARD PIPING

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 2	Page A - 185 of Bill GR 2			
	Page A - 186 of Bill GR 2			
	Page A - 187 of Bill GR 2			
	Page A - 188 of Bill GR 2			
	Page A - 189 of Bill GR 2			
	Page A - 190 of Bill GR 2			
	Page A - 191 of Bill GR 2			
	Page A - 192 of Bill GR 2			
	Page A - 193 of Bill GR 2			
	Page A - 194 of Bill GR 2			
	Page A - 195 of Bill GR 2			
	Page A - 196 of Bill GR 2			
	Page A - 197 of Bill GR 2			
	Page A - 198 of Bill GR 2			
	Page A - 199 of Bill GR 2			
	Page A - 200 of Bill GR 2			
EH/GR-2	Total of EH/GR-2 Summary to EH/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-3 CONSTRUCTION OF NEW VALVE HOUSE AND OFFICE

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>Excavation and Earth Work</u>								
	Excavation in any material other than rock. Rate to include for shoring, dewatering (where necessary) back filling, ramming, compacting and disposal of surplus excavated material elsewhere as directed by the Engineer.								
GR 3 - 1	From formation level to 1.0 m depth	m ³	160						
GR 3 - 2	From 1.0 m to 2.0 m depth	m ³	155						
GR 3 - 3	From 2.0 m to 4.0 m depth	m ³	310						
GR 3 - 4	From 4.0 m to 6.0 m depth	m ³	310						
GR 3 - 5	From 6.0 m to 8.0 m depth	m ³	310						
GR 3 - 6	Extra over for Item Nr. 1,2,3,4 & 5 for excavation in rock (Provisional Qty)	m ³	130						
	<u>Concrete Work</u>								
	Concrete Grade 15 (40)								
	(Rate to include for supplying and placing of concrete as specified and with necessary formwork)								
GR 3 - 7	75 mm thick screed in column base and base slab	m ²	175						
	Total of Page A - 202 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-3 CONSTRUCTION OF NEW VALVE HOUSE AND OFFICE

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Concrete Grade 35A (20)								
	Rate to include for supplying and placing concrete (with temperature control) and curing as specified. (Reinforcement measured separately)								
GR 3 - 8	In base slab 600 mm thick (21.50 m level)	m ³	95						
GR 3 - 9	In 600 mm thick wall	m ³	280						
GR 3 - 10	In 300 x300 mm columns and corbels.	m ³	3						
GR 3 - 11	In 300 x450 mm beams at 24.50 m level.	m ³	4						
GR 3 - 12	In 200 mm thick slab at 24.50 m level.	m ³	11						
GR 3 - 13	In beams at 29.30 m level.	m ³	20						
GR 3 - 14	In 200 mm thick floor slab.	m ³	30						
	Concrete Grade 25 (20)								
	Rate to include for supplying and placing concrete (with temperature control) and curing as specified. (Reinforcement measured separately)								
GR 3 - 15	In 200 mm thick walls	m ³	2						
GR 3 - 16	In columns C2 & C3	m ³	2						
GR 3 - 17	In roof beams	m ³	5						
	Total of Page A - 203 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-3 CONSTRUCTION OF NEW VALVE HOUSE AND OFFICE

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 3 - 18	In Stair case	m ³	4						
GR 3 - 19	In thrust Blocks	m ³	4						
GR 3 - 20	In 225 x 150 mm thick lintel	m ³	1						
	<u>Reinforcement</u>								
	Rate to include for supply and delivery to the site, cleaning as specified, cutting and bent to shape, placed in position, tied with G.I binding wire complete as depicted in Drawing.								
	<u>Tor Steel (460 N/mm²)</u>								
GR 3 - 21	10 mm dia	MT	20						
GR 3 - 22	12 mm dia	MT	15						
GR 3 - 23	16 mm dia	MT	30						
GR 3 - 24	20 mm dia	MT	25						
GR 3 - 25	25 mm dia	MT	20						
	<u>Mild Steel (250 N/mm²)</u>								
GR 3 - 26	10 mm dia	MT	1						
	<u>Masonry Work</u>								
GR 3 - 27	225 mm thick brick masonry wall in cement mortar 1:5	m ²	200						
	Total of Page A - 204 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-3 CONSTRUCTION OF NEW VALVE HOUSE AND OFFICE

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>Metal Work</u>								
	<u>Structural Steel Work</u>								
GR 3 - 28	Supplying and fixing 152 x 64 x 19 x 2.5 mm thick 5.88 KG/M galvanized channel purlin on concrete roof beam as depicted in drawing. Rate to include for baseplate cleats, bolts & nuts, two coats of approved anti-corrosive paint etc. complete.	m	180						
	<u>Roof Work</u>								
GR3 - 29	0.47 mm thick Zn/Al corrugated sheet roofing on M.S. Channel purlin (purlin measured separately)	m ²	160						
GR3 - 30	300 x 20 mm thick valance board in approved class 1 timber fixed to roof beam as per detail. Rate to include for two coats of approved quality enamel paint.	m	40						
GR3 - 31	300 x 20 mm thick barge board in approved class 1 timber fixed to roof beam as per detail. Rate to include for two coats of approved quality enamel paint.	m	16						
	<u>Rainwater Disposal</u>								
GR 3 - 32	150 mm x 150 mm square type GI gutter with all accessories fixed to valance board with GI bracket at 375 mm centres complete.	m	40						
GR 3 - 33	100 mm x 100 mm square type GI down pipe with necessary accessories fixed complete to columns on sunken wooden plugs at suitable centres.	m	50						
	Total of Page A - 205 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-3 CONSTRUCTION OF NEW VALVE HOUSE AND OFFICE

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p>Aluminium Work</p> <p>Doors & Windows</p> <p>All aluminium sections shall be in accordance with BS 1470, 1471 and 1474.</p> <p>All aluminium extrusions shall be bronze Anodized to a thickness of minimum 20 microns.</p> <p>Hardware items such as hinges, handles, latches, fixtures etc shall be stainless steel.</p> <p>Glazing shall be 5 mm thick clear glass.</p> <p>Supplying and fixing Aluminium frame door & windows as depicted in drawing. Rate to include for hinges, locks and other accessories complete.</p>								
GR 3 - 34	Door type D2 overall size 800 x 2700 mm.	Nr	4						
GR 3 - 35	Door type D3 - 1200 x 2700	Nr	2						
GR 3 - 36	Door type D4 - 800x2100	Nr	2						
GR 3 - 37	Window Type W1 overall size 1800 x 1800 mm.	Nr	3						
GR 3 - 38	Window Type W2 overall size 2300 x 1800 mm with louvers.	Nr	1						
GR 3 - 39	Fanlight Type F1 - 1200 x 1000	Nr	2						
	Total of Page A - 206 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-3 CONSTRUCTION OF NEW VALVE HOUSE AND OFFICE

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>Wall, Floor and Ceiling Finishes</u>								
GR 3 - 40	16 mm thick plastering in cement, lime and sand 1:1:5 finished smooth with lime putty on internal faces of walls and columns.	m ²	300						
GR 3 - 41	16 mm thick plastering in cement, lime and sand 1:1:5 finished smooth with lime putty on narrow width 100 mm wide.	m	50						
GR 3 - 42	16 mm thick plastering in cement, lime and sand 1:1:5 finished semi rough external faces of walls and columns.	m ²	200						
GR 3 - 43	16 mm thick plastering in cement, lime and sand 1:1:5 finished semi rough on narrow width not exceeding 100 mm wide.	m	40						
GR 3 - 44	20 mm thick plinth plastering in cement sand 1:3 finished smooth with neat red cement float.	m ²	50						
GR 3 - 45	20 mm thick cement and sand 1:3 mortar rendering to floor slab and finish smooth with neat red cement slurry.	m ²	100						
GR 3 - 46	20 mm thick cement and sand 1:3 mortar rendering to staircase	m ²	25						
GR 3 - 47	20 mm thick 100 mm high skirting in cement and sand 1:3 mortar finished smooth with neat red cement float.	m	50						
GR 3 - 48	Flat asbestos ceiling on sawn timber frame work as depicted in drawing complete.	m ²	100						
GR 3 - 49	Eaves ceiling as depicted in drawing complete.	m ²	45						
	Total of Page A - 207 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-3 CONSTRUCTION OF NEW VALVE HOUSE AND OFFICE

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>Painting.</u>								
GR 3 - 50	Prepare and apply one coat of approved primer and two coats of approved emulsion paint to internal faces of walls, columns etc.	m ²	300						
GR 3 - 51	Prepare and apply one coat of approved primer and two coats of approved weather proof emulsion paint to external faces of walls and columns.	m ²	200						
GR 3 - 52	32 mm dia Aluminium handrail 1250 mm high as depicted in Drg. No.STD/ST/01.	m	45						
GR 3 - 53	Allow for supplying and fixing 300 mm wide 1 Nr Aluminium Cat Ladder 3000 mm high as depicted in Drg. Nr.EH/GR/ST/20		Item						
GR 3 - 54	Allow for supplying and installing steel girder 2 No. 18.2 m long.		Item						
	<u>Electrical Installation</u>								
GR 3 - 55	Allow for supplying and laying PVC, wiring, Fluorescent lamp, Trip switch, distribution Board etc. As shown in drawing and as depicted in Technical Specification complete.	-	Item						
GR 3 - 56	Chlorine Analyzer		Item						
GR 3 - 57	Toilet facilities, septic tank, soakage pit, water supply etc.,		Item						
	Total of Page A - 208 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : EH/GR-3 SUM

CONSTRUCTION OF NEW VALVE CHAMBER

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 3	Page A - 202 of Bill GR 3 Page A - 203 of Bill GR 3 Page A - 204 of Bill GR 3 Page A - 205 of Bill GR 3 Page A - 206 of Bill GR 3 Page A - 207 of Bill GR 3 Page A - 208 of Bill GR 3			
EH/GR-3	Total of EH/GR-3 Summary to EH/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Rate to include for laying & installation of pipes, fittings, valves, specials, pipe cutting, pipe bedding, thrust blocks, anchor blocks, pipe brackets, supports etc. And including excavation, shoring, dewatering and backfilling where necessary, construction of chamber, DI manhole covers etc. complete as depicted in Drawing. <u>Inlet to Reservoir and Connection to Existing Main</u>								
GR 4 - 1	500 mm Dia D.I flanged Bell- mouth	Nr	2						
GR 4 - 2	500 mm Dia DI D/F pipe piece 850 mm long.	Nr	2						
GR 4 - 3	500 mm Dia DI D/F Duck foot bend	Nr	2						
GR 4 - 4	500 mm dia DI F/PE pipe piece 1900 mm long with puddle flange.	Nr	2						
GR 4 - 5	500 mm dia couplings.	Nr	4						
GR 4 - 6	500 mm dia DI P/E pipe piece 5000 mm long (to suit site)	Nr	2						
GR 4 - 7	500 mm dia DI P/E pipe piece 1560 mm long with puddle flange.	Nr	2						
GR 4 - 8	500 mm dia flange adapter for DI pipe.	Nr	6						
GR4 - 9	500 x500 mm DI all flanged tee.	Nr	2						
GR4 - 10	500 mm Dia DI P/E pipe piece 500 mm long.	Nr	4						
	Total of Page A - 210 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 11	500 mm dia DI /20" dia CI stepped couplings.	Nr	4						
GR 4 - 12	500 mm dia DI butterfly valve.	Nr	2						
	<u>Outlet from Reservoir.</u>								
	<u>NR2 & NR3</u>								
GR 4 - 13	1000 mm Dia DI /F/PE pipe piece 1640 mm long with puddle flange.	Nr	1						
GR 4 - 14	1000 mm dia Flange Adapter for DI pipe.	Nr	3						
GR 4 - 15	1000 mm dia DI D/F 90° bend	Nr	1						
GR 4 - 16	1000 mm dia DI F/PE pipe piece 625 mm long.	Nr	1						
GR 4 - 17	1000 x 1000 mm Dia DI all Flanged Tee	Nr	1						
GR 4 - 18	1000 mm dia F/PE DI pipe piece 3385 mm long with puddle flange.	Nr	1						
GR 4 - 19	1000 mm Dia coupling.	Nr	1						
GR 4 - 20	1000 mm dia DI F/PE pipe piece 1800 mm long with puddle flange.	Nr	1						
	<u>Overflow and Washout Pipe (NR 2 & NR3).</u>								
GR 4 - 21	500 mm dia DI P/E pipe piece 2575 mm long with puddle flange.	Nr	1						
	Total of Page A - 211 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 22	500 mm dia flange adapter for DI pipe	Nr	4						
GR 4 - 23	500 mm dia DI D/F duck foot bend.	Nr	1						
GR 4 - 24	500 mm dia DI F/PE pipe piece 1385 mm long with puddle flange.	Nr	1						
GR 4 - 25	500 mm dia DI F/PE pipe piece 1240 mm long.	Nr	1						
GR 4 - 26	500 mm Dia DI D/F 90° bend	Nr	2						
GR 4 - 27	500 mm DI D/F pipe piece 3185 mm long with puddle flange.	Nr	1						
GR 4 - 28	500 x500 mm dia DI all flanged tee.	Nr	2						
GR 4 - 29	500 mm dia DI F/PE pipe piece 4315 mm long with puddle flange.	Nr	1						
GR 4 - 30	500 mm dia DI F/PE pipe piece 2125 mm with puddle flange	Nr	1						
GR 4 - 31	500mm dia DI S/PE piece 1950 mm long with puddle flange.	Nr	2						
GR 4 - 32	500 mm dia DI D/F pipe piece 1795 mm long.	Nr	2						
GR 4 - 33	500 mm dia couplings.	Nr	2						
GR 4 - 34	500 mm dia DI D/F pipe piece 750 mm long.	Nr	1						
GR 4 - 35	1000 mm dia wall mounted penstock gate.	Nr	2						
	Total of Page A - 212 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 36	1000 mm dia Butterfly valve	Nr	2						
GR 4 - 37	500 mm dia Butterfly valve	Nr	2						
	<u>Outlet from Reservoir [NR. 1 & NR. 2]</u>								
GR 4 - 38	1000 mm dia DI F/PE pipe piece 1775 mm long with puddle flange.	Nr	1						
GR 4 - 39	1000 mm dia flange adapter for DI pipe	Nr	1						
GR 4 - 40	1000x 1000 mm dia DI all flanged tee	Nr	1						
GR 4 - 41	1000 mm dia coupling	Nr	2						
GR 4 - 42	1000 mm dia DI F/PE pipe piece 2475 mm long with puddle flange.	Nr	1						
GR 4 - 43	1000 mm dia DI F/PE Pipe piece 3400 mm long with puddle flange.	Nr	1						
	<u>Overflow and washout Pipe</u>								
	<u>[NR 1 and NR 2]</u>								
GR 4 - 44	500 mm dia DI P/E Pipe piece 2575 mm long with puddle flange.	Nr	1						
GR 4 - 45	500 mm dia flange adapter for DI pipe.	Nr	2						
GR 4 - 46	500 mm dia DI D/F duck foot bend.	Nr	1						
GR 4 - 47	500 mm dia couplings.	Nr	3						
	Total of Page A - 213 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 48	500 mm dia DI F/PE pipe piece 1400 mm long with puddle flange.	Nr	1						
GR 4 - 49	500 mm dia DI F/PE pipe piece 1215 mm long.	Nr	1						
GR 4 - 50	500 mm dia DI d/f 90° bend.	Nr	1						
GR 4 - 51	500 mm dia DI D/F pipe piece 1250 mm long.	Nr	1						
GR 4 - 52	500 x 500 mm dia DI all flanged tee.	Nr	2						
GR 4 - 53	500 mm dia DI F/PE pipe piece 2110 mm long	Nr	1						
GR 4 - 54	500 mm dia DI F/PE pipe piece 5000 mm long with puddle flange.	Nr	1						
GR 4 - 55	500 mm dia DI F/PE pipe piece 2270 mm long with puddle flange.	Nr	1						
GR 4 - 56	500 mm dia DI S/PE pipe piece 2000 mm long	Nr	1						
GR 4 - 57	500 mm dia DI D/F pipe piece 1750 mm long.	Nr	1						
GR 4 - 58	1000 mm dia wall mounted penstock gate.	Nr	1						
GR 4 - 59	1000 mm dia butterfly valve	Nr	1						
GR 4 - 60	500 mm dia butterfly valve.	Nr	1						
Total of Page A - 214 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>Outlet Pipe from Reservoir (Chambers)</u>								
GR 4 - 61	1000 mm dia DI F/PE pipe piece 4400 mm long.	Nr	1						
GR 4 - 62	1000 mm dia DI D/F pipe 6000 mm long.	Nr	4						
GR 4 - 63	1000 mm dia DI F/PE pipe 6000 mm long	Nr	1						
	<u>Overflow and Washout from Reservoir (Chambers)</u>								
GR 4 - 64	500 mm dia DI P/E pipe piece 950 mm long	Nr	1						
GR 4 - 65	500 mm dia DI S/S pipe 5500 mm long.	Nr	5						
GR 4 - 66	500 mm dia DI S/S pipe piece 1740 mm long.	Nr	1						
GR 4 - 67	500 mm dia DI P/E pipe piece 1500 mm long.	Nr	1						
GR 4 - 68	500-600 mm dia socketed taper.	Nr	1						
GR 4 - 69	600 mm dia DI P/E pipe piece 1200 mm long	Nr	1						
GR 4 - 70	600 mm dia DI S/S pipe 5500 mm long.	Nr	4						
GR 4 - 71	600 mm dia DI S/S 90° bend.	Nr	1						
	<u>Inlet to Valve House</u>								
GR 4 - 72	1000 mm dia DI S/S pipe	m	100						
GR 4 - 73	1000 mm dia DI S/S 45° Bend	Nr	2						
	Total of Page A - 215 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<u>Outlet from Reservoir</u>								
	<u>(Valve House)</u>								
GR 4 - 74	1000 mm dia coupling	Nr	1						
GR 4 - 75	1000 mm dia DI P/E pipe piece 1988 mm long with puddle flange.	Nr	1						
GR 4 - 76	1000 mm dia flange adapter for DI pipe.	Nr	7						
GR 4 - 77	1000 x 300 mm dia DI all flange Tee.	Nr	2						
GR 4 - 78	300 x150 mm dia DI D/F Taper	Nr	1						
GR 4 - 79	1000 x 1000 mm dia DI all flanged tee.	Nr	5						
GR 4 - 80	1000 mm dia DI F/PE pipe piece 1285 mm long.	Nr	1						
GR 4 - 81	1000 mm dia DI F/PE pipe piece 845 mm long.	Nr	1						
GR 4 - 82	1000 mm dia DI F/PE pipe piece 750 mm long.	Nr	1						
GR 4 - 83	1000 mm dia DI F/PE pipe piece 950 mm long.	Nr	1						
GR 4 - 84	1000 mm dia DI F/PE pipe piece 1070 mm long.	Nr	1						
GR 4 - 85	1000 x 450 mm dia DI all flange tee.	Nr	1						
GR 4 - 86	1000 mm dia DI F/PE Pipe piece 763 mm long.	Nr	1						
	Total of Page A - 216 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 87	1000 - 600 mm dia DI D/F taper.	Nr	1						
GR 4 - 88	600 mm dia DI F/PE pipe piece 2500 mm long with puddle flange.	Nr	1						
GR 4 - 89	600 mm dia coupling	Nr	1						
GR 4 - 90	600 mm dia DI F/PE pipe piece 1050 mm long	Nr	1						
GR 4 - 91	600 mm dia DI blank flange.	Nr	1						
	<u>Outlet from valve house 500 DI to 20" CI main</u>								
GR 4 - 92	1000 -500 mm dia DI D/F taper.	Nr	1						
GR 4 - 93	500 mm dia flange adapter for DI pipe	Nr	1						
GR 4 - 94	500 mm dia DI P/E pipe piece 2325 mm long with puddle flange.	Nr	1						
GR 4 - 95	500 mm dia DI /20" dia stepped couplings.	Nr	1						
	<u>900 mm DI to Walls Lane</u>								
GR 4 - 96	1000-900 mm dia DI D/F taper	Nr	1						
GR 4 - 97	900 mm dia DI D/F pipe piece 500 mm long.	Nr	1						
GR 4 - 98	900 mm dia flange adapter for DI pipe.	Nr	1						
GR 4 - 99	900 mm dia coupling.	Nr	1						
	Total of Page A - 217 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 100	900 mm dia DI P/E pipe piece 2220 mm long with puddle flange. <u>600 mm DI to Fort and walls Lane</u>	Nr	1						
GR 4 - 101	1000-600 mm dia DI D/F taper	Nr	1						
GR 4 - 102	600 mm dia flange Adapter for DI pipe	Nr	1						
GR 4 - 103	600 mm dia DI P/E pipe piece 2635 mm long with puddle flange .	Nr	1						
GR 4 - 104	600 mm dia coupling <u>300 mm DI to Kotahena</u>	Nr	1						
GR 4 - 105	300 mm dia DI D/F pipe piece 1340 mm long.	Nr	1						
GR 4 - 106	300 mm dia Flange Adapter for DI Pipe.	Nr	1						
GR 4 - 107	300 mm dia DI P/E pipe piece 2360 mm long with puddle flang	Nr	1						
GR 4 - 108	300 mm dia coupling. <u>500 mm DI Blank Flange for Future</u>	Nr	1						
GR 4 - 109	1000- 500 mm dia DI D/F taper .	Nr	1						
GR 4 - 110	500 mm dia flange Adapter for DI pipe	Nr	1						
GR 4 - 111	500 mm dia DI P/E pipe piece 2260 mm long puddle flange.	Nr	1						
	Total of Page A - 218 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 112	500 mm dia coupling <u>450 mm DI to Muthuwela.</u>	Nr	1						
GR 4 - 113	450 mm dia DI D/F pipe piece 1310 mm long.	Nr	1						
GR 4 - 114	450 mm dia flange adapter	Nr	1						
GR 4 - 115	450 mm dia DI P/E pipe piece 2393 mm long.	Nr	1						
GR 4 - 116	450 mm dia coupling. <u>500 mm DI to Mattakkuliya</u>	Nr	1						
GR 4 - 117	1000 - 500 mm dia DI D/F Taper	Nr	1						
GR 4 - 118	500 mm dia flange Adapter	Nr	1						
GR 4 - 119	500 mm dia DI P/E pipe piece 2260 mm long with puddle flange.	Nr	1						
GR 4 - 120	500 mm dia coupling. <u>Valves</u>	Nr	1						
GR 4 - 121	150 mm dia double orifice air valve.	Nr	1						
GR 4 - 122	300 mm dia Butterfly Valve	Nr	1						
GR 4 - 123	450 mm dia Butterfly Valve	Nr	1						
Total of Page A - 219 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 124	500 mm dia Butterfly Valve	Nr	3						
GR 4 - 125	600 mm dia Butterfly Valve	Nr	2						
GR 4 - 126	900 mm dia Butterfly Valve	Nr	1						
GR 4 - 127	1000 mm dia Butterfly Valve	Nr	1						
	<u>900 mm dia Outlet to wall Lane</u>								
GR 4 - 128	900 mm dia DI S/S pipe	m	80						
GR 4 - 129	900 mm dia DI F/S pipe piece 1500 mm long.	Nr	1						
GR 4 - 130	900 mm dia DI S/S 45° bend	Nr	2						
GR 4 - 131	900 mm dia DI D/F 45° bend	Nr	1						
GR 4 - 132	900 mm dia DI Flange adapter for DI pipe.	Nr	1						
GR 4 - 133	900 mm dia DI /900 dia steel stepped couplings.	Nr	1						
GR 4 - 134	900 mm dia DI Coupling	Nr	2						
GR 4 - 135	900 mm dia P/E Pipe Piece 4000 mm long	Nr	1						
	<u>600 mm DI Outlet to Fort and Walls Lane</u>								
GR 4 - 136	600 mm dia S/S pipe	m	80						
GR 4 - 137	600 mm dia DI S/S 45° bend	Nr	3						
	Total of Page A - 220 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 138	600 mm dia flange adapter for DI pipe	Nr	1						
GR 4 - 139	600 -500 mm dia DI D/F taper	Nr	1						
GR 4 - 140	500 mm dia DI flange spigot 1000 mm long.	Nr	1						
GR 4 - 141	500 mm dia DI D/F 45° bend.	Nr	1						
GR 4 - 142	500 mm DI /20° CI stepped couplings.	Nr	1						
GR 4 - 143	600 mm DI Coupling	Nr	2						
GR 4 - 144	600 mm dia DI P/E Pipe Piece 4000 mm long	Nr	1						
	<u>300 mm DI outlet to Kotahena</u>								
GR 4 - 145	300 mm dia DI S/S pipe	m	75						
GR 4 - 146	300 mm dia DI S/S 45° bend.	Nr	3						
GR 4 - 147	300 mm dia flange Adapter for DI pipe	Nr	1						
GR 4 - 148	300 -250 mm dia DI D/F taper	Nr	1						
GR 4 - 149	250 mm dia DI flanged spigot 500 mm long.	Nr	1						
GR 4 - 150	250 mm dia DI D/F 45° bend.	Nr	1						
GR 4 - 151	250 mm DI /10° CI stepped couplings.	Nr	1						
	Total of Page A - 221 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 152	300 mm DI Coupling	Nr	2						
GR 4 - 153	300 mm dia DI P/E Pipe Piece 4000 mm long	Nr	1						
	450 mm DI to Muthuwela.								
GR 4 - 154	450 mm dia DI S/S pipe	m	105						
GR 4 - 155	450 mm dia DI S/S 90° bend	Nr	1						
GR 4 - 156	450 mm dia DI S/S 45° bend	Nr	4						
GR 4 - 157	450 mm dia DI S/S 221/2° bend	Nr	1						
GR 4 - 158	450 mm dia flange adapter for DI pipe	Nr	1						
GR 4 - 159	450 -300 mm dia DI D/F taper	Nr	1						
GR 4 - 160	300 mm dia DI D/F 45° bend.	Nr	1						
GR 4 - 161	300 mm dia DI Flange spigot 600 mm long.	Nr	1						
GR 4 - 162	300 mm DI /12° CI stepped coupling.	Nr	1						
	500 mm DI Mattakkuliya								
GR 4 - 163	500 mm dia DI S/S pipe	m	102						
GR 4 - 158	500 mm dia DI S/S 90° bend	Nr	1						
	Total of Page A - 222 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 159	500 mm dia DI S/S 45° bend	Nr	4						
GR 4 - 160	500 mm dia DI S/S 22 1/2° bend	Nr	1						
GR 4 - 161	500 mm dia flange adapter for DI pipe	Nr	1						
GR 4 - 162	500-400 mm dia DI D/F taper	Nr	1						
GR 4 - 163	400 mm dia DI D/F 45° bend.	Nr	1						
GR 4 - 164	400 mm dia DI Flange spigot 500 mm long.	Nr	1						
GR 4 - 165	400 mm DI /400 mm DI coupling.	Nr	1						
	<u>500 mm DI outlet for Future Extension</u>								
GR 4 - 166	500 mm dia DI S/S Pipe	m	50						
GR 4 - 167	500 mm dia DI S/S 45° bend	Nr	2						
GR 4 - 168	500 mm dia DI blank flange	Nr	1						
GR 4 - 169	500 mm DI Coupling	Nr	2						
GR 4 - 170	500 mm dia DI P/E Pipe Piece 4000 mm long	Nr	1						
	<u>500/600 mm dia Overflow and Washout Pipe</u>								
GR 4 - 171	600 mm dia DI S/S Pipe	m	135						
	Total of Page A - 223 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 172	600 mm dia DI S/S 45° bend	Nr	1						
GR 4 - 173	600 x 150 mm dia DI socketted tee with 150 mm dia flange branch.	Nr	1						
GR 4 - 174	150 mm dia DI , D/F 90° bend	Nr	1						
GR 4 - 175	150 mm dia flange adapter for PVC pipe.	Nr	1						
GR 4 - 176	500 x 500 mm dia DI all flanged tee	Nr	1						
GR 4 - 177	500 mm dia DI flanged spigot 800 mm long	Nr	2						
GR 4 - 178	500 mm DI /500 mm CI stepped couplings	Nr	2						
GR 4 - 179	600 mm dia flange adapter for DI pipe	Nr	1						
GR 4 - 178	600-500 mm dia DI D/F Taper	Nr	1						
	<u>Connection to Existing 20" CI Main</u>								
GR 4 - 179	500 mm dia DI F/PE pipe piece 2810 mm long.	Nr	1						
GR 4 - 180	500 mm dia DI D/F 90° bend.	Nr	2						
GR 4 - 181	500 mm dia DI F/PE pipe piece 2100 mm long	Nr	1						
GR 4 - 182	500 mm dia flange Adapter for DI pipe.	Nr	1						
	Total of Page A - 224 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-4 : LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4 - 183	500 mm dia DI F/PE pipe piece 1950 mm long.	Nr	1						
GR 4 - 184	500 mm DI / 20° CI stepped couplings.	Nr	1						
GR 4 - 185	500 DI Butterfly Valve	Nr	1						
GR 4 - 186	500 mm x 20° Stepped Coupling	Nr	2						
GR 4 - 187	500 mm dia flange adapter for DI pipe	Nr	1						
GR 4 - 188	500 mm dia P/E Pipe Piece 2000 mm long	Nr	1						
GR 4 - 189	500 mm dia Flow Meter	Nr	2						
GR 4 - 190	900 mm dia Flow Meter	Nr	1						
	<u>Under Drain pipe</u> Supplying and laying PVC pipe type 600 (under drain pipe). Rate to include for excavation, backfilling, bedding etc. as depicted in drawings Nr. EH/GR/YP/07 and as directed complete.								
GR 4 - 191	160 mm dia PVC pipe	m	95						
GR 4 - 192	160 mm dia PVC 45° Bend	Nr	4						
GR 4 - 193	160 mm dia PVC 90° Bend	Nr	1						
Total of Page A - 225 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : EH/GR-4 SUM

LAYING AND INSTALLATION OF MATERIAL FOR YARD PIPING

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 4	Page A - 210 of Bill GR 4			
	Page A - 211 of Bill GR 4			
	Page A - 212 of Bill GR 4			
	Page A - 213 of Bill GR 4			
	Page A - 214 of Bill GR 4			
	Page A - 215 of Bill GR 4			
	Page A - 216 of Bill GR 4			
	Page A - 217 of Bill GR 4			
	Page A - 218 of Bill GR 4			
	Page A - 219 of Bill GR 4			
	Page A - 220 of Bill GR 4			
	Page A - 221 of Bill GR 4			
	Page A - 222 of Bill GR 4			
	Page A - 223 of Bill GR 4			
	Page A - 224 of Bill GR 4			
	Page A - 225 of Bill GR 4			
EH/GR-4	Total of EH/GR-4 Summary to EH/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-5 : SUPPLY AND DELIVERY OF CHLORINATION EQUIPMENT

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 5 - 1	Vacuum type manually adjustable gas Chlorinators (one duty one standby) for feeding a solution of Chlorine into the inlet piping with a maximum dosage rate of 2.0 kg/hr and with a minimum meter range of 1:20 consisting of, 02 Nos. wall mounted type vacuum regulators, automatic switchover unit, 02 Nos. ejectors, 02 Nos. injectors, vacuum tubing, PVC motive water & solution delivery piping & valves, necessary fittings for inlet water tapping point, pressure gauges, Chlorine gas filters and all other accessories as per the specifications & as shown in the drawings.	Nr.	2						
GR 5 - 2	Multistage vertical in-line type centrifugal motive water pumps (one duty, two standby) with suitable capacities to operate the Chlorinators as recommended by the manufacturers, complete with inlet and outlet flanges and accessories.	Nr.	3						
GR 5 - 3	Electrical starter panel common for pumps supplied under item 02 above consisting of DOL starters, protective relays, circuit breakers, etc. Rate to include for motor cables, incoming cables to the starter panel and accessories.	Nr.	1						
GR 5 - 4	Platform type dual cylinder weighing machine with suitable arrangement to mount 65 kg Chlorine cylinders.	Nr.	1						
GR 5 - 5	Air cylinder type gas respirators with full face safety masks complete with spare cylinder for each mask.	Nr.	3						
GR 5 - 6	Chlorine gas leakage detector and alarm system consisting of 02 Nos. gas sensors, audible and visual alarm system interconnected with ventilation fans.	Item	1						
Total of Page A - 227 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-5 : SUPPLY AND DELIVERY OF CHLORINATION EQUIPMENT

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 5 - 7	Wall mounted type axial flow ventilation fans including necessary starter switches, cables and other installation accessories.	Nr.	2						
GR 5 - 8	Steel fabricated cylinder storage support stand to store 10 Nos. cylinders.	Nr.	1						
GR 5 - 9	Residual Chlorine test kits with comparators and necessary reagents for 500 tests.	Nr.	2						
GR 5 - 10	Providing technical literature including Operation and Maintenance manuals & Spare parts manual.	Sets	3						
GR 5 - 11	Spare parts for four years operation of Chlorination equipment and motive water pumps not limiting to the spare specified under clause —.	Sets	1						
Total of Page A - 228 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : EH/GR-5 SUM

SUPPLY AND DELIVERY OF CHLORINATION EQUIPMENT

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 5	Page A - 227 of Bill GR 5			
	Page A - 228 of Bill GR 5			
EH/GR-5	Total of EH/GR-5 Summary to EH/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO : EH/GR-6 : INSTALLATION OF CHLORINATION EQUIPMENT

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 6 - 1	Installation of Gas chlorinators & accessories supplied under BOQ Item No. EH/GR5-01.	Nr	2						
GR 6 - 2	Installation of motive water pumps supplied under BOQ Item No. EH/GR5-02.	Nr	3						
GR 6 - 3	Installation of electrical starter panel supplied under BOQ Item No. EH/GR5-03	Nr	1						
GR 6 - 4	Installation of cylinder weighing machine supplied under BOQ Item No. EH/GR5-04.		1						
GR 6 - 5	Installation of chlorine gas leakage detectors supplied under BOQ Item No. EH/GR5-06.	Item	Sum						
GR 6 - 6	Installation of ventilation fans supplied under BOQ Item No. EH/GR5-07	Nr	2						
GR 6 - 7	Installation of cylinder storage support stand supplied under BOQ Item No. EH/GR5-08	Nr	1						
GR 6 - 8	Testing, commissioning and test to work of all the equipment installed under Bill No. EH/GR5-01 to EH/GR5-08	Item	Sum						
GR 6 - 9	RC Trench and stainless piping as per Drg.No.CH/M-01 including necessary supports etc.,	Item							
GR 6 - 10	External lighting and instrumentation complete work as per depicted in Drg.No.GR/E-01.	Item							
Total of Page A - 230 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : EH/GR-6 SUM

INSTALLATION OF CHLORINATION EQUIPMENT

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 6	Page A - 230 of Bill GR 6			
EH/GR-6	Total of EH/GR-6 Summary to EH/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. EH/GR-7 : SUPPLY & DELIVERY OF LOCAL CONTROL PANEL

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 7 - 1	<u>Local Control Panel</u> Supply & Deliver to Contractor's Stores Chlorination Switch Board	Panel	1						
<i>Total of Page A - 232 Carried to Bill Summary</i>									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : EH/GR-7 SUM

SUPPLY & DELIVERY OF LOCAL CONTROL PANEL

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 7	Page A - 232 of Bill GR 7			
EH/GR-7	Total of EH/GR-7 Summary to EH/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. EH/GR-8 : INSTALLATION OF LOCAL CONTROL PANEL

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 8 - 1	<u>Local Control Panel</u> Supply & Deliver to Contractor's Stores Installation of all items in EH/GR-7	Lot	1						
Total of Page A - 234 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : EH/GR-8 SUM

SUPPLY AND DELIVERY OF CHLORINATION EQUIPMENT

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 8	Page A - 234 of Bill GR 8			
EH/GR-8	Total of EH/GR-8 Summary to EH/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO EH/GR-9 : SITE WORK

ELLIE HOUSE

ITEM No	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc Rs /cts	Local Component Rs /cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc Rs /cts
	<p><u>Preliminaries</u></p> <p><u>Note:</u></p> <p>(i) This Bill (Site Works) quantities quantified as items Therefore the contractors rate should include for the complete execution of the works as depicted in relevant drawings, as specified in technical specification and as per site conditions.</p> <p>(ii) For these items contractor is not entitle for any other additional payments</p> <p><u>Earth Work</u></p> <p>GR 9-1 Allow for clearing site, uprooting trees and disposal of debris as directed by the Engineer</p> <p>GR 9-2 Allow for stripping 150 mm thick top soil to an extent 2000 mm. from outer wall of the proposed structure, stockpiling and re-use of suitable for engineering fill disposal of unsuitable and of any surplus excavated material as directed by the Engineer</p> <p>GR 9-3 Allow for cutting and forming of earth to the grades as depicted in the Drg No. EH/GR/C/12 and disposal of surplus excavated earth as directed by the Engineer</p> <p>GR 9-4 Allow for filling, forming and compacting earth to the grades as depicted in the Drg. No EH/GR/C/12</p> <p><u>Road Works</u></p> <p>GR 9-5 Allow for construction of 3000 mm wide gravel road as depicted in Drg No. EH/GR/C/12 complete</p> <p>Total of Page A - 236 Carried to Bill Summary</p>		Item						
		m	260						

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. EH/GR-9 : SITE WORK

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 9-6	Allow for construction of 3000 mm wide paved road as depicted in Drg. No. EH/GR/C/12 & 13 complete.	m	110						
GR 9-7	Allow for construction of paved drive area at entrance gate as depicted in Drg. EH/GR/C/12 & 13 complete.	m ²	460						
	Site Protection								
GR 9-8	Allow for construction of new brick masonry boundary wall as depicted in Drg. EH/GR/C/12 & 13 complete.	m	210						
GR 9-9	Allow for construction of 300 mm wide RC drain as depicted in Drg. No. EH/GR/C/12 & 13.	m	125						
GR 9-10	Allow for construction of new toe drain as depicted in Drg. No. EH/GR/C/12.	m	350						
GR 9-11	Allow for construction of 150x325 mm high RC kerb along road as depicted in Drg. No. EH/GR/C/12 & 13 complete.	m	330						
GR 9-12	Allow for construction 500 mm wide gate type 2 as depicted in Drg. No. EH/GR/C/12 & 13.	Nr	1						
GR 9-13	Allow for supplying and laying 90 mm dia PVC drain from sump pump to RC drain.	m	13						
	Miscellaneous								
GR 9-14	Allow for supplying and replacing 3 Nr. valve chamber grating and 2 Nr. manhole cover as depicted in Drg. No. EH/GR/C/12 complete.	-	Item						
	Total of Page A - 237 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. EH/GR-9 : SITE WORK

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 9 - 15	Allow for construction of chlorinator house 4850x3000 wide x3000 mm high 225 mm brick wall, corrugated asbestos roof on sawn timber frame work, flat ceiling including 900x900x750 deep RC sump as depicted in Drg. No. EH/GR/ST/27 complete.	Nr	1						
GR 9 - 16	Allow for rehabilitate 2 Nr inlet and 1 Nr outlet structure as depicted in Drg. No. EH/GR/A/1, 2 & 3 complete.	-	Item						
Total of Page A - 238 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : EH/GR-9 SUM

SITE WORKS

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 9	Page A - 236 of Bill GR 9 Page A - 237 of Bill GR 9 Page A - 238 of Bill GR 9			
EH/GR-9	Total of EH/GR-9 Summary to EH/GR Grand Summary			

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. EH/GR-10 : DEMOLITION OF EXISTING RESERVOIR

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	<p><u>Preliminaries</u></p> <p><u>Note:</u></p> <p>(i) This Bill, quantities quantified as items. Therefore the contractors rate should include for the complete execution of the works as depicted in relevant drawings, as specified in specification and as per site conditions.</p> <p>(ii) For these items contractor is not entitle for any other additional payments.</p> <p>(iii) For this demolition work contractor has to take extra measure to safe guard and the protect existing structure without any damage/ disturbance.</p> <p>(iv) For demolishing works rate shall include for re-usable steel items storing and transporting as directed by the engineer. Concrete and reinforcement. Debris, stockpiling transporting, clearing as directed by the engineer.</p> <p><u>Demolishing</u></p>								
GR 10 - 1	Allow for removal of existing reinforced concrete 100 mm thick crown roof structure in pieces. All roof structure should be cut into pieces by high pressure water jet, electrically or mechanically operated diamond tipped circular saw or an approved equivalent by engineer (6800 m ² approx.)		Item						
GR 10 - 2	Allow for removing existing rolled steel stanchions (450x175) and C.I base plats support roof structure (120 Nr 6100 m, 8 Nr 3000 mm high)		Item						
	Total of Page A - 240 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. EH/GR-10 : DEMOLITION OF EXISTING RESERVOIR

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 10 - 3	Allow for removal of existing steel girders which support the crown and roof structure part by part. all steel girders to be cut into pieces by oxy-acetylene flame or electric saw or an approved equivalent by engineer (main girder 450x175 mm 'H' iron secondary beam 175x94 mm 'H' iron encased in concrete)		Item						
GR 10 - 4	Allow for removing existing independent concrete bases for cast iron columns (128 Nr.)		Item						
GR 10 - 5	Allow for removing demolishing existing perimeter concrete wall as depicted in Drg. No. EH/GR/G/02, 3 & 4 should be cut with the help of a high pressure water jet or diamond tipped circular saw, or approved equivalent by engineer, demolishing stages and method should get with prior approval of the engineer (2500 m ² approx.)		Item						
GR 10 - 6	Allow for removal of existing reinforced concrete 450 mm thick base (structure of 2 layers of 175 mm & 50 mm thick)slab in pieces. base structure should be cut into pieces by high pressure water jet or electrically or mechanically operated diamond tipped circular saw or approved equivalent by engineer (6800 m ² approx.)		Item						
GR 10 - 7	Allow for removal of existing 225 - 300 mm thick soil cover or top of roof structure as depicted Drg. EH/GR/G/02, 03 & 04 complete (6800 m ² approx.)		Item						
Total of Page A - 241 Carried to Bill Summary									

THE PROJECT FOR THE REDUCTION OF NON - REVENUE WATER IN THE GREATER COLOMBO AREA

BILL OF QUANTITIES

BILL NO. EH/GR-10 : DEMOLITION OF EXISTING RESERVOIR

ELLIE HOUSE

ITEM No.	ITEM DESCRIPTION	UNIT	QTY	RATE			TOTAL AMOUNT		
				Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts	Local Component Rs./cts	Foreign Component Yen.	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
	Temporary Work								
GR 10 - 8	Allow for construction of temporary access road 6000 mm wide and 15 m long to staging area as depicted in Drg. No. EH/GR/01.		Item						
GR 10 - 9	Allow for providing temporary support for roof and walls while demolition and removal on completion.		Item						
GR 10 - 10	Allow for providing temporary by pass connection to 20" dia main complete.		Item						
GR 10 - 11	Allow for providing temporary chlorinator arrangement until completion of project.		Item						
GR 10 - 12	Allow for providing dust control screen as indicated in and as specified complete.		Item						
GR 10 - 13	Allow for providing temporary overflow wier and construction of masonry wall 70 m long and 300 mm high wall as depicted in Drg. No. EH/GR/G/02 complete.		Item						
	Total of Page A - 242 Carried to Bill Summary								

THE PROJECT FOR THE REDUCTION OF NON-REVENUE WATER IN THE GREATER COLOMBO AREA

SUMMARY OF BILL OF QUANTITIES

BILL NO : EH/GR-10 SUM

DEMOLITION OF EXISTING RESERVOIR

ITEM No.	PAGE TOTAL	TOTAL AMOUNT		
		Local Component Rs./cts	Foreign Component Yen	Custom Duty, Cess, GST, NSL, Excise Duty etc. Rs./cts
GR 10	Page A - 240 of Bill GR 10 Page A - 241 of Bill GR 10 Page A - 242 of Bill GR 10			
EH/GR-10	Total of EH/GR-10 Summary to EH/GR Grand Summary			

