PLANNING ALTERNATIVES
Terraforce offers unequaled design options to cope with most site conditions.

WHY TERRAFORCE?
A LIVING WALL: The unique design allows you to make plants part of your wall. DURABILITY: Concrete will not rot and weaken over time, and no chemical preservatives are required. MORTARLESS INTERLOCKING SYSTEM: The units are simply stacked up without mortar to provide a cost-effective, do-it-yourself system. LAYOUT FLEXIBILITY: The half moon interlock gently handles curves and concave curves, and the wall angle can vary from vertical to shallow slopes. Create steps by inverting the block. COLOURS & TEXTURES: Round or flat face for wall front. Consult your Local Supplier about available colours.
BRIEF INSTALLATION GUIDELINES

Develop a precise plan for your Terraforce wall by analyzing your site, noting slopes, drainage and shape of wall. Measure the length and vertical height to obtain the surface area and thus the number of units required. Remember that retaining walls require professional design and supervision input and must comply with local building regulations. Refer to Terraforce design and installation manuals.

1. Prepare a level foundation, gravel or concrete as directed by site conditions. Compacted gravel foundations are usually sufficient for structures not higher than (1) one meter. On sloping sites the foundation may be stepped by block height at intervals to suit the slope.
2. Place first row of blocks to required alignment and ensure that the units are level in all directions. A small amount of mortar will assist with accurate leveling on a concrete foundation. Note: Whenever bond is preferred but not always possible. Block bond is allowed.
3. Install drainage pipe with outlet and free draining backfill as specified behind first row of blocks. A length of flexible pipe will assist in setting out smooth curves.

TOOLS YOU MAY NEED
- Pick
- Shovel or spade
- Line and level
- Trowel
- And occasionally a disc cutter.
Your supplier will recommend a qualified installer for that professional finish.

4. Fill blocks with good quality soil or soil compact mix and tamp tightly. In this instance the round face elevation was chosen.
5. Continue construction, row by row while backfilling and compacting free draining material as each row is completed with topsoil fill. In silty or prestressed interlocking keys to be installed when directed by the engineer.
6. In trenches, regard geotextile or geocell as compacted backfill and welded between blocks or cut and folded into blocks as indicated by the engineer.
7. Terraforce walls must also be well founded.
8. The completed installation can now be turned into a growing investment by your imaginative choice of plants.

MAXIMUM WALL HEIGHTS (IN BLOCK HEIGHT, METRES) AND SETBACK CHART FOR THE TERRAFORCE L13 BLOCK RETAINING WALL SYSTEM

<table>
<thead>
<tr>
<th>RETAINED SOIL</th>
<th>BACKFILL ABOVE CREST OF WALL</th>
<th>WALL INCLINATION FROM HORIZONTAL</th>
<th>MAXIMUM WALL HEIGHTS</th>
<th>L13 SETBACK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>60°</td>
<td>69°</td>
<td>70°</td>
<td>75°</td>
</tr>
<tr>
<td>FIRM CLAY &amp;</td>
<td>18.3</td>
<td>14.4</td>
<td>11.2</td>
<td>9.2</td>
</tr>
<tr>
<td>COMPACT SILT</td>
<td>4.1</td>
<td>3.2</td>
<td>2.5</td>
<td>2.0</td>
</tr>
<tr>
<td>30° INT.</td>
<td>13.03</td>
<td>10.63</td>
<td>8.18</td>
<td>6.47</td>
</tr>
<tr>
<td>FRICTION ANGLE</td>
<td>14.5</td>
<td>11.7</td>
<td>9.2</td>
<td>7.1</td>
</tr>
<tr>
<td>22°</td>
<td>12.2</td>
<td>8.9</td>
<td>6.1</td>
<td>4.4</td>
</tr>
<tr>
<td>30° INT.</td>
<td>14.0</td>
<td>11.1</td>
<td>9.4</td>
<td>7.8</td>
</tr>
<tr>
<td>FRICTION ANGLE</td>
<td>12.8</td>
<td>10.6</td>
<td>8.8</td>
<td>7.1</td>
</tr>
</tbody>
</table>

1. Wall height measured from top of foundation / landing pad.
2. Top of foundation / landing pad a minimum of 150mm / 0.5 ft below ground level.
3. No allowance made for surcharge above wall.
4. Factors of safety for sand and overburden = 1.5

1. These Terraforce Design Charts give an indication of internal gravity retaining wall stability only and are intended for conceptual design and estimation purposes alone. They do not take into account external and overall slope stability or boundary conditions such as the presence of groundwater.
2. Users of Terraforce walls should seek the advice of a professional geotechnical and/or civil engineer for the assessment of appropriate site and soil parameters. Terraforce cannot accept responsibility for the actual design or construction of a wall unless otherwise agreed.
3. Copies of design manuals / software, case studies and test results are available on request. Contact your local distributor for advice on suitable plants.

Note: The above tables indicate the total allowable height when walls are constructed without vertical interlocking keys.

1.30 m (10 ft)
2. 0.76 m (30 in.)
3. Water Resistant
4. 22x22 mm
5. Concrete mix C20
6. 165 Kg/m^3

BRICKWORK & SPECIAL DETAILS

Wall Details and Setback Chart - allow for small variations

*Block height is 200 mm in some areas.

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