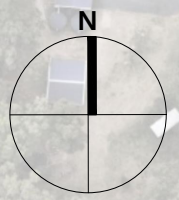


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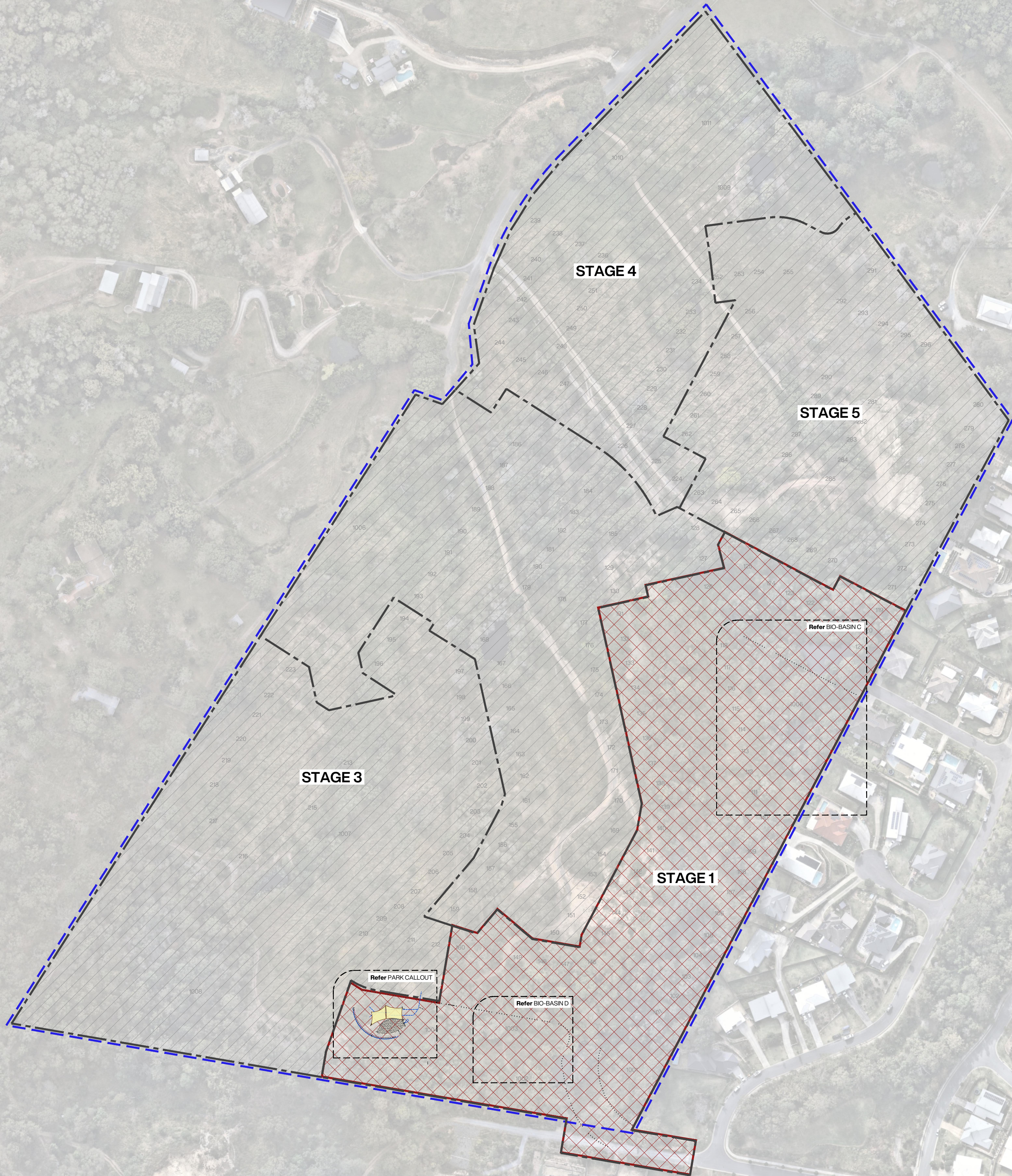


PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No:.....COM/2024/13.....

Dated: 14 May 2024.....

Development shall comply with the
conditions of approval as detailed in the
Decision Notice and Council's Planning
Scheme, Local Laws and Planning Policies



LEGEND - SITE DETAILS

 **SITE BOUNDARY**
DEVELOPMENT SITE LOCATED ON LOT 188-192 ON RP173728

 **FUTURE STAGE BOUNDARIES**
FUTURE DEVELOPMENT STAGE BOUNDARIES APPROVAL NOT SORT FOR WITH CURRENT APPLICATION

 **EXTENT OF WORKS**
DEVELOPMENT SITE LOCATED ON LOT 188-192 ON RP173728

0 50 100 150m
SCALE 1:1500 @A1

PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE

DRAWING TITLE
STAGING & EXTENT OF WORKS

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
F	RFI	16.04.2024	MB	MB	MB	JB
E	UPDATE FOR PRELIM TENDER	15.03.2024	MB	MB	MB	JB
D	STAGE 01: FOR APPROVAL	06.02.2024	SS	SS	EP	JB
C	STAGE 01: FOR APPROVAL	02.02.2024	SS	SS	EP	JB
B	STAGE 01: DRAFT	09.11.2023	SS	SS	EP	JB

ISSUE:	FOR APPROVAL	CLIENT:	HB LAND PTY LTD
BASE PROVIDED BY:	MORTONS URBAN SOLUTIONS	MANAGER:	JON BROOKSBY

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ZONE LANDSCAPE ARCHITECTURE

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PO Box 3805, Burleigh Town QLD 4220

GLADSTONE
2/172 Goondoon St, Gladstone, QLD 4680
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03 OF 20

LEGEND - FENCING PLAN

- FENCE TYPE 01: EXISTING GOOD NEIGHBOUR**
 RETAIN EXISTING FENCE TO NEIGHBOURING PROPERTIES.
 RECTIFY ANY DAMAGE INCURRED DURING CONSTRUCTION.

FENCE TYPE 02: POS INTERFACE
 SAFETY FENCE IS 200MM HIGH
 TYPICAL, INSTALLED TO TOP OF RETAINING WALLS
 REFER LANSCAPE SPECIFICATIONS FOR DETAILS.
 TOTAL LENGTH: 38.00M

FENCE TYPE 03: BOLLARD LINE
 THREE METRE SPACING 200MM CENTERS
 REFER DETAIL DRAWINGS FOR FURTHER INFO.
 TOTAL LENGTH 34.00M
 TOTAL QTY: 180

FENCE TYPE 04: SAFETY FENCE
 GENERAL PURPOSE UNPAINTED GALVANNEAL
 REFER COUNCIL STANDARD DRAWING 05-03
 TOTAL LENGTH: 90.50M

WALL TYPE 01: RETAINING WALLS
 CONCRETE SLEEPER RETAINING WALLS DARK GREY COLOUR.
 500 LITRE FACE COAT TO BE APPLIED TO EXPOSED FACE
 COMPLETED UNDER CIVIC SCOPE, INCLUDED FOR REFERENCE ONLY.

WALL TYPE 02: SANDSTONE WALLS
 SANDSTONE RETAINING WALLS COMPLETED UNDER CIVIC SCOPE.
 INCLUDED FOR REFERENCE ONLY.

ACCESS GATE
 MAINTENANCE ACCESS GATE TO COCQ STANDARDS
 REFER TO COCQ STANDARD DRAWING 05-06
 TOTAL QTY: 4

PEDESTRIAN BOLLARD
 REMOVABLE STEEL BOLLARD TO COCQ STANDARDS
 REFER TO COCQ STANDARD DRAWING 05-023
 TOTAL QTY: 2

SAFETY ANCHOR POINTS
 SUPPLIER ANCHORS UNITS (OR APPROXIMATE) SMALL R
 INSTALLED AS PERMANENT FIXINGS SPECIFICATIONS
 TO BASE OF EVERY 2ND FENCE POST
 TOTAL QTY: 19

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04 OF 20

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE
DRAWING TITLE
TREATMENT AREAS

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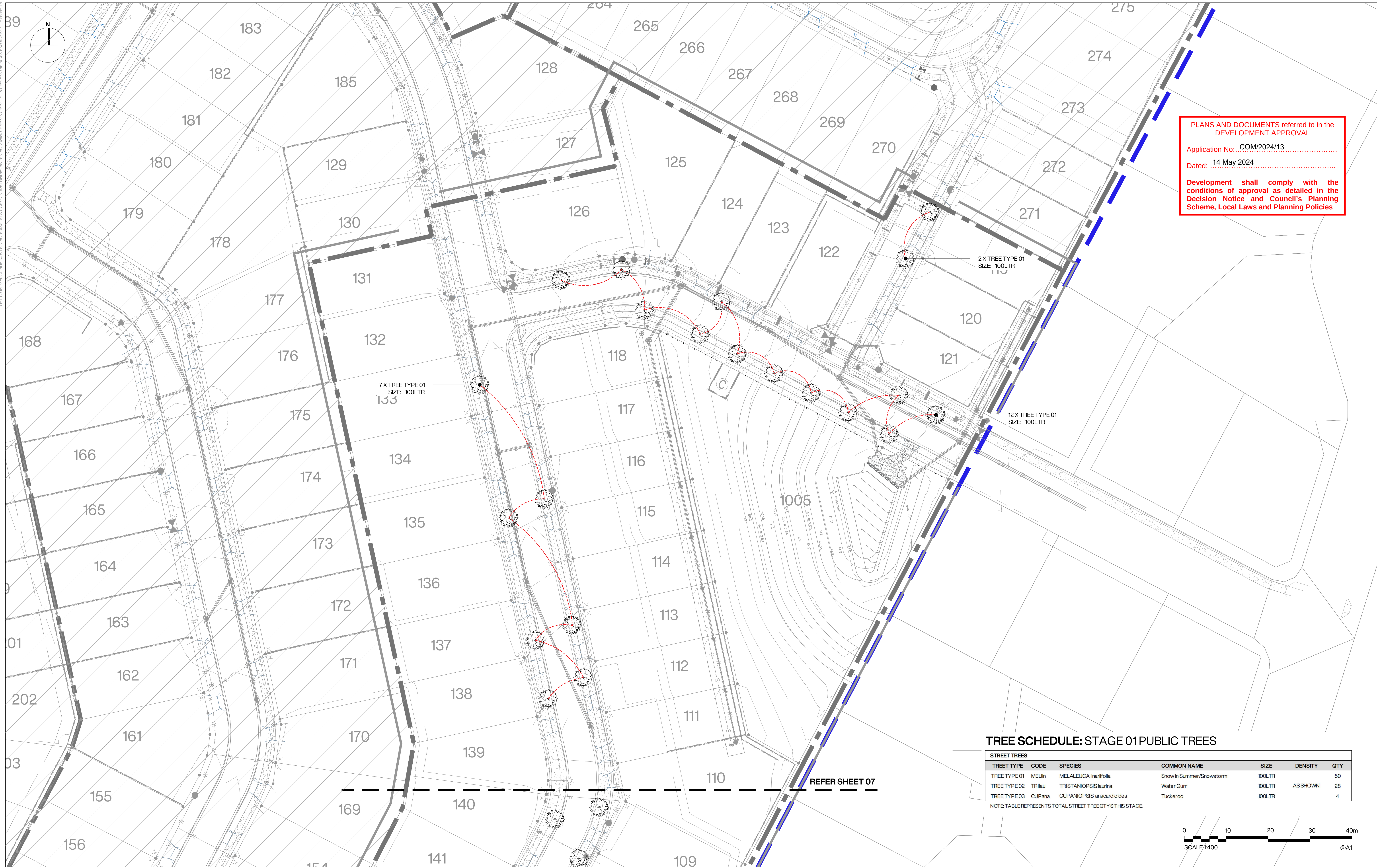
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05 OF 20



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: COM/2024/13

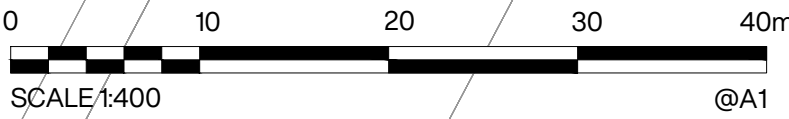
Dated: 14 May 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

TREE SCHEDULE: STAGE 01 PUBLIC TREES

STREET TREES						
TREE TYPE	CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
TREE TYPE 01	MELin	MELALEUCA linarifolia	Snow in Summer/Snowstorm	100LTR		50
TREE TYPE 02	TRilau	TRISTANIOPSIS laurina	Water Gum	100LTR	ASSHOWN	28
TREE TYPE 03	CUPana	CUPANIOPSIS anacardioides	Tuckeroo	100LTR		4

NOTE: TABLE REPRESENTS TOTAL STREET TREE QTY'S THIS STAGE



PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC OPERATIONAL WORKS: LANDSCAPE

DRAWING TITLE
PLANTING PLAN - ZONE 01

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
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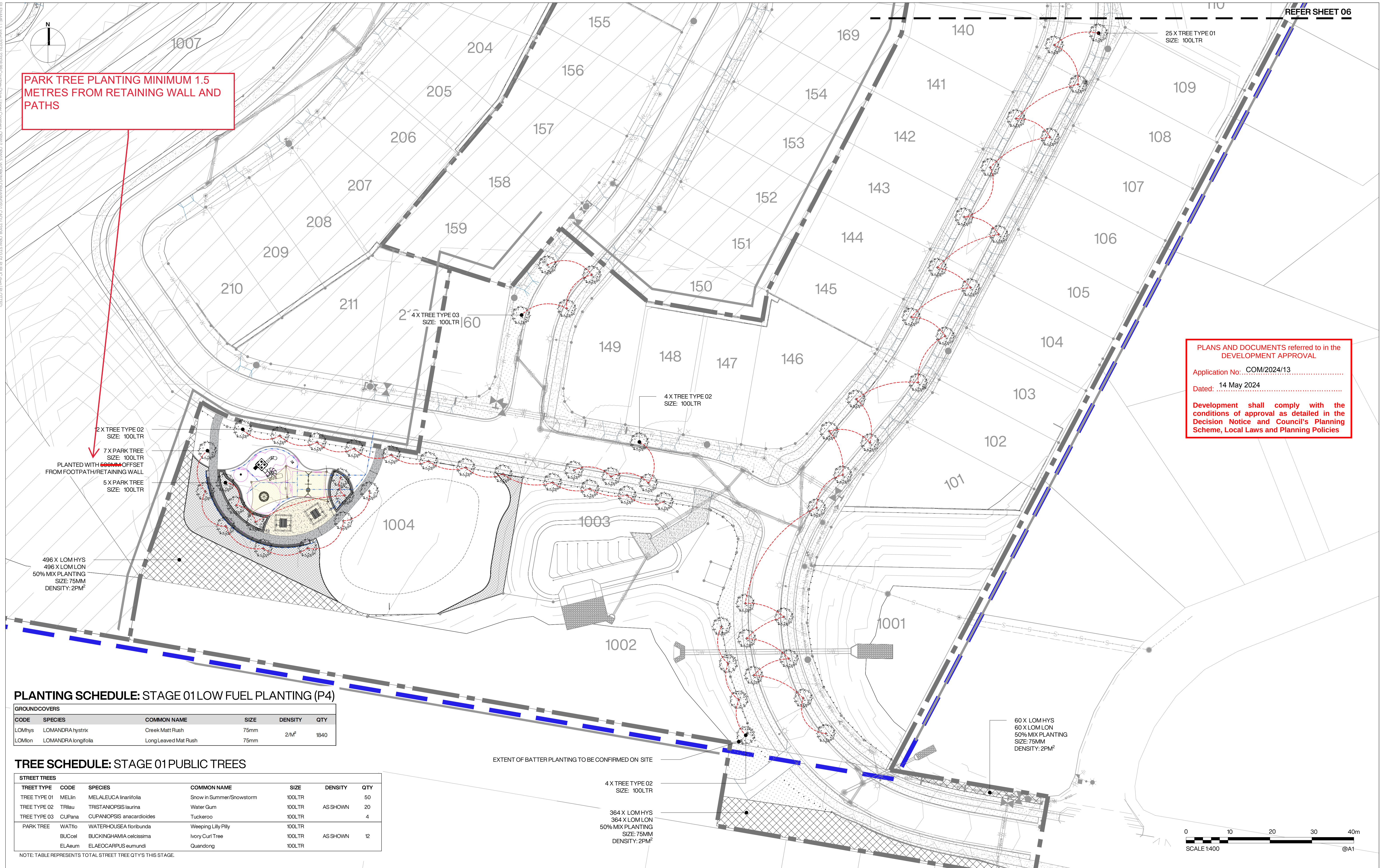
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SHEET NO.
06 OF 20



PLANTING SCHEDULE: STAGE 01 LOW FUEL PLANTING (P4)

GROUND COVERS					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
LOMhys	LOMANDRA hystrix	Creek Matt Rush	75mm	2/M ²	1840
LOMlon	LOMANDRA longifolia	Long Leaved Mat Rush	75mm		

TREE SCHEDULE: STAGE 01 PUBLIC TREES

STREET TREES						
TREE TYPE	CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
TREE TYPE 01	MELin	MELALEUCA linarifolia	Snow in Summer/Snowstorm	100LTR		50
TREE TYPE 02	TRlaur	TRISTANIOPSIS laurina	Water Gum	100LTR	AS SHOWN	20
TREE TYPE 03	CUPana	CUPANIOPSIS anacardioides	Tuckeroo	100LTR		4
PARK TREE	WATflo	WATERHOUSEA floribunda	Weeping Lilly Pilly	100LTR		
	BUCcel	BUCKINGHAMIA celicissima	Ivory Curl Tree	100LTR	AS SHOWN	12
	ELAeum	ELAEOCARPUS eumundi	Quandong	100LTR		

NOTE: TABLE REPRESENTS TOTAL STREET TREE QTY'S THIS STAGE.

PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE

DRAWING TITLE
PLANTING PLAN - ZONE 02

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
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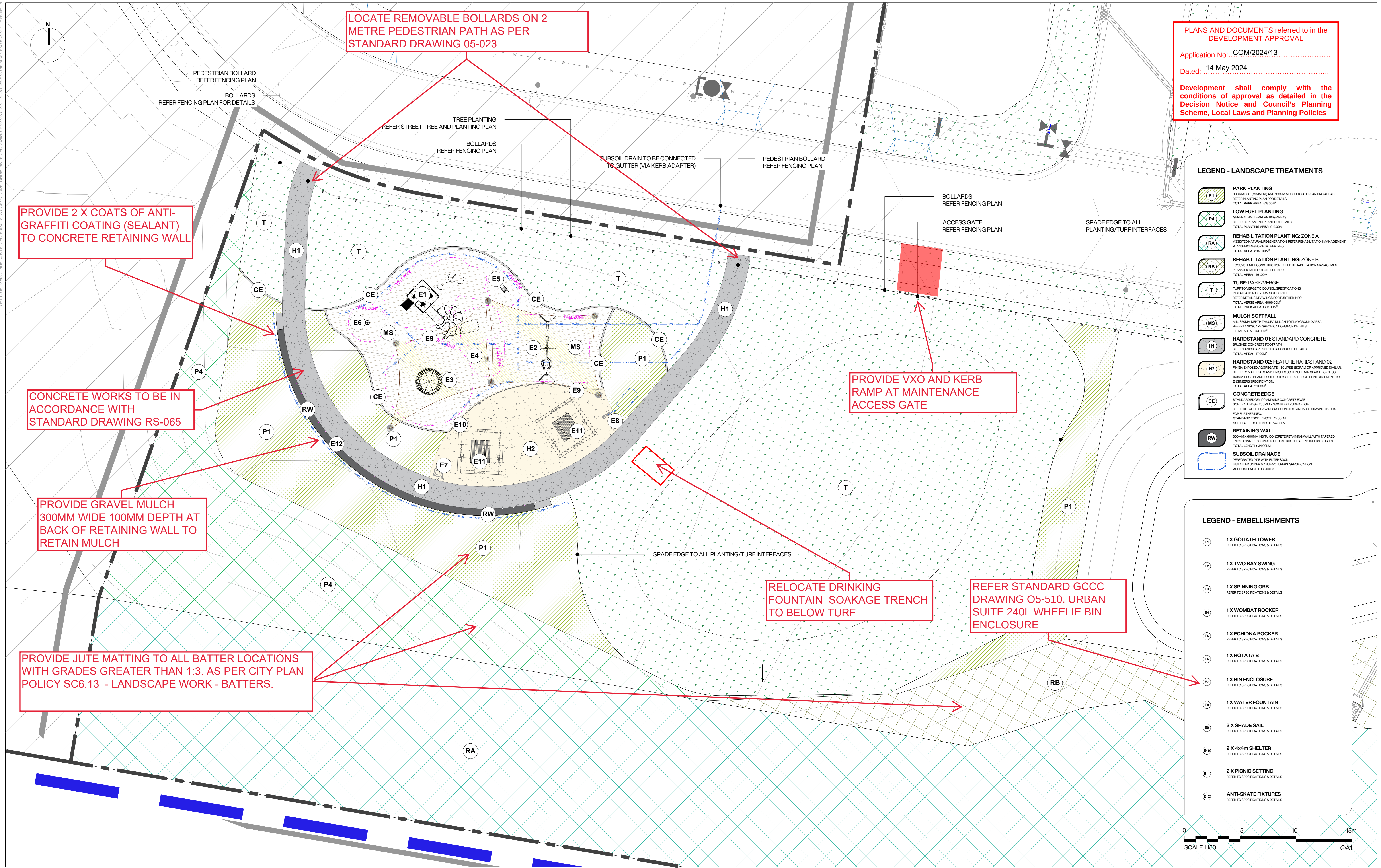


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SHEET NO.
07 OF 20



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: COM/2024/13

Dated: 14 May 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

LEGEND - LANDSCAPE TREATMENTS

- P1 PARK PLANTING**
300MM ISOL. 100MM MULCH AND 100MM MULCH TO ALL PLANTING AREAS.
REFER PLANTING PLAN FOR DETAILS.
TOTAL PARK AREA: 518.00M²
- P4 LOW FUEL PLANTING**
GENERAL BATTER PLANTING AREAS.
REFER PLANTING PLAN FOR DETAILS.
TOTAL PLANTING AREA: 918.00M²
- RA REHABILITATION PLANTING- ZONE A**
ASSISTED NATURAL REGENERATION REFER REHABILITATION MANAGEMENT PLANS (SCHEDULED FOR FURTHER INFO).
TOTAL AREA: 2842.00M²
- RB REHABILITATION PLANTING- ZONE B**
ECOSYSTEM RECONSTRUCTION REFER REHABILITATION MANAGEMENT PLANS (SCHEDULED FOR FURTHER INFO).
TOTAL AREA: 145.00M²
- T TURF- PARK/VERGE**
TURF TO VERGE TO COUNCIL SPECIFICATIONS.
INSTALLATION OF 75MM ISOL. DEPTH.
REFER DETAILS DRAWINGS FOR FURTHER INFO.
TOTAL VERGE AREA: 4066.00M²
TOTAL PARK AREA: 1607.00M²
- MS MULCH SOFTFALL**
MIN. 150MM SOFTFALL OVER 100MM MULCH TO PLAYGROUND AREA.
REFER LANDSCAPE SPECIFICATIONS FOR DETAILS.
TOTAL AREA: 244.00M²
- H1 HARDSTAND 01: STANDARD CONCRETE**
REFER LANDSCAPE SPECIFICATIONS FOR DETAILS.
TOTAL AREA: 147.00M²
- H2 HARDSTAND 02: FEATURE HARDSTAND 02**
FINISH EXPLODED ASBESTOS: 150LPS: BERAL OR APPROVED SIMILAR.
REFER TO MATERIALS AND FINISHES SCHEDULE MIN SLAB THICKNESS 150MM. EDGE BEAM REQUIRED TO SOFT FALL EDGE. REINFORCEMENT TO ENGINEER'S SPECIFICATION.
TOTAL AREA: 116.00M²
- CE CONCRETE EDGE**
STANDARD EDGE: 100MM WIDE CONCRETE EDGE.
SOFT FALL EDGE: 200MM X 100MM EXTRUDED EDGE.
REFER DETAILED DRAWINGS & COUNCIL STANDARD DRAWING 05-504 FOR FURTHER INFO.
STANDARD EDGE LENGTH: 15.00M
SOFT FALL EDGE LENGTH: 14.00M
- RW RETAINING WALL**
600MM X 600MM INSET TO CONCRETE RETAINING WALL WITH TAPERED END DOWN TO 100MM HIGH TO STRUCTURAL ENGINEER'S DETAILS.
TOTAL LENGTH: 34.00M
- SUBSOIL DRAINAGE**
PERFORATED PIPE WITH FILTER SOCK.
INSTALLED IN 100MM MANUFACTURER'S SPECIFICATION.
APPROX LENGTH: 15.00M

LEGEND - EMBELLISHMENTS

- E1 1X GOLIATH TOWER**
REFER TO SPECIFICATIONS & DETAILS
- E2 1X TWO BAY SWING**
REFER TO SPECIFICATIONS & DETAILS
- E3 1X SPINNING ORB**
REFER TO SPECIFICATIONS & DETAILS
- E4 1X WOMBAT ROCKER**
REFER TO SPECIFICATIONS & DETAILS
- E5 1X ECHIDNA ROCKER**
REFER TO SPECIFICATIONS & DETAILS
- E6 1X ROTATA B**
REFER TO SPECIFICATIONS & DETAILS
- E7 1X BIN ENCLOSURE**
REFER TO SPECIFICATIONS & DETAILS
- E8 1X WATER FOUNTAIN**
REFER TO SPECIFICATIONS & DETAILS
- E9 2 X SHADE SAIL**
REFER TO SPECIFICATIONS & DETAILS
- E10 2 X 4x4m SHELTER**
REFER TO SPECIFICATIONS & DETAILS
- E11 2 X PICNIC SETTING**
REFER TO SPECIFICATIONS & DETAILS
- E12 ANTI-SKATE FIXTURES**
REFER TO SPECIFICATIONS & DETAILS



PROJECT TITLE

CALLI | SUBDIVISION: STAGE 01 - PUBLIC

OPERATIONAL WORKS: LANDSCAPE

DRAWING TITLE

PARK LAYOUT PLAN

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
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ISSUE: FOR APPROVAL

CLIENT: HB LAND PTY LTD

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MANAGER: JON BROOKSBY

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ZONE LANDSCAPE ARCHITECTURE

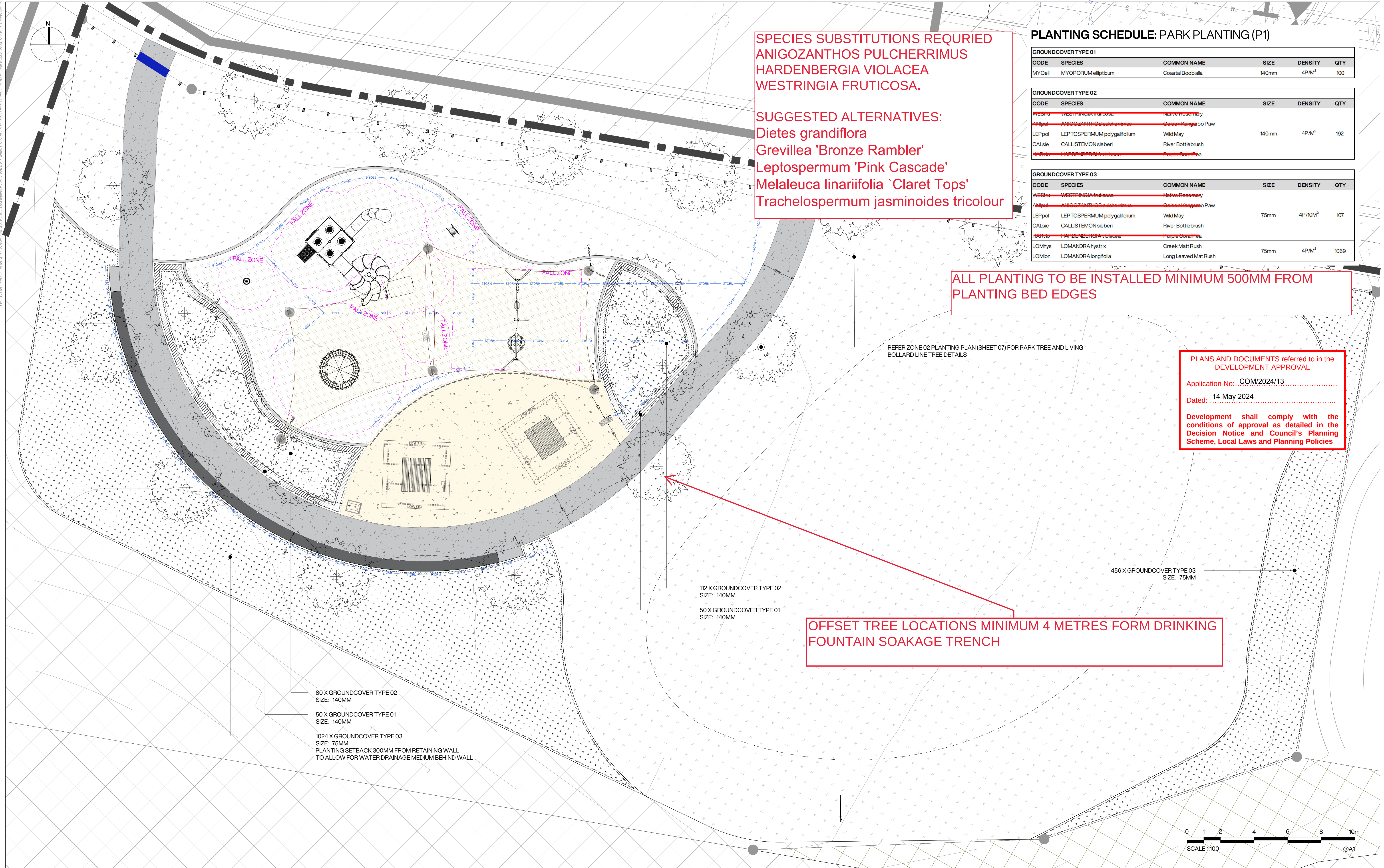
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SHEET NO.
08 OF 20



SPECIES SUBSTITUTIONS REQUIRED
ANIGOZANTHOS PULCHERRIMUS
HARDENBERGIA VIOLACEA
WESTRINGIA FRUTICOSA.

SUGGESTED ALTERNATIVES:
Dietes grandiflora
Grevillea 'Bronze Rambler'
Leptospermum 'Pink Cascade'
Melaleuca linariifolia 'Claret Tops'
Trachelospermum jasminoides tricolour

PLANTING SCHEDULE: PARK PLANTING (P1)

GROUNDCOVER TYPE 01					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
MYOell	MYOPORUM ellipticum	Coastal Boobialla	140mm	4P/M ²	100
GROUNDCOVER TYPE 02					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
WESfr	WESTRINGIA fruticosa	Native Rosemary	140mm	4P/M ²	192
ANIpul	ANIGOZANTHOS pulcherrimus	Golden Kangaroo Paw			
LEPpol	LEPTOSPERMUM polygalifolium	Wild May			
CALsie	CALLISTEMON sieberi	River Bottlebrush			
HARvie	HARDENBERGIA violacea	Purple Coral Pea			
GROUNDCOVER TYPE 03					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
WESfr	WESTRINGIA fruticosa	Native Rosemary	75mm	4P/10M ²	107
ANIpul	ANIGOZANTHOS pulcherrimus	Golden Kangaroo Paw			
LEPpol	LEPTOSPERMUM polygalifolium	Wild May			
CALsie	CALLISTEMON sieberi	River Bottlebrush			
HARvie	HARDENBERGIA violacea	Purple Coral Pea			
LOMfhs	LOMANDRA hystrix	Creek Matt Rush	75mm	4P/M ²	1069
LOMlon	LOMANDRA longifolia	Long Leaved Mat Rush			

ALL PLANTING TO BE INSTALLED MINIMUM 500MM FROM PLANTING BED EDGES

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL
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OFFSET TREE LOCATIONS MINIMUM 4 METRES FORM DRINKING FOUNTAIN SOAKAGE TRENCH

PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE
DRAWING TITLE
PARK PLANTING PLAN

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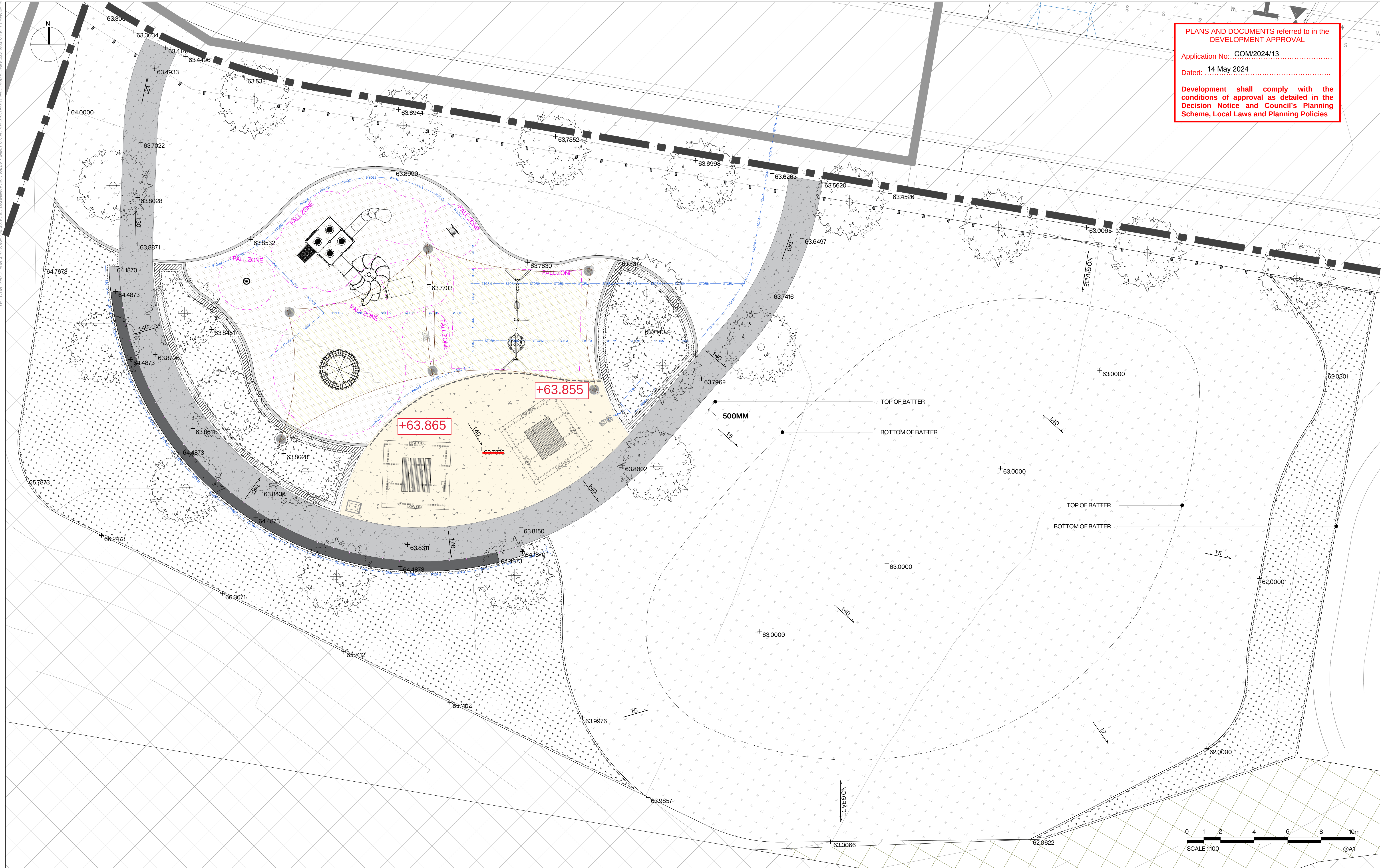
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09 OF 20



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Dated: 14 May 2024

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PROJECT TITLE
**CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE**

DRAWING TITLE
PARK LEVELS PLAN

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
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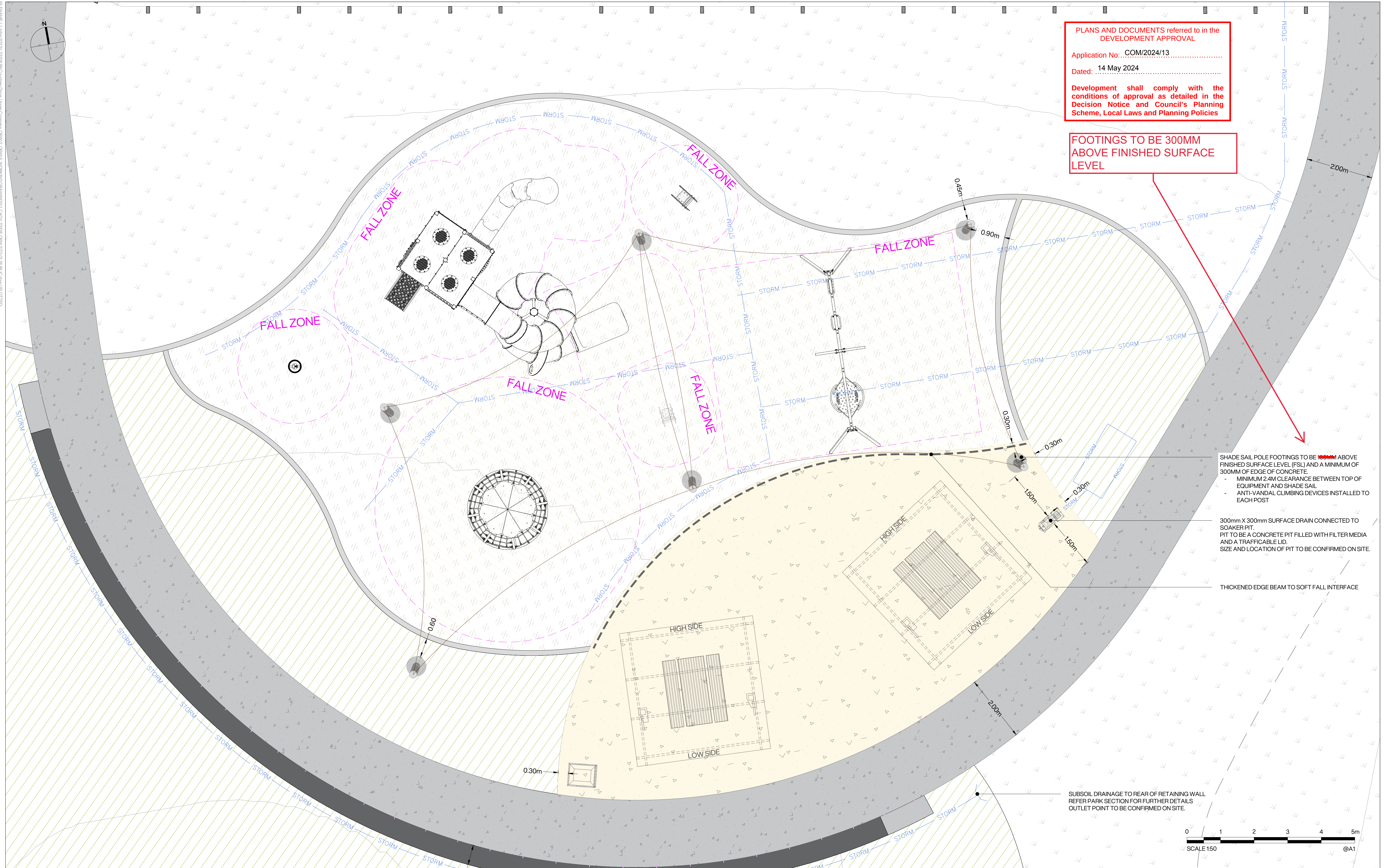
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SHEET NO.
10 OF 20



PLANS AND DOCUMENTS referred to in the
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Application No: COM/2024/13

Dated: 14 May 2024

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FOOTINGS TO BE 300MM
ABOVE FINISHED SURFACE
LEVEL

SHADE SAIL POLE FOOTINGS TO BE 300MM ABOVE
FINISHED SURFACE LEVEL (FSL) AND A MINIMUM OF
300MM OF EDGE OF CONCRETE

- MINIMUM 2.4M CLEARANCE BETWEEN TOP OF
EQUIPMENT AND SHADE SAIL
- ANTI-VANDAL CLIMBING DEVICES INSTALLED TO
EACH POST

300mm X 300mm SURFACE DRAIN CONNECTED TO
SOAKER PIT.
PIT TO BE A CONCRETE PIT FILLED WITH FILTER MEDIA
AND A TRAFFICABLE LID.
SIZE AND LOCATION OF PIT TO BE CONFIRMED ON SITE.

THICKENED EDGE BEAM TO SOFT FALL INTERFACE

SUBSOIL DRAINAGE TO REAR OF RETAINING WALL
REFER PARK SECTION FOR FURTHER DETAILS
OUTLET POINT TO BE CONFIRMED ON SITE.

PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE

DRAWING TITLE
PARK SETOUT PLAN

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
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E	UPDATE FOR PRELIM TENDER	15.03.2024	MB	MB	MB	JB
D	STAGE 01 FOR APPROVAL	06.02.2024	SS	SS	EP	JB
C	STAGE 01 FOR APPROVAL	02.02.2024	SS	SS	EP	JB
B	STAGE 01 DRAFT	09.11.2023	SS	SS	EP	JB

ISSUE:	FOR APPROVAL	CLIENT:	HB LAND PTY LTD
BASE PROVIDED BY:	MORTONS URBAN SOLUTIONS	MANAGER:	JON BROOKSBY

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zone
Landscape Architecture

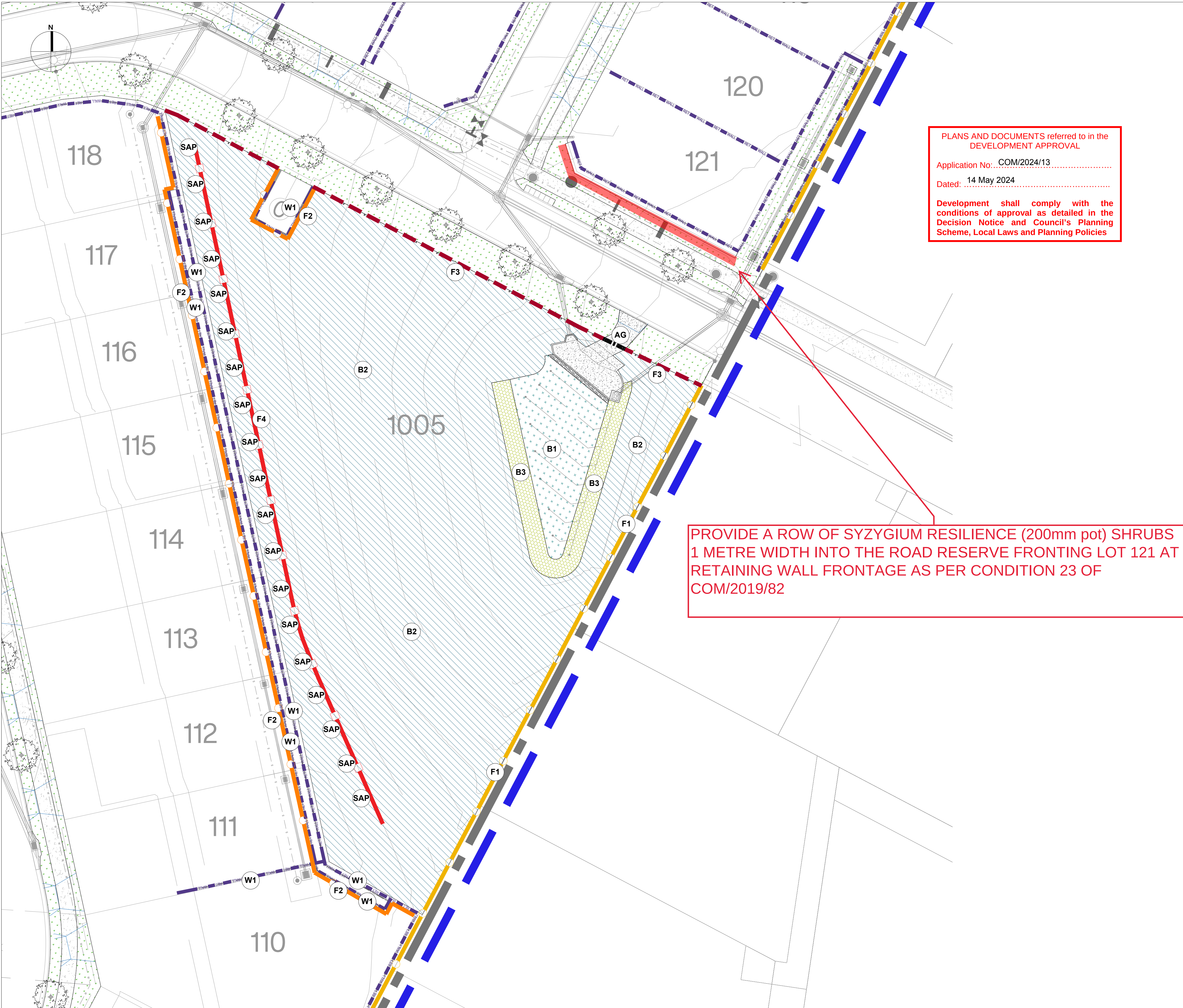
ZONE LANDSCAPE ARCHITECTURE
GOLD COAST
1638 Tweed Street, Burleigh Heads QLD 4220
PO Box 3805, Burleigh Town QLD 4220

GLADSTONE
2/172 Goondoon St, Gladstone, QLD 4680
PO Box 5332, Gladstone QLD 4680

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JOB / DRAWING NO:
L23108 - 208

SHEET NO.
11 OF 20



BIO BASIN 'C': BASE PLANTING (B1)

TOTAL AREA: 176.00M²

GROUNDCOVERS					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
CARapp	CAREX appressa	Tall Sedge	75mm		
FINnod	FINICIA nodosa	Knobby Club Rush	75mm		
IMPcyl	IMPERATA cylindrica	Cogon Grass	75mm	6PM ²	1056
LOMhys	LOMANDRA hystrix	Creek Matt Rush	75mm		
LOMlon	LOMANDRA longifolia	Long Leaved Mat Rush	75mm		
THEaus	THEMEDA australis	Kangaroo Grass	75mm		

BIO BASIN 'C': BATTER PLANTING (B2)

TOTAL AREA: 3110.00M²

TREES					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
CALvrm	CALLISTEMON viminalis	Weeping Bottlebrush	75mm		
EUCobo	EUCALYPTUS obovatus	Hard Quandong	75mm		
LOPcon	LOPHOSTEMON confertus	Brush Box	75mm		
LOPua	LOPHOSTEMON suaveolens	Swamp Mahogany	75mm	1/10M ²	311
MELnod	MELALEUCA nodosa	Prickly-Leaf Paperbark	75mm		
MELqui	MELALEUCA quinque-nera	Cajuput Paperbark	75mm		
MELsie	MELALEUCA sieberi	Small-Leaved Paperbark	75mm		

SHRUBS					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
BREobl	BREYNIA oblongifolia	Coffee Bush	75mm		
CALsie	CALLISTEMON sieberi	River Bottlebrush	75mm		
HARvio	HARDENBERGIA violacea	Purple Coral Pea	75mm	4/10M ²	1244
LEPpol	LEPTOSPERMUM polygalifolium	Wild May	75mm		
LOMsil	LOMATIA silaifolia	Feather Leaved Crinklebush	75mm		

GROUNDCOVERS					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
CARapp	CAREX appressa	Tall Sedge	75mm		
FINnod	FINICIA nodosa	Knobby Club Rush	75mm		
IMPcyl	IMPERATA cylindrica	Cogon Grass	75mm		
LOMhys	LOMANDRA hystrix	Creek Matt Rush	75mm	4PM ²	12440
LOMlon	LOMANDRA longifolia	Long Leaved Mat Rush	75mm		
MYOpar	MYOPORUM parvifolium	Creeping Boobialla	75mm		
THEaus	THEMEDA australis	Kangaroo Grass	75mm		

BIO BASIN 'C': RIBBON PLANTING (B3)

TOTAL AREA: 122.00M²

GROUNDCOVERS					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
LOMhys	LOMANDRA hystrix	Creek Matt Rush	75mm	2PM ²	244
LOMlon	FINICIA nodosa	Knobby Club Rush	75mm		

LEGEND - FENCING PLAN

F1	FENCE TYPE 01: EXISTING GOOD NEIGHBOUR RETAIN EXISTING FENCE TO NEIGHBOURING PROPERTIES. RECTIFY ANY DAMAGE INCURRED DURING CONSTRUCTION.	F4	FENCE TYPE 04: SAFETY FENCE GENERAL PURPOSE GALVANISED TUBULAR HANDRAIL. REFER CIVIL STANDARD DRAWING 05-010. TOTAL LENGTH: 90.50M.
F2	FENCE TYPE 02: POS INTERFACE SAFETY FENCE @ 1200MM HIGH. TYPE 01 - INSTALLED TO TOP OF RETAINING WALLS. REFER LANDSCAPE SPECIFICATIONS FOR DETAILS. TOTAL LENGTH: 35.00M.	W1	WALL TYPE 01: RETAINING WALLS CONCRETE SLAB/RETAINING WALLS. DARK GREY COLOUR. SPLIT FACE, STONE OR WOOD PATTERN FINISH. COMPLETED UNDER CIVIL SCOPE. INCLUDED FOR REFERENCE ONLY.
F3	FENCE TYPE 03: BOLLARD LINE TIMBER BOLLARDS @ 1000MM CENTERS. REFER DETAIL DRAWINGS FOR FURTHER INFO. TOTAL LENGTH: 314.00M. TOTAL QTY: 191.	AG	ACCESS GATE MAINTENANCE ACCESS GATE TO DDG02 STANDARDS. REFER TO DDG02 STANDARD DRAWING 05-016. TOTAL QTY: 4.
		SAP	SAFETY ANCHOR POINTS SUPPLIER: ARBELLERS LIMITED (OR APPROVED SIMILAR). INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS. TO BASE OF EVERY 2ND FENCE POST. TOTAL QTY: 19.

LEGEND - BIO BASIN C

B1	BIO BASIN: BASE PLANTING REFER BIO BASIN PLANS. REFER CIVIL/STORMWATER PLAN FOR FURTHER INFO. BIO BASIN 'C' PLANTING AREA: 176.00M ² . BIO BASIN 'C' PLANTING AREA: 176.00M ² .
B2	BIO BASIN: BATTER PLANTING REFER BIO BASIN PLANS. REFER CIVIL/STORMWATER PLAN FOR FURTHER INFO. BIO BASIN 'C' PLANTING AREA: 3110.00M ² . BIO BASIN 'C' PLANTING AREA: 3110.00M ² .
B3	BIO BASIN: RIBBON PLANTING REFER BIO BASIN PLANS. REFER CIVIL/STORMWATER PLAN FOR FURTHER INFO. BIO BASIN 'C' PLANTING AREA: 122.00M ² . BIO BASIN 'C' PLANTING AREA: 122.00M ² .

0 5 10 15 20 25m
SCALE 1:250 @A1

PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE
DRAWING TITLE
BIO-RETENTION BASIN C

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
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ISSUE:	FOR APPROVAL	CLIENT:	HB LAND PTY LTD
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JOB / DRAWING NO:
L23108 - 209

SHEET NO.
12 OF 20



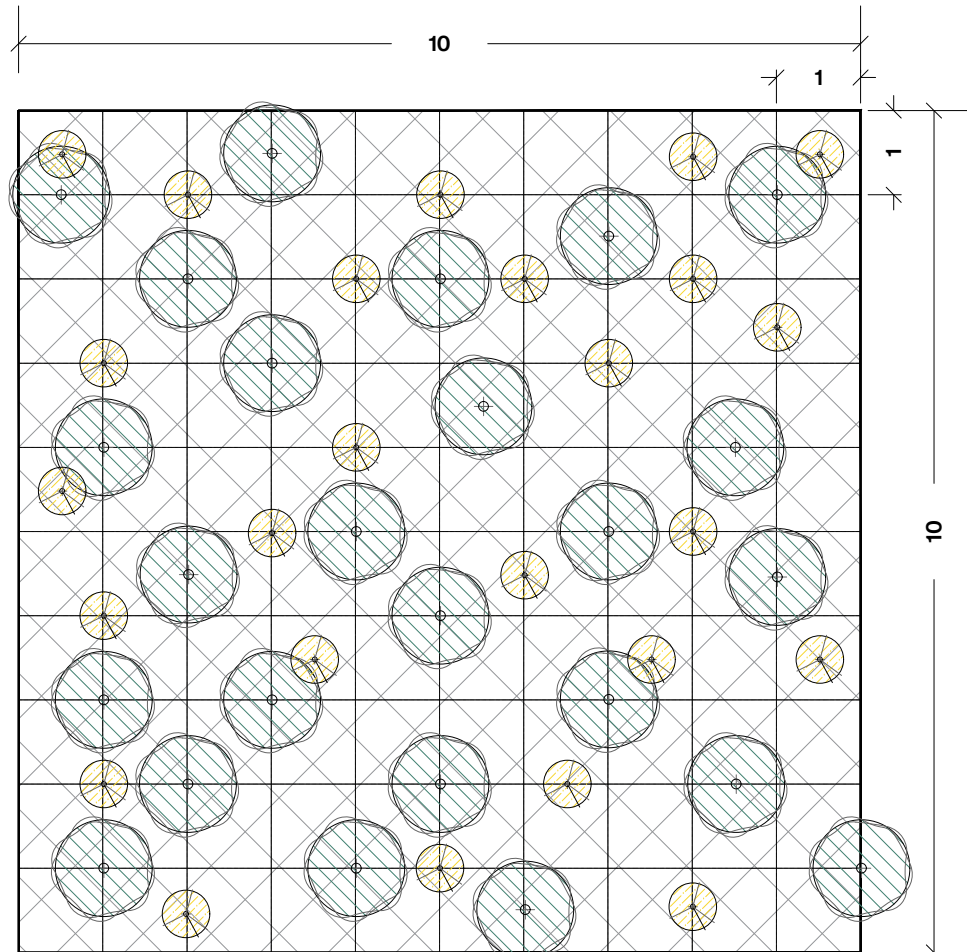
SHEET NO.
13 OF 20

TOTAL AREA: 2842.00M² | 20% INFILL ALLOWANCE ONLY

TREES					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
CORCit	CORYMBIA citriodora	Spotted Gum	75mm		
CORInt	CORYMBIA intermedia	Pink Bloodwood	75mm		
EUCcar	EUCALYPTUS carnea	Small Fruited Grey Gum	75mm		
EUCmic	EUCALYPTUS microtheca	Small Fruited Grey Gum	75mm	1/4M ³	142
EUCpro	EUCALYPTUS propinqua	Small Fruited Grey Gum	75mm		
EUCsid	EUCALYPTUS sideroxylon	Small Fruited Grey Gum	75mm		
EUCter	EUCALYPTUS tereticornis	Golden Bouquet Tree	75mm		
LOPcon	LOPHOSTEMON confertus	Brush Box	75mm		

SHRUBS					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
ACAdis	ACACIA dispartima	Hickory Wattle	75mm		
ALLit	ALLOCASUARINA littoralis	Black She-Oak	75mm	1/4M ²	142
MELsal	MELALEUCA salignis	White Bottlebrush	75mm		

GROUNDCOVERS					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
CYMref	CYMBOPOGON refractus	Lemongrass	75mm		
IMPCyl	IMPERATA cylindrica	Cogon Grass	75mm		
LOMlon	LOMANDRA longifolia	Long Leaved Mat Rush	75mm	1/4M ²	142
THetri	THEMEDA triandra	Kangaroo Grass	75mm		



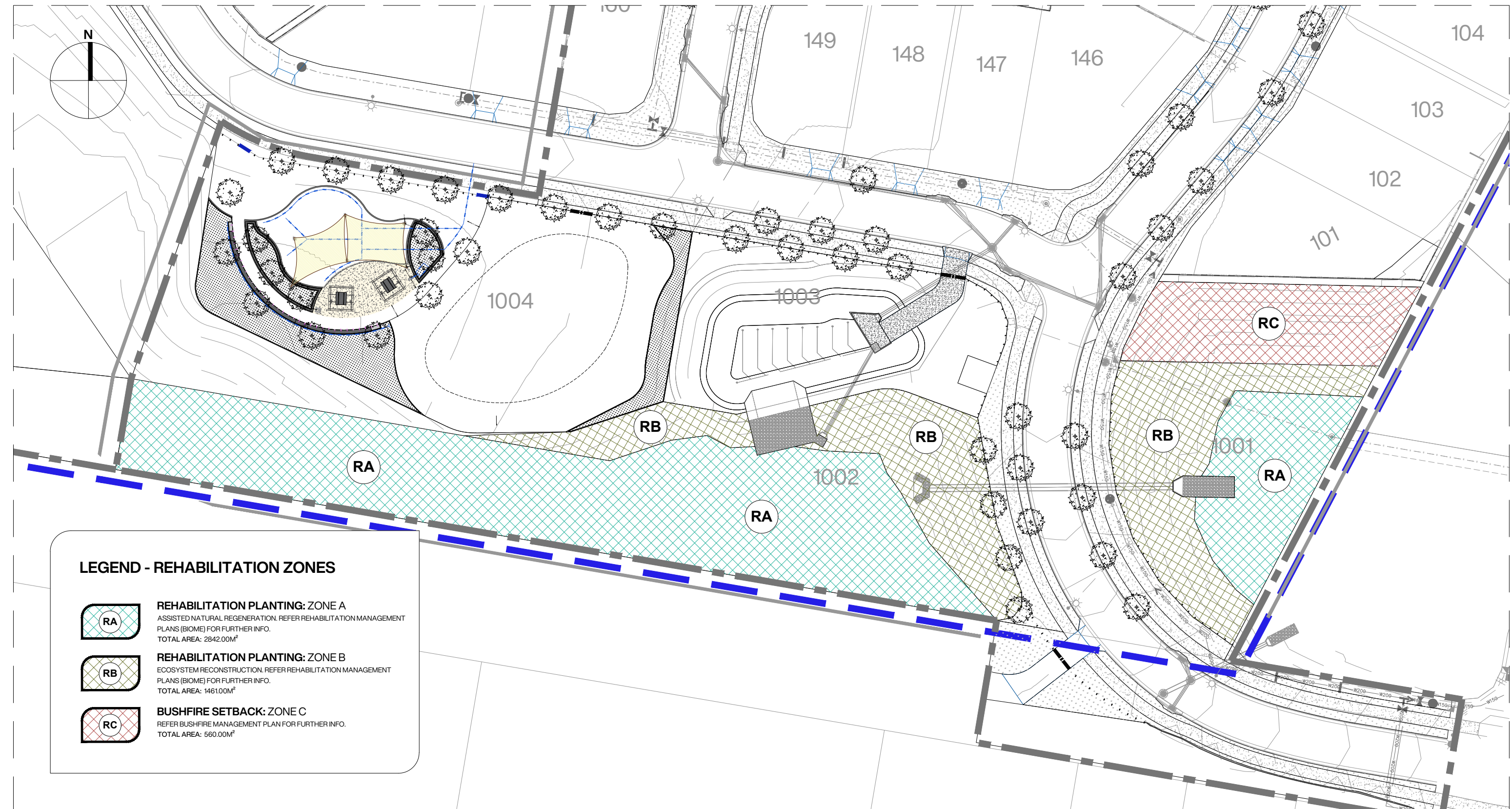
ASSISTED REHABILITATION AREA (RA)

TOTAL AREA: 2842.00M² @ 20% Infill Allowance

-  **TREES**
PLANTING DENSITY: 1 PL/4M²
-  **SHRUBS**
PLANTING DENSITY: 1 PL/4M²
-  **GROUND COVERS**
PLANTING DENSITY: 1 PL/4M²

NOTES:

1. PLANTING LAYOUT HAS BEEN PREPARED FOR A TYPICAL 100M² (10M X 10M) OF RESTORATION INFILL PLANTING AREA.
2. REFER TO REHABILITATION MANAGEMENT PLAN PREPARED FOR THE PROJECT BY BIOME WATER AND ENVIRONMENTAL CONSULTING.
3. SPECIES SHALL BE MIXED THROUGHOUT THE PLANTING AREA.



REHABILITATION ZONES: STAGE 01
SCALE | 1:600

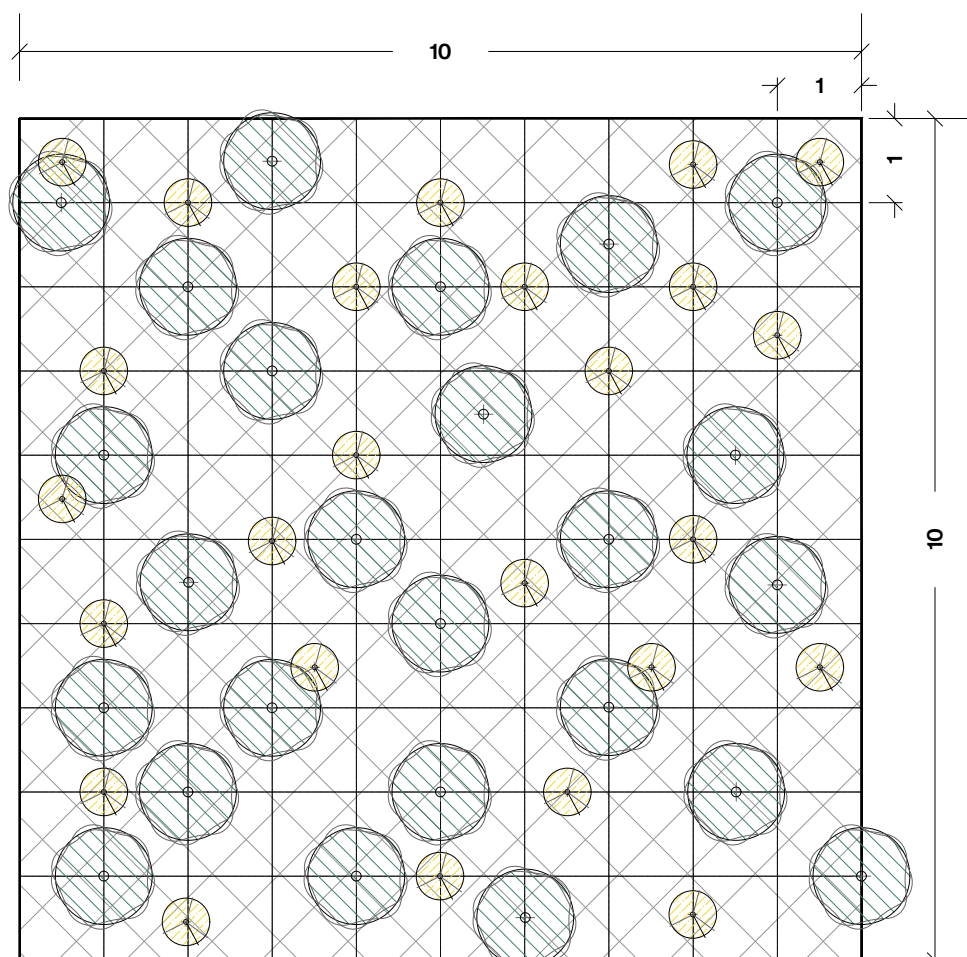
TOTAL AREA: 1461.00M²

TREES					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
COReit	CORYMBIA citriodora	Spotted Gum	75mm		
COReint	CORYMBIA intermedia	Pink Bloodwood	75mm		
EUCcar	EUCALYPTUS carnea	Small Fruited Grey Gum	75mm		
EUCmic	EUCALYPTUS microtheca	Small Fruited Grey Gum	75mm	1/4M ²	365
EUCpro	EUCALYPTUS propinqua	Small Fruited Grey Gum	75mm		
EUCsid	EUCALYPTUS sideroxylon	Small Fruited Grey Gum	75mm		
EUCter	EUCALYPTUS tereticornis	Golden Bouquet Tree	75mm		
LOPcon	LOPHOSTEMON confertus	BrushBox	75mm		

SHRUBS					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
ACAdis	ACACIA disparrima	Hickory Wattle	75mm		
ALLit	ALLOCASTYRARINA littoralis	Black She-Oak	75mm	1/4M ²	365
MELsal	MELALEUCA salignis	White Bottlebrush	75mm		

GROUNDCOVERS					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
CYMrf	CYMBOPOGON refractus	Lemongrass	75mm		
IMPcy	IMPERATA cylindrica	Cogon Grass	75mm		
LOMlon	LOMANDRA longifolia	Long Leaved Mat Rush	75mm	1/4M ²	365
THEtri	THEMEDA triandra	Kangaroo Grass	75mm		

PLANTING DENSITIES FOR ZONES RA AND RB TO BE IN ACCORDANCE WITH THE APPROVED REHABILITATION MANAGEMENT PLAN (EMP/2023/84)



ECOSYSTEM RECONSTRUCTION (RB)

TOTAL AREA: 1461.00M

TREES
PLANTING DENSITY: 1 PL/4M²

SHRUBS
PLANTING DENSITY: 1 PL/4M²

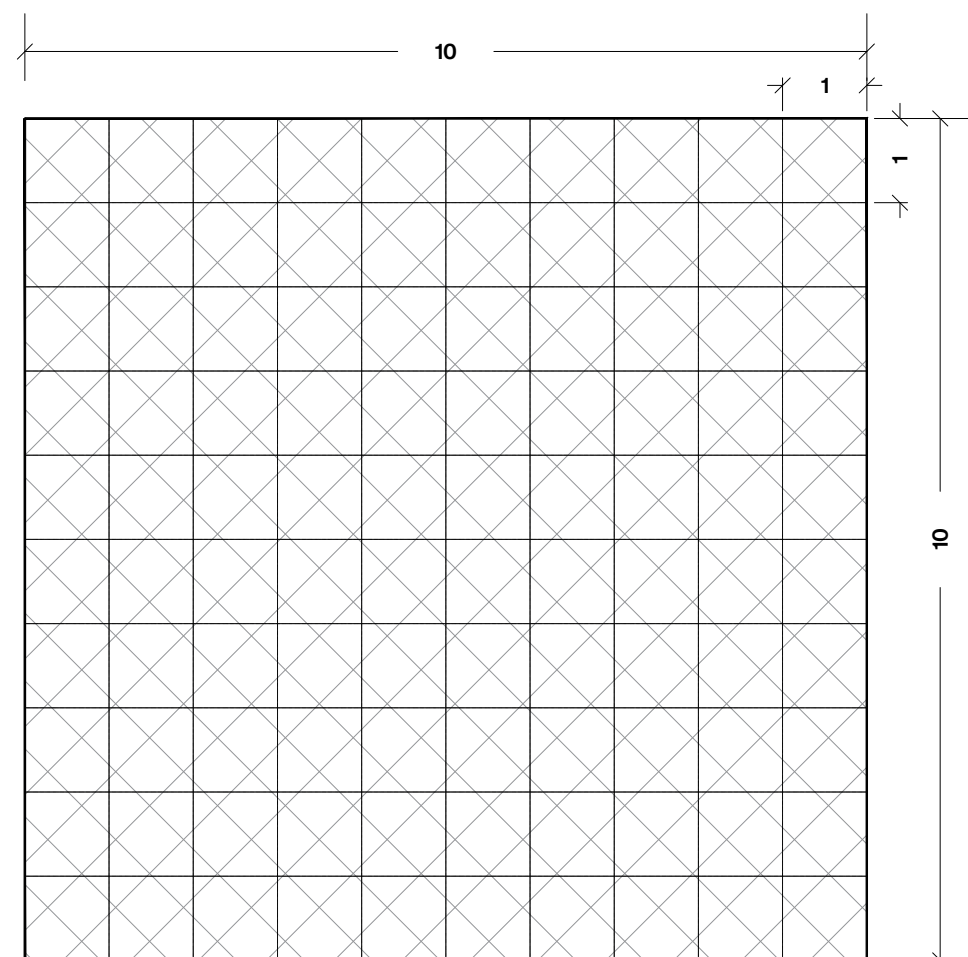
GROUND COVERS
PLANTING DENSITY: 1 PL/4M²

NOTES:

- NOTES:**
1. PLANTING LAYOUT HAS BEEN PREPARED FOR A TYPICAL 100M² (10M X 10M) OF RESTORATION INFILL PLANTING AREA.
 2. REFER TO REHABILITATION MANAGEMENT PLAN PREPARED FOR THE PROJECT BY BIOME WATER AND ENVIRONMENTAL CONSULTING.
 3. SPECIES SHALL BE MIXED THROUGHOUT THE PLANTING AREA.

TOTAL AREA: 560.00M²

GROUNDCOVERS					
CODE	SPECIES	COMMON NAME	SIZE	DENSITY	QTY
AJUaus	AJUGA australis	Austral Bugle	75mm		
BRAmul	BRACHYSCOME multifida	Cut-Leaved Daisy	75mm		
SCAAem	SCAEOVOLA aemula	Fairy Fan Flower	75mm	2/M ²	1120
MYOpar	MYOPORIUM parvifolium	Creeping Boobiala	75mm		
DAMdiv	DAMPIERA diversifolia	Kangaroo Lobelia	75mm		



BUSHFIRE SETBACK (RC)

TOTAL AREA: 560.00M²

 **GROUND COVERS**
PLANTING DENSITY: 2 PL/M²

NOTES:

- NOTES:
1. PLANTING LAYOUT HAS BEEN PREPARED FOR A TYPICAL 100M² (10M X 10M) OF RESTORATION INFILL PLANTING AREA.
 2. REFER TO REHABILITATION MANAGEMENT PLAN PREPARED FOR THE PROJECT BY BIOME WATER AND ENVIRONMENTAL CONSULTING.
 3. SPECIES SHALL BE MIXED THROUGHOUT THE PLANTING AREA.

PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: COM/2024/13

Dated: 14 May 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

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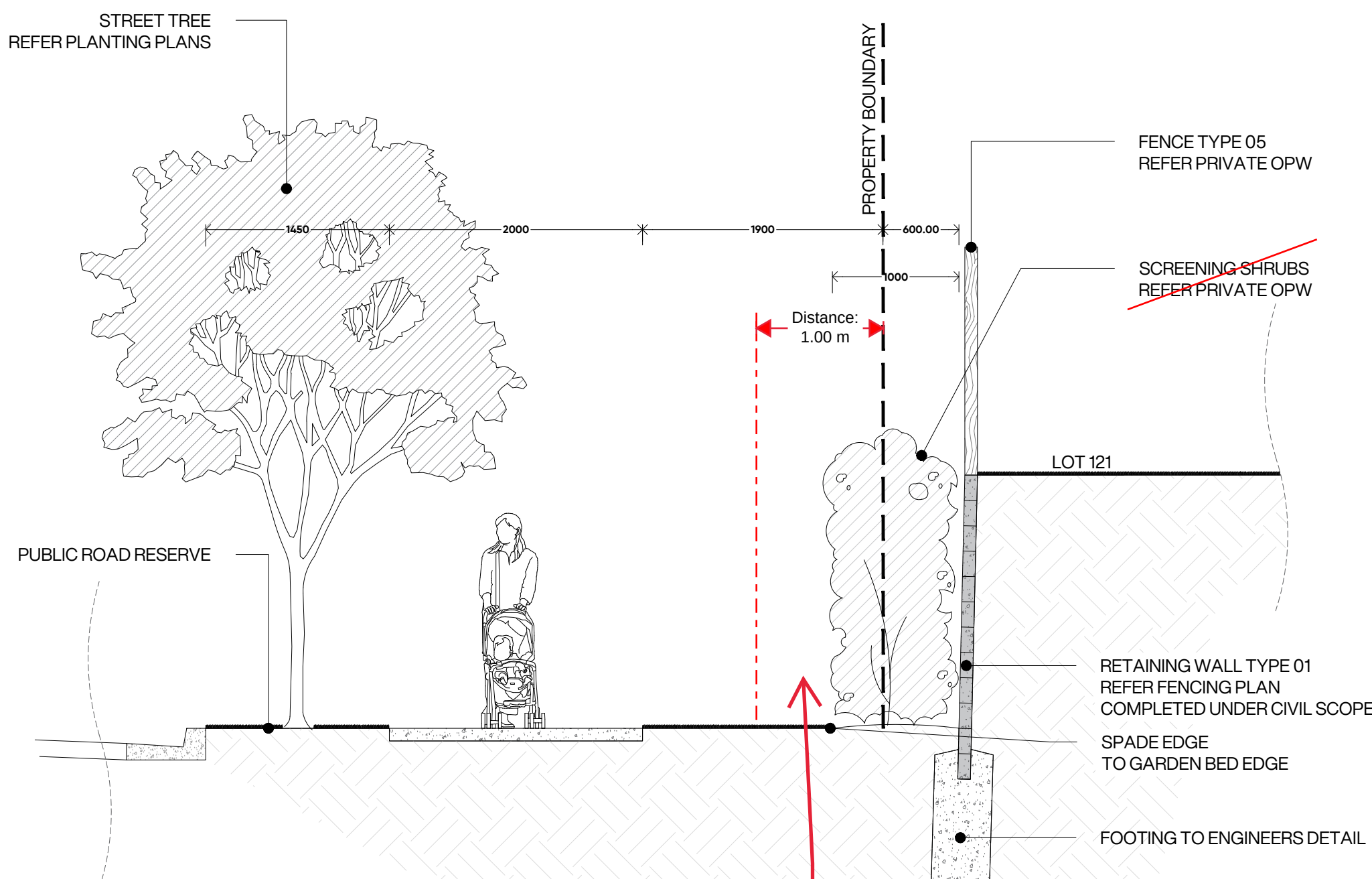
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JOB / DRAWING NO:
L23108 - 211

SHEET NO.
14 OF 20



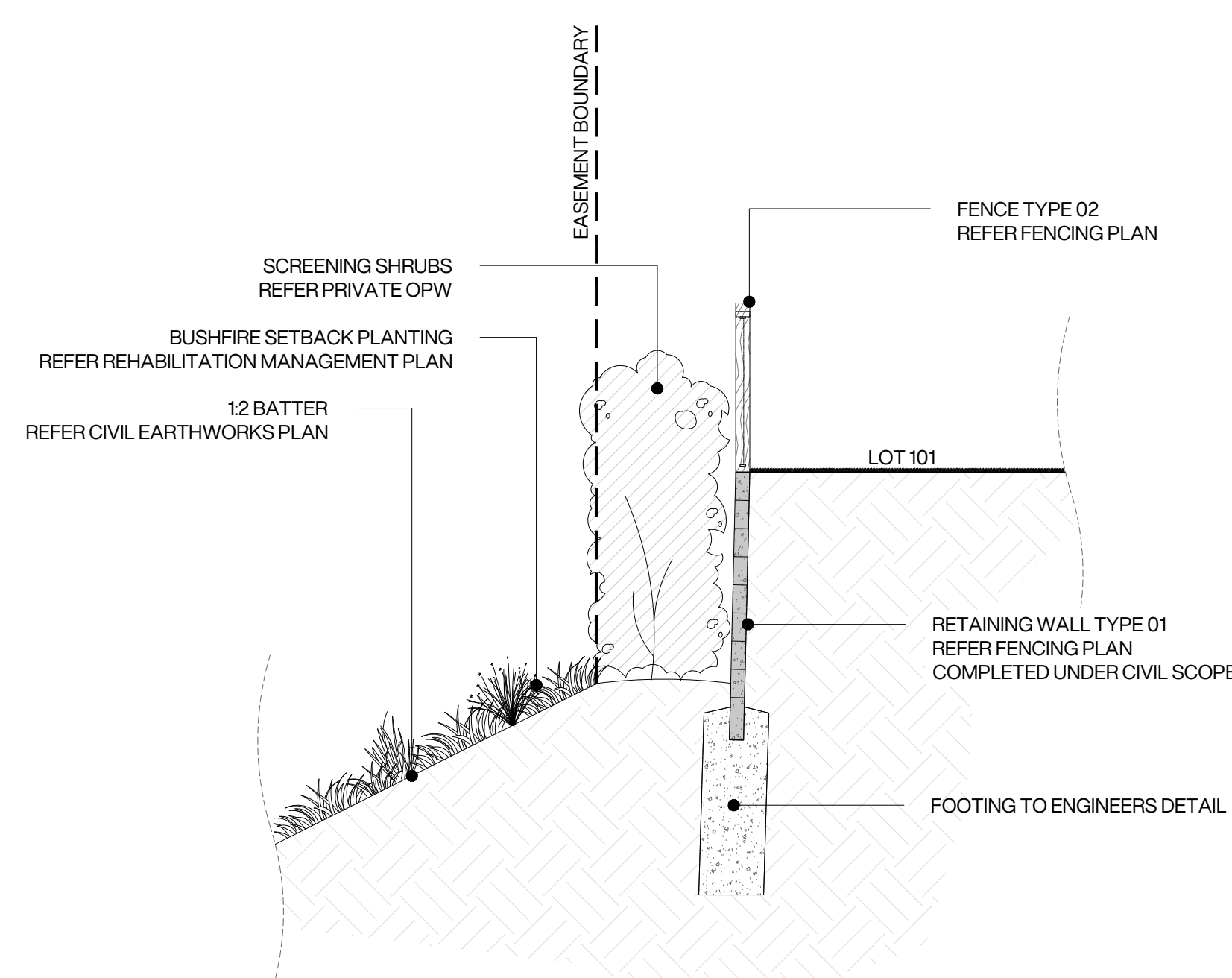
PROVIDE A ROW OF SYZYGIIUM RESILIENCE (200MM POT) SHRUBS 1
METRE WIDTH INTO THE ROAD RESERVE FRONTING LOT 121 AT
RETAINING WALL FRONTAGE AS PER CONDITION 23 OF COM/2019/82

S01

LANDSCAPE SECTION 01 - PUBLIC/PRIVATE INTERFACE

REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

SCALE 1:25 - REFER NOTED DIMENSIONS

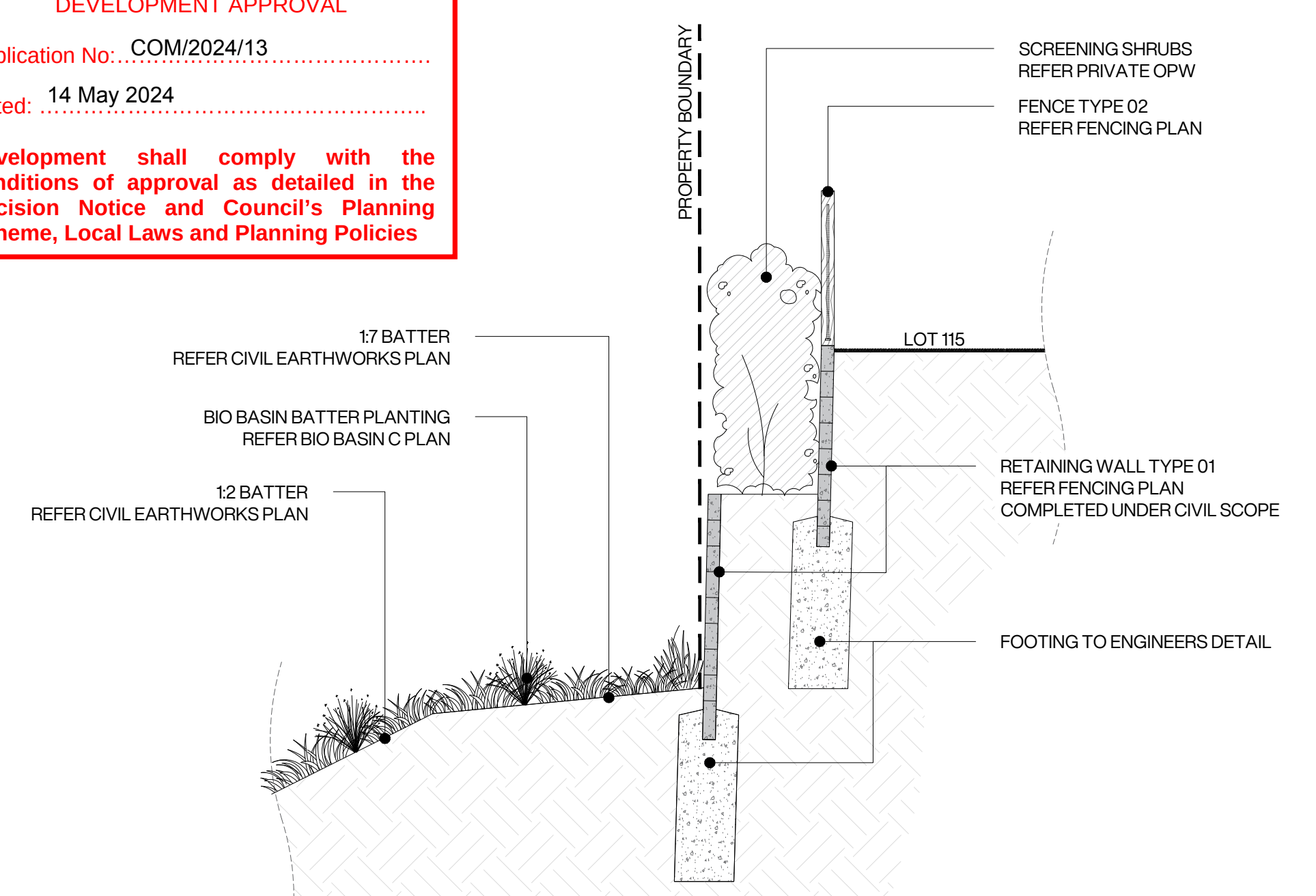


S02

LANDSCAPE SECTION 02 - PRIVATE/EASEMENT INTERFACE

REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

SCALE 1/25 - REFER NOTED DIMENSIONS

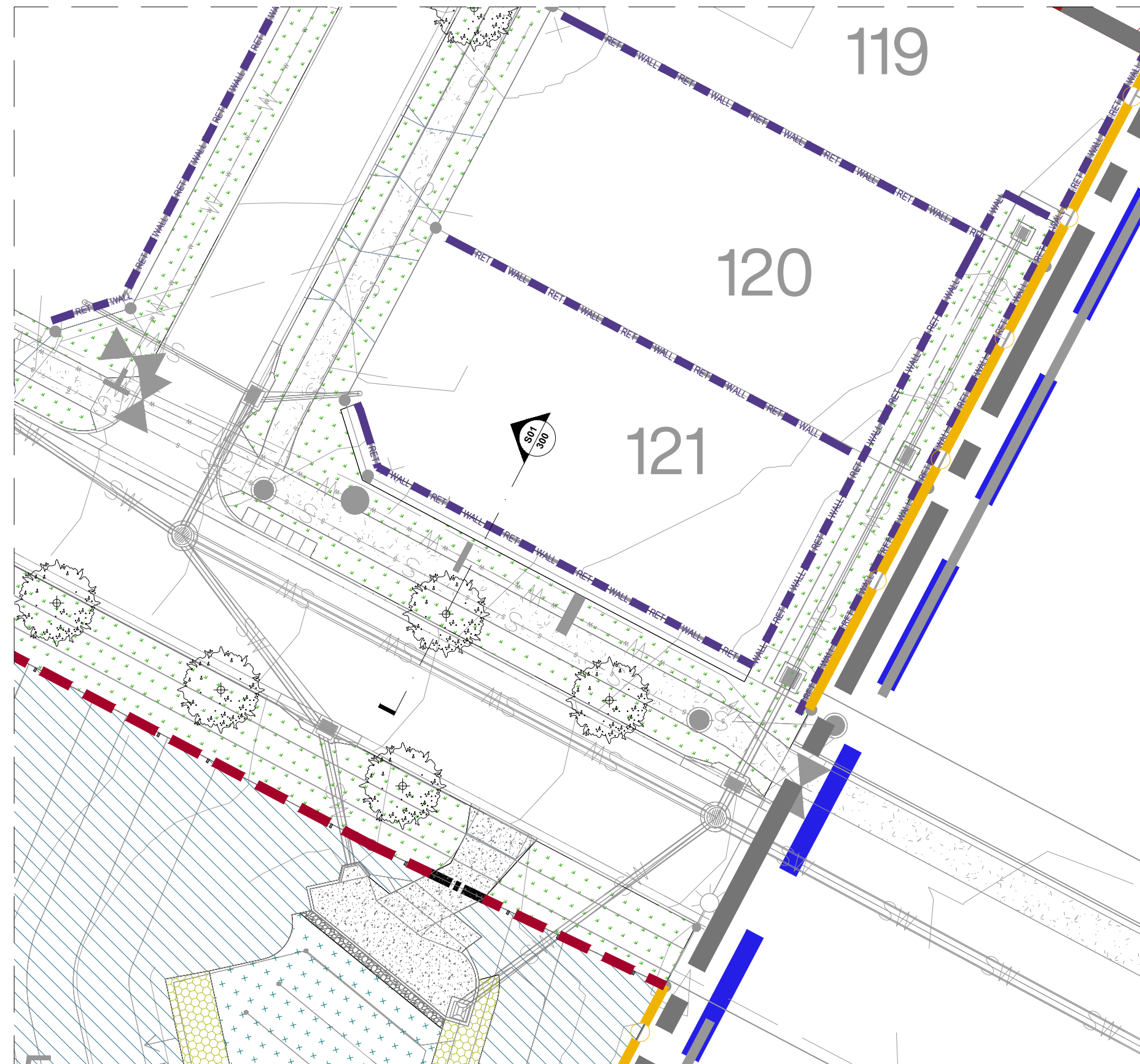
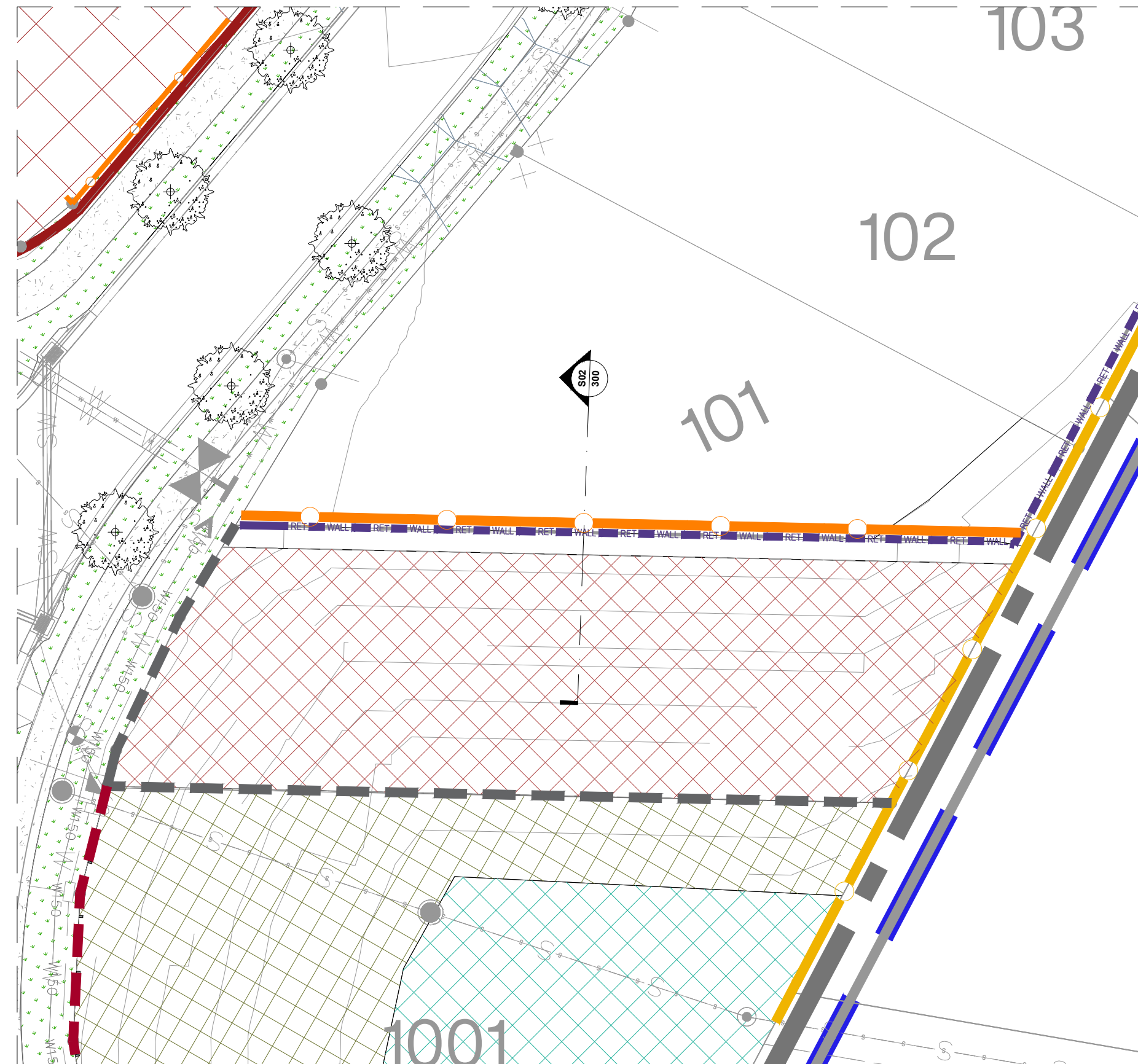
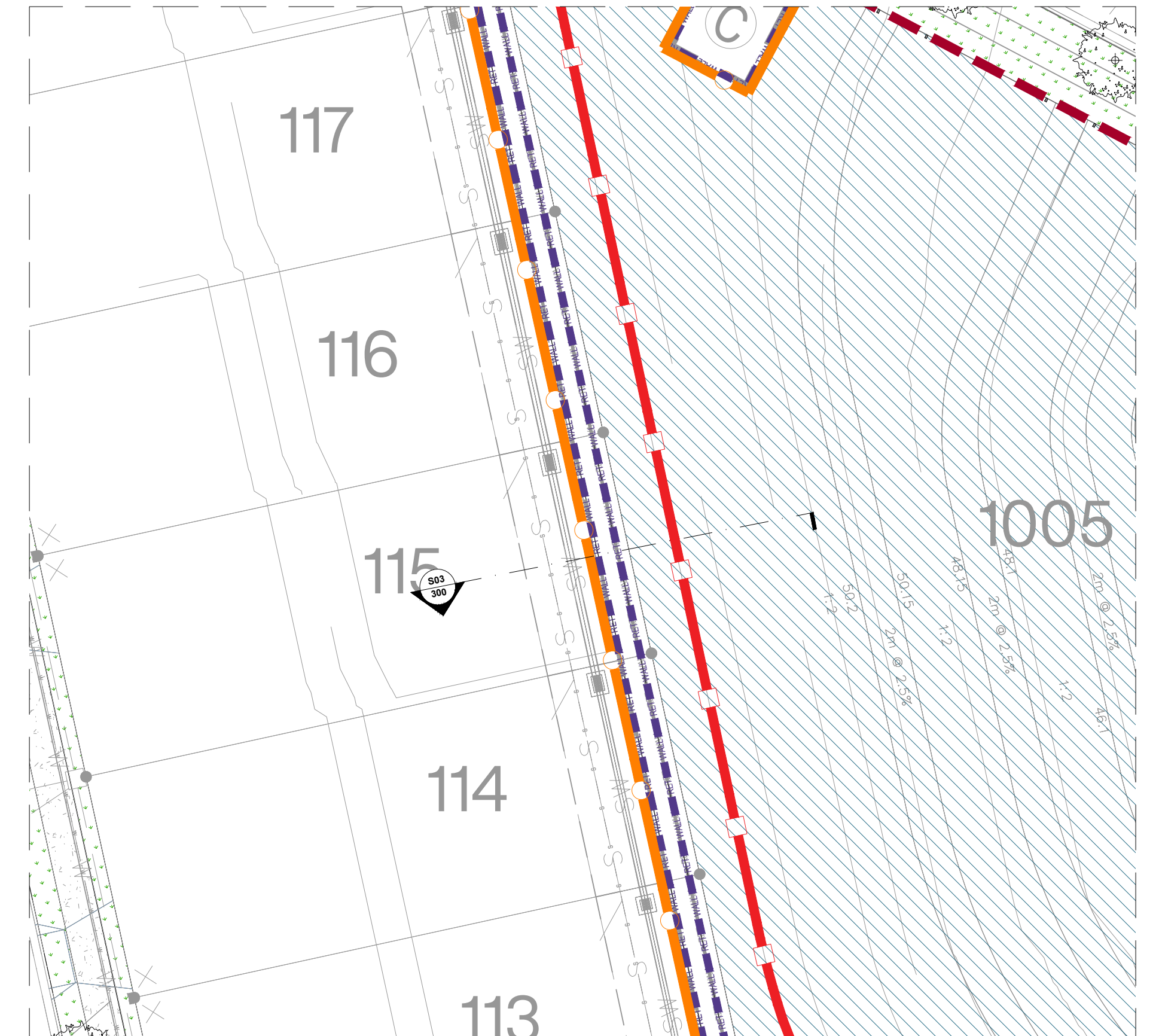


S03

LANDSCAPE SECTION 03 - PUBLIC/PRIVATE INTERFACE

REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

SCALE 1:25 - REFER NOTED DIMENSIONS



PROJECT TITLE

CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE

DRAWING TITLE
LANDSCAPE SECTIONS 01

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
F	RFI	16.04.2024	MB	MB	MB	JB
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B	STAGE 01: DRAFT	09.11.2023	SS	SS	EP	JB

ISSUE:

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CLIENT:

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MANAGER:

JON BROOKSBY

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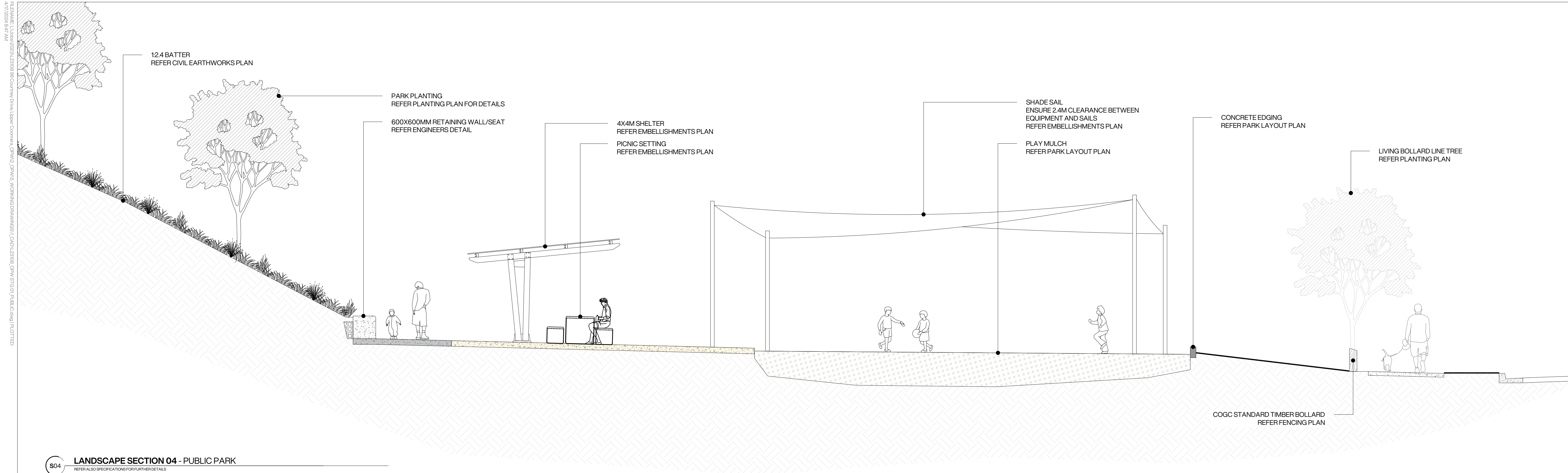
JOB / DRAWING NO:

L23108 - 300

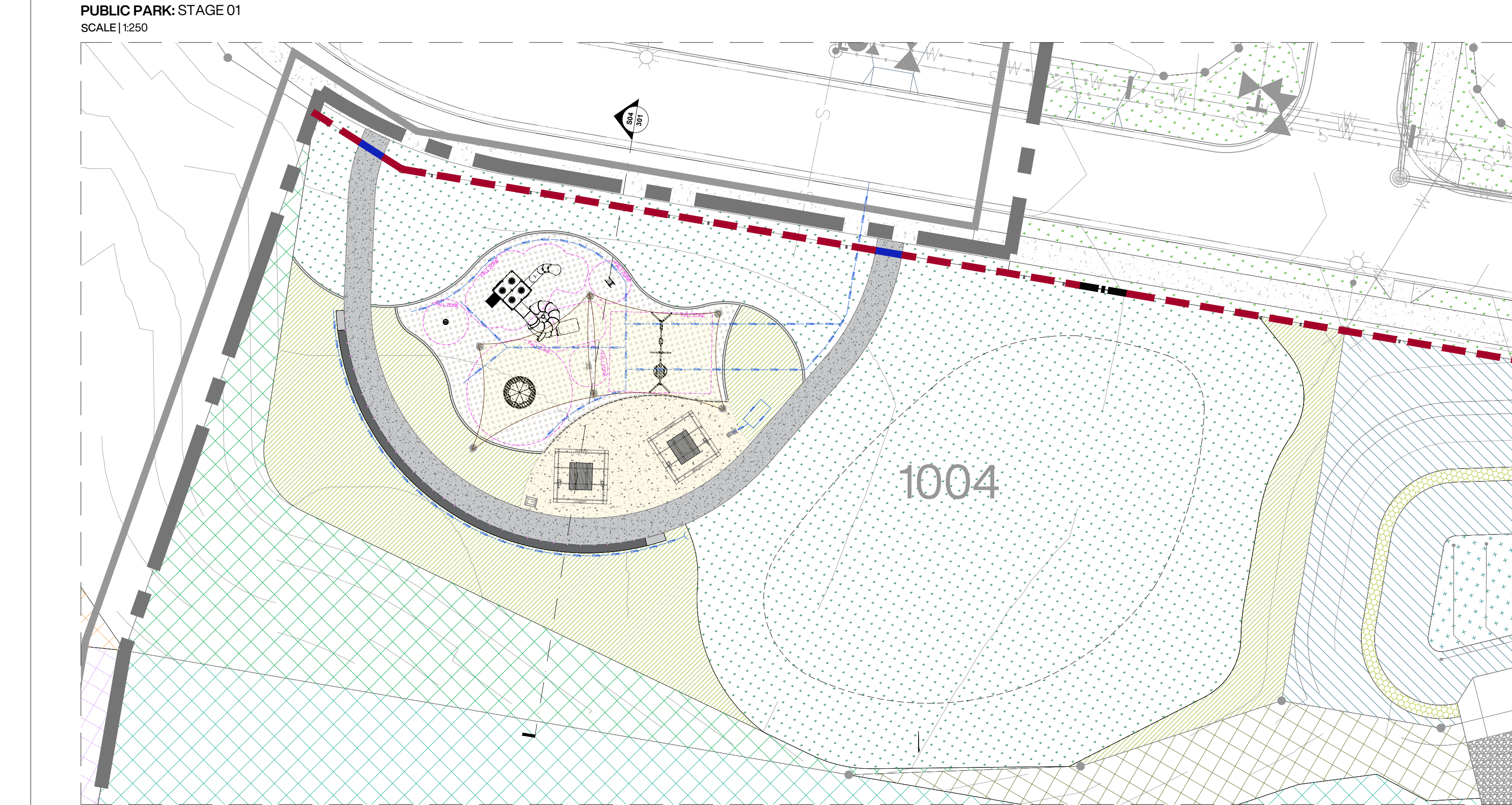
SHEET NO.

15 OF 20

Zone Landscape Architecture Pty Ltd
1/172 Goondoon St, Gladstone, QLD 4680
P.O. Box 5332, Gladstone, QLD 4680
Tel: 07 55622303
Email: info@zonelandscape.com.au



LANDSCAPE SECTION 04 - PUBLIC PARK
REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS



PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No: COM/2024/13

Dated: 14 May 2024

Development shall comply with the
conditions of approval as detailed in the
Decision Notice and Council's Planning
Scheme, Local Laws and Planning Policies

PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE

DRAWING TITLE
LANDSCAPE SECTIONS 02

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
F	RFI	16.04.2024	MB	MB	MB	JB
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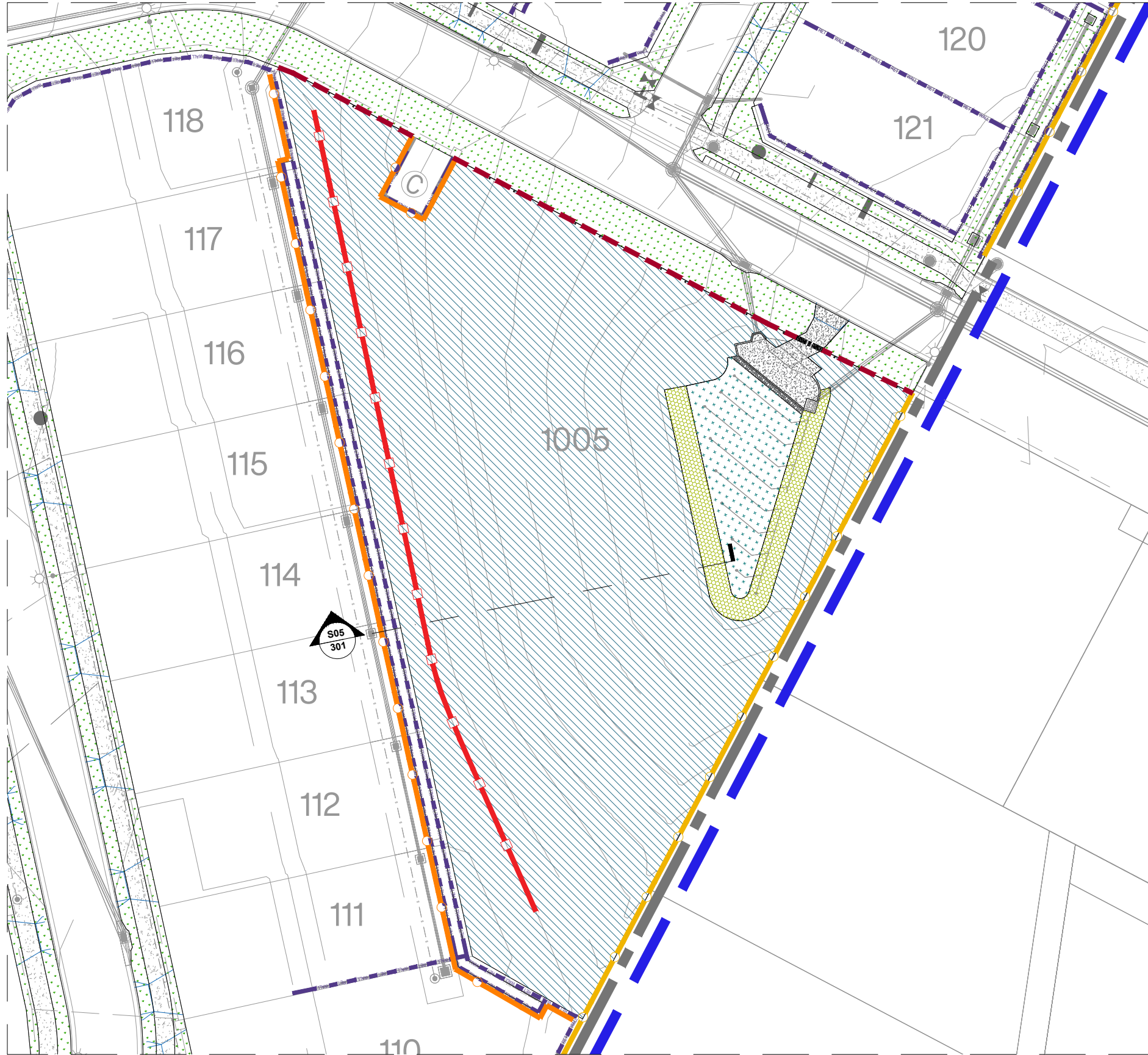
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JOB / DRAWING NO:
L23108 - 301

SHEET NO.
16 OF 20

SIN C: STAGE 01
SCALE | 1:250



PLANS AND DOCUMENTS referred to in the DEVELOPMENT APPROVAL

Application No: COM/2024/13

Dated: 14 May 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies

PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE
DRAWING TITLE
LANDSCAPE SECTIONS 03

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
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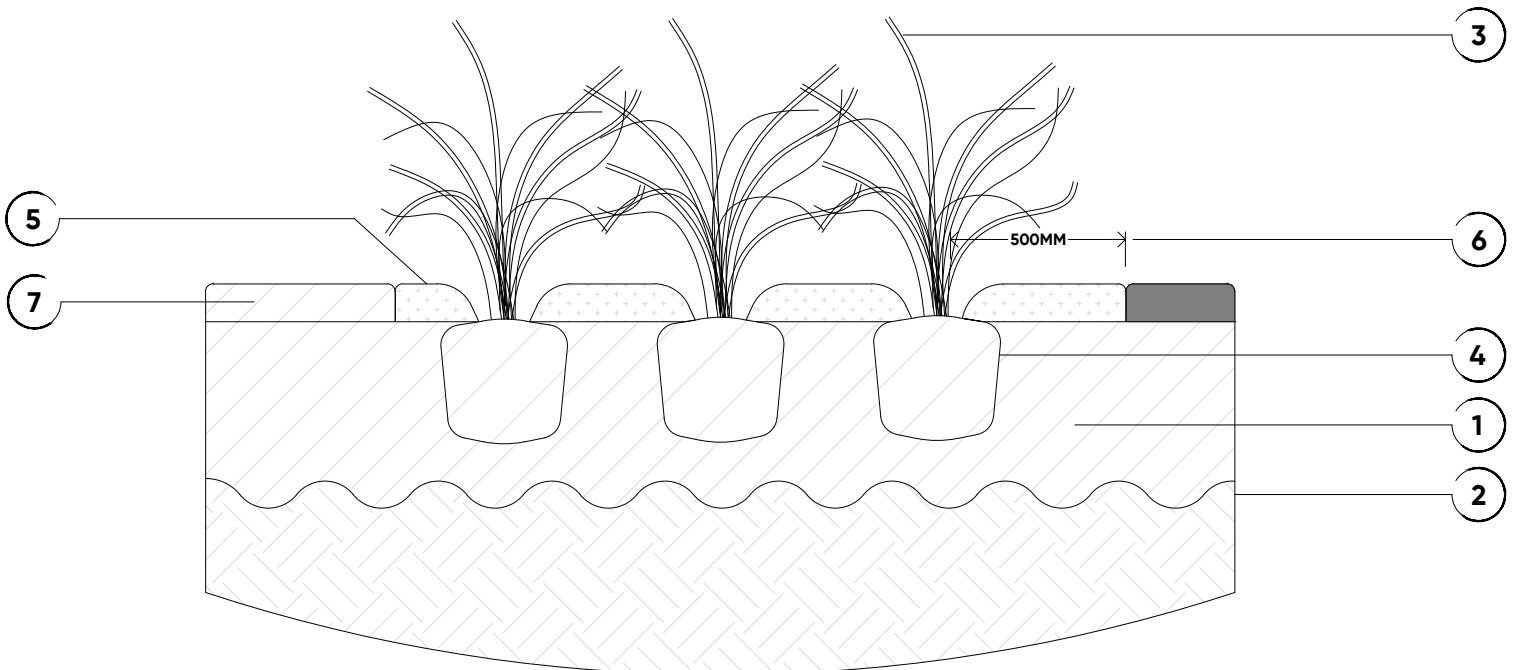
SHEET NO.
17 OF 20

REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

REFER TO DETAILED SPECIFICATION REGARDING SOIL AND MULCH TYPES, ALL ASSOCIATED MATERIAL QUALITY REQUIREMENTS AND STANDARDS INCLUDING REQUIRED HOLD POINTS AND GENERAL MAINTENANCE REQUIREMENTS

INSTALLATION

- | | |
|---|--|
| 1 | PREPARE PLANTING AREA TO ENSURE SOIL PROFILE AS SPECIFIED (TYPICAL PREPARATION OF 100MM DEPTH TO ALLOW FOR UNDERLAYMENT AND ROLL TUFF INSTALLATION WORKS). |
| 2 | CULTIVATE THE SURROUNDING SUBGRADE TO A FURTHER 100MM DEPTH AND REMOVE ANY STONE OR ROCK EXCEEDING 50MM IN DIAMETER (WAS ALL ANY ORGANIC MATERIAL, SUCH AS ROOTS, SHOULD BE REMOVED TO A FURTHER 100MM DEPTH AND REPLACE WITH SUBGRADE). (WAS ALL MATERIALS, SUCH AS ROOTS, SHOULD BE REMOVED TO A FURTHER 100MM DEPTH AND REPLACE WITH SUBGRADE). |
| 3 | THE SUBGRADE TO BE EVALUATED ON SITE TO ASSESS PERMEABILITY AND GENERAL TYPE TO EVALUATE REQUIREMENTS FOR ADDITIONAL DRAINAGE WORKS OR CULTIVATION WORKS TO ENSURE NO ADVERSE IMPACTS ON TUFF HEALTH. |
| 4 | INSTALL TUFF UNDERLAY AT DEPTH OF 75MM. REFER TO SPECIFICATIONS FOR UNDERLAY TYPE AND INSTALL PARAMETERS. |
| 5 | REFER TO PLANS AND SPECIFICATIONS RE: TUFF TYPE AND SPECIFICATIONS REQUIREMENTS (INSTALL, WATERING, FERTILISING AND GENERAL MAINTENANCE PARAMETERS). TUFF PLACEMENT TO BE CHECKED FOR CORRECT ORANGE AND PINKISH RED LEVELS AND COLOUR. |
| 6 | REFER TO PLANS AND RELEVANT STANDARD DETAILS FOR TUFF EDGE TREATMENTS (WHERE NOT ADJUTING PATHWAY, PLANTER, KERB OR GROUND). |
| 7 | REFER TO PLANS AND RELEVANT STANDARD DETAIL FOR ADJACENT LANDSCAPE TREATMENTS. |

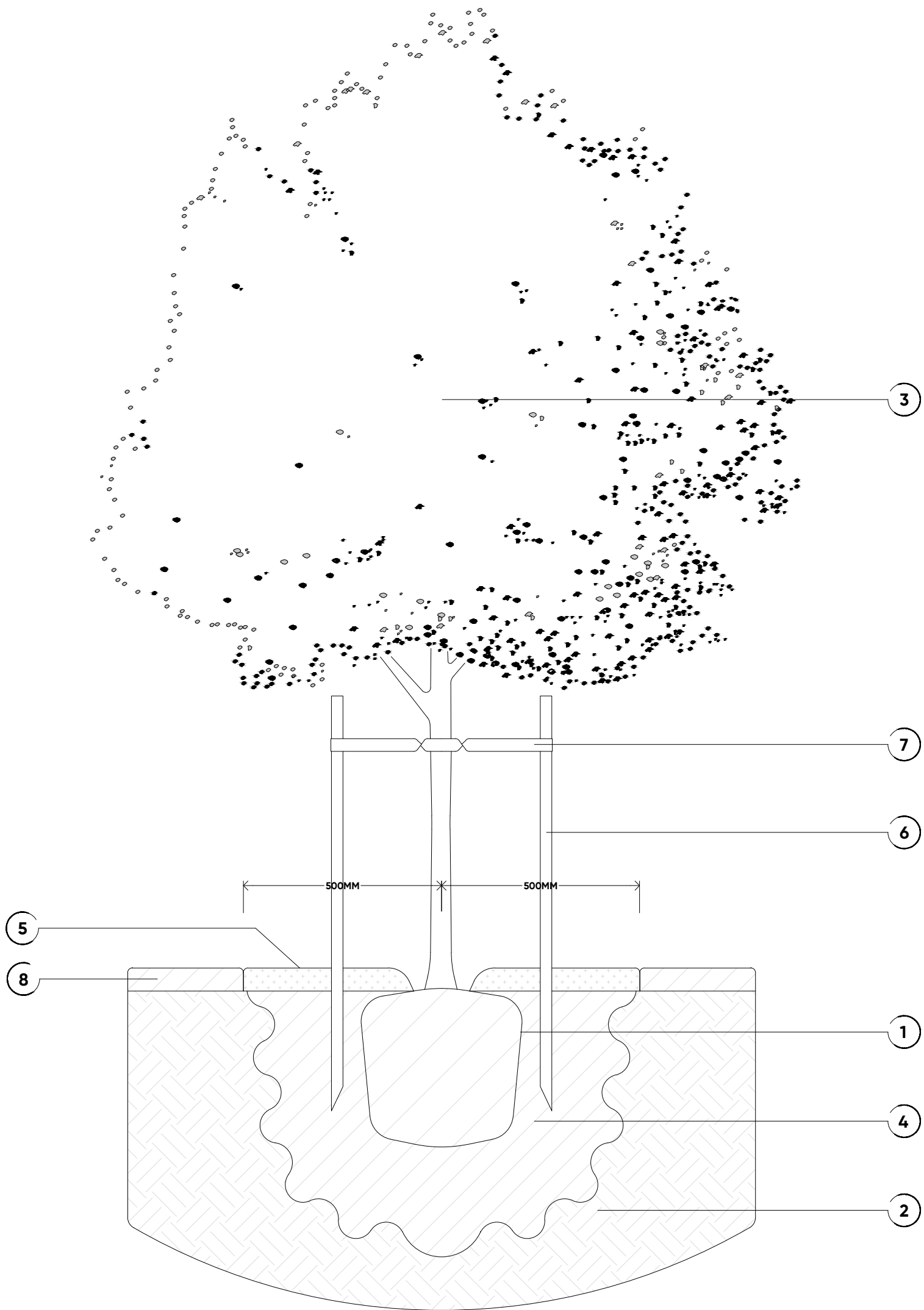


REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

REFER TO DETAILED SPECIFICATION REGARDING SOIL AND MULCH TYPES, ALL ASSOCIATED MATERIAL QUALITY REQUIREMENTS AND STANDARDS INCLUDING REQUIRED HOLD POINTS AND GENERAL MAINTENANCE REQUIREMENTS

INSTALLATION

2. PREPARE PLANTING AREA TO ENSURE SOIL DEPTH AS SPECIFIED (TYPICAL MINIMUM 300MM SOIL PROFILE OR IMPROVED SITE TO AS4419-2003, REFER TO SPECIFICATIONS).
3. CULTIVATE THE SURROUNDING SUBGRADE TO 100MM IN DEPTH AND REMOVE ANY STONE OR ROCK EXCEEDING 50MM IN DIAMETER AS WELL AS ANY ORGANIC MATERIAL SUCH AS ROOTS STOCK CLOSOS OR WEEDS (BENIGHTEN THROUGH EXCAVATION PROCESS). IN GENERAL, REMOVE ANY ALL MATERIAL OR DEBRIS THAT WOULD BE DETRIMENTAL TO PLANT HEALTH.
4. PLANT TYPE, SIZE, DENSITIES AND LOCATIONS AS SPECIFIED ON PLANS AND PLANTING SCHEDULES.
5. RELEASE FERTILISER FERTILISER WOULD BE BEST PRACTICE (AS SPECIFIED IN THIS DOCUMENT).
6. INSTALL MULCH TO A DEPTH OF 50MM, ENSURE MULCH IS PLACED MINIMUM 300MM FROM PLANT STEMS. MULCH SHOULD BE PROFILED GENERALLY AS ILLUSTRATED TO CREATE A "WELL" AROUND THE PLANT STOCK TO PROMOTE WATER RETENTION.
7. ENSURE MINIMUM OFFSET OF 500MM FROM ANY PATHWAYS, FENCE LINES, FOOTINGS ETC OR AS SPECIFIED IN THIS DOCUMENT.
8. REFER TO PLANS AND RELEVANT STANDARD DETAIL FOR ADJACENT LANDSCAPE TREATMENTS.



REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

REFER TO DETAILED SPECIFICATION REGARDING SOIL AND MULCH TYPES, ALL ASSOCIATED MATERIAL QUALITY REQUIREMENTS AND STANDARDS INCLUDING REQUIRED HOLD POINTS AND GENERAL MAINTENANCE REQUIREMENTS

INSTALLATION

- | | |
|-----|--|
| 2.0 | EXCAVATE HOLE TO MINIMUM 2X WIDTH AND 2X DEPTH OF FOOTBALL. |
| 3.0 | UNTIL THE SURROUNDING SUBGRADE TO 200MM IN DEPTH AND REMOVE ANY STONE OR ROCK EXCEEDING 50MM IN DIAMETER AS WELL AS ANY ORGANIC MATERIAL SUCH AS ROOTS STON
CLODS OR WEEDS BROUGHT IN THROUGH EXCAVATION PROCESS. IN GENERAL REMOVE ALL MATERIAL OR DEBRIS THAT WOULD BE DETRIMENTAL TO PLANT HEALTH. A TREE HOLE INSPECTION
WILL BE REQUIRED PRIOR TO INSTALL OF TREES UNLESS STATED OTHERWISE. ENSURE LIAISON WITH PROJECT MANAGERS OR LANDSCAPE SUPERINTENDENT / ARCHITECT PRIOR TO PROCEEDING
WITH PLANTING WORKS. |
| 3.1 | TREE TYPE, SIZE AND LOCATION AS SPECIFIED ON PLANS AND PLANTING SCHEDULES. |
| 4.0 | BACKFILL TREE HOLE WITH SOIL AS SPECIFIED. SOIL SHALL COMPLY WITH AS4541-2003 - INSTALL SLOW RELEASE FERTILISER LINE WITH BEST PRACTICE OR AS SPECIFIED IN THIS DOCUMENT. |
| 5.0 | INSTALL MULCH FROM THIS IS TYPICALLY TO BE MINIMUM 50MM RADIAL UNLESS OTHERWISE STATED ON PLANS AND IT TO BE A DEPTH OF 100MM. ENSURE MULCH IS PLACED MINIMUM 100MM
FROM STEEL TO PREVENT CORROSION. MULCH SHOULD BE PROFILED GENERALLY AS ILLUSTRATED TO CREATE A WELL AND AROUND THE TREE TO PROMOTE WATER RETENTION.
THE MULCH SHOULD BE 1800 X 900 X 50MM. 100% COMPOST OR 100% BARK MULCH IS REQUIRED. ENSURE MULCH IS DOORABLE AND NON-FLAMMABLE. ENSURE STAKES ARE CLEAR OF FOOT BALL
THE TREE TO STAKES WITH 50MM SHAMSH OR RUBBERISED BLACK PVC IN A FIGURE OF EIGHT. ENSURE NURSERY STAKES ARE REMOVED. |
| 6.0 | REFER TO PLANS AND RELEVANT STANDARD DETAIL FOR ADJACENT LANDSCAPE TREATMENTS. |

GENERAL

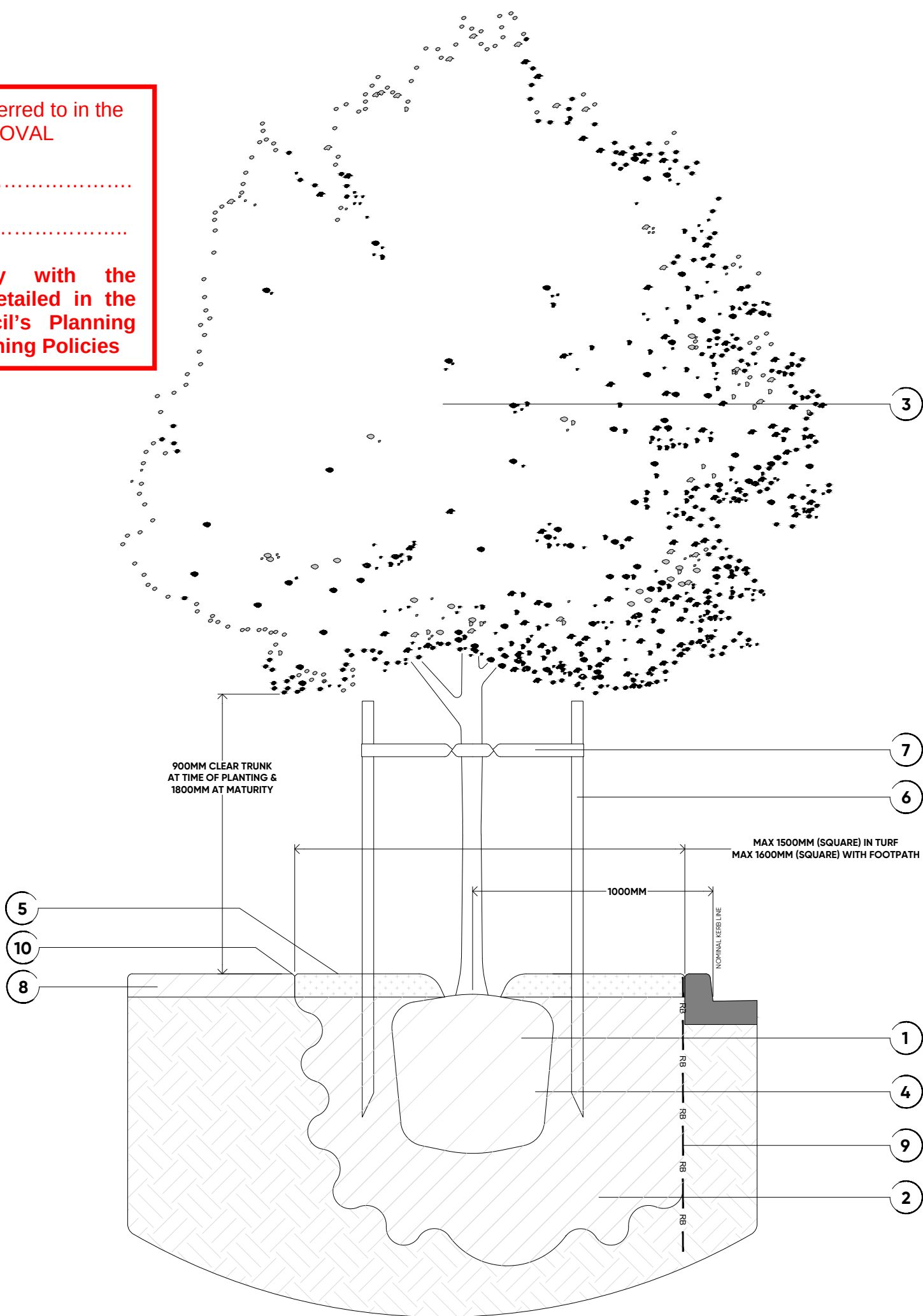
IMPORTANT: TREES ARE TO ABIDE BY LOCAL COUNCIL TREE STOCK REQUIREMENT STANDARDS. THESE STANDARDS WILL BE REVIEWED AT FORMAL TREE HOLE INSPECTION WITH COUNCIL ASSESSING OFFICER. THESE ARE DETAILED WITHIN THE ASSOCIATED SPECIFICATIONS AND CAN GENERALLY BE SUMMARISED AS:

- ALL TREES HOLES MARKED OUT IN ACCORDANCE WITH APPROVAL AND COMPLY WITH ALL COUNCIL STANDARD OFFSET.
- TREE HOLE DIMENSIONS AND PREPARATION PARAMETERS ARE AS PER THOSE STATED ABOVE
- TREE HOLES DO NOT IMPACT ON SERVICES OR OTHER INFRASTRUCTURE
- ALL TREES ARE AS PER NATSPEC SPECIFICATIONS INCLUDING CORRECT FORM AND STRUCTURE.
- STREET TREES AND FEATURE TREES TO HAVE A MINIMUM 900MM TREE TRUNK AND BE 2000MM IN HEIGHT AT TIME OF PLANTING

Application No: COM/2024/13

Dated: 14 May 2024

Development shall comply with the conditions of approval as detailed in the Decision Notice and Council's Planning Scheme, Local Laws and Planning Policies



NOTE: THIS TREE PLANTING DETAIL GENERALLY ABIDES BY CoGC STANDARDS. REFER TO STANDARD DRAWING 05-102 2015 EDITION FOR FURTHER INFORMATION

REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

REFER TO DETAILED SPECIFICATION REGARDING SOIL AND MULCH TYPES, ALL ASSOCIATED MATERIAL QUALITY REQUIREMENTS AND STANDARDS INCLUDING REQUIRED HOLD POINTS AND GENERAL MAINTENANCE REQUIREMENTS

INSTALLATION

20. ELUVIATE HOLE TO MINIMUM 2X WIDTH AND 2X DEPTH OF FOOTBALL.
21. BACKFILL THE SUBPOUNDING SUBGRADE TO 200MM IN DEPTH AND REMOVE ANY STONE OR ROCK EXCEEDING 50MM IN DIAMETER AS WELL AS ANY ORGANIC MATERIAL, SUCH AS ROOTS ETC. COVERED WITH 100MM OF 100% CRUSHED GRANITE. IN GENERAL, REMOVE ALL MATERIALS THAT WOULD BE DETRIMENTAL TO PLANT HEALTH. A TREE HOLE EXCEEDING 100MM IN DEPTH WILL BE REQUIRED PRIOR TO INSTALL OF TREES (UNLESS STATED OTHERWISE). ENSURE LIAISON WITH PROJECT MANAGER OR LANDSCAPE SUPERINTENDENT / ARCHITECT PRIOR TO PROCEEDING WITH PLANTING WORKS.
22. TREE TYPE, SIZE AND LOCATION AS SPECIFIED ON PLANS AND PLANTING SCHEDULES (MIN 45L TREES)
23. BACKFILL TREE HOLE WITH SOL AS SPECIFIED. SOL SHALL COMPLY WITH 64494-2003 (EN 12400) CLASS 1, SLOW RELEASE FERTILISER IN LINE WITH BEST PRACTICE OR AS SPECIFIED IN THIS DOCUMENT.
24. PRIOR TO PLANTING TREES, SPECIALIST MUST CONDUCT VISUAL INSPECTION OF PLANS AND TO BE AT A DEPTH OF 200MM. ENSURE MULCH IS PLACED MINIMUM 100MM FROM TREE TRUNK TO PREVENT STAKES FROM BEING MOULDED. AS ILLUSTRATED TO CREATE A WELLY AROUND THE TREE TO PROMOTE WATER RETENTION.
25. STAKE TREES AS SPECIFIED. COLLAR MUST BE 800 X 50 X 50MM WITH 600MM TO 1000MM EXCEEDING 200MM CREMATE ABOVE GROUND. INSURE STAKES ARE CLEAR OF PESTERBUNT.
26. TREE TO STAKES WITH 50MM-HIGH OR RUBBERISED BLACK PVC IN A FIGURE OF EIGHT. ENSURE INSURE STAKES ARE REMOVED.
27. REFER TO LANDSCAPE VENDOR STANDARD DETAIL FOR ADJACENT LANDSCAPE TREATMENTS.
28. SPECIALIST MUST GUARANTEE TO PROTECT ALL EXISTING TREES AND PLANTS. ROOT GUARDS ARE TYPICALLY PLACED TO REAR OF TREE HOWEVER MAY BE SPECIFIED TO OTHER LOCATIONS.
29. ADDITIONAL AREAS AS DETERMINED BY PROXIMITY TO SERVICES ETC. REFER TO SETOUT PLAN FOR CONFIRMATION OF LOCATION.
30. SPADE EDGE AT ALL VERGE, TULF/ALUMINUM INTERFACES.

GENERAL

IMPORTANT: TREES ARE TO ABIDE BY LOCAL COUNCIL TREE STOCK REQUIREMENT STANDARDS. THESE STANDARDS WILL BE REVIEWED AT FORMAL TREE HOLE INSPECTION WITH COUNCIL ASSESSING OFFICER. THESE ARE DETAILED WITHIN THE ASSOCIATED SPECIFICATIONS AND CAN GENERALLY BE SUMMARISED AS:

- ALL TREES HOLES MARKED/CUT IN ACCORDANCE WITH APPROVAL AND COMPLY WITH ALL COUNCIL STANDARD OFFSETS.
- TREE HOLE DIMENSIONS AND PREPARATION PARAMETERS ARE AS PER THOSE STATED ABOVE.
- TREE HOLES DO NOT IMPACT ON SERVICES OR OTHER INFRASTRUCTURE.
- ALL TREES ARE AS PER NATSPEC SPECIFICATIONS INCLUDING CORRECT FORM AND STRUCTURE.
- STREET TREES AND FEATURE TREES TO HAVE A MINIMUM 900MM TREE TRUNK AND BE 2000MM IN HEIGHT AT TIME OF PLANTING.

STREET TREE SPECIFIC

STREET TREE LOCATION SUBJECT TO CHANGE BASED ON DRIVEWAY AND SERVICES LOCATIONS
GENERAL ALLOWANCE OF 1 TREE PER LOT.

- LOCATIONS ARE TO BE VERIFIED BY LOCAL COUNCIL AND LANDSCAPE ARCHITECT AT TREE HOLE INSPECTION THESE ARE NOT TO BE PLANTED WITHIN:
- 3M OF RESIDENTIAL ACCESSES
- A MINIMUM OF 5 METERS OF THE APPROACH SIDE OF ANY STREET INTERSECTION TO MAINTAIN SIGHT LINES
 - 6 METERS OF DEPARTURE
 - 6 METERS OF A DEPARTURE SIDE OF A PEDESTRIAN CROSSING, BUS STOP SIGN OR SHELTER TO MAINTAIN SIGHT LINES
 - 3M TO EITHER SIDE OF A FOOTPATH CROSSOVER INCLUDING BIKWAYS AND PATHS
 - 2.5 METERS OF ELECTRICITY / TELEPHONE POLES
 - MINIMUM 2 METERS FROM SERVICES
 - MINIMUM 7 METERS FROM STREET LIGHTS
 - MINIMUM 5 METERS FROM HIGH VOLTAGE TRANSMISSION LINES
 - 4.5 METERS FROM A MAJOR VEHICULAR ACCESS CROSSING
 - 3 METERS FROM A FIRE HYDRANT

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
F	RFI	16.04.2024	MB	MB	MB	JB
E	UPDATE FOR PRELIM TENDER	15.03.2024	MB	MB	MB	JB
D	STAGE 01 FOR APPROVAL	06.02.2024	SS	SS	EP	JB
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B	STAGE 01 DRAFT	09.11.2023	SS	SS	EP	JB

ISSUE: FOR APPROVAL	CLIENT: HB LAND PTY LTD
BASE PROVIDED BY: MORTONS URBAN SOLUTIONS	MANAGER: JON BROOKSBY

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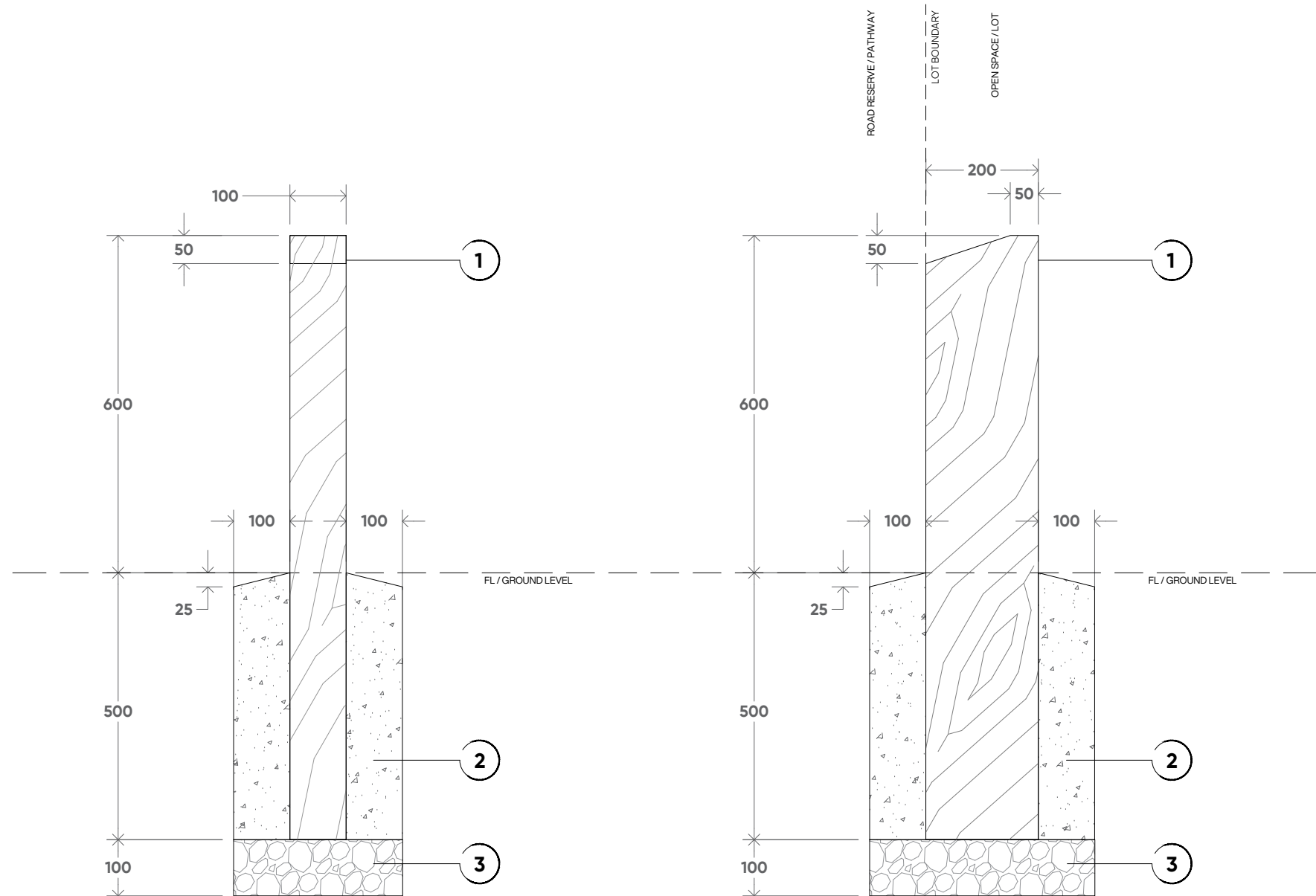
JOB / DRAWING NO:

L23108 - 303

SHEET NO.

18 OF 20

PLANETS L:\A\2023\123108 01 Public\Drawings\DWG\2\DWG\5\WORKING\DRAWINGS\1\DWG\20101.DWG STD 01 PUBLIC.DWG PLOTTED 4/17/2025 8:50:30 AM



A TYPICAL ELEVATION - BOLLARD FRONT

B TYPICAL ELEVATION - BOLLARD SIDE

D05 TYPICAL DETAIL 05 - TIMBER BOLLARD (CoGC STD DWG 05-716) SCALE 1:10 - REFER NOTED DIMENSIONS

REFER TO LANDSCAPE PLANS RE LOCATION AND SETOUT. TYPICALLY ALL BOLLARDS ARE TO BE INSTALLED WITH PUBLIC LOT / LOT REFERENCED AS THE SUBJECT SITE IN ALL / ANY ASSOCIATED APPROVALS. FACE OF BOLLARD TO BE ALIGNED WITH LOT BOUNDARY UNLESS OFFSET IS PROPOSED - REFER PLANS FOR ALIGNMENT AND SETOUT. CONFIRM ALL MATERIAL SPECIFICATIONS IN THE MATERIALS AND FINISHES SCHEDULE FOR THIS PROJECT.

GENERAL SPECIFICATIONS

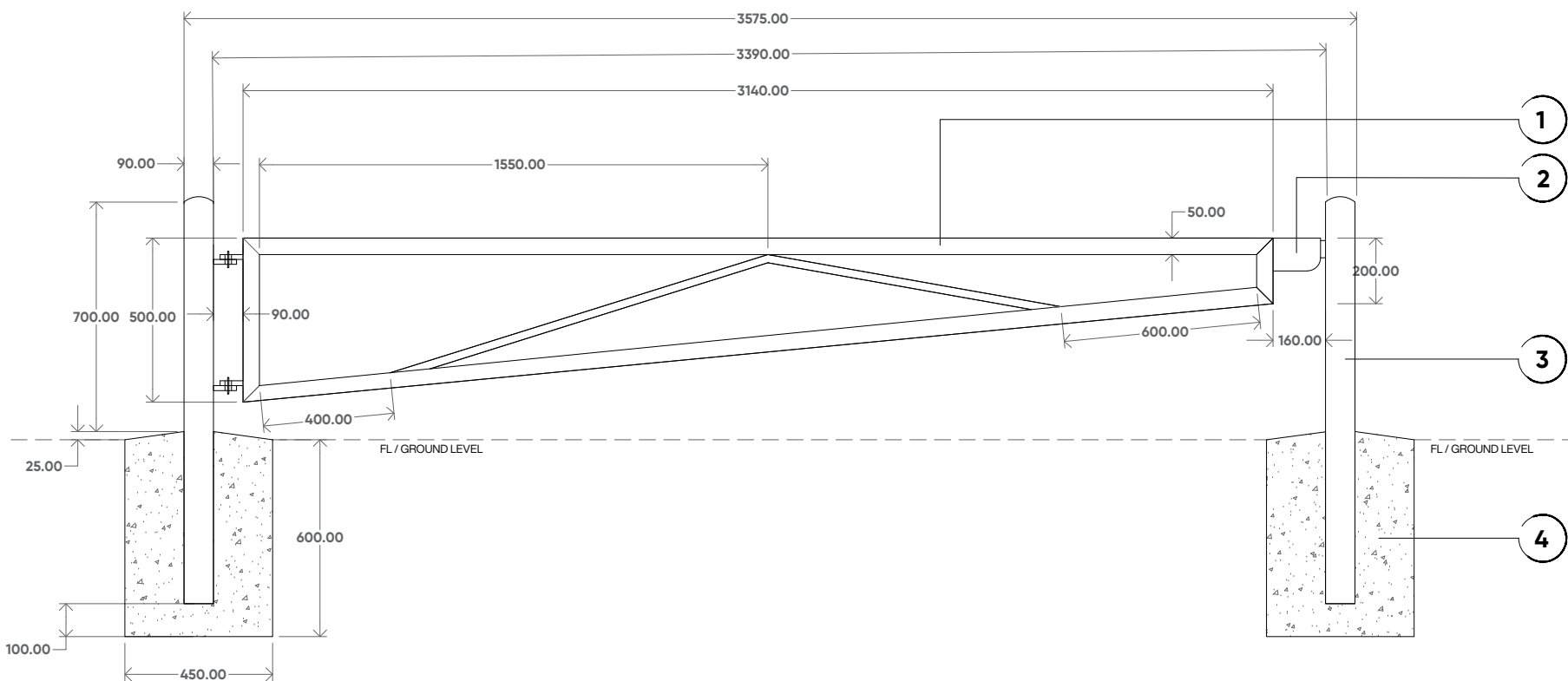
- 1.0 200 X 100MM F4 DURABILITY CLASS 1HWD POST PRESERVATIVE TREATED TO H5 - DAR WITH 9MM CHAMFER TO ALL EXPOSED EDGES
- 2.0 25MPA NO FINES CONCRETE FOOTING 100MM COVER TO ALL SIDES. TAPER AWAY FROM BOLLARD AND ENSURE SURROUNDING FINISH (EG MULCH OR TURF) COVERS FOOTING.
- 3.0 COMPACTED ROAD BASE

INSTALLATION

REFER TO PLANS AND SPECIFICATION RE LOCATION OF ALL SERVICES AND CONFIRM ON SITE WITH RELEVANT AUTHORITIES AND DBYD PRIOR TO ANY EXCAVATIONS WORKS. TIMBER FINISH: PAINT ALL SURFACES WITH INDUSTRIAL CLEAR WATER REPELLANT TO LOCK IN CHEMICALS USED IN CCA IN ACCORDANCE WITH AS1607. REFER TO MATERIAL & FINISHES SPECIFICATION FOR STAIN COLOUR.

AUSTRALIAN STANDARDS (SUMMARY ONLY)

CONCRETE - N32 IN ACCORDANCE WITH AS 1379
REFLECTIVE TAPE - IN ACCORDANCE WITH AS 1906.1
SEALING TREATMENT - IN ACCORDANCE WITH AS 1607



D06 TYPICAL DETAIL 06 - ACCESS GATE (CoGC STD DWG 13-05-16) SCALE - REFER NOTED DIMENSIONS

REFER ALSO TO SPECIFICATIONS FOR FURTHER DETAILS
REFER TO LANDSCAPE PLANS RE LOCATION AND SETOUT. CONFIRM ALL MATERIAL SPECIFICATIONS IN THE MATERIALS AND FINISHES SCHEDULE FOR THIS PROJECT.

GENERAL SPECIFICATIONS

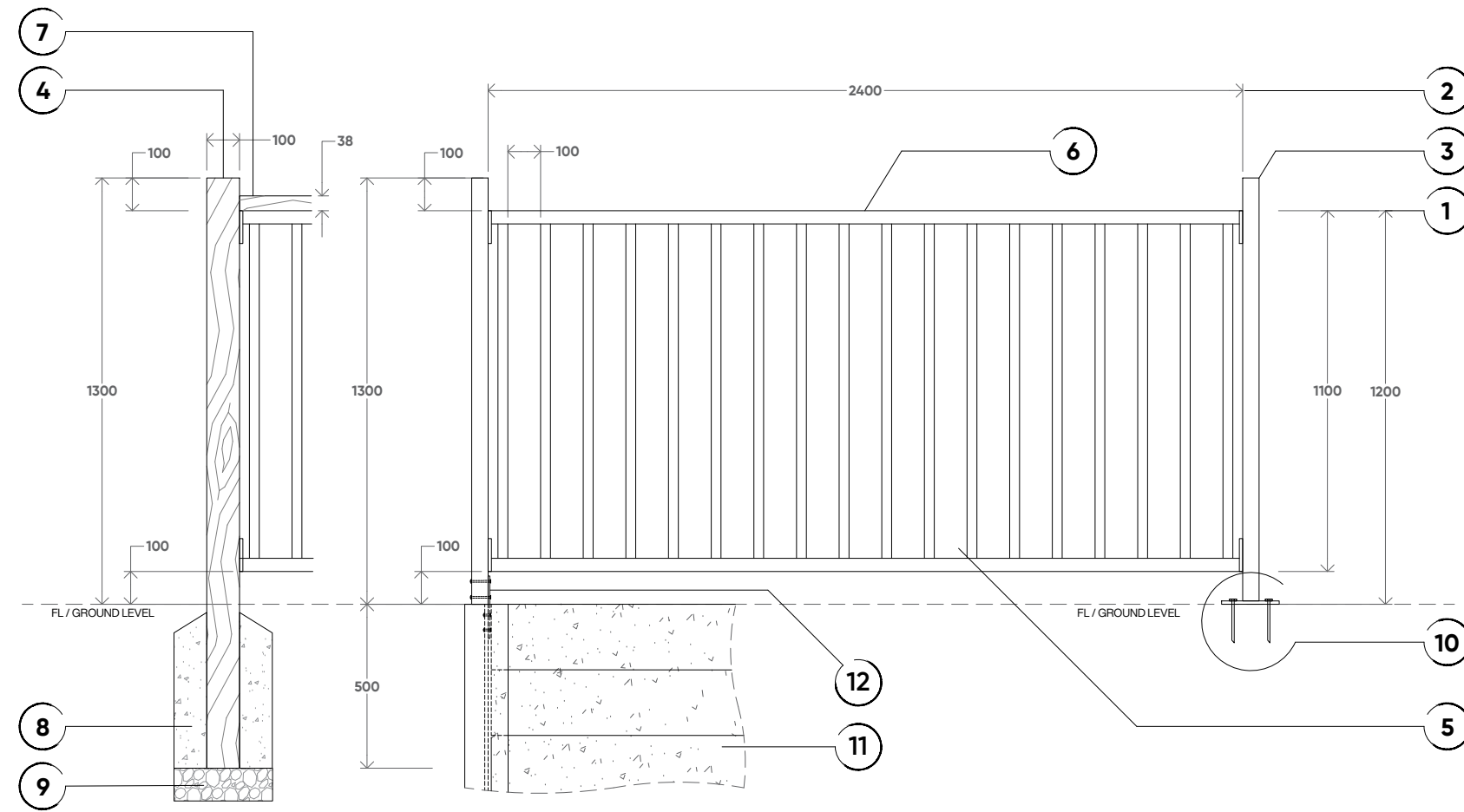
- 1.0 25 O.D GALVANISED RPE
- 2.0 REFER TO STD. DWG. 05-017 FOR DETAILS OF LOCK
- 3.0 90 O.D GALVANISED RPE TO BE CONCRETE FILLED
- 4.0 25MPA CONCRETE FOOTING

INSTALLATION

REFER TO PLANS AND SPECIFICATION RE LOCATION OF ALL SERVICES AND CONFIRM ON SITE WITH RELEVANT AUTHORITIES AND DBYD PRIOR TO ANY EXCAVATIONS WORKS. PIPES: TO BE MEDIUM GAUGE HEAVY GALVANISED FINISHED WITH TWO COATS OF TWO PACK 125 MICRON MINIMUM TOTAL THICKNESS. COLOUR TO MATCH COLORBOND 'CAULFIELD GREEN'. WELDS: ALL WELDS AND BARE METAL TO BE THOROUGHLY CLEANED AND PAINTED WITH COLD GALVANISING PRIMER PRIOR TO FINISH COAT. REFER TO MATERIAL & FINISHES SPECIFICATION FOR STAIN COLOUR.

AUSTRALIAN STANDARDS (SUMMARY ONLY)

CONCRETE - 25MPA
SEALING TREATMENT - IN ACCORDANCE WITH AS 1607
WELDS TO AS1554



D07 TYPICAL DETAIL 07 - POS INTERFACE FENCE (VARIOUS INSTALLATION SYSTEMS) SCALE - REFER NOTED DIMENSIONS

REFER TO LANDSCAPE PLANS RE LOCATION AND SETOUT. TYPICALLY ALL FENCES ARE TO BE INSTALLED WITH PUBLIC LOT / LOT REFERENCED AS SUBJECT SITE IN ALL / ANY ASSOCIATED APPROVALS. FACE OF FENCE TO BE ALIGNED WITH LOT BOUNDARY UNLESS OFFSET IS PROPOSED - REFER PLANS FOR ALIGNMENT AND SETOUT.

FOR THE PURPOSES OF THIS PROJECT <INSERT PROJECT NAME> THE APPROVED PRODUCT AND ASSOCIATED SPECIFICATIONS ARE NOTED BELOW. AN APPROVED EQUIVALENT CAN BE USED HOWEVER MUST BE IN GENERAL ACCORDANCE WITH THE SPECIFICATIONS AS DETAILED BELOW AND IN STRICT ADHERENCE TO RELEVANT AUSTRALIAN STANDARDS AND LOCAL GOVERNMENT BUILDING REGULATIONS AND MUST BE APPROVED BY PROJECT MANAGER AND LANDSCAPE ARCHITECT.

GENERAL SPECIFICATIONS

- 1.0 STANDARD PANEL HEIGHT: 1200MM
- 2.0 STANDARD PANEL LENGTH: 2400MM (NOMINAL)
- 3.0 FENCE POSTS (TYPE 01): 50X50X16MM X 1800MM LONG STEEL RHS (AVG 500MM IN-GROUND AND 100MM ABOVE TOP RAIL WHEN GROUND MOUNTED - 1300MM POSTS WHEN FLANGE MOUNTED). MATERIAL: PRE-GALVANISED STEEL HOLLOW RHS TO AS1450:1983 AND AS1597:2001. WELD TYPE: SILICON BRONZE
- 4.0 FENCE POSTS (TYPE 02): 100X100X1800MM HWD DAR. TIMBER FINISH: TWO COATS EXTERIOR WEATHER SHELDO OR APPROVED EQUIVALENT. COLOUR: WAYWARD GREY
 - OR -
 - TIMBER FINISH: TWO COATS CLEAR UV RATED OIL (N.E. VARNISH TO BE USED)
- 5.0 VERTICAL PICKETS 90X12MM ROUND PICKET PASSING INTO 40X40X160MM HORIZONTAL RAILS AT 106 CENTERS
- 6.0 FLAT (RHS) TOP & BOTTOM RAIL WITH THE PICKET INSERTED INTO THE TOP RAIL AND FINISHING FLUSH WITH THE UNDERSIDE OF THE BOTTOM RAIL
- 7.0 100X38MM HARDWOOD CAPPING ACROSS TOP OF POOL FENCE PANEL TO FRAME. SPAN LENGTHS BETWEEN TYPE TYPE 02 POSTS.

PRODUCT FINISH: POLYESTER POWDER COAT TO AS 4506:2005 METAL FINISHING - THERMOSET POWDER COATINGS. COLOUR: SATIN BLACK
APPROVED PRODUCT: BLUEDOG POOL N PLAY

INSTALLATION

REFER TO PLANS AND SPECIFICATION RE LOCATION OF IN-GROUND INSTALLATION VERSUS FLANGE-MOUNTED ON-GRADE INSTALLATION.
8.0 IN-GROUND INSTALLATION, 500MM DEPTH POST WITH IN CONCRETE FOOTING 20MPA 100MM MINIMUM COVER TO ALL FACES
9.0 COARSE GRAVEL / BLUESTONE TO 100MM DEPTH. ASSIST IS DRAINAGE AND SETTING OF FENCE POSTS (TIMBER POST ONLY)

- OR -

10.0 FLANGE GROUND MOUNTING, REFER TO MANUFACTURERS SPECIFICATIONS, GENERALLY GALVANIZED CHEMSET CS1030 MID X 130MM

- OR -

11.0 CONCRETE SLEEPER RETAINING WALL AND I-BEAM BRACES
12.0 FENCE POST MOUNT BRACKET TO INSIDE FACE OF I-BEAM

AUSTRALIAN STANDARDS (SUMMARY ONLY)

AUSTRALIAN STANDARD AS1926.1
POOL FENCE - HEIGHT: POOL FENCE SHALL BE NOT LESS THAN 12M HIGH.
POOL FENCE - NON CLIMBABLE ZONE (NCZ) / NON CLIMBABLE ZONE (NCZ) OF 900MM ON THE OUTSIDE OF THE POOL FENCE ALL THE WAY AROUND.
POOL FENCE - VERTICAL GAPS: GAPS BETWEEN VERTICAL MEMBERS OF THE FENCE SHALL NOT BE GREATER THAN 100MM. VERTICAL GAPS IN THE FENCE MUST NOT BE MORE THAN 100MM.
POOL FENCE - GAP AT BOTTOM: GAP AT THE BOTTOM OF THE FENCE MUST BE A MAXIMUM OF 100MM.
POOL FENCE - HORIZONTAL CLIMBABLE MEMBERS: HORIZONTAL MEMBERS SHALL NOT BE WITHIN THE 900MM NON CLIMBABLE ZONE (NCZ) (ON THE OUTSIDE OF THE POOL FENCE).

PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE
DRAWING TITLE
DETAIL DRAWINGS 02

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
F	RFI	16.04.2024	MB	MB	MB	JB
E	UPDATE FOR PRELIM TENDER	15.03.2024	MB	MB	MB	JB
D	STAGE 01: FOR APPROVAL	06.02.2024	SS	SS	EP	JB
C	STAGE 01: FOR APPROVAL	02.02.2024	SS	SS	EP	JB
B	STAGE 01: DRAFT	09.11.2023	SS	SS	EP	JB

ISSUE:	FOR APPROVAL	CLIENT:	HB LAND PTY LTD
BASE PROVIDED BY:	MORTONS URBAN SOLUTIONS	MANAGER:	JON BROOKSBY

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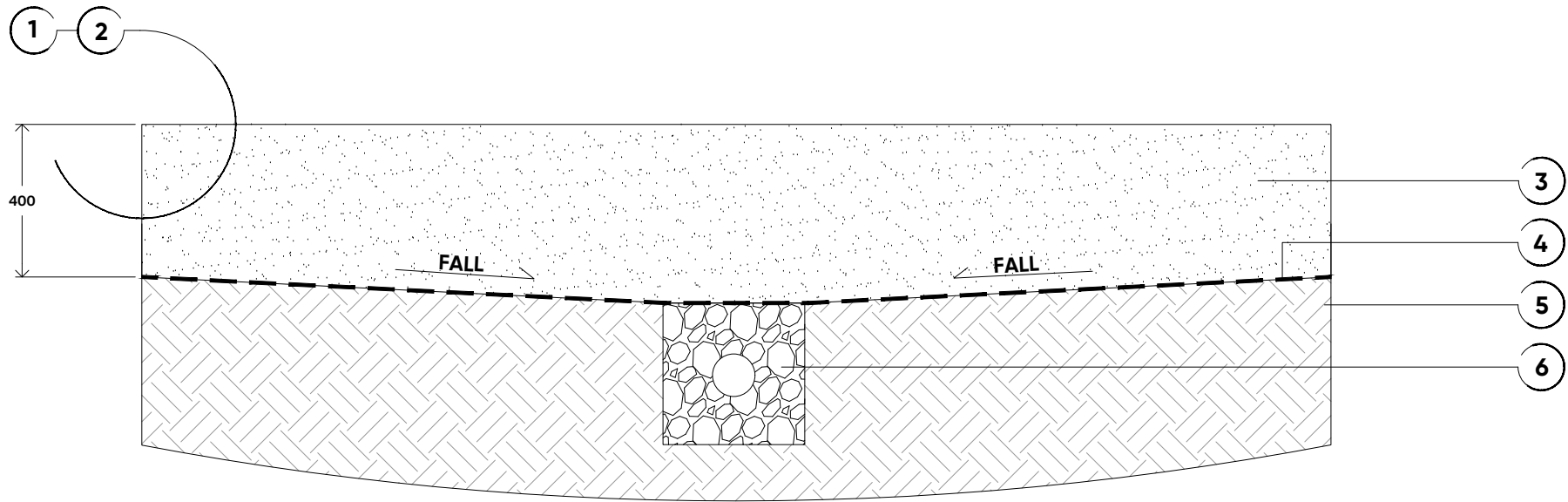
JOB / DRAWING NO:

L23108 - **304**

SHEET NO.

19 OF 20

PLANET 1: 1:44/2024/227018/99 Country Drive, Upper Coomera, QPMV2, QPMV3, MORTONS URBAN SOLUTIONS, CAD/2018, QPMV ST/10, PUBLIC/04/1, PLOTTED 4/17/2024 8:51 AM



D08

TYPICAL DETAIL 08 - LOOSE SOFTFALL DRAINAGE

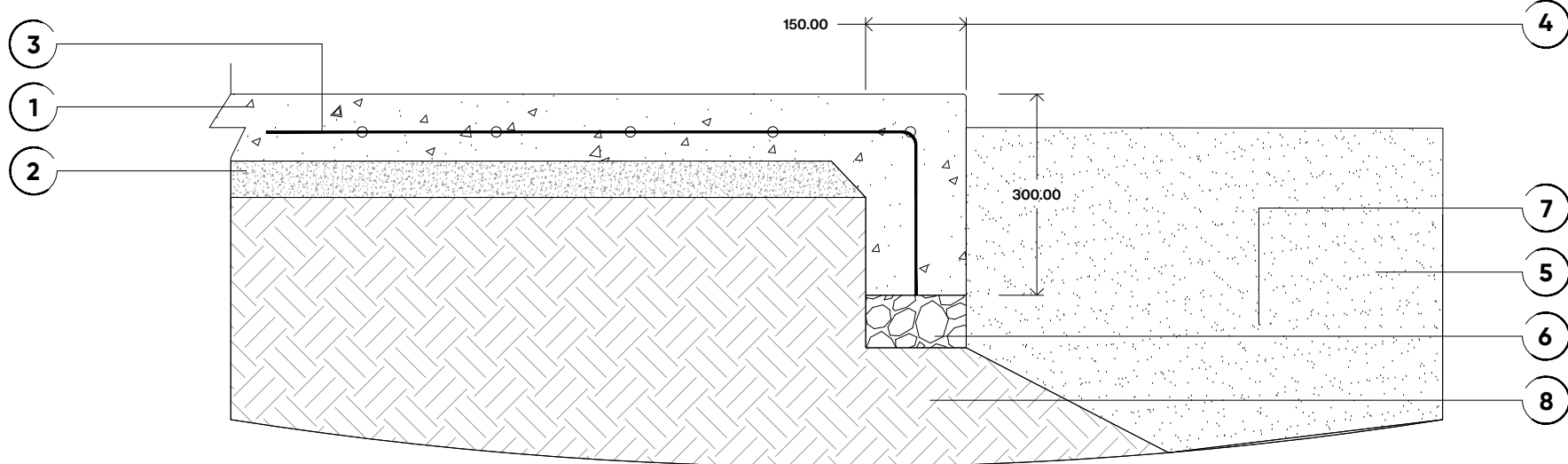
REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

SCALE: REFER NOTED DIMENSIONS

REFER TO DETAILED SPECIFICATION REGARDING SOIL AND MULCH TYPES, ALL ASSOCIATED MATERIAL QUALITY REQUIREMENTS AND STANDARDS INCLUDING REQUIRED HOLD POINTS AND GENERAL MAINTENANCE REQUIREMENTS

- EDGE TYPE - REFER TO STANDARD DRAWINGS
- ALL EDGES MUST BE LOCATED OUTSIDE OF PLAY EQUIPMENT FALL ZONE.
- LOOSE SOFT FALL SURFACES DEPTH IN ACCORDANCE WITH AS/NZS 4422: 2016.
- GEOFABRIC FILTER CLOTH BETWEEN GROUND AND LOOSE SOFT FALL.
- COMPACTED SUBGRADE
- 25-40MM SIZE GRAVEL DRAINAGE TRENCH 300 X 300MM DEEP WITH 100MM DIA SLOTTED, AGGREGATE PIPE WRAPPED IN FILTER SOCK, WRAP GRAVEL IN APPROVED FILTER FABRIC, STORMWATER CONNECTION FOR DRAINAGE TO ENGINEERS DETAIL.

FINISH FLUSH WITH BASE. CONNECT TO STORM WATER SYSTEM OR TO SOAKAGE TRENCH WHERE CONNECTION INTO STOR, WATER SYSTEM IS NOT POSSIBLE. MINIMUM 1:70 FALL REQUIRED ON DRAINAGE TRENCH.



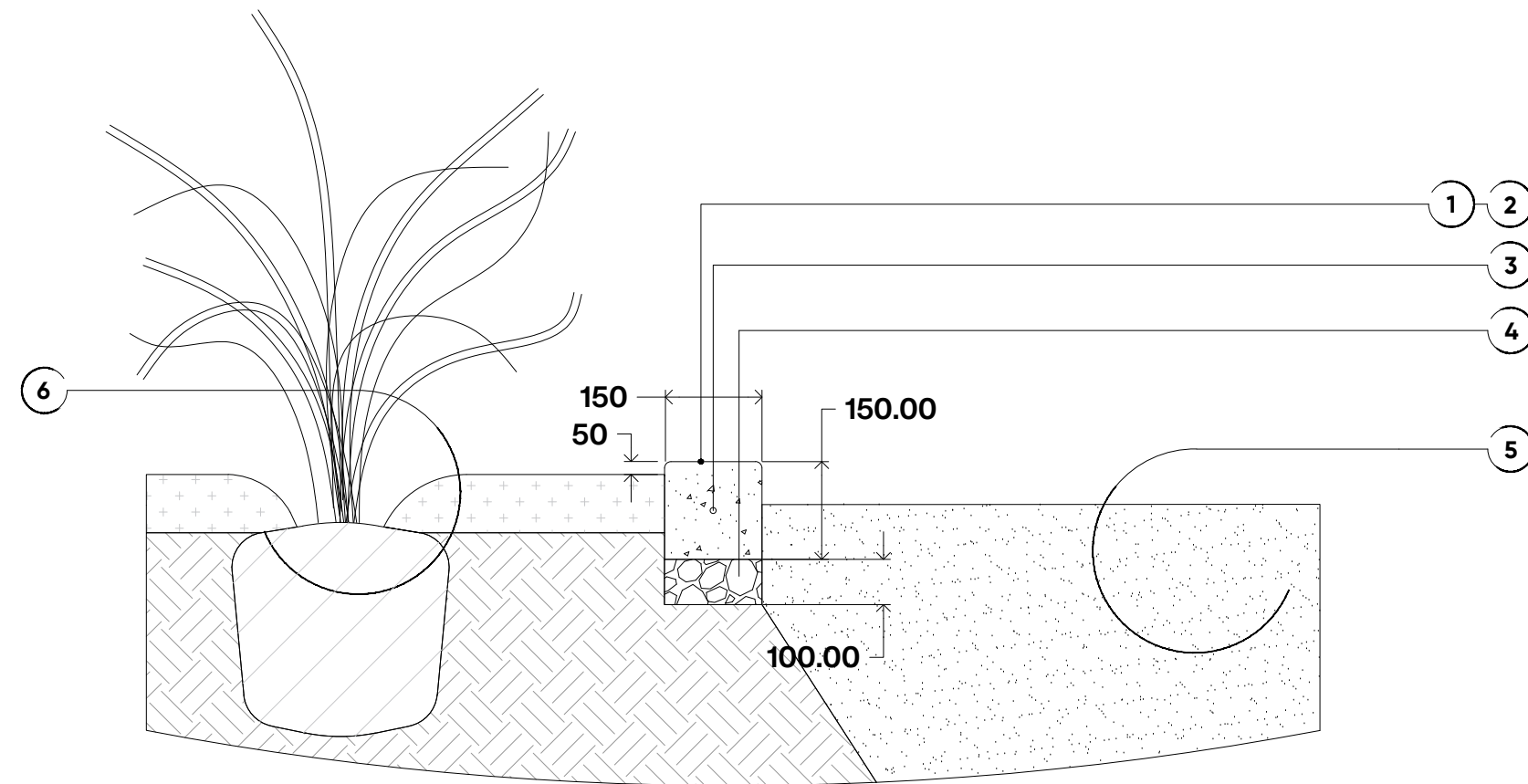
D09

TYPICAL DETAIL 09 - CONCRETE PATHWAY OVER POUR

REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

SCALE: REFER NOTED DIMENSIONS

- 100MM THICK 25 MPA REINFORCED CONCRETE FINISH. REFER TO IPWEA STANDARD DETAILS RS - 065 FOR CONCRETE STRENGTH AND JOINTING INTERVALS. SETOUT TO BE PROVIDED PRIOR TO CONSTRUCTION.
- 50MM MAIN CLASS 2 COMPACTED CRUSHED ROCK
- F72 MESH CENTRALLY PLACED
- 150 X 350MM EDGE BEAM TO PROVIDE EDGE TO LOOSE ZONES.
- LOOSE SOFT FALL SURFACES DEPTH OF LOOSE SOFT FALL IN ACCORDANCE WITH AS/NZS 4422: 2016. FINISH LEVEL 50MM BELOW PATHWAY FL.
- 100MM DEEP 20MM SIZE GRAVEL ROADBASE (CBR45).
- EXISTING BEACH SAND LEVEL
- COMPACTED SUBGRADE



D10

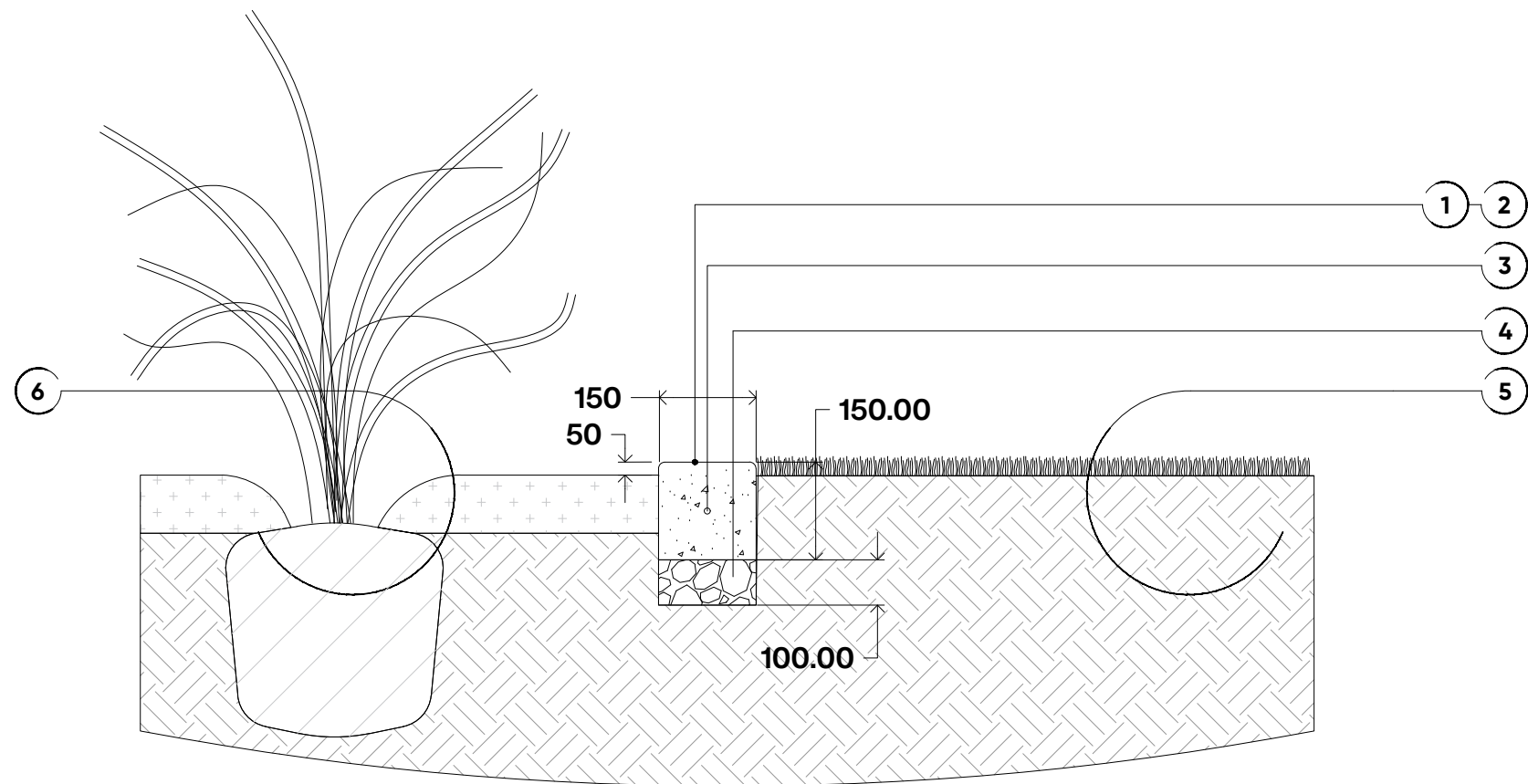
TYPICAL DETAIL 10 - CONCRETE EDGE: PLANTING/LOOSE SOFTFALL

REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

SCALE: REFER NOTED DIMENSIONS

INSTALLATION

- 150 X 150MM EXTRUDED CONCRETE EDGE. CONCRETE EDGE MUST BE OUTSIDE OF PLAY EQUIPMENT FALL ZONE.
- 10MM RADIUS TO TOP EDGES OF CONCRETE.
- 110/2 BAR CENTRAL
- 100MM DEEP 20MM SIZE GRAVEL ROADBASE (CBR45)
- LOOSE SOFTFALL (MULCH/SAND)
- PLANTING, REFER APPLICABLE DETAIL.



D11

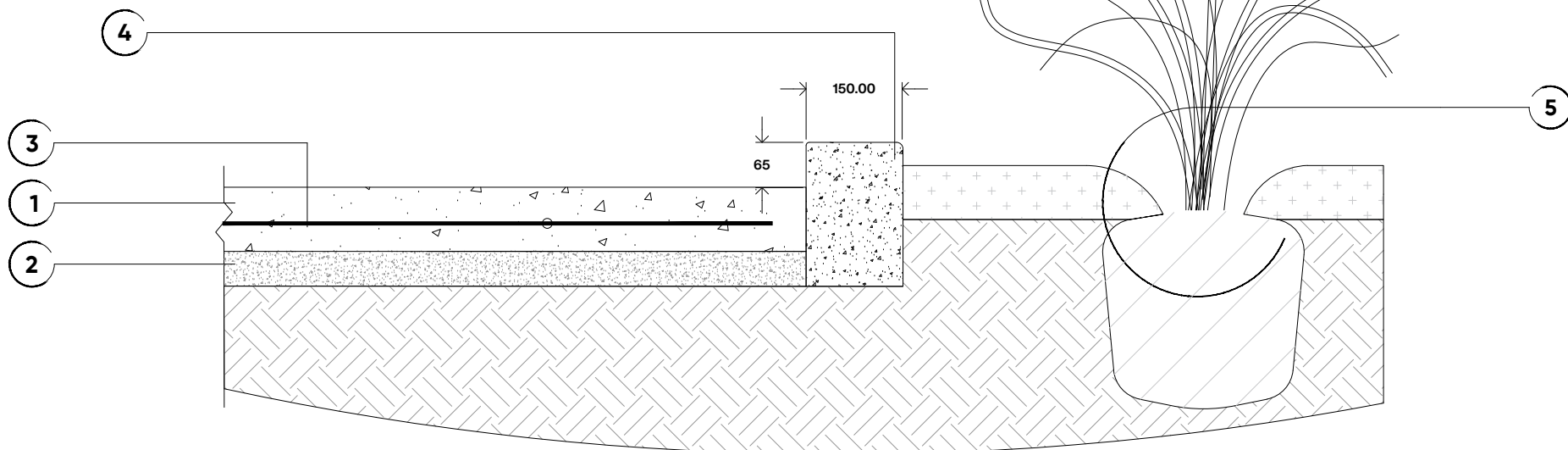
TYPICAL DETAIL 11 - CONCRETE EDGE: PLANTING/TURF INTERFACE

REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

SCALE: REFER NOTED DIMENSIONS

INSTALLATION

- 150 X 150MM EXTRUDED CONCRETE EDGE. CONCRETE EDGE MUST BE OUTSIDE OF PLAY EQUIPMENT FALL ZONE.
- 10MM RADIUS TO TOP EDGES OF CONCRETE.
- 110/2 BAR CENTRAL
- 100MM DEEP 20MM SIZE GRAVEL ROADBASE (CBR45)
- A-GRADE TURF, REFER APPLICABLE DETAIL.
- PLANTING, REFER APPLICABLE DETAIL.



D12

TYPICAL DETAIL 12 - PATHWAY TO CONCRETE EDGE

REFER ALSO SPECIFICATIONS FOR FURTHER DETAILS

SCALE: REFER NOTED DIMENSIONS

- REINFORCED CONCRETE FINISH TO ENGINEERS DETAIL. JOINTING SETOUT TO BE PROVIDED BY ENGINEER PRIOR TO CONSTRUCTION.
- 50MM MAIN CLASS 2 COMPACTED CRUSHED ROCK
- F72 MESH CENTRALLY PLACED
- 200 X 150MM EXTRUDED CONCRETE EDGE, 10MM RADIUS TO TOP EDGES OF CONCRETE. REFER TYPICAL DETAIL EDGE TYPE A CONCRETE EDGE (CoGC 05-904)
- REFER TO TYPICAL PLANTING DETAIL / RELEVANT ADJACENT SURFACE DETAIL.

STRUCTURAL GEOTEXTILE TO BE INSTALLED BETWEEN SUBGRADE AND LOOSE GRAVELS FOR SEPARATION AND FILTRATION IF TREATMENT FALLS WITHIN THE ROOT ZONES OF EXISTING OR PROPOSED TREES.

PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL

Application No: COM/2024/13

Dated: 14 May 2024

Development shall comply with the
conditions of approval as detailed in the
Decision Notice and Council's Planning
Scheme, Local Laws and Planning Policies

PROJECT TITLE

CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE

DRAWING TITLE

DETAIL DRAWINGS 03

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
F	RFI	16.04.2024	MB	MB	MB	JB
E	UPDATE FOR PRELIM TENDER	15.03.2024	MB	MB	MB	JB
D	STAGE 01: FOR APPROVAL	06.02.2024	SS	SS	EP	JB
C	STAGE 01: FOR APPROVAL	02.02.2024	SS	SS	EP	JB
B	STAGE 01: DRAFT	09.11.2023	SS	SS	EP	JB

ISSUE:

FOR APPROVAL

CLIENT:

HB LAND PTY LTD

BASE PROVIDED BY:

MORTONS URBAN SOLUTIONS

MANAGER:

JON BROOKSBY

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ZONE LANDSCAPE ARCHITECTURE

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JOB / DRAWING NO:

L23108 - **305**

SHEET NO.

20 OF 20

1.0 BEFORE WE GET GOING

1.1 FAMILIARISE YOURSELF WITH PLANS, SITE AND SCOPE

IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO FAMILIARISE THEMSELVES WITH THE SUBJECT SITE TO SATISFY THEMSELVES AS TO LOCAL CONDITIONS, ACCESSIBILITY, STORAGE SPACE, THE FULL EXTENT AND SCOPE OF THE WORKS, THE NATURE OF THE GROUND AND THE FULL GAMUT OF THE SCOPE OF WORKS GENERALLY. NO CLAIM WILL BE ALLOWED FOR ANY ALLEGED INADEQUACY OF THE DESCRIPTION WITHIN THIS CONSTRUCTION DOCUMENTATION. SITE VISITS MAY BE MADE BY ARRANGEMENT WITH THE SUPERVISING OFFICER.

IF, IN THE UNFORTUNATE EVENT THERE ARE CONFLICTS BETWEEN TYPICAL DETAILS, SPECIFICATIONS, PLAN NOTES AND OR ASSOCIATED PROJECT BOQ, PLEASE CONTACT THE LANDSCAPE ARCHITECT TO SEEK CLARIFICATION, PLEASE DO NOT MAKE ANY ASSUMPTIONS IN THIS REGARD...IF IN DOUBT, PLEASE ASK.

THE LANDSCAPE SUBCONTRACTOR WILL BE RESPONSIBLE FOR THE CONSTRUCTION OF ALL OF THE HARD AND SOFTSCAPE WORKS AS DETAILED WITHIN THIS PLAN SET UNLESS NOTED OTHERWISE.

A COPY OF THE DECISION NOTICE AND A SET OF STAMPED APPROVED PLANS ARE KEPT ON SITE AT ALL TIMES, VERIFY LOCATION OF ALL SERVICES PRIOR TO COMMENCEMENT OF WORKS.

1.2 FAMILIARISE YOURSELF EXISTING & PROPOSED SERVICES

IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO VERIFY LOCATION OF ALL SERVICES PRIOR TO COMMENCEMENT OF WORKS.

CIVIL, STRUCTURAL, ELECTRICAL AND HYDRAULIC WORKS INFORMATION AND LOCATIONS OF EXISTING INFRASTRUCTURE CONTAINED WITHIN THIS DOCUMENT ARE TO BE CONSIDERED INDICATIVE ONLY. IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO LIAISE WITH THESE DISCIPLINES AS REQUIRED AND TO REVIEW EACH DISCIPLINE'S FOR CONSTRUCTION PLANS TO CROSS-REFERENCE EACH LOCATION WHERE THEY INTEND TO COMPLETE WORKS (THESE WILL BE KEPT WITHIN THE PROJECT OFFICE OR SITE SHED AT ALL TIMES).

A NUMBER OF EXISTING UNDERGROUND SERVICES MAY ALSO BE PRESENT ON THE SITE. THE POSITION OF SUCH SERVICES WILL BE INDICATED ON DRAWINGS PROVIDED BY THE SUPERINTENDENT. THE LANDSCAPE SUBCONTRACTOR MUST ALLOW FOR ALL NECESSARY PRECAUTIONS DURING EXCAVATIONS OR OTHER OPERATIONS TO AVOID DAMAGE TO SERVICES.

THE LANDSCAPE SUBCONTRACTOR SHALL PROTECT EXISTING SERVICES AND SHALL BE HELD RESPONSIBLE FOR ENSURING THAT NO DAMAGE IS CAUSED TO ANY EXISTING DUCTS, SEWERS, GAS, WATER AND ELECTRICITY SERVICES MAINS OR INSTALLATIONS, TELEPHONE CABLES AND OVERHEAD CABLES. ANY SUCH DAMAGE SHALL BE REPORTED IMMEDIATELY AND THE NECESSARY REPAIRS CARRIED OUT AT THE LANDSCAPE SUBCONTRACTOR'S EXPENSE.

1.3 FIRE ANTS & MYRTLE RUST

THESE ARE TWO COMMON ISSUES THAT THE LANDSCAPE CONTRACTOR MUST REMAIN AWARE OF. THE LANDSCAPE SUBCONTRACTOR IS TO CARRY OUT ALL NECESSARY MEASURES, INSPECTIONS AND SAFEGUARDS TO ENSURE FIRE ANTS AND MYRTLE RUST DO NOT ENTER THE SITE VIA EQUIPMENT, MACHINERY MATERIALS AND PLANT STOCK. CONTACT THE SITE SUPERVISOR OR LANDSCAPE ARCHITECT IMMEDIATELY IN THE EVENT THAT FIRE ANT, MYRTLE RUST IS IDENTIFIED TO ENSURE BEST PRACTICE SOLUTIONS ARE IMPLEMENTED AND THE RELEVANT AUTHORITIES ARE NOTIFIED.

1.4 BEST PRACTICE AT ALL TIMES

UNLESS OTHERWISE SPECIFIED OR INDICATED IN THE TENDER DRAWINGS, THE GENERAL LANDSCAPING OPERATIONS SHALL BE EXECUTED IN ACCORDANCE WITH ALL CURRENT RELEVANT AUSTRALIAN STANDARDS.

THE LANDSCAPE SUBCONTRACTOR SHALL FAMILIARISE HIMSELF AND HIS OPERATIVES WITH THE RELEVANT AUSTRALIAN STANDARDS REFERRED TO IN THIS SPECIFICATION AND ANY SUBSEQUENT REVISIONS THEREOF.

WHERE AND TO THE EXTENT THAT MATERIALS, PRODUCTS AND WORKSMANSHIP ARE NOT FULLY DETAILED OR SPECIFIED THEY ARE TO BE OF A STANDARD APPROPRIATE TO THE WORKS AND SUITABLE FOR THE PURPOSES STATED IN OR REASONABLY TO BE INFERRED FROM THE PROJECT DOCUMENTS. IN ACCORDANCE WITH BEST PRACTICE LANDSCAPE HORTICULTURAL PRACTICE.

AGAIN...IF THERE IS ANY DOUBT PLEASE ASK

1.5 KEEP THINGS TIDY

BEFORE STARTING EACH NEW TYPE OF SECTION OF WORK, ENSURE THAT PREVIOUS, RELATED WORK IS APPROPRIATELY COMPLETE, IN ACCORDANCE WITH THE PROJECT DOCUMENTS. TO A SUITABLE STANDARD AND IN A SUITABLE CONDITION TO RECEIVE THE NEW LANDSCAPE WORK. NIL VARIATIONS ETC WILL BE CONSIDERED IF ISSUES ARISE FROM ADDITIONAL WORKS BEING REQUIRED TO RECTIFY FAULTS OF OTHER DISCIPLINE'S WORKS.

IF REQUIRED, REMOVE ANY SURPLUS MATERIALS, SPOIL, RUBBISH AND LITTER FROM LANDSCAPE AREAS AS WORK PROGRESSES.

LEAVE SITE IN A CLEAN AND TIDY CONDITION, WITH SOIL/MULCH SWEEPED OFF HARD SURFACES AT THE END OF EACH AND EVERY WORKING DAY.

1.7 DELIVERY QUALITY WORKS

OPERATIVES MUST BE APPROPRIATELY SKILLED AND EXPERIENCED AND BE FAMILIAR WITH THE TERMS OF THE SPECIFICATION.

INSPECT PRODUCTS/MATERIALS/STOCK CAREFULLY BEFORE USE AND REJECT ANY WHICH ARE DEFECTIVE.

USE PRODUCTS/MATERIALS ONLY IN THE METHOD AND FOR THE PURPOSE RECOMMENDED BY THE MANUFACTURER.

ENSURE APPROPRIATE QUANTITIES ARE UTILIZED, PROVIDE ADEQUATE MEASURES FOR MIXING AND SPREADING OF ALL PRODUCTS OR MATERIALS.

SET OUT COMPONENTS OR STOCK TO ENSURE CORRECT POSITIONING AND SPACING'S ARE ACHIEVED.

PROTECT FINISHED WORK FROM SUBSEQUENT OPERATIONS AND INTERFERENCE BY OTHERS AS PROJECT PROGRESSES.

LANDSCAPE FOREMAN TO SUPERVISE THE WHOLE OF THE LANDSCAPE WORKS AND BE FAMILIAR WITH ALL LANDSCAPE WORKS AND SCHEDULING OF SCOPE.

1.8 TESTING

THE SUPERINTENDENT MAY REQUIRE MATERIALS, GOODS, WORK OR SAMPLES THEREOF TO BE TESTED TO ENSURE THAT THEY COMPLY WITH THE STANDARDS SPECIFIED. IF THESE TESTS INDICATE THAT THE REQUIRED STANDARDS HAVE NOT BEEN ACHIEVED, THE COSTS OF TESTING AND ANY SUBSEQUENT RE-TESTING ARE TO BE BORNE BY THE LANDSCAPE SUBCONTRACTOR.

2.0 THE WORKS

THE LANDSCAPE SUBCONTRACTOR WILL BE RESPONSIBLE FOR THE CONSTRUCTION OF ALL OF THE HARD AND SOFTSCAPE WORKS AS DETAILED WITHIN THIS PLAN SET UNLESS NOTED OTHERWISE.

2.1 SETOUT

LANDSCAPE CONTRACTOR TO FAMILIARISE THEMSELVES WITH ALL PLANS AND SETOUT WORKS FOR EACH PORTION OF WORKS WITH REFERENCE TO ALL RELEVANT DISCIPLINE'S PLANS AND SPECIFICATIONS, NOTING ANY PROPOSED AND OR EXISTING SERVICES. CHECK THE LEVELS AND DIMENSIONS OF THE SITE AGAINST THOSE SHOWN ON THE DRAWINGS AND RECORD THE RESULTS (AND ANY DISCREPANCIES) ON A COPY OF THE DRAWINGS.

NOTIFY THE SUPERINTENDENT IN WRITING OF ANY DISCREPANCIES AND OBTAIN INSTRUCTIONS BEFORE PROCEEDING.

INFORM SUPERINTENDENT WHEN OVERALL SETTING OUT IS COMPLETE AND BEFORE COMMENCING OPERATIONS.

2.2 SOFTWORKS

SOFTSCAPE WORKS CAN GENERALLY BE SUMMARISED AS COMPRISING THE FOLLOWING:

- SUB-GRADES CULTIVATED OR PREPARED FOR PLACING TOPSOIL.
- SUBSOIL DRAINAGE BEFORE TOPSOIL PLACEMENT.
- TOPSOIL SPREAD BEFORE PLANTING.
- GRASSING BED PREPARED BEFORE TURNING, SEEDING, OR TEMPORARY GRASSING.
- PLANT HOLES EXCAVATED AND PREPARED FOR PLANTING PALMS AND LARGE TREES.
- PLANT SUPPLY SITE DELIVERY AND AGREEMENT OF THEIR PROJECT ACCEPTABILITY (NAMESLY PALMS AND LARGE TREES).
- PLANT MATERIAL SET OUT BEFORE PLANTING.
- PLANTING, STAKING AND GUYING COMPLETED.
- GRASSING AREAS COMPLETED.
- COMPLETION OF PLANTING WORKS AND PLANTING ESTABLISHMENT & MAINTENANCE WORK.

2.3 PLANTING AREAS: INSTALLATION

THERE ARE TWO PRIMARY AREAS THAT WILL RECEIVE SOFTSCAPE PLANTING. THESE ARE 1) AREAS ON NATURAL GROUND (DEEP PLANTING) AND 2) PLANTING WITHIN RAISED PLANTING BEDS OR PODIUMS. THE FOLLOWING PREPARATION NOTES ARE APPLICABLE TO BOTH HOWEVER REFERENCE TO CONSOLIDATION OF SUBGRADE ETC ARE RELEVANT ONLY TO DEEP PLANTING / GENERAL GARDEN BED AREAS ONLY. PODIUM PLANTING BEDS WILL BE SUBJECT TO DRAINAGE WORKS, AND WILL RECEIVE 100% IMPORTED OR IMPROVED SITE SOIL.

2.3.1 GENERAL PLANTING BED AREAS

- PREPARE PLANTING AREA TO ENSURE APPROPRIATE DEPTH IS ACHIEVED TO RECEIVE SOIL PROFILE AS SPECIFIED: 300MM SOIL IMPORT TO AS4419, AND 100MM MULCH (IE 400MM DEPTH AVOID PLANTING BEDS TO BE PREPARED PRIOR TO GROWING MEDIUM PROFILE INSTALLATION).
- CULTIVATE THE SUBGRADE TO 100MM IN DEPTH FOR GENERAL SUBSOIL AND 150MM FOR HEAVY CLAY SOILS AND REMOVE ANY STONE OR ROCK EXCEEDING 50MM IN DIAMETER AS WELL AS ANY ORGANIC MATERIAL SUCH AS ROOTS STICK CLODS OR WEEDS (BROUGHT IN THROUGH EXCAVATION PROCESS). IN GENERAL, REMOVE ANY ALL MATERIAL OR DEBRIS THAT WOULD BE DETRIMENTAL TO PLANT HEALTH.
- INSTALL SOIL IMPORTED GROWING MEDIUM: SOIL MIXTURE THAT IS BROUGHT ONTO SITE FROM AN APPROVED AND ACCREDITED GROWING MEDIA SUPPLIER AND ADHERE TO ALL RELEVANT AUSTRALIAN STANDARDS AS4419. INSTALL SOIL TO A DEPTH OF 300MM AS PER TYPICAL DETAIL THIS DOCUMENT.
- INSTALL MULCH AS SPECIFIED TO A DEPTH OF 100MM. ENSURE MULCH IS PLACED MINIMUM 500MM FROM PLANT STEMS. MULCH SHOULD BE PROFILED GENERALLY AS ILLUSTRATED TO CREATE A 'WELL' AROUND THE PLANT STOCK TO PROMOTE WATER RETENTION. ENSURE PLANTS ARE PLACED AS PER SPECIFIED DENSITIES AT EVEN SPACINGS TO ACHIEVE DENSITIES AS STATED. REFER TO MULCH SPECIFICATION THIS DOCUMENT.
- INSTALL PLANTING WORKS: PLANT TYPE, SIZE, DENSITIES AND LOCATION AS SPECIFIED ON PLANS AND PLANTING SCHEDULES. REFER TO PLANTING QUALITY STANDARDS AS SPECIFIED.

- ENSURE MINIMUM OFFSET OF 500MM FROM ANY PATHWAYS, FENCE LINES, FOOTINGS ETC OR AS SPECIFIED IN THIS DOCUMENT.
- INSTALL SLOW RELEASE FERTILISER IN LINE WITH BEST PRACTICE OR AS SPECIFIED IN THIS DOCUMENT.

2.3.2 STREET TREE PLANTING WORKS

- EXCAVATE HOLE TO MINIMUM 2X WIDTH AND 2X DEPTH OF ROOTBALL.
- CULTIVATE THE SURROUNDING SUBGRADE TO 200MM IN DEPTH AND REMOVE ANY STONE OR ROCK EXCEEDING 50MM IN DIAMETER AS WELL AS ANY ORGANIC MATERIAL SUCH AS ROOTS STICK CLODS OR WEEDS (BROUGHT IN THROUGH EXCAVATION PROCESS). IN GENERAL, REMOVE ANY ALL MATERIAL OR DEBRIS THAT WOULD BE DETRIMENTAL TO PLANT HEALTH.
- HOLD POINT: A TREE HOLE INSPECTION WILL BE REQUIRED PRIOR TO INSTALL OF TREES UNLESS STATED OTHERWISE. ENSURE LIAISON WITH PROJECT MANAGER OR LANDSCAPE SUPERINTENDENT / ARCHITECT PRIOR TO PROCEEDING WITH PLANTING WORKS.
- INSTALL PLANTING WORKS: TREE TYPE, SIZE AND LOCATION AS SPECIFIED ON PLANS AND PLANTING SCHEDULES.
- BACKFILL TREE HOLE WITH SOIL AS SPECIFIED. SOIL SHALL COMPLY WITH AS4149-2003. INSTALL SLOW RELEASE FERTILISER IN LINE WITH BEST PRACTICE OR AS SPECIFIED IN THIS DOCUMENT.
- INSTALL MULCH COLLAR. THIS IS TYPICALLY TO BE MINIMUM 500MM RADIUS UNLESS OTHERWISE STATED ON PLANS AND IS TO BE AT A DEPTH OF 100MM. ENSURE MULCH IS PLACED MINIMUM 100MM FROM TREE STEM TO PREVENT COLLAR ROT. MULCH SHOULD BE PROFILED GENERALLY AS ILLUSTRATED TO CREATE A 'WELL' AROUND THE TREE TO PROMOTE WATER RETENTION. REFER TO MULCH SPECIFICATION THIS DOCUMENT.
- STAKE TREES AS SPECIFIED. STAKES TO BE 1800 X 50 X 50MM WITH 600MM INTO GROUND ENSURING 1200MM REMAINS ABOVE GROUND. ENSURE STAKES ARE CLEAR OF ROOT BALL.
- TIE TREE TO STAKES WITH 50MM HESSIAN OR RUBBERISED BLACK PVC IN A FIGURE OF EIGHT. ENSURE NURSERY STAKES ARE REMOVED.
- INSTALL ROOT GUARD TO DEPTH 1200MM. REFER TO SPECIFICATION FOR TYPE. AS PER DETAIL, ROOT GUARDS ARE TYPICALLY PLACED TO REAR OF KERB HOWEVER MAY BE SPECIFIED TO ADDITIONAL AREAS AS DETERMINED BY PROXIMITY TO SERVICES ETC. REFER TO TO SETOUT PLAN FOR CONFIRMATION OF LOCATION.

2.4 STREET TREE ADDITIONAL REQUIREMENTS

IMPORTANT: TREES ARE TO ABIDE BY RELEVANT COUNCIL TREE STOCK REQUIREMENT STANDARDS. THESE STANDARDS WILL BE REVIEWED AT FORMAL TREE HOLE INSPECTION WITH COUNCIL ASSESSING OFFICER. THESE ARE DETAILED WITHIN THE ASSOCIATED SPECIFICATIONS AND CAN GENERALLY BE SUMMARISED AS:

ALL TREES HOLES MARKED OUT IN ACCORDANCE WITH APPROVAL AND COMPLY WITH ALL COUNCIL STANDARD OFFSETS

TREE HOLE DIMENSIONS AND PREPARATION PARAMETERS ARE AS PER THOSE STATED ABOVE

TREE HOLES DO NOT IMPACT ON SERVICES OR OTHER INFRASTRUCTURE

ALL TREES ARE AS PER NATSPEC SPECIFICATIONS INCLUDING CORRECT FORM AND STRUCTURE.

STREET TREES AND FEATURE TREES TO HAVE A MINIMUM 900MM TREE TRUNK AND BE 2000MM IN HEIGHT AT TIME OF PLANTING

STREET TREE LOCATION SUBJECT TO CHANGE BASED ON DRIVEWAY AND SERVICES LOCATIONS.

GENERAL ALLOWANCE OF 1 TREE PER LOT.

LOCATIONS TO BE VERIFIED BY COUNCIL AND LANDSCAPE ARCHITECT AT TREE HOLE INSPECTION

- TREES TO BE PLANTED MINIMUM 1METER TO REAR OF NKL.
- TREES ARE NOT TO BE PLANTED WITHIN:
 - 3M OF RESIDENTIAL ACCESSSES
 - A MINIMUM OF 15 METERS OF THE APPROACH SIDE OF ANY STREET INTERSECTION TO MAINTAIN SIGHT LINES - 6 METERS OF DEPARTURE
 - 6 METERS OF A DEPARTURE SIDE OF A PEDESTRIAN CROSSING, BUS STOP SIGN OR SHELTER TO MAINTAIN SIGHT LINES
 - 3M TO EITHER SIDE OF A FOOTPATH CROSSOVER INCLUDING BIKEWAYS AND PATHS
 - 2.5 METERS OF ELECTRICITY / TELEPHONE POLES
 - MINIMUM 2 METERS FROM SERVICES
 - MINIMUM 7 METERS FROM STREET LIGHTS
 - MINIMUM 4 METERS FROM HIGH VOLTAGE TRANSMISSION LINES
 - 4.5 METERS FROM A MAJOR VEHICULAR ACCESS CROSSING
 - 3 METERS FROM A FIRE HYDRANT

2.5 TURF AREAS: INSTALLATION

OBTAIN TURF FROM A SPECIALIST GROWER OF CULTIVATED TURF. AREAS DESIGNATED AS 'TURF' ON DRAWINGS SHALL BE FRESHLY CUT AND OF THE FOLLOWING SPECIFICATION: GRADE A COUCH.

TURF TO BE FREE FROM NUTGRASS OR OTHER NOXIOUS WEEDS OR ANY OTHER MATERIAL DELETERIOUS TO PLANT GROWTH.

DELIVER THE TURF WITHIN 24 HOURS OF CUTTING, AND LAY IT WITHIN 36 HOURS OF CUTTING. PREVENT IT FROM DRYING OUT BETWEEN CUTTING AND LAYING.

PREPARE TURF AREAS 100MM BELOW DESIGNED FINISH LEVEL TO ALLOW 75MM SOIL UNDERLAY AND 25MM ROLL TURF.

CULTIVATE THE SURROUNDING SUBGRADE TO A FURTHER 100MM IN DEPTH AND REMOVE ANY STONE OR ROCK EXCEEDING 50MM IN DIAMETER AS WELL AS ANY ORGANIC MATERIAL SUCH AS ROOTS STICK CLODS OR WEEDS (BROUGHT IN THROUGH EXCAVATION PROCESS). IN GENERAL, REMOVE ANY ALL MATERIAL OR DEBRIS THAT WOULD BE DETRIMENTAL TO TURF HEALTH.

SUBGRADE TO BE EVALUATED ON SITE TO ASSESS PERMEABILITY AND GENERAL TYPE TO EVALUATE REQUIREMENT FOR ADDITIONAL DRAINAGE WORKS AND OR CULTIVATION WORKS TO ENSURE NIL ADVERSE IMPACTS ON TURF HEALTH.

INSTALL TURF UNDERLAY AT DEPTH OF 75MM. TURF UNDERLAY TO BE AS BE SOIL IMPORT SPECIFICATION UNLESS STATED OTHERWISE.

BEFORE LAYING TURF, APPLY FERTILISER OF 14:15:10 N:P:K OR APPROVED SIMILAR COMPOSITION AT THE RATE OF 100G PER M2 AND RAKE INTO THE PREPARED SOIL.

LAY THE TURF IN STRETCHER PATTERN WITH THE JOINTS STAGGERED AND CLOSE BUTTED. LAY PARALLEL WITH THE LONG SIDES OF LEVEL AREAS, AND WITH CONTOURS ON SLOPES. CLOSE BUTT THE END JOINTS AND SPACE THE STRIPS 300 MM APART. APPLY A LAYER OF TOP DRESSING BETWEEN THE STRIPS OF TURF. FINISH WITH AN EVEN SURFACE. LIGHTLY TAMP TO AN EVEN SURFACE IMMEDIATELY AFTER LAYING.

WATER IMMEDIATELY AFTER LAYING UNTIL THE TOPSOIL IS MOISTENED TO ITS FULL DEPTH. CONTINUE WATERING TO MAINTAIN MOISTURE TO THIS DEPTH. KEEP THE GRASS IN A HEALTHY WEED FREE CONDITION. REFER SECTION 12.10.3 FOR WATERING REGIME.

MOW TO MAINTAIN THE GRASS HEIGHT WITHIN THE REQUIRED RANGE. DO NOT REMOVE MORE THAN ONE THIRD OF THE GRASS HEIGHT AT ANY ONE TIME. CARRY OUT THE LAST MOWING WITHIN 7 DAYS BEFORE THE END OF THE PLANTING ESTABLISHMENT PERIOD. REMOVE GRASS CLIPPINGS FROM THE SITE AFTER EACH MOWING.

WHEN THE TURF IS ESTABLISHED, MOW CLOSELY. REMOVE CUTTINGS AND LIGHTLY TOP DRESS TO A DEPTH OF 10MM WITH AN APPROVED TOP DRESS SOIL. WORK THE DRESSING WELL INTO THE JOINTS AND CORRECT ANY UNEVENNESS IN THE TURF SURFACE.

2.6 TURF AREAS: INSTALLATION (ARTIFICIAL)

ARTIFICIAL TURF TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS. DIRECT STOCK DOWN PERMITTED IN INSTANCES WHERE CONCRETE PAD HEIGHT IS AT APPROVED FILL. IDENTIFY ANY CONFLICTS WITH MANUFACTURERS RECOMMENDATIONS AND ASSOCIATED WARRANTIES IF DIRECT STOCK IS PROPOSED. IN INSTANCES WHERE SUBGRADE IS TO BE INSTALLED, THIS IS TO BE AS PER MANUFACTURERS RECOMMENDATIONS, GENERALLY DESCRIBED AS COMPACTED CRUSHER DUST (FINELY GRADED CRUSHED BLUE STONE) OR ROAD BASE.

2.7 DRAINAGE

THE LANDSCAPE SUBCONTRACTOR IS TO PROVIDE FOR SUFFICIENT SURFACE AND SUB-SURFACE DRAINAGE TO GARDEN AND GRASS AREAS TO ENSURE ADEQUATELY DRAINED SOFT LANDSCAPED AREAS FREE FROM SURFACE PONDING WATER AND HEAVY WATER LOGGED SOILS. SURFACE AND SUB-SURFACE DRAINAGE IS TO AID IN THE HEALTHY GROWTH AND CONTINUED THRIVING OF ALL PLANT STOCK AND GRASS AREAS.

COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS TO THE EXTENT THAT THEY ARE RELEVANT AND NOT OVER RIDDEN BY THE SPECIFICATION.

SURFACE DRAINAGE

WHEN SETTING OUT LINES AND LEVELS OF GARDENS AND TURFED AREAS, ENSURE THE ACCURATE FORMATION OF GRADES AND CROSS FALLS LEADING TO SURFACE CATCH DRAINS AND FIELD INLETS. SO ENABLING THE AREAS TO DRY QUICKLY AND SURPLUS WATER TO REACH THE DRAINAGE SYSTEM IN SUCH A WAY THAT POTENTIAL EROSION CHANNELS AND/OR WET SPOTS ARE AVOIDED.

MINIMUM SURFACE CROSS FALLS TOWARDS DRAINS AND OUTFALLS UNLESS OTHERWISE STATED SHALL BE AS FOLLOWS:

MULCHED GARDEN AREAS

TURFED AREAS

3.0 MATERIAL SPECIFICATIONS

3.1 IMPORTED SOILS

UNLESS SPECIFIED OTHERWISE OR AGREED TO BY THE LANDSCAPE ARCHITECT AND PROJECT SUPERVISOR, ALL SOIL IN GENERAL PLANTING WORKS IS TO BE IMPORTED PREMIUM GRADE TOPSOIL FOR ALL NEW PLANTING AREAS TO COMPLY WITH AS 4419 (1998).

3.2 IMPROVED SITE SOIL

IN THE EVENT THAT IMPROVED SITE SOIL HAS BEEN SPECIFIED OR DETERMINED FOR USE WITHIN ALL OR ANY LANDSCAPE WORKS THIS MUST BE TESTED, IMPROVED IN LINE WITH RELEVANT AUSTRALIAN STANDARDS AND INDUSTRY BEST PRACTICE METHODOLOGY.

3.3 MULCH

PROVIDE MULCH WHICH IS FREE OF DELETERIOUS AND EXTRANEOUS MATTER SUCH AS SOIL, WEEDS AND STICKS TO AS 4454.

ORGANIC MULCH: MULCH TO BE FOREST FINES ORGANIC MULCH 15MM GHP.

MATERIAL NOT PERMITTED: LEAF AND PLANT MATTER FROM ANY OTHER SPECIES (ESPECIALLY WEED SPECIES SUCH AS PRIVET, CAMPHOR LAUREL, CORAL TREE, POPLAR, WILLOW, PINE AND OTHER NOXIOUS WEEDS). NIL TYP MULCH AT ANY TIME TO BE USED.

3.4 TURF

OBTAIN TURF FROM A SPECIALIST GROWER OF CULTIVATED TURF.

AREAS DESIGNATED AS 'TURF' ON DRAWINGS SHALL BE FRESHLY CUT OUT AND OF THE FOLLOWING SPECIFICATION: GRADE A COUCH

TURF TO BE FREE FROM NUTGRASS OR OTHER NOXIOUS WEEDS OR ANY OTHER MATERIAL DELETERIOUS TO PLANT GROWTH.

DELIVER THE TURF WITHIN 24 HOURS OF CUTTING, AND LAY IT WITHIN 36 HOURS OF CUTTING. PREVENT IT FROM DRYING OUT BETWEEN CUTTING AND LAYING.

3.4.1 ARTIFICIAL TURF

URBAN TURF SOLUTIONS OR SIMILAR APPROVED TO MANUFACTURERS RECOMMENDATION

3.5 PLANTS

PLANT MATERIAL QUALITY SPECIFICATION - NURSERY STOCK

ALL PLANTS SHALL BE TRUE TO SCHEDULED NOMENCLATURE, WELL FORMED, HARDENED OFF AND DISEASE-FREE NURSERY STOCK. THEY SHALL BE CONTAINER GROWN IN POTTING SOIL WITH ROOT SYSTEM FIRMLY ESTABLISHED BUT WITH NO LARGER ROOTS GROWING OUT OF THE CONTAINER. NO PLANT SHALL BE POT BOUND.

ALL TREES SUPPLIED SHALL COMPLY WITH NATSPEC'S 'SPECIFYING TREES: A GUIDE TO ASSESSMENT OF TREE QUALITY'

THE CONDITION OF PLANT STOCK SHALL BE SUCH THAT FUTURE GROWTH SHALL BE STRONG AND TYPICAL OF THE SPECIES. STOCK THAT SHOWS SIGNS OF LATENT CONDITIONS EVIDENT OF DEFECTIVE NURSERY PRACTICES (SUCH AS 'SPIRALING') SHALL BE DEEMED UNACCEPTABLE.

ALL PLANTS SHALL BE GROWN IN ACCORDANCE WITH NURSERY ASSOCIATION STANDARDS. CORRECT NURSERY/ GROWING PRACTICES SHALL HELP TO ENSURE THE LONG-TERM HEALTH AND VIABILITY OF THE PLANT STOCK ON SITE AFTER PLANTING.

ENSURE THAT TRUNKS AND BRANCHES ARE FREE OF DIEBACK, CAVITIES, SUNBURN AND SECRETIONS. TRUNK AND BRANCHES ARE TO BE EVENLY TAPERED AND TEXTURED TYPICAL OF THE SPECIE. PLANT MATERIAL IS TO BE MATURED ENOUGH TO SUPPORT THEMSELVES WITHOUT STAKING. BRANCHES SHOULD BE EVENLY DISTRIBUTED. EXHIBIT A FULL WELL-FORMED CANOPY THAT OCCUPIES A MINIMUM 1/3 OF THE OVERALL CURRENT HEIGHT. SPECIMENS ARE TO BE PREPARED FOR THEIR INTENDED PURPOSE.

FOILAGE SHALL BE EVENLY DISTRIBUTED ACROSS THE CROWN IN PROPORTION TO THE BRANCHING STRUCTURE AS WELL AS BE OF A TRUE COLOUR TYPICAL OF THE SPECIE. DENSE AND OF GOOD SIZE. ENSURE FOILAGE IS FREE OF DEFICIENCIES AND BURN.

AT THE TIME OF THE LAST PLANT STOCK REVIEW PRIOR TO SITE DELIVERY, PLANT MATERIAL IS TO CONFORM WITH THE SPECIFIED MINIMUM PLANT SIZES IN THE PLANT SCHEDULE. PLANTS SHALL NOT EXHIBIT SIGNS OF HAVING BEEN STRESSED AT ANY STAGE DURING THEIR DEVELOPMENT DUE TO INADEQUATE WATERING, EXCESSIVE SHADE/SUNLIGHT, SUFFERED PHYSICAL DAMAGE OR HAVE RESTRICTED HABIT DUE TO GROWTH IN NURSERY POTS.

ALL TREES ARE AS PER NATSPEC SPECIFICATIONS INCLUDING CORRECT FORM AND STRUCTURE.

STREET TREES AND FEATURE TREES TO HAVE A MINIMUM 900MM TREE TRUNK AND BE 2000MM IN HEIGHT AT TIME OF PLANTING

THE SUPERINTENDENT HAS THE RIGHT TO REJECT ANY PLANTS NOT MEETING THE REQUIREMENTS OF THE SPECIFICATION AND SCHEDULE.

STORE PLANTS SO THEY OF THEIR CONTAINERS WILL NOT BE DAMAGED. WATER AND MAINTAIN ALL PLANTS AS NECESSARY. PROVIDE ALL LIFTING EQUIPMENT FOR STOCK DELIVERED TO SITE. INSPECT STOCK WITH THE SUPERINTENDENT AND THE CONTRACT SUPERVISOR ONCE THE STOCK HAS ARRIVED ON SITE PRIOR TO UNLOADING.

PROTECTION: PREVENT PLANT STOCK FROM DAMAGE. INSPECT ALL STOCK FOR DISEASE AND PESTS. REPORT ON RECOVERY SUCCESS AND GIVE NOTICE OF SITE PLANT STOCK WHICH WILL NOT RECOVER FROM RELOCATION.

REPLACEMENT: REPLACE DAMAGED OR FAILED PLANTS WITH PLANTS OF THE SAME TYPE AND SIZE.

3.6 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. STORE IN A DRY SECURE ENVIRONMENT. APPLY ACCORDING TO MANUFACTURERS RECOMMENDATIONS (RATE/REAPPLICATION/WATERING).

- GARDEN BEDS SLOW RELEASE

OSMOCOTE OR SIMILAR APPROVED TO MANUFACTURERS RECOMMENDATION

- TREE PLANTINGS

OSMOCOTE OR SIMILAR APPROVED TO MANUFACTURERS RECOMMENDATION

- GRASSING

GROWFORCE 301 OR SIMILAR APPROVED 100KG/HA

3.7 STAKES & TIES

- STAKES

MATERIAL: HARDWOOD, STRAIGHT, FREE FROM KNOTS OR TWISTS, POINTED AT ONE END.

INSTALLATION: DRIVE STAKES INTO THE GROUND AT LEAST ONE THIRD OF THEIR LENGTH, AVOIDING DAMAGE TO THE ROOT SYSTEM.

STAKE SIZES:

FOR PLANTS > 2.5 M HIGH: THREE 50 X 50 X 2400 MM STAKES PER PLANT.

FOR PLANTS 1 - 2.5 M HIGH: TWO 50 X 50 X 1800 MM STAKES PER PLANT.

FOR PLANTS < 1 M HIGH: ONE 38 X 38 X 1200 MM STAKE PER PLANT.

- TIES

TIES SHALL BE 50MM WIDE HESSIAN WEBBING OR 25MM WIDE HEAVY-DUTY POLYTHENE STRIPS. (PLASTIC COATED TIES ARE NOT ACCEPTABLE). FIX TIES IN A FIGURE OF EIGHT PATTERN AND STAPLE TO STAKE WITH GALVANISED WIRE STAPLES. IN CASES WHERE STRONG TIES ARE REQUIRED PAST THE MAINTENANCE PERIOD, 50MM UV STABILISED WOVEN POLYPROPYLENE TIES SHOULD BE USED.

4.0 MAINTENANCE

4.1 CERTIFICATION AND WARRANTIES

LANDSCAPE CONTRACTOR TO PROVIDE ALL RELEVANT MAINTENANCE LOGS, CERTIFICATION DOCUMENTS (PLAYGROUND WARRANTIES, CERTIFICATIONS, SPARE PARTS MANUALS, FORM 16 ETC) TO MANUFACTURERS WARRANTIES, SOIL CERTIFICATIONS, FIRE ANT CERTIFICATION TO THE LANDSCAPE ARCHITECT FOR INCLUSION IN AS CONSTRUCTED DOCUMENTATION. THIS IS REQUIRED AT MINIMUM 2 MONTHS PRIOR TO AN MAINTENANCE INSPECTION. KEEP A LOGBOOK RECORDING ACCORDING TO WEEKLY CYCLES WHEN AND WHAT MAINTENANCE WORK HAS BEEN DONE AND WHAT MATERIALS, INCLUDING TOXIC MATERIALS, HAVE BEEN USED. MAKE THE LOGBOOK AVAILABLE FOR INSPECTION ON REQUEST.

4.2 GENERAL MAINTENANCE REQUIREMENTS

PLEASE NOTE THE 'TERM MAINTENANCE' THROUGHOUT THE BELOW PERTAINS TO WORKS UNDERTAKEN WITHIN THE ENTIRE ESTABLISHMENT AND MAINTENANCE PHASES.

THE LANDSCAPE SUBCONTRACTOR SHALL MAINTAIN THE WHOLE OF THE GRASSED AND PLANTED AREAS IN A MANNER WHICH ENSURES THE ESTABLISHMENT OF HEALTHY AND VIGOROUS PLANTS AND A CLOSE TEXTURED, WEED FREE AND WHICH CREATES A TIDY WEED FREE APPEARANCE. ALLOWANCE SHALL BE MADE IN PRICING FOR WATERING TO MAINTAIN ALL SUBJECTS IN A HEALTHY MOIST CONDITION TO FACILITATE OPTIMUM CONDITIONS FOR EARLY ESTABLISHMENT.

THROUGHOUT THE PLANTING ESTABLISHMENT PERIOD, CARRY OUT MAINTENANCE WORK INCLUDING: WATERING, MOWING, EDGING, WEEDING, RUBBISH REMOVAL, FERTILISING, PEST AND DISEASE CONTROL, RESEEDING, RETURFING, STAKING AND TYING, REPLANTING, CULTIVATING, PRUNING, HEDGE CLIPPING, AERATING, REINSTATEMENT OF MULCH, RENOVATING, LAWN TOP DRESSING, AND KEEPING THE SITE NEAT AND TIDY.

DURING THE MAINTENANCE PERIOD THE LANDSCAPE SUBCONTRACTOR WILL BE EXPECTED TO:

- ESTABLISH A REGULAR PATTERN OF SITE VISITS THROUGHOUT THE MAINTENANCE PERIOD.
- CARRY OUT ROUTINE MAINTENANCE OPERATIONS.
- CORRECT ANY DEFECTS, WHICH BECOME APPARENT DURING THE EARLIEST SUITABLE WEATHER CONDITIONS.
- ATTEND HAND-OVER MEETINGS, AND ANY REGULAR MEETINGS WITH THE SUPERINTENDENT TO MONITOR DEFECTS AND MAINTENANCE.
- THE LANDSCAPE SUBCONTRACTOR WILL BE DEEMED TO HAVE ALLOWED FOR ONE MONTHLY VISIT AT A MINIMUM WITHIN THIS PERIOD BUT SHOULD NOT ASSUME THAT THIS WILL BE SUFFICIENT TO DISCHARGE THE REQUIREMENTS OF THE SPECIFICATION AND SHOULD FURNISH THE SUPERINTENDENT A PROGRAM OF VISITS FOR ESTABLISHMENT AND MAINTENANCE PERIODS.
- ALL DEBRIS, INCLUDING GRASS CLIPPINGS, UNLESS OTHERWISE STATED AND ARISING FROM THE PERFORMANCE OF THE WORKS SHALL PROMPTLY BE REMOVED FROM THE SITE AND THE LANDSCAPE SUBCONTRACTOR WILL BE REQUIRED TO MAKE GOOD ANY DAMAGE AT HIS OWN EXPENSE, OR BEAR ANY COST INCURRED THROUGH HIS FAILURE TO COMPLY WITH THIS REQUIREMENT.
- THE LANDSCAPE SUBCONTRACTOR MUST ONLY USE CHEMICALS SPECIFICALLY APPROVED FOR THE PURPOSE FOR WHICH IT IS INTENDED AND THE CONDITIONS OF APPROVAL FOR THE CHEMICALS AND ANY RELEVANT CODE OF PRACTICE.
- THE LANDSCAPE SUBCONTRACTOR WILL CONSIDER IN EVERY INSTANCE WHETHER THE USE OF CHEMICALS IS STRICTLY NECESSARY BEFORE APPLICATION.
- HERBICIDES USED TO KILL PERENNIAL WEED GROWTH SHALL BE APPROPRIATE FOLIAR APPLIED, NON-RESIDUAL, TRANSLOCATED HERBICIDES.
- THE LANDSCAPE SUBCONTRACTOR WILL BE ENTIRELY RESPONSIBLE FOR THE COMPLETE REPLACEMENT ANY WORKS, DUE TO DEFECTIVE MATERIALS OR WORKSMANSHIP.
- THE LANDSCAPE SUBCONTRACTOR WILL ALLOW FOR CARRYING OUT ALL MAINTENANCE WORKS IN SUCH A MANNER TO AVOID UNREASONABLE DISTURBANCE OF ANY BUILDINGS AND ADJOINING WORKS NOT PART OF THE CONTRACT.
- REMOVE ALL LITTER AND DELETERIOUS MATERIAL FROM PLANTING, GRASS/TURF AND FOOTPATH AREAS AT THE TIME OF EACH MAIN VISIT (NO LESS THAN MONTHLY).
- ENSURE THAT ALL PLANT AND GRASS AREAS RECEIVE ADEQUATE WATER DURING THE ESTABLISHMENT AND MAINTENANCE PERIODS TO ENABLE THEM TO ESTABLISH AND THRIVE. THE LANDSCAPE SUBCONTRACTOR IS TO SET UP A WATERING PROGRAM FOR THESE PERIODS FOR WHICH HE SHALL OBTAIN APPROVAL FROM THE SUPERINTENDENT.
- MINIMISE

The estate road reserves contain the necessary civil design of the estate including roads, services and streetlighting. The streetscape component consists of the grassed verges, batter plantings, and street-trees.

Maintenance Zones	Activity Descriptions	Activity Codes
STREETSCAPE	Clearing Operations	
	Graffiti Removal	CDR
	Litter Collection	CLC
	Horticultural Environment	
	Planting of Shrubs and Trees	HAT
	Care of Trees and Shrubs	HCT
	Care of Grass and Turf	HGT
	Grass Mowing	HMO
	Garden Maintenance	HGM
	Weed Treatment	HWS
	Building Environment	
	Fence and Bollard Maintenance	BFH

The park and playground contains hardscape, furniture and play equipment along with portions of feature planting areas. Edge treatments are proposed to delineate property boundaries in accordance with Council standards. All equipment to be installed and maintained in accordance in manufacturers specification and Australian Standard playground safety compliance.

Maintenance Zones	Activity Descriptions	Activity Codes
PARK	Cleaning Operations	
	Litter Collection	CLC
	Horticultural Environment	
	Planting of Shrubs and Trees	HAT
	Care of Trees and Shrubs	HCT
	Native Bushland Maintenance	HNB
	Weed Treatment	HWS
	Building Environment	
	Fence and Bollard Maintenance	BFH
	Monitoring & Cleaning of Park Furniture	MOF
	Monitoring of Park Equipment	MPE
	Monitoring of Shade Sails	MSS
Monitoring of Softfall Surfaces	MSO	

These parts of the open space system are occupied by the bioretention basins & detention basins designed by the civil engineers and approved by Logan City Council. Restoration plantings to stormwater treatment basins in accordance with WSUD guidelines. Other embellishments will be limited to edge treatment such as bollards/guardrails and maintenance access gates. All engineering devices/assets (headwalls, pipe work etc) excluded from landscape management zone.

Maintenance Zones	Activity Descriptions	Activity Codes
BIOBASN & DETENTION AREAS	Cleaning Operations	
	Clear Drainage Culvert	CDC
	Litter Collection	CLC
	Horticultural Environment	
	Planting of Shrubs and Trees	HAT
	Care of Trees and Shrubs	HGT
	Weed Treatment	HWS
	Building Environment	
Fence and Barrier Maintenance	BFH	

The environmental park contains a degraded gully line with sporadic residual native vegetation and portions of an ex-hoop pine plantation and is within an area to be set aside for environmental purposes in accordance with the approved development application and previous ecological assessment. Rehabilitation and restoration works are proposed to restore native flora dominance to the approved parkland area in a similar manner to the previously established adjacent parks and in accordance with the approved OSMF. No structural embellishments are proposed with the exception of vehicle exclusion bollards.

Maintenance Zones	Activity Descriptions	Activity Codes
ENVIRONMENTAL	Clearing Operations	
	Litter Collection	CLC
	Horticultural Environment	
	Planting of Shrubs and Trees	HAT
	Care of Trees and Shrubs	HCT
	Native Bushland Maintenance	HNB
	Weed Treatment	HWS
	Building Environment	
	Fence and Bollard Maintenance	BPH

[illegible]

*Landscape Gardner \$34.88/hr per QAL

Prices are estimated figures which allows for inspection of the relevant activity area, review of the associated activity specification sheets, undertaking routine maintenance (as specified) and advising project manager of any reactive maintenance required. Figures sourced from QALI Costing Guide 7th Edition and/or market rate. If replacement or reactive maintenance is required, it shall occur at the below rates or by tendered price:

[illegible]

*Landscape Gardener \$34.88/hr per QAL

Prices are estimated figures which allows for inspection of the relevant activity area, review of the associated activity specification sheets, undertaking routine maintenance (as specified) and advising project manager of any reactive maintenance required. Figures sourced from QALI Costing Guide 7th Edition and/or market rate. If replacement or reactive maintenance is required, it shall occur at the below rates or by tendered price:

[illegible]

*Landscape Gardner \$34.88/hr per QAL

Prices are estimated figures which allows for inspection of the relevant activity area, review of the associated activity specification sheets, undertaking routine maintenance (as specified) and advising project manager of any reactive maintenance required. Figures sourced from QALI Costing Guide 7th Edition and/or market rate. If replacement or reactive maintenance is required, it shall occur at the below rates or by tendered price:

ROUTINE MAINTENANCE		ANNUAL TIMELINE																																																											
ROUTINE INSPECTION & REACTIVE MAINTENANCE	X	JAN				FEB				MAR				APR				MAY				JUN				JUL				AUG				SEP				OCT				NOV				DEC															
Activity Descriptions	Activity Codes	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4												
Cleaning Operations																																																													
Clear Drainage Culvert	CGR	X				X				X				X				X				X				X				X					X				X				X																		
Graffiti Removal	CGR	X				X				X				X				X				X				X				X					X				X				X																		
Litter Collection	CLC	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓													
Horticultural Environment																																																													
Planting of Shrubs and Trees	HAT	X				X				X				X				X				X				X				X					X				X				X																		
Care of Trees and Shrubs	HCT	✓				✓				✓				✓				✓				✓				✓				✓				✓				✓			✓				✓																
Care of Verge Grass/Turf	HGT	✓				✓				✓				✓				✓				✓				✓				✓				✓				✓			✓				✓																
Mowing of Verge Grass/Turf	HMO	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓													
Care of Detention Grass/Turf	HGT	✓				✓				✓				✓				✓				✓				✓				✓				✓				✓			✓				✓																
Mowing of Detention Grass/Turf	HMO	✓				✓				✓				✓				✓				✓				✓				✓				✓				✓			✓				✓																
Garden Maintenance & Weed Treatment	HWS	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓													
Building Environment																																																													
Fence and Bollard Maintenance	BFH	X				X				X				X				X				X				X				X					X				X				X																		

PROJECT TITLE
CALLI | SUBDIVISION: STAGE 01 - PUBLIC
OPERATIONAL WORKS: LANDSCAPE

DRAWING TITLE
MAINTENANCE MANAGEMENT COSTING

REV	DESCRIPTION	DATE	DRAWN	DESIGN	CHECK	APP
F	RFI	16.04.2024	MB	MB	MB	JB
E	UPDATE FOR PRELIM TENDER	15.03.2024	MB	MB	MB	JB
D	STAGE 01 FOR APPROVAL	06.02.2024	SS	SS	EP	JB
C	STAGE 01 FOR APPROVAL	02.02.2024	SS	SS	EP	JB
B	STAGE 01 DRAFT	09.11.2023	SS	SS	EP	JB

ISSUE:	CLIENT:
FOR APPROVAL	HB LAND PTY LTD
BASE PROVIDED BY:	MANAGER:
MORTONS URBAN SOLUTIONS	JON BROOKSBY

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**PLANS AND DOCUMENTS referred to in the
DEVELOPMENT APPROVAL**

Application No: COM/2024/13

Dated: 14 May 2024

**Development shall comply with the
conditions of approval as detailed in the
Decision Notice and Council's Planning
Scheme, Local Laws and Planning Policies**


zone
 Landscape Architecture

ZONE LANDSCAPE ARCHITECTURE
GOLD COAST
 1638 Tweed Street, Burleigh Heads QLD 4220
 PO Box 3805, Burleigh Heads QLD 4220

GLADSTONE
 2/172 Gordon St, Gladstone, QLD 4680
 PO Box 5332, Gladstone QLD 4680

zonelandscape.com.au | 07 55622303

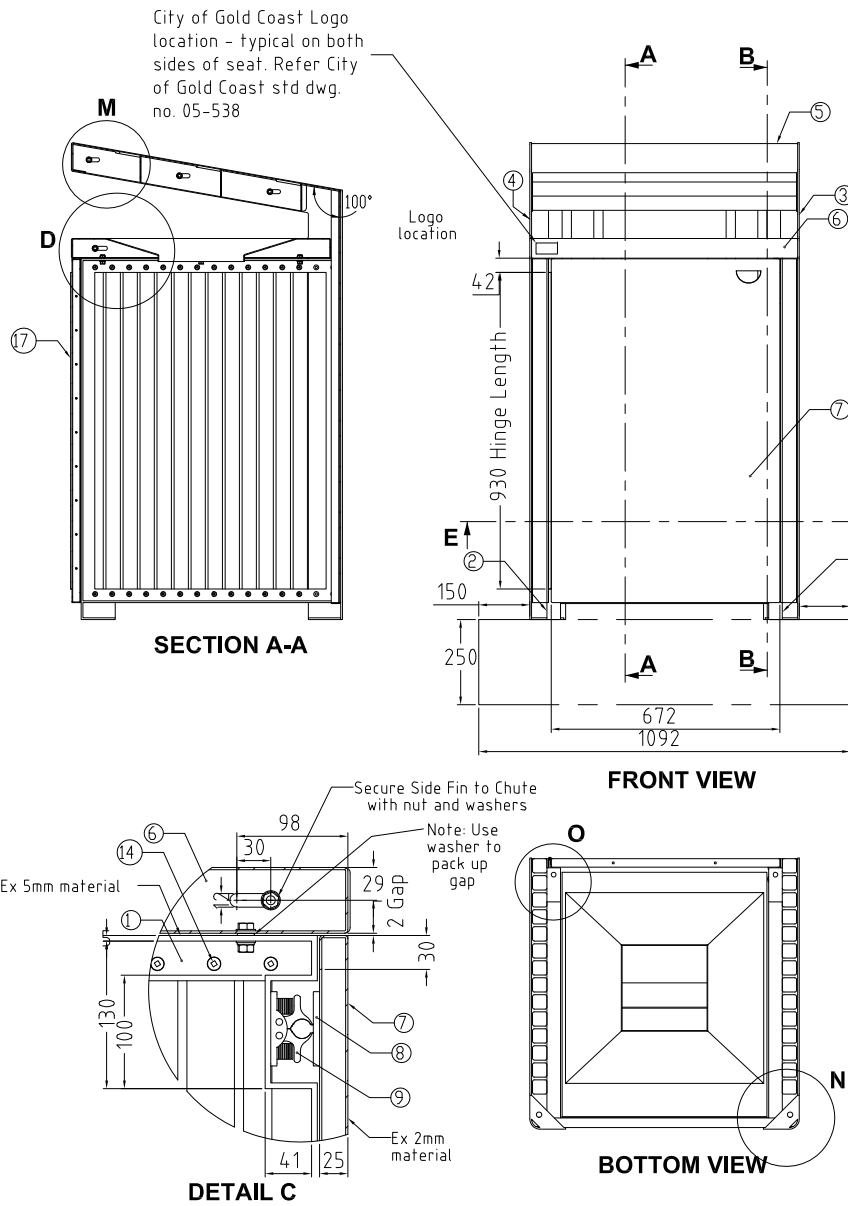
JOB / DRAWING NO:
L23108 - 500

SHEET NO.
22 OF 20

NOTE
THIS DRAWING HAS BEEN SOURCED
FROM HUBB STREET EQUIPMENT.
THIS DRAWING IS NOT DRAWN TO
CITY OF GOLD COAST STANDARD
T.P.R. GUIDELINES.

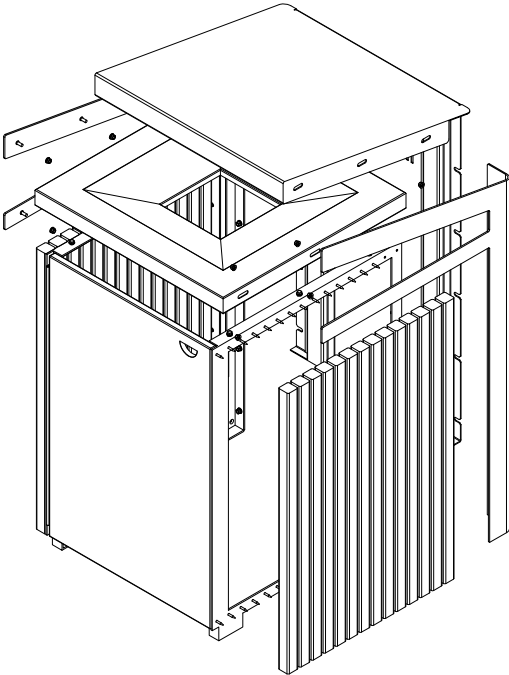
NOTE: SLAT ATTACHMENT
Use a jig or spacers to allow correct and even
spacing of the slats. Position slats and pilot (Ø3.5mm)
hole before securing with fasteners.

NOTE:
1. Always predrill Timber Slats before fastening.
2. Mount slats centre down.



PARTS LIST				
NO.	TITLE	MATERIAL	DRAWING #	QTY.
1	Right Frame	Mild Steel Hot Dipped Galvanised	-	1
2	Left Frame	Mild Steel Hot Dipped Galvanised	-	1
3	Right Fin	Mild Steel Hot Dipped Galvanised	-	1
4	Left Fin	Mild Steel Hot Dipped Galvanised	-	1
5	Rear Panel	Mild Steel Hot Dipped Galvanised	-	1
6	Chute	Mild Steel Hot Dipped Galvanised	-	1
7	Door	Mild Steel Hot Dipped Galvanised	-	1
8	Plastic Latch - Male	Nylon	-	1
9	Plastic Latch - Female	Nylon	-	1
10	M8 X 20 Hex Bolt	304 S/S	-	6
11	M8 Hex Nut	304 S/S	-	30
12	M8 Split Washer	304 S/S	-	43
13	M8 Flat Washer	304 S/S	-	36
14	14 guage x 32mm Pan Phillips Woodscrew	304 S/S	-	56
15	Rivet 5mm	304 S/S	-	9
16	Urban Slat	Plantation Hardwood	05-530	28
17	Windeyer 5015G18 Continuous Hinge	Galvabond	P/N: 5015G18	1

NOTE: For footing details. Refer to City of
Gold Coast std. dwg. no. 05-539.



Rivet hinge to door. Drill holes in hinge
to align with holes in door.

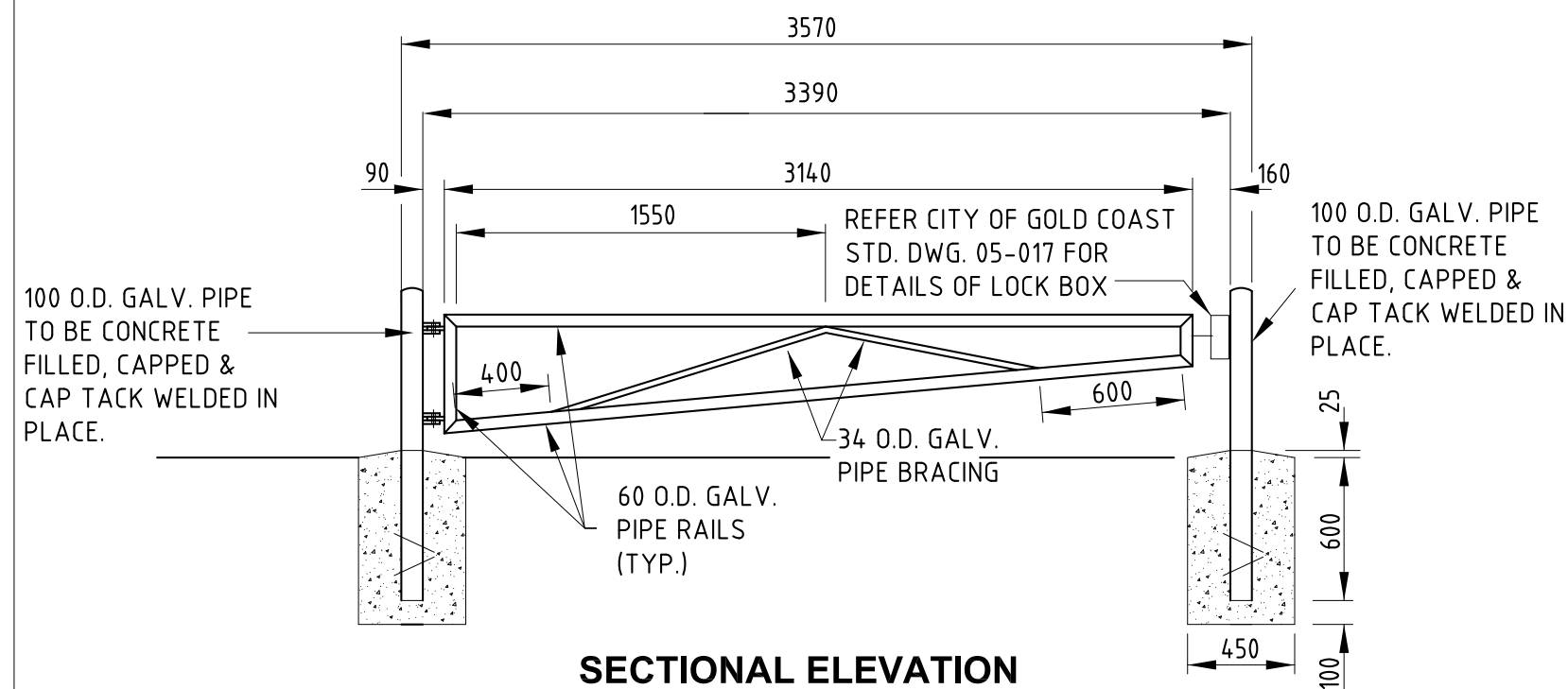
Drill and plug weld hinge to frame.
Cold Gal over welds. Notch hinge leaf
at slat fastener locations.

THIS DRAWING IS NOT TO BE AMENDED WITHOUT REFERENCE TO STANDARDS COMMITTEE				CONTROLLED DOCUMENT
No.	AMENDMENT	APPROVED	DATE	ISSUED

DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY	
DRAWN BY	CITY OF GOLD COAST
PASSED - COORDINATOR OPEN SPACE ASSETS	
NAME: CAMERON TAYLOR	17/10/13
APPROVED - MANAGER PARKS & RECREATIONAL SERVICES	
NAME: RON JACOBS	17/10/13

STANDARD DRAWING	
URBAN SUITE - 240L WHEELIE BIN ENCLOSURE	
THIS DRAWING HAS BEEN SOURCED FROM HUBB STREET EQUIPMENT DRAWING NUMBERS 7432.901 TO 7432.938	

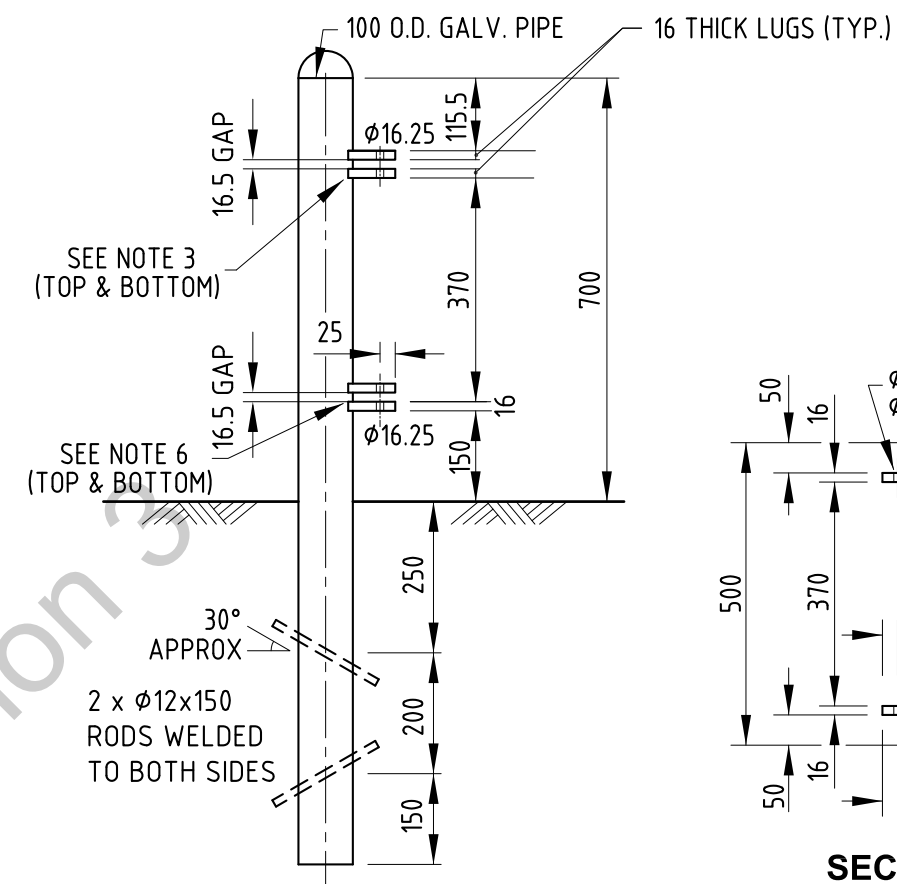
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ISSUE	2015 EDITION



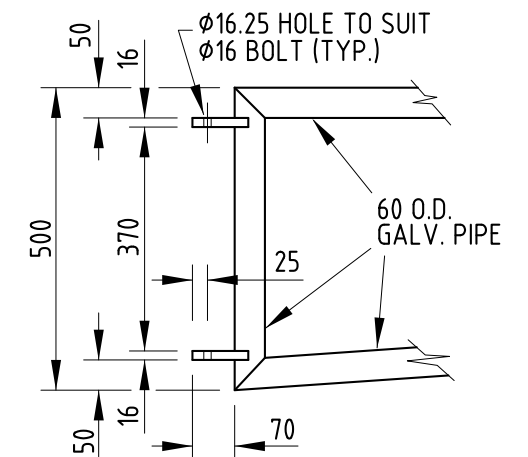
SECTIONAL ELEVATION

NOTES:

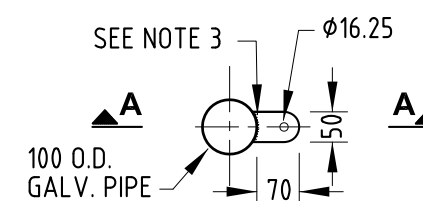
1. ALL CONCRETE TO BE GRADE N25.
2. GATE TO BE MOUNTED TO POST WITH TWO M16 GALVANISED STEEL BOLTS 75 LONG WITH THREAD DEFORMED BY TACK WELD TO SECURE NUT AFTER ERECTION.
3. HINGE LUGS TO BE 6 FILLET WELDED TO POST AND GATE PRIOR TO ERECTION.
4. ALL END AND MITRE JOINTS TO BE BUTT WELDED ALL AROUND.
5. ALL PIPES TO BE MEDIUM GAUGE HEAVY GALVANISED FINISHED WITH TWO COATS OF TWO PACK 125 MICRON MINIMUM TOTAL THICKNESS (eg WATTYL PARACRYL OR EQUIVALENT PROCESS). COLOUR TO MATCH COLORBOND "CAULFIELD GREEN".
6. ALL WELDS AND BARE METAL TO BE THOROUGHLY CLEANED AND PAINTED WITH COLD GALVANISING PRIMER PRIOR TO FINISH COAT.
7. ENSURE LOCK BOXES ARE LOCATED ON THE RIGHT HAND SIDE OF GATES WHEN HEADING DOWNHILL. THIS IS REQUIRED TO ALLOW THE DRIVER TO OPEN THE GATE WITHOUT BEING REQUIRED TO CROSS IN FRONT OF THE VEHICLE PARKED UPHILL.
8. DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.



SECTION A-A

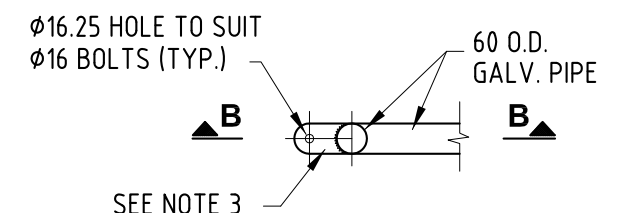


SECTION B-B



PLAN

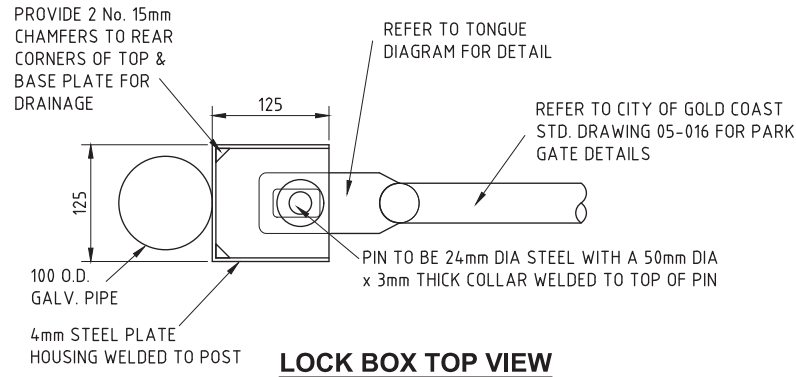
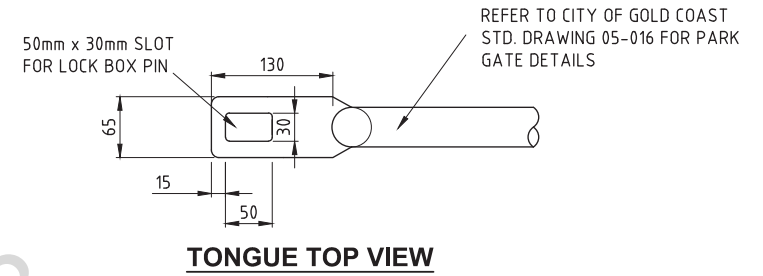
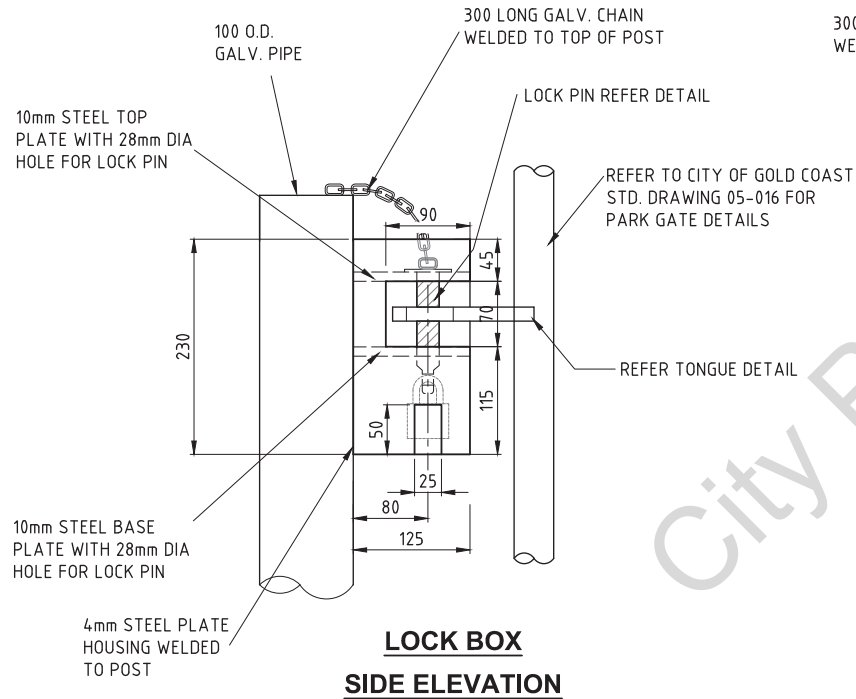
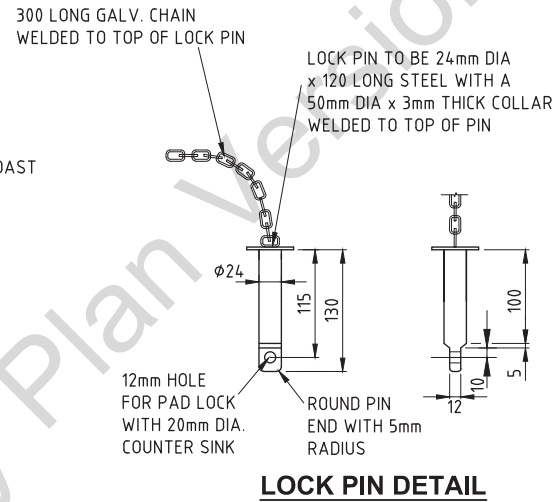
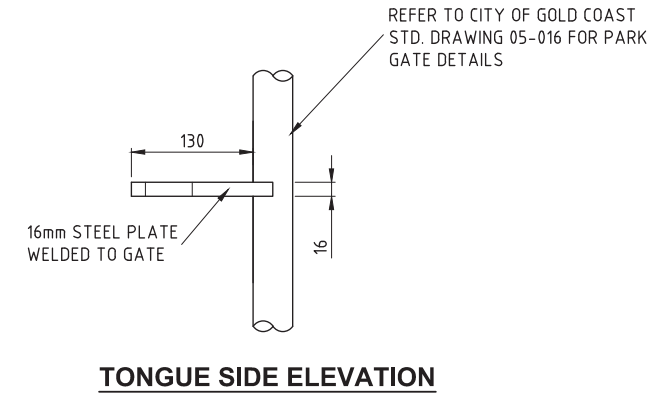
POST HINGE DETAILS



PLAN

GATE HINGE DETAILS

<div>CITY OF GOLDCOAST.</div> <div>City of Gold Coast PO Box 5042 Gold Coast MC 9729 P: 1300 GOLDCOAST</div>	THIS DRAWING IS NOT TO BE AMENDED WITHOUT REFERENCE TO STANDARDS COMMITTEE				CONTROLLED DOCUMENT	DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY		STANDARD DRAWING		
						DRAWN BY CITY OF GOLD COAST		PARK GATE		STANDARD DRAWING No. 05-016
						PASSED - COORDINATOR OPEN SPACE ASSETS				
						NAME: CAMERON TAYLOR 17/10/13				
						APPROVED - MANAGER PARKS & RECREATIONAL SERVICES				
	No.	AMENDMENT	APPROVED	DATE	ISSUED	NAME: RON JACOBS 17/10/13		2015 EDITION		



NOTES:

- WORKMANSHIP & MATERIALS TO BE IN ACCORDANCE WITH AS4100 & OTHER RELEVANT AUSTRALIAN STANDARDS.
- THE PIPE STEEL TO BE GRADE 350, ALL OTHER STEEL INCLUDING FLATS & PLATE TO BE AT LEAST GRADE 250.
- WELDING & PREPARATION TO BE IN ACCORDANCE WITH AS1554.1 CATEGORY SP GRADE E48XX & AS4100.
- ALL WELDING TO BE 6mm CONTINUOUS FILLET WELD.
- ALL WELDS TO BE WELL CLEANED & PAINTED IN ACCORDANCE WITH AS2312 CLAUSE 10.5.
- ALL POSTS TO BE SET VERTICALLY & ACCURATELY ALIGNED IN CONCRETE GRADE N25.
- ALL GALVANISING TO BE IN ACCORDANCE WITH AS/NZS 4680.
- DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.

**CITY OF
GOLDCOAST.**

City of Gold Coast
PO Box 5042
Gold Coast MC 9729
P: 1300 GOLDCOAST

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CONTROLLED
DOCUMENT

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CITY OF GOLD COAST

PASSED - COORDINATOR OPEN SPACE ASSETS

NAME: CAMERON TAYLOR 17/10/13

APPROVED - MANAGER PARKS & RECREATIONAL SERVICES

NAME: RON JACOBS 17/10/13

PARK GATE LOCK BOX

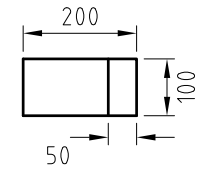
STANDARD
DRAWING No.

05-017 A

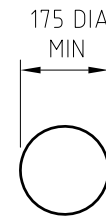
ISSUE

2015 EDITION

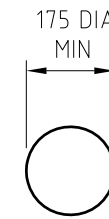
No.	AMENDMENT	APPROVED	DATE	ISSUED
A	DRAWING REVISED			



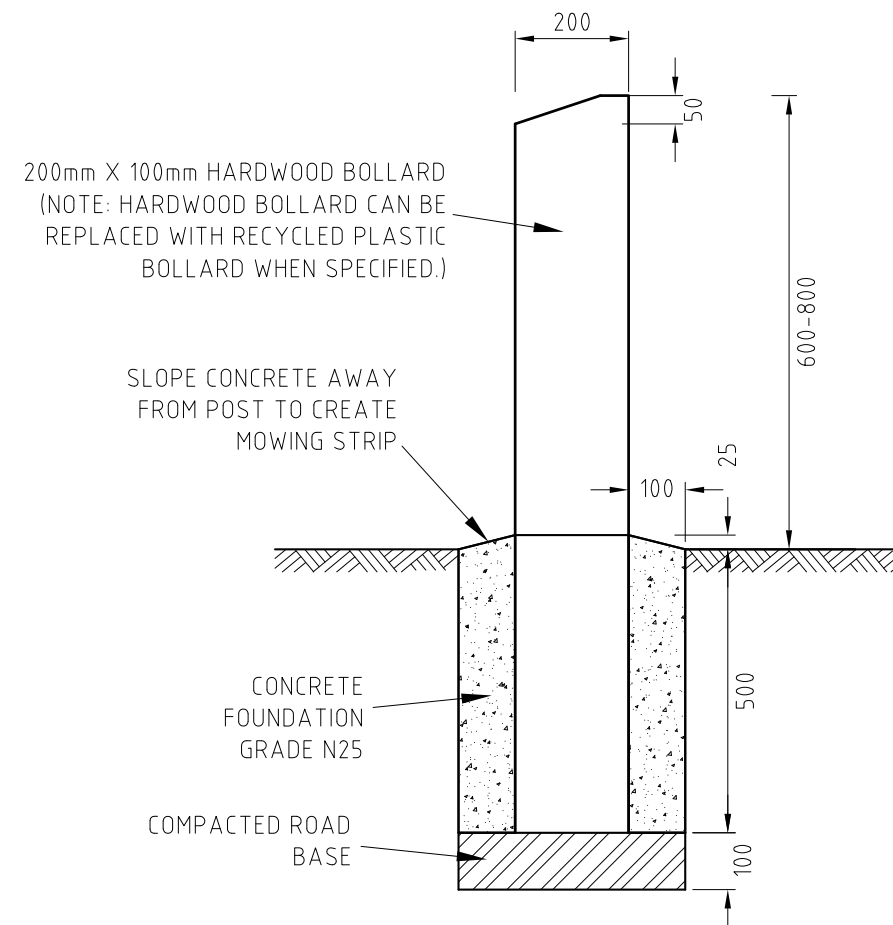
TOP VIEW



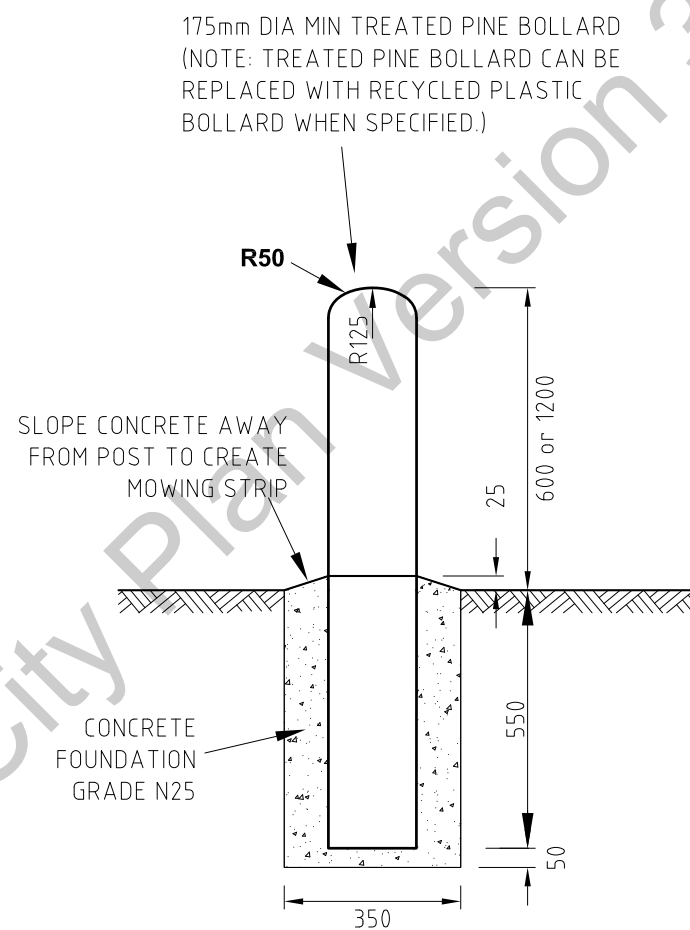
TOP VIEW



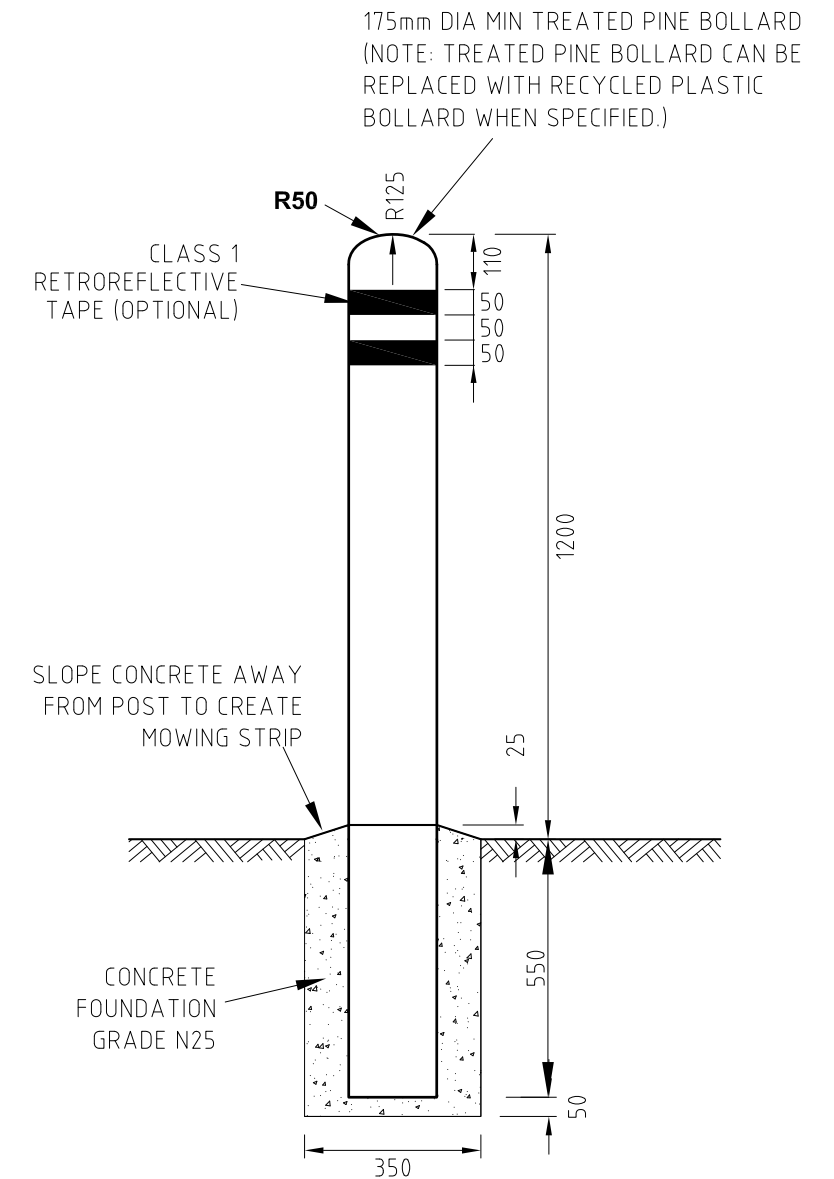
TOP VIEW



**BUSHLAND BOLLARD
TYPE 1**

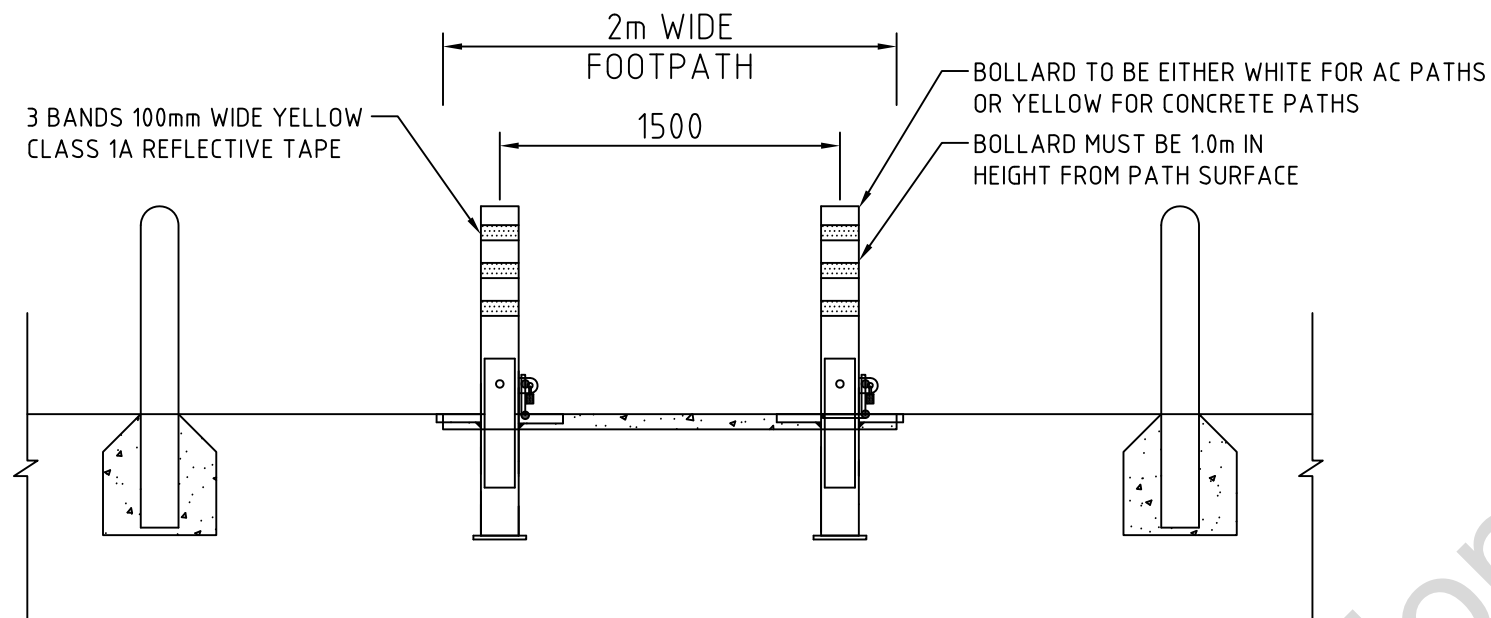


**PEDESTRIAN BOLLARD
TYPE 1**

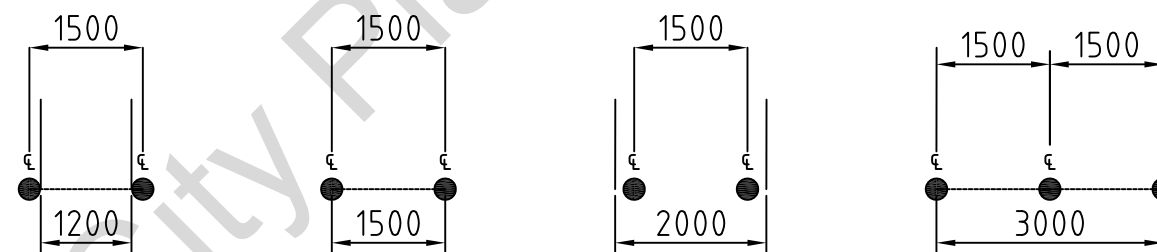


**PEDESTRIAN BOLLARD
TYPE 2**

<div>CITY OF GOLDCOAST.</div> <div>City of Gold Coast PO Box 5042 Gold Coast MC 9729 P: 1300 GOLDCOAST</div>	THIS DRAWING IS NOT TO BE AMENDED WITHOUT REFERENCE TO STANDARDS COMMITTEE				CONTROLLED DOCUMENT	DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY	STANDARD DRAWING	STANDARD DRAWING No. 05-716	
						DRAWN BY CITY OF GOLD COAST			BOLLARDS - TIMBER
						PASSED - COORDINATOR OPEN SPACE ASSETS			
						NAME: CAMERON TAYLOR 17/10/13			
						APPROVED - MANAGER PARKS & RECREATIONAL SERVICES			
	No.	AMENDMENT	APPROVED	DATE	ISSUED	NAME: RON JACOBS 17/10/13	ISSUE 2015 EDITION		



REMOVABLE STEEL BOLLARD - INSTALLATION ON PATHWAY



**REMOVABLE STEEL BOLLARD
SETOUT FOR PATHWAY INSTALLATION**

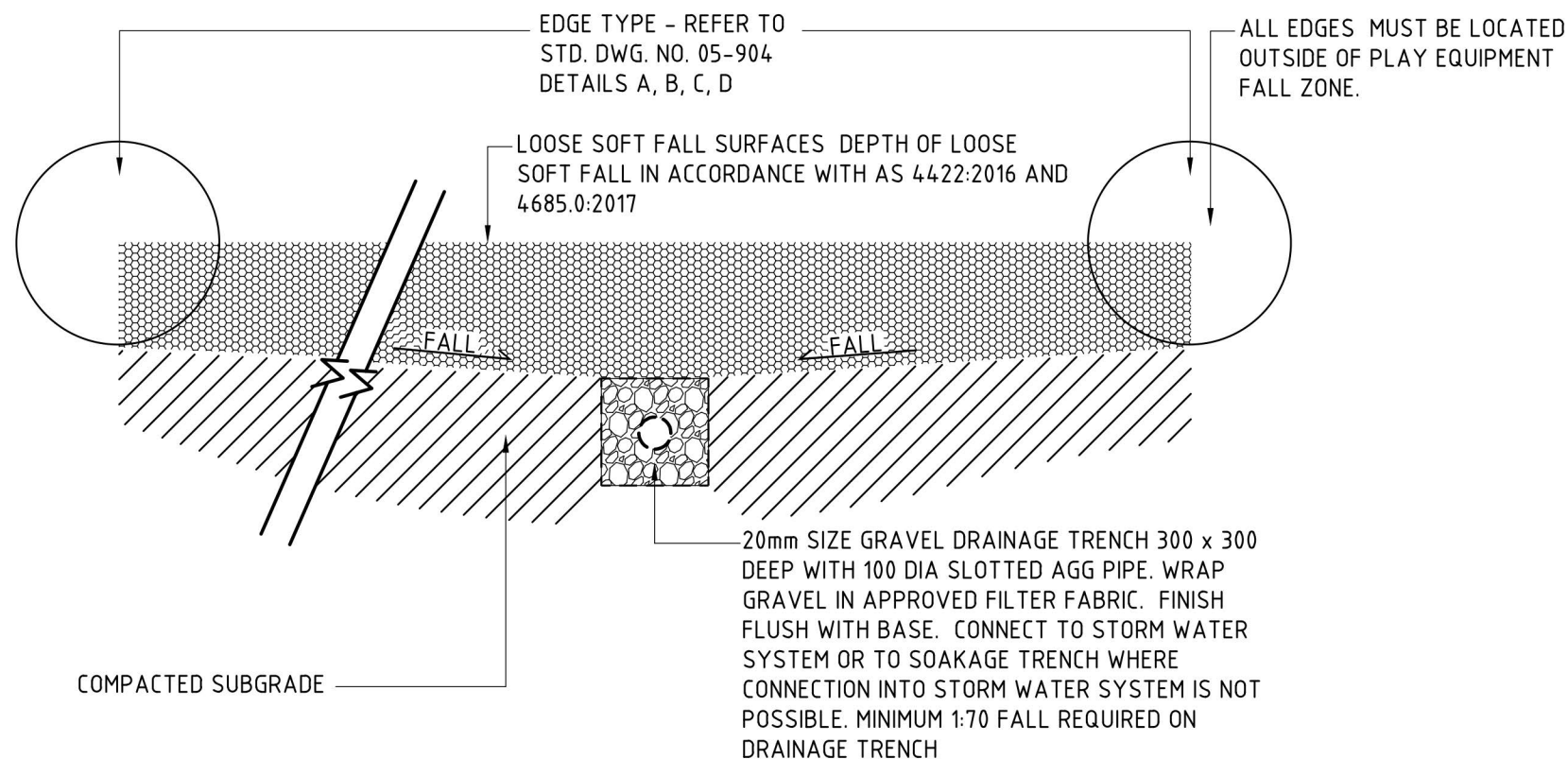
GENERAL NOTES

ENSURE BOLLARD MARKERS ARE LOCATED AND LANDSCAPED IN ACCORDANCE WITH DETAILED LANDSCAPE PLAN, AND SUBDIVISION AND DEVELOPMENT GUIDELINES.

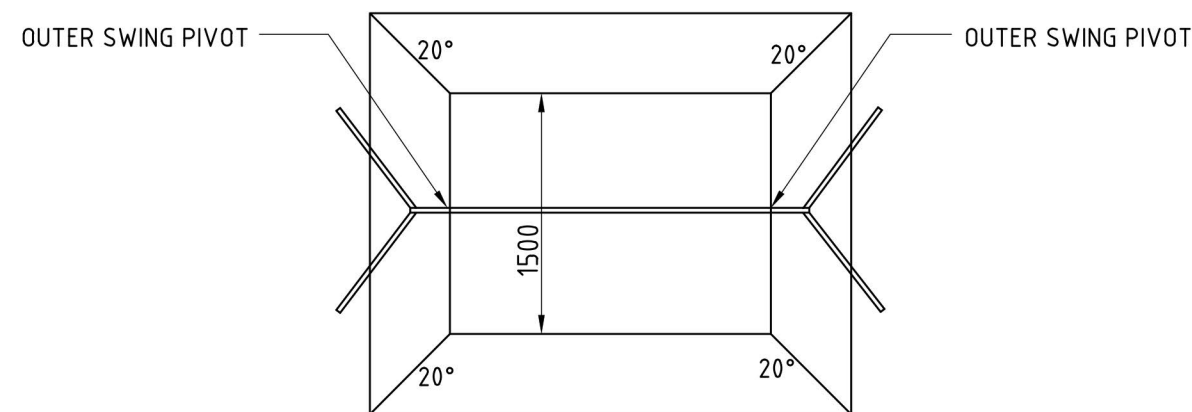
ENSURE BOLLARDS ARE CLEANED OF CONCRETE SLURRY OR SPRAY WHEN INSTALLED TO PREVENT STAINING OR DAMAGE TO APPLIED FINISHES.

ALL DIMENSIONS IN MILLIMETRES (U.N.O.).

<p>City of Gold Coast PO Box 5042 Gold Coast MC 9729 P: 1300 GOLDCOAST</p>	THIS DRAWING IS NOT TO BE AMENDED WITHOUT REFERENCE TO STANDARDS COMMITTEE				CONTROLLED DOCUMENT	DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY	<p>STANDARD DRAWING</p> <p>BOLLARDS INSTALLATION ON PATHWAY</p> <p>THIS DRAWING HAS BEEN SOURCED FROM BRISBANE CITY COUNCIL STANDARD DRAWINGS 2001 - SERIES 700 : PARKS</p>	STANDARD DRAWING No.
						DRAWN BY CITY OF GOLD COAST		05-023
						PASSED - COORDINATOR OPEN SPACE ASSETS		ISSUE 2015 EDITION
						NAME: CAMERON TAYLOR 17/10/13		
						APPROVED - MANAGER PARKS & RECREATIONAL SERVICES		
	No.	AMENDMENT	APPROVED	DATE	ISSUED	NAME: RON JACOBS 17/10/13		



A. LOOSE SOFT FALL - DRAINAGE - TYPICAL SECTION

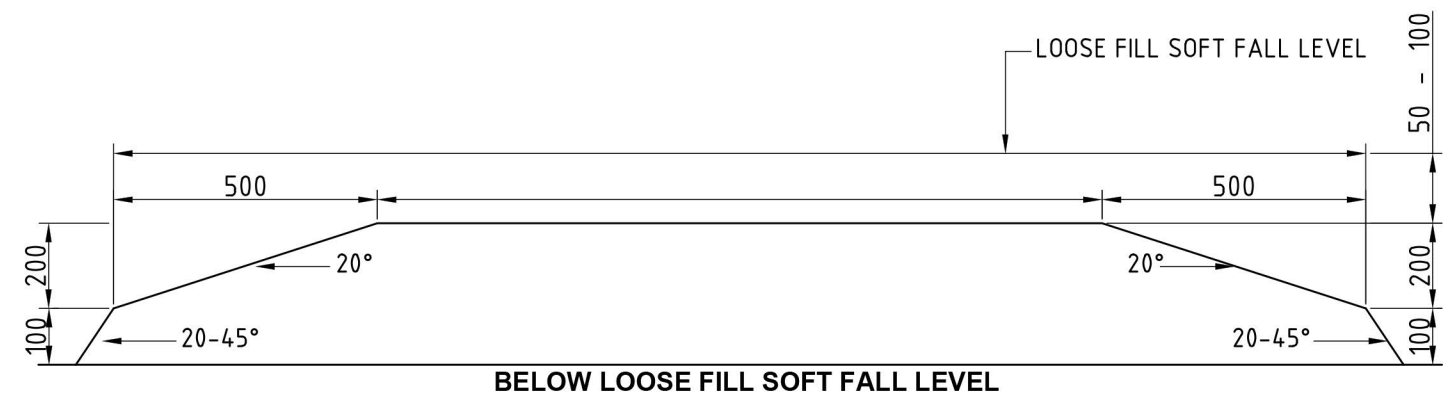


THE SWING PAD IS TO HAVE A MINIMUM FLAT SURFACE INLINE WITH OUTER SWING PIVOTS AND 1.5M FOR THE SWING DIRECTION. ALL GRADIENTS FROM THE FLAT SECTION OF RUBBER ARE TO BE APPROX. 20 DEGREES (MUST NOT EXCEED 25 DEGREES) TO A MIN. 200mm DEPTH. FINAL 100mm GRADIENT TO THE SUB BASE CAN BE 45 DEGREES. PLEASE NOTE CONTINUING DOWN TO THE SUB BASE FOR THE FINAL 100mm AT 20 DEGREES WILL ALSO BE ACCEPTED.

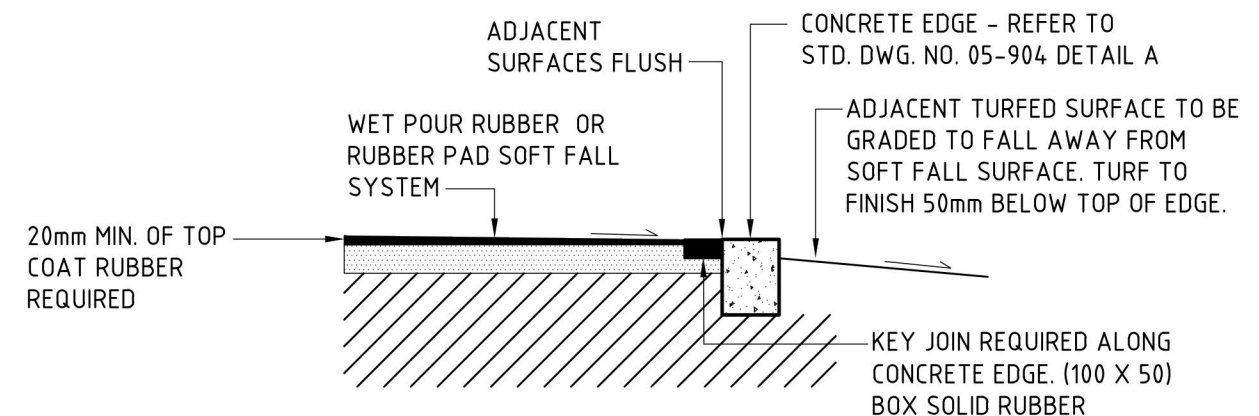
B. SWING SOFT FALL PAD

NOTES

1. THE EXTENT, DEPTH AND TYPE OF SOFT FALL MATERIAL MUST BE IN ACCORDANCE WITH AS 4422:2016 AND 4685.0:2017.
2. USE PLAY EQUIPMENT MANUFACTURER'S DATA FOR DETERMINING EXTENT OF FALL ZONES IN ACCORDANCE WITH AS4422:2016 AND AS4685 SERIES.
3. BASE OF FIRE POLES, CAROUSELS, SLIDES, SWINGS, AND ALL HEAVILY TRACKED AREAS MUST HAVE A WET POUR RUBBER SOFT FALL SURFACING OR RUBBER MAT SOFT FALL SURFACING APPLIED.
4. HIGH WEAR AREAS ARE TO HAVE A MINIMUM FLAT SECTION OF RUBBER UNDER THE FOLLOWING EQUIPMENT (FIREPOLE 500mm DIA., CAROUSEL 1m DIA. PAST EDGE OF CAROUSEL, SLIDE EXITS 500mm x 500mm).
5. ALL GRADIENTS FROM THE FLAT SECTION OF RUBBER ARE TO BE 20 DEGREES (MUST NOT EXCEED 25 DEGREES) ON EXPOSED EDGES. FOR EXAMPLE, RUBBER ANGLE CAN BE 45 DEGREES UNDER SLIDE, HOWEVER THE THREE OTHER EXPOSED SIDES WILL REQUIRE 20 DEGREES TO MEET THE GRADIENT REQUIREMENTS. FINAL 100mm GRADIENT TO THE SUB BASE CAN BE 45 DEGREES. PLEASE NOTE CONTINUING DOWN TO THE SUB BASE FOR THE FINAL 100mm AT 20 DEGREES WILL ALSO BE ACCEPTED.
6. PLEASE NOTE THE INFORMATION ON RUBBER PADS IS A GUIDE ONLY AND MAY BE ALTERED TO SUIT PLAYGROUND DESIGN. ANY CHANGES WILL NEED TO BE APPROVED BY A DELEGATED PARKS AND RECREATIONAL SERVICES OFFICER PRIOR TO PROCEEDING
7. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

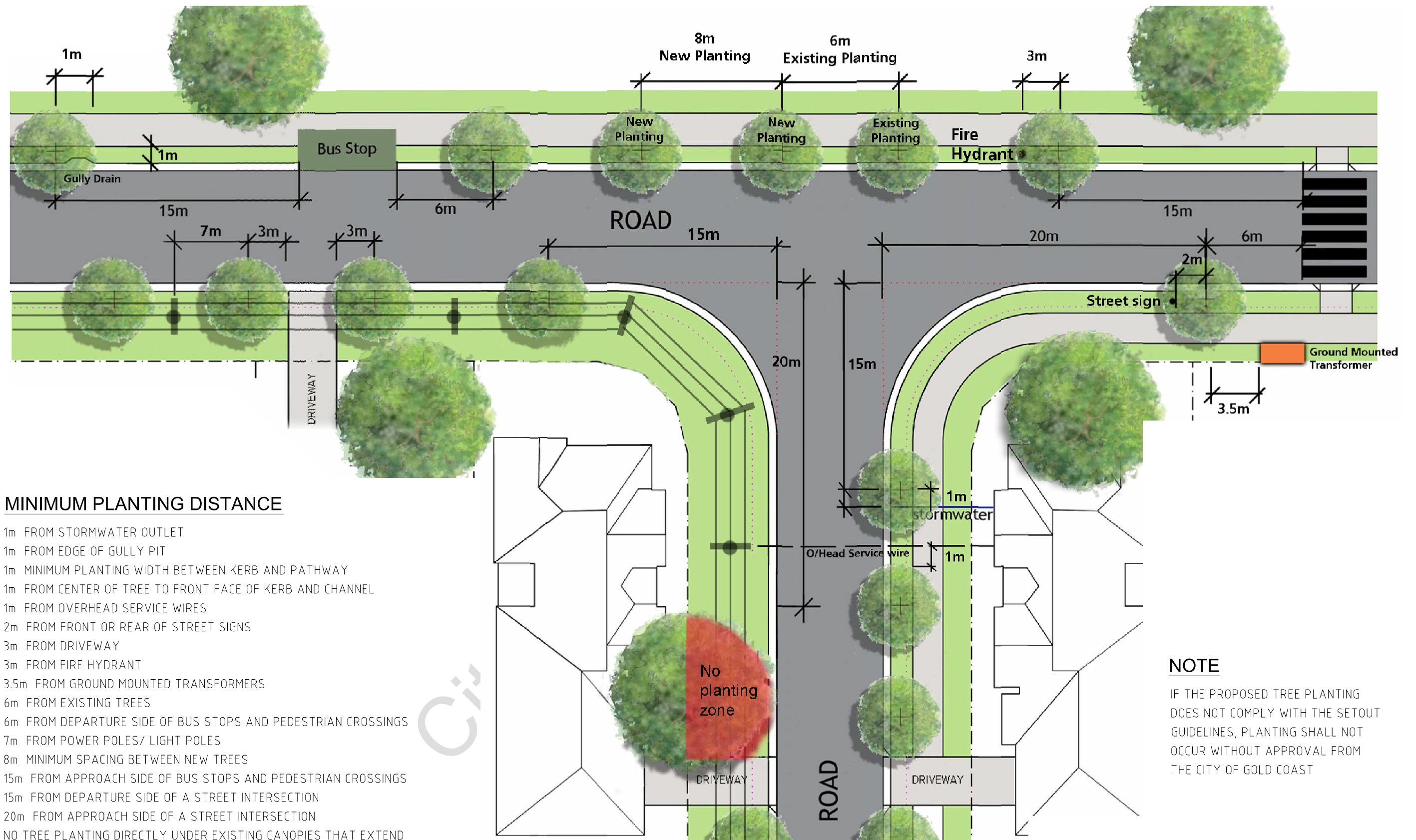


C. SOFT FALL PAD



D. WET POUR RUBBER / EDGE DETAIL

<div>CITY OF GOLDCOASTTM</div> <div>City of Gold Coast PO Box 5042 Gold Coast MC 9729 P: 1300 GOLDCOAST</div>	THIS DRAWING IS NOT TO BE AMENDED WITHOUT REFERENCE TO STANDARDS COMMITTEE				CONTROLLED DOCUMENT	DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY		STANDARD DRAWING		
						DRAWN BY CITY OF GOLD COAST		PLAYGROUNDS SOFT FALL DETAILS		STANDARD DRAWING No. 05-903
						PASSED - EXECUTIVE COORDINATOR PARKS				
						NAME: ROSS MACAULAY DATE: 28/06/22				
						APPROVED - MANAGER PARKS & RECREATIONAL SERVICES				
	1	GENERAL UPDATES	T.JERMYN	28/06/22		NAME: TONY JERMYN DATE: 28/06/22		ISSUE 2022 EDITION		
	No.	AMENDMENT	APPROVED	DATE	ISSUED					



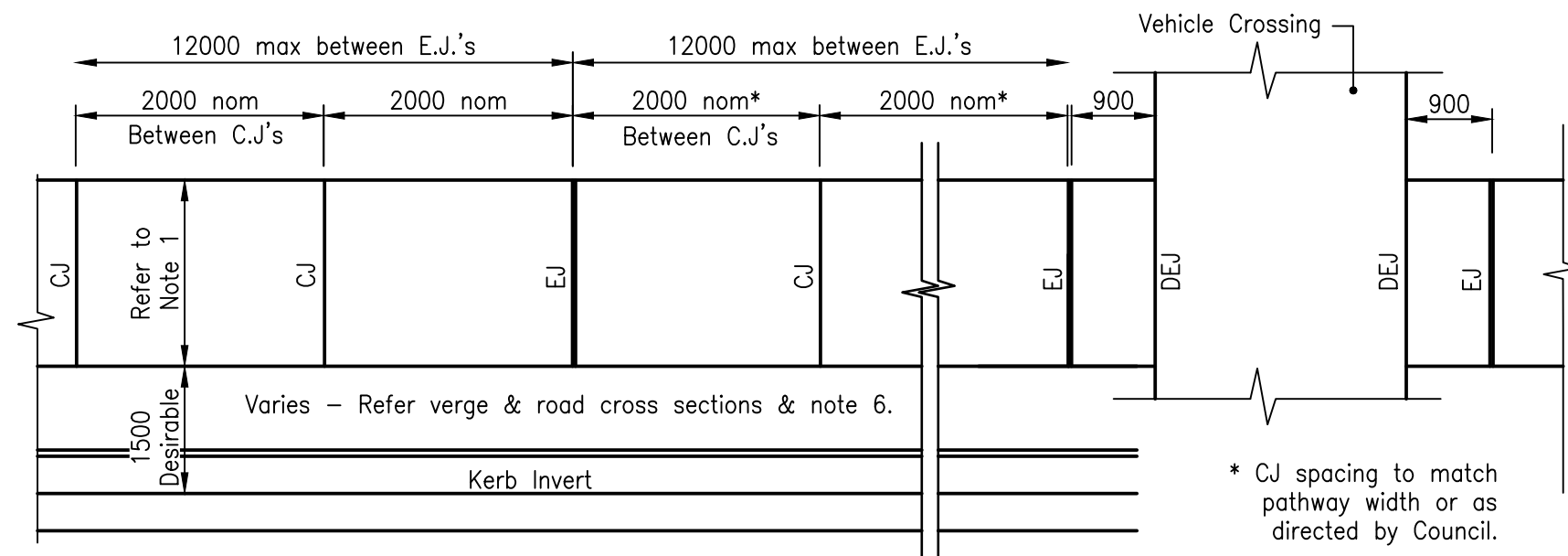
MINIMUM PLANTING DISTANCE

- 1m FROM STORMWATER OUTLET
- 1m FROM EDGE OF GULLY PIT
- 1m MINIMUM PLANTING WIDTH BETWEEN KERB AND PATHWAY
- 1m FROM CENTER OF TREE TO FRONT FACE OF KERB AND CHANNEL
- 1m FROM OVERHEAD SERVICE WIRES
- 2m FROM FRONT OR REAR OF STREET SIGNS
- 3m FROM DRIVEWAY
- 3m FROM FIRE HYDRANT
- 3.5m FROM GROUND MOUNTED TRANSFORMERS
- 6m FROM EXISTING TREES
- 6m FROM DEPARTURE SIDE OF BUS STOPS AND PEDESTRIAN CROSSINGS
- 7m FROM POWER POLES/ LIGHT POLES
- 8m MINIMUM SPACING BETWEEN NEW TREES
- 15m FROM APPROACH SIDE OF BUS STOPS AND PEDESTRIAN CROSSINGS
- 15m FROM DEPARTURE SIDE OF A STREET INTERSECTION
- 20m FROM APPROACH SIDE OF A STREET INTERSECTION
- NO TREE PLANTING DIRECTLY UNDER EXISTING CANOPIES THAT EXTEND TO AND BEYOND THE KERB AND CHANNEL

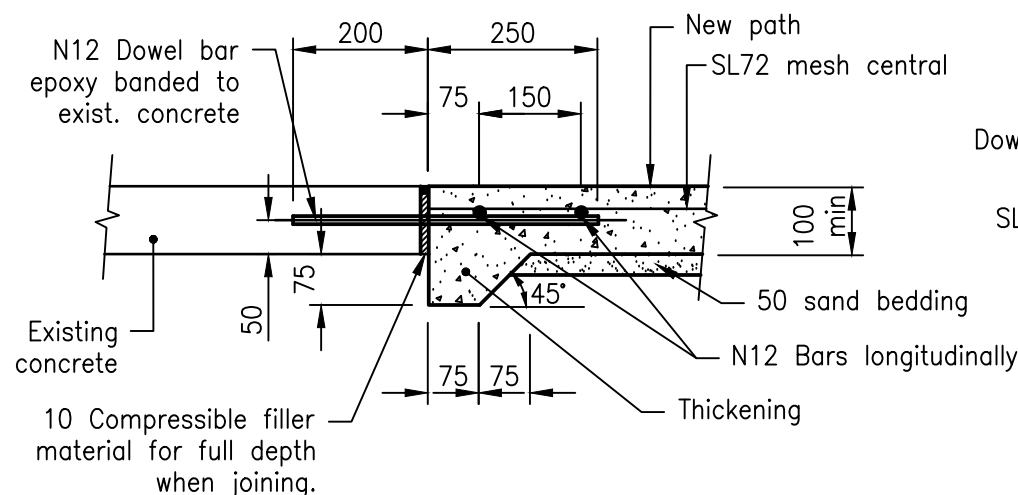
NOTE

IF THE PROPOSED TREE PLANTING DOES NOT COMPLY WITH THE SETOUT GUIDELINES, PLANTING SHALL NOT OCCUR WITHOUT APPROVAL FROM THE CITY OF GOLD COAST

<div>CITY OF GOLDCOAST[®]</div> <div>City of Gold Coast PO Box 5042 Gold Coast MC 9729 P: 1300 GOLDCOAST</div>	THIS DRAWING IS NOT TO BE AMENDED WITHOUT REFERENCE TO STANDARDS COMMITTEE				CONTROLLED DOCUMENT	DO NOT SCALE TAKE FIGURED DIMENSIONS ONLY	STANDARD DRAWING	
						DRAWN BY CITY OF GOLD COAST	STREET TREE PLANTING SETOUT GUIDELINES FOR ROADWORKS	STANDARD DRAWING No. 05-103
						PASSED - COORDINATOR OPEN SPACE ASSETS		
						NAME: CAMERON TAYLOR 17/10/13		
						APPROVED - MANAGER PARKS & RECREATIONAL SERVICES		
						NAME: RON JACOBS 17/10/13		
	No.	AMENDMENT	APPROVED	DATE	ISSUED			ISSUE 2015 EDITION

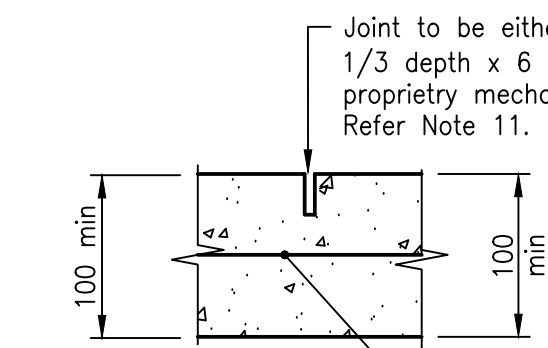


CONCRETE PATHWAYS - PART PLAN



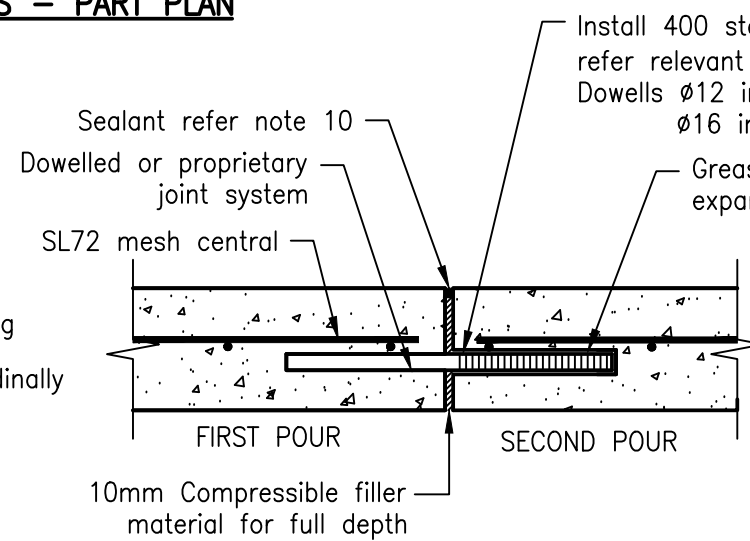
Dowel bars to be placed along the pathway midway between joints at 2000 crs, or as directed by the relevant Council

PATHWAY WIDENING/JOINING (minimum widening 800)

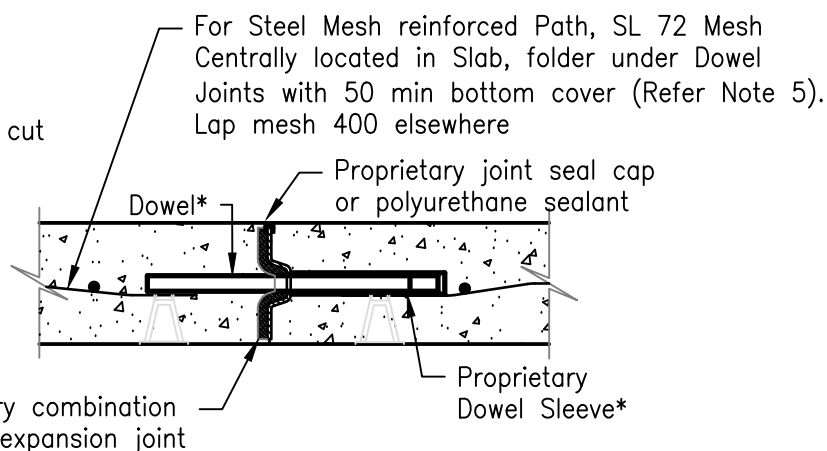


CONTROL JOINT (CJ) Shown C.J. on plans

SL72 mesh central. Cut every second wire and depress reinforcing to maintain cover.

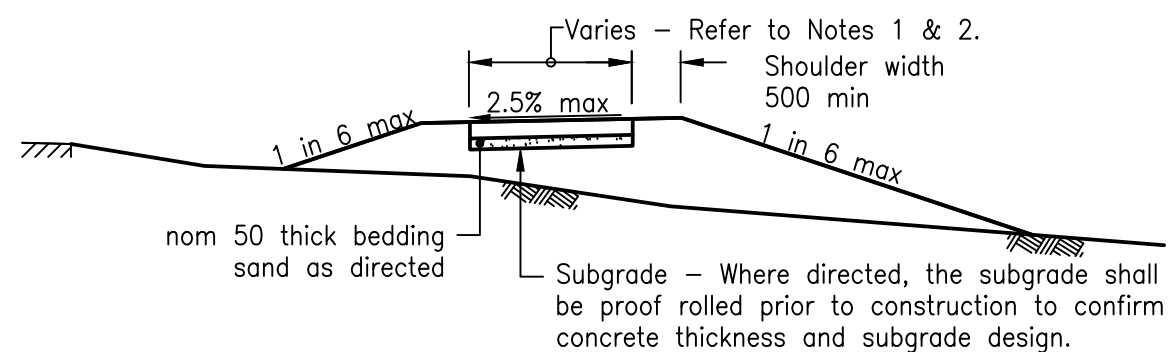


DOWELLED EXPANSION JOINT DETAIL (DEJ)



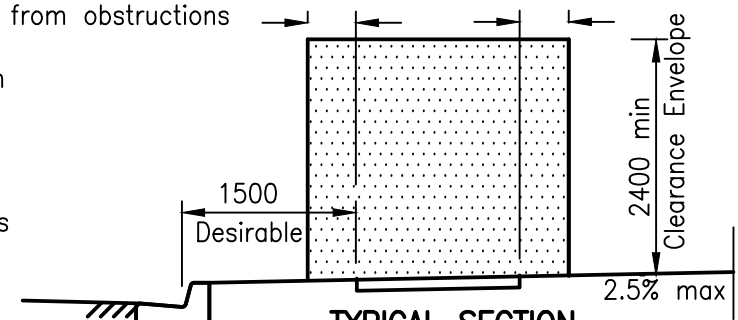
* Dowel maybe eliminated for mass concrete paths

DETAIL 'A' PREFORMED KEY JOINT WITH DOWEL

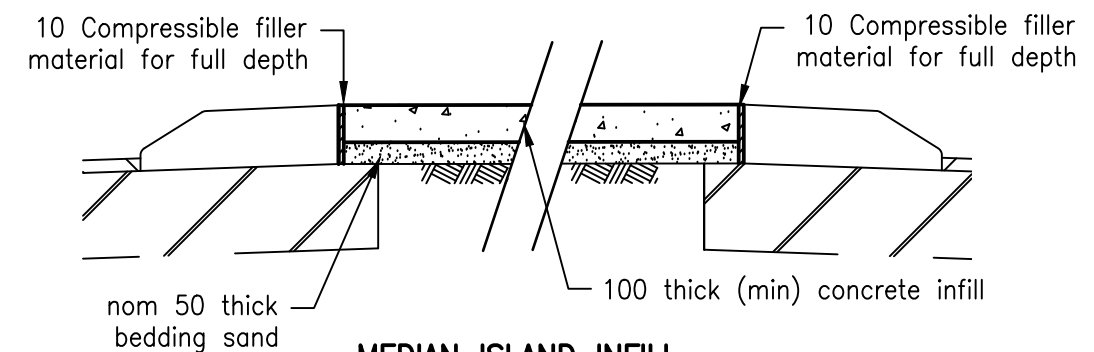


TYPICAL SECTION (Where no kerb & channel exist)

Lateral clearance from obstructions preferred 1000 absolute 500 min



TYPICAL SECTION (Where kerb & channel exists)



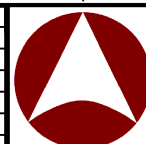
MEDIAN ISLAND INFILL

NOTES:

1. Refer to relevant Council requirements for pathway width, dimensions and concrete colour.
2. Concrete to be grade N32 AS 1379 and AS 3600 unless approved otherwise.
3. Reinforcing requirements may be amended on written instructions from Council.
4. Fibre reinforcement - When approved for use by the relevant Council, the concrete shall be reinforced with Class 2 macro structural synthetic polymer fibres in accordance with the manufactures specification for the specified design load.
5. For steel mesh reinforced paths at dowelled expansion joints: Mesh is to be stopped 75 from the joint, be placed under the dowels and chaired at min 50 cover from bottom to deter the mesh deflection interfering with the Dowels.
6. Pathway surface finish to comply with Notes 16, 17 and 30 on Standard Drawing RS-050.
7. The dimension between kerb invert and edge of pathway may be varied subject to relevant council approval. For appropriate treatment of grades greater than 1 in 8 (12.5%), refer to AS 1428, Design for access & mobility.
8. Where a vehicle crossing point, or path is subject to longitudinal traffic the pathway details shall be per relevant residential driveway standard details RS-050.
9. Additional path details shall be as per Austroads Guidelines.
10. Expansion joints to be sealed with a low modulus self priming sealant to the manufacturers specifications. The colour of the sealant is to match the adjoining surface finish.
11. Saw cut joints are to be undertaken between 4 to 12 hours after laying depending on conditions. Joint sealant is required in sandy areas.
12. All dimensions are in millimetres unless shown otherwise.

These drawings have been developed in consultation between the participating Councils.
BEFORE USE, the user shall confirm that the drawing has been adopted by the relevant Council.

I	10/17	Review
H	06/16	Review
G	06/14	Review
F	03/14	Amended Drawing Number
E	12/11	Drawing Number changed from SEQ R-065 to RS-065
D	06/11	Review
Rv.	DATE	REVISIONS
		09/08 ORIGINAL ISSUE



INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA
STANDARD DRAWINGS

PATHWAYS
CONCRETE PATHWAY
CONSTRUCTION DETAILS

RS-065

I	10/17	Review
H	06/16	Review
G	06/14	Review
F	03/14	Amended Drawing Number
E	12/11	Drawing Number changed from SEQ R-065 to RS-065
D	06/11	Review
Rv.	DATE	REVISIONS
		09/08 ORIGINAL ISSUE

APPROVED REHABILITATION
MANAGEMENT PLAN EMP/2023/84

REHABILITATION MANAGEMENT PLAN

79-99 COURTNEY DRIVE, UPPER COOMERA

Revision: A
12 APRIL 2023

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ABN: 86 166 087 476



Project: BC-22178

HB LAND



SCHEDULE OF DRAWINGS

Drawing No.	Drawing Title
RMP-01	Rehabilitation Strategy
RMP-02	Stage 1 Rehabilitation
RMP-03	Stage 3 Rehabilitation
RMP-04	Stage 4 Rehabilitation
RMP-05	Planting Palettes
RMP-06	Rehabilitation Procedures
RMP-07	Weed Control
RMP-08	Management and Monitoring

REHABILITATION STRATEGY

This Rehabilitation Management Plan (RMP) has been prepared to set out the rehabilitation approach on the subject site, located at 79-99 Courtney Drive, Upper Coomera.

REHABILITATION OBJECTIVES

The fundamental rehabilitation objective is to assist in the recovery of an ecosystem that has been degraded, damaged, or destroyed. The key aspect of ecological restoration is to return the structure and function of an area to a self-sustaining state and reduce human-directed activity over time.

The specific objective of this RMP is to recreate pre-clearing vegetation communit es and establish a functioning riparian zone adjacent to Yaun Creek in the north of the site and the fabricated waterway in the south.

REHABILITATION APPROACHES

The South East Queensland Restoration Framework Manual identifes four ecological restoration approaches:

- 1. Natural regeneration;
- 2. Assisted natural regeneration;
- 3. Reconstruction; and
- 4. Fabrication.

The approach employed is dependent upon the level of land degradation.

Natural Regeneration

This approach is appropriate where the ecosystem has low levels of degradation and there is evidence of seedling recruitment. Minimal intervention is required.

Assisted Natural Regeneration

Assisted natural regeneration is appropriate where the native plant community is largely healthy and functioning and there is evidence of high ecosystem resilience (e.g., native seedling recruitment). Areas subject to assisted natural regeneration are expected to recover with limited intervention. The primary rehabilitation activity is targeted weed control, although some supplementary planting may be necessary in disturbed areas. The control of weeds is intended to facilitate the re-establishment of endemic species via the seed bank or by other natural seed dispersal vectors.

Reconstruction

Reconstruction of vegetation communities is necessary where the site is highly degraded or altered and has poor regeneration capacity (resilience). Suitable species will be planted at a density which, when established, will provide the necessary structure and seed bank to enable successful ongoing rehabilitation.

Fabrication

Where significant reprofiling of the land’s relief is undertaken, subsequent planting is prescribed to achieve the purposes of the modified area.

For this site, all four approaches are required to achieve the rehabilitation objectives.

REHABILITATION AREAS

Rehabilitation will be undertaken in the environmental areas of the development. This will involve the establishment of a functional riparian zone adjacent to Yaun Creek in the north of the site, facilitating natural regeneration within areas of remnant vegetation in the south, and fabricating a waterway.

Rehabilitation to be undertaken, as detailed in this plan, is specific to each development stage.



DATE :
12.04.2023

PROJECT No.:
BC-22178

DRAWING No.:
RMP-01

REVISION No.:
A

PROJECT :
REHABILITATION MANAGEMENT PLAN

DRAWING TITLE :
REHABILITATION AREAS

CLIENT :
HB LAND

ADDRESS :
79-99 COURTNEY DRIVE, UPPER COOMERA

DRAFTED BY : NL	DESIGNED BY : NL	CHECKED BY : BC	PAPER SIZE : A3	SCALE : 1:4000
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APPROVED FOR AND ON BEHALF OF BIOME CONSULTING PTY LTD
ACN 166 087 476

REV.	DESCRIPTION	APPR.	DATE
A	ORIGINAL ISSUE		

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WATER AND ENVIRONMENTAL CONSULTING

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ORIGINAL SCALE BEFORE REDUCTION

0 5 10 15 20

1:4000 (AT A3) (meters)

STAGE 1

The Stage 1 rehabilitation area comprises three zones based on the level of land disturbance and intended management.

ZONE A

This zone comprises native woodland, broadly consistent with regional ecosystems 12.11.5 and 12.11.24. Dominant tree species include Eucalyptus siderophloia (Grey Ironbark), E. crebra (Narrow-leaved Ironbark), E. propinqua (Small-fruited Grey Gum), Corymbia intermedia (Pink Bloodwood), and Lophostemon confertus (Brush Box).

There is evidence of seedling recruitment and relatively minor weed incursion, which is most prominent at the margins of the vegetation. Assisted natural regeneration is proposed for this zone, with a focus on the control of exotic species. Only where there are canopy gaps of greater than 5 sq. m. should infill planting be undertaken.

ZONE B

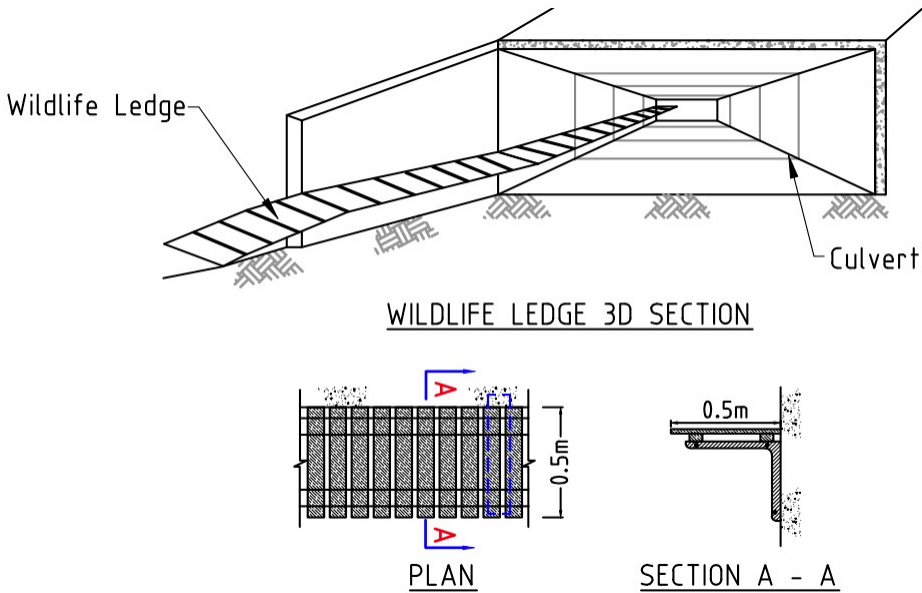
This zone will be substantially disturbed by earthworks and will require fabrication to restore native vegetation. Plants used in the restoration of this zone will be taken from Planting Palette PP-1 and established at a density of one plant per two square metres (as per Planting Module PM-1).

ZONE C

This zone comprises a bushfire setback. It will be maintained as grass or low ground cover as per the approved Bushfire Management Plan.

FAUNA UNDERPASS

The drainage line that traverses the Stage 1 rehabilitation area will be directed under the road via a culvert. To maintain safe movement linkages for wildlife, the culvert will be fitted with a ledge to enable dry passage for wildlife.



REHABILITATION SUMMARY

ZONE	AREA (sq. m)	STRATEGY	PALETTE	MODULE	COMMENTS
A	2,520	Assisted natural regeneration	PP-1	PM-1	Weed control is the focus of rehabilitation in this zone. Infill plant only where there are canopy gaps greater than five square metres
B	1,740	Reconstruction	PP-1	PM-1	Overall density of one plant per two square metres to be achieved
C	560	-	-	-	To be maintained as a bushfire setback as per the approved bushfire management plan

DATE : 12.04.2023

PROJECT No.: BC-22178

DRAWING No.: RMP-02

REVISION No.: A

PROJECT : REHABILITATION MANAGEMENT PLAN

DRAWING TITLE : STAGE 1 REHABILITATION

CLIENT : HB LAND

ADDRESS : 79-99 COURTNEY DRIVE, UPPER COOMERA

DRAFTED BY : NL	DESIGNED BY : NL	CHECKED BY : BC	PAPER SIZE : A3	SCALE : 1:1500
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REV.	DESCRIPTION	APPR.	DATE
A	ORIGINAL ISSUE		

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M 0415 935 222
E brad@BIOMEconsulting.com.au
ABN 86 166 087 476

ORIGINAL SCALE BEFORE REDUCTION

0 25 50 75 m

1:1500 (AT A3) (meters)

STAGE 3

The Stage 3 rehabilitation area comprises three zones based on the level of land disturbance and intended management.

ZONE A

This zone comprises native woodland, broadly consistent with regional ecosystems 12.11.5 and 12.11.24. Dominant tree species include *Corymbia citriodora* (Spotted Gum), *Eucalyptus siderophloia* (Grey Ironbark), *E. propinqua* (Small-fruited Grey Gum), *E. tereticornis* (Forest Red Gum), *Lophostemon confertus* (Brush Box) and *Allocasuarina littoralis* (Forest She-oak). There is evidence of seedling recruitment and minor weed incursion, most notably of *Lantana camara* (Lantana).

Assisted natural regeneration is proposed for this zone, with a focus on the control of exotic species. Only where there are canopy gaps of greater than 5 sq. m. should infill planting be undertaken.

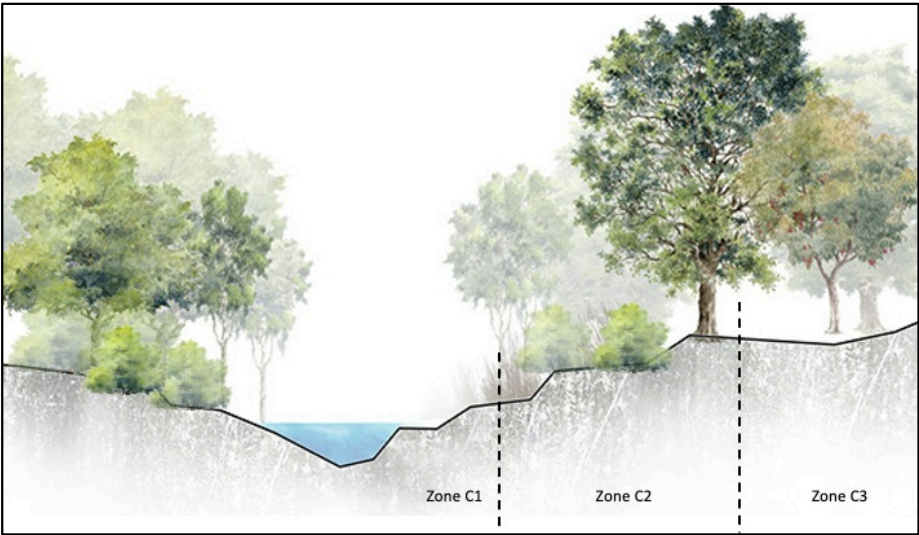
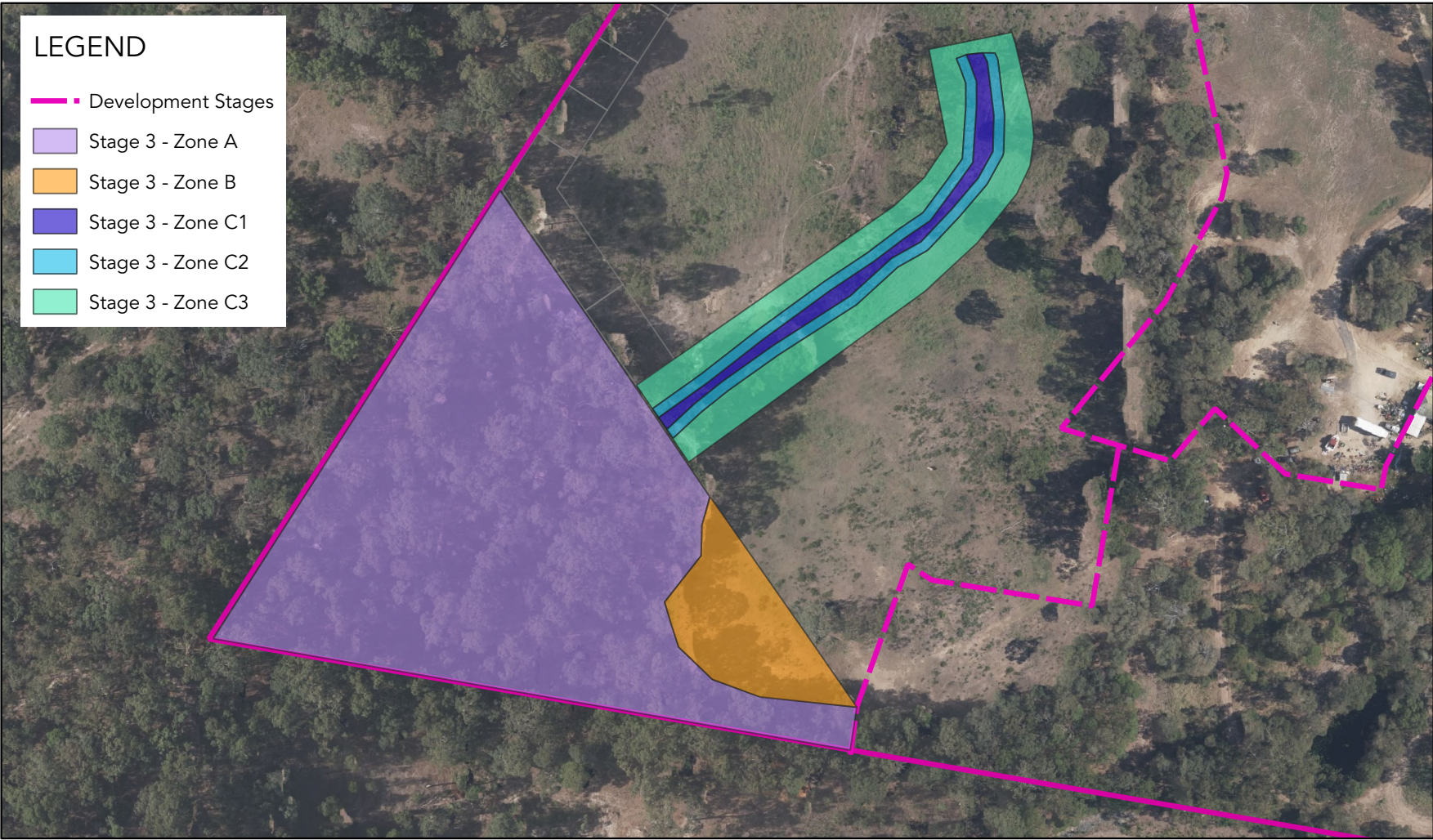
ZONE B

This zone has been substantially cleared of native woody vegetation and will require restoration. Plants used in the restoration of this zone will be taken from Planting Palette PP-1 and established at a density of one plant per two square metres (as per Planting Module PM-1).

ZONE C

This zone comprises a fabricated waterway. The aim is to emulate a natural waterway while allowing for hydraulic conveyance. A depositional chain-of-ponds will be created (Zone C1); relatively deep ponds separated by bars of sediment stabilised with vegetation. The bars will be created from low earthen or rock weirs that are well vegetated to prevent erosion. In addition to providing habitat for a variety of species, the ponds help slow the velocity of the water and allow sediment to be deposited. A bar is to be constructed every 20-30 m along the length of the waterway. The waterway will be directed under the road via a culvert and connect to the stormwater detention basin constructed as part of Stage 2.

Zone C2 will form the margins of the waterway and are to be planted with vegetation suitable for riparian environments. Further upslope from the waterway is Zone C3 which will be planted with taller species to provide bank stability and shading.



REHABILITATION SUMMARY

ZONE	AREA (sq. m)	STRATEGY	PALETTE	MODULE	COMMENTS
A	12,100	Assisted natural regeneration	PP-1	-	Weed control is the focus of rehabilitation in this zone. Infill plant only where there are canopy gaps greater than five square metres
B	1,430	Reconstruction	PP-1	PM-1	Overall density of one plant per two square metres to be achieved
C1	525	Fabrication	PP-2	PM-2	Chain of pond created by constructing earthen and rock bars. Margins are densely planted with reeds and semi-aquatic species
C2	890	Fabrication	PP-3	PM-3	Margins of the waterway to be planted with species that are suited to riparian environments
C3	2,415	Fabrication	PP-1	PM-1	Further upslope from the waterway, vegetation is to be established that is consistent with regional ecosystems 12.11.5 and 12.11.24

DATE :
12.04.2023

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BC-22178

DRAWING No.:
RMP-03

REVISION No.:
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PROJECT :
REHABILITATION MANAGEMENT PLAN

DRAWING TITLE :
STAGE 3 REHABILITATION

CLIENT :
HB LAND

ADDRESS :
79-99 COURTNEY DRIVE, UPPER COOMERA

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ORIGINAL SCALE BEFORE REDUCTION
0 25 50 75 m
1:1750 (AT A3) (meters)

STAGE 4

The Stage 4 rehabilitation area comprises three zones based on the level of land disturbance and intended management.

ZONE A

This zone comprises retained native woodland, including several habitat trees.

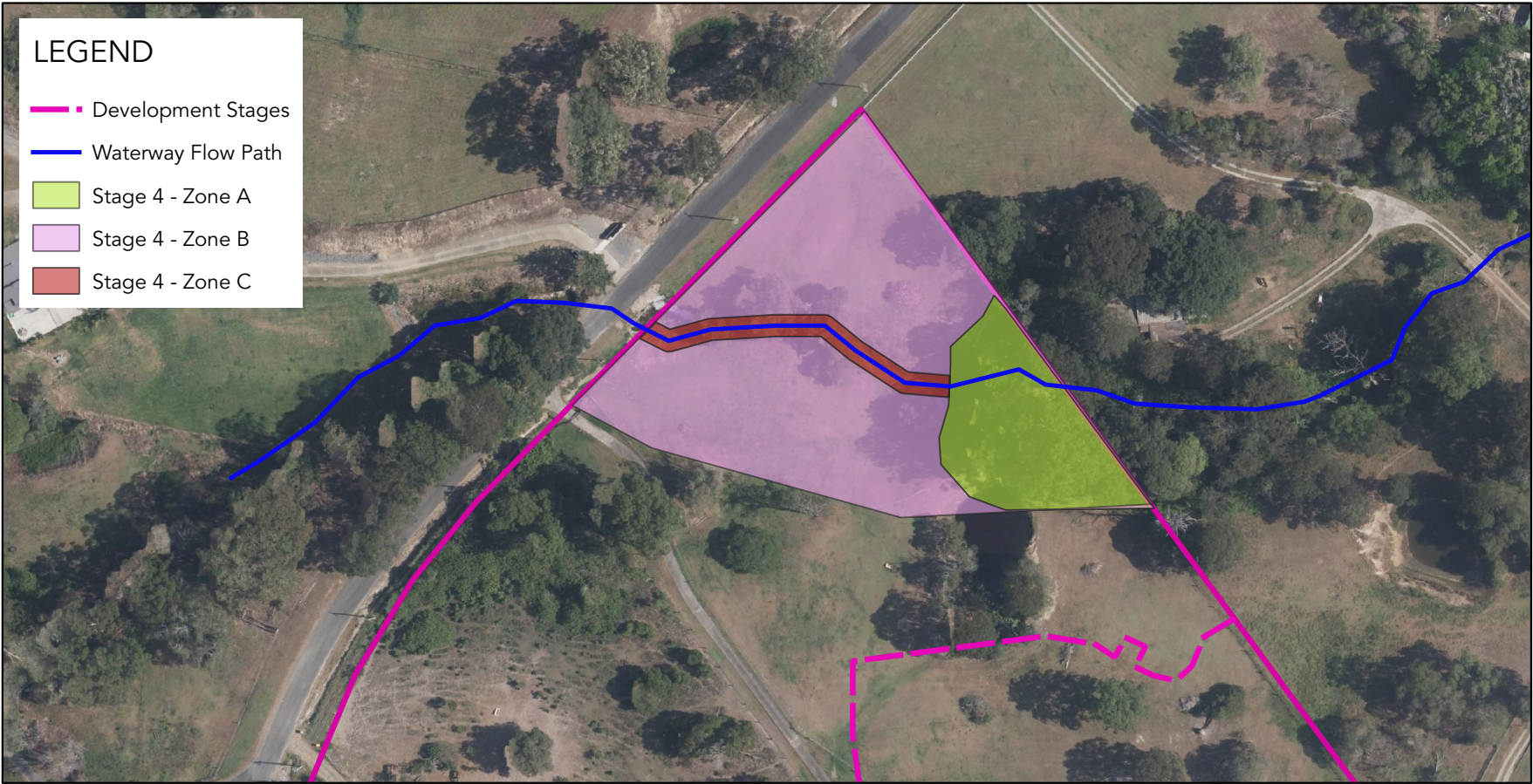
There is some evidence of seedling recruitment and relatively minor weed incursion, which is most prominent at the margins of the vegetation. Assisted natural regeneration is proposed for this zone, with a focus on the control of exotic species. Only where there are canopy gaps of greater than 5 sq. m. should infill planting be undertaken.

ZONE B

This zone is largely cleared and will require reconstruction to restore native vegetation. Plants used in the restoration of this zone will be taken from Planting Palette PP-1 and established at a density of one plant per two square metres (as per Planting Module PM-1).

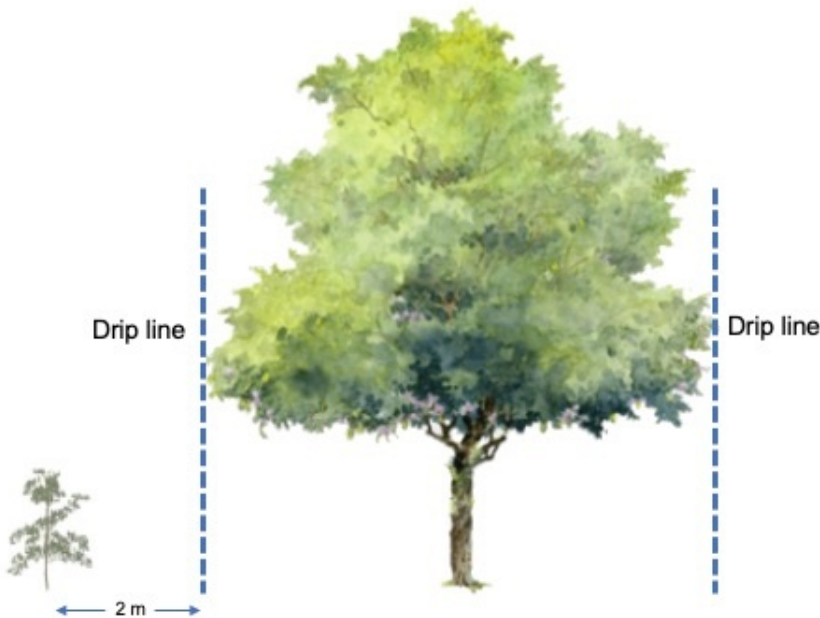
ZONE C

This zone comprises the area immediately adjacent to Yaun Creek. Plants established in this zone are to be suitable for riparian environments. Where native trees are present, no planting is to be undertaken within 2 m of the dripline (edge of canopy). Many trees exude chemicals from their roots which inhibit the growth of vegetation. As such, attempts to establish tubestock under the dripline is likely to be unsuccessful.



REHABILITATION SUMMARY

ZONE	AREA (sq. m)	STRATEGY	PALETTE	MODULE	COMMENTS
A	1,310	Assisted natural regeneration	PP-1		Weed control is the focus of rehabilitation in this zone. Infill plant only where there are canopy gaps greater than five square metres
B	5,000	Reconstruction	PP-1	PM-1	Overall density of one plant per two square metres to be achieved
C	915	Reconstruction	PP-3	PM-3	To be maintained as a bushfire setback as per the approved bushfire management plan



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REHABILITATION MANAGEMENT PLAN

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STAGE 4 REHABILITATION

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ORIGINAL SCALE BEFORE REDUCTION

0 25 50 75 m

1:1500 (AT A3) (meters)

PLANTING PALETTE PP-1

SCIENTIFIC NAME	COMMON NAME
TREES	
<i>Corymbia citriodora</i>	Spotted Gum
<i>Corymbia intermedia</i>	Pink Bloodwood
<i>Eucalyptus carnea</i>	Broad-leaved White Mahogany
<i>Eucalyptus microcorys</i>	Tallowwood
<i>Eucalyptus propinqua</i>	Small-fruited Grey Gum
<i>Eucalyptus siderophloia</i>	Grey Ironbark
<i>Eucalyptus tereticornis</i>	Forest Red Gum
<i>Lophostemon confertus</i>	Brush Box
SMALL TREES/SHRUBS	
<i>Acacia disparrima</i>	Hickory Wattle
<i>Allocasuarina littoralis</i>	Black She-oak
<i>Melaleuca salignis</i>	White Bottlebrush
GROUND COVERS	
<i>Cymbopogon refractus</i>	Barbed Wire Grass
<i>Imperata cylindrica</i>	Blady Grass
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush
<i>Themeda triandra</i>	Kangaroo Grass

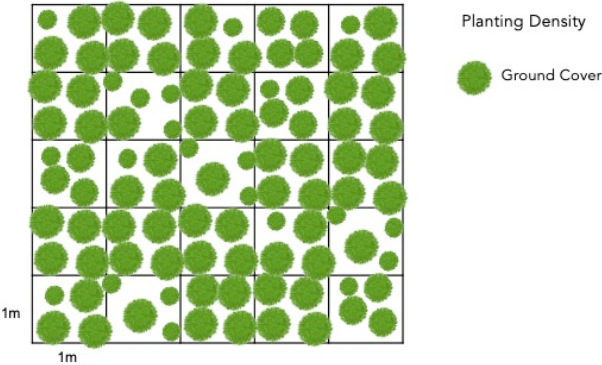
PLANTING PALETTE PP-2

SCIENTIFIC NAME	COMMON NAME
<i>Baumea articulata</i>	Jointed Twigrush
<i>Baumea rubiginosa</i>	Soft Twigrush
<i>Carex fascicularis</i>	Tassel Sedge
<i>Cyperus exaltatus</i>	Giant Sedge
<i>Eleocharis dulcis</i>	Water Chestnut
<i>Juncus usitatus</i>	Common Rush
<i>Lepironia articulata</i>	Lepironia
<i>Phragmites australis</i>	Common Reed
<i>Schoenoplectus mucronatus</i>	a clubrush

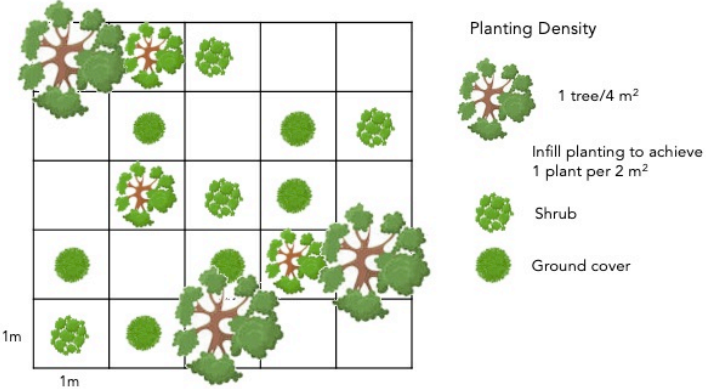
PLANTING PALETTE PP-3

SCIENTIFIC NAME	COMMON NAME
TREES - UPPER BANK	
<i>Casuarina cunninghamiana</i>	River Sheoak
<i>Elaeocarpus grandis</i>	Blue Quandong
<i>Eucalyptus grandis</i>	Flooded Gum
<i>Eucalyptus tereticornis</i>	Queensland Blue Gum
<i>Ficus macrophylla</i>	Moreton Bay Fig
<i>Grevillea robusta</i>	Silky Oak
<i>Lophostemon suaveolens</i>	Swamp Box
<i>Melaleuca bracteata</i>	River Tea Tree
<i>Tristaniopsis laurina</i>	Water Gum
TREES/SHRUBS - LOWER BANK	
<i>Ficus coronata</i>	Creek Sandpaper Fig
<i>Glochidion ferdinandi</i>	Cheese Tree
<i>Melaleuca bracteata</i>	River Tea Tree
<i>Melaleuca viminalis</i>	Weeping Bottlebrush
<i>Syzygium francisii</i>	Giant Water Gum
<i>Tristaniopsis laurina</i>	Water Gum
<i>Waterhousea floribunda</i>	Weeping Lily Pilli
GROUND COVERS	
<i>Gahnia clarkei</i>	Tall Saw Sedge
<i>Gahnia sieberiana</i>	Red-fruited Saw Sedge
<i>Lomandra hystrix</i>	Creek Mat-rush
<i>Lomandra longifolia</i>	Spiny-headed Mat-rush

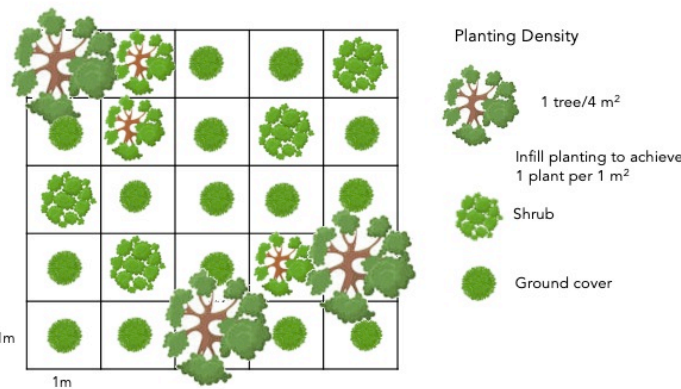
PLANTING MODULE PM-2



PLANTING MODULE PM-1



PLANTING MODULE PM-3



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PROJECT :
REHABILITATION MANAGEMENT PLAN
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REHABILITATION PROCEDURES

SOIL PREPARATION

Where soils have been historically compacted due to livestock, machinery, vehicles etc., planted stock will usually do better if soil in planting locations is mechanically aerated to improve water infiltration, drainage and root formation. Where topsoils have been stockpiled, they should be reinstated over the prepared area. Soil disturbance should be immediately followed by the application of mulch to prevent the formation of hard-setting crusts. Plants should be installed as soon as possible after soils have been prepared.

PLANT PROCUREMENT

Local provenance tube stock is to be utilised for all restoration works involving planting. Where this is not possible due to circumstances out of the control of the applicant, Council approval must be sought.

PLANT INSTALLATION

- Plants are to be vigorous, well established, hardened off, consistent with species or variety, free from disease and insect pests, with large root systems and no evidence of having been restricted or damaged;
- Planting is to take place immediately after delivery. If not possible, plants are to be stored in the shade and watered sufficiently during the day;
- Excavate planting medium to a depth suitable for the installation of tube or pot specimens. In areas where the planting substrate is deemed to be very poor (compacted, nutrient depauperate, hydrophobic etc.) and above areas of potential frequent inundation and water flow, soil shall be suitably prepared (e.g., through use of fertilizer, and mechanical ripping where required) and enough topsoil to sustain long term plant growth shall be used;
- Excavate to a hole to the depth of the root ball and twice the width of the pot. The sides of the hole should be rough, not glazed (this will commonly occur if an auger has been used).
- Pre-water plant hole if soil is dry to decrease root stress upon planting and assess the infiltration of water through the soil;
- Incorporate into the planting substrate the appropriate quantity of prepared water crystals or other suitable hydrating product;
- Place plant into hole and backfill ensuring that the plant is upright, and the stem is not covered in any less than 10 mm or any more than 20 mm of planting medium;
- Plants are to be watered thoroughly immediately after planting (ensure deep irrigation) and thereafter as required during the construction phase of the development depending on climatic conditions. Creation of a concave hollow around the base of each plant will aid water infiltration to the plant roots;
- A complete, slow-release fertiliser is recommended, and is to be administered appropriately during planting. Top dressing with slow-release fertiliser is preferred to avoid toxic levels of fertiliser accumulating in the plant hole around the plant roots;
- A long-term slow-release fertiliser will be used for all plantings after initial plant establishment;
- Seedling and saplings are to be encouraged and maintained throughout the Establishment period;
- Monitoring and evaluation for site maintenance (watering, weed control, stock replacement, fertilising, managing inappropriate site access etc.) is to occur monthly;
- Where specimens show signs of very poor health, do not replace unless the plant is determined to be dead below ground. Many species are capable of strongly recovering from transplant stress or adjustment to site conditions. If a particular species is consistently doing poorly in certain site conditions, it is recommended to replace with an alternate species;
- If tree protection measures, such as tree guards or marker stakes are required, they must be installed without damage to the plant;
- No planting is to occur within 2 m of the drip line of existing mature vegetation as many trees release chemicals from their roots which inhibit sapling growth; and
- A minimum 90% survival rate must be achieved.

SUPPLEMENTARY PLANTING

- Supplementary planting should be undertaken where plants have died and where weed removal activities have resulted in site disturbance.
- Where specimens show signs of very poor health, do not replace unless the plant is determined to be dead below ground. Many species are capable of strongly recovering from transplant stress or adjustment to site conditions. If a particular species is consistently doing poorly in certain site conditions, it is recommended to replace with an alternate species.

MULCHING

Mulch suppresses weeds, decreases evaporation of soil moisture and promotes soil organism activity.

- A 10 cm layer of high quality, debris and weed-free composted forest mulch (Note: to avoid possible stem rot, ensure mulch is ‘dished’ and not covering plant stem);
- Mulched material is to be sourced from cleared vegetation if suitably seasoned;
- Mulch is to be applied to a radius of 500 mm from the trunk;
- Ensure the mulch is not in contact with the trunk;
- Mulch levels should be maintained for at least one growing season after planting, which is the critical period in tree establishment;
- Do not apply mulch within the drip line of existing mature trees; and
- If rehabilitation is occurring within an area of high velocity water flows, natural fibre weed mat should be used rather than organic mulch. The jute mat must be securely fastened to the ground with pins.

TREE GUARDS

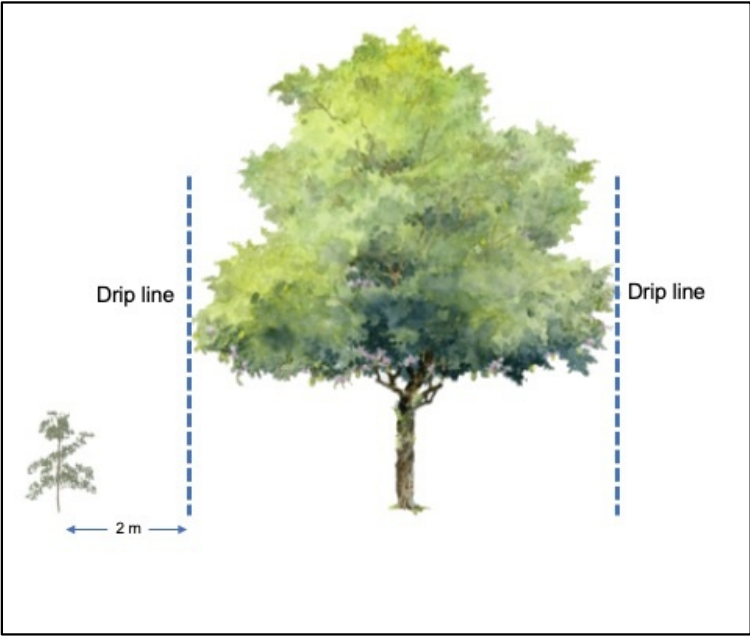
Newly planted young trees are subject to a variety of harsh elements that can result in premature death. These include the sun's harsh UV rays, herbicide spray drift, animal grazing, machinery damage, and wind damage. As a result, seedlings may need a protective barrier. Tree guards are highly effective at increasing the growth and survival rate of young trees.

If grazing, or other environmental factors, is causing levels of damage or death of tube stock, where the required rate of survival is unlikely to be achieved, trees guards can be installed. Corflute tree guards are recommended to protect against animal damage.

While each plant species will respond differently to browsing damage, it is generally considered that a 15-20% foliage loss will not impede growth of eucalypts. Browsing damage can occur until the plants are 1-2 m in height.



EXAMPLE OF TREE GUARDS



DRIP LINE OF EXISTING TREES

FIRE ANT MOVEMENT CONTROLS

To prevent the spread of fire ants, the Queensland Government has implemented controls that apply to individuals and commercial operators, to restrict the movement of materials that could carry fire ants including soil, turf, potted plants, mulch, baled hay or straw, animal manures, mining or quarry products.

Fire-ant safe practices (movement controls) have been developed to prevent the spread of fire ants and must be adhered to before moving any organic materials such as those listed above onto or off the site. Movement controls can be accessed from www.fireants.org.au and are outlined in the Biosecurity Regulation 2016.

Penalties apply for non-compliance with the movement controls.

GENERAL NOTES

All revegetation work should be carried out by experienced and qualified personnel with knowledge of endemic and exotic species identification.

Plants used for revegetation must be exclusively those listed in the planting schedules. An extensive list has been provided to account for the possibility that not all plants will be available at the time rehabilitation works are undertaken. Despite this, every effort should be made to use a diverse mix of species from each stratum. Tubestock should be used wherever possible.

Leaf litter and dead wood, whether standing or fallen, shall not be removed from any of the rehabilitation zones as this provides habitat for native fauna.

<div>DATE : 12.04.2023</div> <div>PROJECT No.: BC-22178</div> <div>DRAWING No.: RMP-06</div> <div>REVISION No.: A</div>	<div>PROJECT : REHABILITATION MANAGEMENT PLAN</div> <div>DRAWING TITLE : REHABILITATION PROCEDURES</div> <div>CLIENT : HB LAND</div> <div>ADDRESS : 79-99 COURTNEY DRIVE, UPPER COOMERA</div> <table><tr><td>DRAFTED BY : NL</td><td>DESIGNED BY : NL</td><td>CHECKED BY : BC</td><td>PAPER SIZE : A3</td><td>SCALE :</td></tr></table>	DRAFTED BY : NL	DESIGNED BY : NL	CHECKED BY : BC	PAPER SIZE : A3	SCALE :	<table><tr><td colspan="4">APPROVED FOR AND ON BEHALF OF BIOME CONSULTING PTY LTD ACN 166 087 476</td></tr><tr><td>REV.</td><td>DESCRIPTION</td><td>APPR.</td><td>DATE</td></tr><tr><td>A</td><td>ORIGINAL ISSUE</td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>	APPROVED FOR AND ON BEHALF OF BIOME CONSULTING PTY LTD ACN 166 087 476				REV.	DESCRIPTION	APPR.	DATE	A	ORIGINAL ISSUE																															<div>COPYRIGHT Designs and information presented on these drawings are copyright and the property of BIOME Consulting Pty Ltd and are not to be reproduced or used without permission from BIOME Consulting Pty Ltd. Drawings are only to be used for the purpose of which they were intended and BIOME Consulting will not accept liability for any unauthorised use or for any purpose by a third party for which they were not intended. Unless the checked section of the document are signed and approved the drawings are uncontrolled and issued for information purposes only. Drawings have been prepared for assessment purposes only and are not for construction purposes.</div>	<div><div>BIOME Consulting Pty Ltd PO Box 3469, Australia Fair, Southport M 0415 935 222 E brad@BIOMEconsulting.com.au ABN 86 166 087 476</div></div>	
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GENERAL WEED CONTROL NOTES

The control of weeds is essential to the restoration process. The removal of invasive species reduces competition and therefore assists the germination and establishment of native species.

Weed control is designed to reduce impacts to existing native vegetation, maintain juvenile native species and retain the in-situ seed stock within the soil profile.

The aim of weed control is to reduce the current extent of weed species to achieve a 95% weed-free status.

The control of weeds is to be undertaken generally in accordance with the following phases:

PRIMARY WEED CONTROL
Involves selective and strategic removal of weeds rather than the removal of all weed species at once to reduce erosion risks.

SECONDARY WEED CONTROL
Follows the completion of primary work. This is necessary to manage the growth of weeds and regenerating natives.

MAINTENANCE AND FOLLOW-UP WEED CONTROL
On-going maintenance and follow-up weed control is essential for successful restoration works. The frequency and duration of this process shall vary according to the resilience of native vegetation, viability of weed seed in the seed bank, the proximity of weed sources, and the skill level of workers.

All weed control works are to be either actively supervised or undertaken by personnel suitably qualified and experienced in bush regeneration disciplines. Weed removal should be undertaken in accordance with the methodologies outlined within the South East Queensland Ecological Restoration Framework: Manual (Chenoweth EPLA and Bushland Restoration Services, 2012). Methods for removing weeds include hand removal, chemical or mechanical control, or a combination of these.

When undertaking herbicide application for weed control, care should be taken to ensure that no off-target damage occurs to native vegetation. To prevent unnecessary and excessive use of herbicides, a vegetable-based dye should be mixed with the herbicides used for spray applications.

General weed control techniques are presented in this document. While chemical control is described, it is recommended that alternatives to glyphosate are used. Glyphosate has been banned in several countries and has been linked to cancer. If it is to be used, strict adherence to the recommended mixing rate and the use of personal protective equipment is necessary.

Any herbicide is to be mixed at the rates prescribed by the manufacturer for the particular weed species requiring control.

HERBICIDE USE NEAR WATER
Where possible, weed control near water bodies should be carried out using non-chemical methods. These include slashing, mulching and hand removal.

If you plan to use herbicides, ensure they are safe for use around waterbodies. Herbicides applied to the edge of a waterbody must be registered for use in aquatic environments.

- The following points are critical in using herbicide near a waterbody:
- Never spray herbicide over the water
 - Direct the spray away from the water
 - Spray when the weather is calm to prevent chemical drift
 - Do not spray when rain is forecast within six hours as herbicide can be washed off the pest plant and into the waterbody.

Herbicides must be applied by appropriately qualified/supervised persons as per the Agricultural Chemicals and Distribution Control Act 1966 at rates identified on registered product labels, or on an Australian Pesticides and Veterinary Medicines Authority (APVMA) issued off-label permit where applicable.

WEED CONTROL TECHNIQUES

The following describes the current best practice methods for weed control.

CUT-SCRAPE-PAINT
This weed control method applies to all woody shrubs, trees and some vines.

- Cut plant low to the ground at an angle.
- Apply herbicide with a paintbrush to the cut area.
- Scrape sides lightly to reveal green tissue and apply the herbicide to the scraped area.
- Take care that the brush is not contaminated with soil.

Note - all seed that has high viability and longevity, or plants with a high invasive potential must be removed from the parent plant and either composted or removed from the site.

STEM INJECTION
This weed control method applies to all woody trees and shrubs with a diameter of about six to 10 centimetres or greater.

- Using a 10 mm drill bit (at a minimum), make a ring of deep holes around the base of the tree trunk and larger exposed roots at intervals of no greater than 10 cm.
- Alternatively, with a tomahawk, make a cut the width of the blade, at a slight angle, into the trunk. Note - it is important not to make cuts too deep.
- Apply herbicide immediately into the cut/hole using a tree-injecting device.
- For the tomahawk technique, repeat this procedure in a brickwork pattern around the circumference of the tree, as close to the ground as possible. Where the presence of a crotch angle makes this difficult, make a cut above it. Note - two rows of cuts will be enough for trees with trunks of six to ten centimetres; larger trunk diameters will need correspondingly more.
- Treat all visible lateral roots.

SPRAYING
This weed control method is usually carried out using a backpack spray unit with an adjustable nozzle to vary the spray pattern. Herbicide is to be mixed with a marker dye and a adjuvant (i.e., surfactent and/or penetrant) to improve efficacy.

Dilution rates for herbicides are to be in accordance with the manufacturer’s recommendations.

OVERSPRAY
This weed control method is applicable to large, dense infestations and where it is desirable to leave the resulting dead plants intact. This can prevent erosion and over-exposure of large areas, protect emerging native seedlings from foragers such as wallabies, and avoid trampling by humans.

- Spray over the top of the infestation using herbicide.
- Take care to avoid off-target damage by first checking for native seedlings.

Alternatively, weeds can be cut and flattened with bush-hooks or loppers and the subsequent regrowth sprayed with herbicide. In many cases it is preferable to overspray wherever practicable as this will cause less erosion and trampling of suppressed native plants, such as ferns and seedlings. However, it will be necessary to cut-scrape-paint or hand pull any unsprayed weeds that surround native plants.

CROWNING
This weed control method is applicable to weeds which have their growing points below the surface of the ground (corms, bulbs, rhizomes, clumped, or fibrous root systems, etc.).

- Grasp the leaves or stems and hold them tightly so that the base of the plant is visible. Plants with sharp leaves or stems should be cut back first.
- Insert the knife close to the base of the plant at a slight angle, with the tip well under the root system.
- Cut through the roots close to the base. Depending on the size of the plant, two or more cuts may be needed to sever all the roots.
- Remove the plant. Make sure that the base of the plant where the roots begin is completely removed.

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REHABILITATION AREA MANAGEMENT

ESTABLISHMENT PERIOD

For each stage and following primary weed control and plant installation as specified in this document, a 12-month establishment period will be undertaken. During this period, the developer/land holder is responsible for the following:

- Control of weeds
- Monthly inspections;
- Supplementary or replacement plantings as required to achieve prescribed densities;
- Monthly litter collection; and
- Irrigation as needed.

ON-MAINTENANCE

Upon completion of the establishment period, works in each stage shall then undergo a further 24 month on-maintenance period. During this period, the developer/land holder is responsible for the following:

- Monthly progress inspections;
- Management of weeds to achieve prescribed outcomes;
- Replacement planting as required to achieve required densities; and
- Irrigation as needed.

PERFORMANCE CRITERIA

The following key performance criteria shall be met:

- No invasive plant species as identified under the Biosecurity Act 2014;
- Nil fruiting of environmental weeds;
- Achieve a minimum success rate of 90% survival rate of all installed plants; and
- Removal of all temporary construction structures or tree guards (if installed).

MONITORING

For each stage, routine monitoring must be undertaken monthly. During monitoring, the rehabilitation areas are assessed for:

- New weed infestations;
- Poor health or mortality of plantings;
- Adequate mulch coverage; and
- Presence of rubbish.

COMPLIANCE

The developer/land holder is responsible for undertaking the rehabilitation works. The developer/land holder must provide to Council certification from a qualified professional that all works have been implemented on site and plants are established following a minimum establishment period of 12 months and on-maintenance period of 24 months. Certification is to demonstrate that all site works have been completed in accordance with applicable conditions of approval and relevant management plans.

QUALIFICATIONS OF REHABILITATION CONTRACTORS

It is suggested that the contractor appointed to undertake rehabilitation works is to have demonstrated experience in bushland restoration. Relevant qualifications include a certificate in Conservation Land Management - Natural Area Restoration, or a degree/diploma in a related field such as ecology, or at least two years experience in vegetation management or bush restoration.

Contractors must also hold applicable licences such as:

- Commercial operator's licence (ground application of herbicides) issued under the Agricultural Chemicals Distribution Control Act 1966;
- Senior First Aid certificate;
- General Safety Induction (Construction Industry); and
- Relevant Ecoaccess permits issued by the relevant State government department.

PHOTO POINT MONITORING

Photo point monitoring is a relatively simple and efficient method of monitoring rehabilitation areas. It involves taking photographs at fixed locations at regular time intervals. The photos can then be compared to show physical changes.

Consistency is critical to the success of photo point monitoring. Photos must be taken at the same location, with the same camera direction angle and focus points on each occasion.

It is recommended that at least one photo monitoring points be established in each of the rehabilitation zones. Photographs should be taken from the same location and in the same direction (i.e., along the same bearing) on each occasion. Where possible, a feature (e.g., large tree, sign or building) is to be included in the image to provide a point of reference. It is recommended that a star picket or post be installed at the point from which photos are taken to ensure that the same location is selected on each occasion. Alternatively, there are several theodolite and land survey apps for smart phones that have the capability of overlaying a latitude and longitude as well as a bearing on a photograph.

Baseline photos should be taken prior to any works being undertaken. Monitoring should be undertaken at least every three months to capture management actions and condition improvement.

At the time of taking the photo it is important to collect data to support the interpretation of the image and enhance the value of the monitoring effort. For example, the date, time and monitoring location. Records should also be kept of prevailing weather conditions prior to the photo point monitoring as drought or prolonged rainfall can influence the progress of rehabilitation.

REHABILITATION SCHEDULE - APPLICABLE FOR EACH DEVELOPMENT STAGE

STAGE	ACTIONS REQUIRED	TIMING
Initial site works	Primary weed control	At the commencement of rehabilitation works
	Infill planting as per this CRMP	After primary weed control
	Installation of mulch, stakes and seedling protection covers around native regrowth and infill planting as appropriate	
Establishment period (12 months)	Monitoring	Every 2 months
	Routine weed control	Following inspections as required
	Routine management (replacement of dead plants, installation of stakes, litter removal, etc.)	Following inspections as required
Maintenance period (24 months)	Monitoring	Every 6 months
	Routine weed control	Every 6 months, or as necessary following inspections
	Routine management (replacement of dead plants, installation of stakes, litter removal, etc.)	Following inspections as required

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