

PART C2: PRICING DATA

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PART C2.1: Pricing Instructions: Option B

1. The conditions of contract

1.1. How the contract prices work and assesses it for progress payments

Clause 11 in NEC3 Engineering and Construction Contract, June 2005 and 2013 (ECC) Option A states:

**Identified
and defined
terms**

11

11.2

(21) The Bill of Quantities is the *bill of quantities* as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.

(22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensation events.

(28) The Price for Work Done to Date is the total of

- the quantity of the work which the *Contractor* has completed for each item in the Bill of Quantities multiplied by the rate and
- a proportion of each lump sum which is the proportion of the work covered by the item which the *Contractor* has completed.

Completed work is work without Defects which would either delay or be covered by immediately following work.

(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.

This confirms that Option B is a re-measurement contract and the bill comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

1.2. Function of the Bill of Quantities

Clause 55.1 in Option B states, "Information in the Bill of Quantities is not Works Information or Site Information". This confirms that instructions to do work or how it is to be done are not included in the Bill, but in the Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works Information". Hence the *Contractor* does **not** Provide the Works in accordance with the Bill of Quantities. The Bill of Quantities is only a pricing document.

1.3. Guidance before pricing and measuring

Employers preparing tenders or contract documents, and tendering contractors are advised to consult the sections dealing with the bill of quantities in the NEC3 Engineering and Construction Contract (June 2005) Guidance Notes before preparing the *bill of quantities* or before entering rates and lump sums into the *bill*.

Historically bill of quantities based contracts in South Africa have been influenced by the different approaches of the civil engineering and building sectors of the industry through their respective discipline based standard forms of contract and methods of measurement. This is particularly apparent in the approach to the Preliminary and General bill. On the other hand, because ECC caters for a number of disciplines in the same contract, including electrical works, a different approach not currently found in local methods of measurement to the Preliminary & General bill items may have been used.

The NEC approach to the P & G bill assumes use will be made of method related charges for Equipment applied to Providing the Works based on durations shown in the Accepted Programme, fixed charges for the use of Equipment that is required throughout the construction phase, time related charges for people working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing work items typically included in other parts of the bill.

2. Measurement and payment

2.1. Symbols

The units of measurement described in the Bill of Quantities are metric units abbreviated as follows:

Abbreviation	Unit
%	percent
h	hour
ha	hectare
kg	kilogram
kl	kilolitre
km	kilometre
km-pass	kilometre-pass
kPa	kilopascal
kW	kilowatt
l	litre
m	metre
mm	millimetre
m ²	square metre
m ² -pass	square metre pass
m ³	cubic metre
m ³ -km	cubic metre-kilometre
MN	meganewton
MN.m	meganewton-metre

MPa	megapascal
No.	number
Prov sum ¹	provisional sum
PC-sum	prime cost sum
R/only	Rate only
sum	Lump sum
t	ton (1000kg)
W/day	Work day

2.2. General assumptions

- 2.2.1. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.
- 2.2.2. The Prices and rates stated for each item in the Bill of Quantities shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.
- 2.2.3. Clause 63.13 in Option B provides that these rates and Prices may be used as a basis for assessment of compensation events instead of Defined Cost.
- 2.2.4. Where this contract requires detailed drawings, designs or other information to be provided, and no rates or prices are included in the *bill* specifically for such matters, then the *Contractor* is deemed to have allowed for all costs associated with such requirements within the tendered rates and Prices in the Bill of Quantities.
- 2.2.5. An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*. If a number of items are grouped together for pricing purposes, this will be treated as a single lump sum.

¹ Provisional Sums should not be used unless absolutely unavoidable. Rather include specifications and associated bill items for the most likely scope of work, and then change later using the compensation event procedure if necessary. This is because tenderers cannot programme effectively for unknown scopes of work

2.2.6. The quantities contained in the Bill of Quantities may not be final and do not necessarily represent the actual amount of work to be done. The quantities of work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due and not the quantities given in the Bill of Quantities.

2.2.7. The short descriptions of the items of payment given in the *bill of quantities* are only for the purposes of identifying the items. More detail regarding the extent of the work entailed under each item is provided in the Works Information.

2.3. Departures from the *method of measurement*

2.4. Amplification of or assumptions about measurement items

For the avoidance of doubt the following is provided to assist in the interpretation of descriptions given in the *method of measurement*. In the event of any ambiguity or inconsistency between the statements in the *method of measurement* and this section, the interpretation given in this section shall be used.

PART C2.2: THE BILL OF QUANTITIES

Item	Description	Unit	Quantity	Rate (R)	Amount (R)
1. PRELIMINARY & GENERAL, SAFETY AND LABOUR					
1.1.	SHERQ Obligations including Compilation of SHE File	Sum	1		
1.2.	Establishment of Equipment and Facilities on the Site	Sum	1		
1.3.	Supervision for duration of Construction	Sum	1		
1.4.	Appointment of SACPCMP registered Safety officer to be on site for the duration of the project.	sum	1		
1.5.	Waste collection and Disposal	Sum	1		
1.6.	Site de-establishment	Sum	1		
	Sub-Total (excluding VAT) to be carried over to Sub-total collection)				
2. B3187					
2.1	Remove existing asbestos roof sheets and dispose.	m²	435		
2.2	Remove damaged rafters and replace with new Timber SAP H2 - CCA Treated (38 x 228 x 6000mm)	No.	14		
2.3	Remove damaged rafters and replace with new Timber SAP H2 - CCA Treated (50 x 76 x 6000mm)	No.	8		
2.4	Supply and install new 'Hula Span' 0,8 mm 'A7 Profile' aluminium sheeting with mill finish on one side and corporate grey Colour-Tech PVDF paint coating to other side including accessories fixed to timber purlins, with stainless steel grade 304 self-tapping screws.	m²	435		
2.5	Installation of Isotherm Insulation at a minimum thickness of 100mm	m²	435		
2.6	Install Medium density plain fascia board, size 300 x 12mm thick (code 041-206) including galvanised steel H-profile joiners	m	36		
2.7	Install 90-degree L-shaped barge board size 275 x 80mm thick (code 721-740) H-profile joiners	m	57		
2.8	Supply and install 150mm industrial box Profile Seamless Gutters.	m	65		
2.9	Install 100 x 75mm rectangular rainwater downpipes including necessary bends and shoes.	m	18		
2.10	Brick up and close gaps between walls and roof sheets	m²	3		
2.11	Remove damp from wall and apply damp sealer	m²	28		
2.12	Open existing wall cracks for a minimum width of 10mm and 10mm deep and then fill up epoxy repair mortar.	m	6		

Item	Description	Unit	Quantity	Rate (R)	Amount (R)
2.13	Skimming of walls	m ²	56		
2.14	Prepare exterior walls and apply double coat paint	m ²	203		
2.15	Prepare and apply double coat of brick sealer on the bricked walls	m ²	180		
2.16	Prepare walls and apply double coat of paint	m ²	1611		
2.17	Prepare ceiling and apply double coat paint	m ²	390		
2.18	Remove damaged 600mm x 1200mm ceiling panels and replace with new to match existing	m ²	25		
2.19	Remove existing wall tiles and replace with new 330mm x 330mm porcelain tiles.	m ²	180		
2.20	Remove damaged partition walls and replace with new plasterboard/ timber partition to match existing.	m ²	90		
2.21	Remove plasterboard/ timber partition and discard to make an opening for conference room.	m ²	35		
2.22	Supply and install new plasterboard/ timber partition to make screening on the shower rooms.	m ²	8		
2.23	Remove existing toilet suites and replace with new close coupled 90° outlet open rim front single flush suite complete with lid and fitments.	No.	4		
2.24	Remove existing hand basin and replace with new 510 x 405mm rounded basin with star light pattern round basin tap.	No.	4		
2.25	Remove existing and install new lockable kitchen cupboards (to occupy wall area of 22m ²) with all external surfaces covered with 8.1m x 1.5m maple laminate and granite counter (Drakensburg black) as per drawing TNPA- A111	sum	1		
2.26	Supply and install new double bowl stainless steel sink with spazio waste and a mixer including all necessary plumbing i.e., water and waste	No.	1		
2.27	Prepare and paint 813mm x 2032mm doors and frames to match existing colour.	m ²	160		
2.28	Remove damaged door handles and replace with new chrome keyhole 6" lever handle on backplate 3 lever lockset	No.	14		
2.29	Remove damaged doors, frames and install new 813mm x 2032mm 44mm Thick semi-solid flush door, edged with 10mm hardwood faced with tempered smooth face hardwood for panting, size 813mm x 2032mm and frames.	No.	14		
2.30	Supply and install new TS71 Overhead Door Closer or similar approved with bracket.	No.	8		
2.31	Supply and install new commercial 9" window mounted extractor fan 1250rpm speed, complete with 1.5m of 5-amp 2 core cable pre wired for a fast electrical connection.	No.	10		

Item	Description	Unit	Quantity	Rate (R)	Amount (R)
2.32	Remove existing window film and replace with new silver reflective film to match existing	m ²	140		
2.33	Build and plaster new toilets in male ablutions as proposed in drawing TNPA-A102	No.	4		
2.34	Supply and install new close coupled 90° outlet open rim front single flush suite complete with lid and fitments on the newly built toilets.	No.	4		
2.35	Supply and install new wall hung Flat back urinal size 415 x 315 x 275 mm including the bottle traps.	No.	4		
2.36	Remove existing hand basin and replace with new 510 x 405mm rounded basin with star light pattern round basin tap.	No.	3		
2.37	Breaking out for and forming opening through existing brick wall for 3 new doors including making good plaster on both sides, as proposed on drawing TNPA-A102	m ²	6		
2.38	Supply and install new 44mm Thick, 813 X 2032mm Solid core commercial ply double flush panel door as proposed on drawing TNPA-A102	No.	3		
2.39	Remove 2 existing timber door, frame and discard.	sum	1		
2.40	Prepare and brick up 220mm wall to close the door opening spaces and match the existing walls including all brickwork sundries as per drawing TNPA-A102	m ²	4		
2.41	Remove the existing window and discard the rubble	m ²	5		
2.42	Prepare and brick up 220mm wall to close the window opening spaces and match the existing walls including all brickwork sundries as per drawing TNPA-A102	m ²	5		
Sub-Total (excluding VAT) to be carried over to Sub-total collection					
3. B3185					
3.1	Chip and remove existing plaster.	m ²	296		
3.2	Restoration of plaster on internal walls	m ²	296		
3.3	Prepare interior walls and apply double coat of paint	m ²	1 216		
3.4	Prepare floors with 15mm F50 self-levelling screed and lay 10mm industrial slip resistance shop floor epoxy flooring	m ²	800		
3.5	Demolish damaged 220mm double brick walls and discard rubble.	m ²	98		
3.6	Brickwork of NFP bricks in class II mortar Double brick 220mm walls	m ²	98		
3.7	Apply double coat of brick dressing to the brick wall	m ²	210		
3.8	Remove existing wall cladding and replace with 0.8mm thick, precoated aluminium IBR profiled	m ²	210		

Item	Description	Unit	Quantity	Rate (R)	Amount (R)
	roof sheeting, fixed to new intermediate coated steel purlins at 1900mm centres and to ridge and eaves purlins at 1600mm centres, with 12 x 65mm metal fasteners or approved hex head self-drilling fasteners at every second crest				
3.9	Remove damaged doors, frames and install new 813mm x 2032mm 44mm Thick semi-solid flush door, edged with 10mm hardwood faced with tempered smooth face hardwood for panting, size 813mm x 2032mm and frames.	No.	2		
3.10	Sandblast, treat and paint steel members	m²	290		
3.11	Remove corroded 254mm x 146mm x 37kg universal beams with length of 13271mm and replace with new	No.	2		
3.12	Remove corroded 254mm x 146mm x 37kg Columns with a height of 5400mm and replace with new	No.	3		
3.13	Remove corroded 125 x 75 x 20 x 3mm Lipped channel of 6000mm length and replace with new	No.	32		
3.14	Remove corroded 3m x 4.5m roller shutter doors and replace with new standard solid slats aluminium roller shutter doors (with all components)	No.	2		
3.15	Remove corroded 6m x 4.5m roller shutter doors and replace with new standard solid slats aluminium roller shutter doors (with all components)	No.	2		
3.16	Remove damaged roof sheets and replace with new 0.8 mm thick, 889mm cover Flutelin Profile ® ZincAl AZ150 Roof Sheeting, fixed to steel channel purlins at 2000mm centres and eaves and ridge purlins at 1500mm centres, using 12 x 65mm stainless steel self tapping screws with bonded washer	m²	190		
3.17	Remove asbestos gutters, corroded brackets and discard	m	90		
3.18	Supply and install new 300mm aluminium box gutters and brackets.	m	90		
3.19	Remove 210mm circular asbestos downpipes and discard	No.	8		
3.20	Supply and install new 150mm x 100mm rectangular aluminium downpipes (4500mm height)	No.	8		
3.21	Prepare and paint roof with rubberised roof paint	m²	900		
	Sub-Total (excluding VAT) to be carried over to Sub-total collection				
4. B3186					
4.1	Remove corroded 125 x 75 x 20 x 3mm Lipped channel of 6000mm length and replace with new	No.	22		

Item	Description	Unit	Quantity	Rate (R)	Amount (R)
4.2	derust, treat and paint steel members	m²	180		
4.3	Remove damaged roof sheets and replace with new 0.8 mm thick, 889mm cover Fluteline Profile ® ZincAl AZ150 Roof Sheeting, fixed to steel channel purlins at 2000mm centres and eaves and ridge purlins at 1500mm centres, using 12 x 65mm stainless steel self-tapping screws with bonded washer	m²	70		
4.4	Repair spalling on concrete column	m²	8		
4.5	Prepare concrete columns and apply double coat of concrete paint.	m²	27		
4.6	Prepare and paint roof with rubberised roof paint	m²	520		
	Sub-Total (excluding VAT) to be carried over to Sub-total collection				
5. B3182					
5.1	Remove asbestos sheets and discard.	m²	60		
5.2	Supply and install new 'Hula Span' 0,8 mm 'A7 Profile' aluminium sheeting with mill finish on one side and corporate grey Colour-Tech PVDF paint coating to other side including accessories fixed to steel channel purlins, using 12 x 65mm stainless steel self tapping screws with bonded washer	m²	60		
5.3	Remove existing fascia boards and install new Medium density plain fascia board, size 300 x 12mm thick (code 041-206) including galvanised steel H-profile joiners	m	10		
5.4	Remove existing barge boards and replace with new 90 degree L-shaped barge board size 275 x 80mm thick (code 721-740) H-profile joiners	m	14		
5.5	Remove existing gutter and replace with new 150mm industrial box Profile Seamless Gutters	m	10		
5.6	Remove PVC down pipes and install new 100 x 75mm rectangular rainwater downpipes including necessary bends and shoes.	m	4		
5.7	Remove damaged single doors, frames and Install new semi-solid sapele interior doors exposed edge 813x2032mm and frames.	No.	6		
5.8	Remove exterior wooden doors and frames and replace with new hinged 813x2032mm solid aluminium panel doors and frames.	No.	2		
5.9	Supply and install 330mm x 330mm ceramic wall tiles	m²	180		
5.10	Remove existing toilet sets and replace with 2 new close coupled 90° outlet open rim front single flush suite complete with lid and fitments.	No.	4		
5.11	Supply and install new basin with 2x12 mm C.P. lever action pillar taps.	No.	2		

Item	Description	Unit	Quantity	Rate (R)	Amount (R)
5.12	Supply and install 330mm X330mm ceramic tile with grout and adhesive (code: Granito Dark Grey –GN572).	m²	60		
5.13	Remove existing 600mm x 600mm louvre windows with metal frame and replace with new standard 600mm x 600mm aluminium louvre windows.	No.	5		
5.14	Prepare interior walls and apply double coat of wall paint	m²	92		
5.15	Supply and install new lockable kitchen cupboards (to occupy wall area of 35m²) with all external surfaces covered with 8.1m x 1.5m maple laminate and granite counter (Drakensburg black) as per Drawing TNPA – A109	sum	1		
5.16	Supply and install new double bowl stainless steel sink with spazio waste and a mixer including all necessary plumbing i.e., water and waste	No.	1		
5.17	Prepare exterior walls and apply double coat of brick sealer.	m²	84		
5.18	Remove damaged ceilings and replace with new 12.5mm rhino boards and apply white paint.	m²	15		
5.19	Remove existing 2400mm x 1100mm window	No.	1		
5.20	Demolish 220mm brick wall to create opening for sliding door.	m²	3		
5.21	Supply and install new 2400mm x 2100mm glass slinding door with aluminium frame and edging.	No.	1		
	Sub-Total (excluding VAT) to be carried over to Sub-total collection				
6. B3183					
6.1	Remove asbestos sheets, fascia boards, barge boards and dispose	m²	565		
6.2	Demolish double brick wall and build new double brick wall	m³	54		
6.3	Supply and install new 'Hula Span' 0,8 mm 'A7 Profile' aluminium sheeting with mill finish on one side and corporate grey Colour-Tech PVDF paint coating to other side including accessories fixed to purlins, with stainless steel grade 304 self-tapping screws.	m²	565		
6.4	Sandblast, treat and paint steel members	m²	212		
6.5	Remove corroded 125 x 75 x 20 x 3mm Lipped channel of 6000mm length and replace with new	No.	112		

Item	Description	Unit	Quantity	Rate (R)	Amount (R)
6.6	Remove corroded 6m steel cross bracings and replace with new.	No.	21		
6.7	Supply and install 189mm seamless fascia boards	m	36		
6.8	Supply and install 150mm aluminium seamless gutters	m	36		
6.9	Supply and install seamless barge boards	m	20		
6.10	Supply and install 100mm x 75mm down pipes (6m height)	no	3		
6.11	Prepare floors with 15mm f50 self-levelling screed and lay 10mm industrial slip resistance epoxy flooring	m²	565		
	Sub-Total (excluding VAT) to be carried over to Sub-total collection				
7. Paving					
7.1	Cut/ break existing tar and concrete to a depth up to 60mm and dispose.	m²	3 885		
7.2	Cut 150mm existing base material and stock pile on site for later use	m³	590		
7.3	Rip and recompact in-situ material to 100% MOD. AASHTO.	m²	3 885		
7.4	Supply and install drainage system as proposed in drawing TNPA-C102	sum	1		
7.5	Supply G2 material	m³	120		
7.6	Lay 150mm base compacted to 95% MOD. AASHTO to a fall to the valley or drainage as shown on the drawing using existing base material and imported G2	m³	585		
7.7	Supply and apply vegetation poisoning on the subbase.	m²	3 885		
7.8	Supply and lay 25mm river sand (Leveling layer) with a fall to existing storm water drain, stabilize and compact	m³	110		
7.9	Supply and Lay 65mm brick paver on pattern as shown in drawing TNPA – A101-Rev-C.	m²	3885		

Six (6) Months

Item	Description	Unit	Quantity	Rate (R)	Amount (R)
7.10	Supply and install figure 8A concrete kerbs at the edges.	m	210		
7.11	Sweep sand into the gaps and make good finishing.	Sum	1		
	Sub-Total (excluding VAT) to be carried over to Sub-total collection				
8. Hire of park homes					
8.1	The supply, delivery, setup and collection of 6m x 3m male ablution park home to be on site for 2 months	No.	1		
8.2	The supply, delivery, setup and collection of 6m x 3m female ablution park home to be on site for 2 months	No.	1		
	Sub-Total (excluding VAT) to be carried over to Sub-total collection				

	<u>FINAL SUMMARY</u>	
1.	Preliminary & general, safety and labour	
2.	B3187	
3.	B3185	
4.	B3186	
5.	B3182	
6.	B3183	
7.	Paving	
8.	Hire of park homes	
	Sub-Total collection (excluding VAT) to carried to form of offer	

NOTES:

- Respondents are required to complete the pricing data in full, failure to complete may result in disqualification.