



**SUBMISSION**

|                  |   |
|------------------|---|
| <b>TO</b>        | <b>HEAC</b>   |
| <b>ATTENTION</b> | <b>THE CHAIRPERSON</b>  |
| <b>SUBJECT</b>   | FORMALISATION OF POLICY DIRECTIVE TO DERTIMINE DEMOLITION COSTS RELATING TO FORMAL STRUCTURES |



**1. PURPOSE**

The purpose of this document is to present a directive to inform calculations relating to demolition costs relating to formal structures.

**2. BACKGROUND**

- 2.1 The Product Development unit and Chief Quantity Surveyors had been instructed by the committee at the previous meeting to formalise a directive for the calculation of demolition costs in the province.
- 2.2 The current prescripts in terms of which we undertake these projects do not provide for demolition costs. We have investigated how this is applied and have received varied and incomplete responses. The Free State province has limited itself to the R2000 max provided for in terms of the informal settlement upgrade. Limpopo has used a market approach but has not been forthcoming with figures.
- 2.3 The current Community Residential Unit programme is the only guideline available to guide demolition costs per square meter for simple, medium and complex demolitions. An extract of the relevant section is attached for ease of reference.
- 2.4 The Head of Department required a more scientific basis for guiding demolition cost calculations.

**3. PROBLEM STATEMENT**

There is currently no scientific basis to confirm calculations for demolition costs in the Province. This affects projects where demolitions are required, either to provide for relocations for services to be constructed, replacement units and/or rectification work to be done.

|                    |                    |                    |                    |                    |                    |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Manager            | GM                 | COO                | CPD                | HOD                | MEC                |
| <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |

4. KEY CONSIDERATIONS

- a. The Community Residential Unit (CRU) Programme is currently the only instrument in the Code that provides a cost per square meter (R/m<sup>2</sup>) for demolition, but the methodology for application to non-CRU type structures is unclear.
- b. The current demolition rates in terms of the Community Residential Programme (CRU) are as follows:
  - i. Simple demolition: R32.00/m<sup>2</sup>
  - ii. Medium complex demolition: R46.00/m<sup>2</sup>
  - iii. Complex demolition: R56.00/m<sup>2</sup>
- c. The table below demonstrates the calculation for demolition costs based on the CRU provision for simple demolition. Costs such as site establishment and maintenance of equipment are not included as these are typically absorbed in the general construction process.

| Relocation   | R/sqm | (sqm of unit to be demolished)                       |
|--|-------|--|
| Permanent<br>Includes: Loading and transport (to and fro)<br>Social Services<br>Food       | 27    | 486 or R500 per site for informal settlement upgrade |
| OR<br>Temporary<br>Includes: Loading and transport (to and fro)<br>Social Services<br>Food | 30    | 540  |
| Demolition Rates (inclusive of rehabilitation):<br>Single storey demolition                | 260   | 4560   |
| Professional fees re demolition (all inclusive)  | 32    | 576  |
| Total demolition and professional fees   |       | 5256   |

| Relocation   | R/sqm | (sqm of unit to be demolished)                        |
|--|-------|---|
| Permanent<br>Includes: Loading and transport (to and fro)<br>Social Services<br>Food       | 27    | 1080 or R600 per site for informal settlement upgrade |
| OR<br>Temporary<br>Includes: Loading and transport (to and fro)<br>Social Services<br>Food | 30    | 1200  |
| Demolition Rates (inclusive of rehabilitation):<br>Single storey demolition                | 260   | 10400   |
| Professional fees re demolition (all inclusive)  | 32    | 1280  |
| Total demolition and professional fees   |       | 11680   |

- d. Market related costs need to be measured against a scientific norm that can be quantified. Such an approach needs to satisfy the requirements of the Public Finance Management Act.
- e. The Chief Quantity Surveyor has submitted the alternative model which incorporates a market based approach and identifies key areas to be considered in determining an annual demolition provision guideline. These will be reviewed annually by the team responsible for quantity surveying.

|                    |                    |                    |                    |                    |                    |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Manager            | GM                 | COO                | CEO                | HOD                | MEC                |
| <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |

- f. It is noted that these rates are lower than those projected in terms of the CRU model, but confirmation is still needed on the costing of elements in proportion to demolition costs, etc so as to prevent any double subsidisation (e.g. establishment costs and maintenance that might be absorbed in equipment related to other construction activities, double dipping in terms of locational allowance, etc.

**DEMOLITION PLANT CALCULATIONS (based on 18m<sup>2</sup> unit)**

| PLANT                           | hire rate | Fuel     | No hrs |                 |
|---------------------------------|-----------|----------|--------|-----------------|
| TLB                             | 270.00    | hr (dry) | 1.00   | 450.00          |
| bobcat                          | 180.00    | hr (dry) | 2.50   | 750.00          |
| Truck 10m <sup>3</sup> & driver | 350.00    | hr (wet) | 1.00   | 350.00          |
| establishment                   | 61.43     | km       | 10.00  | 514.28          |
| <b>PLANT COST</b>               |           |          |        | <b>2,064.28</b> |

| LABOUR                 | hire rate | No hrs |               |
|------------------------|-----------|--------|---------------|
| TLB driver             | 25.00     | hr     | 25.00         |
| bobcat driver          | 27.50     | hr     | 68.75         |
| Truck 10m <sup>3</sup> | -         | hr     | -             |
| Supervision (GF)       | 200.00    | hr     | 900.00        |
| <b>LABOUR COST</b>     |           |        | <b>993.75</b> |

|              |                 |
|--------------|-----------------|
| PLANT COST   | 2,064.28        |
| LABOUR COST  | 993.75          |
| <b>Sub A</b> | <b>3,058.04</b> |

|   |               |
|---|---------------|
| <b>Cost Rate per m<sup>2</sup> for 18m<sup>2</sup> unit</b> | <b>169.89</b> |
|---|---------------|

|                       |               |
|-----------------------|---------------|
| maintenance allowance | 86.63         |
| overheads             | 305.80        |
| <b>Sub B</b>          | <b>382.43</b> |

|  |                 |
|--|-----------------|
| <b>Total sub A + sub B</b>                                     | <b>3,450.47</b> |
| <b>Selling rate per m<sup>2</sup> for 18m<sup>2</sup> unit</b> | <b>R 191.68</b> |

Market Price for new machines used to calculate maintenance allowance  
 cost tlb new R 520,000.00  
 cost bobcat new R 347,800.00

**NOTES:**

- Maintenance allowance based on 2000 working hrs/yr with 3 yr working life
- Hire rates are market related rates
- Bobcat 3hrs to demolish house and 1/2 hr to load truck
- TLB 1hr to dig up foundations etc
- Establishment allowance for plant getting to position if house
- Truck rate for carting away is hire rate inclusive of driver
- Costs relating to asbestos will be calculated at a maximum of R100/m<sup>2</sup> and this shall be an all inclusive amount for safe removal, transportation and disposal.

The above model calculation can be applied for units of various sizes to take into account the more time spent of demolishing and carting away of the bigger units

It takes cognisance of the various plant required as well as the time taken to do this exercise, in relation to the size of the unit

For example, for a 40m<sup>2</sup> unit the value would be R191.68 x 40m<sup>2</sup> = R7,667.60  
 Add R4000 x R100 for units with asbestos roofing = R4000 + R7667.60 = R11,867.60  
 Thus total = (R7667.60 x units without asbestos roofs) + (R11,867.60 x units with asbestos roofs)

|                    |                    |                    |                    |                    |                    |
|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Manager            | GM                 | COO                | CFD                | HOD                | MEC                |
| <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |

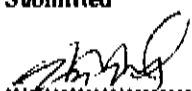

- g. Recently, the National Department of Human Settlements had adopted a revised post 1994 policy position, in consultation with the Project Management unit of the Department. The document indicates that a maximum of 10% be allocated to demolition costs. The document is silent on possible asbestos cases. This might be as a result of post 1994 units being assumed as asbestos free (i.e having roofs constructed of fibre cement). No formal response has been received from the National Department on this matter.







5. CONSULTATION

- a. The document had been circulated internally and via the HEAC no. 17 of 2011 for inputs, and work shopped with stakeholders on 9 December 2011. These costs were also presented by the Quantity Surveyors at the Strategic Session in March 2012. No further inputs had been received.
- b. It was also submitted to National and reminders were sent, but with no formal feedback.
- c. It is acknowledged that costs would vary from time to time, hence it is suggested that all submissions of this nature be verified by the quantity surveyors to confirm that the costs are reasonable, based on market trends, and to be reviewed annually.

6. RECOMMENDATION

- a. That the policy directive as outlined above be approved, subject to each case being verified by the departmental quantity surveyors.

|   |          |   |            |
|---|----------|---|------------|
| <b>Submitted</b>  |          | <b>Supported/Not-Supported</b>  |            |
|  | 7/6/2012 |  | 18.06.2012 |
| .....<br>Manager : Product Development  | Date     | .....<br>General Manager<br>Planning and Development                                | Date       |
|   |          | <b>Comments:</b><br>.....<br>.....<br>.....   |            |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| Manager   | GM  | COO   | COF   | HOD   | MEC   |
|  |  |  |  |  |  |

|   |   |
|---|---|
| <p>Supported/Not Supported</p> <p><i>[Signature]</i> ..... <u>20/12/12</u> .....</p> <p>Chief Operations Officer Date</p> <p>Comments:</p> <p>.....</p> <p>.....</p> <p>.....</p>   | <p>Supported/Not Supported</p> <p><i>[Signature]</i> ..... <u>12/7/12</u> .....</p> <p>Chief Financial Officer Date</p> <p>Comments:</p> <p>.....</p> <p>.....</p> <p>.....</p>   |
| <p>Recommended/Not Recommended/Recommended as Amended</p> <p><i>[Signature]</i> ..... <u>24/7/12</u> .....</p> <p>Head of Department Date</p> <p>Department of Human Settlements, KwaZulu-Natal</p> <p>Comments:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> | <p>Approved/ Not Approved/ Approved as Amended</p> <p><i>[Signature]</i> ..... <u>17/02/12</u> .....</p> <p>MEC For Human Settlements Date</p> <p>&amp; Public Works</p> <p>KwaZulu-Natal</p> <p>Comments:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> |

|         |                    |                    |     |     |                    |
|---------|--------------------|--------------------|-----|-----|--------------------|
| Manager | GM                 | COO                | CFO | HOD | MEC                |
|         | <i>[Signature]</i> | <i>[Signature]</i> |     |     | <i>[Signature]</i> |