

UTLINE SPECIFICATION (FOR PLANNING)

TANDARD OF OPERATIONS

ll works shall be carried out in accordance with good professional horticultural practice y qualified and experienced staff. Works shall comply with all relevant and current ritish Standards and codes of practices including:
opsoil: BS 3882: 2015 Multipurpose Grade
ursery Stock: BS 3936 1-9
urf, BS 3969: 1998 +A1: 2013
ree work, BS 3998: 2010
ransplanting root balled trees, BS 4043: 1999
rees from nursery to independence, BS8545: 2014
ode of Practice for general landscape operations, BS 4428: 1989
rees in relation to design, demolition and construction – Recommendations BS 5837: 012
rounds maintenance, BS 7370: 1998
oint Council for Landscape Industries (JCLI) Committee for Plant Supply and
establishment 'Guidance on Handling and Establishing Landscape Plants' see
ppendix 1, HTA National Plant Specification.

ITE PREPARATION

eneral Requirements for Site Clearance , Preparation and Cultivation
d foundations, slabs and the like in areas to be planted/ seeded: break out in
cations and to the extents stated by engineer.
oreign matter: On visual inspection, areas to be planted or seeded to be free of
agments and roots of aggressive weeds, sticks, straw,
,bsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the
e.
ontamination: Do not use topsoil contaminated with subsoil, rubbish or other materials
at are:
Corrosive, explosive or flammable.
Hazardous to human or animal life.
Detrimental to healthy plant growth.
urity: Free of pests and disease.
ubsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated
th the above materials.
jectionable odour: None.
ive notice: If any evidence or symptoms of soil contamination are discovered on the
te or in topsoil or planting media to be imported.

radging Subsoil for Soft Landscaped Areas

tandard: In accordance with BS 8601.
eneral: Grade to smooth flowing contours to achieve specified finished levels of
psoil.
reas of thicker topsoil: Excavate locally.
void compaction.
xcess subsoil: Remove.

bsoil Surface Preparation

tandard: In accordance with BS 3882.
eneral: Excavate and/ or place fill to required profiles and levels.
osening:
When ground conditions are sufficiently dry to allow breaking up of soils, loosen
oroughly to specified depth:
Light and non-cohesive subsoils: 150mm
Stiff clay and cohesive subsoils: 300mm
Rock and chalk subgrades: Lightly scarify to promote free drainage.
Wet conditions: Do not loosen subsoils.
ones: Immediately before spreading topsoil, remove stones larger than 75mm.
move from site: all coarse rubble or artefacts greater than 75mm in diameter, remove
a licenced facility.

OPSOIL

eparation of Undisturbed Topsoil:

tandard: In accordance with BS 4428.
Grading and cultivation: to suit cultivation operations suited to specified seeding/
anting
ard ground: Break up thoroughly.
earing: Clear of rubbish, debris, remove visible roots and large stones with a diameter
eater than 75mm.
o not compact topsoil.
reas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
allow period (minimum): One month.
Weed control: At appropriate times treat with a suitable translocated non-residual
rbicide.

radging of Topsoil:

opsoil condition: Reasonably dry and workable.
ontours: Smooth and flowing, with falls for adequate drainage.
Hollows and ridges: Not permitted.
ive notice: If required levels cannot be achieved by movement of existing soil.

andling Topsoil:

tandard: In accordance with BS 3882.
gressive weeds: Give notice and obtain instructions before moving topsoil.
lant: Select and use plant to minimize disturbance, trafficking and compaction.
ontamination: Do not mix topsoil with:
Subsoil, stone, hardcore, rubbish or material from demolition work.
Other grades of topsoil.
ultiple handling: Keep to a minimum. Use or stockpile topsoil immediately after
ipping.
/et conditions: Handle topsoil in the driest condition possible. Do not handle during or
ter heavy rainfall.

ported Topsoil to BS3882: Quantity: Provide as necessary to make up any deficiency.

f topsoil existing on site and to complete the work.
tandard: To BS 3882.
lassification: Multipurpose Grade
Soil textural class to BS 3882, Figure 1: Sandy loam.

readding Topsoil

tandard: In accordance with BS 3882.
emporary roads/ surfacing: Remove before spreading topsoil.
ayers:
Depth (maximum): 150 mm.
Gently firm each layer before spreading the next.
epth after firming and settlement: Grass – 150mm, Planting/ shrubs – 450mm, Trees
50mm (or to dimensions shown on any tree pit detail).
rumb structure: Do not compact topsoil. Preserve a friable texture of separate visible
umbs wherever possible.

ose Tipping Of Topsoil:

tandard: In accordance with BS 3882.
eneral: Do not firm, consolidate or compact topsoil when laying. Tip and grade to
pproximate levels in one operation with minimum of trafficking by plant.

inal Cultivation of Areas to be Planted/ Seeded

ompacted topsoil: Break up to full depth.
ilt: Loosen, aerate and break up topsoil to a fine tilth depth of 150mm suitable for
ade grading.
article size (maximum): 10mm.
iming: Prior to seeding and planting. Weather and ground conditions: Suitably dry,
urface: Leave regular and even.
ndesirable material brought to the surface:
Remove visible weeds.
Remove roots and large stones with any dimension exceeding 25mm in turfed areas,
3mm planted areas.

inished Levels of Topsoil after Settlement

In relation to adjoining paving, kerbs or hard surfaces: 25mm above (including bark
mulch).
In relation to dpc of adjoining buildings: minimum 150mm below.
In relation to adjacent grass areas: 25mm above.
Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to
ensure full marring in of levels.

Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
Adjoining soil areas: Marry in.
Thickness of turf or mulch: Included.

Weed Treatment

All areas to be planted are to be treated with Roundup a minimum of 10 days prior to
planting. Planted areas are to be kept weed free with the use of herbicides. Following
the use of herbicides remove dead vegetation.

PLANTING

Planting General

All plant material to be supplied in accordance with HTA National Plant Specification.
All planting to be local provenance wherever possible and from local supplier.

General Planting Notes

All plants to be healthy, hardened-off and with good fibrous root systems and to comply
with the requirements of BS3936 Specification for Nursery Stock. All planting to be
undertaken in accordance with BS4428 Code of Practice for General Landscape to
Operations.
All plants to be protected from wind exposure at all times. All plants to be soaked in
water for several hours prior to planting and to be well watered in.
No planting to be carried out during poor weather conditions, i.e. when ground is frozen,
waterlogged, or during droughts, hot sunshine or persistent dry or cold winds. All plant
material to receive enough water to ensure healthy establishment.

Labelling and Information:

General: Provide each plant/ tree or group of plants/ trees of a single species or cultivar
with supplier's labelling for delivery to site, showing:
- Full botanical name.
- Total number.
- Number of bundles.
- Part bundles.
- Supplier's name.
- Employer's name and project reference.
- Plant specification, in accordance with scheduled National Plant Specification
categories.
Additional information: Submit on request: Country of Origin.

Times of year for planting/ seeding:

Deciduous trees and shrubs: Late November to late March.
Container grown stock - Any time of year as providing adequately watered, autumn
planting desirable.
Conifers and evergreens: September/ October or April/ May.
Herbaceous plants: September/ October or March/ April.
Container grown plants: At any time if ground and weather conditions are favourable.
- Weeding and weed control: Provide as necessary.
Dried bulbs, corms and tubers: September/ October.
Turfing: All year round providing adequately watered, avoid hot sunny conditions.
Grass seeding: March - September (best in Spring or Autumn)
Wildflower seeding: Spring or autumn

Soil Conditioner/ Ameliorant

As part of good horticultural practice, use peat-free composts, mulches and soil
conditioners.
Soil analysis shall be completed by a reputable laboratory to determine any nutritional
requirements, and any pH and organic matter adjustments necessary. Once
determined, the soil shall be appropriately amended to a range suitable for the
species to be established.

Locations: All new trees, plant beds and new turf and seeded areas - **NOT
WILDFLOWER AREAS.**

• Type: Peat free sanitized and stabilized compost or spent mushroom compost and to
conform to the Numerical Product Specification for Landscape Compost.
• Reference/Description/Grading: Compost shall be produced from biodegradable
materials and shall fall within the recommended ranges for the horticultural parameters
outlined in the specification table, as well as fall within the limits for contaminant
parameters in PAS 100.
• Coverage: Plant beds -Uniformly apply a (25mm-50mm) layer over the area to be
treated, trees - incorporate into backfill 1:3 mixture of compost and topsoil, grass
seeding / turf cover the entire treatment area at an average depth of 25 to 50 mm, then
incorporate it to a minimum depth of 150 mm using a rotovator or other appropriate
equipment
• Timing: Apply prior to cultivation.

Compost: typical specification.
Horticultural Parameters Reported as (units of measure) Recommended Range
pH pH units (1:5 water extract) 7.0 – 8.7
Electrical Conductivity µS/cm or mS/m (1:5 water extract) 2000 µS/cm or 200 mS/m
max
Moisture Content % m/m of fresh weight 35 – 55
Organic Matter Content % dry weight basis >25
Particle Sizing % m/m of air-dried sample passing 99% pass through 25mm screen
the selected mesh aperture size 90% pass through 10mm screen
C:N Ratio 20:1 maximum
Contaminant Parameters Various Meet BSI PAS 100* Criteria

Cultivation

Cultivate the soil of all areas prior to seeding and planting. This should include
loosening, aerating and breaking up soil into particles 2-8mm to depth of 150mm.
Remove any undesirable material brought to surface to a depth of 100mm including
visible weeds, roots and large stones or clay balls with any dimension exceeding 30mm.
Final Cultivation prior to seeding topsoil shall be brought to a fine tilth by approved
mechanical means or by hand raking, and if necessary regrading of the surface will be
carried out to conform to the prescribed finished levels.

TREES

Tree Planting

Trees to be pit planted with root access to a minimum 7m3 area of topsoil. Minimum pit
size to be 300mm greater than rootball in all directions. Excavate tree pits with slightly
raised centre. Retain topsoil for reuse. Dig a hole which is substantially bigger than the
volume of roots to be accommodated. Break up and loosen the base and sides of the
pit and shape base to falls towards the edge of pit to aid drainage. All tree pits should
be constructed to be free draining - in areas of impeded drainage, additional measures
may be required such as adding 150mm depth clean pea gravel to base of pit. The
trees will be planted to the same depth as they were in the nursery. Back fill the pit in
stages, whilst firming up the soil around the roots until the original ground level is
restored.
Tree pits to be filled with 1:3 mixture of compost and topsoil. Topsoil to contain peat
free organic matter and Growtab fertiliser to be incorporated into each pit.

Tree Support

All trees to be secured with short double stakes as BS8548:2014 with an adjustable
rubber tie from each stake, and no spacer pad. Stake to be driven into the ground
either side of the tree pit. Height of stakes: cut to no higher than approximately one third
of the tree height above ground level, and at least 300mm into the ground.

Stakes to be first grade pressure impregnated round timber with chamfered tops.
Backfilling: consolidate material around stake. Tying: secure tree firmly but not rigidly
to stake with ties within 25mm of top of stake.

Tree Accessories

Rootbarrier: The need for root barriers to be confirmed by engineer. Trees
adjacent to hard surfacing and/or services to have growing area defined by GreenBlue
Urban 'Reroot 2000' high density root barrier, or similar approved, in accordance with
manufacturer's and Engineer's guidance.
Irrigation:

Trees in soft landscape (EHS and Standard trees) - All trees to receive a GreenBlue
Urban Rooterain Metro irrigation pipe, or similar and approved.

SHRUBS

Semi-native mixes

To be pit planted in staggered rows, 1000mm between rows and 1000mm between
plants, with rabbit protection to aid establishment. Planted in single species groups, as
indicated in the Plant Schedule.

Native Hedgerow Planting

All transplants to be planted with rabbit protection (tree/ shrub shelters) and stake
support. Trench to be excavated 800mm wide x 450mm deep then backfilled with
topsoil mixed with compost in a 3:1 ratio.

Hedge plants to be planted in a double staggered row 450mm apart at 450mm centres
(5 per linear metre). All hedgerow planting to be covered with bark mulch to 50mm
depth.

Ornamental Shrub Planting

Soil analysis shall be completed by a reputable laboratory to determine any nutritional
requirements necessary. Once determined, the soil shall be appropriately amended to a
range suitable for the species to be established. If required, apply an organic based
fertiliser to manufacturer's recommended rates.
To be pit-planted, with sufficiently large pit to accommodate root system without
bending roots (minimum size of 150mm wider than roots when fully spread and 200mm
deep).

Grass Seeding

GRASS SEEDING/TURF

Turfed Areas

Turf must meet the Turfgrass Grower's Association (TGA) Quality Standards for
Cultivated Turf for the supply and laying of turf.

The turf soil should be of a sandy loam nature with no stones. The grass will be dense,
of uniform green colour, free of broadleaved weeds and not visibly affected by pest or
disease. Existing vegetation and stones should be removed and a light
tilth prepared. Turf to be laid within 24 hours of receipt. Turfing shall comply with BS
3969 and be carried out when the weather and soil conditions are suitable. Turfing
should not be carried out in exceptionally dry or frosty weather or when the ground is
waterlogged. Allowance should be made to keep the turf watered during dry periods
encountered throughout the establishment period.

Grass Seeding

After cultivation operations have been carried out, use a pre-seed herbicide on areas to
be seeded: Existing vegetation and stones should be removed and a light tilth prepared.
Sow areas to be seeded with grass seed which has been stored off the ground in a
clean, dry place free from vermin. Following an even distribution of seed, the contractor
shall carry out a light raking or light harrowing of the area and ensure consolidation of
the seed with the soil by the use of a light roller.
All reasonable precautions shall be taken to ensure that pedestrian and other traffic
does not cross areas during cultivation and until the grass has established.
The grass will be dense, of uniform green colour, free of broadleaved
weeds and not visibly affected by pest or disease.
Allowance should be made to keep the grass watered during dry periods
encountered throughout the establishment period.
300mm mowing strips to perimeter of all grassed and planted areas abutting building.

Species Rich Meadow

Prepare ground in accordance with **Pictorial Meadows' / Emorsgate Seeds**
cultivation, sowing and after care guidance and the following instructions.
A minimum 150mm depth of existing clean non-contaminated subsoil (or **soil stripped
of topsoil to lower fertility**) to be spread over all areas of proposed wildflower
seeding. Any imported subsoil to be tested by soil analysis to confirm appropriate for
landscape use.
A clean, weed free seed bed is required to establish the meadow. To prepare a seed
bed first remove weeds using repeated cultivation or a herbicide. Cultivation close to
established trees and shrubs can be damaging to their root systems so take care not to
dig too deep, keeping disturbance to the minimum required to expose fresh soil.
Soil to be cultivated using a disk harrow or rotovator to 100mm depth then further
cultivated to 30mm depth, graded and rolled to produce a firm, level seed bed.
Sow the seed onto a sterile mulch which has been spread evenly over the prepared
seed bed to an average depth of around 75 mm just before sowing. Use locally sourced
PAS 100 green waste compost, the function of the mulch is to suppress the germination
of the thousands of annual seeds that will be in the soil bank.

Seed must be surface sown and can be applied by machine or broadcast by hand. To
get an even distribution and avoid running out, divide the seed into two or more parts
and sow in overlapping sections. Do not incorporate or cover the seed but firm in with a
roll, or by treading, to give good soil/seed contact. **Refer to the sowing guide:
<http://pictorialmeadows.co.uk/> or Emorsgate Seeds**

wp-content/uploads/2016/02/HOW-TO-Establish-a-Perennial-Meadow-from-seed.pdf
Meadow mix to be sown at any time of year as long as the ground is workable and area
can be watered adequately. The optimum time is early winter as the cold period
encourages more seedlings to germinate in the very first spring.

**Emorsgate Seeds: Meadow mix to be sown in August-September or March-April
but can be sown at other times of the year if there is sufficient warmth and
moisture.**

MULCH

Bar Mulch Materials

General: Free from toxins, pathogens or other extraneous substances harmful to plant,
animal or human life, all to be Forestry Stewardship Council (FSC) Certified and have
fire resistant characteristics, being certified in accordance with BS4790: 1987.

Submit certification of source, analysis, suitability for purpose and absence of harmful
substances.

Certified materials: Composted bark mulch, 2 years minimum service life.

Purity: Free of pests, disease, fungus and weeds. Preparation: Clear all weeds. Water
soil thoroughly.

Mulch: ornamental fine grade mulch (5-35mm nominal particle size) to all shrub/
herbaceous beds and ornamental trees in grass (Melcourt Ornamental Bark Mulch or
similar), coarse grade bark mulch (15-65mm nominal grade) to structure planting /
woodland mix / hedgerow (Melcourt Bark Nuggets or similar approved).
Coverage: planted areas and ornamental trees to 75 mm settled depth.

Trees in grass: 500mm radius from trunk.
Finished level of mulch: 30 mm below adjacent grassed or paved area.

Mulch under existing tree (Root Protection Area)

In accordance with Ecus Ltd "Tombridge Crescent Wakefield – BS 5837:2012
Arboricultural Report, Impact Assessment and Method Statement" and with the
principles within BS 5837:2012:

To compensate for root damage and stress caused by construction activities, mulch
within retained tree Root Protection Area.

Materials: The materials that may be used for mulching include may be used include
wood chip, pulverized bark, or leaf mould.

Area: The mulched area should extend over as much of the root system as can be
allowed by other site-usage requirements.

Depth: The depth of an organic mulch should not be so much as to inhibit aeration of
the root system or to cause overheating of uncomposted material (normally no more
than 50 mm to 100 mm).

Replacement: The mulch should be periodically replenished as it decomposes, so that it
does not become depleted.

GENERAL NOTES

- Drawing for Planning purposes only
- Ecus drawing references:
20037-LD-01 Planting Plan & Plant Schedule (whole site)
20037-LD-02 Outline Soft Specification
20037-LD-03 Maintenance Schedule (plot planting)
20037-LD-04 Soft Landscape Proposals - Planting Plan &
Planting Schedule: Public Open Space
20037-LD-05 Soft Landscape Proposals - Planting Plan &
Planting Schedule: Plot Planting
- For Maintenance Schedule for Public Open Space, refer to
Biodiversity Retention & Enhancement Report produced by
ECUS Ltd.
- Refer to Arboricultural report for details of existing vegetation
to be retained and protection measures. Report produced by
ECUS Ltd titled "Tombridge Crescent – BS 5837:2012
Arboricultural Report, Impact Assessment and Method
Statement".
- Building / Site Layout provided by Loroc Architects.
- Building foundations to be confirmed by Engineer with
reference to planting proposals and NHBC guidance (or
alternative where applicable). Tree locations to be fully
co-ordinated once building foundation depth are confirmed.
Requirements for root barriers to be confirmed by an engineer.
- Refer to Engineer's details for level and drainage information
- Setting out on site to be agreed with Landscape Architect
- Check all dimensions on site.
- Do not scale from this drawing
- Report any discrepancies and omissions to Ecus Ltd
- This drawing is Copyright
- All levels indicative only. Extrapolated from site levels. All
require to be checked.
- All details subject to approval by the local authority for the
discharge of relevant planning conditions.

3RD-PARTY INFORMATION

NB This drawing includes information provided by independent
surveyors and / or consultants, to whom all queries shall be
made. Ecus Ltd can accept no liability for its context or
accuracy.

DESIGN

Unless stated otherwise, the designs shown are subject to
detailed site survey, investigations, and legal definition, the
CDM regulations and the comments and / or approval of the
various relevant Local Authority Officers, Statutory
Undertakers, Fire Officers, Engineers and the like. They are
copyright, project specific and confidential. No part is to be
used or copied in anyway without the express prior consent of
Ecus ltd.

TREE NOTES:


Note that all tree and shrub locations are subject to
coordination with services, to be undertaken by others. **The
requirement for root barriers is to be confirmed by an
engineer.**

Note that it is best practice that root barriers are required to
extend 2m beyond the mature canopy spread of new trees to
protect all structures and hard landscape elements, such as
highways, services and buildings. In addition, root barriers are
required for all new trees within 5m of highways - e.g.
GreenBlue Urban 'Reroot 2000' or similar. Depth of tree root
barrier to be confirmed by an engineer once services design
has been produced at construction detail. Install to
manufacturer's and engineer's guidance.

CDM - Risks / Hazards

- Proposed locations of landscape elements shown are
subject to the presence of below ground services. A
detailed survey is to be undertaken and necessary
method statements prepared and approved prior to
undertaking any excavations / work within this area.
- Care to be taken when working in proximity to the
surrounding existing roads.
- Care to be taken when clearing the existing site due to
the potential presence of needles, litter etc.

B	16.01.24	JS	Ecus	General Notes updated	
A	02.11.22	JS	Ecus	Preliminary	
REV	DATE	DRAWN BY	CHECKED BY	REVISION COMMENT	
DRAWING STATUS: Preliminary					

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