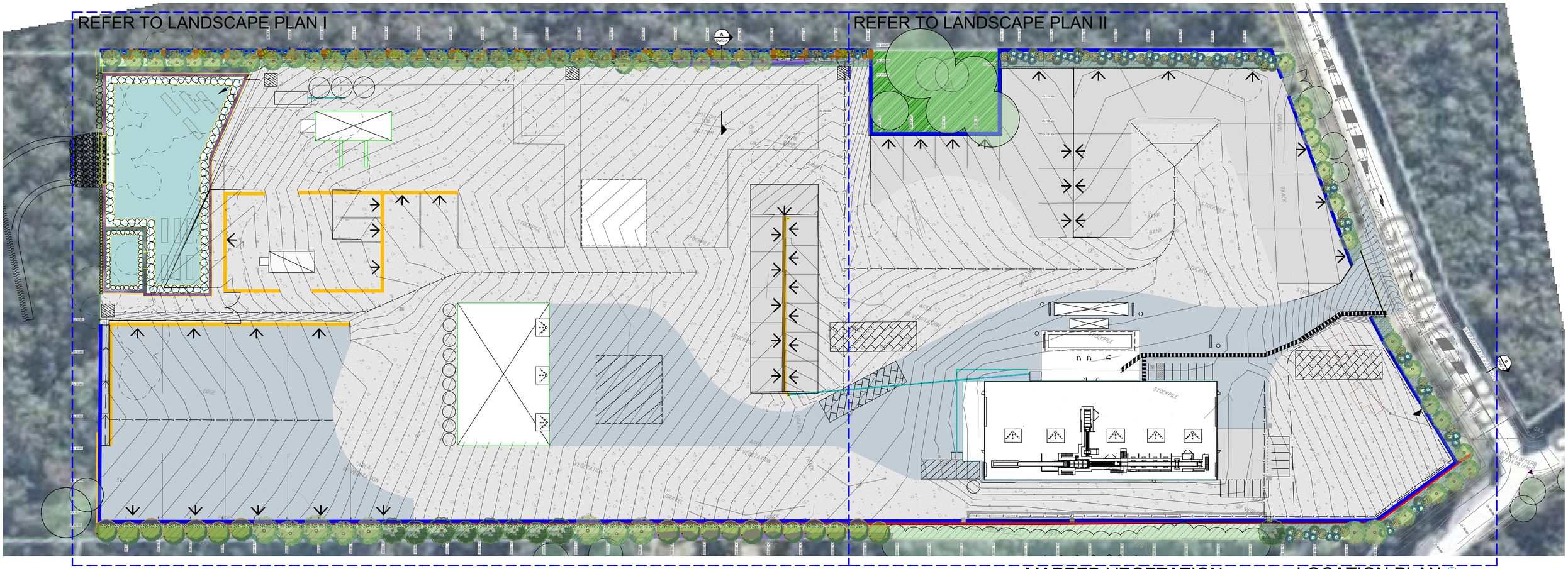


PROPOSED SITE PLAN
Scale 1:600 @ A1

DRAWING SCHEDULE

SHEET #	DRAWING TITLE	REV.
TITLE	SITE PLAN	
/1	HARDSCAPE PLAN	G
/2	LANDSCAPE PLAN 1	G
/3	LANDSCAPE PLAN 2	G
/4	DETAIL + SPECIFICATION	C

CONSULTANTS INFO.

Refer to plans, details, specification and reports prepared by other consultants for all information relating to that practice, including:

For Civil design, stormwater, site drainage and civil design, refer to plans prepared by *Sustainability Workshop*

For Visual Impact Assessment, refer to report prepared by Moir Landscape Architecture

For Framework for Biodiversity Assessment report, refer to report prepared by NARLA

For Bushfire report, refer to report by BPAD

BUSHFIRE NOTE:

This plan prepared in accordance with NSW Rural Fire Service "Planning for Bushfire Protection 2006".

This site shall be maintained as Inner Protection Area in accordance with the requirements of Asset Protection Zone.

Landscaping to rear of the property must be accordance with NSW RFS Planning for Bushfire Protection 2006 - Appendix 5. Landscaping and Property Maintenance

BUSHFIRE MANAGEMENT:

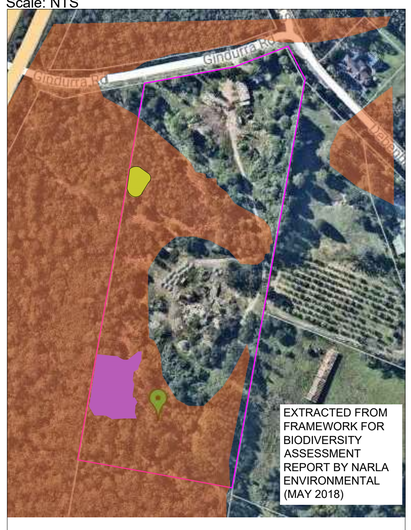
ASSET PROTECTION ZONE

The entire site shall be treated as an Inner Protection Zone, as follows:
- Minimum fuel at ground level
- Shrubs and trees which do not form continuous canopies
- Avoid species which are high in volatile oils or retain dead-wood
- Avoid direct planting near buildings, including potential canopy spread over structures. Canopies of proposed trees to be minimum 2m from building at maturity

MAINTENANCE OF PROPERTY
- Removal of litter from gutters and roof
- trees not too close to driveways so as to form an obstacle
- woodpiles, gardens sheds and other combustible materials are located downslope and well away from the house
- Prune and manage trees and shrubs to reduce fuel load

VEGETATION MANAGEMENT
- Maintaining a clear area of cut lawn or pavement adjacent to the house
- keeping areas under fence posts, gates and trees raked and cleared of fuel
- Utilising non combustible fencing and retaining walls
- breaking up canopy of trees with defined garden beds
- Non organic mulch

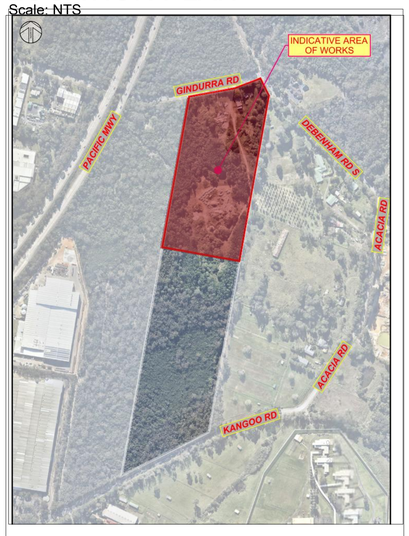
MAPPED VEGETATION
Scale: NTS



KEY

- MELALEUCA BICONVEXA BUFFER
- SCRIBBLY GUM/RED BLOODWOOD/OLD MAN BANKSIA HEALTHY WOODLAND OF SOUTHERN CENTRAL COAST
- SMOOTH-BARKED APPLE-RED BLOODWOOD OPEN FOREST ON ENRICHED SANDSTONE SLOPES AROUND SYDNEY AND THE CENTRAL COAST

LOCATION PLAN
Scale: NTS



KEY

- PROPOSED DEVELOPMENT

PROPOSED RECYCLING FACILITY DEVELOPMENT

90 GINDURRA RD, SOMERSBY

REV	DATE	NOTATION/AMENDMENT
	19.07.18	Preliminary DA prepared for review
	24.07.18	Coordinated with client's comment
	27.07.18	Coordinated with client's comment
	31.07.18	Coordinated with client's comment
	03.08.18	Coordinated with client's comment
	20.12.18 09.05.19	Superseded
	10.01.19	Coordinated with feedback
	08.01.20	Revised layout change
	29.01.20	Coordinated with Stormwater
	03.07.20	Coordinated with Stormwater

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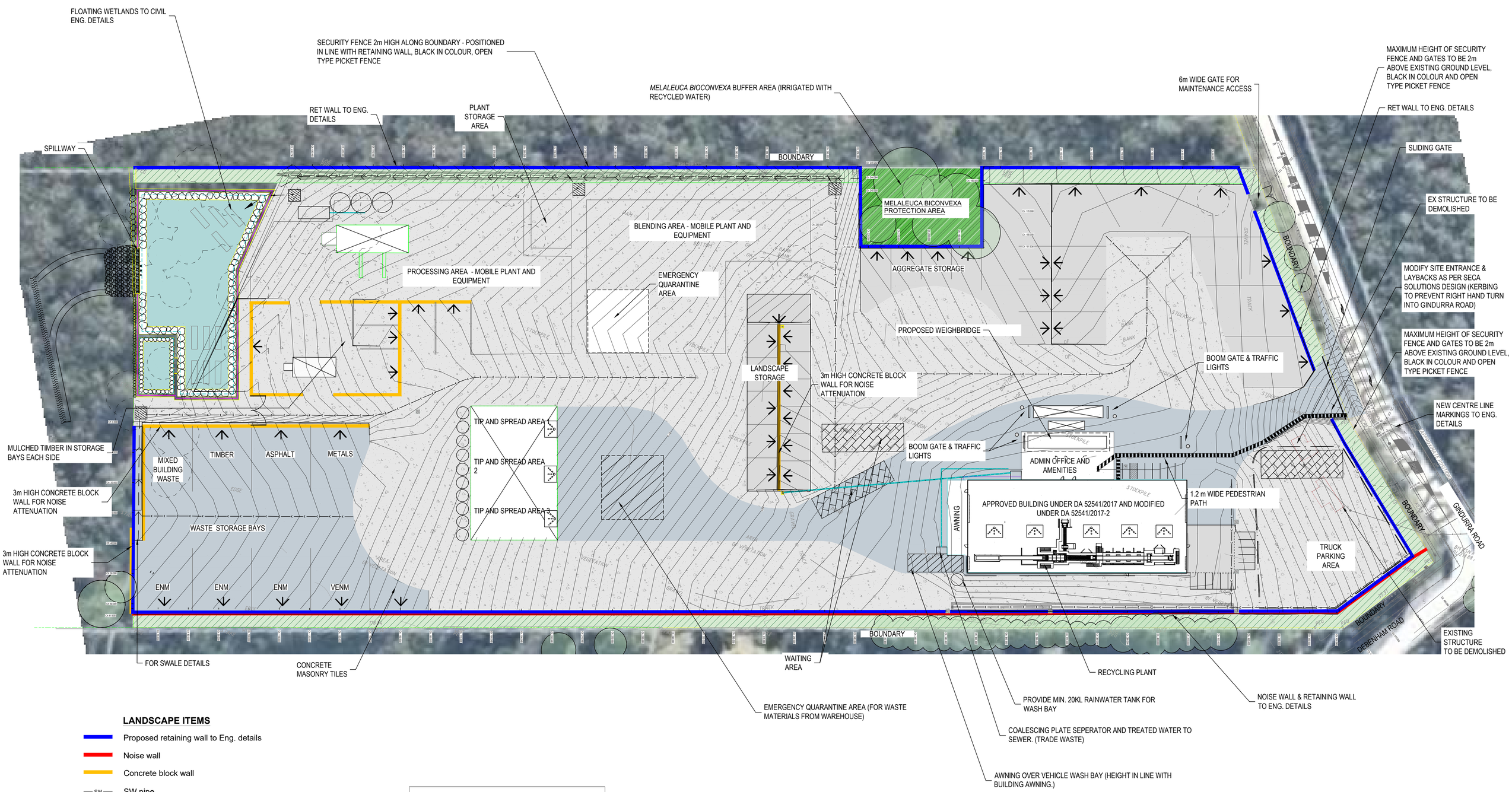
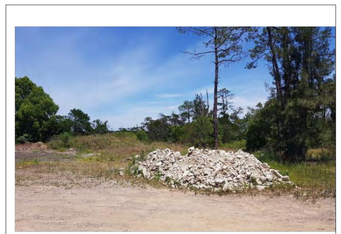


LANDSCAPE ITEMS

- Proposed retaining wall to Eng. details
- Noise wall
- Concrete block wall
- SW pipe
- Concrete pavement area
- Sealed surface
- Recycled crushed concrete roadbase with geotextile membrane
- Approved building
- Landscape zone
- Melaleuca biconvexa protection area
- 1.2m x 1.2m class D grated Pit

View looking west from the northern end of the site. Numerous stock piles distributed around the site.



View looking west from the northern end of the site.

GENERAL NOTE:

Figured dimensions take preference to scale readings. Verify all dimensions on site. PDF'd plans may vary slightly in Scale for that indicated on plans. Report any discrepancies to the Landscape Architect before proceeding with the work.

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Bar Scale
0 12 24 36 48 60m

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JACKSON ENVIRONMENT & PLANNING

LANDSCAPE ARCHITECT:
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COUNCIL
GOSFORD COUNCIL

CLIENT
KARIONG SAND & SOIL SUPPLIES

REV	DATE	NOTATION/AMENDMENT			
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E	10.01.19	Coordinated with feedback			
F	31.01.20	Revised layout			

PROJECT:
PROPOSED RECYCLING FACILITY DEVELOPMENT
90 GINDURRA RD,
SOMERSBY

TITLE:
HARDSCAPE PLAN

STATUS:
DEVELOPMENT APPLICATION

SCALE: 1:600 @ A1

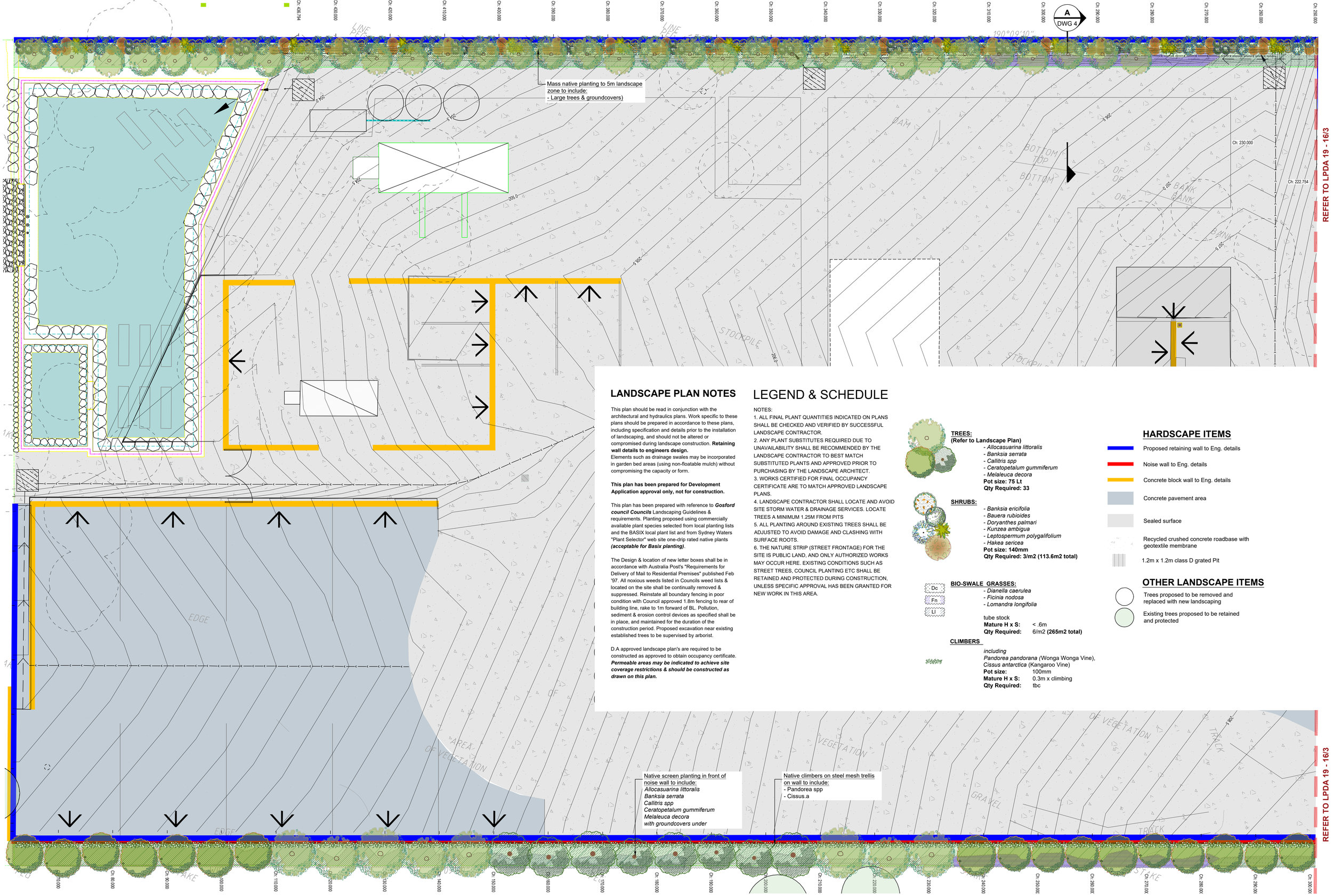
DATE: JUNE 2020

DWG.No: LPDA 19 - 16

PAGE NUMBER: 1

DRAWN: E.W

CHECKED: R.F



LANDSCAPE PLAN NOTES

This plan should be read in conjunction with the architectural and hydraulics plans. Work specific to these plans should be prepared in accordance to these plans, including specification and details prior to the installation of landscaping, and should not be altered or compromised during landscape construction. **Retaining wall details to engineers design.**
Elements such as drainage swales may be incorporated in garden bed areas (using non-floatable mulch) without compromising the capacity or form.

This plan has been prepared for Development Application approval only, not for construction.

This plan has been prepared with reference to ***Gosford council Councils*** Landscaping Guidelines & requirements. Planting proposed using commercially available plant species selected from local planting lists and the BASIX local plant list and from Sydney Waters "Plant Selector" web site one-drip rated native plants ***(acceptable for Basix planting)***.

The Design & location of new letter boxes shall be in accordance with Australia Post's "Requirements for Delivery of Mail to Residential Premises" published Feb '97. All noxious weeds listed in Councils weed lists & located on the site shall be continually removed & suppressed. Reinstate all boundary fencing in poor condition with Council approved 1.8m fencing to rear of building line, rake to 1m forward of BL. Pollution, sediment & erosion control devices as specified shall be in place, and maintained for the duration of the construction period. Proposed excavation near existing established trees to be supervised by arborist.

D.A approved landscape plan's are required to be constructed as approved to obtain occupancy certificate. ***Permeable areas may be indicated to achieve site coverage restrictions & should be constructed as drawn on this plan.***

LEGEND & SCHEDULE

NOTES:
1. ALL FINAL PLANT QUANTITIES INDICATED ON PLANS SHALL BE CHECKED AND VERIFIED BY SUCCESSFUL LANDSCAPE CONTRACTOR.
2. ANY PLANT SUBSTITUTES REQUIRED DUE TO UNAVAILABILITY SHALL BE RECOMMENDED BY THE LANDSCAPE CONTRACTOR TO BEST MATCH SUBSTITUTED PLANTS AND APPROVED PRIOR TO PURCHASING BY THE LANDSCAPE ARCHITECT.
3. WORKS CERTIFIED FOR FINAL OCCUPANCY CERTIFICATE ARE TO MATCH APPROVED LANDSCAPE PLANS.
4. LANDSCAPE CONTRACTOR SHALL LOCATE AND AVOID SITE STORM WATER & DRAINAGE SERVICES. LOCATE TREES A MINIMUM 1.25M FROM PITS
5. ALL PLANTING AROUND EXISTING TREES SHALL BE ADJUSTED TO AVOID DAMAGE AND CLASHING WITH SURFACE ROOTS.
6. THE NATURE STRIP (STREET FRONTAGE) FOR THE SITE IS PUBLIC LAND, AND ONLY AUTHORIZED WORKS MAY OCCUR HERE. EXISTING CONDITIONS SUCH AS STREET TREES, COUNCIL PLANTING ETC SHALL BE RETAINED AND PROTECTED DURING CONSTRUCTION, UNLESS SPECIFIC APPROVAL HAS BEEN GRANTED FOR NEW WORK IN THIS AREA.

TREES:
(Refer to Landscape Plan)
- *Allocasuarina littoralis*
- *Banksia serrata*
- *Callitris spp*
- *Ceratopetalum gummiferum*
- *Melaleuca decora*

Pot size: 75 Lt
Qty Required: 33

SHRUBS:
- *Banksia ericifolia*
- *Bauera rubioides*
- *Doryanthes palmari*
- *Kunzea ambigua*
- *Leptospermum polygalifolium*
- *Hakea sericea*

Pot size: 140mm
Qty Required: 3/m2 (113.6m2 total)

BIO-SWALE GRASSES:
Dc
Fn
Li
- *Dianella caerulea*
- *Ficinia nodosa*
- *Lomandra longifolia*

tube stock
Mature H x S: < .6m
Qty Required: 6/m2 **(265m2 total)**

CLIMBERS
including
Pandorea pandorana (Wonga Wonga Vine),
Cissus antarctica (Kangaroo Vine)
Pot size: 100mm
Mature H x S: 0.3m x climbing
Qty Required: tbc

HARDSCAPE ITEMS

- Proposed retaining wall to Eng. details
- Noise wall to Eng. details
- Concrete block wall to Eng. details
- Concrete pavement area
- Sealed surface
- Recycled crushed concrete roadbase with geotextile membrane
- 1.2m x 1.2m class D grated Pit

OTHER LANDSCAPE ITEMS

- Trees proposed to be removed and replaced with new landscaping
- Existing trees proposed to be retained and protected

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COUNCIL
GOSFORD COUNCIL

CLIENT
KARIONG SAND & SOIL SUPPLIES

REV	DATE	NOTATION/AMENDMENT	G	29.06.20	Co-od SW
A	19.07.18	Preliminary DA prepared for review			
B	24.07.18	Coordinated with client's comment			
C	27.07.18	Coordinated with client's comment			
D	03.08.18	Coordinated with client's comment			
	20.12.18 09.01.19	Superseded			
E	10.01.19	Coordinated with feedback			
F	09.01.20	Revised layout			

PROJECT:
PROPOSED RECYCLING FACILITY DEVELOPMENT
90 GINDURRA RD,
SOMERSBY

TITLE:
LANDSCAPE PLAN I
WALL02 CH:70-CH:300

STATUS: DEVELOPMENT APPLICATION
SCALE: 1:300 @ A1
DATE: JUNE 2020
DWG.No: LPDA 19 - 16
PAGE NUMBER: 2
DRAWN: E.W
CHECKED: R.F

LEGEND & SCHEDULE

NOTES:
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MEDIUM TREES:
(Refer to Landscape Plan)
- *Allocasuarina littoralis*
- *Banksia serrata*
- *Ceratopetalum gummiferum*
- *Melaleuca decora*

Pot size: 45 Lt
Qty Required: 17

SHRUBS:
- *Banksia ericifolia*
- *Bauera rubioides*
- *Doryanthes palmari*
- *Kunzea ambigua*
- *Leptospermum polygalifolium*
- *Hakea sericea*

Pot size: 140mm
Qty Required: 3/m2 (326.4m2 total)

BIO-SWALE GRASSES:
- *Dianella caerulea*
- *Hardenbergia violacea*
- *Lomandra longifolia*

Dc
Hv
Ll

tube stock
Mature H x S: < .6m
Qty Required: 6/m2 **(611.1m2 total)**

HARDSCAPE ITEMS

- Proposed retaining wall to Eng. details
- Noise wall
- Concrete block wall
- Concrete pavement area
- Sealed surface
- Recycled crushed concrete roadbase with geotextile membrane
- Approved building
- 1.2m x 1.2m class D grated Pit
- Melaleuca biconvexa protection area

OTHER LANDSCAPE ITEMS

- Trees proposed to be removed and replaced with new landscaping
- Existing trees proposed to be retained and protected

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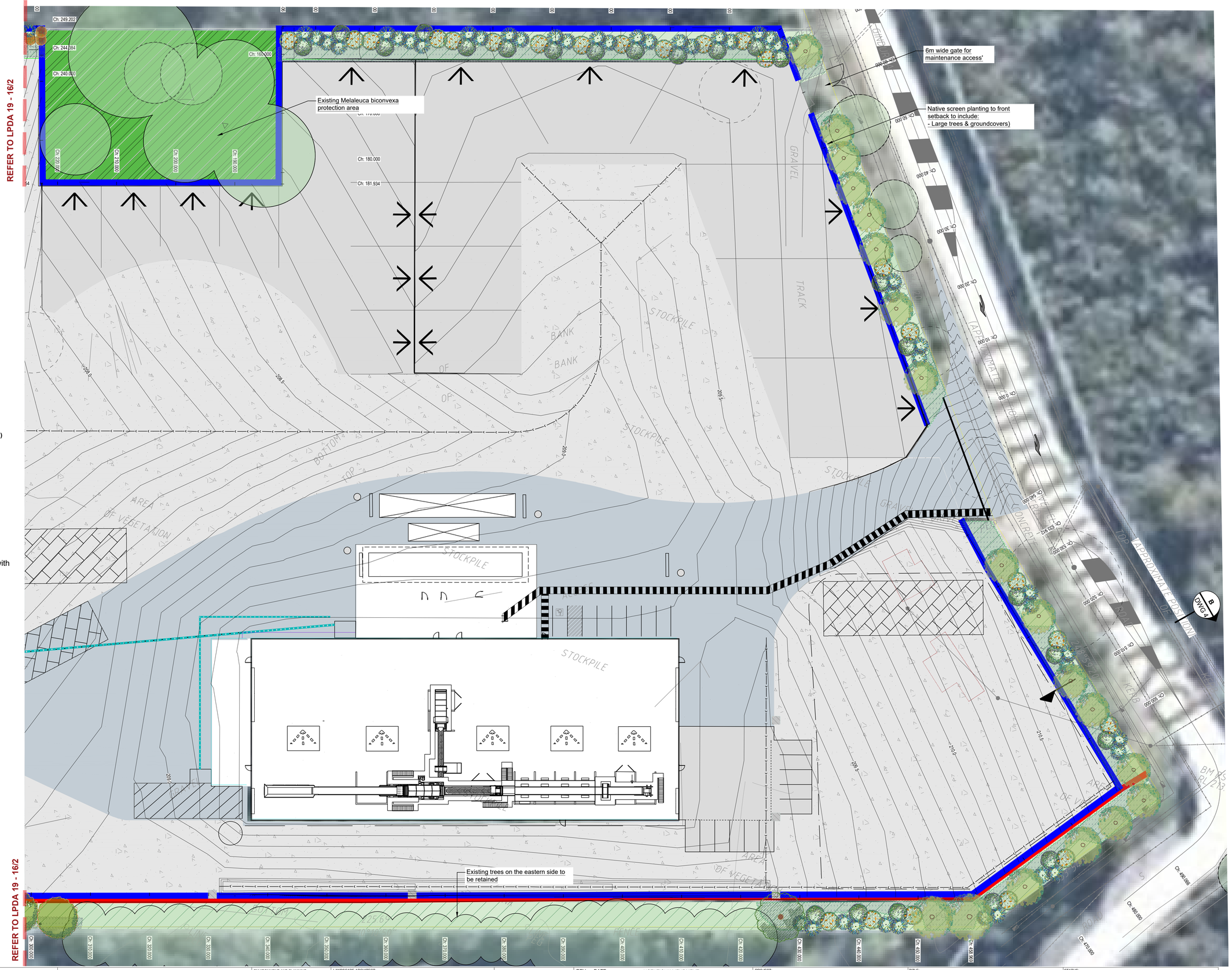

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E	10.01.19	Coordinated with feedback			
F	09.01.20	Revised layout			

PROJECT:
PROPOSED RECYCLING FACILITY DEVELOPMENT
90 GINDURRA RD,
SOMERSBY

TITLE:
LANDSCAPE PLAN II
WALL02 CH:300 - CH:458

STATUS: DEVELOPMENT APPLICATION
SCALE: 1:300 @ A1
DATE: JUNE 2020
DWG.No: LPDA 19 - 16
PAGE NUMBER: 3
DRAWN: E.W
CHECKED: R.F

LANDSCAPE WORK SPECIFICATION

PRELIMINARIES

1.01 GENERAL

The following general conditions should be considered prior to the commencement of landscape works:

- The landscape plans should be read in conjunction with the architectural plans, project arborist's assessment, hydraulic plans, service plans and survey prepared for the proposed development.
- All services including existing drainage should be accurately located prior to the commencement of landscape installation. Any proposed tree planting which falls close to services will be relocated on site under the instruction of the landscape architect.
- Installation of conduit for required irrigation, electrical and other services shall be completed prior to the commencement of hardscape works and hardstand pours.
- All outdoor lighting specified by architect or client to be installed by qualified electrician
- Anomalies that occur in these plans should be brought to our immediate attention.
- Where an Australian Standard applies for any landscape material testing or installation technique, that standard shall be followed.

1.02 PROTECTION OF ADJACENT FINISHES

The Contractor shall take all precautions to prevent damage to all or any adjacent finishes by providing adequate protection to these areas / surfaces prior to the commencement of the Works

1.03 PROTECTION OF EXISTING TREES

Existing trees identified to be retained shall be done in accordance with **(AS)4970-Protection of trees on development sites** as well as in accordance with the tree protection measures prepared by project arborist.

Where general works are occurring around such trees, or pruning is required, a qualified Arborist shall be engaged to oversee such works and manage tree health.
Existing trees designated on the drawing for retention shall be protected at all times during the construction period. Any soil within the drip-line of existing trees shall be excavated and removed by hand only. No stockpiling shall occur within the root zone of existing trees to be retained.

Any roots larger in diameter than 50mm shall only be severed under instruction by a qualified arborist. Roots smaller than 50mm diameter shall be cut cleanly with a saw.

Temporary fencing shall be installed around the base of all trees to be retained prior to the commencement of landscape works. Where possible this fencing will be located around the drip line of these trees, or a minimum of 3m from the trunk. The fencing shall be maintained for the full construction period.

1.04 EROSION & POLLUTION CONTROL

The Contractor shall take all proper precautions to prevent the erosion of soil from the subject site. The contractor shall install erosion & sediment control barriers and as required by council, and maintain these barriers throughout the construction period. Note that the sediment control measures adopted should reflect the soil type and erosion characteristics of the site.

Erosion & pollution control measures shall incorporate the following:
- Construction of a sediment trap at the vehicle access point to the subject site.
- Sediment fencing using a geotextile filter fabric in the location indicated on the erosion control plan or as instructed on site by the landscape architect.
- Earth banks to prevent scour of stockpiles
- Sandbag kerb sediment traps
- Straw bale & geotextile sediment filter.
- Exposed banks shall be pegged with an approved Jute matting in preparation for mass planting

Refer to "Sitewise Reference Kit" as prepared by DLWC & WSROC (1997) for construction techniques

SOIL WORKS

2.01 MATERIALS

Specified Soil Conditioner (Generally to improve site soil)
The specified soil conditioner for site top-soil improvement shall be an organic mix, equal to "Botany Humus", as supplied by ANL. Note that for sites where soil testing indicates toxins or extremes in pH, or soils that are extremely poor, allow to excavate and supply 300mm of imported soil mix.

New gardens & proposed Planting
New garden and planting areas shall consist of a 50/50 mix of clean site soil (refer d) below) and imported "Organic Garden Mix" as supplied by ANL or approved equal. All mixes are to comply with AS 4419 Soils for landscaping & garden use, & AS 4454 Composts, Soil conditioners & mulches.

Specified Soil Mix - Turf
The specified soil mix for all turf areas shall be a min 75mm layer of imported soil mix consisting of 80% washed river sand (reasonably coarse), and 20% composted organic matter equivalent to mushroom compost or soil conditioner, or other approved lawn top dress.

Site Topsoil
Site topsoil is to be clean and free of unwanted matter such as gravel, clay lumps, grass, weeds, tree roots, sticks, rubbish and plastics, and any deleterious materials and materials toxic to plants. The topsoil must have a pH of between 5.5 and 7. Use 100% imported soil mix when site when site topsoil runs out.

2.02 INSTALLATION (TO GARDEN OUTSIDE OF TREE PROTECTION ZONES OF TREES RECOMMENDED TO BY RETAINED)
Note: No level changes (Cut or Fill), soil ripping within the Tree Protection Zones of trees to be retained
a) Testing
All testing is to be conducted in accordance with AS 1289 Methods for testing soils for engineering purposes. Site soil shall be given a pH test prior to modifying to ensure conditions are appropriate for planting as stated above. Tests shall be taken in several areas where planting is proposed, and the pH shall be adjusted accordingly with sulphur or lime to suit.

Note that a soil test conducted by the "Sydney Soil Lab" or approved equal shall be prepared for all commercial, industrial and multi-unit residential sites. The successful landscape contractor shall implement the recommendations of this test.

b) Set Out of Individual Trees & Mass Planting Areas
All individual tree planting positions and areas designated for mass planting shall be set out with stakes or another form of marking, ready for inspection and approval. Locate all services.

c) Establishing Subgrade Levels outside of tree protection zones of trees to be retained
Subgrade levels are defined as the finished base levels prior to the placement of the specified material (i.e. soil conditioner). The following subgrade levels shall apply:
- Mass Planting Beds - 300mm below existing levels with specified imported soil mix.
- Turf areas - 100mm below finished surface level.

Note that all subgrades shall consist of a relatively free draining natural material, consisting of site topsoil placed previously by the Civil Contractor. No builders waste material shall be acceptable.

d) Subgrade Cultivation
Cultivate all subgrades to a minimum depth of 100mm in all planting beds and all turf areas, ensuring a thorough breakup of the subgrade into a reasonably coarse tilth. Grade subgrades to provide falls to surface and subsurface drains, prior to the placement of the final specified soil mix.

e) Drainage Works
Install surface and subsurface drainage where required and as detailed on the drawing. Drain subsurface drains to outlets provided, with a minimum fall of 1:100 to outlets and / or service pits.

f) Placement and Preparation of Specified Soil Conditioner & Mixes.
- Trees in turf & beds - Holes shall be twice as wide as root ball and minimum 100mm deeper - backfill hole with 50/50 mix of clean site soil and imported "Organic Garden Mix" as supplied by ANL or approved equal.
- Mass Planting Beds - Install specified soil conditioner to a compacted depth of 100mm

Place the specified soil conditioner to the required compacted depth and use a rotary hoe to thoroughly mix the conditioner into the top 300mm of garden bed soil. Ensure thorough mixing and the preparation of a reasonably fine tilth and good growing medium in preparation for planting.
- Turf Areas - Install specified soil mix to a minimum compacted depth of 75mm.

Place the specified soil mix to the required compacted depth and grade to required finished soil levels, in preparation for planting and turfing.

PLANTING

3.01 MATERIALS

a) Quality and Size of Plant Material
All trees supplied above a 25L container size must be grown and planted in accordance with **AS 2303:2018 'TREE STOCK FOR LANDSCAPE USE'** Certification that trees have been grown to AS 2303:2018 is to be provided upon request of Council's Tree Management Officer.
Above - Ground Assessment:
The following plant quality assessment criteria should be followed:
Plant true to type, Good vigour and health, free from pest & disease, free from injury, self-supporting, good stem taper, has been pruned correctly, is apically dominant, has even crown symmetry, free from included bark & stem junctions, even trunk position in pot, good stem structure
Below - Ground Assessment:
Good root division & direction, rootball occupancy, rootball depth, height of crown, non-suckering For further explanation and description of these assessment criteria, refer to Ross Clark's book.
All Plant material shall be to the type and size specified. No substitutions of plant material shall be permitted without written prior approval by the Landscape Architect. No plant shall be accepted which does not conform to the standards listed above.

b) Stakes and Ties
Provide min. 3 No. Stakes and ties to all plants identified as trees in the plant schedule. Stakes shall be sound, unpainted, straight hardwood, free of knots and pointed at one end. They shall be 2200mm x 50mm x 50mm Hardwood, or approved alternative. Ties shall be 50mm wide hessian webbing material.

c) Fertilisers
Fertilisers shall be approved slow release fertilisers suitable for the proposed planting types. Note that for native plants, specifically Proteaceae family plants including Grevillea species, low phosphorus fertilizers shall be used.

d) Mulch
Mulch for general planter bed shall be an approved equal to "Forest Blend" as supplied by ANL. Mulch shall be completely free from any soil, weeds, rubbish or other debris. Mulch for bio-retention/rain garden area where is required shall be non-floatable materials that could include crushed rock, gravel, coarse river sand, scoria or river pebbles. 4-7mm screenings or similar.

e) Turf
Turf for project site shall be soft leaf Buffalo or *Zoysia macrantha* 'Nana' or equivalent unless stated otherwise). free from any weeds and other grasses, and be in a healthy growing condition. Re-turfing to nature strip where is required shall use species that match existing on street.

3.02 INSTALLATION

a) Setting Out
All planting set out shall be in strict accordance with the drawings, or as directed. Note that proposed tree planting located near services should be adjusted at this stage. Notify Landscape Architect for inspection for approval prior to planting.

b) Planting
All plant material shall be planted as soon after delivery as possible. Planting holes for trees shall be excavated as detailed and specified. Plant containers shall be removed and discarded, and the outer roots gently teased from the soil mass. Immediately set plant in hole and backfill with specified soil mix, incorporating the approved quantity of fertiliser for each plant type. Ensure that plants are set plumb vertically and root balls set to the consolidated finished grades detailed on the drawings. Compact the backfilled soil and saturate by hand watering to expel any remaining air pockets immediately after planting.

c) Staking and Tying
Staking and tying shall be in strict accordance with the drawings and shall occur immediately following plant placement and soil backfilling. All plants identified as "Trees" on the planting schedule shall be staked with a min. 3 stakes.

d) Mulching
Mulch for general planter bed shall be an approved equal to "Forest Blend" as supplied by ANL. Mulch shall be completely free from any soil, weeds, rubbish or other debris. Mulch for bio-retention/rain garden area where is required shall be non-floatable materials that could include crushed rock, gravel, scoria or river pebbles. 4-7mm screenings or similar.

e) Turfing
Moisten soil prior to the turf being laid. Turf shall be neatly butt jointed and true to grade to finish flush with adjacent surfaces. Incorporate a lawn fertilizer and thoroughly water in. Keep turf moist until roots have taken and sods/rolls cannot be lifted. Keep all traffic off turf until this has occurred. Allow for top dressing of all turf areas. All turf shall be rolled immediately following installation.

f) Steel edging
Where is required, the Contractor shall install steel edging as detailed on the drawings, to all mass planting beds adjoining turf or gravel mulched areas, and where required. The resultant edge shall be true to line and flush with adjacent surfaces. **However, no edging shall be used within the Structural Root Zone (SRZ) of trees to be retained.**

g) Earth retaining structure
All walls which form part of drainage works must be built as detailed by the hydraulic engineer. All walls exceeding 800mm shall be of <u>not</u> timber construction materials, construction details to be provided by a qualified engineer. Install wall to suit site levels and to manufacture's specification.

HARDSCAPE WORKS

4.01 GENERAL

The Contractor shall undertake the installation of all hardscape works as detailed on the drawing, or where not detailed, by manufacturers specification.
- Paving - refer to typical details provided, and applicable Australian Standards. *Permeable paving may be used as a suitable means of satisfying Council permeable surface requirements, while providing a useable, hardwearing, practical surface.* In most instances, the client shall nominate the appropriate paving material to be used.

Australian Standards shall be adhered to in relation to all concrete, masonry & metal work. Some details are typical and may vary on site. All hardscape works shall be setout as per the drawings, and inspected and approved by the Landscape Architect prior to installation. All workmanship shall be of the highest standard. Any queries or problems that arise from hardscape variations should be bought to the attention of the Landscape Architect.
Your attention is directed to any obligations or responsibilities under the Dividing Fences Act, 1991 in respect of adjoining property owner/s which may arise from this application. Any enquiries in this regard may be made to the Crown Lands Division on (02) 8836 5332.

IRRIGATION WORKS

5.01 GENERAL (PERFORMANCE SPECIFICATION)

New irrigation systems to planting areas shall be a Commercial Grade Irrigation System conforming to all relevant Australian standards, including AS 3500 & the Electrical Safety Act 2002, Workplace Health & Safety Act 1995, & the latest Sydney Water Code

An automated drip-irrigation system is to be installed to all gardens, planters and lawn areas in accordance with the approved Irrigation Design.
This system shall be designed and installed by a qualified and licensed irrigation specialist, to the highest industry standards and to maximise the efficient usage of water.
The Installer is required to obtain all approvals necessary for the completion of works in accordance with the Laws of Australia, Laws of the State of NSW, Gosford Council Council By-Laws and Ordinances.

Drawings:
- The Landscape Contractor nominated Licensed Irrigation Specialist shall provide irrigation drawings for approval upon engagement.

Design Requirements:
- The irrigation system shall be installed prior to all planting works. It shall incorporate a commercially available irrigation system, with sub-surface dripper lines to irrigate all gardens, planters and lawn areas.
- It shall incorporate a suitable back flow prevention device for the scale of works, an in-line filter, check valves, and suitable high and low density poly hose fittings and PVC piping to achieve flow rates suitable for specified planting.
- The irrigation application rate shall not exceed the infiltration rate of the soil or creates run-off.
- The landscape contractor shall check the existing pressure available from the ring mains and size irrigation piping to suit. Supply shall be from local hose cock where available.
- All piping and fittings shall be buried 50mm below the finished soil levels in garden and lawn areas, and secured in position at 500mm centres with galv wire pins.
- Size of pipes shall be selected to ensure the working pressure at the end of the line does not decrease by more than 5%.

Services Co-ordination:
- Co-ordination required by Landscape Contractor or Project Manager to provide required conduit, pipe work and penetration through slabs and planter walls for water and power provisions.
- The Landscape Contractor shall be engaged with the Irrigation Specialist to co-ordinate with the Project Manager to identify the preferred service and conduit locations.
- Project Manager and Landscape Contractor to establish area suitable for irrigation control system with required area, power provision and water supply.

Testing & Defects:
Upon completion of installation, the system shall be tested, including:
- Main Line Pressure Test: The main line is pressurised to test for leaks. All valves are shut and the pressure is taken over a determined length of time.
- Dripper Pressure Test: Measurement at flushing valves are taken and the pressure gauged to make sure it conforms to the manufacturer recommendations. The inlet pressure is then tested under the same conditions to check it does not exceed 300Kpa.
- All components are to be satisfactorily functional and operational prior to approval. Should any defect develop, or the capacity or efficiency of the system decline during the agreed maintenance system, then these faults shall be immediately rectified.

Warranty :
- A full 12 month warranty shall be included to cover labour and all parts.

Further Documentation:
- On request, a detailed irrigation performance specification report can be issued.

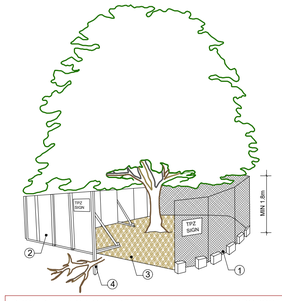
CONSOLIDATION AND MAINTENANCE

6.01 GENERAL

The consolidation and maintenance period shall be 12 months beginning from the approved completion of the specified construction work (Practical Completion). A qualified landscape maintenance contractor shall undertake the required landscape maintenance works. Consolidation and maintenance shall mean the care and maintenance of Contracted works by accepted landscaping or horticultural practices, ensuring that all plants are in optimum growing conditions and appearance at all times, as well as rectifying any defects that become apparent in the contracted works.

This shall include, but not be limited to, the following items where and as required:
- Watering all planting and lawn areas / irrigation maintenance.
- Clearing litter and other debris from landscaped areas.
- Removing weeds, pruning and general plant maintenance.
- Replacement of damaged, stolen or unhealthy plants.
- Make good areas of soil subsidence or erosion.
- Topping up of mulched areas.
- Spray / treatment for Insect and disease control.
- Fertilizing with approved fertilizers at correct rates.
- Mowing lawns & trimming edges each 14 days in summer or 18 days in winter
- Adjusting ties to Stakes
- Maintenance of all paving, retaining and hardscape elements.

On the completion of the maintenance period, the landscape works shall be inspected and at the satisfaction of the superintendent or landscape architect, the responsibility will be signed over to the client.



1. CHAIN WIRE MESH PANELS WITH SHADE CLOTH (IF REQUIRED) ATTACHED, HELD IN PLACE WITH CONCRETE FEET

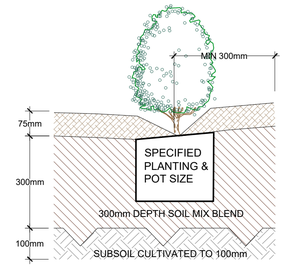
2. ALTERNATIVE PLYWOOD OR WOODEN PALING FENCE PANELS. THE FENCING MATERIAL ALSO PREVENTS BUILDING MATERIALS OR SOIL ENTERING THE TPZ

3. MULCH INSTALLATION ACROSS SURFACE OF TPZ (AT THE DISCRETION OF THE PROJECT ARBORIST). NO EXCAVATION, CONSTRUCTION ACTIVITY, GRADE CHANGES, SURFACE TREATMENT OR STORAGE OF MATERIALS OF ANY KIND IS PERMITTED WITHIN THE TPZ

4. BRACING IS PERMISSIBLE WITHIN THE TPZ. INSTALLATION OF SUPPORTS TO AVOID DAMAGING ROOTS

PROVIDE FENCING AS DETAILED TO ALL TREES PROPOSED TO BE RETAINED ON THE SUBJECT SITE. FENCING TO BE LOCATED TO THE DRIP LINE OF TREES OR AS INDICATED ON PLANS OR DIRECTED ON-SITE BY ARBORIST. NO STOCKPILING WITHIN FENCE PERIMETERS.

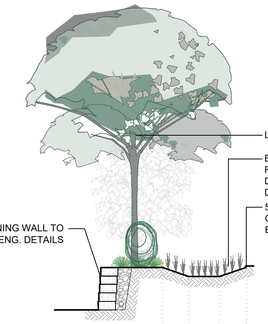
TREE PROTECTION ZONE
N.T.S



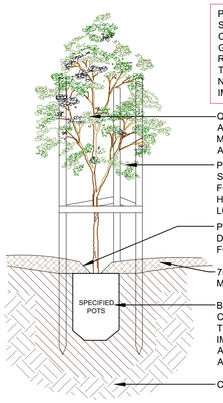
75mm DEPTH "FOREST BLEND" MULCH OR EQUIVALENT

SOIL MIX:
50% OF STOCKPILED SITE TOPSOIL FREE FROM ALL BUILDER'S RUBBISH AND DELETERIOUS MATERIALS. TOPSOIL TO BE MIXED WITH MINIMUM 50% IMPORTED GARDEN MIX OR SOIL CONDITIONER/ COMPOSTED ORGANIC MATTER - SEE SPEC. USE 100% IMPORTED SOIL MIX WHEN SITE TOPSOIL RUNS OUT.

TYPICAL GARDEN PREPARATION DETAIL
SCALE 1:10



SECTION A-A
N.T.S

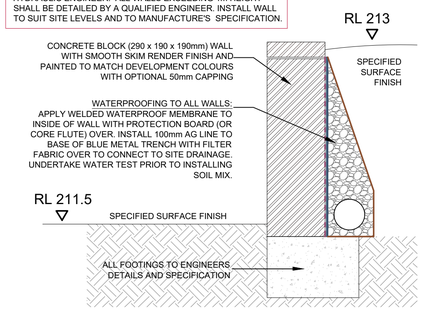


PLANT STOCK SHALL BE SOURCED FROM GROWERS CONFORMING TO NATSPEC. GUIDE 'SPECIFYING TREES' BY ROSS CLARKE. THOROUGHLY WATER IN ALL NEWLY PLANTED STOCK IMMEDIATELY AFTER PLANTING.

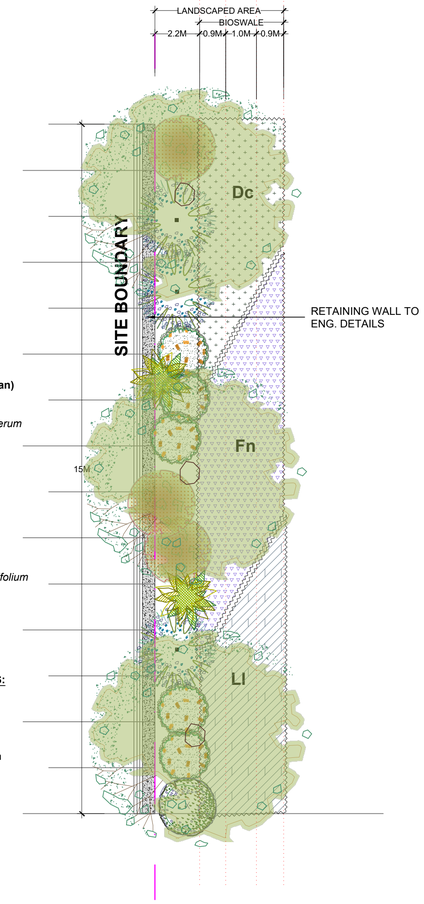
- QUALITY OF PLANT TO BE APPROVED BY PROJECT MANAGER OR LANDSCAPE ARCHITECT
- PROVIDE 3 HARDWOOD STAKES 1.8m X 50mm X 50mm FOR ALL TREES. USE 50mm HESSIAN TIES TO SECURE LOWER TRUNK TO STAKES
- PROVIDE SLIGHT DEPRESSION TO ALLOW FOR EFFECTIVE WATERING
- 75mm 'FOREST BLEND' MULCH OR EQUAL
- BACKFILL HOLE WITH CLEAN, TESTED SITE TOP-SOIL BLEND OR IMPORTED SOIL MIX APPROVED BY LANDSCAPE ARCHITECT
- CULTIVATE/ RIP SUBGRADE

TREE PLANTING DETAIL
SCALE: 1:10

NOTE: TYPICAL DETAIL ONLY. ALL WALLS WHICH FORM PART OF DRAINAGE WORKS MUST BE BUILT AS DETAILED BY THE HYDRAULIC ENGINEER. ALL WALLS EXCEEDING 1m HEIGHT SHALL BE DETAILED BY A QUALIFIED ENGINEER. INSTALL WALL TO SUIT SITE LEVELS AND TO MANUFACTURE'S SPECIFICATION.



SECTION B-B
SCALE 1:10



LANDSCAPE ZONE TO INCLUDE ENDEMIC TUBE STOCK SPECIES, INCLUDING:

MEDIUM TREES:
(Refer to Landscape Plan)
- *Allocasuarina littoralis*
- *Banksia serrata*
- *Ceratopetalum gummiferum*
- *Melaleuca decora*

Pot size: 45 Lt

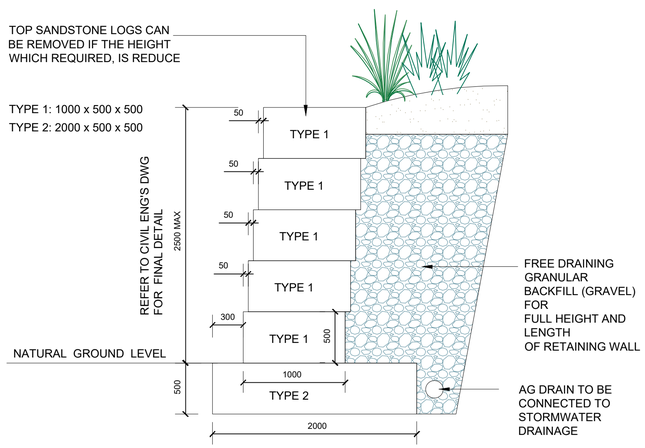
SHRUBS:
- *Banksia ericifolia*
- *Bauera rubioides*
- *Doryanthes palmari*
- *Kunzea ambigua*
- *Leptospermum polygalifolium*
- *Hakea sericea*

Pot size: 140mm

Dc
Fn
LI

BIO-SWALE GRASSES:
- *Dianella caerulea*
- *Ficinia nodosa*
- *Lomandra longifolia*

tube stock
Mature H x S: < .6m
Qty Required: 6/m2



NATURAL SANDSTONE BLOCK RETAINING WALL DETAIL
approx 1:30

NOTE: TYPICAL DETAIL ONLY. ALL WALLS WHICH FORM PART OF DRAINAGE WORKS MUST BE BUILT AS DETAILED BY THE HYDRAULIC ENGINEER. ALL WALLS EXCEEDING 1m HEIGHT SHALL BE DETAILED BY A QUALIFIED ENGINEER. INSTALL WALL TO SUIT SITE LEVELS AND TO MANUFACTURE'S SPECIFICATION.

INDICATIVE IMAGE

LANDSCAPE ZONE PLANTING
N.T.S

GENERAL NOTE:
Figured dimensions take preference to scale readings. Verify all dimensions on site. PDF/ plans may vary slightly in Scale for that indicated on plans. Report any discrepancies to the Landscape Architect before proceeding with the work.

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COUNCIL
GOSFORD COUNCIL

CLIENT
KARIONG SAND & SOIL SUPPLIES

REV	DATE	NOTATION/AMENDMENT
A	19.07.18	Preliminary DA prepared for review
B	24.07.18	Coordinated with client's comment
C	03.07.20	Coordinated with client's comment

PROJECT:
PROPOSED RECYCLING FACILITY DEVELOPMENT
90 GINDURRA RD,
SOMERSBY

TITLE:
SPECIFICATION & DETAIL

STATUS:
DEVELOPMENT APPLICATION

SCALE:
AS SHOWN @ A1

DATE:
JULY 2020

DWG.No:
LPDA 19 - 16

PAGE NUMBER:
4

DRAWN:
E.W

CHECKED:
R.F