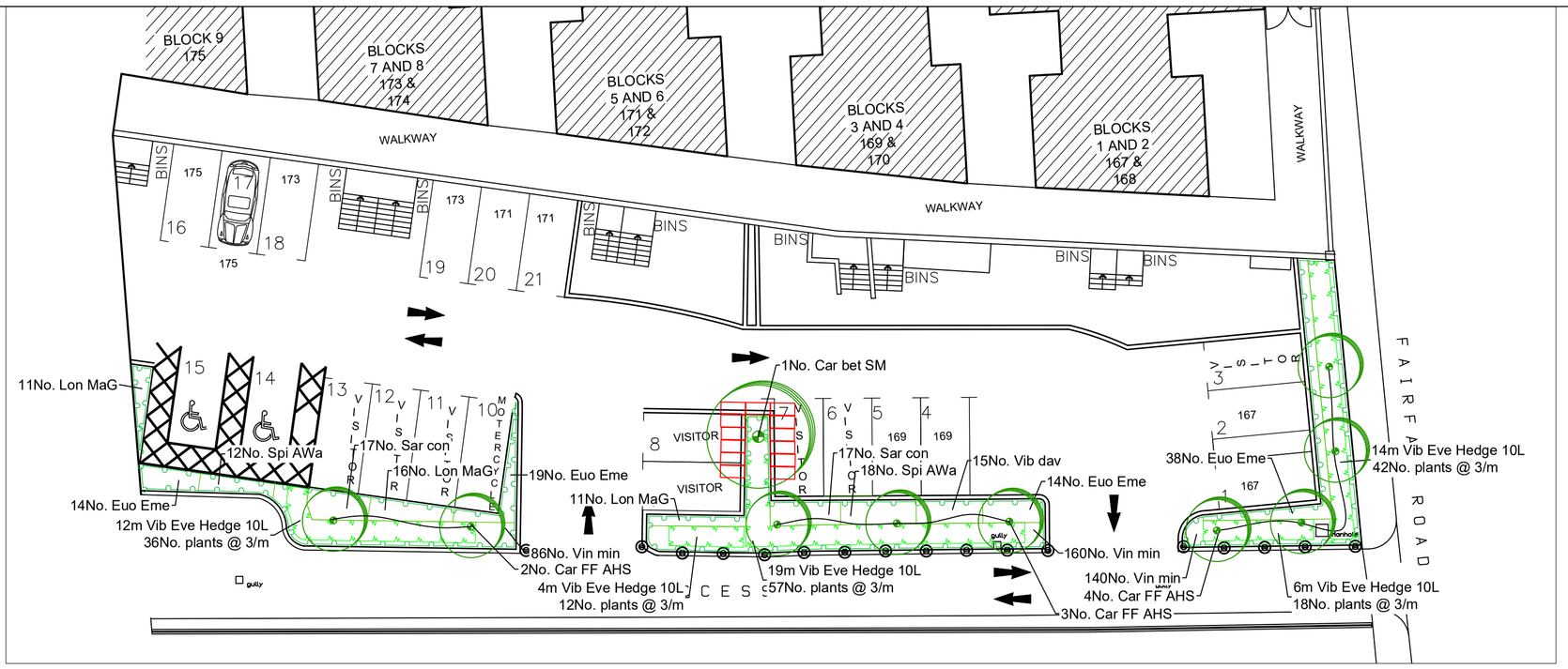
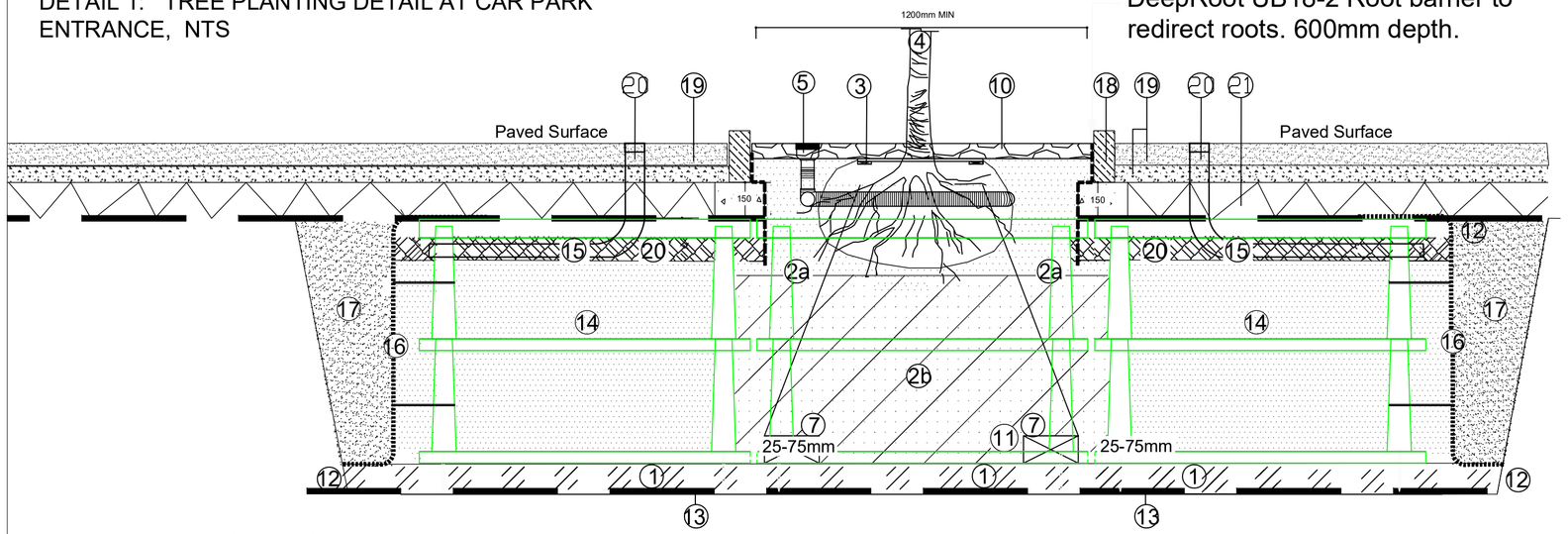


DETAIL 1: TREE PLANTING DETAIL AT CAR PARK ENTRANCE, NTS

DeepRoot UB18-2 Root barrier to redirect roots. 600mm depth.



TREE PIT IN PAVING SPECIFICATION NOTES

1. 100mm DEPTH OF AGGREGATE SUB-BASE, COMPACTED TO 95% OR BY 3 PASSES WITH PLATE COMPACTOR, WHICH EVER IS GREATER. TO PROVIDE AN EVEN AND LEVEL BASE FOR SILVA CELLS TO BE STACKED ON.
2a. TREE PLANTING AREA BACKFILLED WITH APPROVED TOPSOIL WITH <10% CLAY FINES AROUND ROOTBALL. TOPSOIL TO BE BACKFILLED IN LAYERS NOT EXCEEDING 200mm AND FIRMED IN AROUND ROOTBALL.
2b. LOWER LEVELS BELOW ROOTBALL TO BE CLEAN SUBSOIL WITH NO DEBRIS, CONSOLIDATED BY 85% IN LAYERS OF 150MM TO AVOID ROOBALL SINKING BELOW TREE COLLAR.
3. ROOTBALL TO BE SECURED WITH TIMBER FRAME OF 4No. 75 x 25 X 600mm PRESSURE TREATED BOARDS ATTACHED TO THE DEAD MAN GUY WITH MILD STEEL WIRE (6-10mm DIAMETER). TO BE TIGHTENED WITH TURNBUCKLES AT TOP OR SIMILAR APPROVED METHOD.
4. PROPOSED TREE POSITIONED CENTRALLY TO PIT DETAIL. REFER TO PLANT SCHEDULE.
5. GREEN BLUE URBAN ROOT RAIN CIVIC TREE IRRIGATION SYSTEM TO BE WRAPPED ABOUT ROOTBALL WITH CAP SECURED FLUSH WITH SURFACE AROUND PIT. (TEL. 01424 717797).
6. NA
7. DEAD MAN GUY TO BE 2No. CONCRETE KERB SECTIONS OR SIMILAR AND APPROVED OR NON TAR BASED TIMBER SLEEPERS OR SIMILAR. ROOTBALL TO BE SECURED WITH TIMBER FRAME OF 4No. 75 x 25 x 600mm PRESSURE TREATED BOARDS ATTACHED TO THE DEAD MEN GUYS WITH MILD STEEL WIRE (5-10mm DIA) TO BE TIGHTENED WITH TURNBUCKLES AT TOP. ALTERNATIVELY USE GUYING SYSTEM SUCH AS PLATIPUS AND SECURE INTO SUB-BASE.
8. NA
9. NA
10. 65MM DEPTH BARK MULCH ACROSS PLANTING AREA SURFACE, AFTER SETTLEMENT.
11. OPTIONAL DRAINAGE OUTLET COMPRISING OF 100mm DAIM. PVC-U PIPE, TO BE WRAPPED IN GEOTEXTILE ACROSS ENDS, LEADING TO MAINS DRAIN. N.B. DRAINAGE RUN ONLY TO BE UTILISED WHERE THE SUB-GRADE CONDITIONS ARE NON-POROUS, SUCH AS IN COMPACTED CLAY AND OTHERWISE WATER IN THE PIT WILL STAGNATE. REFER TO ENGINEER'S DETAILS.
12. EXISTING GROUND BEYOND PLANTING AREA.
13. GEOTEXTILE 'TERRAM 1000', OR SIMILAR APPROVED WITH SUBGRADE BELOW GEOTEXTILE COMPACTED BY 95%.
14. IMPORTED TOPSOIL/SOIL MEDIA WITHIN SILVA CELLS TO BE LIGHTLY COMPACTED AS SPECIFIED BY DEEPROOT AS PER THEIR SPECIFICATION REPORT, SECTION 32 94 56 PLANTING SOIL for SILVA CELLS. SILVA CELL CRATES 1200 x 600 x 400mm. TO BE FILLED WITH APPROVED TOPSOIL, INSTALLED IN 200mm LAYERS. STACK 2 CELLS DEEP AND LAID AS SHOWN ON THE INSET DETAIL 1 ON DRAWING 001, WITH 25mm TO 75mm GAP BETWEEN CELL STACKS. 1 CELL = 0.28m3 OF SOIL = 7.3m3 PLUS 5.5m3 INSITU SOIL = 12.8m3 FOR THE TREE. (TOTAL 26no. CELLS). AVAILABLE FROM DEEPROOT TEL: 0207 969 2739. SCREW CELL DECKS TO FRAMES (FOR EACH) AFTER SNAPPING INTO PLACE. ANCHOR EACH SILVA CELL TO GROUND WITH (4) 250mm SPIKE, <10mm DIA., SEE CELL BASE FOR SPIKE HOLE.
15. 75-100mm WRAP APPROVED, BSI PAS 100:2011 COMPOST/ BIOFERTILISER BETWEEN TOP OF SILVA CELL DECK AND TOPSOIL, WITH 25mm AIR GAP BELOW TOP OF DECK. SPACE TO ALSO HOUSE AIR DISTRIBUTION PIPE WITHIN SURFACE LAYERS.
16. FLEXIBLE GEOGRID TO ALLOW TREE ROOTS TO PENETRATE BEYOND PLANTNIG AREA. TYPE 'J' 150mm MINIMUM BELOW BACKFILL AT BASE. OVERLAP 300mm MINIMUM AT TOP OF CELLS. ATTACH 5mm X 300mm ZIP TIES, FROM GEOGRID TO SILVA CELLS AT EACH LEVEL AND AT CELL DECK.
17. BACKFILL, 20mm SELF CONSOLIDATING MATERIAL TO FULL DEPTH OF TREE PLANTNIG AREA, TO ENGINEER'S DETAIL.
18. EDGING TO BE PCC CONCRETE KERBS TO EDGE OF PARKING BAYS, AS PER ENGINEER'S DETAIL, SET OVER A CONCRETE STRIP FOUNDATION. TO BE ALIGNED TO ENSURE SILVA CELL LEG SITS DIRECTLY UNDERNEATH STRIP FOUNDATION AND EDGING TO PROVIDE MAXIMUM SUPPORT.
19. CAR PARKING SURFACE AND VEHICLE ACCESS, LAID OVER 100mm DEPTH REINFORCED CONCRETE RAFT, ALL TO ENGINEER'S DETAIL.
20. AIR DISTRIBUTION PIPE: PLASTIC PERFORATED PIPE, 100mm DIAM. WITH CAP TO END SET IN SURFACE PAVING AND LAID ACROSS TOP OF SILVA CELLS TO PROVIDE OXYGEN TO THE PLANTING AREA TOPSOIL AND ROOT STRUCTURE, IN ACCORDANCE WITH DEEPROOT SPECIFICATIONS.
21. 100-200mm MINIMUM DEPTH OF NON-FROST SUSCEPTIBLE MOT TYPE 1 SUB BASE, WELL COMPACTED. DESIGN IN ACCORDANCE WITH ENGINEER'S DETAILS.

NB. SILVA CELLS MUST BE CROSS REFERENCED AGAINST UTILITIES AND MANIPULATED ON SITE TO ACCOMMODATE PIPES/CABLES.

NB: DEEPROOT URBAN SOLUTIONS LTD ARE TO OVERSEE CONSTRUCTION OF SPECIALISED TREE PLANTING AREA, CONTACT DEEPROOT TEL: 0207 969 2739. IF ADVICE/SPECIFICATIONS ARE FOLLOWED, DEEPROOT OFFER A 20 YEAR WARRANTY ON THEIR PRODUCT. REFER TO SILVA CELL SYSTEM LAYOUT INSTRUCTIONS MANUAL, SUPPLIED BY DEEPROOT.

KEY

Soft Works

For further information refer to specification notes

PROPOSED SEMI MATURE TREES. ALL TO HAVE UNDERGROUND, DEAD MAN GUYS TO AVOID VANDALISM & SNAPPING AGAINST STAKES.

PROPOSED SILVA CELL BY DEEPROOT TO PROVIDE STRUCTURAL SUPPORT TO THE PAVEMENT SURFACE. REFER TO DETAIL 1 BY ELD AND DETAILS BY ENGINEERS.

PROPOSED EVERGREEN HEDGE PLANTING.

PROPOSED SHRUB PLANTING.

SCHEDULE OF QUANTITIES

SOFT LANDSCAPE TO GENERAL AREAS:
51m Planting-Hedges
105m2 Planting-Shrubs and Herbaceous
13No. Tree - SM
26No. Tree - Silva Cells

PLANT SCHEDULE

TREES

QTY	CODE	PLANT NAME	STOCK	FORM	GIRTH/HEIGHT
1No.	Car bet SM	Carpinus betulus	C	STD	16-18cm
9No.	Car FF AHS	Carpinus betulus 'Frans Fontaine'	C	STD	16-18cm

SHRUBS

QTY	CODE	PLANT NAME	STOCK	SIZE	SPACING
85No.	Euo Eme	Euonymus fortunei 'Emerald Gaiety'	C 3L	20-30cm	4/m2
38No.	Lon MaG	Lonicera nitida 'Maygreen'	C 3L	30-40cm	4/m2
34No.	Sar con	Sarcococca confusa	C 3L	20-30cm	4/m2
30No.	Spi AWa	Spiraea bumalda 'Anthony Waterer'	C 3L	40-60cm	4/m2
15No.	Vib dav	Viburnum davidii	C 3L	40-60cm	4/m2

HERBACEOUS PLANTS

QTY	CODE	PLANT NAME	STOCK	SPACING
386No.	Vin min	Vinca minor	C 2L	5/m2

HEDGES

QTY	CODE	PLANT NAME	STOCK	SIZE
55m	Vib Eve Hedge 10L	Viburnum tinus 'Eve Price'	C 10L	60-80cm

165No. Plants spaced @ 3/m in a Single Row

NOTES AND ABBREVIATIONS:
C = Container (or pot) grown, followed by size of the container (or pot)
AHS/SM = Semi Mature Standard 16-18cm girth
FORM = Shape of tree as supplied by the nursery
SIZE = Height or Spread of juvenile plant
Std = (clear stem) Standard.
STOCK = Root condition/protection method eg Bare root
- Refer to specification for further information
- All plants to be completely hardened off
- Substitutions to be agreed with Landscape Architect

Plant Schedule generated by "Qscape" software 02/02/2016

OUTLINE PLANTING SPECIFICATION NOTES

STANDARDS
All works shall confirm to BS 8545:2014, the new British Standard Trees: From Nursery to Independence in the Landscape – Recommendations; BS 3936 Part 1: 1992 (Trees & Shrubs); BS 3939 Part 4: 1984 (Forest Trees), in conjunction with the Code of Practice for Plant Handling issued by the Joint Liaison Committee of Plant Suppliers (1980). Enough plants shall be labelled so that when planted, one tree/shrub of each species in each border can be identified by labels. Biosecurity of plant sourcing is vital. Contractors must demonstrate, with undisputed proof, that plants have certified 'Plant Passports' validating importation and ideally, at least 1 growing season in an approved UK nursery quarantine system, if imported from overseas.

IMPLEMENTATION PROGRAMME
Soft landscaping to be timetabled and implemented during the first planting season, (Mid-November to Mid-March), after the substantial completion of the paving hardworks. Planting shall not be carried out when the ground is frozen or waterlogged, or during periods of persistent wind.

TOPSOIL PREPARATION
50mm to 100mm depth of BSI PAS 100:2011 compost/biofertiliser, or similar approved green waste/peat free compost shall be added prior to final cultivation in areas of new planting. All new planting areas shall be 450mm deep and decompacted and cultivated to the full depth of 250mm.

Tree pits with in soft landscape areas shall be excavated to create a square pit, a minimum size of 800 x 800 x 500mm deep, (or, no deeper than the existing rootball or container depth) or 1/3 larger than the rootball/container width. settlement of the rootball should not occur after planting. The excavated soil shall be placed to one side, separating topsoil and subsoil as far as is practical and backfilled in the reverse order to retain natural soil profiles. All tree pits shall be thoroughly decompacted to sides and broken across the base prior to back-filling to eliminate glazed or smeared conditions, making allowance for soil settlement after planting. Soil is to be shaken around the roots in 150mm deep layers and firmed in by foot during backfilling. The tree pit should be saturated to field capacity immediately after planting to aid settlement.

TREES IN SUPPORTING STRUCTURUAL CELLS
Refer to Detail 1 and consult with engineers to define paving construction over Silva Cells. Deeproot shall oversee construction to warrant their product.

WEED / DEBRIS CLEARANCE
Where necessary areas to be planted, turfed or seeded shall be cleared of any grass, weed growth or debris physically and/or chemically with a translocated herbicide (Glyphosate) prior to cultivation operations. More than one application may be necessary to ensure eradication. All roots of perennial weeds shall be removed.

PROPOSED TREES - PRODUCTION AND PROCUREMENT
Trees that are noncompliant with the specification or with major damage; whether above or below ground, shall be rejected and replaced at the contractor's own expense, such that: All bud and graft unions shall be checked to ensure full compatibility between stock and scion and that there are no weak unions or disproportionate growth at the grafting/budding joint. Young trees will not be accepted if the bud union has been set below the soil surface. All young standard tree stock shall have a single, straight leader and/or an even, well-balanced branching system and crown formation; a well-formed, straight central leader and lateral branches subordinated to that leader. All young trees shall exhibit a clearly defined stem taper, evident from crown through to root flare, appropriate to the species with a straight stem. All young trees shall have a proportionate, balanced height/stem girth ratio appropriate to the species, be self-supporting and able to stand upright without the use of cane, stake or other form of support immediately after planting. Poorly attached branches with included bark, and inward-growing branches, shall be removed or formatively pruned. Where branches cross or rub, the most significant branch shall be retained and any others removed. Co-dominant branches and stems shall be removed or subordinated.

No bare root trees are permitted, to ensure a healthy rootball is provided. All rootballed trees of 14-16cm girth must have been transplanted at least three times on the nursery and contain a fully fibrous root system with obvious evidence of root pruning or transplanting, whilst being proportionate size to the stem diameter. Containerised or container-grown trees shall be free from circling or girdled roots and the natural root flare shall be visible at all times. As the root systems of rootballed, containerised or container-grown trees are not visible until the time of planting, a sample of the actual root system shall be checked by the LA where practicable, by breaking open a small percentage of rootballs or containers. All wire used for rootballing should be non-galvanized. Proof of Plant Passport or biosecurity measures shall be provided to the Landscape Architect prior to bringing trees to site.

PROPOSED TREES – PRODUCTION, PROCUREMENT & DELIVERY
At no time tres be left with their root systems exposed or vulnerable to drying out. Rootballed trees shall have been stored in an upright position, supported and irrigated during storage. Containerised or container-grown trees shall be fully irrigated before loading and dispatch to site. All trees should be individually, clearly labelled, indicating the supplier's name, species, variety, cultivar and size. All trees shall be loaded and stacked in such a way as to minimize the possibility of breakage or crushing by the weight of the plants above or from the security ropes. On open lorries, the trees should be completely covered with secure, opaque sheeting. In closed lorries or containers, provision shall be made to ensure that the trees remain cool and moist at all times during transit. Rootballed or containerised trees shall be lowered intact from the lorry by hand or machinery and not dropped onto the ground causing damage to the root system.

PROPOSED TREES – PLANTING
Trees shall be supplied to the sizes and stock shown on the plant schedule and planted in the locations shown. The root flare of the newly planted tree shall be clearly visible at the soil surface and not be buried by excess soil or mulch. Once a rootballed tree has been positioned in the planting pit, hessian, twine and the wire cage shall be loosened, removing all wire that encircles the stem diameter. Where tree planting is specified within or next to hard landscape areas, haunching to kerb edging around pits shall be controlled by shuttering, avoiding concrete spread into tree pits and planting areas.

All trees shall be supported with an underground, dead man guying system or similar approved to avoid vandalims and breakage of trunks against stakes.

Trees within structural Silva Cells shall have a dead man guying system.

All standard trees shall have a 2.5m long x minimum width of 35mm diameter, black perforated irrigation pipe such as 'MR3, Mona Relief Irrigation Unit', or similar approved, wrapped about the rootball, with 75mm left above ground level within mulch, to permit irrigation during dry weather. Each pipe shall have a lockable cap to the end to prevent ingress of mulch, vermin or rubbish. Supplied by Green-Tech, tel: 01423 332100.

PROPOSED ORNAMENTAL SHRUB AND HEDGEROW AREAS
All native shrubs shall be container grown, 60-80cm high unless otherwise specified; bushy and have a minimum of three to five breaks/ branches from the base of the plant with full root development in the container. Recently potted plants failing to provide full containerised root development alongside pot bound plants will be rejected and replaced at the contractors own expense.

Hedgerow plants shall be planted in a single row at 3/m, offset from kerb edges by 0.6m, as indicated by the schedules.

BARK MULCH
Prior to mulching individual trees and shrubs shall receive a layer of slow release fertiliser and be watered to field capacity. Mulch shall be spread across all borders to a depth of 65mm to allow for settlement. The root flare and the base of tree stems should be maintained free from mulch. Care must be taken not to bury ground cover plants with the mulch.

Mulch shall be pest, disease and weed free with no Methyl Bromide contamination or additives. Certification and typical mulch sample to be provided upon request. Substandard mulch will be rejected and replaced at the contractor's own expense. Typical bark mulch product accepted for general landscape purposes shall be 'Ornamental Bark Mulch', supplied by Melcourte, Tel: 01666 502 711 or similar approved.

PAVING/SURFACES
All surface details by engineer.

MAINTENANCE / MAKING GOOD DEFECTS
The Client's Management Company shall be responsible for maintenance of trees, hedges and shrubs planted in perpetuity. The following shall be undertaken each year until all planting is established and mature:

Plant failures: All plants that die shall be replaced by the Client during the next planting season.
Weeds: All trees, shrubs and hedgerow planting shall be kept free of weeds for the duration of the 5 year maintenance period. This shall be by mechanical or chemical methods as appropriate; in line with the manufacturer's instructions and in compliance with the Pesticides Act (1998), taking care to avoid drift onto surrounding vegetation. Hedgerows shall be kept free of weeds throughout their full width and length. All arisings shall be removed.
Underground Guys : All stakes and ties should be checked regularly to ensure that tree root systems remain stable, firm and upright in the ground and that ties are still effective and not causing any damage to the tree.
Plant Protection & Soil Compaction: All guards and other plant protection measures should be checked during each site visit. The soil around newly planted trees should be regularly inspected for soil capping or compaction. Remedial action should be taken as necessary.
Pests & Disease: All plants should be checked on a regular basis for pests and diseases. Remedial action should be taken promptly on discovery, where necessary.
Pruning - General: Any damaged shoots or branches shall be pruned off plants using appropriate secateurs/loppers. Shrubs shall be pruned as required to prevent encroachment and obstruction to rights of way and to maintain shape and condition. All pruning undertaken in accordance with good horticultural practices. All arising shall be removed.
Tree Pruning: Formative pruning should be carried out in accordance with BS 3998 as required throughout the early years after planting to establish a permanent, structurally sound scaffold system of branches, typical of the species and appropriate to the site circumstances.
New Hedges: New hedges shall be trimmed to top and sides once per year in late February, to maintain compact growth from the base. Ultimately, new hedges shall be maintained at 1.5m high x 1.5m wide at maturity. Trees planted within hedges shall be permitted grow on to reach maturity beyond the height of the hedge.
Litter: All areas shall be maintained free of litter at all times. Litter collection shall include non biodegradable materials and degradable objects over 100mm length, found along footpaths and public open space areas, undertaken once monthly. All arisings shall be removed from site.
Parking/Surfaces: Hard surfaced areas site shall be kept free of weeds at all times. Autumn leaf clearance shall be undertaken as necessary in October/November.

IRRIGATION
The timing and frequency of irrigation should take into account the prevailing weather conditions, soil moisture release characteristics and the response of the tree species to water deficits, or periods of prolonged soil saturation. The frequency of irrigation is more important than the volume of water given at any one time. Increased water volumes cannot compensate for a lack of frequency. All trees and shrubs shall be irrigated as required, using appropriate water sources to maintain good and proper plant establishment. Monitoring is recommended if there are 10 consecutive days during the growing season at ≥25 °C. Water should only be added if soil moisture probe/tensiometer values indicate that it would be appropriate to do so. In the first 2 growing seasons during summer months, trees may require the following total volumes of water per month, applied across 2 to 3 visits during the month: trees 8-10cm girth (up to 3m high) @ 45L per month; 10-12cm girth (up to 3.6m high) @ 75L per month; 12-14cm girth (up to 4.2m high) @ 115L per month; 14-16cm girth (up to 4.8m high) @ 150L per month and 16-18cm girth (up to 5.4m high) @ 190L per month.

N

N.B. These landscape proposals have not been cross referenced against service and utility locations to identify any potential conflicts. Client/engineer to review and advise accordingly.

ALL DIMENSIONS TO BE CHECKED ON SITE. TO BE READ WITH ALL CONTRACT DOCUMENTATION. ANY DISCREPANCIES TO BE REPORTED TO THE CONTRACT ADMINISTRATOR. DO NOT SCALE FROM THIS DRAWING.

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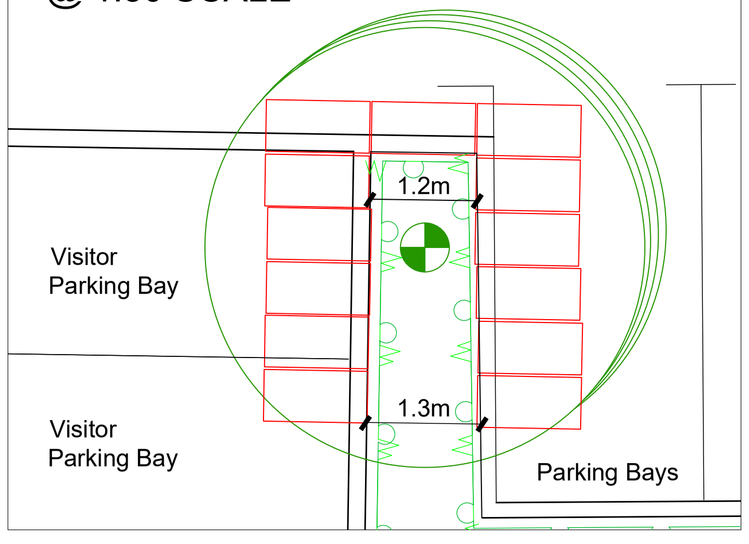
PLAN VIEW OF SILVA CELLS @ 1:50 SCALE



Rev.	Date	Initials	Details
D.	25-05-16.	RE.	Reduced Car Bet FF to wider spacings as requested by LPA TO.
C.	02-02-16.	LW.	Planting and plant schedule amended to accord with new client layout rev C, recieved 25-01-16.
B.	06-01-16.	RE.	Tree stake spec amended to underground guys.
A.	04-01-16.	RE.	Minor typos corrected.

E·L·D
ELWOOD LANDSCAPE DESIGN
CHARTERED LANDSCAPE ARCHITECTS

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Tel: 01449 768828 E: team@e-l-d.co.uk

Cambridgeshire Office:
The Nursery, Market Street, Fordham, Cambridgeshire, CB7 5LQ.
Tel: 01638 721066 E: team@e-l-d.co.uk

ISSUED BY ☒ ☐

CLIENT:	PROJECT:
FAIRFAX MANSIONS LLP.	FAIRFAX MANSIONS CARPARK, FINCHLEY ROAD, LONDON.

DWG TITLE: DETAILED LANDSCAPE PROPOSALS.

SCALE:	DATE:		
1: 200 @ A1	8TH DECEMBER 2015.		
DRAWN BY: LW.	CHECKED BY: RE.	DRAWING NO: SIGN 253/7 - 001.	REV. D.