

Private Finishes Key

Permeable Paving - Domestic Accessway
(In General Accordance with Interpave Specification)

Traffic category 4 - small car parks subject to car, light van and motorcycle access receiving occasional overrun of commercial vehicles (less than 1 standard axes per day)

Surface Course
80mm thick permeable paving blocks, in accordance with BS EN 1338:2003, laid to herringbone pattern.

Bedding course
50mm thick, clean crushed stone within the range 2-6.3mm (2/6.3 Gc 80/20) graded to comply with BS7533-13 and aggregates in accordance with BS EN 13242:2007

Separating Layer
Terram T1000GT

Sub-base
370mm thick minimum Type 3 aggregate (0/40mm), grading to comply with BS7533-13 and aggregates in accordance with BS EN 13242:2007. It is critical that the durability requirements stated in Interpave's specifications are adhered to. Minimum thickness is stated for attenuation and the sub-base formation level is to be 2.950, where indicated on plan, with a nominal fall to the fin drain. Sub-base thickened locally to suit finished levels.

Tanking Membrane
Marshalls MM380 Tanking Membrane, complete with Marshalls Tanking Tape and 110/160mm top hat units as required. Protection fleece to be provided between the tanking membrane and sub-grade/capping, top of membrane and sides. The contractor must be confident of creating a waterproof structure, if this cannot be achieved then a welded membrane is to be provided, material thickness to be no less than 1mm.

Capping Layer
410mm 6F5 capping to conform with Standard for Highways Works and BS EN 13242

Geo-textiles
Geogrid laid over Terram T1000 (grid minimum aperture size 30mm x 30mm, minimum tensile strength 40kN x 40kN).

Permeable Paving - Domestic Driveways
(In Accordance with Interpave Specification)

Traffic category 3 - cars and light vehicles only

Surface Course
60mm thick permeable paving blocks in accordance with BS EN 1338:2003.

Bedding course
50mm thick, clean crushed stone within the range 2-6.3mm (2/6.3 Gc 80/20) graded to comply with BS7533-13 and aggregates in accordance with BS EN 13242:2007.

Separating Layer
Terram T1000GT

Sub-base
370mm thick minimum Type 3 aggregate (0/40mm), grading to comply with BS7533-13 and aggregates in accordance with BS EN 13242:2007. It is critical that the durability requirements stated in Interpave's specifications are adhered to. Minimum thickness is stated for attenuation and the sub-base formation level is to be 2.970, with a nominal fall to the fin drain. Sub-base thickened locally to suit finished levels.

Tanking Membrane
Marshalls MM380 Tanking Membrane, complete with Marshalls Tanking Tape and 110/160mm top hat units as required. Protection fleece to be provided between the tanking membrane and sub-grade/capping, top of membrane and sides. The contractor must be confident of creating a waterproof structure, if this cannot be achieved then a welded membrane is to be provided, material thickness to be no less than 1mm.

Capping Layer
410mm 6F5 capping to conform with Standard for Highways Works and BS EN 13242

Geo-textiles
Geogrid laid over Terram T1000 (grid minimum aperture size 30mm x 30mm, minimum tensile strength 40kN x 40kN).

EF Kerb - Flush
Proposed finished road level (inside of kerbface)

0.000

As the subgrade CBR is very low at 0.5% CBR, it is not subject to traditional design methods and relies on insitu testing and trial areas to validate the design. It is recommended that the geo-grid, geo-textile and capping layer is laid and compacted, and then tested at the top, the improved CBR value at this point should be 15%. If this value is lower then additional capping/geogrid may be required.

The capping layer design has been taken from Lincolnshire County Council design standards - applicable for all CBR's below 0.5%.

Disclaimer
This drawing remains copyright of 'Jackson Consulting Engineers', and shall not be reproduced unless written consent has been given by the company director.
Any discrepancies must be reported back to the named office below.
Any works carried out without necessary written approvals is at the risk of the developer.
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Drawing must be printed in colour. This text will be red if a coloured drawing.

Notes:

- All drawings to be read in conjunction with Structural Engineers Drawings.
- If in doubt - ASK!
- Any discrepancies are to be reported back to the engineer immediately.
- This drawing is not to be scaled.
- Drawings marked Preliminary, Information or Tender are for guidance/ approval only, i.e. NOT for Construction.
- The red line site boundary is indicative only and must be reviewed against the land registry boundary.
- It is likely that existing services will be present within the existing site. Contractor to ensure all necessary precautions have been taken before any excavation takes place.
- It is the contractors responsibility to locate existing services where they may be affected by proposed works and protect them as necessary and agreed by the utility provider.
- Existing utilities have been taken from record drawings only, and must not be used to determine the exact location - a below ground survey must be undertaken.
- Drawings to be read in conjunction with all other relevant drawings.
- Setting out to be in accordance with the Architectural plans.
- All proprietary items to be installed in strict accordance with the manufacturers instructions and recommendations.
- All works to be carried out in accordance with the current British Standards, Codes for practice and Building Regulations.
- No private water is to enter the adopted highway area.
- Excavations near foundations need to be carefully considered. Refer to building regulations, and consult with the structural engineer.
- No work is to be started until all necessary approvals have been obtained.
- Any works to sewers in the existing public highway needs to be covered by a licence under Section 50 of the New Roads and Street Works Act 1991. No one has the right to open up the highway to affect any repairs or maintenance on the apparatus without the appropriate license.
- SHW stands for the 'Specification for Highway Works'.
- All setting out is to be confirmed by the developer/architect.
- All existing and tie in levels are to be confirmed prior to construction.
- Developer must have written approval from Lincolnshire County Council and any other statutory undertakers before commencement of ANY works within their boundary.
- All soft spots must be replaced with a suitable material such as SHW type 1.
- All buildings and levels have been designed assuming that the front entrances forms the 'principal access' and that the dwellings are to be classed as M4(1) Category 1: Visible Dwellings. Typically access routes should be gentle sloping, where this cannot be achieved a ramped approach can be used provided the following parameters are met:
 - Individual flights are:
 - for gradients up to 1:15 - not more than 10m long
 - for gradients up to 1:12 - not more than 5m long
 - Every flight has a minimum clear width of 900mm.
 - Every flight has a top and bottom landing.
 - An intermediate landing is provided between individual flights and at any change of direction.
 - Every landing is a minimum of 1200mm long, clear of the swing of any door or gate.
- It is the contractors responsibility to ensure that water-tight joints are achieved to the tanking membrane specification. If there is doubt that this can be sufficiently provided with the current specification then a minimum 1mm thick HDPE membrane with fully welded laps shall be provided.
- Overall pavement construction must be a minimum of 450mm unless the sub-grade can be proven to be 'non-frost' susceptible.
- No compartments between the tanked permeable paving must be created, when this happens the compartments must be linked. See details sheet for examples.

Preliminary

For client approval

P01	Drawing generally updated	BJ	JCE	17/10/21
Rev	Description	Dn	Ck'd	Date

Client:
Kestrel Group

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CONSULTING ENGINEERS

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Project Title:
Proposed Residential Development,
Adjacent 22 Quadring Road, Donington,
Spalding, Lincolnshire

Drawing Title:
External Works General Arrangement

Drawing Status:
Preliminary

Scale: 1:200	Paper size: A1	Date: 12/08/2021
Drawn: BJ	Checked: JCE	Approved: JCE

Drawing Number: 086-JCE-00-SI-DR-C-4000	Rev P01
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