Greenfields Farm Crowborough Road Biddulph moor

Landscaping Proposals

Soft Landscaping

General Information:

Site clearance to involve removal of rubbish, concrete, metal, glass, decayed vegetation and any contaminated topsoil Stones to be removed with dimensions exceeding 50mm Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life Retain and protect trees indicated on drawings

Grub up and dispose of large roots without undue disturbance of soil and adjacent areas Removal of any concrete bases to ensure full planting depth is achievable to every bed

Soil Conditions:

Soil for cultivating and planting: Moist, friable and not waterlogged Frozen or snow covered soil: Provide additional root protection, prevent planting pit sides and bases and backfill materials from freezing

Climatic Conditions: Works to be carried out in appropriate seasons; planting not to be carried out in strong winds Mechanical Tools: Not to be used within 100mm of tree and plant stems

Watering:

Wet the full depth of topsoil Applied evenly and without damaging or displacing plants or soil Carried out as necessary to ensure establishment and continued thriving of plantings

Planting and Mulching Materials: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life Plants:

To be materially undamaged, sturdy, healthy and vigorous To be of good shape and without elongated shoots Grown in a suitable environment and hardened off

Free from pests, diseases, discoloration, weeds and physiological disorders Container grown plants to have adequate nutrients for plants to thrive until permanently planted Substantially filling containers, but not root bound and in a condition conducive to successful transplanting

Preparation of Planting Beds: Prevent weeds from seeding and perennial weeds from becoming established

by hand weeding Compost planting beds using sanitised and stabilised compost, spread evenly prior to cultivation at 50mm layer Break up compacted topsoil, loosen and aerate, removing visible weeds, roots and large stones

Shrub Planting:

Ref.	No.	Species Name	Pot Size	Height	Density
Br	8	Berberis thunbergii Atropurpurea Nana	2L	15 – 20cm	1/m2
Bd	7	Buddleja davidii Nahno Blue	2-3L	40 – 60cm	1/m2

Shrubs to be planted in first available planting season (October-April) Planting pits to be excavated 1-2 days before planting, 150mm wider than roots when fully spread and 200mm deep Bottom of pit to be broken up to a depth of 150mm, incorporating 2 litres of compost

Stems fixed to supports with twine Perennials:

Ref.	No.	Species Name	Pot Size	Density
Am	4	Achillea millefolium	1L	4/m2
As	4	Aster (Michaelmas Daisy)	1L	4/m2
Ho	4	Helleborus orientalis	1L	4/m2
Ca	16	Caltha Palustris	9cm	16/m2
Af	4	Achillea filipendulina	1L	4/m2
Db	1	Delphinium Blue Bird	1L	1/m2

Perennials to be planted in first available season (September-October / March-April)

Backfill material to be prepared topsoil with approved compost at ratio of topsoil: compost at 3:1

Grass Turf

When to lay turf : Turf is best laid in mid-autumn, but can be laid any time between mid-autumn and late winter whenever the soil is not too wet or frosty. In spring and autumn little mowing is needed so newly-laid turf can be left relatively undisturbed for several weeks. Turf laid in spring often needs watering in dry spells over summer. Both dry soils and mowing before grass is fully rooted, stresses turf and delays rooting.

Turf-laying is best avoided from mid-spring until early autumn to avoid the need to repeated watering.

Laying turf : Good seed bed preparation is the key to establishing a successful lawn. Pay particular attention to clearing weeds and cultivating the surface to a fine tilth. Complete all site preparation before buying, or taking delivery of turves. Bought turves may vary in both size and thickness. Check dimensions when planning the lawn.

Soil preparation : Eliminate perennial weeds such as couch grass or bindweed well before beginning to prepare the soil. Use weedkiller, or hand weed. Do not use residual weedkiller, as it can remain in the soil and will prevent the grass from establishing.

The site should be dug or rotovated to a depth of 20-25cm (8-10in).

Dig in some well-rotted manure or other organic matter (especially on a sandy soil) to hold moisture. Make sure it is well-rotted, as un-rotted organic matter will cause the soil surface to sink unevenly as it decays. After cultivation leave for several days to settle - the longer the better, ideally five to six weeks or more.Before the next stage of preparation, remove any weeds that have germinated. Hand-removal is best, or use a contact weedkiller. Do not use a residual weedkiller, as it will prevent the grass from establishing. To get the level surface that is crucial for the best lawns, tread the area several times in different directions and then rake several times also in different directions. Apply and rake in 70g per sq m (2oz per sq yd) of general purpose fertilizer.

Preparing the turf : If laying is delayed, then the turves should be laid out flat to avoid any discolouring and weakening, but where possible laying should be done within 24 hours of delivery.

Gardeners sometimes need to lift turf themselves using a spade or ‘turfing iron’ and then trim each turf to a regular size and depth. To do this, place the turf upside down in a prepared wooden box and slice off soil at the correct depth. The thinner the turf is (within reason) the better the rooting; a 2cm (¾in) turf roots better than a 7.5cm (3in) turf. Avoid turf that contains a lot of weed.

Laying the turf : Begin at one side or one corner and work across so that the person laying the turf faces the bare soil. Avoid foot indentations in the newly laid turf by working from boards.

Lay sods with staggered joints as in the pattern of a brick wall and closely butted together avoiding gaps. Ensure the turves are level by having a bucket of sandy soil at hand and adding or removing soil as necessary. Once all the turf has been laid it can be firmed lightly with a light roller or a home-made 'tamper' consisting of a piece of flat wood attached at right angles to a broom handle.

When laying is complete, lightly spread a mixture of sand and soil or compost and work into the joints, using a rake or brush. This top-dressing fills any minor hollows and also helps the turves knit together and become established more quickly.

After top-dressing, leave the turf undisturbed; the first few days are critical for root development.

Where disturbed soil, such as old flower beds, are being turfed, the new turf should be laid slightly higher than the rest to prevent a hollow developing as the soil settles.

Aftercare

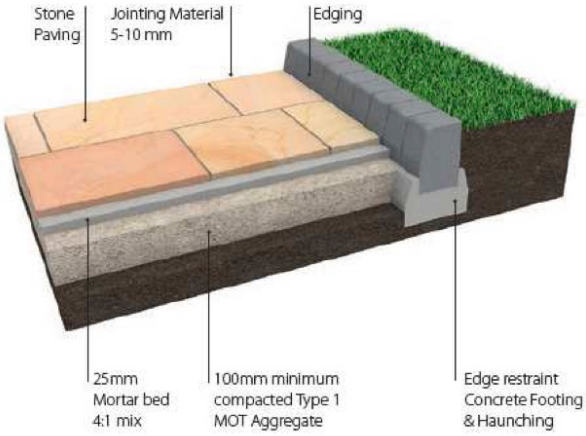
In dry weather, frequent watering may be necessary to keep the new turf constantly moist. During dry periods in mid- to late summer, water every five to 10 days. At other seasons water during dry periods every 14 days.

Be careful not to over-water, as this can lead to shallow rooting and encourages the weed grass, annual meadow grass.

Mow, with the blades set high, as soon as the grass has grown to about 5cm (2in).

Hard Landscaping

Indian Stone Paving :



Excavation

To allow the new paving to be installed correctly, a certain amount of excavation may be required. The depth of this excavation will depend upon the thickness of the required sub-base plus the sand and/or mortar, and the paving flag thickness. An extremely important factor to consider when working out the depth of excavation is that the finished surface level of the paving, when being laid up to an existing structure, must be a minimum of 150mm below the DPC to prevent problems with rising damp in the structure.

Edge Restraints

Edge restraints should be sufficiently robust to resist the lateral displacement from imposed loadings placed upon the pavement and are installed prior to the installation of the sub-base. The restraint must provide a consistent vertical face to a level below the laying course material.

Sub-base

Granular sub-base material should be well graded (40mm to dust) Type 1 quality material. Inferior quality material may be liable to failure under loading and be susceptible to frost or moisture movement. Recycled materials such as crushed masonry or concrete can be considered, provided it is well graded and compacts to give a close textured finish. Materials containing organic matter should not be used.

Construction

Sub-base material should be placed in layers not exceeding 75mm in thickness or twice the nominal maximum aggregate size. Each layer should be fully compacted before the next layer is placed. Sub-base tolerance to be +5 -10mm from specified levels. The surface should be clean and suitably close textured to prevent migration of finer material through the construction. A minimum longitudinal fall of 1.25% (1 in 80) and crossfall of 2.5% (1 in 40) should be incorporated in the sub-layer construction to provide adequate surface water runoff from the wearing course.

Paving units should be cleaned by washing the units with a sponge and clean water. This is to remove any dust, loose material, packaging or production aids. To avoid damaging the units, stack the units on timber battens with spacers between them

The backs of the units should be primed using a proprietary priming product or fine mortar slurry prior to placement upon the bedding mortar.

Flags should be supported on a full 'wet' workable mix mortar bed of 1 part cement to 3 or 4 parts building sand. The mortar bedding should be laid to give a thickness between 15mm and 30mm; however some adjustment may be necessary to ensure that the units are fully supported and do not rock or move. A PVA, SBR or equivalent bonding agent can be added to the mortar to assist bonding. An appropriate plasticiser can also be considered to be added to the mix.

Keep checking levels and gradient across the units. String lines can be helpful to define levels and lines within the laying pattern. Maintain the correct joint width by gently shuffling with a trowel. Small pieces of timber are useful as temporary spacers.

For most paving units Marshalls' Weatherpoint 365 Jointing Compound can be used where a minimum of 10mm joint and minimum 22mm thick paving units are being utilised. Alternatively use a damp mortar mix of 1 part cement to 4 parts building sand. If mortar gets onto the surface of the units, clean off immediately using a damp sponge frequently rinsed in clean water.

Under no circumstances should dry or semi dry sand/cement mixes be brushed into the joints. This practice leads to staining of the paving and does not constitute a true rigid joint.

If a narrow 5mm joint is desired then a gun applied mortar compound may be used to fill the joints or a good quality external grout should be considered.

Butt jointing is not recommended for any of these paving products.

Cutting

Cutting may be carried out using a diamond tipped power saw, or hammer and bolster. It must however be noted that the aesthetic finish achieved will depend greatly upon the choice of cutting mechanism and level of skill. Specific equipment or blade types should be used when cutting natural stone units as those designed for cutting concrete only may blunt easily. If more than 25% of a flag or slab requires cutting then the remaining piece should be cut from the internal corner of the cut to the external corner of the slab, at an angle of preferably 45 degrees.

Breedon Stone Driveway :



The approximately coverage is 8m2 per tonne. It is recommended that Breedon Golden Amber Gravel (Breedon Gravel) is laid at a finished compacted thickness of 50mm. Breedon Gravel is a natural material quarried from selected limestone and graded approximately 12mm (1/2") to fines; the fines content being naturally occurring marl which acts as the self setting agent when the material is watered and rolled to fullest compaction in the manner described below.

Breedon Gravel must be laid onto a compacted MOT Type 1 sub base to clause 803. The depth of which should be of sufficient strength and stability to carry the proposed traffic (we suggest a minimum of 150mm if the ground is good) and also the area concerned should be porous enough to ensure that water is not held directly in or immediately below the Breedon Gravel. If a weed suppressant membrane is required, this must be installed underneath the Type 1 sub base and not in between the sub base and Breedon Gravel.

The Type 1 sub base should be laid and rolled using a roller of suitable weight, i.e. minimum 1.5 tonnes for footways and similar works, and minimum 2.5 tonnes for car parks etc. By using a heavier roller, this helps achieve maximum compaction with fewer passes, however on smaller areas a pedestrian roller may be used although it is vital that the surface is rolled sufficiently to achieve fullest compaction prior to water rolling, this may take a few more passes over the area. The Breedon Golden Amber gravel should be spread onto the prepared foundation using a flat board or the back of a rake. Do not use the prongs of a rake as this may pull the coarse components of the gravel up to the surface. Spread the material out to a depth of approximately 75mm in order to achieve a finished compacted thickness of 50mm.

The surface must then be rolled using a roller of similar type to that used for compacting the foundation with the vibratory action of the roller switched on and the area should be continually rolled until fullest compaction is achieved. **It is imperative that Breedon Gravel is laid to a cross fall or camber in order to shed surface water - it must NOT be laid flat**. To give some indication, an adequate fall would be 1 in 55 to 1 in 60 for a pathway and 1 in 40 for larger areas such as car parks, courtyards etc. The same gradient should apply when installing the Type 1 sub base. After this initial laying to cambers and falls it is probable that occasional coarse areas will be evident where segregation of the Breedon gravel may have occurred. At this point, fines can be sieved from the main heap of material and scattered onto these coarse areas before being re-rolled. Once a uniform appearance has been achieved the second stage can be undertaken. This is the water rolling of Breedon gravel for which the vibratory action of the roller must be switched off.

By using a water roller, water is automatically sprayed onto the drum of the roller. The fundamental aim is to have a film of water covering the whole Breedon Gravel surface but in most instances the water tank on the roller may be insufficient for dispelling enough water onto the drum and additional water will be required, particularly in dry warm weather. If any Breedon gravel is sticking to the drum of the roller, this indicates that there is insufficient water being applied and to rectify this, it is advisable that a hose is directed onto the drum of the roller as the material is rolled so that the drum is saturated and there is a flood of water where the drum meets the surface. Never direct a hose directly onto the Breedon Golden Amber gravel itself as this will wash out the necessary fines which are required for the material to bind. The object of water rolling this material is to float sufficient fines to the top surface of the gravel to obtain a well-bonded finish. If there are any lines or grooves in the gravel left by the weight of the roller, a soft wide broom can be used to gently pass over the surface whilst still wet – this will remove any lines and leave a perfect surface finish. It is important that the area should then be allowed to dry out before being opened up to general use, the length of time to allow is dependant on weather conditions, but this can take up to 2 weeks or more.