NOTE:
SURROUNDING CONTEXTUAL BUILDINGS AND INFORMATION ARE BASED ON RECEIVED ORDNANCE SURVEY DRAWINGS AND ARE SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ASSUMED SITE BOUNDARY IS SUBJECT TO CONFIRMATION

NORTH

General Notes:

All proposed tree locations are subject to co-ordination with drainage layout and subject to modification depending on the location of underground services and utilities. Drainage engineer to co-ordinate services layout in conjunction with the landscape plan to avoid conflict as much as possible. Allowance to be made at tender stage for the possible requirement for root barriers once the drainage layout is confirmed. CA to be informed immediately once this is available.



PLANTING SCHEDULES:

Trees:

Species	Abb.	Form	Girth	Height (cm)	Clear stem (cm)	Root	Quantity
Acer campestre	Ac	Standard Extra Heavy	16-18	min 450	min 220	RB	8
Betula pendula	Bp	Standard Extra Heavy	16-18	min 450	min 220	RB	10
Carpinus betulus	Cb	Standard Extra Heavy	16-18	min 450	min 220	RB	4
Carpinus betulus 'Frans Fontaine'	CbFF	Standard Extra Heavy	16-18	min 450	min 200	RB	3
Corylus colurna	Cc	Standard Extra Heavy	18-20	min 450	min 220	RB	3
Crataegus monogyna	Cm	Standard Extra Heavy	18-20	min 450	min 220	RB	1
Fagus sylvatica	Fs	Standard Extra Heavy	18-20	min 450	min 220	RB	3
Prunus avium	Pa	Standard Extra Heavy	16-18	min 450	min 220	RB	2
Prunus avium 'Plena'	PaP	Standard Extra Heavy	16-18	min 450	min 220	RB	4
Pinus sylvestris	Ps	/	5x	/	250-300	/	11
Quercus robur	Qr	Standard Extra Heavy	16-18	min 450	min 220	RB	1
Sorbus aria	Sa	Standard Extra Heavy	16-18	min 450	min 220	RB	1
Tilia x europaea	Txe	Standard Extra Heavy	18-20	min 450	min 220	RB	5
Tilia cordata 'Greenspire'	TcGS	Standard Extra Heavy	18-20	min 450	min 220	RB	8

Mixed Species Native Hedge Planting:

Name	Abb	Height (cm)	Root	Container	Habit	% in Mix
Crataegus monogyna	CMO	200-220	C	1m Trough	Instant hedge unit	50%
Cornus sanguinea	Csa	200-220	C	1m Trough	Instant hedge unit	10%
Corylus avellana	Cav	200-220	C	1m Trough	Instant hedge unit	10%
Ilex aquifolium	IAQ	200-220	C	1m Trough	Instant hedge unit	5%
Ligustrum vulgare	Lvu	200-220	C	1m Trough	Instant hedge unit	5%
Prunus spinosa	PSP	200-220	C	1m Trough	Instant hedge unit	10%
Rosa canina	Rca	200-220	C	1m Trough	Instant hedge unit	5%
Viburnum opulus	Vop	200-220	C	1m Trough	Instant hedge unit	5%

Notes:
* Description: Instant hedge to be maintained 2m high x 1m Instant hedge units.

Specimen Shrub Planting:

Name	Abb	Height (cm)	Root	Container	Habit	Quantity
Amelanchier lamarckii (Multi Stem Specimen)	Al	175-200	RB	/	3 - 5 main stems	5

Formal Hedge Planting:

Name	Abb.	Height (cm)	Root	Form	Spacing
Carpinus betulus	Cb	100-120	RB	Bushy, Clipped sides	50cm centres, 40cm between rows

Notes:
*Hedge plants to be planted in doubled staggered rows at centres noted above
*Hedge plants to be protected with 600mm Tubex Shelterguard Shrub Shelters supported by 32mm x 32mm tanalised stakes.
* 1.2m high protective fence comprising tanalised timber posts & strained galvanised wire to centre of hedgerow:
Posts - 100mm dia. machine rounded tanalised timber driven into ground min 600mm @ 2.5m centres.
Wire - galvanised strained between posts @ 0.5 & 1m above ground level

Ornamental Shrub Planting:

Name	Abb	Height(cm)	Root	Container	Habit	Density
Cornus alba 'Spaethii'	CaS	60-80	C	3L	Branched	3/m²
Cornus sanguinea 'Midwinter Fire'	CsMF	60-80	C	3L	Branched	3/m²
Cornus stolonifera 'Flaviramea'	CsF	60-80	C	3L	Branched	3/m²
Elaeagnus x ebbingei 'Gilt Edge'	EGE	40-60	C	3L	Branched	3/m²
Hebe rakaiensis	Hr	30-40	C	5L	Bushy	4/m²
Hebe 'Red Edge'	HRE	30-40	C	5L	Bushy	4/m²
Prunus laurocerasus 'Cherry Brandy'	PICB	30-40D	C	3L	Bushy	4/m²
Viburnum x davidii	Vd	30-40	C	3L	Bushy	4/m²

Native Woodland Mix

Name	Abb	Height (cm)	Girth	Specification	% in Mix
Acer campestre	ACA	40-60cm		B 1+1 Transplant	7.5%
Acer campestre	ACA	200-250cm	6-8cm	Feathered: Bareroot: Planted at 1/9sqm	1.5%
Alnus glutinosa	AGL	40-60cm		B 1+1 Transplant	5.0%
Alnus glutinosa	agl	200-250cm	6-8cm	Feathered: Bareroot: Planted at 1/9sqm	1.5%
Betula pubescens	BPU	40-60cm		B 1+1 Transplant	9.5%
Betula pubescens	Bpu	200-250cm	6-8cm	Feathered: Bareroot: Planted at 1/9sqm	1.5%
Cytisus scoparius	Csc	40-60cm		155cc ; 1+0: Seedling: cell grown	5.0%
Ilex aquifolium	IAQ	40-60cm		155cc min ; 1+0: Seedlings: cell grown	10.0%
Ligustrum vulgare	Lvu	40-60cm		B:0/1: Branched: 2 bks	7.5%
Malus sylvestris	MSY	40-60cm		B 1+1 Transplant - seed raised	5.0%
Pinus sylvestris	P sy	40-60cm		1+2: Transplant	10.0%
Prunus spinosa	PSP	40-60cm		B:1+1: Transplant -seed raised: Branched: 2 bks	9.5%
Quercus petraea	Q pe	40-60cm		B:0/1: Branched: 2 bks	5.0%
Quercus robur	Qr	50-60cm		B 1+1 Transplant	5.0%
Quercus robur	Qr	200-250cm	6-8cm	Feathered: Bareroot: Planted at 1/9sqm	1.5%
Rosa canina	Rca	40-60cm		B:1+1: Transplant -seed raised: Branched: 2 bks	5.0%
Sorbus aria	Sar	40-60cm		B 1+1 Transplant	5.0%
Viburnum lantana	Vla	40-60cm		B:1+1: Transplant -seed raised: Branched: 2 bks	5.0%

Proposed Unit 4

SOFT LANDSCAPE KEY:

- **Proposed trees in soft landscape** — Refer to planting schedule for species & specification
- **Proposed specimen shrub planting** — Refer to planting schedule for species & specification
- **Proposed ornamental & groundcover shrub planting** — Refer to planting schedule for species & specification
- **Proposed native woodland mix planting** — Refer to planting schedule for species & specification
- **Proposed formal hedge planting** — Refer to planting schedule for species & specification
- **Proposed mixed species native hedge planting** — Refer to planting schedule for species & specification. To be maintained at 2m high
- **Proposed close mown grassland** — *To be species rich eco flowering lawn*
- **Proposed ornamental bark mulch surface finish**
  - *1m Dia. ornamental bark mulch around all trees in grass in accordance with BS8545 :2014 recommendations*
  - *650mm maintenance strip*

WIDER SITE LANDSCAPING KEY
(Proposals prepared by Urban Wilderness)

- Proposed Native Woodland Planting
- Proposed Native Scrub Planting
- Proposed Native Hedgerow
- Proposed Formal Hedgerow
- Proposed close mown grassland
- Proposed Trees
- Existing Landscape Retained and Enhanced

SOFT LANDSCAPE SPECIFICATION

NOTE: All soft landscape works to be carried out in accordance with BS4428:1989.

SUBSOIL
All subsoil should be free draining and well aerated and in accordance with BS 8601:2013
Subsoil should be broken up to relieve compaction and aid drainage prior to topsoiling to the following depths:
- For light and non cohesive subsoils: 300mm
- For stiff clay and cohesive subsoils: 450mm
Immediately before spreading topsoil, remove stones larger than 50mm.
Cultivated subsoil that is used for wildflower grass areas should be minimum 150mm depth.

TOPSOIL
Existing site won topsoil to be reused for soft landscape areas if sufficient quantities are available and the topsoil meets the criteria for multipurpose topsoil as defined in table 1 of BS3882:2015 specification for Topsoil.

If imported topsoil is required it is to be supplied and spread by the main contractor to the approval of the Landscape contractor, in accordance with the parameters of a multi purpose topsoil as laid out in BS 3882 : 2015. To be a natural sandy loam, of medium texture, with a pH between 5.5 and 7.8, not more than slightly stony and free of pernicious weeds. Subsoil to be well broken up prior to top-soiling to relieve compaction. Topsoil depths should be:
Areas for Ornamental Shrub Planting: minimum 400mm
Areas for cultivated turf: minimum 150mm
Note: Contractor to provide soil testing declaration of analysis certification and sample for inspection & approval prior to delivery of any topsoil to site or for any in-situ soil that is being re-used.

CULTIVATION
Weeds to be prevented from seeding or becoming established by applying a suitable herbicide and allowing the correct time to elapse, as directed by the manufacturer. Compacted soil to be broken up to a depth of 100mm, with any stones, grass tufts or rubbish larger than 50mm in any direction to be removed, leaving a regular and even surface. Suitable slow release fertiliser to be supplied and spread @ 50g/m2 to all planted areas (not to wildflower).

CLIMATIC CONDITIONS
Topsoiling should be carried out in the driest conditions possible – cultivation to be carried out when the soil is moist, friable and not waterlogged or frozen. Topsoil should not be handled during or after heavy rainfall or when it is wetter than the plastic limit as defined by BS 3882. Planting should not take place in waterlogged conditions or when the ground is frozen.

SOIL AMELIORANT
Peat-free compost to be spread over ornamental shrub beds @ minimum 50mm depth prior to cultivation. For native planting a 50mm compost layer should be mixed into each whip planting pit only, not spread over the entire bed.

TREES
All trees within shrub beds to be planted in separate pits in accordance with tree planting detail.
All tree planting and post maintenance regimes to comply with BS8545:2014 'Trees from Nursery to Independence in the Landscape' and transported to site in accordance with the HTA Plant Handling Guide: 1996.
All trees to be planted to the original root collar and secured in place with underground guying system in accordance with tree planting detail.
If the trees are planted outside of the planting season then containerised stock to be used in lieu of root balled but the same tree heights are still required - allowance to be made for this at tender stage if required once construction timetable is known and CA informed immediately.

PROPOSED SHRUB PLANTING
All shrubs to be positioned as shown on the drawing and to the density and specification listed in the plant schedule.
Planting holes to be 150mm wider than the root spread, have the base ground thoroughly broken up before planting and backfilled with peat free compost.
All shrubs to be equally spaced throughout the planting areas to the specified density in a staggered arrangement unless otherwise noted in the planting schedule.
Contractor to ensure numbers on schedule match those shown on drawing before placing any orders for plants. Any discrepancies to be brought to the attention of the Landscape Architect upon discovery.
Contractor to check on site dimensions of all landscape areas to ensure specified quantities will achieve the specified densities for each species.

NATIVE WHIP PLANTING
Areas to be cleared and cultivated as described above. Rotavate areas to receive whip planting to a minimum depth of 300mm to form an open textured free draining growing medium. Remove all stones and other debris larger than 50mm in any one direction and remove all litter and vegetation matter prior to planting.
Each transplant to be fitted with tubex rabbit guard / shrub shelter appropriate to the species prior to mulching.

EL1 FLOWERING LAWN
Flowering lawn mix to be sown directly into cultivated low fertility topsoil/subsoil in accordance with manufacturers recommendations at rate of 4g/m2
Preparation: Cultivate subsoil, apply a suitable herbicide and allow the correct time to elapse, as directed by the manufacturer, and seed the bed. No fertiliser, compost or mulch are to be applied to the wildflower bed.

First year of management:
- Mow newly sown flowering lawns regularly (every 7 -10 days during growing season) throughout the first year of establishment. Cut to a height of 40-60mm, removing cuttings if dense.
- Carefully dig out or spot treat any residual perennial weeds such as docks.

Management once established:
- Mow regularly as a lawn but not too short (25-40mm).To permit flowering, mowing can be relaxed from late June. Cut again when the sward gets untidy (after 4-8 weeks). Heavy quantities of cuttings should be collected and removed from site.

*NOTE - At time of each cut all arisings to be removed from the bed to maintain reduced soil productivity.

SUBSTITUTIONS:
Upon submission of evidence that certain materials, including plant materials, are not available at the time of the landscape contract, the Landscape Contractor may be permitted to substitute other materials and plants in exceptional circumstances during the contract with an agreed adjustment of prices.
All substitutions shall be of nearest equivalent species and variety to the original specified but shall be subject to approval by the Landscape Architect before any change is made.

TIMES OF YEAR FOR PLANTING:
Landscape works to be carried out during the final possible planting periods prior to practical completion of the building and associated engineering works / car park areas in accordance with the following:
- Native and ornamental trees: During dormant winter period - Late October to late March (only if planted in the planting season otherwise containerised stock to be used).
- Bare root native transplants: During dormant winter period - Late October to April.
- Container grown ornamental and specimen shrubs: At any time if ground and weather conditions are favourable.

MULCH
75mm depth of 8-35mm ornamental bark mulch (peat-free) to be supplied and spread to all planting areas. Finished mulch level to be installed and maintained at 25mm below any adjacent kerbs or paving surfaces.

WEEDING
Weeding should be carried out at each and every maintenance visit. All weeding to planting beds should be carried out using hand methods only. Topping up the mulch to maintain the specified depth is the best method of preventing weeds and will reduce ongoing maintenance time.

MAINTENANCE
All planting areas to be maintained to a high standard by the contractor for 12months after practical completion, to ensure the landscape scheme is successful, and discourage decline of the area.
Minimum frequency of maintenance visits (12 maintenance visits per year):
March to May & September to November - 1No. visit each month
June to August - 2No. visits each month.

Generally, during the first 12months:
- All planting beds to be re-firmed and kept weed free through hand weeding.
- All litter to be picked and removed from landscape areas.
- Mulch to be topped up as required to maintain the specified thickness.
- The condition of all trees is to be regularly checked, with ties and stakes adjusted or replaced as necessary.
- The condition of all rabbit guards / shrub shelters / mulch mats on native whips to be regularly checked and replaced as necessary.
- Shrubs to be pruned at appropriate times of year for each species to promote healthy growth and desirable ornamental features.
- Flowering lawn areas to be cut and maintained in accordance with specification note above.
- All arisings to be removed from site.
- Any defects or plant losses occurring during the first 12 months defects period to be replaced at the contractors expense.

Following the initial 12 month establishment period the maintenance of the landscaping will be taken on by a professional commercial landscape maintenance contractor under a maintenance contract.

GENERAL WATERING
All soft landscaping to be subject to a watering regime which is absolutely essential to ensure the continued success of the scheme, particularly during the initial 12 month establishment period. The watering frequency should be as necessary to ensure the continued thriving of all grass, hedges, trees and ornamental planting but as a minimum should follow the maintenance regime as set out above and be carried out at the time of each maintenance visit. During dry periods it may be necessary to increase watering visits to once per week - if the planting is looking dry please contact Landscape Architect to arrange the extra maintenance visits if necessary. The soil should be checked for dryness using either a soil moisture sensor or by inserting a spade into the ground to a depth of 300mm to observe the appearance of the soil. If the soil is moist there is no need to water but if it is bone dry then watering procedure should be carried out immediately. Water supply should be from potable mains water or an approved alternative. The full depth of topsoil should be wet without loosening or damaging plants. Any compacted soil should be broken up sufficiently to allow water to reach the rootzone.

WATERING TREES
Trees to be watered in accordance with BS 8545:2014 Tree - From Nursery to Independence.
Trees should be watered via the installed irrigation / aeration pipes around the base of the trees stem in accordance with the manufacturer's instructions to ensure the water reaches the roots of the tree. Below is a suggested watering regime but this should be used as a guide only and may require modification in times of drought or flood, dependant on the ground conditions at the time, which should be monitored as above:

- March - October: 40 litres to be poured into irrigation pipe on every maintenance visit

0 2 5 10 20 50m
Scale: 1:250 @ A0

TO BE READ IN CONJUNCTION WITH DRAWING NO's 12006-4-VL L01-L03

Revisions	Description	Drawn	Check
14-07-2023-D	Native tree screening species reviewed. Larger Fs & Txe introduced in response to comments received from LPA.	AS	AS
29-06-2023-C	Red line updated. Additional native tree planting added to Western boundary.	AS	AS
27-06-2023-B	Update to co-ordinate with revised site layout - additional screening to service yard North & West boundaries.	AS	AS
19-04-2023-A	Updated in response to comments received from the LPA - additional trees added into the boundary North of the car park for additional screening.	NB	AS

Project Title	PROPOSED INDUSTRIAL DEVELOPMENT PHASE 2B - UNIT 4 Dearne Valley Parkway Rockingham Barnsley
Client	EOS INC. LTD
Status	PLANNING
Scale	1:250
Drawing Size	A0
Drawn By	DW
Checked By	AS
Date	11/2022
Drawing Title	DETAILED LANDSCAPE PLAN [LAYOUT 1 OF 2]
Job-Dwg No	12006-4-VL L02
Rev	D

vector design concepts
LANDSCAPE DESIGNERS
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CAD file reference V:\V12001-13000\12006-4 Gateway 36\04 Landscaping\17.0 Drawings and Issue Sheets\01_PLANNING