APPENDIX

LANDSCAPE ASSESSMENT 80% SHOWING TREES TO BE REMOVED



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Wollongong NSW 2500
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PENRITH CITY COUNCIL

DUNHEVED ROAD UPGRADE 80% DETAILED DESIGN

LANDSCAPE COVER SHEET

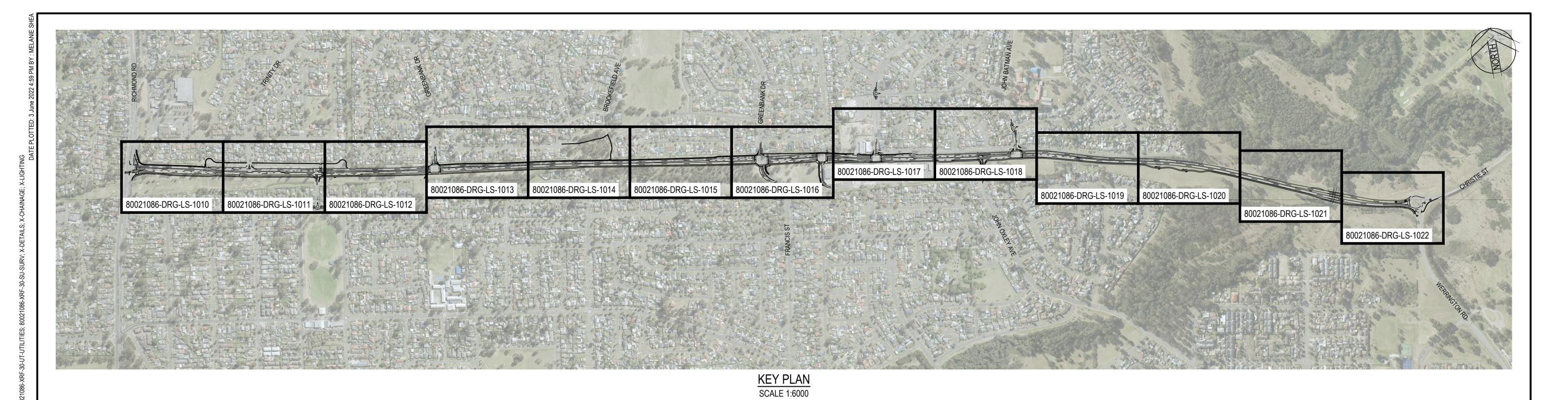
SCHEDULE OF DRAWINGS							
DRAWING No.	DESCRIPTION	REVISION					
80021086-DRG-LS-100	LANDSCAPE COVER SHEET	2					
80021086-DRG-LS-1001	LANDSCAPE KEY PLAN	2					
80021086-DRG-LS-1010	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 1 OF 13	2					
80021086-DRG-LS-1011	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 2 OF 13	2					
80021086-DRG-LS-1012	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 3 OF 13	2					
80021086-DRG-LS-1013	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 4 OF 13	2					
80021086-DRG-LS-1014	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 5 OF 13	2					
80021086-DRG-LS-1015	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 6 OF 13	2					
80021086-DRG-LS-1016	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 7 OF 13	2					
80021086-DRG-LS-1017	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 8 OF 13	2					
80021086-DRG-LS-1018	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 9 OF 13	2					
80021086-DRG-LS-1019	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 10 OF 13	2					
80021086-DRG-LS-1020	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 11 OF 13	2					
80021086-DRG-LS-1021	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 12 OF 13	2					
80021086-DRG-LS-1022	LANDSCAPE FINISHES AND PLANTING PLAN SHEET 13 OF 13	2					
80021086-DRG-LS-1030	LANDSCAPE CROSS SECTIONS	2					
80021086-DRG-LS-1040	LANDSCAPE CONSTRUCTION AND PLANTING DETAILS	2					
80021086-DRG-LS-1050	LANDSCAPE SPECIFICATION NOTES AND MAINTENANCE PROGRAM	2					

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Designed M.SHEA	Date 07.04.2022					
Verified A.GRACE	Date 07.04.2022			Scale NTS	Size	A1
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D.ATKINSON	07.04.2022	80021	086-DRG	-LS-1000		2



OVERALL PLANTING SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT (m)	MATURE WIDTH (m)	SPACING (m)	SIZE	QTY		
TREES (ANI	TREES (AND LARGE SHRUBS)								
ADE	Acacia decurrens	Sydney Green Wattle	6	3	As shown	75L			
AFA	Acacia falcata *	Sickle Wattle	3	2	As shown	25L			
AIM	Acacia implexa	Hickory Wattle	8	6	As shown	75L			
ВМҮ	Backhousia myrtifolia *	Grey Myrtle	3	2	As shown	75L			
вов	Breynia oblongifolia *	Coffee Bush	3	1.5	As shown	25L			
CGL	Casuarina glauca	She-Oak	20	10	As shown	75L			
CEX	Corymbia eximia 'Nana'	Gum	10	7	As shown	75L			
СМА	Corymbia maculata	Spotted Gum	30	10	As shown	75L			
ЕМО	Eucalyptus moluccana	Grey Box	20	10	As shown	75L			
ETE	Eucalyptus tereticornis	Forest Red Gum	30	10	As shown	75L			
ECU	Exocarpus cupressiformis	Cherry Ballart	8	6	As shown	75L			
GMO	Grevillea Moonlight *	Grevillea	3	3	As shown	75L			
MST	Melaleuca styphelioides	Prickly Leaved Tea Tree	10	8	As shown	75L			
MDE	Melaleuca decora	White Feather Honeymyrtle	6	4	As shown	75L			
TLA	Tristaniopsis laurina	Kanooka Gum	12	6	As shown	75L			
				T	OTAL TREES		0		

CODE	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT (m)	MATURE WIDTH (m)	SPACING (m)	SIZE	QTY
PLANTING							
AVA	Aristida vagans	Threeawn Speargrass	0.7	0.3	6/m2	150mm	
BSP	Bursaria spinosa	Sweet Bursaria	2	3	1/2m2	150mm	
DVI	Dodonaea viscosa ssp. Cuneata	Wedge leaf hop bush	1	1.5	1/m2	150mm	
DLO	Dianella longifolia	Flax Lily	0.8	CITIES	4/m2	150mm	
DRE	Dichondra repens	Kidney Weed	MALIP	11CGION	1/m2	150mm	
DSI	Dillwynia sieberi	Prickly Parrot Pea	ND GELLB	WI20.8	2/m2	150mm	
EBR	Eragrostis brownii	Brown's Love Francisco	100° 8.3	0.6	4/m2	150mm	
IAU	Indigofera australis	Wedge leaf hop bush Flax Lily Kidney Weed Prickly Parrot Pea Brown's Love FS GN AN Wattle Matrush	1.5	1.5	1/m2	150mm	
LFI	Lomandra filiformis P	Wattle MauRush	0.2	0.2	6/m2	150mm	
LMU	Lomandra multiflora	Mat Rush	0.5	0.3	6/m2	150mm	
MST	Microlaena stipoides	Weeping Gress	0.5	0.5	4/m2	150mm	
PLA	Poa labillardieri	Common Tussock Grass	0.8	1	1/m2	150mm	
TAU	Themeda australis	Kangaroo Grass	1	0.5	4/m2	150mm	
MASS PLANTING					0		

CODE	BOTANICAL NAME	COMMON NAME	MATURE HEIGHT (m)	MATURE WIDTH (m)	SPACING (m)	SIZE	QTY
CREEK REH	IABILITATION			-0.70			
ACA	Acacia parramattensis	Sydney Green Wattle	1717PA	E2 31	1/2m2	75mm	
BUR	Bursaria spinosa	Sweet Bursaria	JUNIA	5510314	1/2m2	75mm	
сом	Commelina cyanea	Scurvy Weed GN AND	Panis	0.5	4/m2	75mm	
DIC	Dichondra repens	Sydney Green Wattle Sweet Bursaria Scurvy Weed Kidney Weed OR 1000	0.1	1	1/m2	75mm	
ECH	Echinopogon ovatus	ANTCommon Fusiock Grass	1	0.5	4/m2	75mm	
МІС	Microlaena stipoides	Nweeping Gress	0.5	0.5	4/m2	75mm	
PRA	Pratia purpurascens	Trailing Pratia	0.2	1	1/m2	75mm	
CREEK REHABILILATION PLANTS							0

1. TREE AND PLANTING SPECIES HAVE BEEN DERIVED FROM THE CUMBERLAND PLAIN WOODLAND SPECIES LIST PREPARED BY NSW GOVER 2. CREEK REHABILITATION SPECIES (AND CASUARINA TREE) HAVE BEEN SELECTED FROM RIVER FLAT EUCALYPT SPECIES LIST. 3. DETAILED DESIGN OF PROPOSED MASS PLANTING AREAS AND OVERALL PLANT NUMBERS WILL BE PROVIDED IN 100% DESIGN

* TREE AND SHRUB SPECIES ARE SUITABLE TO BE PLANTED WITHIN EASEMENT TO OVERHEAD POWER LINES

CANOPY COVER:

SUBMISSION

TBC EXISTING CANOPY RETAINED EXISTING CANOPY REREMOVED **TBC** PROPOSED CANOPY (AT MATURITY) **TBC**

PROPOSED CANOPY IS BASED ON THE LANDSCAPE DESIGN IN THIS PACKAGE OF WORKS AND IS CALCULATED BASED ON CANOPY SPREAD AT MATURITY ASSUMING 100% SURVIVAL RATE.

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Dianella longifolia	Flax Lily	0.8	MESIU	4/m2	150mm	
Dichondra repens	Kidney Weed	MALPO	CEION	1/m2	150mm	
Dillwynia sieberi	Prickly Parrot Pea	AND GUBM	0.8	2/m2	150mm	
Eragrostis brownii	Brown's Love Fr Sal City	1000 8.3	0.6	4/m2	150mm	
Indigofera australis	NATIVANIDO ED FOR	1.5	1.5	1/m2	150mm	
Lomandra filiformis	Flax Lily Kidney Weed Prickly Parrot Pea Brown's Love France FOF	0.2	0.2	6/m2	150mm	
Lomandra multiflora	B Mat Rush	0.5	0.3	6/m2	150mm	
Microlaena stipoides	Weeping Gress	0.5	0.5	4/m2	150mm	
Poa labillardieri	Common Tussock Grass	0.8	1	1/m2	150mm	
Themeda australis	Kangaroo Grass	1	0.5	4/m2	150mm	
			MASS P	LANTING		0

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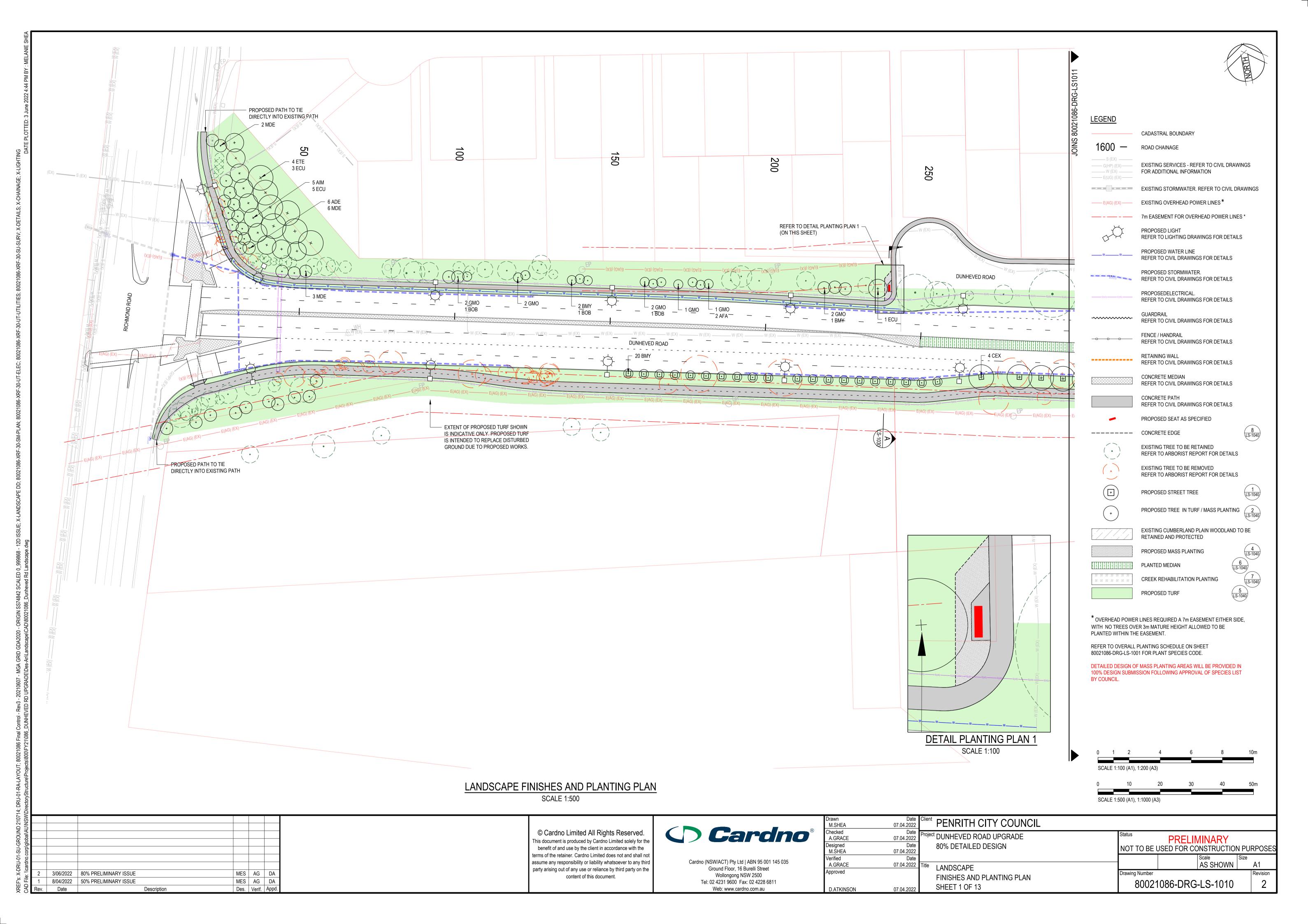


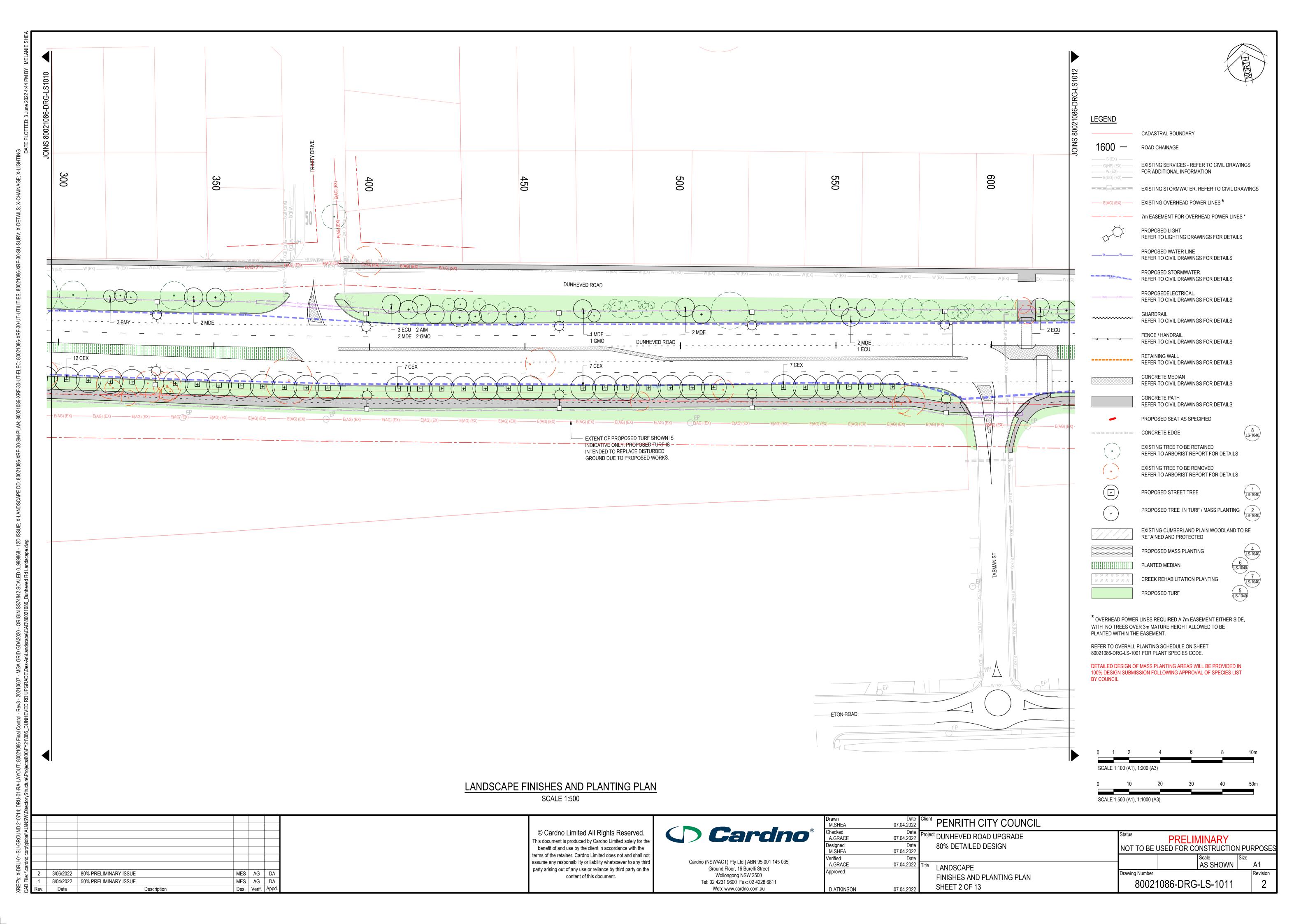
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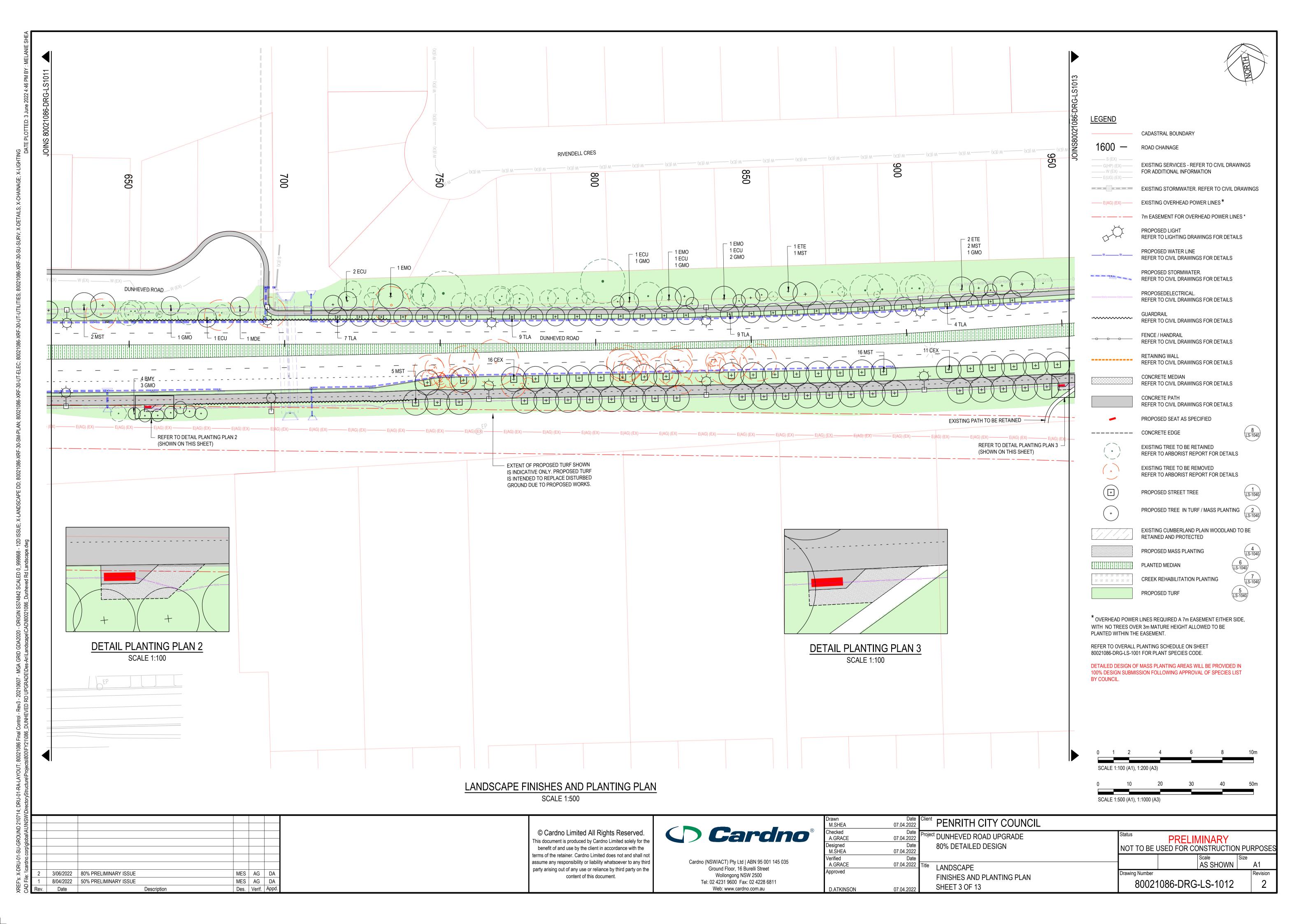
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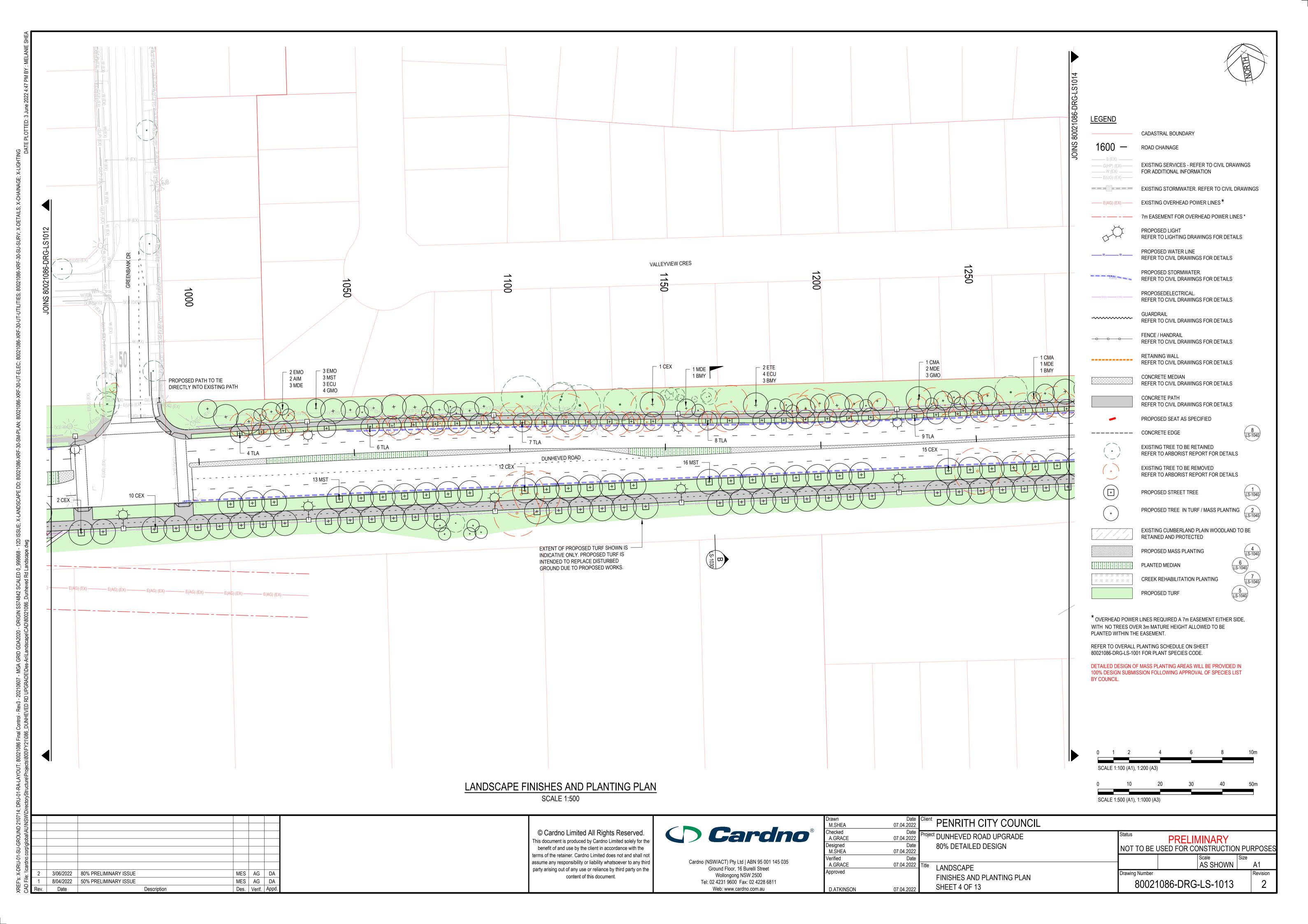
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proved	3110 112022	KEY PLAN AND OVERALL PLANTING SCHEDULE

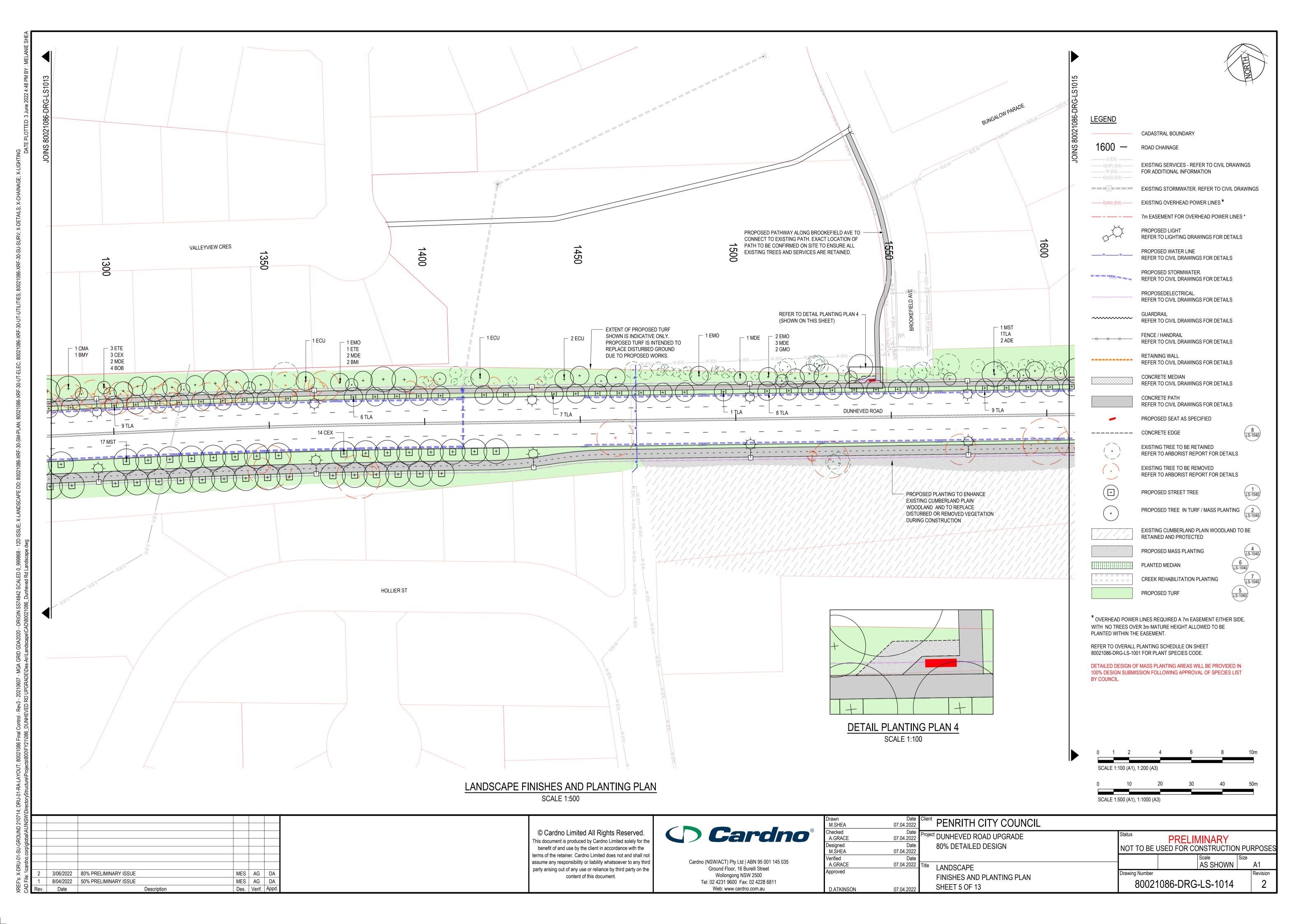
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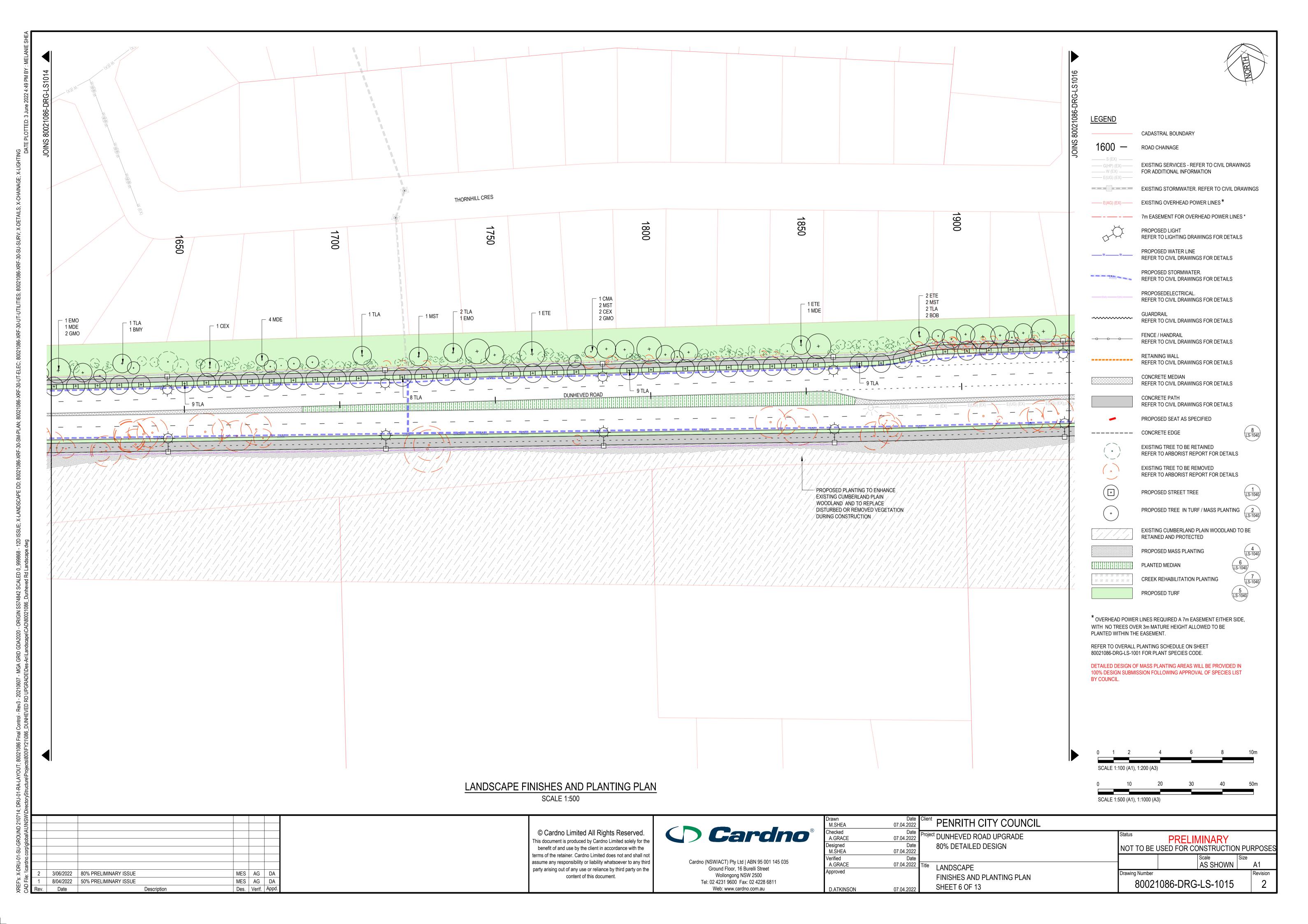


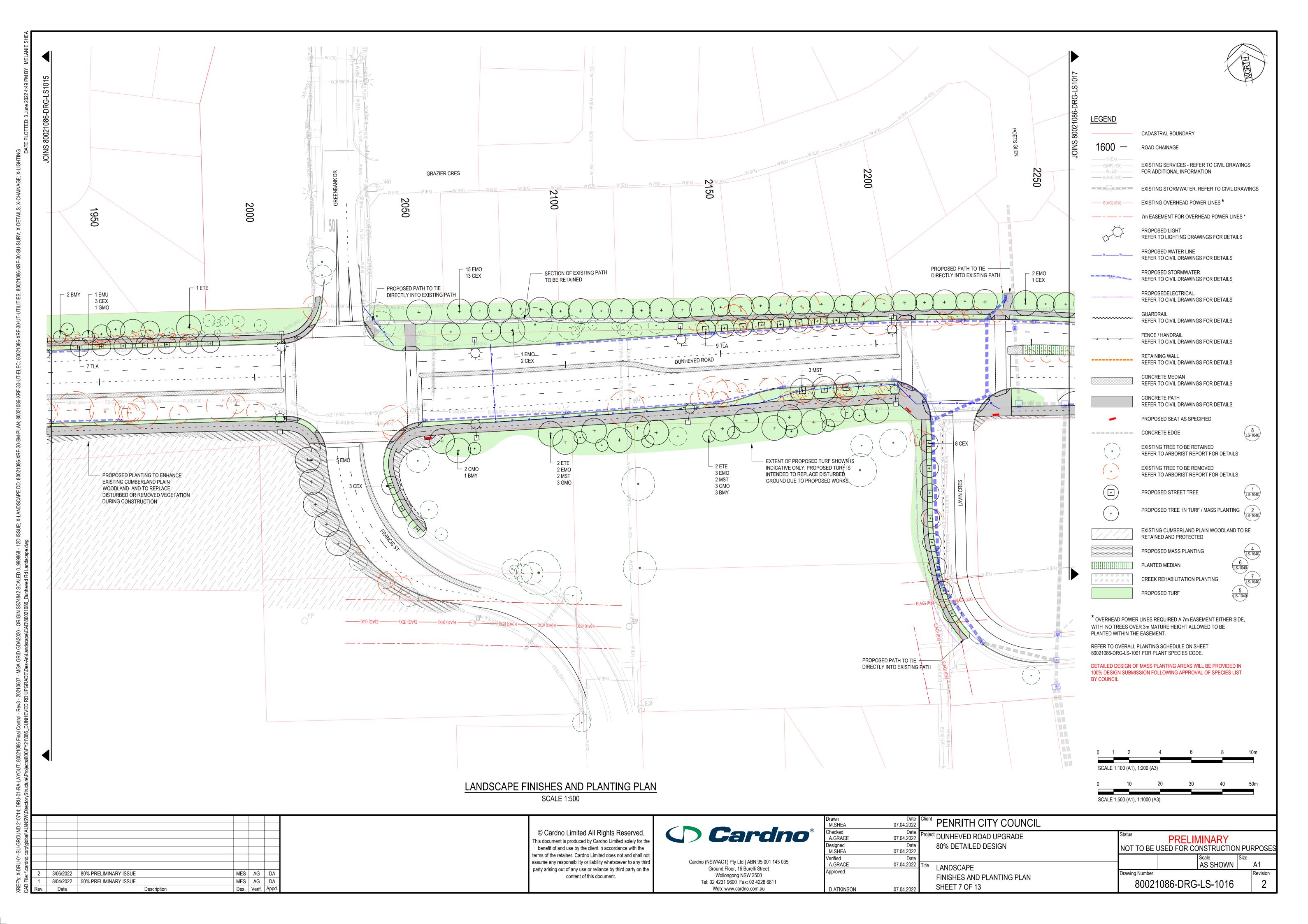


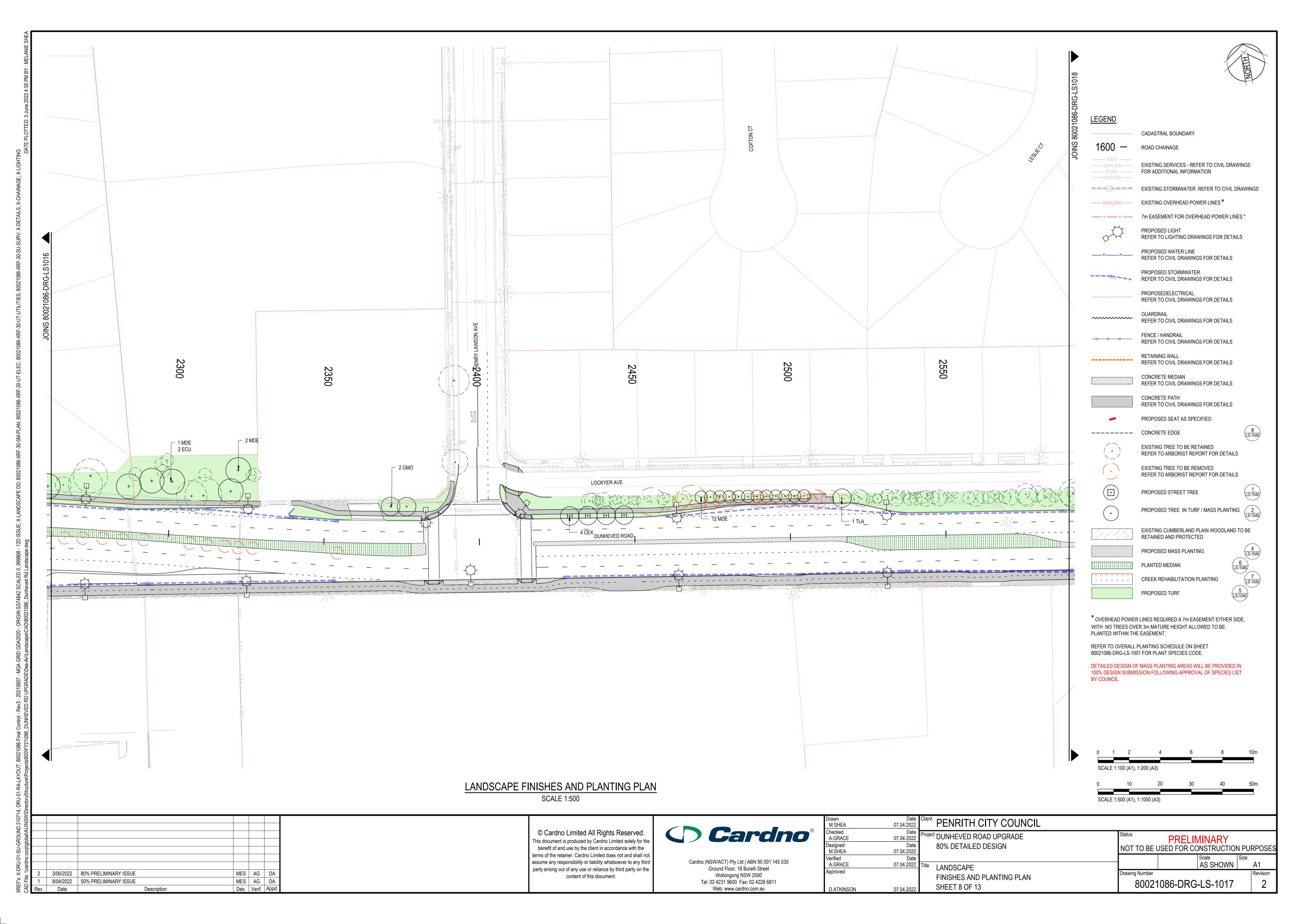


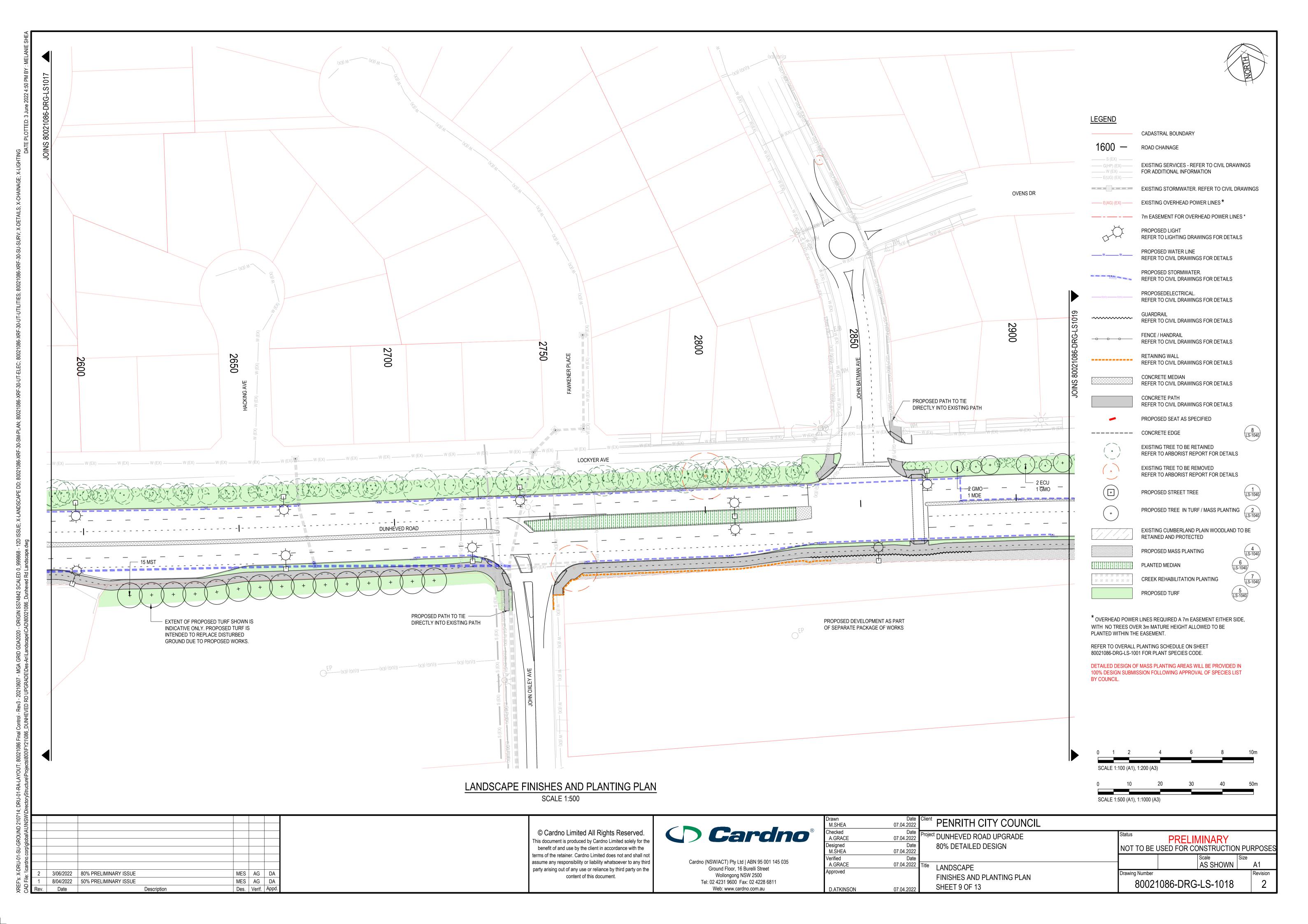


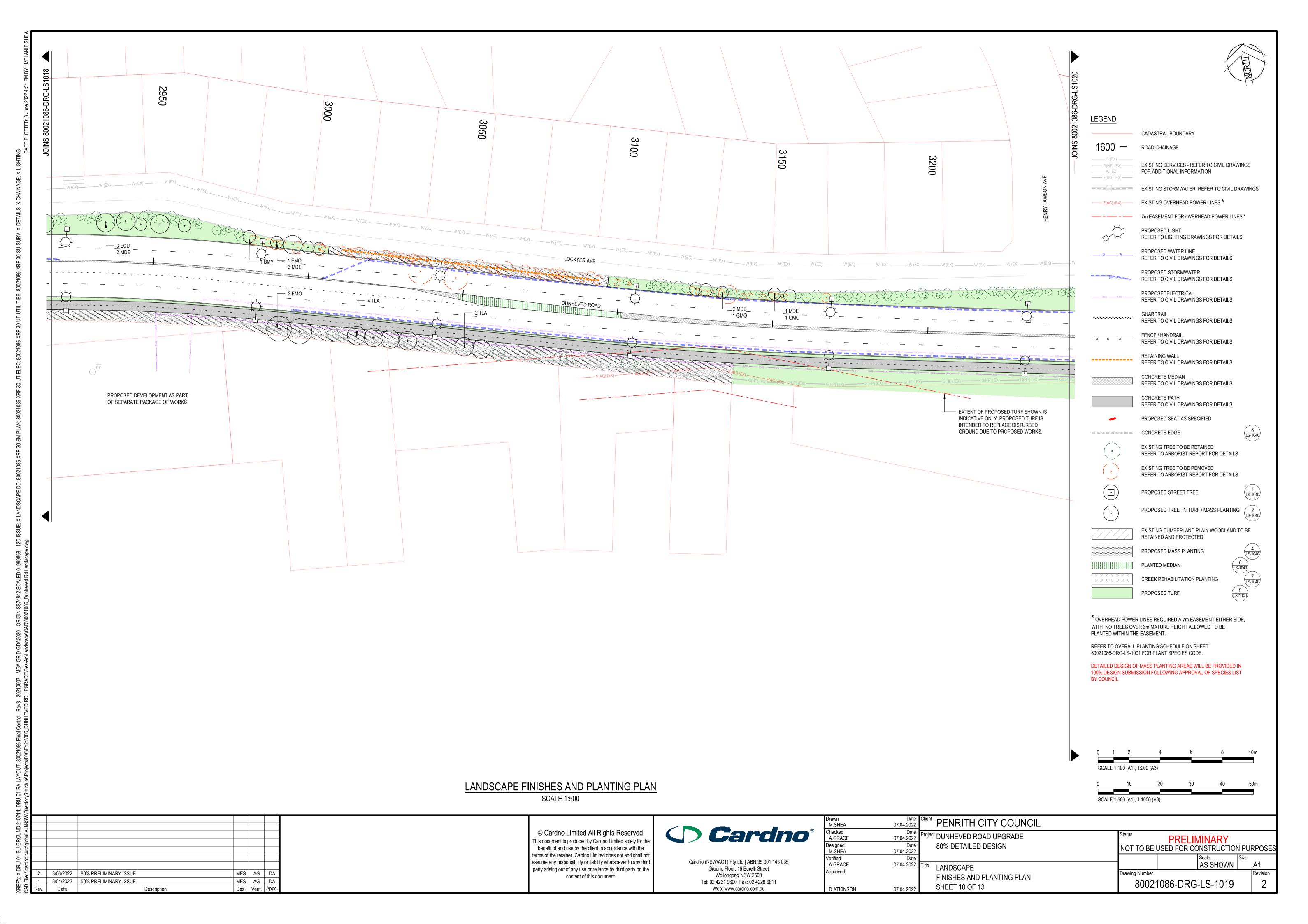


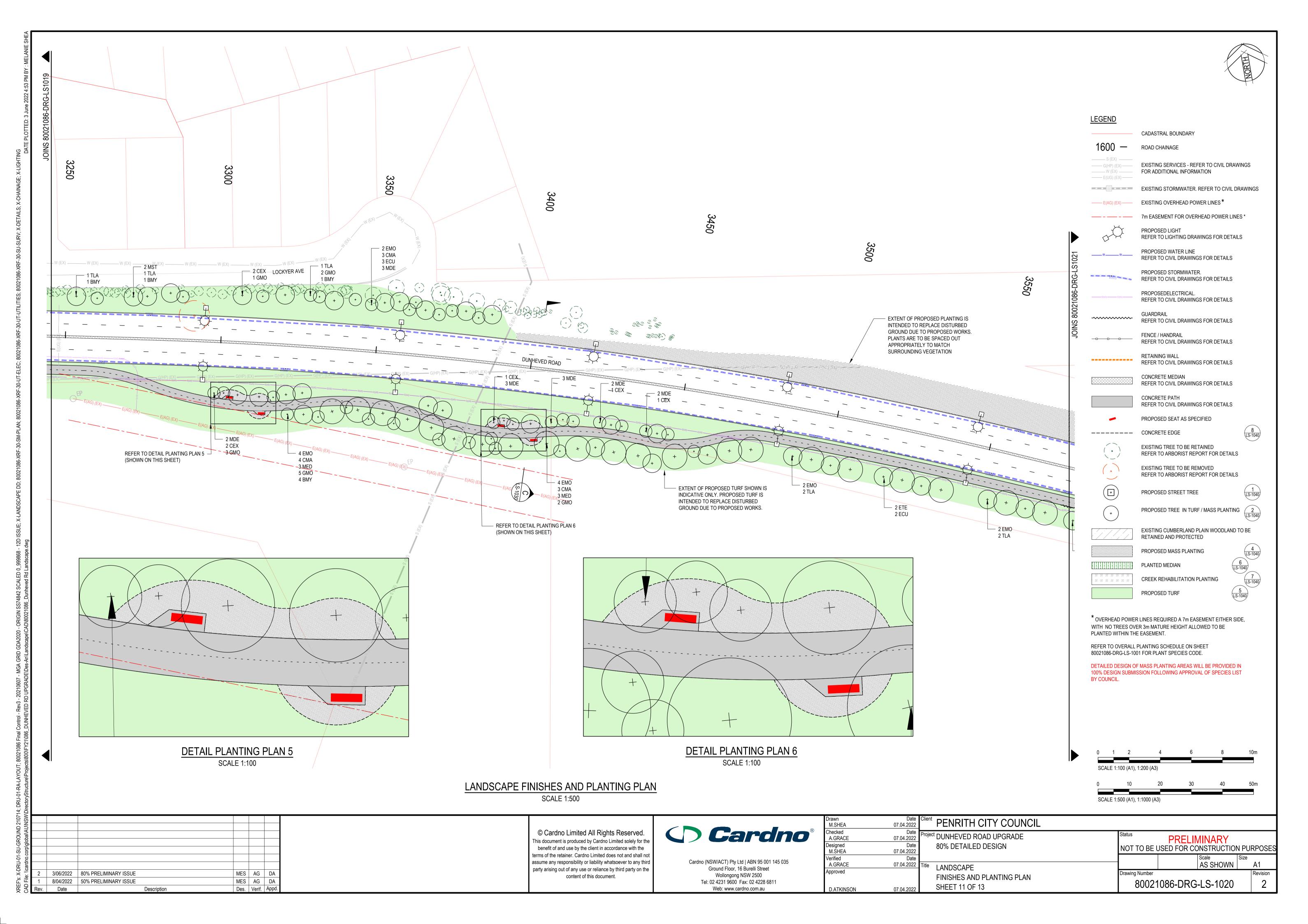


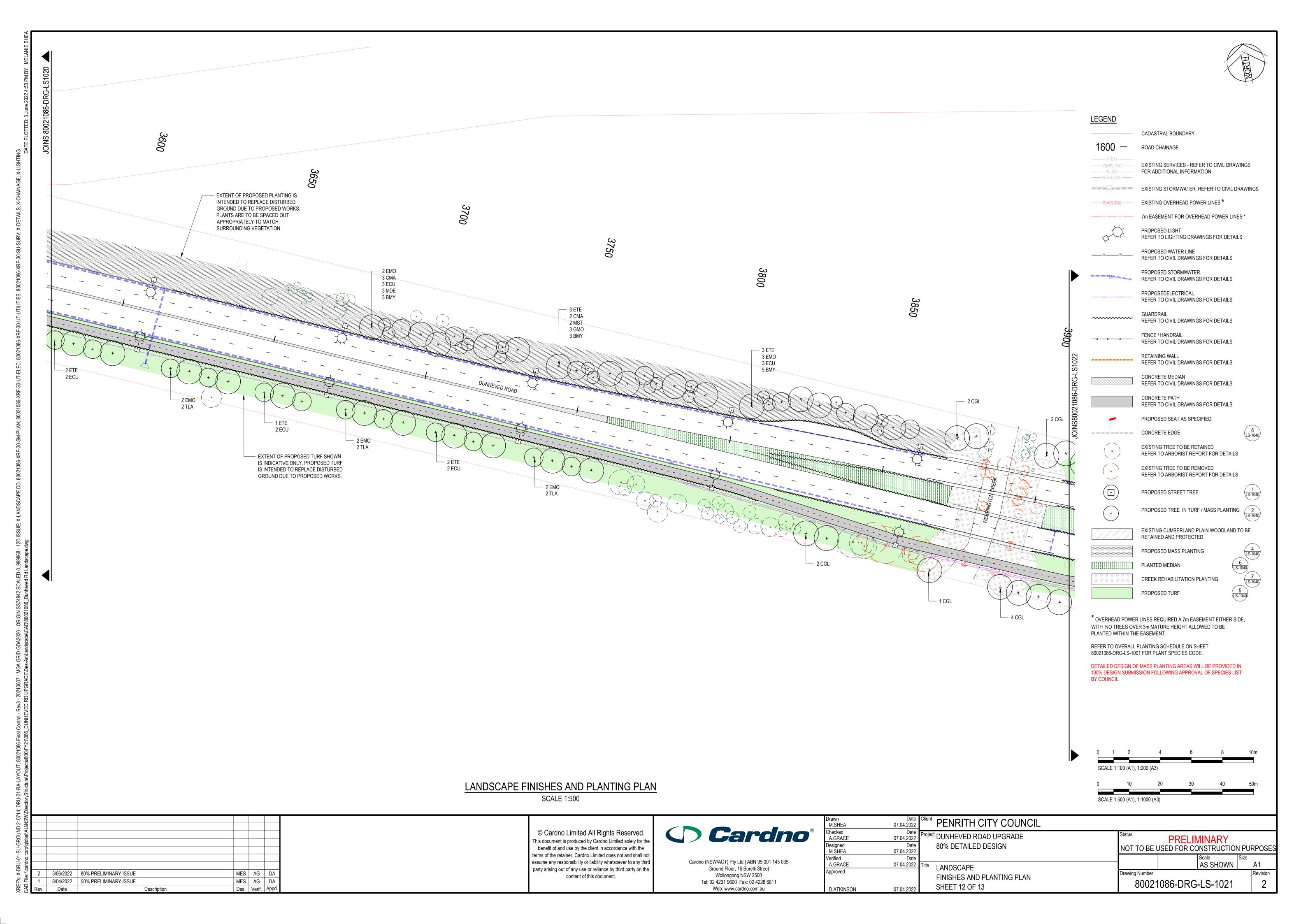


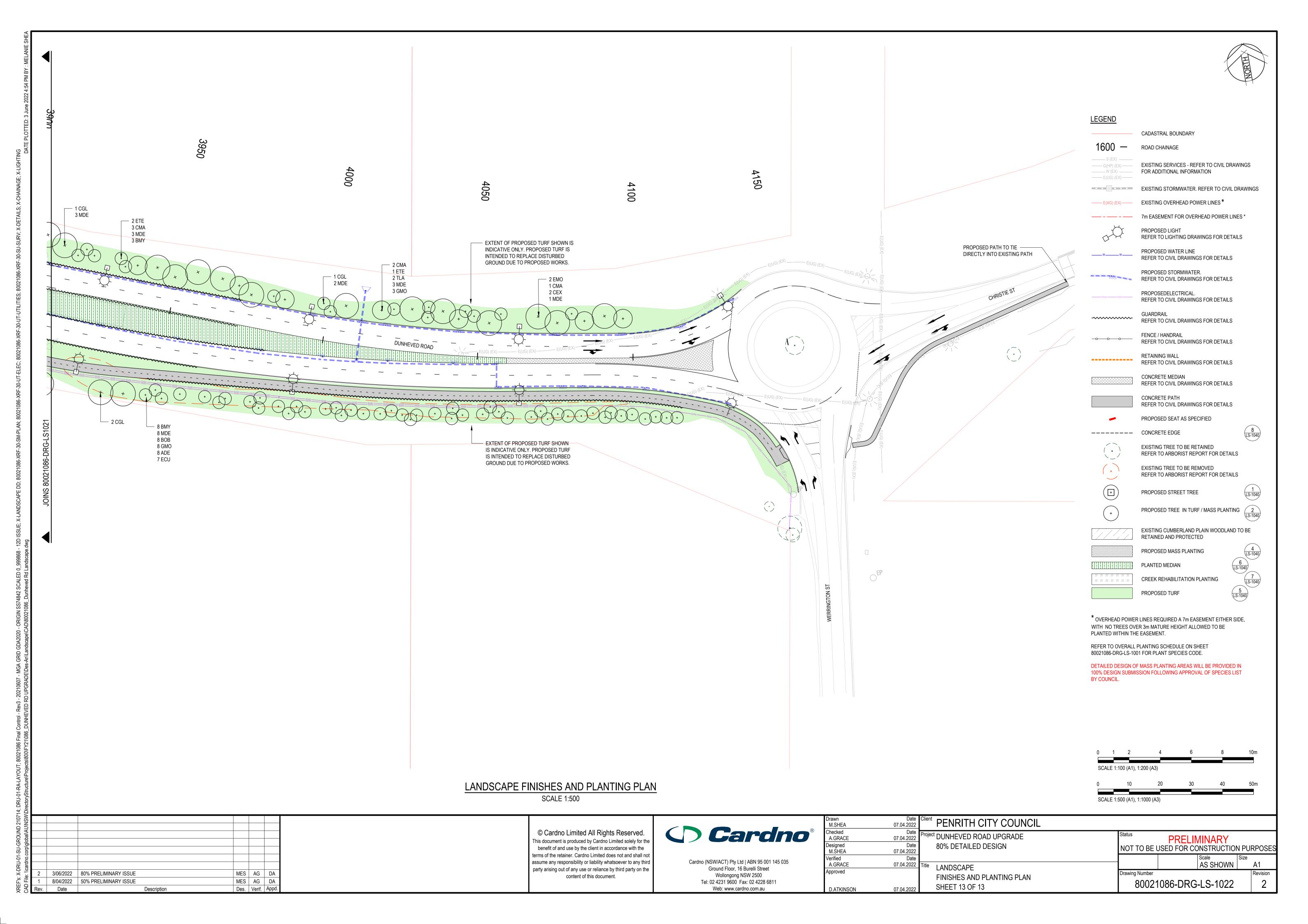


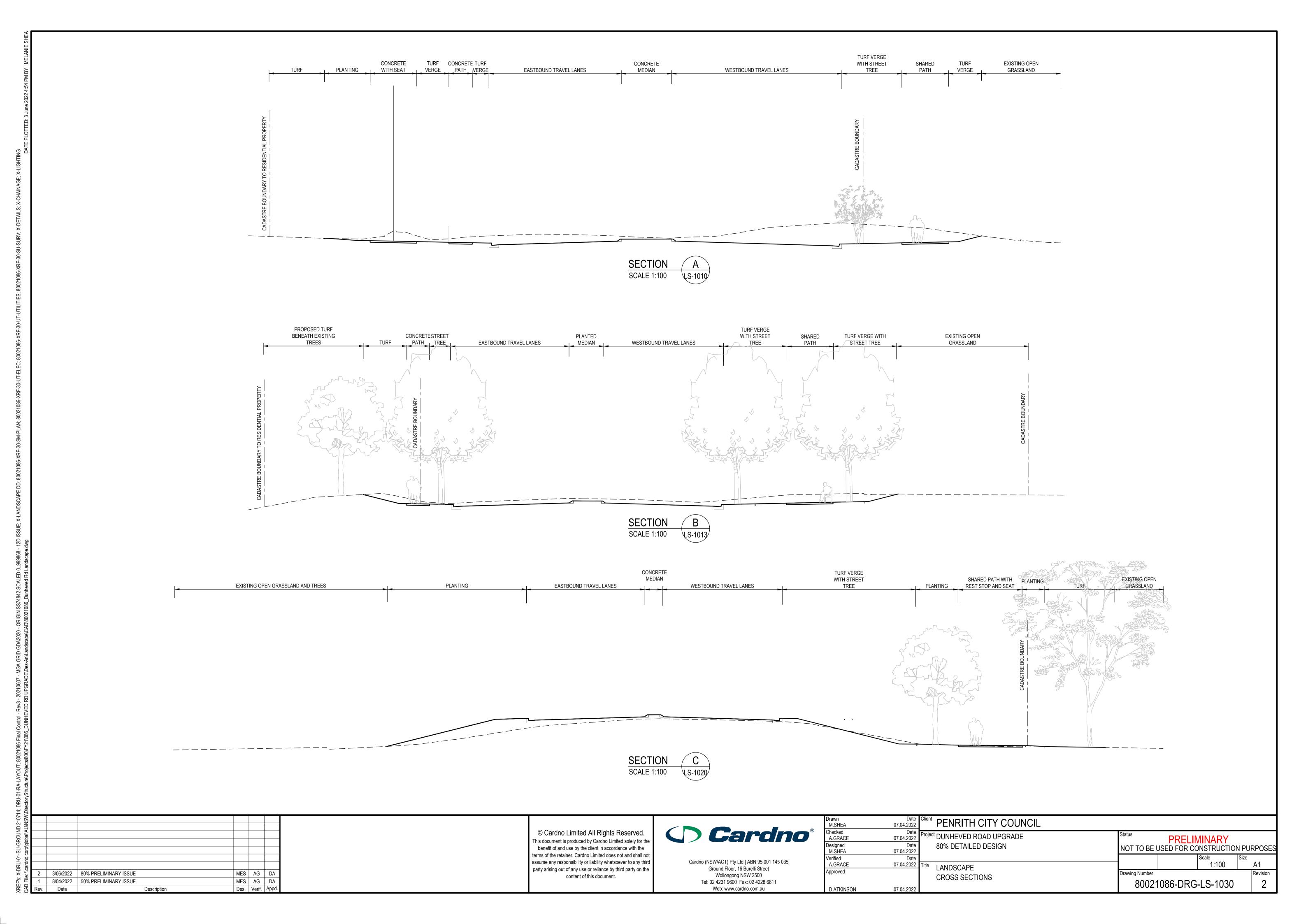


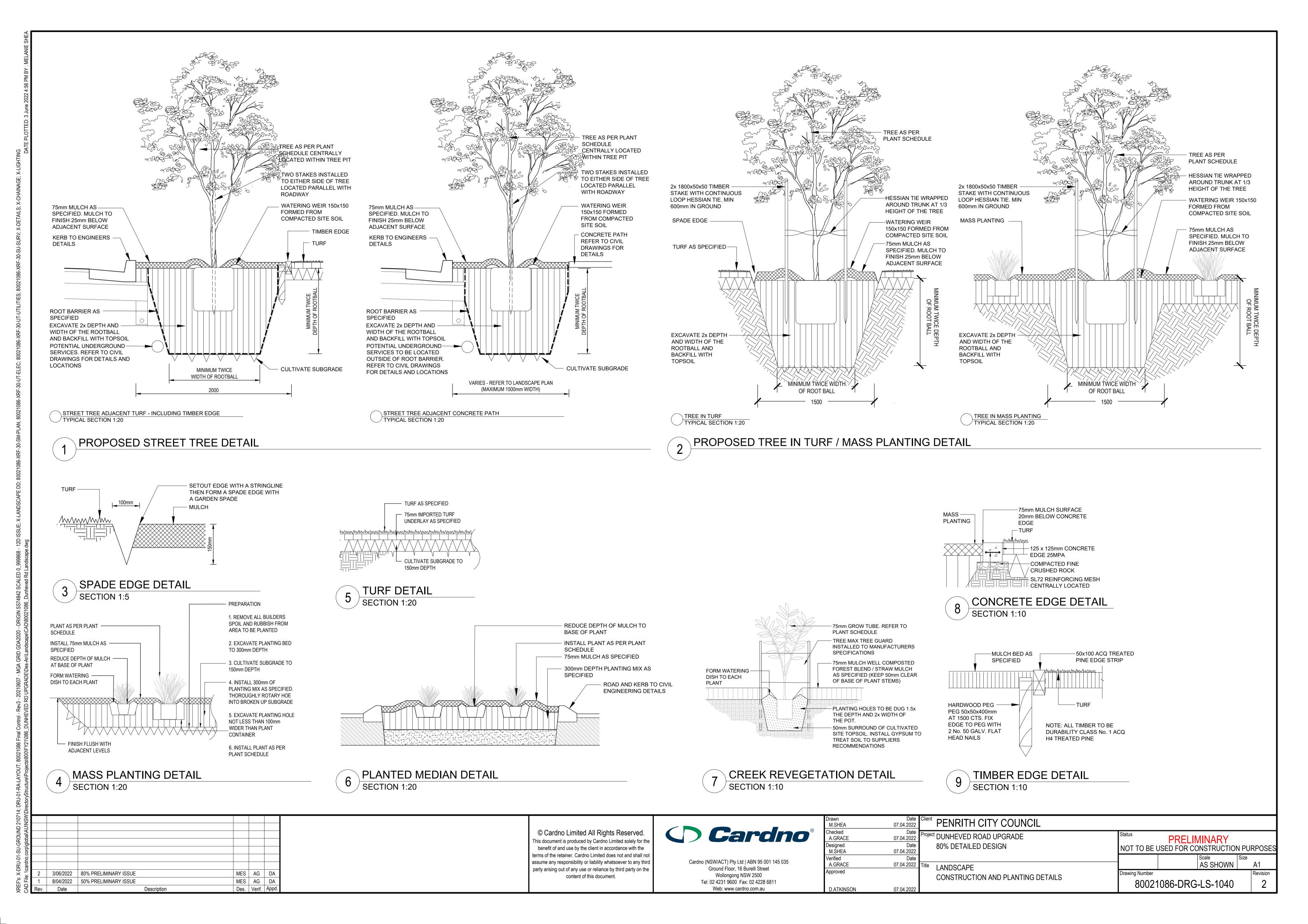












Before landscape work is commenced. The Landscape Contractor is to establish the position of all servicelines and ensure tree planting is to be carried out at least 3 metres away from these services. Service lids, vents and hydrants shall be left exposed and not covered by any landscape finishes (turfing, paving, garden beds etc.) Finish adjoining surfaces flush with pit lids.

Dial Before You Dig - It is the landscape contractor's full responsibility to complete a full services search and take all required measures to ensure protection of these services including potholing to confirm locations. The client in no way will be held responsible for any damage caused to services as a result of

The contractor must obtain an Australand 'Permit to Dig' prior to excavation works of any kind occurring on the site.

Do not excavate by machine within 1m of existing underground services.

2.0 SOILS AND CONDITIONER

PLANTING MIXTURE

Shall be LANDSCAPE NATIVE MIX. Available from Soilco, Ph (02) 4272 9944

IMPORTED SOIL MATERIAL AND PLANTING MIX

Provide product data sheets compliance to standard and validation certificates to the Superintendent from the manufacturer or supplier as to the physical, chemical and weed free status of each of the materials provided. Imported Garden Mixes shall be used for all planting works unless otherwise specified

TURF

Turf Underlay shall be a mix of 40% Double washed river sand, 20% composted Greenwaste, 20% nitro humus, 20% soil equivalent to Greenlife Lawn Top Dressing & Turf Underlay as produced by Australian Native Landscapes or approved equivalent. Spread 100mm of Turf Underlay as specified and finish flush with adjacent finished surface levels.

Provide a one (1)kg sample of imported topsoil mixes, if required, for approval. No imported topsoil shall be delivered to site prior to approval of the sample provided.

TOPDRESS MATERIAL

Topdress material shall be as specified in AS 4419 - 1999. Topdress material shall be clean washed river sand, free from any clay lumps, clods, weeds, tree roots, sticks, organic matter, rubbish and material toxic to plant growth and the like, and shall have a neutral pH and minimal salt content (measured oven dry of 0.1%).

3.0 MULCH

Application: Place mulch to the required depth, (refer to drawings clear of plant stems, and rake to an even surface finishing 25mm below adjoining levels. Ensure mulch is watered in and tamped down during

Mulch Type: Shall be COTTAGE MULCH. Available from Soilco, Ph (02) 4272 9944

4.0 PLANTS

SUPPLY

The Landscape Contractor is responsible for organising the supply and delivery of plant stock to site and checking plant stock prior to accepting delivery on site to ensure the plants possess the following

• Large healthy root systems, with no evidence of root curl, restriction or damage.

• Vigorous, well established, free from disease and pests, of good form consistent with the species or • Hardened off, not soft or forced, and suitable for planting in the natural climatic conditions prevailing at

• Trees must, unless required to be multi-stemmed, have a single leading shoot. • Any plants or trees that are accepted by the landscape contractor that do not meet this specification will

be replaced at the contractor's expense. Replacement: Replace damaged or failed plants with plants of the same type and size.

PLANTING

Do not plant in unsuitable weather conditions such as extremes of heat or cold, wind or rain. Before planting begins, complete cultivation, soil placement, fertilisation etc as previously specified. Before plants are installed all pot sizes shall have their roots pruned with an appropriate, clean, sharp instrument to eliminate any root confusion occurring at edge of pot zone. Before planting begins, thoroughly water the plants and the planting area. Keep the area and plants moist

during planting. Water the plants immediately after planting, and thereafter as required to maintain growth rates free of stress. The contractor shall give notice, of not less than 24 hours, for inspections as nominated in inspect and hold

ROOT PRUNING

Remove tree from container and root prune one inch on sides and bottom to ensure all circling roots have been either severed or aligned radially into the surrounding soil. Plant as per detail.

5.0 TURF

Turf shall be of even thickness free from weeds and other foreign matter, lay in stretcher pattern with joints staggered and close butted. Deliver turf on site within 24 hours of being cut, and lay within 36 hours or being cut. Prevent it from drying out between cutting and laying. Establishment

Watering: Water as necessary to keep soil moist to a depth of 100mm.

Protection: Protect newly turfed areas against traffic until grass is established. Making Good: Lift failed turf and relay with new turf.

Fertilising: Two weeks after laying, fertilise turf as specified.

Topdressing: When the turf is established, lightly topdress to a depth of 10mm with topdress material as specified. Rub the dressing well into the joints and correct any unevenness of surface Mowing: When the turf is established, mow at regular intervals to maintain an average height of

50mm. Turf Type: Kikuyu

TREE PLANTING

Recommended Supplier: A registered Turf grower to be approved by the Landscape Architect.

6.0 FERTILISER

MASS PLANTING AREAS

Type: Nutricote Standard Black 270 Day (16: 4.4: 8.3) Installation: Evenly distribute 5g per litre (rootball size) of fertiliser onto backfill area around rootball prior to placing mulch.

Type: Nutricote Standard Brown 360 Day blend (16: 4.4: 8.3)

Installation: Distribute 5g per litre (rootball size)of fertiliser into backfill around rootball. Apply in 3 evenly spread layers as hole is filled. First layer is to be half way up the rootball, second layer 3/4 up the rootball and third layer 50-100mm from the soil finished surface level. This application ensures that the nutrients leeches evenly downwards into the soil profile and encourages outward root system growth.

TURF

Kikuyu: Yates Dynamic Lifter Turf Lifter (10: 4: 6) Installation: Evenly spread and mix 50g of fertiliser per m2 into topsoil prior to placing turf.

7.0 STAKING AND TYING

Stakes shall be straight plantation grown hardwood, free from knots and twists, pointed at one end and sized according to size of plants to be staked.

Size: 50 x 50 x 1800mm

No: 2 per plant as per the plant sheet

Ties shall be 50mm wide hessian webbing or approved equivalent nailed or stapled to stake. Drive stakes a minimum one third of their length, avoiding damage to the root system, on the windward side of the plant.

8.0 ROOT BARRIER

Type: RootStop Recycled Root Barrier Installation: As per details and manufacturers specifications Supplier: Arbor Green. Ph: 1300 760 642

9.0 SEAT

Type: Classic Galleria Seat Product Code: CMG1

Dimensions: 705W x 790H x 1750L Frame: Cast Aluminium Powder Coated - Palladium Silver

Legs and Mounting: Post Surface Fixed to Concrete to manufacturers specifications Arm: 2 arms powdercoated - Palladium Silver

Batten: Eco-certified hardwood oiled

Supplier: Street Furniture Australia, Ph. 1800 027 799

10.0 TIMBER AND OTHER FURNITURE ITEMS

Ensure all timber items (fence rails, posts, pailings etc) and other furniture are to be set plumb / vertical / horizontal using spirit levels and the like irrespective of adjacent surface pavement grades

Where surface pavement grades result in uneven leg heights on seats and benches the specified height of furniture items above finished grades will be with respect to the "high" side of seat/bench.

Therefore the specified height above pavements for seats/benches is to be regarded as the maximum at any one point, as noted on the drawings.

All timber members are to be clean (free of knots, warping and twists).

All exposed timber to have regular smooth surfaces and straight (not ragged) edges.

All timber that comes into contact with the ground is to be H4 treated. All other timber is to be h3 treated or hardwood.

MAINTENANCE PROGRAM

Maintenance shall mean the care and maintenance of the landscape works by accepted horticultural practice as rectifying any defects that become apparent in the landscape works under normal use. This shall include, but shall not be limited to, watering, mowing, fertilising, reseeding, returfing, weeding, pest and disease control, staking and tying, replanting and plant replacement, cultivation, pruning, aerating, renovating, topdressing, maintaining the site in a neat and tidy condition as follows:-

1.0 GENERAL

The Landscape Contractor shall maintain the landscape works for the term of the maintenance (or plant establishment) period to the satisfaction of the Landscape Architect and Client. The Landscape Contractor shall attend to the site on a weekly basis. The maintenance period shall commence at practical completion and continue for a period of fifty two (52) weeks.

2.0 WATERING

Grass and trees shall be watered regularly so as to ensure continuous healthy growth.

3.0 RUBBISH REMOVAL

During the term of the maintenance period the Landscape Contractor shall remove rubbish that may occur and reoccur throughout the maintenance period. This work shall be carried out regularly so that at weekly intervals the area may be observed in a completely clean and tidy condition.

4.0 REPLACEMENTS

The Landscape Contractor shall replace all plants that are missing, unhealthy or dead at the Landscape Contractor's cost. Replacements shall be of the same size, quality and species as the plant that has failed unless otherwise directed by the Landscape Architect. Replacements shall be made on a continuing basis not exceeding two (2) weeks after the plant has died or is seen to be missing. The landscape contractor is to report any evidence of theft or vandalism to the Landscape Architect within one day of them occurring.

5.0 STAKES AND TIES

The Landscape Contractor shall replace or adjust plant stakes and tree guards as necessary or as directed by the Landscape Architect. Remove stakes and ties at the end of the maintenance period if so directed.

6.0 PRUNING

Trees and shrubs shall be pruned as directed by the Landscape Architect. Pruning will be directed at the maintenance of the dense foliage or miscellaneous pruning beneficial to the condition of the plants. Any damaged growth shall be pruned. All pruned material shall be removed from the site.

7.0 MULCHED SURFACES

All mulched surfaces shall be maintained in a clean and tidy condition and be reinstated if necessary to ensure that a depth of 75mm is maintained. Ensure mulch is kept clear of plant stems at all times.

8.0 PEST AND DISEASE CONTROL

The Landscape Contractor shall spray against insect and fungus infestation with all spraying to be carried out in accordance with the manufacturer's directions. Report all instances of pests and diseases (immediately that they are detected) to the Landscape Architect prior to spraying.

9.0 GRASS AND TURF AREAS

The Landscape Contractor shall maintain all grass and turf areas by watering, weeding, reseeding, rolling, mowing, trimming or other operations as necessary.

Apply lawn fertiliser as specified in fertilisers at the completion of the first and the last mowing, and at times as necessary to maintain healthy grass cover. Carry out last mowing and fertilisation not less than seven (7) days before the end of the maintenance period. Remove grass clippings from site. Grass and turf areas shall be sprayed with approved selective herbicide against broad leafed weeds as required by the Landscape Architect and in accordance with the manufacturer's directions.

Grass and turf areas shall be fertilised once a year in autumn with "Dynamic Lifter" for lawns at a rate of 20kg per 100m2. Fertiliser shall be watered in immediately after application.

Grass and turf areas shall be kept mown to maintain a healthy and vigorous sward within the 30-75mm range, average 50mm.

10.0 WEED ERADICATION

Eradicate weeds by environmentally acceptable methods using a non-residual glyphosate herbicide (eg: 'Roundup') in any of its registered formulae, at the recommended maximum rate. Regularly remove by hand, weed growth that may occur or recur throughout grassed, planted and mulched areas. Remove weed growth from an area 1000mm diameter around the base of trees in grassed areas. Continue eradication throughout the course of the works and during the maintenance period.

11.0 SOIL SUBSIDENCE

Any soil subsidence or erosion which may occur after the soil filling and preparation operations shall be made good by the Landscape Contractor at no cost to the client.

80% PRELIMINARY ISSUE 3/06/2022 MES AG 50% PRELIMINARY ISSUE MES AG 8/04/2022 Des. Verif. Appd. Date Description

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ent	PENRITH CITY COUNCIL
oject	DUNHEVED ROAD UPGRADE 80% DETAILED DESIGN

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