APPLICATIONS
Mini Highway is suitable for city roads, commercial developments, urban roads, industrial developments and access roads.

MANUFACTURING STANDARD
Mini Highway is manufactured using a wet pressed process and tested in accordance with European Standard BS EN 1433. All Aggregate Industries products are manufactured in accordance with ISO 9001 with factory compliance to ISO 14001.

PERFORMANCE
Strength: The strength requirements are met to the manufacturing standard. Loading standard conforms to EN 1433 Class D (Class D = 400kN: Public highways and general parking areas).

COMPLEMENTARY PRODUCTS
Designed for use with British Standard kerb.

COLOUR SWATCH
1. Grey

PRODUCT DATA
<table>
<thead>
<tr>
<th>Type</th>
<th>Base unit</th>
<th>Top unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (mm)</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Width (overall) (mm)</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Depth (overall) (mm)</td>
<td>235, 285, 335</td>
<td>254</td>
</tr>
<tr>
<td>Weight (approx. kg)</td>
<td>41, 45, 58</td>
<td>48</td>
</tr>
<tr>
<td>Colours</td>
<td>Grey</td>
<td>Grey</td>
</tr>
</tbody>
</table>

A range of radii and accessories are available. For technical details please see www.aggregate.com/minihighway

A ROBUST, TWO PART KERB DRAINAGE SYSTEM OFFERING EFFICIENT DRAINAGE CAPABILITY COMBINED WITH COMPACT DESIGN WHICH RESULTS IN FASTER, LESS DISRUPTIVE AND MORE COST EFFECTIVE INSTALLATION.

Integrated kerb profile and linear drainage system in two parts; a base unit and a kerb profile top unit incorporating two elliptical holes.

Multiple inlet holes along length of kerb for fast water take off.

Maintains kerb profile for greater aesthetic appeal in city centres.

Compact design minimises installation cost with no loss of strength.

Supplied on pallets for easy manoeuvrability onsite.

Available in both half batter and splay profiles.
MINI HIGHWAY®

LINEAR DRAINAGE

MINI HIGHWAY ACCESSORIES

<table>
<thead>
<tr>
<th></th>
<th>Length (mm)</th>
<th>Depth (mm)</th>
<th>Width (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt top box</td>
<td>500</td>
<td>285</td>
<td>300</td>
</tr>
<tr>
<td>Rodding box</td>
<td>500</td>
<td>285</td>
<td>250</td>
</tr>
<tr>
<td>Crossing base plate</td>
<td>500</td>
<td>12.5</td>
<td>190</td>
</tr>
<tr>
<td>Inflow unit</td>
<td>500</td>
<td>335</td>
<td>300</td>
</tr>
<tr>
<td>Radius unit* (Top)</td>
<td>485</td>
<td>254</td>
<td>250</td>
</tr>
<tr>
<td>Radius unit* (Base)</td>
<td>485</td>
<td>226, 285, 335</td>
<td>250</td>
</tr>
</tbody>
</table>

*Available on a MTO basis

Radius units: 25/11, 10/8, 7/6 metre versions, for internal and external radii.

BASE UNITS

INSTALLATION

SILT BOX

RODDING EYE KERB UNIT

TOP UNIT
MINI HIGHWAY®

LINEAR DRAINAGE

GENERAL PRINCIPLES
The aim is to ensure prompt and cost-effective removal of surface water during and immediately after rainfall. Multiple inlet holes and continuous U-shaped channel profile enable system design which minimises underground pipework. This can provide a lower-cost solution than traditional gully systems.

SYSTEM CAPACITY
For Mini Highway drainage, identify any flow constraints in advance, including:
- Vehicular crossings requiring crossing base plates.
- Tight radii.*
- Outlet unit capacity.
- Outfall chamber/pipe capacity.

Note*: Hydraulic properties given in above tables are conservative and so, in most cases, any flow reductions arising from these factors may be ignored in design.

In common with all combined kerb and drainage systems, Mini Highway top and base units will NOT run full due to turbulence from the inlet holes. System flow capacities given in above tables are therefore confined to realistic flow levels rather than theoretical/full bore maximum levels. Capacities vary according to type of base unit installed in the system.

Note: Capacity will be reduced over time wherever there is a likelihood of a significant build-up of silt.

OUTLET CAPACITY
In practice, capacity requirements can vary according to location of the outlet and the depth of flow within the system. For design purposes, an outlet capacity of 30 litres per second should be adopted. If this capacity is insufficient, more than one outlet unit should be installed to discharge into the outfall chamber.

OUTFALL CHAMBER/PIPE CAPACITY
Outfall discharge capacity should be as large as possible to ensure benefits from Mini Highway system. In large schemes gully pots used as outfall chambers may be insufficient because turbulence can reduce capacity levels below that which a standard 150 mm outfall pipe can sustain. Where possible, purpose-built chambers (brick or precast manhole rings) are recommended instead to help minimise effects of turbulence on capacity. The appropriate outfall pipe can then be selected to suit the specific case (see “Outfall pipe capacity” table).

MINI HIGHWAY SYSTEM FLOW CAPACITIES

<table>
<thead>
<tr>
<th>Gradient</th>
<th>235 Shallow base unit</th>
<th>265 Standard base unit</th>
<th>335 Deep base unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>vel. m/sec</td>
<td>dis. l/sec</td>
<td>vel. m/sec</td>
</tr>
<tr>
<td>1:50 (2.00%)</td>
<td>1.7</td>
<td>32</td>
<td>1.8</td>
</tr>
<tr>
<td>1:100 (1.00%)</td>
<td>1.2</td>
<td>22</td>
<td>1.3</td>
</tr>
<tr>
<td>1:200 (0.50%)</td>
<td>0.6</td>
<td>16</td>
<td>0.9</td>
</tr>
<tr>
<td>1:300 (0.33%)</td>
<td>0.7</td>
<td>13</td>
<td>0.7</td>
</tr>
<tr>
<td>1:400 (0.25%)</td>
<td>0.6</td>
<td>11</td>
<td>0.6</td>
</tr>
<tr>
<td>1:500 (0.20%)</td>
<td>0.5</td>
<td>10</td>
<td>0.6</td>
</tr>
<tr>
<td>1:1000 (0.10%)</td>
<td>0.1</td>
<td>2</td>
<td>0.1</td>
</tr>
</tbody>
</table>

Key: vel. = velocity, dis. = discharge
MINI HIGHWAY®

LINEAR DRAINAGE

SUSTAINABILITY AND LOCAL SOURCING
ENERGY USE: Aggregate Industries is at the forefront of sustainability and has committed to reduce carbon emissions by 20% by 2016 based on a 2012 baseline.
RECYCLABLE: 100% of the product can be recycled thus reducing the amount of material that is sent to landfill.
MANUFACTURING LOCATION: Produced in the UK, with locally sourced materials under strict environmental and social legislation, for local supply.
RESPONSIBLE SOURCING: Aggregate Industries is the first company in the world to achieve a BES 6001:2008 Responsible Sourcing Certificate from BRE Global. Products are assessed on:
- Quality management.
- Environmental management.
- Health and safety management.
- Greenhouse gas emissions.
- Minimising raw material usage.
- Labour practice.
- Biodiversity.
- Community engagement.

KEY AGGREGATE AND RECYCLED CONTENT
Mini Highway is manufactured using high quality granites.

GENERIC GREEN GUIDE RATING*
Not applicable.

POLICIES
Aggregate Industries’ policies on the environment and community health and safety and sustainable solutions for different product applications can be viewed on our website www.aggregate.com

INSTALLATION STANDARD
Install in accordance with Aggregate Industries recommendations. For specific guidance refer to www.aggregate.com or call the technical helpline on 01335 372222.

MAINTENANCE AND CLEANING
Aggregate Industries can supply on request advice on specific stain removal and general maintenance, suitable cleaning products, referrals to specialist cleaning companies.

COSHH DATA
Full COSHH data on the Charcon range of products is available on request. Please call the technical helpline on 01335 372222.

TECHNICAL SUPPORT
DETAILED GUIDANCE AND ASSISTANCE WITH THE PREPARATION OF SPECIFICATION OF THE CHARCON RANGE OF HARD LANDSCAPING PRODUCTS, INCLUDING MODEL CLAUSES, IS AVAILABLE THROUGH THE SALES OFFICE. A FREE TECHNICAL DESIGN SERVICE IS ALSO AVAILABLE.

FOR FURTHER INFORMATION, PLEASE REFER TO OUR TECHNICAL SERVICES ON 01335 372222.

* Ratings based upon generic green guide values (2009) supplied by BRE Global Ltd, www.thegreenguide.co.uk

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