



REPUBLIC OF KENYA



COUNTY GOVERNMENT OF NYANDARUA

DEPARTMENT OF PUBLIC WORKS, ROADS, TRANSPORT, HOUSING AND  
ENERGY

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET  
AND URINAL IN ST. PETERS ECDE

FOR

THE DEPARTMENT OF EDUCATION, CHILDREN, GENDER AFFAIRS, CULTURE  
& SOCIAL SERVICES

**BILLS OF QUANTITIES**

ARCHITECT,

COUNTY ARCHITECT,  
DIR. OF PUBLIC WORKS,  
NYANDARUA COUNTY,  
P.O. BOX 701-20303,  
OL KALOU

ELEC/MECH ENGINEER

COUNTY ELEC / MECH. ENGINEER,  
DIR. OF PUBLIC WORKS,  
NYANDARUA COUNTY,  
P.O. BOX 701-20303,  
OL KALOU

AUGUST,2024

QUANTITY SURVEYOR,

COUNTY QUANTITY SURVEYOR,  
DIR. OF PUBLIC WORKS,  
NYANDARUA COUNTY,  
P.O. BOX 701-20303,  
OL KALOU

STRUCTURAL ENGINEER,

COUNTY ENGINEER - STRUCTURAL  
DIR. OF PUBLIC WORKS,  
NYANDARUA COUNTY,  
P.O. BOX 701-20303,  
OL KALOU

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
A	<p><u>ELEMENT NO. 01 - PRELIMINARIES</u></p> <p>The Contractor is to allow for all Preliminaries including site offices and stores, transport of workmen to and from site, transport of materials, supply, setting out, servicing, fueling of the plant and equipment, provision of plant operator, insurance for the works shall be the sole responsibility of the contractor and all other preliminaries incidental to these works</p> <p>Allow for all Preliminaries associated with the works</p>	Item	1		
	Element 01				
	PRELIMINARIES		CARRIED TO SUMMARY	KSHS	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 02 - SUBSTRUCTURES</u>				
	<u>Site clearance</u>				
A	Clear the site off bushes, grass, shrubs and all vegetation; cart away as directed.	SM	22		
	<u>Oversite excavation</u>				
B	Excavate oversite to remove top soil average 150mm deep and remove from site	SM	22		
C	Excavate oversite to reduce levels commencing from stripped level not exceeding 1.5 meters deep to be measured on site.	CM	9		
	<u>Excavation</u>				
	<u>Bulk Excavation for pit in unstable Clay grounds including maintaining and supporting sides and keeping free from water, mud and fallen materials and trimming and levelling the surfaces</u>				
D	- not exceeding 1.50 metres deep	CM	19		
E	- 1.50 to 3.00 metres deep	CM	19		
F	- 3.00 to 4.50 metres deep	CM	19		
G	- 4.50 to 6.00 metres deep	CM	19		
H	Excavate foundation trench starting from reduced level not exceeding 1.50 meters deep.	CM	12		
I	Excavate pits for column bases starting from pit level not exceeding 1.50 meters.	CM	1		
J	Extra-over all excavation for excavating in rock irrespective of class	CM	10		
K	Return, fill-in and rum selected excavated materials around foundations	CM	52		
L	Remove and cart away from site surplus excavated materials spread on site as shown by the Client.	CM	69		
	Element 02				
	<b>Substructure (All Provisional)</b>	<b>Carried Forward</b>		<b>Kshs.</b>	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	Brought Forward			Kshs.	
	<u>Filling</u>				
A	Hardcore filling in making up levels, hand packed, exceeding 300mm thick in layers of 150mm maximum thickness	CM	6		
B	50mm thick murram blinding to surfaces of fill	SM	10		
	<u>Antitermite treatment</u>				
C	Premise 200 SC' or other equal and approved anti-termite insecticide treatment with ten years guarantee, applied strictly in accordance with manufacturer's instructions, to tops of fill and foundation walls	SM	10		
	<u>Concrete</u>				
D	50mm thick mass concrete class Q (1:3:6) to bottoms of foundations	SM	17		
	<u>In situ concrete; reinforced; class 20 / 20; vibrated</u>				
E	Foundations in trenches irrespective of thickness	CM	3		
F	Column bases	CM	1		
G	Columns	CM	2		
H	Intermediate beam	CM	1		
I	Ground beam	CM	1		
J	175mm thick suspended slab	SM	7		
K	150mm thick bed	SM	10		
	<u>Bars; high yield steel; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks</u>				
L	12mm bars	KG	227		
	Element 02				
	<b>Substructure (All Provisional)</b>	<b>Carried Forward</b>		Kshs.	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<b>Brought Forward</b>			<b>Kshs.</b>	
A	10mm bars	KG	89		
B	8mm bars	KG	127		
	<u>Fabric; B.S. 4483</u>				
C	Reference A98 mesh 200 x 200 mm , weight 2.22 kgs per square meter ( measured net - no allowance made for laps( including bends, tying wire and distance blocks	SM	10		
	<u>Sawn formwork to insitu concrete as described:-</u>				
D	To sides; vertical or battering of strip foundations.	SM	8		
E	To sides; vertical or battering of column bases and columns	SM	28		
F	To sides; vertical or battering of beams	SM	14		
G	Soffits of suspended pit latrine slab ( <i>formwork left in place</i> )	SM	7		
H	Edges of ground floor slab; 75 to 150mm wide	LM	11		
	<u>Foundation walling</u>				
I	200mm thick approved local natural stone; roughly squared to foundation walling; bedding and jointing in cement sand (1:3) mortar	SM	66		
	<u>Damp proofing</u>				
J	Polythene sheet; 500 gauge, 200mm weltd laps (no allowance made to laps), horizontal; 1 no. layer laid on compacted quarry dust blinding	SM	10		
K	200mm wide; B.S. 743 Type A bitumen hessian base 150 mm laps (no allowance made for laps); horizontal, 1 no. layer, bedded in cement sand (1:3) mortar	LM	20		
	<u>Insitu finishings</u>				
L	14mm thick 2 No. coat work cement sand (1:3) render; wood floated to concrete or blockwork base to walls; external	SM	10		
	Element 02				
	<b>Substructure (All Provisional)</b>	<b>Carried Forward</b>		<b>Kshs.</b>	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	Brought Forward			Kshs.	
A	<u>Prepare and apply three coats black bituminous paint on:-</u> Rendered plinths, externally.	SM	10		
	Element 02				
	SUBSTRUCTURES	CARRIED TO SUMMARY		KSHS	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 03 - R.C SUPERSTRUCTURE</u>				
	<u>In situ concrete; reinforced; class 20 / (20mm); vibrated</u>				
A	Beams	CM	1		
	<u>Reinforcement</u>				
	<u>Bars; high yield steel; cold worked to B.S. 4461 including bends, hooks, tying wire and distance blocks</u>				
B	12mm diameter bars	KG	54		
C	8mm ditto	KG	20		
	<u>Sawn formwork to insitu concrete as described:-</u>				
D	To sides and soffits of beams	SM	10		
	Element 03				
	R.C SUPERSTRUCTURE	CARRIED TO SUMMARY		KSHS	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 04 - WALLING</u>				
	<u>NATURAL STONE WALLING</u>				
A	200 mm thick approved local; chisel dressed both sides; bedding, jointing and pointing in cement sand (1:3) mortar - External	SM	32		
B	200mm ditto but Internal	SM	5		
C	150mm ditto	SM	8		
D	200 mm eaves filling, 200mm high including dressing between rafters	LM	10		
E	250x50mm weathered and throated pre cast concrete coping stones bedded and jointed to walls in cement sand (1:3) mortar	LM	7		
	<u>Labour and material</u>				
F	Raking cutting in 200mm thick natural stone walling	LM	4		
G	Extra over horizontal keying in 10mm thick rod in cement and sand (1:3) mortar; one coat of bituminous paint.	SM	32		
	Element 04				
	<b>WALLING</b>	<b>CARRIED TO SUMMARY</b>		<b>KSHS</b>	



PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 05 - ROOFING</u>				
	<u>Galvanized corrugated box profile sheet roofing; 30 gauge; Pre-painted</u>				
A	Roof covering not exceeding 45 <sup>0</sup> from horizontal; fixing to timber structure (m/s) with roofing nails and neoprene washers.	SM	15		
	<u>CARPENTRY</u>				
	<u>The following in sawn celcured cypress - Grade 2</u>				
B	100 x 50mm sawn cypress rafters	LM	16		
C	100 x 50mm wall plate fixed to concrete beam with 16gauge hoop iron	LM	11		
D	75 x 50mm sawn cypress purlins	LM	21		
	<u>The following in wrot cypress</u>				
E	200 x 25mm thick fascia/barge boards	LM	16		
	<u>Painting and Decorations</u>				
	<u>On Woodwork</u>				
	<u>Prepare and apply one zinc plumbate primer and three coats of 'CROWN SOLO' or other equal and approved super gloss oil paint to:-</u>				
F	Fascias; 200 to 300mm girth; external	LM	16		
	Element 05				
	<b>ROOFING</b>	<b>CARRIED TO SUMMARY</b>		<b>KSHS</b>	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 06 - OPENINGS</u>				
	<u>DOORS</u>				
	<u>Wrot celcured cypress framed frames and framings</u>				
A	100 x 50 mm; 2 No. labours; plugged door frame	LM	16		
	<u>50mm thick Framed ledged and braced match boarded door comprising 125x50mm top rail and stiles,200x50mm bottom rail,150x25mm tongued and grooved boarding vee jointed on one side and 6mm thick plywood panel on the other side.</u>				
B	Door size 850 x 2100 mm high	N0	2		
	<u>Iron mongery</u>				
	<u>Supply and fix the following to UNION catalogue or other equal and approved</u>				
	<i>To softwood, hardwood or the like fixing with screws</i>				
C	150mm long stainless steel tower bolt	N0	4		
D	100mm steel butt hinges	PRS	3		
	<u>Painting and Decorations</u>				
	<u>Aluminium primer or other equal and approved wood primer before fixing: -</u>				
E	Backs of frame, board, etc over 100mm but not exceeding 200mm girth	LM	16		
	<u>Knot, prime and stop and prepare and apply one undercoat and three coats of gloss oil paint to woodwork internally</u>				
F	General surfaces of timber doors	SM	11		
G	Frames; 100mm to 200mm girth	LM	16		
H	Ditto not exceeding 100mm girth	LM	32		
	Element 06				
	OPENINGS	CARRIED TO SUMMARY		KSHS	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 07 - FINISHES</u>				
	<u>Wall finishes</u>				
	<u>In situ finishes</u>				
	<u>Render; 18mm thick, 1 No. coat work of cement and sand (1:3); wood floated to concrete or blockwork base generally to: -</u>				
A	Beams; external	SM	5		
	<u>Plaster; 18mm thick, 2 No. coat work, 15mm first coat of cement sand (1:3); 3mm second coat of cement and lime putty (1:9); steel trowelled to concrete or blockwork base</u>				
B	Walls; internal	SM	56		
	<u>Floor finishes</u>				
	<u>In situ Finishings</u>				
	<u>Screed; cement and sand (1:3) coloured</u>				
C	40mm thick red-oxide screed to concrete or blockwork base generally to floors level; internal	SM	15		
D	100mm wide skirting; rounded junction with wall finish, coved junction with floor finish.	LM	30		
	<u>Painting and Decorations</u>				
	<u>Prepare and apply one undercoat and three coats of first quality emulsion paint to the following surfaces</u>				
E	Rendered surfaces	SM	5		
F	Plastered surfaces	SM	56		
	<u>Urinal Slab</u>				
G	Provide 100mm diameter golden brown muPVC pipe	LM	12		
H	100mm diameter floor trap	N0	2		
I	100mm diameter golden brown p-trap	N0	2		
	Element 07				
	Finishes	Carried Forward		Kshs.	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	Brought Forward			Kshs.	
	<u>Weathering Slate and Vent Cowl</u>				
A	Provide 4500 mm long ; 100mm $\phi$ pipe complete with a vent, cowl slate and 100 mm 90° bend.	No.	1		
	Element 07				
	FINISHES			KSHS	
	CARRIED TO SUMMARY				

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	<u>ELEMENT NO. 08 - RAMP</u>				
	<u>SUBSTRUCTURES.</u>				
	<u>Site clearance</u>				
A	Clear the site off bushes, grass, shrubs and all vegetation; cart away as directed.	SM	7		
	<u>Oversite excavation</u>				
B	Excavate oversite to remove top soil average 150mm deep and remove from site	SM	7		
	<u>Excavation</u>				
C	Excavate oversite to reduce levels commencing from stripped level not exceeding 1.50 meters deep.	CM	6		
D	Excavate foundation trench starting from reduced level not exceeding 1.50 meters deep.	CM	8		
	<u>Filling</u>				
E	Hardcore filling in making up levels, hand packed, exceeding 300mm thick in layers of 150mm maximum thickness	CM	2		
F	50mm thick murram blinding to surfaces of fill	SM	6		
	<u>Antitermite treatment</u>				
G	Premise 200 SC' or other equal and approved anti-termite in	SM	6		
	<u>Concrete</u>				
H	50mm thick mass concrete class Q (1:3:6) to bottoms of four	SM	21		
	<u>Insitu concrete; reinforced; class 20 / 20; vibrated</u>				
I	Foundations in trenches irrespective of thickness	CM	2		
J	Ditto to bed - 150mm	SM	6		
	Element 08				
	Ramp	Carried Forward		Kshs.	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

Item	Description of Works	Unit	Qty	Rate	Amount (Kshs)
	Brought Forward			Kshs.	
	<u>Fabric; B.S. 4483</u>				
A	Reference A142 mesh 200 x 200 mm , weight 2.22 kgs per square meter ( measured net - no allowance made for laps( including bends, tying wire and distance blocks	SM	6		
	<u>Sawn formwork to insitu concrete as described:-</u>				
B	To sides; vertical or battering of strip foundations.	SM	6		
C	To sides of beams.	SM	16		
D	Edges of ground floor slab; 75-150 mm wide	LM	14		
	<u>Walling</u>				
E	200mm thick approved local natural stone; roughly squared to foundation walling; bedding and jointing in cement sand (1:3) mortar	SM	19		
	<u>Damp proofing</u>				
F	Polythene sheet; 500 gauge, 200mm weltd laps (no allowance made to laps), horizontal; 1 no. layer laid on compacted quarry dust blinding	SM	6		
	<u>FINISHES:-</u>				
	<u>Floor finishes</u>				
	<u>Insitu Finishings</u>				
	<u>Screed; cement and sand (1:3) coloured</u>				
G	40mm thick red-oxide screed to concrete or blockwork base generally to floors level; internal	SM	9		
	Element 08				
	RAMP			KSHS	
	CARRIED TO SUMMARY				

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

<u>SUMMARY</u>			
Item	Element	Page. No	Amount
01	Preliminaries	BW / 1	
02	Substructures (All Provisional)	BW / 5	
03	R.C Superstructure	BW / 6	
04	Walling	BW / 7	
05	Roofing Construction and Covering	BW / 8	
06	Openings	BW / 9	
07	Finishes	BW / 11	
08	Ramp	BW / 13	
TOTAL FOR BUILDER'S WORKS CARRIED TO GRAND SUMMARY		KSHS.	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST  
PETERS ECDE AT GITHIORO WARD

## PROVISIONAL SUMS



PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST PETERS ECDE AT GITHIORO WARD

<u>PROVISIONAL SUMS</u>					
	<p><u>The following provisional sums are to be measured on completion and priced in accordance with the rates contained in these bills of quantities or prorata thereto or deducted in whole if not required</u></p>				
A	<p>Allow a Provisional Sum of Kenya shillings Twenty Thousand only for Supervisory Expenses</p>	ITEM			
	<p>PROVISIONAL SUMS</p>	<p>CARRIED TO SUMMARY</p>		<p>KSHS</p>	

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL AT ST  
PETERS ECDE AT GITHIORO WARD

## GRAND SUMMARY

PROPOSED CONSTRUCTION AND COMPLETION OF A PIT LATRINE TOILET AND URINAL IN ST.PETERS ECDE AT GITHIORO WARD

GRAND SUMMARY

ITEM	DESCRIPTION	Page No.	FOR OFFICIAL USE ONLY	FOR TENDERER USE ONLY
			KSHS.	KSHS.
A	Builder's Works	BW / 12		
B	P.C & Provisional Sums	BW / 14		
	SUB-TOTAL			
	ADD 2% PROJECT MANAGEMENT PAYABLE TO COUNTY REVENUE ACCOUNT			
TOTAL CARRIED TO FORM OF TENDER INCLUSIVE OF 16% V.A.T.				

Amount in words. Kenya shillings .....

.....

.....Cents .....

Tenderer's Signature and stamp.....

Address .....

.....

Date .....

Witness Signature .....

Address .....

.....

Date .....