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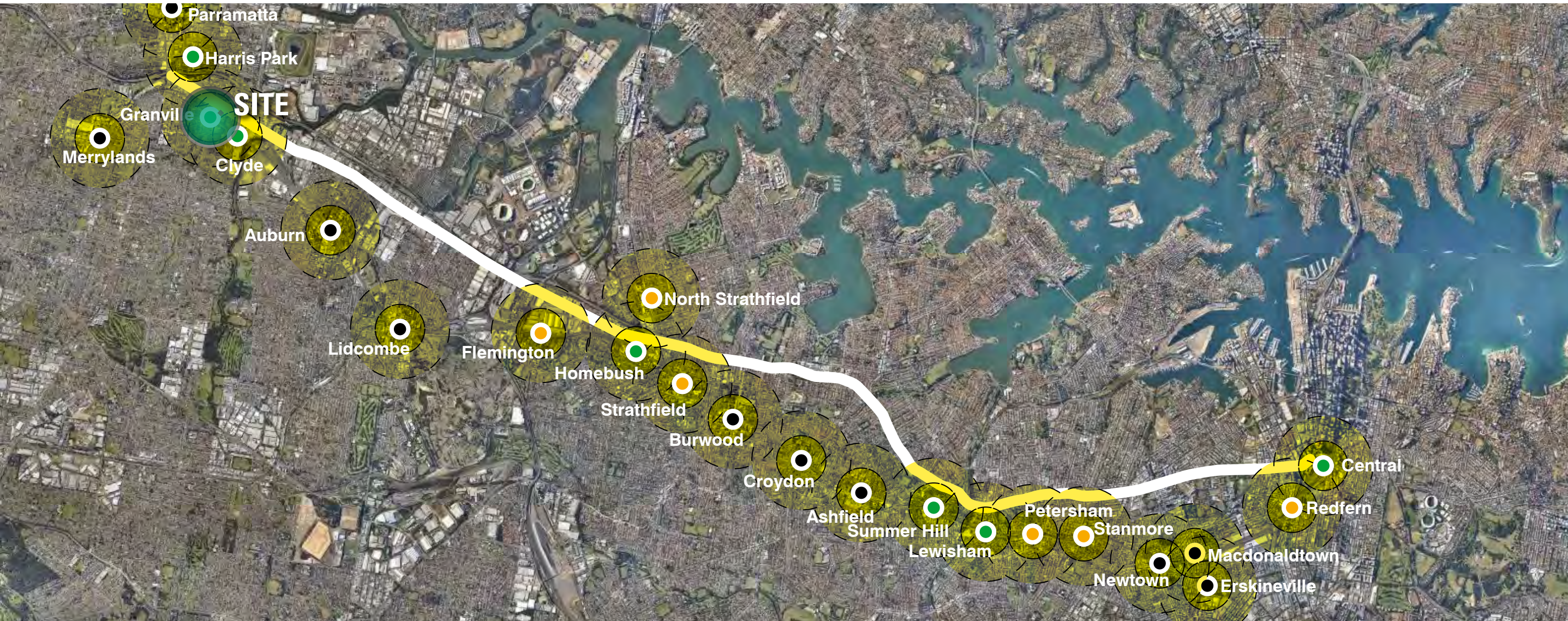
ARCADIA

LANDSCAPE ARCHITECTURE

**COWPER STREET GRANVILLE
DEVELOTEK**

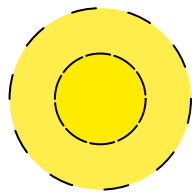
LANDSCAPE DEVELOPMENT APPLICATION
FEB 2017

REGIONAL CONTEXT - Architectus Urban Design Report 8 May 2015



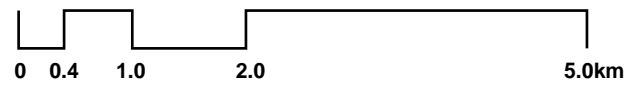
Key issues:

- The site is located in one of a few areas where Parramatta Road is close to railway stations (the others being around Homebush, Lewisham and Central).
- Within the context of the WestConnex renewal of the Parramatta Road corridor, these areas will have particular importance.



Distance from stations: 400m (5mins walk) and 800m (10mins walk)

- Stations within 400m (5 mins walk) of Parramatta Road
- Stations within 800m (10 mins walk) of Parramatta Road
- Stations greater than 800m (10 mins walk) from Parramatta Road

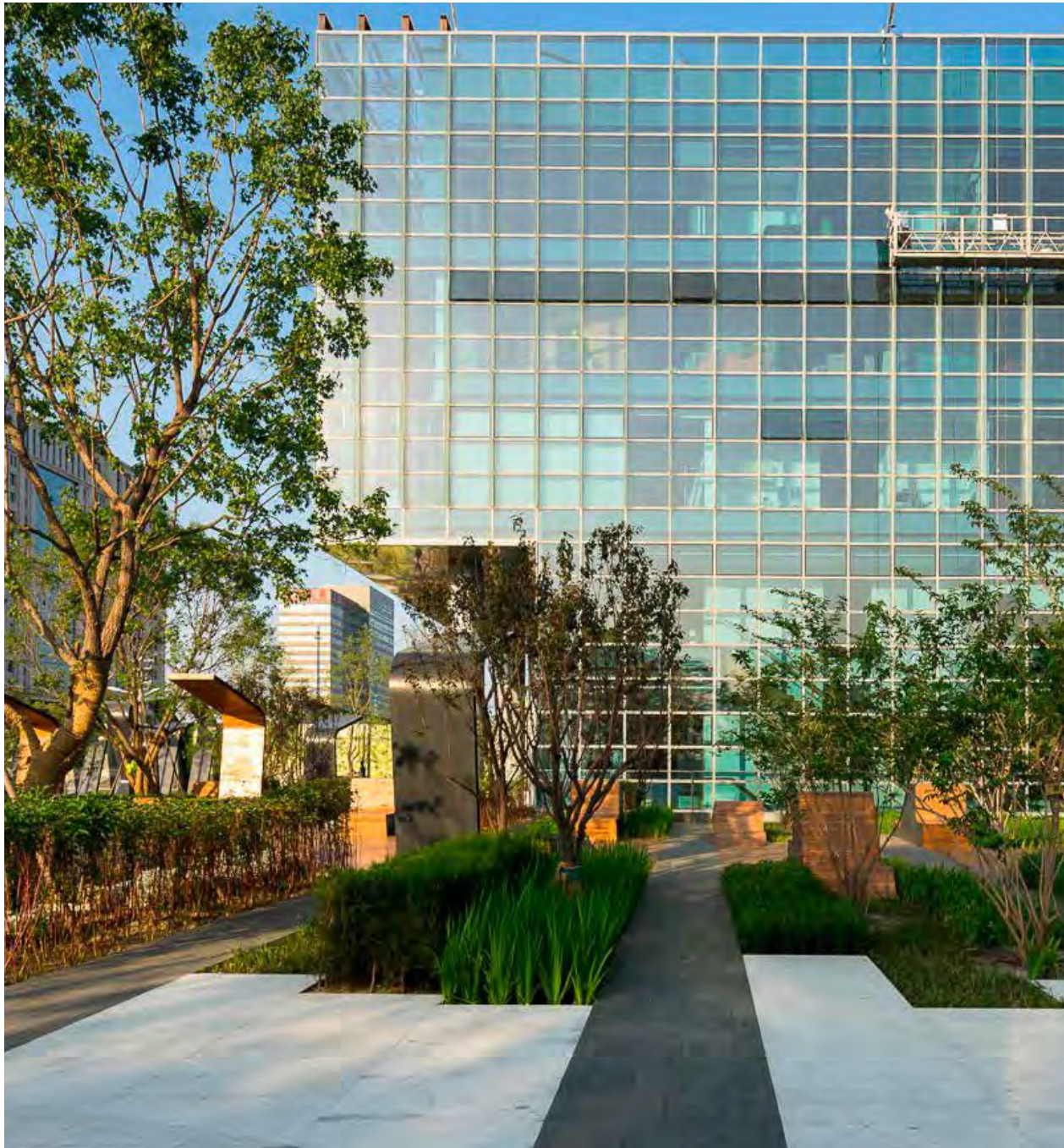


REGIONAL CONTEXT

The site is located in close proximity to Sydney's CBD to the north west. The area is well positioned for easy access to a number of employment and activity hubs with further community facilities also planned.

The site at 11 Cowper Street, Granville is part of the Parramatta road Urban Renewal project which has identified the site as one of potential high density living with modern services and amenities.

The site is also in close proximity to the Paramatta CBD, which is the major transport hub for Western Sydney. Offering a number of public transport services such as bus, train and ferry that allow for easy access and quick access to the Sydney CBD.



LOCAL CONTEXT

LOCAL CONTEXT

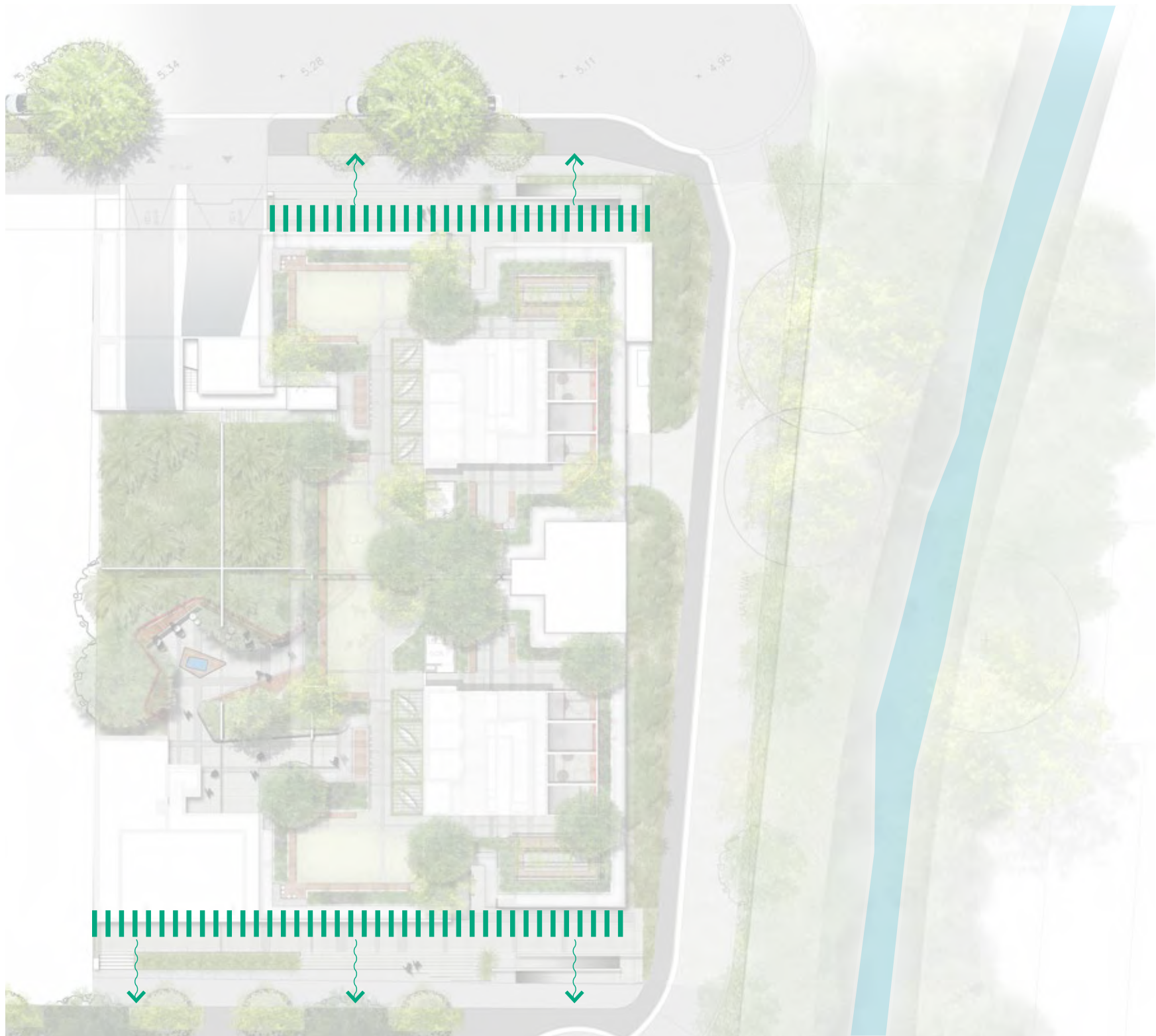
The site is located in close proximity to Parramatta Road. Thus allowing for easy direct access to the Sydney CBD through private and public transport as well also providing access to the Parramatta CBD.

In an area of constant flux, the site at 11 Cowper Street is to transform from an industrial site to a contemporary high density apartment typology with all the benefits of modern living.

The site is a short walking distance away from Granville Railway Station which offers public transport links both further west and back east towards to the Sydney CBD.

The site also provides local cycleways and pedestrian connections thats allow for easy access to local transport stops and retail shops. Also a short traveling distance away are local reserves and green open spaces that offer residences living in Granville adequate and well maintained places for formal and informal recreation.





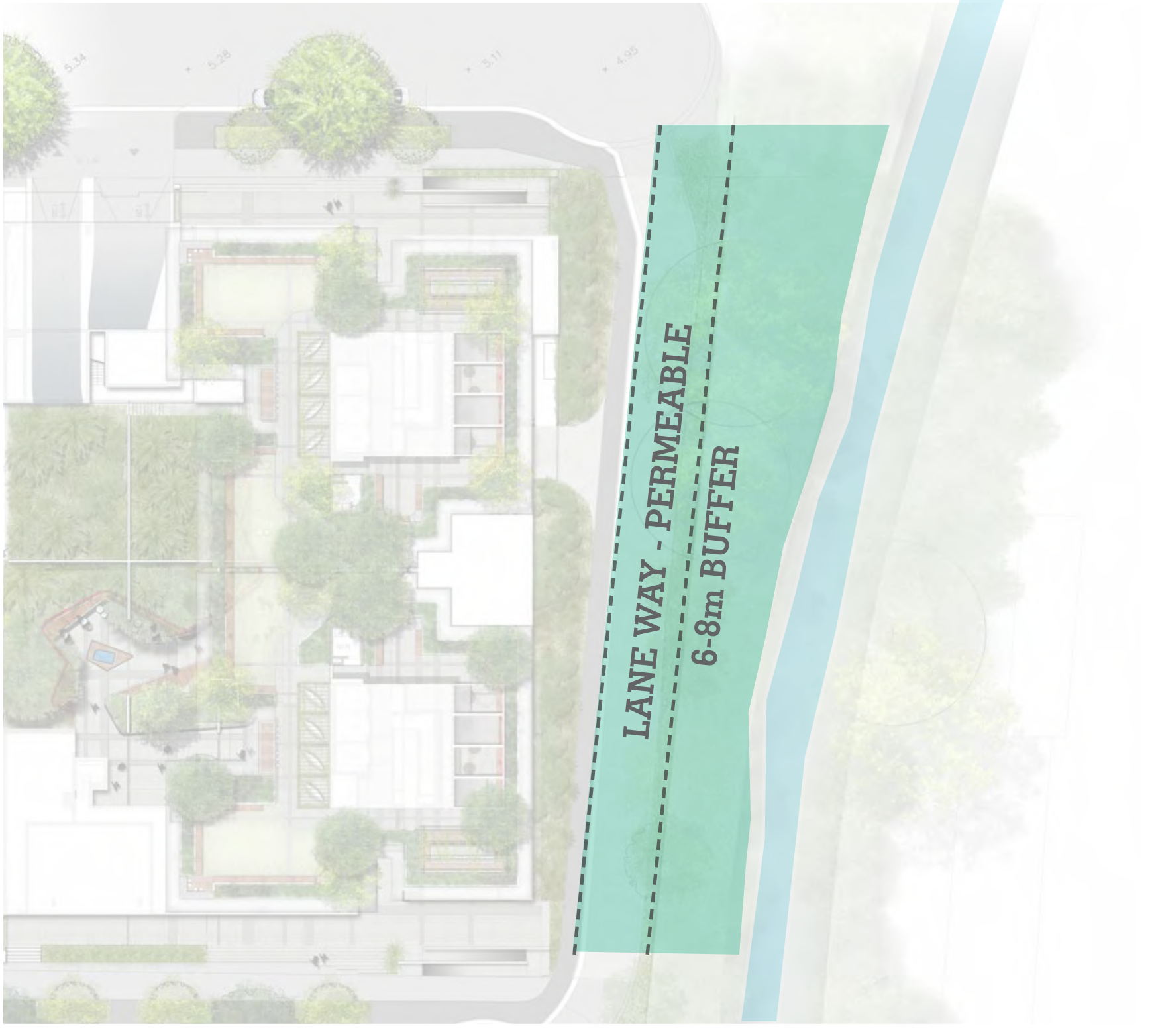
ACTIVATION / RETAIL

The dedicated activation zones run along Cowper and East Street to help achieve a vibrant street activity, noise, safety and community feel.



ENTRIES | EXITS

The basement vehicular entry/exit is located on Cowper Street while the loading dock is located on the Proposed Laneway out of the way from pedestrians. Residential and commercial entries are located on both Cowper and East Street



DEEP SOIL ZONE

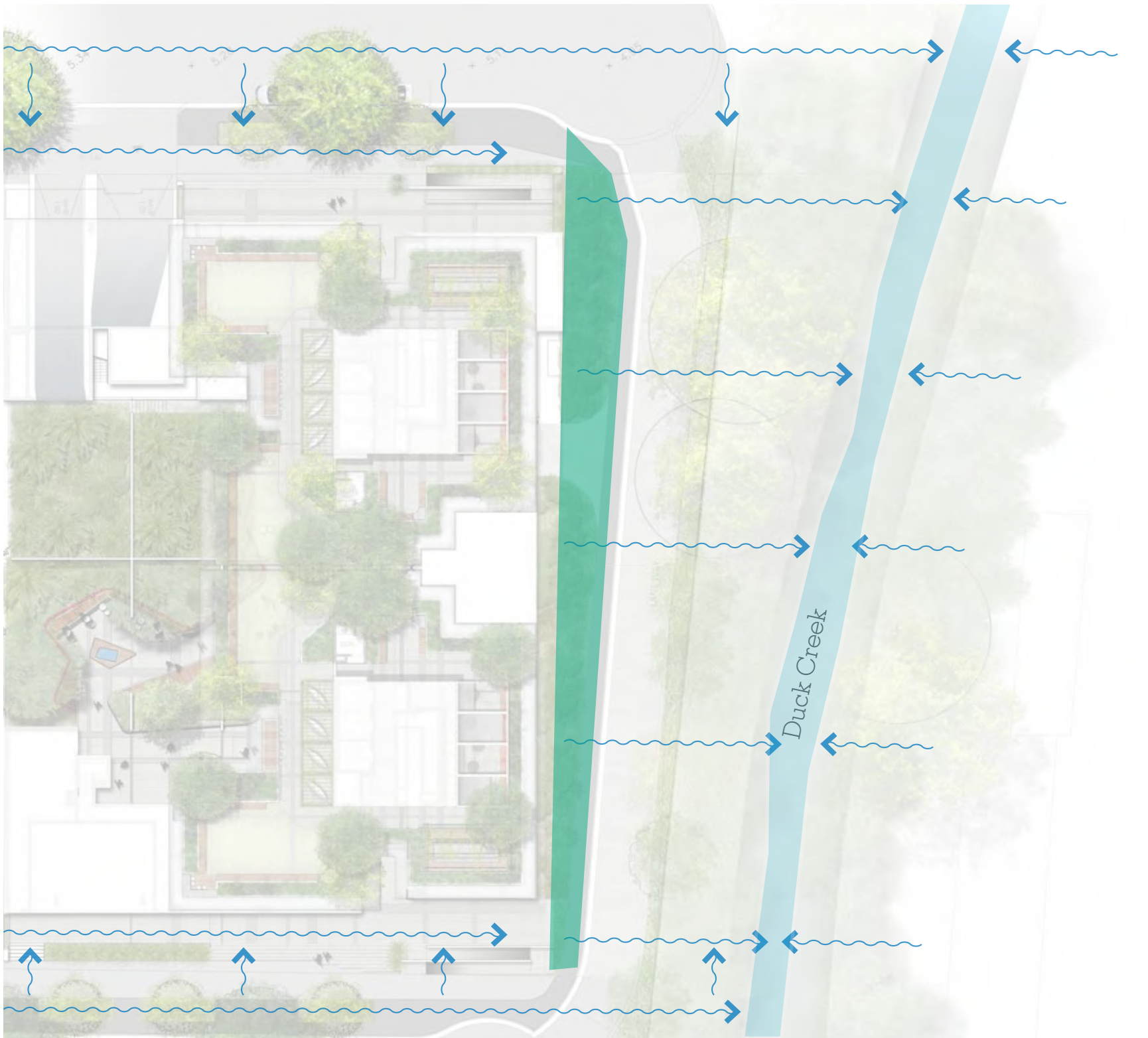
The deep soil zones are located at the northern end of the site between the building and existing Duck Creek.





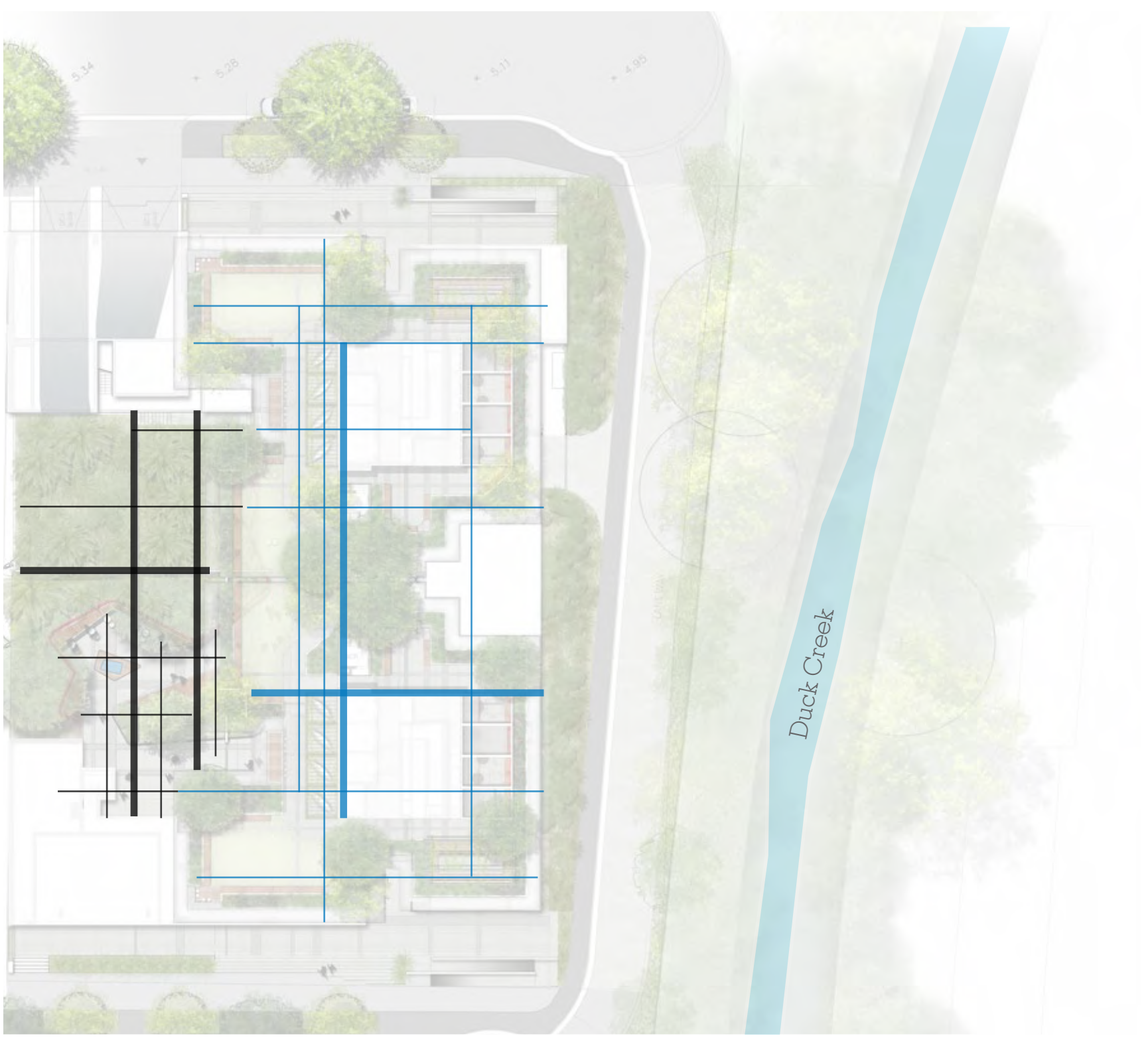
COMMUNAL LANDSCAPE

Residential communal open space is provided internally within the envelop of the surrounding building footprints. Its location gets good light exposure and allows residents to enjoy a tropical oasis.



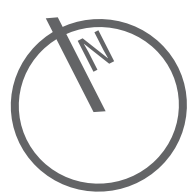
GRADING | DRAINAGE

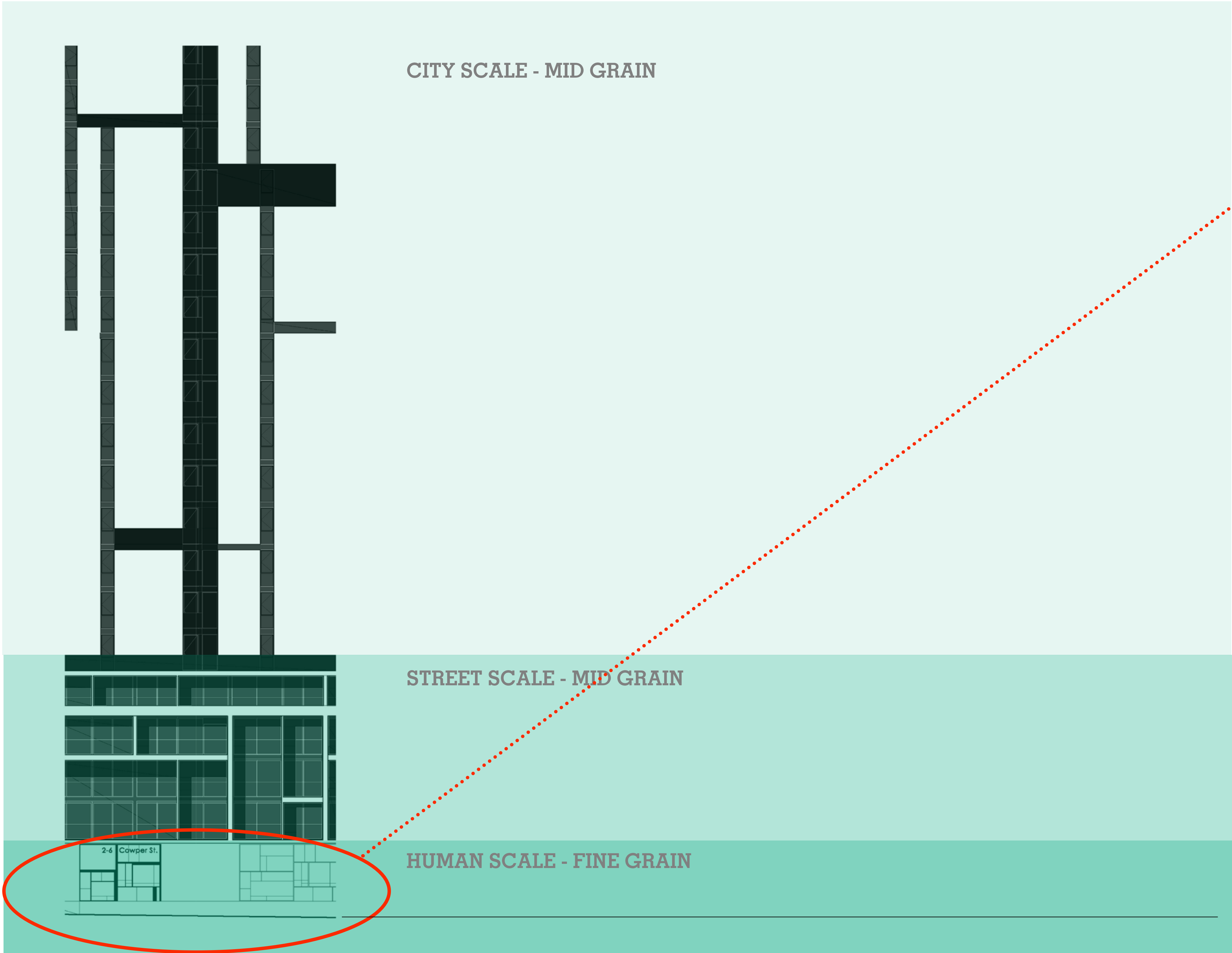
All storm water falls across permeable paving towards Duck Creek



PHILOSOPHY INTEGRATION

The design philosophy has been interwoven into the landscape via fine grain paving patterns and blade walls that dissect and break up the ground plane





Marchese Partners Design Philosophy

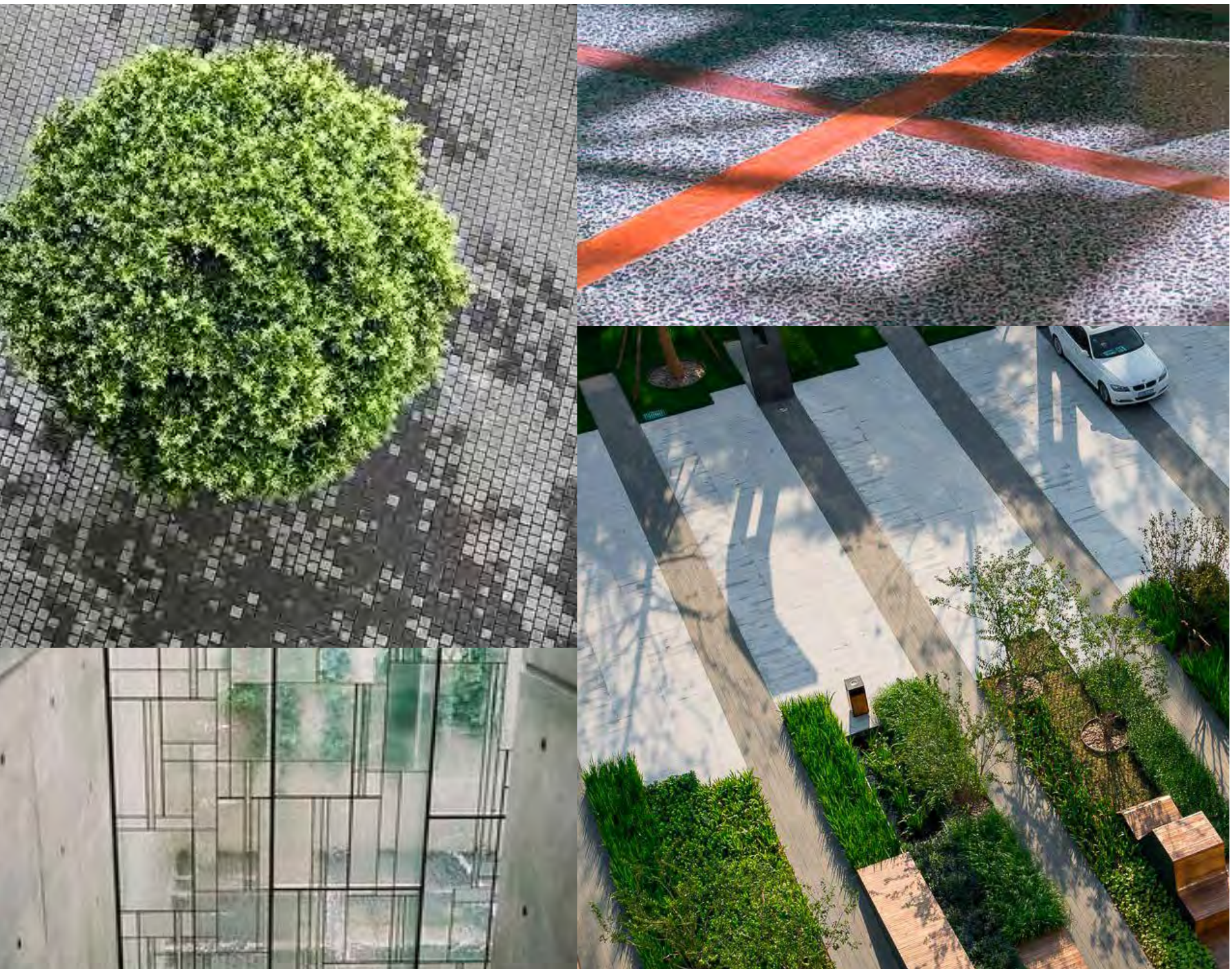


HUMAN SCALE - FINE GRAIN

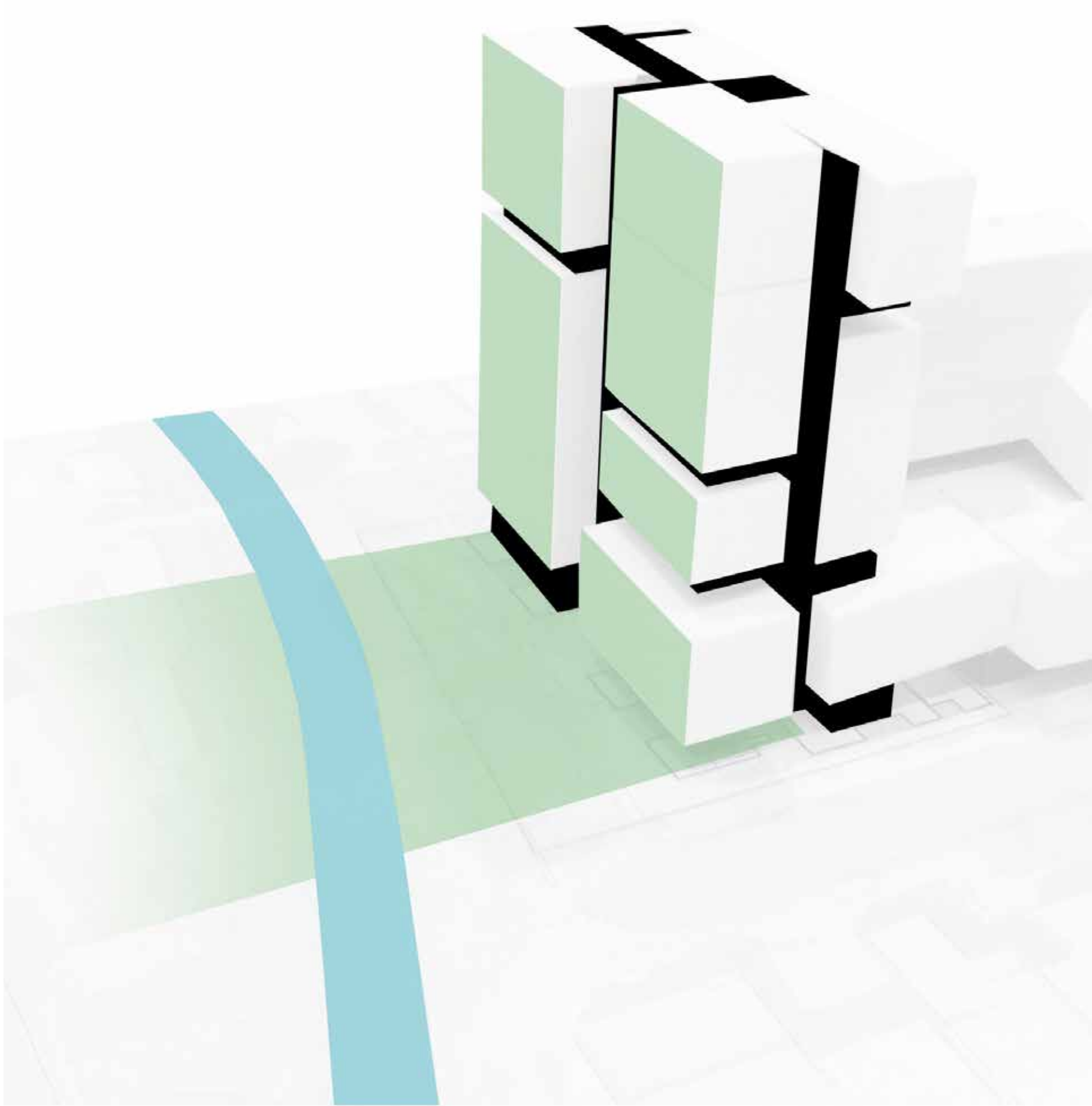
A philosophy based on masterplanning and optics of scale allow for a progression of scale within the built form.

The amount of detail within built form is based around how much the eye can focus on and what it can process from certain distances.

While the built form holds strong bold lines to focus on from a distance the landscape will use a 'finer grain' of detail to allow the eye to focus on more human scale objects and detail.



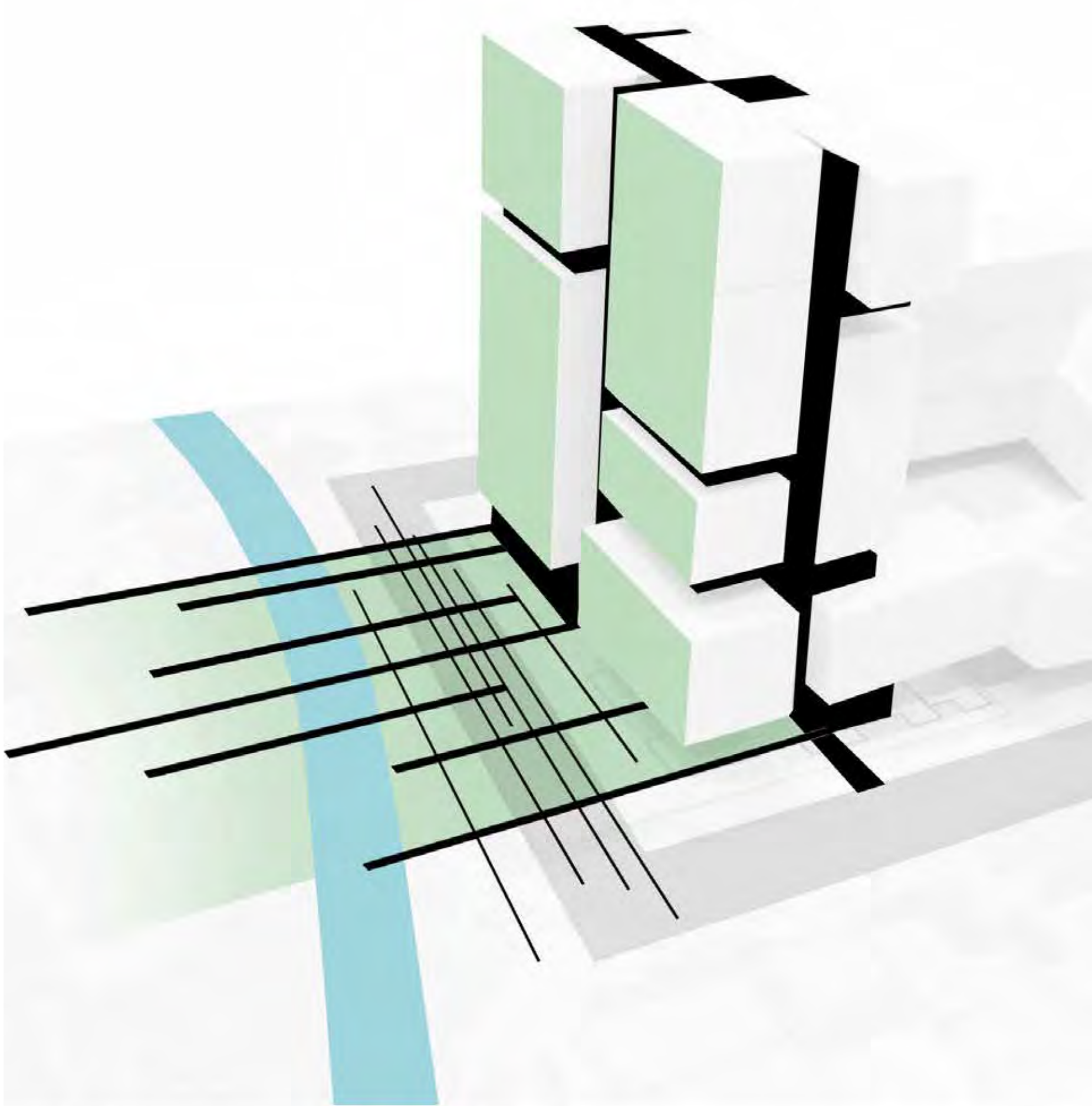
CITY SCALE - LARGE GRAIN



01 CITY SCAPE LINES INTO BUILT FORM

Strong lines from derived from plan views of Parramatta masterplan help establish bold built form lines represented in the architecture.

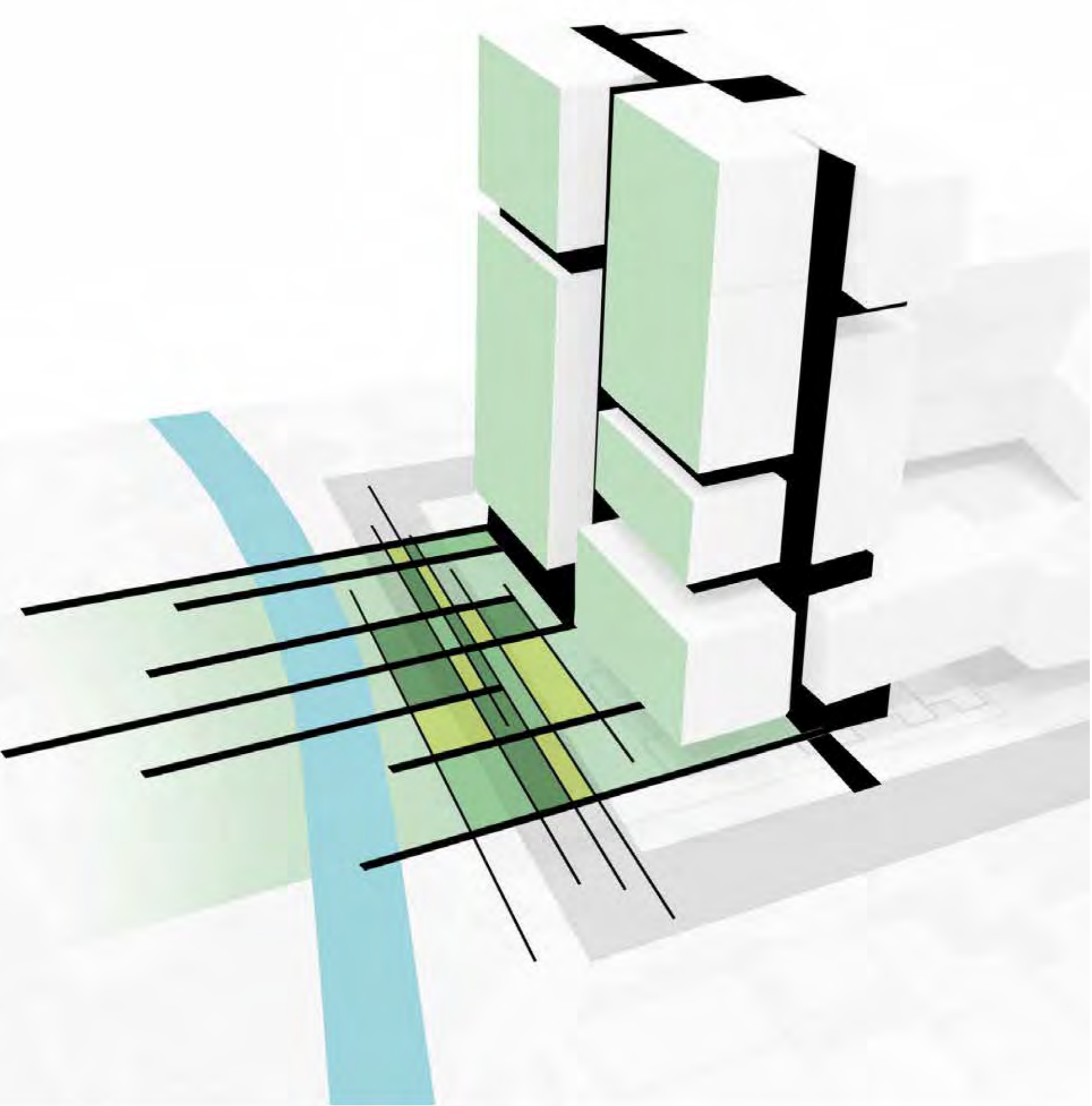
STREET SCALE - MID GRAIN



02 EXTENSION FROM ARCHITECTURAL TO LANDSCAPE

Strong built form lines are transcended onto the ground plane to create a mirror like image of the building. This in turn achieves a faceted ground plane which allows for bold material changes within the landscape

HUMAN SCALE - FINE GRAIN



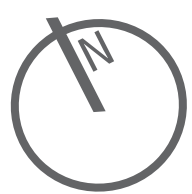
03 ESTABLISHMENT OF FINE GRAIN HUMAN SCALE

While bolder lines are giving the building facade character, the faceted ground plane allows for fine grain contrasting materials to be implemented to increase the users experience at a more human scale.



LEGEND

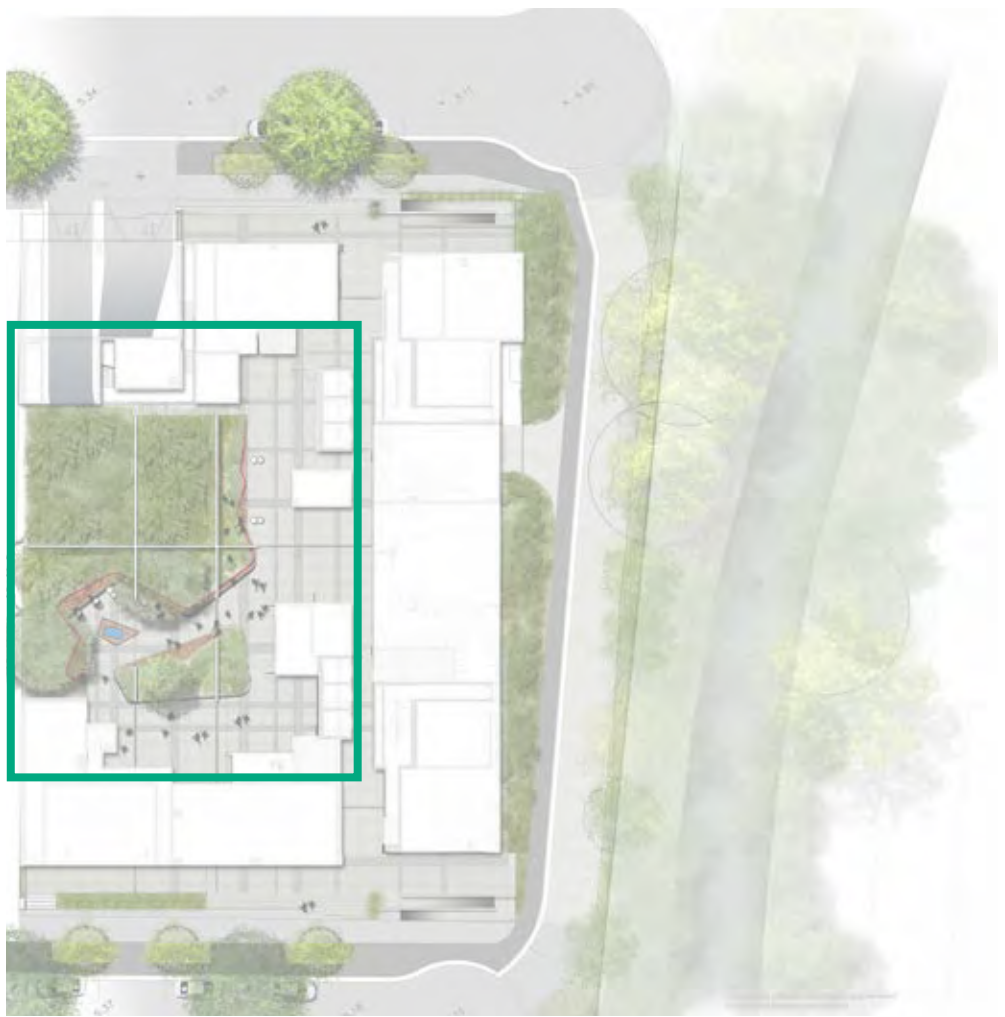
- 01 Unified architecture and urban design philosophy
- 02 Raised retail terraces with look out
- 03 Residential entries at ground level
- 04 Paving pattern reflecting architectural philosophy
- 05 Active and accessible retail frontages
- 06 Re-vegetated embankment of Duck Creek
- 07 Mature existing tree retained
- 08 Granite flagstone paving
- 09 Terraced internal shade planting to allow for sloped slab
- 10 Footpath widths and setbacks
- 11 Internal communal activated area
- 12 Loading zones off proposed lane
- 13 Proposed permeable lane way with flush kerb
- 14 Fire access and maintenance stairs
- 15 Communal Rooftop
- 16 Road level change for laneway to engineers levels
- 17 Staging line - Can be connected during construction
- 18 Basement carpark Entry
- 19 Mass planted garden bed surrounding tree on footpath





LEGEND

- 01 Paving pattern reflecting cityscape philosophy
- 02 Feature blade walls reflecting cityscape philosophy
- 03 Organic wall line reflecting Parramatta river
- 04 Built in seating elements
- 05 Large day bed / social seating zone
- 06 Buffer planting to back of house movements
- 07 Terraced planting allowing depth above basement vehicle entry
- 08 Central seat and water feature
- 09 Maintenance stairs
- 10 Through site link for residents
- 11 Residential entry
- 12 Residential Lifts
- 13 Garbage rooms
- 14 Bike storage
- 15 Commercial zone facing street



Location Plan



Integrated paving philosophy



Mass shaded planting beds



Feature planting walls

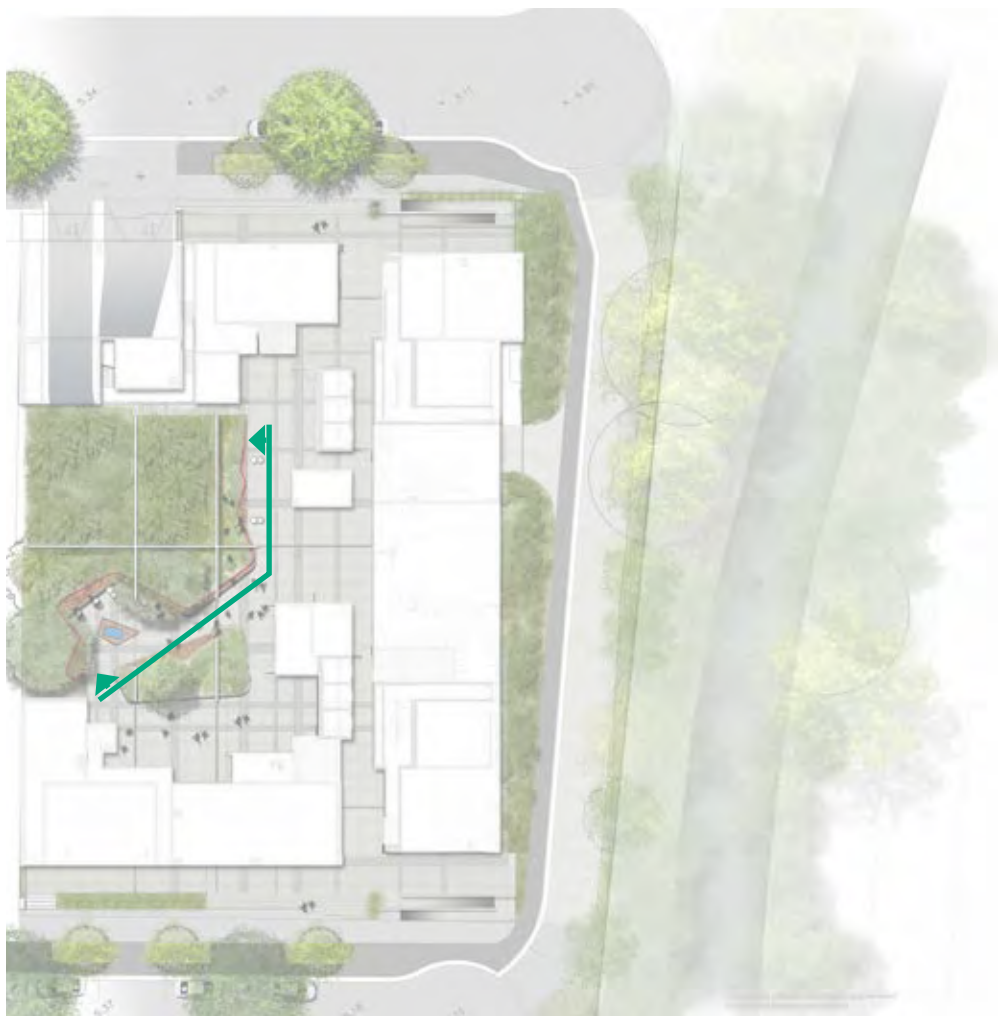


Strong paving pattern



Integrated seating and planters

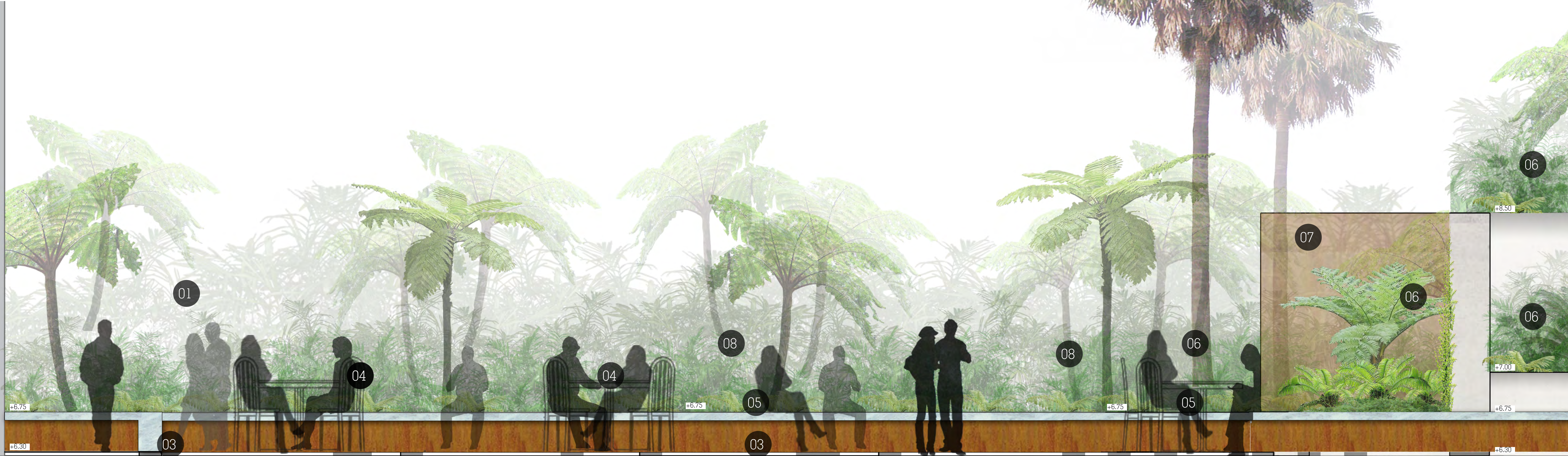




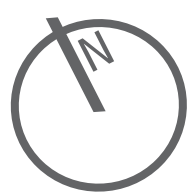
Section Elevation A - Location Plan

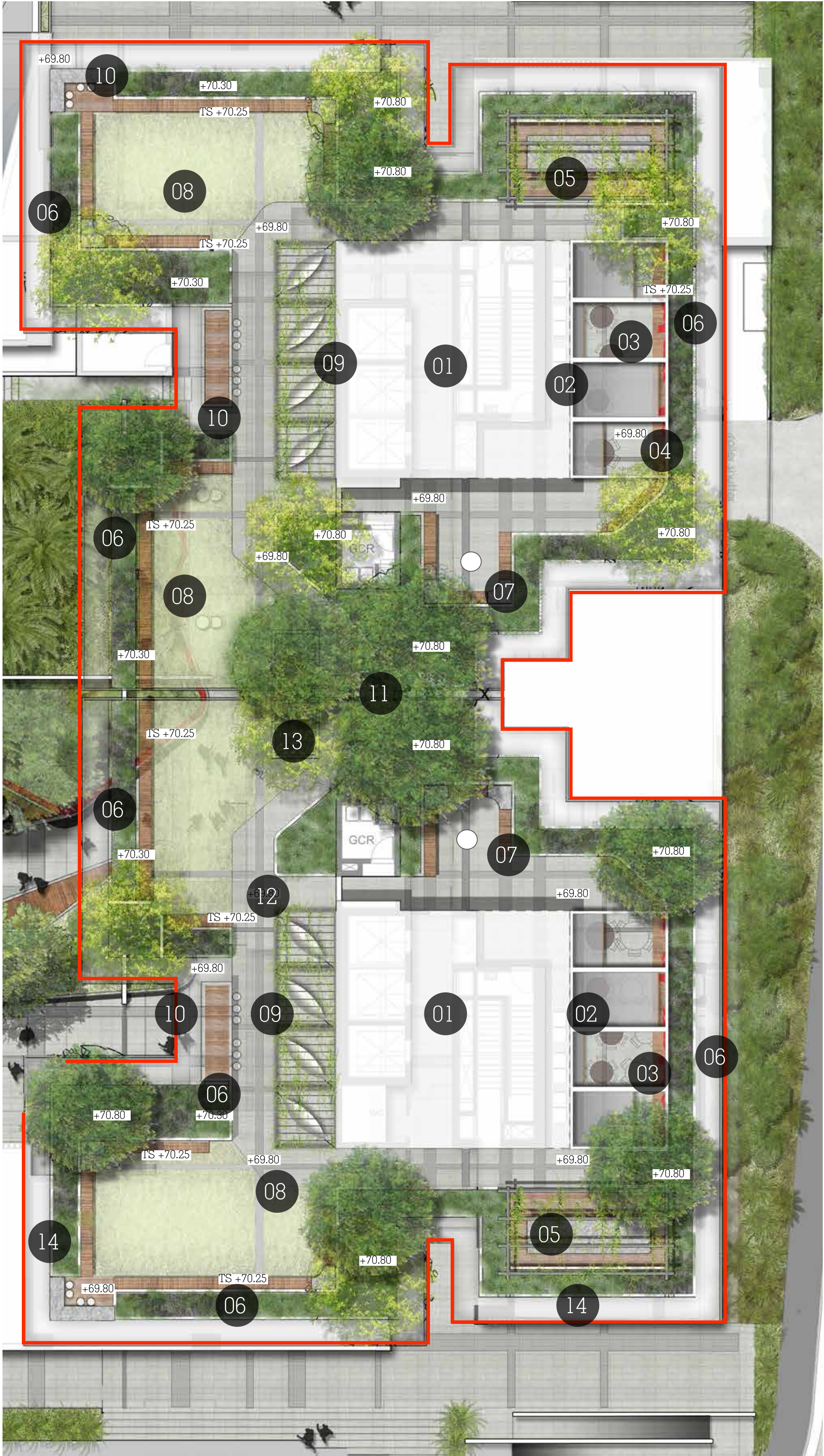
DESIGN ELEMENTS

- 01 Lush shade tolerant planting
- 02 Screen planting to neighboring property
- 03 Faceted paving pattern and walls to reflect architecture philosophy
- 04 Communal seating area for residents
- 05 Sinuous seating element
- 06 Shade tolerant species for south facing aspects
- 07 Feature/blade wall protruding through planting
- 08 Mounded Planting to achieve depths



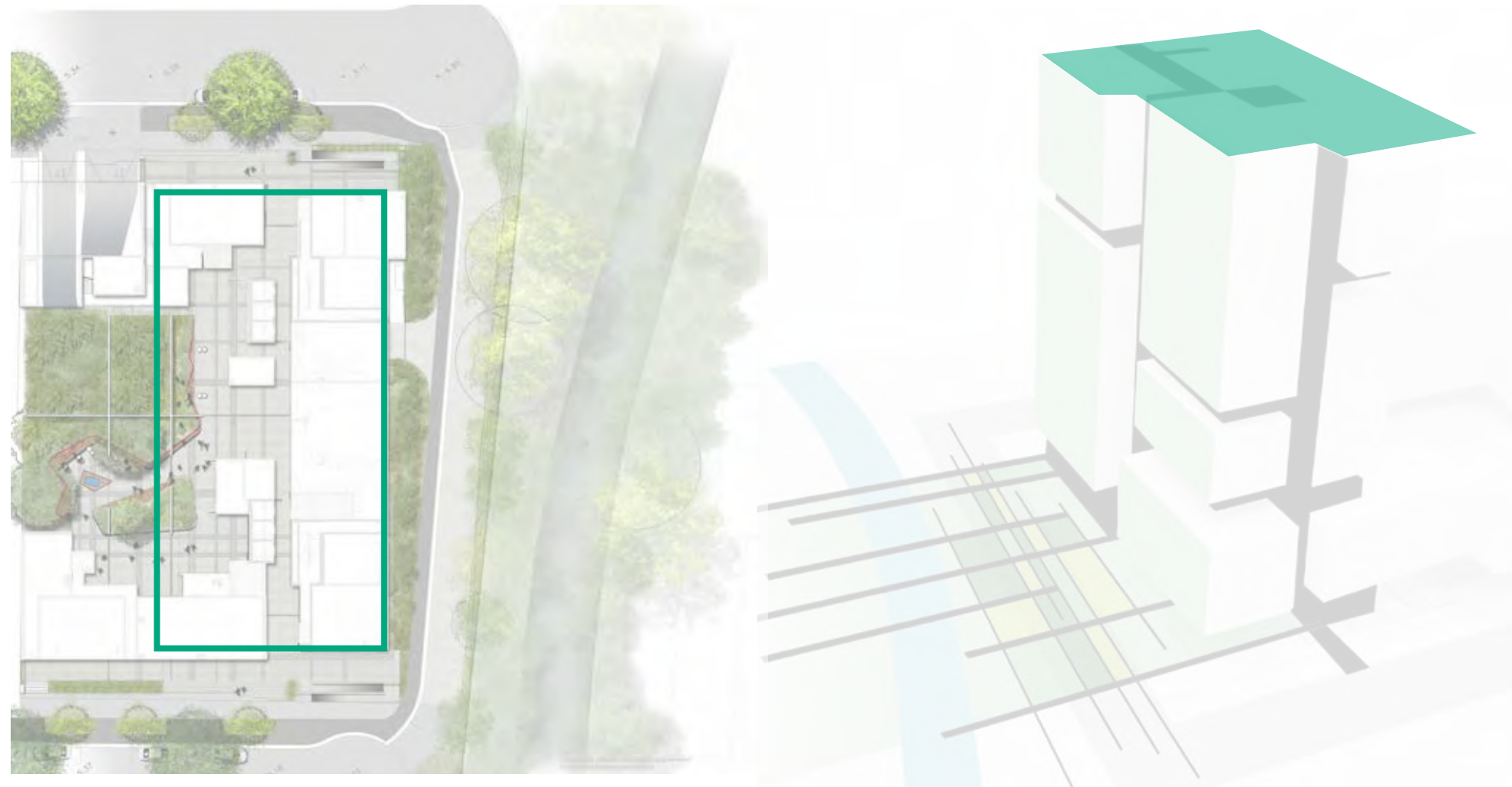
Section Elevation A - Internal Communal
Scale 1:25



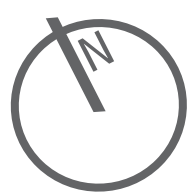


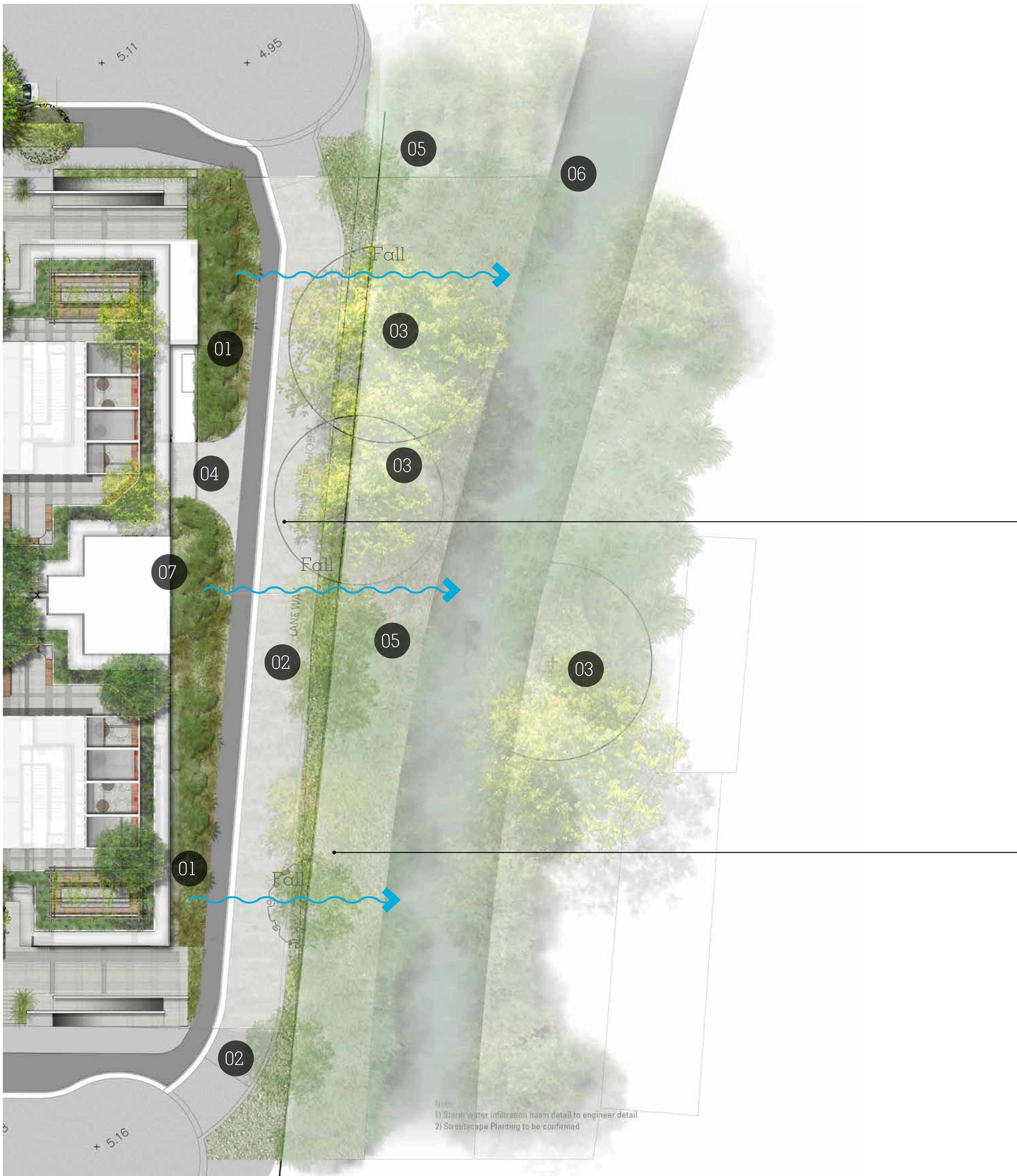
LEGEND

- 01 Lift over run and entry / exit
- 02 Undercover BBQ /cooking zone
- 03 Informal alfresco seating area with mobile shade cloth
- 04 Built in seating element
- 05 Communal /family alfresco seating table with shade wind/shelter
- 06 Buffer/wind mitigation planting to edges
- 07 Communal / social zone seating zone with controlled fire pit
- 08 Open space / Artificial turf
- 09 Hammocks with overhead structure and climbers
- 10 Bar table with stool seating
- 11 Dense planting giving separation between rooftop spaces and solar/wind protection
- 12 Circulation path connecting all amenities
- 13 Link between spaces
- 14 1.0m wide maintenance path



Location Plan - Rooftop





Laneway + WSUD Plan
Scale : 1:200

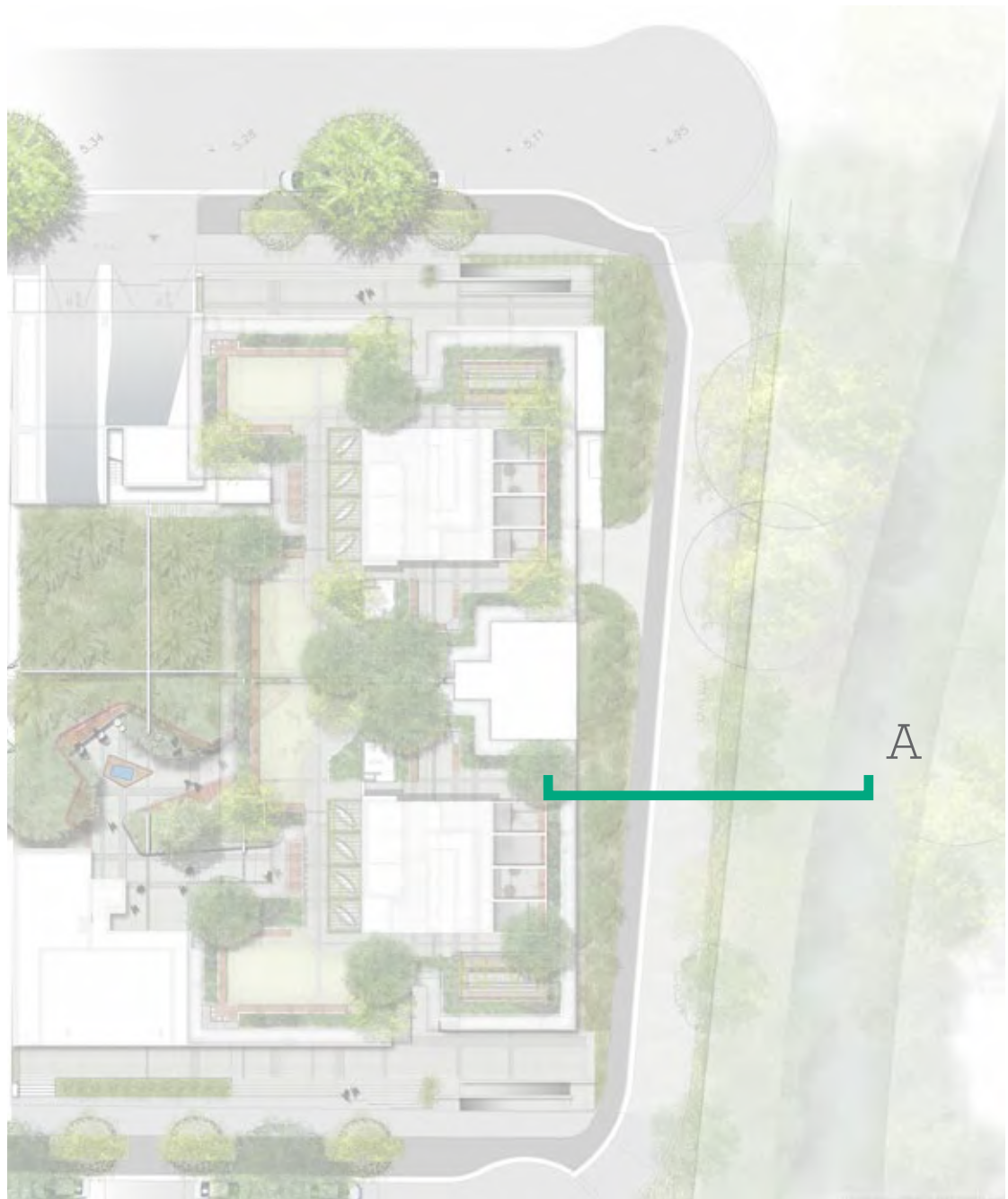
LEGEND

- 01 Native grasses planting
- 02 Proposed laneway 6m wide
- 03 Existing trees to be retained
- 04 Loading Dock
- 05 Existing embankment to be vegetated - Riparian corridor planting
- 06 Existing Duck Creek
- 07 Podium line above



Location Plan



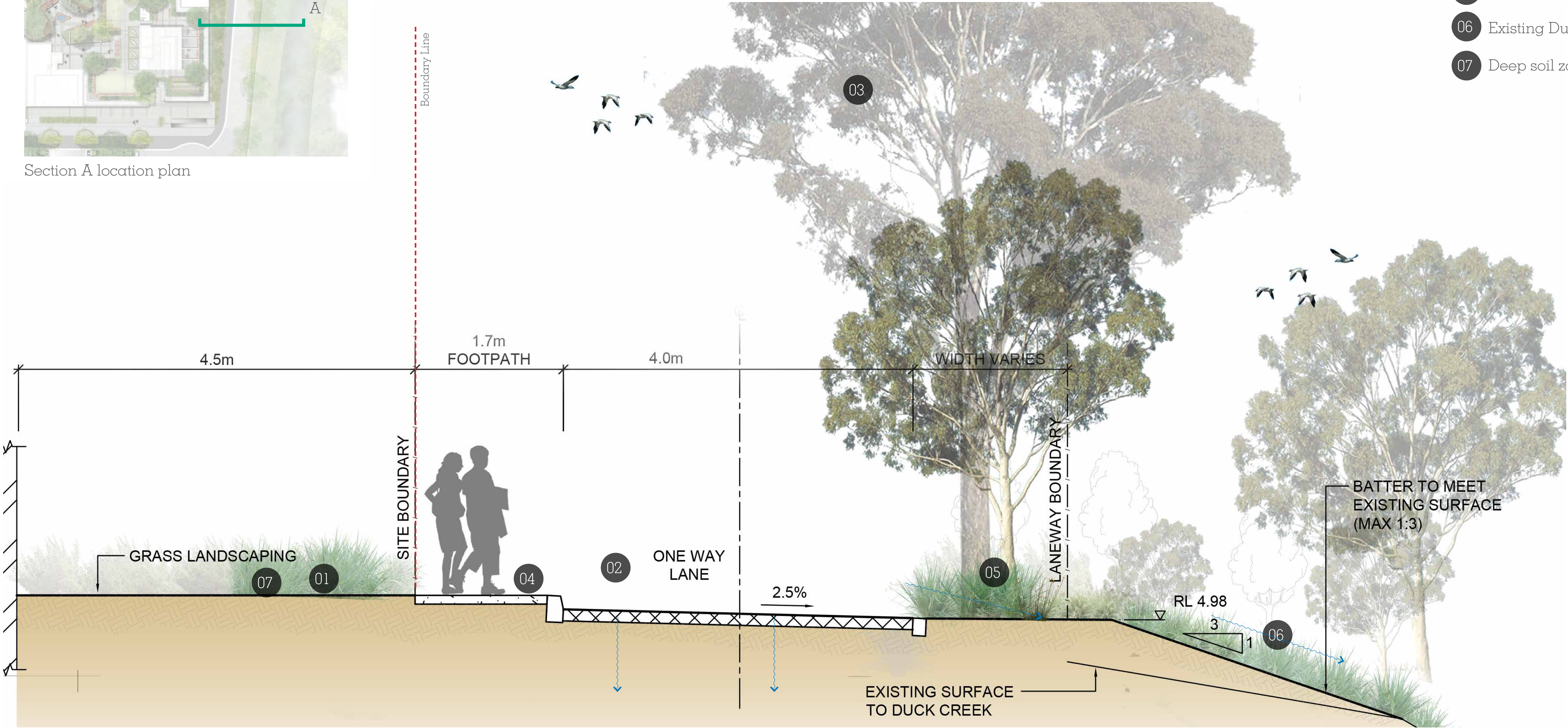


Section A location plan



LEGEND

- 01 Native buffer planting
- 02 Proposed laneway 6m wide
- 03 Existing trees to be retained
- 04 Footpath
- 05 Existing embankment to be vegetated
- 06 Existing Duck Creek
- 07 Deep soil zone



Eucalyptus moluccana



Native Planting

Tree's to be retained



Section B location plan

Figure 5.8 Paving Material Palette - Granville Town Centre

Secondary Stone Treatment

Main body - smaller granite flagstones or setts in kerbside strip and asphalt pavement in foot traffic areas.

Vehicle crossing, kerb ramp - continue use of small granite flagstones or setts to suit grades and vehicle load.

Foot traffic zone
Material: asphalt concrete of AC10 and AC5 (wearing course)
Colour: natural



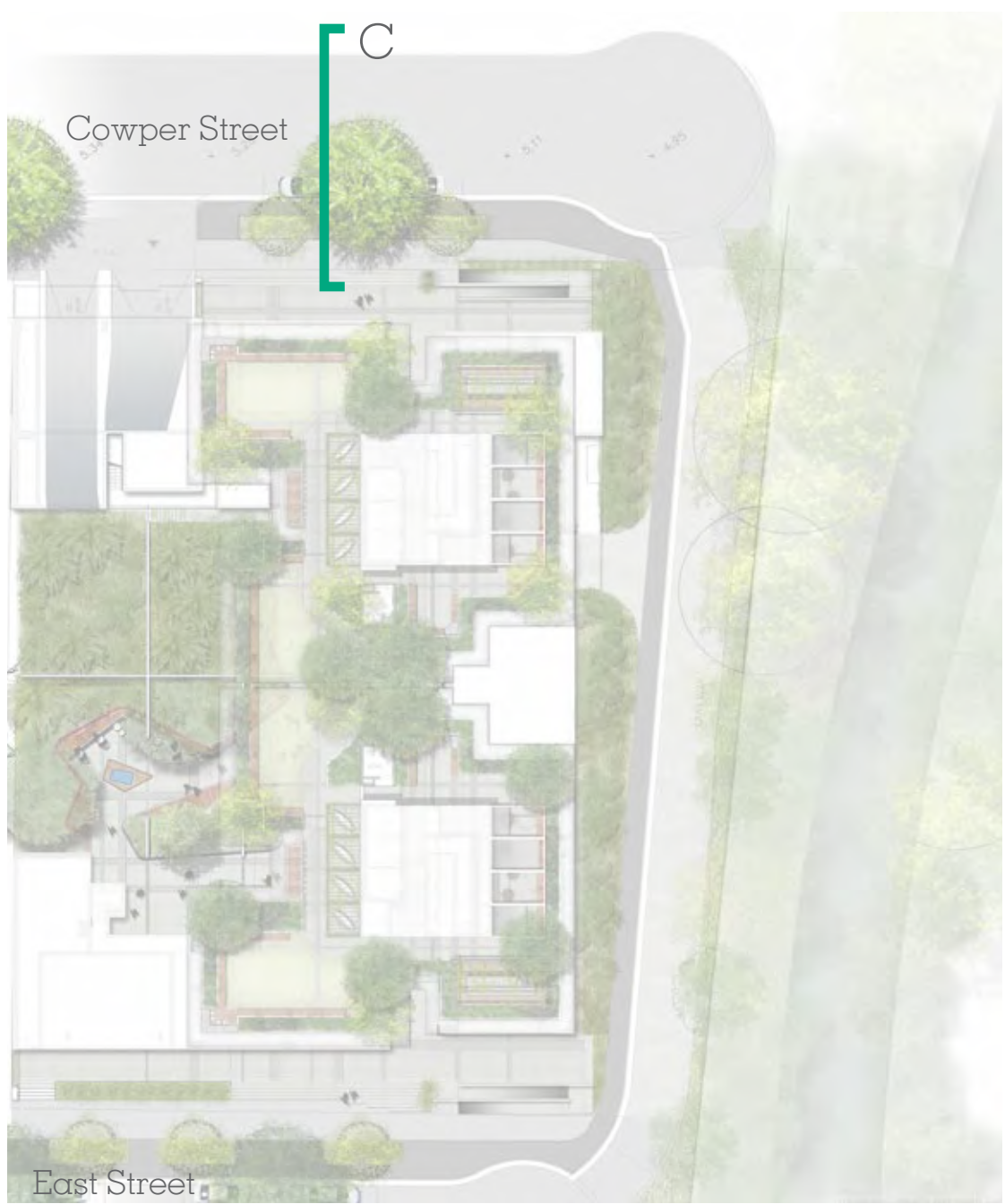
Lophostemon confertus

Tristaniopsis laurina

Street Tree Strategy - East Street



Section B - East Street
1:50 @A3



Section C location plan

Figure 5.8 Paving Material Palette - Granville Town Centre

Secondary Stone Treatment

Main body - smaller granite flagstones or setts in kerbside strip and asphalt pavement in foot traffic areas.

Vehicle crossing, kerb ramp - continue use of small granite flagstones or setts to suit grades and vehicle load.

Foot traffic zone
Material: asphalt concrete of AC10 and AC5 (wearing course)
Colour: natural



- Ulmus parvifolia**
- Tristaniopsis laurina**
- Approved Development Street Planting**

Street Tree Strategy - Cowper Street



Section D - Cowper Street
1:50 @A3



INTEGRATED LANDSCAPE + ARCHITECTURAL 'CITY



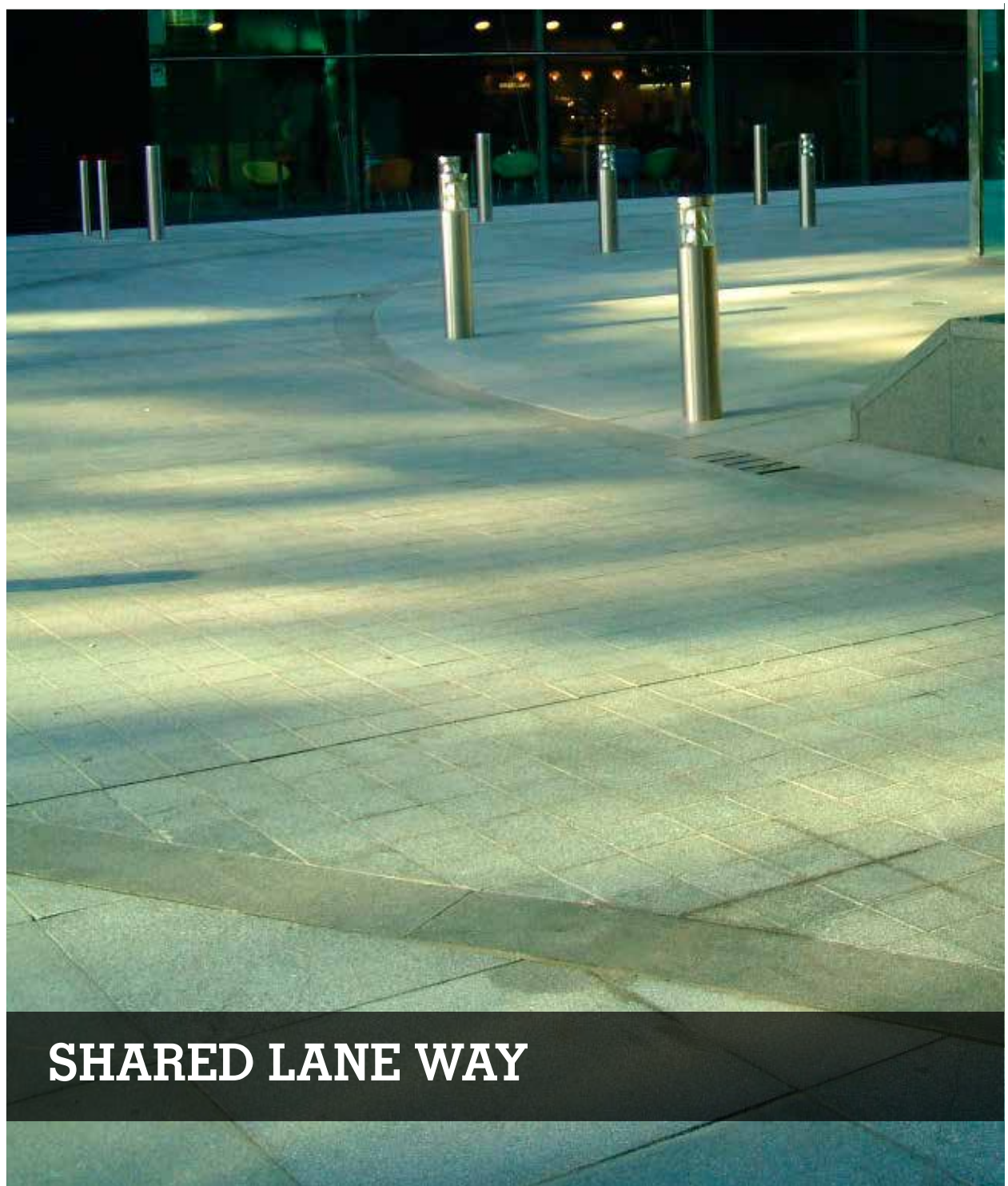
SHADE TOLERANT PLANTING



SHAREWAY WITH PEDESTRIAN FOCUS



LUSH PODIUM LANDSCAPE



SHARED LANE WAY



VARIED + CONTRASTING FINISHES



FINE GRAIN



CONTEMPORARY DETAILING

PROPOSED LANEWAY / SWALE

Trees



Shrubs



SHADE PLANTING

Trees



Shrubs

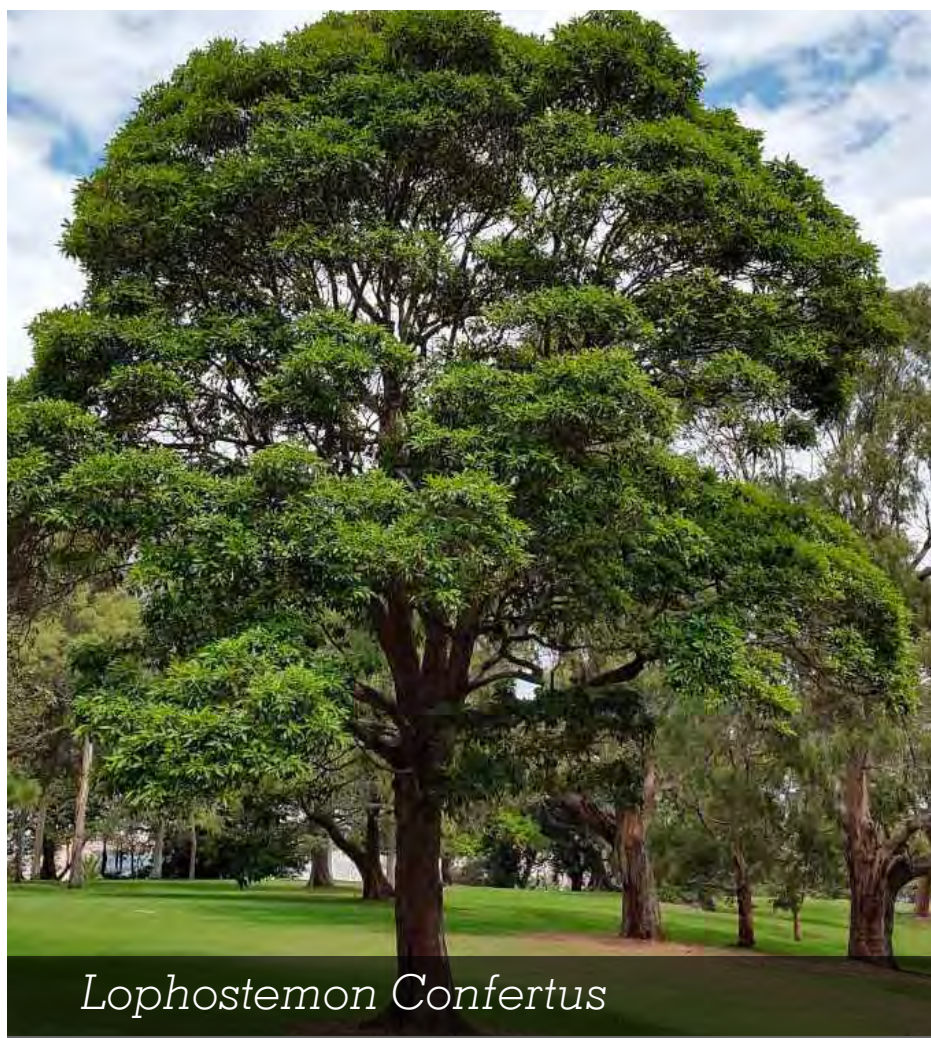


Groundcovers

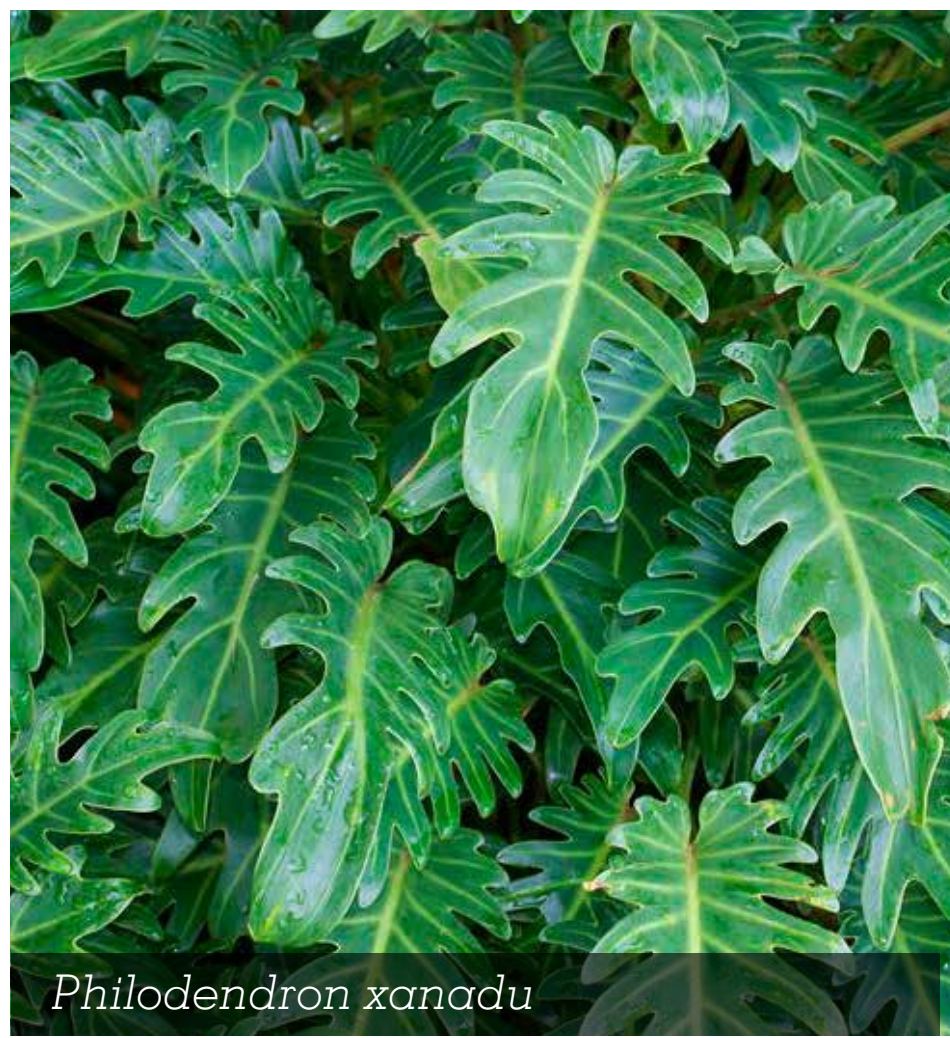


COWPER AND EAST

Trees

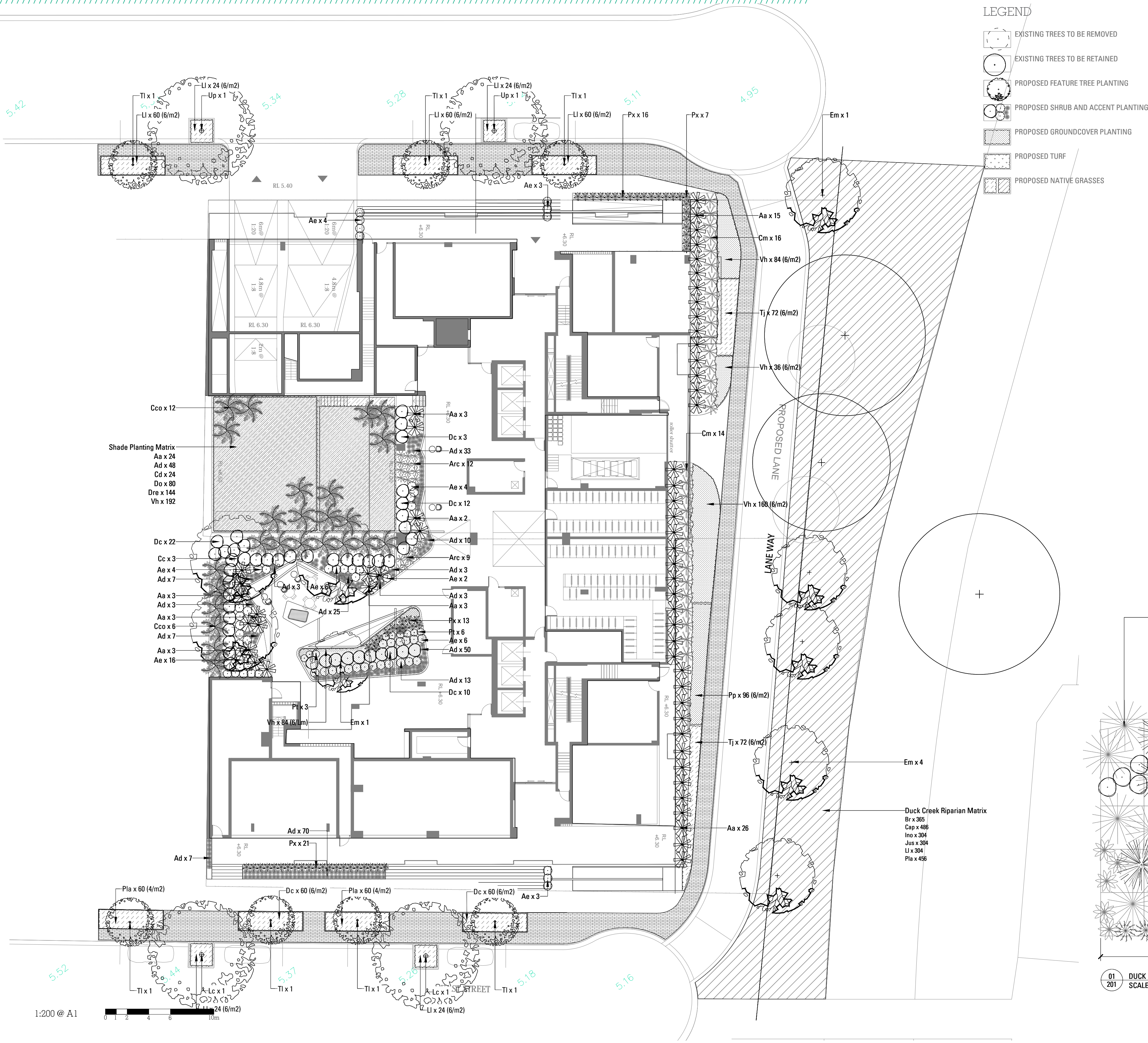


Shrubs



Groundcovers



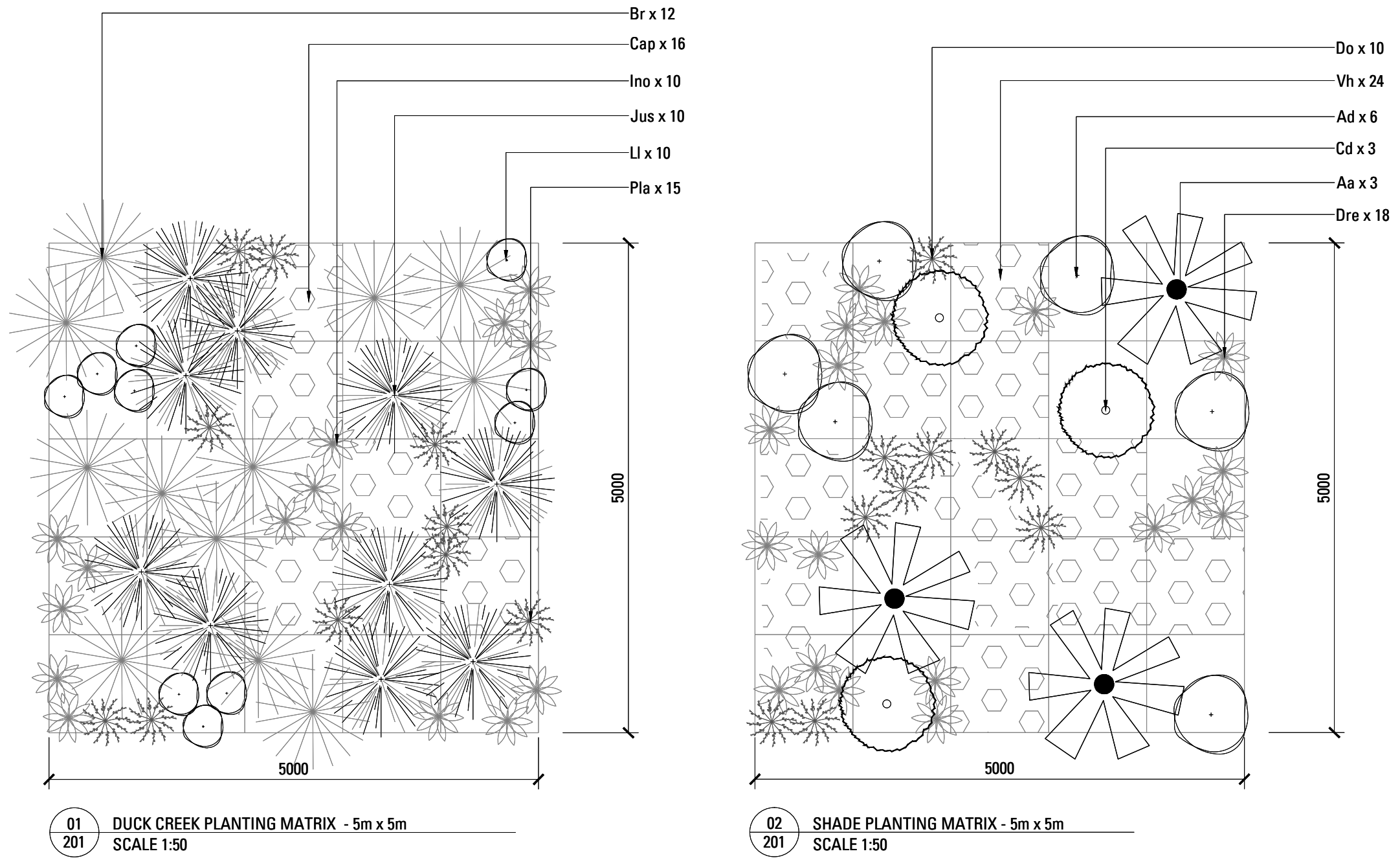


LEGEND

- EXISTING TREES TO BE REMOVED
- EXISTING TREES TO BE RETAINED
- PROPOSED FEATURE TREE PLANTING
- PROPOSED SHRUB AND ACCENT PLANTING
- PROPOSED GROUNDCOVER PLANTING
- PROPOSED TURF
- PROPOSED NATIVE GRASSES

15-304 COWPER STREET GRANVILLE - PLANT SCHEDULE

CODE	BOTANIC NAME	COMMON NAME	MATURE SIZE (h x w) (m)	PROPOSED POT SIZE	QUANTITY
TREES & PALMS					
Cc	<i>Callistemon citrinus</i>	Crimson Bottlebrush	4 x 2	75L	3
Em	<i>Eucalyptus moluccana</i>	Grey Box	20 x 10	75L	6
Tl	<i>Tristania laurina</i>	Water Gum	10 x 5	200L	7
Up	<i>Ulmus parvifolia</i>	Chinese Elm	10 x 5	75L	2
SHRUBS & ACCENTS					
Arc	<i>Arthropodium cirratum</i>	Renga Renga Lily	1 x 1	25L	21
Ae	<i>Aspidistra elatior</i>	Cast Iron Plant	0.5 x 1.0	10L	48
Cm	<i>Clivia miniata</i>	Bush Lily	1 x 1	150mm	30
Pt	<i>Pittosporum tobira</i> 'Miss Muffett'	Miss Muffett Pittosporum	0.8 x 1	25L	9
Px	<i>Philodendron 'Xanadu'</i>	Xanadu	1 x 1	25L	57
GRASSES & RUSHES					
Dc	<i>Dianella caerulea</i>	Flax Lily	0.5 x 0.5	150mm	145
Ll	<i>Lomandra longifolia</i>	Mat rush	0.6 x 0.6	150mm	277
Pla	<i>Poa labillardieri</i> 'Eskdale'	Eskdale	1 x 1	150mm	120
FERNS & CYCADS					
Ad	<i>Adiantum aethiopicum</i>	Maidenhair Fern	0.5 x 0.5	200mm	234
Aa	<i>Asplenium australasicum</i>	Birds Nest Fern	1.5 x 1.5	5L	59
Cco	<i>Cyathea cooperi</i>	Tree Fern	5 x 2	Min 1.5m trunk	18
GROUNDCOVERS & CLIMBERS					
Vh	<i>Viola hederacea</i>	Native Violet	0.2 x 0.5	150mm	280
Pp	<i>Pandorea pandorana</i>	Wonga Wonga Vine	0.25 x spreading	150mm	96
Tj	<i>Trachelospermum jasminoides</i>	Star Jasmine	0.25 x 1	150mm	144
SHADE PLANTING MATRIX					
Aa	<i>Asplenium australasicum</i>	Birds Nest Fern	1.5 x 1.5	5L	24
Ad	<i>Adiantum aethiopicum</i>	Maidenhair Fern	0.5 x 0.5	200mm	96
Od	<i>Calochlaena dubia</i>	False Bracken Fern	1.2 x 1.2	200mm	24
Do	<i>Doodia aspera</i>	Prickly Rasp Fern	0.5 x 0.5	150mm	80
Dre	<i>Dichondra repens</i>	Kidney Weed	0.1 x spreading	150mm	144
Vh	<i>Viola hederacea</i>	Native Violet	0.2 x 0.5	150mm	192
DUCK CREEK PLANTING MATRIX					
Br	<i>Baumea rubiginosa</i>	Soft Twigrush	0.7 x 0.7	150mm	365
Cap	<i>Carex appressa</i>	Swamp Sedge	1 x 1	150mm	486
Ino	<i>Iscolepis nodosa</i>	Knobby Club Rush	1 x 1	150mm	304
Jus	<i>Juncus ustitatus</i>	Common Rush	0.8 x 0.5	150mm	304
Ll	<i>Lomandra longifolia</i>	Mat rush	0.6 x 0.6	150mm	304
Pla	<i>Poa labillardieri</i> 'Eskdale'	Eskdale	1 x 1	150mm	456



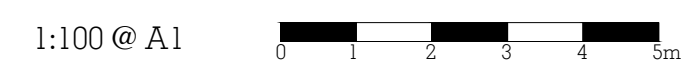
EXISTING TREES TO BE REMOVED

EXISTING TREES TO BE RETAINED

PROPOSED FEATURE TREE PLANTING

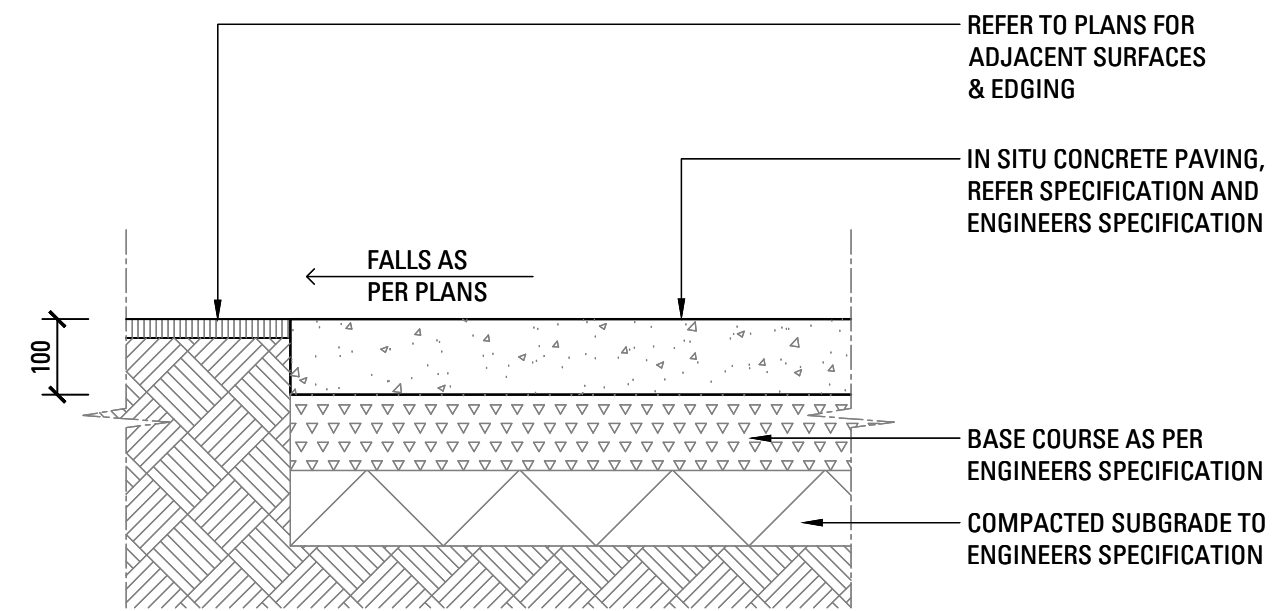
PROPOSED SHRUB AND ACCENT PLANTING

PROPOSED GROUNDCOVER PLANTING

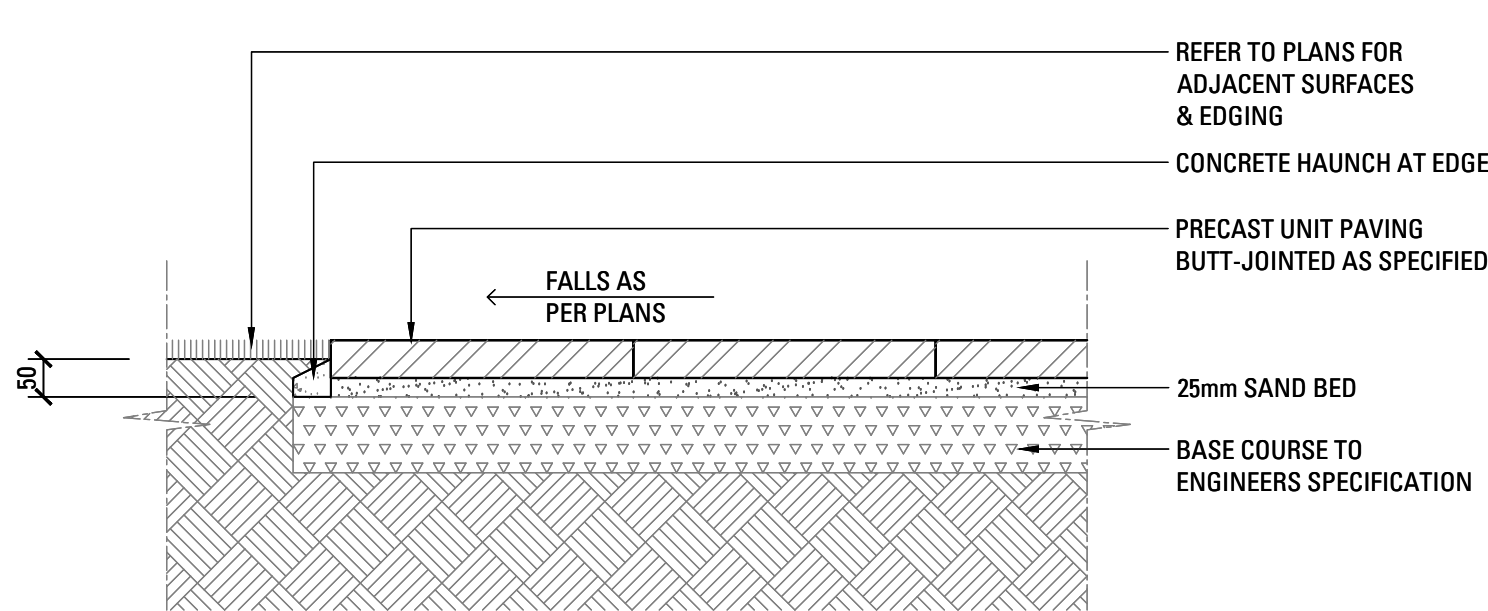


CODE	BOTANIC NAME	COMMON NAME	MATURE SIZE (h x w) (m)	POT SIZE	QUANTITY
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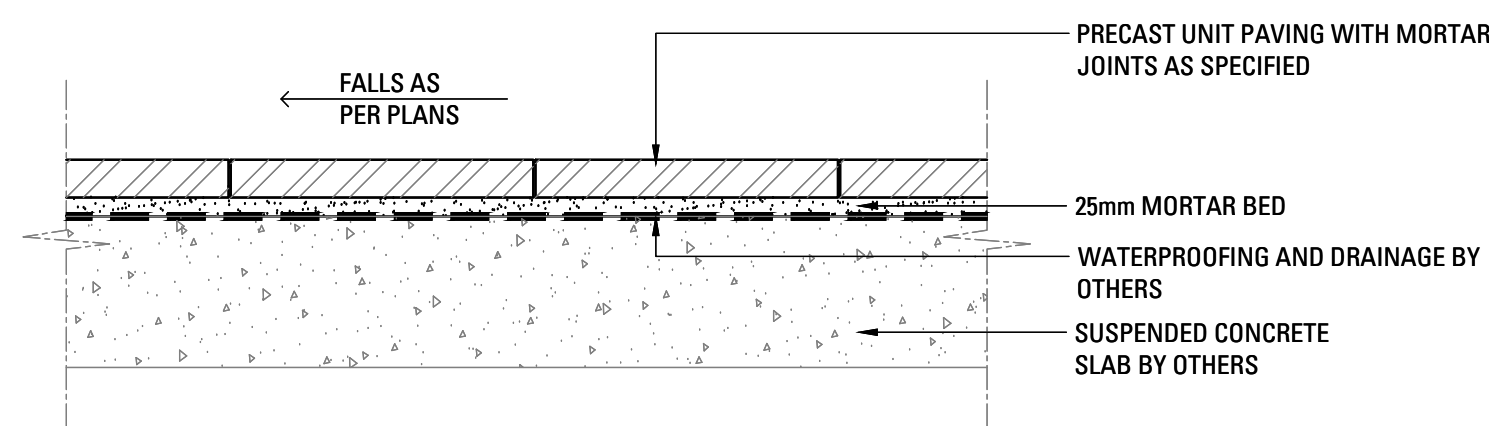
ROOFTOP					
TREES & PALMS					
Cc	<i>Callistemon citrinus</i>	Crimson Bottlebrush	4 x 2	75L	12
Tl	<i>Tristaniopsis laurina</i>	Water Gum	10 x 5	200Lt	2
SHRUBS & ACCENTS					
Ae	<i>Aspidistra elatior</i>	Cast Iron Plant	0.6 x 0.6	150mm	91
Arc	<i>Arthropodium cirratum</i>	Renga Renga Lily	1 x 1	25L	16
Dc	<i>Dianella caerulea</i>	Flax Lily	0.5 x 0.5	150mm	348
Px	<i>Philodendron 'Xanadu'</i>	Xanadu	1 x 1	25L	158
FERNS & CYCADS					
Aa	<i>Asplenium australasicum</i>	Birds Nest Fern	1.5 x 1.5	200mm	24
GROUNDCOVERS & CLIMBERS					
Vh	<i>Viola hederacea</i>	Native Violet	0.2 x 0.5	150mm	388



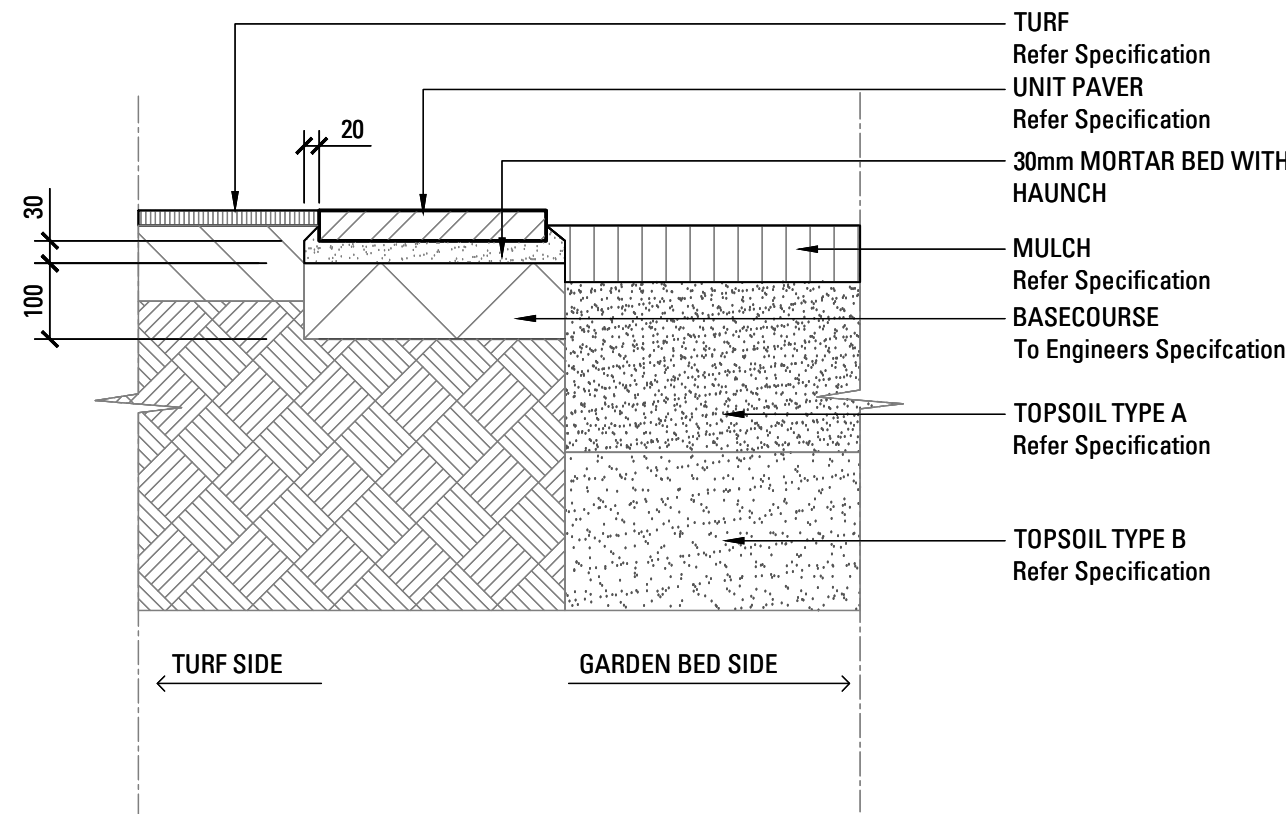
01 INSITU CONCRETE PAVING
SCALE 1:10



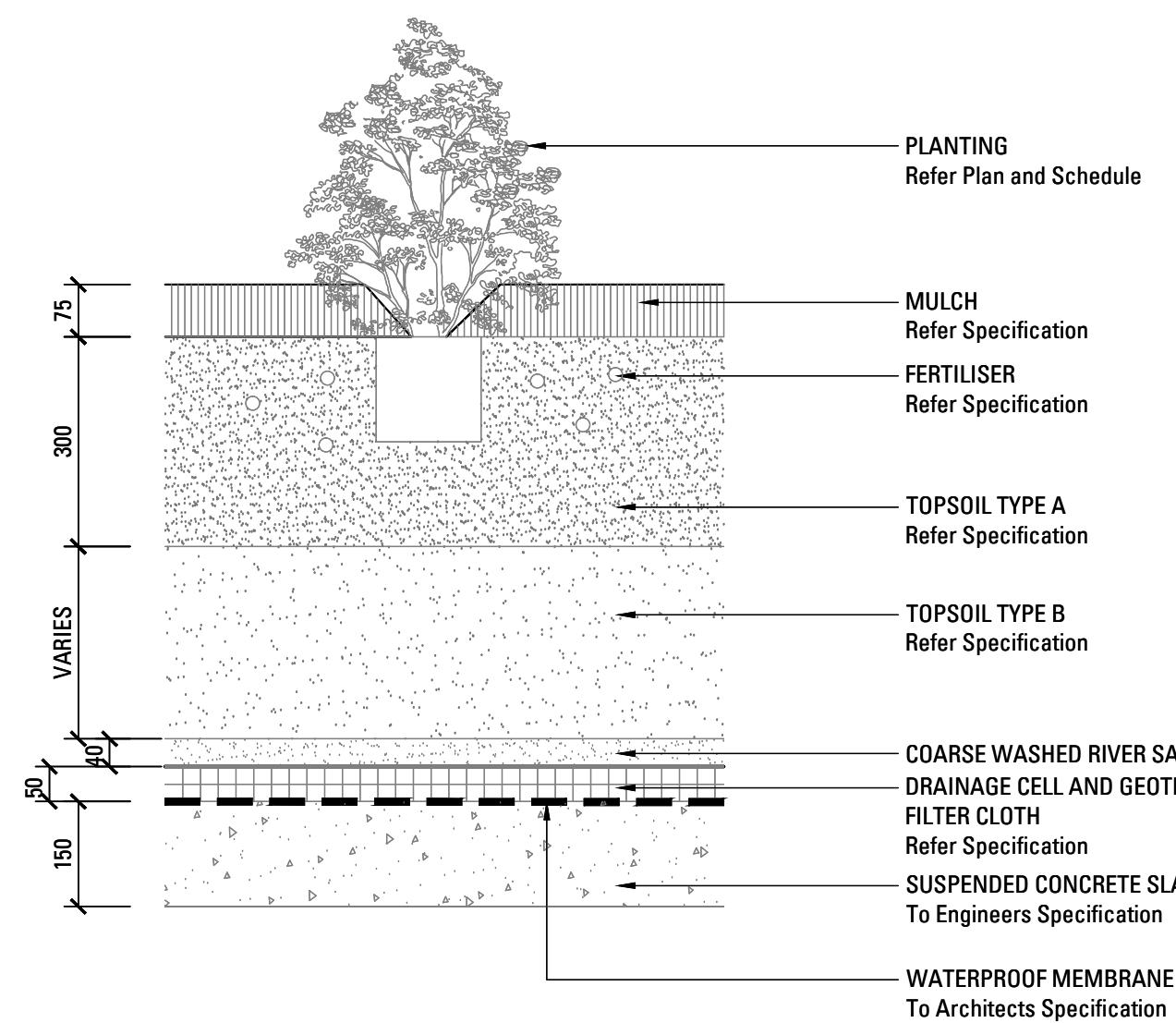
02 PRECAST UNIT PAVERS ON GRADE
SCALE 1:10



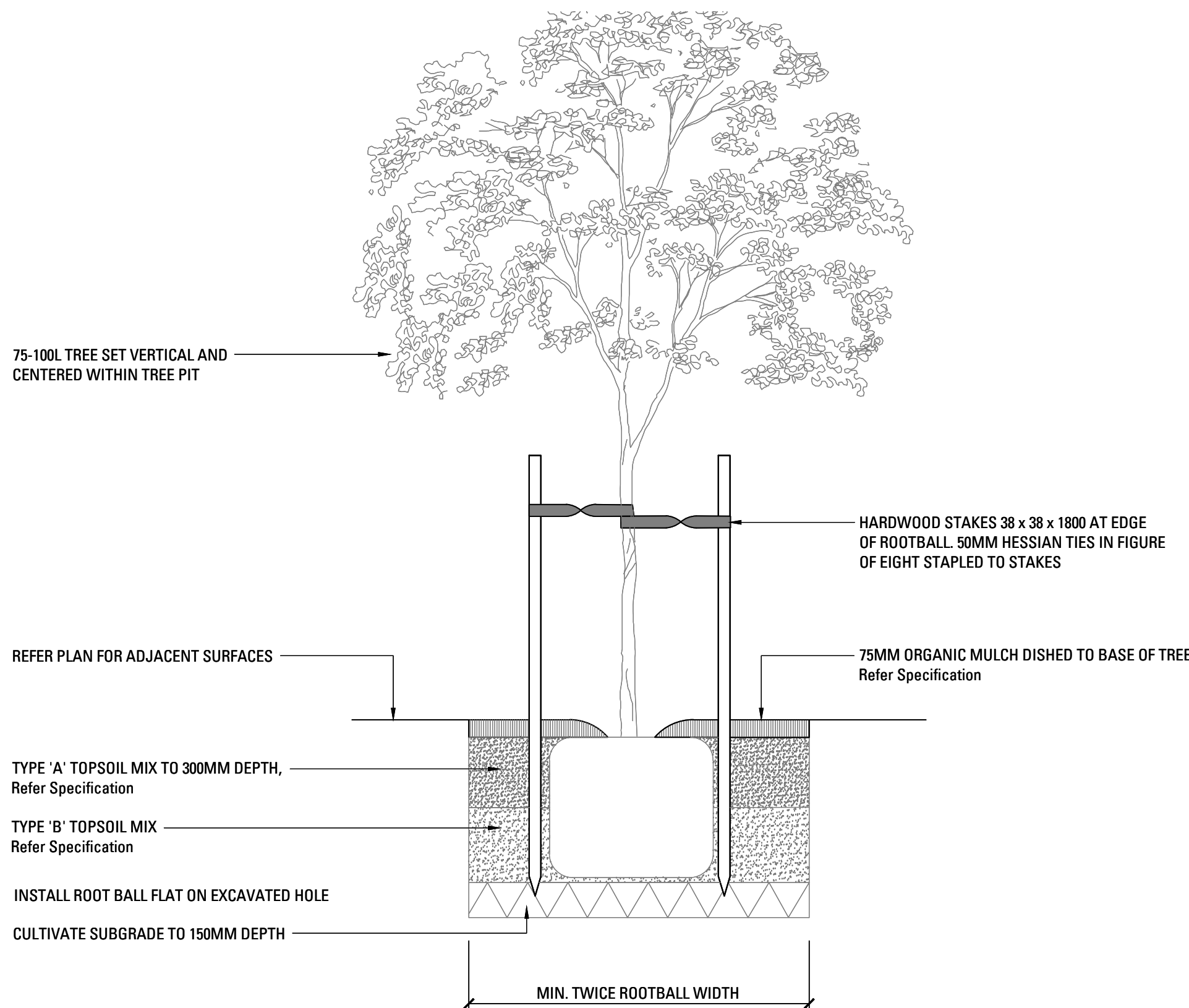
03 PRECAST UNIT PAVERS ON SUSPENDED SLAB
SCALE 1:10



04 UNIT PAVER EDGE
SCALE 1:10



05 150MM-25L SHRUB PLANTING ON SLAB
SCALE 1:10



06 TREE PLANTING 75-100L
SCALE 1:20

LANDSCAPE SPECIFICATION NOTES

SERVICES
BEFORE LANDSCAPE WORK IS COMMENCED THE LANDSCAPE CONTRACTOR IS TO ESTABLISH THE POSITION OF ALL SERVICE LINES AND ENSURE TREE PLANTING IS CARRIED OUT AT LEAST 3 METRES AWAY FROM THESE SERVICES. SERVICE LIDS, VENTS AND HYDRANTS SHALL BE LEFT EXPOSED AND NOT COVERED BY ANY LANDSCAPE FINISHES (TURFING, PAVING, GARDEN BEDS ETC.) FINISH ADJOINING SURFACES FLUSH WITH PIT LIDS.

ARBORIST MANAGEMENT OF TREE PROTECTION
A QUALIFIED AND APPROVED ARBORIST IS TO BE CONTRACTED TO UNDERTAKE OR MANAGE THE INSTALLATION OF PROTECTIVE FENCING, AND TO UNDERTAKE SUCH MEASURES AS HE DEEMS APPROPRIATE TO PRESERVE THE SUBJECT TREES TO BE RETAINED. THE ARBORIST IS TO BE RETAINED FOR THE ENTIRE CONTRACT PERIOD TO UNDERTAKE ONGOING MANAGEMENT AND REVIEW OF THE TREES.

DRAINAGE CELL AND FILTER FABRIC
FOR ON-SLAB AREAS INSTALL AN APPROVED 'DRAINAGE CELL' PRODUCT TO COMPREHENSIVELY COVER THE BOTTOM OF ALL PLANTERS. OVER DRAINAGE CELL TO ON-SLAB AREAS, A POLYFELT GEOTEXTILE LINING (AS SUPPLIED BY 'POLYFELT TS' OR APPROVED EQUIVALENT) IS TO BE INSTALLED TO COVER THE BOTTOM OF ALL PLANTERS, TURNED UP 300MM AND TAPED TO THE PLANTER SIDES TO ENSURE SOIL MIX DOES NOT ESCAPE INTO DRAINAGE OUTLETS/HOLES. INSTALL MIN. 50MM COARSE RIVER SAND OVER ALL GEOTEXTILE LINING PRIOR TO INSTALLATION OF SOIL MIX.

PLANTING MIXTURE
SHALL BE HOMOGENEOUS BLEND OF SOIL AND ADDITIVES IN THE FOLLOWING PROPORTIONS:
EXISTING SITE SOIL IF SUITABLE OR IMPORTED TOPSOIL 50%
COMPOST 30%
D/W SAND 20%
SOIL TESTING OF EXISTING SITE SOIL IS TO BE UNDERTAKEN TO ASSESS SUITABILITY OF USE AS PLANTING TOPSOIL AND COMPLIANCE WITH AUSTRALIAN STANDARDS.

MULCH APPLICATION
PLACE MULCH TO THE REQUIRED DEPTH, (REFER TO DRAWINGS) CLEAR OF PLANT STEMS, AND RAKE TO AN EVEN SURFACE FINISHING 25MM BELOW ADJOINING LEVELS. ENSURE MULCH IS WATERED IN AND TAMPED DOWN DURING INSTALLATION.

MULCH TYPE
PINE BARK: FROM MATURE TREES, GRADED IN SIZE FROM 15MM TO 30MM, FREE FROM WOOD SLIVERS. DARK BROWN IN COLOUR AND TEXTURE.

COMPOST
SHALL BE WELL ROTTED VEGETATIVE MATERIAL OR ANIMAL MANURE, OR OTHER APPROVED MATERIAL, FREE FROM HARMFUL CHEMICALS, GRASS AND WEED GROWTH AND WITH NEUTRAL PH. PROVIDE A CERTIFICATE OF PROOF OF PH UPON REQUEST.

PLANT MATERIAL
ALL PLANTS SUPPLIED ARE TO CONFORM WITH THOSE SPECIES LISTED IN THE PLANT SCHEDULE ON THE DRAWINGS. GENERALLY PLANTS SHALL BE VIGOROUS, WELL ESTABLISHED, HARDENED OFF, OF GOOD FORM CONSISTENT WITH SPECIES OR VARIETY, NOT SOFT OR FORCED, FREE FROM DISEASE OR INSECT PESTS WITH LARGE HEALTHY ROOT SYSTEMS AND NO EVIDENCE OF HAVING BEEN RESTRICTED OR DAMAGED. TREES SHALL HAVE A LEADING SHOOT. IMMEDIATELY REJECT DRIED OUT, DAMAGED OR UNHEALTHY PLANT MATERIAL BEFORE PLANTING. ALL STOCK IS TO BE CONTAINER GROWN FOR A MINIMUM OF SIX (6) MONTHS PRIOR TO DELIVERY TO SITE.

FERTILISER MASS PLANTING AREAS:
FERTILISER SHALL BE 'NUTRICOTE' OR APPROVED EQUIVALENT IN GRANULE FORM INTENDED FOR SLOW RELEASE OF PLANT NUTRIENTS OVER A PERIOD OF APPROXIMATELY NINE MONTHS. THOROUGHLY MIX FERTILISER WITH PLANTING MIXTURE AT THE RECOMMENDED RATE, PRIOR TO INSTALLING PLANTS.

TURF
SHALL BE SIR WALTER BUFFALO, SHIRLEYS NO. 17 OR APPROVED EQUAL LAWN FOOD SHALL BE THOROUGHLY MIXED INTO THE TOPSOIL PRIOR TO PLACING TURF.

TREES IN GRASS AND SUPER ADVANCED TREES:
PELLETS SHALL BE IN THE FORM INTENDED TO UNIFORMLY RELEASE PLANT FOOD ELEMENTS FOR A PERIOD OF APPROXIMATELY NINE MONTHS EQUAL TO SHIRLEYS KOKOI PELLETS, ANALYSIS 6.3:1.8:2.9. KOKOI PELLETS SHALL BE PLACED AT THE TIME OF PLANTING TO THE BASE OF THE PLANT, 50MM MINIMUM FROM THE ROOT BALL AT A RATE OF TWO PELLETS PER 300MM OF TOP GROWTH TO A MAXIMUM OF 8 PELLETS PER TREE.

STAKING AND TYING
STAKES SHALL BE STRAIGHT HARDWOOD, FREE FROM KNOTS AND TWISTS, POINTED AT ONE END AND SIZED ACCORDING TO SIZE OF PLANTS TO BE STAKED.
A. 5-15 LITRE SIZE PLANT 1X(1200X25X25MM)
B. 35-75 LITRE SIZE PLANT 2X(1500X30X38MM)
C. 100- GREATER THAN 200LITRE 3X(1800X50X30MM)
TIES SHALL BE 50MM WIDE HESSIAN WEBBING OR APPROVED EQUIVALENT NAILED OR STAPLED TO STAKE. DRIVE STAKES A MINIMUM ONE THIRD OF THEIR LENGTH, AVOIDING DAMAGE TO THE ROOT SYSTEM, ON THE WINDWARD SIDE OF THE PLANT.

IRRIGATION SYSTEM
SUPPLY AN AUTOMATIC WATERING SYSTEM USING 'TORO IRRIGATION SYSTEM' OR SIMILAR APPROVED, WITH MICRO-JET SPRINKLER HEADS AND LOW DENSITY, RUBBER MODIFIED POLYPROPYLENE RETICULATION, TO INCLUDE FILTERS, BENDS, JUNCTIONS, ENDS AND OTHER ANCILLARY EQUIPMENT. THE LANDSCAPER SHALL NOMINATE HIS SOURCE OF SUPPLY FOR THE WATERING SYSTEM AND OBTAIN APPROVAL FROM THE SUPERINTENDENT BEFORE PLACING ORDERS FOR EQUIPMENT OR SUPPLY.

A SCHEMATIC PLAN OF THE PROPOSED IRRIGATION SYSTEM IS TO BE PREPARED BY THE CONTRACTOR, SHOWING SOLENOIDS, PIPE DIAMETERS, AND ALL NOZZLE AND TRICKLE ATTACHMENT TYPES (INCLUDING SPRAY/HEAD ANGLE), FOR REVIEW BY THE SUPERINTENDENT PRIOR TO INSTALLATION

THE CONTRACTOR IS TO LIASE WITH THE HYDRAULIC ENGINEER AND COUNCIL AS NECESSARY, TO ENSURE THE IRRIGATION SYSTEM CONFORMS WITH ALL THE COUNCIL AND WATER BOARD CODES AND REQUIREMENTS.

PROVIDE AN AUTOMATIC CONTROLLER THAT PROVIDES FOR TWO WEEK SCHEDULING AND HOURLY MULTI-CYCLE OPERATION. THE CONTROLLER SHALL MANUAL OVERRIDE. PROGRAMMING SHALL BE UNDERTAKEN BY THE CONTRACTOR WHO SHALL ADVISE ON THE OPERATION OF THE SYSTEM.

PROVISION OF SECURE HOUSING FOR THE AUTOMATIC IRRIGATION CONTROLLER TO BE LOCATED IN ASSOCIATION WITH THE LANDSCAPE CONTRACTOR AND LOCATION CONFIRMED BY THE SUPERINTENDENT. WIRING TO CONNECT REMOTE SOLENOID LOCATIONS IS TO BE PROVIDED. THE CONTROLLER SHALL BE LOCATED IN A DRY PLACE, PROTECTED FROM THE WEATHER, AND ALL CABLE CONNECTIONS SHALL BE MADE WITH WATERPROOF CONNECTORS.

WATER SUPPLY POINTS TO BE SUPPLIED BY BUILDER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE AND GUARANTEE SATISFACTORY OPERATION OF THE IRRIGATION SYSTEM.

AFTER THE SYSTEM HAS BEEN INSTALLED TO THE SATISFACTION OF THE SUPERINTENDENT, THE INSTALLATION SHALL BE TESTED UNDER KNOWN WORKING CONDITIONS. ACCEPTANCE OF THE INSTALLED PLANT AND EQUIPMENT SHALL BE SUBJECT TO THESE BEING SATISFACTORY.

TREATED PINE TIMBER EDGING
TIMBER EDGE: 100 X 25MM CCA TREATED RADIATA PINE TIMBER STAKES: 50 X 50 X 500MM CCA TREATED RADIATA PINE-SHARPENED AT ONE END. INSTALL IN LOCATIONS SHOWN ON THE DRAWINGS FLUSH TO FINISHED SURFACE LEVELS.

TURF
TURF ALL LANDSCAPE AREAS AS SHOWN ON THE LANDSCAPE DRAWINGS. TURF IS TO HAVE AN EVEN THICKNESS OF NOT LESS THAN 25MM. OBTAIN TURF FROM AN APPROVED GROWER. FURNISH A WARRANTY FROM THE GROWER THAT THE TURF IS FREE FROM WEEDS AND OTHER FOREIGN MATTER. DELIVER TURF TO THE SITE WITHIN 24 HOURS OF BEING CUT, AND LAY IT WITHIN 24 HOURS OF BEING DELIVERED.

TO PREPARE GRADED AREAS TO RECEIVE TURF, EXCAVATE THE AREA AND CULTIVATE SO AS TO ALLOW FOR IMPORTING OF 100MM OF TURF UNDERLAY SOIL. REMOVE ALL STONES OVER 50MM Ø AND REMOVE ALL WEEDS AND FOREIGN MATTER. SPREAD SOIL MIX A.B.S TO A DEPTH OF 100MM AND GRADE TO APPROPRIATE LEVELS TO ACHIEVE GENERAL EVEN GRADES TO DRAINAGE OUTLETS INSTALLED BY OTHERS.

LAY THE TURF ALONG THE LAND CONTOURS WITH STAGGERED, CLOSE BUTTED JOINTS, SO THAT THE FINISHED TURF SURFACE IS FLUSH WITH ADJACENT FINISHED SURFACES OF PAVING AND THE LIKE. AS SOON AS PRACTICABLE AFTER LAYING, ROLL THE TURF WITH A ROLLER WEIGHING NOT MORE THAN 90KG PER METRE OF WIDTH FOR SANDY OR LIGHT SOILS.

WATER AS NECESSARY TO KEEP THE SOIL MOIST TO A DEPTH OF 100MM. PROTECT NEWLY TURFED AREAS AGAINST TRAFFIC UNTIL GRASS IS ESTABLISHED. FERTILISE TWO WEEKS AFTER LAYING FERTILISE A.B.S

'TOP DRESS' THE TURF WHEN IT IS ESTABLISHED TO A DEPTH OF 10MM WITH COARSE WASHED RIVER SAND. RUB THE DRESSING WELL INTO THE JOINTS AND CORRECT ANY UNEVENNESS IN THE TURF SURFACES.

LANDSCAPE MAINTENANCE PROGRAM

MAINTENANCE SHALL MEAN THE CARE AND MAINTENANCE OF THE LANDSCAPE WORKS BY ACCEPTED HORTICULTURAL PRACTICE AS RECTIFYING ANY DEFECTS THAT BECOME APPARENT IN THE LANDSCAPE WORKS UNDER NORMAL USE. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, WATERING, MOWING, FERTILISING, RESEEDING, RETURFING, WEEDING, PEST AND DISEASE CONTROL, STAKING AND TYING, REPLANTING, CULTIVATION, PRUNING, AERATING, RENOVATING, TOP DRESSING, MAINTAINING THE SITE IN A NEAT AND TIDY CONDITION AS FOLLOWS:-

GENERAL
THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE LANDSCAPE WORKS FOR THE TERM OF THE MAINTENANCE (OR PLANT ESTABLISHMENT) PERIOD TO THE SATISFACTION OF THE COUNCIL. THE LANDSCAPE CONTRACTOR SHALL ATTEND TO THE SITE ON A WEEKLY BASIS. THE MAINTENANCE PERIOD SHALL COMMENCE AT PRACTICAL COMPLETION AND CONTINUE FOR A PERIOD OF TWENTY SIX (26) WEEKS.

WATERING
GRASS, TREES AND GARDEN AREAS SHALL BE WATERED REGULARLY SO AS TO ENSURE CONTINUOUS HEALTHY GROWTH.

RUBBISH REMOVAL
DURING THE TERM OF THE MAINTENANCE PERIOD THE LANDSCAPE CONTRACTOR SHALL REMOVE RUBBISH THAT MAY OCCUR AND REOCCUR THROUGHOUT THE MAINTENANCE PERIOD. THIS WORK SHALL BE CARRIED OUT REGULARLY SO THAT AT WEEKLY INTERVALS THE AREA MAY BE OBSERVED IN A COMPLETELY CLEAN AND TIDY CONDITION.

REPLACEMENTS
THE LANDSCAPE CONTRACTOR SHALL REPLACE ALL PLANTS THAT ARE MISSING, UNHEALTHY OR DEAD AT THE LANDSCAPE CONTRACTOR'S COST. REPLACEMENTS SHALL BE OF THE SAME SIZE, QUALITY AND SPECIES AS THE PLANT THAT HAS FAILED UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT. REPLACEMENTS SHALL BE MADE ON A CONTINUING BASIS NOT EXCEEDING TWO (2) WEEKS AFTER THE PLANT HAS DIED OR IS SEEN TO BE MISSING.

STAKES AND TIES
THE LANDSCAPE CONTRACTOR SHALL REPLACE OR ADJUST PLANT STAKES, AND TREE GUARDS AS NECESSARY OR AS DIRECTED BY THE LANDSCAPE ARCHITECT. REMOVE STAKES AND TIES AT THE END OF THE MAINTENANCE PERIOD IF SO DIRECTED.

PRUNING
TREES AND SHRUBS SHALL BE PRUNED AS DIRECTED BY THE LANDSCAPE ARCHITECT. PRUNING WILL BE DIRECTED AT THE MAINTENANCE OF THE DENSE FOLIAGE OR MISCELLANEOUS PRUNING AND BENEFICIAL TO THE CONDITION OF THE PLANTS. ANY DAMAGED GROWTH SHALL BE PRUNED. ALL PRUNED MATERIAL SHALL BE REMOVED FROM THE SITE.

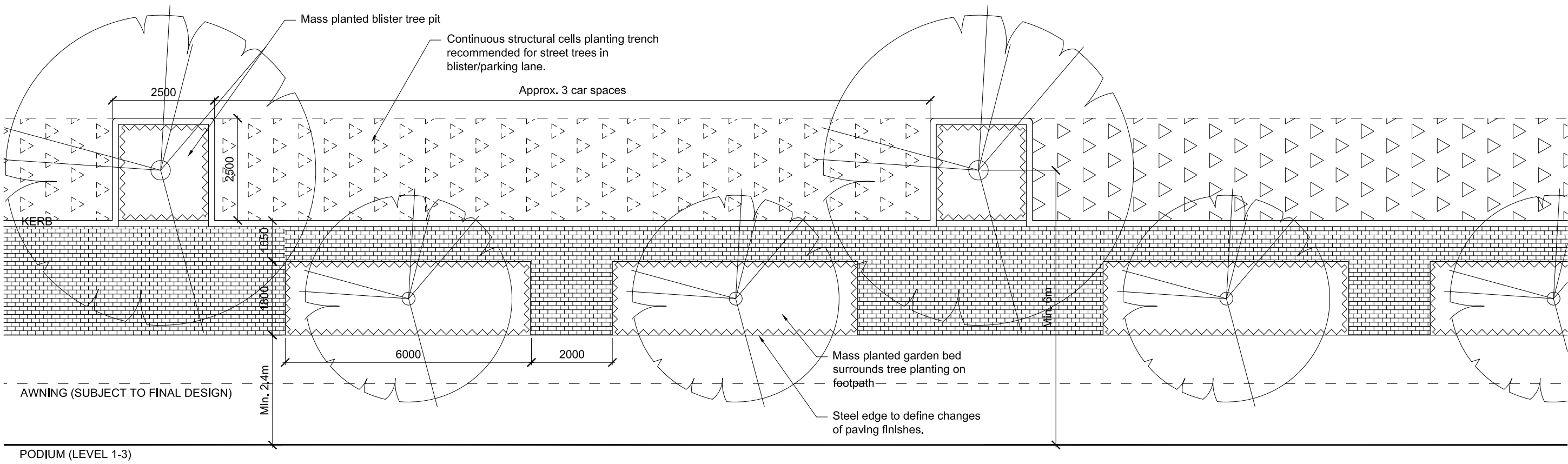
MULCHED SURFACES
ALL MULCHED SURFACES SHALL BE MAINTAINED IN A CLEAN AND TIDY CONDITION AND BE REINSTITATED IF NECESSARY TO ENSURE THAT A DEPTH OF 75MM IS MAINTAINED. ENSURE MULCH IS KEPT CLEAR OF PLANT STEMS AT ALL TIMES.

PEST AND DISEASED CONTROL
THE LANDSCAPE CONTRACTOR SHALL SPRAY AGAINST INSECT AND FUNGUS INFESTATION WITH ALL SPRAYING TO BE CARRIED OUT IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. REPORT ALL INSTANCES OF PESTS AND DISEASES (IMMEDIATELY THAT THEY ARE DETECTED) TO THE LANDSCAPE ARCHITECT.

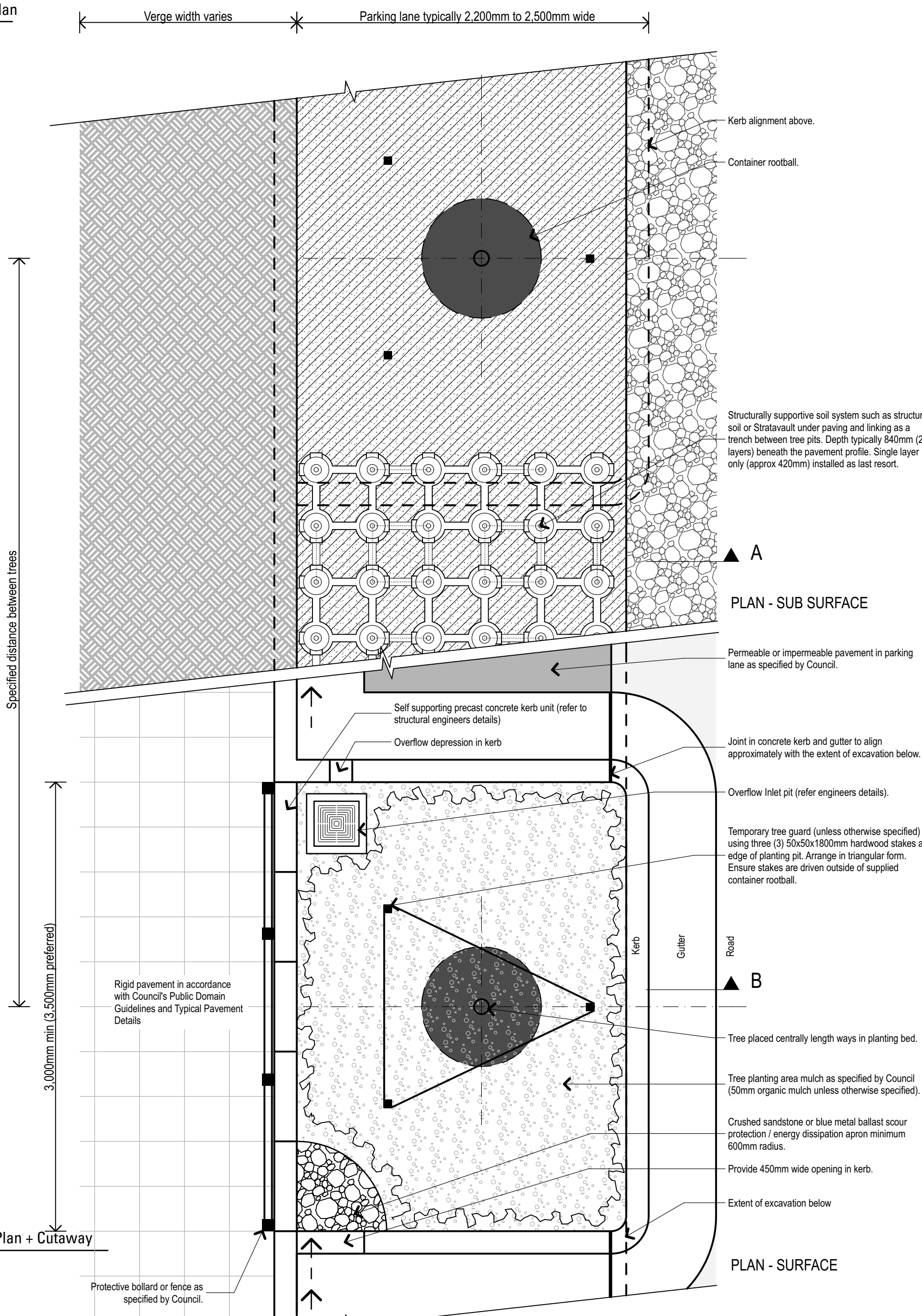
GRASS AND TURF AREAS
THE LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL GRASS AND TURF AREAS BY WATERING, WEEDING, DRESSING, ROLLING, MOWING, TRIMMING OR OTHER OPERATIONS AS NECESSARY. SEED AND TURF SPECIES SHALL BE THE SAME AS THE ORIGINAL SPECIFIED MIXTURE. GRASS AND TURF AREAS SHALL BE SPRAYED WITH APPROVED SELECTIVE HERBICIDE AGAINST BROAD LEAFED WEEDS AS REQUIRED BY THE LANDSCAPE ARCHITECT AND IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. GRASS AND TURF AREAS SHALL BE FERTILISED ONCE A YEAR IN AUTUMN WITH 'DYNAMIC LIFTER' FOR LAWNS AT A RATE OF 20KG PER 100M2. FERTILISER SHALL BE WATERED IN IMMEDIATELY AFTER APPLICATION. IRREGULARITIES IN THE GRASS AND TURF SHALL BE WATERED IN IMMEDIATELY AFTER APPLICATION. GRASS AND TURF AREAS SHALL BE KEPT MOWN TO MAINTAIN A HEALTHY AND VIGOROUS SWARD. MOWING HEIGHT: 30-50MM.

WEED ERADICATION
ERADICATE WEEDS BY ENVIRONMENTALLY ACCEPTABLE METHODS USING A NON-RESIDUAL GLYPHOSATE HERBICIDE (E.G. 'ROUNDUP') IN ANY OF ITS REGISTERED FORMULAE. AT THE RECOMMENDED MAXIMUM RATE. REGULARLY REMOVE BY HAND, WEED GROWTH THAT MAY OCCUR OR RECUR THROUGHOUT GRASSED, PLANTED AND MULCHED AREAS. REMOVE WEED GROWTH FROM AN AREA 750MM DIAMETER AROUND THE BASE OF TREES IN GRASSED AREAS. CONTINUE ERADICATION THROUGHOUT THE COURSE OF THE WORKS AND DURING THE MAINTENANCE PERIOD.

SOIL SUBSIDENCE
ANY SOIL SUBSIDENCE OR EROSION WHICH MAY OCCUR AFTER THE SOIL FILLING AND PREPARATION OPERATIONS SHALL BE MADE GOOD BY THE LANDSCAPE CONTRACTOR AT NO COST TO THE CLIENT.

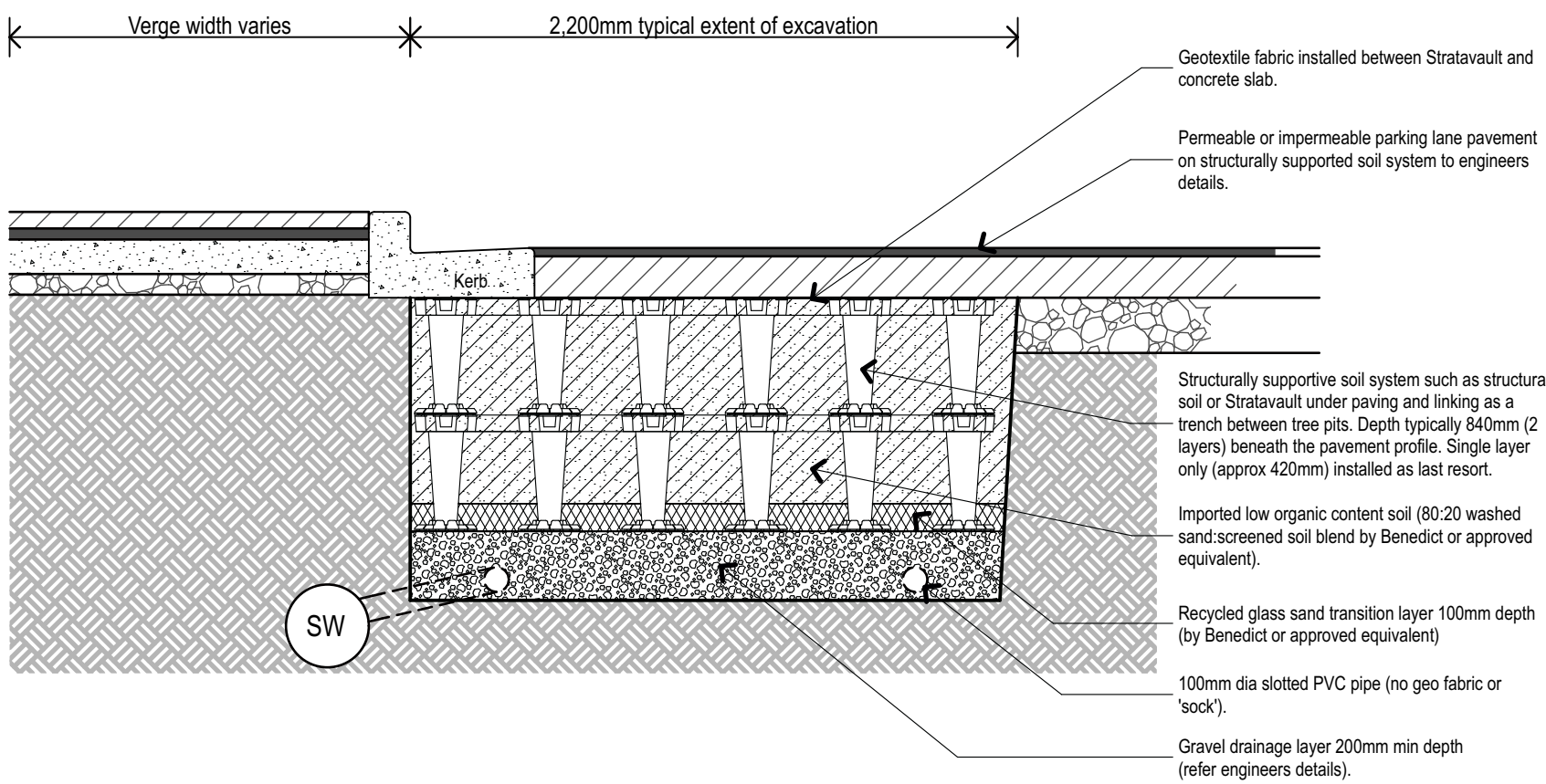


1 Typical Streetscape Layout Plan
Scale 1:200 @ A3

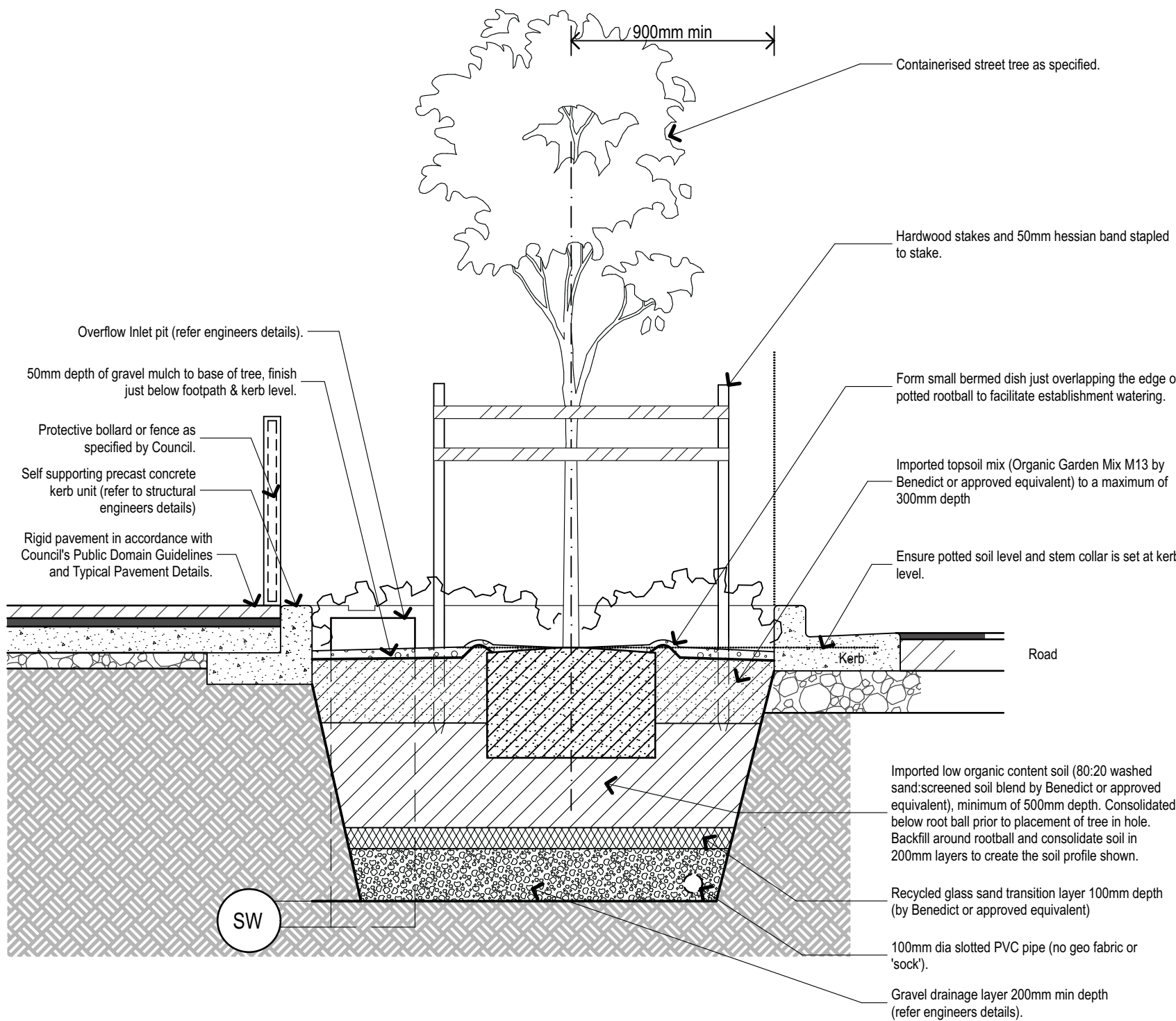


2 In Road Tree Planting Detail Plan + Cutaway
Not To Scale

PUBLIC DOMAIN DETAILS TO BE AS PER COUNCIL
PUBLIC DOMAIN RECOMMENDATIONS

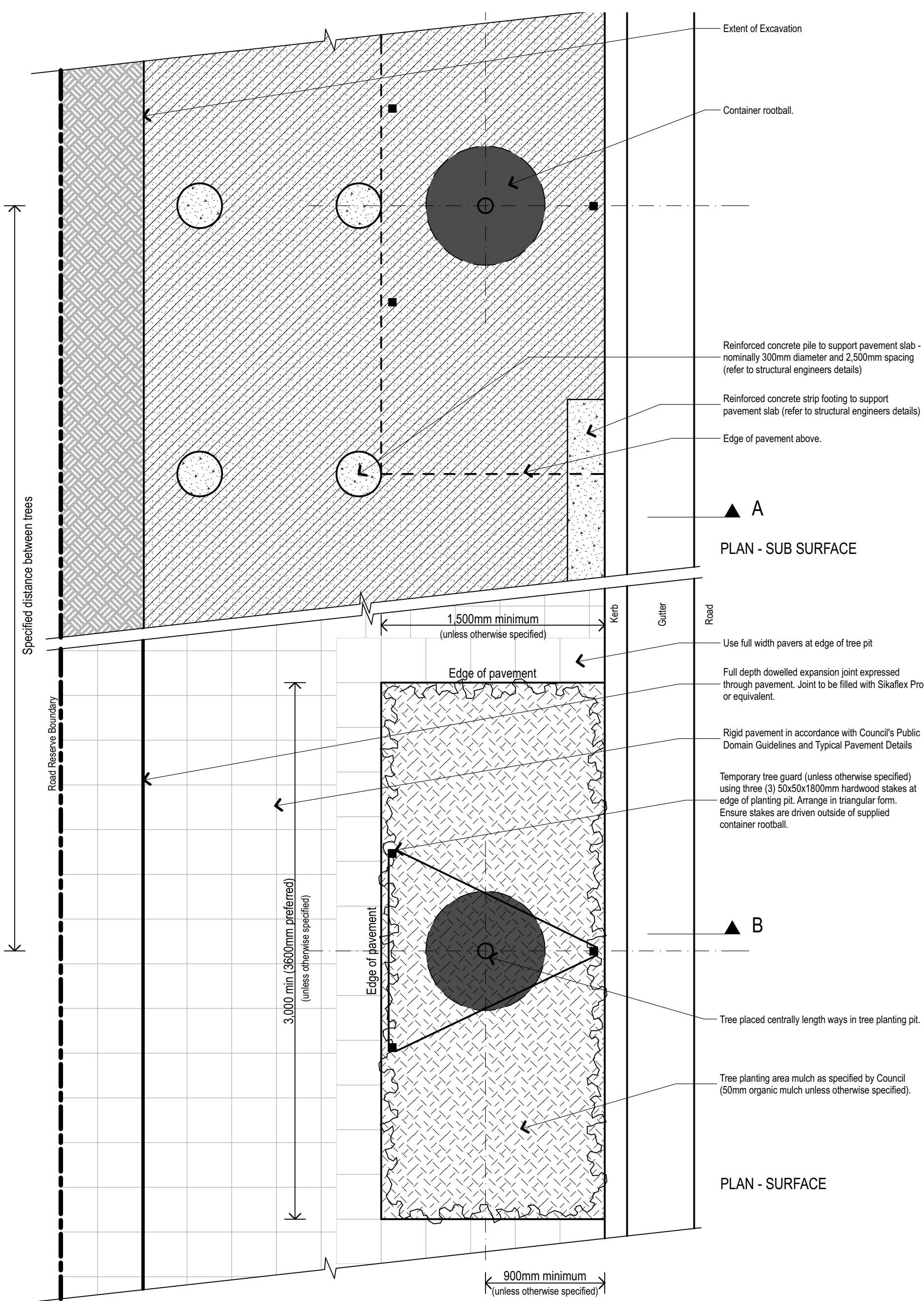


SECTION A - PARKING LANE OVER STRUCTURALLY SUPPORTED SOIL SYSTEM



SECTION B - PASSIVE IRRIGATION PLANTING BED IN PARKING LANE

PUBLIC DOMAIN DETAILS TO BE AS PER COUNCIL
PUBLIC DOMAIN RECOMMENDATIONS



1 Tree Planting In Verge Detail Plan + Cutaway
503 Not To Scale

