A1 File Reference D2831 Working Sheets - 300 Series.dwg Plot Date 14-Jun-21

Detailed Planting Schedule

TREES

Number	Species	Abbreviation	Girth	Height	Specification	Density
3	Acer campestre 'Streetwise'	AcS	16-18cmg	4.0-4.5m	RB: Extra Heavy Standard: Clear Stem 150-175	Counted
4	Betula pubescens	Bpb		2.5-3.0m	RB :Multi-Stemmed	Counted
3	Carpinus betulus 'Fastigiata'	CbF	14-16cmg	3.0-4.0m	RB: Extra Heavy Standard: Clear Stem 150-175	Counted
6	Liquidambar styraciflua	LIQST	16-18cmg	3.0-4.0m	RB: Extra Heavy Standard: Clear Stem 150-175	Counted
8	Quercus robur	Qr	18-20cmg	4.0-4.5m	RB: Extra Heavy Standard: Clear Stem 150-175	Counted
1	Quercus robur	Qr	14-16cm		RB :Extra Heavy Standard	Counted
1	Tilia cordata 'Streetwise'	TcS	16-18cmg	4.0-4.5m	RB: Extra Heavy Standard: Clear Stem 150-175	Counted
Total :26						

NATIVE UNDERSTOREY PLANTING MIX

Number	Species	Specification	Density	Mix Species Contribution
275	Acer campestre	1+1 :Transplant	2/m²	15%
183	Betula pendula	1+1 :Transplant	2/m²	10%
275	Cornus sanguinea	1+1 :Transplant	2/m²	15%
183	Corylus avellana	1+1 :Transplant	2/m²	10%
275	Crataegus monogyna	1+1 :Transplant	2/m²	15%
183	Ilex aquifolium	1+1 :Transplant	2/m²	10%
275	Prunus spinosa	1+1 :Transplant	2/m²	15%
183	Viburnum opulus	1+1 :Transplant	2/m²	10%
Total :1832				Total :100%

BULBS

Number	Species	Specification	Density
1053	Crocus mix	Grade 6/7	30/m²
Total :1053			

NOTES

This drawing is showing planting information completed by Fabrik only and in line with original instruction by Redrow. Any further detailed planting or updated planting to the frontage and rear gardens completed by Wroxton's / another landscape architect is not shown on these plans.

Rear garden layout has been completed using Wroxton's information 3D visuals received to date. This is therefore may not accurate.

SOFT SPECIFICATION NOTES

Proposed Tree Planting

Nursery Stock and Selection

All trees and planting are to be selected and tagged by the landscape architect prior to any stock being delivered to site. All planting should comply with the requirements specified in BS 3936:1992 'Nursery Stock' (Part One). All nursery stock and trees are to be free of pest and diseases prior to being delivered to site. All delivered stock is to be inspected by the landscape architect prior to any planting being carried out.

The Landscape architect reserves the right to reject trees and nursery stock that do not meet specifications as set out in the requirements and guidelines in BS 3936:1992 or in accordance with the landscape architects drawings. If a particular defect or substandard element can be corrected easily, appropriate remedies shall be applied and agreed with the landscape architect. If destructive inspection of a root ball is to be carried out, agreement should be in place prior as to the time and place of inspection. Inspection of shrub roots in containers or rootball can be carried out on site if required.

Tree Handling

It is recommended that companies that do not have experience with handling large trees or the required equipment to do so seek advice from the landscape architect or tree supplier. Furthermore, specialist hauliers are to be used who will have the correct lifting equipment to deal with unloading large trees.

The landscape contractor is to follow standards set out in BS 8545:2014 'Trees: from nursery to independence in the landscape – Recommendations'

The landscape contractor must follow the industry guidance method for handling trees. Below are recommended industry standards.

Dormant trees sizes of 12-16cmg

These can be lifted and unloaded using a root hook and hoist. Even when the tree is dormant it is recommended to wrap the stem in hessian for additional protection when unloading maintaining the lifting weight on the root hooks.

Dormant trees sizes of 18-20cmg - 25-30cmg

These can be lifted and unloaded using a 3 tonne sling in combination with a chain and root hooks. Even when the tree is dormant it is recommended to wrap the stem in hessian for additional protection when unloading.

Tree Planting

The tree supplier is to be approved by landscape architect prior to any ordering of stock. All trees are to be planted in the first available planting season after construction as root balled stock unless otherwise specified and agreed with the client. All tree pits are to be excavated 24 hours prior to delivery to reduce the time the rootball is out of the ground. All tree pits are to be excavated under favourable weather conditions to avoid deterioration of the soil structure and glazing. All excavations are to be carried out using a toothed bucket ensuring tree pit walls are not glazed, the walls of the tree pit can also be loosened with hand held tools.

Tree pit dimensions are subject to soil conditions, soil report provided by agronomist and rootball size. Tree pits can never be excavated too wide in an unrestricted space (open ground), however they can be too deep.

All trees are to be planted at the correct height which is the same depth as the tree was growing on the nursery. The root collar must remain visible. Tree pit sizes are to be agreed with landscape architect prior to excavations. All tree pits are to be inspected by the landscape architect prior to planting. All tree pits are to have suitable irrigation pipe and end cap and aeration tubes if required (aeration tubes tend to be required for trees planted in a hard landscape environment). They are only required for the first two years after which they are superfluous. All irrigation pipes are to be placed as high as possible not at the base of the rootball. The tree would also benefit from an earth reservoir around the rootball on the surface to aid watering. The reservoir is best backfilled with bark mulch to avoid soil glazing on the surface.

All trees and planting are to be selected and tagged by the landscape architect prior to any stock being delivered to site. All planting should comply with the requirements specified in BS 3936:1992 'Nursery Stock' (Part One). All nursery stock and trees are to be free of pest and diseases prior to being delivered to site. All delivered stock is to be inspected by the landscape architect prior to any planting being carried out.

- The Landscape architect reserves the right to reject trees and nursery stock that do not meet specifications as set out in the requirements and guidelines in BS 3936:1992 or in accordance with the landscape architects drawings. If a particular defect or substandard element can be corrected easily, appropriate remedies shall be applied and agreed with the landscape architect. If destructive inspection of a root ball is to be carried out, agreement should be in place prior as to the time and place of inspection. Inspection of shrub roots in containers or rootball can be carried out on site if required.

Note: Trees may sink after planting due to soil settlement. With sandy soils generally there will be a settlement of 10% and clay soils 20%, this will need to be considered by the landscape contractor when planting and therefore the tree may need to be planted slightly higher to accommodate soil settlement.

Note: Never excavate deeper than the highest water table to ensure organic matter does not come in contact with groundwater resulting in anaerobic digestion within the soil.

All hessian and wire supports around the rootball are to remain in place when planting (in some case it may be required to loosen the hessian and wire). The hessian will quickly decompose. The wire will oxidize and also disappear in the soil eventually.

Trees planted within hard landscape areas are to have tree grilles and guards where specified. Subterraneal cellular product is to be used to ensure the tree has a minimum of 9m3 growing area. Type and manufacture is to be agreed with the client and landscape architect prior to installation. The landscape architect is to inspect all tree pits prior to planting.

Trees are to be supported either by high anchoring, low anchoring or underground anchoring systems. The type of anchoring system is to be agreed with the landscape architect and detailed within the specification of works. For trees that are <10-12cmg use 1no untreated softwood stake at min 10cm diameter driven into the ground at least 1m depth (30cm of which must be in undisturbed ground), the stake is to be placed on the side of the prevailing wind. Trees >10-12cmg use 2no untreated softwood stakes at min 10cm diameter driven into the ground at least 1m depth with horizontal bracing bar. Trees >25-30cmg use 3no stakes in a triangle around the tree (1.4m above ground level) with horizontal bracing bars, tree bands are to be secured to the posts with galvanised nails.

Underground anchoring systems are to be used for large compact rootballs or trees within hard landscape with tree grilles to BS 4043: 1989' Recommendations for Transplanting Root-Balled Trees'. The type of anchoring system is to be agreed with the landscape architect. Biodegradable anchoring straps are to be used to ensure the straps do not grow into the trunk.

Note: There are benefits to using low level anchoring as field trials have demonstrated that the tree becomes independent in the ground quicker as a result of the wind rocking the tree that encourages root ground. However, this method is not recommended in exposed conditions or coastal locations due to a greater risk of the trunk breaking.

Ties and stakes are to be checked and adjusted every six months or after periods of strong wind and rain.

All topsoil is to conform to BS 3882:2007 'Multipurpose' or similar approved by an agronomist. The tree pit shall be backfilled with previously prepared topsoil excavated from the pit and additional topsoil as required. All backfilled material is to include an organic slow release fertilizer to ensure there is no adverse affect on soil organisms (Vitax Q4HN) or similar approved at a ratio of 10 -7.5 -10.2 + TE. The second application to be made 10-16 weeks after planting depending on soil type and weather conditions.

Tree pit root barrier are to be installed to all trees within 3m of any underground service routes or within 2.0m of kerb lines & hard surfaces & building foundations. Type of root barrier material is to be agreed with the landscape architect. The landscape contractor is to confirm locations of all services prior to implementation of trees. Prior to installation NJUG specification and requirements are to be referred too.

Guidance for Tree Pit Sizes within Soft Landscape Areas

Final tree pit size will vary dependent on size of rootball, tree stock and soil type.

Below are general guidance sizes only. The landscape contractor is to speak to the grower to obtain exact sizes prior to delivery. Landscape Architect to inspect tree pits prior to planting.

Tree pit size guidelines:

Tree size	Rootball Size	Tree pit size (length, width, depth)
14-16 cmg	50x50cm	80x80x65cm
18-20 cmg	60x60cm	80x80x75cm
20-25 cmg	70x60cm	90x90x75cm

Tree aftercare and pruning

When a tree is lifted/harvested it will lose a percentage of it's root system. As a result the roots are unable to supply the crown with the water demand being placed on the root system which can cause stress to the tree. As a result the tree will respond by reducing the amount of foliage, in some cases when the water storage is great the tree will shed wood from the crown. Watering the tree is important in the first two years after transplanting. In very hot conditions the canopy can dry out even when the rootball is moist simply because there is not enough root development yet. Therefore, the only solution is to reduce the canopy volume to reduce the stress.

All pruning is to be done by removing first and second wood only, all pruning works are to be carried out by appropriately trained landscape contractors.

It is recommended that hessian is placed around the tree stems after planting to prevent the overheating of the trunks.

The flow of water within the bark will normally prevent this, however, after planting less water is transplanted and as a result the trunk is at risk of sunburn. The setting sun will cause the most potential damage. Most of the damage will be visible on the western side of the tree. Trees with smooth bark are more vulnerable to sunburn than trees with rough bark.

Note: This is to only be done as a temporary measure as the tree is establishing, after which the hessian is to be removed.

Monitoring of the trees is to be carried out during the rectification period and as part of the long term management. The following points are to be considered and monitored;

- Watering, trees will require watering for the first two years after planting, after which they will generally look after themselves. The number of times will depend on location, weather conditions and growing season. Therefore, as the tree is a growing organisum the required experience and knowledge will determine the number of times the tree is watered to ensure establishment. It is better to give the tree a lot of water once a week rather than water every day as this will encourage root development and prevent the tree becoming “lazy”. Over watering will push oxygen away from the root system preventing root development.
- Soil condition, these can be carried out by a specialist to monitor the oxygen levels (that should ideally be 18-21%, 16-18% will be sufficient levels, 12-16% will be poor levels <5% shows acute root mortality). Soil moisture levels both within the rootball and surrounding ground to also be monitored.
- Soil compaction, traffic over planted areas or areas to be planted are to be limited or ideally avoided completely. When soil compaction is higher than 2.5MPa root development will not be possible.
- Canopy, monitor leaf development, size, colour and the amount of foliage that is within the crown. Length of new growth and bud development and size of buds.

Proposed Ornamental Shrub / Perennial Planting

- To be planted in a minimum of 300mm depth approved topsoil to BS 3882: 2015 'Multipurpose' in the first available planting season after construction.
- All shrubs are to be planted as container stock unless otherwise specified (5 or 10 litre), all stock is to be well rooted into the container but not pot bound.
- All shrubs are to be planted with a slow release organic fertilizer (vitax or similar approved) and backfilled with a mixture of excavated top soil and compost (not peat based). A minimum of 50 mm approved ornamental grade bark mulch is to be applied to planting areas unless stated otherwise.

Proposed Hedge Planting

- To be planted in a minimum of 300mm depth approved topsoil to BS 3882: 2015 'Multipurpose' in the first available planting season after construction.
- All shrubs are to be planted as container stock unless otherwise specified (5litre), all stock is to be well rooted into the container. All hedge are to be planted in double staggered rows.
- All shrubs are to be planted with a slow release organic fertilizer (vitax or similar approved) and backfilled with a mixture of excavated top soil and compost (not peat based). A minimum of 50 mm approved ornamental grade bark mulch is to be applied to planting areas unless stated otherwise.

Planting Guidelines

- All planting and landscape operations should comply with the requirements specified in BS 3936-4:2007 'Nursery Stock' (Part One) and BS4428:1989 'Code of Practice for General Landscape Operations' (excluding hard surfaces).
- All topsoil and testing to conform to BS 3882: 2015 'Specification for Topsoil and Requirements for Use'.
- All topsoil used for planting to be tested by an approved Topsoil Analyst and any required amelioration or soil improvements to be carried out in line with Analyst's report.
- All fertilizers are to be applied or supervised by qualified staff to avoid the action of plasmolysis.
- Nurseries to provide protocols for ensuring that plant stock is free of invasive species.
- No planting is to be carried out when the site is covered by frost.
- Irrigation of plant material to be carried out during periods of drought will be required to ensure successful establishment of all plant stock.
- All new planting to be protected from mammal grazing by individual guards or stock proof fencing.
- If planting is to be carried out outside the growing season, all bareroot / rootballed plant stock is to be substituted with containerised stock. Specification to be agreed with Landscape Architect prior to ordering and implementation.

Proposed amenity grass (GT1) All amenity grass areas to be Medallion turf as supplied by 'Rolawn' or similar and approved.

All turf to be laid on 150mm depth approved topsoil to BS 3882:2007 'Multipurpose'.

Nursery Stock and Selection

General Purpose Meadow Mixture (GT3)

EM1 is a simple meadow mixture suitable for a wide range of soil types. The wild flowers are robust and showy, and the grasses are fine and slow growing.

Maintenance Notes - Overview

- Detailed landscape maintenance and management plans for each development phase to be submitted to the LA for approval.
- Planting to be protected from mammal and human damage by stock proof fencing.
- All planted areas to be kept clear of weeds at all times throughout maintenance period.
- Planted areas to be forked through regularly to keep soil loose and aerated.
- All litter and debris to be removed from landscaped areas and carted off site.
- Plants pruned as instructed by the Landscape Architect to promote healthy growth and to remove dead and diseased wood.
- Watering as required to maintain healthy growth. Allow for 24 visits a year during defects period.

Additional Notes

- Final location and tree species selection will be subject to service report and foundation depths to be provided by engineers.
- Levels information for the areas of open space in relation to the built form FFL's and retaining walls is to Architects drawings and details and co-ordinated with the team.
- Slope profiles to the open space areas are to be no steeper that 1:3 and to considering access for all.
- Locations of lighting columns to be confirmed by others.
- Demarcation of traffic routes to be determined following detail and technical design.
- Contractors to ensure they are working to the latest British Standards as required.

TURF

All amenity grass areas to be Medallion turf as supplied by 'Rolawn' or similar and approved.

All turf to be laid on 150mm depth approved topsoil to BS 3882:2007 'Multipurpose'.

SEED MIX

EM1 Basic General Purpose Meadow Mixture (GT3)

Emorsgate Seeds of similar and appoved

Wild Flowers (20%)

Species	Common Name	%
Achillea millefolium	Yarrow	0.5
Centaurea nigra	Common Knapweed	2.5
Daucus carota	Wild Carrot	1.5
Knautia arvensis	Field Scabious	0.5
Leucanthemum vulgare	Oxeye Daisy	2.5
Medicago lupulina	Black Medick	3
Pastinaca sativa	Wild Parsnip	1
Poterium sanguisorba	Salad Burnet	3
Prunella vulgaris	Selfheal	2.5
Silene dioica	Red Campion	2
Silene vulgaris	Bladder Campion	1

Grasses (80%)

Species	Common Name	%
Agrostis capillaris	Common Bent	8
Cynosurus cristatus	Crested Dogstail	28
Festuca rubra	Red Fescue	24
Phleum bertolonii	Smaller Cat's-tail	4
Poa pratensis	Smooth-stalked Meadow-grass	16

WFG20 Eco Species Rich Lawn (GT4)

Germinal amenity or similar and approved

Species	Common Name	%
Daucus carota	Wild Carrot	2.0
Succisa pratensis	Devilsbit Scabious	1.0
Trifolium fragiferum	Strawberry Clover	2.0
Trifolium pratense	Red Clover	2.0
Trifolium repens	White Clover	2.0
Plantago lanceolata	Ribwort Plantain	1.0
Lotus uliginosus	Greater Birdsfoot	0.5
Scabiosa columbaria	Small Scabious	0.1
Taraxacum officinale	Dandelion	0.5
Lotus cornuiculatus	Birdsfoot Trefoil	1.0
Medicago lupulina	Black Medick	1.0
Linum usitatissimum	Flax	1.8
Cerastium fontanum	Common Mouse-Ear	0.3
Primula veris	Cowslip	0.1
Hypochaeris radicata	Cats-Ear	0.5
Pimpinella saxifrage	Burnett Saxifrage	0.2
Leontodon autumnalis	Autumn Hawkbit	1.0
Rhinanthus minor	Yellow Rattle	1.0
Achillea millefolium	Yarrow	1.8
Viola tricolor	Wild Pansy	0.2
Festuca Ovina	Sheeps Fescue	20.0
Festuca rubra rubra	Strong Creeping Red Fescue	15.0
Festuca rubra litoralis	Slender Creeping Red Fescue	12.5
Festuca rubra commutata	Chewings Fescue	12.5
Poa pratensis	Smooth-stalked Meadow-grass	10.0
Agrostis capillaris	Brown Bent	5.0
Agrostis stolonifera	Creeping Bent	2.5
Lolium perenne)	Lolium perenne	2.5

EH1F Wild Flowers for Hedgerows (GT5)

Emorsgate Seeds of similar and appoved

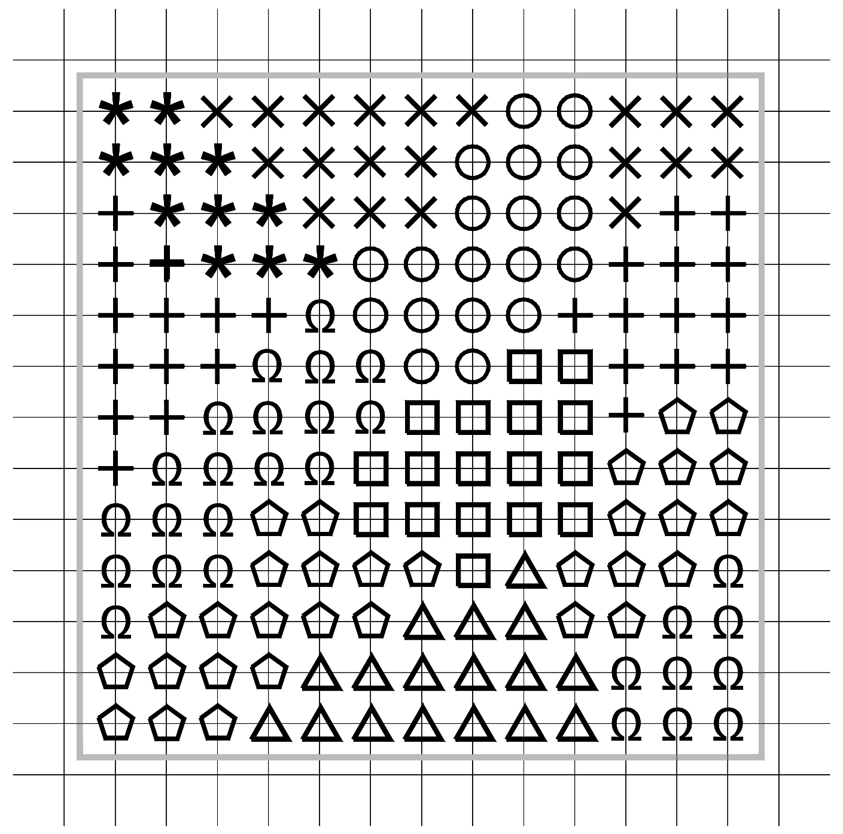
Wild Flowers (20%)

Species	Common Name	%
Agrimonia eupatoria	Agrimony	2.5
Alliaria petiolata	Garlic Mustard	2.5
Anthriscus sylvestris	Cow Parsley	5
Arctium minus	Lesser Burdock	2.5
Centaurea nigra	Common Knapweed	10
Chaerophyllum temulum	Rough Chervil	10
Daucus carota	Wild Carrot	7.5
Dipsacus fullonum	Wild Teasel	2.5
Galium album	Hedge Bedstraw	7.5
Leucanthemum vulgare	Oxeye Daisy	7.5
Medicago lupulina	Black Medick	2.5
Pastinaca sativa	Wild Parsnip	2.5
Prunella vulgaris	Selfheal	7
Knautia arvensis	Field Scabious	0.5
Rumex acetosa	Common Sorrel	1
Saponaria officinalis	Soapwort	1
Silene dioica	Red Campion	12.5
Silene vulgaris	Bladder Campion	5
Torilis japonica	Upright Hedge-parsley	6
Vicia cracca	Tufted Vetch	5

Additional plug planting Mix of 5 per m2 to GT5:

Cirsium vulgare	Spear Thistle	20
Digitalis purpurea	Foxglove	20
Urtica urens	Annual nettle	20
Lamium album	White Nettle	20
Filipendula ulmaria	Meadowsweet	20

Matrix 001 - Example layout of Native Understorey Shrub Mixture



**Indicative matrix not to scale*

Illustration showing typical Native Understorey Shrub Mixture

Planted to provide a naturalistic appearance rather than a regimented form

Species	Symbol	Size/Spec	Condition	%mix	Density
Acer campestre	□	1+1 :Transplant	BR	15	2 per m²
Betula pendula	△	1+1 :Transplant	BR	10	2 per m²
Cornus sanguinea	○	1+1 :Transplant	BR	15	2 per m²
Corylus avellana	✱	1+1 :Transplant	BR	10	2 per m²
Crataegus monogyna	+	1+1 :Transplant	BR	15	2 per m²
Ilex aquifolium	×	1+1 :Transplant	BR	10	2 per m²
Prunus spinosa	⬠	1+1 :Transplant	BR	15	2 per m²
Viburnum opulus	Ω	1+1 :Transplant	BR	10	2 per m²

Notes:
Proposed species to be planted with 1m spacing.
All proposed trees & shrubs to be protected with tree shelters.

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Revision	Date	Reason	Drawn	Checked
PL02	15.06.2021	Planting removed following client instruction. Schedule updated.	mf	sg
PL01	27.05.2021	Updated to show Wroxton's rear garden layouts and wild London recommendations to boundary landscape following client instruction	af	sg
PL00	28.08.2020	Issued for Planning	pl	sg

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3. All contractors must visit site and be responsible for taking and checking all dimensions related to the works shown on the drawing prior to fabrication or setting out.
4. This drawing uses coloured lines. Please do not rely on a monochrome copy.

External References:
- D2831 Ford Lane, Yapton, West Sussex\Drawings\02 Architect\200727_Site Layout - RevL\A855_42L_PLANNING LAYOUT - Standard\A855_42L_PLANNING LAYOUT - Copy
- D2831 Ford Lane, Yapton, West Sussex\Drawings\07 fabrik\Working\AutoCAD\Design\D2591_xref legend
- D2831 Ford Lane, Yapton, West Sussex\Drawings\07 fabrik\Working\AutoCAD\Design\D2591_xref soft
- D2831 Ford Lane, Yapton, West Sussex\Drawings\07 fabrik\Working\AutoCAD\Design\D2591_xref boundary treatment
- D2831 Ford Lane, Yapton, West Sussex\Drawings\01 Client\20-08-10 Revised Layout\Ford Lane Layout18-344 Cellular Tanks

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Project	Client
Sales Arena, Ford Lane, Yapton, West Sussex	Redrow Homes Limited

Drawing Title
Plant Schedule and Maintenance Specification

Purpose of Issue	Drawn By	Checked By	Drawn Scale	Date of First Issue
ISSUED FOR PLANNING APPROVAL	pl	sg	N/A @ A1	Aug | 2020

Project Number	Origin	Zone	Level	File Type	Role	Number	Revision
D2831	FAB	00	GL	DR	L	0302	PL02

ARUN DISTRICT COUNCIL Y/89/21/NMA