Devon Street Green Masterplan.

Isthmus.

NPDC

04 October
2024

Contents.

Note: This document is intended to be read in a double page spread format

Document record.

Issue	Revision	Author	QA	Date
Progress Draft	A	TM, TW, TW	NK	20.05.22
Draft	B	TM, TW	NK	28.06.22
Final / Approved	C	TW	TW	04.10.24

Introduction.

New Plymouth District Council (NPDC) has mandated that the existing Italian alder trees on Devon Street be removed and replaced with a suitable alternative. This is due to ongoing maintenance issues with leaves and catkins dropping onto adjacent awnings and slip issues from catkins and wet leaves on the footpath below.

In 2020 the alders from Queen Street to Gover Street were pruned as a temporary measure to reduce dropping onto awnings, while a tree replacement plan is developed - The Devon Street Green Masterplan.

The Green Masterplan aligns with the goals of the City Centre Masterplan to improve the city core's public realm quality and experience with increased greening and improvements beyond just street tree replacement.

The Devon Street Green Masterplan

The Devon Street Green Masterplan (the Green Masterplan) has been developed by Isthmus Group (Isthmus) in collaboration with NPDC open space team and arborist.

The intent of the Green Masterplan is to show a practicable vision for the extent of trees to be removed, what they will be replaced with, and how new, staged greening approaches could be laid out along Devon Street, in alignment with the New Plymouth City Centre Strategy (NPCCS). The Green Masterplan is not a streetscape upgrade masterplan addressing streetscape elements beyond planting and tree components. While indicatively shown on the plan, the quantity, type and arrangement of street furniture, parking and other elements are intended to be refined and addressed as part of future design progression, with consideration to the whole streetscape. The Green Masterplan is not intended to be used as a document to be built from - it is intended that preliminary and detailed design phases will be the next steps to facilitate its implementation - see 'Next Steps' on page 46.

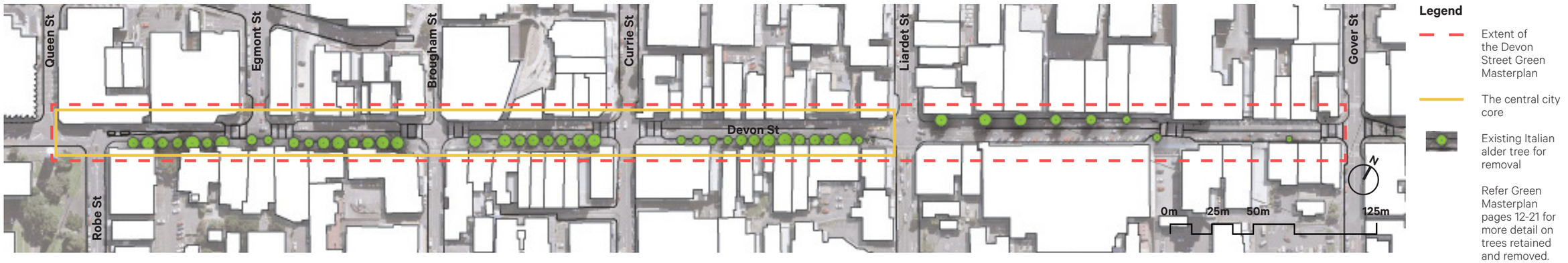
The Green Masterplan is intended as a guide, to be tested against more detailed survey data, existing conditions and underground services. Drawings are based off available GIS data, NPDC buried services data (GIS), estimated kerb lines and existing tree and awning positions based on aerials and spot site measurements, with no survey data or as-builts available.

This document summarises the Green Masterplan intent and outcomes under the following headings:

Introduction:
A high level overview of the Green Masterplan scope and intent.

The Green Masterplan:
- A masterplan showing the extent of trees to be replaced, what they will be replaced with (including trees, understorey and groundcover planting) and how that could be laid out along Devon Street.
- An Indicative phasing plan which outlines a variety of approaches to enable the work to be phased to align with Council budgets, and increase greening over time.
- A green toolkit, which communicates the different planter and tree pit components to suit different areas and applications along Devon Street.
- Tree and plant palettes to support the Green Masterplan.

Implementation:
- Design guidance and recommendations for tree planting and associated infrastructure to support healthy and sustained tree growth.
- Recommended next steps to progress and implement the Green Masterplan including preliminary and detailed design.



Devon Street Green Masterplan.
New Plymouth District Council.
04 October 2024.

Introduction.
Existing Context.

Existing Issues

Tree removal mandate

NPDC has mandated that the existing Italian alder trees on Devon Street be removed and replaced with a suitable alternative. This is due to ongoing maintenance issues (for both private property owners and Council) with leaf and catkin drop in the adjacent awnings and slip issues from catkins and wet leaves on the footpath below.

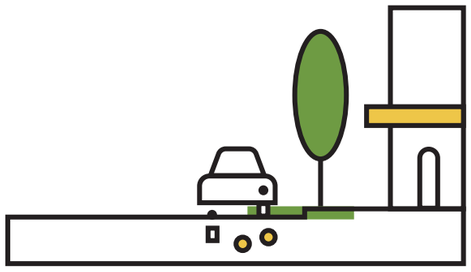
Lack of low level planting

Other than tub planters at intersections, there is currently no low level / understorey planting along Devon Street to provide amenity, contribute to biodiversity and streetscape functions, or the tūrangawaewae of Ngāmotu.

Site conditions

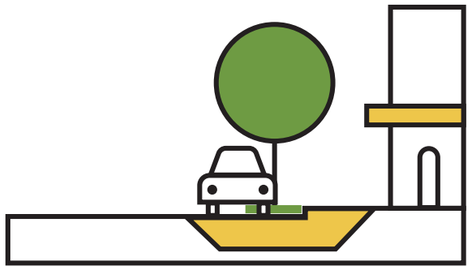
The proximity of Devon Street to both the coast and Taranaki Maunga and their climatic conditions, results in limitations to species selection for proposed trees and plants. Proposed species must be known to perform locally, and ideally in a streetscape context too. Some natives may be trialled for streetscape suitability.

Constraints



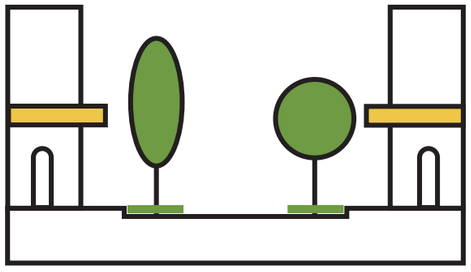
Awnings vs parking and services

There are more services to navigate if replacement trees were to be positioned further from the awnings. Positioning new trees further from the awnings would also require conversion of a large number of parking spaces.



Extent of disruption and cost

The Green Masterplan must consider staging and extent of disruption, Council budgets and cost. For example, avoiding likely services clashes and working within existing kerblines where possible. The Green Masterplan also needs to consider acceptable loss of parking spaces to enable a healthy environment for plants and people both short and long term.



Tree maintenance

New trees must have a reduced and acceptable level of pruning and maintenance, achieved through reduced quantities of canopy trees along the existing Italian alder alignment, and use of evergreen tree species in those areas for less leaf drop. Positioning new garden beds under trees will also reduce leaf and flower drop on footpaths. Trees will not be replaced where the distance between kerb and building awning is less than 2.4metres.

Introduction.
Existing Context.

Policy Context

A number of strategy and guidance documents have shaped or informed the Green Masterplan:

He Rautaki Mō Tāone o Ngāmotu (New Plymouth Central City Strategy)
The Green Masterplan has been developed simultaneously with (and with consideration to) the consultation and development of the 30 year NPCCS, being developed in partnership between NPDC and Ngāti Te Whiti. This has ensured that the two projects are in lockstep and to prevent contradictory outcomes. The NPCCS project principals, values and desired outcomes promote a greening and focus on the central city core as a high amenity area. As such, the approach to street tree replacements within the Green Masterplan aligns with this and provides opportunity for further street enhancements to encourage street activity and vibrancy.

Restoration planting in Taranaki: A guide to the North Taranaki Ecological District
The Restoration planting in Taranaki document provides guidance on suitable native plants for restoration planting in different ecological zones within the North Taranaki Ecological District, within which Devon Street is located. Tree and plant species in the Green Masterplan plant palettes are drawn from or been inspired by the locally found native plants listed in this document. This ensures proposed plants provide a character that is uniquely Ngāmotu, reflect the coastal and semi coastal - lowland valleys, hillslopes and ridgelines, are suited to the local conditions, and contribute to ecology and biodiversity within the central city.

Kaupapa here rākau ā-rohe (District Tree Policy) 2006
This policy outlines the Council mandate regarding the stewardship of its tree resource and to provide consistency in decision making on the management of trees and bush remnants on Council administered land. It sets out principles, policies and objectives related to management and planning of the district tree resource as well as technical guidance on arboricultural activities related to Council trees.

The Green Masterplan responds to Kaupapa here rākau ā-rohe objectives and policies around urban trees, recognising the benefits of urban trees and giving consideration to the challenges, installation and maintenance needs of urban trees, and linking to policies around planning and species selection to ensure tree plantings respond to the landscape character and context, and are sustainable and manageable in relation to surrounding activities, services, assets, properties and infrastructure.

The Green Masterplan proposes tree and plant palettes for future Devon Street plantings. A number of the proposed species are not directly from the District Tree Policy species lists, but support the objectives, policies and intent of the document, including designing with consideration to biodiversity, landscape character and context.

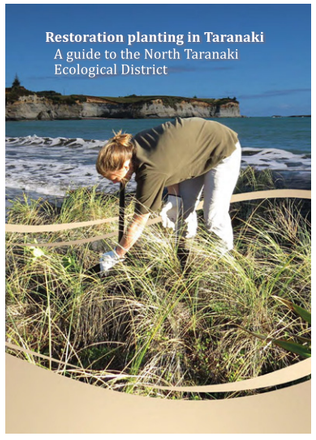
The proposed tree species have not been tested against the Kaupapa here rākau ā-rohe 'High Profile and Street Tree Selection Criteria' assessment. Instead proposed tree species are the result of collaboration with NPDC officers who have provided local knowledge and guidance on species suitability and maintenance, paired with an approach to trial some native species not typically seen in Taranaki streetscapes.

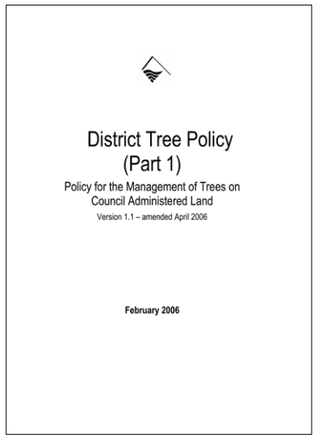
The mandate for the removal of the existing Italian alders are also linked to the removals policies within Kaupapa here rākau ā-rohe.

New Plymouth City Centre Framework 2013
This framework sets out key design themes and priorities including; Strengthen the Sense of Place, Create Attractive Central Living, Allow Freedom of Movement, Generate Lively Public Life, Foster a Viable Market.

The Green Masterplan aligns with the actions that sit underneath these themes including adapting streetscapes into attractive places for people, enhancing streetscape environments that accommodate outdoor dining and street activity, and supporting open space initiatives and amenity within the central core. Street tree and planting criteria have also been influenced by the selection criteria and objectives laid out within the Street Tree section on page 28 of the Framework.

Cultural Values Statement from Ngāti Te Whiti
The Green Masterplan is developed in alignment with the Cultural Values Statement (CVS) prepared alongside Ngāti Te Whiti as part of the NPCCS. The Green Masterplan reflects the values and outcomes expressed in the CVS, providing green amenity and spaces which recognise the cultural and environmental context of Ngāmotu, with a palette of locally found native tree and understorey species with ecological and rongoa functions. The Green Masterplan also acknowledges the Huatoki as He Wai Māori through design and selection of significant and relevant species such as tītoki through the area of the Huatoki Plaza. The Green Masterplan's proposed layouts also show opportunities for street activations including increased public group seating and tables as indicated as desirable within the CVS.



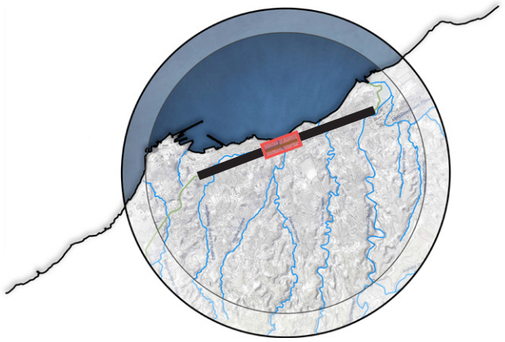

District Tree Policy
(Part 1)
Policy for the Management of Trees on Council Administered Land
Version 1.1 – amended April 2006
February 2006

Devon Street Green Masterplan.
New Plymouth District Council.
04 October 2024.

The Green Masterplan.
Conceptual Response.

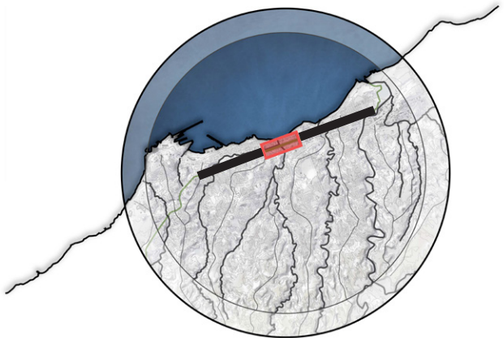
Landscape Context

Devon Street is sited within a dynamic landscape between Taranaki Maunga and the Tasman Sea. The Green Masterplan acknowledges and draws inspiration from the landscape context of Devon Street at both city and regional scales: The street's relationship to the waterways (in particular the Huatoki Stream), the landscape of ridges and valleys, and the ecological districts which shape the character and planting across Ngāmotu.



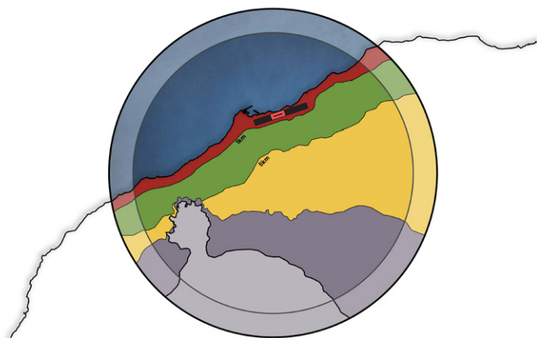
Waterways

Travelling from Taranaki Maunga to the sea, there are many waterway across Ngāmotu. The Huatoki Stream is the waterway which bisects Devon Street.



Ridges and valleys

A series of ridges and valleys are evident across Ngāmotu. To the east and west of the valley where the Huatoki Stream bisects Devon Street, the landscape rises and transitions to hill slopes and ridgelines.

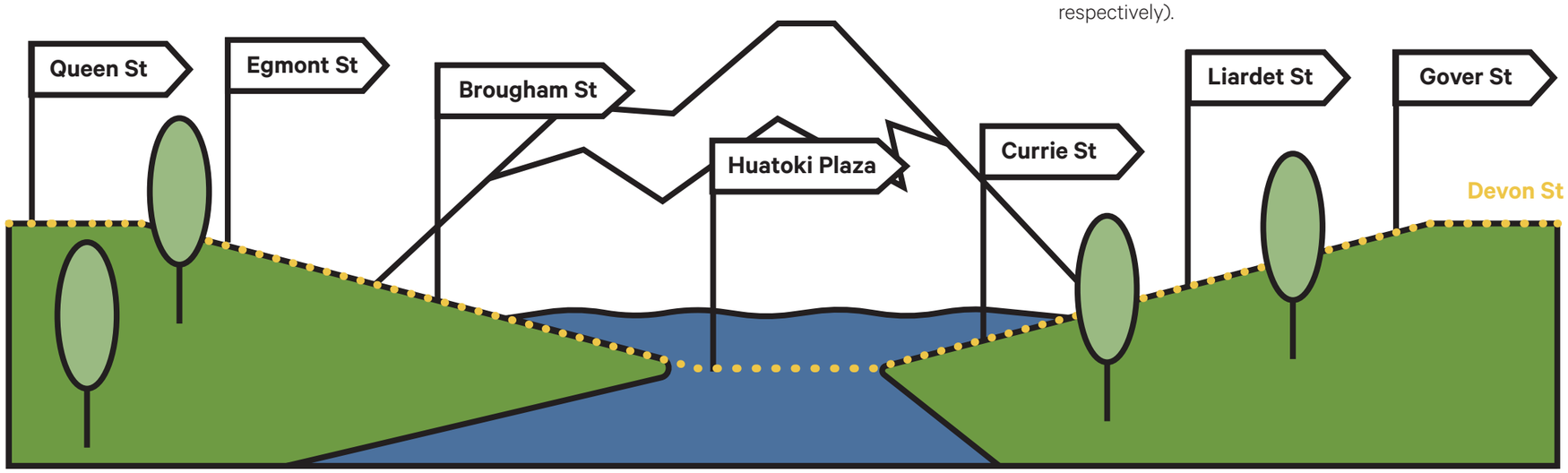


Ecological districts

The North Taranaki Ecological District contains two main land systems: a narrow strip of uplifted marine terraces along the coast (coastal, shown in red), and steep, sharply dissected hill country over the remainder (semi-coastal and lowland shown in green and yellow respectively).

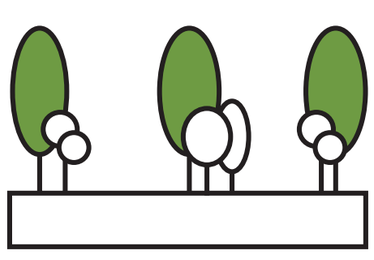
The Devon Street Transect

The Green Masterplan re-imagines Devon Street as a transect of its landscape context; Where the Huatoki Stream bisects the streetscape, this represents a coastal valley and waterway ecological zone, which rises and transitions to the east and west to the coastal and semi coastal-lowland forest and hillslopes, as the natural contours of the street also rise to the east and west. This conceptual response is a key driver behind the key greening moves.



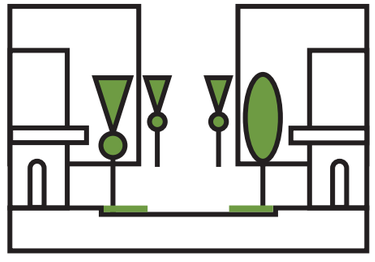
The Green Masterplan.
Conceptual Response.

Key moves



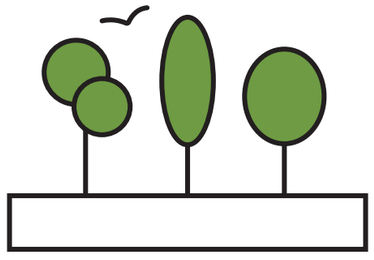
Maintaining patterns

Maintain the existing street asymmetry in the central city core (between Robe and Liardet Streets) and the presence of structure trees along the southern, sunny side where the footpath width can accommodate planter beds and typically avoid services (however noting the intent to reduce the number of structure trees along the existing alder alignments in response to the existing issues). The exception to this will be Huatoki Block which has its own, more intensive greening approach and character.



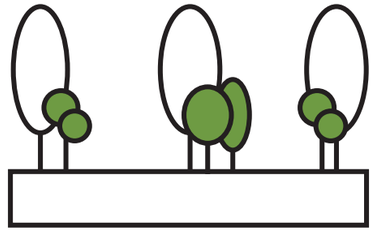
Framed intersections

Inserted between the existing patterns along each block, intersections are framed with garden beds or where space is limited, custom feature pot planters. This emphasises intersections and gives a visual cue to crossings, while also providing some variety and irregularity between the semi-regular avenue trees. Signature structure tree species contribute to a planting character specific to intersections and crossings.



Uniquely Ngāmotu

A variety of native tree, understorey and groundcover species will create a place that is uniquely Ngāmotu with species from or inspired by the local ecologies and landscape context and in response to the Devon Street transect (the Huatoki Stream valley and semi coastal-lowland hillslopes and ridgelines). This approach also contributes to biodiversity, provides flexibility around constraints (e.g. awning proximity), as well as resilience to site conditions (including sun/shade), climate change and potential pests/diseases.



Supporting trees

A suite of smaller scale supporting trees to provide pedestrian-scale amenity, and link to the Devon Street transect with native species positioned for naturalistic character and irregularity between the more evenly spaced semi-regular avenue of structure trees. These are placed both as single trees, as well as in clusters as required to suit the available space.

Low planting

New areas of diverse native groundcover and understorey planting will provide additional pedestrian-scale amenity, contribute to biodiversity and streetscape functions, assist with capture of leaf and flower drop from trees, and strengthen the tūrangawaewae of Ngāmotu. The diverse groundcover and understorey plant palette will also respond to the site conditions and the landscape context and narrative of the Devon Street transect.

Design principles

Arboreal and urban design best practice

Best practice arboreal and urban design guidance from other New Zealand city centres are used to establish recommendations for tree and pit specification, sourcing, installation, maintenance and infrastructure to provide the best possible outcome for tree growth and establishment in the urban environment of Devon Street.

Generational transformation

Urban trees typically do not have the longevity of forest trees. Acknowledging this, new trees will be planted with a view towards semi-permanence and generational transformation. This approach, paired with the intent to use a variety of species, also creates opportunities for trialling of some native species not typically seen in Taranaki streetscapes.

Community and environment

Proposed plants and trees and their locations are to serve the community and provide for positive pedestrian experience; shade, shelter, tūrangawaewae, amenity value and cooler and cleaner air. Arrangements should also support accessibility and a variety of different streetscape functions - e.g. outdoor dining.

Pragmatic greening approach

A pragmatic approach is taken to street tree and greening approach, including set out and supporting infrastructure to ensure that the Green Masterplan considers cost and staging and has acceptable levels of maintenance for adjacent landowners and NPDC.

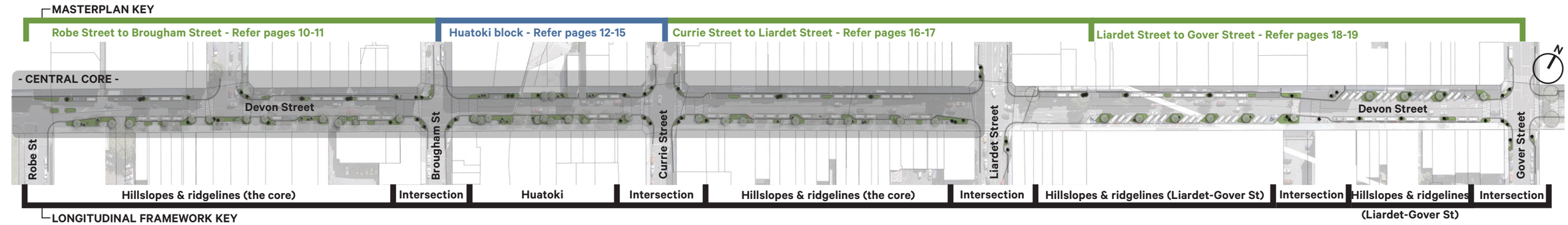
Responsive to cultural values

Native tree and plant palette selections and the urban ngāhere character they create are in response to the local ecological zones and mana whenua associations with this place (in particular the Huatoki). Rongoa and other traditional uses of native plants have also been part of plant selection considerations.

The Green Masterplan.
Masterplan Overview.

The Green Masterplan responds to the Italian alder removal mandate and the associated issues, addresses the need for greater amenity in the city's core, and provides a pragmatic greening vision with options for possible immediate and meaningful short term greening as well as longer term phased rollouts, all while considering the street's movement and parking requirements.

The key moves and design principles established on the previous pages are manifested in the Green Masterplan through 3 approaches:
— The Longitudinal Framework;
— The Horizontal Framework; and
— The Vertical Framework.



Green Masterplan and Longitudinal Framework Key Plan

Green Masterplan Longitudinal Framework - Illustrative Long Section
1:3500 Exaggerated illustrative section

Devon Street Green Masterplan.
New Plymouth District Council.
04 October 2024.

Longitudinal Framework.

The Green Masterplan runs from Queen Street in the West to Gover Street in the East. The city centre core is defined between Queen Street and Liardet Street. In line with the City Centre Strategy, the core will receive the greater concentration of greening efforts to re-focus and define the 'high street' portion of Devon Street.

The Green Masterplan's key moves vary along the length of the street as a response to topography, street activity, street arrangement, climatic conditions, views and connections, adjacent public space, and available of space.

The longitudinal response can be broken into 4 character approaches:
- Hillslopes and ridgelines (the core)
- Hillslopes and ridgelines (Liardet St – Gover St)
- Intersections and crossings
- Huatoki

Hillslopes and ridgelines (the core)

The core provides the most opportunity for greening within the respective horizontal areas. It has a semi-regular street layout and avenue tree structure that is softened with a variety of support trees and understorey and groundcover planting.

Structure trees are required along the southern side of the street to provide:
- A scaled transition from building height to street level.
- Semi-regular canopies that breakdown the street's length and provide a structure to which other greening moves can be hung from.

This manifests as a series of avenue structure trees in largely the same locations as the existing Italian alders, with some omitted to create natural variance, increase sunlight in key locations, and respond to larger awnings or parking arrangement constraints. These avenue structure trees are planted in open garden beds. The garden beds will allow for groundcover and understorey planting and where space allows, support trees to provide canopy variance balanced with the avenue tree arrangement.

These southern garden beds are regular in shape with a clean strong line along the footpath edge for pedestrian legibility and to provide seating and street furniture locations to be installed adjacent away from the pedestrian movement space.

Parking zones are inserted with strategically located build-outs to expand the footpath garden beds, while also providing a regular (typical) spacing of 3 car park bays between them. In instances where awnings restrict structure tree placement, additional build-outs into the parking areas are formed to keep a consistency of greening that also provides areas for outdoor dining, seating and tables for increased protected public amenity. These build-outs into parking areas provide more area for support trees, understorey and groundcover plants.

Smaller build-outs are also located on the north side between parking bays (also typically 3 parking bays between each) for shade tolerant groundcovers, understorey plants and select support trees.

Hillslopes and ridgelines (Liardet St to Gover St)

The section of Devon Street between Liardet and Gover Streets is outside the central city core and has larger quantities of parking spaces, with streetscape and parking patterns shifting to a combination of angled and parallel parking arrangements. There is also an existing central crossing space with a raised platform. The greening approach adapts to work with these patterns and amplify existing greening, through use of planting beds and trees positioned within existing parking spaces (typically 3 parking bays between each). These planting beds are separated from the existing kerb and channels, to maintain surface stormwater flows.

Intersections and crossings

Nīkau trees are signature species at intersections and crossings, along with a structure canopy tree species which may be the coastal maire or ngaio tree (will be dependant on further research and trialling, refer pages 35-41).

Together, these trees and signature pots (for above-ground planting) act as visual markers for intersections and crossings, forming a distinctive intersection zone, and breaking the more regular pattern of the adjoining avenue trees through the core.

In places, kerb build-outs extend into the carriageway making it possible to step out from the alignment of the avenue trees through the core. Existing kerb build-outs are planted where services allow, and where services are too dense or footpath space is limited, above-ground pots are used. The Green Masterplan also identifies additional kerb extensions to strengthen this move and make best use of street space.

Coastal maire / ngaio are positioned to avoid services and where there is adequate space for its canopy spread, and nīkau trees are used elsewhere, either in ground, or in the signature pots where space is more limited.

Huatoki

The Huatoki block (between Brougham Street and Currie Street) is positioned at the lowest part of Devon Street with the Huatoki Stream passing underneath.

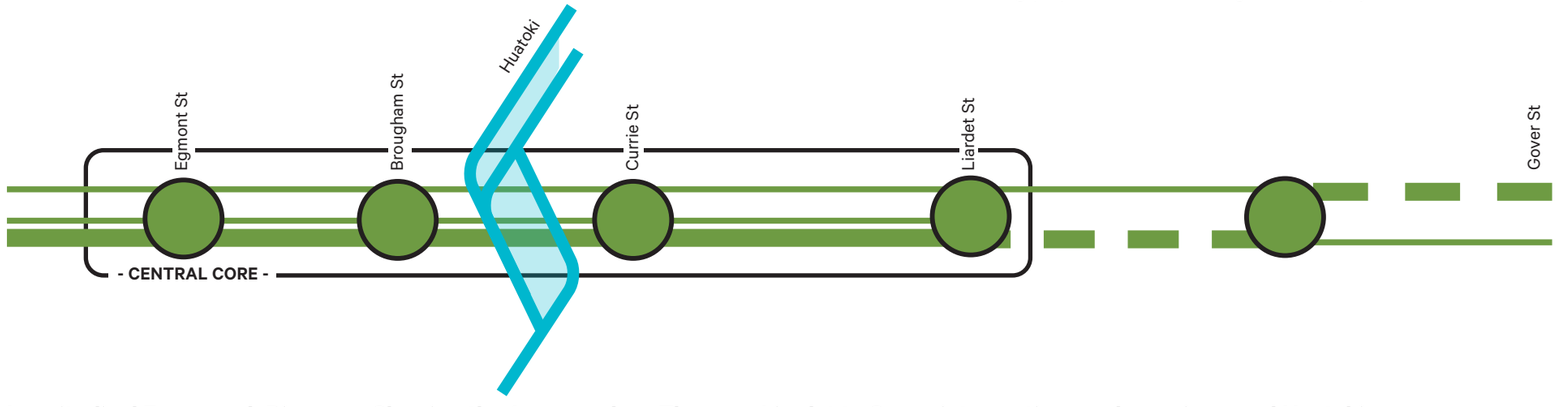
The City Centre Strategy identifies improvements planned for the Huatoki Stream corridor including the greening and retrofit of the Huatoki Plaza, and the daylighting of the Huatoki by removing the Metro Plaza building.

These factors support a shift to more intensive greening within the Huatoki block, with a character distinctive from the rest of Devon Street, and a focus on people-centric spaces. Allowing more space for greening, seating, outdoor dining and mid-block crossings between the Huatoki Plaza and Metro Plaza will result in more parking reductions than other areas to achieve these outcomes.

The conceptual design response for the Huatoki Block relates to the stream valley of the Devon Street transect. The tree and plant palette creates a unique character for the Huatoki Block, with a focus on coastal and semi-coastal riparian species and tītoki in response to Huatoki Stream's cultural significance, whakapapa (naming), and its ecological classification.

Two indicative arrangements for the Huatoki Block are provided in the Green Masterplan (pages 14-17) to show how the conceptual thinking of the Masterplan could be applied to this area.
- Option 1: a dual carriageway with greening focused on the edges, similar to the rest of Devon Street.
- Option 2: a split carriageway with greening across both edges of the street as well as between the carriageway lanes.

The final layout of the Huatoki Block should be designed as part of the Huatoki Corridor Masterplan as indicated in the City Centre Strategy. Designing the Huatoki Block greening at the same time as the adjacent plaza and daylighting projects will maximise opportunities for design integration, limit risk of precluding the adjacent projects, limit construction disruption, and reduce risk of reworking physical work to integrate the projects.



Longitudinal Framework Diagram - Showing the 4 approaches. The core, Liardet to Gover, intersections and crossings, and Huatoki.

The Green Masterplan.
Masterplan Overview.

Horizontal Framework

The opportunities for greening the city's central core are determined by the street's existing function and arrangement (footpath areas, parking areas and vehicular movement areas), as well as the view to enable phasing and manage cost. As a result, the proposed areas for greening are categorised as 4 distinct zones:

— Zone 1a: South-side beds (within existing kerblines)
Zone 1a is the south-side footpath area behind the existing kerbline (where the existing Italian alders are located). This zone has most available free space for planting with a wider 6m footpath. It also receives the most sunlight to support growth. Services are known to be either side of the existing Italian alders and replacing trees in the same location avoids need for service relocation. The space available in the zone means it provides the most opportunity for immediate greening at scale, without changes to kerblines, services or parking.

— Zone 1b: South-side beds (with kerb modifications)
Zone 1b builds on the greening of Zone 1a with kerb build-outs extending Zone 1a garden beds into the adjacent parking space(s). Known services mean that regular deep rooted structure trees in this zone are not possible, although there is opportunity for smaller trees and low planting depending on services locations. The zone also receives good levels of sunlight to support growth. Given the demand for parking, greening in this zone shows a balanced approach to parking and greening, noting that greening could be increased further if parking demands decrease in the future.

— Zone 2: Above ground treatments (intersection pots)
Above-ground treatments (signature pot planters) are proposed at intersections where there are concentrated services and pedestrian movements to accommodate. These pots form Zone 2, maximising greening at intersections, along with adjacent Zone 1a beds.

— Zone 3: Beds within parking spaces
There is a tighter 4m footpath on the north side of the street, so Zone 3 beds are positioned within parking spaces separate from the existing kerb. This enables footpath widths to be maintained and for stormwater to continue to follow the existing kerb and channel. With the north side being in shade for much of the day, Zone 3 beds also present an opportunity to showcase shade tolerant species local to the area and add to the northern footpath pedestrian experience. Between Liardet and Gover Streets, Zone 3 beds within parking spaces also occur on the southern side of the street.

— Zone 4: Huatoki Block
The Huatoki Block (between Brougham Street and Currie Street) is treated as its own zone, as it is intended be designed in tandem with the City Centre Strategy's Huatoki Plaza greening and the daylighting of the Huatoki Stream below the Metro Plaza building to ensure a considered and integrated outcome. The Huatoki Block is intended to have more intensive greening than other blocks, with a unique character and planting referencing the Huatoki Stream's cultural significance, whakapapa (naming), and its ecological classification.

Refer 'Indicative Phasing' on page 22 for more detail, including how these zones are laid out along the length of the Green Masterplan project area, and can be phased to suit priorities and budgets.

Note that raingardens are not proposed within the Devon Street Green Masterplan given the toolkit and staged approach, however could be considered in areas of new development adjacent where space allows.

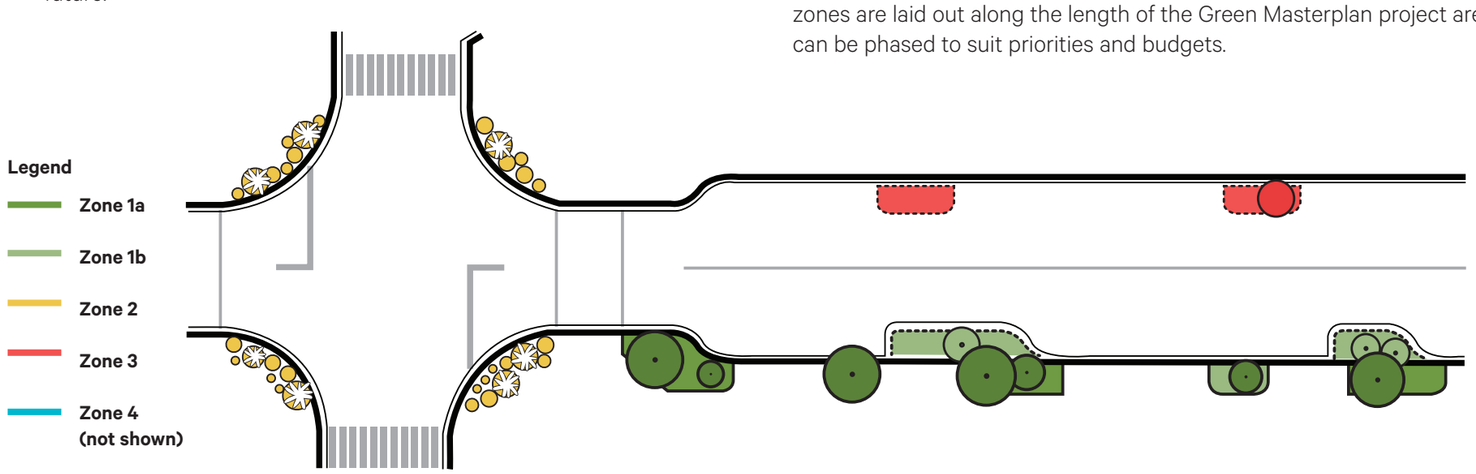
Vertical Framework

Vertically the Green Masterplan goes beyond traditional street planting typologies of low groundcovers and a monoculture of canopy trees. The Green Masterplan proposes four vertical layers to improve pedestrian experience and amenity as well as variance in planting types and sizes, showcasing planting native to (or inspired by) Ngāmotu and supporting the conceptual response of the Devon Street transect.

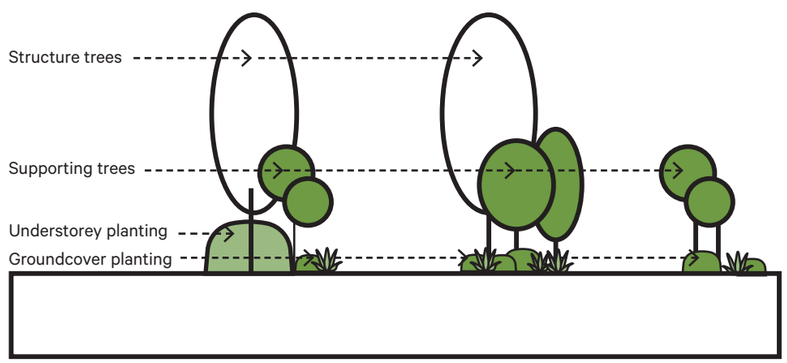
The four vertical layers are:

— Structure trees
Structure trees are a semi-constant along Devon Street, and provide a scaled transition from building height to street level, as well as semi-regular canopies that break down the street's length and provide a structure from which the other greening moves can be hung from. The position and arrangement of structure tree species is determined by their typology, described and shown on page 36.

— Supporting trees
Smaller native trees that provide variance and considered irregularity, providing flexibility where there are services to navigate, or where space is more limited (e.g. proximity of awnings).



Horizontal Framework: Typical arrangement of the 4 zones of the Masterplan.
Refer Indicative Phasing on page 22 for full length



Vertical Framework: The 4 vertical layers of the Masterplan

— Understorey planting
Native species which are clipped to maintain 1.5m maximum height to give vertical variance to groundcover planting and to strategically frame some spaces (e.g. seating or outdoor dining spaces). Understorey plants will be strategically placed with consideration to CPTED, safety and visibility of pedestrians and vehicles, and shelter and comfort.

— Groundcover planting
Low plants typically under 1m height that form the foundation for the other planting layers to emerge from and significantly increase pedestrian-scale greening.

Refer tree and plant palettes on pages 35-42.

Greening comparisons
Below are quantities comparing the amount of greening in the existing streetscape, with the proposed streetscape as per the Green Masterplan.

Huatoki Option 1 has been used as the baseline for calculating proposed quantities through that portion of Devon Street.

	Existing Street Greening	Proposed Street Greening
Structure trees (canopy)	47	41
Structure trees (nīkau)	11	47
Supporting trees	0	55
In-ground planting beds	0m²	1250m² approx

Note proposed tree numbers are estimates, dependant on a detailed survey, a detailed design, and final toolkit components used.

The Green Masterplan

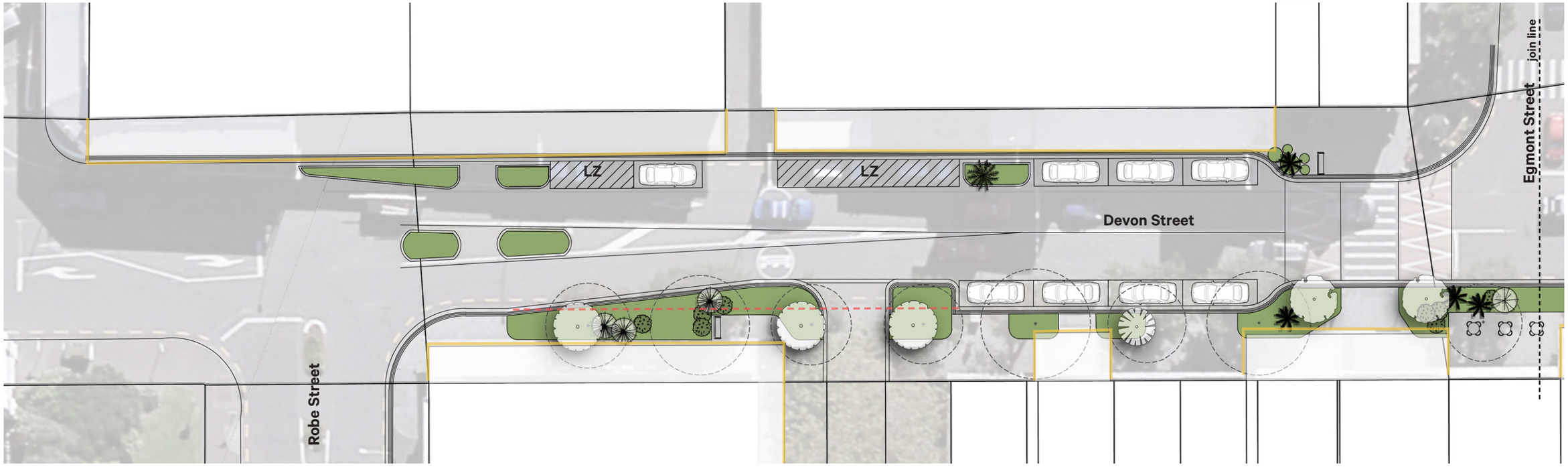
Over the following pages, the Green Masterplan is presented block by block. Site-wide moves are summarised below, while site-specific moves or considerations are captured on the relevant illustrative plan pages.

General / site-wide moves include:

- All proposed tree species are the result of collaboration with NPDC open spaces team and arborist who have provided local knowledge and guidance on species suitability to context and acceptable levels of maintenance and pruning relative to awnings and footpaths. Acceptable levels of maintenance is achieved through reduced quantities of canopy trees along the existing Italian alder alignment, not replacing trees in locations where significant awning clashing is already occurring (where the distance between kerb and building awning is less than 2.4m), and use of evergreen tree species directly adjacent awnings for less leaf/flower/seed drop. Evergreen trees will avoid significant leaf drop at a single time of year (as the alders do), however it is important to note that all trees (even evergreen) naturally drop material throughout the year.

  Mitigation for this has also been considered in positioning new garden beds under all trees, to reduce drop on footpaths. Because proposed locations for structure trees are similar to that of the existing alders, continued management of interactions with building awnings will be required. However the change in species to those proposed will lessen maintenance requirements in relation to building awnings and on the footpaths.
- Some proposed tree species are to be further researched or trialled to test or confirm their suitability - refer page 35.
- New avenue structure trees (refer structure tree typologies on page 36) are positioned in alignment of the existing alders which are assumed to avoid services.
- Tree and plant species and arrangements consider sun and shade across the street (noting the north side is in shade for the majority of the day).
- Unless noted otherwise, all loading zones are retained (in some instances location maybe slightly adjusted). Refer to Implementation - Next Steps for parking and loading zone considerations through preliminary and detailed design
- Recesses within planter beds and angled edges to some planter beds provide opportunities for seating, outdoor dining, cycle racks and other street furniture ans street activity features.
- All existing nīkau trees are retained or transplanted to locations shown.

The Green Masterplan.
Robe Street to Brougham Street.



The block of Devon Street between Robe Street and Brougham Street is the westernmost extent of the central city core, anchored by the Len Lye Centre and White Hart Hotel building. It is comprised of a variety of businesses including cafés, other food retailers, a brewery and event venues (Mayfair and TSB Showplace), and includes a T-intersection with Egmont Street.

Legend

Structure trees: Avenue (typically runs of 3)

Pterophylla sylvicola, tōwai

Structure trees: Avenue (single specimen)

Hoheria sexstylosa, houhere

Structure trees: Off avenue alignment

Sophora chathamica, coastal kōwhai

Structure trees: Intersections & crossings

Nestegis apetala, coastal maire
OR
Myoporum laetum, ngaio
Refer pages 35-41 for notes on research/trialling of these species

Rhopalostylis sapida var. *chathamica,* Chatham Island nīkau

Supporting trees
Indicative placement and quantities only, pending detailed design and survey information.

Cordyline australis, tī kōuka

Pseudopanax crassifolius, horoeka

Dicksonia squarrosa, whekī

Planting

Understorey species
Varies, refer palette on page 40. Indicative placement and quantities only, pending detailed design.

Groundcover planting
Refer palette on page 40.

Pot / above ground planting
Refer groundcover palette on page 40, and Toolkit Type 5 - Intersection Pots on page 30.

Existing

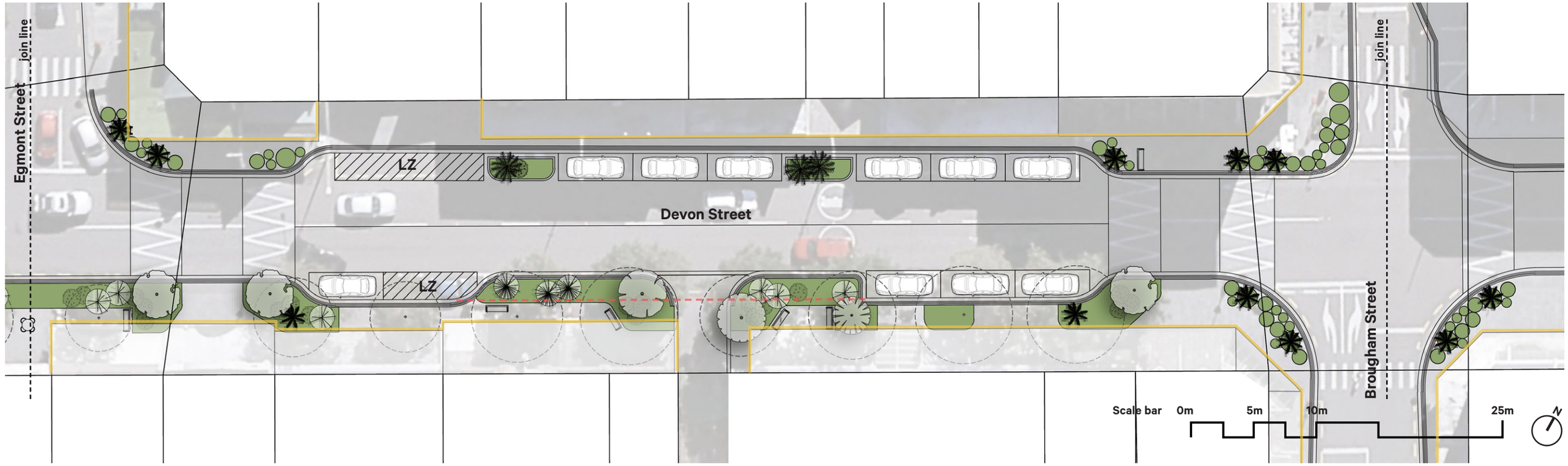
EX **Existing tree retained**

EXT **Existing tree transplanted**

Existing Italian alder tree removed

Awning overhang extent

Existing kerbline removed
All other kerbs shown existing



Site specific moves

Design moves specific to the stretch of Devon Street between Robe Street and Brougham Street include:

- Proposed tōwai and houhere trees mimic the positions of the previous alders which are assumed to avoid services. The exception being at the western end, these trees are positioned slightly westward of existing alder positions to give better clearance to awnings.
- An outdoor dining opportunity is acknowledged on the southern side near the Egmont/Devon St intersection where there is more space for planting, and the presence of food and hospitality businesses adjacent.
- Full footpath width is maintained outside Mayfair acknowledging at times large number of people will be gathering and moving through this area.

Devon Street transect reference

North Taranaki's coastal and semi coastal-lowland hillslope and ridgeline environments.

Tree and plant palettes

Refer 'Hillslopes and ridgelines palettes' on pages 38-40.

Further possible opportunities

- Kerblines could be extended further into the street, maximising planter sizes and narrowing carriageways to minimums.
- Consider accessible/mobility parking space(s) along this block in place of standard carpark, noting there is no accessible parking here currently.

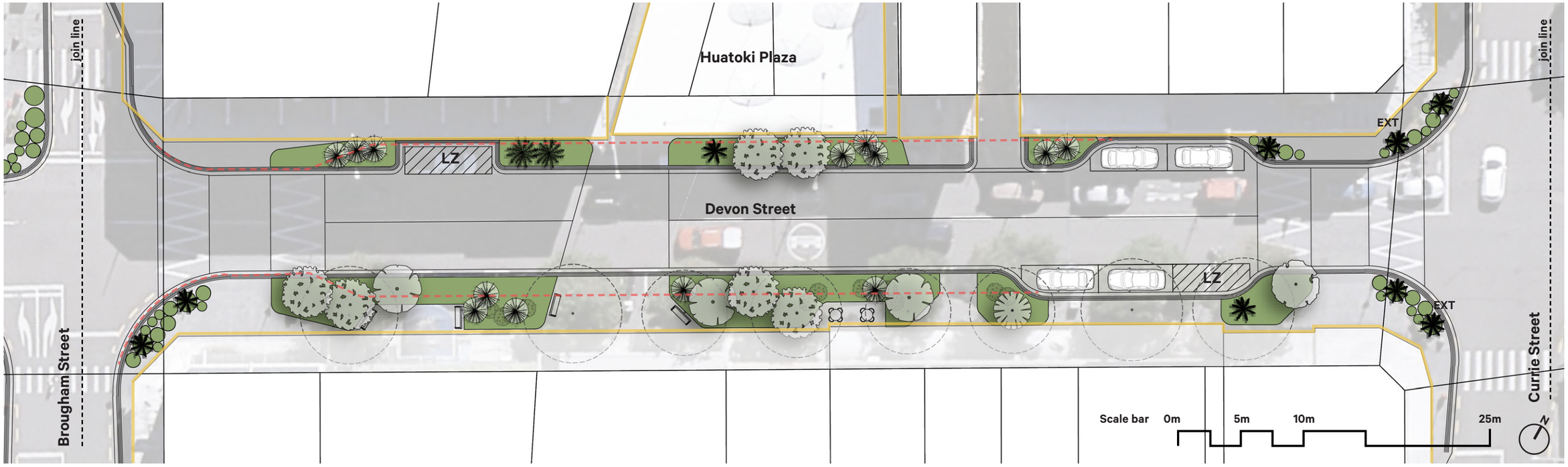
Parking comparisons

	Existing	Proposed
Carparks	26	18
Accessibility/mobility parks	0	0
Motorcycle parks	3	0
Loading zones	4 (2 short, 2 long)	4 (2 short, 2 long)

Note proposed parking numbers are estimates, dependant on more detailed survey and design, and final toolkit components used.

Parking numbers exclude bicycle racks as it is anticipated all bicycle racks will be installed within footpaths in future streetscape, with positions and quantities to be determined as part of preliminary and detailed design process.

The Green Masterplan.
Huatoki Block - Option 1.



The block of Devon Street between Brougham Street and Currie Street (the Huatoki Block) presents a more ambitious and bold planting approach compared with the other blocks, as spaces are more people-focused due to adjacency with the Huatoki Plaza and the planned Metro Plaza daylighting.

The Huatoki Awa and corridor is significant for mana whenua. The awa was an important resource and is associated to various pā and significant historical events. Its name is derived in part from the tītoki that used to grow on its banks, with its seeds providing oils that were held in high regard.

It is important to note that the Green Masterplan presents a flavour and intent only for the Huatoki Block, and should be designed in more detail alongside the Huatoki Plaza and Huatoki daylighting to ensure the spaces are developed in tandem as part of the Huatoki Masterplan indicated in He Rautaki Mō Tāone o Ngāmotu (New Plymouth Central City Strategy).

Legend

Structure trees: Avenue (single specimen)

Hoheria sexstylosa, houhere

Structure trees: Intersections & crossings

Nestegis apetala, coastal maire
OR
Myoporum laetum, ngaio
Refer pages 35-41 for notes on research/trialling of these species

Rhopalostylis sapida var. *chathamica*, Chatham Island nīkau

Structure trees: Huatoki

Alectryon excelsus, tītoki

Sophora chathamica, coastal kōwhai

Supporting trees
Indicative placement and quantities only, pending detailed design and survey information.

Cordyline australis, tī kōuka

Dicksonia squarrosa, whekī

Planting

Understorey species
Varies, refer palette on page 42. Indicative placement and quantities only, pending detailed design

Groundcover planting
Refer palette on page 42.

Pot / above ground planting
Refer groundcover palette on page 42, and Toolkit Type 5 - Intersection Pots on page 30.

Existing

EX **Existing tree retained**

EXT **Existing tree transplanted**

Existing Italian alder tree removed

Awning overhang extent

Existing kerbline removed
All other kerbs shown existing

Site specific moves
Design moves specific to the Huatoki Block include:

- More intensive greening extending into existing parking areas.
- Huatoki Block has its own planting character - acknowledging the presence of the Huatoki Stream - Refer to Tree and Plant Palettes on pages 35-41.
- Naturalistic positioning of trees which frame the Huatoki Plaza crossing will help to navigate services once located. Proposed houhere tree and some tītoki mimic the positions of the previous alders which are assumed to avoid services.
- Mid-block crossings provided between the Huatoki Plaza and Metro Plaza. Trees are positioned to create clear sightlines between these spaces.
- NB. An alternative, bolder Huatoki Block option is also shown for consideration on page 16.

Devon Street transect reference
The Huatoki Stream and North Taranaki's coastal and semi-coastal valley stream, wetland and estuary environments.

Tree and plant palettes
Refer 'Huatoki palettes' on pages 41-42.

Further possible opportunities

- Kerblines could be extended further into the street, maximising planter sizes and narrowing carriageways to minimums.
- Further greening on the north side, into the Huatoki Plaza, including possible removal of the Huatoki Plaza canopy structure.
- Consider accessible/mobility parking space along Huatoki Block in place of standard carpark, noting there is no accessible parking here currently.
- Cycle and micromobility parking.
- Extended raised tables to promote pedestrian movement across the street. This could also include removal of vertical kerbs as a move toward a shared space environment similar to portions of Lower Brougham Street.
- Introduction of public outdoor dinning spaces including tables and seating for groups.

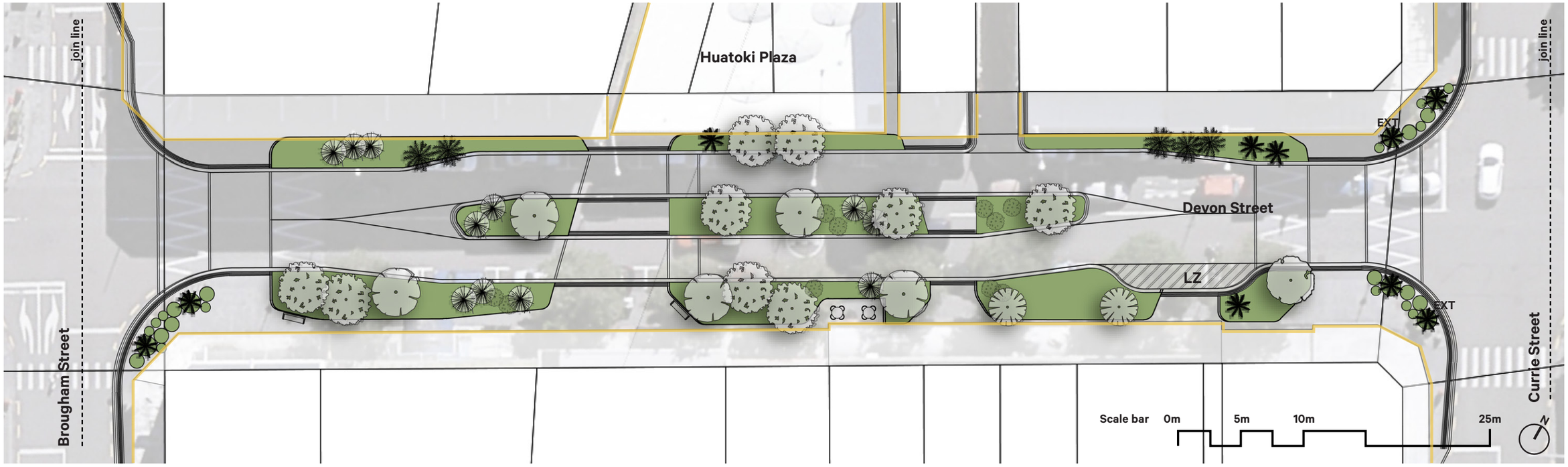
Parking comparisons

	Existing	Proposed
Carparks	19	4
Accessibility/mobility parks	0	0
Motorcycle parks	4	0
Loading zones	2 (short)	2 (short)

Note proposed parking numbers are estimates, dependant on more detailed survey and design, and final toolkit components used.

Parking numbers exclude bicycle racks as it is anticipated all bicycle racks will be installed within footpaths in future streetscape, with positions and quantities to be determined as part of preliminary and detailed design process.

The Green Masterplan.
Huatoki Block - Option 2.



This is an alternative Huatoki Block option with a planted central median which could be considered alongside the option presented on pages 14-15.

Legend

Structure trees: Avenue (single specimen)

Hoheria sexstylosa, houhere

Structure trees: Intersections & crossings

Nestegis apetala, coastal maire
OR
Myoporum laetum, ngaio
Refer pages 35-41 for notes on research/trialling of these species

Rhopalostylis sapida var. *chathamica*, Chatham Island nīkau

Structure trees: Huatoki

Alectryon excelsus, tītoki

Sophora chathamica, coastal kōwhai

Supporting trees
Indicative placement and quantities only, pending detailed design and survey information.

Cordyline australis, tī kōuka

Dicksonia squarrosa, whekī

Planting

Understorey species
Varies, refer palette on page 42. Indicative placement and quantities only, pending detailed design

Groundcover planting
Refer palette on page 42.

Pot / above ground planting
Refer groundcover palette on page 42, and Toolkit Type 5 - Intersection Pots on page 30.

Existing

EX **Existing tree retained**

EXT **Existing tree transplanted**

Existing Italian alder tree removed

Awning overhang extent

Existing kerbline removed
All other kerbs shown existing

Site specific moves
Design moves specific to the Huatoki Block include:

- As per Huatoki Block - Option 1, but with the addition of planted central median, taking advantage of the lack of services in the central carriageway.

Devon Street transect reference
The Huatoki Stream and North Taranaki's coastal and semi-coastal valley stream, wetland and estuary environments.

Tree and plant palettes
Refer 'Huatoki palettes' on pages 41-42.

Further possible opportunities

- Further greening on the north side, into the Huatoki Plaza, including possible removal of the Huatoki Plaza canopy structure.
- Consider proximity of accessible/mobility parking spaces to Huatoki Block, noting there is no accessible parking here currently.

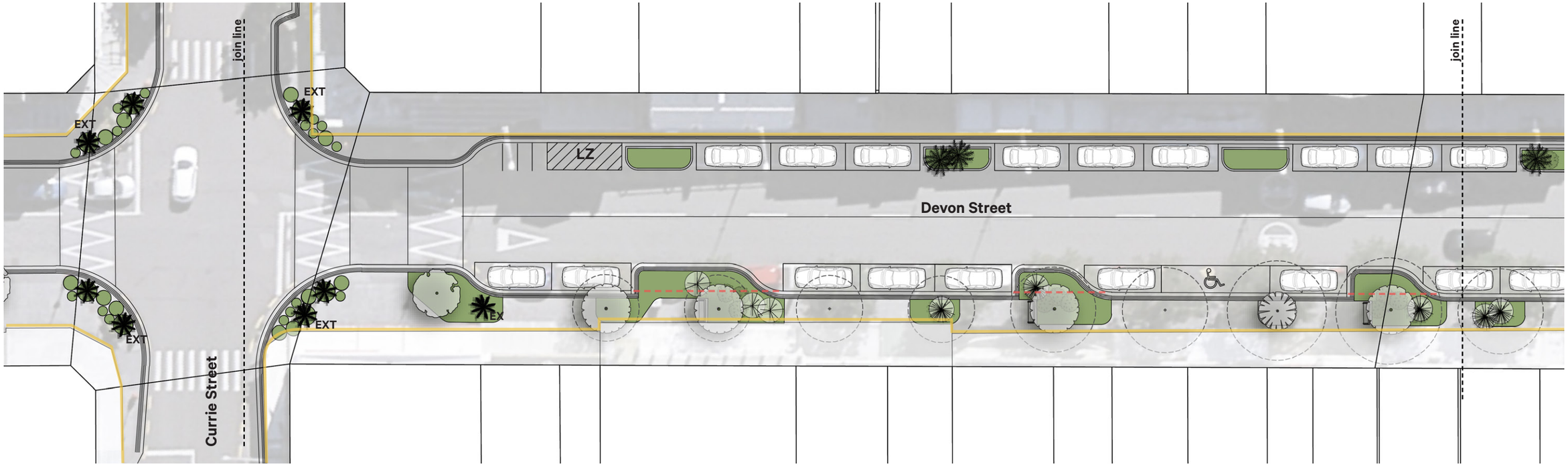
Parking comparisons

	Existing	Proposed
Carparks	19	0
Accessibility/mobility parks	0	0
Motorcycle parks	4	0
Loading zones	2 (short)	1 (long)

Note proposed parking numbers are estimates, dependant on more detailed survey and design, and final toolkit components used.

Parking numbers exclude bicycle racks as it is anticipated all bicycle racks will be installed within footpaths in future streetscape, with positions and quantities to be determined as part of preliminary and detailed design process.

The Green Masterplan.
Currie Street to Liardet Street.



The block of Devon Street between Currie Street and Liardet Street is home to a diverse retail offering including apparel and footwear stores, restaurants and other food vendors, pharmacy, and barber. This is the steepest section of Devon Street but is able to support outdoor dining opportunities.

Legend

Structure trees: Avenue (typically runs of 3)

Pterophylla sylvicola, tōwai

Structure trees: Avenue (single specimen)

Hoheria sexstylosa, houhere

Structure trees: Intersections & crossings

Nestegis apetala, coastal maire
OR
Myoporum laetum, ngaio
Refer pages 35-41 for notes on research/trialling of these species

Rhopalostylis sapida var. *chathamica*, Chatham Island nikau

Supporting trees
Indicative placement and quantities only, pending detailed design and survey information.

Cordyline australis, tī kōuka

Pseudopanax crassifolius, horoeka

Dicksonia squarrosa, whekī

Planting

Understorey species
Varies, refer palette on page 40. Indicative placement and quantities only, pending detailed design.

Groundcover planting
Refer palette on page 40.

Pot / above ground planting
Refer groundcover palette on page 40, and Toolkit Type 5 - Intersection Pots on page 30.

Existing

EX **Existing tree retained**

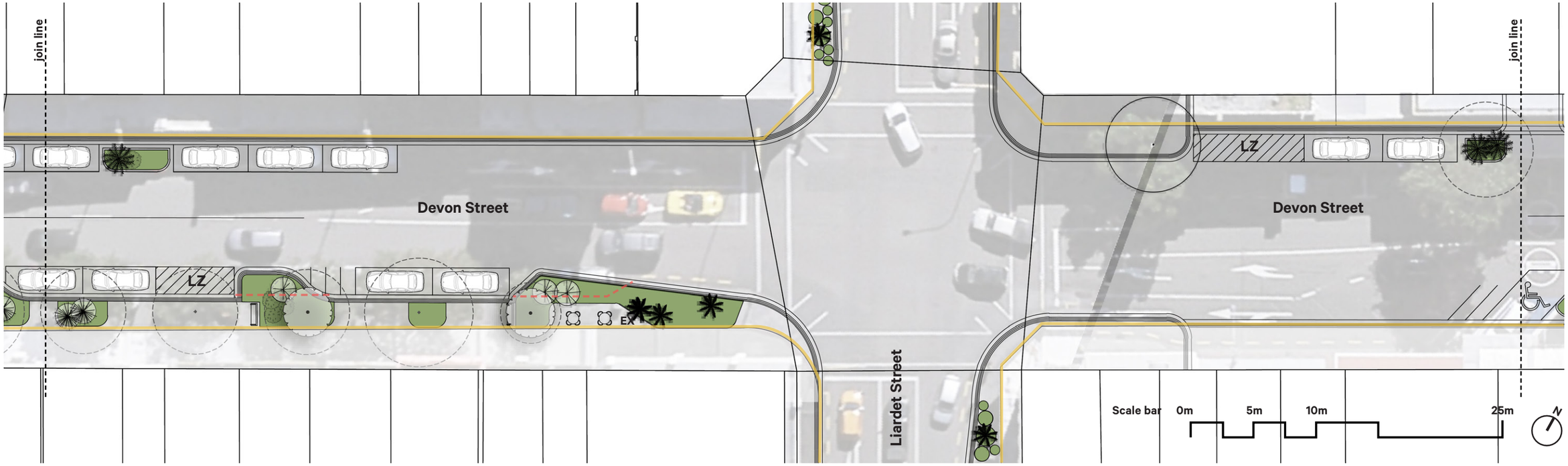
EXT **Existing tree transplanted**

Existing Italian alder tree removed

Existing tree retained

Awning overhang extent

Existing kerbline removed
All other kerbs shown existing



Site specific moves

Design moves specific to the stretch of Devon Street between Currie Street and Liardet Street include:

- Proposed tōwai, houhere and some tī kouka trees utilise positions of the previous alders which are assumed to avoid services.
- Proposed planter build-outs create a rhythm of green separation between every three carparks (typical).
- An outdoor dining opportunity is acknowledged on the southern side near the Liardet St/Devon St intersection where there is more space for planting, and the presence of a café nearby.

Devon Street transect reference

North Taranaki's coastal and semi coastal-lowland hillslope and ridgeline environments.

Tree and plant palettes

Refer 'Hillslopes and ridgelines palettes' on pages 38-40.

Further possible opportunities

- Kerblines could be extended further into the street, maximising planter sizes and narrowing carriageways to minimums.
- Outdoor dinning opportunities between planted build-outs to support existing food and beverage offerings.

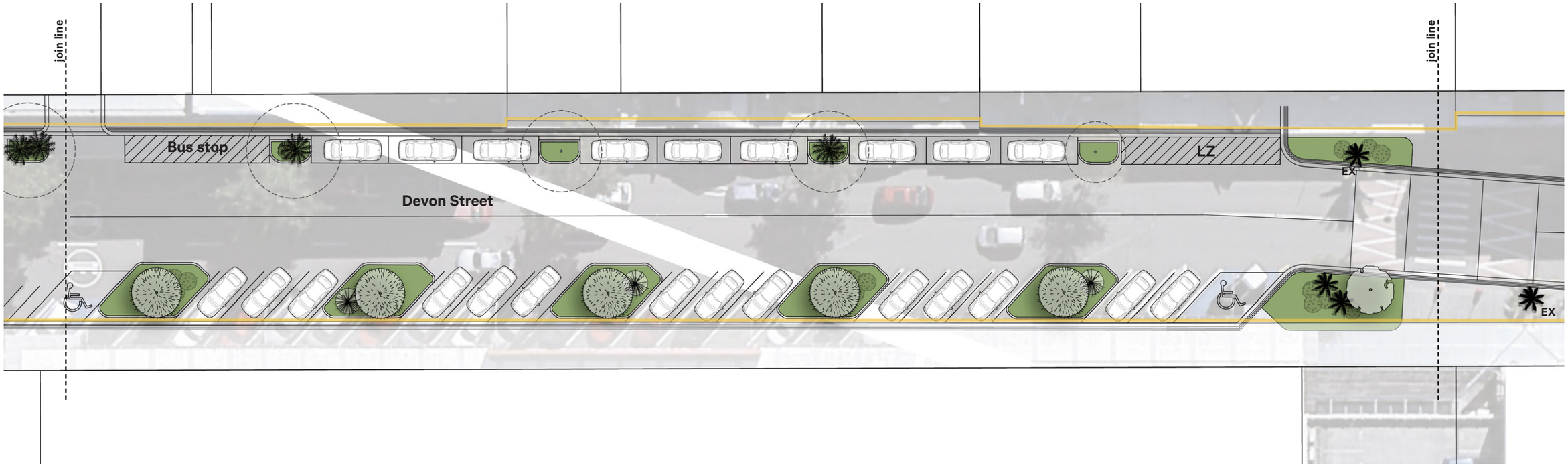
Parking comparisons

	Existing	Proposed
Carparks	36	25
Accessibility/mobility parks	1	1
Motorcycle parks	3	3
Loading zones	3 (short)	3 (short)

Note proposed parking numbers are estimates, dependant on more detailed survey and design, and final toolkit components used.

Parking numbers exclude bicycle racks as it is anticipated all bicycle racks will be installed within footpaths in future streetscape, with positions and quantities to be determined as part of preliminary and detailed design process.

The Green Masterplan.
Liardet Street to Gover Street.



The block of Devon Street between Liardet Street and Gover Street sits outside of the central city core, and forms the easternmost extent of the Green Masterplan. This section of Devon Street has larger quantities of parking spaces, with streetscape and parking patterns shifting to a combination of angled and parallel parking arrangements. There is also an existing central crossing space with raised platform. The greening approach adapts to work with these patterns and amplify existing greening.

Retail activity includes large format retail (the Warehouse), smaller retail stores, a bank and food and beverage offerings.

Legend

Structure trees: Angled parking beds

Metrosideros 'Maungapiko', pōhutukawa/rātā cross

Structure trees: Intersections & crossings

Nestegis apetala, coastal maire
OR
Myoporum laetum, ngaio
Refer pages 35-41 for notes on research/trialling of these species

Rhopalostylis sapida var. *chathamica,* Chatham Island nīkau

Supporting trees
Indicative placement and quantities only, pending detailed design and survey information.

Cordyline australis, tī kōuka

Dicksonia squarrosa, whekī

Planting

Understorey species
Varies, refer palette on page 40. Indicative placement and quantities only, pending detailed design.

Groundcover planting
Refer palette on page 40.

Pot / above ground planting
Refer groundcover palette on page 40, and Toolkit Type 5 - Intersection Pots on page 30.

Existing

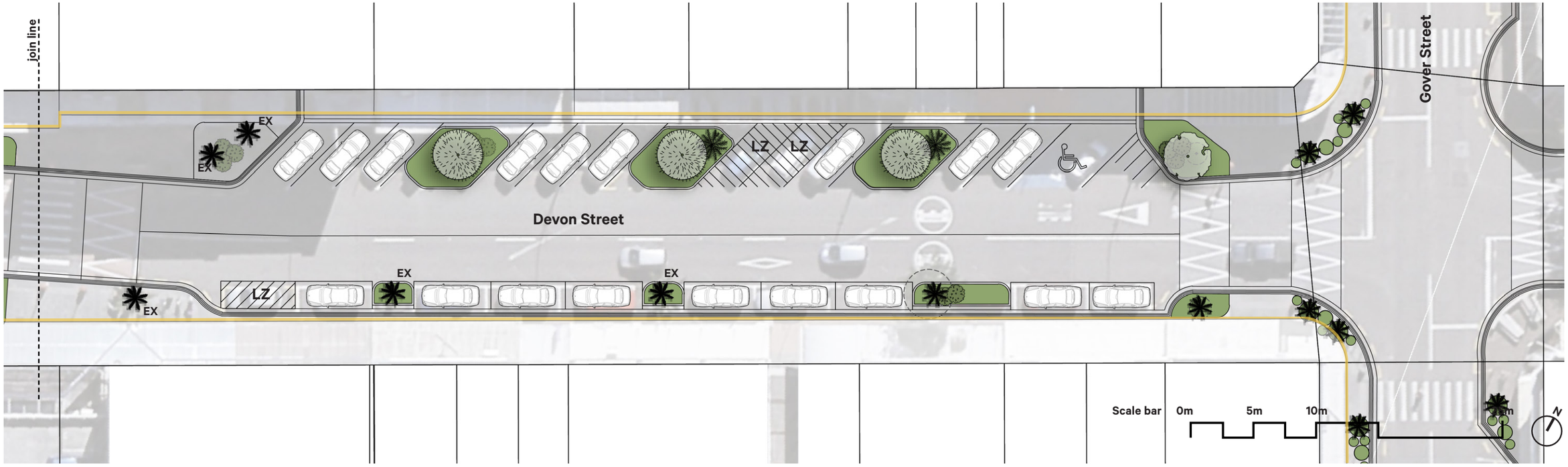
EX **Existing tree retained**

EXT **Existing tree transplanted**

Existing Italian alder tree removed

Awning overhang extent

Existing kerbline removed
All other kerbs shown existing



Site specific moves

Design moves specific to the stretch of Devon Street between Liardet Street and Gover Street include:

- In this block, the existing parking and street arrangement changes to include a combination of angle and parallel parking. To achieve balanced greening, the Green Masterplan adapts to work within this structure, with planting inserted at regular intervals between angled parking spaces (approx every 3rd parking space). These planting beds are separated from the existing kerb and channels, to maintain flows of surface stormwater.
- New planting areas frame the central pedestrian crossing, building on the existing nīkau present there.
- A nīkau tree is planted in the parking bay planter along the southern side at the eastern end. This builds on the pattern started by 2 existing nīkau along that edge of the street.

Devon Street transect reference

North Taranaki's coastal and semi coastal-lowland hillslope and ridgeline environments.

Tree and plant palettes

Refer 'Hillslopes and ridgelines palettes' on pages 38-40.

Further possible opportunities

- Kerblines could be extended further into the street, maximising planter sizes and narrowing carriageways to minimums.
- Outdoor dinning opportunities between planted build-outs to support existing food and beverage offerings.

Parking comparisons

	Existing	Proposed
Carparks	58	41
Accessibility/mobility parks	3	3
Motorcycle parks	5	5
Loading zones	4 (3 short, 1 long)	4 (3 short, 1 long)

Note proposed parking numbers are estimates, dependant on more detailed survey and design, and final toolkit components used.

Parking numbers exclude bicycle racks as it is anticipated all bicycle racks will be installed within footpaths in future streetscape, with positions and quantities to be determined as part of preliminary and detailed design process.

The Green Masterplan.
Indicative Phasing.

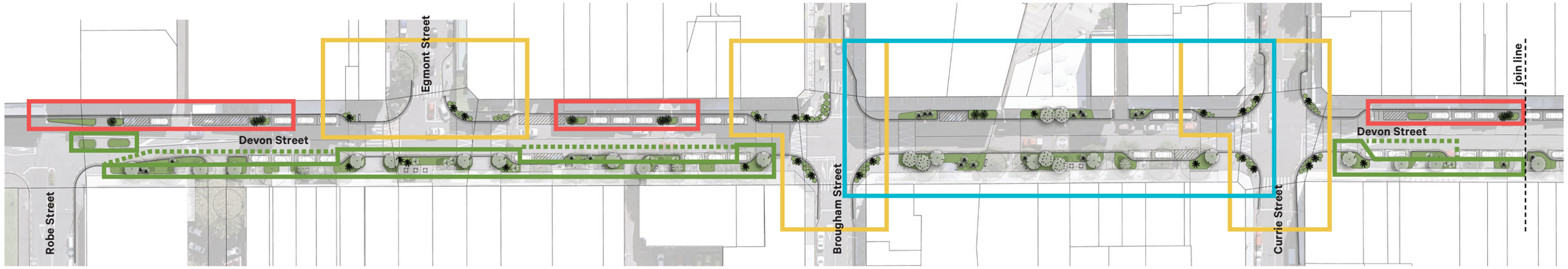
The Green Masterplan has been developed so that implementation can be staged in response to Council budgets and priorities, and greening can build over time strategically.

The plan below identifies zones which can be installed as separate phases, or clustered together as a larger install. The order and extent in which each zone is installed could be determined by Council dependant on funding, other streetscape works, infrastructure upgrades, adjacent projects or preferred tree removal programmes. The final implementation strategy and exact timing should be informed by a preliminary design and detailed design process and also consider the intent of generational transformation and trialling outlined in the principals of the Green Masterplan.

Zone 1:
Zone 1a is defined as the space within the existing southern kerb line where the existing Italian alders are located. This area is a known clear zone of buried services. The area clear of services allows for planting of structure trees without costly service relocations and construction disruption. The components within this zone include various garden beds within the footpath, garden beds within existing crossing build-outs, and closed tree pits.

It is important to note that the Green Masterplan does not show a do minimum 'tree replacement only' option, however the majority of the components within zone 1a could be seen as the first components to be rolled out as trees proposed in this area are in locations similar to the existing alders. Kerblines for these components will not require modification, and will provide increased greening beyond what is existing.

Zone 1b, builds on the structure formed by zone 1a, and provides greening in the from of support trees, understorey, and groundcover planting. This zone consists of build out components that can be either installed as stand alone components within the car parking zones, or as extensions of the garden bed components within zone 1a. Components in this zone include both extended build-outs and build-out islands with through channels.



Legend

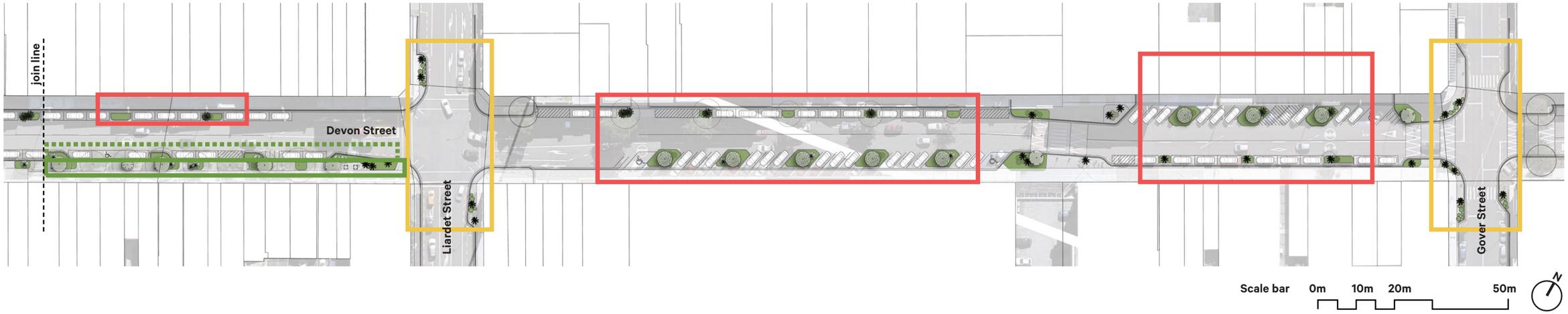
	Zone 1a: South beds within existing kerblines Refer toolkit components types 1-4. Zone 1a could be built prior to Zone 1b, or integrated as a single install.
	Zone 1b: South beds with kerb modifications (within existing parking bays) Refer toolkit component type 1-3.
	Zone 2: Above-ground treatments (intersection pots) Refer toolkit component type 7.
	Zone 3: Beds within parking spaces Refer toolkit component types 5 and 6.
	Zone 4: Huatoki block, including new kerblines and integrated streetscape and public space Refer toolkit component type 8.

Zone 2:
Above ground signature pots / planters are proposed to maximise greening in this space without clashing with buried services. These support greening of the intersections along with the in-ground planting of crossing build-outs within Zone 1a. Given the limited disruption this zone could potentially be phased in at any stage of the greening roll out.

Zone 3:
The footpath widths on the northern side don't allow for planting behind the kerb line, however there is opportunity to add island planters within the current parking arrangements. This zone could be phased in at early or later stages of the rollout dependant on flexibility with parking arrangements. Zone 4 island planters are also proposed on the south side of the street between Liardet and Gover to increase greening while avoiding services and the need for new stormwater infrastructure

Zone 4:
The Huatoki Block (between Brougham Street and Currie Street) is treated as its own zone, as it is intended to be designed in tandem with the City Centre Strategy's Huatoki Plaza greening and the daylighting of the Huatoki Stream below the Metro Plaza building and built at an appropriate time to deliver a considered and integrated outcome. As such, the Green Masterplan depicts two possible outcomes for Huatoki, which should be treated as indicative only.

Refer also 'Implementation - Next steps' on page 44 and the Green Toolkit on pages 24-34.



The Green Masterplan.
Green Toolkit.

To enable a strategic roll out of the Green Masterplan a series of components have been produced, that together form a green toolkit that can be used in various combinations. They have been designed to allow for an opportunistic roll out that will give flexibility to timing to align with any infrastructure upgrades, the generational transformation and timing of the alder removals, and to manage construction disruption.

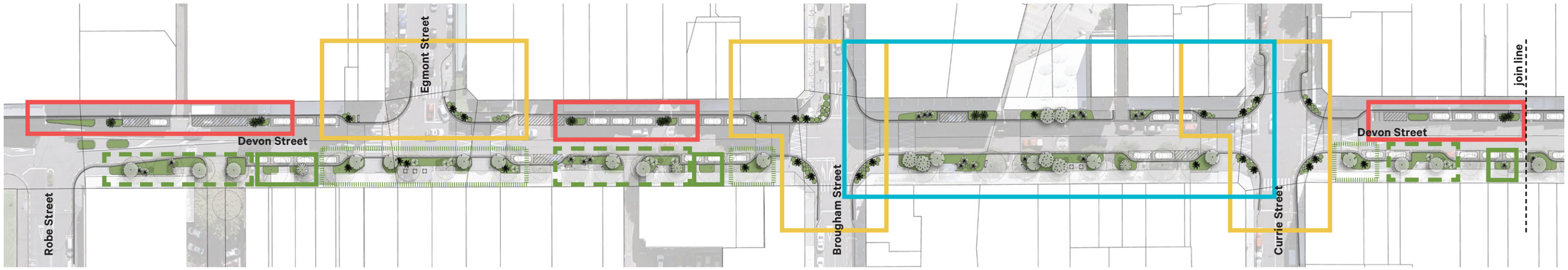
They have been curated to form a defined approach to the streets greening which is legible and consistent, while also allowing for specific responses to varying contexts, street uses and edge conditions along the street.

Their design incorporates existing streetscape elements such as kerbing and paving to achieve and integrated outcome. The components shapes and forms are flexible enough that they can be modified to adapt to site specific location requirements and can be refined in subsequent preliminary and detailed design phases.

Each component is designed to maximising greening of the street, while also considering the streets other core functions such as movement lanes, buried services, accessibility and way finding, building awnings, sightlines to buildings and at intersections, pedestrian movements, vehicle movements, parking and business serviceability.

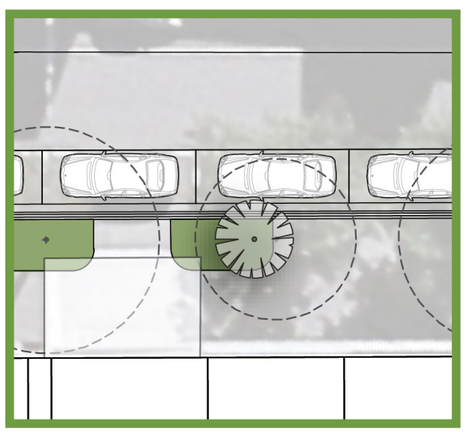
The components within the Green Masterplan are not intended to be constructed from, and provide guidance and considerations for preliminary design and detail design only.

The following pages outline the various components and highlights their function and particular considerations when applying them to the street.

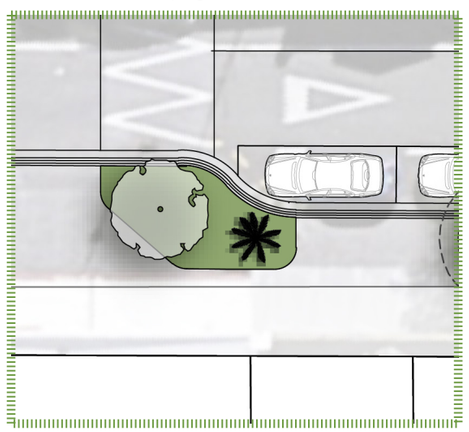


Legend

Type 1: Planter within footpath (Zone 1a)
Refer page 26



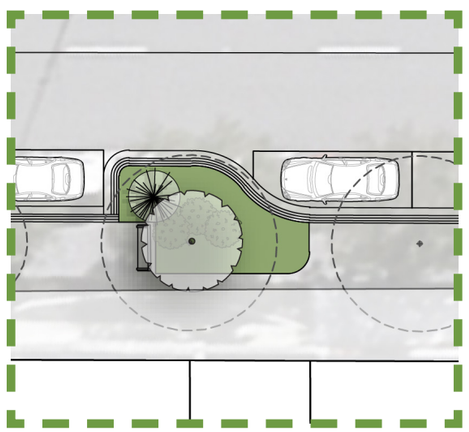
Type 2: Intersection / crossing planter bed (Zone 1a) Refer page 27



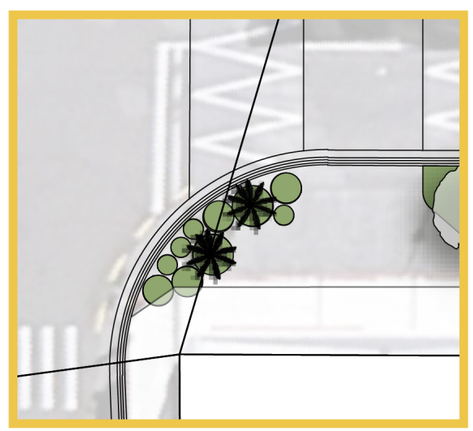
Type 3: Closed Pit - Tree grate (Zone 1a)
Refer page 28

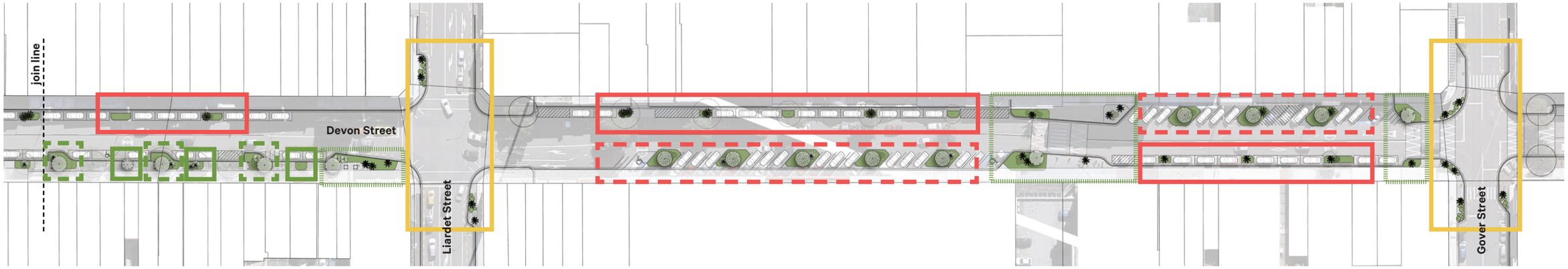
Provisional component only, not shown on masterplan.

Type 4: Planter with new kerb build-out (Zone 1b) Refer page 29

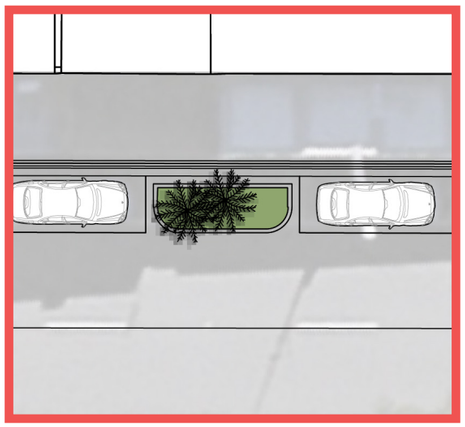


Type 5: Intersection pots (Zone 3)
Refer page 30

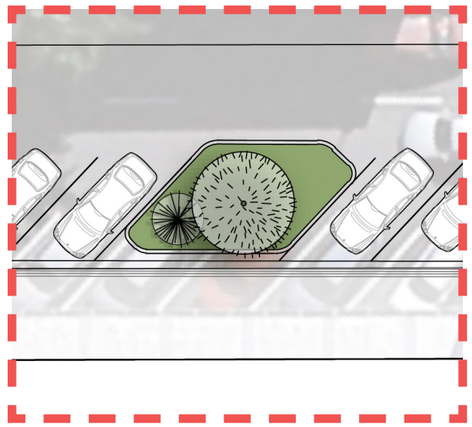




Type 6: Through-channel planter (Zone 4)
Refer page 31



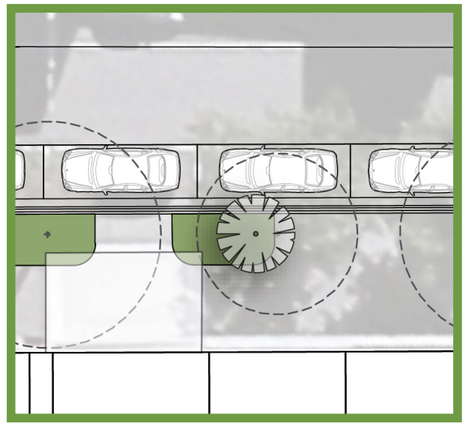
Type 7: Angle parking planter (Zone 4)
Refer page 32



Type 8: Huatoki Block (Zone 5)

The Green Masterplan.
Green Toolkit.

Type 1: Planter within footpath



Component Type 1 is one of the main greening components used along the length of Devon Street within the core. It is located within zone 1a and is designed to support larger avenue structure trees within the clear buried services zone behind the existing southern kerbline. It's location fits within the current Italian alder locations and supports a first roll out of greening as a baseline to be built upon - See Green Masterplan - Indicative Phasing.

The bed is 2m wide. Its length varies between 3.5m to 6m long depending on adjacent carparks, noting it should not extend into the space adjacent to doors of parked vehicles. Consideration has been given to the setback from kerb, with the kerb and make-up strip kept in place to provide a 600mm buffer from front face of kerb for vehicle access and door swing.

Internal corners of the planter bed have been kept rounded to allow for pedestrian movements, with a consistent inside edge parallel with the building lines for pedestrian legibility. Corners can be squared off to allow for integration of furniture on the ends of garden beds where appropriate.

Planting considerations

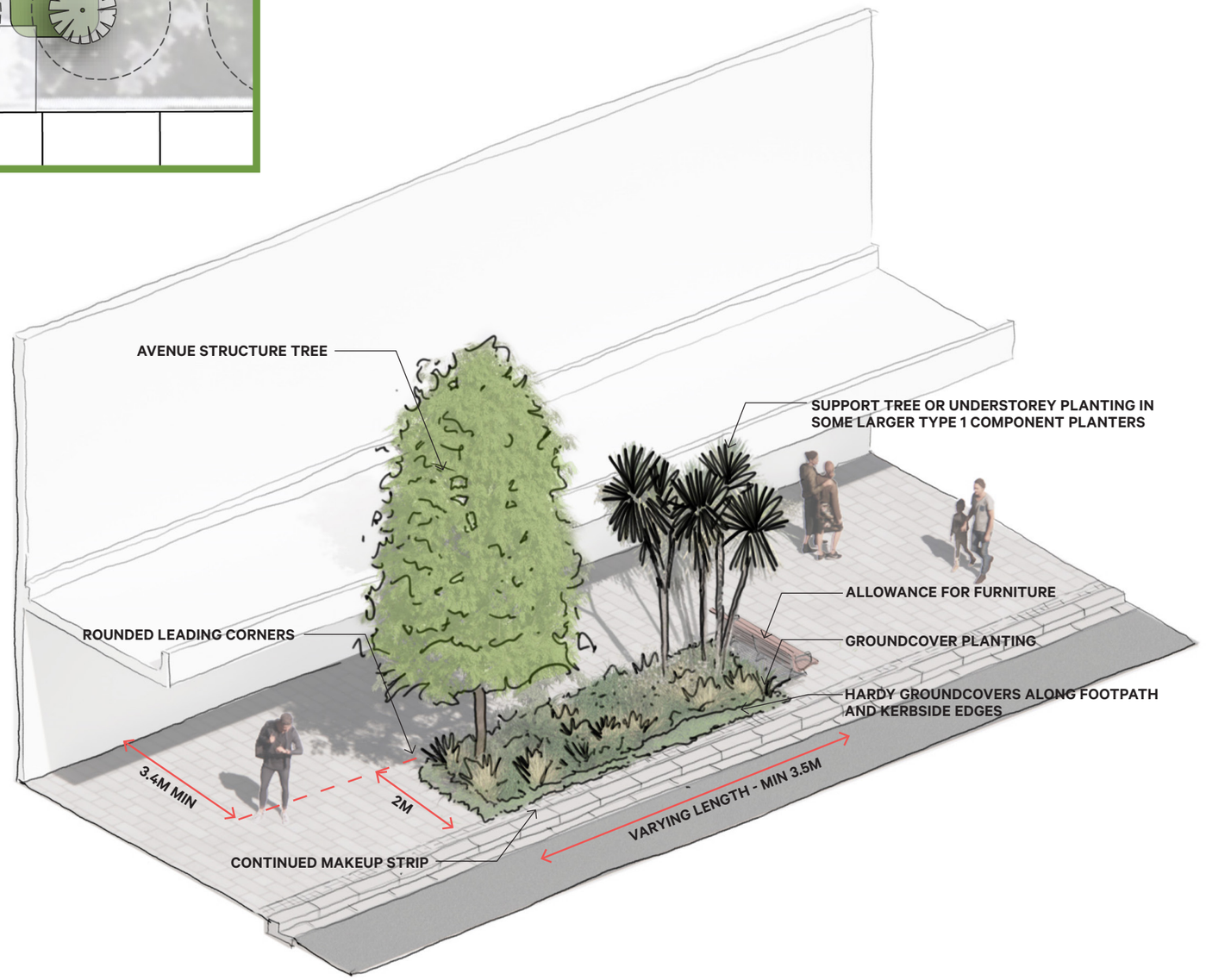
All Component Type 1 planters contain a structural avenue street tree and lower planting. Longer garden beds have the ability to include additional supporting trees and understorey planting.

Avenue trees should be set as far out toward the kerb as possible to avoid the building awnings, with a minimum offset of 1400mm from front face of kerb and 800mm from any paved edges. Support trees where possible should be offset from the avenue structure trees to provide variance of alignment along the street.

Hardy groundcovers should be positioned on the kerb edge to support the gardens edge from intermittent foot traffic accessing car parks.

Further considerations

Structural soil cells will likely be required under the footpath paving and possibly kerb / channel line to provide sufficient growing medium volumes. The amount that these soil cells push beyond the end of the garden beds will be dictated by the length of the garden bed that can be achieved (refer to technical considerations and best practice).



The Green Masterplan.
Green Toolkit.

Type 2: Intersection / crossing planter bed

Type 2 is a variation of the main type 1, and can be implemented where the existing kerb line is built out. The intent is that this component is used at crossing points, intersections and other areas where the existing kerbline pushes out into the parking areas toward the traffic lanes. The additional space offers opportunity for more groundcover planting and intersection structure and support trees.

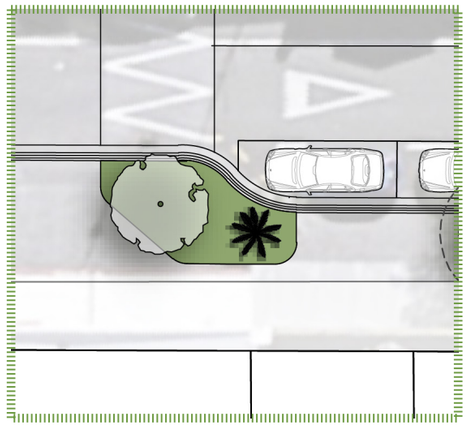
The garden bed is large enough to support an intersection structure tree and support tree(s) or understorey planting, and will varying in shape and size depending on the available space. Consideration has been given to its form where pedestrian movement will be high, with truncated edges given to match pedestrian desire lines.

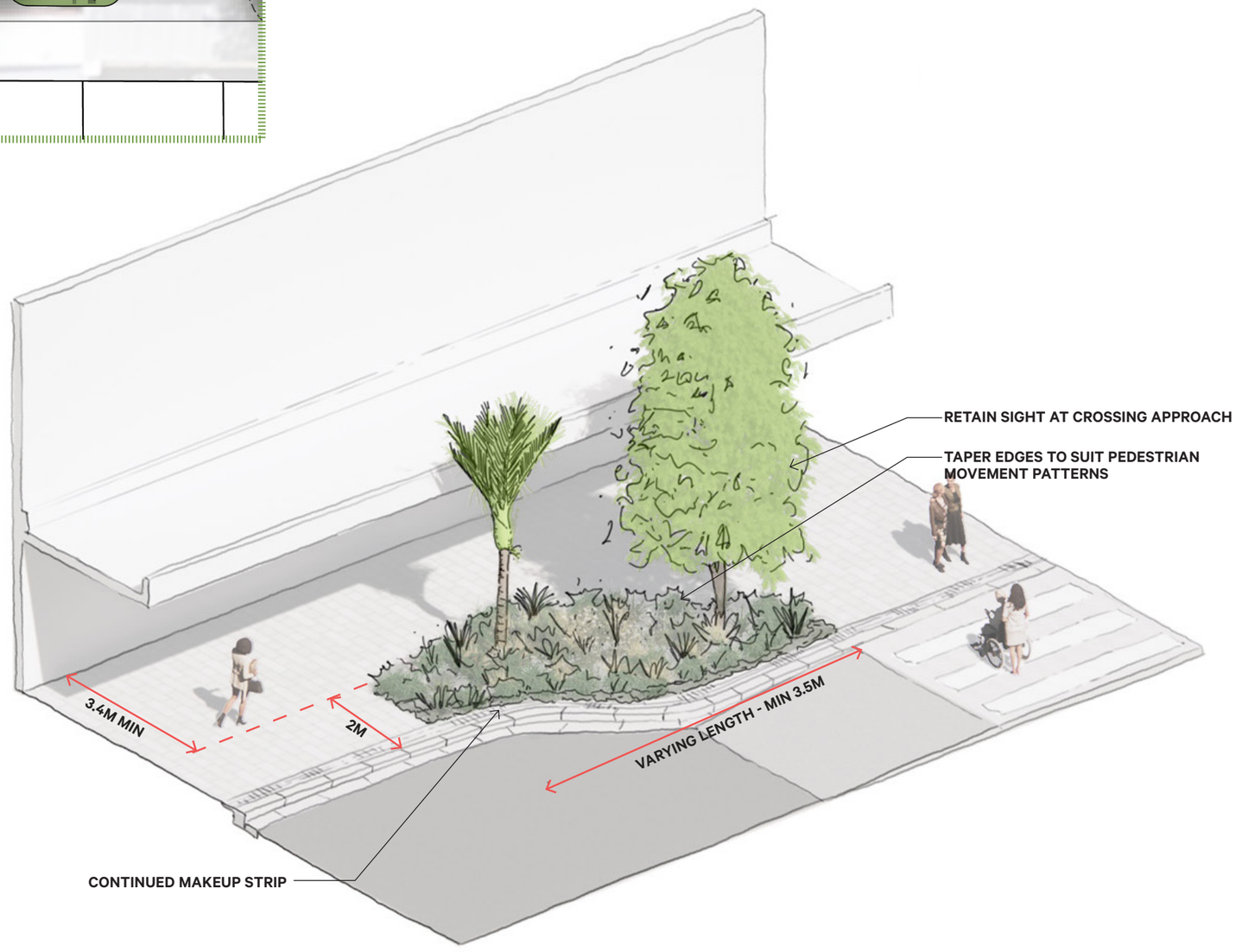
The existing kerbline and makeup strip paving should be kept in its current location for consistency of streetscape and integration of the garden bed. Where appropriate this component can be extended in length to better achieve greening at intersections, and to balance out greening in combination with adjacent components. The splayed kerbline would be relocated to achieve this.

Planting considerations
The location of the trees as well as any planting greater than 600mm high should take into consideration sightlines of pedestrians at crossing points so that they are visible to approaching vehicles.

Further considerations
Structural soil cells will likely be required under the footpath paving and possibly kerb / channel line to provide sufficient growing medium volumes. The amount that these soil cells push beyond the end of the garden beds will be dictated by the length of the garden bed that can be achieved (refer to technical considerations and best practice).

Modification of existing kerblines including moving the splay kerb locations will need to consider stormwater flows and ensure that water can still reach stormwater catchpits.





Type 3: Closed pit / tree grate

This component is a provisional item not currently shown on the Green Masterplan, but provides for flexibility if required. Preferably trees are to be planted within open planter beds or large tree pits that allow for greening at ground level and assist in capture of leaf/flower drop from trees. However if there is an instance(s) where this is not possible, to achieve the desired avenue structure tree rhythm/pattern along the street, a closed tree pit may be required.

Component Type 3 is a tree pit formed with structural soil cells, with a smaller 1.6mx1.6m aperture to allow for the tree to be planted and the trunk to expand over time.

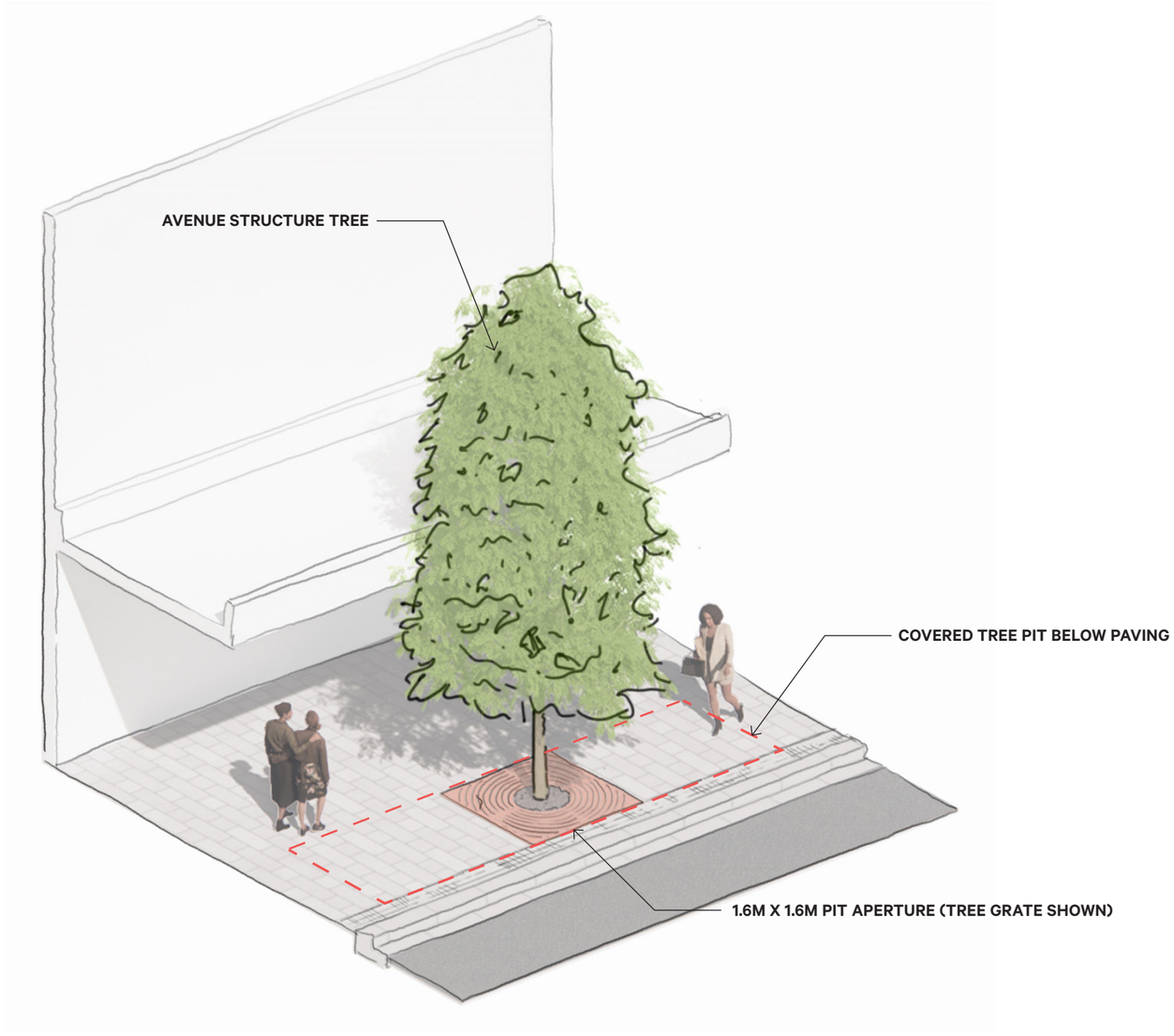
Multiple options are possible for the treatment of the aperture to best tie in with the broader streetscape furniture suite, support tree growth over time, and balance cost and maintenance. 3 options are appropriate for the aperture in this context and include; A steel tree grate, resin bound aggregates, or a loose small grade river gravel mulch. The steel tree grate option is shown here.

Should parking arrangements change over time it may be possible that the paving around the tree pit is removed and replaced with an open garden bed. Alternatively (and dependant on specific site conditions), the tree pit aperture could be extended to create a smaller open tree pit with some groundcover planting. This would be smaller than Component Type 1.

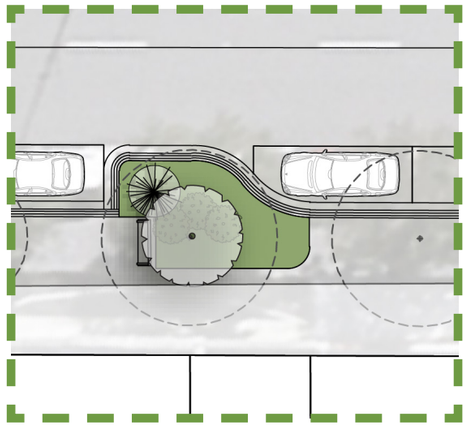
Planting considerations

Best practice for tree pits of this nature is to provide sufficient growing medium capacity beneath the paving using structural soil cells. The growing medium will require both irrigation and aeration in the form of perforated pipes that feed air and water into the soil cells below. Consideration will be required at subsequent design phases to incorporate this essential pit infrastructure for this component.

Use of loose chip aggregates (or similar) in the aperture will need to be considered alongside the topography; steeper slopes will be more prone to aggregates travelling down slope onto the paving. Chips rather than rounds are preferred to avoid slip issues when kicked onto pavement.



Type 4: Planter with new kerb build-out



To increase the amount of greening over time, street space allocation with parking will need to be balanced. Component Type 4 allows for the extension of Component Type 1 to achieve increased greening opportunity for support tree planting and understorey and groundcover planting types to supplement the avenue structure trees. The component is flexible enough to either install as a final form component as shown, or be added to Component Type 1 at a later date without having to remove garden bed infrastructure from the earlier installed component.

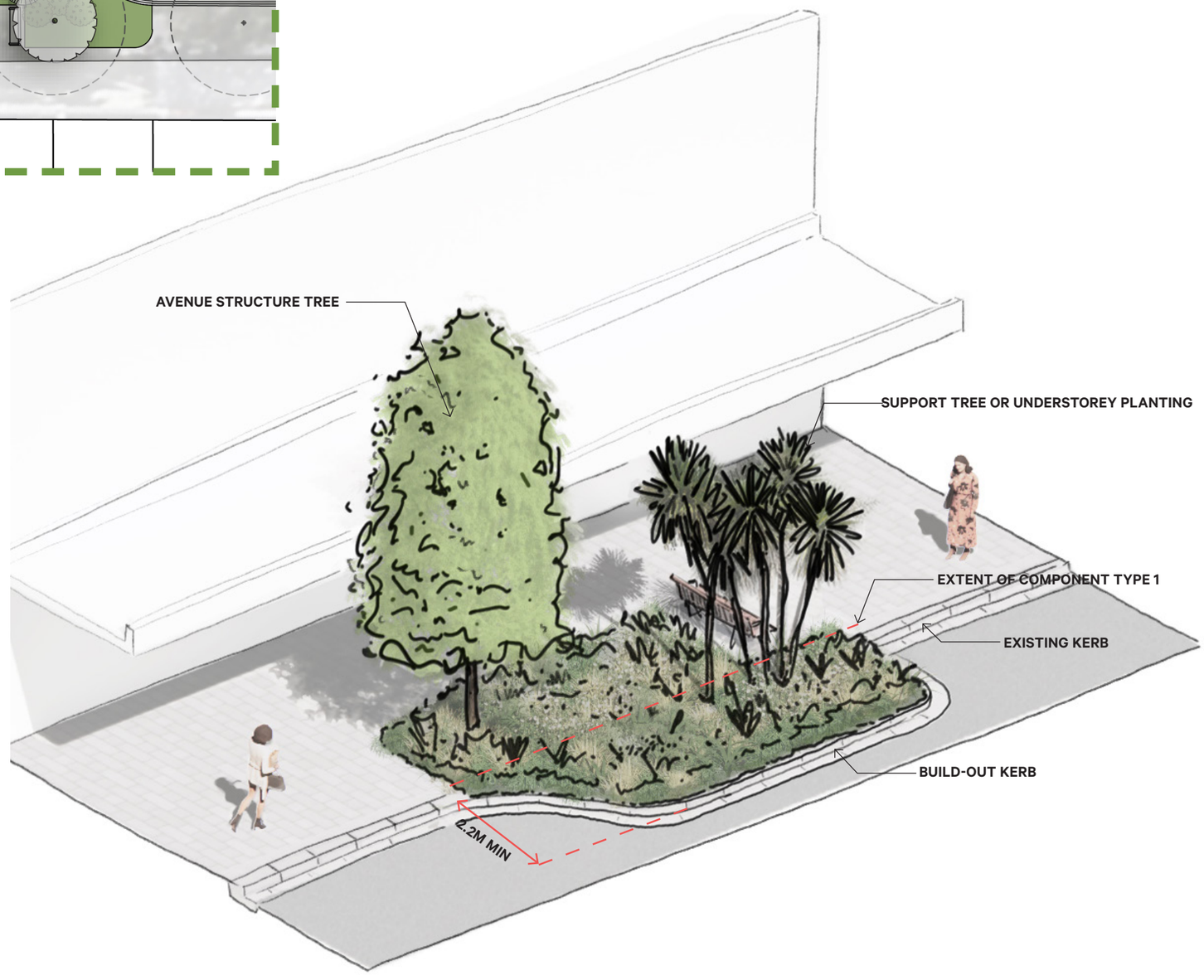
The build-out extends 2.2m from the current kerb line, however there may be scope to push this out further into the traffic lane to help with slowing vehicle speeds along the street. This would need transport engineering input. There is opportunity to remove the kerb make up strip stone setts from the inside of the kerb to increase the amount of planting area. This will need to be considered during detailed design in the context of any streetscape upgrades.

Planting considerations

Generally existing buried services follow the existing kerb line. This means that services passing through this component will need protection or encasement as appropriate relative to the service type. In general support trees have been proposed within the parking zone of this component (rather than larger structure trees) and located centrally within the build-out to avoid any deeper root systems clashing with existing services. Refer to technical considerations and best practice section for considerations that need to be given to buried services.

Further considerations

To avoid disruption and cost, consideration should be given at detailed design stages to confirm stormwater management while avoiding install of additional catchpits. The components splayed form assumes that stormwater can be forced around the component like existing build-outs on the street, this approach needs confirmation from a civil engineer. Where installed on flatter grades, the ability to force water around the component may be reduced and a catch pit would be required.



Type 5: Intersection pots

Intersection points offer up relatively large areas of paved areas that aren't necessarily dedicated to pedestrian movement and lend themselves to greening opportunities. However buried services and their access points are particularly concentrated at intersections and limit the install of any in ground garden beds or tree pits. This is dealt with in the current streetscape with raised tub planters.

Component Type 5 is an advancement of the existing tub planters, introducing various size raised planters with larger capacities for bigger support trees to mark the intersections in line with the Longitudinal Framework (refer page 9).

Planting considerations
To best achieve the intersection greening with support trees, planters should be varied in sizes, with some at a scale sufficient to support tree growth of nīkau trees. This would mean planters with a minimum 1100mm depth in some instances, balanced with smaller and lower planters for smaller groundcover species. Smaller planters should consider the use of spilling plant types as well as upright types.

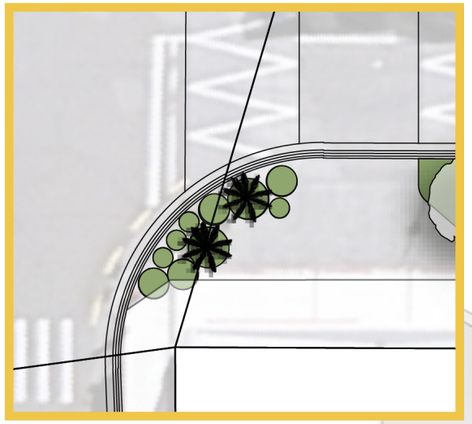
Further considerations
To establish planting, irrigation should be provided within the planters, either with slow drip irrigation from a storage tank within the planter, or with manual water similar to the existing tub planters.

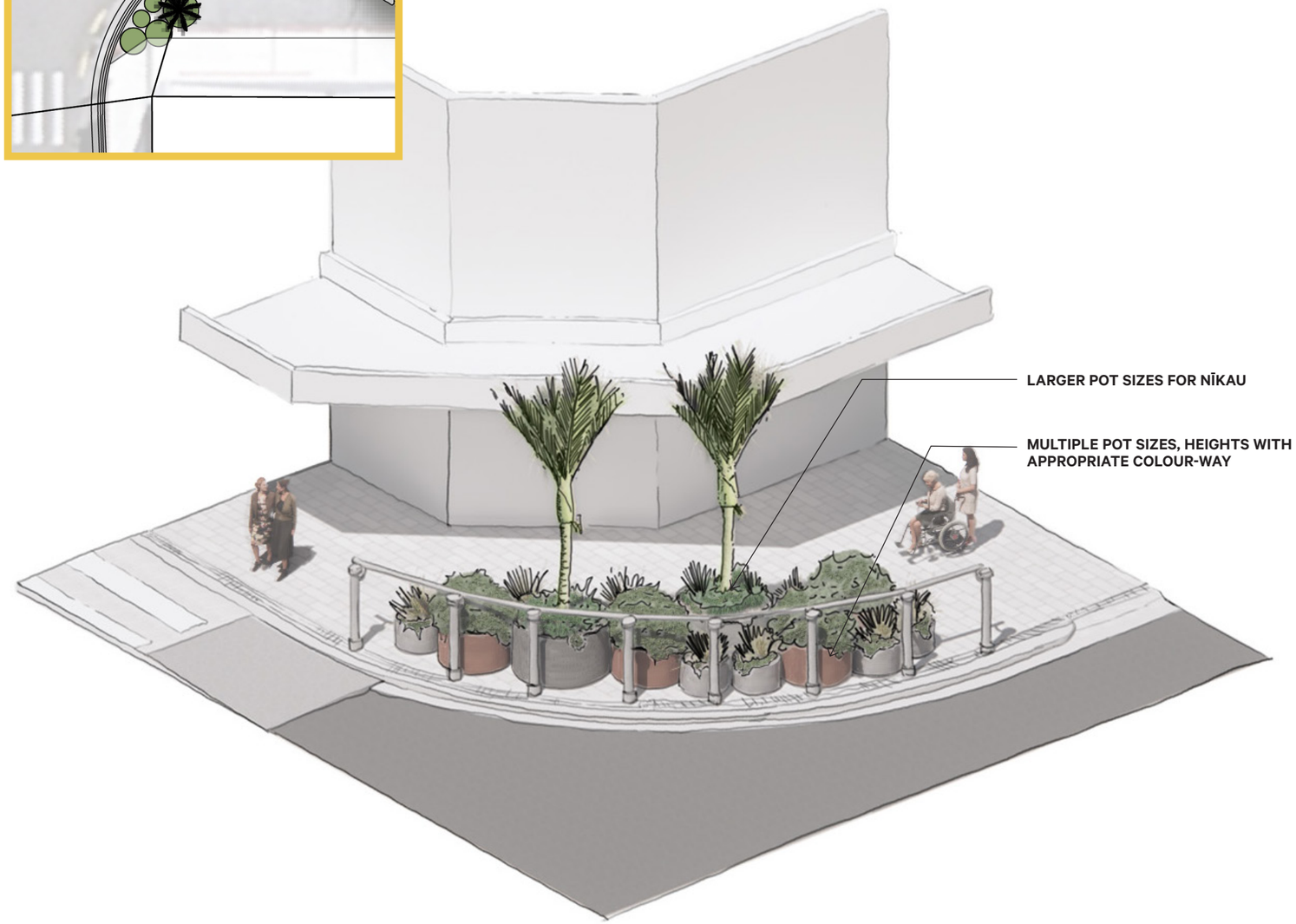
Appropriate drainage should also be considered with some excess water storage at the base of the planter to retain soil moisture, and an elevated drain point to avoid standing water.

Detailed design of the planters should consider materials such as concrete and steel with appropriate design lives and protection systems and sealants, paints etc. Any use of weathering steel (corten) will need to be balanced with potential staining of paving.

Although the use of native plants within the planters would be used, the opportunity to rotate the types of plants on display within the planters should be considered. If a rotational type approach was to be used, then the planters should be designed with removable internal sleeves similar to the current tub system.

Tree anchoring fixings may be required within the larger planters where nīkau are proposed.





Type 6: Through-channel planter

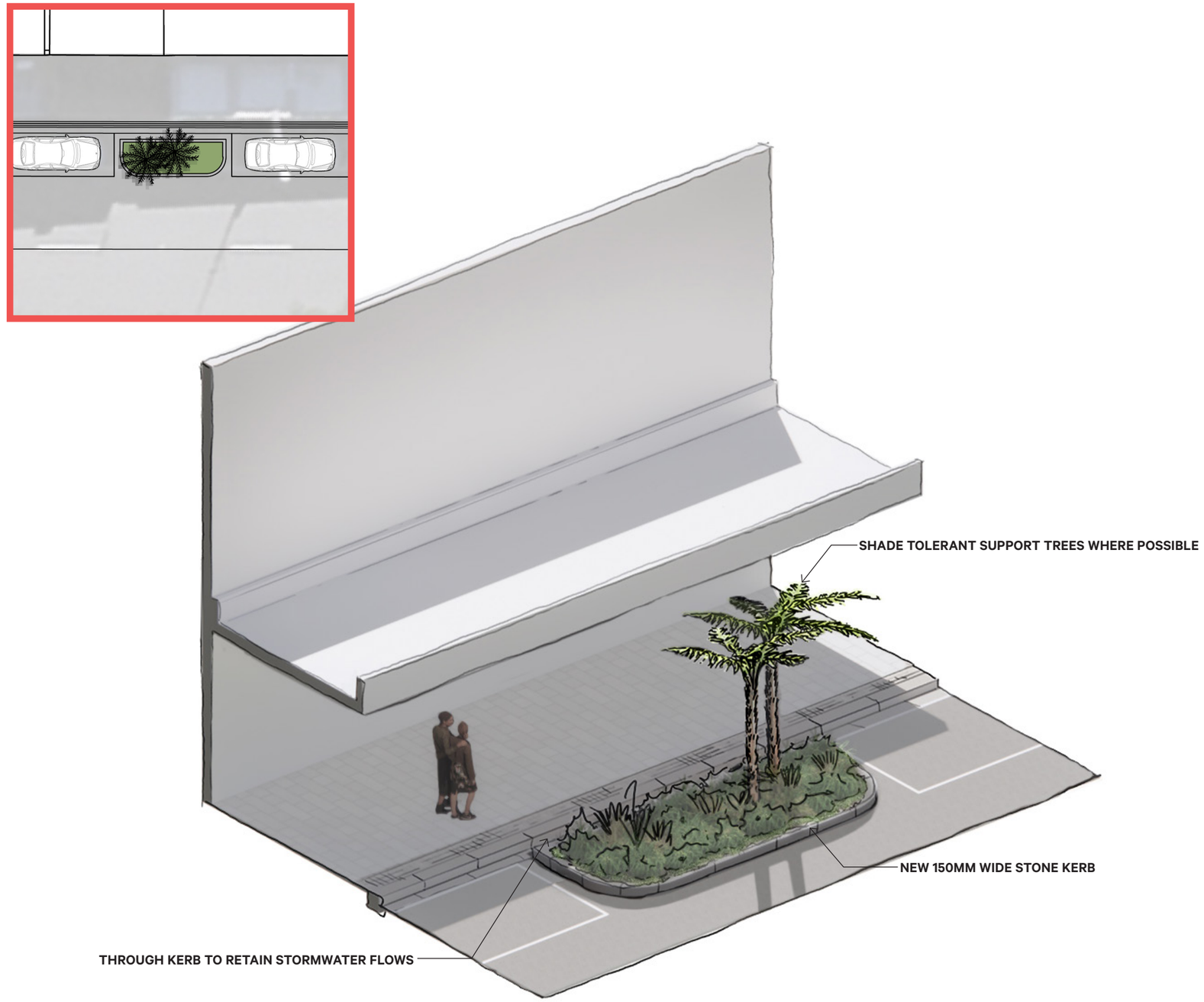
In line with the Horizontal framework (page 10), and to take advantage of potential space for greening on the north side of the street, Component Type 6 has been developed. This component is similar to the existing tree pits on the north side of Devon Street between Liardet and Gover Street in that it can be installed as an 'island' with the existing kerb and channel passing behind it.

The component would require new kerb blocks that match the existing stone kerbing to keep a consistency and integrate the component into the streetscape. The intent is that this component would provide space for shade tolerant groundcover species to be planted, provide some balance to the street, and increase amenity on the north side.

Planting considerations
The depth of the garden bed will be determined by the type of planting intended. While a shallower 600mm depth pit could potentially support 1 -2 whekī tree ferns, any larger supporting trees proposed would require more depth and likely also structural soil cells to provide adequate growing medium. In this instance, Component Type 2 may be more appropriate.

Further considerations
If possible, this component could be swapped out for a full build-out planter, similar to Component Type 2. This would need consideration of stormwater flows, and would likely be more successful on sloped sections of the street.

The extent that the component pushes out in the carriageway will need to be considered, it may be appropriate to push out slightly past the car parking to help with traffic calming.



Type 7: Angle parking planter

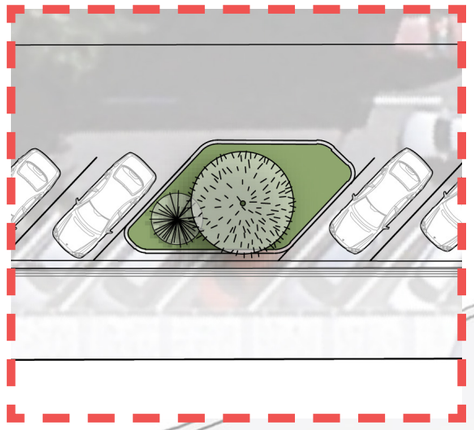
This component is an ‘island’ with the existing kerb and channel passing behind it. It has been adapted to fit within the angle parking between Liardet and Gover Street offering space for larger tree canopies considerably offset from building awnings, and increased greening at ground level where there is currently very limited green amenity.

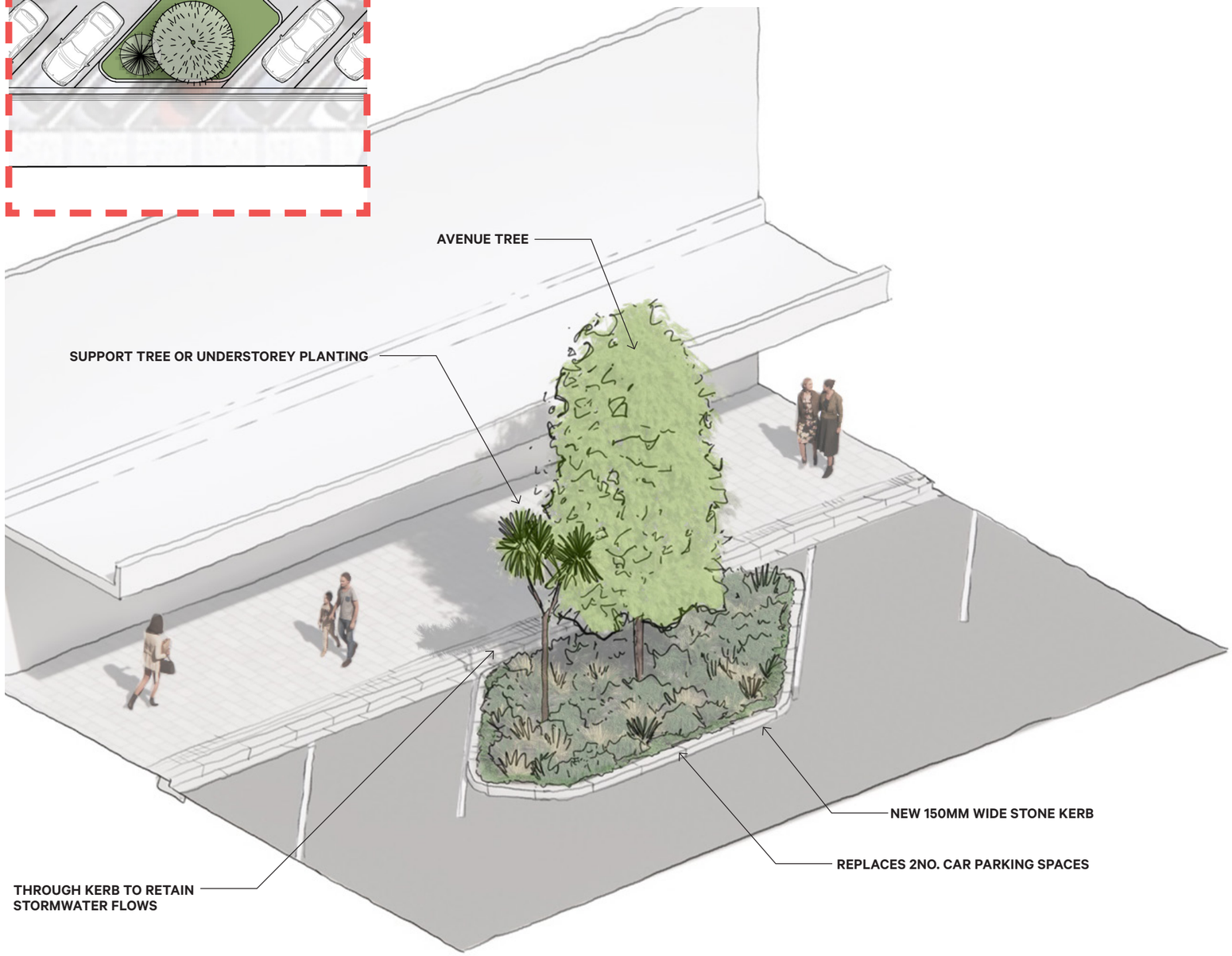
The component would require new kerb blocks that match the existing stone kerbing to maintain consistency with the streetscape.

Planting considerations
The depth of the garden bed will be determined by the type of planting intended. Where trees are proposed increased depth would be required, and will need to have tree pit walls to support the adjacent parking and traffic lanes. This could be achieved with structural soil cells or insitu walls.

Further considerations
If possible, this component could be swapped out for a full build-out planter, similar to Component Type 2. This would need consideration of stormwater flows. Given the flatter grades between Liardet and Gover, and the shape of the angle parking, a new catch pit on the high side of each component would likely be required.

The extent that the component pushes out in the carriageway will need to be considered, it may be appropriate to push out slightly past the car parking to help with traffic calming.

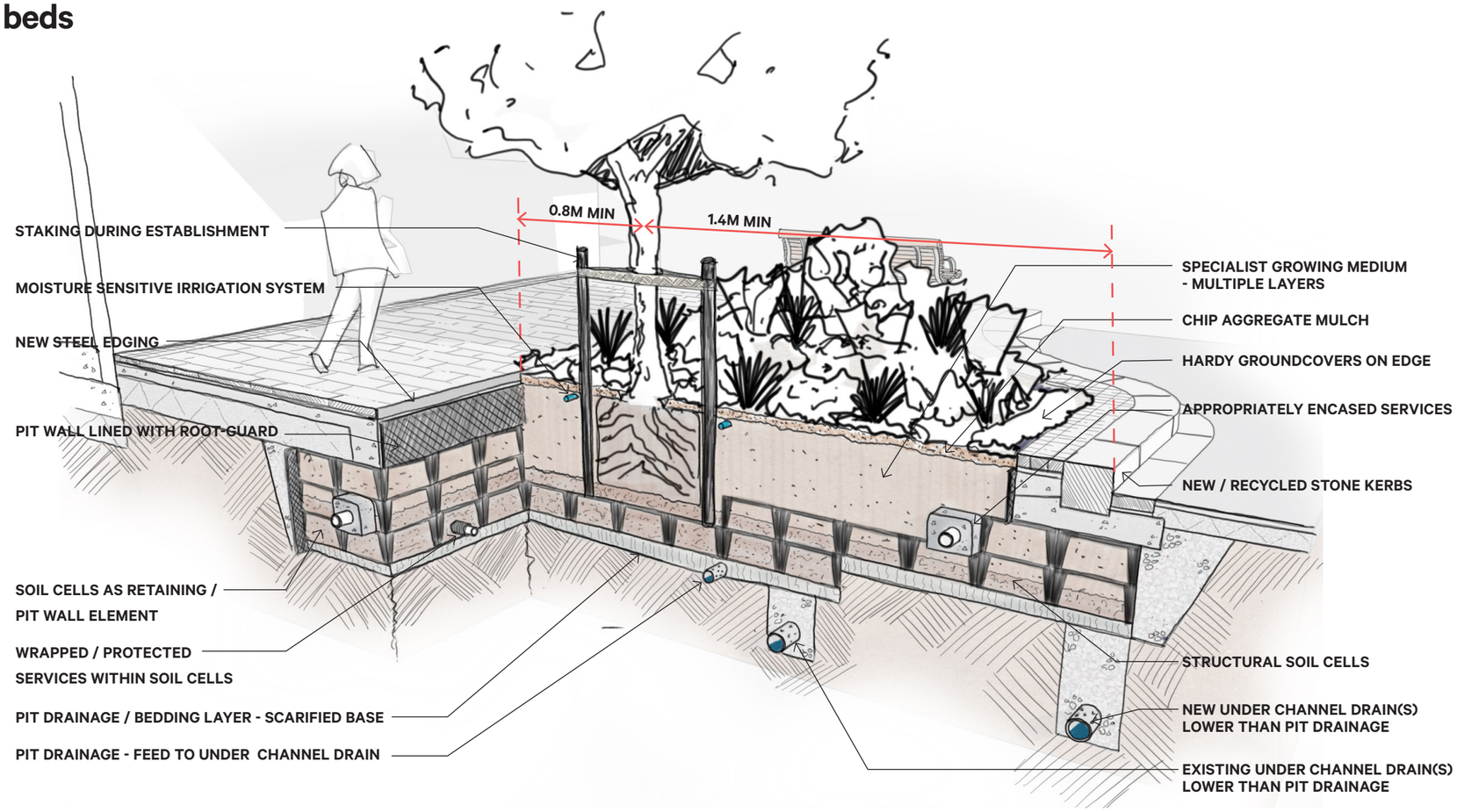




Technical considerations for tree pits / garden beds

Given the harsh streetscape environment, tree pits and garden beds must be well designed to support thriving tree and plant growth. The streetscape environment provides multiple challenges for tree growth including strong funnelled winds, limited or varying sunlight conditions, restricted root space, impervious surfaces and concentrated run off from hard surfaces, higher temperatures and heat reflection from paving and buildings, wayward vehicles and pedestrians, and having to compete for space below and above ground with services and building awnings.

The following outlines what tree pit and garden bed infrastructure will likely be required to provide for thriving trees and plants on Devon Street. They are not exhaustive but give an indication of scale and cost of the tree pits, as well as considerations that will need to be addressed fully during detailed design.



Growing medium

Growing medium shall be imported, and contain appropriate levels of organic mater and pH and nutrient levels balanced and suited to the selected tree species within the pit.

Growing medium installation should be undertaken in a manner that does not overly compress the soil, balanced with minimising settlement. Growing medium shall be installed as multiple layers that mimics the soil composition and strata that the selected tree species typically thrives in naturally. This may mean lower layers with higher sand or rock content, and reduced organic matter at depth, with richer more organic heavy soils at shallow depths.

Growing medium depth shall be circa 1m minimum for pits with trees and 500mm minimum for beds with understorey and groundcover plantings only. Growing medium capacity will vary depending on the final selected tree to be planted, as a general rule of thumb 12m³ per tree in a single pit is acceptable, with 16m³ for two trees within a single pit. This should be cross referenced with soil capacity calculators and arborist input during detailed design. Refer to ‘Implementation - Tree Planting Guidance’ on pages 44-45 for more specifics.

Edge interfaces and protection

The garden bed and pit edge should be installed with a thickened concrete edge below the stone paving, and finished with a steel angle or fixed plate. The steel edge reduces the need for haunching of the paving and allows low groundcovers to grow to the pit edge.

The pit edge should be lined with root guard or similar root deterrent liners that will force roots down and reduce the risk of root heave and lifted paving. All new kerb build-outs should use recycled kerb blocks and paving removed to install the garden bed, or new blocks to match the existing streetscape paving.

Mulch

Mulch shall be a chip aggregate mulch, installed 75-100mm thick across the entire garden bed. The heavier chip aggregate is preferable over bark mulch given it is less likely to travel out of the garden bed. To reduce risk of trip hazards, the mulch should finish 20mm below the paving edge with allowance for soil settlement at the time of install. Chips rather than rounds are preferred to avoid slip issues when kicked onto pavement.

Resin bound aggregates using the same chip aggregates should be considered on edges with high foot traffic such as those edges interfacing with car parking spaces. Resin bound aggregates can be poured at same finished height as the adjacent paving, and can limit risk of trip hazard and mulch travel in high trafficked areas.

Pit structure and soil cells
Best practice and guidance for trees within the urban street environment is to have trees installed within tree pits with structural soil cells to provide sufficient growing medium capacity and integrate into hard paved areas, while retaining above ground street functions -footpaths, parking and the like. This is in contrast to more traditional closed walled pits with only open garden beds above, or overly constricted roots within precast pits that don't allow trees to thrive or grow quickly.

Pits need to hold the minimum depths and capacities outlined on the previous page, as well as accepting multiple services and other restrictions.

Structural soil cells should be used within pits to:
— Provide sufficient growing medium under paved areas;
— Reduce need for insitu tree pit walls;
— Reduce carbon from use of concrete block pit walls;
— Enable growing medium capacity to utilise space below paving and roading if required;
— Integrate services easily by threading through cells or modifying cells insitu to accept varying shapes and types of services; and
— Enable quick installs without need of hard retained edge install.

Detailed design will need to give consideration to the size and extent of soil cells within paved areas, and if required under kerb and channel aswell.

Tree and planting considerations
Structure and support trees shall be installed no closer than 1400mm from the front face of kerbs to manage vehicle clash, allow for sufficient room for the trunk to expand, and to provide room for groundcover planting around it. Trees shall be planted no closer than 800mm from the edge of any paved edges.

Larger tree specimens shall be used, sourced from grow-on contracts if required to achieve specific specifications to suit the unique Devon Street environments. Refer to 'Tree and Plant Palettes' on pages 38-42 and 'Tree Planting Guidance' on pages 44-45.

Understorey planting locations should be considered at crossings and intersections, and placed appropriately to not create hiding spaces or reduce passive surveillance of the footpath from other areas of the street.

Groundcover planting shall be appropriately spaced and offset from edges to not encroach onto pedestrian areas. Hardy ground spreading species should be mixed with the plants planted on the garden bed edges for resilience from intermittent foot trampling and the like. Hardy species should also be used adjacent to street furniture or high pedestrian movement areas such as adjacent to parking.

Refer to 'Implementation - Tree Planting Guidance' on pages 44-45 for more specifics pertaining to tree planting and other technical considerations.

Buried services management
All efforts should be made to locate services that may be clashing with the proposed tree pits and garden beds, this may include GPR scanning or trenching. Inevitably there will be service clashes with tree pits, and where this cannot be avoided, tree locations and species should be selected to minimise clashing impacts. Early conversations with service asset owners will determine mitigation techniques and acceptable offsets.

In most cases services will need to supported, ducted, wrapped or encased to make sure that roots or the lose soils do not damage them. Some services such as power or gas may need to be ducted and encased to both protect and future proof new lines.

Use of soil cells provides support to services travelling through the pit, and they are able to be trimmed and modified insitu to accept services without reducing the pit's strength. Early conversations with soil cell suppliers will provide best approaches to the different types of services likely to be encountered.

Watering
Watering systems will be required to provide sufficient moisture levels within trees pits, intersection pots and garden beds, and is especially important during the establishment period of low planting within the first 2 years and trees within the first 2-3 years. To avoid over or under watering, moisture sensor automatic irrigation systems are recommended. Consideration will need to be given to water supply to each location, and automated systems will require a control plinth, as well as toby boxes within each planter to hold valves and regulators. Drip irrigation systems should be used to limit water spreading onto paving.

It may be possible for some tree pits and garden beds to accept some stormwater as passive watering during higher rainfall events with semi castellated kerbs. This should be considered during preliminary and detailed design with civil engineering input.

Drainage
Insitu soil at the base of the pits should be tested prior to scarifying the pit to determine appropriate scarification depths and inclusion of drainage metal and/or sand. At a minimum the pit shall be scarified to 300mm and mixed with 50% sand. A minimum 150mm drainage layer using sand and drainage metal shall line the bottom of the pit forming a bed for the soil cells. The drainage bed should have a positive fall to a perforated and socked drainage coil with a positive fall to existing under channel drains. It is important to determine that the pits are free draining avoid flooding and tree root drowning.

The Green Masterplan.
Tree and Plant Palettes.

The tree and plant palettes on the following pages list the proposed species for use within the Devon Street Green Masterplan project area.

Responding to the principles and key moves of the NPCCS, as well as the policies and objectives of the District Tree Policy (DTP), the tree and planting palettes are comprised of (or inspired by) species found locally within the coastal and semi coastal-lowland ecological districts of Ngāmotu, to strengthen biodiversity and mahinga kai values, encourage birdlife, and contribute to a city centre that is uniquely Ngāmotu.

Tree and plant species selection has been guided the Taranaki Tree Trust's *'Restoration Planting in Taranaki: A Guide to the North Taranaki Ecological District'*, as well as the New Plymouth District Council open spaces and arborist teams, who have an appreciation for the species of the area, their qualities and maintenance requirements.

As a result, in some instances varietals or similar alternatives to locally found species have been used for size, form and/or improved suitability or known performance in a streetscape context.

Proposed trees considerations

All proposed tree species are the result of collaboration with NPDC open spaces team and arborist who have provided local knowledge and guidance on species suitability to context and acceptable levels of maintenance and pruning relative to awnings and footpaths. As described in more detail on page 11, acceptable levels of maintenance is achieved through reduced quantities of canopy trees along the existing Italian alder alignment, not replacing trees in locations where significant awning clashing is already occurring, and use of evergreen tree species directly adjacent awnings for less leaf/flower/seed drop. Further mitigation for tree drop has been considered in positioning new garden beds under all trees to limit drop onto footpaths.

In line with the design principles, the approach to tree selections also acknowledges that urban trees do not have the longevity of forest trees, and so new trees will be planted with a view towards semi-permanence and generational transformation. This approach, paired with the intent to use a variety of species, also creates opportunities for trialling of some native species not typically seen in Taranaki streetscapes.

In particular, further research and trialling is recommended for the proposed intersection species Nestegis apetala (coastal maire) and Myoporum laetum (ngaio) during preliminary design (and possibly as part of first stages of construction) to confirm their suitability. Trialling is recommended for coastal maire as it does not have any known examples proving it will perform in the Taranaki climate. For ngaio, its natural multi-stemmed, spreading habit is not conducive to streetscape use, so will need to be tested to determine whether contract growing can achieve successful specimens with clear stem, central leader and minimal canopy spread to enable them to be planted adjacent kerbs and vehicle movements. If through trialling, these two species are not deemed suitable, an alternative intersection canopy tree species will need to be found. Refer species notes on pages 38 and 41, and further commentary on coastal maire and ngaio on page 9.

Other proposed trees, including tōwai, coastal kōwhai and houhere for example, have local specimens demonstrating suitability to local climate, but have not been tested in Taranaki central city streetscapes. The approach to generational transformation and using a variety of species along Devon Street (refer page 7) enables these native species to be planted with limited tree replacements required if any do not perform as expected.

Palette categories

The tree and plant palettes are separated into two categories in response Conceptual Response of the Devon Street Transect, and the Key Moves and Design Principles on pages 6 and 7 respectively:

- **Huatoki palettes** reference the planting character of the Huatoki Stream and North Taranaki's coastal and semi-coastal valley stream, wetland and estuary environments. The Huatoki palettes are also an opportunity to reference the Huatoki Stream's cultural significance and whakapapa (naming with reference to tītoki).
- **Hillslopes and ridgelines palettes** reference the planting character of North Taranaki's coastal and semi coastal-lowland hillslopes and ridgeline environments.

Each of these palettes applies to a particular length or portion of Devon Street. Refer to the Green Masterplan Palette Key Plan below, outlining where each of these palettes apply.

Green Masterplan Palette Key Plan

The Green Masterplan.
Tree and Plant Palettes.

Structure trees

Structure trees are a semi-constant along the street and provide a scaled transition from building height to street level, as well as semi-regular canopies that break down the street's length and provide a structure from which other greening moves can be hung from. See 'Masterplan Overview' on pages 8-11.

The position and arrangement of structure tree species is determined by their typology, described and shown in the Structure Tree Key Plan below. These typologies and their arrangements create a balance between regular rhythm and naturalistic variation along the street, which is then softened further with the use of Supporting Trees (refer over page).

NB. The existing Italian alder alignments drive the position of both the proposed tōwai and houhere avenue species, as well as a number of the other structure tree and supporting tree species along the street, contributing to the overall avenue effect.

---- Indicative avenue alignment

Avenue structure (typically runs of 3)
Tōwai trees create a semi-regular avenue, positioned along the southern side of the street, typically in groups of three at 9 or 18m centres, utilising the same locations and alignment as the Italian alders for removal, where there are known to be no services.

- *Pterophylla sylvicola*, tōwai

Avenue structure (single specimen)
Supporting the tōwai avenue trees, single specimens of houhere create variance of avenue species, while extending the semi-regular avenue patterns created by the tōwai.

- *Hoheria sexstylosa*, houhere

Off avenue alignment
Coastal kōwhai have a brevi-deciduous habit, so are placed where structure trees are needed further from awnings, off the tōwai and houhere avenue alignment (for example, outside Mayfair), and to contribute to a naturalistic streamside character at the Huatoki Block.

- *Sophora chathamica*, coastal kōwhai

Huatoki signature species
Tītoki and coastal kōwhai are signature species for Huatoki, and positioned in naturalistic arrangements around services.

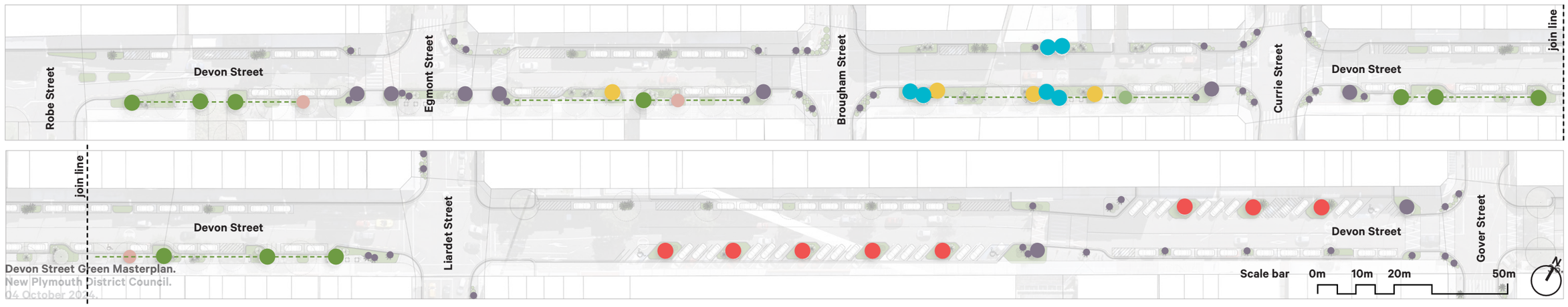
- *Alectryon excelsus*, tītoki
- *Sophora chathamica*, coastal kōwhai

Intersections and crossings
Nīkau trees are signature species at intersections and crossings, along with a structure canopy tree species which - through further research and trialling - may be the coastal maire or ngaio tree. The structure canopy tree species will need to be positioned to avoid services and where there is adequate space for canopy spread, while nīkau trees are used elsewhere, either in ground, or in intersection pots where space is more limited. As noted on the previous page, the intent is (through further research and trialling) to determine if coastal maire or ngaio are suited to streetscape use, and the results will determine the species used.

- *Nestegis apetala*, coastal maire OR *Myoporum laetum*, ngaio
- *Rhopalostylis sapida* var. *chathamica*, Chatham Island nīkau

Angle parking beds (Liardet St to Gover St)
Metrosideros 'Maungapiko' are a feature in the angle parking beds outside of the core, positioned in alignment with one another, giving consideration to required sightlines for movement.

- *Metrosideros* 'Maungapiko'



Supporting trees

These are smaller native trees that provide variance and considered irregularity, providing flexibility where there are services to navigate, or where space is more limited (e.g. proximity of awnings).

Planting grades of supporting trees are intended to be varied for visual interest along the street and within their immediate clusters. Dicksonia squarrosa (whekī) are intended for use only on the northern, shadier side of the street.

Understorey plants

These are native shrub species which are maintained to a maximum height of 1.5m, positioned to give vertical variance to groundcover planting and strategically frame spaces (e.g. seating or outdoor dining spaces). Understorey plants are not intended to be used in large quantities, but rather to contribute to pedestrian scale amenity and diversity of planting the beds.

Placement of understorey plants must consider CPTED, safety and sightlines of pedestrians and road users, and shelter and comfort. Species selection from the provided palettes will also need to consider the light levels on the northern vs southern side of the street, noting that the northern side of the street is in shade for the majority of the day.

Groundcover Plants

These are low plants typically under 1m height that form the foundation for the other planting layers to emerge from.

Species selection from the provided palettes will also need to consider the light levels on the northern vs southern side of the street, noting that the northern side of the street is in shade for the majority of the day.

Tree and plant palette legend

Proposed trees and plants have been chosen with consideration to the character and ecologies of Ngāmotu and mahinga kai values as existed historically. The icons below are shown on the palettes on the following pages, to identify the values which apply to each plant.

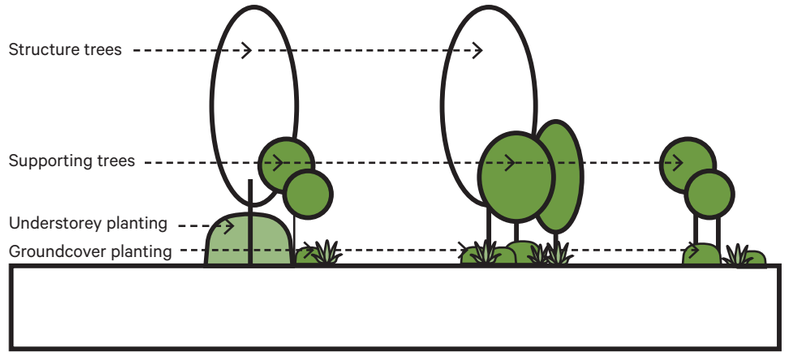
Local
Native species found locally in the North Taranaki Ecological District.

Native manu
Provides insect habitat, fruit, nectar or seeds for native birds.

Kai
Traditional Māori food source or used in traditional cooking methods.

Construction and craft
Plants used in traditional Māori tools, or construction, fibre or textile processes.

Rongoā
Plants used in traditional Māori healing practices or remedies.

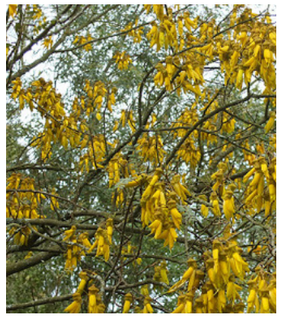


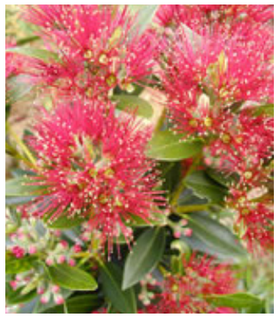
Vertical Framework: The 4 vertical layers of the Masterplan

References:
Landcare Research 2021. Nga Tipu Whakaoranga: Maori Plant Use. https://maoriplantuse.landcareresearch.co.nz/
Taranaki Tree Trust 2013. Restoration Planting in Taranaki: A Guide to the North Taranaki Ecological District.

The Green Masterplan.
Tree and Plant Palettes.







Hillslopes and ridgelines palettes
(Robe St to Brougham St and Currie St to Gover St)

Botanical name	**Common name**	**Approx size* (HxW)**	**Form**	**Clear Trunk**	**Proven performance and site suitability****	**Undesirable characteristics or management**	**Evergreen/ deciduous**	**Native/ exotic**	**Amenity values** e.g. flowers, colour, seasonality	**Mahinga kai values** Refer plant palette legend pg 37	**Planting grade**	**Notes**
Structure trees												
Avenue structure (typically runs of 3)												
Pterophylla sylvicola (syn. Weinmannia sylvicola)	tōwai	10yr (4m x 2m) Mature (10m x 4-5m)	Upright	Yes	Yes - Brooklands	Nursery photos suggest variable form. Flower and seed drop.	Evergreen	Native	Flower racemes		TBC****	Ensure robust specification and hand selection of nursery specimens to ensure well developed with many branches and consistent, desirable form with clear stem, central leader. Contract growing may be required.
Avenue structure (single specimen)												
Hoheria sexstylosa	houhere	10yr (5m x 3m) Mature (8m x 3m)	Vase shape, weeping	No - see notes	Yes - Pukekura Park	Weeping form may require pruning in streetscape setting. Flower drop.	Evergreen	Native	Flowers		TBC****	Ensure robust specification and hand selection of nursery specimens to ensure clear stem, central leader. Contract growing may be required.
Off avenue alignment												
*Sophora chathamica****	coastal kōwhai	10yr (4m x 2m) Mature (5-7m x 3-5m)*	Upright, spreading	Yes (if specified)	Yes - see notes	Yellow seeds poisonous if eaten. Flower/leaf drop. Thin trunk may be easily damaged with vandalism when young. Management of form.	Brevi-deciduous	Native	Yellow flowers		TBC****	Ensure robust staking and/or large size trunk at time of planting. Due to deciduous leaf drop and flower/seed drop, this tree is only to be planted within large planter beds, further from awnings than existing alder alignments. Ensure clear stem and central leader. Contract growing may be required.
Intersections and crossings												
Nestegis apetala	coastal maire	10yr (4m x 2m) Mature (6-10m x 4m)	Upright, spreading	Yes (if specified)	Yes	Unknown performance in Taranaki climate. Flowers, fruit. May need pruning to manage spread.	Evergreen	Native	Flowers, fruit		TBC****	Recommend further research and trial of this species for suitability during preliminary design (and possibly as part of first stages of construction), due to unknown performance in Taranaki climate. Tree specimens must have clear stem, central leader, limited canopy spread due to proximity to kerb and vehicle movements. Contract growing may be required.
Myoporum laetum	ngaio	10yr (7m x 4m) Mature (8-10m x 4m)	Rounded, spreading	Yes (if specified) See notes	Yes	Multistem habit and spreading form will require robust tree specimen spec/ selection and ongoing maintenance to achieve clear stem and manage canopy spread. Leaves poisonous.	Evergreen	Native	Flowers, fruit		TBC****	Recommend further research and trial of this species for suitability during preliminary design (and possibly as part of first stages of construction), to test whether suitable upright clear stem, central leader specimens can be achieved with consideration of proximity to kerb/vehicle movements. Spreading habit will need to be trained/ managed. Will likely require contract growing and ongoing pruning. Do not plant adjacent to outdoor dining due to poisonous leaves.
Rhopalostylis sapida var. *chathamica*	Chatham Island nīkau	10yr (4m x 1.5m) Mature (15m x 3m)	Vase shape	Yes	Yes - at Puke Ariki	Can be hard to establish. Fronds require pruning.	Evergreen	Native	Flowers, fruit		See notes****	Plant in clusters / groups. Specify and plant groupings with varied heights/grades for visual interest: e.g. 1.5m, 2m and 2.5m+

* Size shown is average size from nursery sources and examples of species in streetscape settings.

** Performance and suitability based on nursery and NPDC Council experience.

*** Literature shows an inconsistent range of expected ultimate heights for Sophora species, varying up to 20m. Arboricultural advice received on previous projects indicate that in a streetscape environment, S.microphylla would be expected to grow to maximum heights noted. It is assumed S.chathamica would be similar.

**** Grades will be in some cases dependant on availability and contract growing arrangements with nurseries. Refer notes column and 'Tree Specification' on page 44-45 for guidance on ideal and minimum tree grades / heights at time of planting.

Hillslopes and ridgelines palettes

(Robe St to Brougham St and Currie St to Gover St)




Botanical name	Common name	Approx size* (HxW)	Form	Clear Trunk	Proven performance and site suitability**	Undesirable characteristics or management	Evergreen/ deciduous	Native/ exotic	Amenity values e.g. flowers, colour, seasonality	Mahinga kai values Refer plant palette legend pg 37	Planting grade	Notes
Structure trees (continued)												
Angle parking beds (Liardet St to Gover St)												
Metrosideros 'Maungapiko'		10yr (5m x 3m) Mature (8m x 4m)	Upright	Yes	Yes	Flower drop. Bushy habit will require tree specimen selection and ongoing	Evergreen	Native	Red flowers		TBC****	Nursery specimens selected/specified must ensure clear stem, central leader, and be maintained to meet sightline requirements given position of these trees adjacent to angle parking.
Supporting trees												
Cordyline australis	tī kōuka	10yr (6m x 2m) Mature (8m x 2m)	Pyramidal	Yes (if specified)	Yes	Leaf drop. Sensitive roots.	Evergreen	Native	Scented flowers		See notes****	Specify varied heights/grades for visual interest: e.g. 1.5m, 2m and 2.5m+. Ensure clear stem, single leader.
Dicksonia squarrosa	whekī	10yr (5m x 2m) Mature (8m x 3m)	Upright, erect	Yes	*Yes*	Frond drop. Dead leaf skirt to be removed as flammable.	Evergreen	Native			See notes****	Specify varied heights/grades for visual interest. 1.5m min height.
Pseudopanax crassifolius	horoeka	10yr (3m x 1m) Mature (6m x 2m)	Round	Yes	Yes	Thin trunk may be damaged easily with vandalism. Sensitive roots.	Evergreen	Native	Unusual form, changes juvenile/adult		See notes****	Plant in clusters / groups. Specify varied heights/grades for visual interest: e.g. 1.5m, 2m and 2.5m+

* Size shown is average size from nursery sources and examples of species in streetscape settings.

** Performance and suitability based on nursery and NPDC Council experience.

**** Grades will be in some cases dependant on availability and contract growing arrangements with nurseries. Refer notes column and 'Tree Specification' on page 44-45 for guidance on ideal and minimum tree grades / heights at time of planting.

The Green Masterplan.
Tree and Plant Palettes.

Hillslopes and ridgelines palettes
(Robe St to Brougham St and Currie St to Gover St)

Botanical name	Common name	Approx mature size (HxW)*	Planting grade	Native / exotic	Sun / part shade	Mahinga kai values Refer plant palette legend pg 37	Notes
Understorey plants							
Macropiper excelsum	kawakawa	4m x 4m	PB18	Native			To be clipped to maintain naturalistic form and desired size (max 1.5m)
Muehlenbeckia astonii	tororaro	1.5m x 1.5m	PB18	Native			To be clipped to maintain naturalistic form and desired size (max 1.5m)
Veronica sp. (syn. *Hebe sp.*)	hebe	varies	PB18	Native			White flowering hebe of 1-1.5m scale. *Veronica elliptica (syn Hebe elliptica)* is an option performing locally.
Groundcover plants							
Arthropodium cirratum	rengarenga	1m x 1m	PB5	Native			Could use smaller Arthropodium 'Te Puna' in beds and intersection pots where smaller scale would be more appropriate or useful.
Astelia fragrans	kakaha	1m x 1m	PB5	Native			
Carex buchananii	mānaia	0.6m x 0.4m	PB3	Native			
Carex virgata	pukio	1m x 1m	PB3	Native			
Coprosma kirkii	groundcover coprosma	0.5m x 2m	PB3	Native			Use sparingly only in larger beds. To be clipped to maintain naturalistic form at 1m max spread.
Corokia cotoneaster 'Paritutu'	korokio	Variable, up to 1m	PB5	Native			Rare local plant to be planted sparingly as a trial in streetscape. Position strategically in large beds on south side of street only, so berries not accessible to children. Planting grade indicated is ideal, but may be dictated by supply. To be clipped to maintain naturalistic form and desired size if grows larger than estimate.
Phormium 'Surfer'	dwarf harakeke	0.4m x 0.4m	PB3	Native			Ensure this is the green variety of Surfer rather than the bronze.
Pimelea prostrata	pinātoro	0.1m x 1m	PB3	Native			
Pratia angulata	panakenake	0.2m x 1m	PB3	Native			
Veronica sp. (syn. *Hebe* sp.)	hebe	varies	PB5	Native			Dwarf white-flowering hebes only for Hillslopes and ridgelines areas. Ideally a couple of hebe varieties of 300-400mm height and 500-600mm height to contribute to the smaller scale plant needs of the garden beds and intersection pots.












Huatoki palettes

(Brougham St to Currie St)





Botanical name	Common name	Approx size* (HxW)	Form	Clear Trunk	Proven performance and site suitability**	Undesirable characteristics or management	Evergreen/ deciduous	Native/ exotic	Amenity values e.g. flowers, colour, seasonality	Mahinga kai values Refer plant palette legend pg 37	Planting grade	Notes
Structure trees												
Huatoki signature species												
*Alectryon excelsus******	titoki	10yr (4m x 3m) Mature (6m x 4m)	Upright, rounded head	Yes (if specified)	Yes	Fruit may be poisonous if eaten. Leaf drop. Not tolerant of strong winds	Evergreen	Native	Small red fruit and flowers		TBC****	Ensure clear stem, central leader.
*Sophora chathamica****	coastal kōwhai	10yr (4m x 2m) Mature (5-7m x 3-5m)*	Upright, spreading	Yes (if specified)	Yes - see notes	Yellow seeds poisonous if eaten. Flower/leaf drop. Thin trunk may be easily damaged with vandalism when young. Management of form.	Brevi-deciduous	Native	Yellow flowers		TBC****	Ensure robust staking and/or large size trunk at time of planting. Due to deciduous leaf drop and flower/seed drop, this tree is only to be planted within large planter beds, further from awnings than existing alder alignments. Ensure clear stem and central leader. Contract growing may be required.
Avenue structure (single specimen)												
Hoheria sexstylosa	houhere	10yr (5m x 3m) Mature (8m x 3m)	Vase shape, weeping	No - see notes	Yes - Pukekura Park	Weeping form may require pruning in streetscape setting. Flower drop.	Evergreen	Native	Flowers		TBC****	Ensure robust specification and hand selection of nursery specimens to ensure clear stem, central leader. Contract growing may be required.
Intersections and crossings												
Nestegis apetala	coastal maire	10yr (4m x 2m) Mature (6-10m x 4m)	Upright, spreading	Yes (if specified)	Yes	Unknown performance in Taranaki climate. Flowers, fruit. May need pruning to manage spread.	Evergreen	Native	Flowers, fruit		TBC****	Recommend further research and trial of this species for suitability during preliminary design (and possibly as part of first stages of construction), due to unknown performance in Taranaki climate. Tree specimens must have clear stem, central leader, limited canopy spread due to proximity to kerb and vehicle movements. Contract growing may be required.
Myoporum laetum	ngaio	10yr (7m x 4m) Mature (8-10m x 4m)	Rounded, spreading	Yes (if specified) See notes	Yes	Multistem habit and spreading form will require robust tree specimen spec/ selection and ongoing maintenance to achieve clear stem and manage canopy spread. Leaves poisonous.	Evergreen	Native	Flowers, fruit		TBC****	Recommend further research and trial of this species for suitability during preliminary design (and possibly as part of first stages of construction), to test whether suitable upright clear stem, central leader specimens can be achieved with consideration of proximity to kerb/vehicle movements. Spreading habit will need to be trained/managed. Will likely require contract growing and ongoing
Rhopalostylis sapida var. *chathamica*	Chatham Island nīkau	10yr (4m x 1.5m) Mature (15m x 3m)	Vase shape	Yes	Yes - at Puke Ariki	Can be hard to establish. Fronds require pruning.	Evergreen	Native	Flowers, fruit		See notes****	Plant in clusters / groups. Specify and plant groupings with varied heights/grades for visual interest: e.g. 1.5m, 2m and 2.5m+
Supporting trees												
Cordyline australis	tī kōuka	10yr (6m x 2m) Mature (8m x 2m)	Pyramidal	Yes (if specified)	Yes	Leaf drop. Sensitive roots.	Evergreen	Native	Scented flowers		See notes****	Specify varied heights/grades for visual interest: e.g. 1.5m, 2m and 2.5m+. Ensure clear stem, single leader.
Dicksonia squarrosa	whekī	10yr (5m x 2m) Mature (8m x 3m)	Upright, erect	Yes	*Yes*	Frond drop. Dead leaf skirt to be removed as flammable.	Evergreen	Native			See notes****	Specify varied heights/grades for visual interest. 1.5m min height.

* Size shown is average size from nursery sources and examples of species in streetscape settings.

** Performance and suitability based on nursery and NPDC Council experience.

*** Literature shows an inconsistent range of expected ultimate heights for Sophora species, varying up to 20m. Arboricultural advice received on previous projects indicate that in a streetscape environment, S.microphylla would be expected to grow to maximum heights noted. It is assumed S.chathamica would be similar.

**** Grades will be in some cases dependant on availability and contract growing arrangements with nurseries. Refer notes column and 'Tree Specification' on page 44-45 for guidance on ideal and minimum tree grades / heights at time of planting.

***** Key species for Huatoki. One interpretation of the name Huatoki is understood to mean 'valley full of tītoki trees.' This interpretation is based on a corruption of the words Hua Tītoki (source: NPDC Green Spaces Management Plan)

The Green Masterplan.
Tree and Plant Palettes.

Huatoki palettes
(Brougham St to Currie St)

Botanical name	Common name	Approx mature size (HxW)	Planting grade	Native / exotic	Sun / part shade	Mahinga kai values Refer plant palette legend pg 37	Notes
Understorey plants							
Parablechnum novae-zelandiae (syn. *Blechnum novae-zelandiae*)	kiokio	1-1.5m x 2m	PB18	Native			To be used in small quantities only, where available space and light conditions are appropriate.
Macropiper excelsum	kawakawa	4m x 4m	PB18	Native			To be clipped to maintain naturalistic form and desired size (max 1.5m)
Plagianthus divaricatus	mākaka	2m x 2m	PB18	Native			To be clipped to maintain naturalistic form and desired size (max 1.5m)
Veronica sp. (syn. *Hebe* sp.)	hebe	varies	PB18	Native			Selected pink/purple-flowering hebe variety of 1-1.5m scale.
Groundcover plants							
Apodasmia similis	oioi	1m x 1m	PB3	Native			
Astelia fragrans	kakaha	1m x 1m	PB3 - PB5	Native			
Blechnum discolor	piupiu	1m x 1m	PB3 - PB5	Native			Use only on shadier north side of street
Blechnum fluviatile	kiwikiwi	0.5 x 0.5	PB3 - PB5	Native			Use only on shadier north side of street
Blechnum penna-marina	kiokio	0.1m x 1m	PB3	Native			
Carex buchananii	mānaia	0.6m x 0.4m	PB3	Native			
Carex virgata	pukio	1m x 1m	PB3	Native			
Ficinia nodosa	wīwī	1m x 1m	PB3	Native			
Pratia angulata	panakenake	0.2m x 1m	PB3	Native			
Selliera radicans	remuremu	0.1m x 1m	PB3	Native			
Veronica sp. (syn. *Hebe* sp.)	hebe	varies	PB5	Native			Dwarf pink/purple-flowering hebes only for Huatoki block, ideally a variety of 300-600mm height to contribute to the smaller scale plant needs of the garden beds and intersection pots.












The Green Masterplan.
Long Term Possibilities.

This page illustrates some conceptual ideas as to how the Green Masterplan may scale further over the long term, to align with change or the evolving needs of the city centre, its businesses and the community. Changes may include business types in the core, or the need to accommodate tactical or temporary interventions, or shifts in parking or transport demands.

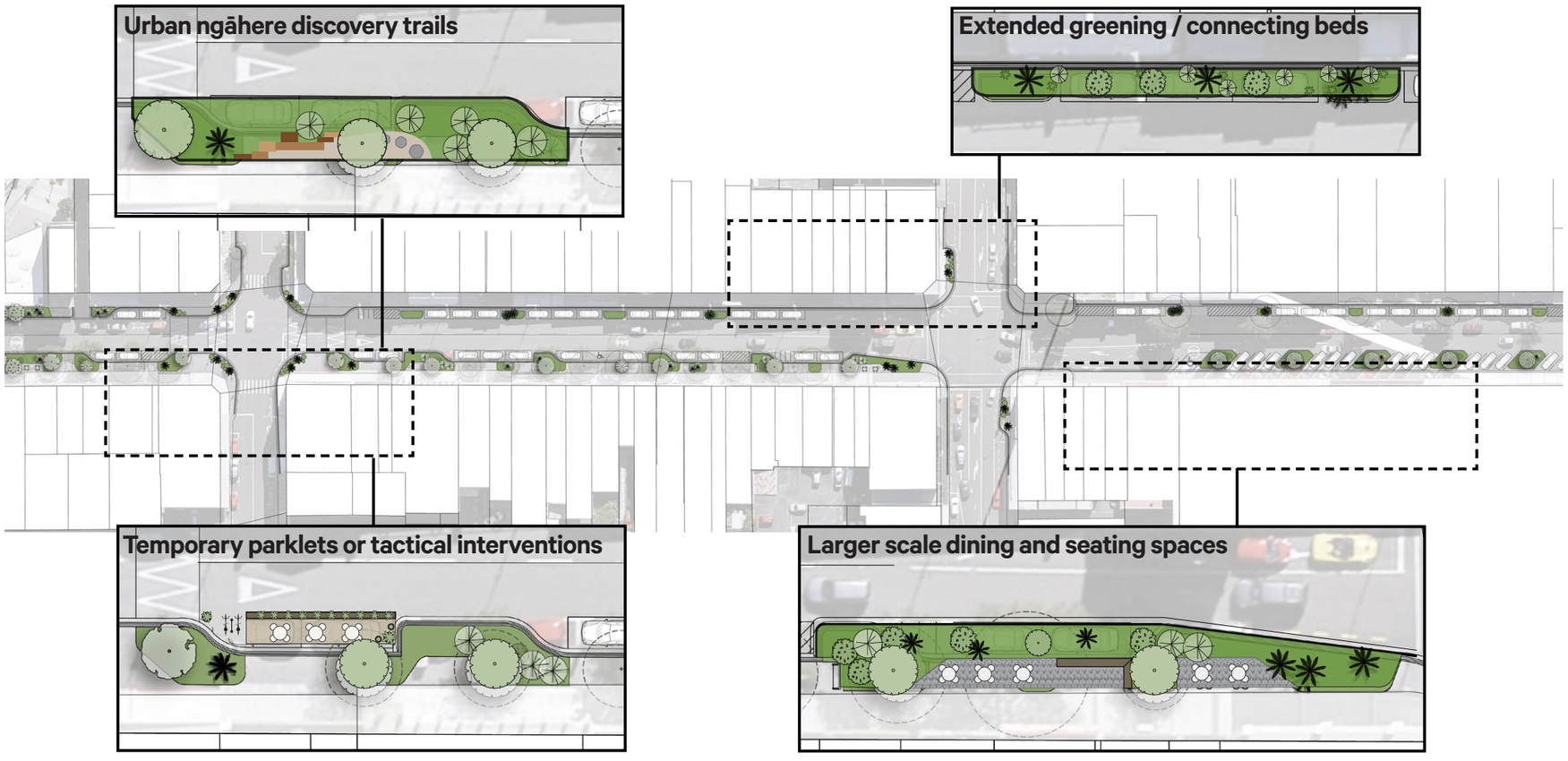
The suggestions shown are not the only possible future solutions, but paint a picture of ideas and potential.

Urban ngāhere discovery trails
Building on the narrative of the urban ngāhere and the Devon Street transect, integrated stepping stones, logs and planting could be used to create playful nature trails and discovery opportunities for tamariki adjacent to the footpath. Note that if this idea was taken forward, playful trails should be investigated as a running theme or consideration along the project area as a whole, rather than as a standalone single play intervention. This aligns with play initiatives within the City Centre Strategy

Extended greening / connecting beds
Should parking demands reduce in the future, beds could be extended and connected, providing further opportunity for greening amenity.

Temporary parklets or tactical interventions
Temporary or tactical interventions could be accommodated, to trial streetscape changes or to service special events or support food and beverage based business.

Larger scale dining and seating spaces
If business types or community needs shift over time along with reduced demand for parking, greening could extend further into parking spaces, creating a green frame to larger public dining and seating spaces.



Implementation.
Tree Planting Guidance.

The successful implementation of the street tree vision will be largely dependent on the growing conditions provided for new trees as well as the protection provided to existing retained trees. In order for the street trees to flourish, consultants, contractors and NPDC must work together, following an agreed approach to the design, specification, installation and maintenance of new trees, following best practice methods. This approach is outlined below.

Note that the expectation is that this list is supplementary to, not replacement of, any Council policy or guidance for tree planting. This list is not intended to replace the need for a robust planting specification with each project, but summarises key principles and requirements. It is also not intended to be a construction specification to be built / installed from.

General

Consistency for uniformity
Generally, the street tree vision is largely based on the concept of mixed tree species, in a combination of mixed clusters and short avenues of structure tree species. For this to 'read' as an intentional and considered design response, there needs to be consistency in the design and specification of both the trees, their growing conditions (including soil specification and volumes), watering regime, pruning and maintenance. Ideally structure tree species will be planted with trees of the same size, at the same time, rather than in a staged approach; However if the planting is staged, structure trees should be planted at a grade to match the current size of those that have been planted in a previous stage.

Commitment to quality
Those responsible for the supply, installation and care of all new street trees and associated materials should be committed to best practice methods and highest levels of care.

Existing tree removal - below ground
Investigations will be required to determine the extent of the Italian alder tree roots. Their roots will need to be largely removed to allow for new tree pit infrastructure and to avoid any paving settlement in the future as the roots breakdown. Consideration needs to be given to disruption caused by root removal, as they will likely encroach considerably below the footpath and the road itself. Care will need to be taken as they are likely interacting with buried services.

Existing tree removal and replacement - install along the street
Particular consideration will need to be given during preliminary and detailed design phases to determine the staging of the existing tree removals to limit disruption and give consideration to visual amenity and streetscape quality. New trees will not reach significant heights for a number of years - which should be taken into account when considering timing or removal and replacement. It is recommended that arborists and constructors are engaged early to provide a considered detailed design, and robust programme of works that considers support of existing business, street activity and accessibility.

A mass removal off the existing alders will have a significant impact on Devon Street's perceived quality. It will also mean that re-greening will need to occur for the whole street at one time. This will spread out disruption with open ground conditions and reduced parking for the full length of Devon Street to remove the tree roots, build new pits, amend services as required, and install new trees and plants.

Staged removal - say block by block - will produce a temporarily inconsistent tree pattern, however allows for staged installs of replacement trees and greening at a more manageable scale. It will mean less disturbance to the street and affords the ability to take learnings from the first section of removal and replacement, and apply them to subsequent phases for speed and disruption efficiencies, cost savings, service management and traffic management.

Given the Huatoki block's approach being different to the rest of Devon Street and aligning with adjacent planned upgrades of the Huatoki Plaza and Metro Plaza, this may be an opportunity area for initial greening to contain disruption and gain learnings.

Alternatively the more limited numbers of Italian alders at the easternmost extent between Liardet and Gover may be a good start point for the re-greening given the block's smaller and more limited number of Italian alders. A smaller initial roll out may provide key learnings without extensive disruption.

Design and Specification

Also refer 'Technical considerations for tree pits / garden beds' on pages 33-34.

Soil volume / tree pit size
Where possible, the size of each tree pit should be calculated based on the soil volume size requirement for its rooting requirement using a calculator such as https://www.greenblue.com/gb/resources/soil-calculator/. Where this volume can not be achieved, the available soil area for roots should be a minimum of 12m³, located evenly around the tree, with a minimum topsoil depth of 1 metre.

Design for bird roosting
Where tree species which are likely to invite bird roosting, tree pits / garden beds should be designed to be as large as practicable, to promote bird excrement to fall within the garden bed rather than onto nearby footpaths, asphalt or parked vehicles.

Soil cells
Soil cells will likely be required in the majority of tree pit components outlined within the Green Toolkit. Soil cells are structural modules that enable increased growing medium volume for the trees while retaining paving and above ground hardscapes. Their use will mean trees are more likely to lead to healthy, thriving specimens which have greater longevity based on growing medium volume and unconstrained root environments. Use of soil cells to achieve appropriate growing medium volumes where surface space is constrained is both NZ and international best practice.

Growing medium specification
Highest quality imported growing medium should be specified for all new tree pits. Soil compaction should be prevented. Tree roots should have access to adequate water and air and appropriate nutrients for the species. This may include aeration and watering tubes for closed pit types. Refer to 'the Green Toolkit' on pages 24-34.

Watering system

Where possible, an automated moisture sensor watering system should be installed alongside all trees for the first few years, to promote healthy growth, and to encourage avenues or groups of single structure tree species to grow at consistent, even rates. Additional watering in droughts may be required. If an automated watering system is not possible, a manual watering system (such as Novacoil or similar) should be installed, along with a robust watering regime.

Opportunities for passive watering diverted from kerb and channels or adjacent paving should be investigated. In some instances excess water under higher flows can be diverted into tree pits and garden beds.

Tree specification
All structure trees should ideally be a minimum of 3.5m height, with a minimum clear stem of 1.2m at time of planting, noting some exceptions may be required depending on availability, or in instances where smaller trees may establish better in the windy context. Supporting trees such as horoeka (lancewood), nīkau and tī kouka (cabbage tree) may be smaller and varied grades upon installation, to achieve interest and diversity of scale within tree clusters. The clear stem of all trees should be approximately 1/3 the overall height of the tree. They should have a relatively straight, well-defined, central leader or balanced narrow crown, and be self-supporting. The consultant should specify best practice expectations for tree quality, including but not limited to health, vigour, form, symmetry. The tree should be free of defects, injury and disease.

Tree species that have tendencies to retain foliage on their lower stems should be trained and pruned as the grow to provide an appropriate clear stem and crown shape to open sightlines and avoid clashes with building awnings.

Planting and staking
Across all city centre projects, the same visually consistent staking detail and materials should be applied. All trees must be staked and tied in accordance with best practice.

Rootguards / root barrier
These should be specified as required to meet the needs of each stage, to encourage root growth downwards and protect the hard landscape areas from future root damage without compromising soil volumes.

Services
Consideration to protect underground services shall be given to locate tree pits away from known service lines and/or to provide additional protection rootguard ‘wraps’ or concrete encasement within the pit. Prioritise / avoid service line locations where the tree pit depth will be impeded. Refer to ‘the Green Toolkit’ on pages 24-34 for additional detail.

Sourcing and Installation

Sourcing and supply
Strong individual plant selection is critical. The project landscape architect must inspect and approve all trees prior to delivery to site to ensure the trees have the stem, form, condition and vigour of growth required. This is particularly important where special requirements have been noted for specific species to ensure they are suitable for this particular streetscape context.

Some of the proposed trees may require a specific grow-on contract to supply the required large grades and/or achieve the required form through training while specimens develop in the nursery. Each tree should be grown and managed in such a manner that gives the tree the best possible chance of success. This would include but not limited to; mimicking wind conditions and exposure, sunlight access, and orientation in the nursery. This should be supported by training the specimens to fit the street environment including growth habit to avoid building awnings and encroachment into movement lanes. It is recommended that numbers of trees should allow for contingency and failure.

Handling
Trees should be handled with care at all times, lifted by the container and placed on the ground or into vehicles. With the highest care during planting and staking, the trees may fair better in challenging streetscape environments.

Transportation and storage
Trees should be thoroughly watered before they are transported from the nursery. Trees should be carefully packed and protected during transport to prevent damage, and watered thoroughly before they leave the nursery. Foliage should be protected from desiccation and roots should be protected from drying out at all times. Trees should ideally be planted the same day as delivery. Whilst waiting to be planted they should be should be stored in shade, protected, sheltered and well-watered.

Planting
Where possible, planting should be programmed to take place between May - October to prevent unnecessary stress on the new trees. Planting works should be as specified with strong input from the NPDC arborist team and follow best practice methods.

Maintenance

Watering
Where automated watering systems are used, these should be routinely monitored to ensure they are functioning as required. During periods of drought, additional watering should be provided. Watering systems with automated moisture sensors are recommended to avoid under or over watering.

Pruning
Pruning practices must benefit the tree’s development and be undertaken to internationally-recognised arboricultural standards. Where pruning is required to facilitate person or vehicle egress beneath the canopy, the minimum required pruning should be undertaken in accordance with best practice. Pruning should also be undertaken to train and avoid major branches clashing with building awnings.

Stakes
All trees must be staked and tied in accordance with best practice. Routinely inspect tree stakes and adjust ties or correct staking where required. Stakes

Implementation.
Next Steps.

To develop and refine the Green Masterplan to a point it can be implemented, a preliminary design process is recommended for the full streetscape, informed by more detailed information and engagement with a wider audience. We note that while a lot of work and thinking has already been done to develop the Green Masterplan, the wider streetscape considerations have not been developed with the same rigour and will influence the final shape and implementation of the Green Masterplan. T
The following next steps are recommended:

1. Collection of detailed information
- Location of services (this may include targeted potholing).
- Detailed survey of project area.

2. Preliminary design process for whole street, including:
- Review and input by broader NPDC teams including roading, transportation and maintenance teams.
- Confirm the parking, loading zone and accessibility parking approach to the street linked to the New Plymouth Transport Strategy and NPCCS transport and parking initiatives.
- Ngāti te Whiti engagement.
- Community and stakeholder engagement.
- Refinement and testing the Green Masterplan and toolkit components with integrated consideration of the broader streetscape (including parking design and arrangements, transport, services, property) and quantity, type and placement of various street furniture elements.
- Firm up dimensions of toolkit components including the required tracking curve radius to kerbs, driveway/entrances and planters based informed by vehicle tracking and engineering input.
- Research and trialling of tree species as required to determine suitability and performance, including the intersection tree species (coastal maire and ngaio) as per pages 35-41.
- Prepare tree and planting grow on contract / nursery specifications as required, with a view to engage nursery(s) with as much lead time as possible to enable them to grow larger grade specimen trees to the project's specific requirements.

3. Detailed design to facilitate staged implementation
The preliminary Design should be flowed by a detail design process to work through physical integration to the street that pays particular consideration to the following:

Detailed garden bed design including interfaces with:
- Services;
- Paving; and
- Stormwater infrastructure including kerb and channels and under channel drains.

Tree pit infrastructure including:
- Pit walls, soil cells;
- Service encasement;
- Subsoil drainage watering and aeration systems;
- Growing medium design;
- Staking and tying;
- Existing tree root removal approaches and technical considerations.

Streetscape design considerations and audits including by not limited to:
- Vehicle tracking and sightline checks;
- Road safety audits;
- Blind and low vision audit;
- Accessibility reviews;
- Safety in Design and Maintenance in Design reviews.

5. Programming
Following detailed design (with service upgrades requirements identified) a programme of works can be developed that will enable physical implementation, it should consider the use of the components identified in the Green Masterplan that best:
- Limits construction disruption;
- Supports peak retail seasons;
- Aligns with other planned streetscape maintenance or infrastructure upgrades;
- Supports any adjacent building construction or investments;
- Supports the City Centre core as a priority; and
- Considers staging / number of trees being planted as a trial within the first stages of construction to minimise quantity of trees needing replacement should any not perform.

6. Huatoki block design
The stretch of Devon Street between Brougham Street and Currie Street will need specific consideration in parallel with the planned upgrade of the Huatoki Plaza and the daylighting of the Huatoki Stream under the Metro Plaza.

The Green Masterplan shows two indicative options to set the vision for this stretch of Devon Street, however will need a specific preliminary and detailed design undertaken as part of the Huatoki Corridor Masterplan project indicated in the City Centre Strategy.

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Isthmus.

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