

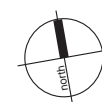
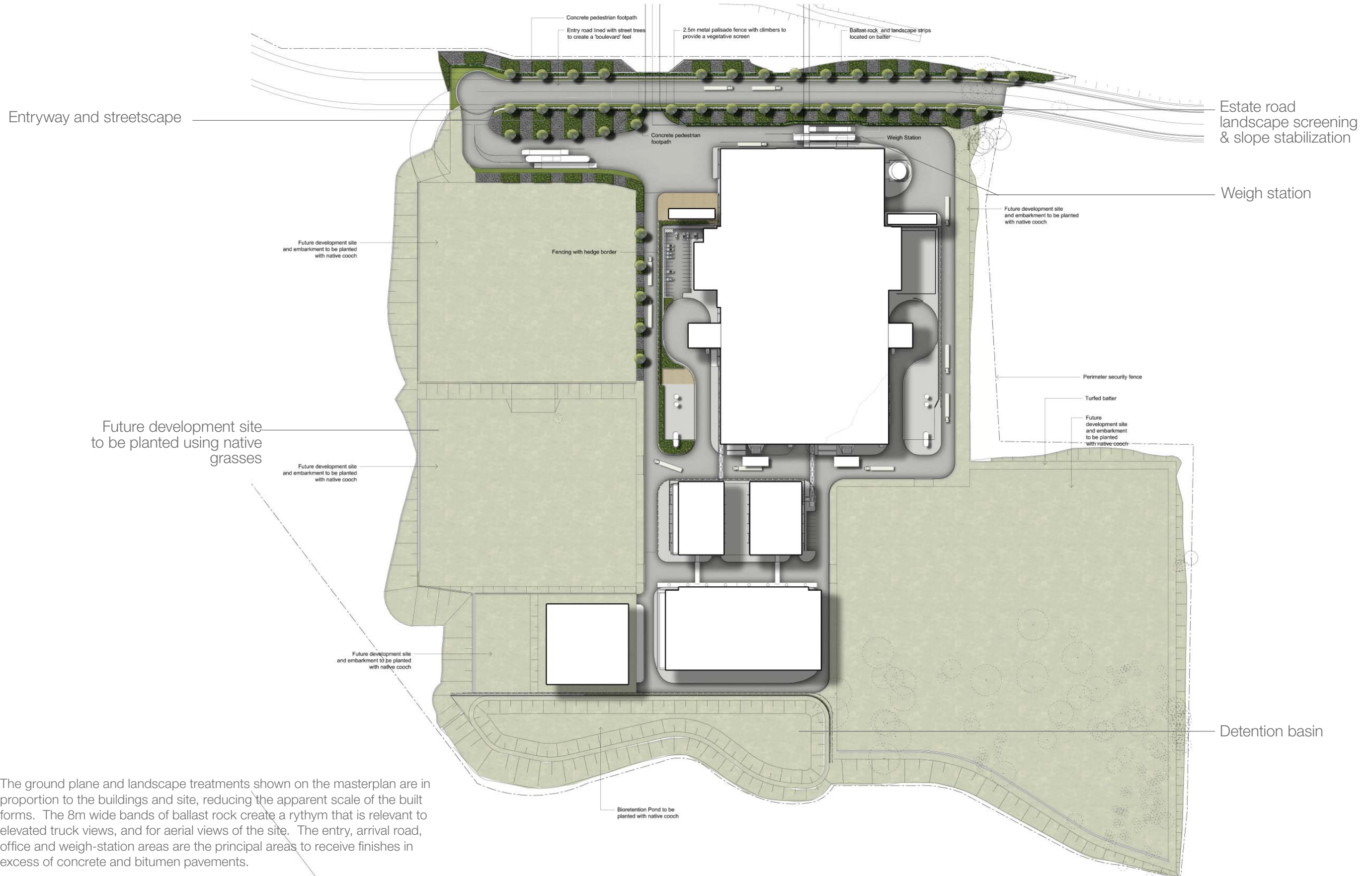


# TNG Power Plant Landscape Concept Package

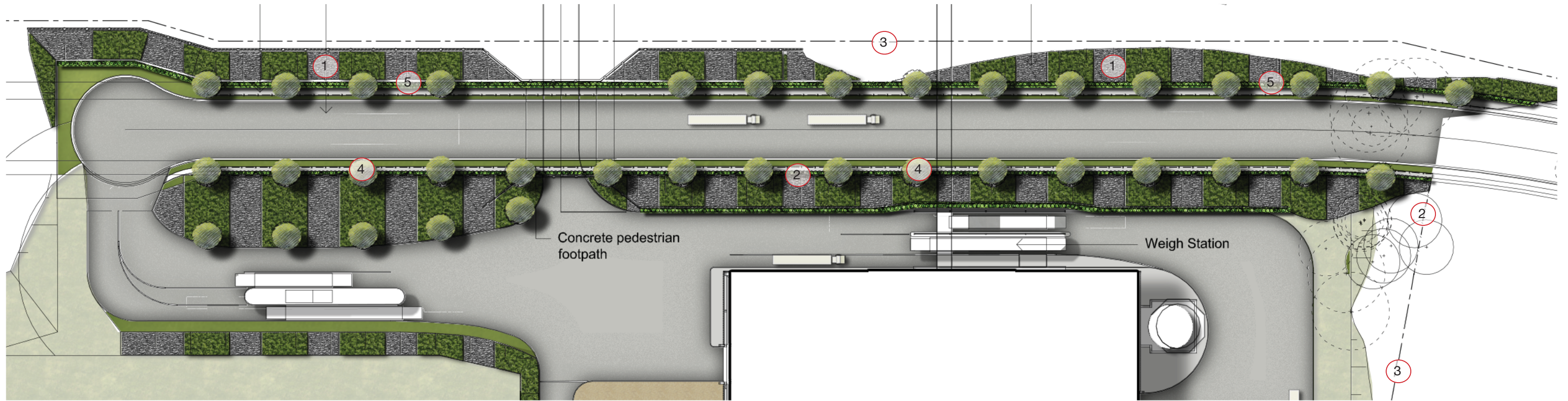


SITE IMAGE  
Landscape Architects

Sydney | Melbourne | Ho Chi Minh City







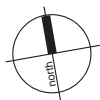
The site entry and adjacent streetscape are provided large scale patterns of landscape and bands of ballast rock – creating a bold industrial visual identity. Limited street and avenue trees are complimented by a narrow margin of managed lawn to the road edge. Entry signage, post top lighting to the roads will provide a higher level of detail than elsewhere on the site.



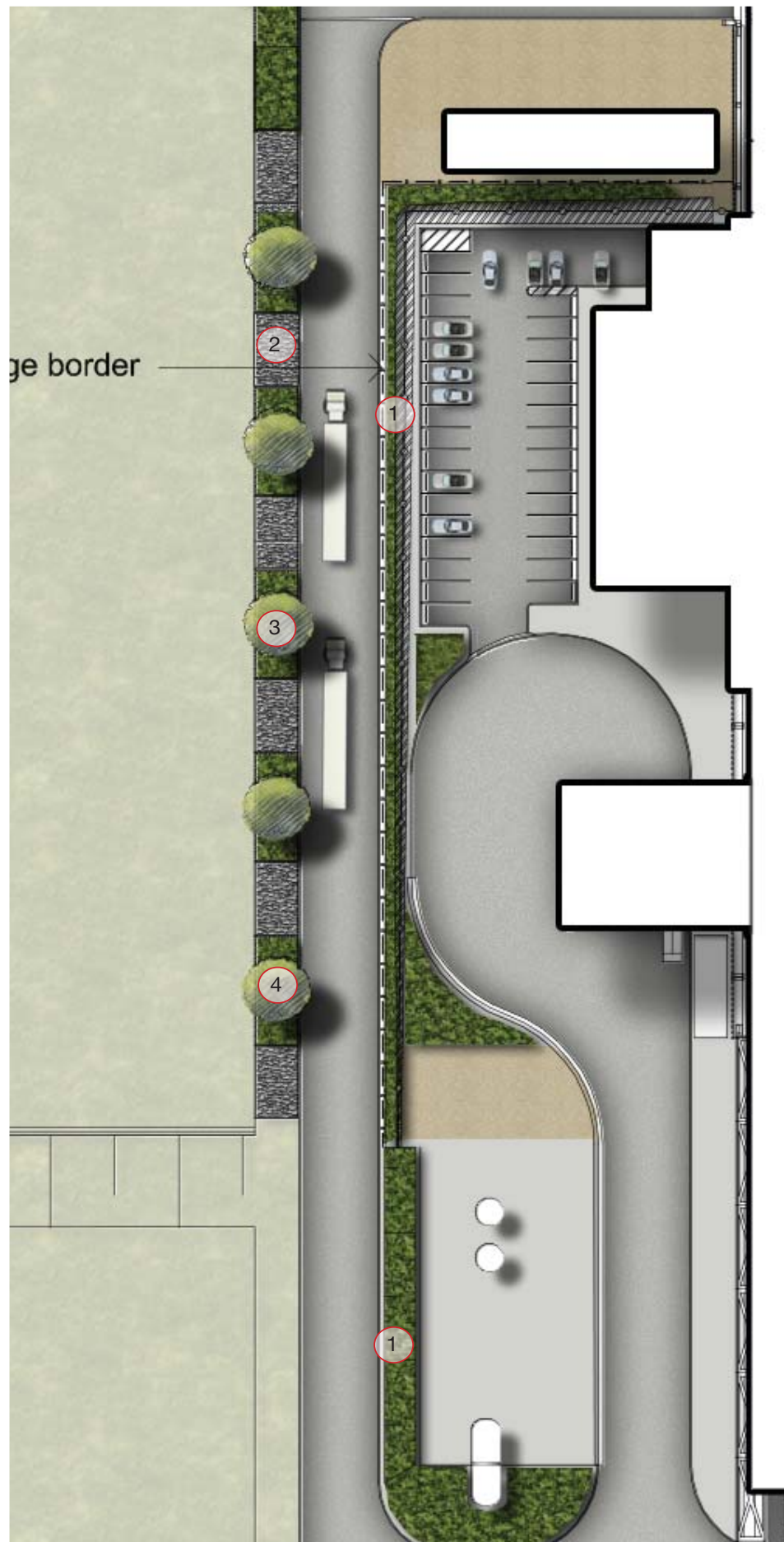




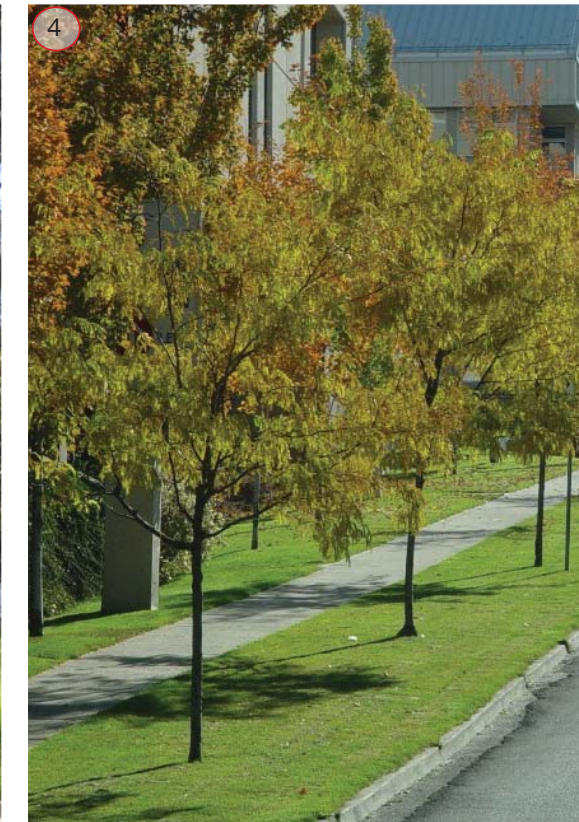
The weigh-bridge area is located against the level change up to street level. Using a ballast and planting stabilized slope eliminates the cost of a retaining structure, and creates a bold repeating pattern of rock and ground cover planted bands across the slope. This softens the outlook for staff and truck drivers who occupy this area 24/7.



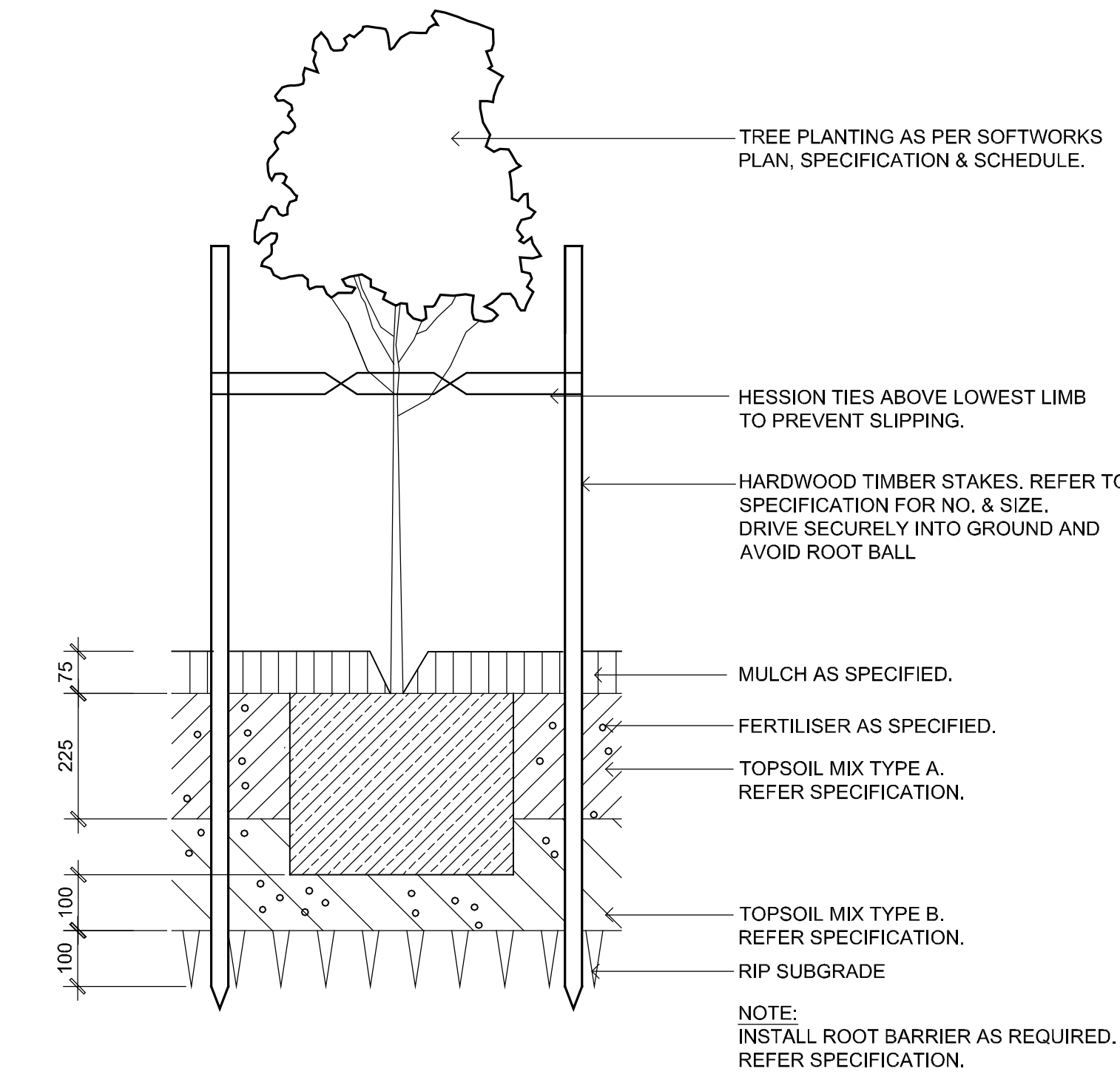




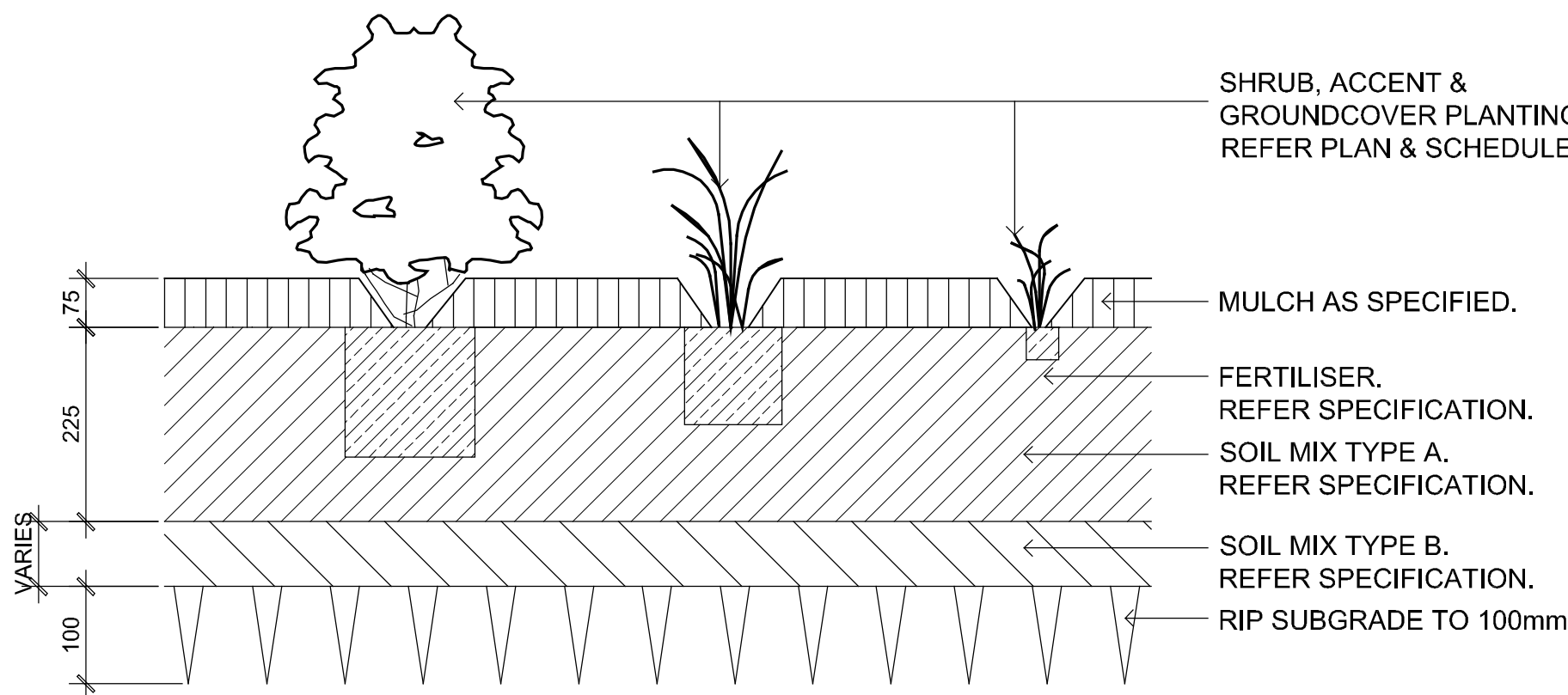
The office area is to have a simple outdoor terrace area. Truck and vehicle movements take priority across the site, and pedestrian movement routes are to be demarked clearly as part of a site-wide access management plan. Barbeque and entertainment facilities can be provided for occasional visitor or company functions.



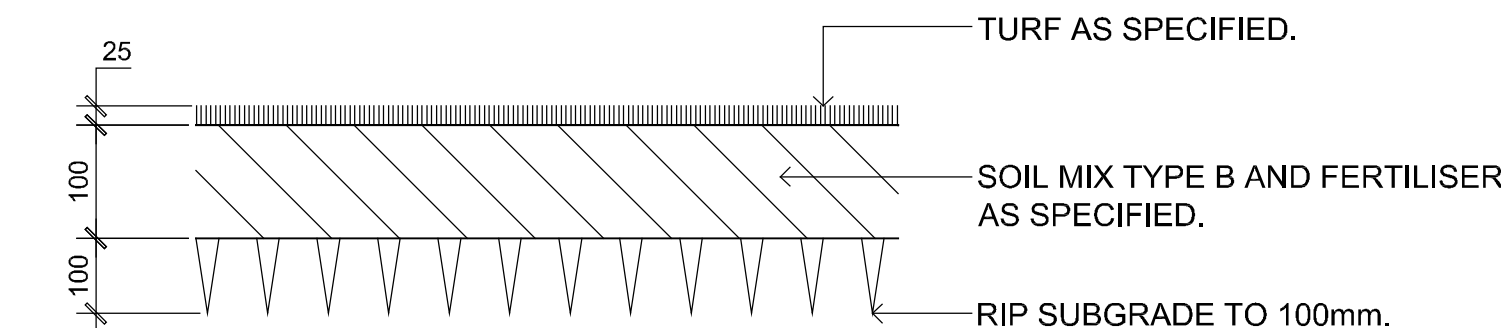




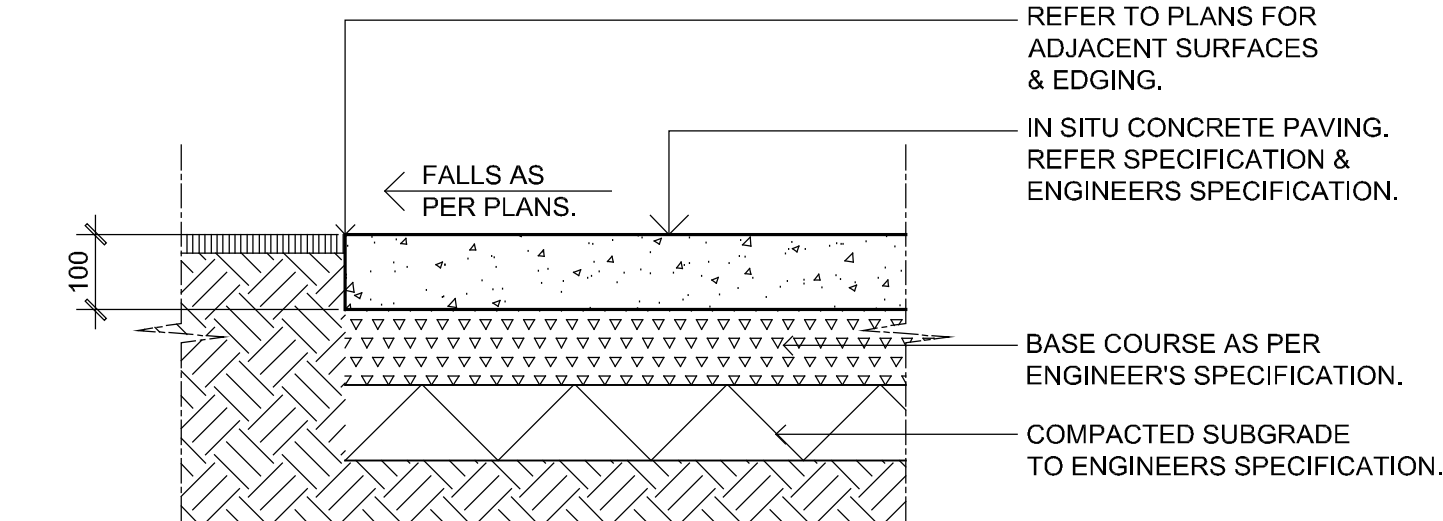
01 25L-75L TREE PLANTING ON GRADE  
SCALE 1:10



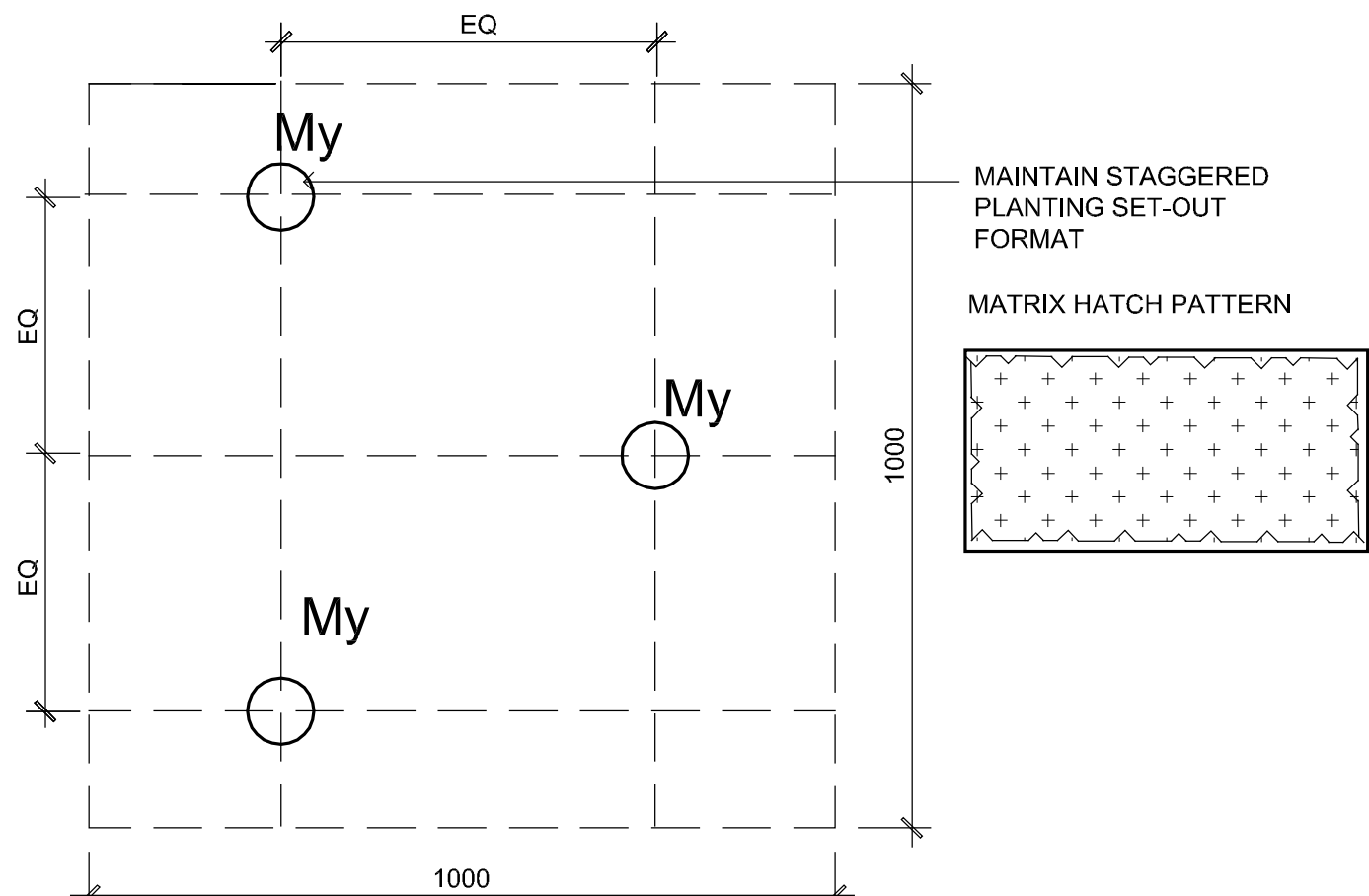
03 SHRUB, ACCENT & GROUNDCOVER PLANTING ON GRADE  
SCALE 1:10



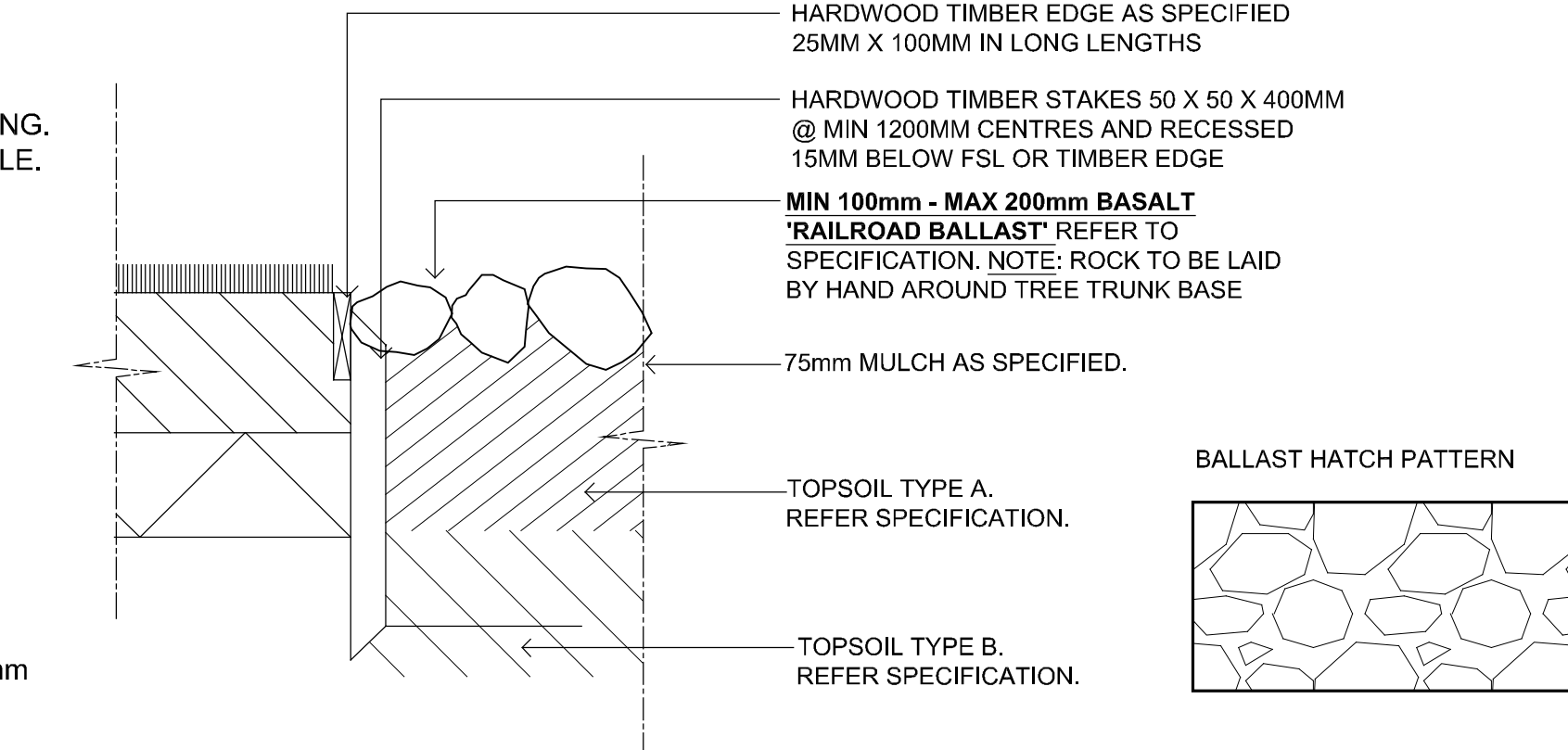
05 TURF ON EVEN GRADE  
SCALE 1:10



06 INSITU CONCRETE PAVING  
SCALE 1:10



02 1m EMBANKMENT PLANTING SETOUT  
SCALE 1:10



04 TIMBER EDGE & ROCK BALLAST - SECTION  
SCALE 1:10

PLANT SCHEDULE							
Symbol	Botanical Name	Common Name	Mature Height (m.)	Mature Spread (m.)	Spacings	Pot Size	Quantity
<b>Trees</b>							
Cm	<i>Corymbia maculata</i>	Spotted Gum	15	7	As Shown	45L	41
<b>Shrubs</b>							
Sy	<i>Syzygium 'Path Finder'</i>	Dwarf Lilly Pilly	1	1	As Shown	300mm	651
Lp	<i>Lonicera periclymenum</i>	Honeysuckle	4	4	As Shown	300mm	368
<b>Groundcovers / Grasses</b>							
Gh	<i>Gazania x hybrida</i>	Gazania	0.2	0.5	3/m2	150mm	6363
My	<i>Myoporum parviflora 'Yareena'</i>	Yareena Myoporum	0.1	1	2/m2	150mm	6285

**Note:**  
(X) trees have been identified on the subject site that will be impacted upon by proposals and are proposed to be removed. These have been reviewed and assessed by Abel Ecology, and confirmed to be suitable for removal and replacement with offset planting in riparian planting works in adjoining land to the south. The detail of trees proposed to be removed is provided in Abel Ecology documentation. The locations for offset planting and specifying species, methodology and maintenance regime will be noted in the Abel Ecology documents.

## GENERAL NOTES

### References

All plans and details included in the project documents shall be read in conjunction with this specification. All structural and civil works components of the landscape design shall be referenced to engineers' details and specifications. Read this specification in conjunction with the plant and materials schedule on this drawing. If in doubt about any detail or if conflicts are found in the documents, seek advice.

### Workmanship and Materials

The whole of the landscape works shall be carried out by a competent, trained and qualified landscape contractor who is experienced in horticultural practices, landscape construction and planting techniques. The landscape contractor shall hold a current Building Contractors License and/or be a financial member of LNA Landscape Association NSW & ACT or equivalent organisations in other states.

### EXISTING TREES

#### 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.

#### 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.

### EARTHWORKS

#### Excavation, Trimming and Filling

Except as otherwise note in the contract, bulk excavation is excluded from the landscape works. Trim and fill the excavated ground surfaces to achieve design levels to accommodate finish materials as detailed. Compact the finished surface as required for the finished ground treatment.

#### Sub-soil Drainage

Keep the excavated works drained and free of standing water. Allow to supply and install sub-soil drainage pipes as required for the new works to ensure that all gardens are well drained. Connect the sub-soil drainage pipes to the nearest downstream stormwater pits. Include pipe filter socks.

### HARDWORKS

#### Garden Walls, Fences, Steps, TGSi and Edging

Construct garden walls as shown on plan, as detailed and of the material scheduled. Provide footings, step nosings, tactile surfaces to comply with standards and applicable legislation.

#### Continuous, Unit and Loose Pavement

Install the scheduled material pavement to the locations shown on plan. Ensure that all subgrade/subsurface works are complete prior to commencing paving. Confer with the engineer to ensure the structural integrity of the installation.

### SOFTWORKS

#### 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 pH levels) for successful plant growth.

#### 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.

#### 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.

#### Compost

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

#### 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.

#### 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 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 the container.

#### Plant Installation

Following excavation of the planting hole place and spread 15gms of wetting agent pre-mixed with one (1) litre of water. Place the plant correctly orientated to north or for best presentation. Backfill the planting holes with specified topsoil mixture. Lightly tamp and water to eliminate air pockets. Ensure the topsoil is not placed over the top of the rootball. Keep the plant stem at the same height above the ground as it was above the soil in the container. Apply fertiliser, as recommended in the soil testing results or in accordance with the manufacturer's recommendations around the plants in the soil at the time of planting.

#### Embankment Stabilisation

Where necessary to prevent soil erosion or soil movement, stabilise embankments. As a minimum this should be on slopes  $\geq 1:3$ . Stabilise embankments using biodegradable fibre reinforced with heavy weight polymer mesh. Lay mesh from top to bottom of slope. Install in accordance with manufacturer's specification, including 300 x 300 mm anchor trenches at top and bottom, backfilled with soil over the mesh and compacted, and U-shaped galvanised steel pegs at 1000 mm centres and 250mm centres at edge overlaps. Plant after matting is installed.

### Root Barrier

Supply and install root control barriers to all new tree plantings adjacent to walls, paths and all trunk service trenches, where their proximity poses a threat to the stability of the infrastructure. Install in accordance with manufacturer's recommendations.

### Mulch

Mulch shall be approved recycled wood fibre or pine bark mulch. Place mulch in all garden beds to a depth of 75mm, after all specified plants are installed. Keep mulch clear of all plant stems and rake to an even surface flush with the surrounding surfaces evenly graded between design surface levels. Over fill to allow mulch to settle to the specified depth.

### Stakes and Ties

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

- Plants ( $\geq 25$  lt): 1 off 38 x 38 x 1200mm;
- Semi-advanced plants ( $\geq 75$  lt): 2 off 50x50x 1800mm;
- Advanced ( $\geq 100$  lt): 3 off 50 x 50 x 2400mm.

### Turf

Turf shall be 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, joints staggered and close butted;
- Parallel long sides of level areas, with contours on slopes; &
- To finish flush, after tamping, with adjacent finished surfaces of ground.

### IRRIGATION

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.

### LANDSCAPE MAINTENANCE

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;
- Stakes and ties;
- Maintaining mulch;
- Mowing and top dressing;
- Irrigation and watering;
- Erosion control; and
- Weeding and rubbish removal.

#### Maintenance Log Book

Implement and keep a maintenance log book recording when and what maintenance work has been undertaken and what materials, actions and decisions have been used, implemented and concluded to keep the landscape always looking its best.

#### Maintenance Activities

Schedule the following activities to occur on a timely basis.

- Plant replacement** - Replace plants that have failed to mature, die or are damaged. Replacement plants shall be in a similar size and quality and identical species or variety to the plant that has failed. Replacement of plants shall be at the cost of the landscape contractor unless advised otherwise. If the cause of the failure is due to a controllable situation then correct the situation prior to replacing plants.
- Pruning** - Prune dead wood, broken limbs, dead or infected foliage and as needed to develop strong, healthy plants to achieve the shape and form expected of the plant type.
- Insect and pest control** - Avoid spraying:
  - If ever possible;
  - In wet weather or if wet weather is imminent;
  - If target plants are still wet after rain;
  - In windy weather; and
  - If non-target species are too close.Immediately report to the Project Manager any evidence of intensive weed infestation, insect attack or disease amongst plant material. Submit all proposals to apply chemicals and obtain approval before starting this work. When approved, spray with herbicide, insecticide, fungicide as appropriate in accordance with the manufacturers' recommendations. Record in the logbook all relevant details of spraying activities including:
  - Product brand / manufacturer's name,
  - Chemical / product name,
  - Chemical contents,
  - Application quantity and rate,
  - Date of application and location,
  - Results of application, and
  - Use approval authority.
- Fertilising** - Fertilise gardens with a proprietary slow release fertiliser applied in accordance with the manufacturer's directions and recommendations. Record in the logbook all relevant details of fertilising including:
  - Product brand / manufacturer's name,
  - Fertiliser / product name,
  - Application quantity and rate, and
  - Date of application and location.
- Stakes and ties** - Adjust and replace as required to ensure plants remain correctly staked. Remove those not required at the end of the planting establishment period (Defects Liability Period).
- Maintaining mulch** - Maintain the surface in a clean, tidy and weed free condition and reinstatement the mulch as necessary to ensure correct depth as specified.
- Mowing and top dressing** - Mow the turf to maintain a grass height of between 30-50mm. Do not remove more than one third of the grass height at any one time. Remove grass clippings from the site after each mowing. Top dress to a maximum of 10mm to fill depressions and hollows in the surface.
- Irrigation and watering** - Maintain the irrigation system to sure that each individual plant receives the required amount of water to maintain healthy and vigorous growth, adjust and rectify as required. Provide additional watering, if necessary.
- Erosion control** - Where necessary, maintain the erosion control devices in a tidy and weed free condition and reinstatement as necessary to ensure control measures are effective where deemed necessary.
- Weeding and rubbish removal** - During the plant establishment period remove by hand, rubbish and weed growth that may occur or re-occur throughout all planted, mulched and paved areas. The contractor shall target weeds that are capable of producing a major infestation of unwanted plants by seed distribution. Whenever possible, time weed removal to precede flowering and seed set.

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The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

1	For review	CV	RS	17.03.2015
Issue	Revision Description	Drawn	Check	Date

Client:  
**The Next Generation Pty Ltd**

Project:  
**TNG Energy from Waste Facility**

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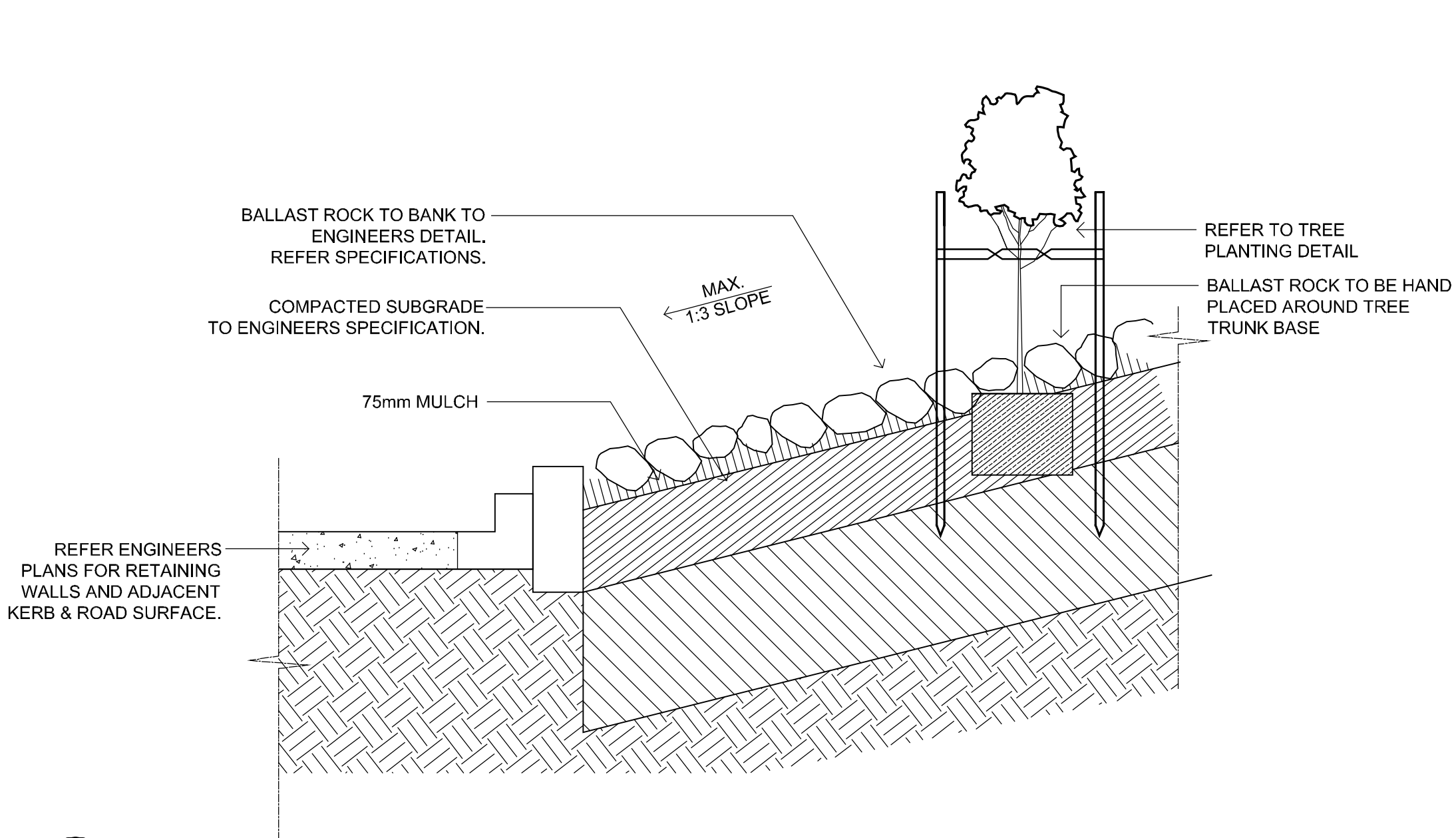
For review

Drawing Name:  
**Landscape Details, Plant list & Specification**

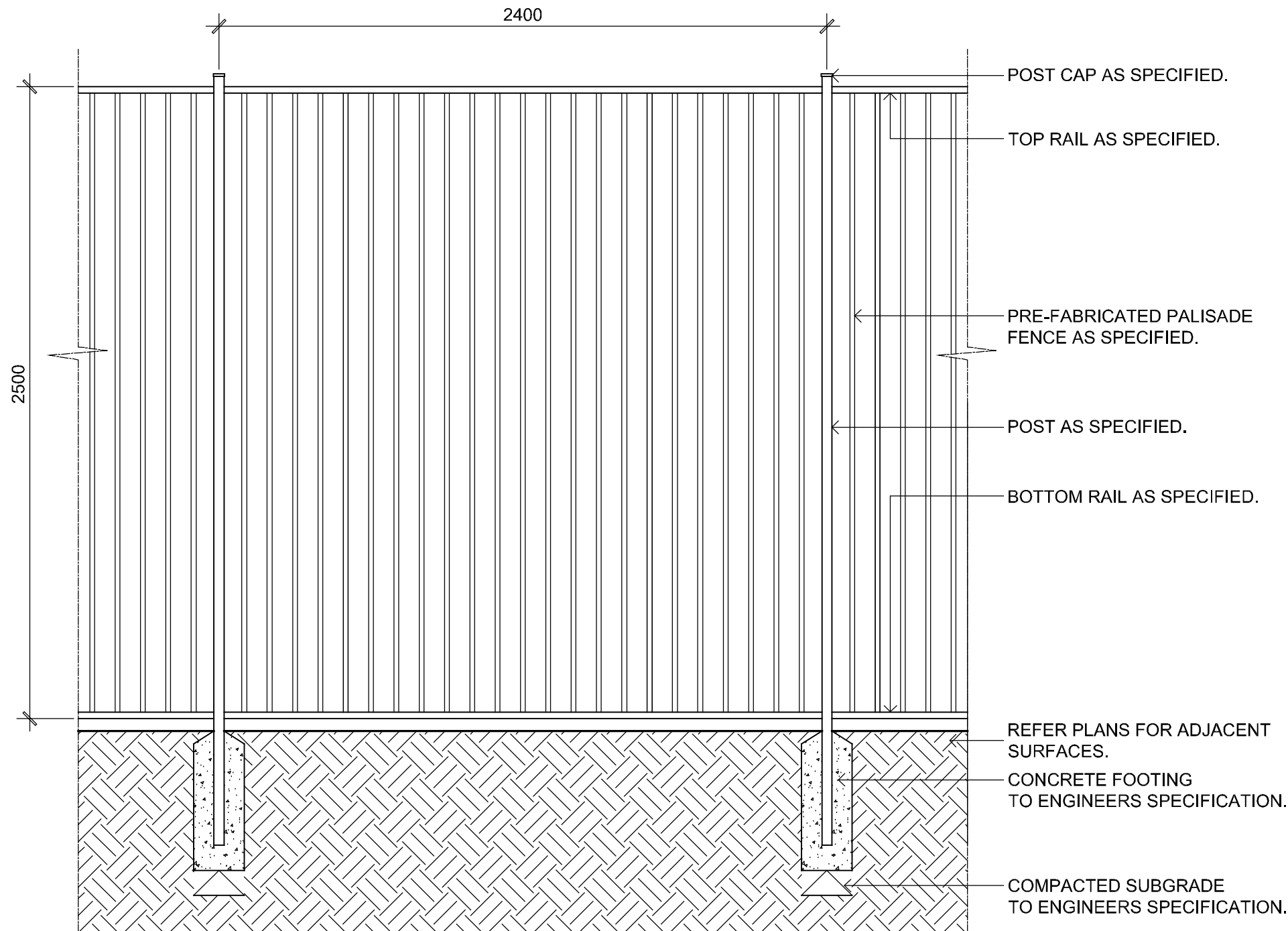
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Job Number: SS15-2961  
Drawing Number: LA-SILA-0910  
Issue: 1

NOT FOR CONSTRUCTION

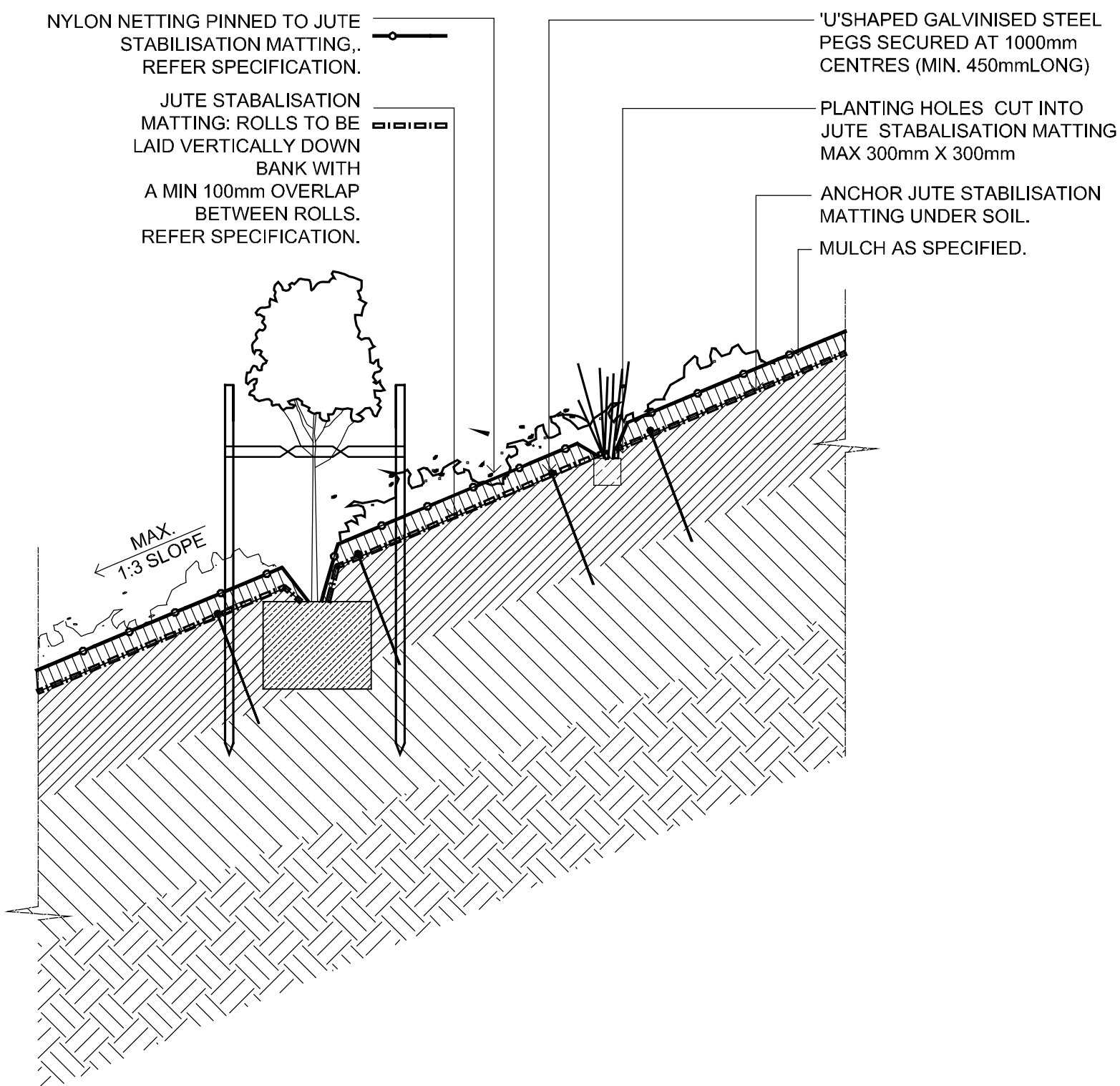




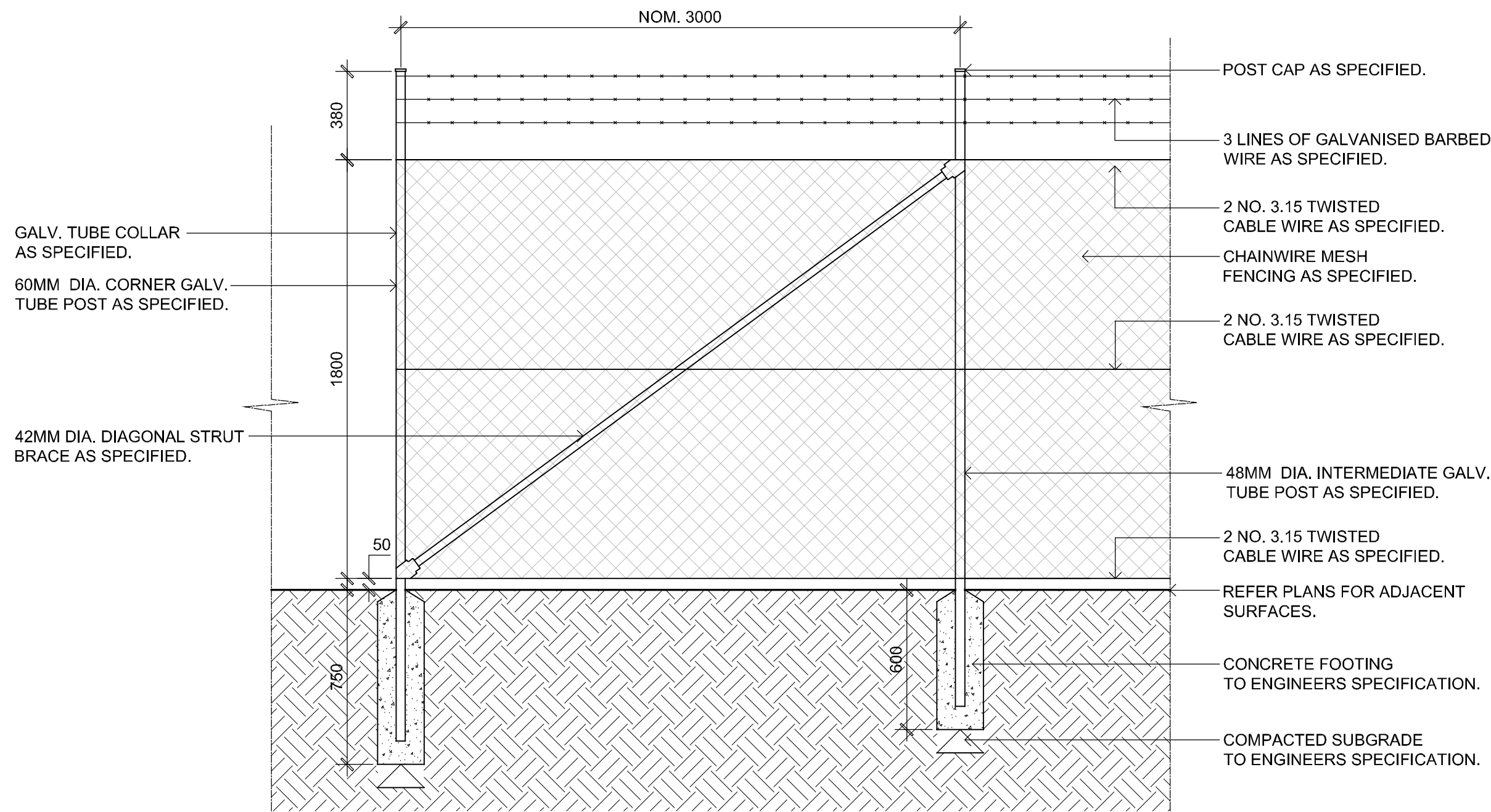
01 SLOPE TREATMENT, BALLAST ROCK - TYPICAL SECTION  
SCALE 1:20



02 TYPICAL PRE-FABRICATED PALISADE FENCE  
SCALE 1:20



03 TYPICAL EMBANKMENT PLANTING DETAIL  
SCALE 1:20



04 TYPICAL SECURITY CHAINWIRE FENCE  
SCALE 1:20

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1	For review	CV	RS	17.03.2015
Issue	Revision Description	Drawn	Check	Date

Client:  
**The Next Generation  
Pty Ltd**

Project:  
**TNG Energy from Waste  
Facility**

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Landscape Architects

For review

Drawing Name:  
**Landscape Details**

Scale: 1:200 @ A1  
Job Number:  
Drawing Number:  
Issue:

SS15-2961 LA-SILA-0911 1

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