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.

Ecological Features Key:

Proposed Bird Nesting Boxes (4No)
To be Woodcrete swift box

Proposed Bat Boxes (2No)
To be Beaumaris Woodstone bat box

Proposed Hedgehog House (4No)

Proposed log habitat pile (4No)

Note:
Indicative location of ecological features within the landscape shown on plan. Exact specification and location to be confirmed with project ecologist. For more information refer to Biodiversity Management Plan by Brooks Ecological Ref: ER-3806-08

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. During dry periods minimum weekly visits should be made to the site to ensure the soil has not dried out and to action watering 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: 20 litres to be poured into irrigation pipe twice a week (40 litres in total)

SOFT LANDSCAPE SPECIFICATION NOTES

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

SUBSOIL
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.

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 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

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.

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.

TREES
All trees within shrub beds to be planted in separate pits in accordance with tree planting detail.
All plant material to comply with BS 3936 Part 1 :1992, be obtained from a nursery certified by the HTA 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. All trees to be fitted with aeration and irrigation system in accordance with tree planting detail.

If the trees are to beplanted outside of the planting season (late October - Late March) then containerised stock to be used in lieu of root ball to the same specification- allowance to be made for this at tender stage if required once construction timetable is known and CA informed immediately.

EXISTING SHRUBS
Existing shrubs to be trimmed back at appropriate time of year for the species and maintained in conjunction with the proposed planting. All pruning works should be carried out by an approved member of the Arboricultural Association or other approved specialist using approved methods for that species and should result in a balanced form on all sides.

PROPOSED ORNAMENTAL SHRUB PLANTING
All shrubs to be positioned as shown on the drawing and to the density and specification noted 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.

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.

NATIVE HEDGE PLANTING
Areas to receive whip planting be cleared of all vegetation and cultivated as described above.
Rotavate areas 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 an appropriate rabbit guard for the size and species and 500 x 500mm biodegradable GT Ecomat by Green-tech or similar approved. To be pruned / maintained as a hedge at a maximum height of 1.6 metres.

WILDFLOWER SEEDING
Wildflower mixes to be sown directly into cultivated **low fertility subsoil** in accordance with manufacturers recommendations at rate of 5g/m2 for wetland mix and 15g/m2 for everyday wildflower mix (see key for species mixture).
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.
Cutting first season: Time of first cut - if sown in Autumn cut in March/April, if sown in Spring cut in August - October after flowering. Height of first cut - 70mm. If sown in Autumn it should also be cut in September/October after flowering.
Cutting second season: March/April - cut to 50-70mm then September/October - cut to 50mm after flowering.
To be cut twice a year from then on as per above.
***NOTE** - At time of each cut all arisings to be removed from the bed to maintain reduced soil productivity.

GRASSED AREAS
Seeded areas should be sown in accordance with BS 3969:1998: Recommendations for Turf for general purposes and BS 4428-1989 General Landscape Operations.
Height of initial growth: 100mm
Height of first cut: 50mm
Height of growth: The height of growth must not exceed 100mm at any time.
Frequency: Cut as and when necessary to a height of 25mm, using a rotary mower and remove all arisings.
Timing: When grass reaches scheduled height of maximum growth and is reasonably dry.
Application: At the time of each cut, trim all grass edges round the base of trees, manholes etc and remove arisings. Sweep all adjoining hard areas clear of cuttings and remove.
Weeding: Keep the sward substantially free of broad leaved weeds by applying a suitable selective herbicide.
Fertilizer: March application: 15:10:10 Spring turf fertilizer at 35g/m2.
September application: 5:10:10 Autumn turf fertilizer at 50g/m2.

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:
Soft landscape works to be carried out during the first possible planting periods following completion of the building and associated engineering works to car park and access roads in accordance with the times of year for planting notes below:
- 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.

MAINTENANCE
All planting areas to be maintained to a high standard by the contractor for 12 months after practical completion, to ensure the landscape scheme is successful, and discourage decline of the area.
Minimum frequency of maintenance visits:
December / January / February & March - 1no. visit each month
April to November - 2No. visits each month.

Generally, during the first 12months:
- All planting beds to be re-firmed and kept weed free through hand weeding and application of an approved herbicide where appropriate.
- 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.
- Shrubs to be pruned at appropriate times of year for each species to promote healthy growth and desirable ornamental features.
- Grass lawn area and wildflower meadow 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 ongoing landscape management will be the responsibility of an commercial landscape maintenance contractor under a landscape maintenance contract.

SOFT LANDSCAPE KEY:

Existing trees/vegetation to be removed
In order to facilitate the proposed development.

Existing trees/tree buffer to be retained
Retained and protected during construction and landscape works in accordance with BS5837:2012 guidance

Proposed trees in soft landscape
Refer to plant schedule for species & specification

Proposed native trees in soft landscape
Refer to plant schedule for species & specification

Proposed specimen shrub planting
Refer to plant schedule for species & specification

Proposed ornamental & groundcover shrub planting
Refer to plant schedule for species & specification

Proposed mixed species native boundary Planting
Refer to plant schedule for species & specification

Proposed formal hedge planting
Refer to plant schedule for species & specification
To be maintained at 1.2m high

Proposed mixed species native hedge planting
Refer to planting schedule for species & specification
To be maintained at 1.6m high

Existing grass area to be retained

Proposed close mown grassland
To be species rich flowering lawn - Emorsgate EL1 - Flowering Lawn Mixture

Proposed shade tolerant Wildflower grassland
To be Hedgerows and shaded areas WFG8 by Germinal Amenity

Proposed species rich Wildflower grassland
To be Emorsgate EM2 - Standard General Purpose Meadow mixture

Proposed wetland Wildflower grassland
To be Emorsgate EM8 - Meadow mixture for Wetlands

Proposed ornamental bark mulch surface finish
- *1m dia of ornamental bark mulch in accordance with BS8545 :2014 recommendations*
- *500mm maintenance strip*

NOTE: Provision of Bat boxes should be installed on several retained mature trees along the eastern boundary, away from disturbance and light spill as per ecologists recommendations. For more information refer to : Bat Activity Survey Ref: R-3806-04 by Brooks Ecological

PLANTING SCHEDULES:

Trees

Species	Abb.	Form	Girth (cm)	Height (cm)	Clear stem (cm)	Root	Quantity
Acer campestre 'Streetwise'	AcS	Standard Extra Heavy	14-16	425-600	175-200	RB	9
Acer campestre	Ac	Standard Extra Heavy	14-16	425-600	175-200	RB	2
Alnus glutinosa	Ag	Standard Heavy	12-14	350-425	175-200	RB	2
Betula pendula	Bp	Standard Selected	10-12	300-350	175-200	RB	32
Carpinus betulus 'Frans Fontaine'	CbFF	Standard Extra Heavy	16-18	min 450	min 200	RB	5
Corylus colurna	Cc	Standard Extra Heavy	16-18	min 450	min 200	RB	2
Malus sylvestris	Ms	Feathered	/	175-200	/	B	7
Pinus sylvestris	Ps	/	/	175-200	/	RB	11
Prunus avium	Pa	Standard Extra Heavy	14-16	425-600	175-200	RB	5
Sorbus aucuparia	Sa	Standard Heavy	12-14	350-425	175-200	RB	4
Tilia cordata 'Rancho'	TcR	Standard Extra Heavy	16-18	min 450	min 200	RB	2

Formal Hedge Planting:

Name	Abb.	Height (cm)	Root	Form	Spacing
Carpinus betulus	Cb	80-100	RB	Bushy, Clipped sides	50cm centres

Notes:
* Hedge plants to be planted in single rows at centres noted above. To be maintained at 1.2m high

Mixed Species Native Boundary Hedge Planting:

Name	Abb	Height (cm)	Root	Container	Habit	% in Mix
Acer campestre	Ac	80-100	UK Cell grown	/	Transplant - seed raised	10%
Corylus avellana	Ca	80-100	UK Cell grown	/	Branched	20%
Cornus sanguinea	Cs	80-100	UK Cell grown	/	Branched	10%
Ilex aquifolium	Ia	40-60	C (UK grown)	5L	Leader & Laterals	10%
Prunus spinosa	Ps	80-100	UK Cell grown	/	Branched	10%
Ulex europaeus	Ue	80-100	UK Cell grown	/	Transplant - seed raised	30%
Viburnum opulus	Vo	80-100	UK Cell grown	/	Branched	10%

Notes:
** Hedge species to be planted in a double staggered row at 500mm centres , 450mm between rows*
** Hedge to be maintained at a maximum height of 1.6m*
** Hedge plants to be protected with 600mm Tubex Shelterguard Shrub Shelters supported by 32mm x 32mm tanalised stakes. Ia to be protected by Mesh Tree Guard Shelter*
** Hedges to be planted within off the roll fully bio-degradable weed control membrane to suppress weeds and conserve ground moisture. Product: Ecotec MulchMat by Hy-tex or similar approved, installed and secured with ground pegs in accordance with manufac*
**Shrubs to be sourced as local to the site as possible and "UK-Grown" in accordance with current bio-security best practice.*

Revisions	Description	Drawn	Checks
2022.08.08 - G	Updated to match architects plan	OAJ	AS
2022.07.04 - F	Increased trees in unit 2 carpark, more boundary scrub around pond	OAJ	AS
2022.07.04 - E	Updated to coordinate with Architects site plan, landscape buffer and trees increased to DVP boundary	OAJ	AS
2022.05.04 - D	Updated to coordinate with Architects site plan & Arboricultural Impact Assessment	FW	AS
2022.01.21 - C	Updated to coordinate with underground services	FW	PD
2021.12.20 - B	Updated to coordinate with Highway layout	FW	AS
2021.03.24 - A	Minor hedging note - maintained height increased to 1.6m	AS	AS

Project Title	PROPOSED INDUSTRIAL UNIT DEARNE VALLEY PARKWAY BARNSLEY
Client	GREGORY PROPERTIES
Status	PLANNING
Scale	1:250
Drawing Size	A0
Drawn By	OAJ
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vector design concepts
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