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.

0 2 4 6 8 10m 20m 50m
Scale: 1:250 @ A0

Soft Landscape Key:

Existing trees and vegetation to be retained
Retained and protected during construction and landscape works in accordance with BS5837:2012 guidance
Refer to Arboricultural Assessment Report by Enviroscope Consulting for further information on existing site trees.

Proposed trees
Refer to planting schedule for species & specification

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

Proposed shrub planting
Refer to plant schedule for species & specification

Proposed mixed species native hedge planting
Refer to plant schedule for species & specification

Proposed single species native hedge planting
Refer to plant schedule for species & specification

Proposed Species Rich Wildflower seeding
To be EL1 Flowering lawn mix available from Emorsgate or similar approved

Proposed Wildflower seeding
To be LWBM Woodland and Heavy Shade available from Landlife or similar approved

Proposed ornamental bark mulch surface finish
- *1m Dia. of ornamental bark mulch around all trees in grassland in accordance with BS8545 :2014 recommendations*
- *500mm maintenance margin*

Ecological Features Key:

Proposed Swift Nesting Boxes
Product: Schwegler 17C (Double cavity) Swift Nest Box
Quantity: 2No.
To be installed at the eaves of the proposed building

Proposed Bat Roost Boxes
Product: Schwegler 1FQ Bat Box
Quantity: 2No.

Note:
Location of ecological features within the landscape shown on plan as per Smeeden Foreman Ecological Mitigation Strategy - Ref:SF 2678



PLANTING SCHEDULES:

Trees:							
Name	**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	4
Betula pendula	Bp	Feathered	/	200-250	/	RB	3
Malus sylvestris	Ms	Standard (Heavy)	12-14	350-425	175-200	RB	1
Prunus avium	Pa	Standard extra heavy	18-20	min 450	min 200	RB	1
Prunus avium 'Plena'	PaP	Standard extra heavy	18-20	min 450	min 200	RB	5
Pinus sylvestris	Ps	Feathered	/	250-300	/	RB	6
Sorbus aucuparia	Sa	Standard (Heavy)	12-14	350-425	175-200	RB	3
Tilia cordata 'Rancho'	TcR	Standard (Semi Mature)	20-25	min 450	min 200	RB	3

Specimen Shrubs						
Name	**Abb**	**Height(cm)**	**Root Condition**	**Container**	**Habit**	**Quantity**
Amelanchier lamarckii	Al	175-200	RB	/	3 - 5 main stems	2

Shrub Planting:						
Species	**Abb**	**Height** (cm)	**Root**	**Container**	**Habit**	**Density**
Cornus alba 'Sibirica'	CaS	40-60	C	3L	Branched	3/m²
Elaeagnus x ebbingei	Exe	40-60	C	3L	Branched	4/m²
Euonymus fortunei 'Darts Blanket'	EfDB	30-40D	C	5L	Bushy	5/m²
Euonymus fortunei 'Silver Queen'	EfSQ	20-30D	C	5L	Bushy	5/m²
Hebe rakaiensis	Hr	20-30	C	5L	Bushy	5/m²
Lonicera nitida 'May Green'	LnM	30-40	C	4L	Bushy	4/m²
Prunus laurocerasus 'Otto Luyken'	PlOL	30-40	C	3L	Bushy	4/m²
Viburnum davidii	Vd	40-60	C	3L	Bushy	3/m²
Viburnum tinus 'Eve Price'	ViEP	40-60	C	3L	Bushy	4/m²

Hedge Planting					
Name	**Abb**	**Height(cm)**	**Root**	**Specification**	**Centre Spacing**
Crataegus monogyna	Cm	100-125	B	Bushy, Clipped sides	50cm centres, 40cm between rows
Note:					
* Hedge plants to be planted in doubled staggered rows at centres noted above.					

Mixed Species Native Hedge Planting:						
Name	**Abb**	**Height**	**Root**	**Container**	**Habit**	**% in Mix**
Acer campestre	Ac	80-100	UK Cell grown	/	Branched	10%
Crataegus monogyna	Cm	80-100	UK Cell grown	/	Transplant - seed raised	65%
Corylus avellana	Ca	60-80	UK Cell grown	/	Branched	10%
Fagus sylvatica	Fs	80-100	C (UK grown)	C (2L)	Branched	10%
Ilex aquifolium	Ia	60-80	C (UK grown)	C (3L)	Leader & Laterals	5%
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 1.5m						
* Hedge plants to be protected with 600mm tubex shelterguard shrub shelters supported by 21mm x 21mm tanalised stakes.						
* 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 manufa						
*Shrubs to be sourced as local to the site as possible and "UK-Grown" in accordance with current bio-security						

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 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 1.4 metres.

WILDFLOWER SEEDING
Wildflower mixes to be sown directly into cultivated **low fertility topsoil/subsoil** in accordance with manufacturers recommendations at rate of 5g/m2 for LWBM Woodland and Heavy Shade Wildflower.
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.

EL1 FLOWERING LAWN
Flowering lawn mix to be sown directly into cultivated low fertility 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 first 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.

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.

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)

Revisions	Description	Drawn	Check
27.05.2022 - D	Updated to co-ordinate with Architects site plan	AS	AS
23.09.2021 - C	Updated to co-ordinate with Architects site plan	FW	AS
17.09.2021 - B	Updated to incorporate Ecologist's recommendations: Swift nesting Boxes & Bat roost Boxes added	AS	AS
13.09.2021 - A	Updated to co-ordinate with Architects site plan	FW	AS

Project Title	Proposed Development Plot 3 Astroyd Business Park Junction 36 M1 Barnsley S74 9SB
Client	NETWORK SPACE LTD
Status	PLANNING
Scale	1:250
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Job-Dwg No	V14698A-L02
Rev	D

vector design concepts
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CAD file reference V:\V14001-15000\14698 Barnsley\04 Landscaping\17.0 Drawings and Issue Sheets