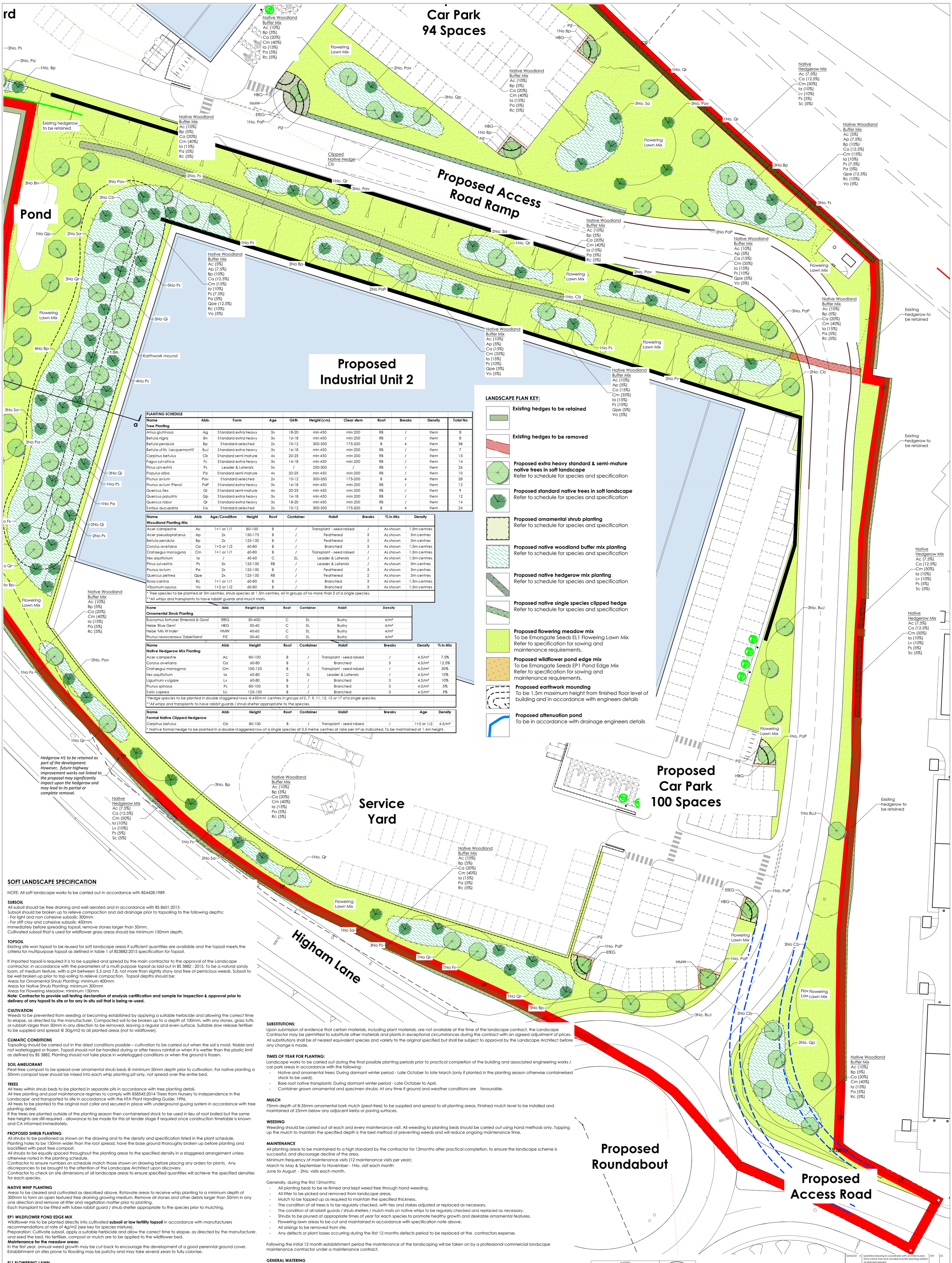

LANDSCAPE PLAN KEY:

- **Existing hedges to be retained**
- **Existing hedges to be removed**
- **Proposed extra heavy standard & semi-mature native trees in soft landscape**
  Refer to schedule for species and specification
- **Proposed standard native trees in soft landscape**
  Refer to schedule for species and specification
- **Proposed ornamental shrub planting**
  Refer to schedule for species and specification
- **Proposed native woodland buffer mix planting**
  Refer to schedule for species and specification
- **Proposed native hedgerow mix planting**
  Refer to schedule for species and specification
- **Proposed native single species clipped hedge**
  Refer to schedule for species and specification
- **Proposed flowering meadow mix**
  To be Emorsgate Seeds EL1 Flowering Lawn Mix
  Refer to specification for sowing and maintenance requirements.
- **Proposed wildflower pond edge mix**
  To be Emorsgate Seeds EP1 Pond Edge Mix
  Refer to specification for sowing and maintenance requirements.
- **Proposed earthwork mounding**
  To be 1.5m maximum height from finished floor level of building and in accordance with engineers details
- **Proposed attenuation pond**
  To be in accordance with drainage engineers details

PLANTING SCHEDULE

Name	Abb.	Form	Age	Girth	Height (cm)	Clear stem	Root	Breaks	Density	Total No
Tree Planting										
Alnus glutinosa	Ag	Standard extra heavy	3x	18-20	min 450	min 200	RB	/	Item	8
Betula nigra	Bn	Standard extra heavy	3x	16-18	min 450	min 200	RB	/	Item	8
Betula pendula	Bp	Standard selected	2x	10-12	300-350	175-200	B	4	Item	38
Betula utilis 'Jacquemontii'	BuJ	Standard extra heavy	3x	16-18	min 450	min 200	RB	/	Item	7
Carpinus betulus	Cb	Standard semi mature	4x	20-25	min 450	min 200	RB	/	Item	13
Fagus sylvatica	Fs	Standard extra heavy	3x	16-18	min 450	min 200	RB	/	Item	14
Pinus sylvestris	Ps	Leader & Laterals	5x	/	250-300	/	RB	/	Item	26
Populus alba	Pa	Standard semi mature	4x	20-25	min 450	min 200	RB	/	Item	10
Prunus avium	Pav	Standard selected	2x	10-12	300-350	175-200	B	4	Item	28
Prunus avium 'Plena'	PaP	Standard extra heavy	3x	16-18	min 450	min 200	RB	/	Item	12
Quercus ilex	Qi	Standard semi mature	4x	20-25	min 450	min 200	RB	/	Item	9
Quercus palustris	Qp	Standard extra heavy	3x	16-18	min 450	min 200	RB	/	Item	12
Quercus robur	Qr	Standard extra heavy	3x	18-20	min 450	min 200	RB	/	Item	14
Sorbus aucuparia	Sa	Standard selected	2x	10-12	300-350	175-200	B	4	Item	24

Name	Abb	Age/Condition	Height	Root	Container	Habit	Breaks	% in Mix	Density
Woodland Planting Mix									
Acer campestre	Ac	1+1 or 1/1	80-100	B	/	Transplant - seed raised	/	As shown	1.5m centres
Acer pseudoplatanus	Ap	2x	150-175	B	/	Feathered	3	As shown	3m centres
Betula pendula	Bp	2x	125-150	B	/	Feathered	2	As shown	3m centres
Corylus avellana	Ca	1+2 or 1/2	60-80	B	/	Branched	3	As shown	1.5m centres
Crataegus monogyna	Cm	1+1 or 1/1	60-80	B	/	Transplant - seed raised	/	As shown	1.5m centres
Ilex aquifolium	Ia	/	40-60	C	2L	Leader & Laterals	/	As shown	1.5m centres
Pinus sylvestris	Ps	3x	125-150	RB	/	Leader & Laterals	/	As shown	3m centres
Prunus avium	Pa	2x	125-150	B	/	Feathered	3	As shown	3m centres
Quercus petrea	Qpe	2x	125-150	RB	/	Feathered	2	As shown	3m centres
Rosa canina	Rc	1+1 or 1/1	60-80	B	/	Branched	3	As shown	1.5m centres
Viburnum opulus	Vo	1+2 or 1/2	60-80	B	/	Branched	3	As shown	1.5m centres

* Tree species to be planted at 3m centres, shrub species at 1.5m centres, all in groups of no more than 5 of a single species.
** All whips and transplants to have rabbit guards and mulch mats.

Name	Abb	Height (cm)	Root	Container	Habit	Density
Ornamental Shrub Planting						
Euonymus fortunei 'Emerald & Gold'	EfEG	30-40D	C	5L	Bushy	4/m²
Hebe 'Blue Gem'	HBG	30-40	C	5L	Bushy	4/m²
Hebe 'Mrs W inder'	HMW	40-60	C	5L	Bushy	4/m²
Prunus laurocerasus 'Zabeliana'	PlZ	30-40	C	3L	Bushy	4/m²

Name	Abb	Height	Root	Container	Habit	Breaks	Density	% in Mix
Native Hedgerow Mix Planting								
Acer campestre	Ac	80-100	B	/	Transplant - seed raised	/	4.5/m²	7.5%
Corylus avellana	Ca	60-80	B	/	Branched	3	4.5/m²	12.5%
Crataegus monogyna	Cm	100-125	B	/	Transplant - seed raised	/	4.5/m²	50%
Ilex aquifolium	Ia	60-80	C	5L	Leader & Laterals	/	4.5/m²	10%
Ligustrum vulgare	Lv	60-80	B	/	Branched	3	4.5/m²	10%
Prunus spinosa	Ps	80-100	B	/	Branched	3	4.5/m²	5%
Salix caprea	Sc	125-150	B	/	Branched	3	4.5/m²	5%

**Hedge species to be planted in double staggered rows @ 450mm centres in groups of 5, 7, 9, 11, 13, 15 or 17 of a single species.*
***All whips and transplants to have rabbit guards / shrub shelter appropriate to the species.*

Name	Abb	Height	Root	Container	Habit	Breaks	Age	Density
Formal Native Clipped Hedgerow								
Carpinus betulus	Cb	80-100	B	/	Transplant - seed raised	/	1+2 or 1/2	4.5/m²

* Native formal hedge to be planted in a double staggered row of a single species at 0.5 metre centres at rate per m² as indicated. To be maintained at 1.4m height.

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 Native Shrub Planting: minimum 300mm
Areas for Flowering Meadow: 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.

EP1 WILDFLOWER POND EDGE MIX
Wildflower mix to be planted directly into cultivated **subsoil or low fertility topsoil** in accordance with manufacturers recommendations at rate of 4g/m2 (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.
Maintenance for the meadow areas:
In the first year, annual weed growth may be cut back to encourage the development of a good perennial ground cover. Establishment on sites prone to flooding may be patchy and may take several years to fully colonise.

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 mimumum 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

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

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.

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Revisions	Description	Drawn	Check
03/02/23 A	Updated drawing to coordinate with architects plan. Extra native tree and woodland buffer planting added at planners request.	DW	AS

Project Title	PROPOSED INDUSTRIAL DEVELOPMENT Capitol Park Junction 37 M1 Higham Lane Barnsley
Client	STERLING CAPITOL PLC
Status	RESERVE MATTERS APPLICATION
Scale	1:250 — Drawing Size A0
Drawn By	DW — Checked By AS — Date 08/22

Drawing Title	LANDSCAPE PLAN - ROUNDABOUT OPTION
Job-Dwg No	11138-1-VL L04 — Rev A

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