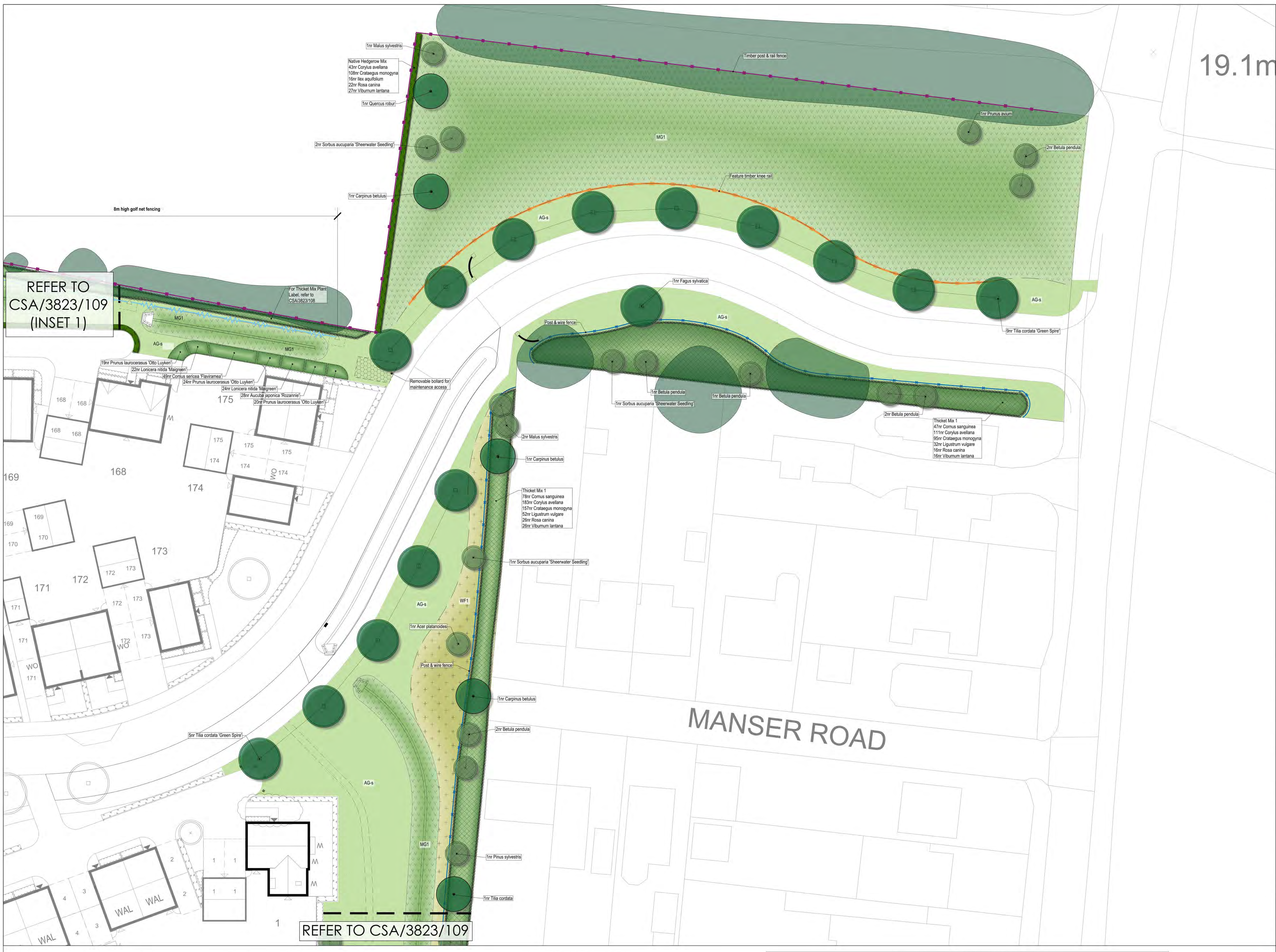

PLANTING SPECIFICATION

General Guidance

All plant handling to be in accordance with the HTA 'Handling and establishing landscape plants' Part I, Part II and Part III (obtainable from the Horticultural Trades Association) and the CPSE publication: 'Plant Handling' and all planting to conform to National Planting Specification Guidelines.

The individual setting-out of the plants on site shall be the responsibility of the contractor and should follow closely the locations shown on the detailed planting proposal drawings supplied by the landscape architect. Contractor to ensure that plants are equally spaced within individual planting groups.

Contractor to ensure that smaller plants are located to the front of plant species groups as shown on detailed planting plans.

Contractor shall maintain existing levels around the base of existing trees and shall undertake all planting works occurring within root protection areas (RPA) in accordance with BS5837:2012. Contractor shall not remove or relocate any tree protection fencing without prior consent of the client.

Contractor to check the locations of all underground services, existing and proposed, prior to the excavation of any tree pits or shrub beds and identify any potential conflicts to the client / landscape architect.

All arisings shall be removed from site and the contractor shall at all times, keep the site free from rubbish and debris.

For the duration of the works the contractor shall keep the site free from injurious weeds as listed in the Weeds Act 1959.

All plants should be supplied at the same size and of the same species as specified in the planting schedules on the landscape proposals plan. Any proposed replacement species or deviation from the planting schedules should be highlighted to and agreed with the client prior to installation.

All plants shall be hardened-off at the Contractor's own nursery or at the source prior to planting out.

All field grown and rootballed trees must have been transplanted or undercut in the nursery no less than 18 months prior to supply.

The Contractor shall carry out the work while soil and weather conditions are suitable. Planting is not to take place during periods of frost or strong winds.

The contractor is to ensure that adequate watering and weed control is provided at the time of planting.

Any topsoil retained on site in stockpiles for use in planting works is to be stored in accordance with the DEFRA publication; 'Code of practice for the sustainable use of soils on construction sites'

Do not use peat or peat based products.

Prior to planting, planting areas shall be cleared of grass and weed growth physically and/or chemically with a proprietary translocated herbicide and a period of time shall be allowed to elapse as recommended by the manufacturer before commencement of soil preparation for planting.

All plants are to be watered thoroughly before planting stage to ensure rootball is thoroughly soaked prior to final backfilling.

Tree Planting

Generally plant trees in pits with minimum dimensions of;-

- 1000 x 1000 x 700-800mm deep for trees in soft, planted areas including; grass/shrub areas and rear gardens.

Backfill the pits in layers as specified below (from bottom up);-

Drainage layer

- 200mm layer of compacted inert free draining gravel or pea shingle, wrapped in geo-textile membrane
- 100m layer of washed medium-course sand to act as blinding layer between geotextile and soil.

Topsoil layer

- 400-500mm layer of retained site-sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam); depth dependant on size of rootball.

Depth of topsoil should only be as deep as the rootball of proposed tree to a max. depth of 400-500mm. Should the rootball be larger i.e. 800mm height, then the pit should be increased in depth to suit, but with the difference in depth from the 400-500mm topsoil layer and the drainage layer made up of quality imported free-draining subsoil to BS8601:2013 to avoid topsoil occurring at depths of greater than 500mm.

Likewise, for smaller trees i.e. feathered trees, with more limited rootballs/bare root, the depth of topsoil can be reduced to reflect the surrounding topsoil depths or to a max. topsoil depth of 350mm, with a further layer of site-sourced or imported subsoil (to BS8601:2013) below to create a total depth of growth medium of between 400-500mm i.e. 150-200mm layer of subsoil. Drainage layer should remain as above.

As stated above, the min. pit size for trees planted in newly created planting areas should be 1m x 1m, however where planting is occurring in clean, undisturbed ground, pits should be dug to approx. 200mm greater than the rootball to limit distribution of surrounding soil structure.

Break up bottom of tree pit to a depth of 200mm and ensure ground is free-draining. Loosen edges of tree pit at time of planting by hand, using a fork to ensure good drainage. Pits should be excavated no greater than 48hrs prior to planting and dewatered as required.

Incorporate a soil conditioner/ameliorant in the form of peat-free tree and shrub compost or well rotted spent mushroom compost or 'Rootmaster' by Greentech Ltd (01423 332100) into backfilled topsoil material at the rate of min. 40L per pit.

Incorporate soil improver 'Terracottem Arbor' by Greentech Ltd (01423 332100) at a rate of 1kg per pit, mixed thoroughly into backfilled topsoil.

Backfill topsoil mix in layers of 150mm, firming at each layer and loosening the pit sides to aid drainage. The surface level of the pit should be 50mm above the surrounding ground.

Trees shall be planted in the centre of the excavated pits.

Trees in soft planted areas to be dressed with a minimum 75mm mulch layer, consisting of pine bark fines, particle size 15-50mm to a min. diameter of 1000-1200mm where appropriate.

Semi-mature trees shall be secured by use of a proprietary underground guying system, incorporating guy mats to protect the upper surface of the rootball and secured to the base of the tree pit or by use of deadman anchirs. Guying supports to be sized in line with the size of the tree as recommended by the manufacturers.

Extra-heavy and heavy standard trees shall be staked and supported with a low, double stake consisting of 2No. 75mm diameter x min. 2000mm length, rounded timber posts driven into the ground, 600mm above ground level and fixed to the tree by a proprietary rubber tree tie / horizontal cross support.

Standard trees shall be staked and supported with a low, single stake consisting of 1No. 75mm diameter x min. 2000mm length, rounded timber post driven into the ground at 45 degree angle to approx. 450mm above ground level and fixed to the tree by a proprietary rubber tree tie.

Trees shall be installed with proprietary flexible perforated irrigation/aeration pipe with integral cap. Pipe to be installed encircling equally around rootball to the full depth of planting pit, with the final cap section installed just above ground level and nailed securely in place to the adjacent timber stake.

All trees in grass areas to be protected by min. 225mm high x 12-15mm diam. proprietary plastic strimmer/vole guards. Where trees have a basal trunk diameter greater than 12mm e.g. semi-mature, then two or more guards should be joined together using jointing tape and then secured in place.

Root Barrier Membranes

Where trees are proposed in close proximity to hard paved areas or proposed service runs, a root barrier membrane is to be installed as prescribed below.

For all proposed trees centred in a location within 3m of an adjacent hard standing/footpath or carriageway kerb line, a proprietary root barrier membrane will be installed to protect the hard standing and any underground services located beneath from future damage by tree roots.

Root barrier membrane(s) to be installed on the tree side along the back edge of the kerb / edging restraint to the adjacent hard standing and are to extend a minimum 3m in each direction from a point taken perpendicular from the tree trunk to the kerb/edging face.

Root barrier membranes are to extend to a depth as outlined below:-

- For trees adjacent to hard standings only (no underground services); install 'Reroot 300' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 300mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.
- For trees adjacent to hard standings incorporating underground services; install the following dependant on the depth of underground services;

For services 450mm deep

- 'Reroot 600' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 600mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For services 800mm deep

- 'Reroot 1000' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 1000mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For services deeper than 800mm

- 'Reroot 2000' by GreenBlue Urban (01424 717797) or equal and approved, ribbed root barrier membrane, to a depth of 2000mm, ribs facing tree, joints fixed with jointing tape, install 10mm above final surface level of soft landscaping.

For locations where a hard standing with or without underground services exists on both sides of the tree e.g. grass verge, then a root barrier is to be installed against both kerb / edging faces.

For trees located within hard surfaces themselves i.e. surrounded by hard paved surfaces, install 'Root Director' by GreenBlue Urban (01424 717797) or equal and approved, ref: RD1400; 1400mm x 1400mm x 450mm, plastic root director with integral ribs.

Ornamental Shrub Planting

Plant shrubs and groundcover into pre-prepared planting beds consisting of topsoil to a depth of no greater than 400mm, overlying clean, free-draining subsoil. Topsoil to be either; existing retained site sourced topsoil (free from weeds) or imported topsoil imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) or a combination of the two as necessary.

Subsoil layer to be fully broken-up to ensure adequate decompaction and alleviate free-drainage. For light and non-cohesive subsoils, when ground conditions are reasonably dry, loosen thoroughly to a depth of 300mm (450mm for stiff clay / cohesive soils). Remove all stones and debris greater than 50mm, including roots and tufts of grass. Top 50mm of subsoil to be reduced to a medium tilth suitable for final shaping using a grading blade.

Where applicable the use of a small tractor mounted single tine ripper to decompact subsoil layer sufficiently.

Incorporate a soil conditioner/ameliorant in the form of peat free general-purpose shrub compost or well rotted spent mushroom compost across the planting bed in a 50mm layer at a rate of 300g per m2, and incorporate to a depth of 225mm.

Install a proprietary geo-textile weed suppressant membrane onto the surface of the pre-prepared shrub planting beds with minimum 300mm laps. Once planting bed is prepared, dig planting holes for shrubs to be a depth of 200mm and a width or 150mm greater than the source pot size, ensuring that pit walls are loosened to ensure good drainage.

Ensure planting appears random / natural and not formal in accordance with the planting proposal layouts as supplied by the Landscape Architect.

All shrub areas to be dressed with a minimum 75mm mulch layer, consisting of medium chipped tree bark, composted for 2-4 weeks, particle size 15-50mm, laid directly onto weed suppressant membrane.

The contractor shall take the necessary precautions to ensure all shrub areas are protected throughout the establishment period by temporary fencing.

Ornamental Hedge Planting (incl. single species native hedges)

Plant hedges into pre-prepared planting trenches, 500-600mm wide for double rows. Planting strips to consist of topsoil to a depth of 350-400mm, mixed with soil conditioner as specified below.

Topsoil to be either; existing retained site-sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) or a combination of the two as necessary.

Incorporate a soil conditioner/ameliorant in the form of peat free general-purpose shrub compost or well rotted spent mushroom compost along planting trench in a 50mm layer at the rate of 300g per m2, and incorporate to a depth of 225mm.

Install a proprietary weed suppressant membrane onto the surface of the pre-prepared trench, with minimum 300mm laps. Plant hedge plants into pre-prepared planting strips which are deep enough as to be 200mm greater than the root depth of the supplied plant stock.

All hedge planting areas to be dressed with a minimum 75mm mulch layer, consisting of medium chipped tree bark, composted for 2-4 weeks, particle size 15-50mm, laid directly on weed suppressant membrane.

Where not planted against an proposed fence-line or wall, hedges to be supported by min. 1000 high timber post and wire fence, consisting of min. 75mm diameter x 2000mm long, rounded timber posts, driven in at 2000mm centres with 3No. galvanised wire supports evenly spaced along the vertical axis of the post. Corner posts and/or straining posts are to be additionally supported by 45° angled, 50mm diameter timber struts.

Thicket Planting

Generally clear any surface vegetation in proposed woodland and thicket areas, utilising proprietary herbicide where appropriate and install plants into isolated pre-prepared planting pits, generally 300 x 300 x 450mm deep or 200mm greater than the rootstock, whichever is greater, backfilling with either existing retained site sourced topsoil (free from weeds) or imported topsoil (sandy loam, General Purpose grade to BS3882:2015) or a combination of the two as necessary.

Incorporate a soil conditioner/ameliorant in the form of peat free tree and shrub compost or well rotted spent mushroom compost into backfill material at the rate of 5L per pit, incorporating a slow release fertiliser e.g. Enmag (or similar approved) at a rate of 5g per pit.

Ensure planting conforms to planting matrix where appropriate and in all other areas appears random / natural and not formal in accordance with the planting proposal layouts.

Plant Protection

Where rabbits are a known issue, all woodland and thicket areas are to be fully enclosed by min. 900mm high rabbit proof fencing, supplied as min. 19 Gauge (1.2mm) galvanised mesh with max. 31mm openings, nailed with galvanised 20mm staples to 50-75mm diameter treated timber stakes at 1.5m centres, incorporating 3No. horizontal galvanised straining wires. Mesh fence to be heeled into ground 150mm below ground level. Straining posts of 100mm diam. timber should be installed every 50m or at every turn of direction 90 degrees or greater.

If additional deer protection fencing is required, all woodland and thicket areas are to be fully enclosed by min. 1.8m proprietary plastic mesh fencing (50mm x 45mm gauge) secured to min. 100mm rounded, treated softwood posts, driven min. 750mm below ground level at 3.5m centres. Mesh fence to be heeled into ground 150mm below ground level. NB:- In areas where rabbits are also a known problem, an additional 300mm high section of min. 19 Gauge galvanised mesh (chicken wire) with max. 31mm openings to be fixed to the lower portion of the deer fencing and attached using proprietary plastic cable ties.

Any standard trees in the thicket areas to be protected by min. 225mm high x 12-15mm diam. proprietary plastic strimmer/vole guards.

All small / feathered trees within woodland/thicket areas to be protected by min. 1200mm high x 80-110mm diam. proprietary plastic mesh tree guard/shelter and secured in place with min. 25mm square treated softwood timber stake and fixed with plastic cable ties. NB:- Should red or fallow deer reside in the locality the tree guards/shelters should be increased in height to 1.8m.

Any coniferous trees and/or beech transplants (Fagus sylvatica) within woodland/thicket areas must only be protected by open mesh tree guards.

All bushy thicket shrubs to be protected by min. 600mm high x 170-200mm diam, proprietary plastic mesh shrub shelters / guards and secured in place with treated softwood timber stake and plastic cable ties.

All single stem thicket transplants to be protected by min. 450mm high x 50mm proprietary plastic spiral guards secured with min. 12-14lb x 900mm long bamboo cane.

All thicket plants to be installed with a min. 500mm square, woven polypropylene mulch mat securely pegged in place.

Where thicket areas are created from freshly cultivated ground i.e. not into the existing sward, then the planting area should be over-seeded with a proprietary meadow grass mix ('A4' mix by Germinal Seeds Ltd) at a rate of 35gs m2 between planting stations.

Amenity Grass / Meadow Grass Seeding

Areas to be seeded are to be finely graded to bring to a uniform and even grade at the correct finished level and to remove all minor hollows and ridges. All stones and debris greater than 50mm in size to be removed and disposed of off-site.

Seeded areas are to consist of min. 150mm topsoil; either existing retained site sourced topsoil (free from weeds) or imported topsoil (Multi-purpose grade to BS3882:2015; sandy loam) or a combination of the two as necessary; overlying min. 150mm layer of clean, free-draining subsoil. Subsoil should be prepared as per shrub specification, ensuring full decompaction and free-drainage.

Unless otherwise stated, finished levels of seeded areas to be 30mm above adjoining paving and kerbs; 150mm below the dpc of adjoining buildings.

Final preparation of the seeded areas shall be carried out as to create a fine tilth surface suitable for seeding.

For amenity grass areas only, a pre-seeding fertiliser shall be applied at a rate of 250kg/ha approx. 7 days prior to seeding and raked into top surface e.g. GroRight Lawn Establishment fertiliser by Rolawn Ltd, slow-release granular fertiliser, 7:10:10 NPK; or equal and approved by Landscape Architect.

The area(s) is to be seeded between April and October with approved grass seed mix, as specified in the planting schedules at the specified rate. Following seeding, areas are to be hand raked and lightly rolled.

The contractor shall take the necessary precautions to ensure all grass areas are protected throughout the establishment period, with the use of chestnut pale fencing where appropriate.

The contractor shall ensure that all seeded and turfed areas are watered fully at the time of installation to the full cultivated depth, and that sufficient subsequent watering is carried out to ensure healthy establishment of the grass sward.

Wildflower / Wet Meadow Grass Seeding

Kill off any existing vegetation by spraying off with proprietary herbicide and allow a time to elapse as recommended by the manufacturer before commencing any cultivation works.

If time permits, a 'stale seed bed' is to be established, by allowing the graded meadow area to colonise with weeds from the existing soil seed bank following initial cultivation / rotovation and an additional application of proprietary herbicide applied to remove any weed growth.

Areas to be seeded are to be finely graded to bring to a uniform and even grade at the correct finished level and to remove all minor hollows and ridges. All stones and debris greater than 50mm in size to be removed and disposed of off-site.

Wildflower seeded areas are to consist of min. 150mm deep existing retained topsoil (free from weeds):subsoil mix (50:50) over existing site subsoil layer. No imported topsoil should be used in the formation of wildflower meadows. Where feasible/practible, topsoil should be fully stripped and seeding conducted into pre-prepared subsoil layer.

Final preparation of the seeded areas shall be carried out as to create a medium tilth surface suitable for seeding.

No pre-seeding fertiliser shall be applied.

Wildflower seeded is to be undertaken preferably in Spring (Early March to late June) or if not feasible in Autumn (Mid August to October). Where sowing rates are low and sowing is to be undertaken by hand broad-casting, the contractor should mix the seed evenly with a fine, dry sand to bulk up the sowing mixture. Seeding by this method should only be undertaken on calm days with no wind, after seeding, areas are to be hand raked and lightly rolled.

The contractor shall take the necessary precautions to ensure all grass areas are protected throughout the establishment period, with the use of chestnut pale fencing where appropriate.

The contractor shall ensure that all seeded areas are watered fully at the time of installation to the full cultivated depth, and that sufficient subsequent watering is carried out to ensure healthy establishment of the grass sward.

Submerged Aquatic Planting

Plants to be supplied in pre-prepared bundles/bunches of min.3-4 stems per bunch and installed at a rate of approximately 4 bunches per square metre in groups of 30-40 i.e. 10m2 of similar species during mid to late spring or early summer.

Bunches should be potted up into 1 litre (11 x 11cm) aquatic baskets lined with hessian, backfilled with aquatic, loam-rich compost and topped with pea shingle. Care should be taken to ensure that baskets are secured in place on the base of the pond using galvanised steel pegs where required to a maximum depth of 900mm.

Emergent Aquatic / Reed / Rush Planting

Areas to planted with marginal aquatic and reeds should be planted in mid to late spring or early summer, when signs of plants growth can be established on planting stock.

A 'marginal shelf' should be created around the pond in areas to receive the reed / rush and emergent planting, which should be around 30cm wide from the back edge of the pond profile at the approximate 20-30cm deep 'mean' water level. The shelf should be formed of on-site subsoil and be a relatively flat profile to support the aquatic baskets.

Plants to be supplied in plastic pots or similar and transferred to proprietary plastic mesh aquatic baskets; min. 35 x 35cm for Zones 2A and 2B and min. 11 x 11cm for Zone 1B, before installation to avoid rapid colonisation of adjacent areas. Baskets should be supplied with a fine mesh to avoid soil loss or hessian lined, baskets for reeds should be of an open plastic mesh to allow maximum flow of water and air into the pot but limit the outward growth of expansive roots. Baskets should be filled with a 2cm layer of pea shingle or washed gravel, before potting-up of supplied plant stock into loam rich aquatic compost and topped with a further fine layer of pea shingle. Plants should then be set out onto marginal shelf to densities outlined in planting schedule; ensuring baskets are well secured or partially heeled into shelf substrate (max 100mm). NB:- Only one plant should be installed per basket.

When planting bare-rooted plants in summer, trim back the tops by half and trim the roots back to within 2.5cm of the crown. Aquatic planting baskets should be annually topped up with a small layer of pea shingle or washed gravel to ensure stability of the baskets.

All marginal aquatic plants should receive a single application of slow release organic fertiliser in early summer when water levels are low to allow the incorporation of the fertiliser into the upper compost layers of the aquatic baskets. Any pea shingle or gravel disturbed should be replaced.

General Planting Maintenance

Refer to CSA/3823/03 Landscape Management Plan for detailed management prescriptions.

PLANT SCHEDULE FOR CSA/3823/107-110

Herbaceous - Bulb

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
476	Crocus chrysanthus 'Blue Bird'	Crocus							BB	1.5-2L	m2	20.00	0.225
774	Narcissus pseudonarcissus	Wild daffodil							BB		m2	20.00	0.225
1250													

Herbaceous - Grass

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
34	Calamagrostis acutiflora 'Overdam'	Variegated feather reed grass							C	3L	m2	3.00	0.600
34													

Marginal Plug Mix

Marginal mix to to planted in single species groups of between 7 and 10 plants

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
195	Caltha palustris	Marsh Marigold							C	1L	m2	8.00	0.350
195	Carex riparia	Greater pond sedge							C	1L	m2	8.00	0.350
195	Iris pseudacorus	Yellow flag							C	1L	m2	8.00	0.350
195	Juncus effusus	Corkscrew rush							C	1L	m2	8.00	0.350
780													

Marginal Sedge Mix

Marginal mix to to planted in single species groups of between 7 and 10 plants

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
66	Filipendula ulmaria	Meadowsweet			C					0.5L	m2	8.00	0.350
66	Iris pseudacorus	Yellow flag							C	1-2L	m2	8.00	0.350
66	Lychnis flos-cuculi	Ragged robin			C					0.5L	m2	8.00	0.350
66	Ranunculus acris	Meadow buttercup			C					0.5L	m2	8.00	0.350
264													

Native Hedgerow Mix

Hedges to consist of double staggered row at 300mm centres, rows 300mm apart, approx. 5 plants per linear metre
Hedges to be supported by 1m high post and galvanised wire fence (min. 3 wires) running through centre of hedge between rows

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
285	Corylus avellana	Hazel, Cobnut	1/0	80-100cm					B		m	5.00	0.200
713	Crataegus monogyna	Common hawthorn	1/0	80-100cm	Seedling				B		m	5.00	0.200
107	Ilex aquifolium	Holly		60-80cm					C	3L	m	5.00	0.200
142	Rosa canina	Dog rose	1/1	80-100cm				3	B		m	5.00	0.200
179	Viburnum lantana	Wayfaring tree	1/2	80-100cm				3	B		m	5.00	0.200
1426													

Shrub

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
54	Aucuba japonica 'Rozannie'		1/1	30-40cm				3	C	3L	m2	5.00	0.450
105	Brachyglottis 'Sunshine'			30-40cm				3	C	3L	m2	5.00	0.450
168	Cornus alba 'Elegantissima'	Red barked dogwood		40-60cm	Bush			4	C	3L	m2	4.00	0.500
656	Cornus alba 'Sibirica'	Westonbirt dogwood		40-60cm	Bush			4	C	3L	m2	4.00	0.500
425	Cornus sericea 'Flaviramea'	Yellowtwig dogwood		40-60cm	Bush			4	C	3L	m2	4.00	0.500
81	Hebe 'Midsummer Beauty'	Hebe		40-50cm	Bushy			3	C	3L	m2	5.00	0.450
32	Hebe rakaiensis	Hebe		20-30cm (D)	Bushy			5	C	3L	m2	5.00	0.450
30	Hebe 'Red Edge'	Hebe		25-30cm (D)	Bushy			5	C	3L	m2	5.00	0.450
38	Ilex crenata 'Golden Gem'	Holly	2x	20-30cm(D)	Bush			3	C	3L	m2	5.00	0.450
173	Ligustrum vulgare	Common privet		60-80cm				4	C	3L	m2	3.00	0.600
111	Lonicera nitida 'Maigreen'	Honeysuckle		30-40cm	Bushy			5	C	3L	m2	4.00	0.500
24	Lonicera x purpusii 'Winter Beauty'	"Honeysuckle"	2x	30-40cm				3	C	3L	m2	4.00	0.500
156	Prunus laurocerasus 'Otto Luyken'	Cherry laurel var.		30-40cm	Bushy			3	C	3L	m2	4.00	0.500
71	Viburnum davidii	David viburnum		25-30cm (D)				3	C	3L	m2	5.00	0.450
310	Viburnum opulus 'Roseum'	Guelder rose		30-40cm	Bush			3	C	3L	m2	5.00	0.450
2434													

Shrub - Hedgerow

Hedges to consist of double staggered row at 300mm centres, rows 300mm apart, approx. 2 or 5 plant per linear metre
Hedges to be supported by 1m high post and galvanised wire fence (min. 3 wires) running through centre of hedge between rows

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
2931	Carpinus betulus (Hedge)	Hornbeam	1+1	80-100cm	Bushy				B		m	5.00	0.200
726	Viburnum tinus 'Eve Price' (Hedge)	Laurustinus		40-60cm				5	C	5L	m	5.00	0.200
3657													

Submerged/Emergent Mix

Mix to to planted in single species groups of between 7 and 10 plants

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
24	Callitriche stagnalis	Mud Water Starwort			CL				C	1L	m2	5.00	0.450
24	Ceratophyllum demersum	Hornwort			C				C	1L	m2	5.00	0.450
24	Myosotis scorpioides	true forget-me-not							C	0.5L	m2	5.00	0.450
24	Myriophyllum spicatum	Water milfoil			C				C	1L	m2	5.00	0.450
24	Stratiotes aloides	Water soldier							C	1L	m2	5.00	0.450
120													

Thicket Mix 1

Individual thicket species to be planted in groups of approximately 5-10

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
528	Cornus sanguinea	Common dogwood	1/1	60-80cm				4	B		m2	1.00	1.000
1233	Corylus avellana	Hazel, Cobnut	1/0	60-80cm					B		m2	1.00	1.000
1056	Crataegus monogyna	Common hawthorn	1/1	60-80cm					B		m2	1.00	1.000
352	Ligustrum vulgare	Common privet	1/1	60-80cm				3	B		m2	1.00	1.000
176	Rosa canina	Dog rose	1/1	60-80cm				3	B		m2	1.00	1.000
176	Viburnum lantana	Wayfaring tree	1/2	60-80cm				3	B		m2	1.00	1.000
3521													

Thicket Mix 2

Individual thicket species to be planted in groups of approximately 5-10

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
42	Cornus sanguinea	Common dogwood	1/2	60-80cm				3	B		m2	1.00	1.000
42	Salix caprea	Pussywillow	0/1	60-80cm				2	B		m2	1.00	1.000
42	Salix cinerea	Grey sallow	0/1	60-80cm				2	B		m2	1.00	1.000
42	Salix viminalis	Common osier	0/1	80-100cm	Cutting			2	B		m2	1.00	1.000
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Tree

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
3	Acer campestre	Field maple		550-600cm	Standard (extra-heavy)	14-16cm			RB		nr		
33	Acer campestre	Field maple	2x	300-350cm	Standard	10-12cm	175-200cm	4	RB		nr		
7	Acer platanoides	Norway maple	2x	300-350cm	Standard (Selected)	10-12cm	175-200cm	4	B		nr		
3	Alnus glutinosa	Common alder	2x	300-350cm	Standard	10-12cm	min 200cm	4	RB		nr		
6	Betula nigra (Multi-stem)	River birch		350-400cm	Multi-stem				C		nr		
29	Betula pendula	Silver birch	2x	300-350cm	Standard	10-12cm	175-200cm	4	RB		nr		
9	Betula pubescens	Dowy Birch, White Birch	2x	300-350cm	Standard (Selected)	10-12cm	175-200cm	4	RB		nr		
7	Betula utilis jacquemontii (Multi-stem)	West Himalayan birch	2x	300-350cm	Multi-stem	10-12cm	175-200cm	4	RB		nr		
13	Carpinus betulus	Hornbeam	2x	450-500cm	Standard (extra-heavy)	14-16cm	min 200cm	5	RB		nr		
3	Carpinus betulus 'Frans Fontaine'	Hornbeam	3x	500-550cm	Semi-Mature	20-25cm	min 200cm		RB		nr		
4	Fagus sylvatica	Common beech	3x	550-600cm	Standard (extra-heavy)	14-16cm	175-200cm	5	RB		nr		
3	Fagus sylvatica	Common beech	4x	450-500cm	Standard (Semi-mature)	20-25cm	min 200cm		RB		nr		
1	Fagus sylvatica 'Purpurea'	Purple or Copper beech	4x	450-500cm	Semi-mature	20-25cm	min 200cm		RB		nr		
8	Malus 'Annie Elizabeth'	Apple		175-200cm					B		nr		
9	Malus 'Blanc Sur'	Apple		175-200cm					B		nr		
8	Malus 'Braeburn'	Apple		175-200cm					B		nr		
7	Malus 'Coronation'	Apple		175-200cm					B		nr		
7	Malus 'Crawley Beauty'	Apple		175-200cm					B		nr		
5	Malus hupehensis	Hupeh crab	2x	300-350cm	Standard (Selected)	10-12cm	175-200cm	4	B		nr		
16	Malus sylvestris	Crab apple	2x	300-350cm	Standard	10-12cm	175-200cm	3	RB		nr		
14	Prunus avium	Gean, Wild cherry	2x	300-350cm	Standard	10-12cm	175-200cm	5	RB		nr		
2	Prunus serrula (multi-stem)	Tibetan cherry	3x	250-300cm	Multi-stem	14-16cm		2	RB		nr		
5	Pyrus 'Beth'	Pear 'Beth'		175-200cm					B		nr		
5	Pyrus 'Beurre Hardy'	Pear 'Beurre Hardy'		175-200cm					B		nr		
5	Pyrus 'Conference'			175-200cm					B		nr		
5	Pyrus 'Doyenne du Comice'			175-200cm					B		nr		
5	Pyrus 'Sensation'	Pear 'Sensation'		175-200cm					B		nr		
4	Quercus robur	Common, English oak	2x	300-350cm	Standard	10-12cm	175-200cm	4	RB		nr		
6	Quercus robur	Common, English oak	3x	550-600cm	Standard (extra-heavy)	14-16cm	min 200cm		RB		nr		
2	Quercus robur	Common, English oak	4x	450-500cm	Standard (Semi-mature)	20-25cm	min 200cm		RB		nr		
3	Quercus rubra	Red oak	3x	550-600cm	Standard (extra-heavy)	14-16cm	175-200cm	5	RB		nr		
1	Quercus rubra	Red oak	4x	450-500cm	Semi-mature	30-35cm	min 200cm		RB		nr		
17	Sorbus aucuparia 'Sheerwater Seedling'	European mountain ash	2x	300-350cm	Standard	10-12cm	175-200cm	5	B		nr		
3	Tilia cordata	Small-leaved lime	3x	550-600cm	Standard (extra-heavy)	14-16cm	175-200cm	4	RB		nr		
3	Tilia cordata	Small-leaved lime	4x	450-500cm	Semi-mature	20-25cm	min 200cm	4	RB		nr		
17	Tilia cordata 'Green Spire'	Greenspire linden	4x	min 600cm	Standard (Semi-mature)	30-35cm	min 200cm		RB		nr		
3	Tilia euchlora	Caucasian lime, Crimean lime	5x		Semi-mature	20-25cm	min 200cm		RB		nr		
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Tree - Conifer (Tree)

Qty	Name	Common Name	Age	Height	Form	Girth	ClrStm	Brks	Root	Cntr	Measure Unit	Density (m2/lin m)	Centres
6	Pinus sylvestris	Scots pine	3x	150-175cm					RB		nr		
6													
13941													

LEGEND

APPLICATION BOUNDARY

EXISTING TREES / VEGETATION

Softworks

THICKET MIX

SEMI-MATURE TREE

EXTRA HEAVY STANDARD TREE

STANDARD TREE

FRUIT TREE

ORNAMENTAL HEDGE PLANTING

NATIVE HEDGE PLANTING

ORNAMENTAL SHRUB / HERBACEOUS / GRASS PLANTING

CLIMBING SHRUB PLANTING

AQUATIC PLANTING

BULB PLANTING

AG-s **AMENITY GRASS SEEDING -** 'A22 (Low Maintenance) seed mix by Germinal Seeds Ltd or equal and approved. 50g / m2, overseed rate; 20gm².

WF1 **WILDFLOWER MEADOW MIX -** 'EM2 Standard General Purpose Meadow Mixture' by Emorsgate Seeds Ltd or equal and approved. 4-5gm²

WF2 **WILDFLOWER MEADOW MIX -** 'EM8 - Meadow Mixture for Wetlands' by Emorsgate Seeds Ltd or equal and approved. 4-5gm²

MG1 **MEADOW MIX -** 'EG1 General Purpose Meadow Grass Mixture' by Emorsgate Seeds Ltd or equal and approved. 5gm²

Street Furniture

TIMBER SEAT - 'Hawthorn' rustic 4 slat timber bench by Streetmaster Ltd; 2000mm long, treated softwood; root fixed into concrete footing; or equal and approved.

TIMBER PICNIC BENCH - 'Woodland' treated softwood timber picnic table by Streetmaster Ltd. 800 x 1650mm table, 350mm wide integral bench.

LITTER BIN - 'Woodland' timber bin with lid by Streetmaster Ltd, 110L capacity, 25 x 90mm slats, treated softwood construction, galvanised liner, root fixed into concrete footing; or equal and approved.

SQUARE TIMBER BOLLARD - 175 x 175 x 900mm long square timber bollard by Jacksons Fencing Ltd; installed 450mm above ground or equal and approved.

BOLLARDS - 'Swansea' steel bollard by Broxap Ltd, ref: BX146531-RM, 1000mm high, 114mm diam, root fixed, painted black RAL 9005, or equal and approved.

CYCLE STAND - type Sheffield available from Broxap or equal and approved.

Hardworks

BITUMINOUS MACADAM SURFACE - to Engineers specification.

INFORMAL WOODCHIP PATH - to follow 1m clearance strip and foul drainage run, .

GRASS REINFORCEMENT - Grass surface with ground reinforced using proprietary cellular recycled plastic cells to engineers details e.g '*Bodpave 85*' by Terram Ltd (01621 874200) or equal and approved.

Boundary Treatment

FEATURE KNEERAIL FENCING - 400mm high timber feature kneerail, cleft chestnut beams, tongue and groove construction

RUSTIC POST & RAIL FENCING - 1000mm rustic post and rail timber fence, cleft chestnut beams, tongue and groove

POST AND 3 RAIL FENCING - 1100mm high timber post and 3 rail fence

POST AND WIRE FENCING - 900m high strained wire and timber post fence.

ESTATE RAILING - 1200m high steel estate railing in black.

GOLF NET FENCING - Golf net fencing secured on 10m high galvanised metal towers, supplied by AJW Construction/Hi-Nets or equal and approved.
Refer to dwg. CSA/3823/119 for indicative detail.

Notes

- The full extent and heights of golf net fencing as shown on the plans has been determined by others and shall be confirmed by a specialist contractor. CSA take no responsibility for the effectiveness of this proposal.

Notes

- Refer to CSA/3823/108 for Location Plan;
- Refer to CSA/3823/101-106 for Plot Landscape Proposals;
- Refer to CSA/3823/112 & 113 for Play Area Proposals.

Rev	Date	By	Description
O	08/06/21	AM	Planting schedule updated
N	05/02/21	GC	Planting schedule updated
M	07/01/21	GC	Planting schedule updated
L	09/01/20	AL	Planting added for additional screening along northern boundary as per planning officers comments
K	16/12/19	AL	Thicket planting specification added to drawing
J	10/12/19	AL	Swales and golf net fencing revised
I	14/11/19	AL	Golf course fencing amended adjacent to tee box 1
H	25/09/19	AL	Golf course fencing annotation amended
G	24/09/19	AL	Golf course fencing amended to show indicative heights
F	22/10/19	AM	Golf course fencing amended
E	13/09/19	AL	Golf course fencing amended to clients comments
D	13/09/19	AL	Golf course fencing added to drawings
C	12/07/19	GC	Updates to layout for BCP's
B	11/02/19	AM	Updated to latest Site & Drainage Layouts
A	18/01/19	AM	Updated to latest architectural layout

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Project Land East of Tye Lane, Walberton

Title Public Open Space Landscape Proposals
Sheet 4 of 4

Client Linden Homes

Scale	1:250 @ A0	Drawn	SW
Date	October 2018	Checked	GC
Drawing No.	CSA/3823/110	Rev	O

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ARUN DISTRICT COUNCIL WA/63/21/PL