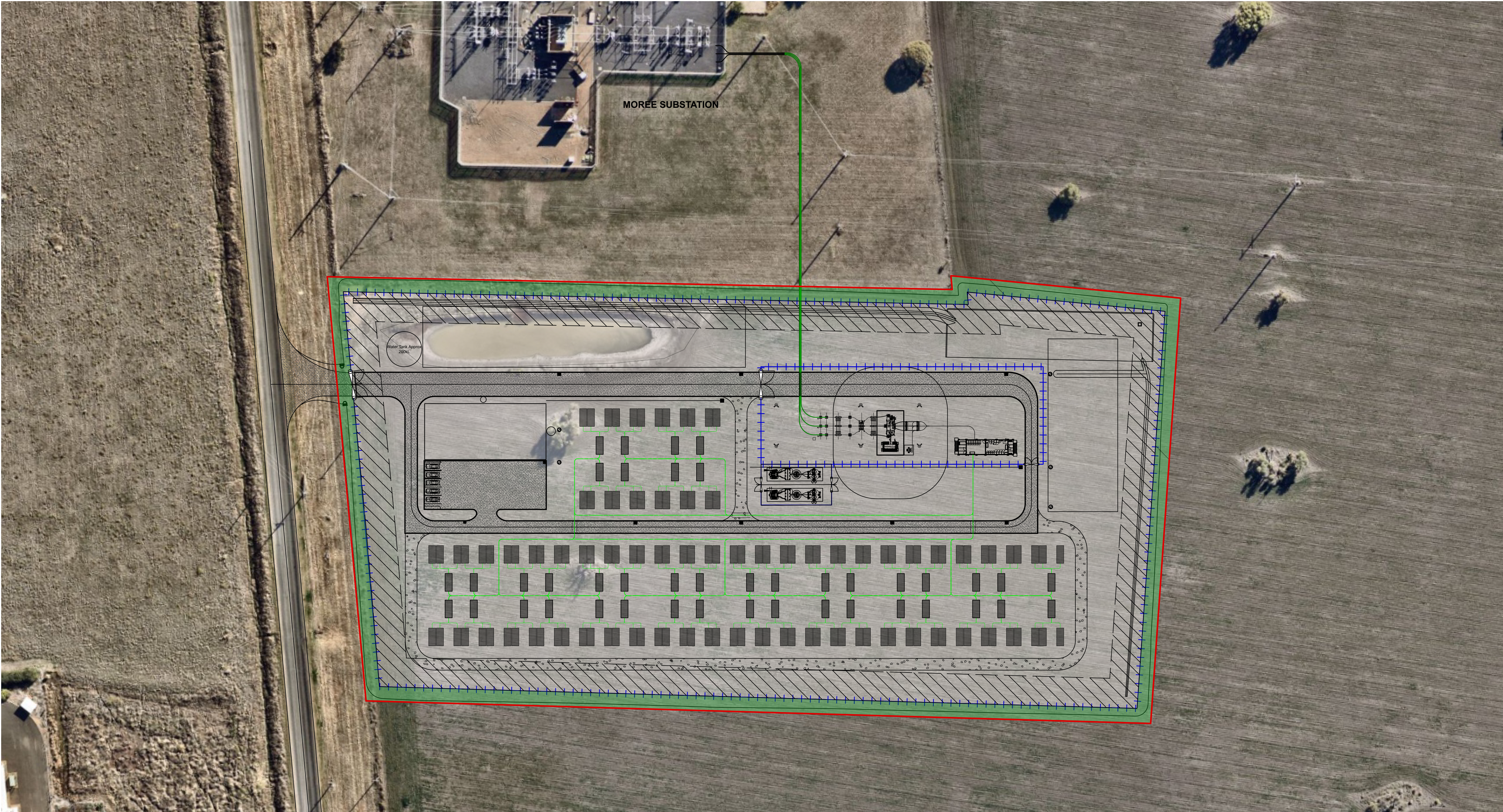


MOREE BESS

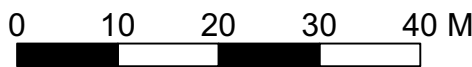
LANDSCAPE CONCEPT PLAN

MOREE NSW



LEGEND	
	PROJECT SITE
	SECURITY FENCE
	UNDERGROUND CABLES
	GRAVEL ROAD
	ASPHALT ROAD
	APPROXIMATE EXTENT OF PROPOSED SCREENING. REFER TO PLANTING PLAN AND PLANTING SCHEDULE
	ASSET PROTECTION ZONE
	DEVELOPMENT FOOTPRINT
	BESS MODULE

SITE PLAN
Scale: 1:750



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ARCHITECT:

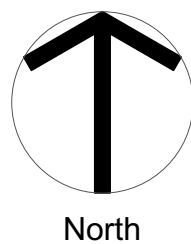
ENGINEER:

CLIENT:
NGH

NOTE: DRAWING PURPOSES FOR APPROVAL ONLY. NOT FOR CONSTRUCTION.

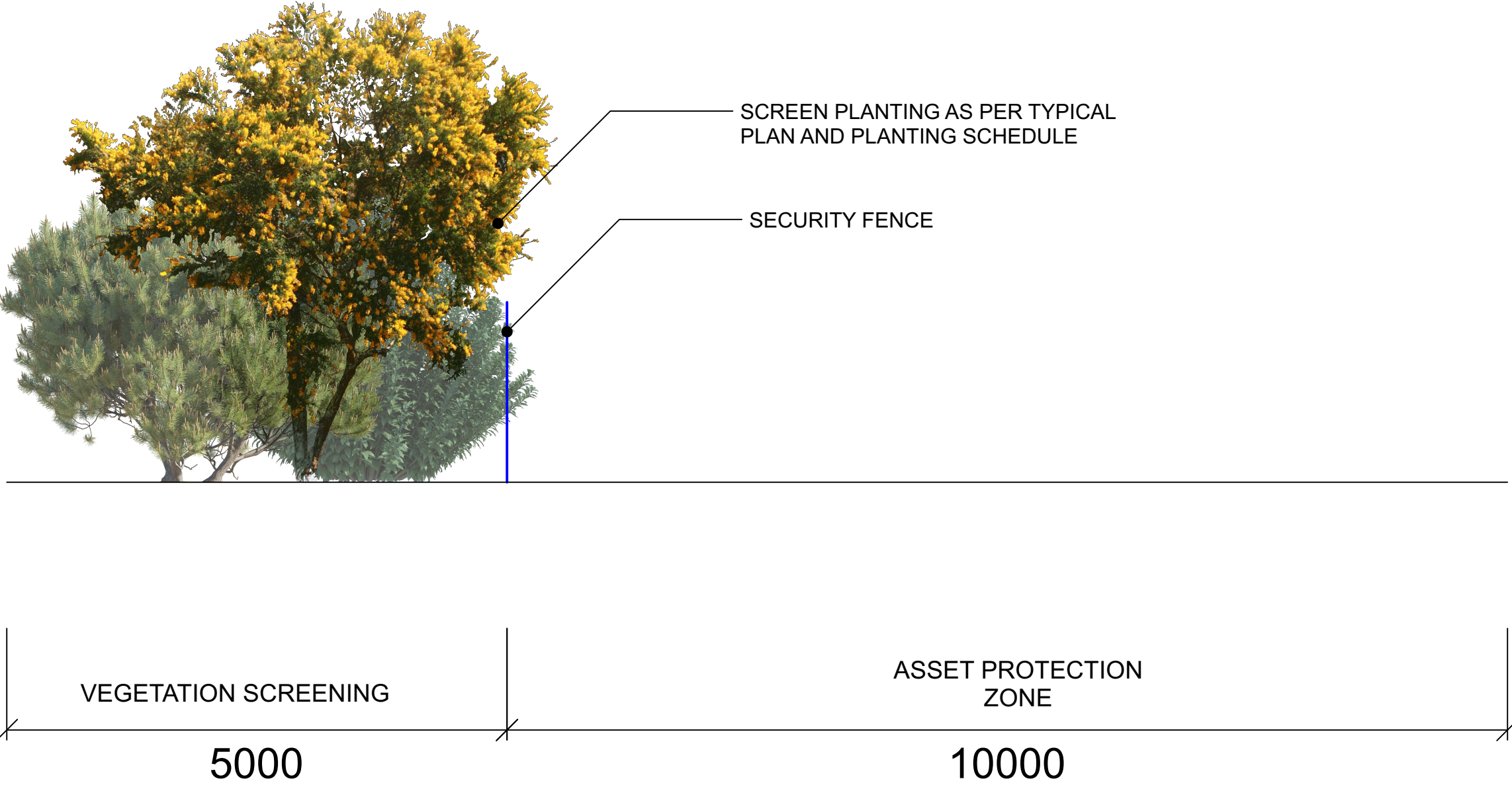
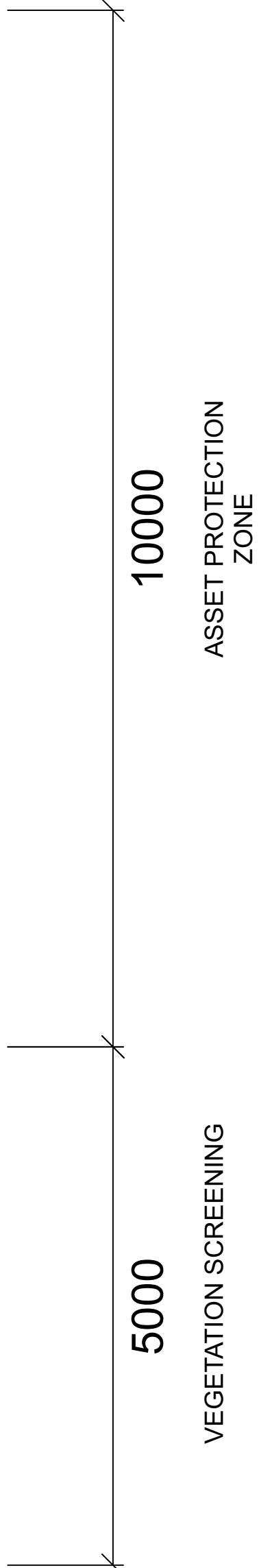
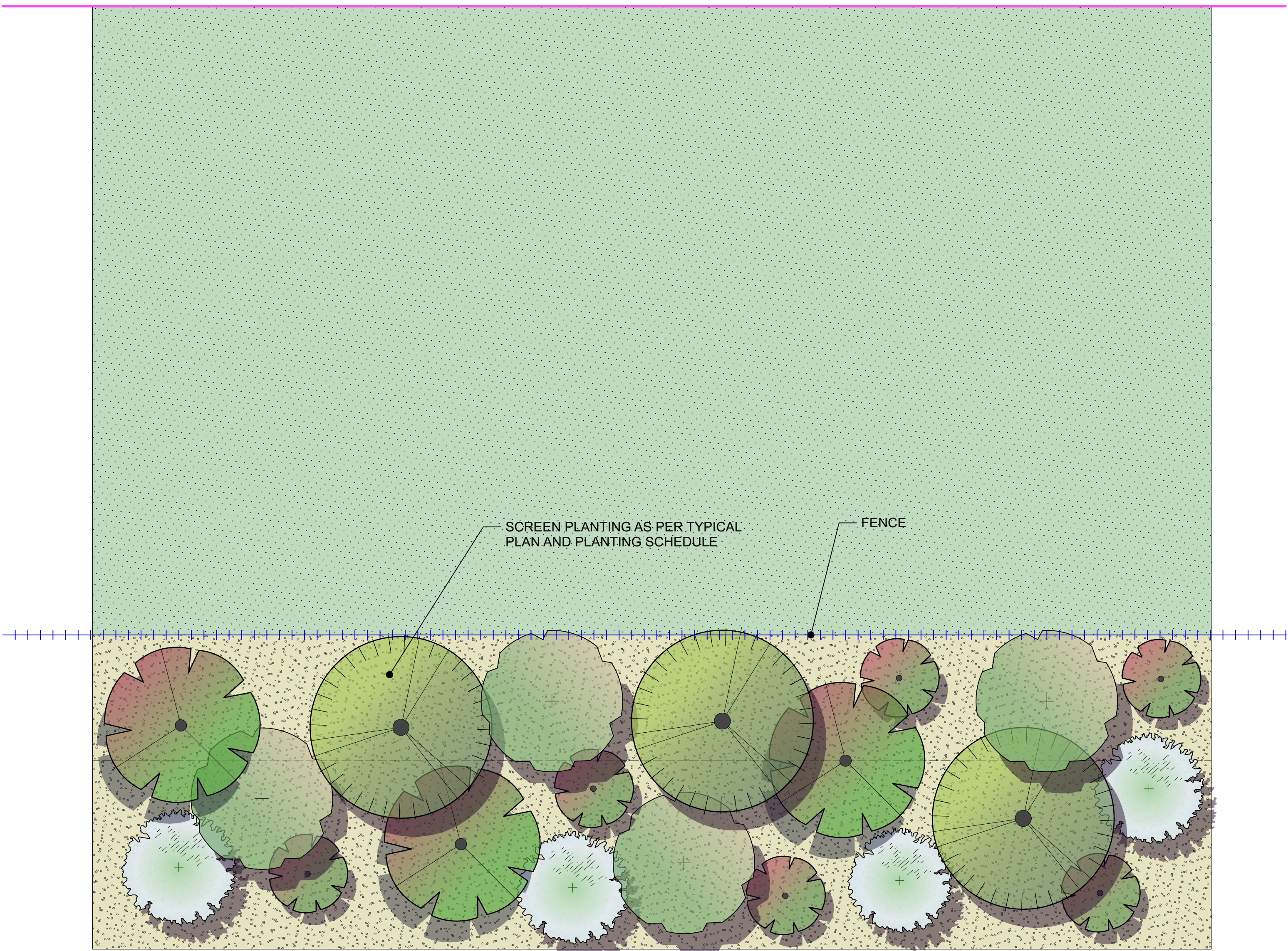
No: A DATE: 18/4/2024 REVISION: FOR REVIEW

BY: NL PROJECT: MOREE BESS LANDSCAPE PLAN
Kamilaroi Country
MOREE NSW
Status: DRAFT



LANDSCAPE PLAN

SCALE: 1:750 Project No. 2445
ORIGINAL DRAWING AT A1. Drawing No. LP01
Drawn By: NL Checked By: AL Approved By: DM Rev A



TYPICAL PLANTING PLAN & SECTION
Scale: 1:50

Indicative Planting Schedule

Code	Botanical Name	Common Name	Pot Size	Mature Height	Mature Spread
Trees					
ACA sal	<i>Acacia salicina</i>	Cooba	25 litre	3.0 - 5.0m	2.0 - 3.5m
Shrubs					
APO ano	<i>Apophyllum anomalum</i>	Warrior Bush	200mm	3.0 - 5.0m	2.0 - 3.0m
CAP mit	<i>Capparis mitchellii</i>	Wild Orange	200mm	3.0 - 4.0m	2.0 - 3.5m
DUM flo	<i>Duma florulenta</i>	Lignum	200mm	1.0 - 2.5m	1.0 - 3.0m
RHA spi	<i>Rhagodia spinescens</i>	Spiny Saltbush	200mm	1.50 - 3m	0.6 - 0.9m

NOTE: PRE-GROW ORDER WITH NURSERY REQUIRED TO ENSURE SUFFICIENT TREE AND SHRUB SIZES.

LEGEND

Security Fence

Screen planting zone

Asset Protection Zone (Turf)

TREES

Acacia salicina
Cooba

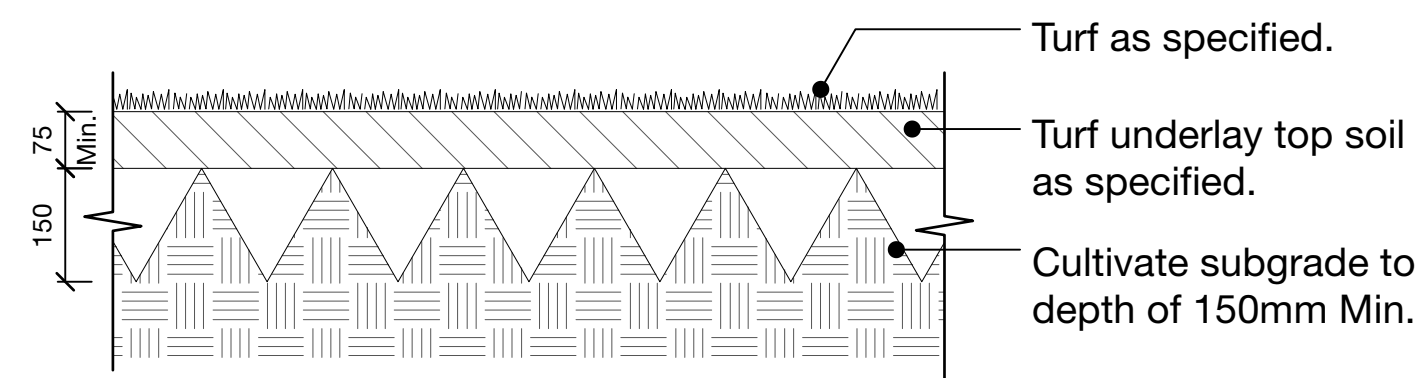
SHRUBS

Capparis mitchellii
Wild Orange

Apophyllum anomalum
Warrior Bush

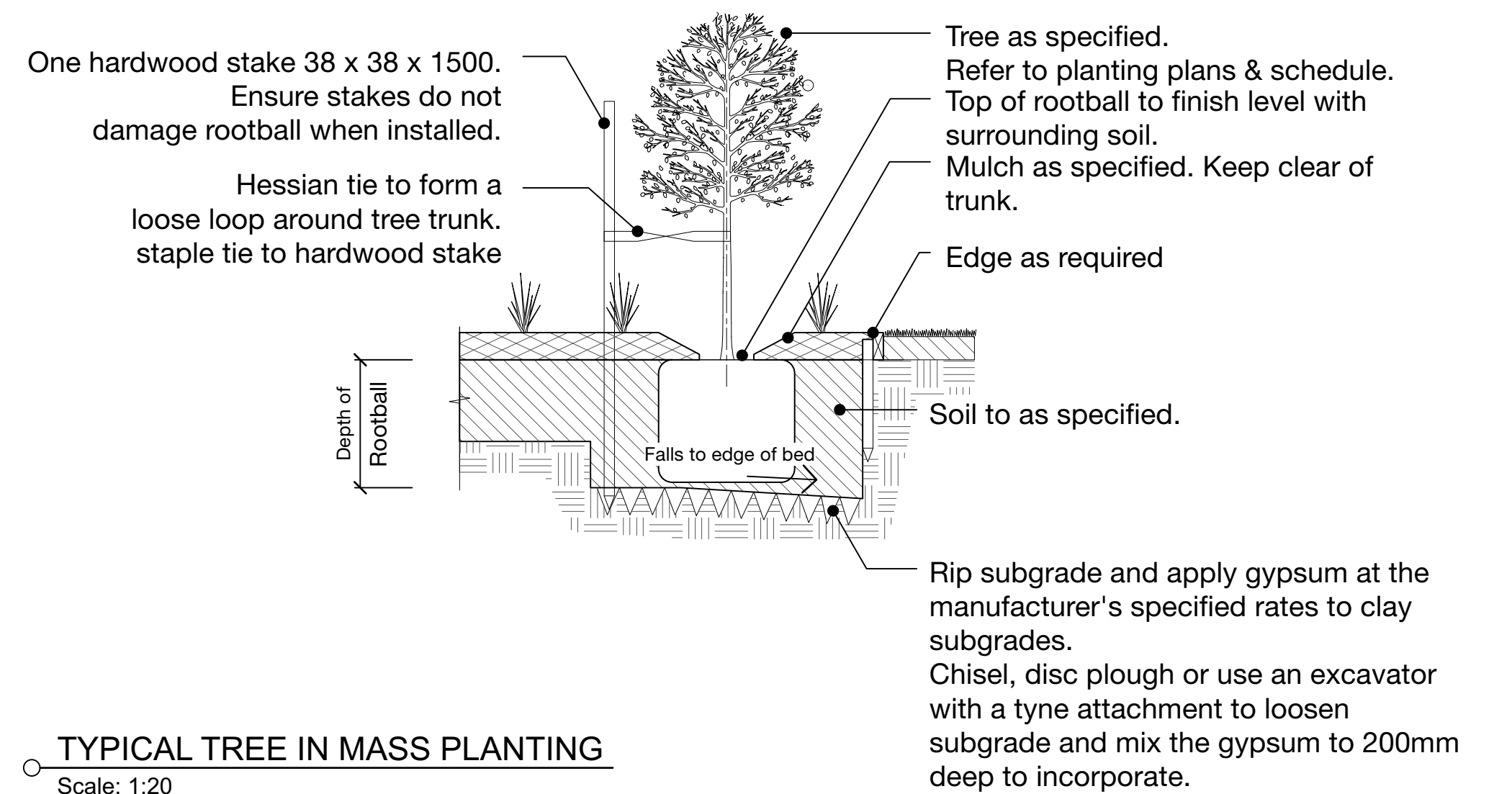
Rhagodia spinescens
Spiny Saltbush

Duma florulenta
Lignum

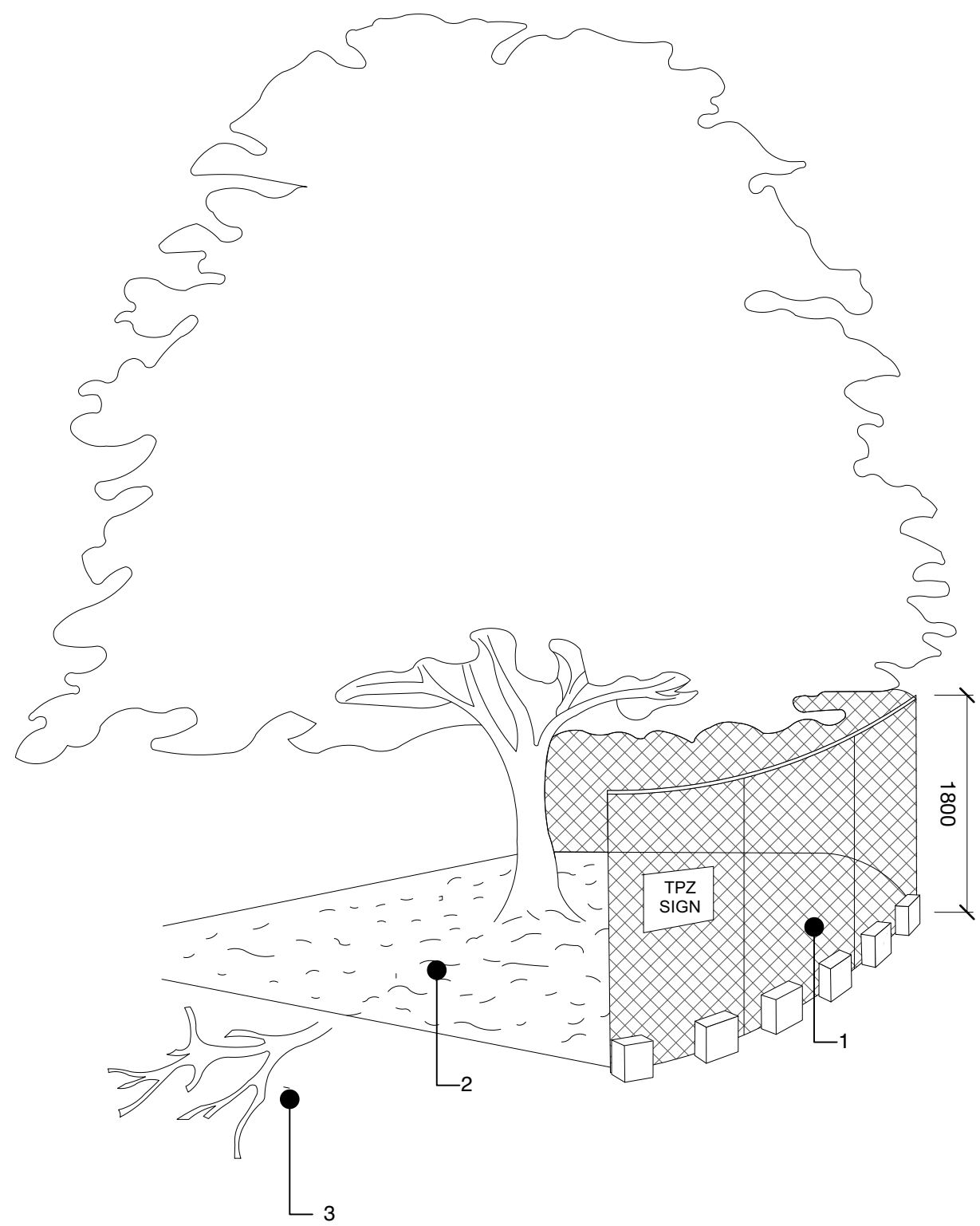


TYPICAL TURF DETAIL
Scale: 1:10

- NOTES:
1. Finish crossfall to turf shall be 1:80 min. Finish flush with adjoining surfaces.
 2. Soil as specified, provide a turf underlay that complies with AS4419.
 3. Remove contaminated areas, deleterious material such as large rocks greater than 50mm, rubbish and large twigs.
 4. Lay turf parallel to contour, close butted and lightly tamp.
 5. Fill joints with top dressing soil.
 6. Provide subsoil drainage to address any poorly draining areas.
 7. Water in and maintain consistent deep watering for 14 weeks minimum. (Separate to the plant establishment period)
 8. Consistently top dress depressions to provide an even surface.
 9. Mow, top dress and control pests and disease consistently during the remainder of the planting establishment period.
 10. All turf orders to be supplied free of plastic reinforcement mesh.

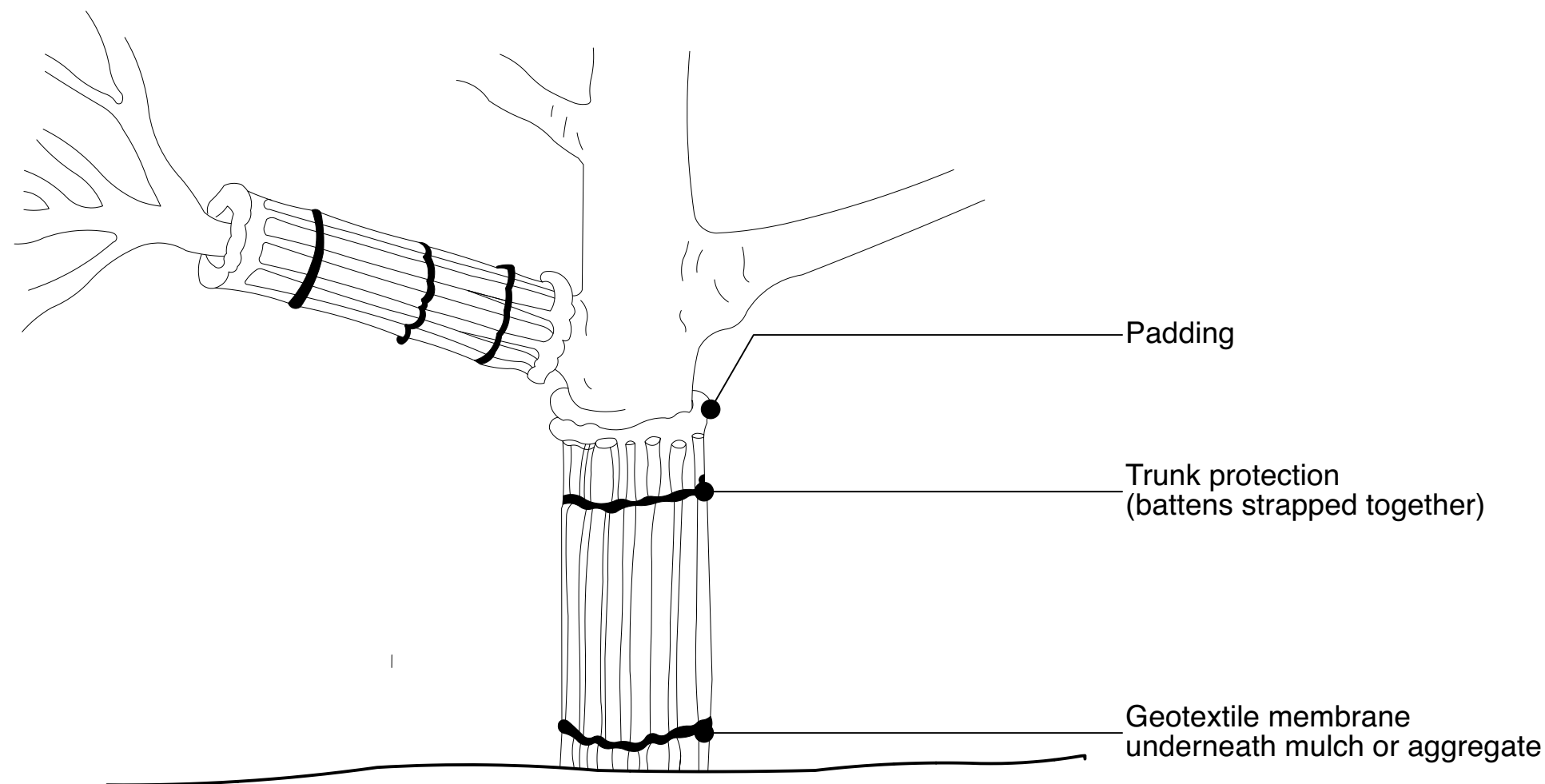


TYPICAL TREE IN MASS PLANTING
Scale: 1:20



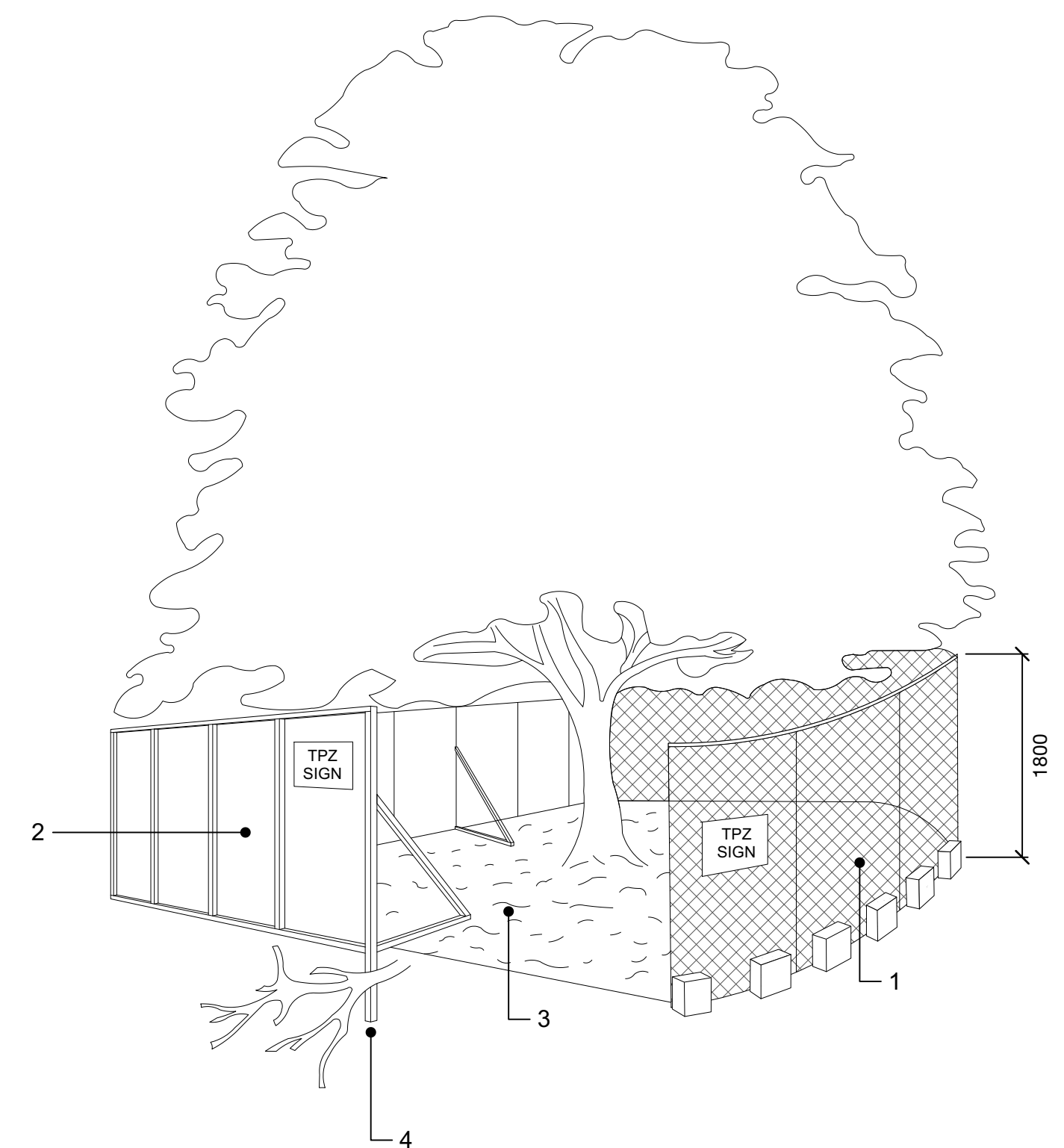
- LEGEND:
- 1: Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet
 - 2: Mulch installation across surface of TPZ
 - 3: Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots

TREE PROTECTIVE FENCING
Scale 1:50 @ A1



- NOTE:
1. For trunk and branch protection use boards and padding that will prevent damage to bark. Boards are to be strapped to trees, not nailed or screwed.
 2. Rumble boards should be of suitable thickness to prevent soil compaction and root damage.

TREE PROTECTIVE MEASURES
Scale 1:50 @ A1



- LEGEND:
- 1: Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet
 - 2: Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ
 - 3: Mulch installation across surface of TPZ
 - 4: Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots

TREE PROTECTIVE FENCING
Scale 1:50 @ A1

SPECIFICATION

1.0 GENERAL

1.1 EXISTING SERVICES

Existing services on site include storm water drainage, water, and associated power service conduits. Locations of all services should be established prior to excavation of planting holes and installation of trees. The drawings DO NOT indicate the extent of existing services. Existing services must be confirmed by the contractor prior to excavation. Do not excavate by machine within 1m of existing underground services without prior approval or identification of service location by the site superintendent.

1.2 PROTECTION OF EXISTING FEATURES

During installation protect all existing trees, shrubs and other specified vegetation, features and improvements, structures and utilities. Retained trees to be protected from damage from groundworks. Take necessary precautions, including the following:

Harmful Materials: Do not store or otherwise place bulk materials and harmful materials under or near trees. Do not place spoil from excavations against tree trunks, even for short periods. Prevent wind blown materials such as cement from harming trees and plants.
Damage: prevent damage to tree bark. Do not attach stays, guys and the like to trees.
Work under trees: Do not add or remove topsoil within the drip line, use hand methods such that root systems are preserved intact and undamaged. Open up excavations under tree canopies for as short a period as possible.
Roots: Where it is necessary to cut tree roots, use means such that the cutting does not unduly disturb the remaining root system.
Compacted Ground: Avoid compaction of the ground under trees.

2.0 MATERIALS

2.1 PLANT MATERIAL

Discrepancies within the planting schedule and the drawing should be referred to Moir Landscape Architecture for clarification. Make no substitutions unless approved. Substitutions shall not be approved unless the contractor complies with this specification.

Plant material: Plants shall be of the species, sizes and quantities as shown on the drawing. Plants shall be vigorous, well established, of good form, not soft or forced, free from disease and insect pests. Plants shall have large healthy root systems.

2.2 SOILS

Top 300mm soil to be equal to AS4419-2003 'Organic Soil' with texture to AS4419-2003 Table 1- Sandy Loam.
Below 300mm do not incorporate organic matter. Below 300mm soil to be equal to AS4419-2003 'Soil blend' with max 5% organic matter content. Texture to AS4419-2003 Table 1- Sandy Loam.

2.2.1 DEFINITIONS

Site topsoil: soil excavated from the site which has the following characteristics:
Contains minimum 2% organic matter, supports plant life, and is free from unwanted matter
Unwanted matter (in topsoil): Stones over 25mm diameter, clay lumps, weeds and tree roots, sticks and rubbish and material toxic to plants.

Topsoil:
Where available use **ameliorated site topsoil**. Where unavailable Import topsoil from an off-site source approved by the Superintendent, equivalent to specification above.

Source Landscape Soil:
Soil to be used for these landscape works shall be: Ameliorated Site Topsoil or Imported General Purpose Soil to the areas and locations as specified. Soil for the works shall be free from noxious weeds etc. Soil shall be assumed to be placed to all revegetated areas and backfill to all plantings. Unless otherwise directed by site superintendent, the landscape contractor is responsible for the removal and or disposal of all spoil or excess soil excavated in the process of implementing the landscape works.

2.2.2 SOIL TESTS

Test soil and ameliorate in accordance with soil test results. Where unavailable for reuse import suitable topsoil to support native plant growth.

Sampling: As recommended in AS 4419 (2018) Appendix A (when on site soil is to be used).
Sampling technique: The following sampling technique should be used in conjunction with the guidelines recommended in AS 4419 (1998). Where discrepancies arise, refer to the Superintendent for clarification prior to proceeding with any works.

The Contractor shall arrange for the following soil tests to be carried out:

- One test of any proposed imported topsoil; and
- Where site topsoil is to be used, one site topsoil test by an approved soil testing laboratory as specified, from topsoil stockpiles.

For each test, take three samples of each soil type. These should be taken from various locations. Each sample should be approximately a spade full in quantity. For each soil type, thoroughly mix the three samples together to obtain an 'average' sample. Ensure that mixing is carried out in a clean mixing container, with no impurities such as cement residue or imported soil etc present. Extract 1kg (approximately a 2L ice cream container) final samples from each of the three mixed batches. Package and forward to the soil laboratory for testing, together with a site plan locating sources of soil samples and a record of any relevant details about the site and source locations.

Type of Soil Test Required: The Contractor shall specify that a 'major soil test' is required, for the purpose of analysing the characteristics and recommendations for use as a landscaping topsoil for native species.

Results: The results of all soil tests should be submitted to the superintendent when available.

Lead time: Allow a minimum of 10 full working days for completion of soil testing, and check with laboratory to ensure testing will not delay landscaping works. Supply soil tests to site superintendent once available.

2.2.3 SUBSOIL

Excavated Planting Beds: Where defined planting beds are indicated on the landscape drawings with specific species scheduled and no turfing shown, treat as an excavated landscape planting bed

Excavation technique: Excavate to backfill with ameliorated site soil or imported general purpose soil to bring to levels shown on the drawings to allow for mulching and placement of imported soil. Rip and cultivate to depths as shown on the drawings.

2.2.4 SOIL TEXTURES

Use soils described by the following terms (or their equivalents) which comply generally with the texture classifications and typical uses of AS 4419 – (2018) Table H1 Medium textured - Sandy loam

2.2.5 SOIL LEVELS

Finished soil levels shall allow turf or mulch to be finished to top of kerb, gravel pavement, existing levels or as otherwise shown on drawings.

Consolidation
Tamp lightly and uniformly in 150 mm layers. Avoid differential subsidence and excess compaction and produce a finished topsoil surface which has the following characteristics:

- Finished to design levels.
- Smooth and free from stones or lumps of soil.
- Graded to drain freely, without ponding, to catchment points.
- Graded evenly into adjoining ground surfaces.
- Ready for planting.

Backfill Soil: Backfill holes using ameliorated site topsoil. Stock pile site soil onsite. Confirm stockpiles of site soil with superintendent prior to placement of materials. Site soil to be free from debris and weeds.

2.2.6 ADDITIVES

Additive types and rates: The Contractor shall incorporate additives to the subsoil or topsoil at rates recommended by the soil test results. This may include but not limited to PH neutral compost, lime, gypsum, urea, potash.

Application: Where subsoil additives are recommended by the soil tests apply additives after cultivation of the subsoil.

Where site topsoil is to be stockpiled for reuse, incorporate additives as recommended in soil tests by cultivating through the topsoil. For excavated garden beds or backfill to planting holes, incorporate additives into stockpiled topsoil prior to placement. In all situations, ensure additives are thoroughly mixed through topsoil.

2.3 MULCH

The use of mulch shall be limited to those areas which are specified on the plans, highly disturbed areas, and in locations where there is low erosion potential. Composted site mulch or an approved equivalent product (approved by site superintendent) spread to a depth of 75mm, is to be used. Where there is risk of mobilisation of surface materials due to weed management and/or planting works coir logs shall be used.

3.0 TREE SUPPLY SPECIFICATION

3.1 STANDARD

Guidance: Follow the guidance given in 'AS2303:2018'Tree Stock for Landscape Use'.

4.0 CRITERIA FOR TREE STOCK ASSESSMENT

4.1 GENERAL

This Section specifies the above- and below-ground criteria for tree stock assessment, which are necessary for determining quality tree stock for landscape use.
NOTES:
1. Those involved in production, design, procurement, planting and management of trees should have a comprehensive understanding of this Standard. Specialist advice should be sought where necessary.
2. Above- and below-ground criteria should be considered part of nursery production systems. Alternatively, these criteria may be incorporated into QA accreditation programs or used to assess tree stock at dispatch (see Section 4).

4.2 CRITERIA FOR ABOVE-GROUND ASSESSMENT OF TREE STOCK

True to type
Tree stock shall be true to type. Individual tree stock or batches of tree stock per variety shall be clearly labelled with correct botanical nomenclature.
NOTES:
1. Where common names are used, they should only be used as an adjunct to the botanic name of the tree
2. National Plant Labelling Guidelines contains information on determining correct botanic nomenclature. Available from www.ngia.com.au.
Height and calliper
The height and calliper range shall be recorded.
NOTES:
1. Height and calliper should be appropriate to the individual species.
2. Further information on Tree Stock Balance Assessment is provided in Section 3.
Health
Tree stock shall exhibit good health for the time of year, location and stage of growth, as demonstrated by the following:
(a) Crown density.
(b) Crown cover.
(c) Crown form.
(d) Leaf colour and size.
(e) Absence of epicormic shoots.
(f) Absence of die back.
Crown symmetry
Difference in crown distribution on opposite sides of the stem axis shall be ≤20%
NOTE: For an example, see Figure 2.1.
Significant injury
Tree stock shall be free from significant injury and wounds (except properly made pruning cuts in accordance with AS 4373), cracks, fungal fruiting bodies and bleeding areas (except from properly made pruning cuts in accordance with AS 4373).
Stem taper
The calliper at any given point on the stem shall be less than the calliper at any lower point on the stem, excluding species with atypical stem taper (e.g. Brachychiton rupestris or other such species).
NOTE: For an example of stem taper, see Figure 2.2.
Self-supporting

NOTES:
1. Support through staking or other means may still be required during production even if the stem is well structured. For example, support may be required to develop a central leader, to assist root systems to consolidate after re-potting into fresh growing media, to protect against strong winds or to simply support the above-ground parts.
2. Tight staking during production should be avoided as it may reduce stem taper and root system development. Therefore, staking methods should seek to minimize reliance on the stake.
Stem structure
The diameter of the stem above the branch union shall be greater than the diameter of the branch at the point of attachment.
NOTE: For an example, see Figure 2.3.

1. Where tree stock has a defined central leader, an apical bud shall be intact and any stem deviation from vertical shall not exceed 15°. Division shall be above any clean stem height requirements [see Figure 2.4(a)].
NOTE:
1. This does not apply to weeping trees, trees produced as multi-stemmed specimens or other trees where a straight leader is not specified or is not a natural characteristic.
2. Where tree stock has branch dominance, terminal buds shall be intact. The union at any division shall be sound (see Clause 2.2.10) and any such division shall be above any clean stem height requirements [see Figure 2.4(b)].
Formative pruning
Formative pruning of tree stock shall be in accordance with AS 4373. All pruning cuts shall be at the branch collar or a node (see Figure 2.5). The diameter of any pruning cut shall not exceed 50% of the stem diameter immediately above the point of pruning (see Figure 2.5). If a clean stem is required it shall not exceed 40% of total stem height see (Figure 2.5).

Included bark
Included bark shall not be present (see Notes). The stem bark ridge and branch bark ridge unions shall be convex [outwardly turned and extruding (see Note 1).
NOTES:
1. For convex stem bark ridge and branch bark ridge, see Figure 2.6, illustrations (a) and (c).
2. Included bark may be an inherent characteristic of various species and can arise through genetics, the use of poor pruning practices or it may be associated with regrowth after damage.
3. Unions with included bark inwardly turned [see Figure 2.6, illustrations (b) and (d)] are generally more prone to failure than sound/convex unions. They represent an inherent risk, which is greater in larger trees. Included bark can often be managed by formative pruning during nursery production and through the exclusion of stock plants that exhibit inclusions.
4. While there may be some species that naturally exhibit junctions with included bark, which rarely fail, these exceptions should be dealt with on an individual basis and should not compromise the overall aim of eliminating included bark from tree stock.
Trunk position
The base of the trunk shall be positioned within 10% of the centre of the root ball diameter.
Compatibility of graft unions
In grafted tree stock, the graft union shall be sound, and the scion and rootstock shall be compatible for the entire perimeter of the graft. The diameter of the scion immediately above the graft shall be within 20% of the diameter of the rootstock immediately below the graft, excluding bark and cleft grafts.

Pests and diseases
Tree stock should not show evidence of active pests and diseases that may compromise thehealth of the tree stock.
NOTES:
1. The Nursery Production Farm Management System incorporating Nursery Industry Accreditation Scheme, Australia (NIASA), EcoHort and BioSecure HACCP, contains information on the management of active pests and diseases. Available from www.ngia.com.au.
2. Some organisms or indications of their presence are not necessarily harmful, particularly in circumstances where beneficial organisms have been used under an integrated pest management strategy. Galls or swellings on some species may be normal.

4.3 CRITERIA FOR BELOW-GROUND ASSESSMENT OF TREE STOCK

Non-suckering rootstock
At the time of dispatch there shall be no evidence of suckering on rootstock.
NOTE: Grafted tree stock should be supplied on non-suckering species of rootstock.
Pests, diseases and weeds
The rootball should show no evidence of any active pests, diseases or weeds that may compromise the health of the tree stock.
NOTES:
1. The Nursery Production Farm Management System incorporating Nursery Industry Accreditation Scheme, Australia (NIASA), EcoHort and BioSecure HACCP, contains information on the management of active pests, diseases and weeds. Available from www.ngia.com.au.
2. Some organisms or indications of their presence are not necessarily harmful, particularly in circumstances where beneficial organisms have been used under an integrated pest management strategy. Galls or swellings on some species may be normal; e.g., lignotubers on some *Eucalyptus spp.*
Rootball occupancy
On removal of the unsupported rootball from the container, at least 90% of the growing media volume shall remain intact in or around the rootball.
Root direction
Tree stock in containers shall comply with the following:
(a) Circling roots shall not be present in the rootball (see Note 1).
(b) Woody circling roots shall not be present at the extremity of the rootball.
(c) Tree stock in containers and bare rooted tree stock shall also comply with the following (see Note 2):
(i) Roots, from the point of initiation, shall grow in an outwards (radial) and downwards direction.
(ii) Girdled roots, kinked roots or j-roots shall not be present (see Note 3).
NOTE:
Roots at the outer edge of a container should be removed at or before planting. Any such pruning should be restricted to the outermost edge of the rootball.
Root division
Tree stock in containers ≤45L and ex-ground tree stock shall have undergone primary division at least once within the rootball.
NOTES:
1. This will ensure optimum root occupancy.
2. At each stage of production the root system should be inspected for non-conforming roots and pruned if required.

5.0 CRITERIA FOR TREE STOCK BALANCE ASSESSMENT

Tree stock balance is determined by calculating size index by multiplying the height (metres) of the tree stock measured from the root crown to the top of the trunk by the calliper (millimetres), as follows: *Size index = height x calliper*
The calculated size index value of tree stock in containers >20L or ex-ground tree stock with a minimum rootball diameter of ≥400mm should fall within nominated container volume as set out in Appendix E.
NOTES:
1. It is recognized that species, climatic conditions and production process may influence the height-calliper proportions. Therefore, size index should not be used in isolation when specifying tree stock for landscape use.
2. Further information regarding indicative tree stock height and calliper measurements is given in Appendix D, AS2303.
3. At the time of publication, industry had committed to undertake further research of tree stock balance parameters across all climatic regions of Australia. This is intended to be completed within two years of publication and the data considered in a review of the Standard at that time.

7.0 EXECUTION

7.1 EXCAVATION OF PLANTING HOLES

Locations for plants and/or outlines of areas to be planted are to be staked out at the site. Locate and mark all subsurface utility lines. Approval of the stakeout by the supervisor is required before excavation begins. Tree pits are to be excavated to the depth and widths indicated on the drawings. If the planting area under any tree is initially dug too deep, the soil added to bring it up to the correct level should be thoroughly tamped. The sides of the excavation of all planting areas shall be sloped at 45 degrees. The bottom of the planting hole shall slope parallel to the proposed grades or toward any subsurface drain lines within the planting bed.

Maintain all required angles of repose of the adjacent materials as shown on the drawings. Do not excavate compacted subgrades of adjacent pavement or structures.

Subgrade soils shall be separated from the topsoil, removed from the area, and not used as backfill in any planted or lawn area. Excavations shall not be left uncovered or unprotected overnight. For trees and shrubs planted in individual holes in areas of good soil that is to remain in place and/or to receive amendment in the top 150mm layer, excavate the hole to the depth of the root ball and to widths shown on the drawing. Slope the sides of the excavation at a 45 degree angle up and away from the bottom of the excavation.

Preparation of subgrades to be inspected prior to the installation or modification of topsoil or planting mix. Till the subsoil into the bottom layer of topsoil or planting mix. Loosen the soil of the subgrade to a depth of 50 to 75 mm with a rototiller or other suitable device.

Detrimental soil conditions: The supervisor is to be notified, in writing, of soil conditions encountered, including poor drainage, that the contractor considers detrimental to the growth of plant material. When detrimental conditions are uncovered, planting shall be discontinued until instructions to resolve the conditions are received.

Obstructions: If rock, underground construction work, utilities, tree roots, or other obstructions are encountered in the excavation of planting areas, alternate locations for any planting shall be determined by the landscape architect.

7.2 PLANTING OPERATIONS

Before planting begins thoroughly water the plants and planting areas. Water plants again immediately after planting.

Lift plants only from the bottom of the root balls or with belts or lifting harnesses of sufficient width not to damage the root balls. Do not lift trees by their trunk or use the trunk as a lever in positioning or moving the tree in the planting area.

Remove plastic, paper, or fiber pots from containerised plant material. Score the side of the root ball with a sharp knife and tease out roots. Immediately after removing the container, install the plant such that the roots do not dry out. Pack planting mix around the exposed roots while planting. Completely remove any waterproof or water-repellant strings or wrappings from the root ball and trunk before backfilling.

Soils and mulch

Place soil mixes, tamping lightly to reduce settlement. Ensure that the backfill immediately around the base of the root ball is tamped with foot pressure sufficient to prevent the root ball from shifting or leaning.

Thoroughly water all plants immediately after planting. Apply water by hose directly to the root ball and the adjacent soil. Remove all tags, labels, strings, etc. from all plants. Remove any excess soil, debris, and planting material from the job site at the end of each workday.

Fine Grading

Provide smooth transitions between slopes of different gradients and direction. Modify the grade so that the finish grade is flush with all paving surfaces or as directed by the drawings. Fill all dips and remove any bumps in the overall plane of the slope.

Staking and Guying

Stake or guy a tree as shown on the details.

Pruning

Plants shall not be heavily pruned at the time of planting. Pruning is required at planting time to correct defects in the tree structure, including removal of injured branches, double leaders, waterspouts, suckers, and interfering branches. Healthy lower branches and interior small twigs should not be removed except as necessary to clear walks and roads. In no case should more than one-quarter of the branching structure be removed. Retain the normal or natural shape of the plant. All pruning shall be completed using clean, sharp tools. All cuts shall be clean and smooth, with the bark intact with no rough edges or tears.

Mulching

All trees are to be mulched to the depths shown on the drawing. Mulch must not be placed within 8 cm of the trunks of trees. Spread 75mm layer mulch to all mass planting beds and individual plantings in turf. Finish to the required levels. Keep mulch away from the plant stems. No mulch to creek banks.Mulch selection to be based on suitability to species proposed in planting selection.

8.0 PLANT ESTABLISHMENT

8.1 SCOPE

The maintenance period for the Landscape Contractor will be 156 weeks.

The maintenec e period is to take into account all areas documented within the Landscape Plan, not only where mitigation works have taken place.

All rubbish related to landscape works shall be removed by the landscape contractor before it is allowed to accumulate.

Period: The Planting Establishment Period commences at the date of Practical Completion.

The duration of the plant establishment period is 104 weeks

Program: The maintenance schedule will be advised once Practical Completion has occurred.

Log Book: Keep a log book recording when and what maintenance work has been done and what materials, including toxic materials, have been used. Refer to section 10.

Recurrent Works: Throughout the Planting Establishment Period, continue to carry out recurrent works of a maintenance nature including, but not limited to, watering, mowing, weeding, rubbish removal, fertilising, pest and disease control, staking and tying, replanting, cultivating, pruning and keeping the site neat and tidy.

Replacements: Continue to replace failed, damaged or stolen plants for the extent of the Planting Establishment Period.

Mulched Surfaces: Maintain the surface in a clean and tidy condition and reinstate the mulch as necessary.

Site Water: The contractor shall assume there is no site water available other than that which is provided as part of the works. The contractor shall be responsible for supplying water and/or paying for water for the duration of the works.

8.1 WEEDING

Any species likely to significantly invade the vegetation management area, prevent natural regeneration, or impede seed growth is to be targeted for removal. Species considered as weeds within the Warrumbungle Shire Council area and listed under the National Significance and Biosecurity Weeds to be given priority.

8.2 ESTABLISHMENT PROCEDURES , MANAGEMENT ACTIONS AND MONITORING RESPONSIBILITIES

Phase 1: Construction (Pre-planting)

Actions	Task description	Allocated Timeframe	Positive indicators	Frequency	Contingencies
Watering	Keep soil moist by watering regularly and gently to ensure growth		Colour of the soil must be a darker tone and feel moist to the touch	2-3 watering cycles to get the soil wet or moist	If the soil appears two third lighter than when watered repeat watering cycle
Mowing	Keep the seeded turfed area to a minimum height to ensure visual security	First mow to occur after 8-10cm of visible sprouts	Sprouts visible in areas	3-6 weeks after spreading / planting	Mow only after turf is at a recommended height. Mowing should occur gently to ensure as new seedling are tender
Fertilising	Lightly fertilise using a quality fertiliser	After the first mow	Healthy growth of turf	Until seed establishment	Do not over fertilise Use organic fertiliser
Weed spraying (Pre-planting)	Broad acre and spot spraying of annual grasses and weeds within planting zones following relevant standards and procedures	4-6 weeks prior to planting	Decline and reduction of live weed cover by 90%	Within the first two weeks of spraying inspect for effectiveness Dated photos of effectiveness and include in report Retain invoices if possible as evidence	Repeat spraying to achieve 90% reduction rate
Pest animal control	Inspect site for any pest animal warrens and treat as necessary	Prior to planting	No evidence of damage to plantings and no evidence of pests	Monitor site weekly during establishment period for evidence of pests	Consider effective control measure or fencing if pest animals continue to pose a threat to plantings
Planting and Guarding	Ensure planting is carried out at recommended densities within screening areas identified on the approved landscape plans. Stake and guard all trees and shrubs with standard tree guards or equivalent Ensure temporary guards or fencing around seeded turf to promote healthy growth	Planting and guarding to take place after installation	Successfully staked and guarded prior to commencement of construction	Inspect locations after planting every two weeks for signs of pests and animal damage Monitor and remove tree guards if deemed necessary	In dry conditions water plantings using water truck or similar methods Use 1.5m tall guards or netting if standard tree guards are insufficient

Phase 2: Construction and operation phase

Actions	Task description	Allocated Timeframe	Positive indicators	Frequency	Contingencies
Monitoring to achieve satisfactory growth rates	Establish a minimum of one photo point in each management zone to demonstrate growth and screening effectiveness	Every three months after plant establishment	Satisfactory growth is achieved as per requirements	Document planting success every three months. Collate and monitor photo point and compile into six monthly report	If die back occurs determine the best performing species and use to achieve desired results
Watering	Regularly water juvenile plants to ensure proper establishment	Weekly over three months following planting	95% survival rate for planting vegetation following three months	Monitor for signs of drought stress in plants Document each watering cycle	If water is unavailable contact DPE to discuss other contingencies to achieve screen planting
Weeding	Spot spray along planting zones to reduce weed growth	Spray monthly for first 12 months then quarterly for three years	Screening area is 90% native vegetation	Within the first two weeks of spraying inspect for effectiveness Dated photos of effectiveness and include in report Retain invoices if possible as evidence	Repeat spraying cycle if proven ineffective within 14 days
Pest animal control	Insect site for any signs of pest animals and conduct necessary physical or chemical treatments	Three times annually for three years	No visible evidence of damage to plants	Inspect locations after planting every two weeks for signs of pests and animal damage Retain invoices if possible as evidence	In dry conditions water plantings using water truck or similar methods Use 1.5m tall guards or netting if damage occurs
Infill planting	Replace any dead plants with new stock or with the best performing species	Monitor throughout the three-year period	Failed planting to be replaced to achieve 95% success rate	Inspect locations after planting every two weeks for signs of pests and animal damage	If die back occurs determine surviving best performing species and use to achieve desired results
Monitor fencing	Ensure fencing is in good condition for effective security of the development	Quarterly after installation for three years	Gates and fences are in good working order and operate successfully to exclude livestock or pests	Dated photos to be included in six monthly reports	If required undertake repair works or engage contractor to remediate any issues

Phase 3: Operational Phase

Actions	Task description	Allocated Timeframe	Positive indicators	Frequency	Contingencies
Weeding	Spot spray within management zones to reduce weed growth	Spray twice annually as required or in response to weed issues	Screening area is 90% native vegetation	Within the first two weeks of spraying inspect for effectiveness	Repeat spraying cycle if proven ineffective within 14 days
Pest animal control	Insect site for any signs of pest animals and conduct necessary physical or chemical treatments	Twice annually or as required	No visible evidence of damage to plants	Inspect locations to monitor for damage	Implement more intensive fencing and tree guarding protocols if unsuccessful
Vegetation management	Managing vegetation within development site by allowing small livestock to graze like lambs and sheep	Inspect annually or as required	Assets are protected	Annually or as required	Ensure vegetation management techniques are monitored

9.0 REPORTING

Practical Completion Reports

Following an inspection of the restoration area and rectification of any defects identified by Moir Landscape Architecture, Moir Landscape Architecture is to submit a 'Practical Completion Report' to the Principle Certifying Authority. This report will confirm that the works have been installed as per the approved plans, or outline any deviations from the plans, and any rectifications required.

The restoration areas shall also be monitored to document such things as growth rates, success and failures. Monitoring of the growth, root distribution and transpiration rates of establishing species will help identify species that are successful and suitable for use in future stages or as replacement plantings.

Plant Establishment

During plant establishment of the proposed landscape works and regeneration areas should be checked regularly for plant health and weed invasion. Maintenance will vary in intensity over the life of the establishment period. Regular inspections will reduce the potential for minor infestations becoming major problems. All rubbish related to landscape works shall be removed by the landscape contractor before it is allowed to accumulate. During the maintenance period the landscape contractor shall undertake the following: Regular watering, weeding, mulching, plant replacement and other activities as required to promote healthy growth.

A 'Maintenance Log' is to be completed by the contractor verifying that satisfactory maintenance of the works has been undertaken and that any necessary rectification measures have been carried out to a high professional standard. All works undertaken are to be recorded with reference to the Maintenance Schedule. The 'Maintenance Log' is to be available at anytime to the Client and Site Superintendent.

Quarterly Inspections are to occur with the Client, Contractor and Moir Landscape Architecture present. A report is to be produced by Moir Landscape Architecture summarising the inspection and providing any recommendations for rectification works to be carried out. This report and photos are to be forwarded to the DIPW for review. Report to be forwarded to Lake macquarie Council Council for their reference.



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ARCHITECT:

ENGINEER:

CLIENT:

NGH

No: DATE: REVISION:
A 18/4/2024 FOR REVIEW

BY:
NL

PROJECT:

MOREE BESS LANDSCAPE PLAN

Kamilaroi Country

MOREE NSW

Status: DRAFT

SPECIFICATION

SCALE:

ORIGINAL DRAWING AT A1.
Drawn By: NL
Checked By: AL

Project No.

Drawing No.

LP05

North

2445

Rev

A

NOTE: DRAWING PURPOSES FOR APPROVAL ONLY. NOT FOR CONSTRUCTION.