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Issue	Revision Description	Drawn	Check	Date
B	FOR D.A. SUBMISSION	KH	AE	06.07.2010
A	FOR REVIEW	ZW	RS	30.06.2010

LEGEND

- Proposed Trees (refer to Plant Schedule)
- Relocated Palms
- Existing Trees to be Removed (Refer to arborist report for Detail)
- Existing Trees to be Retained (T1 & T2 to be relocated) (refer to Arborist report for tree protection detail)
- Proposed Shrubs and Screening Plants (Refer to plant schedule for indicative species list)
- Proposed Groundcovers (Refer to plant schedule for indicative species list)
- Proposed Concrete (refer to Architects / Engineers Drawing for detail)
- Turf
- Boundary Line
- Steel Garden Edge

Key Plan:

Client:
SYDNEY ADVENTIST HOSPITAL

Project:
**SAH DAY SURGERY
 HORNSBY REDEVELOPMENT**

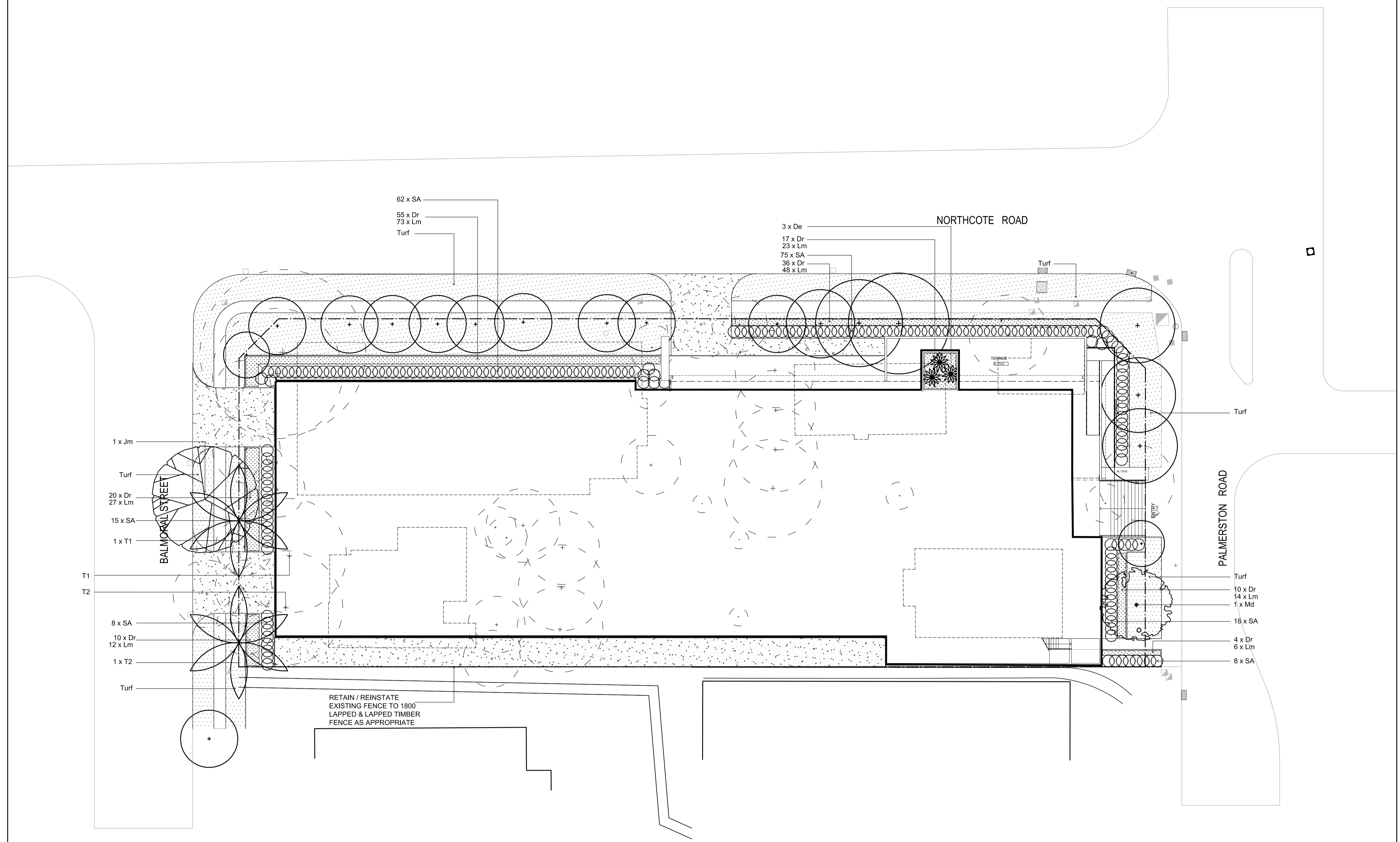
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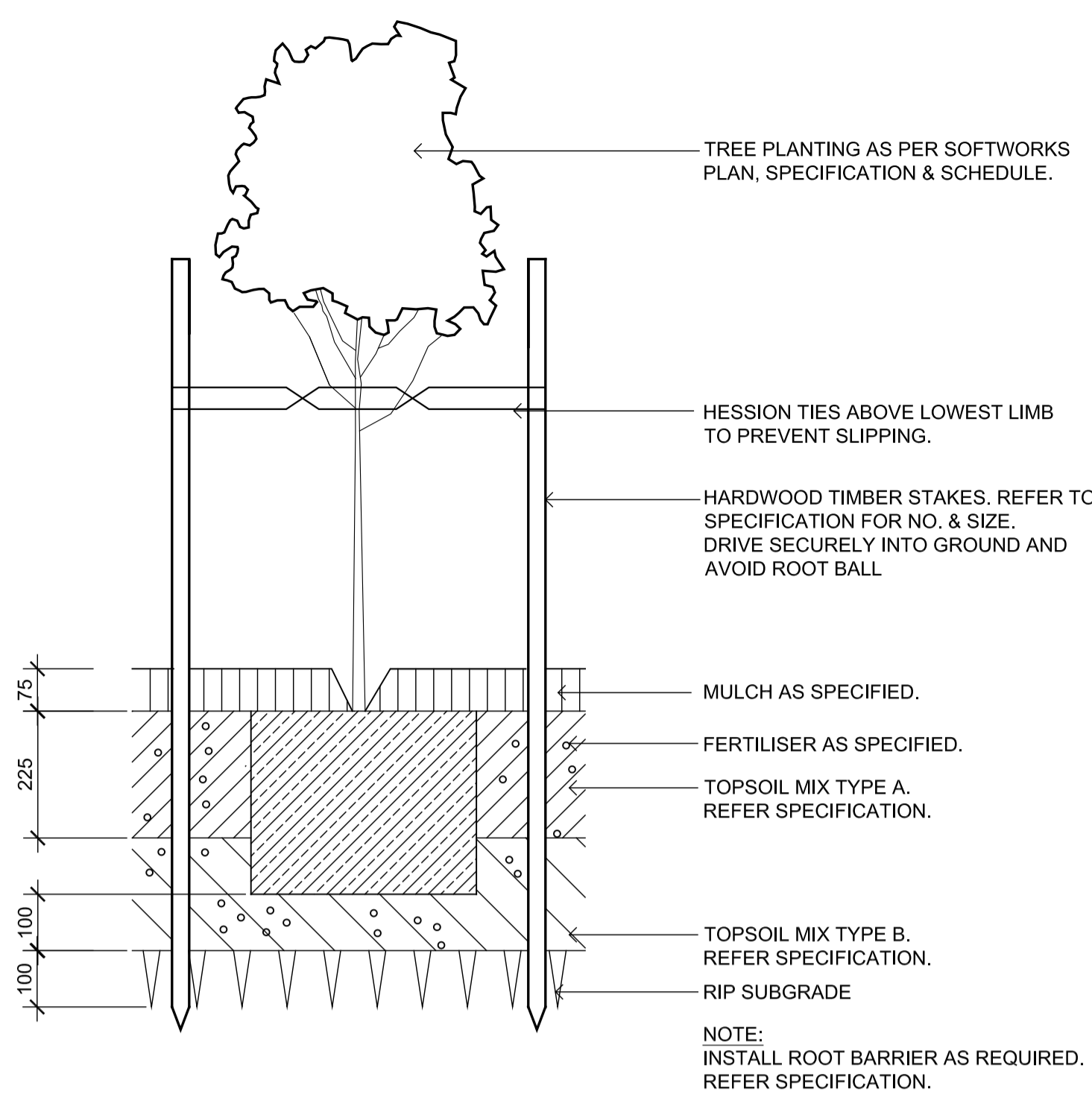
DEVELOPMENT APPLICATION

Drawing Name:
LANDSCAPE PLAN

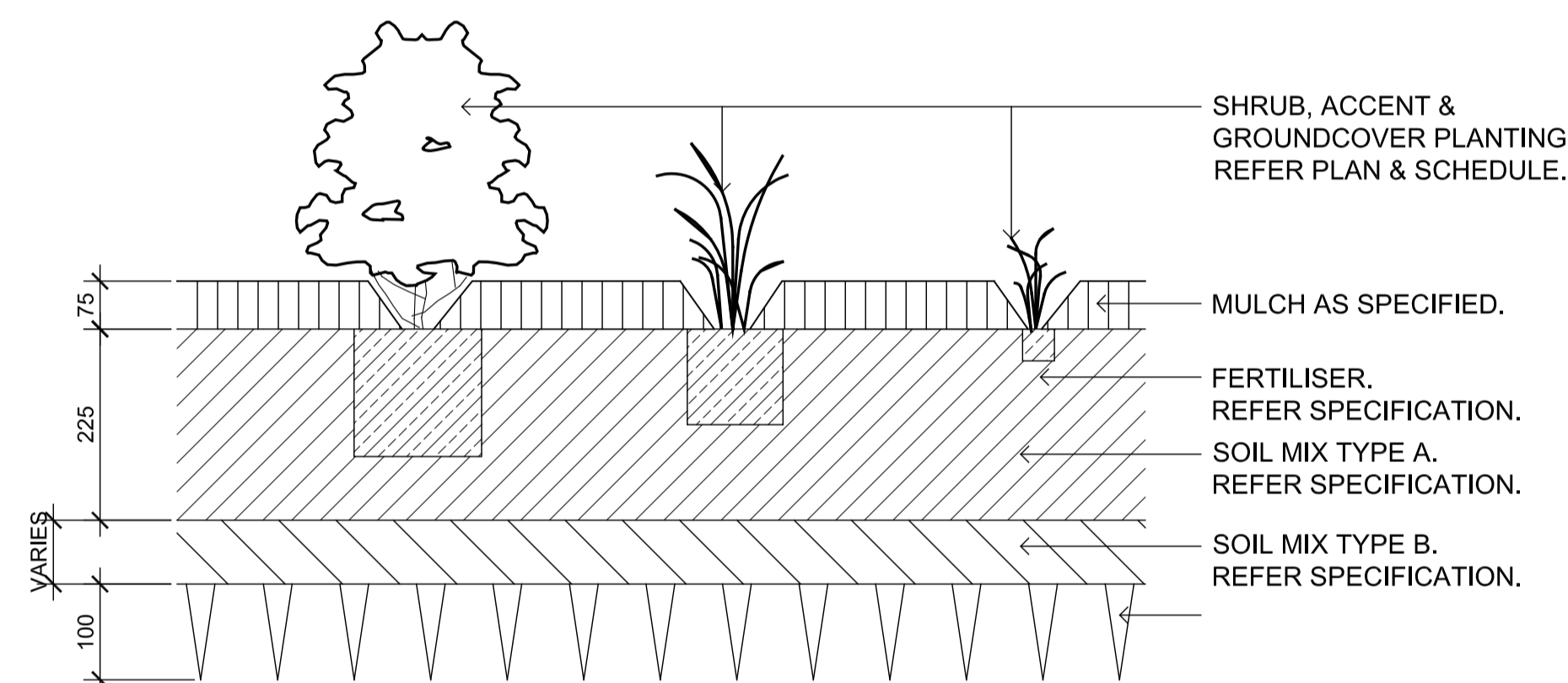
Scale: 1:200 @ A1
 Job Number: **SS10-2192**
 Drawing Number: **101**
 Issue: **B**



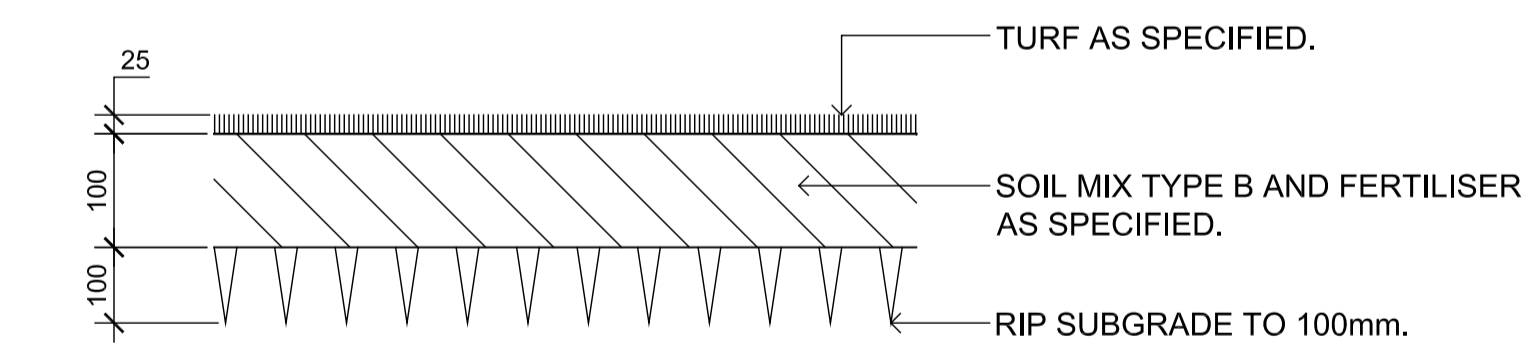
PLANT SCHEDULE								
Symbol	Botanical Name	Common Name	Mature Height (m.)	Mature Spread (m.)	Spacing	Pot Size	Native/Exotic	Qty
Trees								
Jm	<i>Jacaranda mimosifolia</i>	Jacaranda	10	6	As shown	75L	Exotic	1
Md	<i>Melaleuca decora</i>	White Feather Honeymyrtle	6-10	3	As Shown	75L	Native	1
Shrubs								
De	<i>Doryanthes excelsa</i>	Gymea Lily	1.5	1.5	As Shown	200mm	Native	3
Sa	<i>Syzygium australe</i>	Scrub Cherry	8	4	As shown	200mm	Native	186
Mass Planting								
Dr	<i>Dianella revoluta</i>	Spreading Flax Lily	1	1	3/m2	75mm tube	Native	152
Lm	<i>Lomandra multiflora</i>	Matt Rush	0.5	0.3	4/m2	75mm tube	Native	203
Trees (To Be Transplanted)								
T1 / T2	<i>Phoenix canariensis</i>	Canary Island Date Palm			As Shown		Native	2



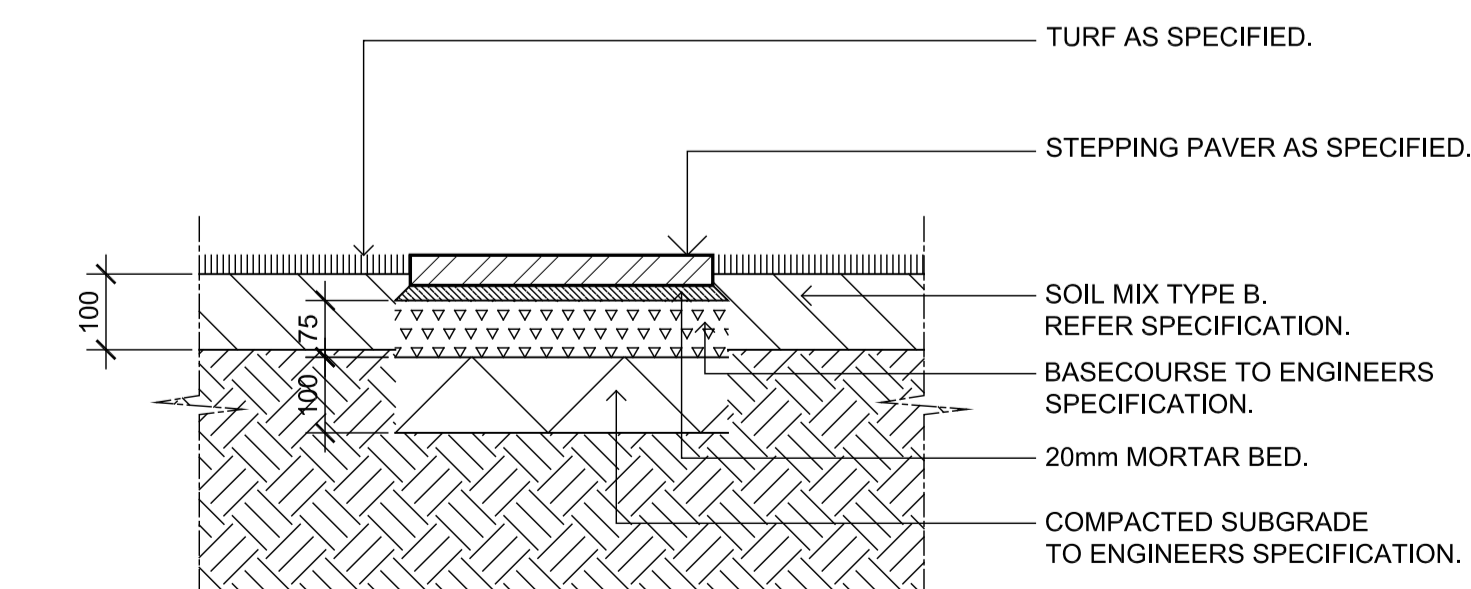
25L-75L TREE PLANTING ON GRADE
SCALE 1:10



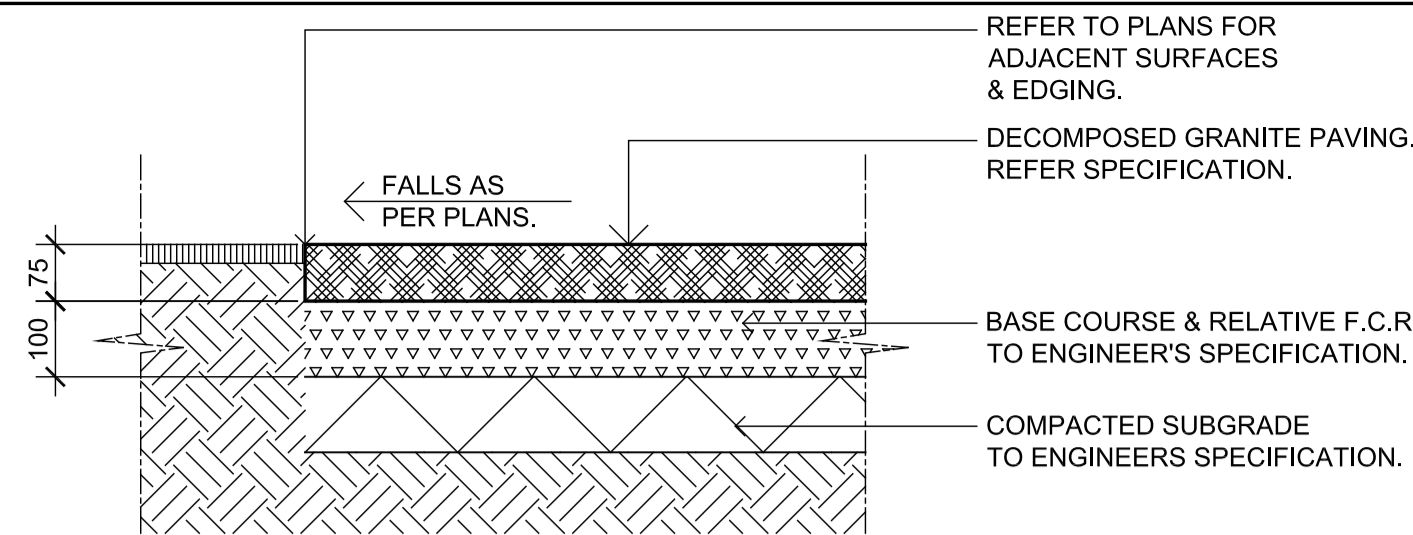
SHRUB, ACCENT & GROUNDCOVER PLANTING ON GRADE
SCALE 1:10



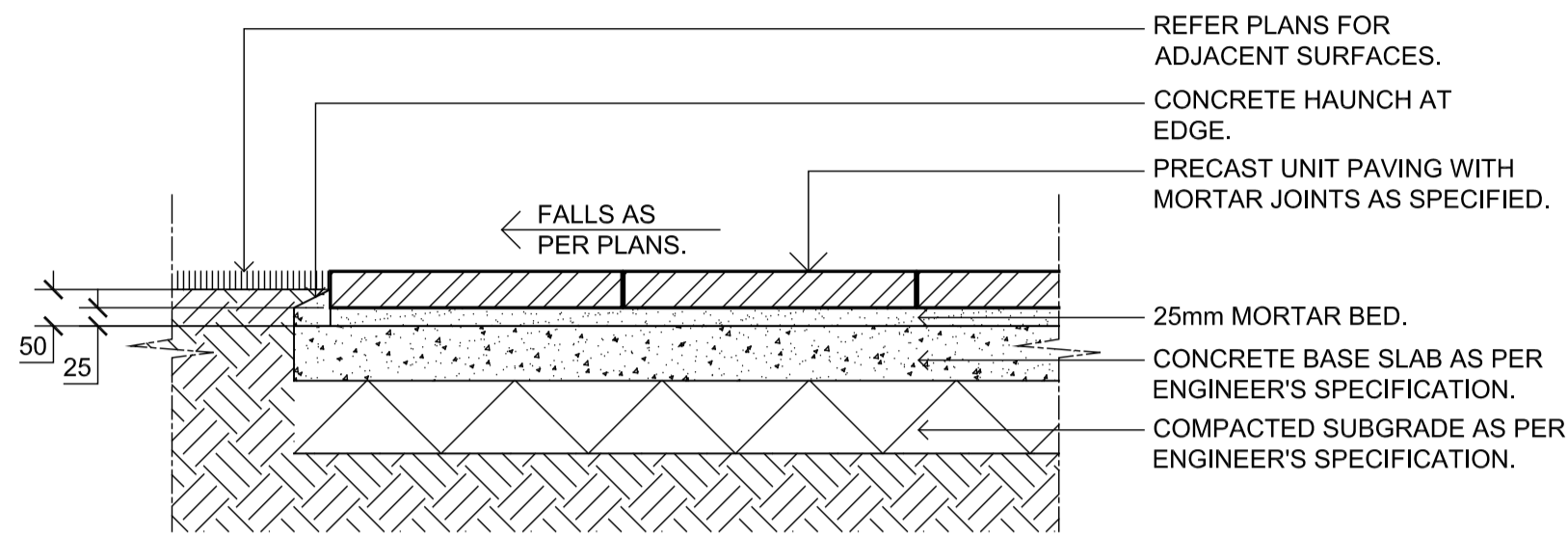
TURF ON EVEN GRADE
SCALE 1:10



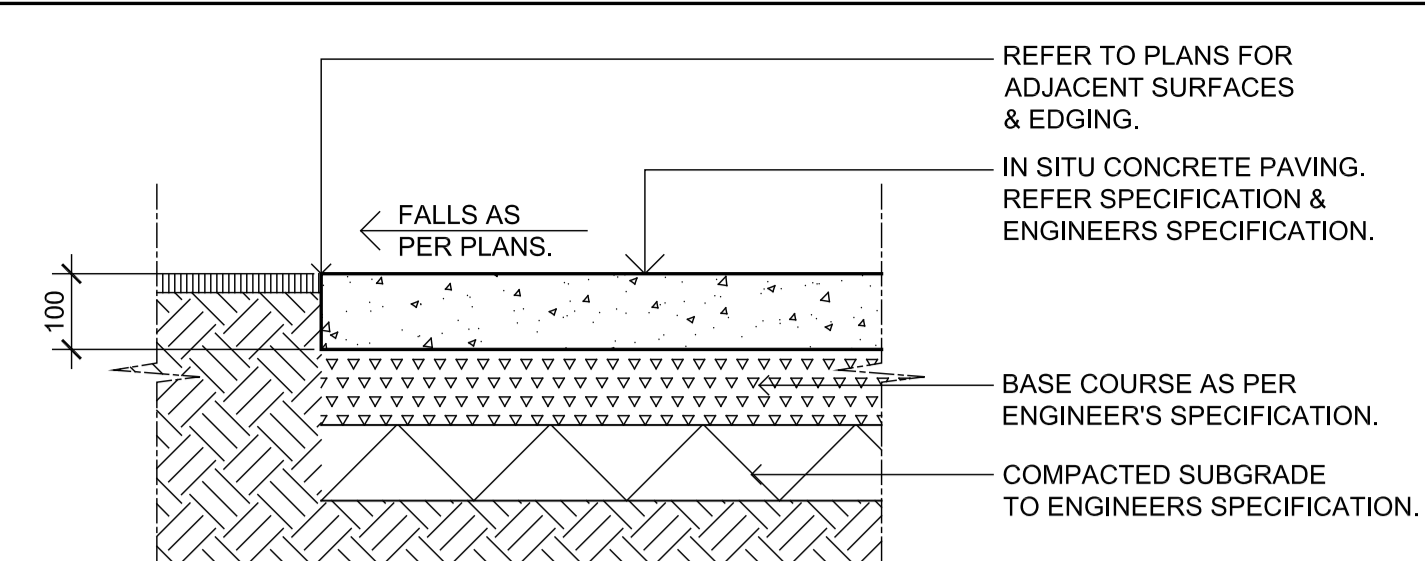
STEPPING PAVER IN TURF ON GRADE
SCALE 1:10



DECOMPOSED GRANITE PAVING ON GRADE
SCALE 1:10



PRECAST UNIT PAVERS ON GRADE
SCALE 1:10



INSITU CONCRETE PAVING
SCALE 1:10

INDICATIVE SPECIFICATION

1.0 GENERAL NOTES

1.1 Workmanship and Materials

The whole of the landscape works shall be carried out by a competent Landscape Contractor who is experienced in horticultural practice, landscape construction and planting techniques. The Landscape Contractor shall hold a current Building Contractors License and / or be a financial member of the Landscape Contractors Association.

2.0 EXISTING TREES

2.1 Trees to be Retained and Protected

Identify and mark trees and shrubs to be retained using a suitable non-injurious, easily visible and removable means of identification. Protect from damage the trees and shrubs to be retained, including those beyond the site area, both above and below the ground. If a tree becomes damaged during the works or it is proposed to perform work on a tree, give written notice immediately and obtain instructions.

2.2 Work near Trees

Keep the area of the drip-line free from construction material and debris. Do not place bulk materials and harmful materials under or near trees. Do not place spoil from excavations against tree trunks. Prevent wind-blown materials such as cement from harming trees and plants. Do not remove topsoil from, or add topsoil to, the area within the drip-line of trees.

3.0 SOFTSCAPE ELEMENTS

3.1 Soil Testing

Undertake at least two (2) soil tests, in locations as advised by Project Manager, and provide results and recommendations for the improvement of plant growth and to adjust the soil to achieve appropriate planting medium (including pit levels) for successful plant growth.

3.2 Subsoil

Excavate all garden beds to bring the subsoil to at least 300mm below finished design levels. Shape the subsoil to fall to subsoil drains where applicable. Do not excavate within the drip line of trees to be retained. Excavate all turf areas to bring the subsoil to at least 100mm below finished design levels. Shape the subsoil to fall to subsoil drains where applicable. Do not excavate within the drip line of trees to be retained. Cultivate the subsoil to a further depth of 100mm. Remove stones exceeding 25mm, clods of earth exceeding 50mm, and weeds, rubbish or other deleterious material brought to the surface during cultivation. Do not disturb services or tree roots. If necessary cultivate these areas by hand. During cultivation, thoroughly mix in materials required to be incorporated into the subsoil, as recommended in the soil testing results and to manufacturer's recommendations. Trim the surface to design levels after cultivation.

3.3 Topsoil

Import topsoil for the garden and turf areas, unless the topsoil can be provided from material recovered from the site, as recommended in the soil testing results. Spread the topsoil on the prepared subsoil and grade evenly, compact lightly and uniformly in 150mm layers. Avoid differential subsidence and excess compaction and produce a finished topsoil surface which has the following characteristics:

- Finished to design levels, allowing for mulch or turf, which is to finish flush with adjoining hard surfaces such as paths and edge.
- Smooth and free from stones or lumps of soil.
- Graded to drain freely, without ponding, to catchment points.
- Graded evenly to adjoining surfaces, and
- Ready for planting.

3.4 Compost

Provide, in accordance with AS 4454, well rotted vegetative material or animal manure, free from harmful chemicals, grass and weed growth.

3.5 Fertiliser

Provide proprietary fertilisers, delivered to the site in sealed bags marked to show manufacturer or vendor, weight, fertiliser type, N:P:K ratio, recommended uses and application rates.

3.6 Plants

Supply plants in accordance with the landscape drawings and schedules, which have the following characteristics:

- Large healthy root systems, with no evidence of root cut, restriction or damage.
- Vigorous, well established, free from disease and pests, of good form consistent with the species or variety.
- Hardened off, not soft or forced, and suitable for planting in the natural climatic conditions prevailing at the site, and in particular shade conditions.
- Grown in their final containers for not less than twelve weeks.
- Trees, unless required to be multi-stemmed, shall have a single leading shoot, and
- Containers shall be free from weeds and of appropriate size in relation to their container.

3.7 Installation of Plants

Following excavation of the planting hole place and spread 15gms of wetting agent equal to 'terra-sorb', pre-mixed with one (1) litre of water, at the bottom of each planting hole. Backfill the planting holes with topsoil mixture. Lightly tamp and water to eliminate air pockets. Ensure the topsoil is not placed over the top of the rootball, so that the plant stem remains the same height above the ground as it was in the container. Apply fertiliser pellets, as recommended in the soil testing results and in accordance with the manufacturer's recommendations around the plants at the time of planting.

3.8 Embankment Stabilisation

Where necessary to prevent soil erosion or soil movement, stabilise embankments. As a minimum this should be on slopes > 1 in 3. Stabilise embankments using biodegradable fibre reinforced with heavy weight polymer mesh, install in accordance with manufacturer's specification, including 300 x 300 mm anchor trenches at top and bottom, backfilled with soil and compacted, and U-shaped galvanised steel pegs at 1000 x 1000 mm intervals generally and 250mm at overlaps. Plant after matting is installed.

3.9 Root Barrier

Supply and install root control barriers to all new tree and shrub plantings adjoin the wall or the high voltage cable, where their proximity poses a threat to the stability of the infrastructure. Root barriers shall be equal to Root Wall, as supplied by Treemax, and installed alongside the landscape element to be protected in accordance with manufacturer's recommendations.

3.10 Mulching

Mulch shall be approved recycled mulch recovered from site clearing, if available, otherwise pine bark equal 'Horticultural Graded Pine Bark 15mm' as supplied by Australian Native Landscapes. Place mulch in all garden beds to a depth of 75mm, when all specified plants are installed, clear of all plant stems, and rake to an even surface flush with the surrounding finished levels and evenly graded between design surface levels. The specified depth shall be achieved after the mulch has settled.

3.11 Stakes and Ties

Stakes shall be durable hardwood, straight, free from knots or twists, pointed at one end, in the following quantities and sizes for each of the various plant pot sizes:

- Plants (<25L): One (1) of 38 x 38 x 1200mm
- Semi-advanced plants (>75L): Two (2) of 50 x 50 x 1800mm, or
- Advanced (>100L): Three (3) of 60 x 60 x 2400mm.

3.12 Turf

Turf shall be Soft Leaf Buffalo or approved equal, delivered to site as 25mm minimum thick cut rolls. Obtain turf from a specialist grower of cultivated turf. Provide turf of even thickness, free from weeds and other foreign matter. Deliver turf to the site within 24 hours of being cut, and lay it within 24 hours of delivery. Prevent it from drying out between cutting and laying. Lay the turf in the following manner:

- In stretcher pattern with the joints staggered and close butted.
- Parallel with the long sides of level areas, and with contours on slopes, and
- To finish flush, after tamping, with adjacent finished surfaces of ground.

4.0 IRRIGATION

4.1 System

The irrigation system shall be an automatic fixed drip system, with an irrigation controller self operated via a soil moisture sensor. The system shall be compatible to the type of plant material and rates of water required. Where appropriate adjustable and fully serviceable. The layout of the entire irrigation is to ensure that each individual plant receives the required amount of water to maintain healthy and vigorous growth. The irrigation system shall be such that, component theft, vandalism, over-spray and wetting of paths shall be reduced to a minimum or completely eliminated by the use of drip, pop-up sprinklers and judiciously placed fixed spray emitters. Do not use fine mist type emitters that provide a drifting mist that may wet paths and the buildings.

5.0 PLANT ESTABLISHMENT

5.1 Generally

The Landscape Contractor shall rectify defects during installation and that become apparent in the works under normal use for the duration of the contract Defects Liability Period. The Landscape Contractor shall maintain the contract areas by the implementation of industry accepted horticultural practices for 52 weeks. The landscape maintenance works shall include, but not be limited to, the following:

- Replacing failed plants.
- Pruning.
- Insect and pest control.
- Fertilising.
- Maintaining mulch.
- Mowing.
- Watering.
- Rubbish removal, and
- Cleaning of the surrounding areas.

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A		FOR REVIEW	ZW	RS	30.06.2010

LEGEND

Key Plant:

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DEVELOPMENT APPLICATION

Drawing Name:

LANDSCAPE DETAILS
& SPECIFICATION

Scale: AS SHOWN

Job Number:	Drawing Number:	Issue:
SS10-2192	501	A



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Drawing Name:
LANDSCAPE PLAN

Scale: 1:200 @ A1

Job Number: SS10-2192	Drawing Number: C101	Issue: B
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