



Burial Ground Extension at Drumcliff, Ennis, Co. Clare

LANDSCAPE PROPOSALS

August 2022



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Prepared For:

SDS Design Engineers on behalf of Clare County Council

Issue : A

Prepared by: Cormac Langan, Landscape Architect



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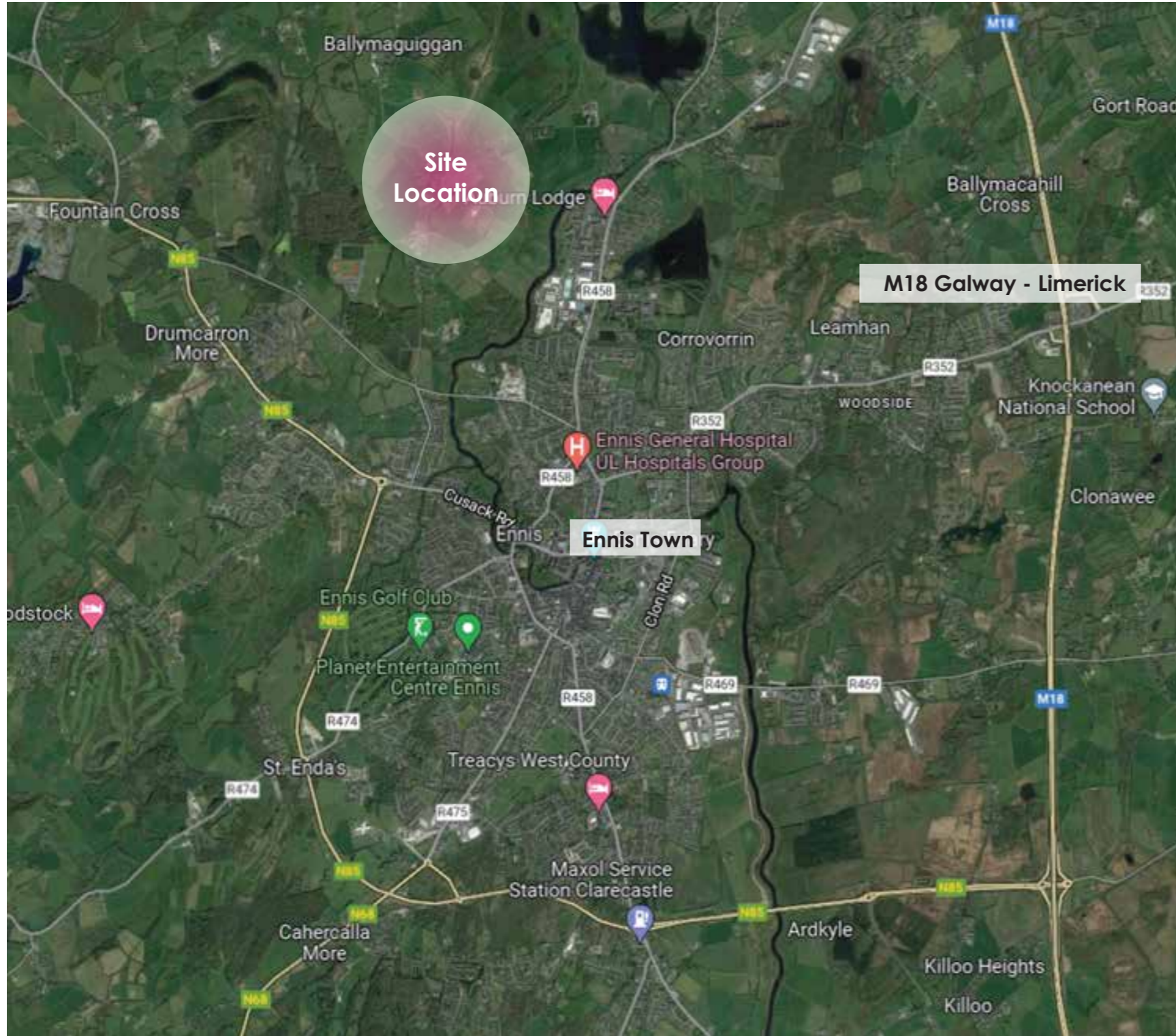


Fig 1.0_ Aerial Map (Source Google Maps)

INTRODUCTION

The site is located at Drumcliff, Ennis, Co. Clare. The site is currently a greenfield site which is located adjacent to the existing Drumcliff Burial Grounds.

The development proposes to extend the existing burial ground in order to accommodate the Ennis Community. The development will also involve the construction of internal roads, footpaths and shared surfaces.

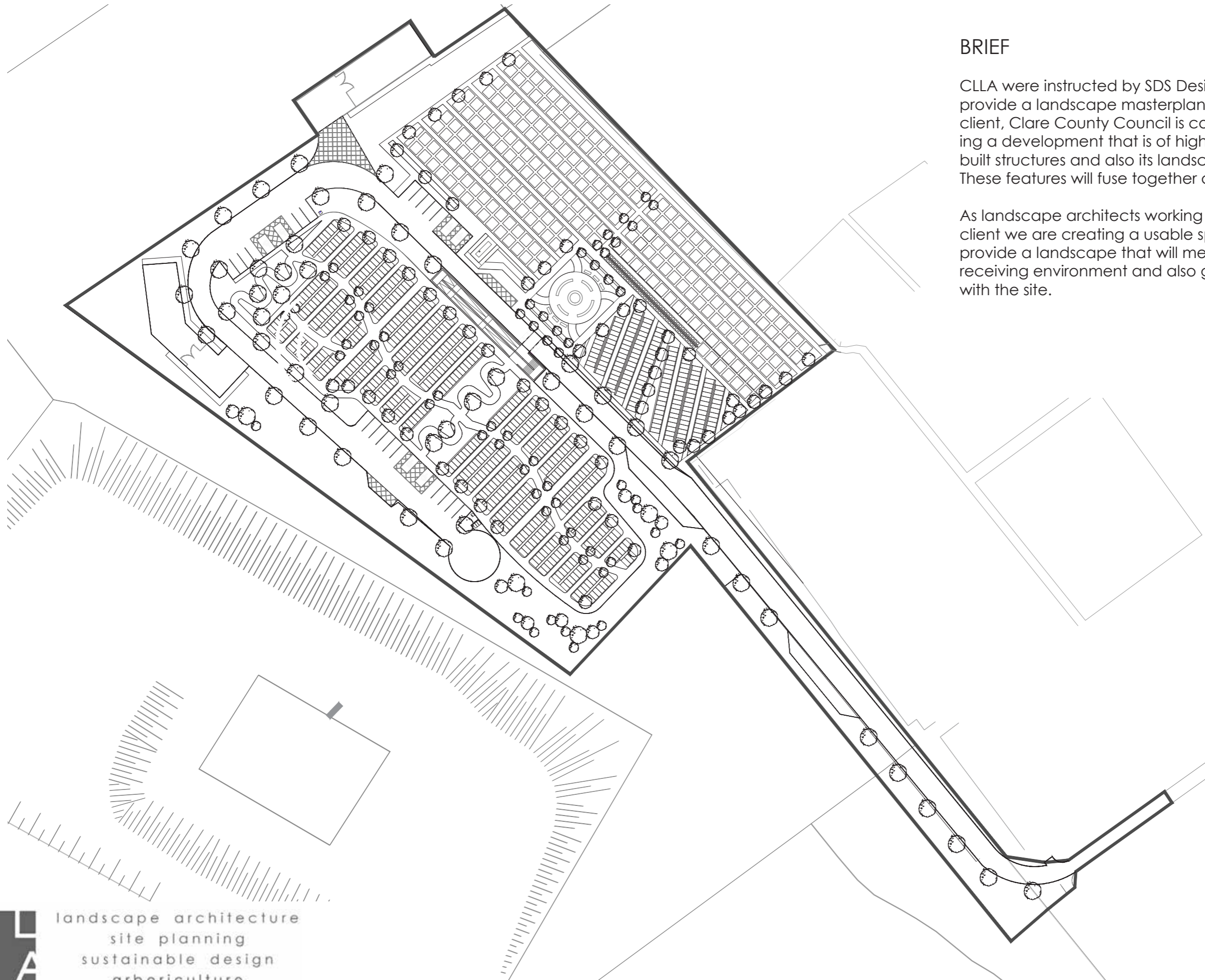
The site is to be accessed from the Drumcliff road which runs adjacent to the western boundary of the site. Due to the natural character of the site care must be taken to ensure that the landscape treatment is in keeping with the local character and the existing vegetation will be retained and augmented as much as is possible. The construction will provide high quality landscaped burial ground and open space.

This report is to be read in conjunction with the submitted drawings and other consultant documentation.

BRIEF

CLLA were instructed by SDS Design Engineers to provide a landscape masterplan for this site. The client, Clare County Council is committed to creating a development that is of high quality in both its built structures and also its landscape features. These features will fuse together as the site matures.

As landscape architects working on behalf of the client we are creating a usable space that will provide a landscape that will merge into the receiving environment and also grow over time with the site.



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The landscape concept for this burial ground is to create a fit for purpose space that will be of high quality and will mature to become an attractive space for its users. The landscape scheme has been broken down into areas arranged for flexibility in activity and for social interaction.

Open Spaces:

The proposed development has several open space areas that are accessible to the users. These open space areas can be developed in time to be memorial gardens to commemorate historic events in the area. Due to the slope and the proposed site levels areas are dedicated to open green spaces, providing an area for sitting and reflecting. The central space will be paved and maintained as a central area for social meeting. Specimen planting has been carefully placed to provide screening and privacy for its users.








Pedestrian Links:

A network of pathways will extend from the public path to provide circulation routes around and through this space to connect each open space area. Seating areas will be provided adjacent to the pathways in locations that provide views of the surrounding area. The open space areas will be planted with specimen trees such as Lime, Oak and Birch with ornamental species added to provide a contrast and autumnal colour.

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LEGEND

-  HEADSTONE PLINTH
-  RETAINING WALL (To Engineers Spec.)
-  GRASSED/LAWN AREAS
-  HEDGE PLANTING MIX
-  GROUNDCOVER & HERBACEOUS PLANTING MIX
-  BULB PLANTING AREAS
-  TREE PLANTING
(See Planting Specification for Details)
-  SITE BOUNDARY
-  ROADWAY
_Tarmacadam (To Engineers Spec.)
-  PEDESTRIAN PATHWAYS
_Concrete (To Engineers Spec.)
-  COLUMBARIUM WALL AREA_Hydropave Paving
Colour: Slate& Charcoal Border
-  SEATING
_ Foyle Seat; Larkin Engineering
-  BIKE RACK (To be agreed with client.)



TREE PLANTING SCHEDULE AND SPECIFICATION

T1 - *Betula utilis jacquemontii* - 'Whitebarked Himalyan Birch'. Heavy Standard. 3x transplanted.
16-18 centimeter girth, minimum height 4.5m, clear stemmed to 2m. Rootballed.
Total No. 10

T2 - *Betula pendula* - 'Common Birch'. Heavy Standard. 3x transplanted.
16-18 cm centimeter girth, minimum height 6m, clear stemmed to 2.5m. Rootballed.
Total No. 23

T3 - *Carpinus betulus 'Fastigiata'* - 'Hornbeam'. Heavy Standard. 3x transplanted.
16-18 cm centimeter girth, minimum height 5m, Rootballed.
Total No. 20

T4- *Malus 'John Downie'* - 'John Downie Crab Apple'. Extra Heavy Standard. 2x transplanted.
16-18 cm centimeter girth, minimum height 5m, clear stemmed to 2m. Rootballed.
Total No. 12

T5 - *Sorbus aralia* - 'Whitebeam'. Heavy Standard. 3x transplanted.
16-18 centimeter girth, minimum height 4.5m, clear stemmed to 2m. Rootballed.
Total No. 35

T6- *Prunus shirotae* - 'Shirotae Cherry'. Extra Heavy Standard. 2x transplanted.
16-18 centimeter girth, minimum height 4m, clear stemmed to 2m. Rootballed.
Total No. 14

T7 - *Pinus sylvestris* - 'Scots Pine'. Heavy Standard. 3x transplanted.
200-250 centimeter height, Rootballed. Total No. 7

T8 - *Quercus robur* - 'Common Oak'. Extra Heavy Standard. 3x transplanted.
16-18 cm centimeter girth, minimum height 5.5m, clear stemmed to 2.5m. Rootballed.
Total No. 9

T9- *Sorbus 'Cardinal Royal'* - 'Rowan Cardinal Royal'. Heavy Standard. 3x transplanted.
16-18 centimeter girth, minimum height 4.5m, clear stemmed to 2m. Rootballed.
Total No. 16

T10 - *Tilia cordata* - 'Small leafed Lime'. Extra Heavy Standard. 2x transplanted.
16-18 centimeter girth, minimum height 4m, clear stemmed to 2m. Rootballed.
Total No. 44

S1- *Magnolia soulangeana*- 'Magnolia'. Standard. 2x transplanted.
Minimum height 2m, Rootballed.
Total No. 4

PLANTING SCHEDULE & SPECIFICATION

All material to be planted in random groups of 3, 5 or 7 in naturalistic swathes. No planting in straight lines. No 2 groups of the same species to be planted adjacent to each other. All plants to be planted at a rate of 3 per square meter.

SHRUB MIX

Phornium Tricolor- 60-90cm high. 3Litre container grown.

Hypericum hidecote- 40-60cm high. 2Litre container grown.

Viburnum davidii- 40-60cm high. 2Litre container grown.

Prunus laur. Otto Luyken- 40-60cm high. 2Litre container grown.

Hebe pinguifolia 'Pagei'- 40-60cm high. 2Litre container grown.

Hypericum Calycinum- 20-40cm high. 2Litre container grown.

Skimmia japonica- 40-60cm high. 2Litre container grown.

GROUND COVERS & HERBACEOUS MIX

Rosa Rugosa 'Angeles' 40-60cm high. 2Litre container grown.

Rosa Rugosa 'Blanc de courbert' 40-60cm high. 2Litre container grown.

Rosa Rugosa 'Magnifica' 40-60cm high. 2Litre container grown.

Rosmarinus officinalis - 40-60cm high. 2Litre container grown.

Cotoneaster dammeri- 20-40cm high. 2Litre container grown.

Lavandula augustifolia- 40-60cm high. 2Litre container grown.

Hedera Helix 'Hibernica'- 20-40cm high. 2Litre container grown.

Bergenia cordifolia- 20-40cm high. 2Litre container grown.

Persicaria affine- 20-40cm high. 2Litre container grown.

Libertia grandifolia 20-40cm high. 2Litre container grown.

Crocsmia 'Lucifer' 40-60cm high. 2Litre container grown.

HEDGE PLANTING SCHEDULE & SPECIFICATION

All hedges shall be planted at a density of 3 plants per linear metre in a single row.

NOTE : Refer to Hedge Planting Spacing Layout for further details

Taxus baccatta -'Yew'- 60-90cm high. 5Litre container grown.

CONCLUSION

The landscape proposals are to augment the proposed burial grounds with the existing landscape by using native Irish plant material.

By using faster growing species like Sorbus and Birch, views into the site will be framed from the short to medium term. Slower growing species such as Oak will be planted in areas where there is future growth potential to mature into a specimen trees.

The open space areas of the scheme will make a living landscape which will provide interest to visitors.

The introduction of native species will also promote the natural flora and fauna in the area. Fruiting species like *Malus* and *Sorbus* will promote the local fauna in the area. Adding native plant material to the existing hedgerow will add to the overall appearance of the landscape as well as improving the ecological value of the site.



SECTION SHOWING VIEWS THROUGH TREE PLANTING

LANDSCAPE SPECIFICATIONS:

SUBSOIL FORMATION

Formation levels shall allow for the following depth of Class 5A topsoil, after settlement and cultivations:

Grass Areas: 200 mm. Shrub Planting 350 mm

Make up excessive depth with subsoil material before top soiling.

This material shall be clean subsoil (soil layer extending between the natural topsoil and the parent material), free draining, free from rubbish, building contamination, large stones/rocks greater than 250mm. Subsoiling operations shall be carried out in layers with each layer being lightly consolidated with a maximum depth of 250-300mm per layer.

Allow for topsoil to stand 30 mm proud of all kerbs, paths, edgings and manhole covers etc.

TOPSOIL GENERAL

Topsoil for use in all landscape areas shall be subject to the inspection and approval of the landscape architect before spreading.

Topsoil will be premium grade topsoil of high intrinsic fertility, loamy texture and good structure and shall conform to BS3882.

It shall be free from pernicious weeds including dock, thistle, stinging nettle, ragwort and couch grass. It shall not have been compacted and shall not be in an inert state.

It shall be acidic, pH 5.5-6.5 and free from stones over 50mm in diameter. It shall be free from subsoil, sods, roots of trees and shrubs, plastics, metals, paper, brick, concrete or any other foreign object.

Topsoil shall be from the original surface layer of grassland or cultivated land, to a maximum depth of 200 mm. Soils from woodland, heathland, bog or contaminated land will not be acceptable.

Do not strip from under the canopy of any tree, nor closer than 4 metres to a hedge.

The organic content shall not be less than 5% (dry weight). Where the soil contains more than 60% sand, the organic matter shall not be less than 6% (dry weight).

TOP SOILING

Earthworks are to be completed, debris removed from site and formation approved by the Landscape Architect before any topsoil is spread.

Topsoil shall not be spread over any area of the site indicated until preliminary ripping operations are complete. Once the topsoil has been spread, no access will be allowed for construction plant and machinery. Site preparation and soiling operations shall take place only in suitable dry site and weather conditions. Any material spoiled by work in unsuitable conditions shall be made good at the Contractor's expense.

Final grading is to be carried out to ensure a true specified level and slope and to avoid dishing or other depressions where water may collect.

The use of a heavy roller to roll out humps will not be permitted and any area that becomes unduly compacted during the grading operations shall be loosened by forcing or harrowing. The level of the topsoil is to be at least 30 mm above all paved areas to allow for shrinkage or settlement.

FINISHED LEVELS

Localised hollows and mounds are to be levelled out and areas so finished that they drain to hard standing areas or elsewhere as indicated.

Where the required grades, shaping of ground, cross falls etc. are not shown precisely on the drawings, the Contractor shall obtain directions from the Landscape Architect.

All levels to be approved by the Landscape Architect.

Topsoil for Tree Pits

Planting pits for standard trees will be dug and backfilled with Class 5B topsoil by the landscape sub-contractor. Volume of topsoil to be as follows:
Extra Heavy Standard Trees 1.2 cubic metres
Select Standard Trees 0.6 cubic metres
Multistem trees 0.6 cubic metres

DEBRIS

Provide a tip to be agreed with the Engineer for disposal of subsoil excavated from tree pits, and for stones, rubble and rubbish removed from grass and planting areas during cultivation by landscape sub-contractor.

REINSTATEMENT WORK

Reinstate all ground driven over and otherwise disturbed to even flowing gradients. Match reinstated levels to those of surrounding ground. Finished levels shall be free of humps, depressions and vehicle tracks. Rainwater shall not lie on reinstated ground nor on adjacent areas.

PLANTING SPECIFICATION.

MATERIALS

All plant material shall be good quality nursery stock, free from fungal, bacterial or viral infection, Aphis, Red Spider or other insect pest, and physical damage. It shall comply with the requirements of Part 1: 1965 Trees and Shrubs section of B.S. 3936, Specification for Nursery Stock.

All plants shall have been nursery grown in accordance with good practice and shall be supplied through the normal channels of the wholesale nursery trade. They shall have the habit of growth that is normal for the species.

Except for any cultivated varieties or exotic species which do not set viable seed in Ireland, all plants shall have been grown from seed.

The Contractor will be deemed to have advised his suppliers of the relevant sections of this specification, including all protection required, at the time of enquiry and shall in all cases be liable to replace materials brought on site that are not in accordance with this specification.

SPECIES

All plants supplied shall be exactly true to name as shown in the plant schedules. Unless stipulated, varieties with variegated or otherwise coloured leaves will not be accepted, and any plant found to be of this type upon leafing out shall be replaced by the Contractor at his own expense.

Bundles of plants shall be marked in conformity with the relevant part of B.S. 3936. The contractor shall replace any plants that are found not to conform to the labels. An inspection of plants shall be undertaken prior to planting to ensure quality control.

EXTRA HEAVY STANDARD & SELECT STANDARD TREES

Extra standard trees shall have a total height of 4.5 to 5.0 metres and a girth of 14-16cm at 1m above ground level or as specified. Select standard trees will have a total height of 3.0 to 3.5 metres and a girth of 10-12 cm at 1m above ground level or as specified.

LANDSCAPE SPECIFICATIONS:

EXTRA HEAVY STANDARD

& SELECT STANDARD TREES cont...

Trees shall have a sturdy, reasonably straight stem, a well-defined and upright central leader, with branches growing out of the stem with reasonable symmetry, or a well-balanced branching head according to the Schedule.

The crown and root systems shall be well formed and in keeping with the nature of the species. Roots shall be in reasonable balance with the crown and shall be conducive to successful transplantation.

Trees shall be supplied root-balled. They shall have been regularly undercut or transplanted. They shall have been lifted carefully to avoid tearing of major roots and to preserve a substantial proportion of smaller and fibrous roots. Trees shall have been grown on their own roots. Budded or grafted trees will be rejected.

SHRUBS

Shrubs shall be of the minimum size specified in the schedules, with several stems originating from or near ground level and of reasonable bushiness, healthy, well grown, and with a good root system. Pots or containers shall be as scheduled. Plants shall not be pot bound, nor with roots deformed or restricted. Bare root material will only be accepted where specified.

Bulky Organic Manure/ Mushroom Compost

Bulky organic manure shall consist either of spent peat compost, mushroom compost, as described above, spent hops, or of well-rotted farm manure.

Farm manure shall consist of predominantly of faecal matter and shall be free of loose, dry straw and of undigested hay. Manure shall be free of surplus liquid effluent. This shall be used on mounds only. Well spent mushroom compost shall be used in all ornamental planting areas.

FERTILISERS

Controlled release fertiliser N:P:K 15:9:11 plus trace elements -Osmocote plus or similar approved applied at specified rates.

Fertiliser shall be supplied in sealed bags or containers bearing the manufacturer's name, the net weight and analysis.

STAKES FOR EXTRA HEAVY STANDARD TREES

Stakes shall be of peeled Larch, Pine or Douglas Fir, preserved with water-borne copper-chrome-arsenic to I.S. 131, to a net dry salt retention of 5.3 kg per cubic metre of timber. Stakes shall be turned and painted one end. Size shall be 2700 x 75 mm diameter. Set stakes vertically in the pit and drive before planting. Drive stake with a drive-all, wooden maul or cast-iron headed melle, not with a sledgehammer.

TREE TIES

Tree ties shall be of rubber, P.V.C. or proprietary fabric laminate composition, and shall be strong and durable enough to hold the tree securely in all weather conditions for a period of three years. They shall be flexible enough to allow proper tightening of the tie. Ties shall be min. 40 min. wide for standard trees. Provide a simple collar, free of rough or serrated edges, to prevent chafing. Provide for subsequent adjustment of the tie either by means of a buckle (nail tie to stake immediately behind it) or by leaving heads of securing nails slightly proud, to permit easy extraction and repositioning. All nails shall be galvanised.

PROTECTION

The interval between the lifting of stock at the nursery and planting on site is to be kept to an absolute minimum. Plants shall be protected from drying out and from damage in transport.

All stock awaiting planting on site shall be stored in a sheltered place protected from wind and frost, from drying out and from pilfering.

Bare rooted plants not immediately required shall be heeled-in in a prepared trench, the bundles of plants first having been opened, the plants separated and each group separately heeled-in and clearly labelled. The roots shall be covered with moist peat or soil and shall be kept moist until planted. Pots shall not be removed until plants have been carried to their planting station. Plants packed in polythene must be stored in shade.

All forest transplants and bare root shrubs shall be wrapped in polythene from the time of lifting to conserve moisture. Except when heeled-in, they shall be protected in polythene at all times until planted into their final position on site.

Plants shall be handled with care at all times, including lifting in and despatch from the nursery. Plants or bundles of plants shall not be tossed, dropped or subjected to any stress likely to break fine roots.

DAMAGE

Any roots damaged during lifting or transport shall be pruned to sound growth before planting. On completion of planting any broken branches shall be pruned. Any roots damaged during lifting or transport shall be pruned to sound growth before planting. On completion of planting any broken branches shall be pruned. Setting Out

Setting out shall be from figured dimensions where indicated, and otherwise by scaling. Shrubs and ground covers planted in mass shall be at the spacing indicated on the drawings. Shrubs shall not generally be planted closer to a kerb or to the edge of a planting area than a distance equal to half the spacing indicated for that species.

SITE PREPARATION

Organic Manure: 50 mm deep Osmocote plus: 75 gm/msq Cultivate beds 225 mm deep, incorporating ameliorants evenly. Remove stones, rubbish over 50 mm dia.

EXTRA HEAVY STANDARD TREE PLANTING

Excavate tree pits to 1 cubic metres volume (.9 m diameter x .9 m deep). The base of the pit shall be broken up to a depth of 15 cm and glazed sides roughened. Remove subsoil, stones and rubbish to tip on site as directed by the Architect/Engineer. Supply and drive 2nr stakes.

For planting in areas of made up ground, load and carry topsoil from stockpile on site. In undisturbed ground, backfill with excavated material. Mix the following ameliorants evenly throughout the topsoil while it is stacked beside the pit. (Quantities are calculated for a pit of the specified dimensions):

ORGANIC MANURE:

0.047 cubic m (equivalent to manure 6 cm deep over 1 m dia. of tree pit).

Osmocote plus: 250 gm

Trees shall be planted at the same depth as in nursery, as indicated by the soil mark on the stem of the trees. They shall be centred in the planting pit and planting upright. The roots shall be spread to take up their normal disposition. Fit tie.

PLANTING OF SHRUBS AND C.G. TRANSPLANTS

Remove all plastic and non-degradable wrappings and containers before planting. Make four vertical cuts with a sharp knife on the quadrants through the edge of C.G. rootballs to sever girdling roots. Excavate hole to min. 10 cm greater diameter than the root spread, and to a depth to allow planting to same depth as in the nursery. Spread out roots of bare root species. Backfill in layers of not more than 10 cm, firming each layer and on completion.



LANDSCAPE SPECIFICATIONS:

REPLACEMENTS

The planting will be inspected in September following planting. Any tree or shrub found to have died from any cause except as provided below or the work of other contractors shall be replaced by the contractor at his own expense.

Replacement planting shall conform in all respects with this Specification, including all specified excavation, provision and incorporation of all fertilizers and ameliorants, and weed killer treatments.

Failures will not be charged to the Contractor in the following cases:

Damage by hares or rabbits, where not protected by fencing or shelters.

Failure solely due to prolonged dry weather, except in where the contractor will be responsible for watering. Losses due to theft, vandalism or disturbance by other contractors.

Persistence of weed in planted areas will be regarded as a contributory cause of failure due to drought. Prolonged dry weather will not exonerate the Contractor if the scheduled aftercare operations have not been carried out as programmed.

GRASSING SPECIFICATION

Seed mix 2.

FERTILISER

10:10:20, N:P:K -supplied in bags bearing the names of the manufacturer, the analysis of the contents and the net weight. The contractor shall produce to the Landscape Architect the original delivery docket or invoice stating the quantity supplied for these works.

Weather

All work to soil shall be carried out in dry weather, and when the soil can be reduced to a friable condition, avoiding smearing or panning, and rutting and compaction by tractors.

FINISHES

Topsoil shall stand 30 mm proud of manholes, paths and kerbs after cultivation and firming.

FINAL GRADING

During cultivations, grade with a blade, lute or grader, to produce even, flowing surfaces, free from local humps and depressions.

FERTILISER

During last stages of cultivation, apply fertiliser evenly over the full area of seeding in two equal passes in transverse directions, and incorporate into the seed bed up to 30 mm deep.

FIRST CUT

Before cutting, pick off stones above the maximum diameter specified on the operations schedule. Roll if specified on the operations schedule to firm sod. The time for cutting and the height of the cut shall be as specified in the operations schedule.

QUALITY

The quality of the grass sward shall be even throughout with a constant sward and colour. The contractor shall make good any areas not of this quality. Make up and seed over any depressions which develop after seeding. Re cultivate and re-seed any areas which fail to germinate, or which die off.

MAINTENANCE SPECIFICATION

Care of Newly Planted Trees

Young trees will need regular attention to ensure establishment. The most important operation is to keep the soil around the base of the tree free from weeds or grass and to ensure secure and correct staking.

MAINTENANCE OBJECTIVE

Establish a stable and healthily growing tree with a well-shaped framework for future growth.

MAINTENANCE OPERATIONS

a) Maintain a 1 m diameter circle of plant-free soil around the base of each isolated tree by hoeing or the use of approved herbicide other than a residual. Allow for hoeing up of soil once every 4 weeks in the growing season (5 times per year). Allow for herbicide treatment once in the winter or spring and 3 additional treatments.

Note: In some areas this operation may be replaced by the application of bark mulch as ground cover.

b) Cut back any tall vegetation that is threatening to shade or smother the young tree (i.e. taller vegetation growing from outside the 1 m weed free area). Allow for cutting back regularly (3/4 times a year).

c) Provisional item Water the newly planted trees throughout the summer months (May to August) as required after any period of 4 weeks without significant rainfall (less than 5 mm). Apply sufficient water to thoroughly wet the top 150 mm of soil around the tree roots. This will normally require approximately 10 litres for a seedling or whip and 20 litres for a standard tree, include transport of water to the site.

d) Check stakes and ties for firmness and support and adjust as necessary. Allow for checking twice a year, preferably in late spring and late summer.

e) Firm the soil around the roots to ensure that the plant is securely planted in the ground and upright. Allow for firming once in the spring after planting.

f) Formative prune to remove any dead, diseased or damaged shoots and create a balanced form for future growth. Allow for pruning once in the season after planting

SHRUB BEDS GENERAL

The borders must be kept weed free, particularly of perennial weeds, to allow planting to give early cover. However, the plants may be required to be thinned so that the shrubs that are retained are able to achieve an attractive form. This may involve removing the intermediate plants soon after shoots are touching.

MAINTENANCE OBJECTIVE

Maintain shrub growth to cover as much as possible of the bed area and allowing the individual plants to achieve as nearly as possible their natural form. Maintain the borders free

OTHER ITEMS

Litter Clearance -General

Maintenance Objective

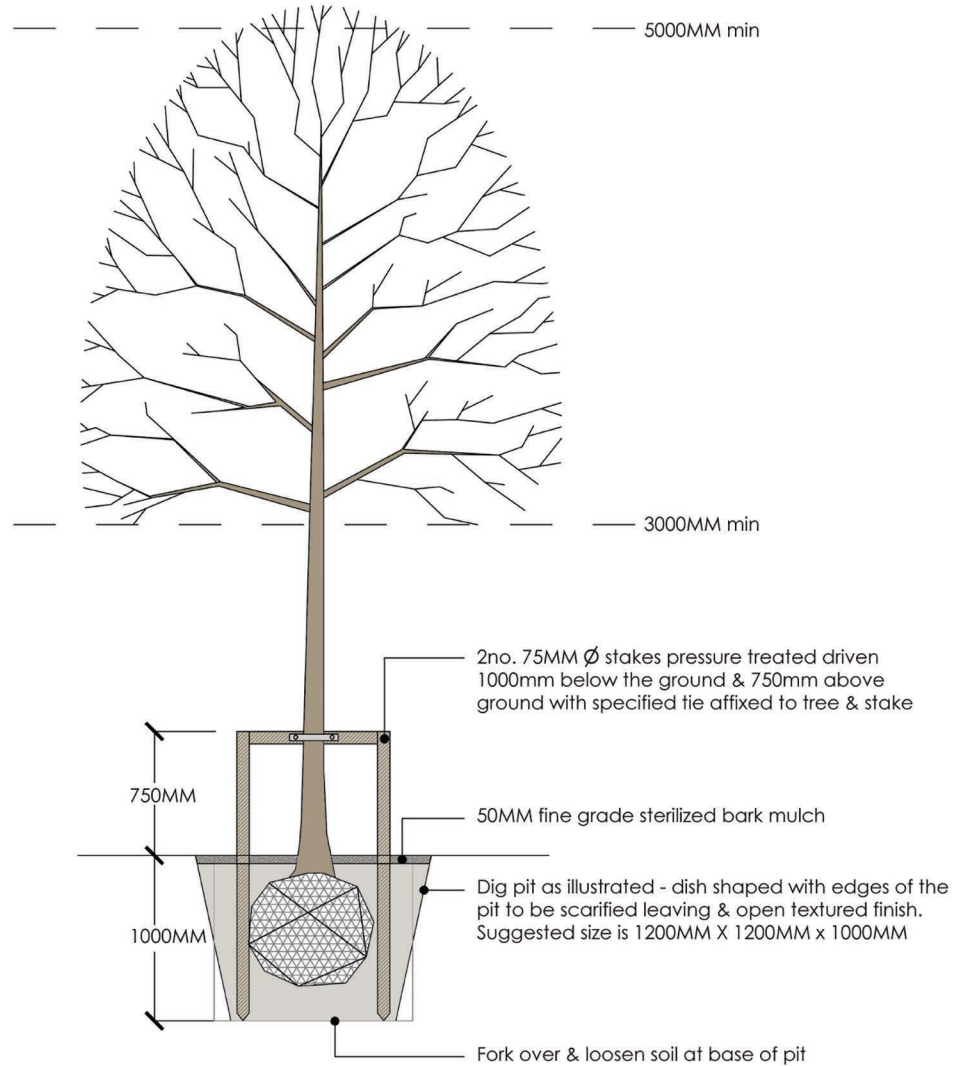
Collect and remove from the site, all extraneous litter and rubbish on a regular within landscape basis so that its presence is not detrimental to the appearance of the site. (This means that the landscape should be free from litter after each visit to site).

MAINTENANCE OPERATIONS

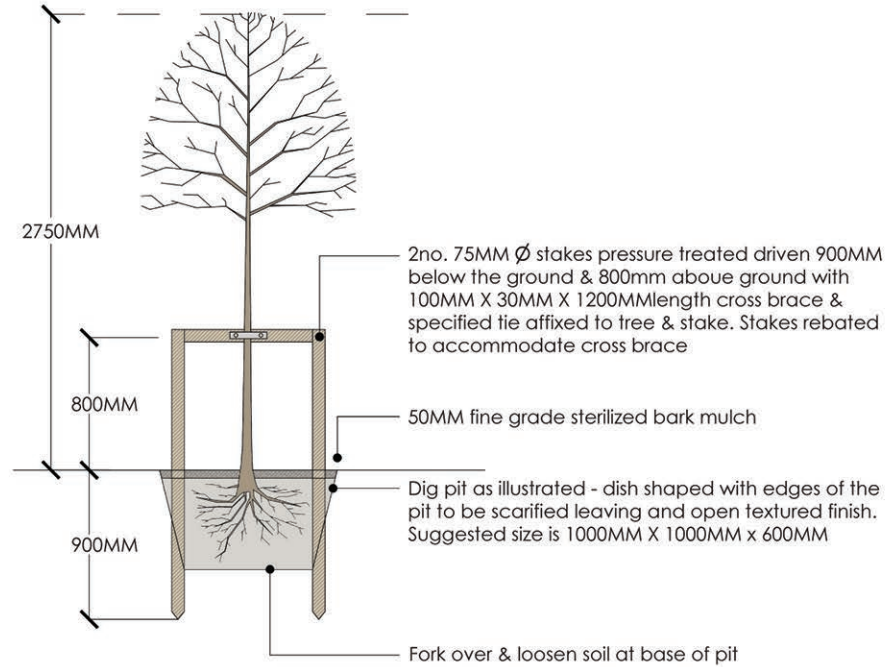
a) Collect and remove to the contractor's tip all extraneous rubbish, not arising from maintenance works, which is detrimental to the appearance of the site. This rubbish to include stones (over 50mm diameter which may be buried), bricks, debris, paper, confectionery and other wrappings, bottles, cans and plastic containers.

Allow for this operation to be carried out at regular intervals based in conjunction with other maintenance visits and operations.

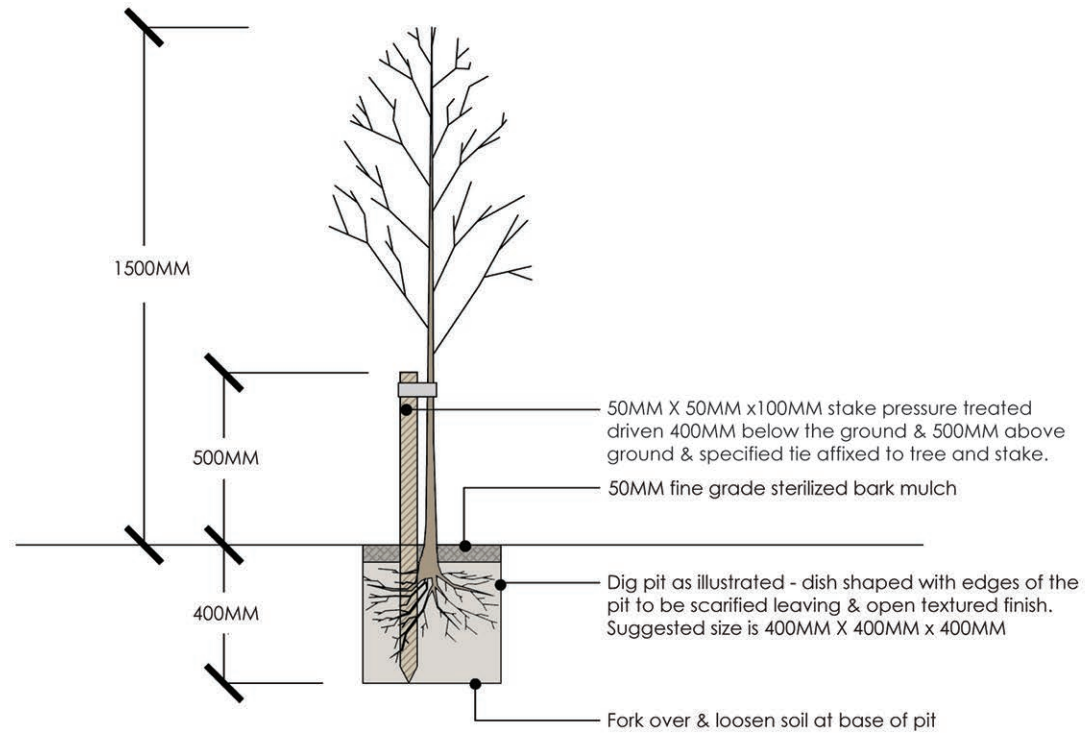
LARGE TREE PLANTING DETAIL



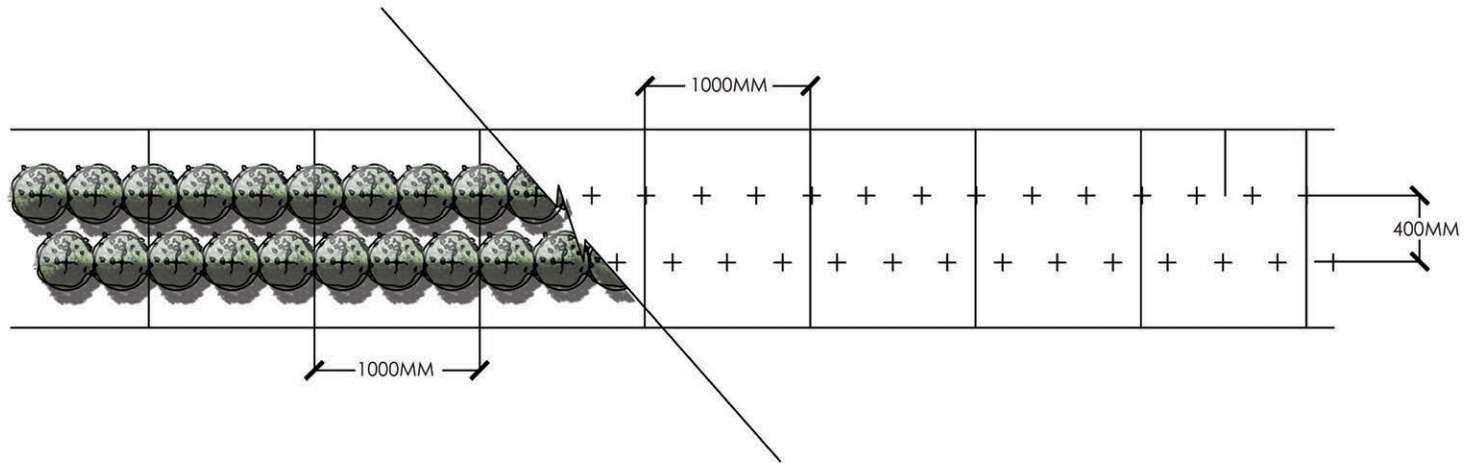
TREE PLANTING DETAIL



WHIP PLANTING DETAIL



DOUBLE HEDGE PLANTING DETAIL



HEDGE PLANTING SPACING LAYOUT
Whips planted at 3 per metre centres and staggered as shown

SHRUB PLANTING DETAIL

