

SPECIFICATION NOTES

- General.**
 - This plan to be read in conjunction with the following documents:
 - Landscape works specification and other drawings by Terra Firma
 - Architectural and engineering drawings and reports
 - Arboricultural and ecological reports
- General landscaping.**
 - Existing levels to be preserved around retained existing trees and vegetation. Existing trees and vegetation to be retained are to be protected in accordance with BS5837:2012 during construction.
 - All landscape works to be undertaken by competent persons, with appropriate training and equipment.
 - All arisings to be removed from site at contractor's expense unless noted otherwise, (e.g. woodchip, gravel, topsoil, timber sleepers).
- Services.**
 - The contractor must ascertain for himself/herself the exact location of underground services before commencing work.
- Soil Materials Generally.**
 - Purity. Soils shall be free from roots, stolons, rhizomes, propagules of perennial or invasive weeds couch grass, bindweeds, docks, Japanese knotweed, giant hogweed and horsetail/marestail (Equisetum species).
 - Foreign matter. On visual inspection, free from non-soil material, brick and other building materials and wastes, sharps, and any other foreign matter or material or substance that would render the soil or soil ameliorant unsuitable for use.
 - Contamination. Do not use topsoil, subsoil, sand or compost contaminated with rubbish or other materials that are:
 - Corrosive, explosive or flammable;
 - Hazardous to human or animal life;
 - Detrimental to healthy plant growth.
 - Give notice if any evidence or symptoms of soil contamination are discovered on the site or in topsoil, subsoil, sand or compost or other planting media to be used.

- Soil testing**
 - Each soil source (Imported and site-won subsoil and topsoil - see items 6-8 and 9 below) shall be analysed by Tim Chare Associates, Howbery Park, Wallingford, Oxon OX10 9BA, Tel: 01491 822653, Email: info@tcha.co.uk, www.tcha.co.uk (or equivalent approved).
- Subsoil for general planting areas (sample of site-won and/or imported subsoil to be sent for testing to check compliance with parameters below)**
 - Provide subsoil as necessary to make up deficiency on site. Natural or manufactured subsoil (from approved source) will be acceptable (within parameters given below). Subsoil to be tested to determine suitability for proposed use; test report to be submitted for approval and to enable amelioration recommendations. Subsoil should be free from commonly tested contaminants, including asbestos. Subsoil parameters to be within the following:

Parameter	Unit	Lower Limit	Upper Limit
Clay (<0.002mm)	%	5	35
Silt (0.002-0.05mm)	%	0	35
Sand (0.05-2.0mm) of which at least 40% shall fall into fine to medium sand range	%	50	90
Stones (2-50mm)	% DW	-	50
Stones (>50mm)	% DW	-	0
pH Value	Unit	5.5	8.5
Electrical Conductivity (1:2.5 water extract)	µS/cm	-	1500
Electrical Conductivity (CaSO4 extract)	µS/cm	-	2800
Exchangeable Sodium Percentage	%	-	15
Organic Matter	%	-	1.5

- Subsoil for tree pits (sample of site-won and/or imported subsoil to be sent for testing to check compliance with parameters below)**
 - Provide subsoil as necessary to make up deficiency on site. Natural or manufactured subsoil (from approved source) will be acceptable (within parameters given below). Subsoil to be tested to determine suitability for proposed use; test report to be submitted for approval and to enable amelioration recommendations. Subsoil should be free from commonly tested contaminants, including asbestos. Subsoil parameters to be within the following:

Parameter	Unit	Lower Limit	Upper Limit
Clay (<0.002mm)	%	5	18
Silt (0.002-0.05mm)	%	0	25
Sand (0.05-2.0mm) of which at least 40% shall fall into fine to medium sand range	%	60	90
Stones (2-50mm)	% dry wt.	-	50
Stones (>50mm)	% dry wt.	-	0
pH Value	Unit	5.5	8.5
Electrical Conductivity (1:2.5 water extract)	µS/cm	-	1500
Electrical Conductivity (CaSO4 extract)	µS/cm	-	2800
Exchangeable Sodium Percentage	%	-	15
Organic Matter	%	-	1.5

- Topsoil for general landscaping (sample of site-won and/or imported topsoil to be sent for testing to check compliance with parameters below and to inform any necessary amelioration - see 9 below)**
 - Existing topsoil to be stripped and re-used, provided soil is within parameters given below when analysed. Imported topsoil to be good quality sandy loam or manufactured topsoil (from approved source, meeting parameters given below). Topsoil (site-won or imported) is to be tested to determine suitability for proposed use and should be free from commonly tested contaminants, including asbestos; test report to be submitted to Landscape Architect for approval and to enable amelioration recommendations to be made:

Parameter	Unit	Lower Limit	Upper Limit
Clay (<0.002mm)	%	5	18
Silt (0.002-0.05mm)	%	0	35
Sand (0.05-2.0mm) of which at least 40% shall fall into fine to medium sand range	%	50	85
Stones (2-50mm)	% dry wt.	0	20
Stones (>50mm)	% dry wt.	0	0
pH Value	Unit	5.5	8.5
Electrical Conductivity (1:2.5 water extract)	µS/cm	-	1500
Electrical Conductivity (CaSO4 extract)	µS/cm	-	2800
Exchangeable Sodium Percentage	%	-	15
Organic Matter	%	4.0	8.0
Total Nitrogen	%	0.15	-
Carbon: Nitrogen Ratio	-	20:1	-
Extractable Phosphorus	mg/l	26	100
Extractable Potassium	mg/l	240	1200
Extractable Magnesium	mg/l	50	600

- Ameliorant: fertilizer and compost (contractor is responsible for submitting a sample of imported or site-won topsoil (to inform requirements).**
 - Topsoil amelioration to be determined by analysis. Once amelioration requirements ascertained as required, approved (peat free) composts to PAS100 and/or fertilizers to be incorporated during cultivation at required rate to full depth of growing medium.

- Soil handling and depths.**
 - Management of soils to be in accordance with the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.
 - Topsoil and subsoil to be handled (i.e. excavated and/or imported, stored, spread, cultivated) in accordance with method agreed in writing by Landscape Architect prior to work commencing. All topsoil and subsoil areas shall be thoroughly cultivated by hand or suitable machinery to the full depth of the topsoil layer, incorporating ameliorants as required. If compaction is suspected in sub-grade, subsoil or topsoil surfaces, these should be ripped as necessary to decompact and ensure adequate drainage.
 - Hand cultivations shall be carried out to achieve the required finish on areas where machine cultivation is impossible or adjacent to kerbs, manholes and footpath junctions, around retained trees etc. Surplus plant matter, rubbish and surface stones having any dimension greater than 25 mm shall be collected and removed from the site. Topsoil and subsoil is to be stored in heaps, maximum of 2m in height, providing soil is reasonably dry and friable during stripping and handling - using a tracked excavator, to protect from wet weather once final height is achieved, an excavator should regrade the sides and top of stockpile to firm surface by tracking across it to form a smooth gradient.
 - Final topsoil depth (allowing for settlement) to be 300mm for tree pits and general planting areas and 150mm for grass. Finished soil levels to be 25mm above/below adjoining paving or kerbs, not less than 150mm below dpc of adjoining buildings; shrub areas to be higher than adjoining grass areas by 25 mm. Topsoil to be spread in lightly compacted layers, max. 150mm depth, gently firm each layer before spreading the next.

- Plant handling and establishment.**
 - Plant handling shall be in accordance with 'Handling and establishing landscape plants', published by the CPSE through the JCU. (<https://www.cpsenetwork.com/content/uploads/2014/12/The-National-Plant-Specification-Handling-and-Establishment.pdf>) The contractor shall comply with Part 3, Recommendations for plant handling from delivery to site to ensure successful establishment.

- General planting notes.**
 - Details for tree, hedge and general planting to be finalised once final site conditions are known (i.e. compaction and permeability of ground). General plant stock to conform to BS 3936, advanced nursery stock to BS 8545, and planting to BS 4428. Plants shall be first class examples of their species or variety, free from all pests and diseases, with good fibrous root systems and materially undamaged. All planting operations to be in general compliance with BS4428: 'Code of Practice for general landscape operations'.
 - Only carry out all planting while soil and weather conditions are suitable:
 - Do not plant during periods of frost or strong winds. Plant only during the following periods:
 - Deciduous and conifer trees: Late October to late March (rootball and bare root)
 - Conifer grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering is provided.
 - Setting out of planting beds to be approved by Landscape Architect before work commences. Ensure that plant beds are neatly defined, and rise from adjacent paved areas as specified above. All tree pits, tree circles in lawn and planting beds are to be mulched with approved bark mulch to 75mm depth after planting.

- Plant biosecurity**
 - Plant procurement should follow the latest recommendations from DEFRA and landscape contractors should verify the status of all specified species prior to procuring. Plant material should be sourced from UK growers with a sound Biosecurity Policy and management systems that can demonstrate the traceability of their stock with plant health certificates / plant passports or other documentation (commensurate with the HTA Plant Health Assurance Scheme (still in development phase)).
 - Selected plants, including trees should be propagated and grown on a UK nursery, or containerised and grown-on in the UK for a minimum of 5 years (trees) or 2 years (shrubs). Any Xylella host plants specified must come from a UK nursery and must not be imported from Europe or anywhere else in the world, directly to site. There must be no traceability on the Xylella host plants (directly back to its origin). The contractor is responsible for checking compliance of growers and to submit their own Biosecurity Plan with their tender.
- Tree planting**
 - Any proposed substitutions of species shown on plan to be approved by landscape architect prior to planting. Details for tree planting to comply with BS8545. As a guide all trees to be planted in square pits with base undisturbed unless drainage / compaction problems known. Plant at a depth where the root flare is clearly visible at the soil surface. Where trees have been supplied with the root flare too deep excess soil or fibrous root growth should be removed before planting. All trees to have 'Polder' tree irrigation/aeration system installed as supplied by Platipus 01737 762300 www.platipus-anchors.com or approved equivalent. Water-in heavily after planting and mulch surface, ensuring mulch is not in contact with trunk of tree. Tree support to comply with BS 8545. RB or CG trees to have double stake and bridge with adjustable tie; multi stemmed trees or trees on slopes to have angled single stake with adjustable tie, in windy locations or for large trees, install wired guying; tree stakes to be slanted back. Any necessary remedial tree works are to be carried out by an approved tree surgeon to BS 3998. Trees planted within grass areas to be set in mulched earth circles, 1m diameter around tree trunk, with turf trimmed neatly to form circle.
 - Trees up to 20cm girth.
 - Depth of tree pits to be the same as the rootball and with overall width to be 150mm wider than the diameter of the rootball (75mm min. from rootball edge to tree pit side). Pits to be backfilled with 300mm depth of specified topsoil over subsoil as per spec.

- Hedges.**
 - Depth of planting trench to be same as rootball, overall width 150mm wider than rootball (75mm min. from rootball edge to sides of trench). Trench to be backfilled with 300mm depth of specified topsoil over subsoil as per spec. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis. Central post and wire supporting to be provided with two line wires and plants to be tied in using horticultural plastic ties. On planting, hedges to be trimmed to 800mm ht. and sides trimmed to neat shape where necessary.
- Shrub and Ground Cover Planting.**
 - All plants to be planted into cultivated planting beds (with 300mm depth specified topsoil) at densities shown in plant schedule, backfilled with same topsoil. Fertiliser to be incorporated as required to ensure establishment and continued thriving of plants - type and application rate to be determined by analysis.
- Maintenance.**
 - Maintenance Plan. Practical Completion to include weed control, watering and replacement of failures to original specification in the planting season following failure.
 - All plant material to receive annual pruning and hedges and groundcover to be trained and edged with suggested 2 trims per year.
 - Check tree stakes and ties annually and after strong winds.

- Proposed planting to be selected from the following:**

Botanical Name	Common Name	Quantity	Specification
<i>Acer campestre</i>	Field Maple	3no.	12-14cm girth 3.5-4m ht. RB/CG (location on site to be confirmed)
<i>Betula papyrifera</i>	Paper Birch	3no.	Relocated from existing community garden.
<i>Betula utilis</i> var 'Jacquemonti'	Himalayan Birch	1no.	10-12cm girth; 3.5-5m ht. RB/CG (planted in place of tree removed to facilitate works)

Botanical Name	Common Name	Specification	Density
<i>Thymus vulgaris</i>	Common Thyme	2i CG	5/m2
<i>Verbena bonariensis</i>	Argentinian Vervain	2i GG	5/m2

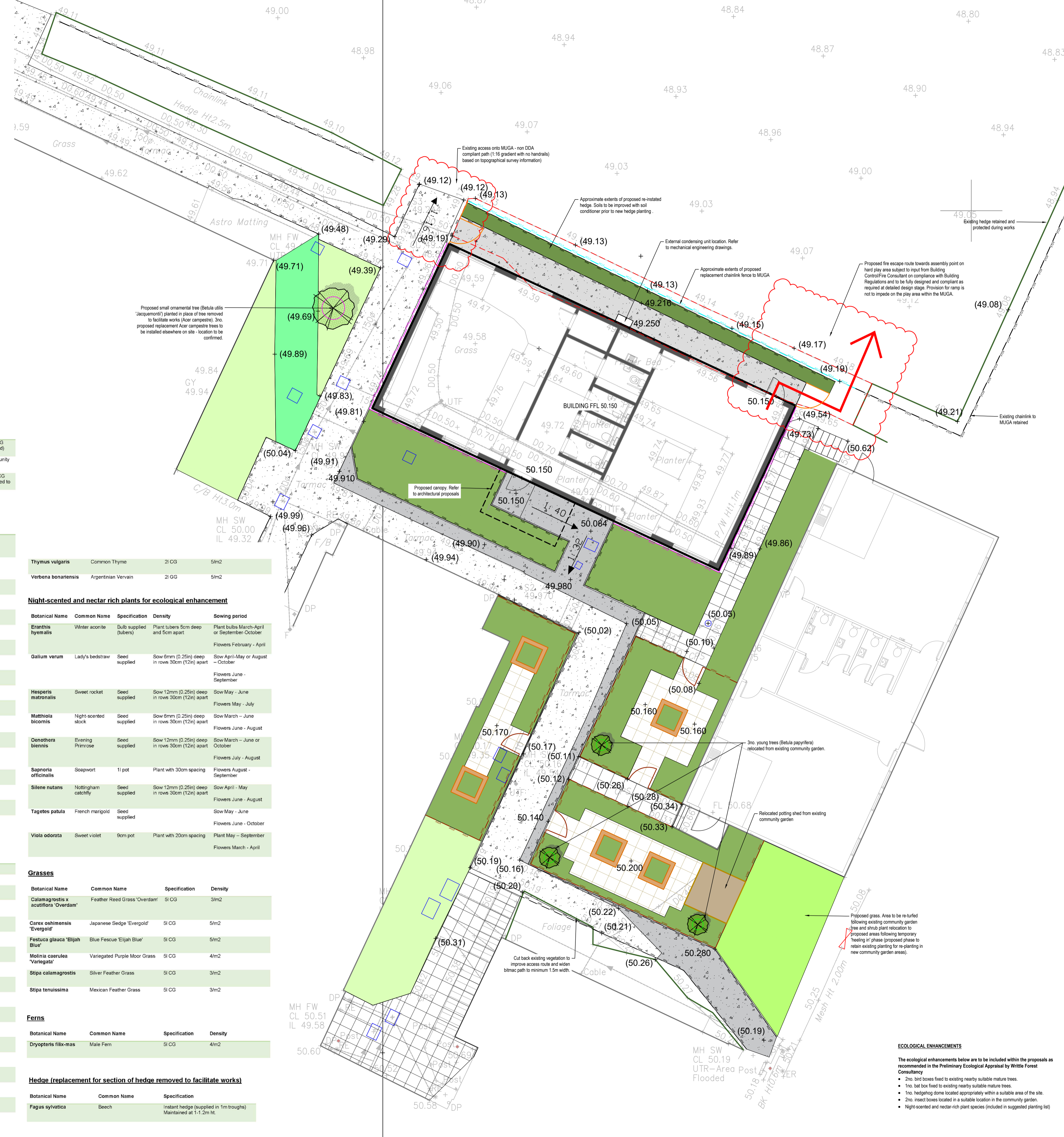
Botanical Name	Common Name	Specification	Density
<i>Erica cinerea</i>	Heather	2i CG	5/m2
<i>Escallonia 'Apple Blossom'</i>	Escallonia 'Apple Blossom'	5i CG	3/m2
<i>Hebe 'Great Orme'</i>	Shrubby Veronica 'Great Orme'	5i CG	3/m2
<i>Hebe 'Midsummer Beauty'</i>	Shrubby Veronica 'Midsummer Beauty'	5i CG	3/m2
<i>Hebe rakaiensis</i>	Rakai Hebe	5i CG	3/m2
<i>Helichrysum italicum</i>	Helichrysum italicum	5i CG	4/m2
<i>Lavandula angustifolia</i>	Lavender	3i CG	3/m2
<i>Lavandula x intermedia 'Grosso'</i>	Lavender 'Grosso'	5i CG	4/m2
<i>Pachyandra ternstroemia 'Green Carpet'</i>	Japanese spurge	5i CG	4/m2
<i>Philadelphus 'Belle Etoile'</i>	Mock Orange	5i CG	3/m2
<i>Philomis frutescens</i>	Jerusalem Sage	5i CG	4/m2
<i>Potentilla fruticosa 'Abbotswood'</i>	Shrubby Cineraria 'Abbotswood'	5i CG	4/m2
<i>Prunus laurocerasus 'Otto Luyken'</i>	Cherry Laurel	5i CG	3/m2
<i>Santolina virens</i>	Green Cotton Lavender	5i CG	3/m2
<i>Spiraea japonica 'Firelight'</i>	Japanese Spiraea 'Firelight'	5i CG	3/m2

Botanical Name	Common Name	Specification	Density
<i>Anethum graveolens</i>	Dill	2i CG	5/m2
<i>Artemisia 'Powis Castle'</i>	Mugwort 'Powis Castle'	2i CG	5/m2
<i>Aster pyrenaicus</i>	Michaelmas daisy	2i CG	5/m2
<i>Brunnera macrophylla</i>	Siberian Bugloss	2i CG	5/m2
<i>Centranthus ruber</i>	Red valerian	2i CG	3/m2
<i>Echinacea purpurea</i>	Purple Coneflower	2i CG	5/m2
<i>Egimonia vesicaria 'Sulphureum'</i>	Barnwort 'Sulphureum'	2i CG	5/m2
<i>Geranium macrorrhizum 'Album'</i>	Balkan Cranesbill 'Album'	2i CG	5/m2
<i>Geranium x oxoniense 'Wargrave Pink'</i>	Cranesbill	2i CG	5/m2
<i>Heuchera micrantha 'Palace Purple'</i>	Coral Flower 'Palace Purple'	2i CG	5/m2
<i>Knautia macedonica</i>	Macedonian Knopweed	2i CG	5/m2
<i>Linaria purpurea</i>	Purple toadflax	2i CG	5/m2
<i>Persicaria affinis 'Superba'</i>	Knopweed 'Superba'	2i CG	5/m2
<i>Persicaria amplexicaulis 'Fireball'</i>	Red Bistort	2i CG	5/m2
<i>Rubiochia filigula 'Sulvaticus 'Black-eyed Susan 'Goldsturm'</i>	Black-eyed Susan 'Goldsturm'	2i CG	5/m2
<i>Salvia officinalis 'Tricolor'</i>	Sage 'Tricolor'	2i CG	5/m2
<i>Sedum spectabile</i>	Ice plant	2i CG	3/m2
<i>Stactys byzantina 'Silver Carpet'</i>	Lamb's Ears 'Silver Carpet'	2i CG	5/m2

Botanical Name	Common Name	Specification	Density
<i>Calamagrostis x acutiflora 'Overdam'</i>	Feather Reed Grass 'Overdam'	5i CG	3/m2
<i>Carex oshimensis 'Evergold'</i>	Japanese Sedge 'Evergold'	5i CG	5/m2
<i>Festuca glauca 'Elijah Blue'</i>	Blue Fescue 'Elijah Blue'	5i CG	5/m2
<i>Molinia caerulea 'Variegata'</i>	Variegated Purple Moor Grass	5i CG	4/m2
<i>Stipa calamagrostis</i>	Silver Feather Grass	5i CG	3/m2
<i>Stipa tenuissima</i>	Mexican Feather Grass	5i CG	3/m2

Botanical Name	Common Name	Specification	Density
<i>Dryopteris filix-mas</i>	Male Fern	5i CG	4/m2

Botanical Name	Common Name	Specification	Density
<i>Fagus sylvatica</i>	Beech	Instant hedge (supplied in 1m troughs) maintained at 1.1m ht.	



- All dimensions in millimetres unless otherwise indicated. All levels in metres relative to Ordnance Datum and any positive (AOD) unless otherwise indicated.
- Figure dimensions only to be taken from this drawing, do not scale except for planning purposes. Dimensions to be checked on site.
- For civil and structural matters including existing and proposed services, sub-base construction and site structures (including retaining walls over 600mm height) refer to information by others.
- The original version of this drawing was produced in colour - monochrome copies should not be relied upon to accurately reflect all drawing elements.
- This drawing has been prepared for planning purposes only and should not be used for quantification, tender or construction.

- Notes:**
- All materials to be as detailed or accepted equivalent.
 - Refer also to architectural and engineering drawings as applicable.

- Existing tree to be retained and protected in accordance with BS 5837:2012
- Root Protection Area - refer to arboricultural report. To remain undisturbed and uncompacted (no material or equipment storage permitted)
- Existing section of hedge to be removed to facilitate works (approximate - extents to be confirmed)

- Hard landscape**
- Existing path retained
 - Existing slab paving retained
 - Proposed pedestrian bitmac (to match existing)
 - Proposed re-positioning of existing community garden slab paving

- Edges**
- Existing edging retained
 - Proposed pin kerb edging to footpath (flush with footpath surfacing)
 - Proposed slab on edge detail to building edge. Exact extents to be confirmed at detailed design stages

- Fencing and gates**
- Existing chainlink fence retained and protected during works
 - Proposed chainlink fence to replace section removed to facilitate works
 - Proposed 1.2m ht. timber picket fence to new community garden areas
 - Proposed 1m wide timber picket gates (4no.) to match fence treatment
 - Proposed 1.2m wide metal bowtop gates to restrict pupil access to rear of modular building

- Soft landscape**
- Existing grass retained and protected during works
 - Existing astro matting retained and protected during works
 - Proposed grass laid to turf (replacement grass following existing tree and shrub planting relocation)
 - Proposed shrub planting beds (a mix of existing re-located plants and new planting - refer to planting palette for suggested new plant species)
 - Proposed relocation of existing trees from community garden (lited to facilitate building works)
 - Proposed ornamental tree (planted in place of tree removed to facilitate building works). 3no. additional trees to be installed elsewhere on site - location to be agreed.
 - Proposed replacement hedge planing - to replace section of hedge removed to facilitate works (refer to planting palette for suggested species)

- Other**
- Existing raised beds from community garden re-located (condition dependant - replace like for like if required)
 - Existing manhole cover positions.
 - Existing site spot levels (based on topographical information)
 - Proposed levels. Tie into existing levels where applicable.

rev	date	by	notes
01	20.02.23	DB	Planning issue
02	08/03/23	DB	notes

project: Downlands Community School, Hassocks
 title: Landscape Proposals Plan
 status: Planning scale @ A1 1:100
 dwg no: 2417-TFC-XX-XX-DR-L-1002
 references: Z2048-HNW-ZZ-00-A-DR-2100 Rev. P01 by HNW Architects dated 18.11.22

ECOLOGICAL ENHANCEMENTS

The ecological enhancements below are to be included within the proposals as recommended in the Preliminary Ecological Appraisal by Writtle Forest Consultancy

- 2no. bird boxes fixed to existing nearby suitable mature trees.
- 1no. bird box fixed to existing nearby suitable mature trees.
- 1no. hedgehog dome located appropriately within a suitable area of the site.
- 2no. insect boxes located in a suitable location in the community garden.
- Night-scented and nectar-rich plant species (included in suggested planting list)

terrafirma
LANDSCAPE ARCHITECTS

Suite B, 100a House, Bedford Road, Tel: +44 (0)1703 262 560
 Parkfields, Haverhill GU22 2JH, Web: www.terrafirmalandscape.com © Copyright reserved 2023