

# Ku-ring-gai Public Domain Plan

Draft for Exhibition

Volume 3 - Technical Manual





# Introduction





## Purpose of this Plan

The primary aim of the Public Domain Plan is to promote and guide the revitalisation of Ku-ring-gai's Local Centres so that they become the focus of community life for residents and visitors to the area.

The Ku-ring-gai Local Government Area (LGA) has four primary Local Centres – Turramurra, Gordon, Lindfield and St Ives - and two secondary Local Centres – Pymble and Roseville.

The Greater Sydney Commission has charged Councils of the Sydney region with improving their Local Centres to become places of community pride. Improvements are expected to focus on making centres walkable, improving community connections, supporting social and economic participation, and improving green infrastructure for future climate resilience.

### AIMS OF THE PUBLIC DOMAIN PLAN

The aims of this Public Domain Plan is to provide guidance for the design of public spaces in Ku-ring-gai's Local Centres to ensure new works reflect Council's directions and policies.

The PDP comprises three (3) volumes:

- Volume 1 – Public Domain Strategy
- Volume 2 – Local Centres Public Domain Plans
- Volume 3 – Technical Manual

#### ► Volume 1 – Public Domain Strategy

- outlines the vision for the Ku-ring-gai LGA and Local Centres;
- aligns with the Ku-ring-gai Local Environment Plan and Development Control Plan;
- sets out the overarching principles for the Local Centres; and
- lists other associated Council and state government documents that provide background information or are relevant to design decisions that need to be made in the planning and design of the public domain.

#### ► Volume 2 – Local Centres Public Domain Plans

- sets out objectives for each Local Centre;
- describes concept designs for the primary and secondary Local Centres of Ku-ring-gai LGA;
- provides concept designs for streetscapes, and public open spaces for key streets and street typologies in the Local Centres; and
- provides tree species for use in Local Centres.

#### ► Volume 3 – Technical Manual

- provides typical technical details for public domain components;
- nominates materials to be used for public domain works; and
- nominates tree species lists for use in Local Centres.

**This section is Volume 3.**

Reference must be made to all volumes prior to proceeding with the design for public domain areas.



# Street Summary





# Local Centre Street Hierarchy

## LOCAL CENTRE STREET HIERARCHY

Streets (including lanes and roads) form the primary component of the public domain area of the Local Centres. The quality and character of the streets play a significant role in the experience of the Local Centre.

The streets are the key movement spaces for pedestrians so they need to be safe and accessible, as well as attractive. Safe attractive streets encourage activation and bring life to Local Centres, improving opportunities for community connections and interactions.

A hierarchy of streets assists people to find their way around the Local Centre, making it legible for navigation and identification. A street hierarchy has been prepared for each Local Centre and typical proposed characteristics of those streets have been assigned. A summary of the streets in each Local Centre are shown on the following tables (p6-17).

### ► Local Centre Core

- Precast concrete unit paving as per Public Domain Technical Manual.
- Street furniture located at regular intervals.
- Underground power.
- Selected Council street and pedestrian lighting with banner poles as per Public Domain Technical Manual.
- Street tree planting.
- Public art.

### ► Local Centre Shared Zone

- Brick paving as per Public Domain Technical Manual.
- Street furniture located at regular intervals.
- Underground power.
- Selected Council street and pedestrian lighting with as per Public Domain Technical Manual.
- Street tree planting.

### ► Local Centre Transition

- Concrete pavement (exposed aggregate) as per Public Domain Technical Manual.
- Street furniture located at regular intervals.
- Underground power.
- Standard Ausgrid street lighting.
- Street tree planting.

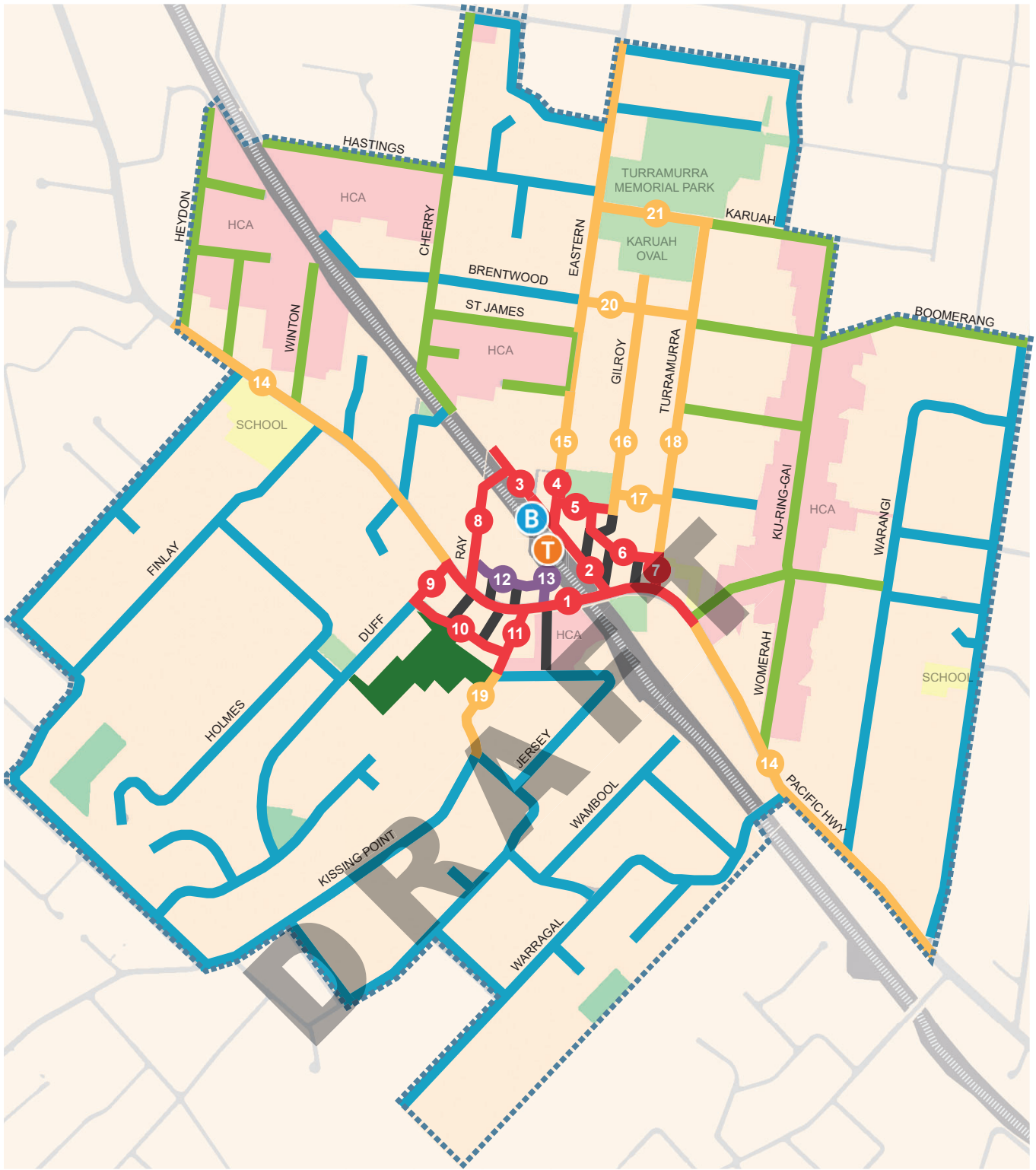
### ► Local Centre Standard

- Concrete pavement as per Public Domain Technical Manual.
- Bundle aerial cables.
- Standard Ausgrid street lighting.
- Street tree planting.

### ► Local Centre Heritage

- Asphalt pavement as per Public Domain Technical Manual.
- Bundle aerial cables.
- Standard Ausgrid street lighting.
- Street tree planting.





Extent of Turramurra Local Centre and Street Hierarchy

- |                                       |                     |                          |                       |
|---------------------------------------|---------------------|--------------------------|-----------------------|
| Local Centre Core                     | 1 Pacific Highway   | 10 Stonex Street (New)   | 19 Kissing Point Road |
| Local Centre Shared Zone              | 2 Rohini Street     | 11 Kissing Point Road    | 20 Brentwood Avenue   |
| Local Centre Transition               | 3 Rohini Street     | 12 Forbes Lane           | 21 Karuah Road        |
| Local Centre Standard                 | 4 Eastern Road      | 13 William Street        | 22 'Standard' Street  |
| Local Centre Heritage                 | 5 Gilroy Road       | 14 Pacific Highway       | 23 'Heritage' Street  |
| Local Centre Park / Plaza             | 6 Gilroy Lane       | 15 Eastern Road          |                       |
| Local Centre Pedestrian Link / Arcade | 7 Turramurra Avenue | 16 Gilroy Road           |                       |
|                                       | 8 Ray Street        | 17 Proposed Street (New) |                       |
|                                       | 9 Duff Street       | 18 Turramurra Avenue     |                       |



TURRAMURRA	PAVING	STREET TREE	FURNITURE	LIGHTING	POWER
1 Pacific Highway (Duff Street to Ku-ring-gai Avenue)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Elaeocarpus reticulatus</i> <i>Pyrus calleryana</i> 'Capital'	Seats / bins at 60-100m intervals and at bus stops.	Install selected Council street lights with arms for banners.  Under-awning pedestrian lighting.	Underground power.
2 Rohini Street (Pacific Highway to Eastern Road)	Local Centre Core Paving: Precast concrete units.  Brick paving for pedestrian areas to outdoor dining.  Brick Paving for vehicular areas to parking bays.	Trees planted in stratavault. Proposed species: <i>Hymenosporum flavum</i> <i>Lagerstroemia indica</i> x <i>L. fauriei</i> <i>Lophostemon confertus</i>	Seats / bins at key crossing and gathering areas.	Install selected Council street lights with arms for banners.  Under-awning pedestrian lighting.	Underground power.
3 Rohini Street (Eastern Road to Ray Street)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Hymenosporum flavum</i> <i>Lagerstroemia indica</i> x <i>L. fauriei</i> <i>Lophostemon confertus</i>	Seats / bins at bus interchange and at key crossing and gathering areas.	Install selected Council street lights and provide lighting within shelter structures.	Underground power recommended. If existing trees then bundle existing aerial cables.
4 Eastern Road (Rohini Street to Olive Lane)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Lophostemon confertus</i> <i>Quercus palustris</i>	Seats / bins at key crossing and gathering areas.	Install selected Council street lights with arms for banners.	Underground power recommended. If existing trees then bundle existing aerial cables.
5 Gilroy Road (Western Arm)	Southern Verge: Local Centre Core Paving: Precast concrete units.  Northern Verge: Local Centre Transition Paving: Exposed aggregate concrete.	Trees planted in stratavault. Proposed species: <i>Lagerstroemia indica</i> x <i>L. fauriei</i>	Seats / bins at key crossing and gathering areas.	Install selected Council street lights.	Underground power.
6 Gilroy Lane	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Lagerstroemia indica</i> x <i>L. fauriei</i> <i>Nyssa sylvatica</i> <i>Zelkova serrata</i> 'Green Vase'	Seats / bins at 60-100m intervals, where practical.	Install selected Council street lights.	Existing underground power.
7 Turramurra Avenue (Pacific Highway to Gilroy Lane)	Local Centre Core Paving: Precast concrete units.  Brick paving for pedestrian areas to Masonic Hall Frontage.	Trees planted in stratavault. Proposed species: <i>Nyssa sylvatica</i> <i>Zelkova serrata</i> 'Green Vase'	Seats / bins at key crossing and gathering areas.	Install selected Council street lights with arms for banners.  Under-awning pedestrian lighting.	Underground power.
8 Ray Street	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Angophora costata</i> <i>Elaeocarpus reticulatus</i> <i>Eucalyptus saligna</i>	Seats / bins at key crossing and gathering areas.	Install selected Council street lights with arms for banners.	Underground power.
9 Duff Street (Pacific Highway to Stonex Street)	Western Verge: Local Centre Transition Paving – exposed aggregate concrete.  Eastern Verge: Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Angophora costata</i> <i>Eucalyptus paniculata</i> <i>Lophostemon confertus</i>	Seats / bins at key crossing and gathering areas.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.



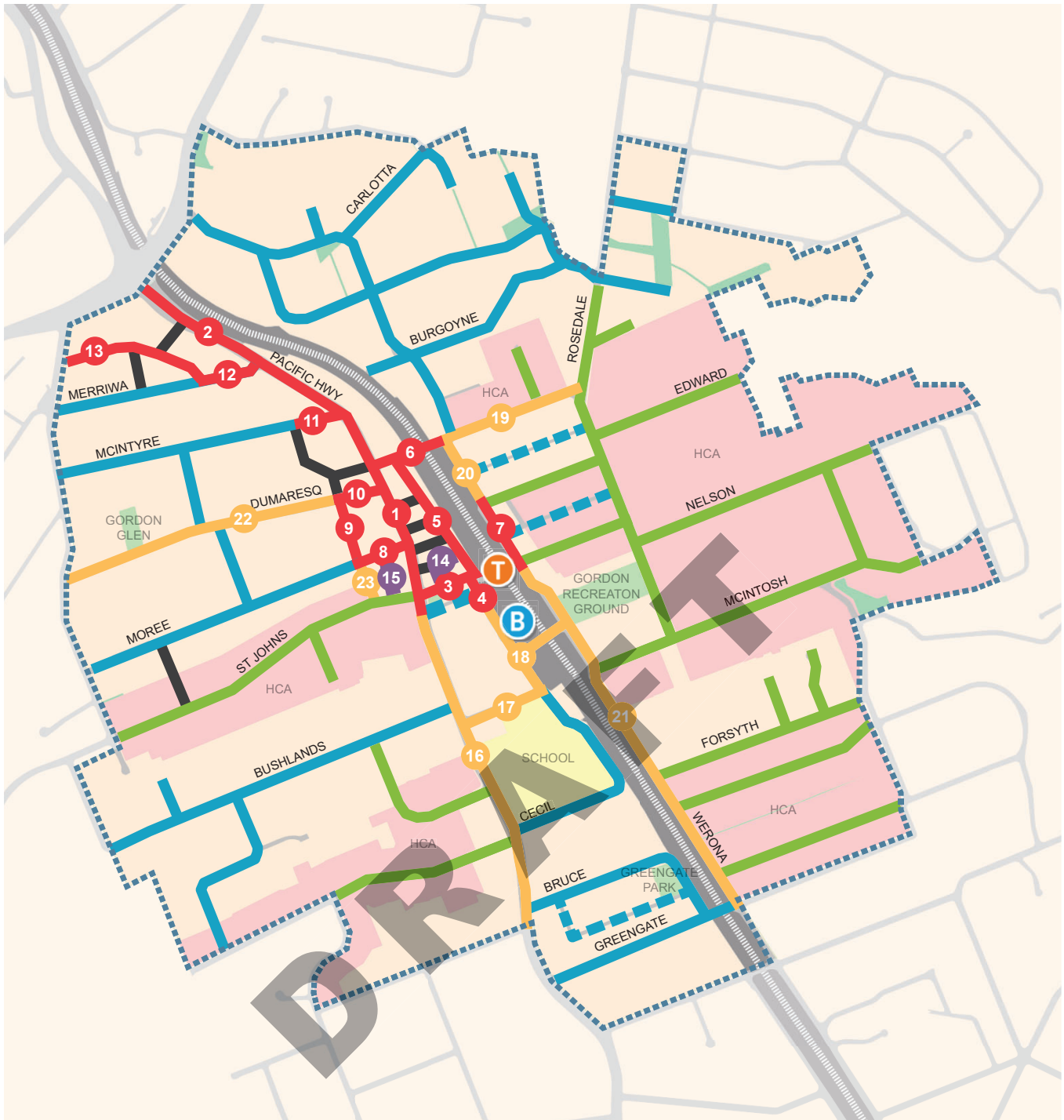
TURRAMURRA	PAVING	STREET TREE	FURNITURE	LIGHTING	POWER
10 Stonex Street	Local Centre Core Paving: Precast concrete units.  Brick Paving for vehicular areas to parking bays.	Trees planted in stratavault. Proposed species: <i>Angophora floribunda</i> <i>Eucalyptus saligna</i> <i>Glochidion ferdinandi</i> var. <i>ferdinandi</i>	Seats / bins at key crossing and gathering areas.	Install selected Council street lights.	Underground power.
11 Kissing Point Road (Pacific Highway to Boyd Street)	Western Verge: Local Centre Core Paving: Precast concrete units.  Eastern Verge: Asphalt Paving to Heritage Conservation Areas.	Trees planted in stratavault. Proposed species: <i>Lagerstroemia indica</i> x <i>L. fauriei</i> <i>Lophostemon confertus</i>	Seats / bins at key crossing and gathering areas.	Install selected Council street lights with arms for banners.	Underground power.
12 Forbes Lane	Brick Paving for shared zones.	Trees planted in stratavault Proposed species: <i>Lagerstroemia indica</i> x <i>L. fauriei</i> <i>Pyrus ussuriensis</i>	Provide a variety of seating opportunities and use street furniture to direct vehicular movement.	Install selected Council street lights.	Underground power.
13 William Street	Local Centre Core Paving: Precast concrete units.  Brick Paving for shared zones.	Trees planted in stratavault. Proposed species: <i>Angophora costata</i> <i>Eucalyptus paniculata</i> <i>Lophostemon confertus</i> <i>Quercus palustris</i>	Provide a variety of seating opportunities and use street furniture to direct vehicular movement.	Install selected Council street lights with arms for banners.	Underground power.
14 Pacific Highway (East of Ku-ring-gai Avenue, West of Duff Street)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Elaeocarpus reticulatus</i> <i>Lagerstroemia indica</i> x <i>L. fauriei</i> <i>Pyrus calleryana</i> 'Capital'	Seats and bins in selected locations that do not interfere with pedestrian movement or outdoor dining areas.	Retain Ausgrid lighting.	Bundle aerial cables.
15 Eastern Road (Olive Lane to Bangalla Street)	Local Centre Transition Paving: Exposed aggregate concrete.  Asphalt Paving to Heritage Conservation Areas.	Proposed species: <i>Eucalyptus paniculata</i> <i>Lophostemon confertus</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
16 Gilroy Road (Northern Arm)	Local Centre Transition Paving: Exposed aggregate concrete.  Asphalt Paving to cycle path.	Proposed species: <i>Melaleuca quinquenervia</i> <i>Quercus palustris</i>	Seats at approximately 100m intervals.	Install selected Council street lights.	Underground power recommended. If existing trees then bundle existing aerial cables..
17 Proposed Street (New)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Backhousia citrodora</i>	None.	Install Ausgrid standard lighting.	Not applicable.
18 Turramurra Avenue (Gilroy Lane To Brentwood Avenue)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Eucalyptus paniculata</i> <i>Lophostemon confertus</i> <i>Syncarpia glomulifera</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.



TURRAMURRA	PAVING	STREET TREE	FURNITURE	LIGHTING	POWER
19 Kissing Point Road (Stonex Street to Catalpa Crescent)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Eucalyptus paniculata</i> <i>Lophostemon confertus</i> <i>Syncarpia glomulifera</i>	Seating provided at bus stops.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
20 Brentwood Avenue (Turramurra Avenue to Eastern Road)	Local Centre Standard Paving: Concrete path.	Proposed species: <i>Franklinia axillaris</i> <i>Lophostemon confertus</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
21 Karuah Road (Turramurra Avenue to Eastern Road)	Local Centre Standard Paving: Concrete path.	Proposed species: <i>Eucalyptus paniculata</i> <i>Syncarpia glomulifera</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
22 'Standard' Street	Local Centre Standard Paving: Concrete path.	Retain existing trees. Infill planting with trees of same species as existing to retain and enhance street character.	None.	Retain Ausgrid lighting.	Bundle aerial cables.
23 'Heritage' Street	Asphalt Paving to Heritage Conservation Areas.	Retain existing trees. Infill planting with trees of same species as existing to retain and enhance street character.	None.	Retain Ausgrid lighting.	Bundle aerial cables.

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Extent of Gordon Local Centre and Street Hierarchy

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|---------------------------------------|-----------------------|----------------------|--------------------------|
| Local Centre Core                     | 1 Pacific Highway     | 10 Dumaresq Street   | 19 Park Avenue           |
| Local Centre Shared Zone              | 2 Pacific Highway     | 11 McIntyre Street   | 20 Werona Avenue         |
| Local Centre Transition               | 3 St Johns Avenue     | 12 Merriwa Street    | 21 Werona Avenue         |
| Local Centre Standard Street          | 4 Henry Street        | 13 Fitzsimons Lane   | 22 Dumaresq Street       |
| Local Centre Standard Lane            | 5 Wade Lane           | 14 Clipsham Lane     | 23 Proposed Street (New) |
| Local Centre Heritage                 | 6 Park Avenue         | 15 St Johns Lane     | 24 'Standard' Street     |
| Local Centre Pedestrian Link / Arcade | 7 Werona Avenue       | 16 Pacific Highway   | 25 'Heritage' Street     |
|                                       | 8 Moree Street        | 17 Ravenswood Avenue |                          |
|                                       | 9 Proposed Lane (New) | 18 Henry Street      |                          |



GORDON	PAVING	STREET TREE	FURNITURE	LIGHTING	POWER
1 Pacific Highway (McIntyre Street to St Johns Avenue)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Lagerstroemia indica</i> x <i>L. fauriei</i> <i>Tristaniopsis laurina</i>	Seats / bins at 60-100m intervals and at bus stops.	Install selected Council street lights with arms for banners.  Under-awning pedestrian lighting.	Existing underground power.
2 Pacific Highway (Ryde Road to McIntyre Street)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Eucalyptus paniculata</i> <i>Araucaria cunninghamiana</i>	Seats / bins at 60-100m intervals and at bus stops.	Install selected Council street lights with arms for banners.  Under-awning pedestrian lighting.	Existing underground power.
3 St Johns Avenue (Pacific Highway to Henry Street)	Local Centre Core Paving: Precast concrete units.  Brick paving for pedestrian areas to outdoor dining.	Trees planted in stratavault. Proposed species: <i>Zelkova serrata</i> 'Green Vase'	Seats / bins at key crossing and gathering areas.	Install selected Council street lights with arms for banners.  Under-awning pedestrian lighting.	Existing underground power.
4 Henry Street (North of no. 36)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Cupaniopsis anarcardioides</i> <i>Lophostemon confertus</i>	Seats / bins at key crossing and Kiss and Ride areas.	Install selected Council street lights with arms for banners.	Existing underground power.
5 Wade Lane	Local Centre Core Paving: Precast concrete units.	Trees in pits with tree growing vault trench beneath. Proposed species: <i>Melaleuca styphelloides</i>	Bins near pedestrian crossings.	Install selected Council street lights.	Existing underground power.
6 Park Avenue (Pacific Highway to Werona Avenue)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Lagerstroemia indica</i> x <i>L. fauriei</i>	Seats / bins at key crossing and gathering areas.	Install selected Council street lights.	Existing underground power.
7 Werona Avenue (Khartoum Avenue to Robert Street)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Acer buergerianum</i> <i>Nyssa sylvatica</i>	Seats / bins at bus stop and Kiss and Ride areas.	Install selected Council street lights.  Under-awning pedestrian lighting.	Existing underground power.
8 Moree Street (Pacific Highway to no. 7)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Ginkgo biloba</i> <i>Zelkova serrata</i> 'Green Vase'	Seats and bins in kerb extensions.	Install selected Council street lights.	Existing underground power.
9 Proposed Lane (New)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Melaleuca styphelloides</i> <i>Tristaniopsis laurina</i>	None.	Install selected Council street lights.	Underground power.

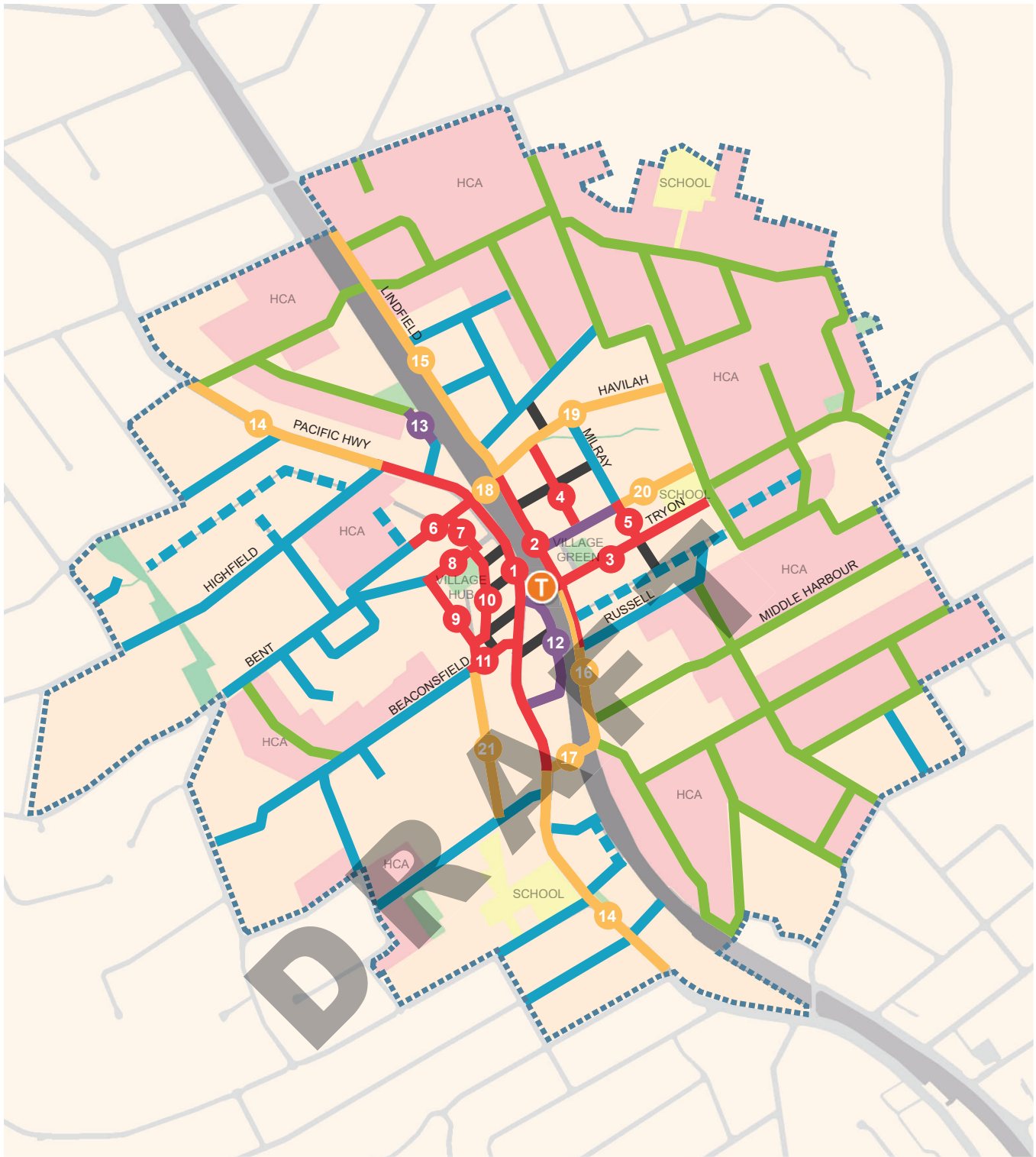


GORDON	PAVING	STREET TREE	FURNITURE	LIGHTING	POWER
10 Dumaresq Street (Pacific Highway to Radford Place)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Elaeocarpus reticulatus</i>	None.	Install selected Council street lights with arms for banners.	Existing underground power.
11 McIntyre Street (Pacific Highway to McIntyre Lane)	Local Centre Core Paving: Precast concrete units.	Proposed species: <i>Melaleuca linariifolia</i> <i>Waterhousia floribunda</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
12 Merriwa Street (Pacific Highway to Fitzsimons Lane)	Northern Verge: Local Centre Core Paving: Precast concrete units.  Southern Verge: Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Tristaniopsis laurina</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
13 Fitzsimons Lane	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Eucalyptus microcorys</i>	Provide a variety of seating opportunities and use street furniture to direct vehicular movement.	Install Ausgrid standard lighting.	Underground power.
14 Clipsham Lane	Brick Paving for shared zones.	None.	None.	Install selected Council street lights.	Existing underground power.
15 St Johns Lane	Brick Paving for shared zones.	None.	None.	Install Ausgrid standard lighting.	Underground power.
16 Pacific Highway (South of Churchill Lane)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Lophostemon confertus</i> <i>Melaleuca styphelioides</i>	Seats at 100m intervals and at bus stops.  Bins at 100m intervals.	Retain Ausgrid lighting.	Bundle aerial cables.
17 Ravenswood Avenue	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Lophostemon confertus</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
18 Henry Street (South of no. 36 to Ravenswood Avenue)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Cupaniopsis anarcardioides</i> <i>Lophostemon confertus</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Existing underground power.



GORDON	PAVING	STREET TREE	FURNITURE	LIGHTING	POWER
19 Park Avenue (Werona Avenue to Rosedale Road)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Acer buergerianum</i> <i>Lagerstroemia indica</i> x <i>L. fauriei</i> <i>Lophostemon confertus</i> <i>Syncarpia glomulifera</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
20 Werona Avenue (Park Avenue to Khartoum Avenue)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Acer buergerianum</i> <i>Nyssa sylvatica</i>	None.	Install selected Council street lights.	Existing underground power.
21 Werona Avenue (Robert Street to Greengate Road)	Local Centre Transition Paving: Exposed aggregate concrete. Asphalt Paving to cycle path.	Proposed species: <i>Acer buergerianum</i> <i>Nyssa sylvatica</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
22 Dumaresq Street (West of Radford Place)	Local Centre Transition Paving: Exposed aggregate concrete. Asphalt Paving to cycle path.	Proposed species: <i>Elaeocarpus reticulatus</i> <i>Fraxinus americana</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Underground power recommended. If existing trees then bundle existing aerial cables.
23 Proposed Street (New)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Tristaniopsis laurina</i> <i>Waterhousia floribunda</i>	None.	Install Ausgrid standard lighting.	Underground power.
24 'Standard' Street	Local Centre Standard Paving: Concrete path.	Retain existing trees. Infill planting with trees of same species as existing to retain and enhance street character.	None.	Retain Ausgrid lighting.	Bundle aerial cables.
25 'Heritage' Street	Asphalt Paving to Heritage Conservation Areas.	Retain existing trees. Infill planting with trees of same species as existing to retain and enhance street character.	None.	Retain Ausgrid lighting.	Bundle aerial cables.





Extent of Lindfield Local Centre and Street Hierarchy

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|---------------------------------------|--------------------|------------------------|----------------------|
| Local Centre Core                     | 1 Pacific Highway  | 10 Woodford Lane       | 19 Havilah Road      |
| Local Centre Shared Zone              | 2 Lindfield Avenue | 11 Beaconsfield Parade | 20 Kochia Lane       |
| Local Centre Transition               | 3 Tryon Road       | 12 Tryon Place         | 21 Drovers Way       |
| Local Centre Standard Street          | 4 Havilah Lane     | 13 Wolseley Road       | 22 'Standard' Street |
| Local Centre Standard Lane            | 5 Milray Street    | 14 Pacific Highway     | 23 'Heritage' Street |
| Local Centre Heritage                 | 6 Balfour Street   | 15 Lindfield Avenue    |                      |
| Local Centre Park / Plaza             | 7 Bent Lane        | 16 Lindfield Avenue    |                      |
| Local Centre Pedestrian Link / Arcade | 8 Bent Street      | 17 Strickland Avenue   |                      |
|                                       | 9 Drovers Way      | 18 Havilah Road        |                      |



LINDFIELD	PAVING	STREET TREE	FURNITURE	LIGHTING	POWER
1 Pacific Highway (Highfield Road to Strickland Avenue)	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Platanus orientalis</i> 'Cuneata' <i>Tristaniopsis laurina</i>	Seats / bins at 60-100m intervals and at bus stops.	Install selected Council street lights with arms for banners.  Under-awning pedestrian lighting.	Existing underground power.
2 Lindfield Avenue (Havilah Road to Russell Avenue)	Local Centre Core Paving: Precast concrete units.  Brick Paving for vehicular areas to parking bays.  Asphalt Paving to cycle path.	Trees planted in stratavault. Proposed species: <i>Eucalyptus sideroxylon</i> <i>Pistacia chinensis</i> <i>Waterhousia floribunda</i> 'Sweeper'	Seats / bins at key crossing and gathering areas.	Install selected Council street lights with arms for banners.  Under-awning pedestrian lighting.	Existing underground power.
3 Tryon Road (Lindfield Avenue to Nelson Road)	Local Centre Core Paving: Precast concrete units.	Proposed species: <i>Lophostemon confertus</i>	Seats at 60-100m intervals.	Install selected Council street lights.	Underground power recommended. If existing trees then bundle existing aerial cables.
4 Havilah Lane	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Elaeocarpus reticulatus</i> <i>Syzygium</i> sp. (tree forms) <i>Tristaniopsis laurina</i> 'Luscious'	None.	Install selected Council street lights.	Existing underground power.
5 Milray Street (Kochia Lane to Tryon Road)	Local Centre Core Paving: Precast concrete units.	Proposed species: <i>Lophostemon confertus</i> <i>Syncarpia glomulifera</i>	None.	Install selected Council street lights.	Underground power recommended. If existing trees then bundle existing aerial cables.
6 Balfour Street (Pacific Highway to Balfour Lane)	Local Centre Core Paving: Precast concrete units.  Southern Verge (west of Bent Ln): Local Centre Transition Paving: Exposed aggregate concrete.	Trees planted in stratavault. Proposed species: <i>Callicoma serratifolia</i> <i>Lophostemon confertus</i>	Seats at key crossing and gathering areas.	Install selected Council street lights.	Existing underground power.
7 Bent Lane	Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Glochidion ferdinandi</i> var. <i>ferdinandi</i> <i>Corymbia eximia</i>	Bins at each end of lane.	Install selected Council street lights.	Existing underground power.
8 Bent Street (Bent Lane to Drovers Way)	Northern Verge: Local Centre Transition Paving: Exposed aggregate concrete.  Southern Verge: Local Centre Core Paving: Precast concrete units.	Trees planted in stratavault. Proposed species: <i>Corymbia eximia</i> <i>Jacaranda mimosifolia</i> (not over paved areas)	Seats / bins at 60-100m intervals.	Install selected Council street lights.	Underground power recommended. If existing trees then bundle existing aerial cables.
9 Drovers Way (Bent Street to Beaconsfield Parade)	Local Centre Core Paving: Precast concrete units.  Brick Paving for vehicular areas to parking bays.	Trees planted in stratavault. Proposed species: <i>Angophora floribunda</i> <i>Syncarpia glomulifera</i>	Seats / bins at 60-100m intervals.	Install selected Council street lights.	Underground power.



LINDFIELD	PAVING	STREET TREE	FURNITURE	LIGHTING	POWER
10 Woodford Lane	Local Centre Core Paving: Precast concrete units.  Brick Paving for vehicular areas to parking bays.	Trees planted in stratavault. Proposed species: <i>Angophora floribunda</i> <i>Syncarpia glomulifera</i>	Seats / bins at 60-100m intervals.	Install selected Council street lights.	Underground power.
11 Beaconsfield Parade (Pacific Highway to Drivers Way)	Northern Verge: Local Centre Core Paving: Precast concrete units.  Southern Verge: Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Eucalyptus microcorys</i> <i>Eucalyptus sideroxylon</i>	Seats / bins at key crossing and gathering areas.	Install selected Council street lights with arms for banners.	Underground power recommended. If existing trees then bundle existing aerial cables.
12 Tryon Place	Brick Paving for shared zones.	Trees planted in stratavault. Proposed species: <i>Angophora floribunda</i> <i>Melaleuca styphelioides</i>	Provide a variety of seating opportunities and use street furniture to direct vehicular movement.	Install selected Council street lights with arms for banners.	Not applicable.
13 Wolseley Road (Road Closure)	Brick Paving for shared zones.	Proposed species: <i>Betula pendula</i> <i>Lophostemon confertus</i>	Provide a variety of seating opportunities and use street furniture to direct vehicular movement.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
14 Pacific Highway (North of Highfield Road, South of Strickland Avenue)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Pistacia chinensis</i> <i>Tristaniopsis laurina</i>	Seats at 100m intervals and at bus stops.  Bins at 100m intervals.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
15 Lindfield Avenue (North of Havilah Road)	Local Centre Transition Paving: Exposed aggregate concrete.  Asphalt Paving to cycle path.	No new plantings.	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
16 Lindfield Avenue (South of Russell Avenue)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Elaeocarpus reticulatus</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
17 Strickland Avenue (Pacific Highway to Lindfield Avenue)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Melaleuca quinquenervia</i> <i>Syncarpia glomulifera</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
18 Havilah Road (Pacific Highway to Lindfield Avenue)	Local Centre Transition Paving: Exposed aggregate concrete.	None.	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Existing underground power.



LINDFIELD	PAVING	STREET TREE	FURNITURE	LIGHTING	POWER
19 Havilah Road (Lindfield Avenue to Nelson Road)	Local Centre Transition Paving: Exposed aggregate concrete.  Southern Verge (west of Havilah Lane): Local Centre Core Paving: Precast concrete units.	Proposed species: <i>Angophora costata</i> <i>Betula pendula</i> <i>Hymenosporum flavum</i> <i>Jacaranda mimosifolia</i> <i>Syncarpia glomulifera</i>	Seats at 100m intervals.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Underground power west of Havilah Lane.  Bundle aerial cables to remainder of street.
20 Kochia Lane	Local Centre Transition Paving: Exposed aggregate concrete.	None.	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
21 Drovers Way (Beaconsfield Parade to Gladstone Parade)	Local Centre Transition Paving: Exposed aggregate concrete.	Proposed species: <i>Nyssa sylvatica</i>	None.	Retain Ausgrid lighting. Supplement with new Ausgrid standard lighting if required.	Bundle aerial cables.
22 'Standard' Street	Local Centre Standard Paving: Concrete path.	Retain existing trees. Infill planting with trees of same species as existing to retain and enhance street character.	None.	Retain Ausgrid lighting.	Bundle aerial cables.
23 'Heritage' Street	Asphalt Paving to Heritage Conservation Areas.	Retain existing trees. Infill planting with trees of same species as existing to retain and enhance street character.	None.	Retain Ausgrid lighting.	Bundle aerial cables.

DRAFT



# Paving

DRAFT



## 01 Paving

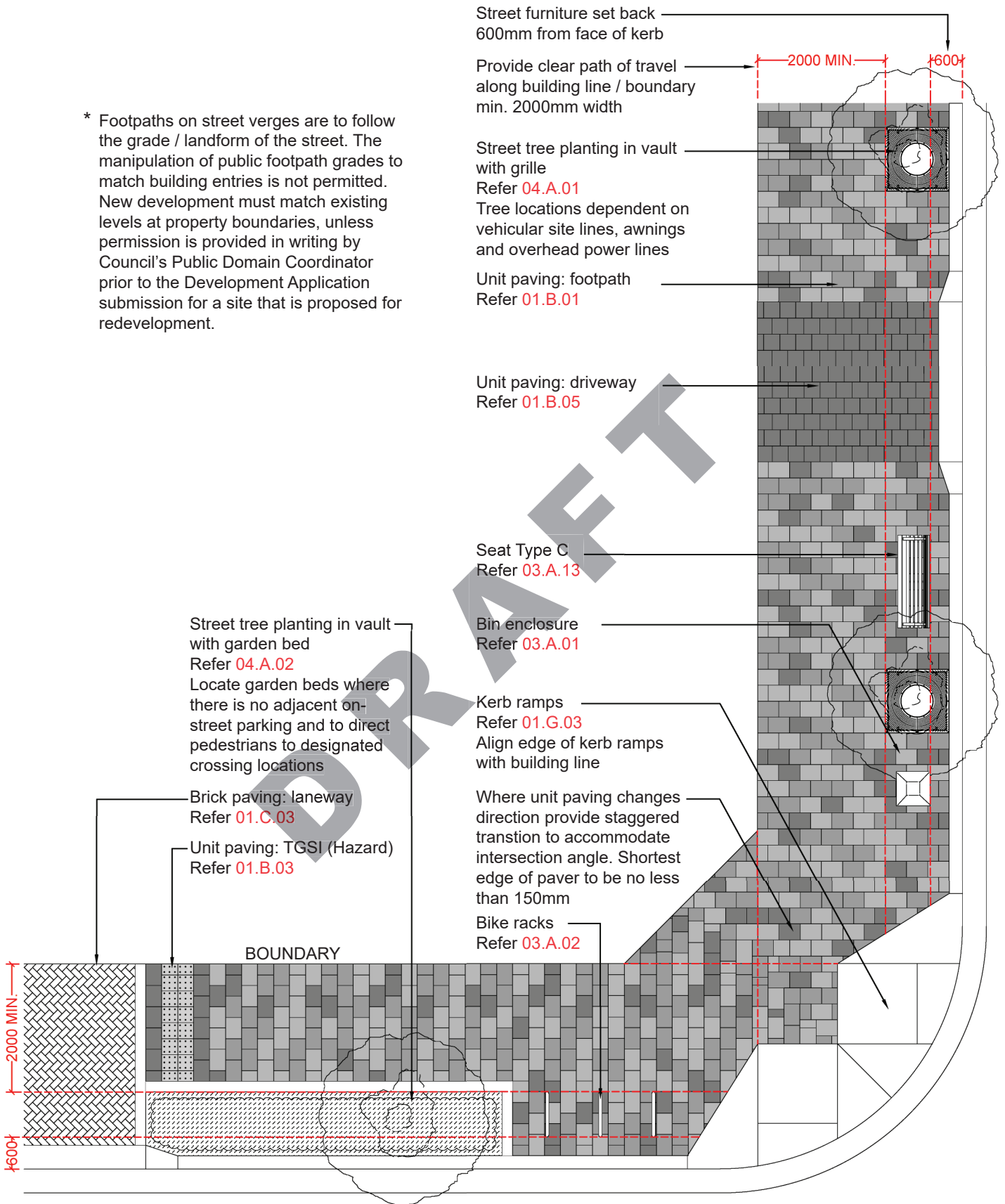
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# 01.A TYPICAL FOOTPATH LAYOUT

## ► 01 Local Centre Core

Plan 1:100

\* Footpaths on street verges are to follow the grade / landform of the street. The manipulation of public footpath grades to match building entries is not permitted. New development must match existing levels at property boundaries, unless permission is provided in writing by Council's Public Domain Coordinator prior to the Development Application submission for a site that is proposed for redevelopment.



### Notes

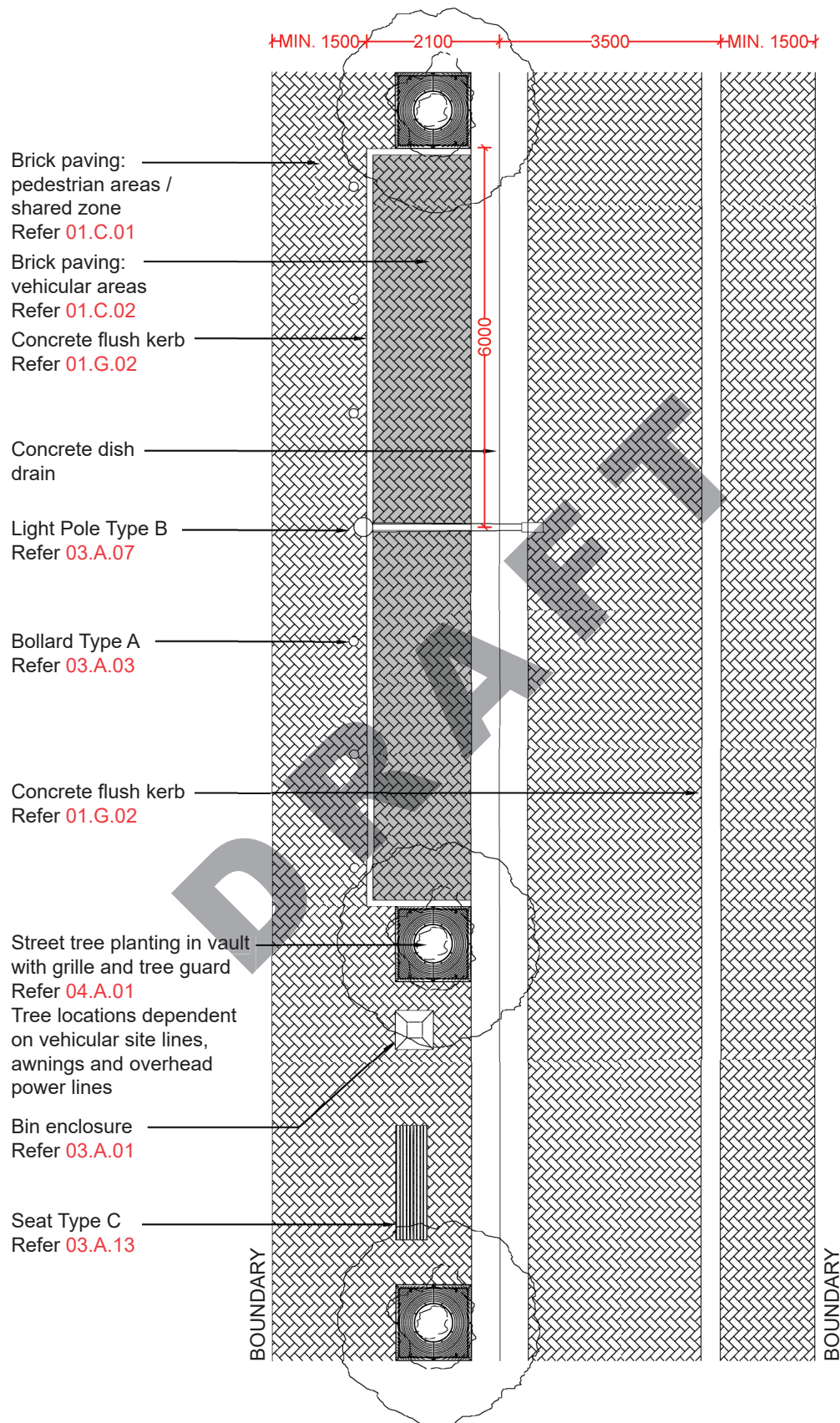
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.



## 01.A TYPICAL FOOTPATH LAYOUT

### ► 02 Local Centre Shared Zone

Plan 1:100



#### Notes

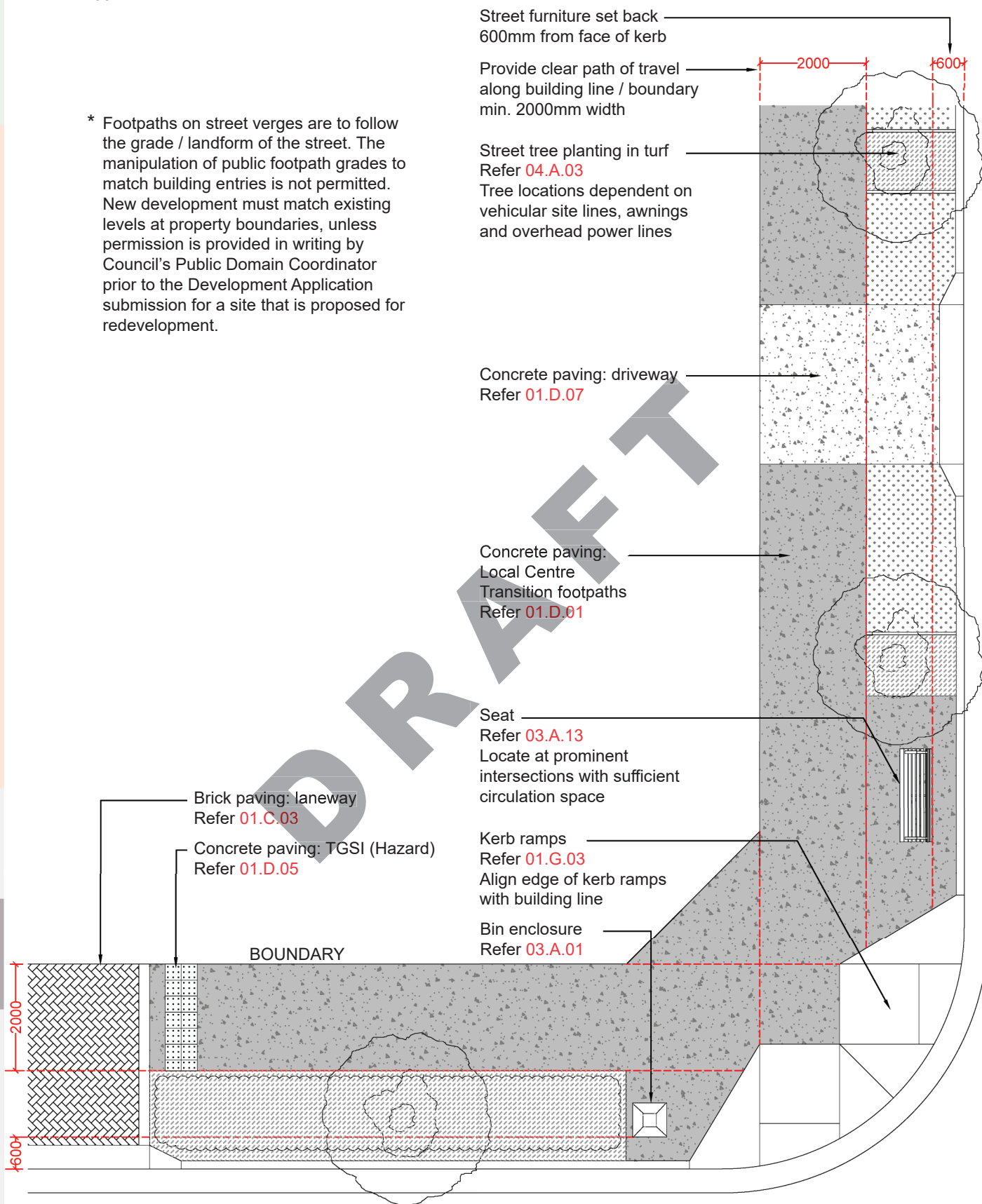
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

01.A TYPICAL FOOTPATH LAYOUT

► 03 Local Centre Transition

Plan 1:100

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Notes

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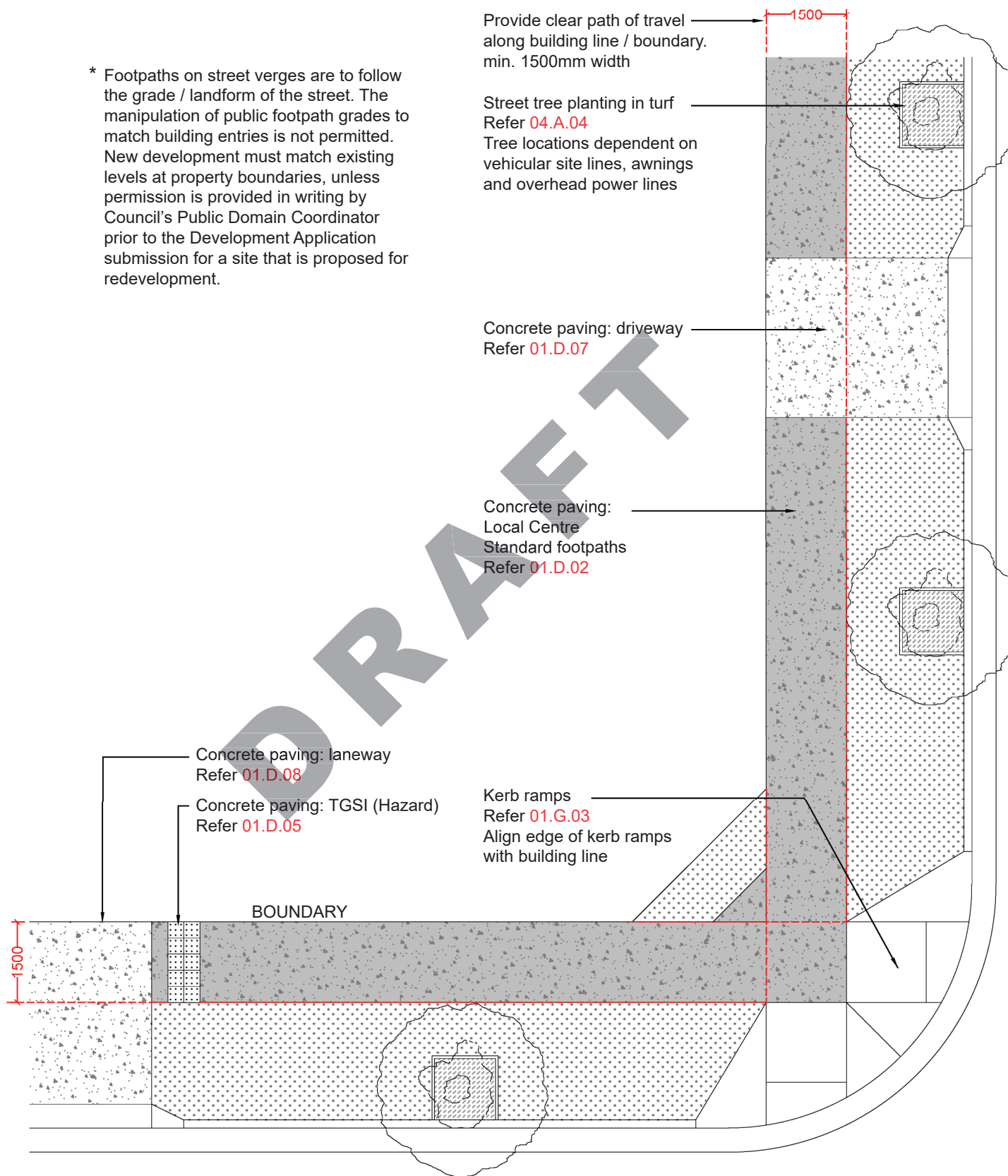


01.A TYPICAL FOOTPATH LAYOUT

► 04 Local Centre Standard

Plan 1:100

\* Footpaths on street verges are to follow the grade / landform of the street. The manipulation of public footpath grades to match building entries is not permitted. New development must match existing levels at property boundaries, unless permission is provided in writing by Council's Public Domain Coordinator prior to the Development Application submission for a site that is proposed for redevelopment.



Notes

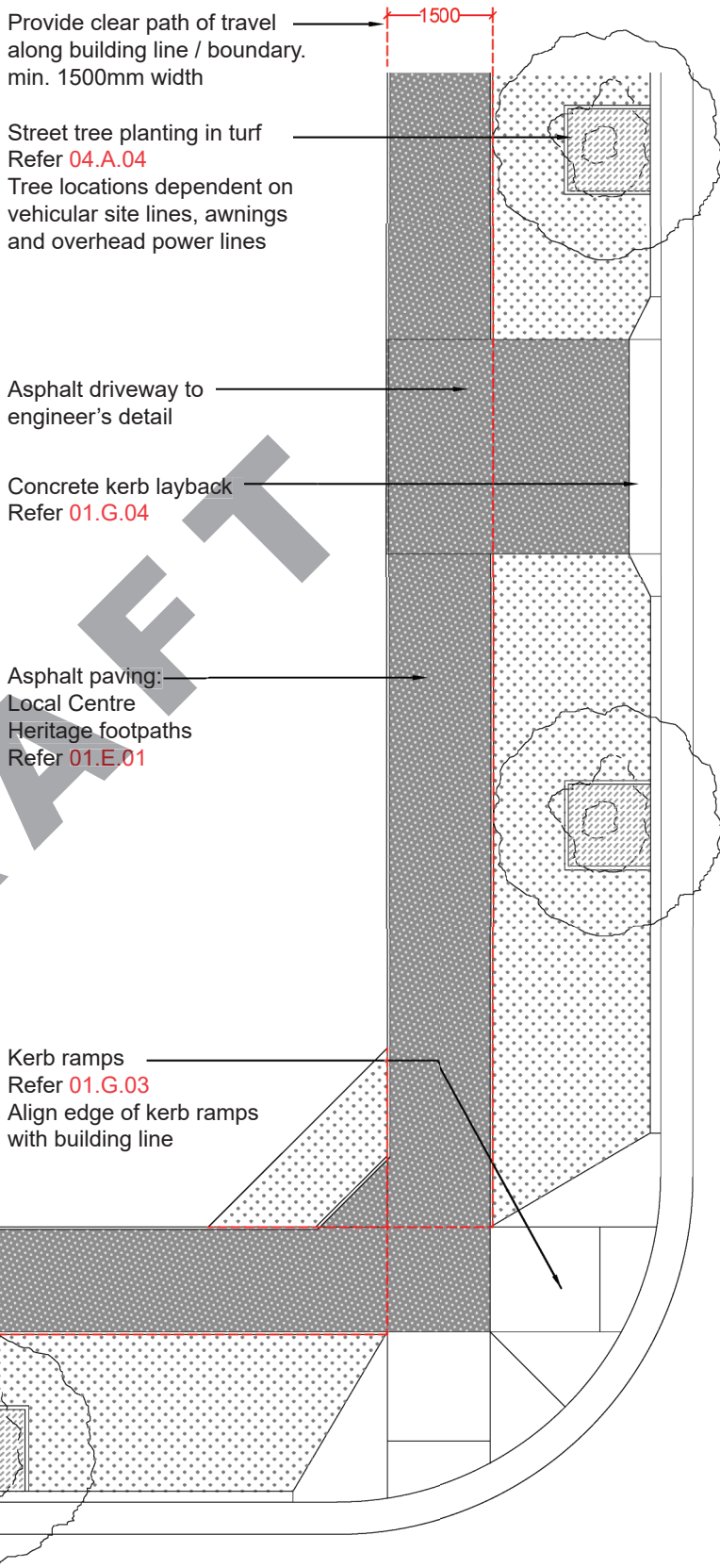
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

01.A TYPICAL FOOTPATH LAYOUT

► 05 Local Centre Heritage

Plan 1:100

\* Footpaths on street verges are to follow the grade / landform of the street. The manipulation of public footpath grades to match building entries is not permitted. New development must match existing levels at property boundaries, unless permission is provided in writing by Council's Public Domain Coordinator prior to the Development Application submission for a site that is proposed for redevelopment.



Notes

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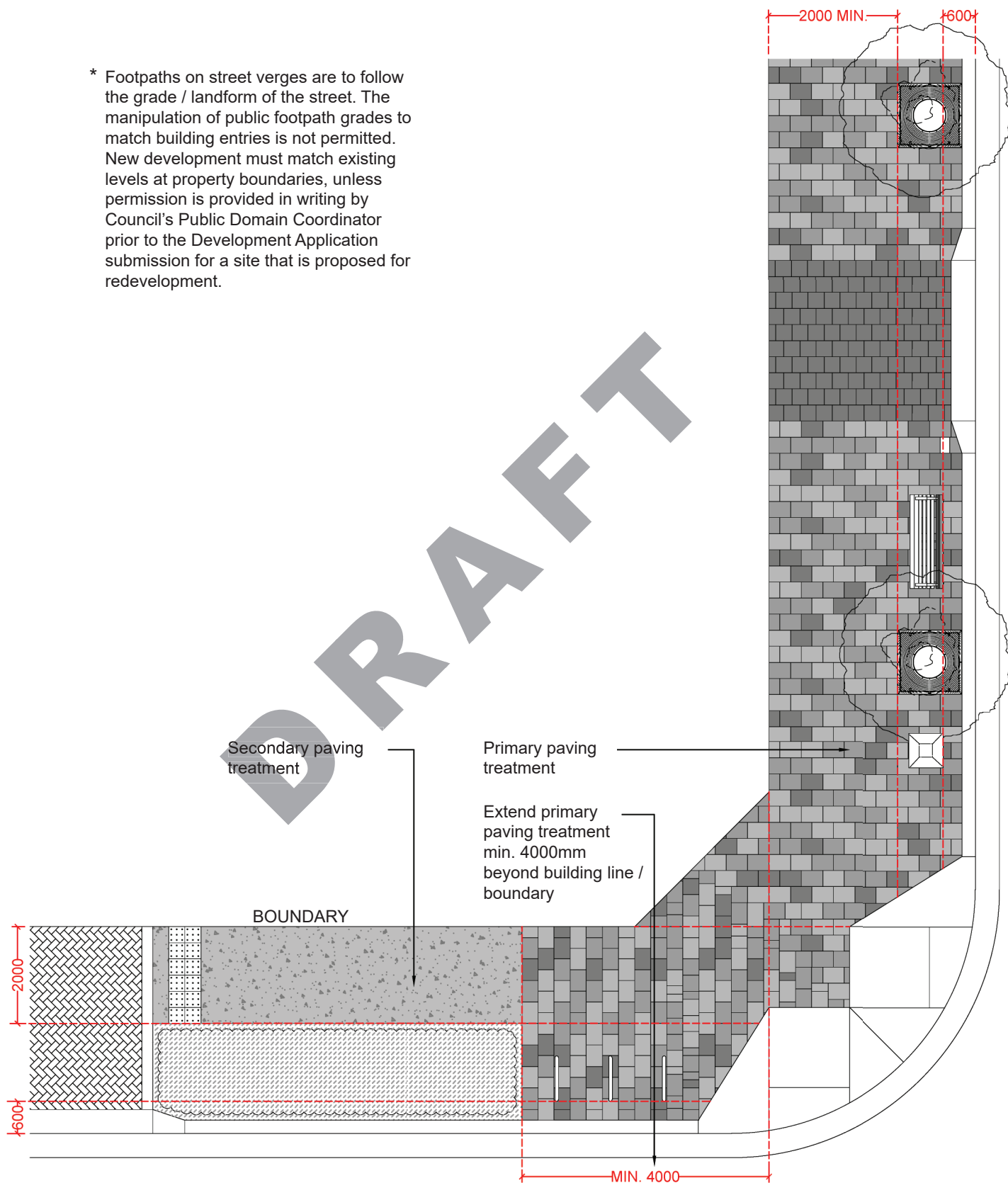


01.A TYPICAL FOOTPATH LAYOUT

► 06 Junctions of Paving Treatments

Plan 1:100

\* Footpaths on street verges are to follow the grade / landform of the street. The manipulation of public footpath grades to match building entries is not permitted. New development must match existing levels at property boundaries, unless permission is provided in writing by Council's Public Domain Coordinator prior to the Development Application submission for a site that is proposed for redevelopment.



Notes

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# 01.A TYPICAL FOOTPATH LAYOUT

## ► 07 Outdoor Dining Areas

Plan 1:100

\* Outdoor dining will be permitted where its location, size and layout will not compromise public access, circulation, safety of patrons, sightlines of motorists and other street activities.

\* Footpaths should be sufficiently level to allow the safe use of furniture. Custom or adjustable furniture may be required where outdoor dining is proposed on sloping footpaths.

Provide clear path of travel along building line / boundary at all times. Minimum 2000mm width

Kerbside outdoor dining set back 600mm from face of kerb where adjacent to parallel parking.

\* Increase set back to 1000mm from face of kerb where adjacent to angle parking and wheelstops are not present

Umbrellas may be permitted where shelter from awnings and trees is not available. Refer to notes

Kerbside outdoor dining zone. Minimum 1000mm width

Provide screen / barrier along kerbside edge of outdoor dining zone

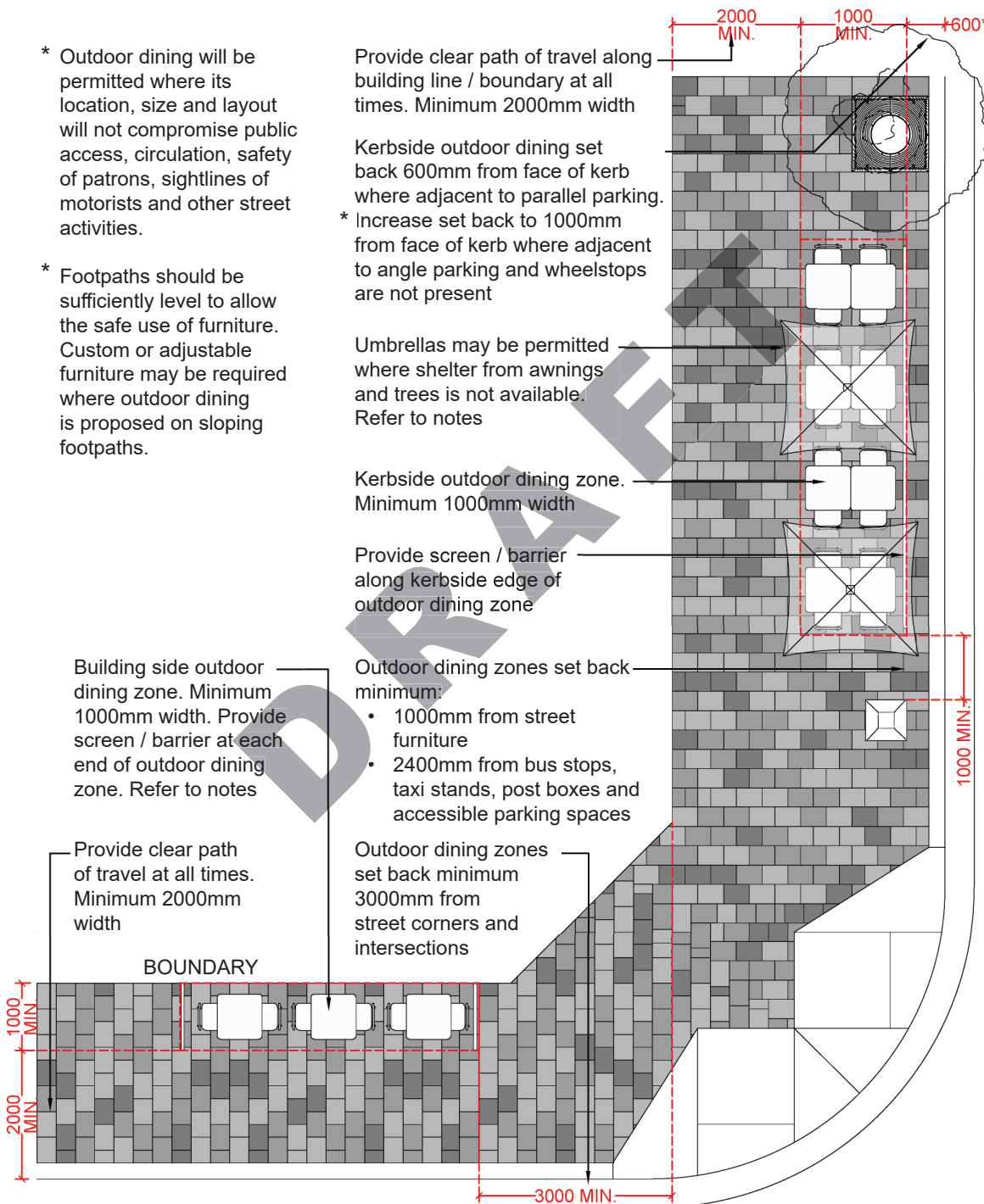
Building side outdoor dining zone. Minimum 1000mm width. Provide screen / barrier at each end of outdoor dining zone. Refer to notes

Outdoor dining zones set back minimum:

- 1000mm from street furniture
- 2400mm from bus stops, taxi stands, post boxes and accessible parking spaces

Provide clear path of travel at all times. Minimum 2000mm width

Outdoor dining zones set back minimum 3000mm from street corners and intersections





## Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. The intended location of outdoor dining areas and any furniture or other items that form part of the outdoor dining area are to be detailed and photos provided in the application for Council's approval.
3. Outdoor Dining Furniture:
  - is to be of a commercial grade, high quality and of adequate strength and durability to withstand external weather conditions and outdoor commercial usage.
  - belonging to an establishment should be of a consistent style.
  - is not to be permanently fixed and is to be removed from the footpath and stored safely outside of trading hours.
  - is to be safe and not have any sharp edges or moving parts that could harm users or pedestrians.
  - is to allow access for all users, including those who use wheelchairs or mobility aids.
4. Screens / Barriers:
  - are to have a minimum height of 600mm and a maximum height of 900mm. The length of the screen / barrier is to match the depth of the approved outdoor dining area.
  - are to be solid to the ground and in a colour that is contrasting with the pavement.
  - are to be securely weighted to the footpath without creating a trip hazard or impeding pedestrian movement (note: the use of bricks is not permitted) or secured to the footpath using a socket and sleeve system with flush mounted caps.
  - are not to be rope or chain barriers.
5. Umbrellas:
  - are to have a minimum clearance of 2.2m above the ground level and a minimum width of 1.2m.
  - are to be secured at all times, and removed in extremely windy conditions.
  - may be secured to the footpath using a socket and sleeve system with flush mounted caps.
  - must not obstruct views to road or parking signs.
6. Where heaters are proposed, details of type, location, and design are to be included in the application and approved by Council.
7. Planter boxes proposed for use within outdoor dining areas will be assessed on merit having regard to the footpath width, type and location.
8. Any signage and branding should not have an adverse impact on the appearance of the seating area or the streetscape. A-frame signs and other forms of advertising signage are not permitted.
9. For Heritage Items or in Heritage Conservation Areas (HCAs):
  - signage on umbrellas and screens / barriers must be of a design that is in sympathy with the character of the Heritage Item or HCA.
  - signage may only contain the name and / or logo of the business. No third party advertising or branding is permitted.
  - signage and branding should comprise of no more than one third of the surface area of an umbrella or screen.

► 08 Footpath Trading Areas

Plan 1:100

- \* Footpath trading will be permitted where its location, size or layout will not compromise public access, circulation, safety of patrons, sightlines of motorists and other street activities.
- \* Supervision of trading activities / goods must be possible from the shop.
- \* Footpath trading activities must be located on a safe, stable, hard surface that is sufficiently level to provide adequate stability for display stands and goods.

Provide clear path of travel along building line / boundary at all times. Minimum 2000mm width

Kerbside footpath trading zone set back 600mm from face of kerb where adjacent to parallel parking.

- \* Increase set back to 1000mm from face of kerb where adjacent to angle parking and wheelstops are not present

Footpath trading zones set back minimum:

- 1000mm from street furniture
- 2400mm from bus stops, taxi stands, post boxes and accessible parking spaces

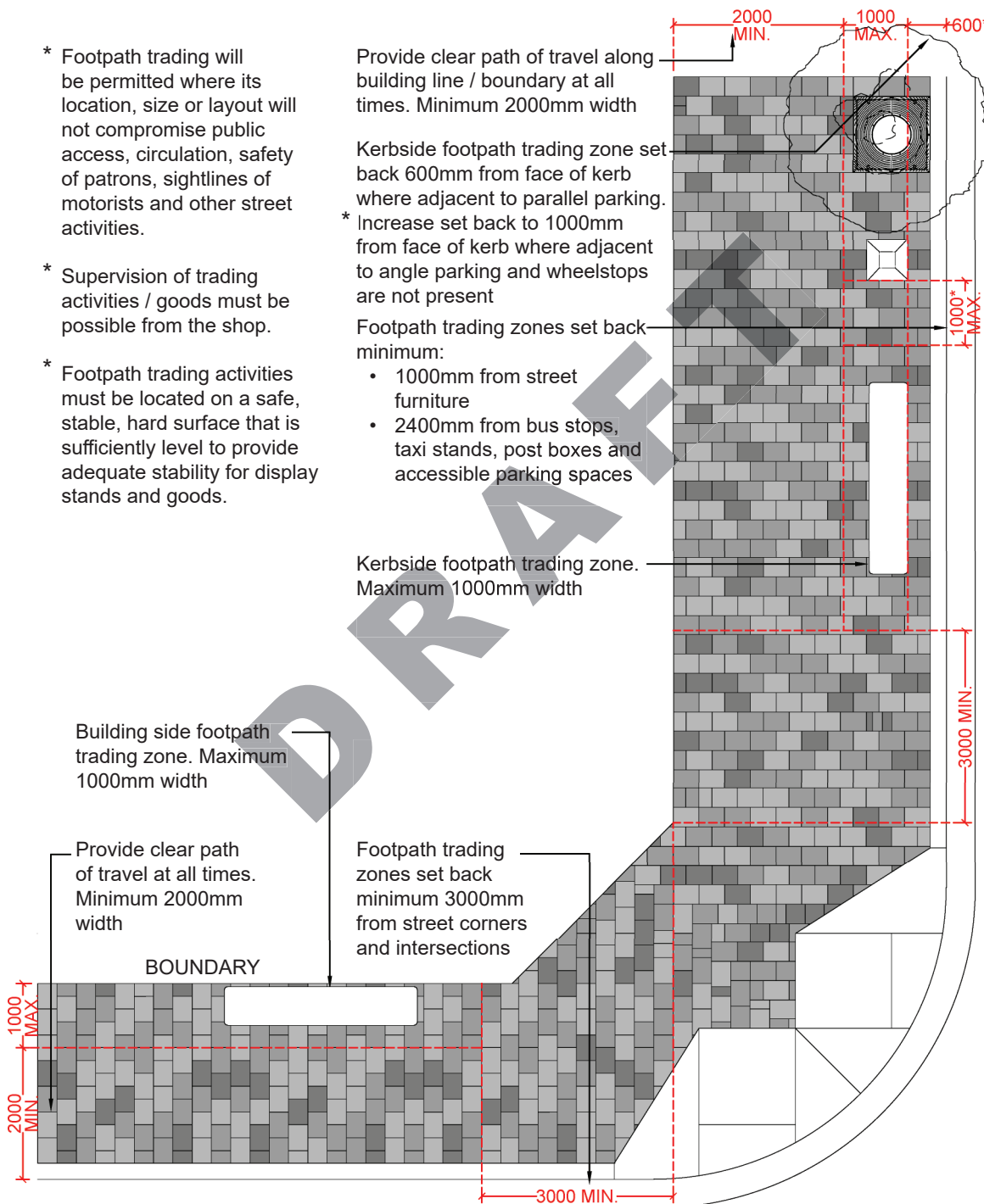
Kerbside footpath trading zone. Maximum 1000mm width

Building side footpath trading zone. Maximum 1000mm width

Provide clear path of travel at all times. Minimum 2000mm width

BOUNDARY

Footpath trading zones set back minimum 3000mm from street corners and intersections





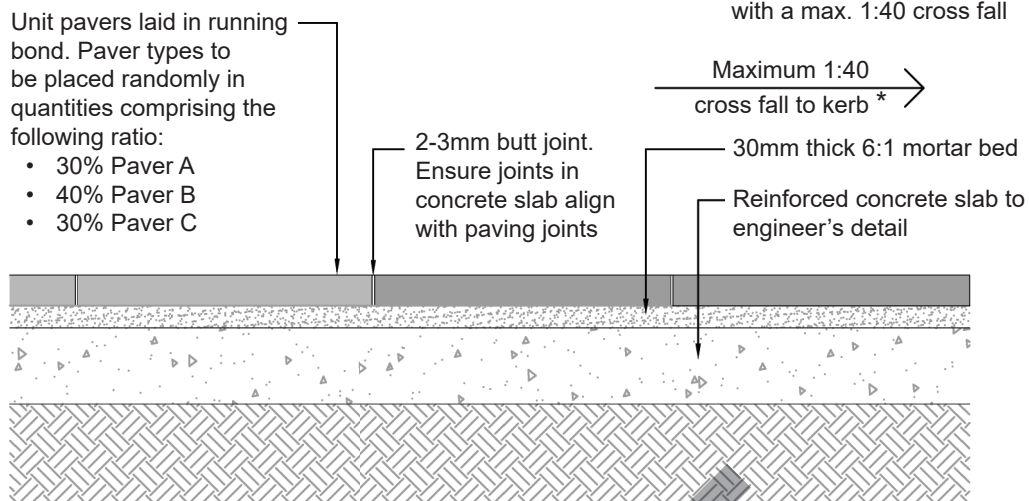
## Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. The intended location of the footpath trading activities and any furniture, display stands or other items that form part of the footpath trading area set up are to be detailed and photos provided in the application for Council's approval.
3. The goods on display are to normally be found for sale in the associated shop. The following types of merchandise must not be displayed on footpaths or public areas:
  - Liquor
  - Drugs
  - Tobacco
  - Unpackaged food (excluding whole fruits and vegetables)
  - Gases (e.g. Liquid Petroleum Gas (LPG) canisters)
  - Corrosives (e.g. car batteries)
  - Oxidising Materials (e.g. paint stripper)
  - Explosives (e.g. boat flares)
  - Flammable liquids
  - White goods
  - Note: This list is not exhaustive and Council reserves the right to order the removal of any merchandise considered to be a risk to the health and safety of the public and environment at any time.
4. Display of Goods:
  - The area is to be attractive when viewed in conjunction with the streetscape.
  - The display must not adversely impact on adjacent premises, or pedestrian circulation.
  - Food must be kept a minimum 750mm above the footpath.
  - No food may be cooked, processed or prepared for consumption within the footpath area.
  - All goods must be displayed on stands, racks or in containers above the level of the footpath, unless the goods are designed in a manner intended to allow placement on the ground.
  - All goods must be adequately secured to the display stand on which they are presented.
4. Advertising and Signage:
  - The use of A-frame stands or other advertising signage boards are not permitted.
  - No advertising using amplification or persons calling to the public (spruiking) may be undertaken in association with footpath trading.
5. Display Stands:
  - Display stands are to be aesthetically pleasing, durable, well finished and solid to ground at the base to allow it to be detected by pedestrians who are vision impaired.
  - The materials and finishes of display stands must be weather resistant and prevent goods from being blown over in the wind.
  - Display stands are to have a minimum height of 600mm and a maximum height of 900mm.
  - Edges and corners must be finished so as not to cause any injury to pedestrians.
  - Footpath trading activities, including display stands are not to be attached to the footpath, street poles, or any other street furniture or infrastructure.
  - Display stands that have wheels must incorporate a locking device for safety and stability.
  - Footpath trading activities and display stands are not to damage the surface of the footpath.

## 01.B UNIT PAVING

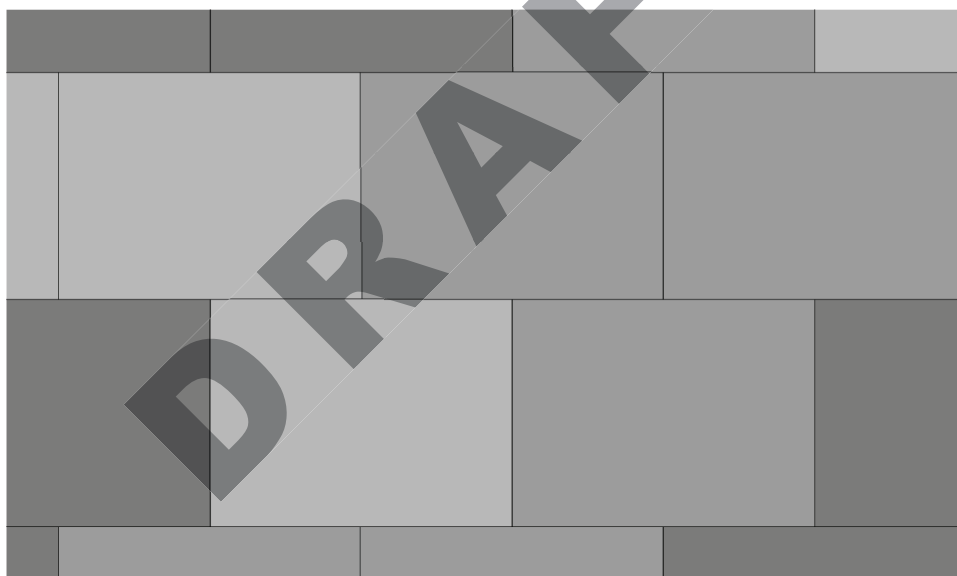
### ► 01 Footpath

Section 1:10



\* Where existing conditions cannot accommodate a cross fall of 1:40 or flatter across the entire path width provide a min. 2m wide path of travel along shoreline of building / boundary with a max. 1:40 cross fall

Plan 1:10



#### Selections

Paver Type A: (30% mix)	Urbanstone Paver '206 Gunmetal' Shotblast Width: 300mm Thickness: 40mm Length: 400mm
Paver Type B: (40% mix)	Urbanstone Paver '2534' Shotblast Width: 300mm Thickness: 40mm Length: 400mm
Paver Type C: (30% mix)	Urbanstone Paver '2533' Shotblast Width: 300mm Thickness: 40mm Length: 400mm

#### Notes

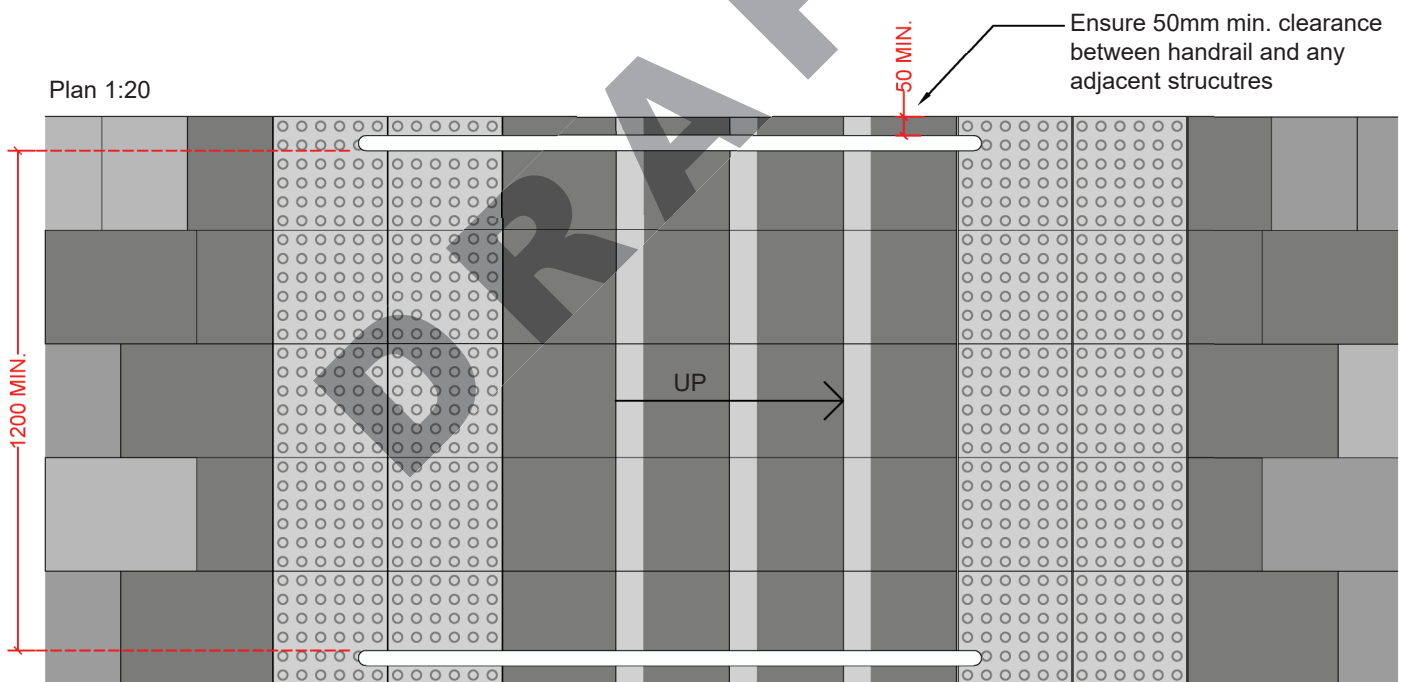
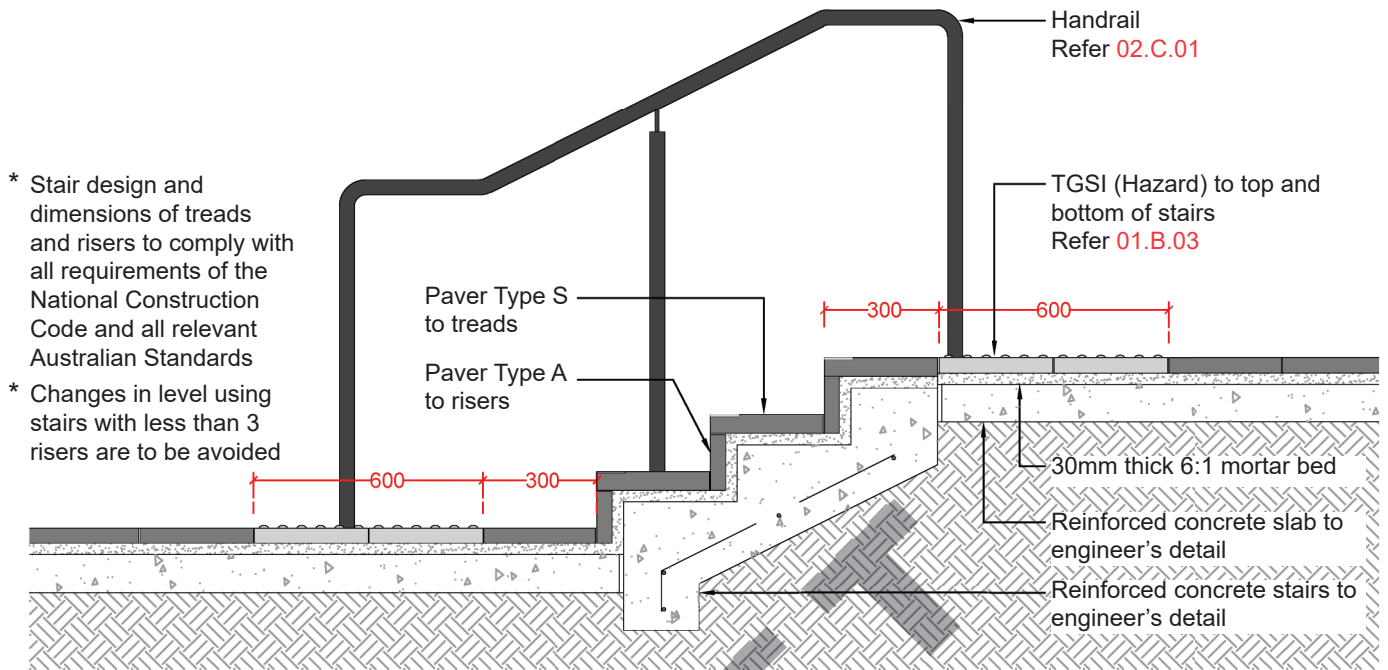
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2. Where paving abutts buildings, kerbs, existing pavement and the like provide approved self expanding joint filler.



## 01.B UNIT PAVING

### ► 02 Steps

Section 1:20

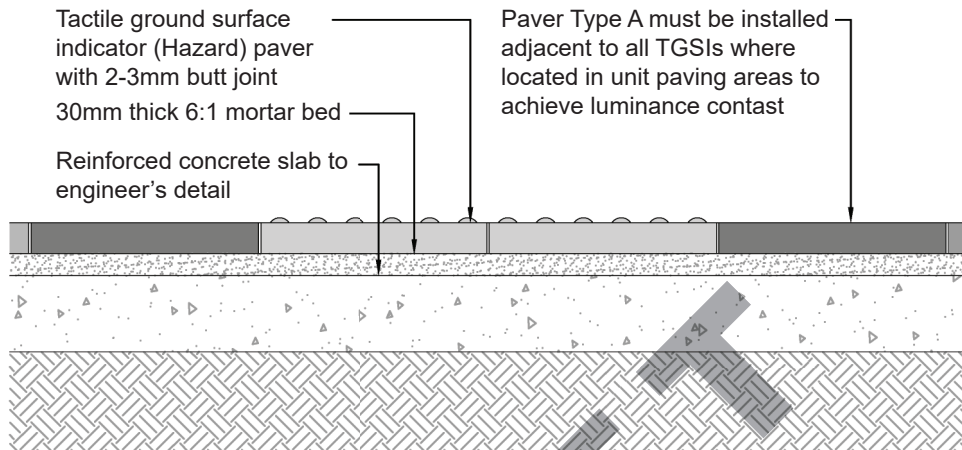


Selections	<p>Paver Type A: Urbanstone Paver '206 Gunmetal' Shotblast Width: 300mm Thickness: 40mm Length: Varies</p> <p>Paver Type S: Urbanstone Paver '2533' Shotblast Width: Varies dependant on tread length Thickness: 40mm Length: 300mm</p>
Notes	<ol style="list-style-type: none"> <li>Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</li> <li>Where paving abutts buildings, kerbs, existing pavement and the like provide approved self expanding joint filler.</li> </ol>

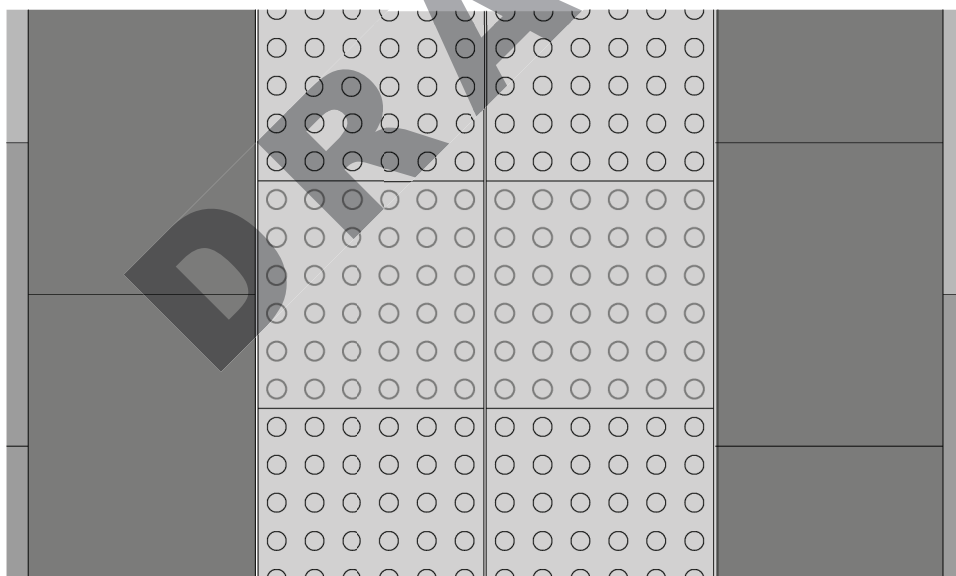
01.B UNIT PAVING

► 03 Tactile Ground Surface Indicators (Hazard)

Section 1:10



Plan 1:10



Selections

TGSI Hazard: Urbanstone Type B Hazard Tactile '2215 Fleece' Off Form  
 Width: 300mm  
 Thickness: 40mm  
 Length: 300mm

Paver Type A: Urbanstone Paver '206 Gunmetal' Shotblast  
 Width: 300mm  
 Thickness: 40mm  
 Length: Varies

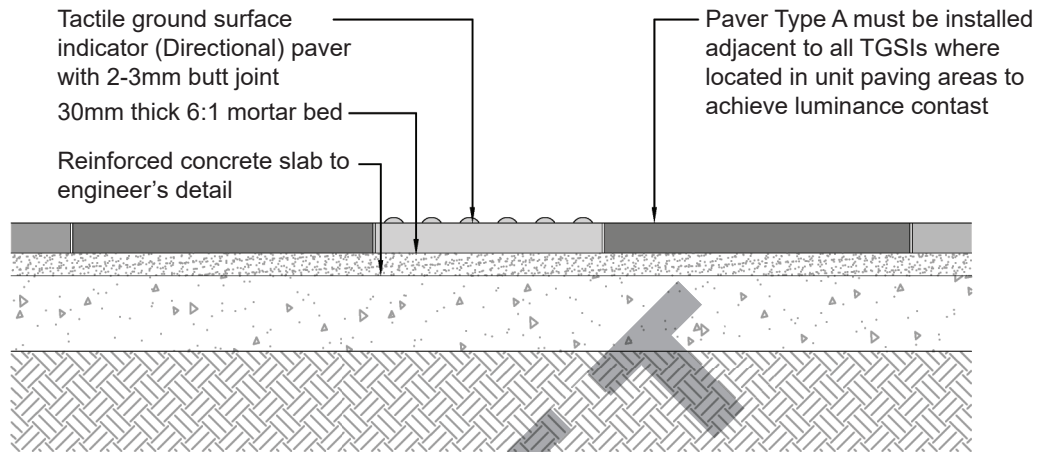
Notes

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2. Where paving abutts buildings, kerbs, existing pavement and the like provide approved self expanding joint filler.

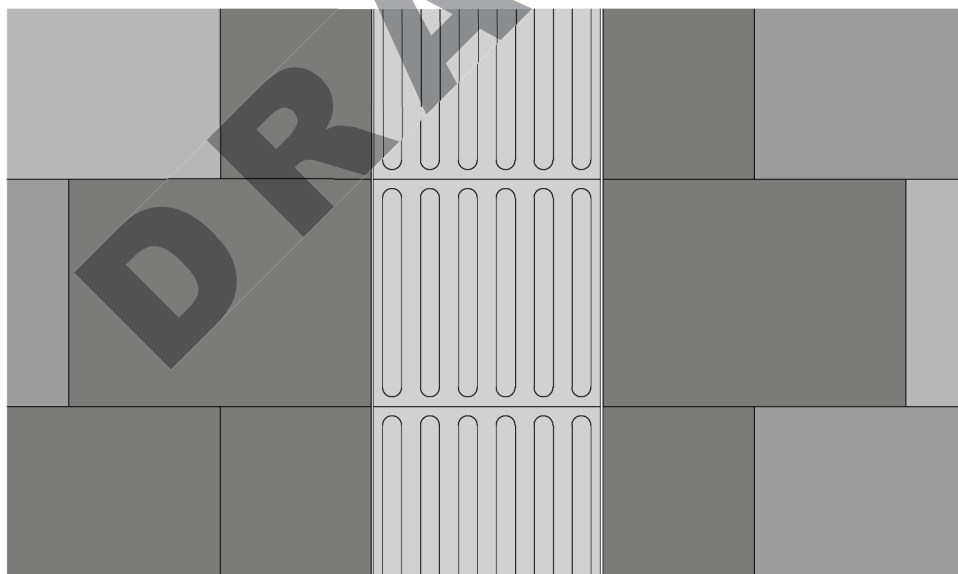
01.B UNIT PAVING

► 04 Tactile Ground Surface Indicators (Directional)

Section 1:10



Plan 1:10



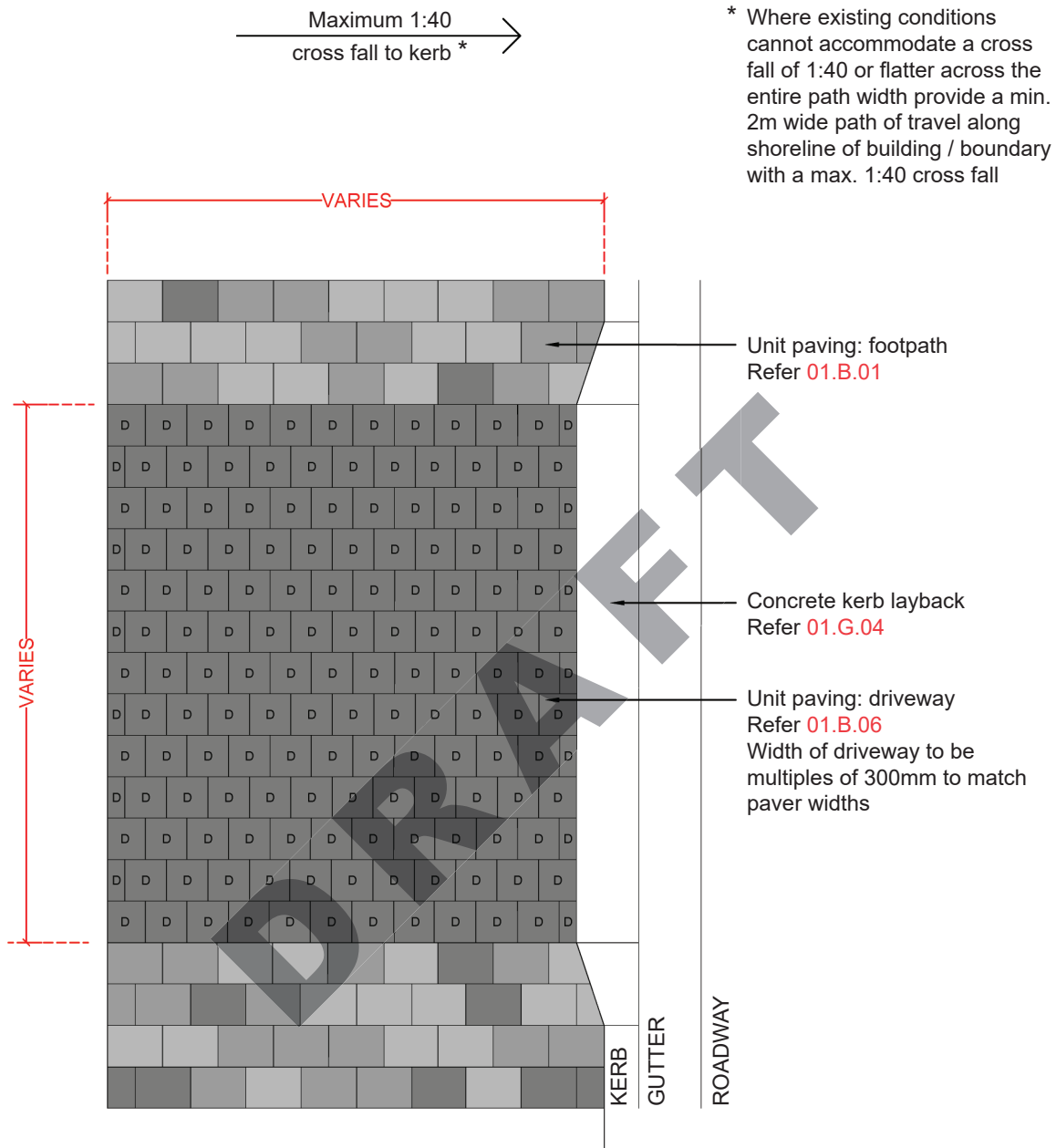
<p><b>Selections</b></p>	<p>TGSI Direction: Urbanstone Type B Directional Tactile '2215 Fleece' Off Form                  Width: 300mm                  Thickness: 40mm                  Length: 300mm</p> <p>Paver Type A: Urbanstone Paver '206 Gunmetal' Shotblast                  Width: 300mm                  Thickness: 40mm                  Length: Varies</p>
<p><b>Notes</b></p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p> <p>2. Where paving abutts buildings, kerbs, existing pavement and the like provide approved self expanding joint filler.</p>



## 01.B UNIT PAVING

### ► 05 Driveway Module

Plan 1:50



Selections	<p>Paver Type D: Urbanstone Paver '206 Gunmetal' Shotblast</p> <p>Width: 300mm</p> <p>Thickness: 60mm</p> <p>Length: 300mm</p>
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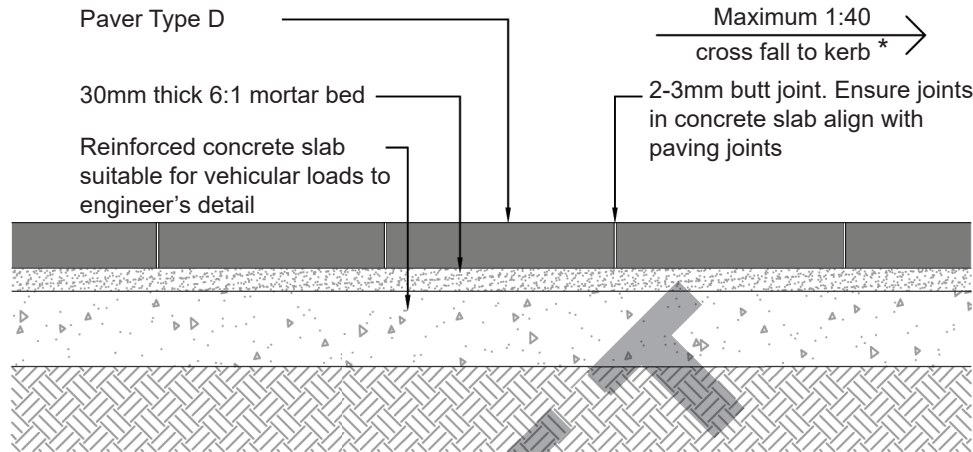
Notes	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>
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01.B UNIT PAVING

► 06 Driveway

Section 1:10

\* Where existing conditions cannot accommodate a cross fall of 1:40 or flatter across the entire path width provide a min. 2m wide path of travel along shoreline of building / boundary with a max. 1:40 cross fall



Plan 1:10

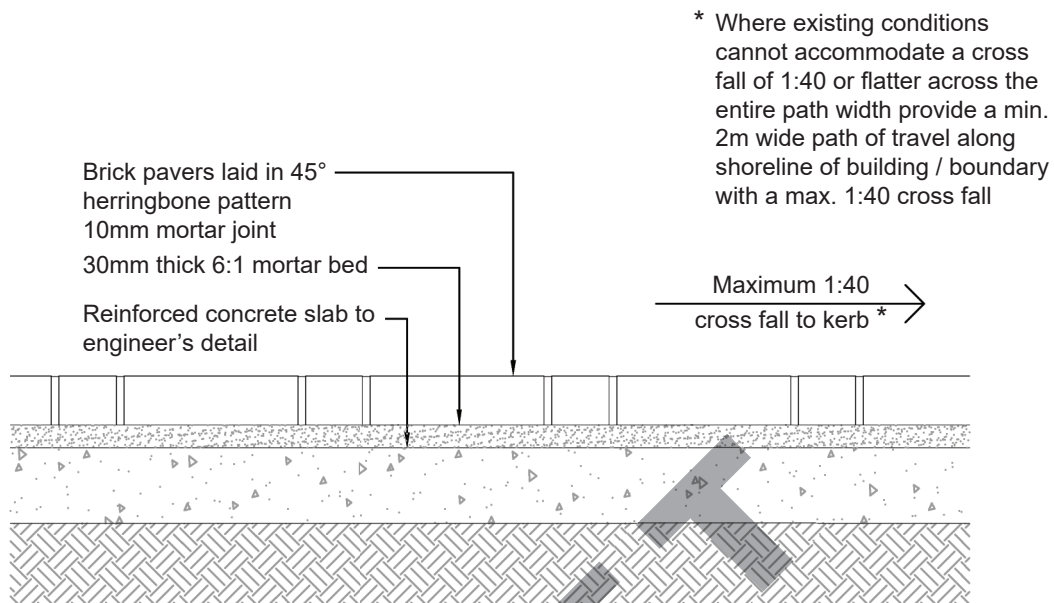


<p>Selections</p>	<p>Paver Type D: Urbanstone Paver '206 Gunmetal' Shotblast                  Width: 300mm                  Thickness: 60mm                  Length: 300mm</p>
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.                  2. Where paving abutts buildings, kerbs, existing pavement and the like provide approved self expanding joint filler.</p>

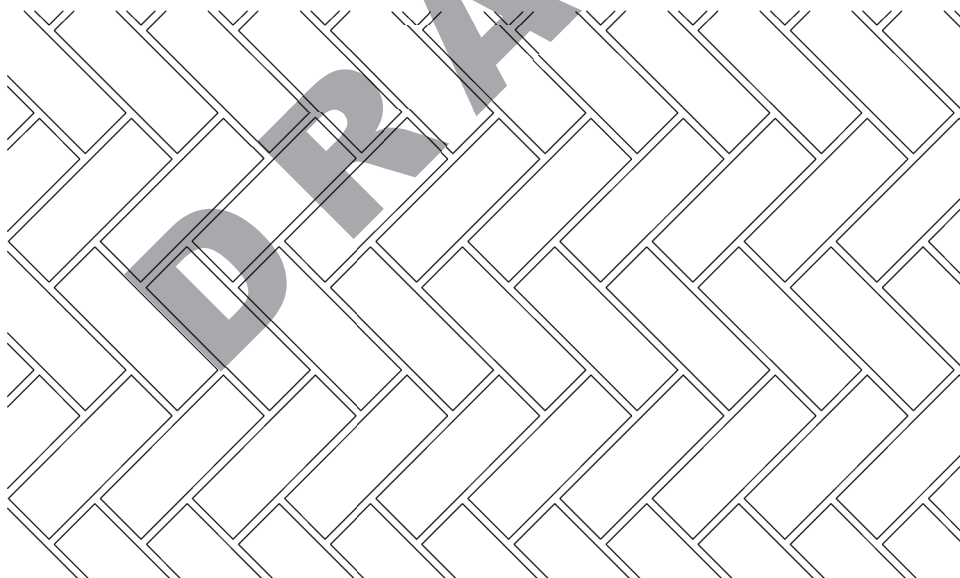
## 01.C BRICK PAVING

### ► 01 Pedestrian Areas / Shared Zones

Section 1:10



Plan 1:10



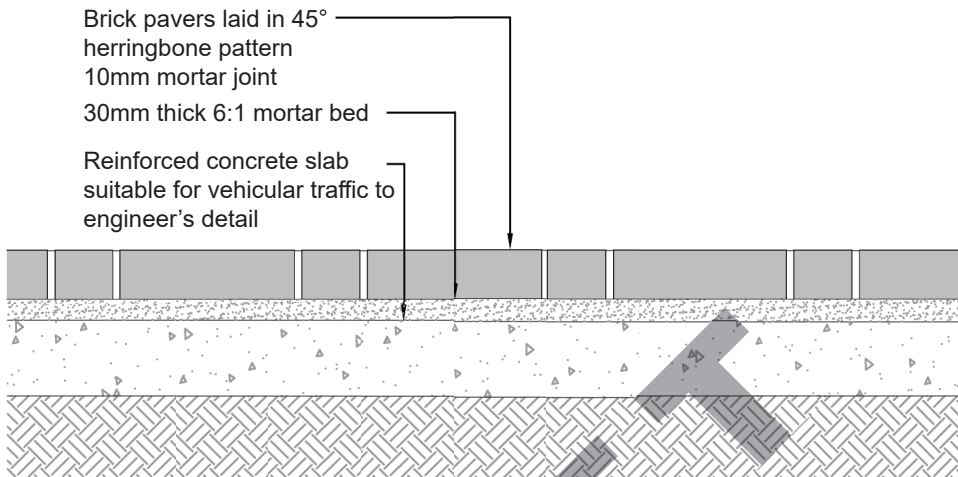
Selections	<p>Brick Paver: Austral Bricks 'Hamlet Paver Sepia'          Width: 76mm          Thickness: 65mm          Length: 230mm          Mortar: Standard white          Joints: 10mm, Struck flush</p>
Notes	<ol style="list-style-type: none"> <li>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</li> <li>2. Where paving abutts buildings, kerbs, existing pavement and the like provide approved self expanding joint filler.</li> </ol>



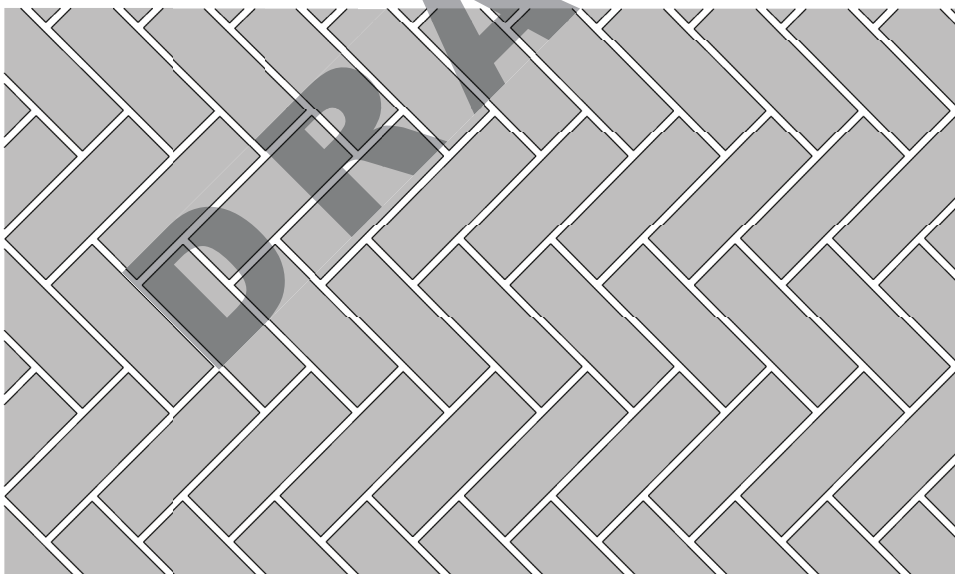
01.C BRICK PAVING

► 02 Vehicular Areas

Section 1:10



Plan 1:10

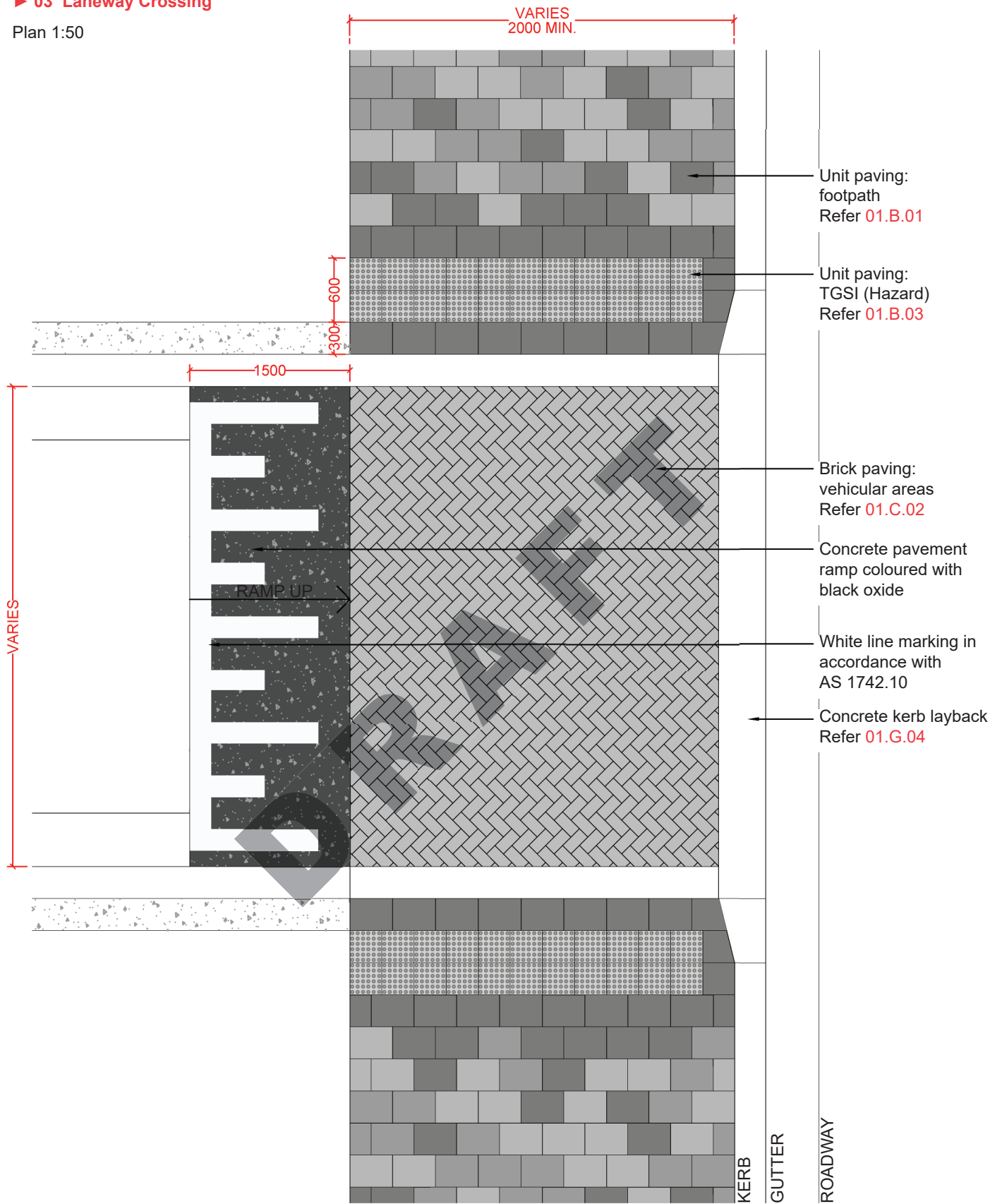


<p>Selections</p>	<p>Brick Paver: Austral Bricks 'Hamlet Paver Bowral Blue' Width: 76mm Thickness: 65mm Length: 230mm Mortar: Standard white Joints: 10mm, Struck flush</p>
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose. 2. Where paving abutts buildings, kerbs, existing pavement and the like provide approved self expanding joint filler.</p>

01.C BRICK PAVING

► 03 Laneway Crossing

Plan 1:50



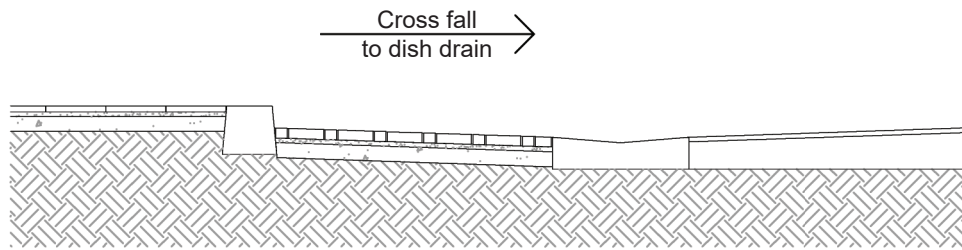
Notes

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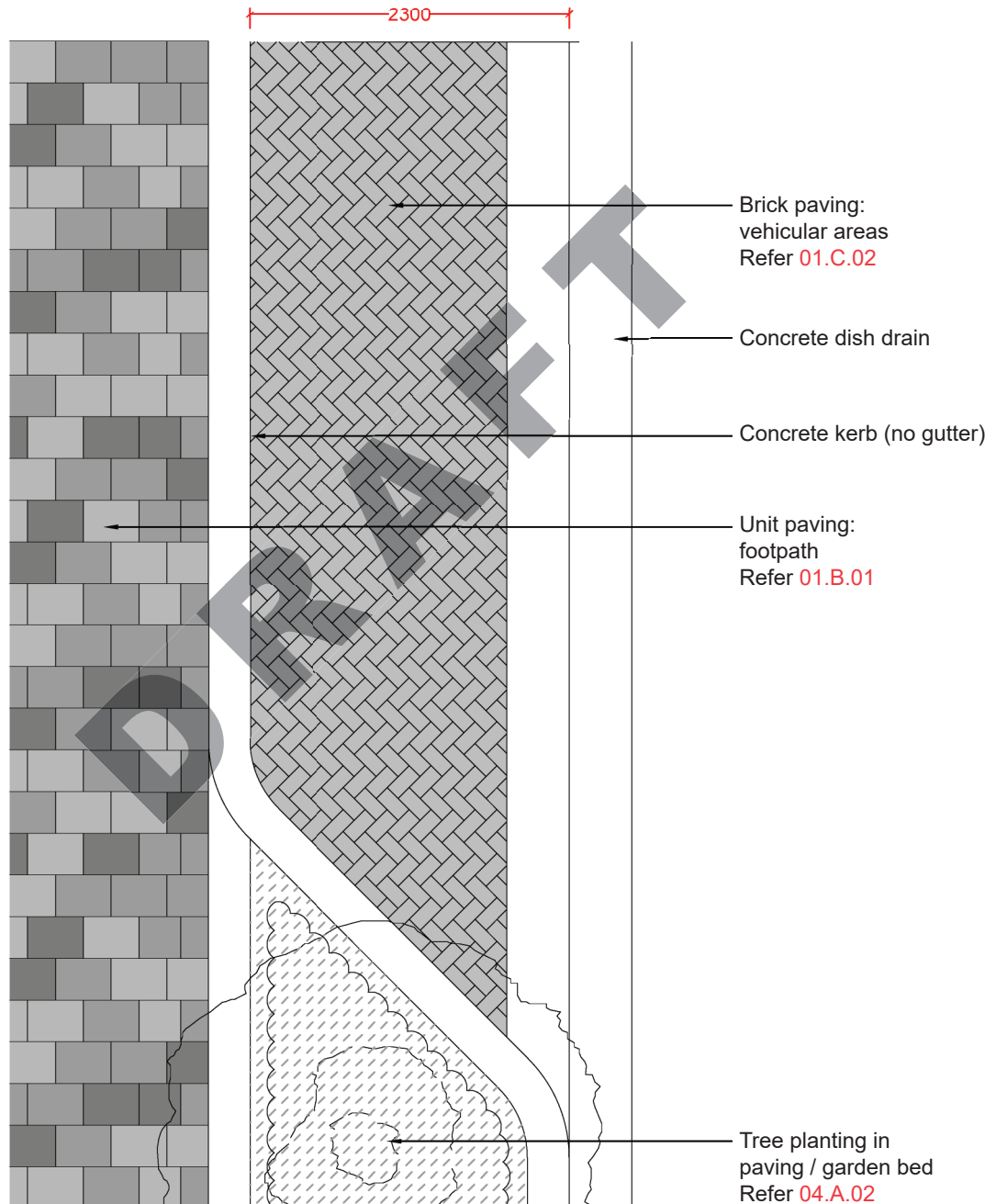
## 01.C BRICK PAVING

### ► 04 Vehicle Parking Bay

Section 1:50



Plan 1:50



#### Notes

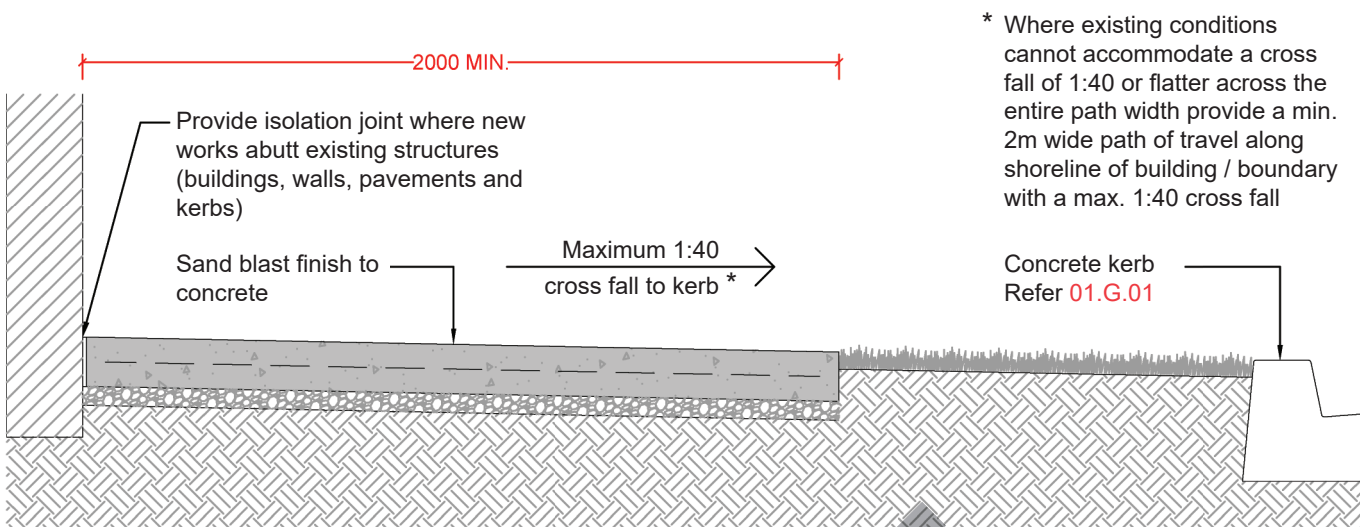
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.



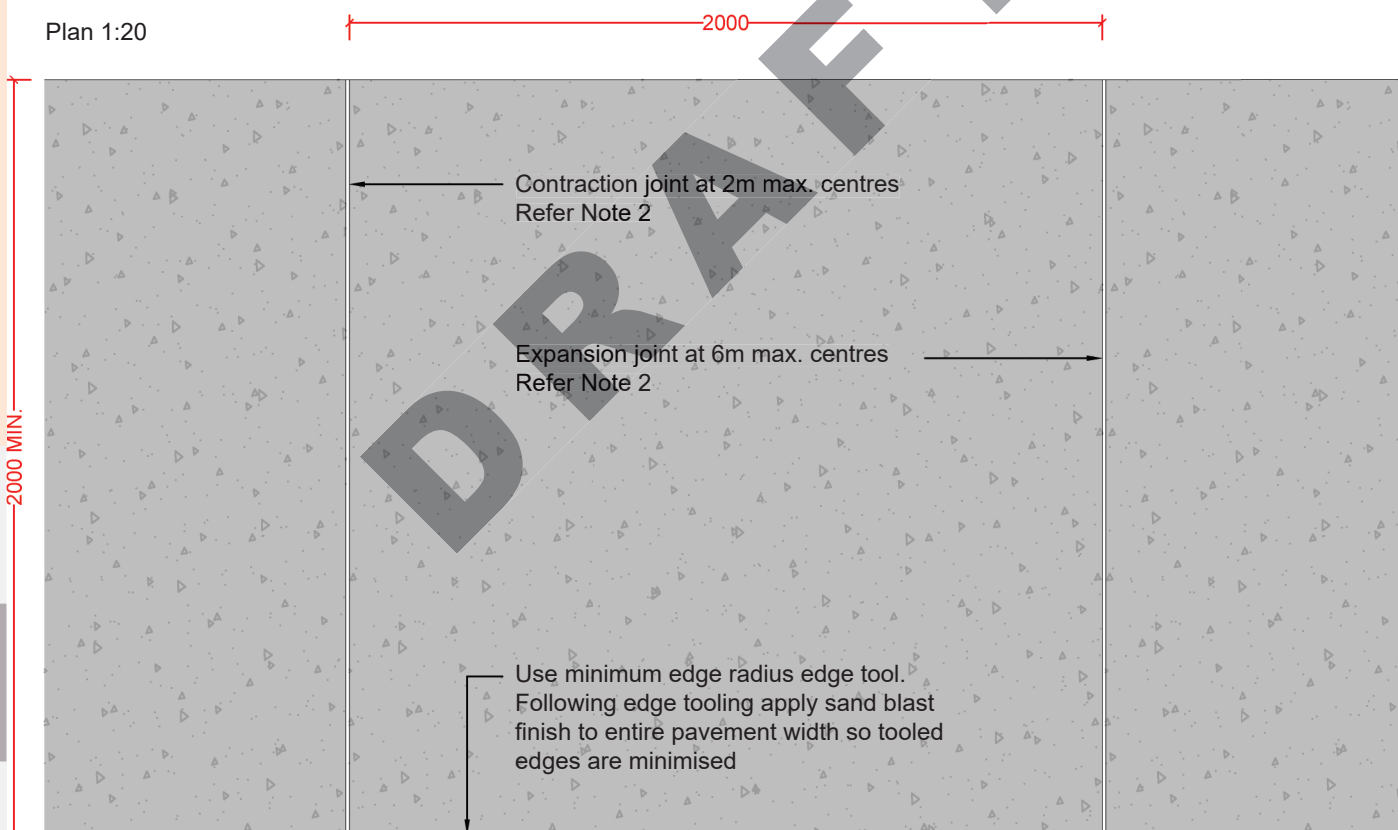
## 01.D CONCRETE PAVING

### ► 01 Local Centre Transition Footpaths

Section 1:20



Plan 1:20



#### Selections

Concrete: Cement: Grey  
Aggregate: 7-10mm, Mix of 35% Basalt / 35% White Quartz / 30% River Gravel  
Finish: Sand blast

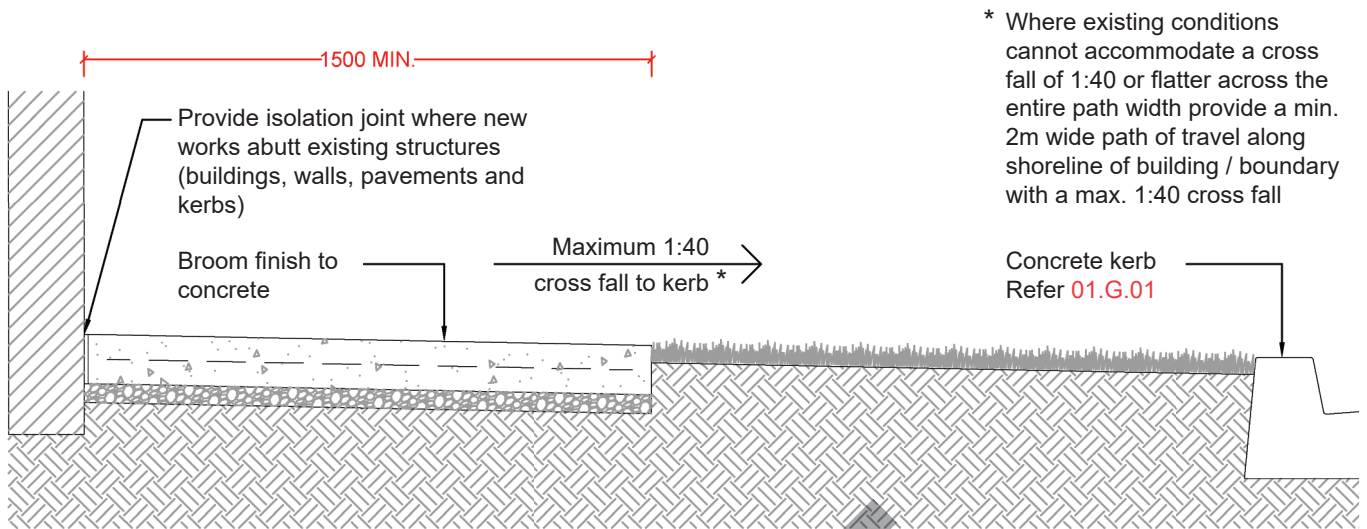
#### Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Refer Ku-ring-gai Council engineering standard drawing 2003-004 'Concrete Strip Footpath' for additional structural requirements.

## 01.D CONCRETE PAVING

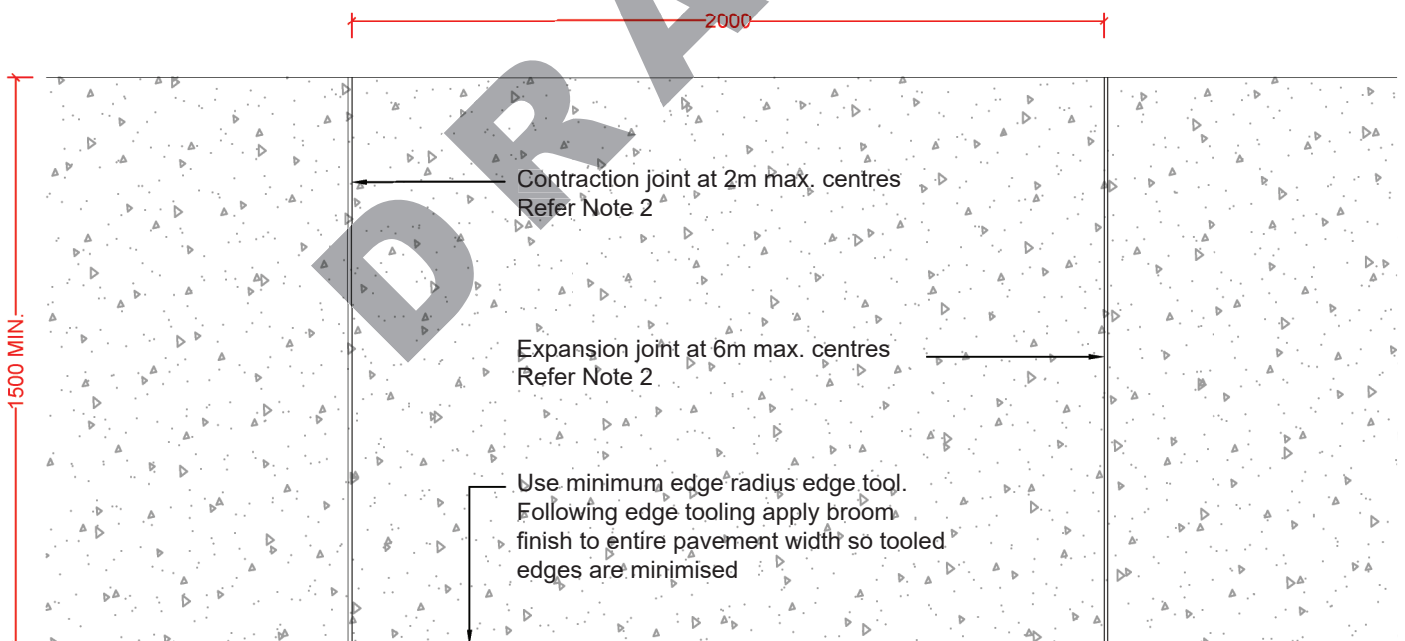
### ► 02 Local Centre Standard Footpaths

Section 1:20



\* Where existing conditions cannot accommodate a cross fall of 1:40 or flatter across the entire path width provide a min. 2m wide path of travel along shoreline of building / boundary with a max. 1:40 cross fall

Plan 1:20



Selections

Concrete: Cement: Grey  
Aggregate: 7-10mm, Basalt  
Finish: Broom

Notes

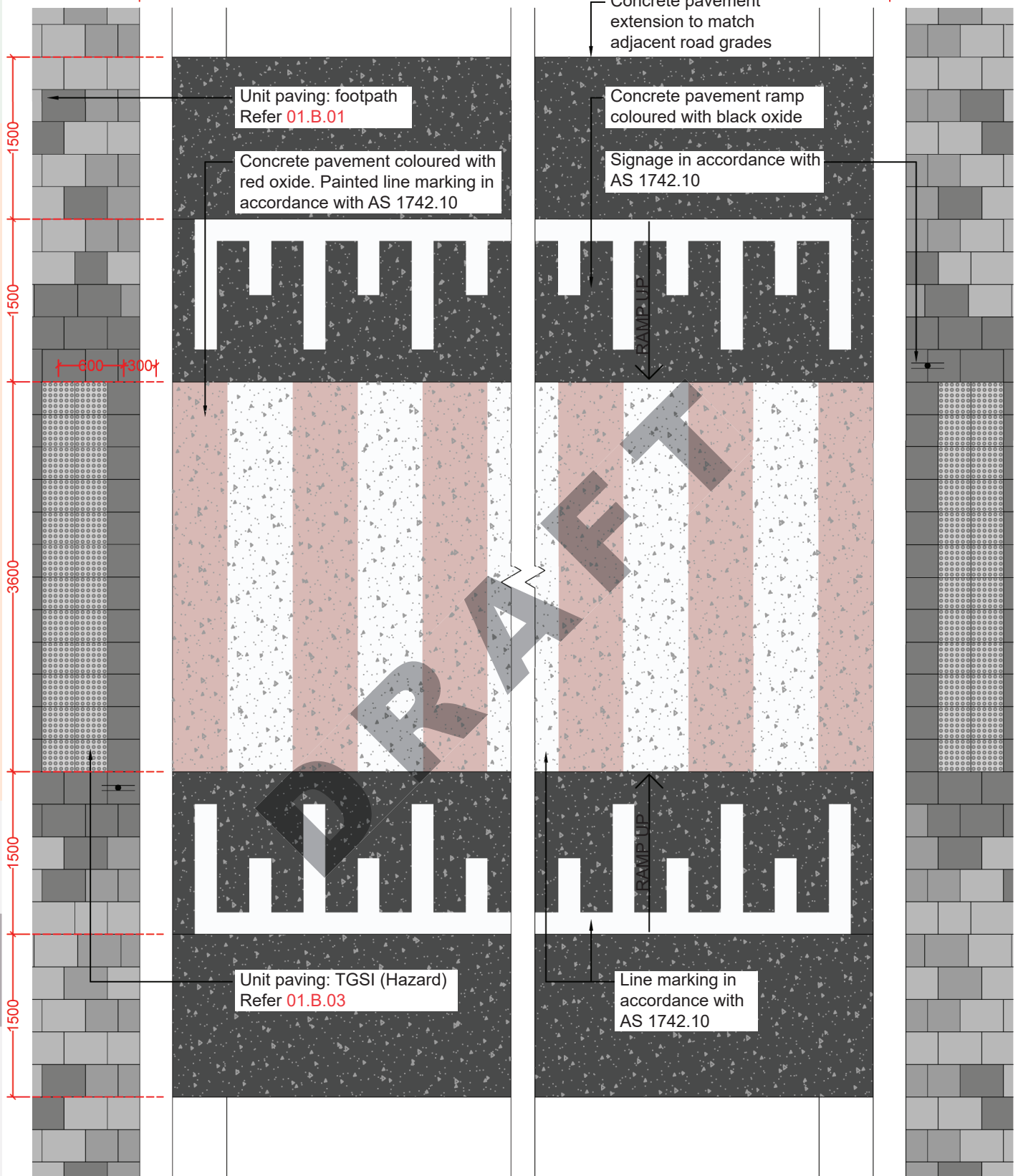
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Refer Ku-ring-gai Council engineering standard drawing 2003-004 'Concrete Strip Footpath' for additional structural requirements.

01.D CONCRETE PAVING

► 03 Pedestrian Crossing

Plan 1:50

VARIES



Notes

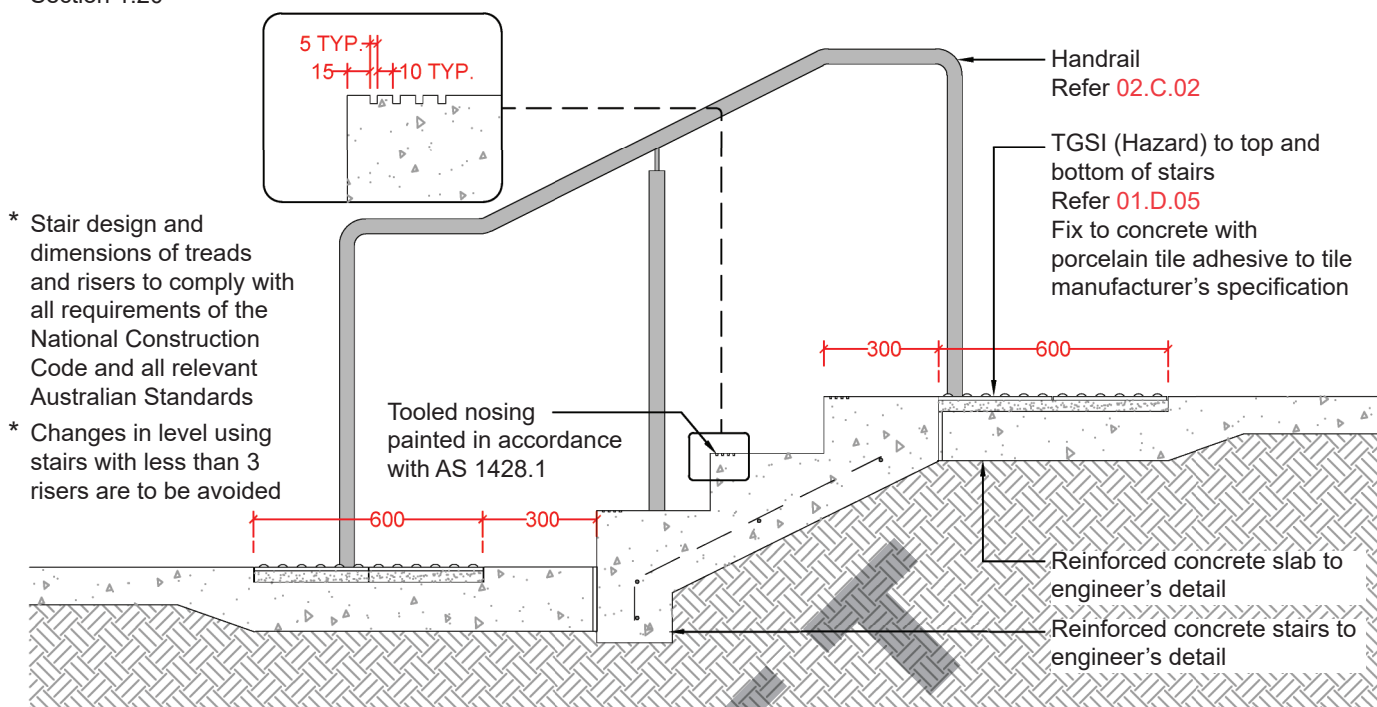
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Refer Ku-ring-gai Council engineering standard drawing 92-028 'Pedestrian Crossing' for additional structural requirements.



# 01.D CONCRETE PAVING

## ► 04 Steps

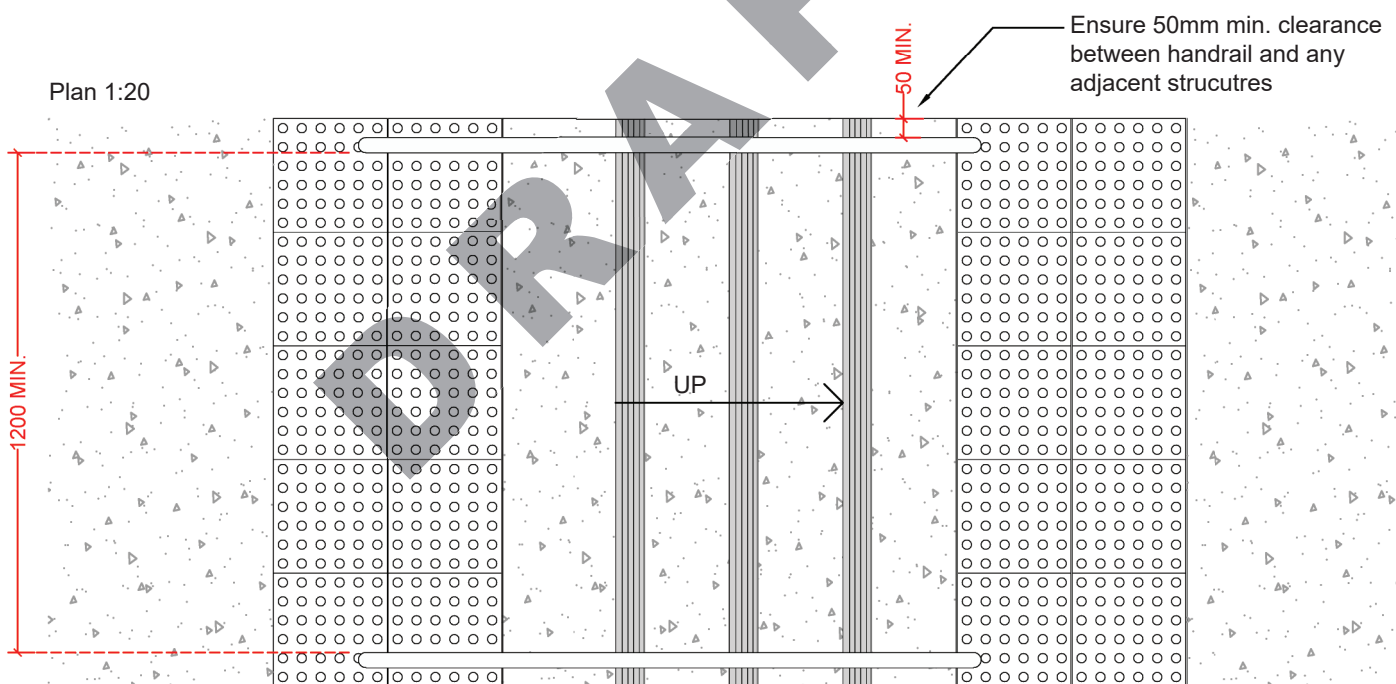
Section 1:20



\* Stair design and dimensions of treads and risers to comply with all requirements of the National Construction Code and all relevant Australian Standards

\* Changes in level using stairs with less than 3 risers are to be avoided

Plan 1:20



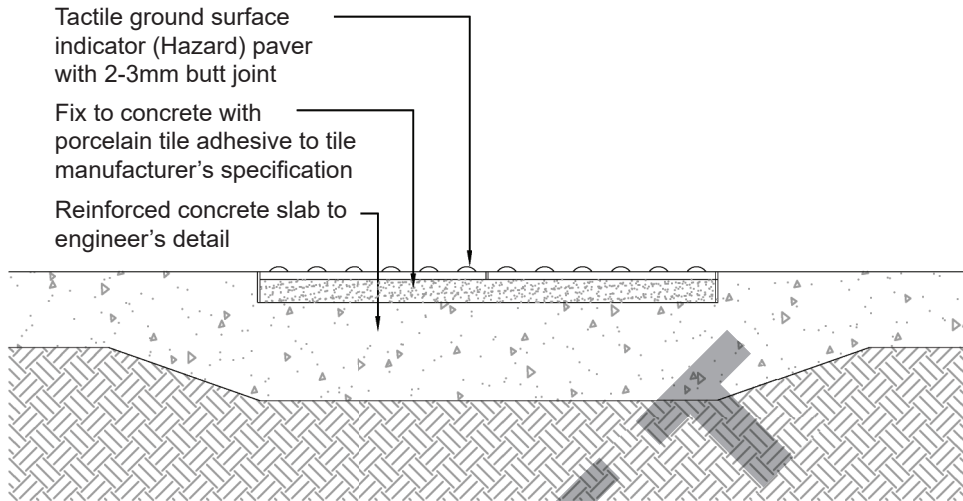
### Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

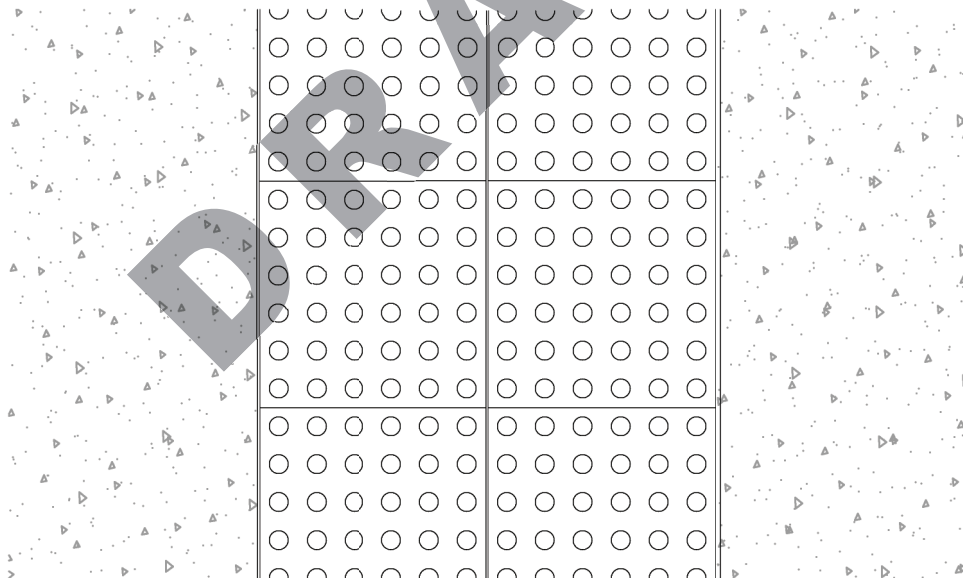
01.D CONCRETE PAVING

► 05 Tactile Ground Surface Indicators (Hazard)

Section 1:10



Plan 1:10



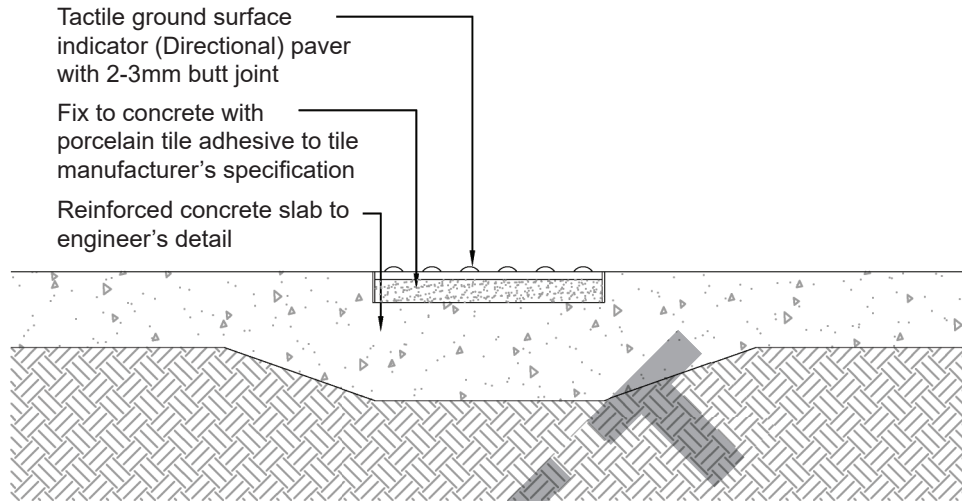
Selections	TGSI Hazard: Seton Cobbletac Porcelain Tactile 'Ivory' Width: 300mm Thickness: 17mm Length: 300mm
------------	--

Notes	1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
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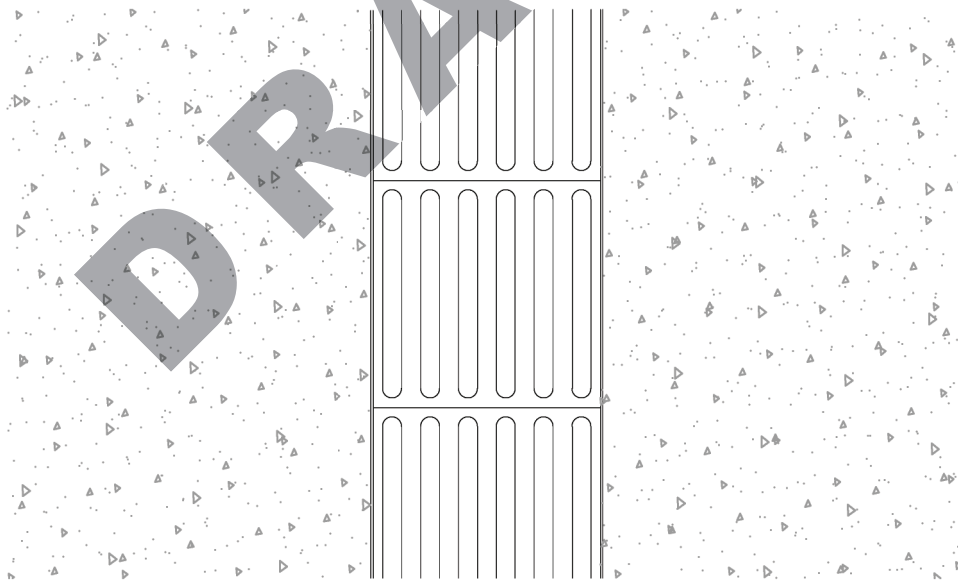
01.D CONCRETE PAVING

► 06 Tactile Ground Surface Indicators (Directional)

Section 1:10



Plan 1:10



<p>Selections</p>	<p>TGSI Direction: Seton Cobbletac Porcelain Tactile 'Ivory'                  Width: 300mm                  Thickness: 17mm                  Length: 300mm</p>
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>

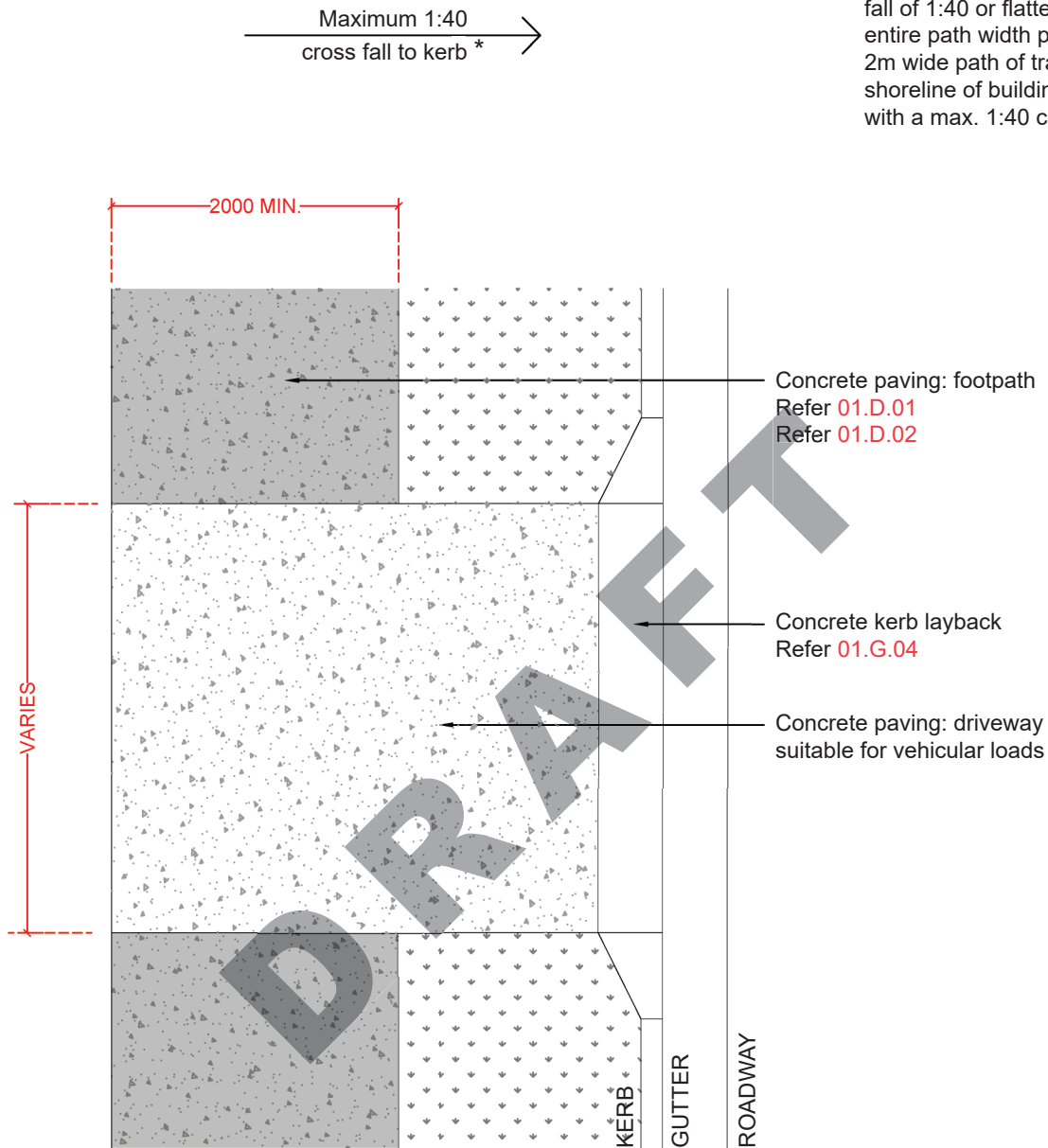


01.D CONCRETE PAVING

► 07 Driveway

Plan 1:50

\* Where existing conditions cannot accommodate a cross fall of 1:40 or flatter across the entire path width provide a min. 2m wide path of travel along shoreline of building / boundary with a max. 1:40 cross fall



Selections

Concrete: Cement: Grey  
Aggregate: 7-10mm, Basalt  
Finish: Broom

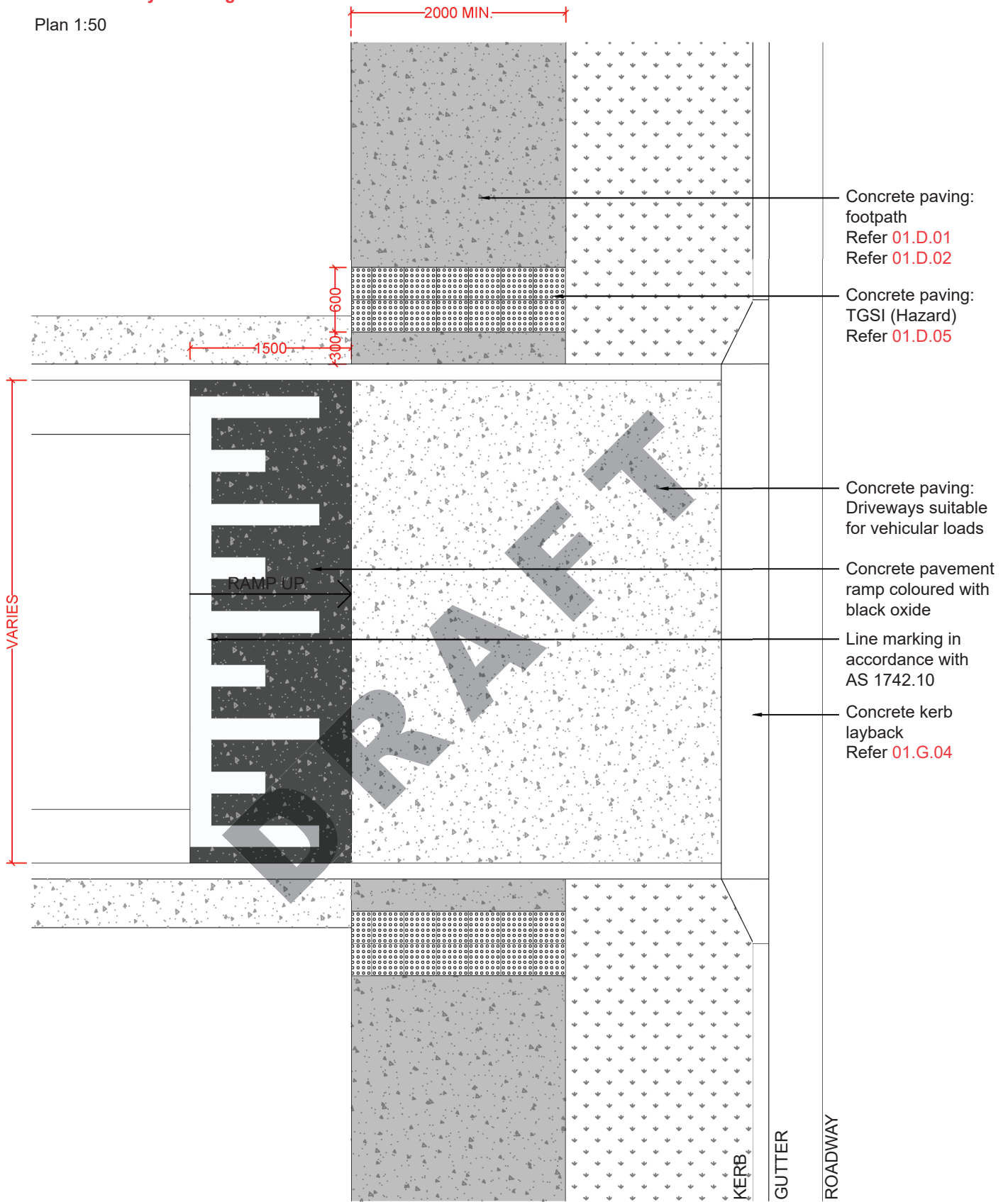
Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

01.D CONCRETE PAVING

► 08 Laneway Crossing

Plan 1:50



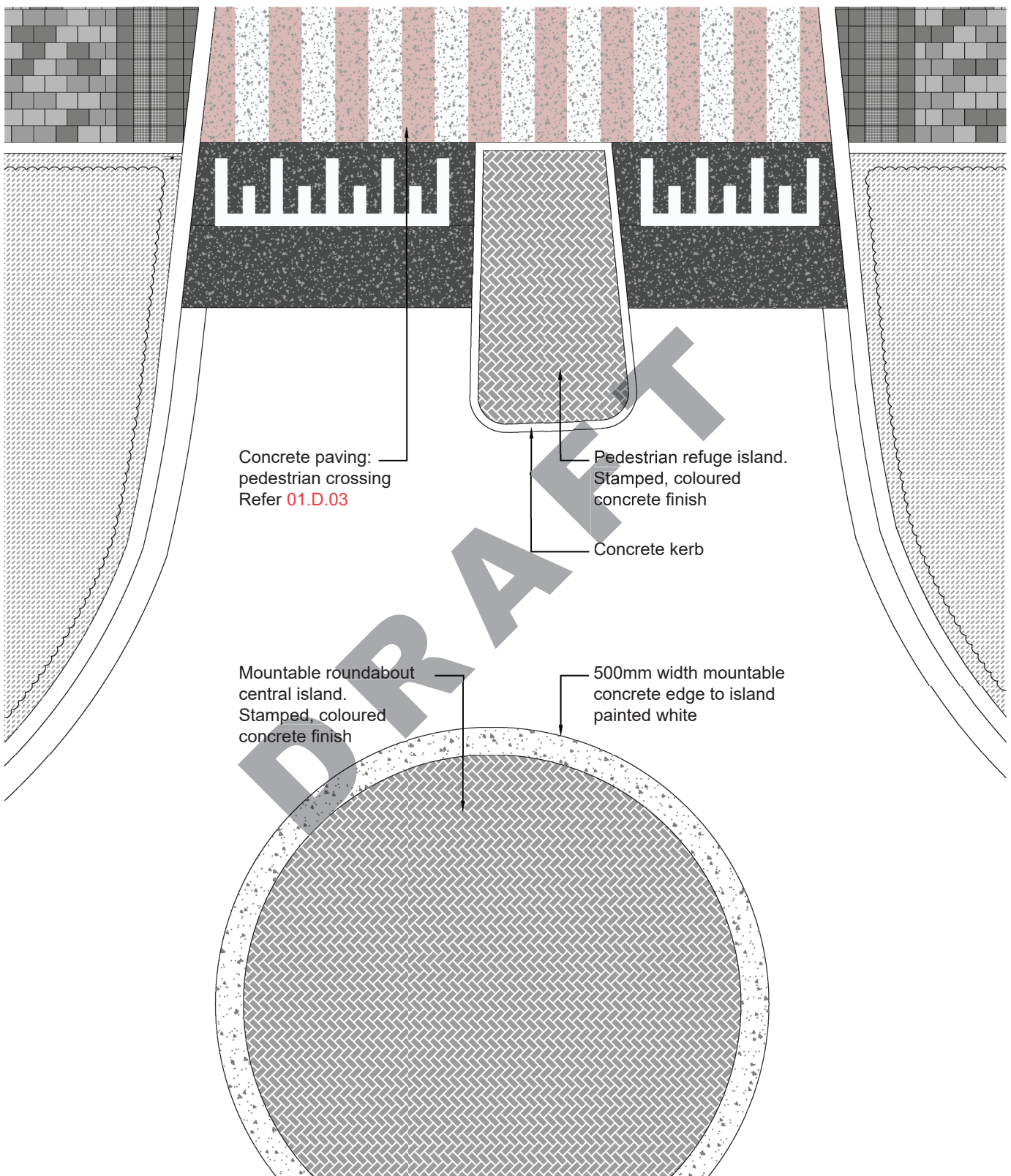
Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

## 01.D CONCRETE PAVING

### ► 09 Traffic Island

Plan 1:100



Selections	Concrete: Stamped	Colour: Milano Bluestone Pattern: Herringbone
------------	----------------------	--

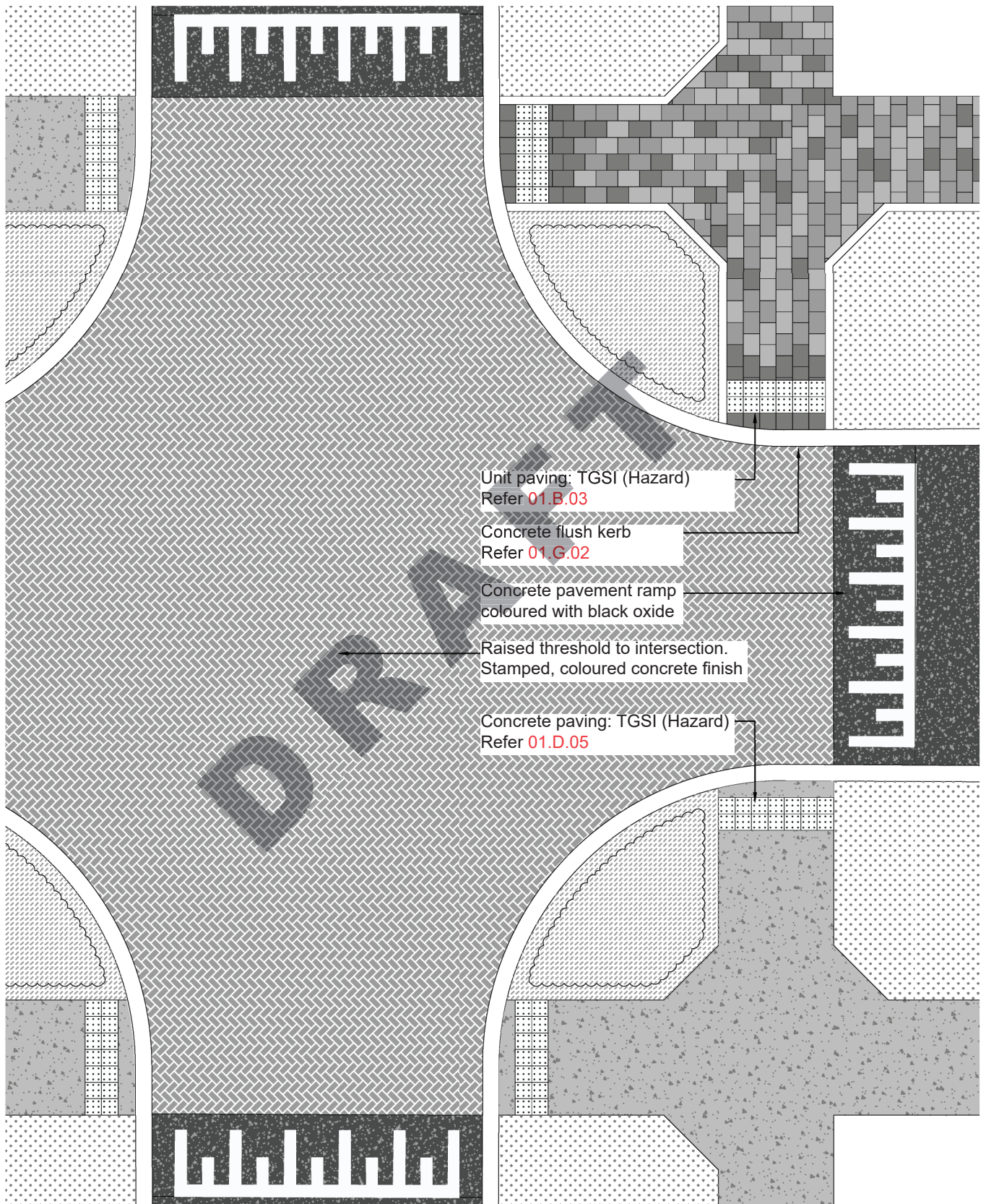
Notes	1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
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01.D CONCRETE PAVING

► 10 Raised Threshold to Intersection

Plan 1:100

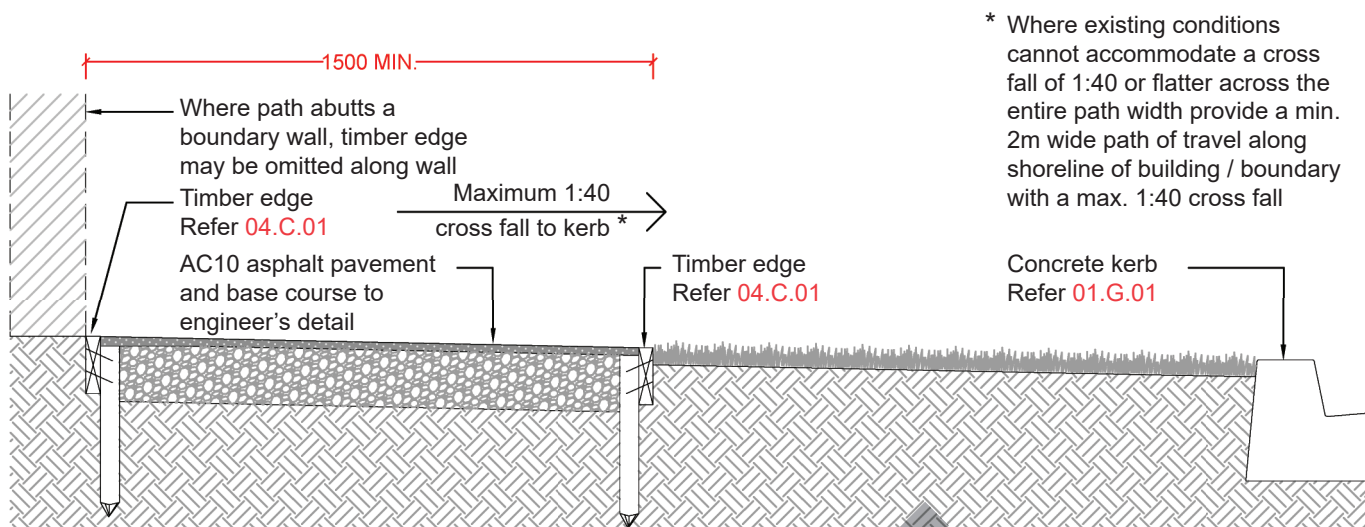


<p>Selections</p>	<p>Concrete: Stamped</p>	<p>Colour: Milano Bluestone Pattern: Herringbone</p>
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>	

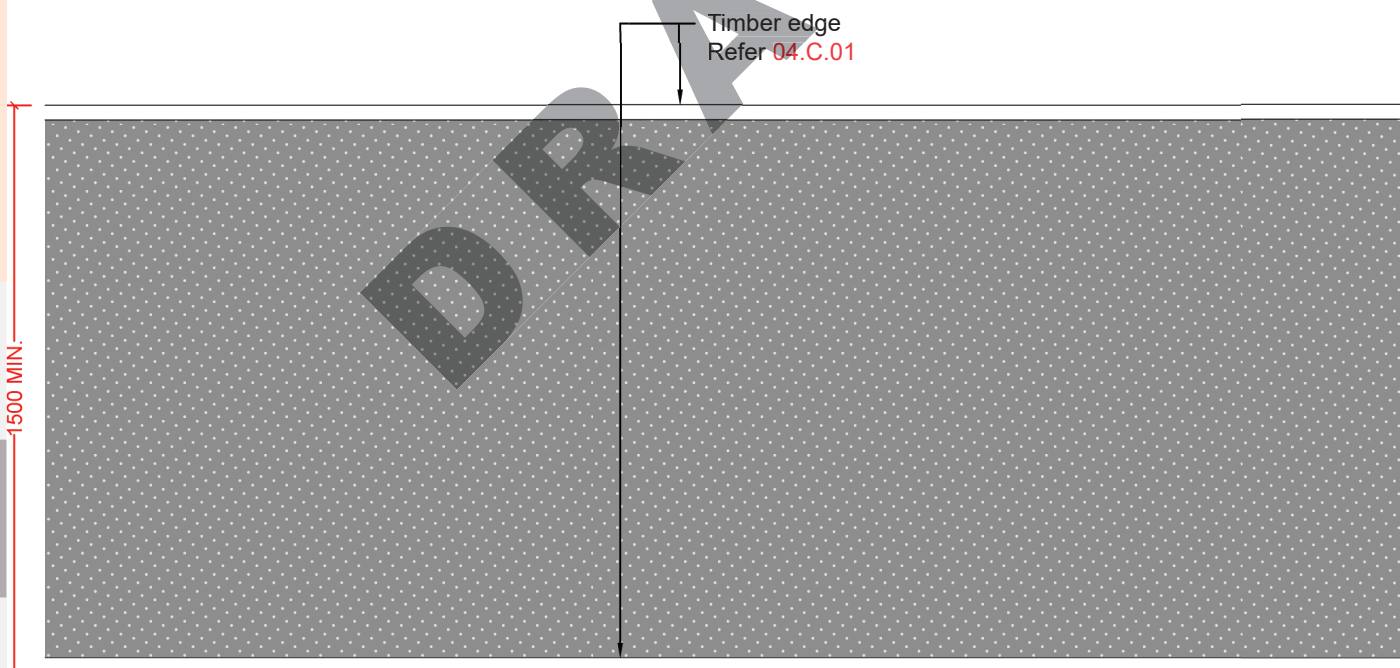
01.E ASPHALT PAVING

► 01 Local Centre Heritage Footpaths

Section 1:20



Plan 1:20



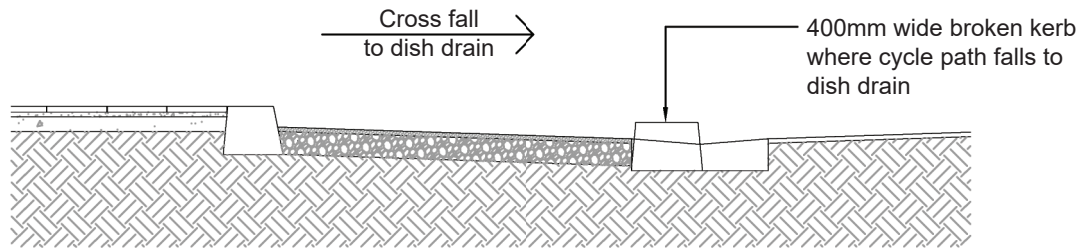
Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

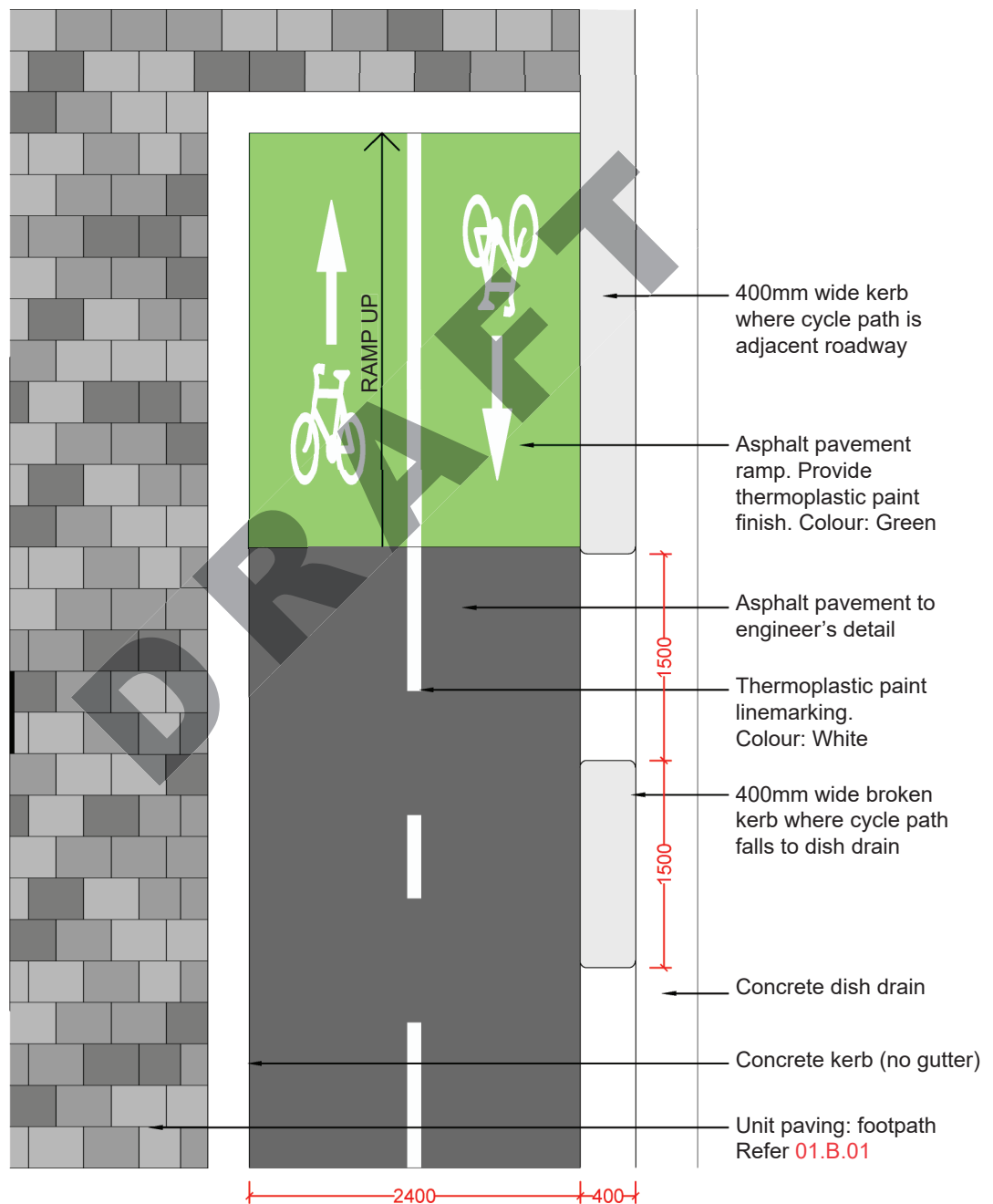
01.E ASPHALT PAVING

► 02 Separated Cycle Path

Section 1:50



Plan 1:50



Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

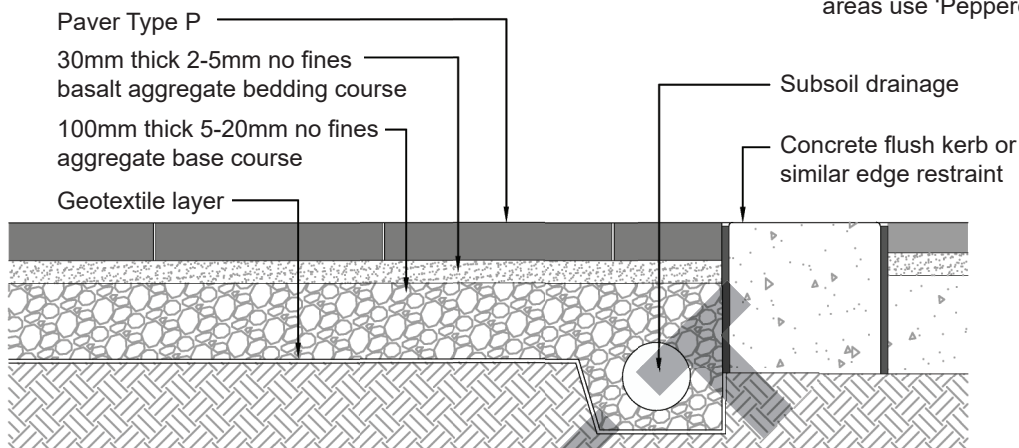


## 01.F PERMEABLE PAVING

### ► 01 Permeable Unit Paving

Section 1:10

- \* Colour of paver to match surrounding paving treatments:
- In Concrete Unit Paving areas use 'Light Grey'.
  - In Brick Paving Vehicular (Bowral Blue) areas use 'Charcoal'.
  - In Brick Paving Pedestrian (Sepia) areas use 'Peppercorn'.



Plan 1:10



#### Selections

Paver Type P: Hydroston Paver 'H50 Flag'  
 Width: 300mm  
 Thickness: 50mm  
 Length: 300mm  
 Colour: Refer note above

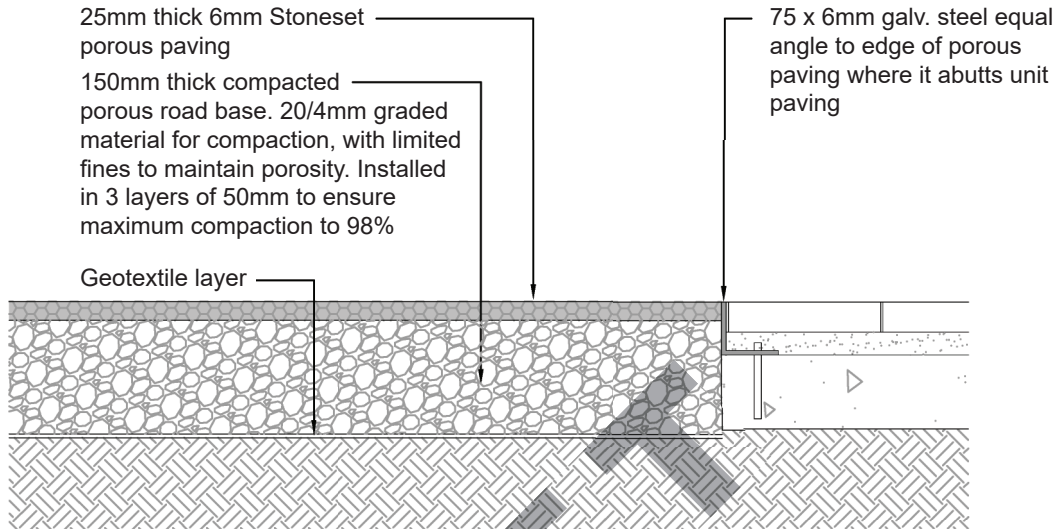
#### Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Install pavers and base courses to manufacturer's specifications.
3. Where paving abutts buildings, kerbs, existing pavement and the like provide approved self expanding joint filler.

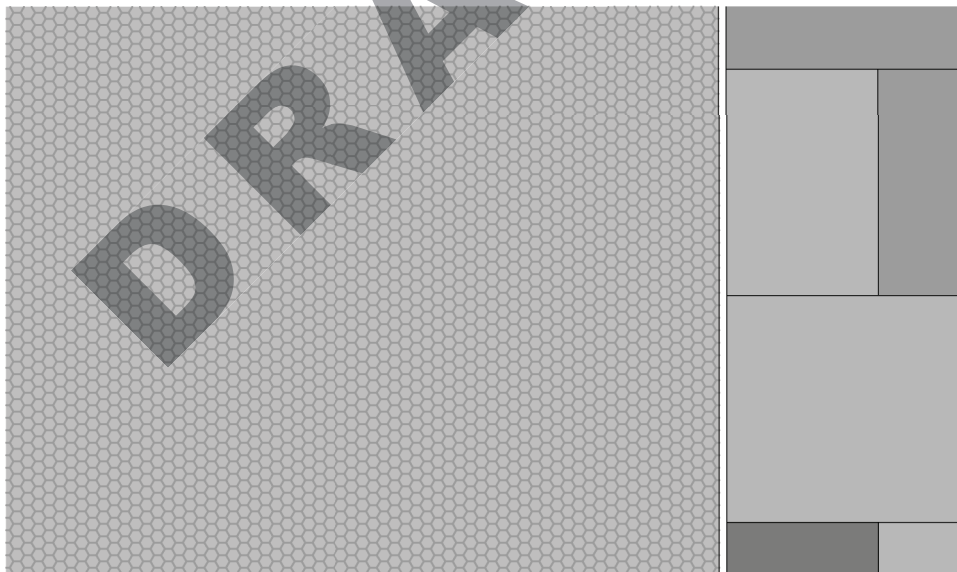
01.F PERMEABLE PAVING

► 02 Permeable Resin Bound Paving

Section 1:10



Plan 1:10

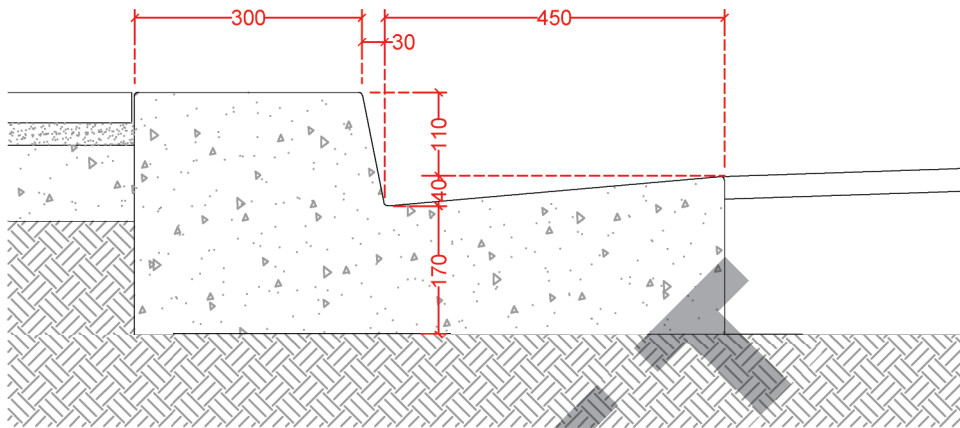


<p>Selections</p>	<p>Porous Paving: Stoneset Resin Bound Paving Aggregate: 6mm Colour: Black Tan Ash</p>
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose. 2. Install pavers and base courses to manufacturer's specifications.</p>

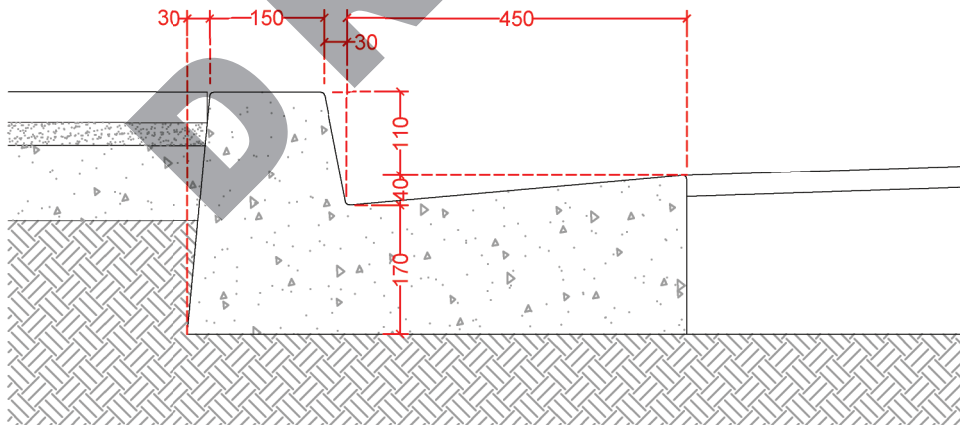
## 01.G KERBS AND EDGES

### ► 01 Concrete Kerb and Gutter

Section 1:10 Wide Kerb and Gutter - Local Centre Core



Section 1:10 Standard Kerb and Gutter - Local Centre Transition / Standard



#### Notes

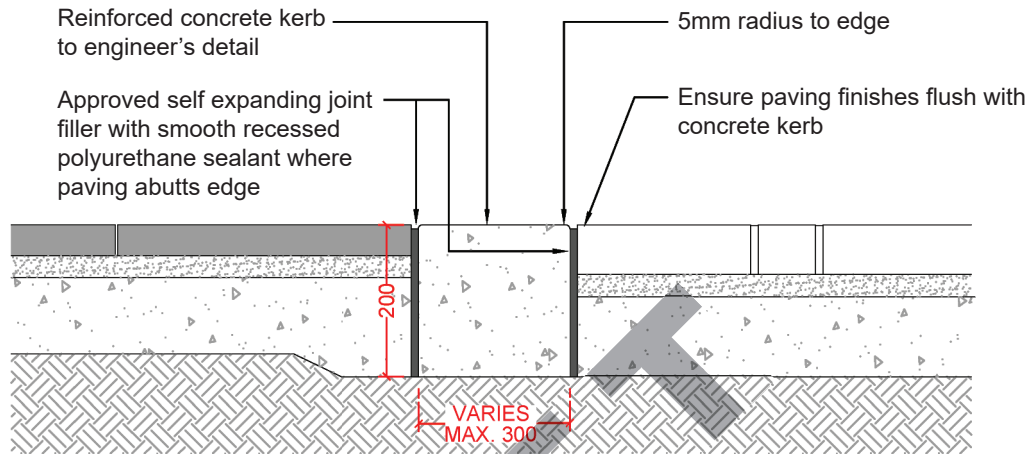
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Refer Ku-ring-gai Council engineering standard drawing 2004-004 'Concrete Kerb and Gutter' for additional structural requirements.
3. All kerbs to be min. 25MPa concrete unless noted otherwise.
4. All kerbs to be steel trowel finished.
5. Expansion joints to be placed at maximum 6m intervals.



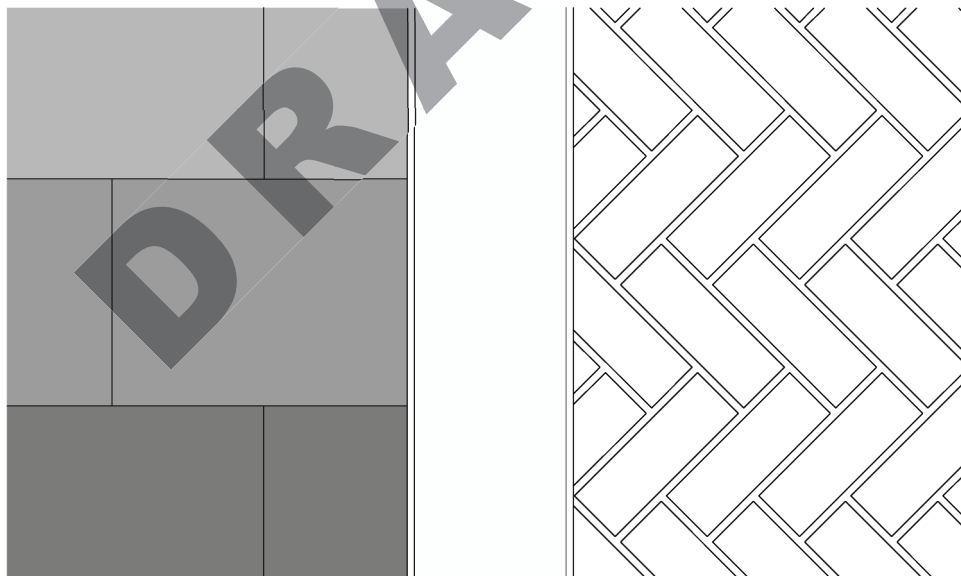
## 01.G KERBS AND EDGES

### ► 02 Concrete Kerb Flush

Section 1:10



Plan 1:10



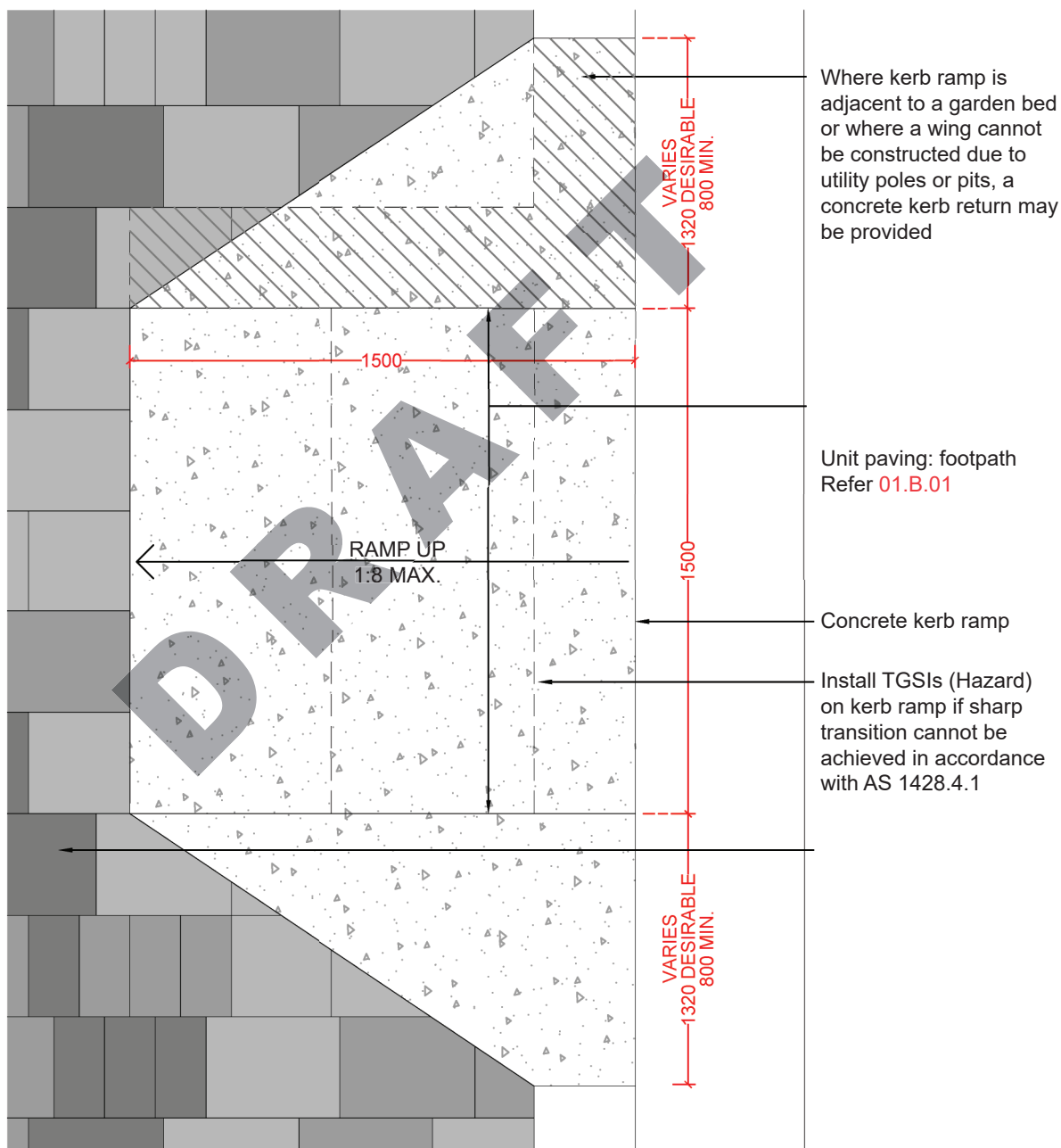
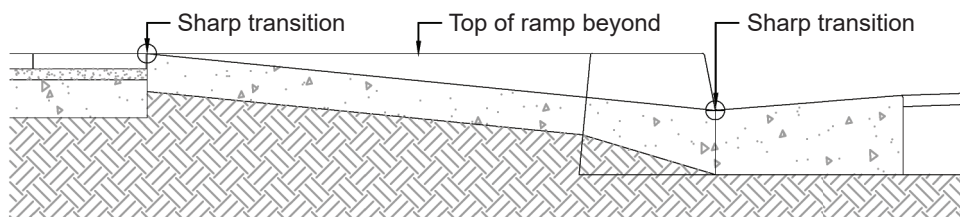
#### Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. All kerbs to be min. 25MPa concrete unless noted otherwise.
3. All flush kerbs to be broom finished.
4. Expansion joints to be placed at maximum 6m intervals.

01.G KERBS AND EDGES

► 03 Concrete Kerb Ramp

Section 1:20



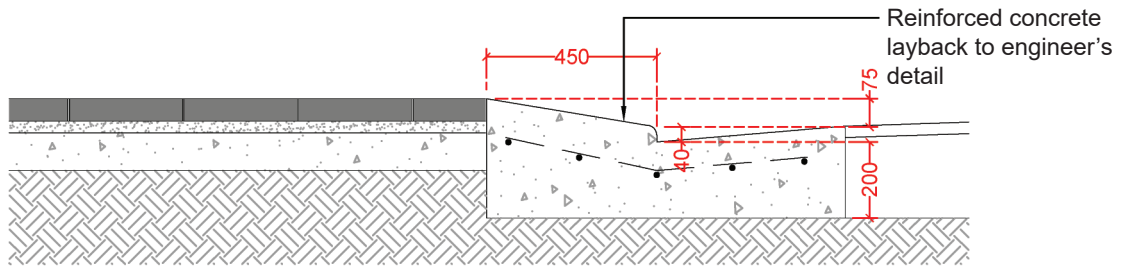
Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Refer Ku-ring-gai Council engineering standard drawing 90-081 'Standard Kerb Ramp' for additional structural requirements.

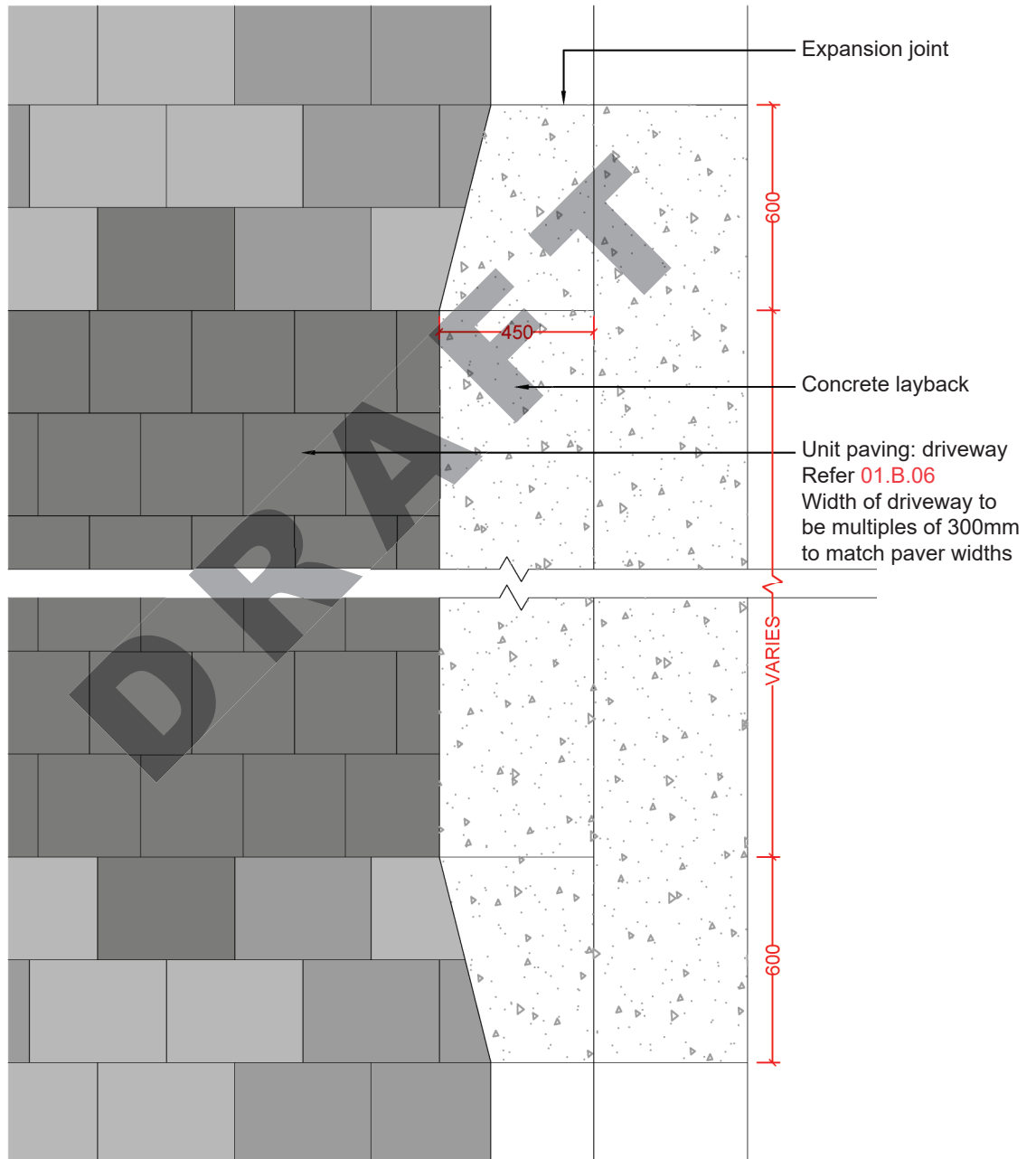
01.G KERBS AND EDGES

► 04 Concrete Kerb Layback

Section 1:20



Plan 1:20



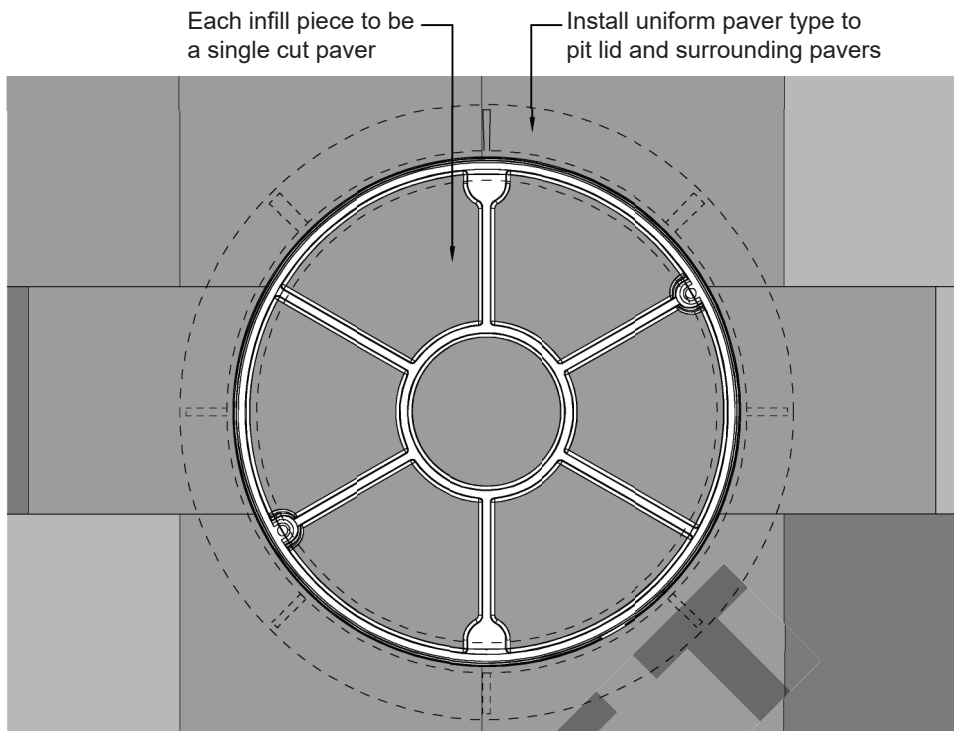
Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Refer Ku-ring-gai Council engineering standard drawing 2004-004 'Concrete Kerb and Gutter' for additional structural requirements.

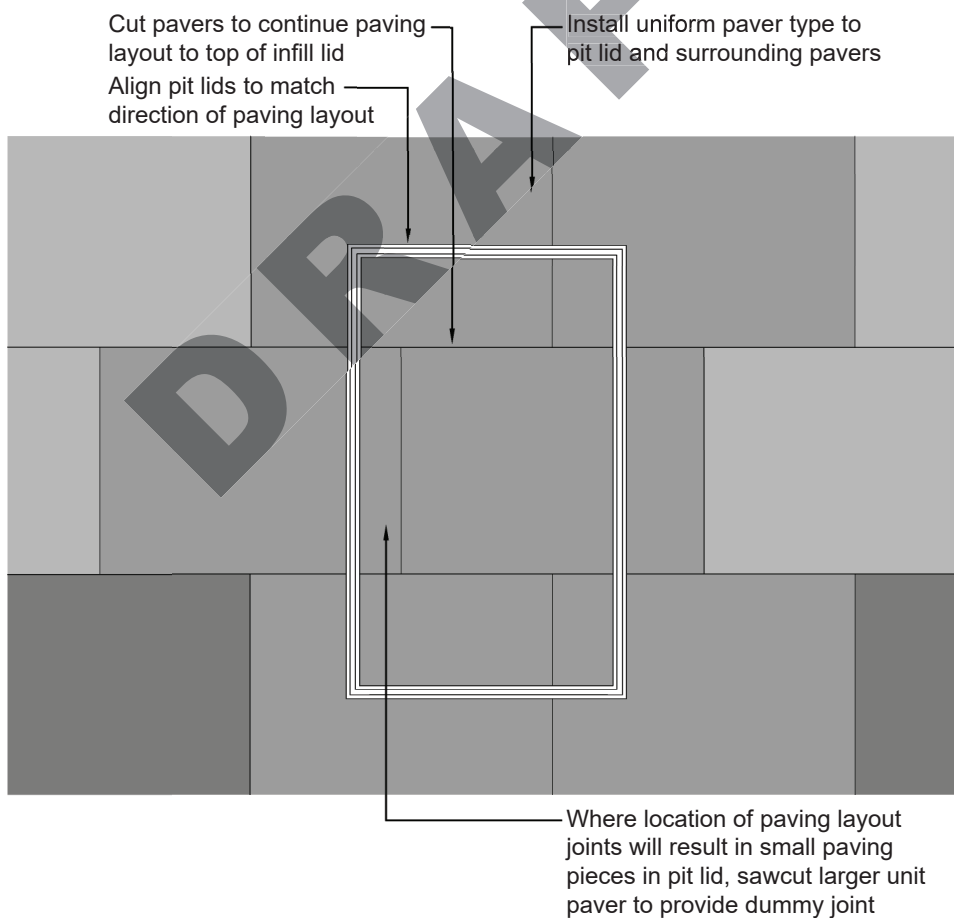


► 01 Infill Pit in Paving

Plan 1:10



Plan 1:10



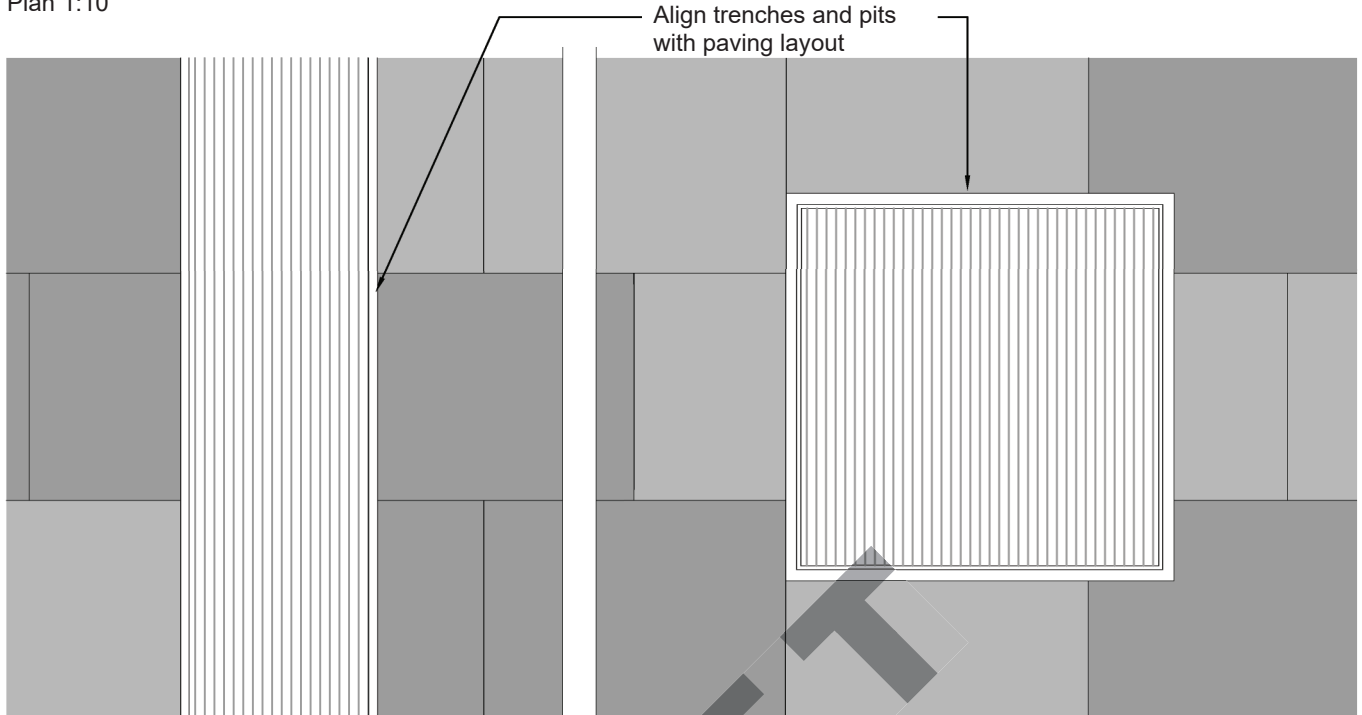
Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Install pits and lids to manufacturer's specifications and in accordance with all utility provider and authority requirements.
3. Provide 3mm mortared joints between pavers in infill lid.
4. Provide 3mm gap between pavers and edge of infill lid and fill with mortar.

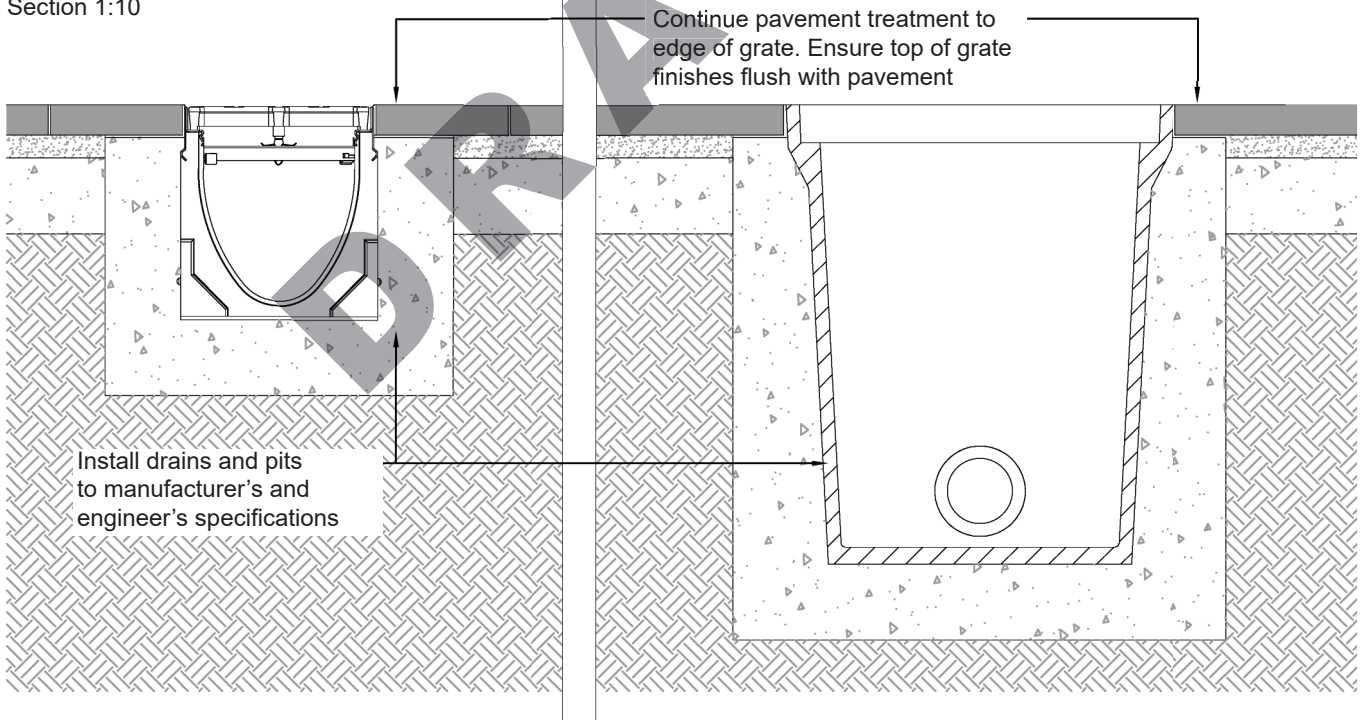
01.H SERVICE S AND PITS

► 01 Grated Trench / Grated Pit Lid in Paving

Plan 1:10



Section 1:10



<p><b>Selections</b></p>	<p>Grated Trench: Durham CHP Ductile HeelGuard Trench Gate and Frame Size: To engineer's specification</p> <p>Grated Pit Lid: Weldlok DIG Slotted Ductile Gate Size: To engineer's specification</p>
<p><b>Notes</b></p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p> <p>2. Install pits and lids to manufacturer's specifications.</p>



# Walls and Fences

DRAFT



## 02 Walls and Fences

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02 Fence Low: Local Centre Core.....	65
<b>02.C Handrails</b> .....	<b>66</b>
01 Local Centre Core.....	66
02 Local Centre Transition / Standard.....	67

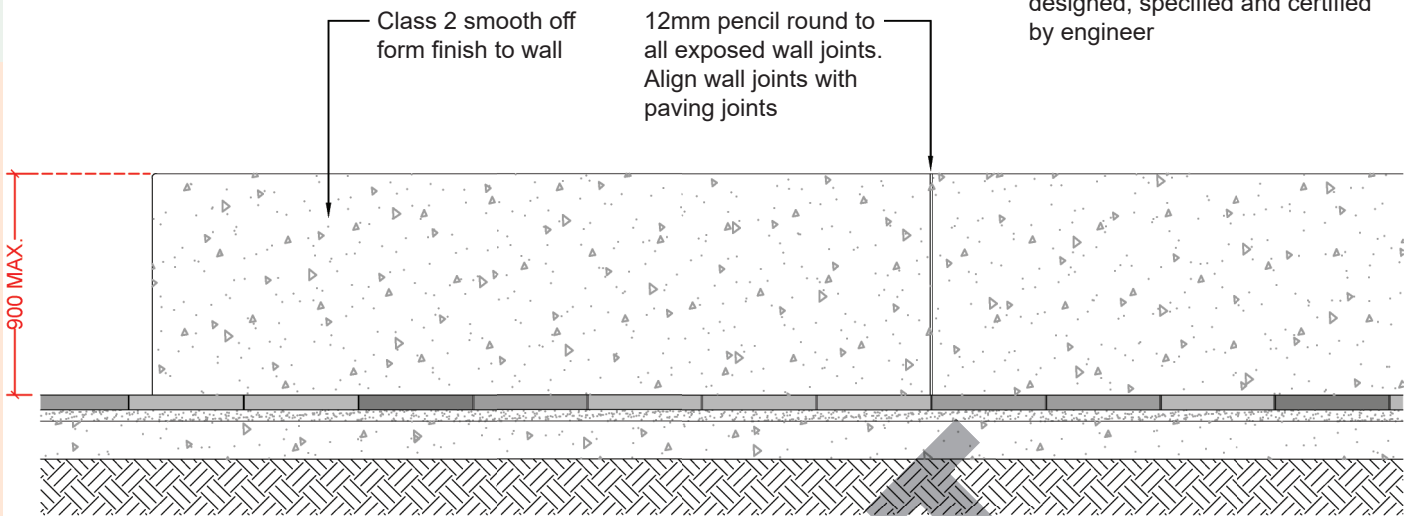
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## 02.A WALLS

### ► 01 Concrete

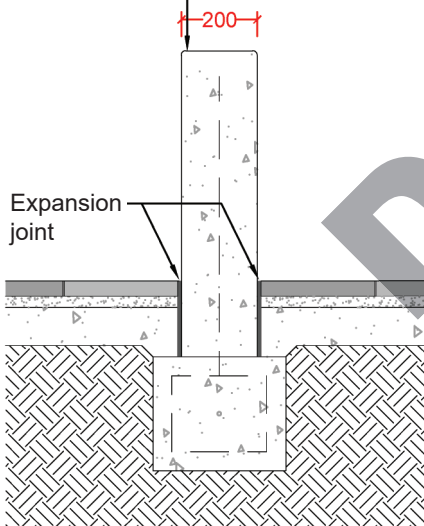
Elevation 1:20

\* All footings, reinforcement, waterproofing, sealing, jointing and structural details to be designed, specified and certified by engineer



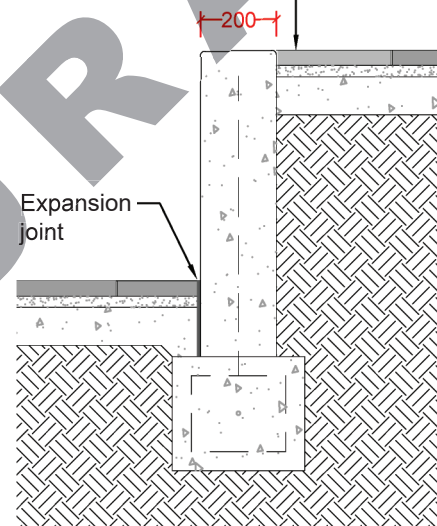
Section 1:20  
Free-standing

12mm radius pencil round to exposed edges

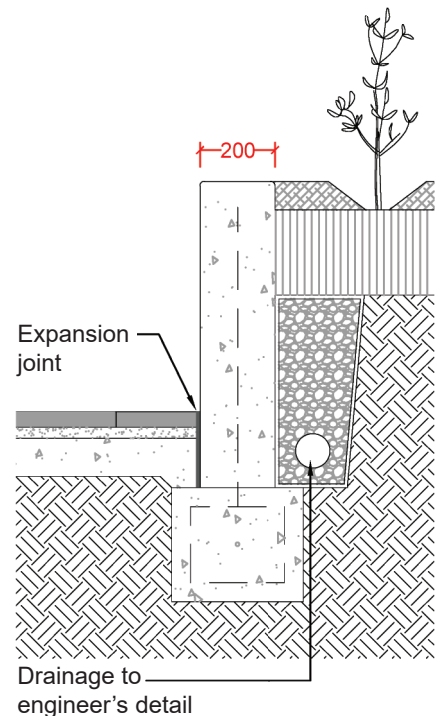


Section 1:20  
Retaining

Ensure paving finishes flush with top of wall



Section 1:20  
Retaining



#### Selections

Concrete: Cement: Grey  
Aggregate: 20mm Basalt  
Concrete Finish: Smooth Off form  
Secondary Finish: 'GraffStop Self Release' anti-graffiti coating to all visible faces

#### Notes

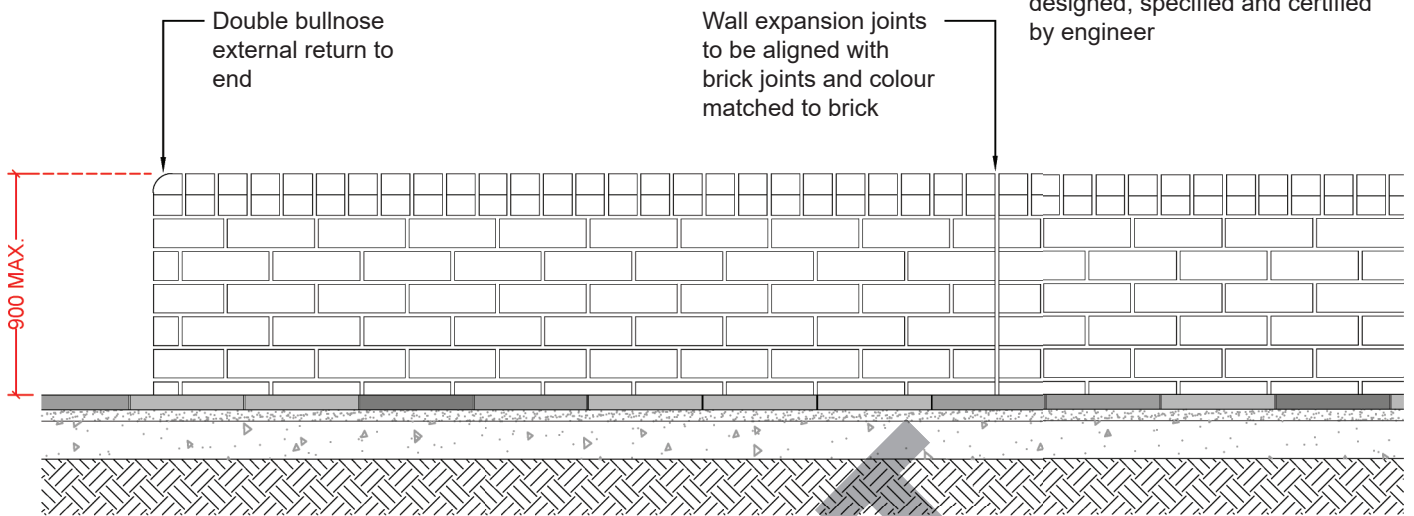
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

## 02.A WALLS

### ► 02 Brick

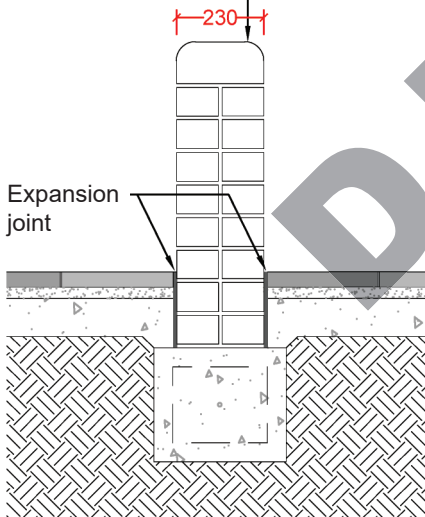
Elevation 1:20

\* All footings, reinforcement, waterproofing, sealing, jointing and structural details to be designed, specified and certified by engineer



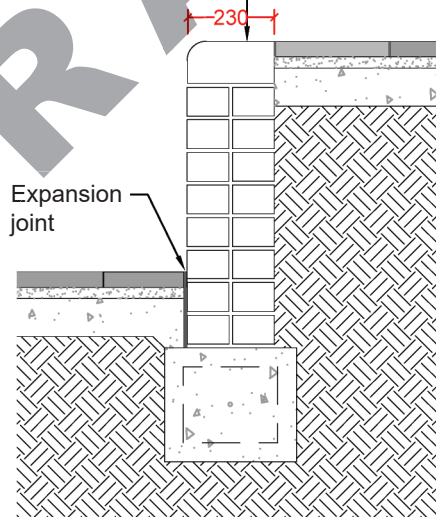
Section 1:20  
Free-standing

Double bullnose capping



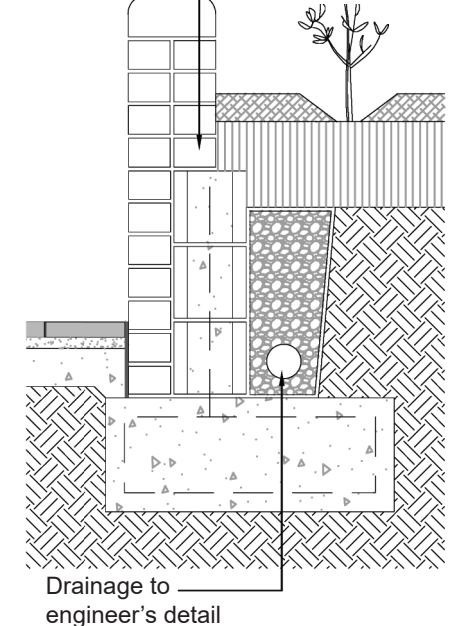
Section 1:20  
Free-standing

Single bullnose capping where top of wall is flush with pavement behind



Section 1:20  
Retaining / Free-standing

For clad blockwork walls transition to double brick for freestanding sections



<p>Selections</p>	<p>Brick: Austral Bricks Bowral 76 'Gertrudis Brown'                  Size: L 230mm x W 110mm x H 76mm                  Pattern: Stretcher bond                  Mortar: Standard white                  Joints: 10mm, Struck flush                  Finish: 'GraffStop Self Release' anti-graffiti coating to all visible faces</p>
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>

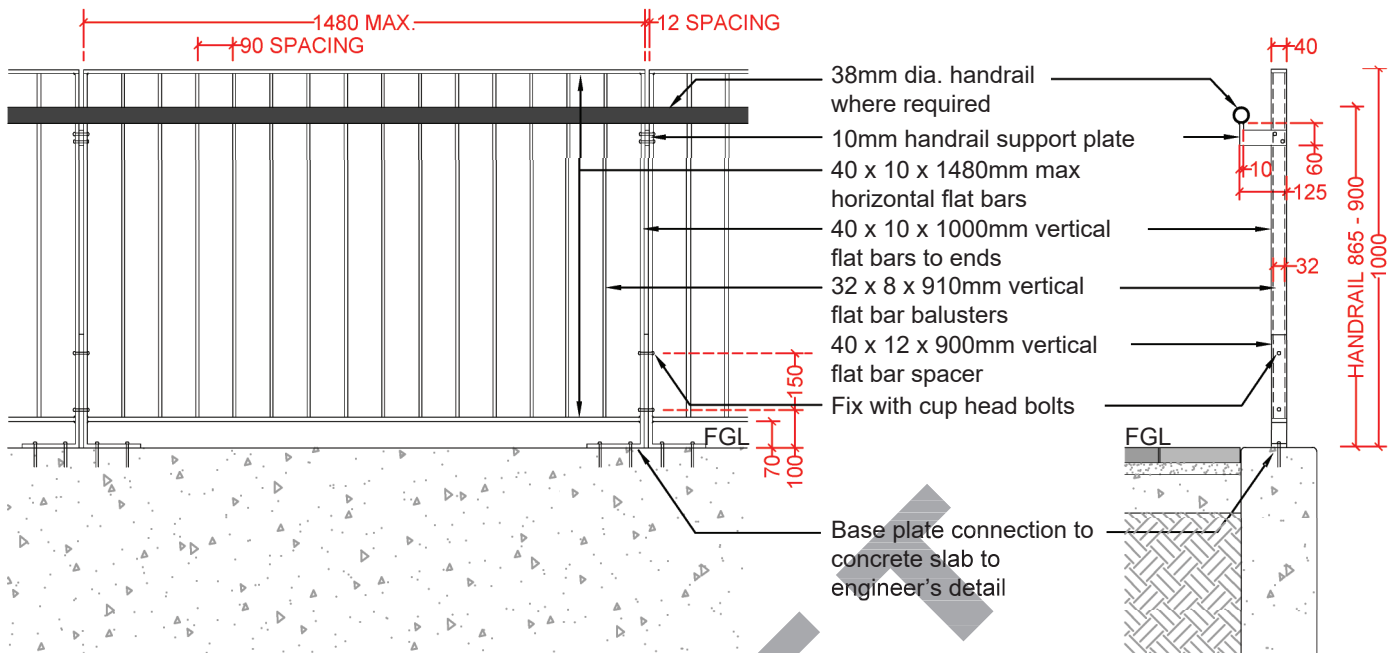


## 02.B BALUSTRADES / FENCES

### ► 01 Balustrade / Fence: Local Centre Core

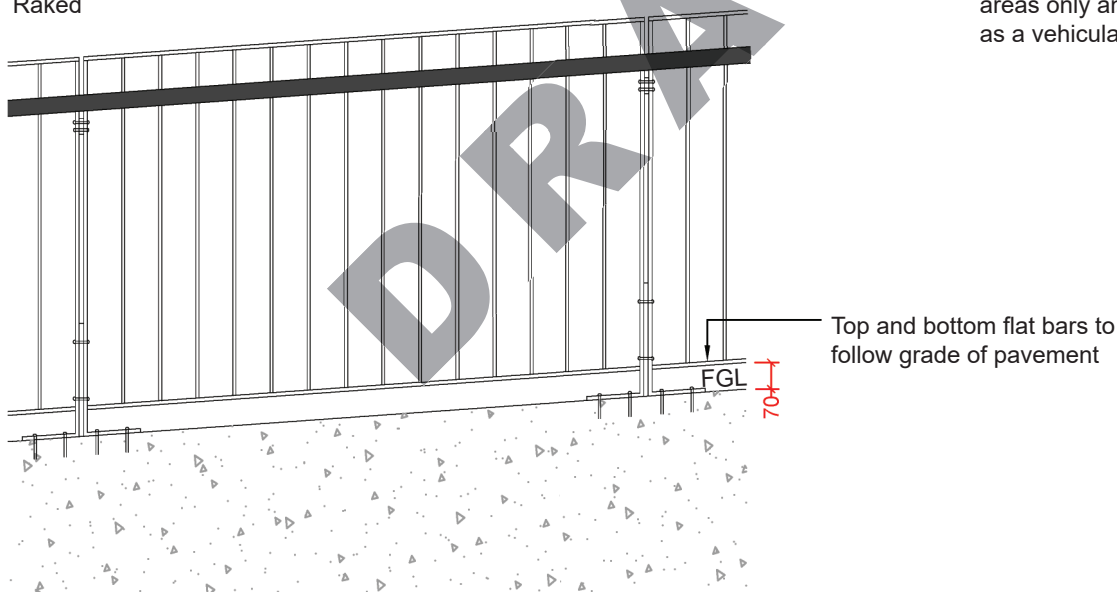
Elevation 1:20

Level



Elevation 1:20

Raked



\* Fence is to be used in pedestrian areas only and is not to be used as a vehicular barrier

#### Selections

Balustrade:	Thickness: 10mm Finish: Mild Steel, Electroplate Bronze 'Arcuturus'
Handrail:	Diameter: 38mm Height: 865 min. - 900mm max. above FGL Finish: Mild Steel, Electroplate Satin Pearl Black Nickel 'Procyon'

#### Notes

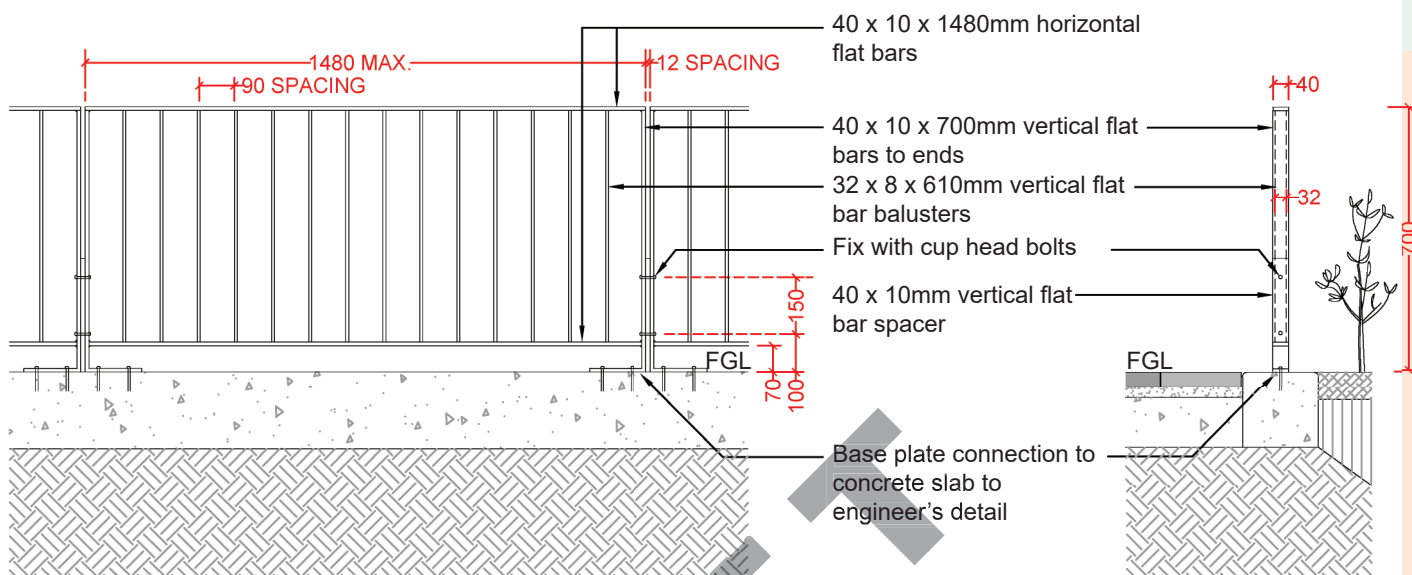
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

02.B BALUSTRADES / FENCES

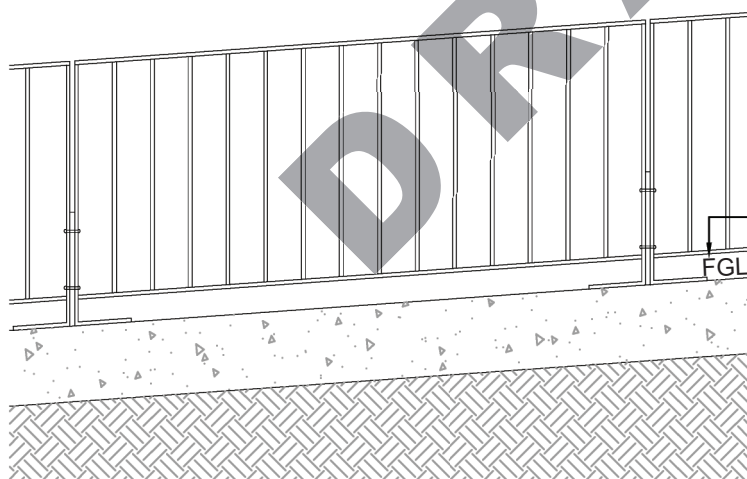
► 02 Fence Low: Local Centre Core

Elevation 1:20  
Level

Section 1:20



Elevation 1:20  
Raked



- \* Fence is to be used in pedestrian areas only and is not to be used as a vehicular barrier
- \* Fence is to be used as a low barrier fence only and is not to be sited on retaining walls or where there is an adjacent drop over 1m in height

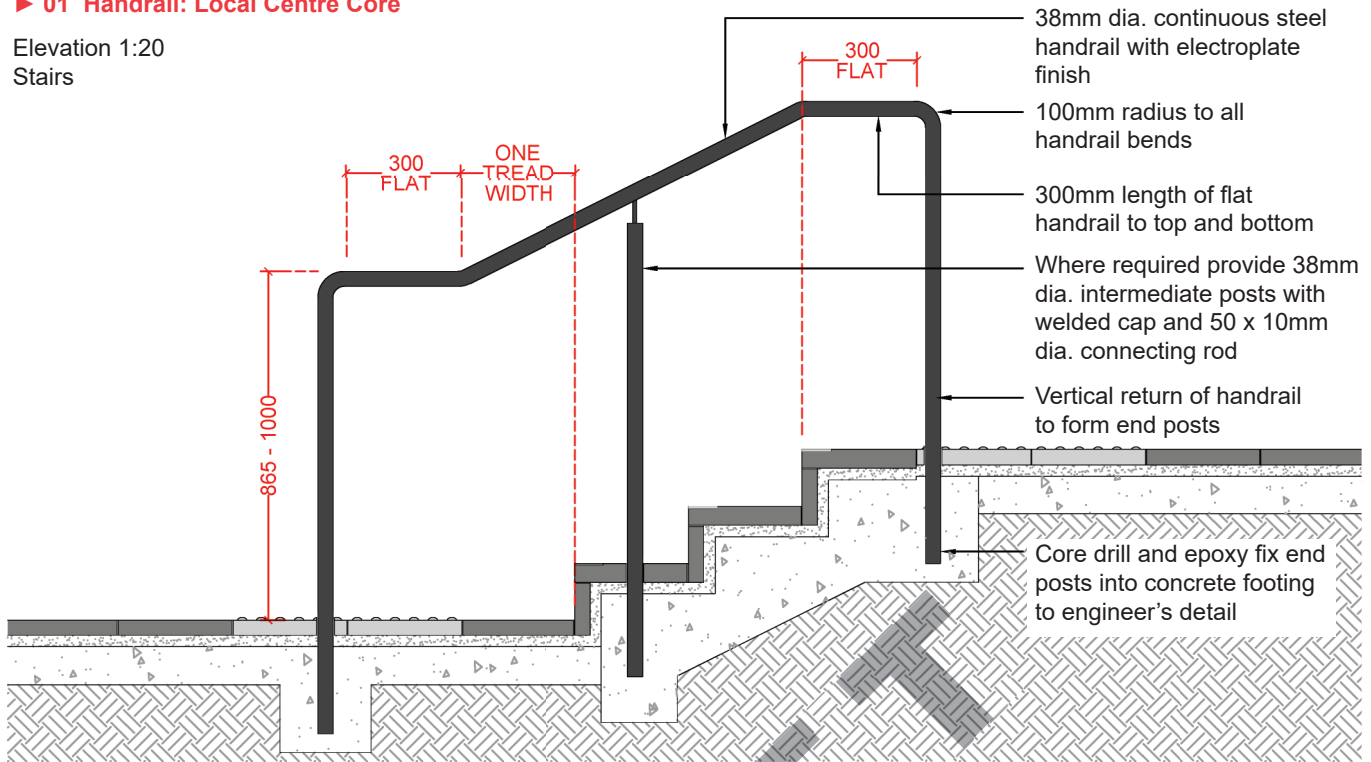
Top and bottom flat bars to follow grade of pavement

Selections	Balustrade:	Thickness: 10mm Finish: Mild Steel, Electroplate Bronze 'Arcuturus'
Notes	1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.	

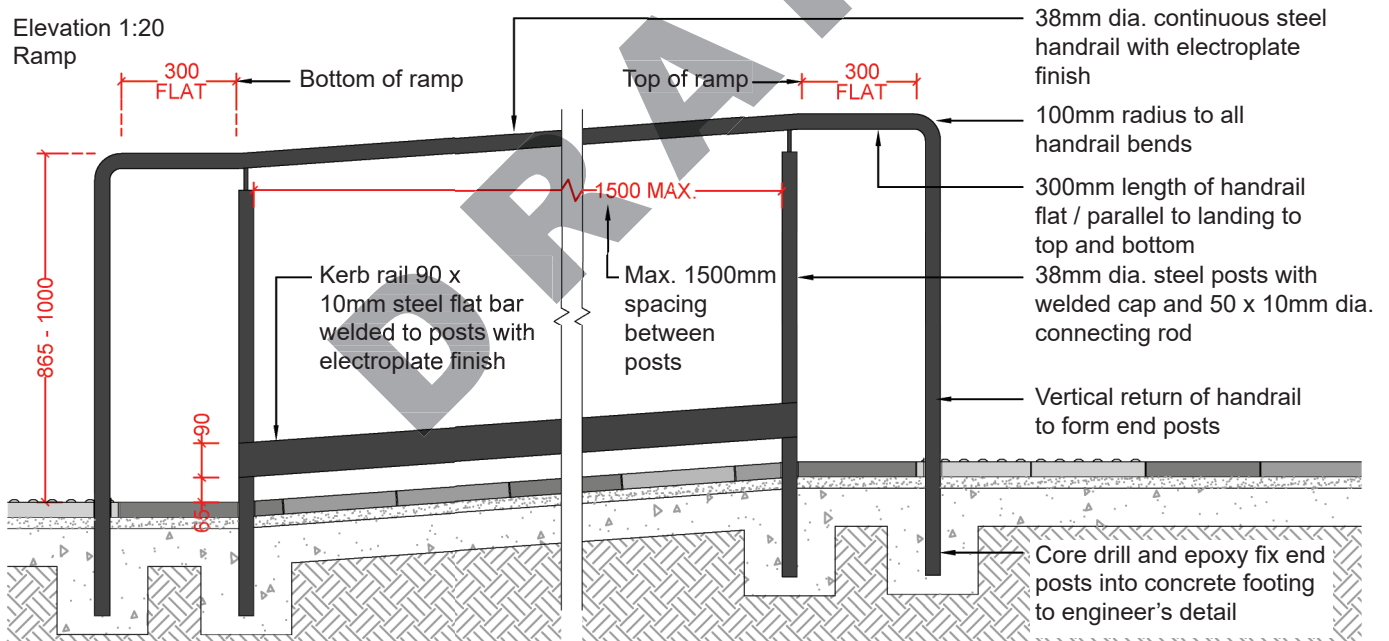
## 02.C HANDRAILS / FENCES

### ► 01 Handrail: Local Centre Core

Elevation 1:20  
Stairs



Elevation 1:20  
Ramp



#### Selections

Handrail:	Diameter: 38mm Height: 865 min. - 900mm max. above FGL Finish: Mild Steel, Electroplate Satin Pearl Black Nickel 'Procyon'
Kerb rail:	Height: 90mm Thickness: 10mm Finish: Mild Steel, Electroplate Satin Pearl Black Nickel 'Procyon'

#### Notes

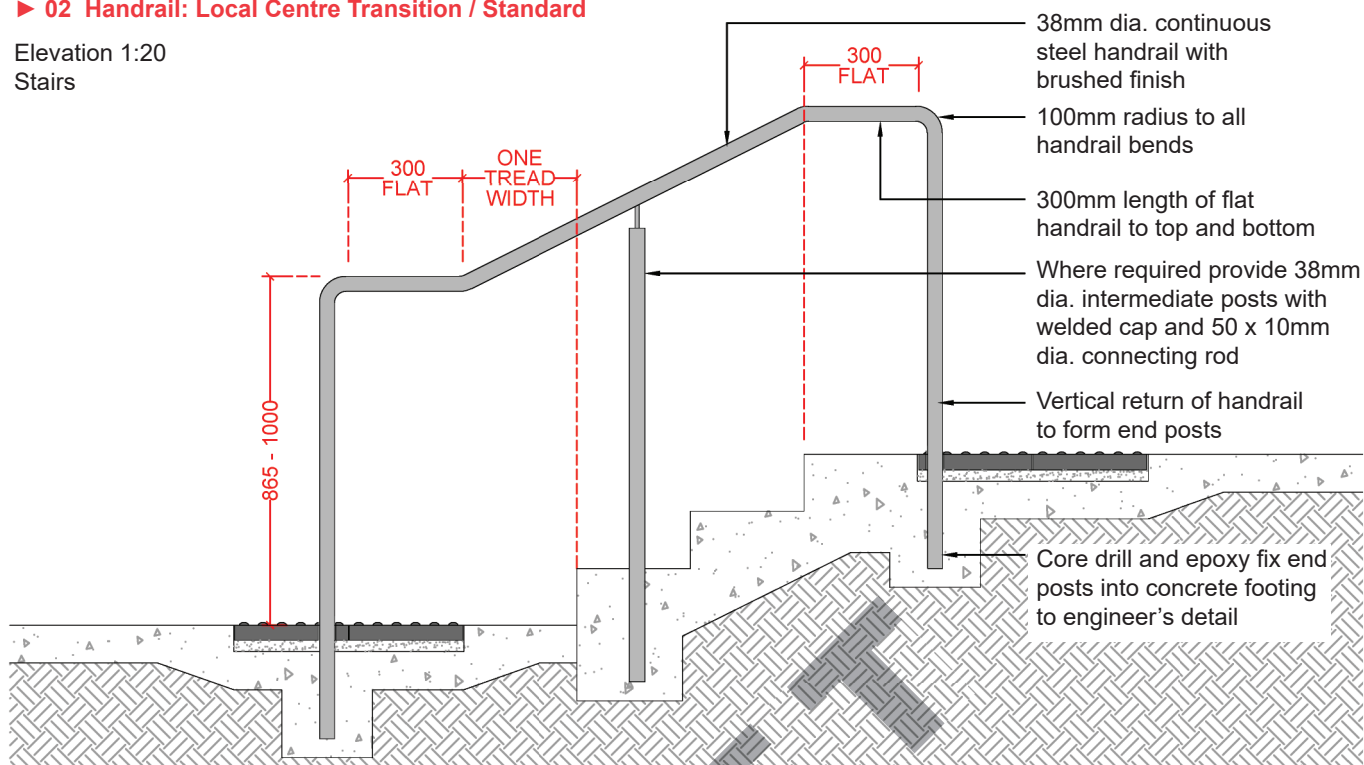
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.



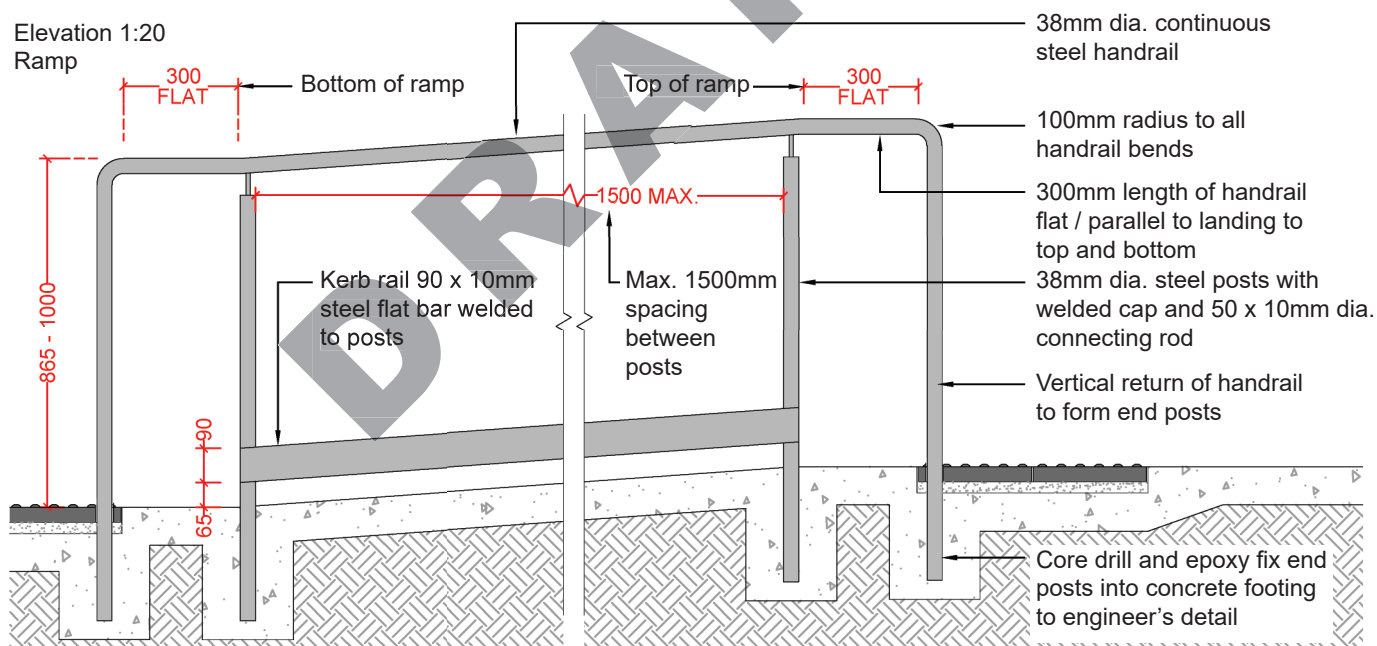
02.C HANDRAILS / FENCES

► 02 Handrail: Local Centre Transition / Standard

Elevation 1:20  
Stairs



Elevation 1:20  
Ramp



Selections	Handrail:	Diameter: 38mm Height: 865 min. - 900mm max. above FGL Finish: 316 Stainless Steel, Brushed Finish
	Kerb rail:	Height: 90mm Thickness: 10mm Finish: 316 Stainless Steel, Brushed Finish

Notes  
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.



# Furniture and Fixtures





## 03 Furniture and Fixtures

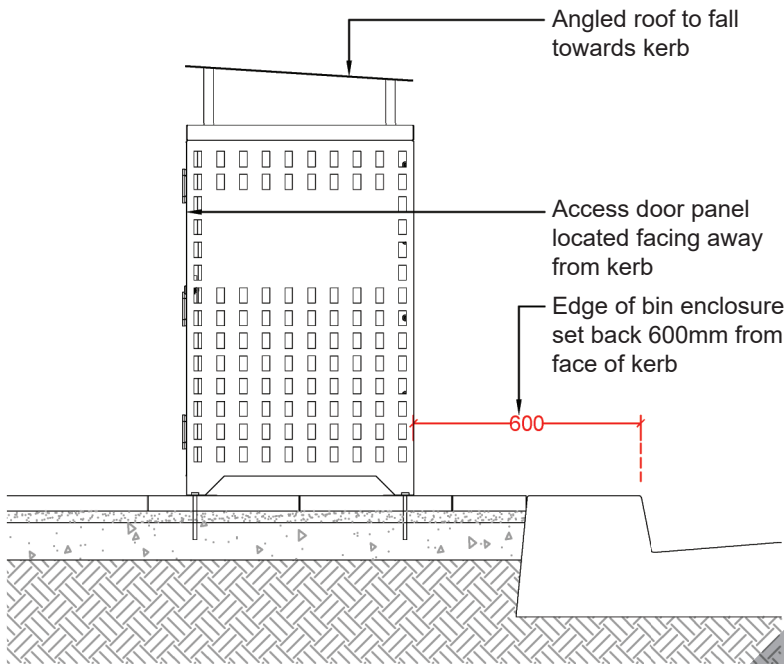
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DRAFT

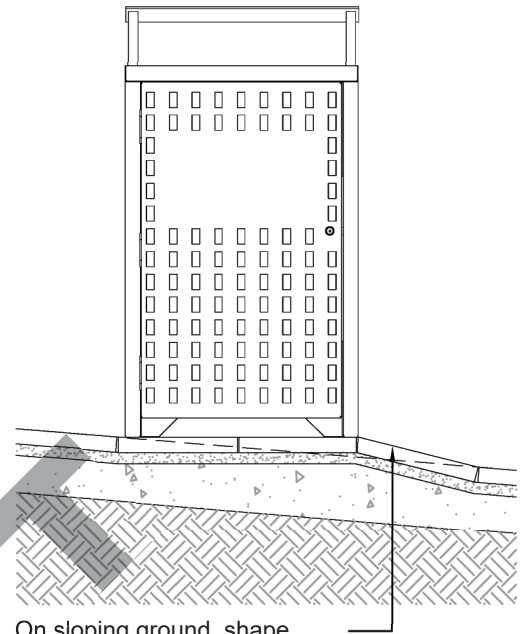
### 03.A FURNITURE AND FIXTURES

#### ► 01 Bin Enclosure

Section 1:20

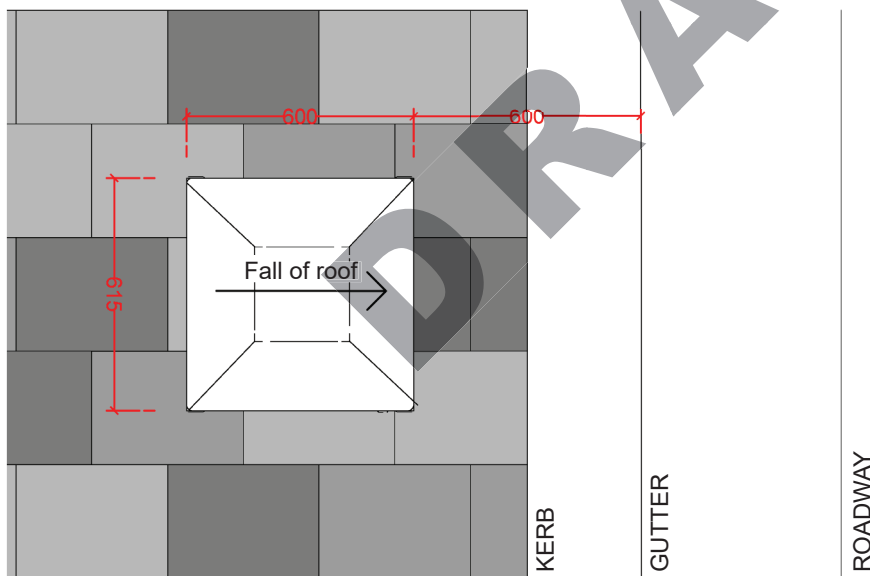


Elevation 1:20



On sloping ground, shape surrounding slab to provide level bin pad with continuous unit paving finish over

Plan 1:20



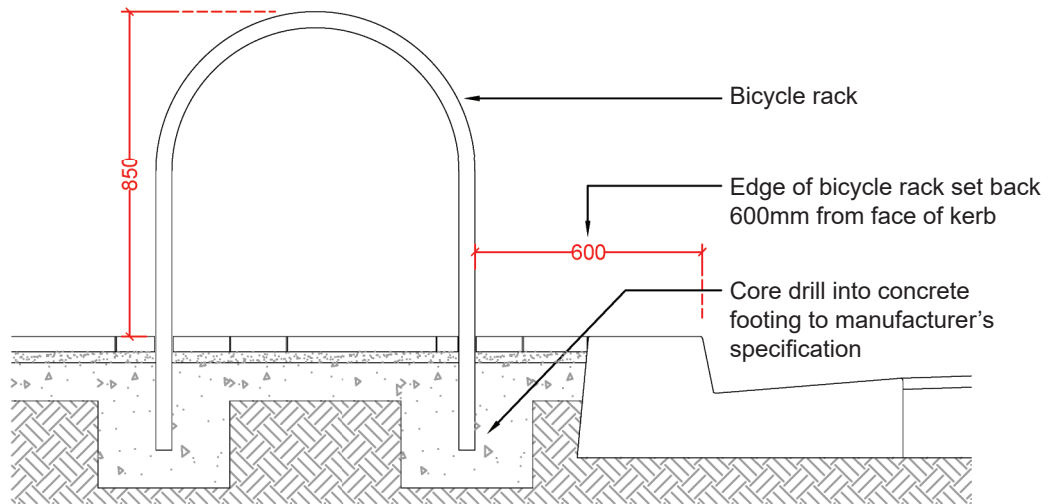
Selections	<p>Bin Enclosure: Astra Street Furniture 46-ABELCST12-SS 'Athens 120L'</p> <p>Size: W 615mm x L 600mm x H 1180mm</p> <p>Frame: SS 304, Brushed</p> <p>Roof: Angled, SS 304, Brushed</p> <p>Door / Rear panel: SS 304 Powdercoat Vivica Charcoal with anti-graffiti coating</p> <p>Mounting: Surface fixed to manufacturer's specification</p>
Notes	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>



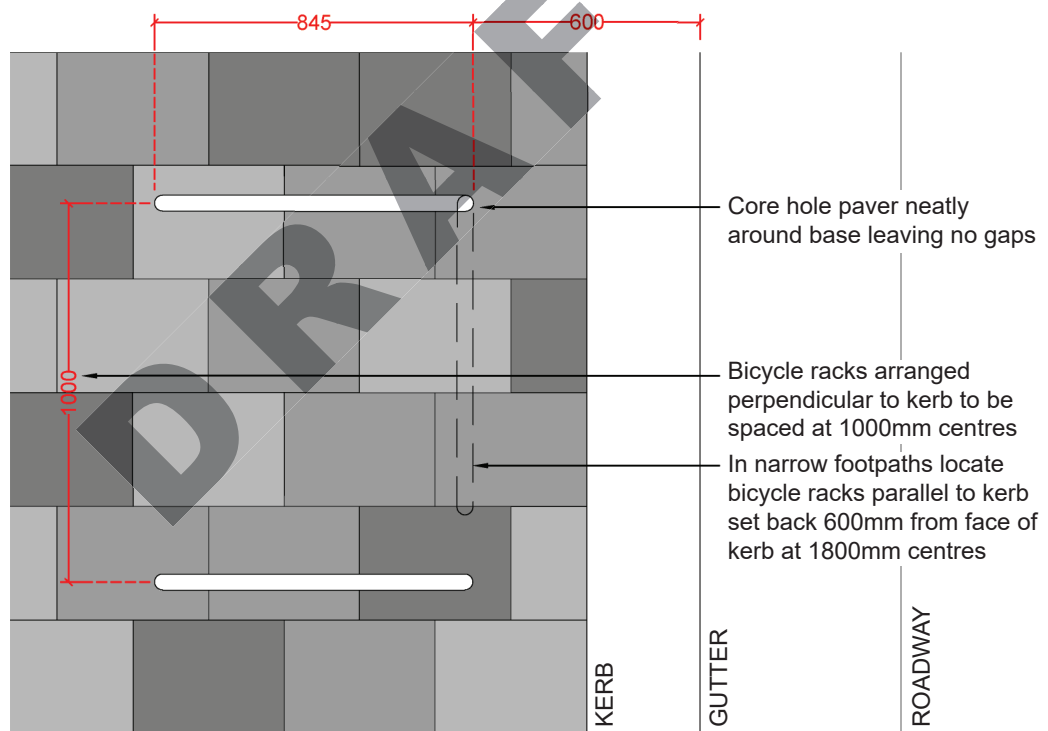
### 03.A FURNITURE AND FIXTURES

#### ► 02 Bicycle Rack

Section 1:20



Plan 1:20

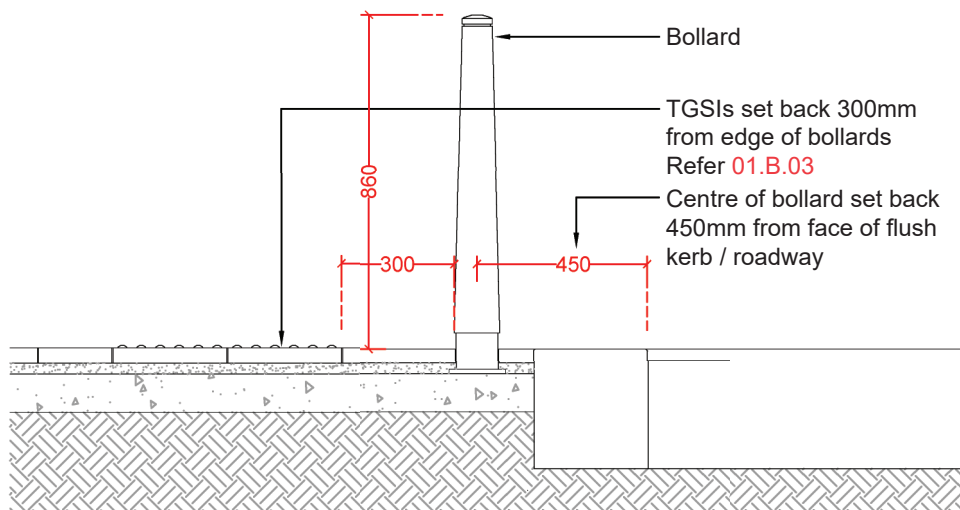


<p>Selections</p>	<p>Bicycle Rack: Street Furniture Australia BST03 'Semi Hoop'                  Size: W 120mm x L 850mm x H 845mm                  Pipe: SS 304 Brushed                  Mounting: Core drill to concrete footing to manufacturer's specification</p>
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>

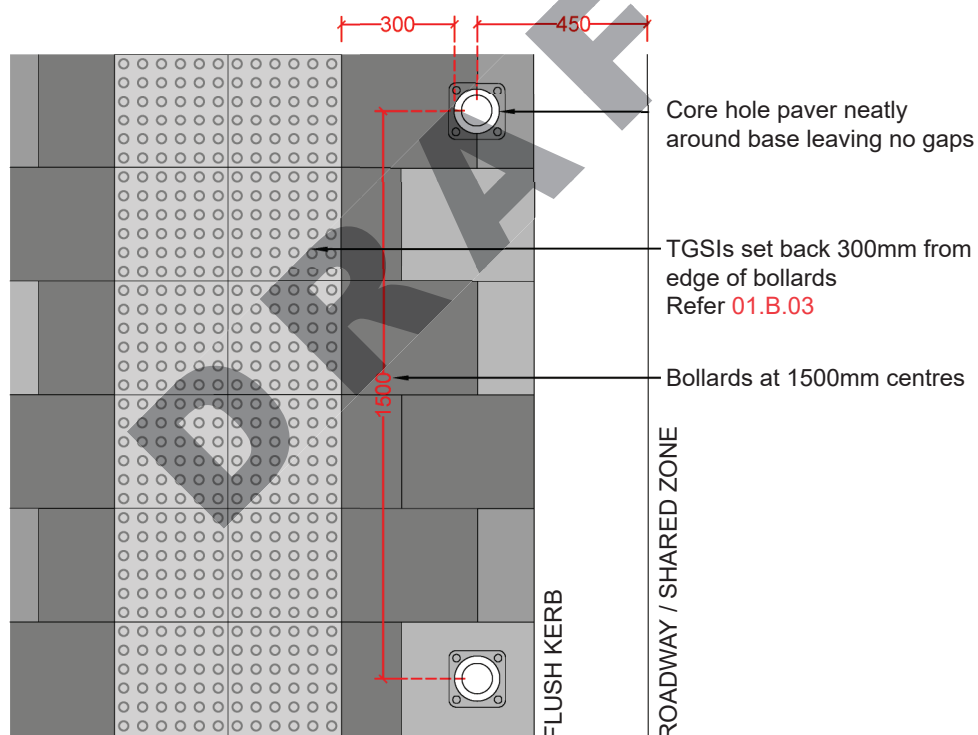
### 03.A FURNITURE AND FIXTURES

#### ► 03 Bollard A: Aluminium

Section 1:20



Plan 1:20



#### Selections

Bollard: Aluminium	Burdens Australia MMCite SI105 'Isac' Size: H 860mm x DIA. 120mm (at base) Body: Cast Aluminium Finish: Powdercoat Interpon Charcoal GM019A with anti-graffiti coating Mounting: Sub-surface fixed to concrete slab to manufacturer's specification
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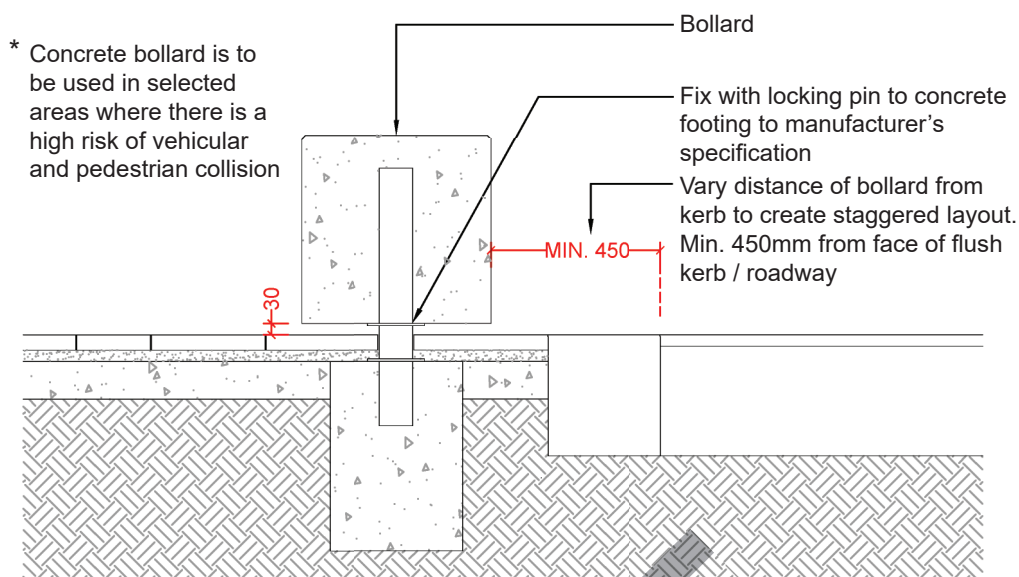
#### Notes

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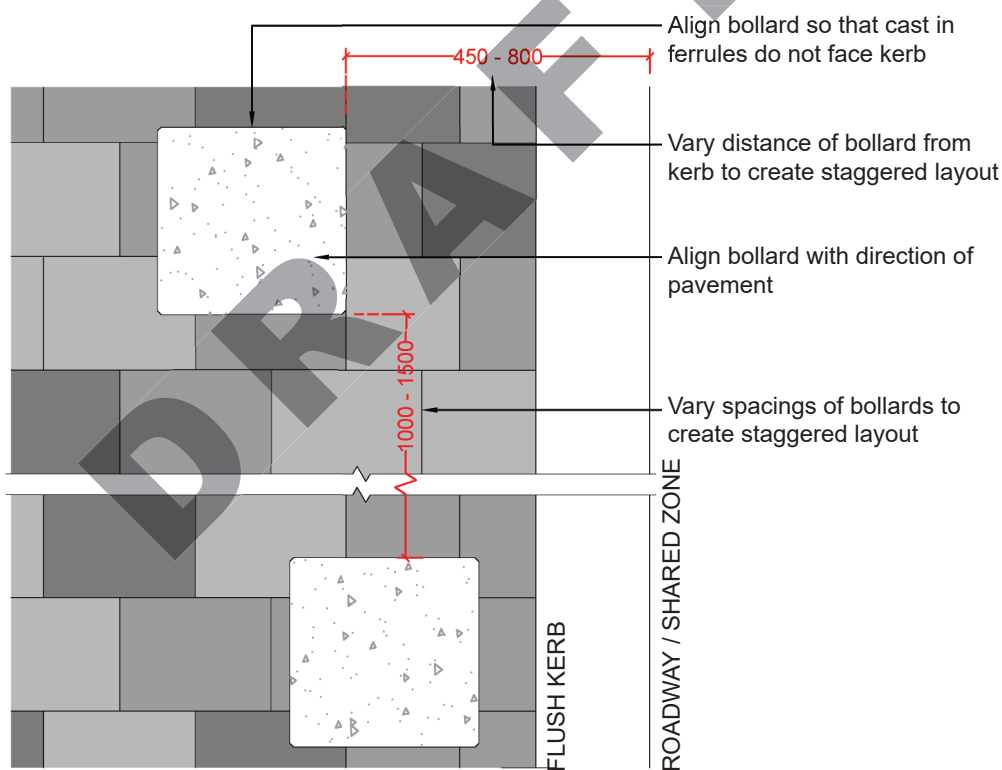
### 03.A FURNITURE AND FIXTURES

#### ► 04 Bollard B: Concrete

Section 1:20



Plan 1:20



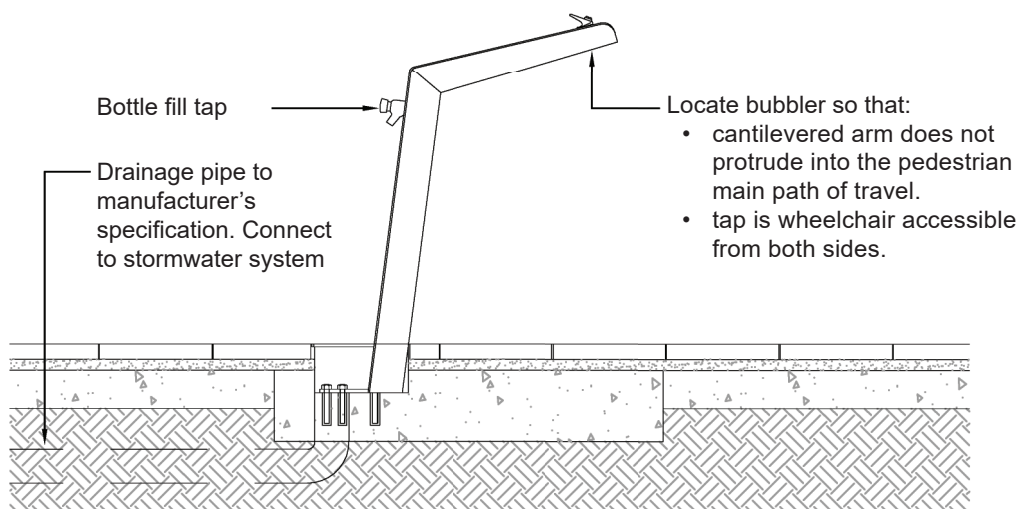
Selections	<p>Bollard: Leda Security Precast Concrete Cube PCL55FI</p> <p>Concrete Size: W 500mm x L 500mm x H 500mm</p> <p>Finish: Off-white etched finish</p> <p>Mounting: Sub-surface fixed to concrete footing to manufacturer's specification</p>
Notes	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>



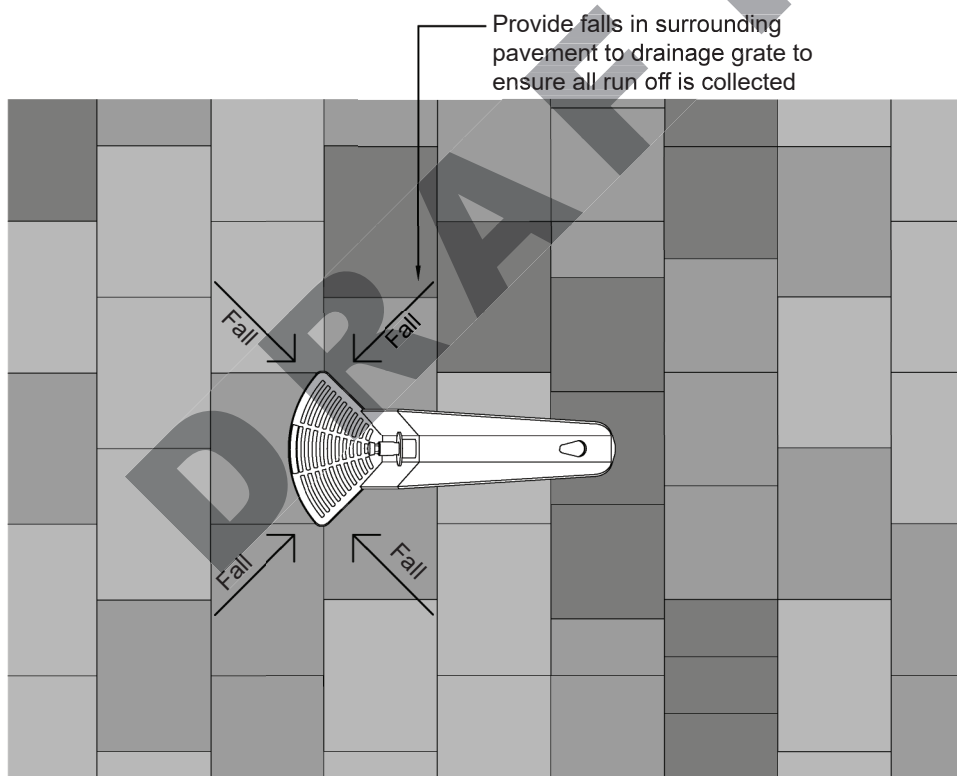
03.A FURNITURE AND FIXTURES

► 05 Bubbler

Section 1:20



Plan 1:20

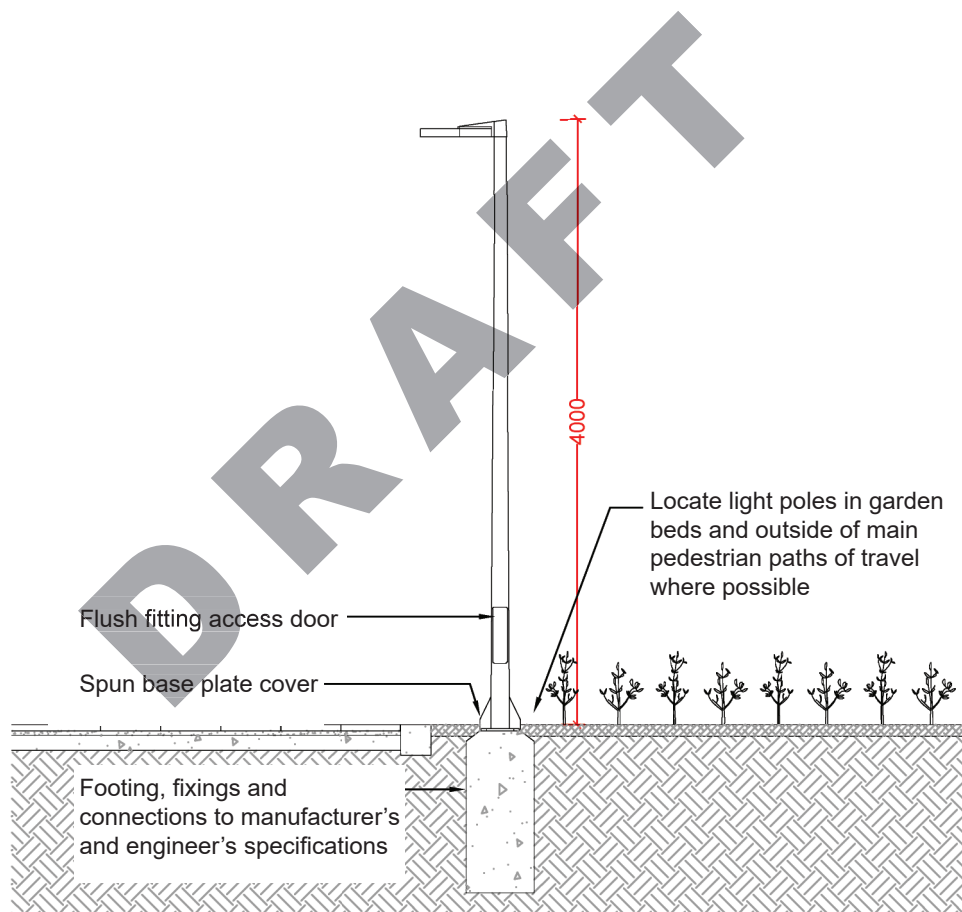


<p>Selections</p>	<p>Bubbler: Botton and Gardiner PDF.316SS.BT 'Prospect Drinking Fountain with Bottle Tap'                  Size: W 405mm x L 940mm x H 880mm                  Frame: 316 SS                  Drainage Grate: Cast Aluminium, Brushed finish                  Mounting: Sub-surface fixed to concrete footing to manufacturer's specification</p>
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>

### 03.A FURNITURE AND FIXTURES

#### ► 06 Light A: Pedestrian

Section 1:50

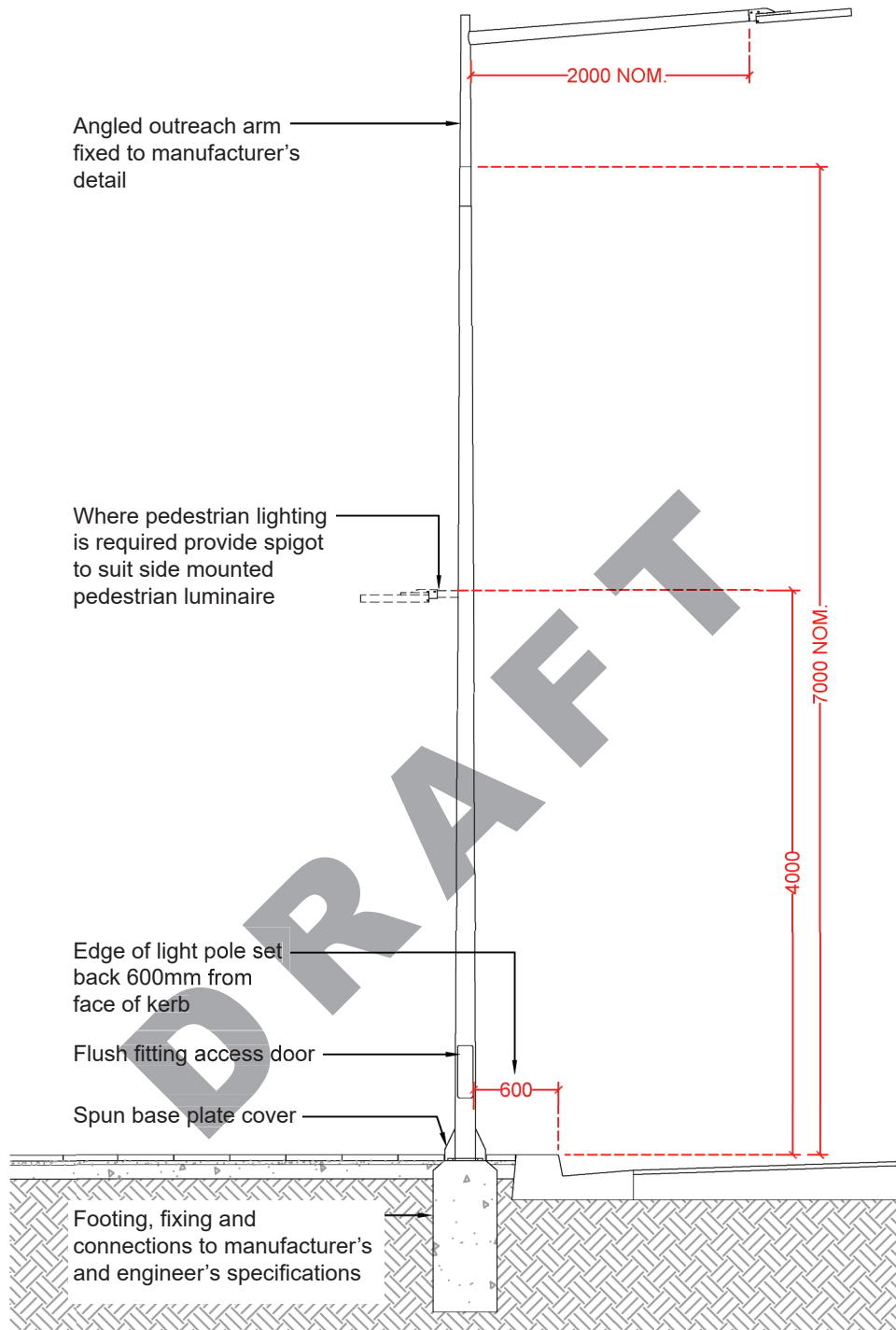


<p><b>Selections</b></p>	<p><b>Luminaire:</b> WE-EF VFL530 LED Direct Mount  <b>Pedestrian</b> Frame Finish: RAL 9007 Grey Aluminium</p> <p><b>Pole:</b> GM Poles          BR Range Tapered galv. steel pole          Height: 4m (to be confirmed by lighting designer)          Finish: Powdercoat RAL 9007 Grey Aluminium with anti-graffiti coating          Mounting: Base plate fixing to footing to manufacturer's specification</p>
<p><b>Notes</b></p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>

03.A FURNITURE AND FIXTURES

► 07 Light B: Street

Section 1:50



Selections

Luminaire: WE-EF VFL540-SE LED Side Mount  
Street Frame Finish: RAL 9007 Grey Aluminium

Luminaire: WE-EF VFL530-SE LED Side Mount  
Pedestrian Frame Finish: RAL 9007 Grey Aluminium

Pole: GM Poles  
BR Range Tapered galv. steel pole  
Height: 7m (to be confirmed by lighting designer)  
Finish: Powdercoat RAL 9007 Grey Aluminium with anti-graffiti coating  
Mounting: Base plate fixing to footing to manufacturer's specification

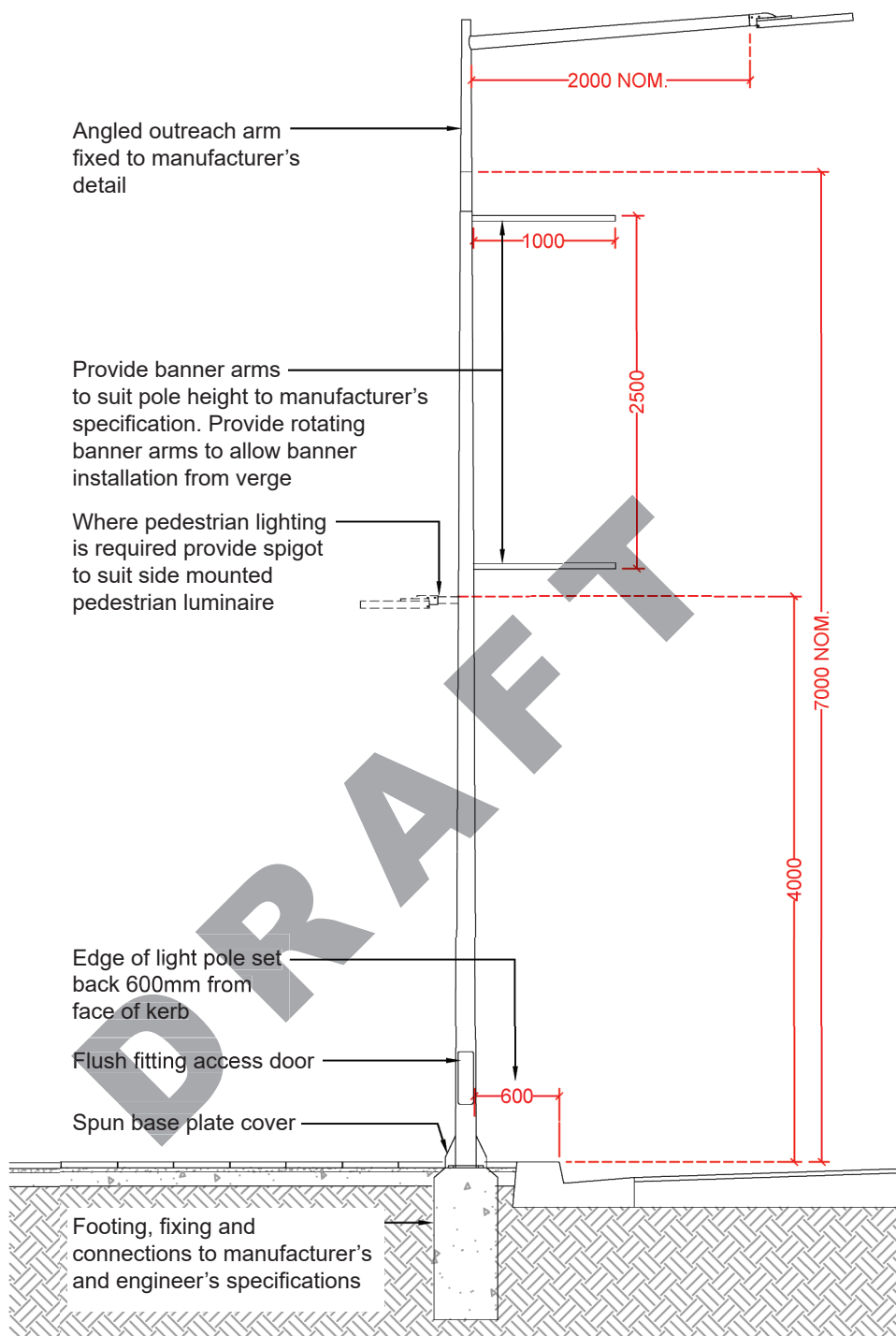
Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

03.A FURNITURE AND FIXTURES

► 08 Light C: Street with Banner Arms

Section 1:50



Selections	Luminaire:	WE-EF VFL540-SE LED Side Mount
	Street	Frame Finish: RAL 9007 Grey Aluminium
	Luminaire:	WE-EF VFL530-SE LED Side Mount
	Pedestrian	Frame Finish: RAL 9007 Grey Aluminium
	Pole:	GM Poles BR Range Tapered galv. steel pole with banner arms Height: 7m (to be confirmed by lighting designer) Finish: Powdercoat RAL 9007 Grey Aluminium with anti-graffiti coating Mounting: Base plate fixing to footing to manufacturer's specification

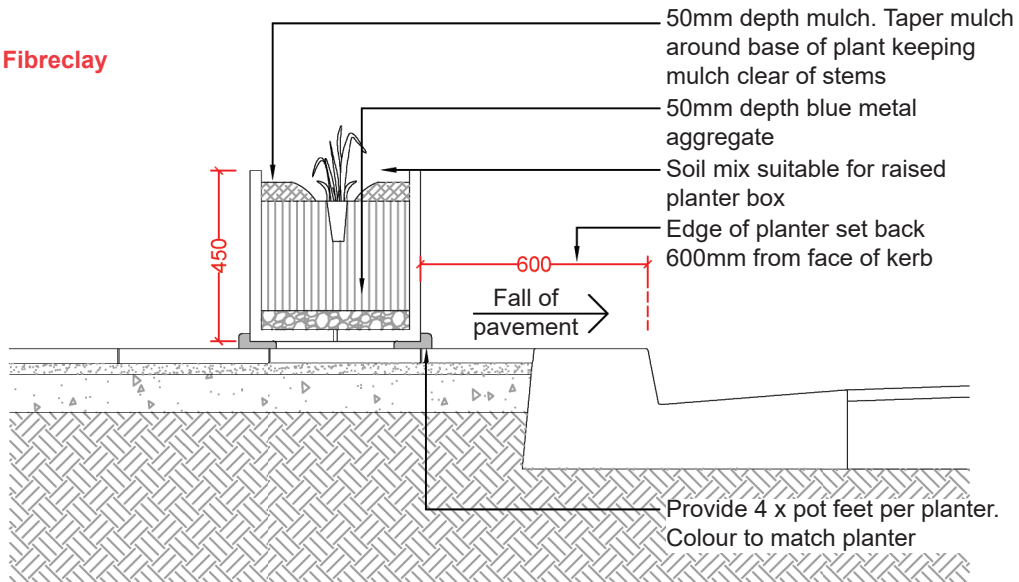
Notes 1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.



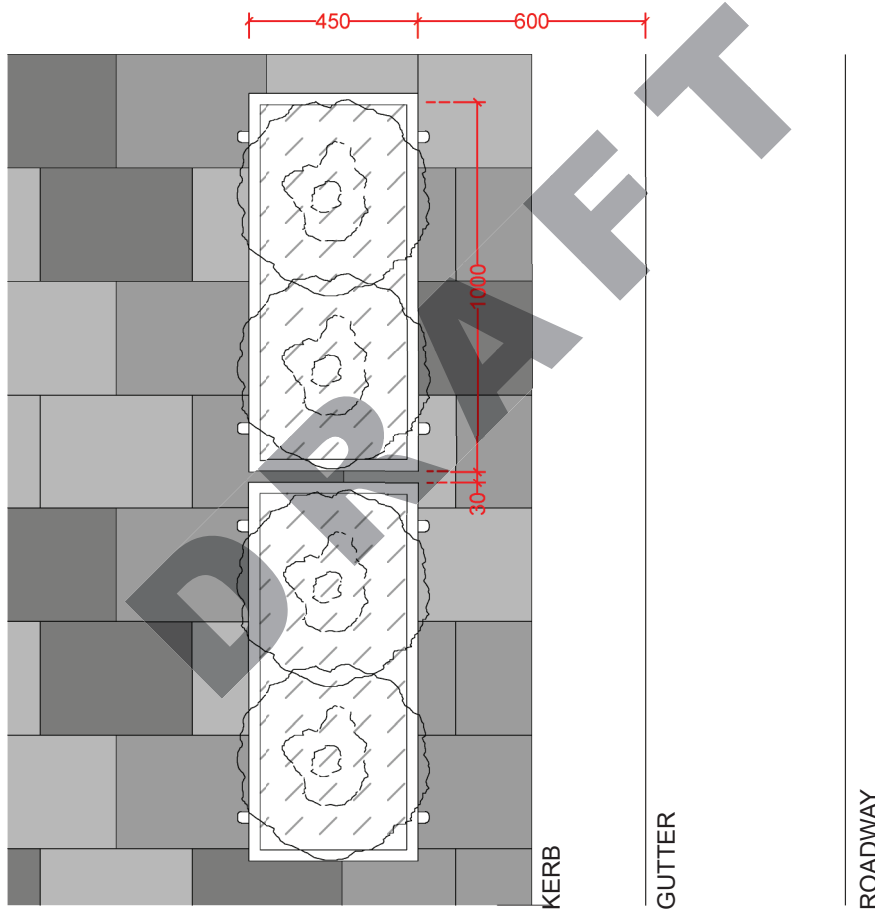
03.A FURNITURE AND FIXTURES

► 09 Planter A: Fibreclay

Section 1:20



Plan 1:20



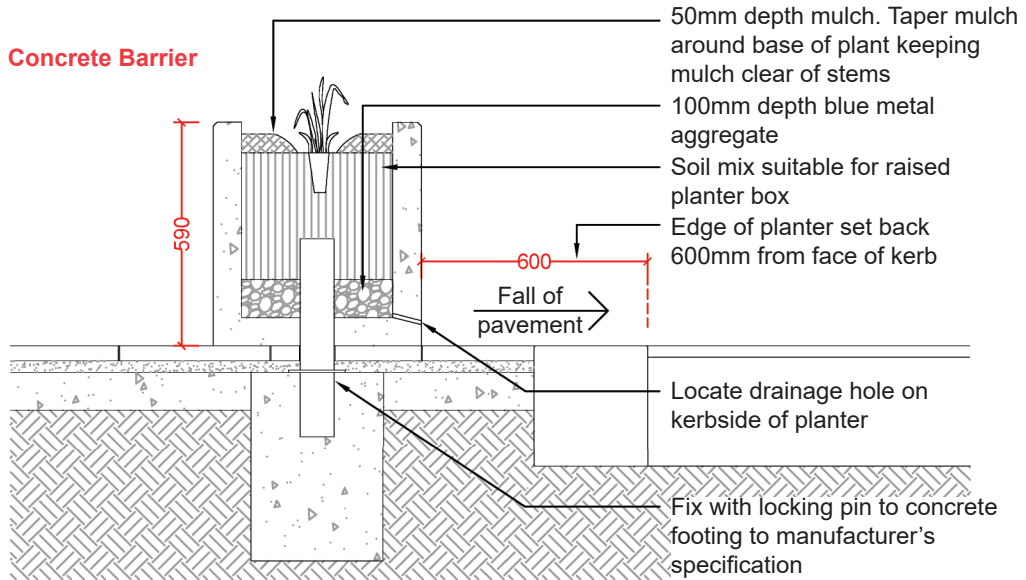
\* Planters are to be sited in flat areas only and are not to be sited on slopes greater than 1:20

Selections	<p>Bollard: Northcote Urbanlite Mason Fibreclay Trough</p> <p>Concrete Size: W 450mm x L 1000mm x H 450mm</p> <p>Colour: Lead</p> <p>Mounting: 4 x 100mm pot feet</p>
Notes	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>

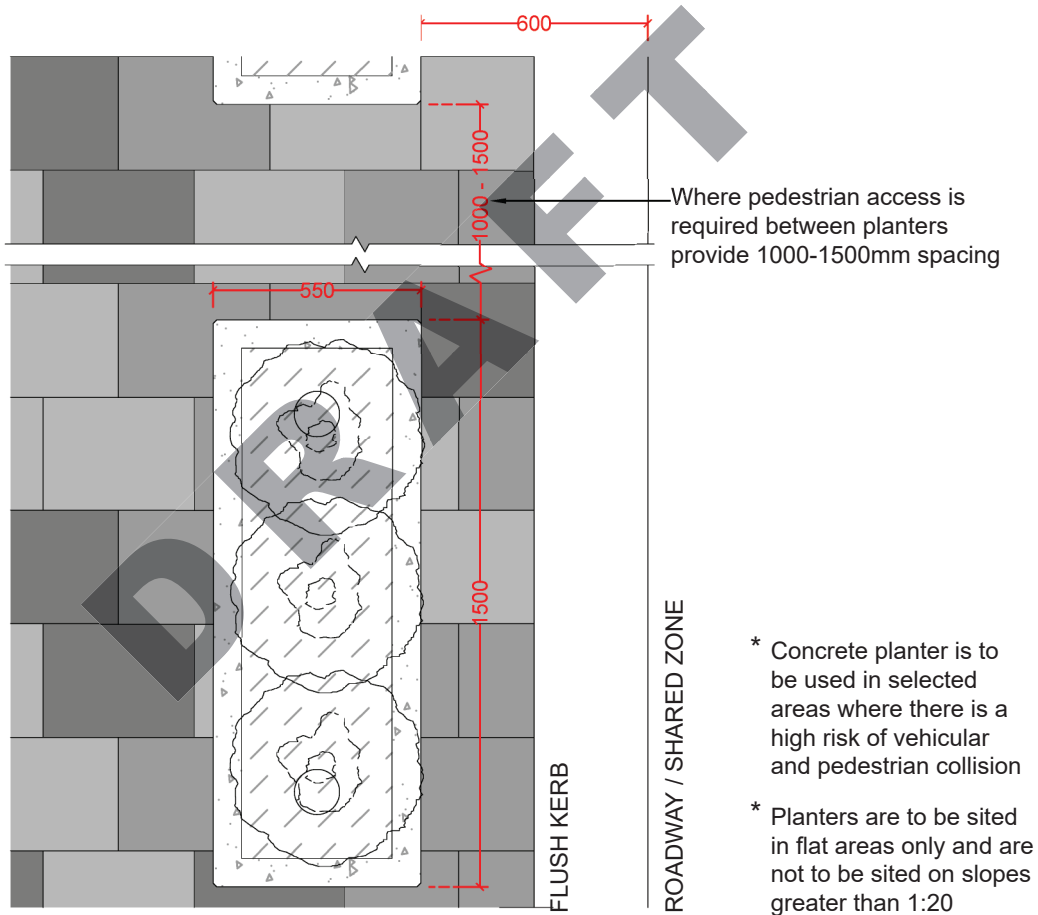
### 03.A FURNITURE AND FIXTURES

#### ► 10 Planter B: Concrete Barrier

Section 1:20



Plan 1:20

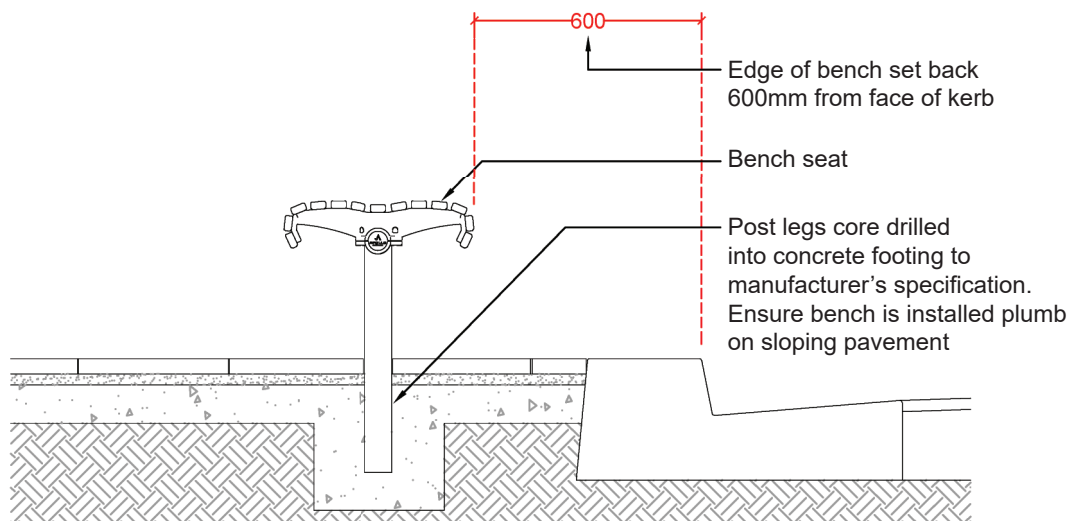


Selections	Bollard: Concrete	Leda Security Precast Planter Box PPB515F1 Size: W 550mm x L 1500mm x H 590mm Finish: Off-white etched finish Mounting: Sub-surface fixed to concrete footing to manufacturer's specification
Notes	1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.	

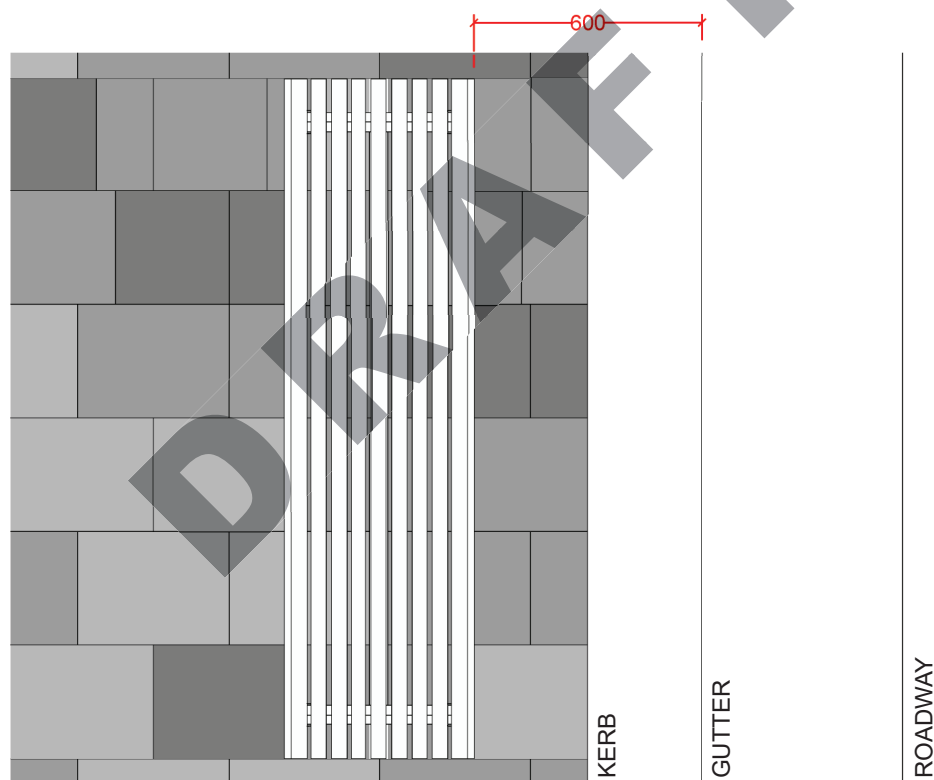
03.A FURNITURE AND FIXTURES

► 11 Seat A: Bench

Section 1:20



Plan 1:20

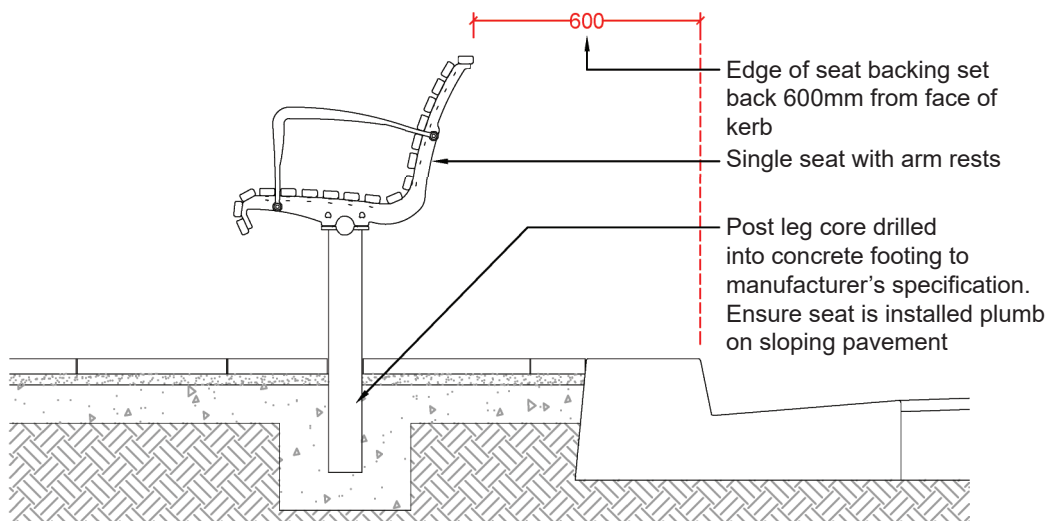


<p><b>Selections</b></p>	<p><b>Bench:</b> Astra Street Furniture 47-AMBA18 'Madrid Bench - Post Leg'                  Size: W 505mm x L 1800mm x H 455mm                  Frame: Aluminium, Powdercoat Vivica Charcoal with anti-graffiti coating                  Battens: Aluminium, Wood-grain with anti-graffiti coating                  Leg: Post                  Mounting: Core drill to concrete footing to manufacturer's specification</p>
<p><b>Notes</b></p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>

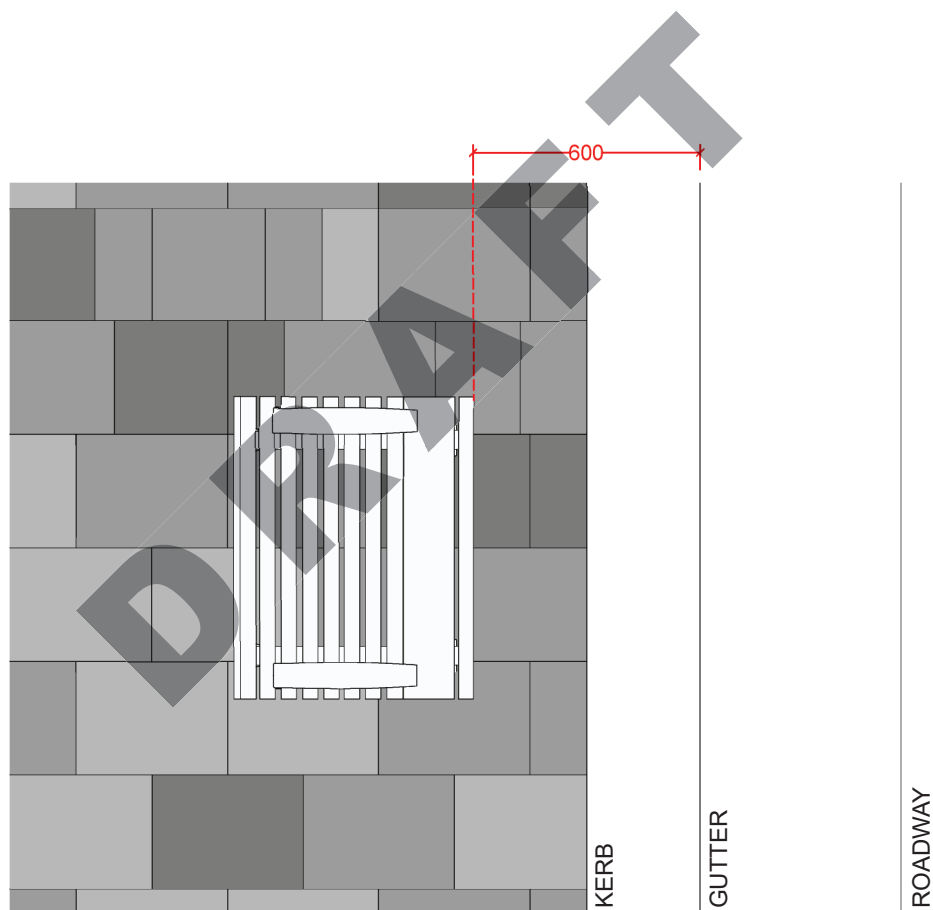
03.A FURNITURE AND FIXTURES

► 12 Seat B: Single

Section 1:20



Plan 1:20



<p>Selections</p>	<p>Seat Single: Astra Street Furniture ASP014 'Madrid Seat Single'                  Size: W 630mm x L 800mm x H 810mm                  Frame: Aluminium, Powdercoat Vivica Charcoal with anti-graffiti coating                  Armrest: 2 end arms, Brushed finish                  Battens: Aluminium, Wood-grain with anti-graffiti coating                  Leg: Post                  Mounting: Core drill to concrete footing to manufacturer's specification</p>
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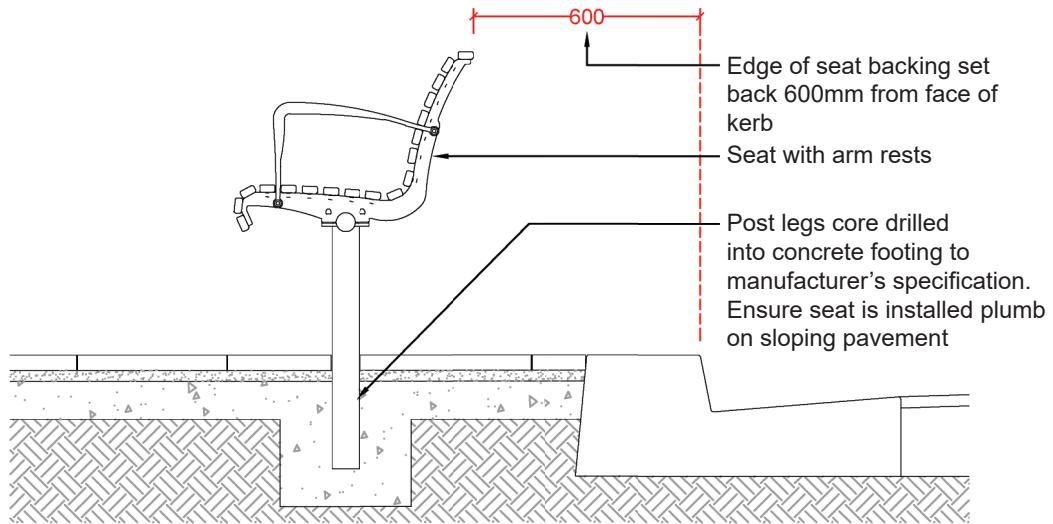
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>
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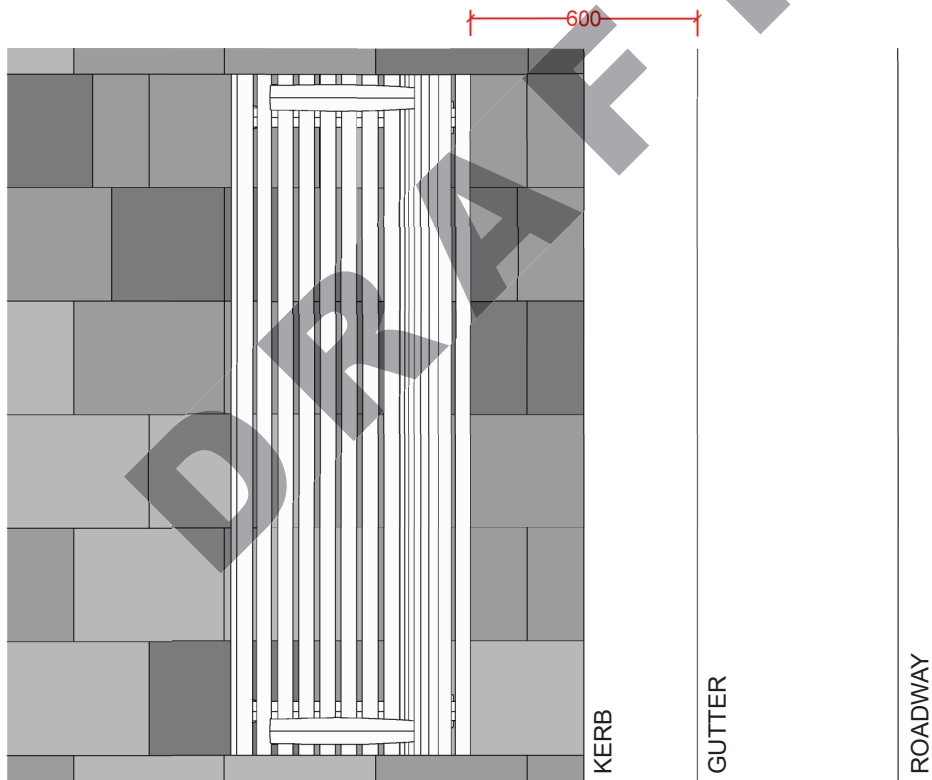
03.A FURNITURE AND FIXTURES

► 13 Seat C: Wide

Section 1:20



Plan 1:20

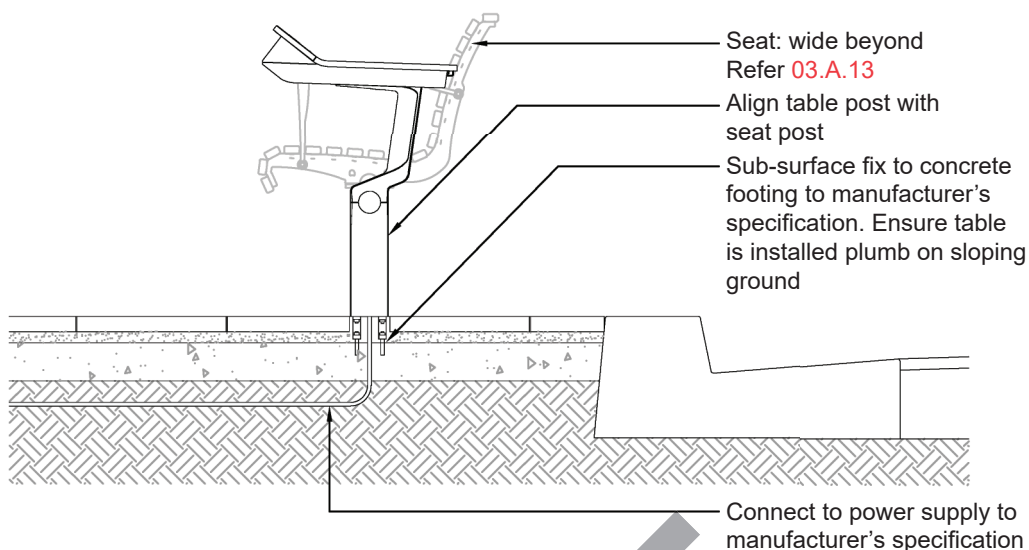


<p>Selections</p>	<p>Seat Wide: Astra Street Furniture 47-AMSA18+47-ASAR 'Madrid DDA Seat with Armrests - Post Leg'                  Size: W 630mm x L 1800mm x H 810mm                  Frame: Aluminium, Powdercoat Vivica Charcoal with anti-graffiti coating                  Armrest: 2 end arms, Brushed finish                  Battens: Aluminium, Wood-grain with anti-graffiti coating                  Leg: Post                  Mounting: Core drill to concrete footing to manufacturer's specification</p>
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>

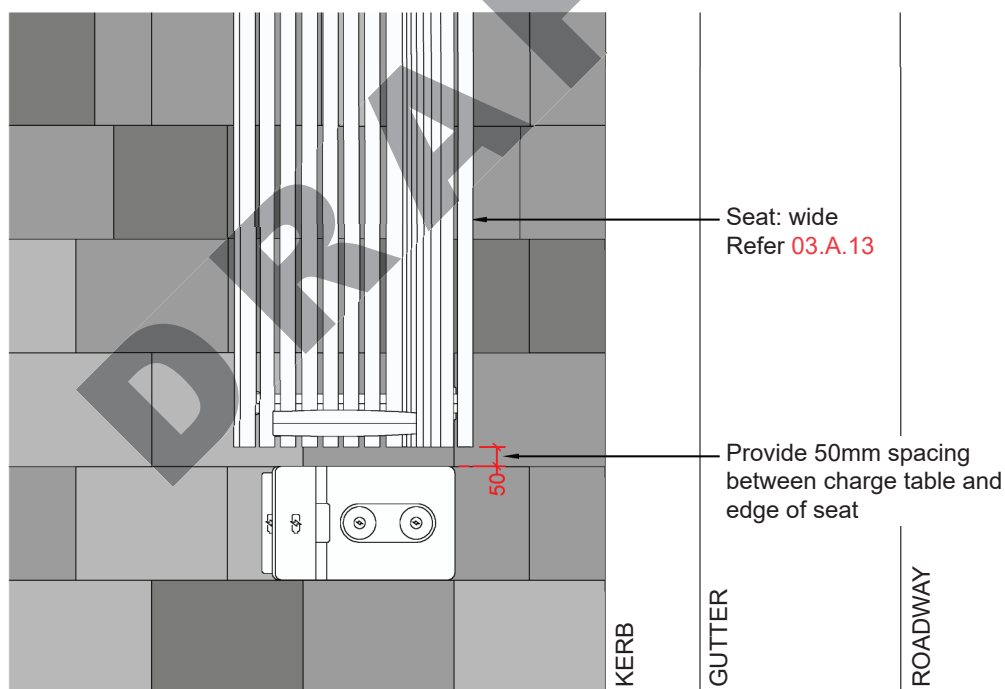
03.A FURNITURE AND FIXTURES

► 14 Seat D: Charging Table

Section 1:20



Plan 1:20



<p>Selections</p>	<p>Charge Table: Street Furniture Australia PM 'PowerMe Table' Standalone                  Size: W 300mm x L 510mm x H 770mm                  Table Top: Aluminium, Powdercoat Interpon Charcoal GM019A                  Frame: Aluminium, Powdercoat Interpon Charcoal GM019A with anti-graffiti coating                  Charging Points: 4 x USB, 2 x Wireless                  Mounting: Sub surface fixed to concrete footing to manufacturer's specification</p>
<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>

## 03.A FURNITURE AND FIXTURES

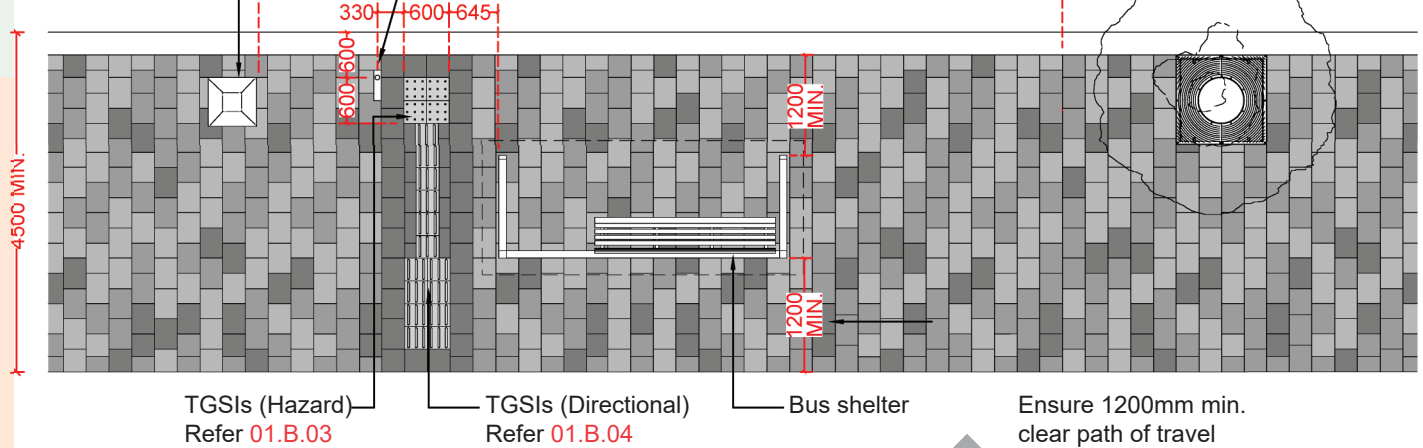
### ► 15 Shelter A: Bus: Local Centre Core

Plan 1:100

Wide Verge

Bin enclosure

Refer 03.A.01

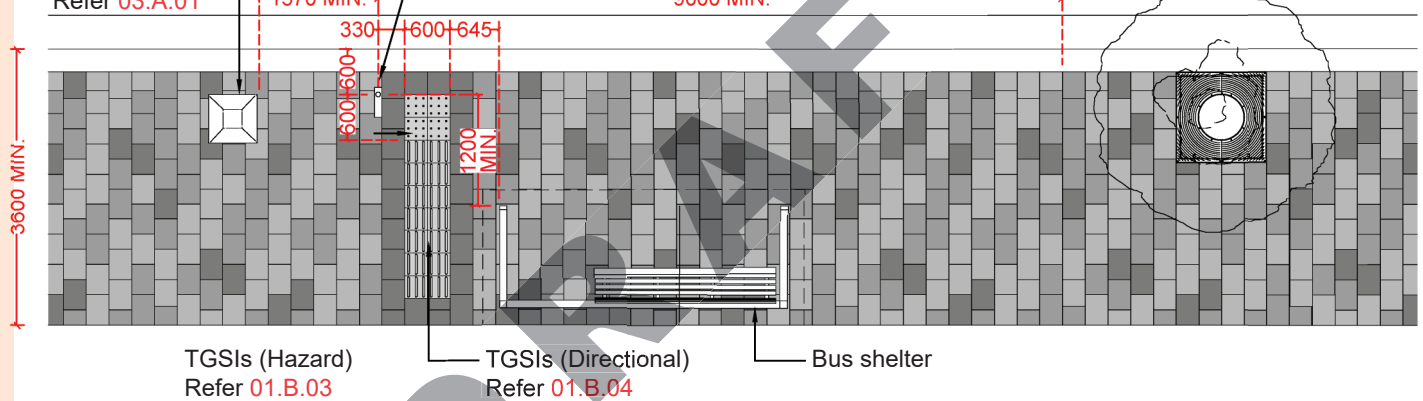


Plan 1:100

Narrow Verge

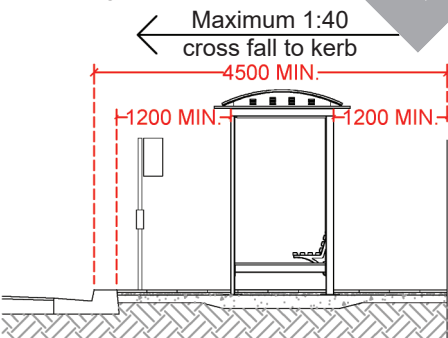
Bin enclosure

Refer 03.A.01



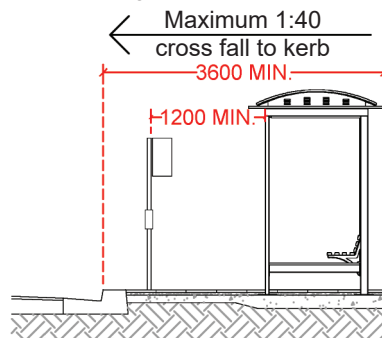
Section 1:100

Wide Verge



Section 1:100

Narrow Verge



Selections

Shelter:  
Bus

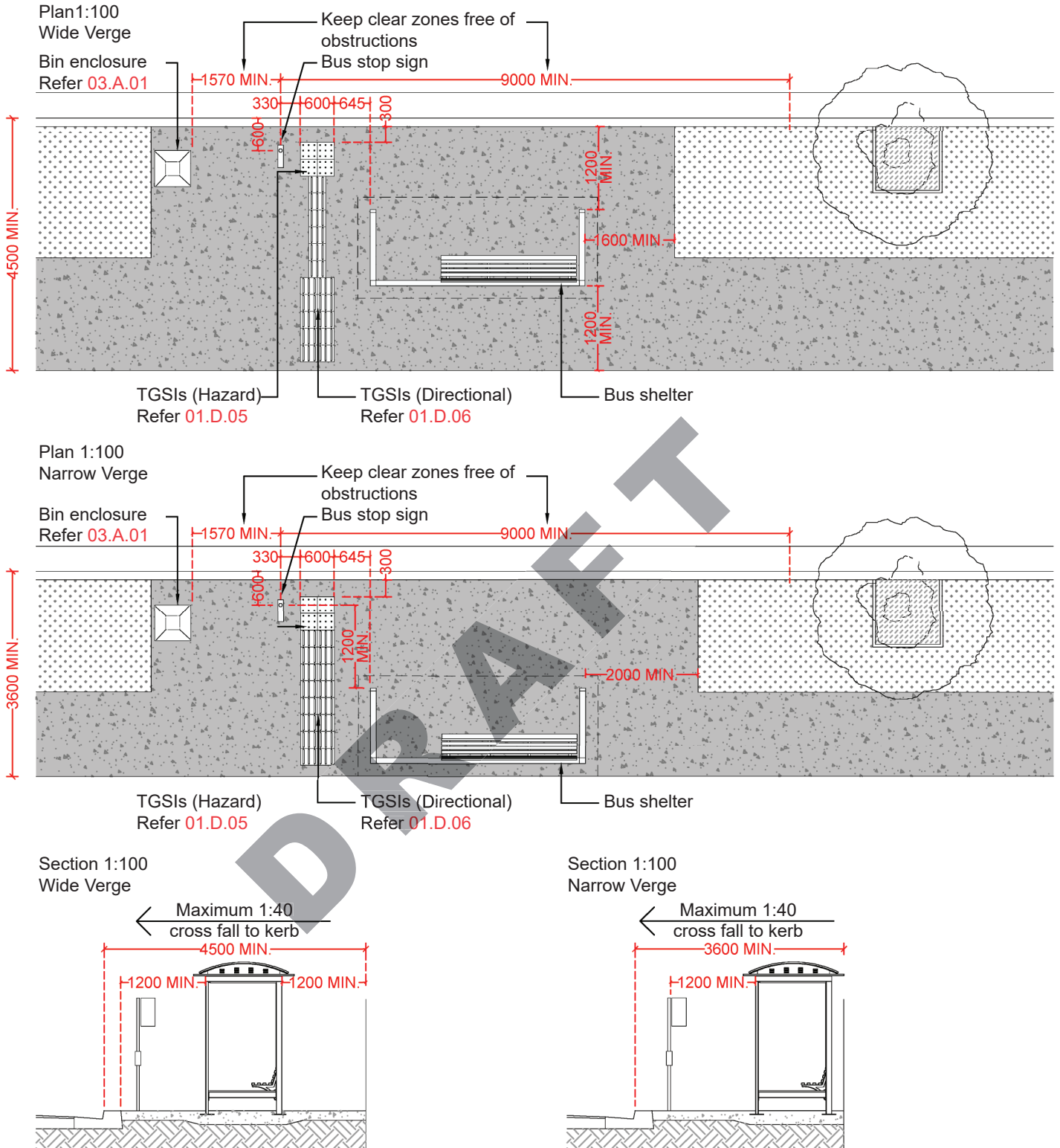
Stoddart Infrastructure 'Classic Shelter'  
Size: W 1795mm x L 4260mm x H 2635mm  
Frame: Aluminium Powdercoat Dulux Black Satin  
Seat: Aluminium slats  
Mounting: Sub-surface fixed to manufacturer's specification

Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Bus stop shelters and locations must comply with DDA Transport Standards and all relevant Australian Standards.

### 03.A FURNITURE AND FIXTURES

#### ► 16 Shelter A: Bus: Local Centre Standard



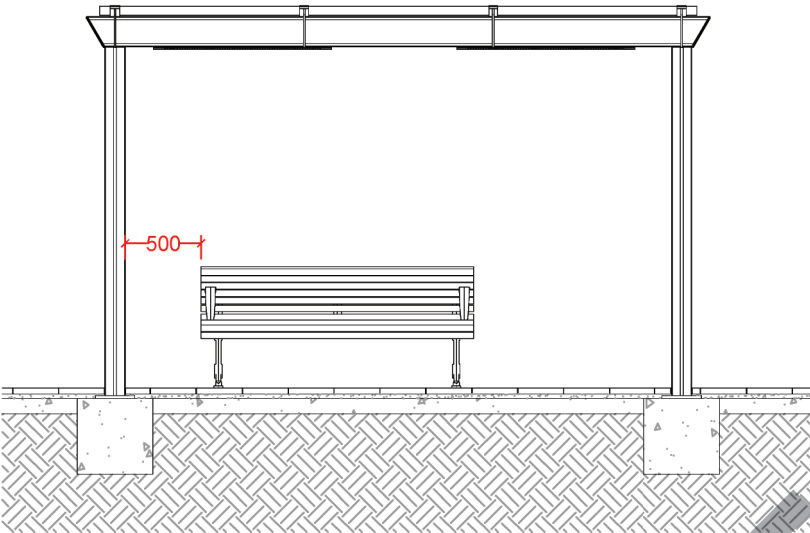
<b>Selections</b>	<b>Shelter:</b> Stoddart Infrastructure 'Classic Shelter' <b>Bus</b> Size: W 1795mm x L 4260mm x H 2635mm Frame: Aluminium Powdercoat Dulux Black Satin Seat: Aluminium slats Mounting: Sub-surface fixed to manufacturer's specification
<b>Notes</b>	1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose. 2. Bus stop shelters and locations must comply with DDA Transport Standards and all relevant Australian Standards.



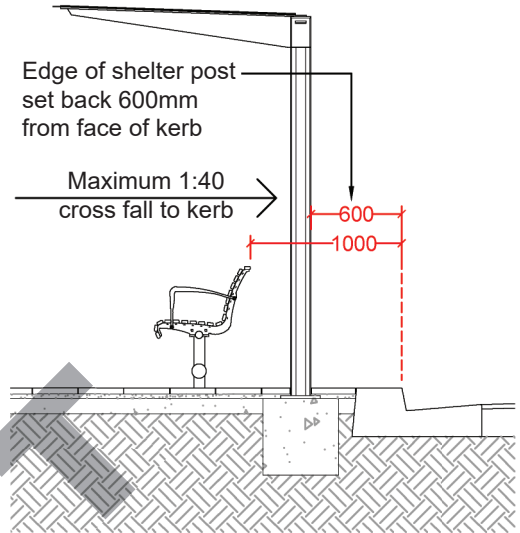
## 03.A FURNITURE AND FIXTURES

### ► 17 Shelter B: Bus: Kiss and Ride / Bicycle Shelter

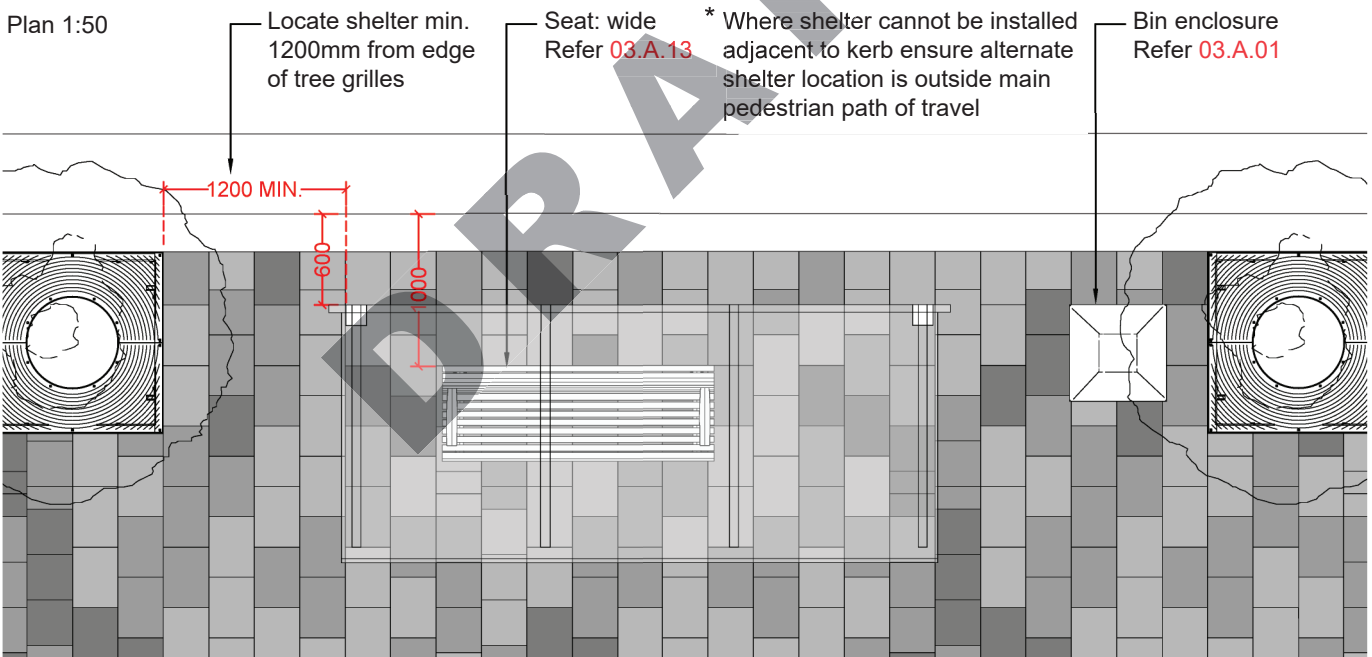
Elevation 1:50



Section



Plan 1:50



#### Selections

Shelter: Stoddart Infrastructure 'Evo Bike Shelter'  
 Kiss and Ride Size: W 1700mm x L 4110mm x H 2550mm  
 Frame: Aluminium Powdercoat Dulux Charcoal Satin  
 Mounting: Sub-surface fixed to manufacturer's specification

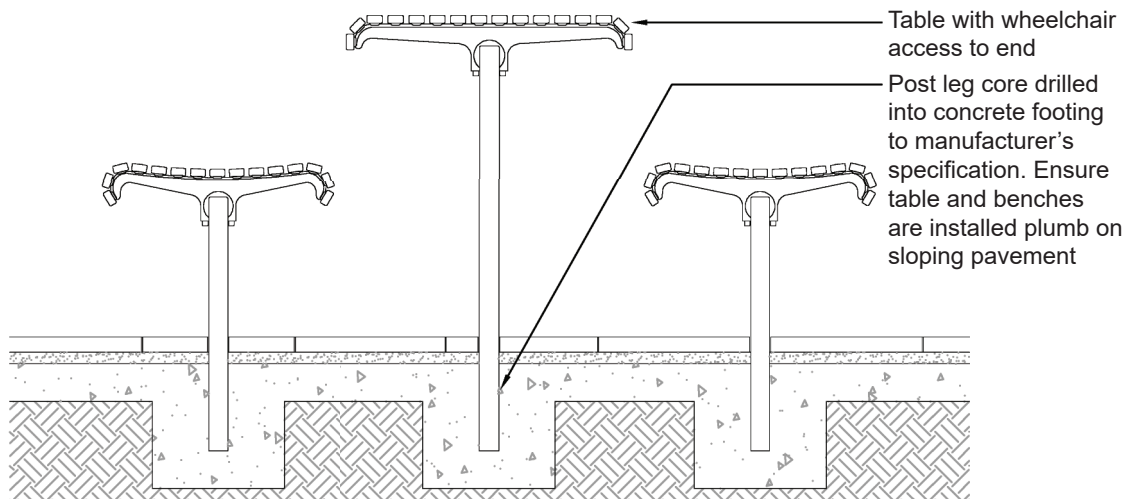
#### Notes

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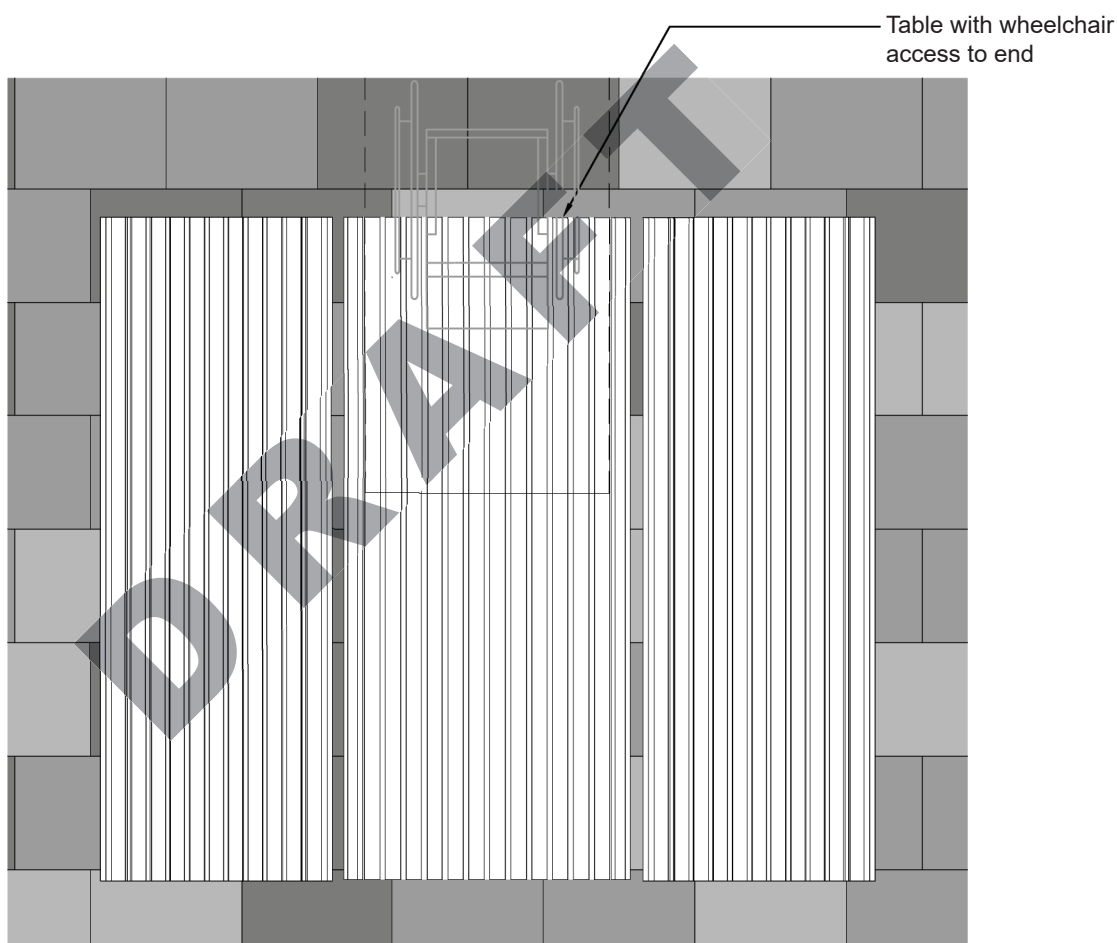
03.A FURNITURE AND FIXTURES

► 18 Table Setting

Section 1:20



Plan 1:20



<p>Selections</p>	<p>Table Setting: Street Furniture Australia                  Table: CMG605-DDA 'Classic Galleria Table'                  Table Size: W 740mm x L 1750mm x H 850mm                  Bench: CMG405 'Classic Galleria Bench'                  Bench Size: W 615mm x L 1750mm x H 435mm                  Frames: Aluminium, Powdercoat Interpon Charcoal GM019A with anti-graffiti coating                  Battens: Aluminium, Wood-grain bush cherry with anti-graffiti coating                  Legs: Post                  Mounting: Core drill to concrete footing to manufacturer's specification</p>
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<p>Notes</p>	<p>1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.</p>
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# Planting





## 04 Planting

<b>04.A Street Trees</b> .....	<b>90</b>
01 Street Tree with Tree Vault and Tree Grille .....	90
02 Street Tree with Tree Vault in Planting .....	92
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02 Street Trees: Local Centre Core Streets .....	102
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04 Trees: Local Centre Parks and Open Spaces ...	103
05 Low Shrubs and Groundcovers.....	103

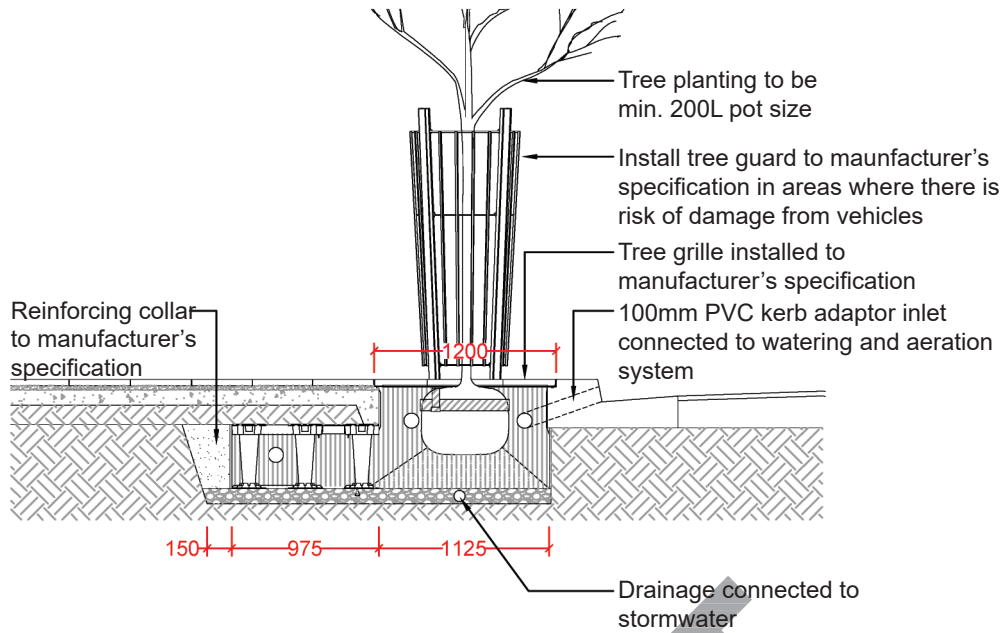
DRAFT



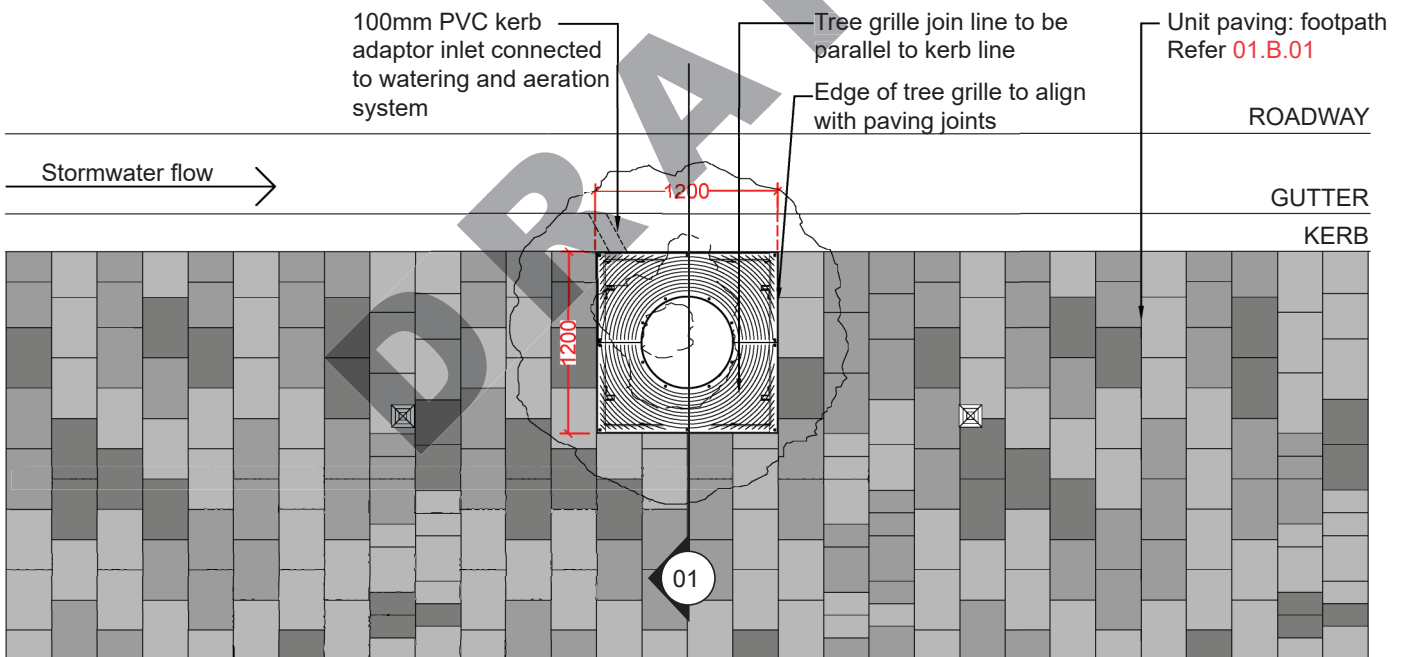
## 04.A STREET TREES

### ► 01 Street Tree with Tree Vault and Tree Grille

Section 1:50  
01

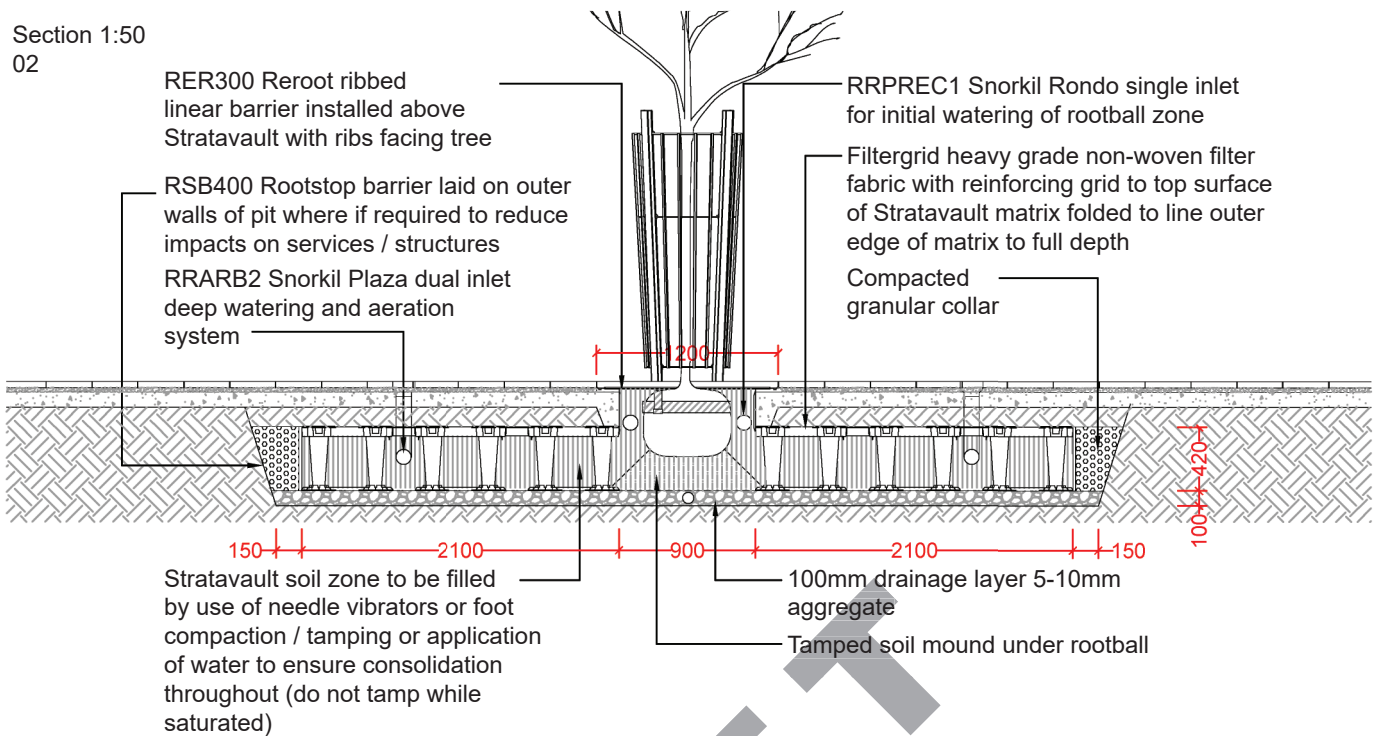


Plan 1:50  
Ground

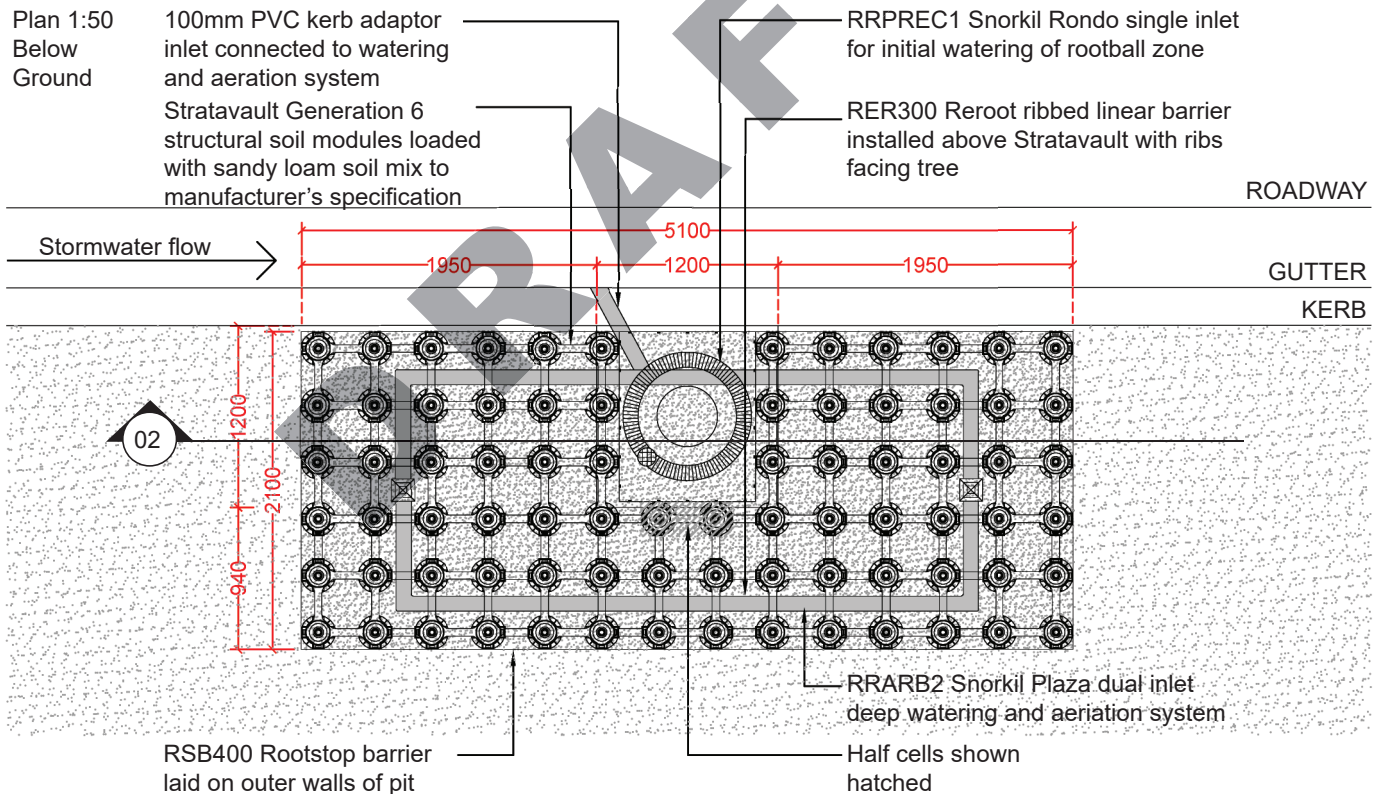


Selections	Tree Vault:	Citygreen Stratavault Linear Offset Tree Pit 4.05m <sup>3</sup> with Tree Grille Size: W 5100mm x L 2100mm x D 520mm
	Tree Grille:	Citygreen DPPR120 'Praxis Tree Grille' Size: W 1200mm x L 1200mm x D 60mm Frame: Mild Steel Finish: Powdercoat 'Anotec Bronze'
	Tree Guard:	Citygreen GLBEL18560-1 'Bellview Tree Guard' Size: H 1850mm x D 600-800mm Frame: Mild Steel Finish: Powdercoat 'Anotec Bronze'

Section 1:50  
02



Plan 1:50  
Below Ground



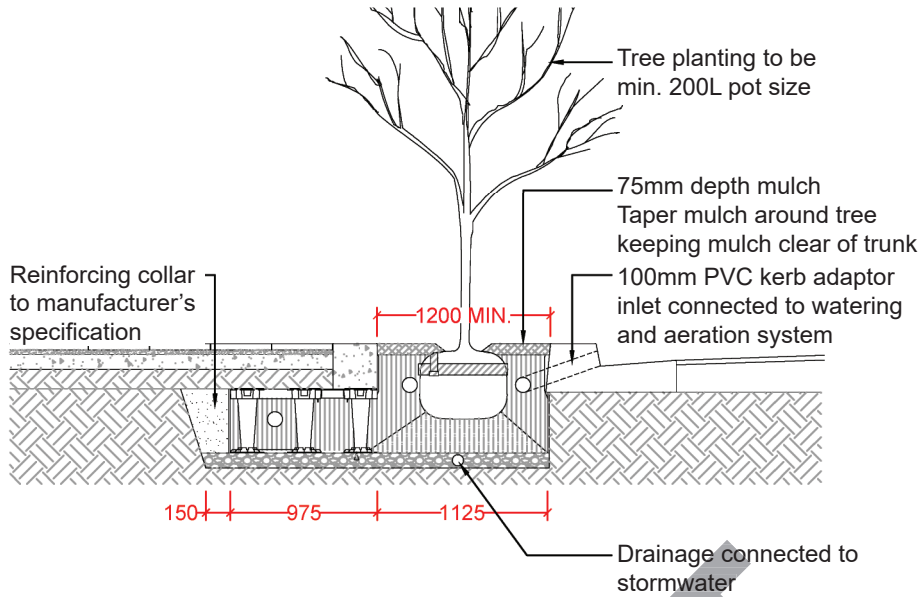
Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Installation to be in accordance with the manufacturer's specification and details.
3. All tree pits must be installed by a fully accredited installer to enable compliance and construction certification. Accreditation to be complete in full prior commencement of works onsite.
4. All new / replacement trees to be 200L min. pot size to Natspec.
5. Soil mix specification to suit specific site conditions and species requirements.
6. Planting to be carried out by Council staff or a Landscape Contractors Association affiliated contractor with demonstrated experience in landscape work, planting and establishment.
7. Planting establishment period to commence at date of practical completion.

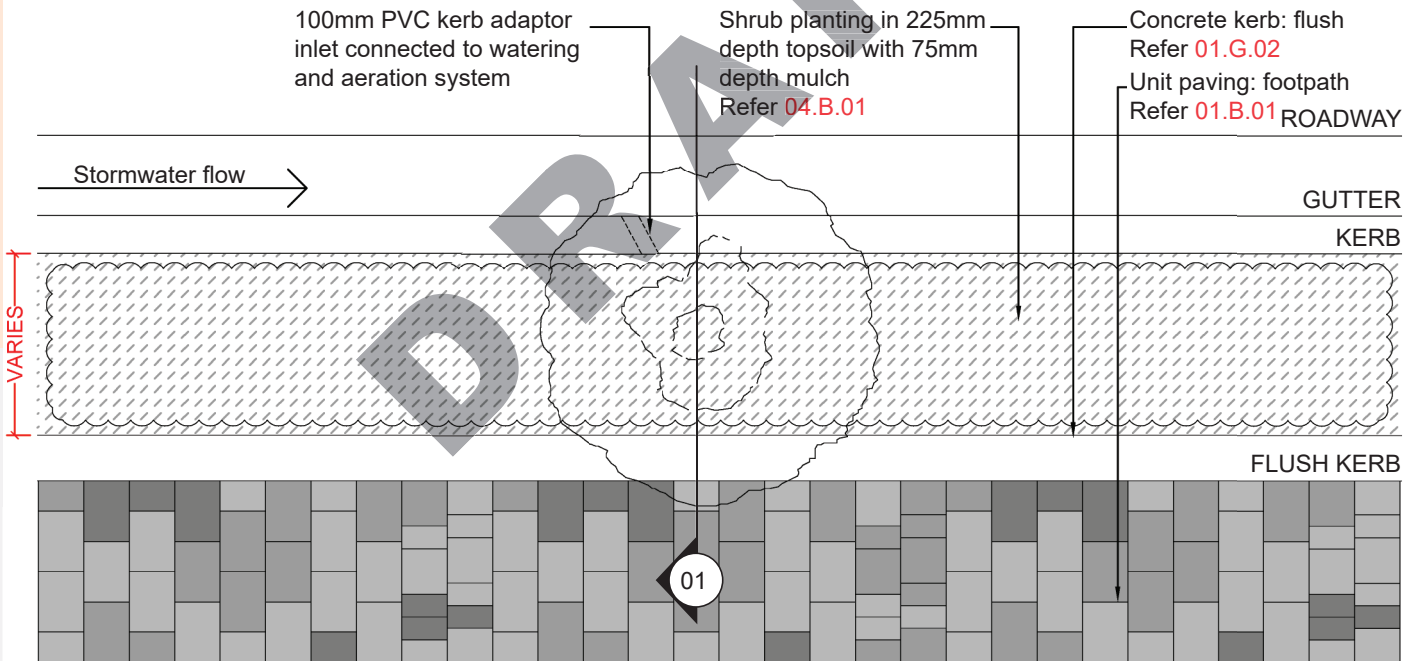
## 04.A STREET TREES

### ► 02 Street Tree with Tree Vault in Planting

Section 1:50  
01



Plan 1:50  
Ground



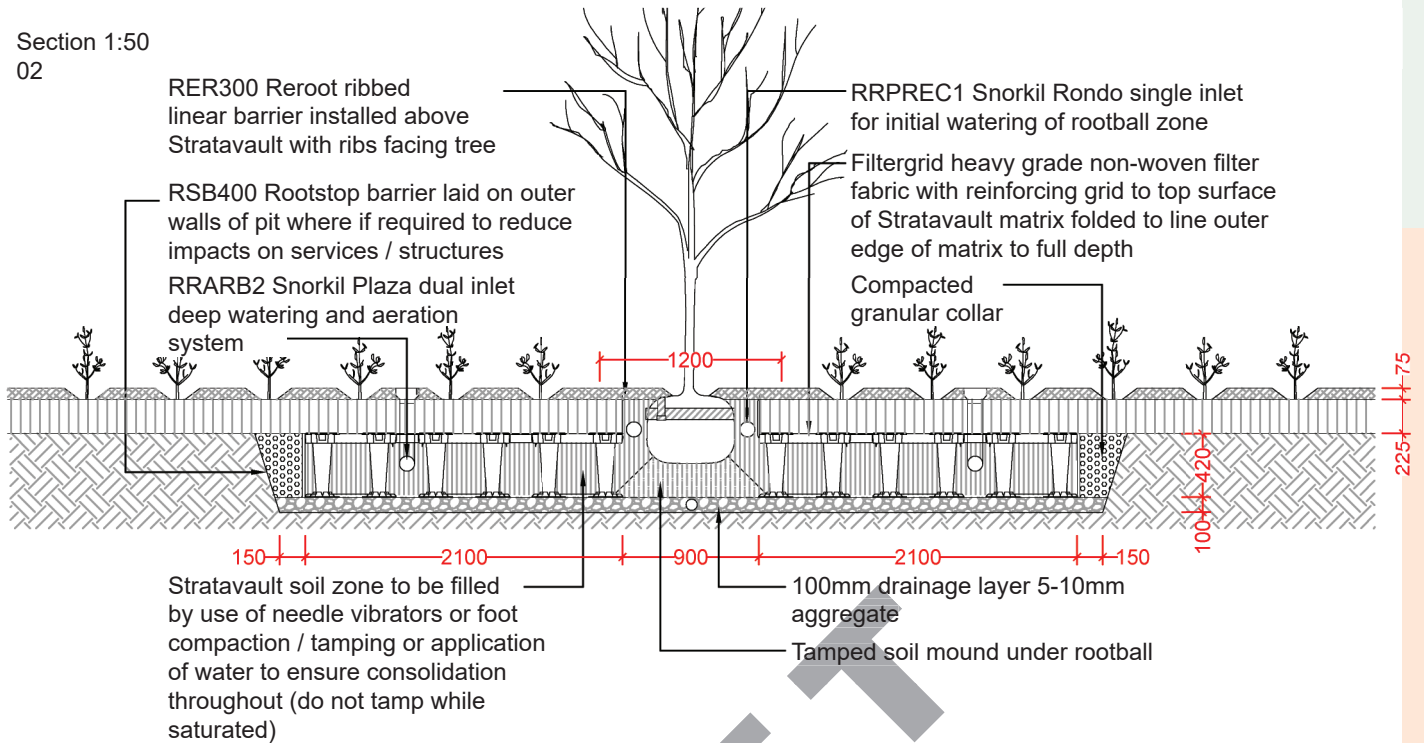
#### Selections

Tree Vault: Citygreen Stratavault Linear Offset Tree Pit 4.05m<sup>3</sup>  
Size: W 5100mm x L 2100mm x D 520mm

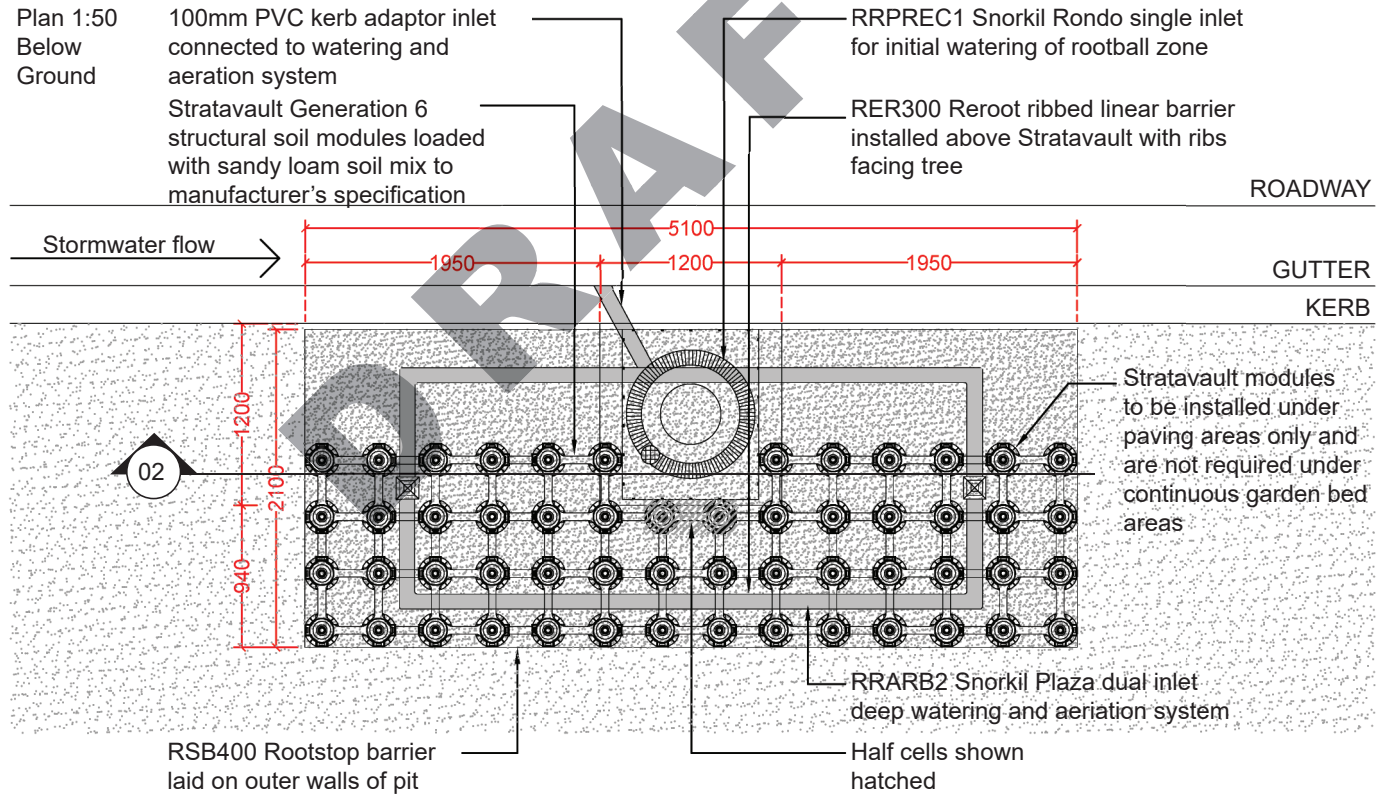
Mulch: ANL recycled 'Forest Fines' or approved equivalent  
Depth: 75mm



Section 1:50  
02



Plan 1:50  
Below Ground



Notes

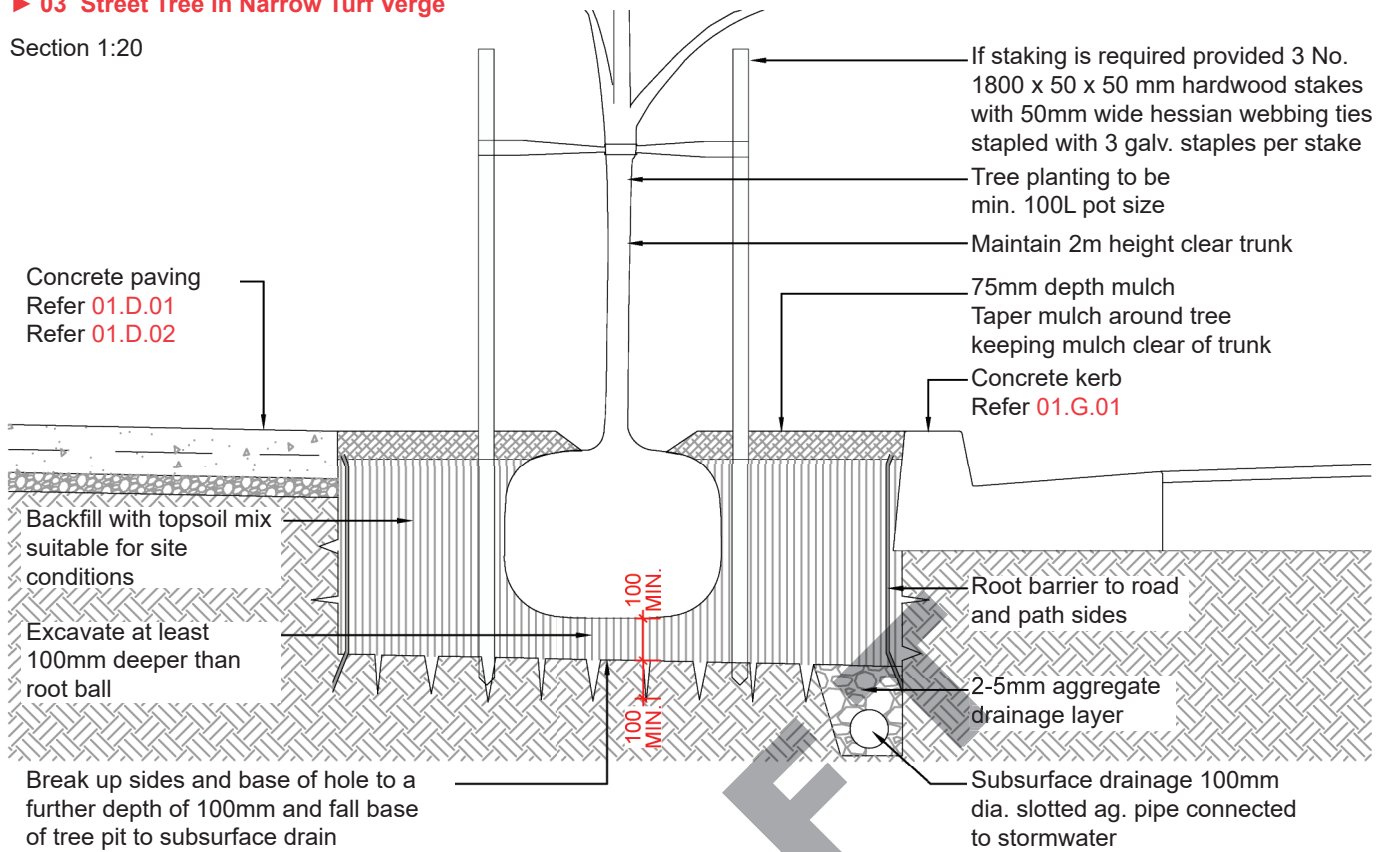
1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Installation to be in accordance with the manufacturer's specification and details.
3. All tree pits must be installed by a fully accredited installer to enable compliance and construction certification. Accreditation to be complete in full prior commencement of works onsite.
4. All new / replacement trees to be 200L min. pot size to Natspec.
5. Soil mix specification to suit specific site conditions and species requirements.
6. Planting to be carried out by Council staff or a Landscape Contractor's Association affiliated contractor with AQF Certificate III in Horticulture and experience in landscape work, planting and establishment.
7. Planting establishment period to commence at date of practical completion.



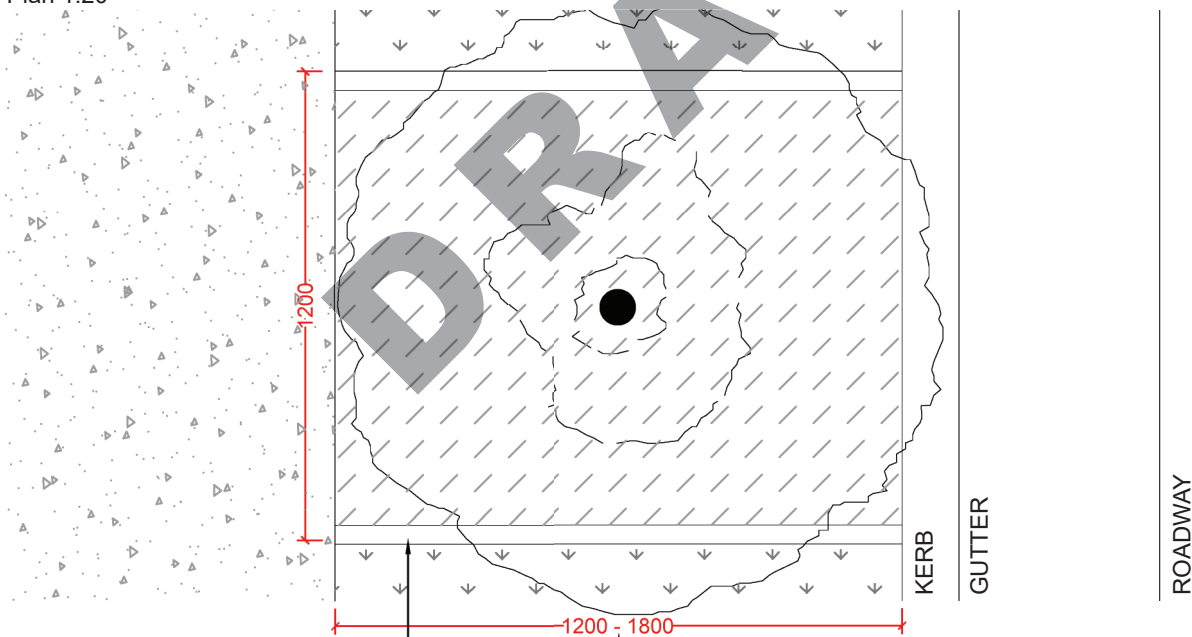
## 04.A STREET TREES

### ► 03 Street Tree in Narrow Turf Verge

Section 1:20



Plan 1:20



Timber edge between mulch and turf  
Refer 04.C.01

Extend timber edge and mulched surround to path for turf verges less than 1800mm wide.

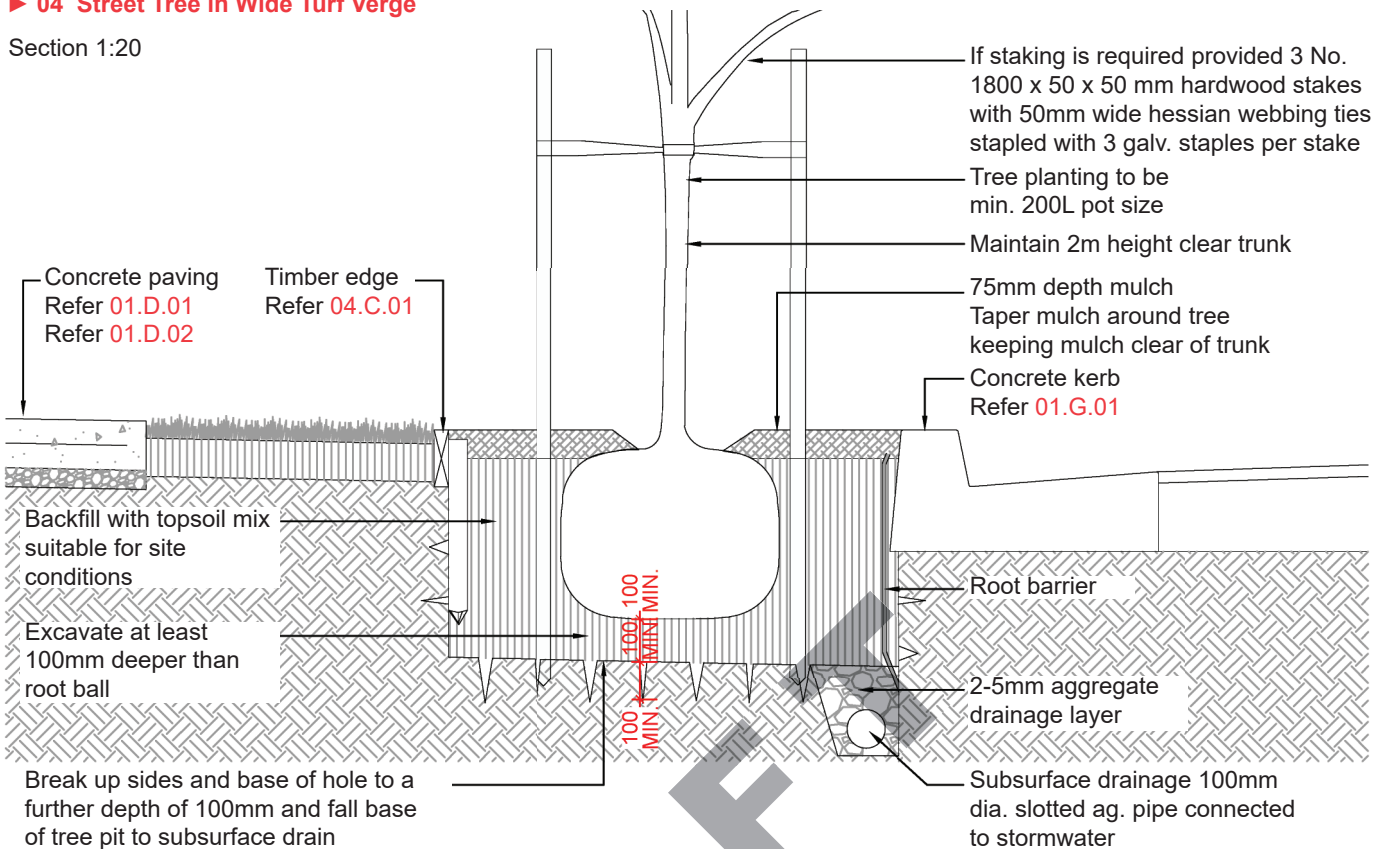
#### Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. All new / replacement trees to be 100L min. pot size to Natspec.
3. Soil mix specification to suit specific site conditions and species requirements.
4. Mulch to be ANL recycled 'Forest Fines' or approved equivalent.
5. Planting to be carried out by Council staff or a Landscape Contractor's Association affiliated contractor with AQF Certificate III in Horticulture and experience in landscape work, planting and establishment.
6. Planting establishment period to commence at date of practical completion.

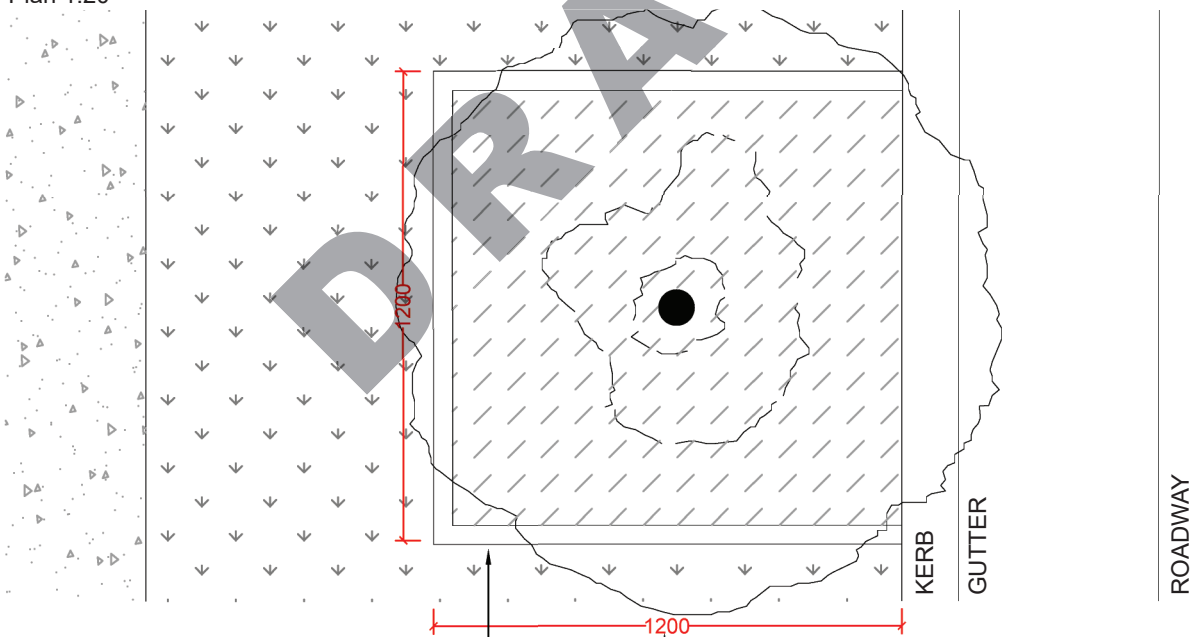
## 04.A STREET TREES

### ► 04 Street Tree in Wide Turf Verge

Section 1:20



Plan 1:20



1200 x 1200mm Timber edge surround between mulch and turf Refer 04.C.01

Do not extend timber edge and mulched surround to path for turf verges greater than 1800mm wide

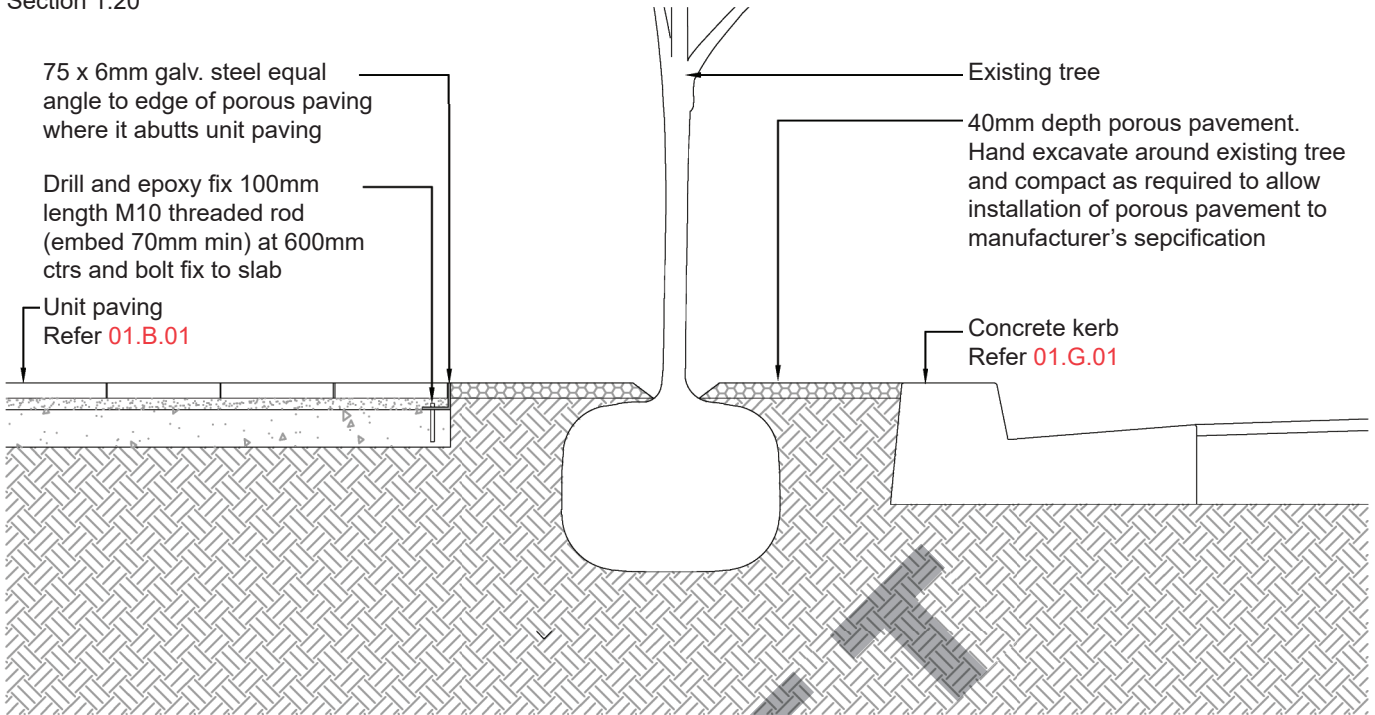
#### Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. All new / replacement trees to be 200L min. pot size to Natspec.
3. Soil mix specification to suit specific site conditions and species requirements.
4. Mulch to be ANL recycled 'Forest Fines' or approved equivalent.
5. Planting to be carried out by Council staff or a Landscape Contractor's Association affiliated contractor with AQF Certificate III in Horticulture and experience in landscape work, planting and establishment.
6. Planting establishment period to commence at date of practical completion.

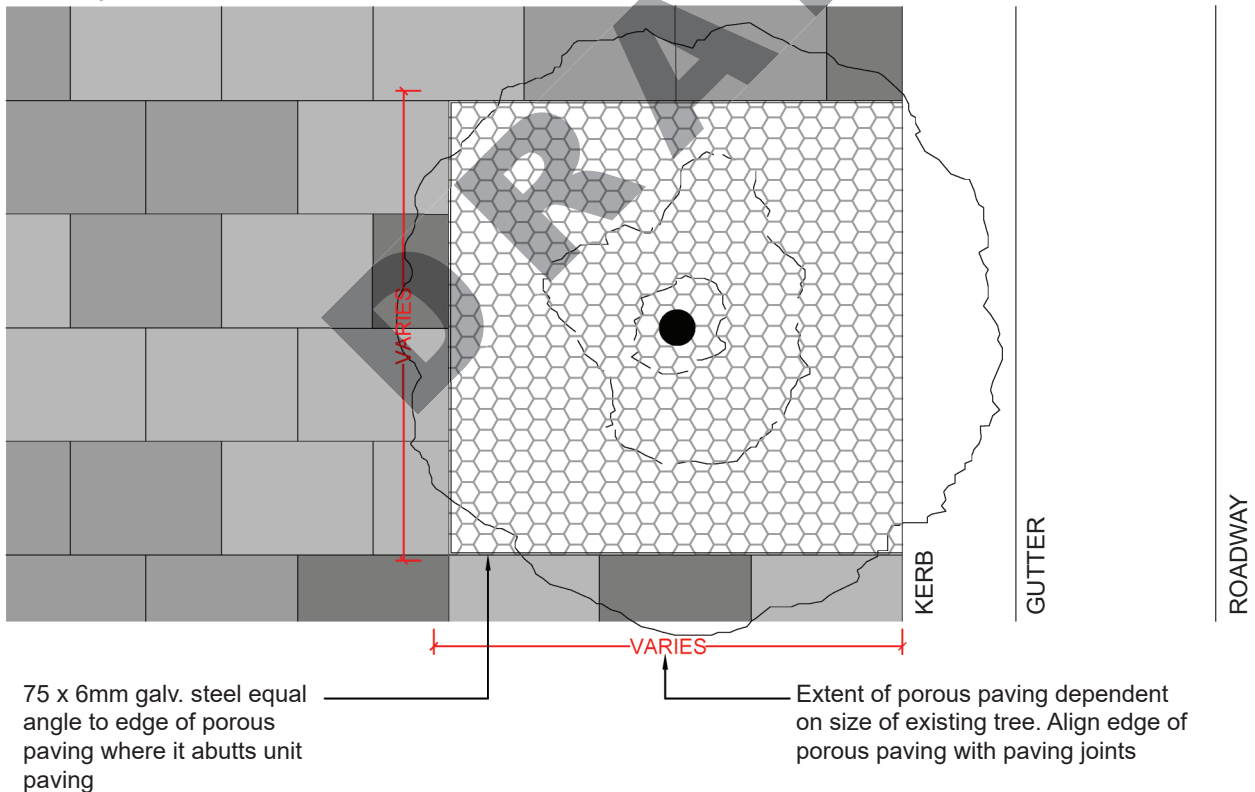
## 04.A STREET TREES

### ► 05 Existing Tree in Paving: Porous Paving

Section 1:20



Plan 1:20

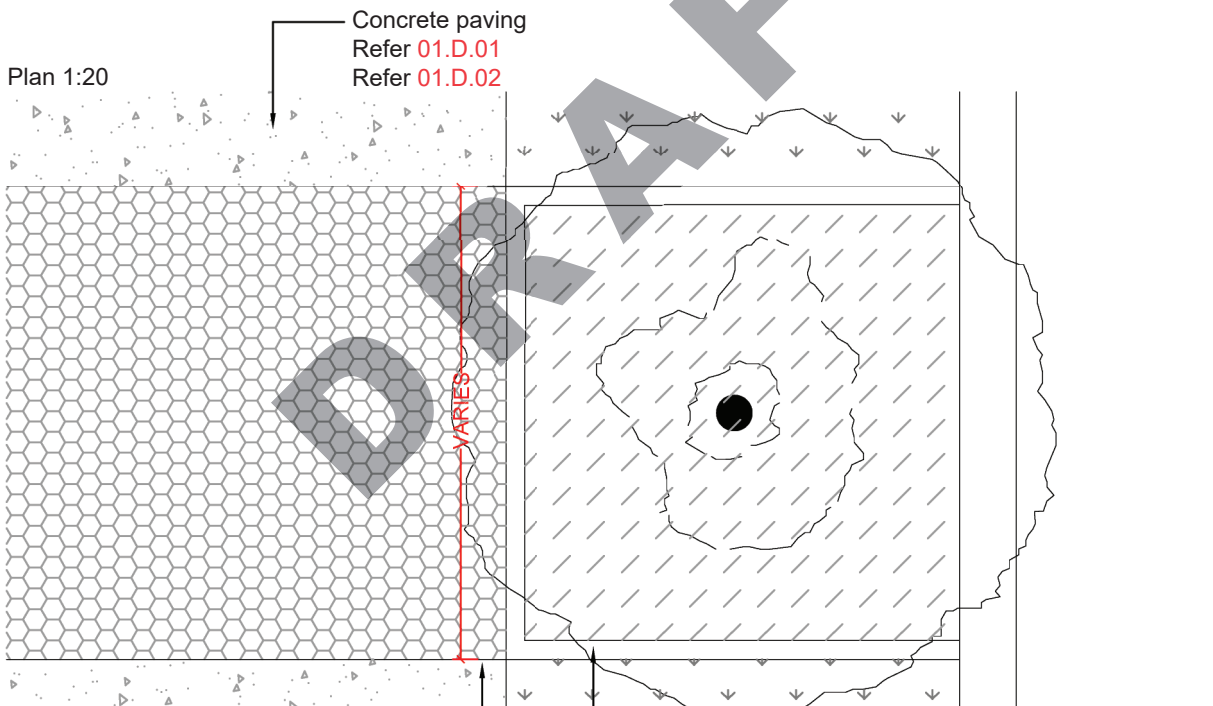
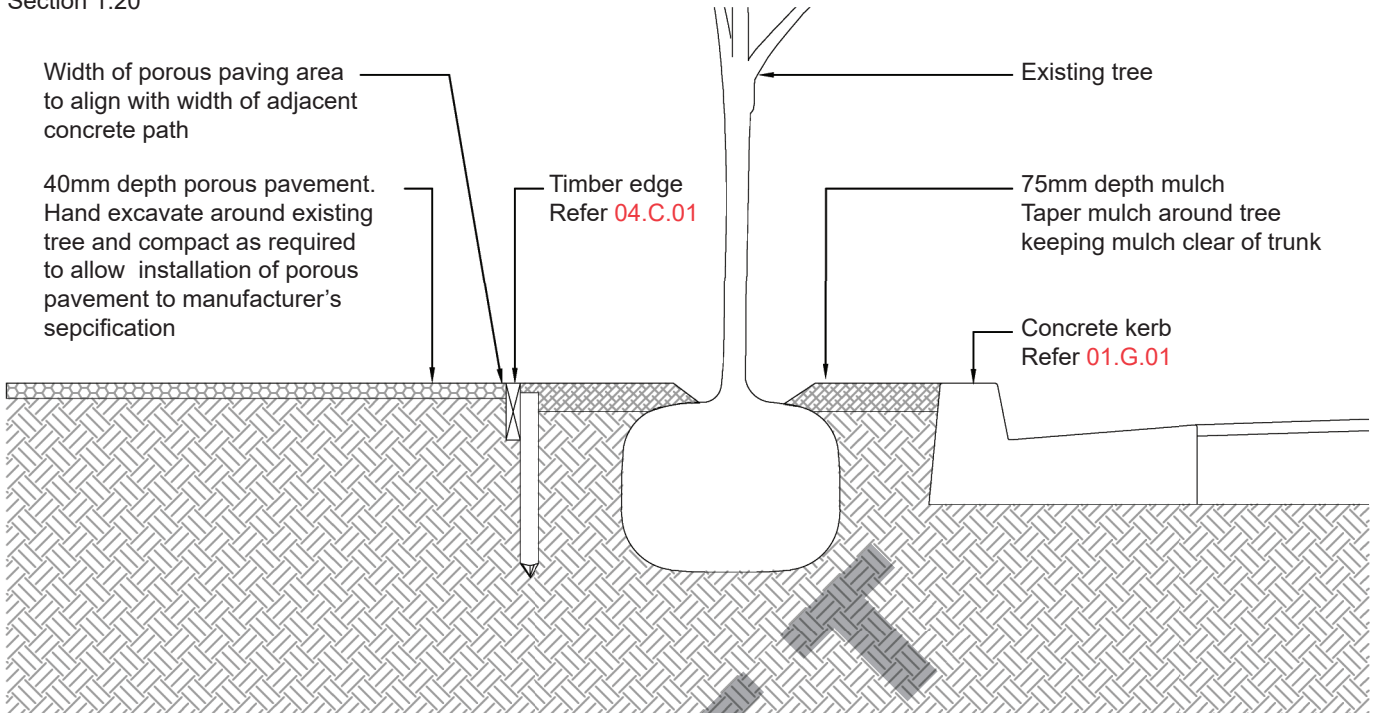


Selections	Porous Paving: Stoneset Resin Bound Paving Aggregate: 6mm Colour: Black Tan Ash
Notes	1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

## 04.A STREET TREES

### ► 06 Existing Tree in Concrete: Porous Pavement

Section 1:20



Extent of mulch / porous paving dependent on size of existing tree. Align edge of porous paving with timber edge

Timber edge surround between mulch and porous paving, and mulch and turf Refer 04.C.01

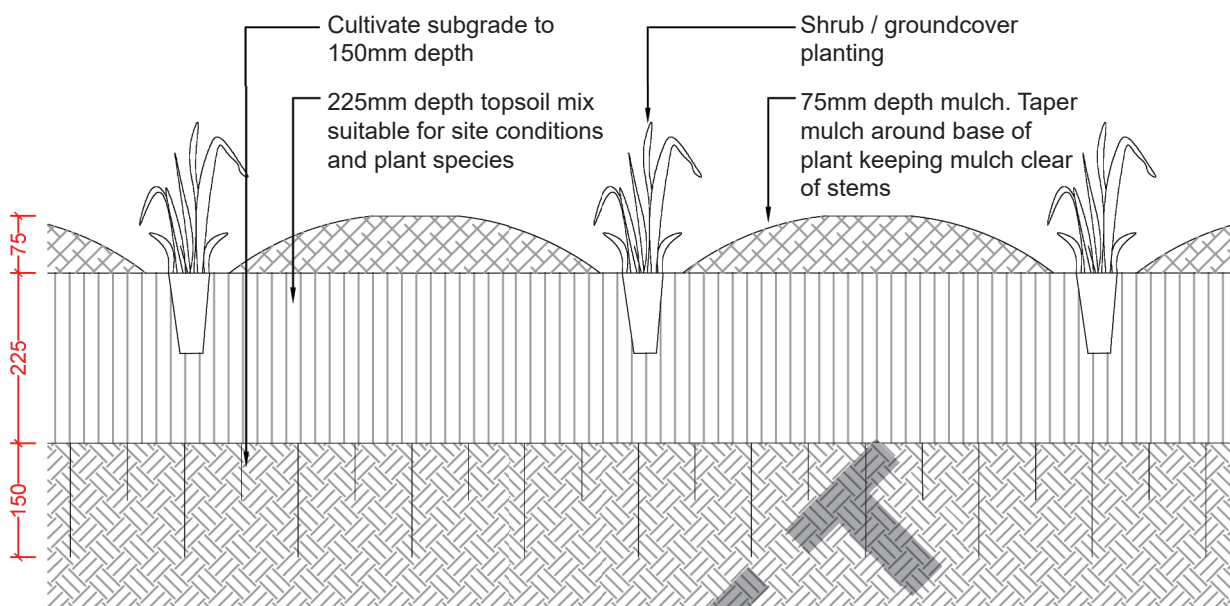
Selections	Porous Paving: Stoneset Resin Bound Paving Aggregate: 6mm Colour: Black Tan Ash
Notes	1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.



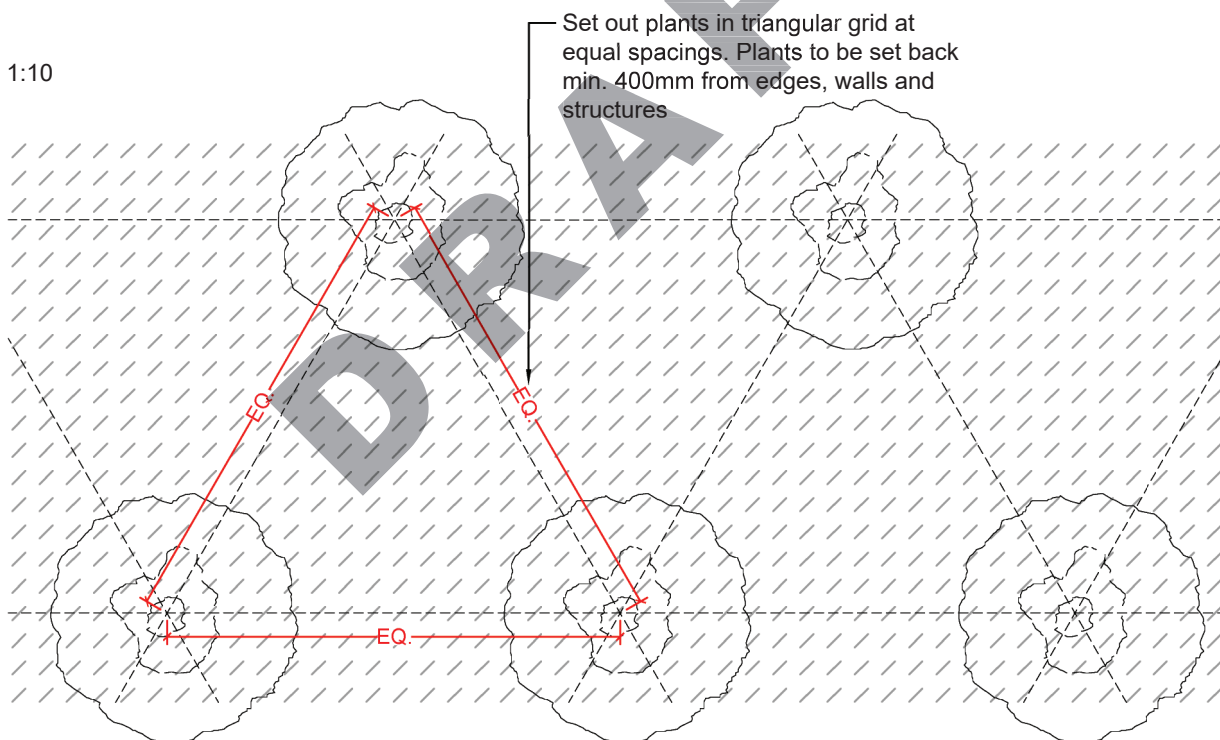
## 04.B GARDEN BEDS

### ► 01 Mulched Garden Bed

Section 1:10



Plan 1:10



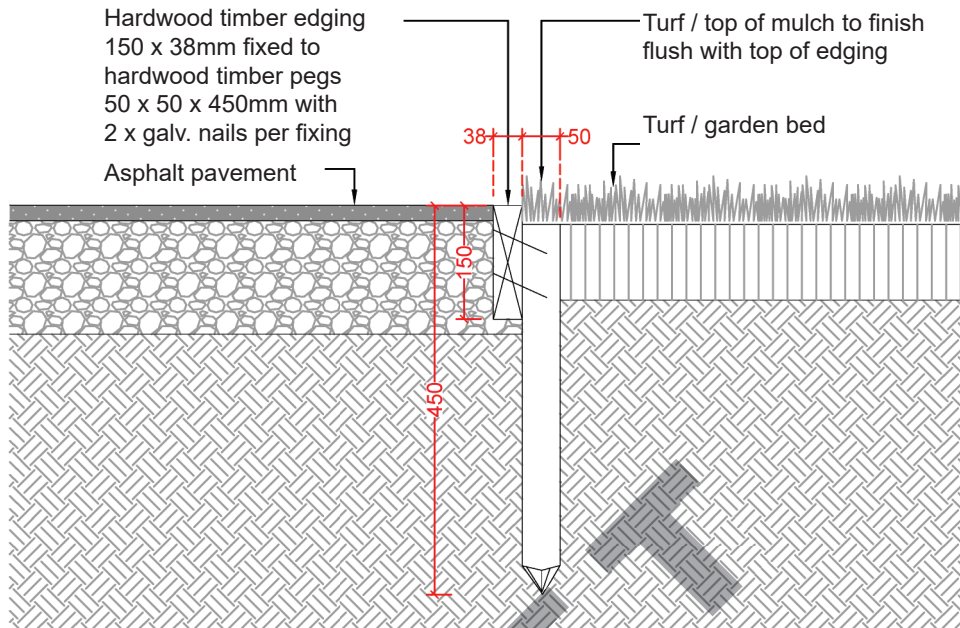
#### Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.
2. Soil mix specification to suit specific site conditions and species requirements.
3. Mulch to be ANL recycled 'Forest Fines' or approved equivalent.
4. Planting to be carried out by Council staff or a Landscape Contractors Association affiliated contractor with demonstrated experience in landscape work, planting and establishment.
5. Planting establishment period to commence at date of practical completion.

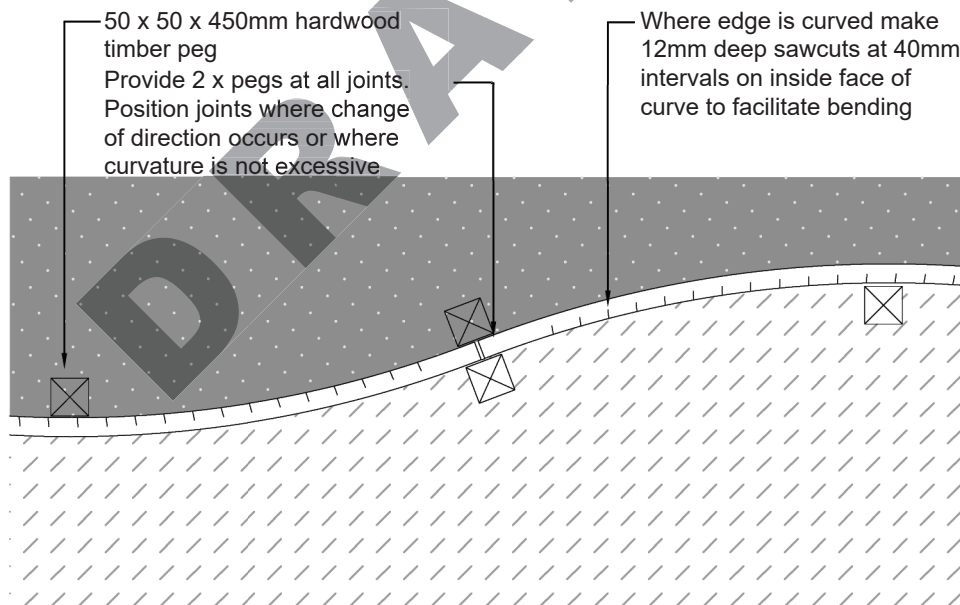
04.C EDGING

► 01 Timber Edge

Section 1:10



Plan 1:10



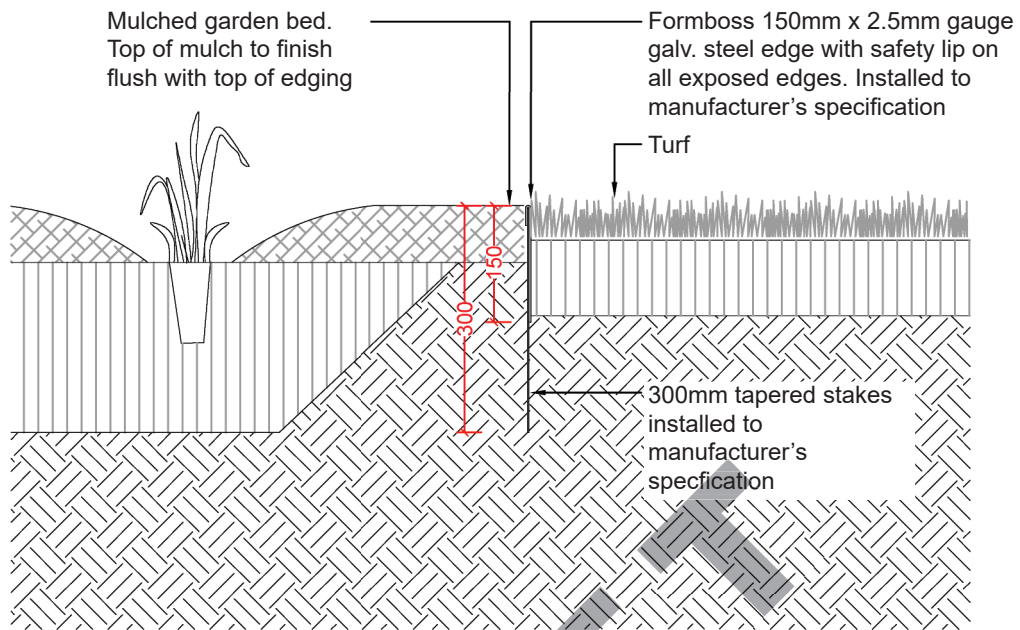
Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

## 04.C EDGING

### ► 02 Steel Edge

Section 1:10



#### Selections

Steel Edge: Formboss Steel Edge System  
Size: H 150mm x 2.5mm gauge  
Finish: Galvanised steel

#### Notes

1. Details are indicative only and must not be used for construction purposes. Construction details must be prepared by landscape architects and engineers and must be fit for purpose.

## 04.D PLANT SPECIES LIST

### ► 01 Street Trees: Local Centre Main Road

TURRAMURRA (Pacific Highway)  
*Elaeocarpus reticulatus* (Blueberry Ash)

GORDON (Pacific Highway)  
*Araucaria cunninghamii* (Hoop Pine)  
*Lagerstroemia indica* x *L.fauriei* (Indian Summer Crepe Myrtle)

LINDFIELD (Pacific Highway)  
*Platanus orientalis* 'Cuneata' (Plane Tree)

ST IVES (Mona Vale Road)  
*Lagerstroemia indica* x *L.fauriei* (Indian Summer Crepe Myrtle)  
*Syncarpia glomulifera* (Turpentine)

PYMBLE (Pacific Highway)  
*Fraxinus pennsylvanica* 'Cimzam' Cimmarron (Cimmarron Ash)

ROSEVILLE (Pacific Highway)  
*Melaleuca quinquenervia* (Broad Leaved Paperbark)

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#### Notes

1. Species lists are indicative only and are dependent on site conditions. Plant species must be selected by a landscape architect and must be fit for purpose.



## 04.D PLANT SPECIES LIST

### ► 02 Street Trees: Local Centre Core Streets

*Angophora floribunda* (Rough-barked Apple)  
*Angophora costata* (Sydney Red Gum)  
*Araucaria cunninghamii* (Hoop Pine)  
*Buckinghamia celissima* (Ivory Curl Tree)  
*Cupaniopsis anacardioides* (Tuckeroo)  
*Elaeocarpus reticulatus* (Blueberry Ash)  
*Eucalyptus microcorys* (Tallowwood)  
*Eucalyptus sideroxylon* 'Rosea' (Red Ironbark)  
*Fraxinus americana* (White Ash)  
*Glochidion fernandi* var. *fernandi* (Cheese Tree)  
*Hymenosporum flavum* (Native Fangipani)  
*Lagerstroemia indica* x *L.fauriei* (Indian Summer Crepe Myrtle)  
*Lophostemon confertus* (Brush Box)  
*Magnolia grandiflora* 'Little Gem' (Magnolia Little Gem)  
*Melaleuca quinquenervia* (Swamp Paperbark)  
*Nyssa sylvatica* (Tupelo)  
*Platanus orientalis* 'Cuneata' (Plane Tree)  
*Pyrus ussuriensis* (Manchurian Pear)  
*Pistacia chinensis* (Chinese Pistachio)  
*Syncarpia glomulifera* (Turpentine)  
*Tristaniopsis laurina* 'Luscious' (Watergum)  
*Ulmus parvifolia* (Chinese Elm)  
*Quercus palustris* (Pin Oak)  
*Waterhousea floribunda* 'Sweeper' (Weeping Lilly Pilly)  
*Zelkova serrata* 'Green Vase' (Green Vase Zelkova)

### ► 03 Street Trees: Local Centre Transition / Standard Streets

*Acer buergeranum* (Trident Maple)  
*Acer palmatum* (Japanese Maple)  
*Acmena smithii* (Lilly Pilly)  
*Angophora costata* (Sydney Red Gum)  
*Angophora floribunda* (Rough-barked Apple)  
*Betula pendula* (Silver Birch)  
*Callicoma serratifolia* (Black Wattle)  
*Callistemon viminalis* 'Hannah Ray' (Bottlebrush)  
*Callistemon viminalis* 'Kings Park' (Bottlebrush)  
*Camellia sasanqua* (Camellia)  
*Corymbia eximia* (Yellow Blood Wood)  
*Corymbia gummifera* (Red Bloodwood)  
*Elaeocarpus reticulatus* (Blueberry Ash)  
*Eucalyptus paniculata* (Grey Ironbark)  
*Eucalyptus pilularis* (Blackbutt)  
*Eucalyptus saligna* (Sydney Blue Gum)  
*Franklinia axillaris* (Fried Egg Plant)  
*Ginkgo biloba* (Maiden Hair Tree)  
*Glochidion fernandi* var. *fernandi* (Cheese Tree)  
*Lophostemon confertus* (Brush Box)  
*Melaleuca linariifolia* (Prickly Leaved Paperbark)  
*Melaleuca styphelioides* (Narrow Leaved Paperbark)  
*Nyssa sylvatica* (Tupelo)  
*Syncarpia glomulifera* (Turpentine)  
*Syzigium* sp. (Lilly Pilly varieties)  
*Tristaniopsis laurina* (Water Gum)

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#### Notes

1. Species lists are indicative only and are dependent on site conditions. Plant species must be selected by a landscape architect and must be fit for purpose.

## 04.D PLANT SPECIES LIST

### ► 04 Trees: Local Centre Parks and Open Spaces

*Angophora floribunda* (Rough-barked Apple)  
*Angophora costata* (Sydney Red Gum)  
*Buckinghamia celissima* (Ivory Curl Tree)  
*Corymbia eximia* (Yellow Blood Wood)  
*Corymbia gummifera* (Red Bloodwood)  
*Elaeocarpus reticulatus* (Blueberry Ash)  
*Eucalyptus paniculata* (Grey Ironbark)  
*Eucalyptus pilularis* (Blackbutt)  
*Eucalyptus saligna* (Sydney Blue Gum)  
*Glochidion fernandi* var. *fernandi* (Cheese Tree)  
*Jacaranda mimisofolia* (Jacaranda)  
*Lagerstroemia indica* x *L.fauriei* (Indian Summer Crepe Myrtle)  
*Lophostemon confertus* (Brush Box)  
*Melaleuca quinquenervia* (Swamp Paperbark)  
*Nyssa sylvatica* (Tupelo)  
*Syncarpia glomulifera* (Turpentine)  
*Quercus palustris* (Pin Oak)

### ► 05 Low Shrubs and Groundcovers

*Callistemon citrinus* 'White Anzac' (White Bottlebrush)  
*Chrysocephalum apiculatum* (Everlasting Daisy)  
*Correa alba* 'Star Showers' (Native Fuschia)  
*Correa pulchella* x *alba* 'Ice Maiden' (Native Fuschia)  
*Dianella caerulea* varieties (Blue Flax Lily)  
*Dianella tasmanica* varieties (Tasmania Flax Lily)  
*Ficinia nodosa* (Club Rush)  
*Grevillea crithmifolia* 'Green Carpet' (Prostrate Grevillea)  
*Grevillea lanigera* prostrate (Woolly Grevillea)  
*Helichrysum italicum* (Curry Plant)  
*Lavandula* 'Super French' (Lavender)  
*Lomandra longifolia* 'Katrinus' (Mat Rush)  
*Lomandra longifolia* 'Verday' (Mat Rush)  
*Liriope muscari* (Turf Lily)  
*Liriope* 'Evergreen Giant' (Giant Turf Lily)  
*Pittosporum tobira* 'Miss Muffett' (Miss Muffett)  
*Rosmarinus officinalis* (Rosemary)  
*Trachelospermum jasminoides* (Star Jasmine)  
*Westringia fruticosa* (Coastal Rosemary)

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#### Notes

1. Species lists are indicative only and are dependent on site conditions. Plant species must be selected by a landscape architect and must be fit for purpose.

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