



LANDSCAPE AND BIODIVERSITY PROPOSALS

DESIGN AND PROPOSALS
 The proposals include vegetation removal to accommodate the new development to the west and south of the site and for the temporary compound to the west. Existing topsoils within the site will be stripped and stored on site for re-use in reinstatement.
 Ground to the west and south to be reprofiled prior to planting and for habitat enhancement. On completion of construction, the soils would be reinstated to ensure there is minimum 100mm of topsoil in areas to be seeded and 300mm of topsoil in areas for planting. Tree planting and grass and wildflower seeding would follow in the first available season after reinstatement of soils.

GENERAL
 1. All planting to comply with BS3936 Relevant parts for Nursery Stock.
 2. All pre-planting, site preparation, planting and post planting maintenance shall be carried out in accordance with BS4428:1989 Code of Practice for General Landscape Operations.
 3. All trees shall be positioned in accordance with BS5937:2012 Trees in Relation to Design, Demolition and Construction and BS 8545:2014 Trees: from nursery to independence in the landscape. Recommendations
 4. There are to be no trees planted within 5m of underground or overhead services.

SCHEDULE OF IMPLEMENTATION
 The landscape reinstatement shall be carried out in the first available season after completion of construction, when weather conditions are suitable.
 a) Soiling in April - October
 b) Seeding of neutral grassland in April-September
 c) Seeding of wildflower species in October-early November
 d) Planting in October - March

SITE CLEARANCE
 Trees and vegetation within the area of construction will be removed prior to soil stripping and timber arisings removed. Topsoil and sub-soil for re-use in reinstatement will be stripped before construction and stored separately on site. All soils will be stored on site and managed in accordance with DEFRA Construction Code of Practice for the Sustainable Use of Soils on Construction Sites and British Standards for Topsoil (BS3982:2015) and Subsoil (BS6012:2013) for the stripping, handling, storage and spreading of soils.
 At reinstatement:
 1. All stones over 75mm will be removed from the surface subsoil prior to placing topsoil.
 2. Tree planting pits to be set out and dug, prior to placing of topsoils and monitored for drainage.
 3. A minimum 300mm depth of topsoil to be retained per pit for planting, with the base backfill for the pit original subsoil, or imported clean sandy subsoil backfill to ensure free drainage.
 4. If waterlogging is evident, clean inert granular material to be imported and laid to broken up base of pit prior to backfilling and planting.
 5. Topsoil to be laid to minimum 100mm depth for seeding areas.
 6. All litter, debris and stone above 50mm in any dimension and any other unwanted material will be removed from the finished surface topsoil in planting and seeding areas.

PROPOSED STANDARD AND FEATHERED TREE PLANTING
 1. Excavate planting pits 1000mm dia and 600mm deep, thoroughly break up sides and base to 250mm depth.
 2. Retain subsoils for backfilling lower 300mm depth of pit.
 3. Mix excavated topsoils with proprietary tree and shrub compost at rate of 50/50 mix by volume to achieve total 300mm depth topsoil for backfilling, insert 4No slow release fertiliser tablets into backfill around roots per pit, backfill with ameliorated topsoil in 150mm layers, completely fill air spaces around roots, backfill to ground level.
 4. All trees to be supported with 1No short 75mm diameter tree stake, on windward side of tree, pointed one end, driven minimum 450mm into base of pit and cut off 600mm above ground level. Tree to be secured with biodegradable hessian wrapping or similar and biodegradable guard to protect from vole damage.
 5. Spread medium grade bark mulch to 75mm depth to 1m dia to base of tree.

PROPOSED TREE AND SCRUB PLANTING Transplants to be 1+1 transplants and container grown shrubs up to 80-100cm.
 6. Planting to consist of mixed deciduous and evergreen tree and shrub/scrub species planted at 1 - 2m centres in single species groups of 3-15No to form an understory to the tree planting.
 7. Shrubs to be planted in pits 100mm wider and deeper than pot size and bare root plants notch planted in an I, T, L or H shaped notch.
 8. All plants to receive slow release fertiliser at time of planting.
 9. All evergreen species to be treated with anti-desiccant before and immediately after planting.
 10. All plants to be protected with stockproof fencing with rabbit proof mesh attached.
 11. Spread medium grade bark mulch to 75mm depth to width of planting within the WwTW. Compound planting to be overseeded.

PROPOSED SEEDING FOR NEUTRAL GRASSLAND REINSTATEMENT
 Following reinstatement of soils, cultivate to 100mm depth a fine tilth suitable for seeding and remove thatch and roots.
 12. Sow with low maintenance fescue-based mix: Emorsgate EG1 General purpose meadow grass mixture or equivalent at 5g/m²

%	Latin name	Common name
10	Agrostis capillaris	Common Bent
35	Cynosurus cristatus	Crested Dogtail
30	Festuca rubra	Slender-creeping Red-fescue
5	Phleum bertolonii	Smaller Cat's-tail
20	Poa pratensis	Smooth-stalked Meadow-grass

PROPOSED WOODLAND WILDFLOWER SEEDING - OVER SEEDING OF NEUTRAL GRASSLAND
 1. Harrow or rake to encourage creation of 50% bare ground across the area.
 2. Sow in the autumn using a 100% wildflower mixture and broadcast by hand or by machine. Allow for bulking up the seed with an inert carrier such as sand for ease of distribution. Sow with EW1 - Woodland mixture @4g/m²

EW1 Woodland seeding mixture below tree planting

%	Latin name	Common name
2.5	Alliaria petiolata	Garlic Mustard
1.2	Allium ursinum	Ramsoms
2.5	Digitalis purpurea	Foxglove
0.9	Eupatorium cannabinum	Hemp Agrimony
1.7	Filipendula ulmaria	Meadowsweet
1	Geum urbanum	Wood Avens
3.4	Hyacinthoides non-scripta	Bluebell
0.2	Primula vulgaris	Primrose
2	Frunella vulgaris	Seltheal
3.4	Silene dioica	Red Campion
0.9	Teucrium scorodonia	Wood Sage
0.3	Torilis japonica	Upright Hedge-parsley
20	Grasses	
%	Latin name	Common name
10	Agrostis capillaris	Common Bent
2	Anthoxanthum odoratum	Sweet Vernal-grass (w)
7	Brachypodium sylvaticum	False Brome (w)
20	Cynosurus cristatus	Crested Dogtail
1	Deschampsia cespitosa	Tufted Hair-grass (w)
28	Festuca rubra	Slender-creeping Red-fescue
12	Poa nemoralis	Wood Meadow-grass
80		

MAINTENANCE
 1. All litter and arising stone larger than 50mm in any dimension to be removed from grassed areas.
 2. Verify stakes and ties to upright position and loosen ties as necessary to allow continued healthy tree growth.
 3. Remove weeds growing to base of tree stems by hand pulling. Replenish mulch to base of trees in year two of maintenance to suppress weed growth.
 4. Refirm trees and plants to maintain upright growth in first two years of maintenance until established.
 5. Prune trees to remove weak or damaged branches and promote healthy growth.
 6. Any trees or shrubs which are removed, damaged, dead or diseased within 5 years of planting will be replaced in the first available planting season with appropriate replacements of same or similar species and size of original plants.
 7. Remove stakes and plant accessories after five years or when trees are self-supporting, whichever is the sooner.
 8. Management of neutral grassland - to be managed as short grass between August - February with cutting down to 75mm height, cutting to be suspended during May through to July/August with the area managed as a meadow allowing the grasses to grow tall, flower and seed from May through to July/August. The grass meadow should be cut back and mowing resumed in late summer.
 9. Woodland seeding should require little maintenance establishment. Vigorous weeds should be cut with a hand-operated strimmer or similar to suppress growth.
 10. Fence to be maintained to prevent grazing by stock and rabbit damage.

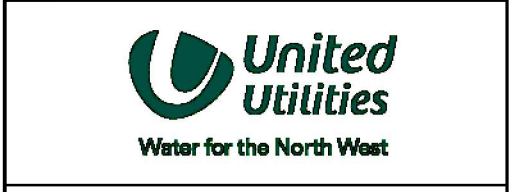
NOTES
 1. ALL DIMENSIONS IN MILLIMETRES AND ALL LEVELS IN METRES A0) UNLESS NOTED OTHERWISE.
 2.

LEGEND

- Existing trees and scrub
- Existing trees to be removed
- Proposed heavy standard tree *Quercus robur* oak
- Proposed select standard tree *Prunus avium* cherry, *Sorbus aucuparia* rowan
- Proposed evergreen tree *Pinus sylvestris* Scot's pine
- Proposed feathered tree *Betula pendula* silver birch
- Proposed native species hedgerow
- Proposed native species tree and scrub planting
- Proposed neutral grassland
- Proposed woodland species wildflower seeding
- Proposed post and wire mesh stockproof proof and rabbit proof fencing
- UU Land ownership boundary
- Proposed kiosks
- Proposed internal access road
- Proposed hard standing and internal footpaths

CURRENT ISSUE INFORMATION

VERSION	AUTH	CHKD	REVD	REASON FOR ISSUE	DATE
P01.1	HC	---	---	For Information	---
S2	Issued for Information				
SUITABILITY CODE	SUITABILITY DESCRIPTION				



LITTLE BUDWORTH SOUTH WwTW - WFD DRIVERS - AMP7
 LANDSCAPE AND BIODIVERSITY PROPOSALS

SCALE 1:200	SHEET SIZE A1
DRAWING NUMBER 80061387-01-C2V-LTLBS-99-DR-L-00002	REVISION P01.1