

**LIDL : CWMANN
NEAR LAMPETER
SA48 8DR**

**LANDSCAPE AND ECOLOGICAL DESIGN
SCHEME**



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Rev 27 July 2026

Corscadden Associates
77 Fairleigh Road
Cardiff
CF11 9JW
07966 423074
ca@corscaddenassociates.com

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1.0 INTRODUCTION

The Site is for the proposed Lidl store, carpark, and associated landscape and infrastructure works. The Site is located at the junction of the A482 and A485 close to the River Teifi at a postal code SA48 8DR and grid reference SN 582473.

1.1 SCOPE OF LANDSCAPE WORKS

The proposals are

- Clearance of the site in accordance with ecological recommendations
- Proposed planting beds.
- Proposed native blocks
- Proposed hedgerows
- Proposed trellis/fence with semi-mature climbers
- Proposed trees
- Proposed apple tree orchard planting
- Amenity and meadow grass areas.
- Pond in drainage field
- Provision of ecological elements - hedgehog house and installation of bird and bat boxes.
- Management for 5 years
 - Maintenance of landscaping for one year in landscape contract
 - Four years by Client agent five years total.
 - Apple Orchard maintenance and monitoring for 60 years.

1.2 DOCUMENTS

The design information provided by the Landscape Architect has overlaps with architectural work, civil and structural engineering work and mechanical and electrical engineering. The subcontractor should be aware that information required to undertake the landscape works will require reference to the documents prepared by other consultants.

The Landscape and Ecological Design Scheme was produced using information from the following resources. Refer to the following documents as reference for the statement

- CA 2024-LMP-02 Rev A Lidl Cwmann Landscape Existing Features
- CA 2024-LMP-03 Rev E Cwmann Landscape Existing Features and Overlay
- CA 2024-LMP-04 Rev E Cwmann Landscape Proposals Overall
- CA 2024-LMP-05 Rev D Cwmann Landscape Trees, Hedges and Grass
- CA 2024-LMP-06 Rev D Cwmann Landscape Native Blocks and Planting Beds
- CA 2024-LMP-07Rev C Cwmann Landscape General Sections
- CA 2024-LMP-08 Rev A Lidl Cwmann Rear Elevation
- CA 2024-LMP-10 rev A Lidl Cwmann Green Infrastructure
- CA Lidl Cwmann Planting Schedule rev 27 July 2026
- Arboricultural Report Pen-y-bont, Cwmann (ArbTS September 2026)
- Preliminary Ecological Appraisal (Biodiverse Consulting, 2026)
- Ecological Management Plan (Biodiverse Consulting, October 2026)
- 119796.642269-LIDL.NNMS_2024-10-23 (Lucion)
- 3384 P1403 Proposed GA Site Plan

2.0 GENERAL CONDITIONS

EXISTING STRUCTURES ON OR ADJACENT TO SITE:

- Residential properties and Cwmanne Taverne.
- A482 and A485 roads and associated footpaths.
- National Cycle Route 82.
- Nearby PROWs
- Public services and overhead lines.
- A large overhead line which crosses the Site and is to be undergrounded and diverted.
An easement has been allowed for the diverted route.
- Service boxes, lampposts, and underground services in adjacent roads and footpaths.
- Pumping Station
- Flood plain of Teifi river which is designated as an SAC (Special Areas of Conservation) and an SSSI (Site of Special Scientific Interest).
- Disused tree lined railway embankment.
- Industrial and commercial units
- Grass verge
- Existing access and some associated works
- Some foundations of old Pen-y- Bont farm
- Boundary of Ceridigion and Lampeter town sign

- Hedgerow and off-site trees on western boundary

2.1 SERVICE DRAWINGS: Any service information on landscape drawings is notional only. The Contractor MUST obtain confirmation of all services from the Principal Contractor and relevant authorities. There are extensive services. Services may require the adjustment of tree positions in certain areas and care with excavations and a requirement for root barriers where necessary.

NOTIFY: All service authorities including the Employer/Principal Contractor of any proposed works which could affect services not less than one week before commencing site operations and observe service authorities' recommendations for work adjacent to existing services.

ACCESS TO THE SITE: - Permission must be gained from the Site Agent for access to visit the whole site. The Contractor's vehicles should not cause obstruction to the Highway and all necessary regulations relating to Highway working must be followed.

Other users who will require access through the landscape contract area are:-

- Principal contractor and other sub contractors
- Access will be required by sub contractors
- Statutory Authorities

WORKING AREA, WORKING HOURS, PARKING, ADVERTISING , HEALTH AND SAFETY Refer to the Principal Contractor's site requirements and attend site inductions and carry out all health and safety instructions required by the Principal Contractor. Provide all Health and Safety information and Method Statements required by Principal Contractor.

2.2 RISKS TO HEALTH AND SAFETY

The nature and condition of the site cannot be fully and certainly ascertained before it is all opened up. However the following risks are or may be present:

- Work close to service covers, street lights, service boxes and markers
- Hazardous materials gas and electricity.
- Work close to live services and working with live services.
- Service easements on Site and close to Site.
- Site must be left safe at the completion of each day's work eg open trenches made safe,
- During the day all working areas are to be kept safe and all notices and safety procedures followed including temporary fencing where necessary
- Works on access roads eg drop kerbs, footpaths which will require traffic and pedestrian management.
- Maintenance during the maintenance period will need to take into account the security required.
- Use of solvents, inflammable substances, and chemicals
- Use of machinery with moving parts, cranes, drilling rigs, electrical equipment and general use of machines.
- Likelihood of chemical drift
- Making noise or dust during Works
- Excavations danger of underground services
- Hazards due to cold/wet windy weather - Manual handling and lifting operations
- Other contractors working on site.

2.3 PROPRIETARY NAMES: The phrase 'or equivalent approved' is to be deemed included whenever products are specified by proprietary name. Where the specification permits the substitution of a product of a different manufacture or type to that specified such a substitution requires approval from the CA and where necessary documentary verification that the alternative product is equivalent in respect of material, safety, reliability, function and where necessary of appearance to the specified product.

BRITISH STANDARDS: All materials, workmanship and plant material must comply with the relevant British Standard unless otherwise indicated.

SIZES: Unless otherwise stated the size indicated is size required

2.4 The Contractor shall notify the CA of the date of commencement and completion of the operations outlined below and provide the CA with all necessary documentation required within 7 days to record and verify the Works as follows:

- a daily distribution return showing the number and description of men employed on the works including those employed by Contractors
- a daily distribution return showing the number, type and capacity of all plant excluding hand tools currently employed on works.
- record of actions taken to protect biodiversity and monitor their effectiveness.
- record of weather conditions and other factors having material effect on progress of Works.
- record sheets of pesticide applications as required under Control of Pesticides Regulations 1986
- notification of dates of commencement and completion of operations, including all records of rates of application or use of materials, etc of application of fertilisers, pruning, mowing, litter picking and other maintenance visits etc.

Provide all necessary technical submissions, method statements and risk assessments at least one week in advance of relevant operation.

2.5 SUPERVISION/INSPECTION/DEFECTIVE WORK

CA CONTRACT ADMINISTRATOR

To be confirmed by Lidl.

SUPERVISION: In addition to the constant management and supervision of the Works provided by the Principal Contractor's person in charge, all significant types of work must be under the close control of competent trade supervisors to ensure maintenance of satisfactory quality and progress.

2.6 SAFETY/PROTECTION

Commonplace hazards which should be controlled by good management and site practice are not listed.

GENERAL CONDITIONS

- Site rules from Principal Contractor's Health and Safety Plan – use of PPE etc
- Welsh Government Covid 19 Rules
- Continuing liaison :

OPERATIONS AND MATERIALS

- Hazard – Working on Highways
- Hazard - Use of Chemicals, paints, solvents, timber stain etc
- Hazard - Services
- Hazard - Mechanical and manual handling
- Hazard - Protection of public and site users

MAINTENANCE

- Hazard - Working on Highways
- Hazard - Use of Chemicals
- Hazard - Mechanical and manual handling
- Hazard – Protection of public and Site staff.

HSE APPROVED CODES OF PRACTICE: Comply with the following:

- Management of Health and Safety at Work
- Managing Construction for Health and Safety

2.7 PROTECT AGAINST THE FOLLOWING

2.8 POLLUTION:

The contractor / landscape operatives must be conversant with the requirements of the Environmental Protection Act 1990, Pollution, Prevention and Control Regulations 2000, Hazardous Waste Regulations 2005 and the Control of Pollution (Amendment) Act 1989 for the Carriage of Controlled or Special Wastes. landscape contractors must be registered with a relevant Regulation Authority (Environment Agency) and be in possession of a valid Certificate of Registration or Certificate of Registration as a Broker of Controlled Waste under the Act.

2.9 USE OF CHEMICALS

The contractor/ landscape operatives must comply with 'The Control of Pesticides Regulations 1986', 'The Control of Substances Hazardous to Health Regulations 1988' and any other current legislation and subsequent revisions.

All chemicals must be products on the current list of Agricultural Chemicals Approval Scheme and used strictly in accordance with the conditions of approval. The landscape contractor must comply with all relevant Codes of Practice issued by MAFF.

All pesticides/herbicides transported or stored in the landscape contractor's vehicles or on site (regardless of quantity) shall be locked in a separate storage compartment or within lockable containers which is secured to the floor of the vehicle. All storage lockers must be sealed and clearly marked as containing pesticides and bear a standard black and yellow hazard sign.

Apply pesticides/herbicides strictly in accordance with the manufacturer's instructions in calm, dry weather conditions. Chemicals should not be applied in wet, frosty or windy conditions.

The contractor/ landscape operatives must hold a BASIS Certificate of Competence, or work DIRECTLY under the supervision of a certified holder.

Notify the site operator at least 24 hours in advance of the location, type of pesticide/herbicide, active ingredient and timing of application prior to commencing work. The contractor/ landscape operatives shall erect warning

signs at all entrances to the areas to be treated. When restricted to planting beds, warning signs shall be placed within close proximity in clearly visible locations. Details of application and contact person to be shown.

In accordance with COSHH Regulations the contractor shall protect employees and other persons, including the general public and adjacent land owners who may be exposed to substances hazardous to health.

Dispose of waste chemicals and containers in accordance with the 'Control of Pesticides Regulations 1986', 'Control of Pollution Act 1974' and the 'Water Act 2014' and any subsequent revisions.

The contractor / landscape operatives shall be responsible for making good and or compensation for any damage how so ever caused resulting from negligence in application, handling and/or storage of pesticides and herbicides. He shall also be responsible for keeping up to date with all legislation and regulations governing there use and inform the site operator of any changes that may affect the contract in any way.

The contractor / landscape operatives shall ensure that all property and utilities are protected against accidental or negligent damage that may occur. Any damage incurred by the contractor in carrying out their duties is to be made safe immediately and repaired to the satisfaction of the client or Utilities Company at the earliest convenient time, or as agreed, at the cost of the contractor.

It shall be the contractor / landscape operatives responsibility and liability for any damage to person or property, however caused. All operatives shall be trained according to the task to be undertaken.

2.10 EXISTING MAINS/SERVICES: GENERAL: The Contractor shall:

- NOTE proposed service undergrounding and diversion of overhead line crossing Site.
- Ascertain the exact location of all existing services and the like in, under or over the site or adjacent thereto. The Contractor will be held responsible for any damage or disruption to such services crossing the site or those used during the performance of the Contract. Any such damage as may occur must be made good to the satisfaction of the CA, Employer, Service Authorities and adjoining owners or occupiers, at the Principal Contractor's own expense.
- Check the positions of all services before starting work.
- Adequately protect and prevent damage to all existing services. Do not interfere with their operation without the consent of the Service Authorities or private owners.
- If any damage to services result from the execution of the Works, notify the CA and the appropriate Service Authority without delay. Make arrangements for the work to be made good without delay to the satisfaction of the Service Authority or private owner as appropriate.
- Replace any marker tapes or protective covers disturbed during the site operations to the Service Authorities' Recommendations.
- In the event of a service marker being disturbed for any reason it shall not be replaced other than in the exact position and to its former depth unless the repositioning is carried out at the direction and under the supervision of the Service Authority.
- Check all emergency and contact details for the varied service contacts and emergency numbers are up to date.

2.11 NOISE: Ensure that all measures to control noise produced by the Principal Contractor's operations required under or by virtue of the provisions of any enactment or regulations, or the working rules of any industry are strictly complied with.

- Fit all compressors, percussion tools and vehicles with effective silencers of a type recommended by the manufacturer's of the compressor, tools or vehicles.
- Do not use or permit the use of radios or other audio equipment which may cause nuisance

2.12 NUISANCE: Take all necessary precautions to prevent nuisance from dust, rubbish and other causes. Remove daily, and if it should occur on the highway carriageway immediately to avoid any hazard to road users from site rubbish and debris generated from the Works for disposal. Comply with all instructions from the CA in this respect.

2.12 FIRE: Take all precautions necessary to prevent personal injury, death and damage to the Works or other property by fire. Comply with Joint Code of Practice 'Fire Prevention on Construction Sites' published by Building Employer's Confederation and the Loss Prevention Council and National Contractors Group.

Advise the CA immediately if drought, arisings or other circumstances evident give rise to a fire risk.

2.13 BURNING: Burning is not permitted on site

2.14 WATER: Prevent damage from storm and surface water. Keep site and excavations free of water

2.15 WASTE/ARISINGS:

- Remove debris, rubbish, surplus material and spoil regularly, daily where arisings are from a specific process or work item and keep the site and Works clean and tidy.
- Remove all rubbish, dirt and residues from excavations before infilling.
- Ensure that non-hazardous material is disposed off at a tip approved by a Waste Regulation Agency.
- Remove all surplus hazardous materials and their containers for disposal off site in a safe and competent manner as approved by a Waste Regulation Agency and in accordance with relevant regulations.

- Retain waste transfer documentation on site.

2.16 EXISTING FEATURES: Prevent damage to existing structures, fences, walls, roads and paved areas and other site features which are to remain in position during the execution of the Works. If damage occurs make good at the Contractor's own expense and to the satisfaction of the CA.

2.17 TIMING OF WORKS AND ECOLOGICAL CONSIDERATIONS AND OBJECTIVES

EXISTING SITE

The existing Site is fenced on all sides with a hedgerow with off-site trees only on the western boundary. The western part of the Site is pasture field for horse grazing with a mound of timber debris and burnt material in the northern area. The eastern side of the Site has a mix of grass and hardstanding and has a burger van, a toilet facility and picnic tables which with its space is able to serve as a convenient stop for lorry drivers going through the area. There are fragments at ground level of a tank foundation and other items from its previous use as Pen-y-Bont farm. The pasture field and grass area around the Burger van are considered to be of low value due to their low diversity supporting a range of locally and nationally common species.

The western hedgerow and off-site trees is a mix of overgrown Goat Willow, Hazel and Ash (one Ash showing signs of ash die-back) and also Holly and Blackthorn will not be impacted by the proposals and will be protectively fenced off during construction period.

There are areas of mixed scrub in eastern section of the Site and a small stand of Japanese Knotweed by the A482 fence adjacent to a large existing grass verge and these are of low ecological value due to their low diversity and the presence of an invasive non-native species. Some standing water lies over an old tank foundation again of low ecological value.

The Site is located in a rural area on the northern edge of the settlement of Cwmann in Carmarthenshire separated from the town of Lampeter in the county of Ceredigion by the River Teifi and its flood plain. The river meanders through the floodplain and the Site is separated from the river by a treelined disused railway embankment to the north and the A482 to the east. There are pasture fields on each side of the river. These fields are bounded by fences, hedgerows, hedgerows with trees and tree groups according to location. These are mainly native species and provide good habitats for a range of protected and priority species outside the Site area within the floodplain.

PROPOSED SITE

The development has the potential to adversely impact the existing low value ecological features and many of these impacts are addressed at the design stage with a range of good practice avoidance, mitigation and compensation measures. Due to the proximity of ponds, river and ditches, precautionary measures will be provided as necessary for great crested newts, and otters until full assessments can be made for these species. The proposals for the Site intend to increase the biodiversity of the area overall with design principles compatible with the general floodplain landscape character.

The Site lies within the River Teifi Special Area of Conservation catchment and an assessment has been undertaken to calculate the net change in phosphorus due to the proposed development and using the available Phosphorus Budget Calculator published by Ceredigion County Council. Nutrient Neutral Mitigation Strategy for the Site defines the actions required to bring the Site to a neutral phosphorus impact. The phosphate actions to be taken are considered alongside the ecological works and timings

- A pond with standing water which will remove phosphorus by sedimentation and every so often the sediment should be removed off site
- The grass around the pond is to be cut and arisings removed as part of phosphorus control.
- 15 No Malus Cox Self Fertile apple trees to be planted in the drainage field for phosphate control (with associated herringbone drainage draining into the pond).
- The apple orchard is to be monitored and restocked over a 60 year period – the life span of the store. All apples are to be collected and removed from Site in what is effectively a 'community orchard'
- Use of inorganic and organic fertiliser are not to be used. The PAS 100 fertiliser/compost is suitable for use and will be used for all planting on site.

AVOIDANCE

The following measures should be incorporated into the design of the development, including the construction phase, to avoid and reduce impacts on wildlife:

- Avoid site clearance works during the nesting bird season (March to August inclusive) unless the site is checked by a Suitably Qualified Ecologist (SQE) and active nests are confirmed to be absent no later than 48 hours before works commence.
- External lighting will be designed in line with BCT guidance⁵ to reduce impacts on bats and a range of other wildlife associated with retained and off-site habitats.
- Special care should be taken to protect the River Teifi SAC/SSSI to the north and east of the Site
- Precautionary measures for Great Crested Newts and Otters as necessary
- Precautionary measures for phosphates as necessary
- Schedule 9 invasive species will be removed by a licensed specialist contractor.

MITIGATION

- All works will be undertaken in accordance with a CEMP (Construction Ecological Management Plan). Ecological receptors likely to be covered in this plan will include, but not be limited to hedgehog, birds, badger, reptiles, and amphibians.
- All construction activities will be programmed to daytime hours to reduce disturbance to sensitive nocturnal species, such as bats and roosting bird species.
- Excavations should be securely covered or fenced overnight, or otherwise provide a means of escape for animals that may become trapped in the form of a ramp at least 300mm wide and angled no greater than 45°. Excavations should be inspected for the presence of animals before work recommences and, in the event of trapped animals being trapped, an ecologist contacted for advice.
- Gaps of at least 13cm x 13cm will be created within boundaries to facilitate movement of hedgehogs and other small animals through the Site.

COMPENSATION AND ENHANCEMENT

- Tree planting along the boundaries and also along side of the internal store boundary with the field area. These trees are also important elements for mitigating visual impact.
- Planting 15 No Apple trees at orchard spacing of 6.00m centres.
- Native hedgerow planting along the north and eastern boundaries and along side of the internal store boundary with the field area, here it also includes some native block planting.
- The trees and hedgerows include berrying and fruit bearing species and pollinating species to provide increased foraging opportunities in the local area.
- The tree and hedgerow planting along the northern and eastern boundaries of the Site creates a buffer zone and increased connectivity to existing hedgerow and trees to the west.
- Planting beds with some pollinator species.
- Provide bird and bat boxes to the store building to provide roosting and nesting opportunities for birds and bats.
- Provide a hedgehog house as a refugia for hedgehogs.
- Manage the field area as meadow grass area to increase biodiversity.
- Management and defects replacements for 5 years to enable the proposals to establish well and achieve their objectives.
- Management and crop collection annually and defects replacements for 60 years to enable the orchard to establish well and achieve its phosphate target levels.

2.18 HABITAT MANAGEMENT OBJECTIVES DURING CONSTRUCTION AND FUTURE MANAGEMENT

- Apply good horticultural and ecological practice to all operations.
- Promote healthy growth and establishment of all planting and landscaped areas.
- Promote wildlife value and species diversity where appropriate.
- Monitor bat and bird boxes for usage for nesting or roosting.

2.19 KEY PERSONNEL AND RESPONSIBILITIES

CLIENT

Lidl GB Ltd
Waterton Industrial Estate
Off Cowbridge Road
Bridgend
CF31 3PH
Rhydian.Griffiths@lidl.co.uk

ECOLOGIST

Biodiverse Consulting
enquiries@biodiverseconsulting.co.uk

ARBORICULTURALIST

Arboricultural Technician Services Ltd
Steve Lucocq
info@ArbTS.co.uk

LANDSCAPE ARCHITECT

Corscadden Associates
Lrraine Corscadden
ca@corscaddenassociates.com

CONTRACT ADMINISTRATOR

Contract Administrator for
Year 1 – 5 (CA) undertaken by Lidl GB Ltd for general Site.
Years 5-60 for Apple orchard by Lidl GB Ltd

2.20 RESPONSIBILITIES, SUPERVISION AND MONITORING

The construction and the responsibility that this is undertaken correctly is for Lidl as Contract Administrator to the Principal Contractor. Under their direction Subcontractors will be used for the implementation of the landscape works. There will be a 5 Year Management Period for the general Site which will initially be a contract management/maintenance defects period and subsequent management by the Lidl GB Ltd for the remainder of the 5 Year Period. The Apple Orchard management will continue from Year 6 to Year 60 with monitoring and management.

HANDOVER

The site will be inspected by the Contract Administrator and the Ecologist/Landscape Architect at Practical Completion to ensure the scheme has been implemented as specified. Management procedures will be undertaken as specified and a final inspection made by the Contract Administrator and the Ecologist at Final Certificate phase to ensure the site is establishing well and is in good condition and no adverse impacts have occurred to the specified scheme as the site is handed over to Lidl GB Ltd. The Ecologist will define the ecological value of the Site at this point.

This Landscape and Ecological Design Scheme requires inspection and monitoring during the construction works and ongoing management. In addition to general management operations there will be an annual review:

- New plantings will be inspected and any defective or dead plants replaced in the first 5 years.
- The progress of the landscape generally will be reviewed and any changes to operations to meet the management objectives will be undertaken.
- Any major variations to the management activities detailed within this plan, and in particular any additional habitat removal that becomes necessary as a result of unforeseen circumstances will require approval in writing from Local Authority.
- Apple Orchard from Years 6-60 will be monitored by an arboriculturalist or horticulturalist every 2 years and apples picked and removed every year and apple trees restocked as necessary during the 60 year period.

2.21 UNFORESEEN IMPACTS

Unforeseen impacts may occur during the management period such as

- Climate change resulting causing failure of elements of landscaping
 - in prolonged heavy rain or wind conditions beyond that expected within 100years
 - prolonged drought conditions beyond that expected within 100years
- new plant pathogens or new other plant diseases causing plan failure
- new invasive invertebrates causing issues to the landscaping

These impacts would be picked up during the annual management works and trigger a report by the maintenance contractor to the Contract Administrator who will seek the appropriate expert advice for remedies or actions required to maintain a landscape/ecological scheme of value.

PLAN REVIEW

A full review will be undertaken after 5 years and the Landscape and Ecological Management Plan and Ecological Assessment and Tree Survey updated organised by Lidl GB Ltd. The Apple Orchard will be reviewed every 10 years and any remedial required undertaken.

2.22 FUNDING RESOURCES

Year 1 funding resources are within the Contract for construction, Implementation and 1 Year Maintenance /Management Defects Period.

Years 2-5 funding resources will be provided by Lidl GB Ltd

From Year 5 to year 60 onwards to ensure sustainable long-term delivery of the proposed management will be by Lidl GB Ltd

3.0 INITIAL WORKS

3.1 CLEARANCE AND INITIAL ENABLING WORKS

- Site Clearance by others
- No trees or hedgerow works are required but the installation of a protective fence to the specification and location of the arboriculturalist are required.
- Topsoil and subsoil is to be imported for new planting beds to make up any shortages or unsuitability on-site materials. Existing topsoil and subsoil present on Site and will be re-used.

3.2 TREE REMOVALS

Arboricultural Report indicates no trees or hedgerows are to be removed.

Protective fence to be installed to Arboriculturalist's recommendations.

3.3 JAPANESE KNOTWEED

A stand approximately noted midway along on the eastern boundary behind the fence. Treatment to be undertaken to remove the Knotweed in accordance with current recommendations.

3.4 TOPSOIL AND SUBSOIL

The Site has existing topsoil and subsoil and imported material is for shortfalls as required.

3.5 IMPORTED TOPSOIL

- Quantity: All topsoil that is to be imported is to conform to this specification
- Standard: To BS3882 2015. Plus the following:
- Source: Submit proposals.
- Classification: Multipurpose.
- Texture to BS3882: Medium loam.
- Reaction, to BS1377-3: pH 6 - 7.5.
- Crumb structure: Made up of discernible crumbs.
- Stones:
- Size in any dimension (maximum): 20mm.
- Stone content by dry weight (maximum): 15%.

In addition to conforming to the above BS standard the soil should also conform to the following.

Visual Examination:-

Provide the CA a 1kg sealed sample bag of representative soil, for approval of the physical structure of the soil, before chemical analysis is progressed. Obtain approval of a sample load on site of not less than 2m³. Retain for comparison with subsequent loads. Provide a full analysis from an approved testing station in accordance with 'Analysis for Topsoil'.

Physical Parameters:-

Clay (less than 0.05mm) 5-27%

Silt (0.002 – 0.05mm) 5-45%

Sand (0.05 – 2.00mm) 45-85%

(At least 50% of the total soil fraction should fall within the medium to coarse sand range)

Permeability 10-5 – 10-6 m/sec

Chemical Parameters:-

PH value (1:2.5 soil/water) 6-7.5 pH

Electrical Connectivity (1:2.5 soil/water) <1500 µS/cm

Electrical Connectivity (1:2.5 CaSO₄) <2800 µS/cm

Organic Matter (Walkley Black) 4.0 – 10.0%

Total Nitrogen (Dumas) >0.2%

Extractable Phosphorus (RB427) >26 mg/l

Extractable Potassium (RB427) >220 mg/l

Extractable Magnesium (RB427) >50 mg/l

- TOPSOIL ANALYSIS• All imported topsoil is to be analyzed
- Soil analyst: Submit proposals.
- Samples: Collect in accordance with BS3882.
- Submit:
- Declaration of analysis:
- Chemical analysis and contaminants;
- Maximum stone content, stone size and pH value;
- Nutrient content, pH value and textural classification;
- PH value and textural classification;
- Phytotoxic and CLEA elements; and
- Textural classification and maximum stone content.
- Report detailing soil analyst's recommendations.

The Landscape Contractor shall obtain a sample for analysis, to determine all of the requirements listed above.

The results and a brief analysis and interpretive report making comment on suitability of material in comparison to BS3882 and the specification included within this document, including recommendations for additives and/or amendments to bring sub-grade soil up to the required specification standard. Topsoil requirements and to support broadleaf native trees with particular reference to the requirement identified above and levels of metals and the likely effects of these on nutrient availability and protection of plant growth.

A certificate of Analysis should also be provided shall be submitted to the CA who may adjust the composition of any specified fertiliser of soil ameliorant and the rate of application, after examination of the Landscape Contractors cost. Where suitable amelioration is not possible the CA may reject the topsoil.

3.6 IMPORTED SUB-SOIL

- Quantity: All subsoil that is imported is to confirm to this specification.

- Standard BS 8601 – 2013 Subsoil.
- Source: Submit proposals.
- Crumb structure: Made up of discernible crumbs.

Visual examination:-

The subsoil shall have a defined granular, crumb or blocky structure and shall be reasonably free from non-soil material, brick and other building materials and wastes, hydrocarbons, plant matter, roots of perennial weeds and any other foreign matter or material or substance that would render the sand unsuitable for use. Provide the Landscape Architect (CA) a 1kg sealed sample bag of representative soil, for approval of the physical structure of the soil, before chemical analysis is progressed.

Physical Parameters:-

Clay (less than 0.05mm) 5-27%

Silt (0.002 – 0.05mm) 5-50%

Sand (0.05 – 2.00mm) 40-85%

Max. Stone Content (2 – 50 mm) 50% by weight

Max. Stone size in any dimension 75mm

Chemical Parameters:-

PH value (1:2.5 soil/water) 5.0-8.2

Electrical Connectivity (1:2.5 soil/water) <2000 µS/cm

Electrical Connectivity (1:2.5 CaSO₄) <2800 µS/cm

Organic Matter (Walkey Black) % <2.0

Potential Contaminants:-

Refer and comply with Integral Geotechnique's Specific Target Level for the imported Capping Layer Soils List attached at the end of this specification.

Subsoil is to be naturally occurring material, excavated from a level immediately below the vegetable topsoil down to a maximum depth of 2.0m from the original ground level with no stone or rubble material larger specified. The material shall be a friable consistency, free draining, free from extraneous material and pernicious weeds. The subsoil must contain no chemical or domestic refuse or pollutants that would be harmful to short term or permanent plant or animal life. The material will not be extreme in either alkalinity or acidity. It is not acceptable to use topsoil within subsoil layers.

All sources of material shall be stated and a 2m³ minimum sample shall be provided for analysis, inspection and approval prior to deliveries to site. All supplies thereafter shall conform to approved samples. The CA may reject any subsoil with high stone or rubble content.

3.7 RIP SUBGRADE BEFORE LAYING SUBSOIL

Scarify subgrade to promote free drainage. The surface on which subsoil is to be placed will be thoroughly ripped to a depth of 200mm before subsoil placement. A cross-ripping effect will be achieved by two passes at an angle of 45 degrees to the edge of the strip at 90 degrees to one another. Remove all stones with largest dimension exceeding 50mm. ***If standing water is present on ripped surface inform the CA before placing subsoil***

3.8 PRODUCTS AND MATERIALS**3.9 TOPSOIL AND SUBSOIL**

Existing topsoil and subsoil to retained where possible and reused.

Imported topsoil and subsoil will be imported for any shortfall for new planting beds, tree pits, hedge trenches, native blocks and grass areas.

Topsoil and subsoil depths required for the soft landscaping

- 300mm topsoil 300mm subsoil in planting beds, hedges and native blocks.
- 300mm x 3000mm tree pit for apple trees.
- 300mm topsoil 600mm subsoil in tree pit
- 150mm topsoil and 150mm subsoil in grass areas.
- 75mm topsoil and 225mm subsoil for meadow grass areas if existing ground not used.

3.10 AMELIORANTS

ROOTDIP: Root-balled trees are used a solution of one part Seanure Root Dip to ten parts water be applied around the roots as part of the puddling-in planting system. Barerooted trees to be dipped in root dip solution.

ANTIDESSICANTS: All trees and evergreen plant material on arrival at site shall be sprayed with an appropriate antidessicant approved by the CA unless the temperature is below 10degC.

GREEN COMPOST: Green recycled compost shall be used which will have an organic and fibre content and some trace elements It shall improve soil structure and help retain moisture. Green Compost to be made under strictly controlled

conditions from green, organic recycled material. PAS 100 standard. Sample to be approved before full orders made. The supplier is to provide a sample and details of the compost components and approved by the Client before use on site.

Spread 50mm depth of compost on surface of all planting beds work into full topsoil depth.
Green Compost to be 10% tree pit and work into full topsoil depth.

To be obtained from a local supplier and sample approved before full load brought to site.

MULCH:

To be 40mm Blue Slate chipping 50mm thick laid over Geotextile weed membrane as indicated

To be bark mulch for native hedges by field or Site boundaries and trees in grass areas. One short section of hedgerow occurs within a planting bed and this will be have a slate mulch.

Melcourt Ornamental Bark Mulch to be used. The product shall consist of

- predominantly matured European Pine Bark with an even nominal particle size distribution of 5-35mm with minimal dust and fines and less than 5% wood content.
- The pH to be between 4.5 and 5.5.
- The product shall be pest, disease and weed free and not have been treated with Methyl Bromide or any additives.
- The product shall have been tested in accordance with the requirements of BS 4790:1987, for fire resistance.

Or other approved product with the same specification.

GEOTEXTILE WEED MEMBRANE

Terram Weedguard

Terram

[Tel:-01621 874200](tel:01621874200)

[Email:-info@terram.com](mailto:info@terram.com)

For all planting beds except native blocks, hedges and nursery beds.

PERMEABLE ROOT BARRIER

The root barrier is to be Terram Rootguard which is a permeable root barrier. These are to be used in tree sides facing services or easements within 2.00m of tree stems

Terram

Fiberweb Geosynthetics Ltd

Blackwater Trading Estate

The Causeway, Maldon

Essex CM9 4GG

Tel: +44 (0) 1621 874200

[email:info@terram.com](mailto:info@terram.com)

www.terram.com

3.11 ACCESSORIES

TREE TIES: Tree ties are to be Hessian webbing 50mm wide, wrapped around tree stem and nailed to the stakes with 40mm galvanized nails according to tree type.

TREE STAKES: Tree stakes shall be larch or sweet chestnut poles celcure treated, 75mm in diameter, straight with butt end Extra Heavy Standard Trees will have 2No stakes. The stakes are to be set 1200mm above ground.

Apple trees will have one stake 1750mm length 75mm diameter.

SPIRAL RABBIT GUARDS

Green Tech Rainbow Bio Spiral Guards with a green tint. 60cm x50mm diameter for hedge planting

3.12 PLANT MATERIAL SUPPLY

PLANTS GENERALLY

Trees and plants are to conform to the relevant section of BS 3936 (publication series) and the National Plant Specification. No substitutes are to be accepted without the consent of the landscape architect and the local planning authority. All plants shall be true to size specified on the planting plan and schedule. All plants shall be healthy, bushy, pest and disease free and not pot-bound, dry, water logged, leggy or weak. A minimum of five breaks per shrub is required. Trees shall be vigorous, of good shape and with a well-branched head.

Plants that are container grown (CG):

- Supplied in a growing medium with adequate nutrients for the plant to thrive until permanently planted.
- Centred in the container, firmed and well-watered.
- With root growth substantially filling the container, but not root bound, and in a condition conducive to successful transplanting.
- Grown in the open for at least two months before being supplied.

- Grown in containers with holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

HANDLING AND DELIVERY: The Contractor shall comply with the recommendations of the booklet 'Plant Handling' published by the Committee for Plant Supply and Establishment in July 1985.

The Contractor shall include for packing, loading and transporting plant material, trees, etc from the source of supply to the site. All plant material shall be carefully packed and protected to survive transport to site without damage in lifting from the nursery, loading, transit or unloading. Any plant material which sustains major damage shall be rejected and replaced at the Contractor's expense, but slight mechanical damage may be corrected by careful pruning and wounds exceeding 25mm diameter shall be treated with fungicidal sealant.

If plants are not planted within 24 hours of delivery they shall be heeled in by placing the roots in a prepared trench covering them with fine soil and well firming and watering to prevent air pockets.

PLANT INSPECTION: The CA reserves the right to inspect all plant material prior, during and after planting and reject any plants that fail to meet a satisfactory standard.

TREES: They shall have either a well balanced head or well defined central leader with branches growing from the stem with reasonable symmetry and shall comply with the following definitions:

- Advanced Nursery Standards shall be rootballed. . They shall be of a minimum height of 5.00-5.50m with a sturdy taper and reasonably straight stem minimum 1.75- 2.00m in height from ground level to the lowest branch with a minimum girth of 18-20 cms when measured 1.00m from ground level.
- Extra Heavy Standard Trees shall be rootballed. They shall be of a minimum height of 4.00-4.50m with a sturdy taper and reasonably straight stem minimum 1.75- 2.00m in height from ground level to the lowest branch with a minimum girth of 14-16 cms when measured 1.00m from ground level.
- Apple trees are to be half standards between 1.20-1.50m height.
- Native Hedge Plants- Native Block Plants. These are to be strong well-rooted nursery stock evenly developed with a single well defined, straight and upright central leader. The main stem shall be furnished with lateral shoots. The plant shall be self supporting with a stem circumference at the root collar of 30-50mm. Overall heights as specified in the Plant Schedule. All whips are to be bareroot

CONTAINER STOCK TREES

Container stock trees are **not** to be used. Tree planting is to be undertaken in season.

POT GROWN SHRUBS: A shrub which is pot-grown or container-grown may, according to species, be cut back or trimmed to encourage bushiness. The size of pot shall be as stated in the Plant Schedule. The height of shrubs shall be measured from the ground level, excluding rootball or any container.

4.0 WORKMANSHIP - LANDSCAPE

4.1 SITE CONDITION

The Contractor shall be held responsible for the keeping of the Works in a neat, tidy and litter free condition through the duration of the Contract.

Litter means arisings or residues from the Works, cans, bottles, paper and other extraneous objects.

- 4.2 WATERING:** Water is to be provided by the Principal Contractor and access without cost to the private water system. The Landscape Contractor is to supply hoses and sprinklers and ware as necessary up to Practical Completion and as necessary during the defects/maintenance period.

Quantity: Wet full depth of topsoil.

Application: Even and without displacing plants, mulch or soil.

Frequency: As necessary to ensure the establishment and continued thriving of all seeding/turfing and planting.

Watering for planting of trees, shrubs and whips after planting and if dry conditions occur

DROUGHT CONDITIONS: If water supply is or is likely to be restricted by emergency legislation:- inform the CA without delay of the additional cost of second class water supply from a sewerage works or other approved source.

- if planting has not been carried out, do not do so until instructed.
- if planting has been carried out, obtain instructions on supply of water.

PERMANENT DRAINAGE SYSTEM: This is not to be used for disposal of water from excavations without approval.

4.3 FORMATION OF GENERAL GROUND LEVELS

The levels of the site of the site will be as the Architect's and Engineer's details

New ground levels need to be as required by the Engineer for paving edges and other hard surface edges and left ready for soil profiling if required to the required depth for the finish of shrub or shrub and tree planting so that the finished topsoil levels can be 50mm below finished hard edging adjacent to the building and within the carpark areas.

The areas shall be excavated or filled to the correct depth for the soil profile.

The subbase material in the excavated bed areas, grass areas and planting pits are to be broken up to a depth of 200mm as required,

4.4 SOIL PROFILE FORMATION

LOOSE TIP FILLING FOR LANDSCAPE AREAS

SUBSOIL FILL

Do not firm, consolidate or compact when laying.

Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

PLACING FILL GENERALLY

- Ensure that areas to be filled are free from loose soil, rubbish and standing water.
- Do not use frozen material or materials containing ice. Do not place fill on frozen ground.
- Take all necessary precautions to secure the stability of adjacent structures.
- Place fill against structures, or buried services in a sequence and manner that will ensure stability and avoid damage.
- Plant employed for transporting, laying and compacting must suit the type of material. ie light earth moving plant to be used for all subsoil areas.
- Earthmoving equipment: Vary route to avoid rutting.
- Filling: Layers not more than 300 mm thick.
- Lightly compact each layer to produce a stable soil structure when grading them to an even level..

4.5 HANDLING TOPSOIL

Standard: To BS 3882 : 2015.

- Ensure topsoil is free of aggressive weeds weed species: Included in the Weeds Act, section 2 or the Wildlife and Countryside Act Schedule 9, part II.
- Give notice: Obtain instructions before moving topsoil.
- Multiple handling: Keep to a minimum. Use topsoil immediately after stripping.
- Areas to be topsoiled are to be laid over the finished subsoil levels.
- Topsoil areas to be graded to be 50mm below finished edging levels.
- Do not use topsoil contaminated with subsoil, rubbish, oil based products or other materials toxic to plant life.
- Dispose of contaminated topsoil to the Contractor's tip
- Apply herbicide to perennial weeds and allow period of time recommended by manufacturer to elapse before cultivating

SPREADING TOPSOIL DEPTH to the depths specified

Once spread the topsoil shall be kept free of weeds by physical means or by spraying with an approved weedkiller until such a time as planting is carried out.

GREEN COMPOST

PLANTING BEDS/NATIVE BLOCKS AND HEDGES

- Spread 50mm layer of Green Compost and cultivate into full depth of topsoil.
- Reduce top 100mm of all topsoil to a fine tilth suitable for final grading
- Remove all undesirable material brought to the surface, including stones larger than 50mm in any dimension, roots, turf or grass and foreign matter.
- Cultivation and planting shall not be carried out when the soil is very wet or waterlogged, or during periods of frost.
- At all times during ground preparation care shall be taken not to re-compact the soil.

5.0 PLANTING GENERAL

5.1 CLIMATIC CONDITIONS: Carry out the work while soil and weather conditions are suitable for the relevant operations. Do not plant during periods of frost or strong winds. Plant only during the following periods:

- Deciduous trees and shrubs: Late October to late March
- Container grown plants: At any time if ground and weather conditions are favourable.
- Ensure that adequate watering and weed control is provided.

NOTICE

Give notice before:

- Setting out.
- Delivery of plants/ trees.

- Planting shrubs.
- Planting trees

5.2 TREE, SHRUB PLANTING

Planting shall be carried out in accordance with the Plant Schedules and the Contract Drawings.

SETTING OUT: All areas shall be set out in accordance with the Contract Drawings.

PLANT SPACING: Plant spacing shall be carried out in accordance with the Contract Drawing. The CA reserves right to adjust the exact position of all plant material after it has been set out.

The aim will be to space the plants evenly so that when established they will completely fill the areas indicated as fully as possible.

NEW PLANTING AREA

Prior to the placing of topsoil and subsoil ensure existing ground under is thoroughly broken up to a depth of 200mm to allow free drainage.

Remove all rubble, concrete washings, and other builder's debris to provide sufficient depths for topsoil placement. Cut back excessive haunching where it restricts topsoil depths. Excavate tree pits into subgrade prior to top soiling to ensure sufficient depths of soil. Mark tree pit locations with timber stakes.

PLANTING AND CULTIVATION: All planting shall comply in all respects with BS 4428: 1968 General Landscape Operations and for Tree Planting BS 8545: 2014. All plants shall be planted in accordance with good horticultural practice, upright with the roots well spread out at same depth at which they had been previously grown in the nursery. Care being taken to avoid damage to root systems and stems. The plants shall be placed in position in accordance with the Contract Drawings showing their best side to the front. Suspended planting and cultivation when weather or soil conditions are unsuitable.

Cultivations are as previously specified. Soil to be free of weeds prior to commencing planting works, where necessary the topsoil will have weeds removed by physical means or will be treated with weedkiller where necessary to destroy weed growth prior to commencing planting.

Evergreens to be dipped in or thoroughly sprayed with antidesiccant after planting. Do not apply in rainy or frosty weather. Ensure full coverage of underside of foliage.

ROOT BARRIERS

Root barriers are to be used where trees are within 2.00m of service runs. The root barriers are to be either installed vertically or laid to line service trenches where appropriate. The root barrier is also to be used at the base of hedge trenches lying over the diverted service easement. The root barrier is to be Terram Rootguard which is a permeable root barrier.

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www.terram.com

5.3 ADVANCE NURSERY AND EXTRA HEAVY STANDARD TREES

These are to be planted in planting beds and grass areas around the Site

General

- At planting the localized tree pit dug shall be not less than minimum dimensions or 1500 x 1500mm x 900mm depth. Allow the tree at planting to have the root flare at finished topsoil level. (this may be the soil mark on the nursery stock. Check this is the root flare point before planting. Correct planting depth is important.)
- Water rootball of rootballed trees with seaweed extract root dip.
- All wires hessian and other rootball wrapping to be removed at planting.
- Trees need to be orientated for the best crown development. It might be found that due to the nature of growing trees on nursery lines crowns develop asymmetrically.
- Supply and fix aeration/watering /feeding unit around rootball.
- Tree pit is backfilled with imported subsoil 600mm depth and imported topsoil 300mm depth.
- Add 10% Green Compost is to be mixed in thoroughly into top 150mm of the topsoil backfill.
- The returned soil shall be lightly consolidated by treading as filling proceeds layer by layer with subsoil replaced first and then topsoil in layers above the subsoil

- The tree shall be set upright in the centre of the tree pit so that the soil level after settlement will be at the original soil mark on the tree stem.
- The two stakes shall be driven into the pit 150mm from the edges and fixed before backfilling
- The returned soil shall be finely broken down and placed around the roots gently shaking the tree to allow particles to work around the rootball and ensure close contact with all rootball and prevent air pockets. The returned soil shall be lightly consolidated by treading as filling proceeds layer by layer, care being taken to avoid damaging the rootball. Soil around the root flare of the tree shall be consolidated firmly with the heel.
- Secure the tree to the stakes with Hessian webbing 50mm wide wrapped around tree stem and nail the webbing to the stakes with galvanised nails. The stakes are to be 75mm diameter set 1200mm above ground level.
- Water tree thoroughly after planting.
- Trees in planting beds will be in beds with a slate mulch.
- Trees in grass areas. Supply and spread a 900mm diameter bark mulch 10mm thick at edges rising to 75mm by tree stem.
- Supply and fix spiral guards to trees.

5.4 APPLE TREES

There are 15 No Malus Cox Self Fertile half standards are to be planted in the Orchard area of the western drainage field. The trees are to be planted into existing ground and the apple trees are planted at 6.00m centres.

- Dip apple trees bare-rooted plant material to be dipped into alginure root dip prior to planting
- Excavate a tree pit 200mm in cross section and 600mm depth
- Break up base of hedge trench to a depth of 300mm
- The tree shall be set upright in the centre of the tree pit so that the soil level after settlement will be at the original soil mark on the tree stem.
- The one stakes shall be driven into the pit and fixed before backfilling
- Backfill 300mm with existing subsoil
- Backfill final 300mm with imported topsoil with 10% Green Compost mixed in.
- Lightly consolidate by treading.
- Secure the tree to the stake with Hessian webbing 50mm wide wrapped around tree stem and nail the webbing to the stakes with galvanised nails.
- Water tree thoroughly after planting.
- Supply and fix spiral guards

5.5 HEDGE PLANTING : HEDGES 1-5

Hedges are all native hedges – plant in double staggered rows at 0.30m centres.

NOTE Hedge 2 has a post and wire mesh fence through the centreline.

NOTE Hedges 1, 3, 4 and 5 are either adjacent to boundary fences or trip rails..

All container grown plants shall be well-soaked in water with alginure root dip in the water prior to planting and planted into the trench area and all bare-rooted plant material to be dipped into alginure root dip prior to planting.

- Excavate hedge trench 1000mm wide to a depth of 600mm
- Break up base of hedge trench to a depth of 300mm
- NOTE install centerline fence to Hedge 2
- Cultivate trench and work in Green Compost, 50mm layer spread over area to full topsoil depth. Remove any debris arising from cultivations.
- Water the hedge plants thoroughly after planting.
- Supply and spread a 75mm layer of bark mulch over Hedge 1-5 facing grass areas and a 50mm slate mulch where hedgerow 4 and 5 short sections are in planting beds..

5.6 WIRE MESH FENCING TO CENTRE OF DOUBLE STAGGERED ROWS OF NATIVE HEDGEROWS where fences are indicated for the centre line of Hedge 2

To BS1772 Part 1.

Height: 1100mm

Mesh: Galvanized mesh with 100mm gaps as required for fencing within flood plain

Wire: 4No straining wires, mild steel (8SWG) galvanized to BS 443, clipped to woven wire at 500mm intervals.

Staples: 30 (8SWG) galvanized or sheradised. Angle all staples; securely knock in at all posts.

Posts and struts: Natural debarked softwood round struts and posts.

Treatment: Pressure impregnated to BS 4072 and BS 5589

Maximum centres of posts.

Straining posts: 100m in straight runs, or adjusted equidistant if end sections are less; at ends, corners, changes of direction or acute changes in level.

Intermediate posts: 3.0m centres

Method of setting posts:

Straining posts: 100mm section x 2050mm posts set in augured hole, backfilled with 400 x diameter 750mm well rammed aggregate and remainder 50mm to surface with topsoil arising from excavation.

Dispose of surplus off site.

Struts: 75mm section x 2000mm strut, notched to straining post and set in hole, backfilled with 375 x 850 x 500mm well rammed aggregate and remainder 100mm to surface with topsoil arising from the excavation.

5.7 ORNAMENTAL PLANTING BEDS 1-7

Supply and plant shrubs at spacing indicated on the Contract Drawings and of species and sizes indicated on the Plant Schedule.

All container grown plants shall be well-soaked in water with alginure root dip in the water prior to planting

- Excavate planting beds to a depth of 600mm.
- Break up ground under to a depth of 300mm.
- Spread 300mm depth of imported subsoil and 300mm depth of imported topsoil over area.
- Cultivate planting beds and work in Green Compost, 50mm layer spread over area to full topsoil depth. Remove any debris arising from cultivations.
- Supply and lay a geotextile weed membrane with a minimum overlap of 200mm and holes cut for planting. Sufficient pins to be installed to prevent membrane lifting.
- Supply and spread a layer of Slate Mulch 50mm deep over the area.
- Water plants thoroughly after planting
- Where bed includes framed climbers train climbers on to fencing

5.8 NATIVE BLOCKS

Supply and plant plants and underplanting of species and sizes indicated on the Plant Schedule and Drawings.

All container grown plants shall be well-soaked in water with alginure root dip in the water prior to planting and planted into the trench area and all bare-rooted plant material to be dipped into alginure root dip prior to planting.

Native blocks occur in 2 locations western side of the Lidl carpark and along side west side of service area..

- General area preparation
- Excavate native blocks to a depth of 600mm.
- Break up ground under to a depth of 300mm.
- Spread 300mm depth of imported subsoil and 300mm depth of imported topsoil over area.
- Cultivate native blocks and work in Green Compost, 50mm layer spread over area to full topsoil depth. Remove any debris arising from cultivations.
- Plant numbers as indicated on Drawings.
- Supply and spread a 50mm depth of slate mulch across the block..
- Supply and fix spiral guards to the barerooted plants and Holly (Ilex aquifolium).
- Train ivy (Hedera Hibernica) across the block
- Water plants thoroughly after planting.

5.9 HEDGEHOG HOUSE AND BIRD AND BAT BOXES

HEDGEHOG HOUSE

Supply and place a hedgehog house in the hedgerow close to the gate in the open field are to the west of the store.

Igloo Hedgehog Home wicker unit 220x 590x 530mm made from natural materials.

Tel 01666 501102 hello@thewildlifecommunity.co.uk

BAT AND BIRD BOXES

Bird and bat boxes to be specified, located and installed as recommended by Ecologist.

5.10 FENCE AND SEMI-MATURE CLIMBERS

Supply and Install a 2.00m height timber fence to the rear of the store facing the A485 increasing to a height of 3.50m around the plant area. Fence to have hedgehog friendly gravel boards.

Semi-mature Climbers are to be planted in pits 100mm wider than the pits and the frame with the climbers retained and climbers frame attached to the fence. Climbers to be trained along the fence. The climbers are to be spaced at 2.50m centres.

5.11 PROTECTIVE FENCING

If necessary protective fencing will be erected to protect completed works where necessary where other adjacent works are in progress and there is a risk of damage by others of completed landscape works.

5.12 DEFECTS LIABILITY

All tree, hedge, native, climbers and shrub planting is to be maintained for 5 Years after Practical Completion (1 Year as part of contract and 4 years with managing agent). (Apple Orchard maintenance period 60 years overall)

All planting completed prior to Practical Completion of the whole soft Landscape works is to be maintained as per maintenance requirements until Practical Completion.

After planting remove all soil from hard surfaces and leave all areas in a clean and tidy condition at Practical Completion.

FAILURES OF PLANTING: Post Practical Completion maintenance of the planting is to be carried out by the Contractor as specified. Any tree/shrubs/plants which are dead, dying or otherwise defective at the end of each growing season within the Defects Liability Period will be regarded as defects due to materials or workmanship not in accordance with the Contract. They must be replaced by approved equivalent tree/hedge/shrub/plant material at the next suitable planting season unless otherwise instructed.

This will not apply if defects are caused by malicious damage after Practical Completion.

6.0 GRASS SEEDING : NEW GRASS AREAS

Areas for grass establishment are as indicated on the Contract Drawing.

- Amenity Grass Area around the store will be a Conservation Grass Mix seeded at rate of 30gms per square metre.
- Meadow Grass Areas are to be EM2 Standard General Purpose Meadow Mix seeded at the rate of 4gms per square metre

All works specified shall be carried out in accordance with BS4428 "Recommendations for General Landscape Operations Section 5"

SEEDED AREA REQUIREMENT

- Growth and development: Healthy, vigorous grass sward, free from the visible effects of pests, weeds (undesirable species) and disease.
- Appearance: A closely knit, continuous ground cover of even density, height and colour for grass areas.

CLIMATIC CONDITIONS

- General: Carry out the work while soil and weather conditions are suitable.

NOTICE

Give notice before:

- Setting out.
- Applying herbicide if appropriate..
- Preparing seed bed.
- Seeding.

SETTING OUT

- Boundaries: Mark clearly.
- Delineation: In straight lines or smoothly flowing curves as shown on drawings.

6.1 GRASS OPERATIONS

- Areas to be excavated out as necessary for spreading subsoil and topsoil.
- Prior to subsoil and topsoil spreading break up ground under to a depth of 300mm
- Supply and spread topsoil to required depths

GENERAL GRADING

- Topsoil depth and type varies according to substrate type for different seed mixes: reasonably dry and workable.
- Amenity Grass around the store 150mm topsoil 150mm subsoil
- Meadow Grass Areas 75mm topsoil 225mm subsoil
- NOTE Where possible existing grass or existing soil areas undisturbed are to be retained. Mown short and overseeded with the specified grass mixes.
- Contours: Smooth and flowing, with falls for adequate drainage.
- Hollows and ridges: Not permitted.
- Finished levels after settlement: 25 mm above adjoining paving, kerbs, manholes etc.

GENERALLY SEEDING OF GRASS AREAS

- Care will be required when programming seeding of grass areas to ensure that completed seeding is not damaged by trafficking by others or additional works being undertaken in grass areas after seeding.

PROTECTIVE FENCING

- If necessary protective fencing will be erected to protect completed works where necessary where other adjacent works are in progress and there is a risk of damage by others of completed landscape works.

6.2 AMENITY : CONSERVATION GRASS AREA

This is the area around store

- Amenity Grass 150mm topsoil 150mm subsoil

CULTIVATION

The topsoil is to be free of weeds prior to commencing seeding works.

Before seeding the areas shall be raked to provide a suitable tilth, all stones larger than 50mm shall be removed from the surface and removed from site to the Contractor's tip.

SOWING

The Contractor shall obtain approval of the prepared soil before seeding. Supply and cross sow with the grass mix specified. After sowing once seeds have germinated - the seeded areas are to be lightly cross raked and rolled.

INITIAL GRASS CUTTING:

After the seed has germinated a first cut is to be made when the grass has reached 65mm in height and cut to 50mm height. A second cut shall be given to grass when it has reached 75mm reducing it to 40mm.

Arisings are to be removed from the grass areas.

GRASS AREA WATERING.

The Contractor shall water the sown grass areas as necessary and agreed with the CA as failure due to drought will be the sole responsibility of the Contractor.

6.3 MEADOW GRASS AREA

- 225 mm subsoil and 75mm topsoil minimum stone content Nursery Verge
 - EM2 Emorsgate Standard General Purpose Meadow Mixture seed at rate of 4gms per sq metre.

Where existing levels are undisturbed cut existing grass very short and over seed with meadow grass mix.

CULTIVATION

All soil areas are to be free of weeds prior to commencing seeding..

Before seeding the areas shall be raked to provide a suitable tilth, all stones larger than 50mm shall be removed from the surface and removed from site to the Contractor's tip.

SOWING

The Contractor shall obtain approval of the prepared soil before seeding. Supply and cross sow with the grass mix specified. After sowing once seeds have germinated - the seeded areas are to be lightly cross raked and rolled.

INITIAL GRASS CUTTING: WILDFLOWER GRASS AREAS

After the seed has germinated a first cut is to be made when the grass has reached 75mm in height and cut to 50mm height.

GRASS AREA WATERING.

The Contractor shall water the sown grass areas as necessary and agreed with the CA as failure due to drought will be the sole responsibility of the Contractor.

6.4 DEFECTS LIABILITY**FAILURE OF SEEDING BEFORE PRACTICAL COMPLETION)**

If germination has failed within one month of original seeding the above shall be repeated until a total grass cover is achieved. If turf fails before Practical completion it is to be replaced.

Grass Areas - Bare areas and areas of dead grass which are apparent at Practical Completion will be regarded as defects and must be made good by recultivation and seeding at times agreed with CA.

FAILURE OF SEEDING (AFTER PRACTICAL COMPLETION)

Grass Areas - Bare areas and areas of dead grass which are apparent after Practical Completion will be regarded as defects and must be made good by recultivation and seeding at times agreed with CA.

6.5 PRACTICAL COMPLETION FOR GRASS SEEDED AREAS

Grass areas will only be accepted for Practical Completion when germination is seen to be even and of correct density and all weeds removed and the first cut has been satisfactorily undertaken.

No individual areas of grass area will be accepted for Practical Completion until the entire landscape works are completed to the satisfaction of the CA.

Should Practical Completion be delayed all grass areas shall be maintained in accordance with the specification for maintenance.

6.6 AMENITY GRASS AREA MAINTENANCE UNTIL PRACTICAL COMPLETION

MOWING : The Contractor shall maintain grass heights all year to a maximum height of 60mm and a minimum height of 30mm. **Arisings shall be removed after the first cut and thereafter evenly dispersed.**

When conditions are dry ensure that the grass is not cut too short

Water as necessary

WEEDKILLER TREATMENT IN CONSERVATION GRASS AREAS.

While actively growing, spot weed treat grass areas with a suitable approved weedkiller to kill vigorous perennial weeds such as thistle, ragwort, rosebay willow herb, knotweed and docks and bramble regrowth

Retreatment as required is to be carried out during September.

6.7 MEADOW GRASS AREA MAINTENANCE UNTIL PRACTICAL COMPLETION

MOWING :

The first growing season, the new wildflower and grass areas should be cut regularly (one cut per Month from March-October inclusive) to approximately 50mm to control annual weeds

Water as necessary

7.0 LANDSCAPE MANAGEMENT

MANAGEMENT PERIOD FIVE YEARS: CONSTRUCTION MAINTENANCE PERIOD IS YEAR 1 MANAGED BY LIDL AND FOLLOWING 4 YEARS BY THE LIDL'S MANAGING AGENT FOR THE GENERAL SITE.

DRAINAGE FIELD WITH THE APPLE ORCHARD AND POND MANAGEMENT PERIOD 1-60 YEARS FOR PHOSPHORUS TARGET LEVELS ACTIONS.

7.1 Programming and site attendance

PROGRAMME OF WORKS: The Contractor shall provide a programme of maintenance works at the commencement of the Contract. The Contractor shall maintain an operation plan that demonstrates the monthly progress and the month in advance. The operational plan is to include management objectives to achieve this plan.

SITE ATTENDANCE: The aim of this item is to ensure that small matters are corrected.

The Contractor shall attend to incidental matters which are defined as follows:

- inspect the site and undertake as necessary litter picking, sweeping, leaf clearance and other maintenance items which require attention in key areas such as at the site entrance, car parking areas and entrances to Buildings
- 'making-safe repairs' to such items as staked trees, fencing etc
- 'making safe' any hazardous items on site eg damaged service covers etc (full repair to be undertaken by Employer's CA).
- reporting to CA any matters requiring more than one hours attendance or requiring specialist work.

MAINTENANCE RETURNS

The Contractor shall submit a monthly maintenance return issue this to CA and copy it to the CA for Years 1-5 and 6 monthly returns for years 6-60 years in drainage field.

7.2 Removal of arisings:

The Contractor shall remove all leaves, litter, rubbish, dirt and other arisings shall be swept up, collected and disposed of on the same day as the various items of work are undertaken. These arisings shall be collected and unsuitable material disposed off at the Contractor's tip. The Contractor shall take sole responsibility for providing a tip and for all charges, fees, transport and any other expenses in connection with tipping unless otherwise specified in writing by the LA.

Where indicated arisings are to be dispersed.

Ornamental planting beds and trees within ornamental areas arisings are to be removed from site.

Note all green waste arisings is to be recycled via local recycling facilities as the site has not suitable locations for composting material or operations for reusing composted material.

7.3 Inspections

During maintenance operations the Contractor shall note and report without delay to the CA any of the following:

- activities by others which prevent the normal maintenance operations proceeding in the site areas eg Statutory Authorities work, new constructions, storage of materials and parking on landscape areas etc.
- damage caused to the site areas by the activity of others on site.
- missing gully covers or damaged service covers noted during the course of the works.
- damage to boundary fences, other fences, railings and other features for which the Employer is responsible.
- persistent litter problems

- theft or malicious damage, or clearly unauthorized use of the site areas
- damage to building structures within site area

Inspect trees after high winds. Refix newly planted trees upright as necessary.

8.0 TREE MAINTENANCE: GENERAL The Contractor is to take care not to damage tree stems, any damage or tree death resulting from damage shall be made good at the Contractor's expense.

8.1 STAKED TREES

INSPECTING TREES

Inspection of new trees should be monthly in the first year and then every two monthly thereafter and after high winds to assess remedial work needed due to storm damage, clearing of dead trees, prevention of trees overhanging roads and footpaths.

PEST AND DISEASE CONTROL: The Contractor shall report to the CA any indications that pest or disease control treatment is required. Allow for one application of a treatment approved by the CA. Report any squirrel damage noted to CA.

TREE REMOVAL: Remove dead or dying or trees which are poorly located after obtaining approval from the CA. Where the tree is removed from a grass area reinstate soil levels to marry with adjacent levels and seed with an approved mix.

REFIRMING: Ensure that all trees remain firmly bedded in the ground after strong winds, frost and other disturbances. Refirm by treading around the base. Any 'collars' forming at the base of the trees shall be broken up and then backfilled with topsoil.

STAKED TREES

- Check tree stakes for firmness and signs of rot or damage.
- Refirm or replace as required. Tree stakes to be supplied by the Contractor at his sole cost to be suitable for the size of tree to be staked, fully tanalised, round, peeled and pointed at one end.
- Tree stakes should be removed after three growing seasons. tree is to be replaced.
- Check all tree ties. Remove, adjust, refix or replace if broken. Ties to be supplied by the Contractor at his/her own expense. The make of replacement ties must be approved by the CA before use on site. Ties to be nailed securely to the stake.
- Remove spiral guards from trees in Year 3.
- Provide aeration where compaction is considered to be one cause for poor tree condition.
- Trees are within planting beds, grass areas.
- Top up bark mulch around trees in grass areas in Year 1 and Year 2.

GENERAL

- Water as necessary during dry periods
- Any trees which die or are otherwise defective during Year 1-5 Defects/Maintenance Period shall be replaced at the Contractor's cost in the next November and March planting season.

These works to staked trees are to be carried out **between September and February each year unless specified otherwise and when necessary during the remaining part of the year – work should be undertaken when trees are dormant.**

PRUNING TREES as follows:

- Remove dead or damaged branches and cut back any ragged edges of wounded bark back to healthy tissue.
- Remove side growths beneath the crowns and any suckering growth from tree base. All cuts to be pared back flush to the stem, trunk or scar tissue.
- Where tree in very poor condition tree removal may be required.
- Pruning shall be undertaken once per year during between October and February. The use of chainsaws and the like will not be permitted, unless instructed by the CA.

APPLE TREES

Years 1-5 as above apart from pick all apples each year and remove from site as for community or use in the store. All windfalls must be collected and removed from Site.

Years 6-60 Years

- Apple Orchard from Years 6-60 will be monitored by an arboriculturalist or horticulturalist every 2 years.
- Apples picked and including collecting windfalls and removed from the field every year
- Trees to be pruned as necessary to encourage good fruit growth.
- No fertilisers to be added
- As trees age and reduced apple production replace with new stock of Cox's Self Fertile half standards.
- Report on apple trees to be provide each after apple crop picked..

9.0 MAINTENANCE OF PLANTING BEDS: GENERAL REQUIREMENTS

PEST AND DISEASE CONTROL: The Contractor shall report to the CA any indications that pest or disease control treatment is required. Allow for one application of a treatment approved by the CA. Pest and disease control includes for the control of slugs, snails or any other pest (not vermin) which adversely affects plant material. Repeat treatments are too be made as necessary.
Report any rabbit damage noted to CA.

REFIRMING: Ensure that all shrubs remain firmly bedded in the ground after strong winds, frost and other disturbances. Refirm by treading around the base. Any 'collars' formed at the base of the shrubs shall be broken up and then backfilled with topsoil.

AERATION : Where the bed is compacted or the soil water logging aerate the soil avoiding damage to any underground plant rhizomes etc and avoid damage to underground services where these occur.

9.1 WEEDING PLANTING BEDS: All planting beds are to be kept weed free at all times. The Contractor is to provide a list of suitable herbicides for use in planting beds and obtain the written approval of the CA.

CONTROL WEEDING - Control weeding means applying an appropriate weedkiller at the beginning of the growing season and thereafter the areas are to be checked once a month in season and any weeds spot treated with an appropriate weedkiller. Initial weedkiller application to be undertaken during mid/late Spring each year **and be completed by 10 June**. This treatment is for newly planted beds .

NOTE CHECK THAT HERBICIDE USED IS SUITABLE FOR USE ACCORDING TO THE PLANT COMPOSITION OF THE BE IF NOT HANDWEED.

9.2 BED MAINTENANCE

MAINTAINING SLATE MULCHED BEDS: During weeding and maintenance operations do not incorporate mulch into the underlying soil. Each Autumn rake over the slate mulch to provide a neat and tidy appearance.

PLANTING BED EDGES: On one occasion per year the soil at edges of planting beds shall be reduced to 50mm below the adjacent hard or grass surface. The resulting soil shall be removed. Care shall be taken to ensure that the bed edges against grass areas are well defined unless otherwise directed by the CA.

NOTE; Where good horticultural practice for the particular shrubs/plants within a bed require a specific fertiliser treatment this shall be applied.

DISEASES: The CA shall be notified of any pest or disease outbreaks. If cutting out diseased material all implements shall be sterilized between shrubs to prevent spreading the pathogen

CONTROL OF UNSUITABLE VEGETATION

During routine visits inspect plantings for sucker growth, and unsuitable/atypical growths and feathers on stems and remove at the point of origin.

9.3 PRUNING SHRUBS AND GROUND COVER: All pruning is to be carried out in accordance with the correct horticultural practice for the type of shrub. Vary the amount and nature of the pruning, trimming and shaping according to the species, stage of growth, season and required visual effect.

GENERAL

The Contractor shall allow for pruning once a year, and trimming of vigorous species as necessary through the year.

In all cases dead, diseased and damaged material shall be removed.

Where necessary remove growth encroaching onto footpaths, roads, hard areas, grassed areas, signs, lights, sightlines and other features and if directed by the CA.

- Trim as necessary the species to prevent straggly growth or growth beyond the bed limits, reduce the height of shrubs to free tree stems as directed, trim to maintain tall shrubs at a defined height and round off the planting as directed to provide a neat appearance.
- Any plants which die or are otherwise defective during Year 1-5 Defects/Maintenance Period shall be replaced at the Contractor's cost in the next November and March planting season

ALL ARISINGS FROM PRUNING SHALL BE SHREDDED AND REMOVED FROM SITE AS GREEN WASTE.

PRUNING GENERALLY: The CA will give directions on site for all planting beds to indicate the approach to be adopted for pruning beds and the effect required.

PRUNING EQUIPMENT: The Contractor shall use only two bladed secateurs or other cutting equipment approved by the CA. All cut ends shall be left with a clean finish.

The adjacent plantings should not over run one another and judicious pruning of the shrubs should be undertaken to achieve the best visual effect.

CLIMBERS : Train climbers on to fence. Cut back excessive growth and keep within fence panels.

10.0 HEDGE MAINTENANCE

- Ensure that all plants remain firmly bedded in the ground after strong winds, frost and other disturbances.
- Refirm by treading around the base. Any 'collars' forming at the base of the plant shall be broken up and then backfilled with topsoil
- Provide aeration where compaction is considered to be one cause for poor plant condition.
- Spotweed treat slate mulched trenches.
- Any hedge plants which die or are otherwise defective during Year 1-5 Defects/Maintenance Period shall be replaced at the Contractor's cost in the next November and March planting season. A final review in Year 10 with replacement as necessary by Client.
- **MAINTAINING BARK MULCH:** During weeding and maintenance operations do not incorporate mulch into the underlying soil. Each Autumn rake over the bark mulch to provide a neat and tidy appearance. Top up ,mulch in July in Year 1 and Year 2

10.1 HEDGE CUTTING:

Trim carefully and neatly to regular line and shape, with the width at the top less than that at the base, using suitable mechanical cutters unless otherwise directed by the CA. Both sides and tops of hedges shall be cut back to previous year's growth. The Contractor is to finish all work to give a neat and tidy appearance over the whole hedge and remove arisings. All cuts shall be cleanly made, without tearing. Remove all grass and weed growth from the base of the hedge together with any litter.

New hedges to be maintained at a height of 1.20m generally.

11.0 NATIVE BLOCKS

These blocks are to be grown to have a natural woodland understorey or natural woodland effect.

- Ensure that all native plants/whips remain firmly bedded in the ground after strong winds, frost and other disturbances.
- Refirm by treading around the base. Any 'collars' forming at the base of the whip shall be broken up and then backfilled with topsoil.
- Provide aeration where compaction is considered to be one cause for poor whip condition.
- **NATIVE BLOCK 1 MAINTAINING SLATE MULCH:** During weeding and maintenance operations do not incorporate mulch into the underlying soil. Each Autumn rake over the slate mulch to provide a neat and tidy appearance
- Any native plants/whips which die or are otherwise defective during the Years 1-5 Maintenance Period shall be replaced in the next October and March planting season to maintain a stocking level of 70%.
- Remove spiral guards from native plants at rear of Lidl Store in Year 3.

PRUNING NATIVE PLANTS/WHIPS it is to be undertaken as follows:

- Remove dead or damaged branches and cut back any ragged edges of wounded bark back to healthy tissue. Prune only to encourage bushy growth.. Pruning shall be undertaken once per year during mid/late Spring and be **completed by 15 June and once during October in first two years. Thereafter once per year between October and February.** The use of chainsaws and the like will not be permitted
- In Year 5 thin the block favouring strongest growing best formed plants.

12.0 GRASS AREAS

GENERAL GRASS MANAGEMENT

INSPECTION OF GRASS AREAS AND LITTER PICKING : The Contractor shall inspect grass areas on each occasion before commencing grass cutting operations and shall remove and dispose of all litter, stones and other debris which may cause personal injury, or damage to buildings, machinery or equipment and installations.

COMMENCEMENT OF OPERATIONS : Once grass cutting has commenced on an area, the whole area shall be cut and completed.

GRASS CUTTING MACHINES : Grass cutting machines shall be appropriate for the size of area being maintained and the standards of finish specified. Inaccessible margins, isolated rough areas of any size, corners, bases of fencelines, bases of hedges, Cutters of all mowers shall be sharp, properly set and shall cut the sward evenly and cleanly.

REMOVAL OF ARISINGS : All arisings from grass cutting scattered over roads, paths and planting beds should be swept up, collected and removed from on the same day mowing is undertaken.

Arisings from Amenity Grass are to be removed after first cut and thereafter dispersed and removed if grass is allowed to grow greater than the specified height and are therefore unsuitable for dispersing.

Arisings from Wildflower Grass Areas to be removed.

OBSTRUCTIONS : All growth around obstructions in grassed areas and grass overhanging edges of planting beds, bases of trees, stone light surrounds, fence lines and the like shall be cut on each occasion that the grass is cut.

GRASS EDGES : Where grass abuts horizontal hard surfaces cut it back to the edge of the hard surface without forming a channel wherever the overgrowth of grass exceeds 100mm, using an appropriate grass edge cutter, cutting to smooth curves and straight lines as appropriate.

REFORMING GRASS EDGES : Additionally for all amenity as shown on the Contract Drawings re-form the edges by half mooning abutting paths, around tree bases, manhole covers, along fence lines and adjacent planting beds with a suitable edging tool to straight lines or smooth curves as appropriate. This type of edging to be carried out once a year and completed by **28 February** unless specified otherwise by the CA.

GRASS CUTTING MACHINES : Damage to plants or other material caused by the use of these machines, including nylon cord cutting machines, for whatever reason will require the Contractor to supply and place suitably approved replacement material all at his/her own expense.

INITIAL GRASS CUT : In addition to the requirements of the Contract to maintain grass to specified heights over the year, the Contractor shall cut all grassed areas in early Spring to remove all overwintering grass. The arisings from this cut shall be removed from all amenity grass areas. This work should be completed by 20th March each year unless otherwise agreed with the CA.

GRASS AREAS AROUND TREES An area of a minimum of 900mm diameter around all trees is to be kept free of weeds and grass in amenity grass areas for first 3 years.

12.1 AMENITY CONSERVATION GRASS AREA rear of Nursery Building

MOWING : The Contractor shall maintain grass heights to the following requirements:

PERIOD ALL YEAR

MAXIMUM HEIGHT not to exceed 50 mm

MINIMUM HEIGHT not to be less than 20mm

Years 2-5 regular mowing during the growing season.

Amenity grass areas, broadleaf weeds to be controlled by mowing unless there is extensive broadleaf weed issue when a spotweed treatment or weed wiping is the only acceptable chemical method and will be undertaken during mid/late spring each year.

The grass shall be cut to produce an even, regular and free from ribbing. **Arisings shall be removed after first cut.** The Contractor will obtain approval from the CA for the type of mowers to be used prior to commencing mowing operations.

WEEDS IN AMENITY GRASS AREA controlled by mowing)

12.2 MEADOW GRASS AREA

This is the drainage field on the west side of the Site with the Apple Orchard and Pond and Meadow Grass area are important for phosphorus level actions. The grass management is also undertaken for 60 years.

All grass, weeds, isolated brambles and the like shall be cut. The finish shall be even, regular and free from wheel marks. This item shall include for the trimming around all trees and other obstructions at the same time. The Contractor will obtain approval from the CA for the type of mowers to be used prior to commencing mowing operations.

Year 1

Mow frequently to control flush of weed growth and maintain height at 75mm

Year 2-60

First cut March cut height 40-70mm

Second 'Hay cut' Sept/Oct cut to 40mm

Remove arisings from both cuts.

Leave arisings on the ground for 24 hrs to enable seed to be left behind.

WEED CONTROL IN MEADOW AREA

In Meadow Area weed docks, bramble, thistles, Rosebay willow Herb, Ragwort, Maretail and other noxious weeds is to be undertaken by strimming only

GRASS REINSTATEMENT

Reseed failed grass areas within Years 1-5 as necessary using original grass mixes.
Wildflower grass areas water if drought in Years 1 and 2.

12.3 POND MANAGEMENT

Pond management is to be undertaken in accordance with the Engineer's details for the 60 year period.

13.0 INVASIVE NON NATIVE SPECIES

In the event that invasive plant species become established on site they will be controlled at the nearest opportunity using approved methodology and guidance (<http://www.nonnativespecies.org>) to avoid the risk of further contamination and spread. Common examples include:

- Treat Knotweed if it reoccurs.
- Cut Himalayan balsam (*Impatiens glandulifera*), by hand or machine below the lowest node to prevent the formation of flowers and seeds.

rev 20 January 2025

5 Year Review

GENERAL YEARS 1-5 AND YEARS 6-60

Management Objective/ Feature	Task Description	Year 1				Year 2				Year 3				Year 4				Year 5											
	This will include progress on all biodiversity recommendations																												
MONITORING	Annual defects checks to be made in following 4 years to assess defects replacements.																												
	Ecologist monitoring Year 1 and Year 5																												
		TYPICAL 2 YEAR PROGRAMME																											
PHOSPHORUS ACTIONS FOR YEARS 6 -60 YEARS		YEAR 1				YEAR 2				YEAR 6-16				YEAR 16-26				YEAR 26-36				YEAR 36-46				YEAR 46-60			
YEARS 1-5 AS ABOVE		YEAR 1 AND 2 are repeated up to Year 60																											
APPLE ORCHARD	Apple Trees apple picking and windfall collecting removal annually Pruning for good cropping as necessary Replanting when restocking or replacement required Report Annually after apple harvest Monitoring every two years by Arboriculturalist/Horticulturalist			Sept-Jan			Sept Jan																						
				Nov-Mar			Nov Mar																						
				Nov-Mar			Nov Mar																						
				Nov-Mar			Nov Mar																						
				Nov-Mar			Nov Mar																						
MEADOW GRASS AREA	Winter grass cut and remove arisings Autumn grass cut and remove arisings Weed treatments by strimming only			March			March																						
The removal of arisings is required as a phosphorus action.				Sept/Oct			Sept/Oct																						
			summer				summer																						
POND MANAGEMENT	Refer to Engineer's management Regime																												
TIMING OF OPERATIONS		JAN		FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC															
	Bird Nesting Season				Breeding																								
	Reptiles Active		Hibernating												Hibernating														
	Bat Activity		Hibernating				Roosting								Hibernating														
	Hedgehog Activity		Hibernating				The Rut								Hibernating														

LIDL STORE : CWMANN : SA48 8DR		Rev 20 January 2025		Rev 14 Oct 2024		
PLANTING SCHEDULE		Rev 27 July 2026		09-Oct-24		
KEY	SPECIES	Native	Pollinator	NAME	SIZE	QTY
CFF ANS	TREE PLANTING					
	All trees to be rootballed for autumn planting/winter planting only					
	All Tree pits 1500 x 1500mm square					
	Carpinus betulus Frans Fontaine	N		Fastigiata Hornbeam	18-20cm girth Adv Nursery Standard	8 No
	AcE EXH	N	P	Field Maple	14-16cm girth Extra Heavy Standard	9 No
	Ag EXH	N		Alder	14-16cm girth Extra Heavy Standard	12 No
	Bpub EXH	N		Downy Birch	14-16cm girth Extra Heavy Standard	7 No
	BE EXH	N		Silver Birch	14-16cm girth Extra Heavy Standard	5 No
	Pt EXH		P	Aspen	14-16cm girth Extra Heavy Standard	3 No
	Sauc EXH	N	P	Rowan	14-16cm girth Extra Heavy Standard	3 No
	TcR EXH	N	P	Small leafed lime	14-16cm girth Extra Heavy Standard	9 No
	Malus Cox's Self Fertile			Apple	MM106 Rootstock Half Standard	15 No
	TOTAL					71 No
	NATIVE BLOCKS 1-2			NATIVE 1-2		92 m2
Cm	Crataegus monogyna	N	P	Hawthorn	60-90cm 1+1	65 No
Ca	Corylus avellana	N	P	Hazel	60-90cm 1+1	20 No
Cs	Cornus sanguinea	N	P	Dogwood	60-90cm 1+1	40 No
Ia	Ilex aquifolium	N	P	Holly	30-45cm 3Lpot	30 No
Lv	Ligustrum vulgaris	N	P	Wild Privet	60-90cm 1+1	15 No
Vo	Viburnum opulus	N	P	Guelder Rose	60-90cm 1+1	40 No
HH	Hedera helix Hibernica	N	P	Ivy	60-90cm 2Lpot	210 No
	TOTAL					420 No
	HEDGEROWS 1-5			HEDGE 1-5		311 linm
	Double Staggered Row plant at 0.30m centres					
	CENTRAL FENCE as indicated					77 linm
Cb	Carpinus betulus	N		Hornbeam	90-120cm 1+1	685 No
Cm	Crataegus monogyna	N	P	Hawthorn	90-120cm 1+1	715 No
Ca	Corylus avellana	N	P	Hazel	90-120cm 1+1	210 No
Cs	Cornus sanguinea	N	P	Dogwood	90-120cm 1+1	140 No
Ps	Prunus spinosa	N	P	Blackthorn	90-120cm 1+1	150 No
Scin	Salix cinerea	N		Sallow	90-120cm 0/1	50 No
Scap	Salix capraea	N		Goat Willow	90-120cm 0/1	50 No
Sn	Sambucus nigra	N	P	Elder	90-120cm 1+1	20 No
Vo	Viburnum opulus	N	P	Guelder Rose	90-120cm 1+1	60 No
	TOTAL					2080 No
	PLANTING BEDS 1-7					411 m2
	CLIMBERS			Planted at 2.50m centres		52 linm
Hpet	Hydrangea petiolaris		P	Self Clinging Climber	On Frame 90cm + 5L pot	7 No
HH	Hedera Hibernica		P	Self Clinging Climber	On Frame 90cm + 5L pot	7 No
HGH	Hedera helix Goldheart		P	Self Clinging Climber	On Frame 90cm + 5L pot	7 No
	PLANTING BEDS					
Ab	Abelia grandiflora		P	Abelia	40-60cm 3Lpot	210 No
Bal	Ballota pseudodictamus		P	False Dittany	20-30cm 2Lpot	75 No
EE	Eleagnus ebingei		P	Oleaster	45-60cm 3Lpot	45 No
EPB	Euonymus Paloma Blanca			Dwarf Euonymus	20-30cm 2Lpot	170 No
ERD	Euonymus Red Darts Blanket			Dwarf Euonymus	20-30cm 2Lpot	80 No
Gp	Gaultheria procumbens			Checkerberry	20-30cm 2Lpot	70 No
HH	Hedera Hibernica	N	P	Form of large leafed Ivy	60-90cm 2Lpot	260 No
IJCT	Ilex JC Van Tol		P	Form of Holly	30-45cm 3Lpot	75 No
Pac	Pachysandra terminalis			Evergreen Groundcover	2Lpot	40 No
OB	Osmanthus burkwoodii		P	Evergreen scented	45-60cm 3Lpot	536 No
VEP	Viburnum tinus Gwenllian		P	Viburnum	45-60cm 3Lpot	440 No
VmBV	Vinca minor Bowles Variety			Periwinkle	20-30cm 2Lpot	123 No
	TOTAL					2145 No
	AMENITY GRASS AREAS				Grass 1-3	854 m2
	CONSERVATION GRASS MIX					
	Phoenix Amenity Supplies	N		Slender Creeping Red Fescue		20 %
	support@phoenixamenity.co.uk	N		Creeping Red Fescue		40 %
	01684 212020	N		Smooth Stalked Meadow Grass		7 %
	Alternative turfing area can be considered	N		Hard Fescue		10 %
		N		Chewings Fescue		20 %
		N		Browntop Bent		3 %
	Seed at rate of 30 gms per sqm or similar turf to be used					100 %
	MEADOW GRASS AREAS					4375 m2
	EM2 STANDARD GENERAL PURPOSE MEADOW MIXTURE					
	Emorsgate Seeds					

	LIDL STORE : CWMANN : SA48 8DR PLANTING SCHEDULE		Rev 20 January 2025 Rev 27 July 2026		Rev 14 Oct 2024 09-Oct-24	
KEY	SPECIES	Native	Pollinator	NAME	SIZE	QTY
	enquires@emorsdgateseeds.com					
	01553 829028				GRASSES 80%	
	Agrostis capillaris	N		Common Bent		8 %
	Cynosurus cristatus	N		Crested Dogtail		28 %
	Festuca rubra	N		Slender Creeping Red Fescue		24 %
	Phleum bertolonii	N		Smaller Cat's Tail		4 %
	Poa pratensis	N		Smooth-stalked Meadow Grass		16 %
	Achillea millefolium	N	P	Yarrow	WILDFLOWERS 20%	0.2 %
	Centaurea nigra	N	P	Common Knapweed		3.5 %
	Daucus carota	N	P	Wild Carrot		3.0 %
	Galium album	N	P	Hedge Bedstraw		0.5 %
	Knautia arvensis	N	P	Field Scabious		0.5 %
	Leucanthemum vulgare	N	P	Ox Eye Daisy		3.3 %
	Medicago lupulina	N	P	Black Medick		0.1 %
	Prunella vulgaris	N	P	Self Heal		3.6 %
	Ranunculus acris	N	P	Meadow Buttercup		0.2 %
	Rumex acetosa	N	P	Sorrel		0.1 %
	Sanguisorba officinalis	N	P	Great Burnet		3 %
	Silene vulgaris	N	P	Bladder Campion		1 %
	Torilis japonica	N	P	Upright Hedge Parsley		0.5 %
	Vicia cracca	N	P	Tufted Vetch		0.5 %
	TOTAL					100 %
	sow at rate of 4gms per sqm					