



GLEN EIRA
ACTIVITY CENTRES
URBAN DESIGN GUIDELINES

FINAL REPORT

JULY 2017

PREPARED FOR GLEN EIRA CITY COUNCIL



PROJECT CONTROL

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1

Introduction

Introduction

Project Overview

The purpose of this project is to review the urban context of Glen Eira's activity centres and prepare urban design guidelines that will improve development outcomes for all people in the community.

Current pressure for higher density development, level crossing removal projects and a change in household composition trigger the need for well considered strategic planning to ensure Glen Eira is prepared for change.

The extent of the Neighbourhood Residential Zone (NRZ) across Glen Eira places pressure on the General Residential Zone (GRZ) and activity centres to accommodate intensive development.

Urban Design Guidelines and detailed consideration of specific sites is required to manage the interface between activity centres, the GRZ and NRZ.

Numerous issues about new development have been raised by local residents through the planning approvals process and the local media.

These include the application of height controls within activity centres, the need to provide a diversity of dwelling types, protection of neighbourhood character, providing adequate car parking and alignment of apartment standards and private open space provisions in each development.

This project develops urban design guidelines that can be applied to activity centres and implemented through the Glen Eira Planning Scheme. This will help to provide a greater certainty of outcome for Council, developers and the community.

The project also explores the potential for the development process to capture opportunities for community benefit, in the form of new community facilities or open space.

The project outcomes are aligned with the draft *Activity Centre, Housing and Local Economy Strategy* currently under preparation by Council.

Project Scope & Tasks

The *Urban Design Guidelines* are to be read in conjunction with the *Urban Context Report*, which details the strategic context including how the guidelines relate to the Activity Centres Framework.

The Context Report also documents the built form characteristics of Glen Eira's activity centres, considering the design issues raised by recent development in each zone.

The scope and tasks of the design guidelines are to:

- Review the typologies for future development within and around activity centres currently being developed in Council's Activity Centres Strategy, and prepare built form guidelines for each typology.
- Review the recently reformed residential zones and new apartment design standards (Clause 58 of the Planning Scheme) to determine how they can be applied to achieve preferred design outcomes.
- Prepare built form guidelines for each typology to respond to the

design objectives specific to Glen Eira's activity centres, in addition to the provisions of the new zones and apartment standards.

- Explore options to develop a system of 'community benefit' measures which could facilitate the provision of community infrastructure or open space through development outcomes on strategic sites or within urban renewal areas. This has been documented further in the accompanying *Community Benefit Discussion Paper*.
- Review the provisions of the Commercial 1 Zone, General Residential Zone and Residential Growth Zone with a view to including improved objectives and design parameters for areas within and around activity centres.

Next Steps

The next steps are to translate the design guidelines of the typologies into provisions for inclusion in the Glen Eira Planning Scheme.

Map 1: Study Area

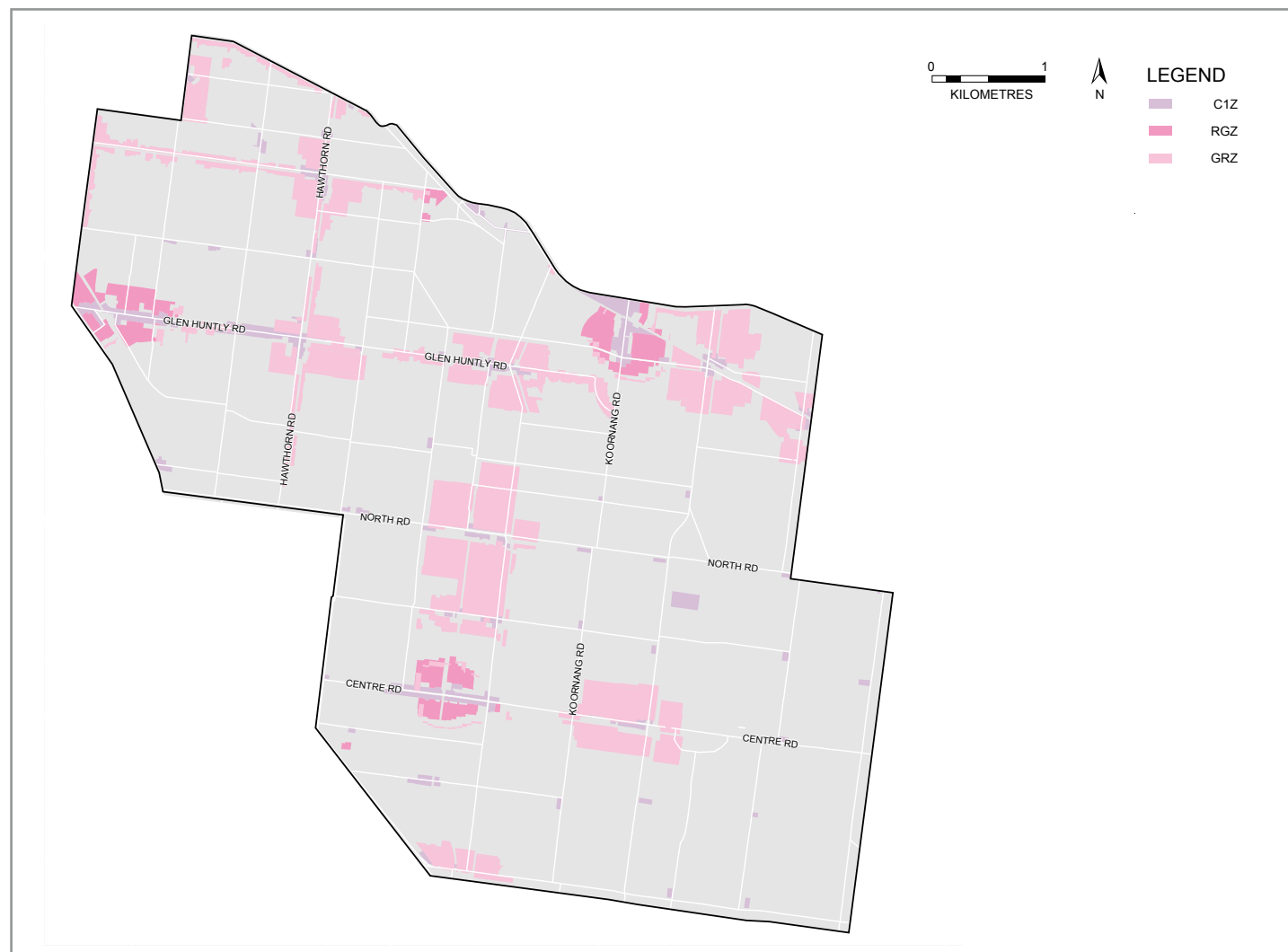
Study Area

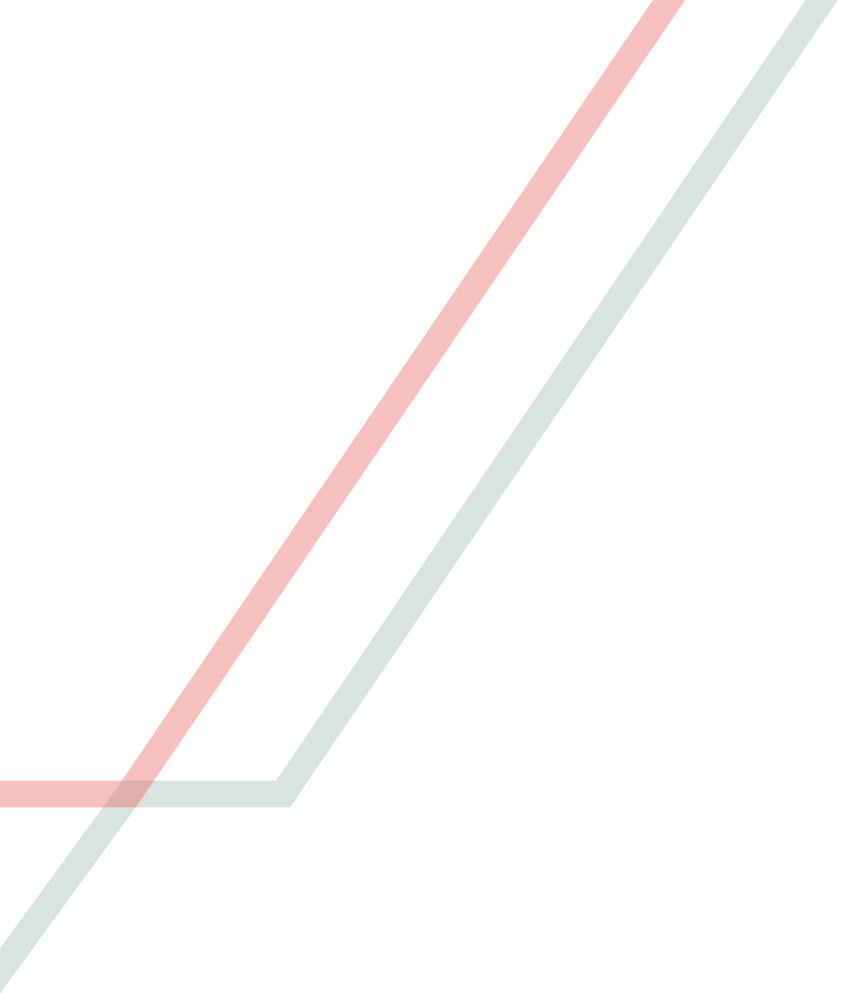
The study area includes the activity centres and adjoining land within Glen Eira.

Specifically, the study area includes land within:

- Commercial 1 Zone (C1Z)
- Residential Growth Zone (RGZ)
- General Residential Zone (GRZ).

It also includes areas of public land.







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Review of Built Form & Design Controls

Existing Controls for Glen Eira's Activity Centres

Overview

The existing built form and design controls for Glen Eira's activity centres have been reviewed to determine how well they are responding to development issues and opportunities.

This review includes the Commercial 1 Zone, the Residential Growth Zone and the General Residential Zone, as specified in the project brief.

Local Planning Policy

Council's Municipal Strategic Statement and Local Planning Policies of the Glen Eira Planning Scheme provide strategic direction for development within activity centres:

- Clause 21.03: Vision – Strategic Framework
- Clause 21.04: Housing and Residential Development
- Clause 21.06: Business
- Clause 22.05: Urban Villages Policy.

These policies are implemented through the detailed design and development requirements of zones and overlay controls.

Commercial Zones

Commercial 1 Zone

The Commercial 1 Zone (C1Z) applies to the core retail and commercial areas within Glen Eira's Activity Centres.

The purpose of the **C1Z** is:

- *To create vibrant mixed use commercial centres for retail, office, business, entertainment and community uses.*
- *To provide for residential uses at densities complementary to the role and scale of the commercial centre.*

The C1Z does not include detailed urban design requirements, or specify building heights and setbacks.

Decision guidelines include:

- Reference to State and Local Policy and the interface with adjoining zones, particularly residential
- Broad requirements relating to streetscape appearance and pedestrian amenity. Consideration of the overlooking and overshadowing as a result of building or works affecting adjoining land in a General Residential Zone, Neighbourhood Residential Zone or Residential Growth Zone.

However, these decision guidelines are not supported by specific built form or design controls. The zone provides only broad and high-level directions relating to urban design and would not in itself address the development issues identified in this study

Design & Development Overlays

The Design and Development Overlay (DDO) has recently been applied to activity centres: **DDO8** has been applied to the Bentleigh Activity Centre and **DDO9** to the Carnegie Activity Centre.

The purpose of the **DDO** is:

To identify areas which are affected by specific requirements relating to the design and built form of new development.

The objectives of DDO8 and DDO9 include:

- *To ensure that development makes a positive architectural contribution to the low scale, retail village.*
- *To ensure that development along any residential interface be sympathetic to the scale and amenity of the residential area.*
- *To ensure that development is designed to maintain safe and efficient vehicle movements.*

The overlays set out detailed built form requirements, including:

- Buildings should be of a high architectural and urban design quality and make a positive contribution to the activity centre and surrounding streetscapes.
- Buildings should be designed to respect the existing character and scale of streetscapes and should facilitate a continuous active and vibrant frontage at street level, including weather protection along designated pedestrian links.
- Architectural articulation of facades should minimise visual bulk through the use of upper level setbacks and an appropriate materials palette.
- Car spaces should not be provided at ground level, exposed to the public realm.
- Residential development should be designed with pedestrian access directly from the street.

Maximum building heights are specified for each precinct within the activity centres, with some expressed as mandatory controls.

Decision guidelines relate to how the development will integrate with streetscape character, impacts on adjoining heritage sites and the protection of amenity of adjoining residential sites, including prevention of overlooking.

Residential Zones

The Residential Growth Zone and General Residential Zone have been applied around activity centres.

These zone controls work in tandem with the Particular Provisions of the Planning Scheme:

- Residential development up to four storeys must meet the requirements of ResCode, which are contained in Clauses 54 and 55 of the Glen Eira Planning Scheme. Several ResCode standards, including ground level setbacks, open space, landscaping and walls on boundaries, can be varied through a schedule to the zone to suit local circumstances.
- An apartment development of five or more storeys must meet the requirements of Clause 58-Apartment standards.

Residential Growth Zone

The Residential Growth Zone (RGZ) is applied to residential land immediately adjoining the C1Z land in some of Glen Eira's activity centres.

The purpose of the **RGZ** is:

- *To provide housing at increased densities in buildings up to and including four storey buildings.*
- *To encourage a diversity of housing types in locations offering good access to services and transport including activity centres and town centres.*
- *To encourage a scale of development that provides a transition between areas of more intensive use and development and other residential areas.*
- *To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.*

There are two schedules to the RGZ in Glen Eira:

Schedule 1 to the RGZ (Urban villages) specifies a mandatory height of 13.5m and has no ResCode variations.

Schedule 2 to the RGZ (Strategic development sites) specifies a discretionary height of 13.5m and has no ResCode variations.

General Residential Zone

The General Residential Zone (GRZ) applies to residential development around Glen Eira's activity centres, at the interface with the lower-scale and density Neighbourhood Residential Zoned land.

The purpose of the **GRZ** is:

- *To encourage development that respects the neighbourhood character of the area.*
- *To encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.*
- *To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.*

Recent changes to the GRZ have seen the introduction of a new garden space requirement that must be provided as a minimum percentage of site area, at ground level:

- 400- 500m² 25% of site area
- 501- 650 square metres 30% of site area
- Above 650m²- 35% of site area.

The garden area must be a minimum of 1 metre in width and can be calculated with areas such as; lawns, open entertaining areas, garden beds, swimming pools and tennis courts. The garden area applies to any lot over 400m² and does not include driveways or roofed areas.

There is also a new requirement for relevant neighbourhood character objectives to be specified in the schedule to the residential zones. This will allow Council to specify the key requirements for the areas to which each schedule applies.

There are three schedules to the GRZ in Glen Eira:

Schedule 1 to the GRZ (Neighbourhood centre areas) specifies a mandatory height of 10.5m and has no ResCode variations.

Schedule 2 to the GRZ (Tram, routes & main roads, residential transition areas) specifies a mandatory height of 10.5m as well as variation to the side and rear setbacks requirements:

- First storey (ground level or basement) rear setback – 4 metres from a property in the Neighbourhood Residential Zone.
- Second storey rear setback – 5.5 metres from a property in the Neighbourhood Residential Zone.
- Third storey rear setback – 11.5 metres from a property in the Neighbourhood Residential Zone.

Schedule 3 to the GRZ (Infill residential development sites) has the same specifications as GRZ2.

Particular Provisions

Clause 55: Two or more dwellings - 'ResCode'

The particular provisions relating to residential development of two or more dwellings and under four storeys are at **Clause 55** (ResCode) and include the objectives:

- *To achieve residential development that respects the existing neighbourhood character or which contributes to a preferred neighbourhood character.*
- *To encourage residential development that provides reasonable standards of amenity for existing and new residents.*
- *To encourage residential development that is responsive to the site and the neighbourhood.*

ResCode includes detailed design objectives and standards, at Clauses 55.01 through to 55.07. These relate to the key design issues of: neighbourhood and site description and design response; neighbourhood character and infrastructure; site layout and building massing; amenity

impacts; on-site amenity and facilities; detailed design; and apartment developments.

New developments must meet all applicable objectives and should meet all applicable standards. As noted, some of the objectives and standards may be modified through a schedule to the zone to provide specific design outcomes in nominated locations.

Clause 58: Apartment developments - over 5 storeys

The recently introduced Clause 58- Apartment developments- relates to apartment developments of 5 or more storeys in the GRZ or RGZ, and any apartment development in the C1Z.

Clause 58 implements the new State Government *Better Apartment Design Standards* (Department of Environment, Land, Water and Planning, 2017).

The objectives standards address detailed design issues of both internal amenity and response to urban context.

Clause 58 introduces requirements relating to:

- Urban context
- Site layout
- Amenity impacts
- Design design
- Internal amenity.

State Government Design Guidelines

State Planning Policy, at Clause 15.01-1 Urban Design, requires that these guidelines are referenced in considering the design of buildings in activity centres:

- *Design Guidelines for Higher Density Residential Development* (Department of Sustainability and Environment, 2004)
- *Activity Centre Design Guidelines* (Department of Sustainability and Environment, 2005).

Guidelines for Higher Density Residential Development

The *Guidelines for Higher Density Residential Development* apply to residential buildings of four or more storeys, and relate to issues such as height, neighbourhood character, street setback, open space, overlooking and overshadowing.

Where planning controls allow higher density housing, the guidelines assist designers to prepare development applications that respond to the local urban context and meet the design objectives. The guidelines also help council planners when assessing development applications.

The guidelines are structured around under six elements of design consideration:

- Urban context
- Building envelope
- Street pattern and street edge quality
- Circulation and services
- Building layout and design
- Open space and landscape design.

Activity Centre Design Guidelines

The *Activity Centre Design Guidelines* for activity centres provide general design advice on various aspects of best-practice urban design for activity centres.

The guidelines are structured under eight elements of design consideration:

- Urban structure
- Stations and interchanges
- Street design
- Public spaces
- Building design
- Malls and large stores
- Higher density housing
- Car parking.

How effective are the current controls?

The review of development issues and opportunities in Glen Eira in Chapter 3 has shown that the current planning policies and controls are lacking in terms of achieving desired design outcomes for Council's activity centres.

Key issues that a review of planning policies and controls should address are:

- Setting maximum building heights and setbacks from the street or adjoining sites
- Ensuring a transitional building form to adjoining residential or lower-scale interfaces
- Managing amenity issues at the interface with adjoining residential sites, including overlooking, overshadowing and visual bulk
- Activation of the lower building levels, as appropriate to a retail/commercial or residential streetscape
- Ensuring a high standard of overall design quality, with improved outcomes in terms of design detail, materials and articulation
- Improved design of basement carparking, including setting a minimum footprint to allow space for tree planting and design of the entrance so that it does not detract from the streetscape
- For higher scale mixed use buildings, clear expression of a podium base and tower form above
- In residential areas, ensuring adequate space is retained for garden areas and landscaping, including canopy trees; this is a particular issue in the General Residential Zoned areas
- Providing a diversity of housing types in new residential development, including accommodation for singles, larger household groups, the elderly and affordable housing.

Review of Best Practice Development Guidelines

Overview

A selection of best practice development guidelines have been reviewed to assist in the preparation of development guidelines for Glen Eira's activity centres.

This review has illustrated how other municipal areas are managing design issues in residential and commercial development within and around activity centres. It provides useful references for the next stage of the project, in which detailed guidelines will be prepared for Glen Eira, and ultimately translated into Planning Scheme controls.

Best practice design guidelines - discussion

Most examples of Urban Design Guidelines are specific to a certain geographical area and/or an urban form or typology, and address particular issues. They are therefore specific in their recommendations and implementation.

Many of the guidelines are included in the planning scheme as a reference document, such that they must be considered when assessing relevant

planning permit applications. Some of the guidelines have also been translated into planning scheme controls, such as the Design and Development Overlay or variations to residential zone schedules.

Several of the guidelines are of particular relevance to this document. Firstly, the Dandenong Road UDF includes detailed recommendations pertaining to the transition of development scale and intensity from designated strategic development areas on Dandenong Road, to existing residential streets behind.

The Banyule Tree Planting Zone Guidelines outline the techniques required to ensure greater provision of canopy trees.

And lastly, the City of Darebin Residential Built Form Guidelines are an example of detailed design guidelines relating to a very similar set of circumstances and issues to those found in the residential areas of Glen Eira's activity centres.

For this reason these guidelines have been discussed in greater detail.

Commercial

City of Whitehorse - Neighbourhood Activity Centre UDGs (Planisphere)

For each of the Neighbourhood Activity Centres the guidelines consider availability and proximity to existing facilities, development opportunities and constraints, and the appropriate scale of development. These factors determine the form of development that may be appropriate for the type of centre.

General design guidelines apply to each of the 60 centres identified across the municipality as part of the study. Detailed building heights and setbacks, as well as design objectives and built form guidelines, are provided for five different categories of centre:

- Small-medium local service centres, on a standard width road
- Large sized centres on a standard width road
- Small-medium local service centres on a wide main road
- Large sized centres on a wide main road

- Large, car based centres on a wide main road.

The guidelines are included in the Planning Scheme as a Reference Document and used when assessing relevant planning permit applications.

This study is a good example of how to apply design guidelines to different built form typologies that exist across an entire municipal area.

City of Stonnington - Dandenong Road Urban Design Framework (David Lock Associates)

The Framework relates to a very specific issue and area, namely the height of buildings north of Dandenong Road, between Tooronga Rd and Bates St, Stonnington. This area is directly opposite Caulfield Junction within Glen Eira.

The Framework recommends height limits to the Dandenong Rd frontage, including a preferred street wall height. It notes the emerging character of Dandenong Road of 6-7 storey buildings with the top floor setback. Therefore, the guidelines include a discretionary height limit of 25m with a preferred street wall height of 20m

to reinforce this character.

The Framework notes that *“the width of Dandenong Road means that development which complies with the guidelines will not result in an uncomfortable degree of enclosure. Indeed, taller buildings are needed to have sufficient presence to reduce the visual dominance of the road”*.

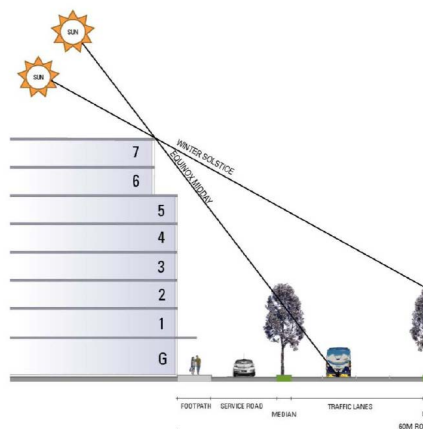
The Framework also proposes a 3-storey residential development at the interface with residential street frontages, including:

- 3m front setback with soft landscaping and canopy trees
- Setback of third level
- Modulation of the built form to reflect the rhythm of existing residential development in the street. *“For example, development could include recessed sections between pairs of apartments or townhouses to mimic the gaps between detached houses.”*
- Front fences up to 1.5m high from footpath level
- Individual entries to ground floor dwellings.

These recommendations are provided to ensure a residential scale is retained in these streets. Whilst they promote townhouse developments fronting these streets, the emphasis is on the appearance and function of dwellings fronting the street rather than the development typology, meaning that apartments could still be provided in accordance with the guidelines.

Recommendations are also provided for interfaces with residential lots or laneways.

The provisions of the Framework have been translated into the Stonnington Planning Scheme through the DDO.



Dandenong Road Built Form Sections- DLA

City of Banyule - Greensborough Activity Centre Design Guidelines (David Lock Associates)

These Guidelines apply to Precincts 2, 5 & 6 within the Greensborough Activity Centre Zone and address building heights and massing, views and vistas, and setbacks and landscaping.

The Guidelines set out built form parameters for different sub-precincts. They aim to balance the intensification of built form with retaining a human scale at the street level to enhance the pedestrian experience and to protect existing views and vistas.

Street setbacks and landscaping are recommended based on a hierarchy of road types, with setback increasing as the order of the road descends. Minimum setbacks are applied, with increases for existing vegetation.

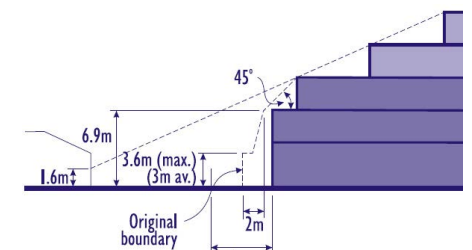
The Guidelines have been translated into the Banyule Planning Scheme through the detailed requirements of the ACZ schedule, and are also included as a Reference Document.

City Of Darebin - High Street Precinct Guidelines (DLA & Planisphere)

These Guidelines set out preferred outcomes, key objectives and a vision for different precincts along High Street. The Guidelines set out very specific built form parameters, including building heights and setbacks to respond to the local context.

This includes appropriate building scale at the street frontage and upper level setbacks to retain streetscape character. Heights and setbacks at different residential interface scenarios are also set out so that overlooking, overshadowing or visual bulk can be avoided at the commercial-residential transition.

The Guidelines have been translated into the Darebin Planning Scheme through the DDO.



Darebin High Street Rear Setback- DLA + Planisphere

Residential

City Of Darebin - Residential Built Form Guidelines

These Guidelines respond to the increasing pressure for apartment development in Darebin's residential areas, to guide the built form of higher density residential development. The Guidelines are directed by principles derived from the Urban Design Charter for Victoria.

The Guidelines are based around two typologies: a Garden Apartment typology, and an alternative Urban Apartment typology that responds to a more urban road character of some precincts.

General design guidelines are set out, and relate to the principles of the Urban Design Charter, providing objectives and a set of specific guidelines for each principle.

The design objectives of these Guidelines are highly relevant to the current development issues in Glen Eira, and include:

- To ensure development contributes to a high quality pedestrian environment and increases activation of the public realm
- To facilitate the consolidation of lots to increase street frontage width
- To maximise the development of the front portion of the lot with front and rear facing dwellings
- To discourage side-facing dwellings, due to their potential for reduced amenity outcomes
- To match the layout of the garden apartment typology, where it exists (or has the potential to) on the boundary of adjacent lots
- To provide side setbacks, towards the rear of the lot, with adequate width to permit canopy trees, creating a garden setting for dwellings
- To provide adequate separation between dwellings within the lot, avoiding reliance on screening to provide privacy
- To allow potential for additional dwellings to the rear of deeper lots, provided that building separation requirements can be met within the lot
- To recognise the potential for a cumulative adverse impact of higher density development along a corridor, and propose rear setbacks to sensitive rear interfaces that seek to mitigate this effect
- To balance considerations of potential development yield with internal amenity
- To consider the amenity of adjacent lots, in terms of primary dwelling outlooks and private open space, where they are considered to have a lower propensity for redevelopment
- To accommodate potential mixed uses at ground floor level in the Urban Apartment Building typology.

The Garden Apartment typology has been applied within the RGZ through changes to the schedule including additional requirements for ResCode standards of front setbacks, site coverage, permeability and landscaping. The DDO also applies to RGZ areas around activity centres in order to encourage higher density housing of an appropriate standard, and to manage sensitive interface conditions.

The guidelines are readily applicable to the similar residential context of Glen Eira as they deal with similar issues of side interface amenity impacts, poor street presentation, excessive development footprints and poor internal amenity.



Darebin Garden Apartment Typology- CoD

Banyule City Council - Tree Planting Zone Guidelines

Banyule City Council have conducted extensive research on ways in which the municipality's tree canopy can be retained and extended in residential development. A key aspect of this aim has been to develop these Tree Planting Zone Guidelines to ensure that trees are retained, or can grow after a site has been developed.

The Guidelines set out a required 'Tree Planting Zone' to be provided at ground level to reduce the potential conflicts between trees and buildings.

A typical requirement is that one large to medium tree should be provided for every 400m² of site area, with a preference for large trees. This may include existing trees worthy of retention, and at least one of the large trees provided in the front setback.

The Guidelines have been implemented through the Planning Scheme as a Residential Neighbourhood Character Policy (Clause 22.02), which applies to all development in the Neighbourhood Residential Zone, General Residential Zone, Rural Conservation Zone, Low Density Residential Zone, and Precinct 5 of Schedule 1 to the Activity Centre Zone.

The GRZ Schedule 2 (Incremental areas) has been amended to require one canopy tree per 400m² of site area, including 1 large tree in the front setback, and to limit site coverage to 40% to allow adequate space for landscaping.



Banyule Tree Planting Zone Guidelines- BCC

Bayside City Council - Small Neighbourhood Activity Centres Design Assessment & Guidelines

These Guidelines consider detailed design responses for small Neighbourhood Activity Centres (NACs) and aim to address different contextual issues of coastal settings, the residential hinterland, public transport corridors and main roads.

The Guidelines consider the specific street context and interface scenarios of the municipality's NACs by way of building typologies.

Each centre is assessed in terms its capacity for change, considering:

- The designation in the Bayside Activity Centre hierarchy
- The 'type' of centre, having regard to its arrangement as a one or two sided strip centre
- The 'setting', having regard to the influence of surrounding residential neighbourhood qualities, public transport provision or main road or coastal address.

The capacity for change of each centre accords to one of three design responses which outline a recommended building envelope.

Essentially, the design responses are identical setting out a maximum height and front and rear setbacks, with an additional floor recommended for each increase in level of capacity to change.

Maroondah City Council - Ringwood Transit City North West Residential Precinct Plan (Planisphere)

This Precinct Plan follows on from the Ringwood Transit City Urban Design Masterplan 2004, to guide future residential development in the Precinct. The plan includes general design guidelines for a range of design elements, with objectives and design responses provided for each element.

These guidelines include built form parameters in the form of interface typologies, and also preferred character including height, setback, balconies, corner elements and materials. They have been translated into a DDO.

Opportunities for Glen Eira's Activity Centres

This review of approaches to commercial and residential design controls in other municipalities' activity centres has shown that there is a range of possibilities to manage development outcomes in Glen Eira.

Approaches to statutory implementation through the Glen Eira Planning Scheme could include:

- Overarching design objectives set out in an updated Local Policy, as well detailed objectives relating to a specific location or design issue
 - Additional ResCode requirements included in the schedule to the RGZ or GRZ, relating to building heights, ground level setbacks, landscaping (including provision of canopy trees), site coverage, permeability and front fence height.
 - Design objectives included in each schedule to the residential zones which set out the preferred future character.
- Application of the DDO to commercial or residential areas within an activity centre, or its immediate surrounds where higher density housing is to be directed, which could address:
 - Detailed built form parameters, including heights, setbacks, residential interface treatments
 - Design of basement carparks and ground level streetscape integration and activation
 - Detailed requirements for a transitional building form to adjoining residential or lower-scale interfaces and other means to manage residential amenity issues
 - Ensuring a high standard of overall design quality, with improved outcomes in terms of design detail, materials and articulation
 - For higher scale mixed use buildings, clear expression of a podium and tower form above
 - Integration of community benefit outcomes within higher scale/density development.



3

Building Typologies

Overview

What are the Building Typologies?

A part of the project brief has been to recommend design objectives and parameters for the different building typologies that are likely to be seen within Glen Eira's activity centres.

The draft *Activity Centre, Housing and Local Economy Strategy* has identified four different building typologies which apply to either commercial or residential areas:

Commercial

Shop top

Residential

Apartment- Residential

Garden Townhouses / Apartments

This chapter provides an outline of these three typologies, how they might be applied spatially, the current development issues and opportunities, and options for the future.

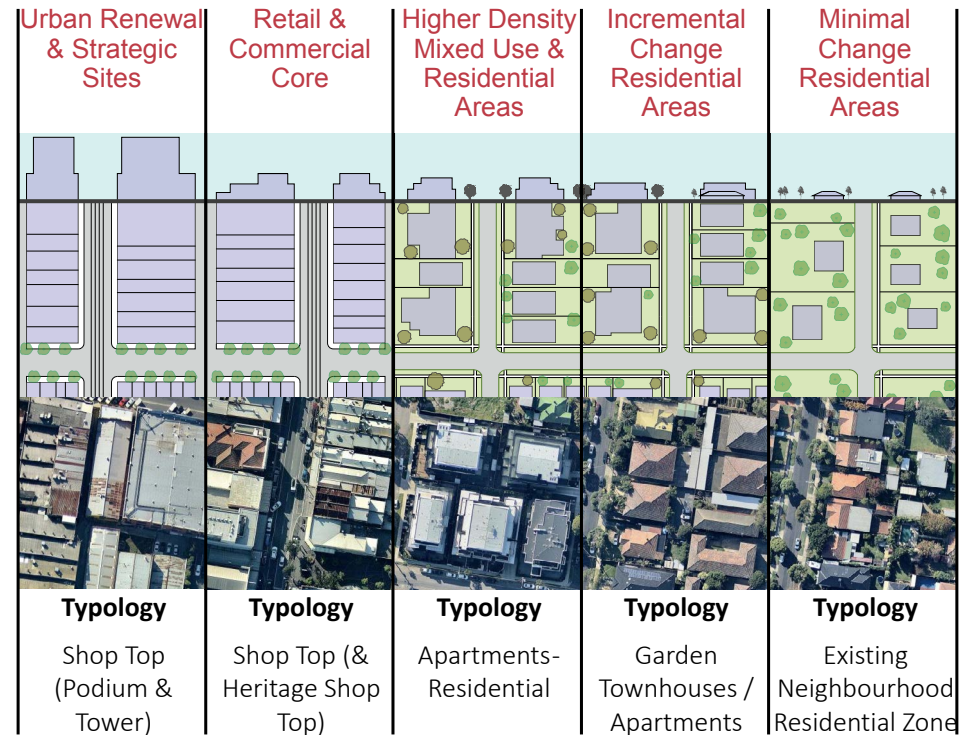
Transect Approach

The Urban Transect is a geographic cross-section of a region that sequences the built form outcomes of zone-based planning from urban centres out to rural fringes. It was developed by Duany Plater-Zyberk Architects (DPZ).

These guidelines reference the transect as a means of visualising and spatialising the transition from Glen Eira's areas of urban renewal and key activity centre retail areas, through the surrounding areas of high to incremental change, into the established low-scale neighbourhoods comprising predominantly single and double storey residential development.

The benefit of this approach is that by stepping down built form across the transect, interface issues can be effectively managed through careful spatial application of the typologies.

Glen Eira Urban Transect



Shop-Top Typology

The Shop-Top Typology describes a preferred vision for the commercial areas of activity centres, as well as strategic and renewal sites. It allows for modest development above 'traditional' street wall built form, and for more significant development where the site can accommodate a 'tower and podium' configuration to mitigate impacts on the streetscape and adjacent amenity.

Retail shopfront comprising commercial or retail at ground floor with office or residential uses above.

The Shop-Top typology specifically relates to fine-grain retail strips. Larger or strategic sites within these strips will allow for greater heights.

Where It Applies

- Core retail strips within Major Activity Centres with an established low-scale parapet height eg Carnegie and Elsternwick
- Commercial sites at the edges of Major Activity Centres where a transitional scale to adjoining low-scale residential areas is required
- Neighbourhood Centres which comprise a small cluster of shops surrounded by low scale residential areas
- Shops along arterial roads or tram routes which have an interface with low scale residential areas (may be within a residential zone)

Also in strategic sites or areas which are of an adequate area to support a higher scale form and which are not constrained by sensitive interface conditions:

- Urban renewal precincts
- Strategic sites or precincts within Major Activity Centres
- Strategic sites within Neighbourhood Centres
- Renewal sites

Zones

Will mostly occur within Commercial 1 Zone

May also occur at strategic or existing retail sites within Residential Growth Zone.



Elsternwick



South Caulfield



Bentleigh



Carnegie

Shop-Top Typology

Issues

The issues seen in recent development as detailed in the accompanying *Glen Eira Activity Centres Urban Context Report* can be summarised as follows:

- Developments failing to provide a positive interface with streets through ground level activation. This includes activation at the street level, and levels 2-5 above which also have a relationship with the street environment.
- Location of services which disrupt ground level design.
- On larger sites, loss of the 'fine-grained' building form and articulation typical of traditional retail areas.
- Overshadowing, overlooking and visual bulk at residential interfaces.
- Buildings with a solid mass or sheer elevations, which present visual bulk to the street. An overall lack of detailed design quality and material finishes.

Opportunities

Opportunities to provide improved design outcomes include:

- Potential to locate a range of additional housing and other land uses within the heart of the activity centre.
- Expression of the fine-grained elements of the streetscape through building form, massing and vertical articulation.
- Positive interactions with streetscape activity through improved ground level design.
- For buildings above a nominated height, Council could require community benefits to be provided in the form of new open space or community facilities on-site.

General Design Objectives

The following design objectives apply to both commercial typologies:

- To ensure the lower three levels of buildings have a positive connection to the street and contribute to the centre's vibrancy, pedestrian amenity and attractiveness.
- To maintain and enhance the intact character of consistent street edges, setback upper levels, vertical articulation and rhythm, and fine grain detailing.
- To encourage a range of higher density housing types within activity centres and close to transport connections.
- To minimise the visibility of blank facades in the streetscape.
- To maintain solar access to sensitive interfaces and footpaths in key pedestrian streets.

Shop-Top Typology

Design Guidelines

Design Considerations

Retail strips in Glen Eira are typically defined by a consistent street wall of one to two-storey buildings. The height of these street walls are often informed by older two-storey buildings with taller ceilings and parapet roofs that overall equate to a contemporary scale of approximately three-storeys.

These consistent street wall heights create a strong visual element in the streetscape, and contribute to the character and pedestrian amenity of the activity centres.

The design guidelines encourage new development to be in keeping with the prevailing parapet height in the context of the streetscape. The adjacent elevations show how the preferred maximum street wall height works with the prevailing parapet height within the streetscape context. Table 1 on the following page demonstrates the upper level setbacks that relate to this context.

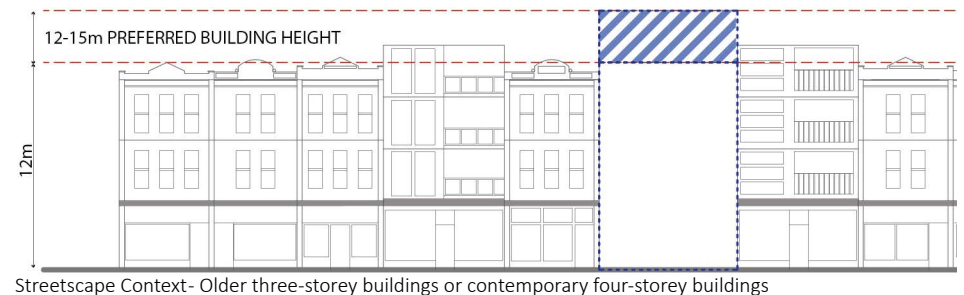
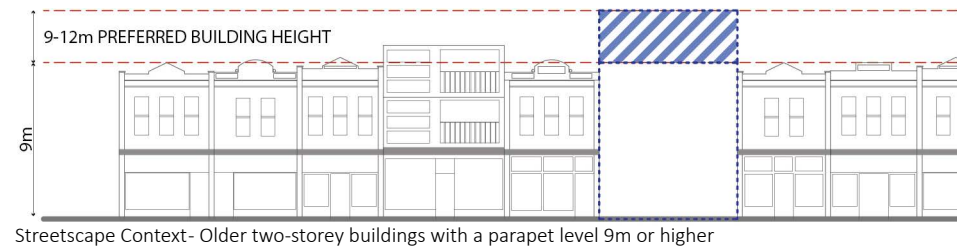
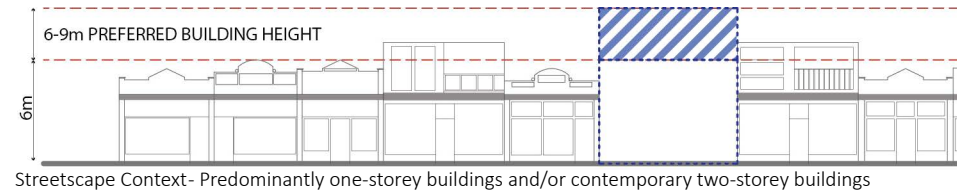
For the purposes of these guidelines, the prevailing parapet height is defined as:

the most frequently occurring parapet height (heights rounded to nearest 0.5m) within buildings along the same street block.

Upper level setbacks and differentiated architectural expression will ensure that upper levels are distinct from the street edge built form.

The design guidelines also encourage new development to reflect the rhythm, vertical articulation and fine grain detailing of the street walls. Good visual connectivity between the levels of the street edge is also encouraged.

The Heritage Sub-Typology applies to areas dominated by heritage buildings that contribute to consistent facade patterning and rhythm in the street wall and a consistent parapet level.



Development is to Avoid:

Buildings that disrupt a consistent street wall through incompatible height at the street edge.

Upper levels that are not distinct from street wall built form, either through insufficient setbacks or lack of differentiating architectural expression.

Excessive blank facades visible from the streetscape.

Buildings with poor visual / physical connection at ground level and from the street at street wall levels.

Overshadowing of key public spaces or residential private open space

Detailed Objectives

Street wall height is to reinforce the dominant parapet scale of the streetscape.

Upper levels are to be visually recessive and clearly distinct from the street wall built form.

Blank facades are to be limited to of upper levels where no side setback is required.

Vertical articulation and detailing of development in the street wall is to reflect the rhythm and fine grain detailing of the street wall context.

Development in the street wall is to ensure good visual connectivity and

activation of the street through use of glazing and active uses at ground level.

Solar access to pedestrian streets and residential areas is to be maintained.

Design Requirements

Building Height & Massing

Building heights are to comply with Table 1 below.

Street wall levels are to be built to the street frontage.

Upper levels above the street wall are to be setback in accordance with Table 1 below.

(The diagram opposite demonstrates

how this is achieved by obscuring approximately half of the height of the first upper level, or second upper level for street walls above 12m in height).

Proposed parapets are to match the prevailing parapet height.

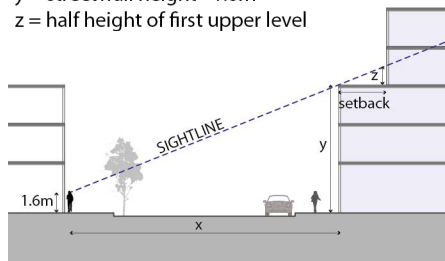
On larger strategic sites or within renewal precincts, a higher scale of building may be appropriate depending on the site context: up to a maximum 12 storeys overall height.

All development more than 6m above the street wall height is to be setback at least 5m from front, side and rear boundaries.

Table 1: Maximum Street Wall Heights

Streetscape Context	Prevailing Parapet Height	Preferred Street Wall Height	Preferred Overall Building Height	Frontage Setbacks (Above Street Wall)	Maximum Building Height
Predominantly one-storey buildings and/or contemporary two-storey buildings	Less than 9m	6 to 9m (two storeys)	Additional one storey (3m)	6m to all development above 9m	12 storeys (37.5m) where development above preferred building height is setback a minimum of 5m from side boundaries
Older two-storey buildings with a parapet level 9m or higher	9-12m	9m (two storeys) to 12m (three storeys)	Additional two storeys (6m)	4m to all development above 12m	
Older three-storey buildings or contemporary four-storey buildings	Higher than 12m	12m (three storeys) to 15m (four storeys)	Additional two storeys (6m)	7.5m to all development above 15m	
Heritage Sub-Typology- Consistent heritage streetscape (older two-storey buildings with a consistent parapet level)	To be determined in each case	Within 1m of the Prevailing Parapet Height (Mandatory)	Additional two storeys (6m)	4m to all development above 12m	

x = street width
 y = streetwall height - 1.6m
 z = half height of first upper level

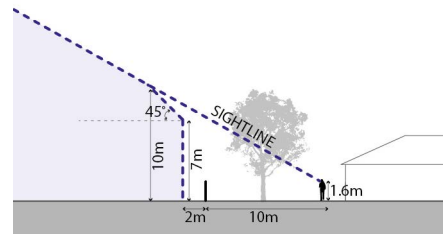


Front Setback of Upper Levels

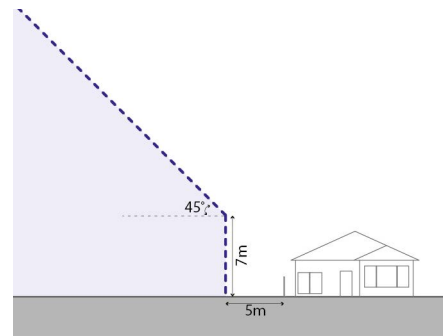
Rear setbacks adjoining residential properties are to be in accordance with the adjacent diagrams. Rear setbacks may be reduced where there is a laneway separation.

As shown on the diagram opposite, rear setbacks to the rear of an adjacent residential property are to reduce visual bulk by setting back all development above 10m to obscure it from view at the rear of the dwelling (to a maximum of distance of 10m off the rear boundary of the residential property).

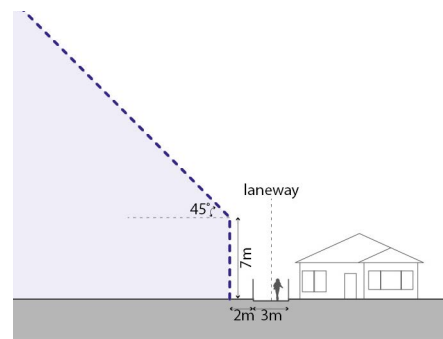
Where the rear boundary fronts public open space or carpark (or is separated from one of these by a laneway) a 0m rear setback is preferred.



Rear Setback Adjacent Rear of Residential Lot



Rear Setback Adjacent to Side-On Residential Lot



Rear Setback Adjacent to Side-On Residential Lot Separated by a Laneway

Solar Access

New buildings are not to reduce solar access to the opposite footpath of key pedestrian streets between 9am-3.30pm on the September equinox.

New buildings are not to reduce solar access to habitable rooms and open space of residential dwellings between 9am-3.30pm on the September equinox.

Street Wall Design

Corner buildings are to define the corner by ensuring a high standard of façade design and materials incorporating transparent glazing along both frontages. This may involve higher building elements where appropriate.

Where lots have been consolidated, development at the street wall is to reflect the original rhythm of the lots and the streetscape context through vertical articulation and detailing.

Active uses are to be located and accessed at ground level and expressed through high proportions of glazing.

Floors in the street wall above ground level are to provide windows that overlook the adjacent street, or public space.

Carparking located above ground is to be concealed from view by an active use at street frontages.

A verandah or awning, cantilevered from the face of the building is to be provided along the full width of the building frontage for weather protection.

Heritage Sub-Typology

Street wall height must be within 1m of the Prevailing Parapet Height.

An additional two storeys (6m) above street wall height may be appropriate with a minimum setback of 4m from the street wall alignment.

Facade articulation and detailing is to reflect the dominant lines of facade patterning.

Residential Typologies

The two residential typologies and the Apartment- Residential Typology and the Garden Townhouses / Apartments Typology. These describe higher density types of development to be located in the Residential Growth Zone and in the General Residential Zone around activity centres, providing a transition to the low-scale and garden setting of traditional neighbourhood areas.



22 Bent St, Bentleigh



Sutton Street, North Melbourne

Issues

The following is a summary of the issues seen in recent development as detailed in the accompanying *Glen Eira Activity Centres Urban Context Report*:

- Excessive site coverage and a lack of landscaping or space around buildings
- An overbearing scale and lack of greenery at the street frontage, detracting from the neighbourhood character
- Side amenity impacts of overlooking and increased visual bulk adjacent to rear yards
- Large and poorly designed entries to basement parking impacting on the streetscape.

Opportunities

Opportunities to provide improved design outcomes include:

- A range of residential building scales and densities can provide a transitional scale of development between activity centres and low-scale residential areas in the NRZ.
- New minimum garden area requirements for the GRZ to ensure adequate site landscaping and garden areas which contribute to streetscape character outcomes (could also apply to RGZ through policy).
- Improved integration with the streetscape, including the design of the street address, frontage setbacks and vehicle accesses.
- Improved protection of amenity for adjacent residential sites.
- Enhancement of the neighbourhood tree canopy.
- Managed vehicular access to provide positive streetscape and pedestrian amenity benefits.

Residential Typologies

Design Considerations

Recent development on consolidated lots are typified by a poor street presentation due to minimal articulation in the facade pattern, large areas of blank facades or overscaled facade elements, and an emphasis on horizontal lines. The design guidelines encourages articulation and detailing of facades at a finer grain, with emphasis on a vertical rhythm to reflect the scale of existing residential development.

The guidelines aim to increase activation of and better presentation to the street, encouraging front (and rear) oriented dwellings. This also minimises the amenity impacts of side outlooks on adjacent properties.

Residential areas of Glen Eira are characterised by the high levels of greenery provided by both the street trees and trees contained within private residential lots. Trees on residential lots are typically located in corridors along the frontage of lots, and also forming a mid-block corridor along the rear boundaries.

The design guidelines aim to ensure that new development is sited and designed to enable the retention of existing and planting of new trees.

General Design Objectives

Design objectives that apply to both residential typologies:

- To encourage development that encloses and defines the street with a fine-grain pattern of development to street edges, with numerous frontages and pedestrian entrances that generate activity.
- To ensure buildings are sited to provide space for trees and landscaped setbacks.
- To ensure that materials, fenestration and architectural detailing relate new typologies to a residential context.
- To ensure that development considers the existing residential amenity of adjacent lots, as well as the likely propensity for development of adjacent lots and its potential form, providing a suitably responsive design.
- To ensure that development provides a positive contribution to the streetscape and pedestrian amenity.

Apartment - Residential Typology

What It Is

Apartment building within a garden setting which could also include ground floor home office or small commercial space (as permitted by the zone).

Where It Applies

Areas designated for higher scale residential development:

- Surrounding Major Activity Centres
- Strategic locations within Neighbourhood Centres
- Strategic locations along arterial roads or tram routes

Zones

Residential Growth Zone Schedules 1 & 2

Detailed Response

Dwellings at street frontages are to be oriented to address the street and have individual entrances.

Dwellings oriented to the side or rear of a lot are to be designed and located to reduce potential impacts on adjacent dwellings.

Private open space located in the front setback is to utilise vegetative screening for privacy if required.

Development is to relate to the human scale of the streetscape through detailing and materiality.

Trees are to be retained or provided in the front and rear setbacks of lots.



Caulfield North



Carnegie



Carnegie



Bentleigh

Apartment - Residential Typology

Design Guidelines

Design Guidelines

Building Height & Massing

Preferred maximum height of 13.5m.

Front setback (including balconies and major protrusions) is to be a minimum of 5m.

Development at the second and third floors is to be setback by a further 2m from the frontage.

Ground level on both sides can be built along the boundary for a maximum length pursuant to ResCode. Beyond this a minimum 1m side setback is to be provided. Dwellings with a primary outlook to the side boundary are to be setback 2m from the side boundary.

Upper level side setbacks are to be further setback in accordance with ResCode, to ensure that private open spaces within the lot receive a minimum of 3 hours solar access between 9am and 3pm at the September equinox.

Development is to be setback a minimum of 3m from the rear boundary and further setback where required to allow for deep soil areas.

Development above ground floor level

is to be contained within a building envelope formed by a 45 degree angle, projected from a height of 3 metres at the rear lot boundary.

For lots fronting a rear lane, the 45 degree angle is projected from the boundary of the lot on the opposite side of the lane.

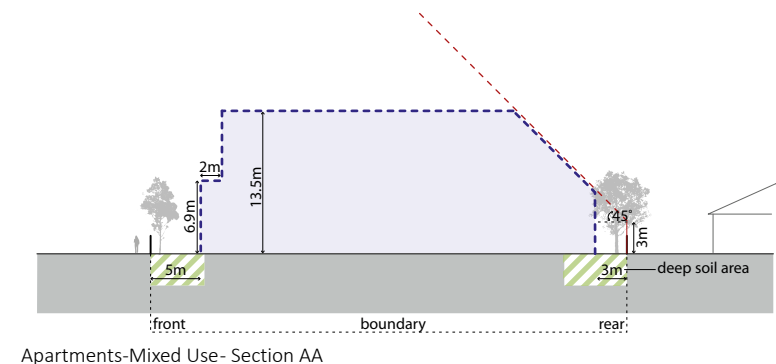
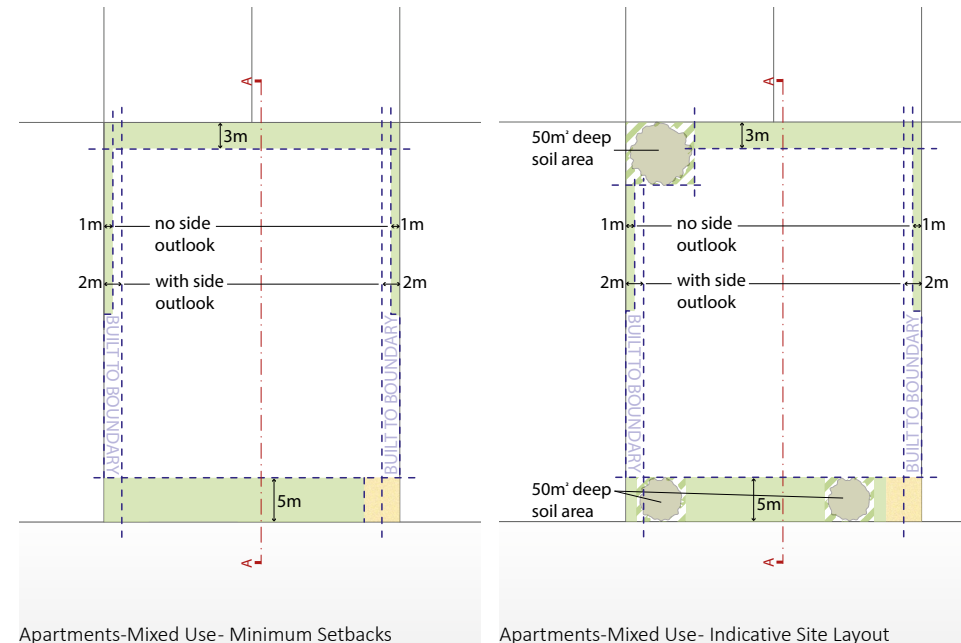
Dwelling Separation

Habitable room windows on the ground level are to be setback from side and rear boundaries sufficient distance to ensure adequate separation from existing or future habitable room windows on adjoining properties (i.e. minimum 2m).

Dwelling outlook types:

- Primary Outlook: Accommodates private open space and habitable room windows
- Secondary Outlook: Accommodates habitable room windows
- Secondary Restricted Outlook: Windows above 1.7 metres only

Primary outlook to primary or secondary outlook is to be separated by a minimum of 4m.



Apartment - Residential Typology

Design Guidelines

Primary outlook to a secondary restricted outlook is to be separated by a minimum of 4m.

Secondary outlook to a secondary or secondary restricted outlook is to be separated by a minimum of 2m.

Site Layout

Basement carparking is to occupy a maximum of 75% of the site area to ensure adequate deep soil areas for trees and landscaping.

Minimum tree provision:

Trees must be provided in the front and rear setback.

Front setback- 1 medium tree (or 2 small trees), per 750m² of site area.

Rear setback- 1 medium tree (or 2 small trees), per 750m² of site area.

Deep soil areas are to be an approximately symmetrical shape and a minimum area of:

- Medium trees- 50m²
- Small trees- 25m²

Street Presentation

Front fences are to be a maximum of 1.5m high from footpath level. Vegetative screening may extend beyond this height provided upper floors provide passive surveillance of the street.

The front facade is to be modulated to reflect the scale of existing and pre-existing development and lot patterns in the street, with an emphasis on vertical rhythm and avoiding large horizontal forms.

The front facade is to use human scale detailing and materiality such as brick or timber, and avoid large expanses of blank facade.

Vehicle access-ways to basement parking that are wider than 3m are to be screened at the general alignment of the building's front facade.

All setback areas must be landscaped and provide the minimum tree requirements in both the front and rear setbacks.

Applications must include a detailed Landscape Plan, indicating deep soil areas, proposed tree species and other vegetation appropriate to locality and site conditions.

Garden Townhouses / Apartments Typology

What It Is

Medium density housing in a garden setting to accommodate a range of household types. The Garden Townhouses / Apartments Typology has largely the same aims of the Apartments- Mixed Use typology, though adopts a lower height to transition development towards minimal change areas. This typology also takes into account the garden area requirements of the revised zone provisions, and directs development to provide these garden areas in locations to optimise the benefits to the streetscape and townscape of residential areas.

Where It Applies

Areas designated for medium density residential development:

- At the periphery of Major Activity Centres
- Strategic locations within Neighbourhood Centres
- Strategic locations along arterial roads or tram routes

Zone

General Residential Zone

Detailed Response

Dwellings at street frontages are to be oriented to address the street and have individual entrances.

Dwellings oriented to the side or rear of a lot are to be designed and located to reduce potential impacts on adjacent dwellings.

Private open space located in the front setback is to utilise vegetative screening for privacy if required.

Development is to relate to the human scale of the streetscape through detailing and materiality.

Trees are to be retained or provided in the front and rear setbacks of lots.



709 Riversdale Rd, Camberwell



22 & 20 Station Ave, McKinnon

Garden Townhouses / Apartments Typology

Design Guidelines

Design Guidelines

Building Height & Massing

Preferred maximum height of 10.5m.

Front setback (including balconies and major protrusions) is to be a minimum of 7m.

Development at the third floor is to be setback by a further 2m from the frontage.

Ground level on both sides can be built along the boundary for a maximum length pursuant to ResCode. Beyond this a minimum 1m side setback is to be provided. Dwellings with a primary outlook to the side boundary are to be setback 2m from the side boundary.

Upper level side setbacks are to be further setback in accordance with ResCode, to ensure that private open spaces within the lot receive a minimum of 3 hours solar access between 9am and 3pm at the September equinox.

Ground floor levels are to be setback a minimum of 5m from the rear boundary and further setback to allow for deep soil areas. Development above ground floor level is to be

contained within a building envelope formed by a 45 degree angle, projected from a height of 3 metres at the rear lot boundary.

For lots fronting a rear lane, the 45 degree angle is to be projected from the boundary of the lot on the opposite side of the lane.

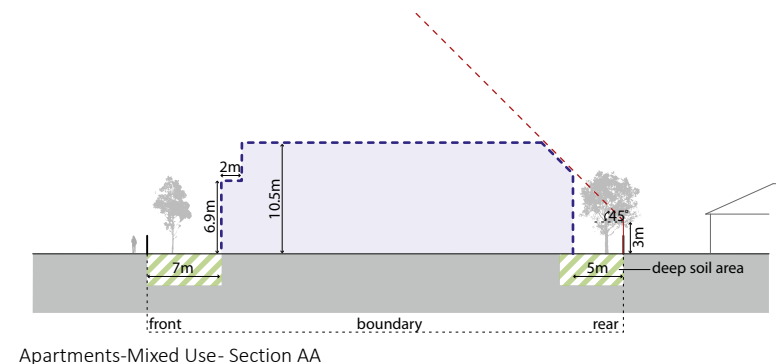
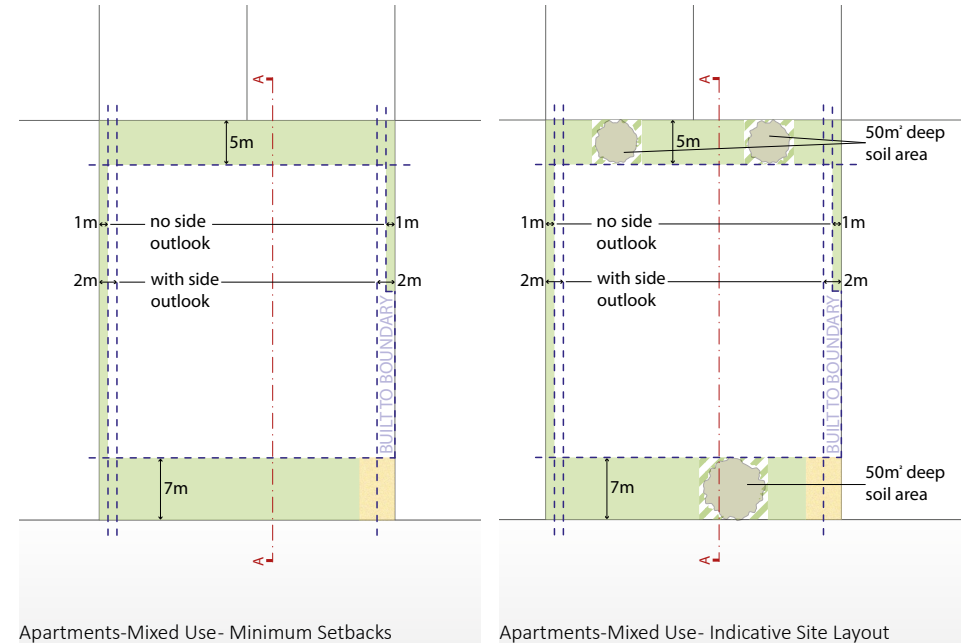
Dwelling Separation

Habitable room windows on the ground level are to be setback from side and rear boundaries sufficient distance to ensure adequate separation from existing or future habitable room windows on adjoining properties (i.e. minimum 2m).

Dwelling outlook types:

- Primary Outlook: Accommodates private open space and habitable room windows
- Secondary Outlook: Accommodates habitable room windows
- Secondary Restricted Outlook: Windows above 1.7 metres only

Primary outlook to primary or secondary outlook is to be separated by a minimum of 4m.



Garden Townhouses / Apartments Typology

Design Guidelines

Primary outlook to a secondary restricted outlook is to be separated by a minimum of 4m.

Secondary outlook to a secondary or secondary restricted outlook is to be separated by a minimum of 2m.

Site Layout

Basement carparking is to occupy a maximum of 75% of the site area to ensure adequate deep soil areas for trees and landscaping.

Minimum tree provision:

Trees must be provided in the front and rear setback.

Front setback- 1 medium tree (or 2 small trees), per 750m² of site area.

Rear setback- 1 medium tree (or 2 small trees), per 750m² of site area.

Deep soil areas are to be an approximately symmetrical shape and a minimum area of:

- Medium trees- 50m²
- Small trees- 25m²

Street Presentation

Front fences are to be a maximum of 1.5m high from footpath level. Vegetative screening may extend beyond this height provided upper floors provide passive surveillance of the street.

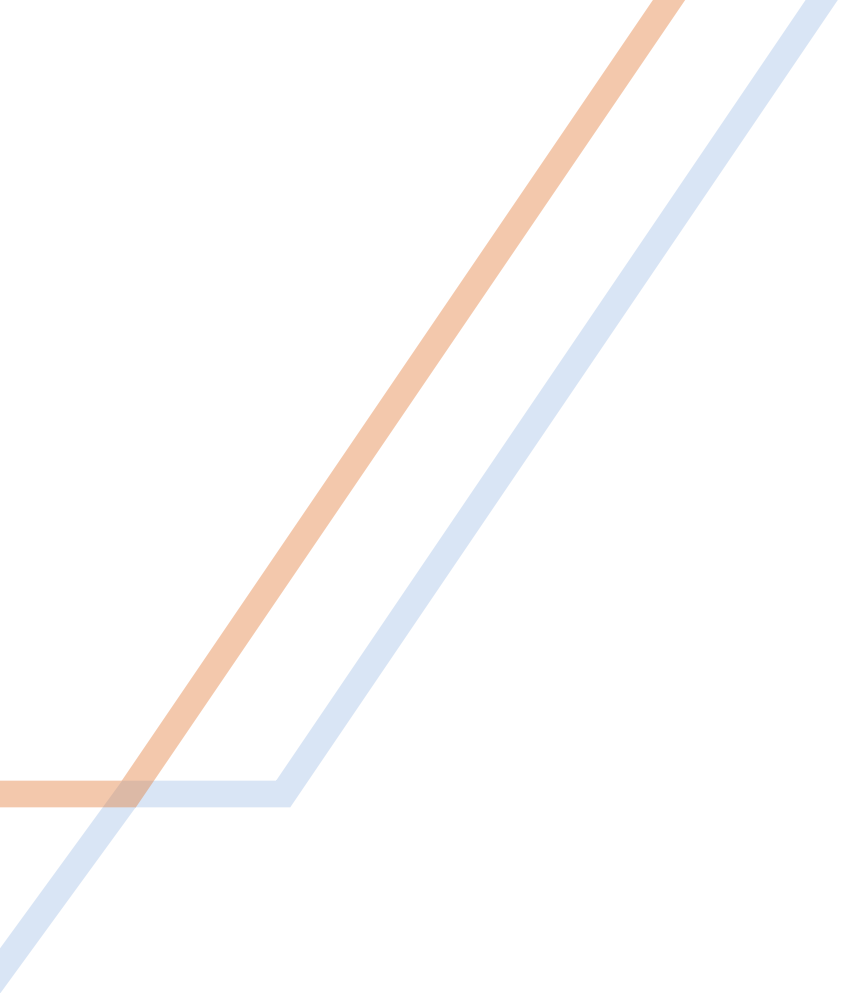
The front facade is to be modulated to reflect the scale of existing and pre-existing development and lot patterns in the street, with an emphasis on vertical rhythm and avoiding large horizontal forms.


The front facade is to use human scale detailing and materiality such as brick or timber, and avoid large expanses of blank facade.

Vehicle access-ways to basement parking that are wider than 3m are to be screened at the general alignment of the building's front facade.

All setback areas must be landscaped and provide the minimum tree requirements in both the front and rear setbacks.

Applications must include a detailed Landscape Plan, indicating deep soil areas, proposed tree species and other vegetation appropriate to locality and site conditions.





A

APPENDIX A: Residential Requirements Testing

Minimum Setbacks Testing Analysis

Residential Setbacks

The below tables demonstrate the required garden area and total site coverage allowable under both the GRZ and RGZ zones.

It also confirms that the maximum building envelope using the minimum setbacks in this report is not achievable, as the Garden Area and Site Coverage requirements are not met.


GRZ

Consolidated Lot	Typical Lot Size	Max. Site Coverage	Actual Site Coverage	Required Garden Area	Provided Garden Area
Single Lot	750m ²	60% (450m ²)	67% (502m ²)	35% (262.5m ²)	29% (219m ²)
Two Lot Consolidated	1500m ²	60% (900m ²)	70% (1,050m ²)	35% (525m ²)	28% (420m ²)

*Garden Area calculations allow for a driveway width of 4m within the front setback.

RGZ

Consolidated Lot	Typical Lot Size	Max. Site Coverage	Actual Site Coverage
Single Lot	750m ²	60% (450m ²)	77% (580m ²)
Two Lot Consolidated	1500m ²	60% (900m ²)	80% (1,196m ²)



B

APPENDIX B: Typology Modelling

CZ1: Shop Top Typology

Single Site: No Rear Setbacks

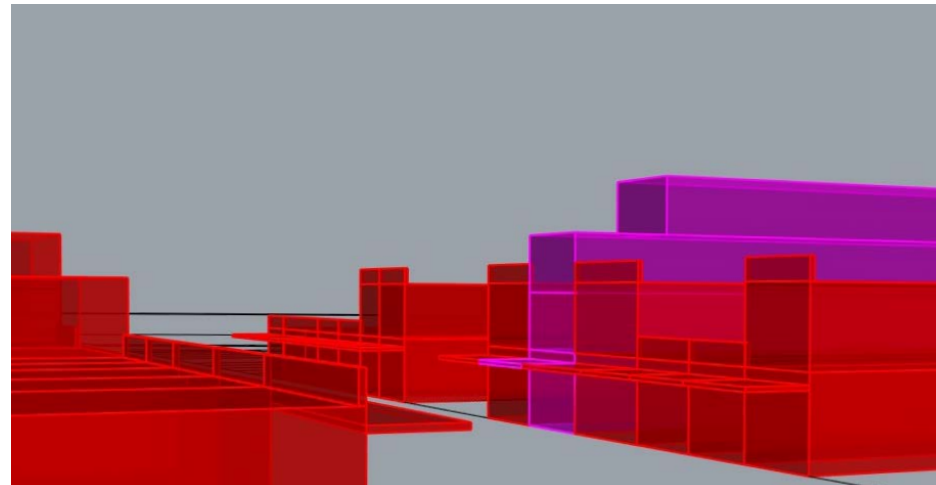
Total Site Area: 330m²

Site Coverage: 330m² (100%)

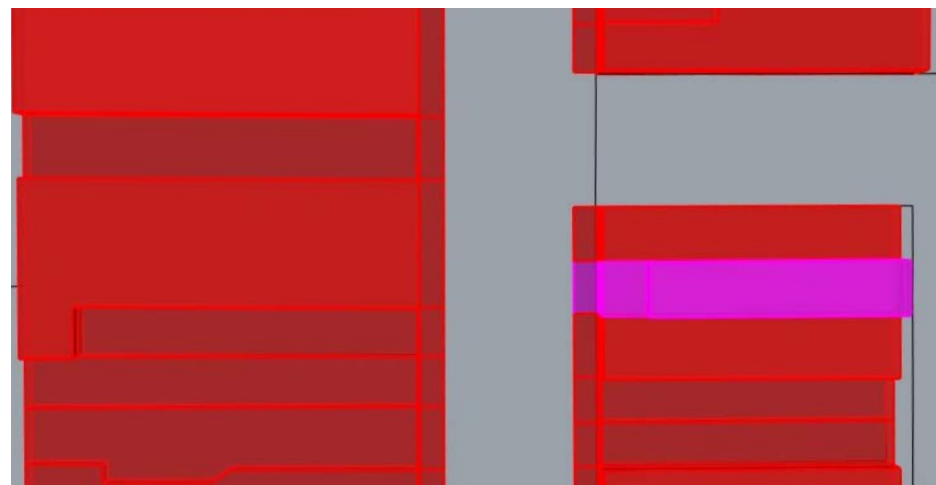
All heights and setbacks are in accordance with the Draft Design Guidelines.

*All Calculations are approximate.

Typology- 4 storey Shop Top development. 3 storey height at street edge to reinforce the existing parapet scale along the street edge, with a 5m front setback on the 4th level.



View of Built Form



Plan view of Built Form

Built Form Analysis:

The 3 storey street edge allows for the development to continue the historical 2 storey parapet street character.

Single Site: With Rear Setbacks

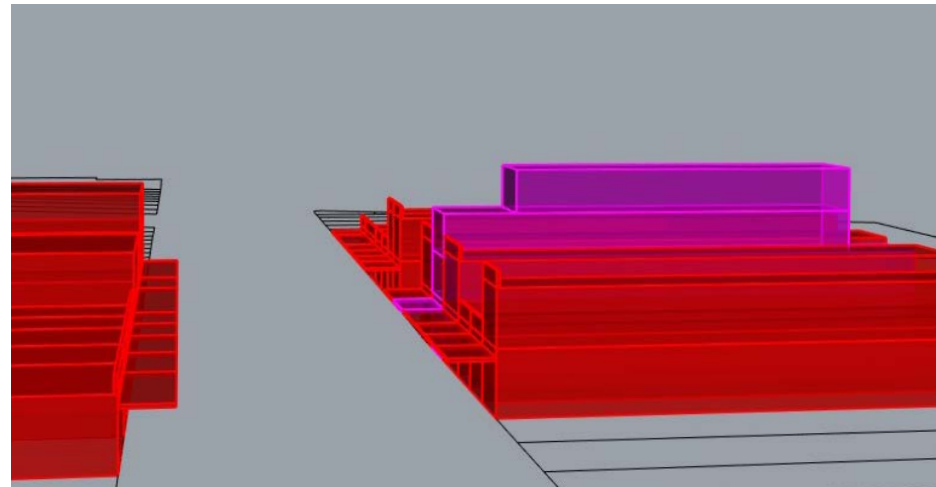
Total Site Area: 330m²

Site Coverage: 330m² (100%)

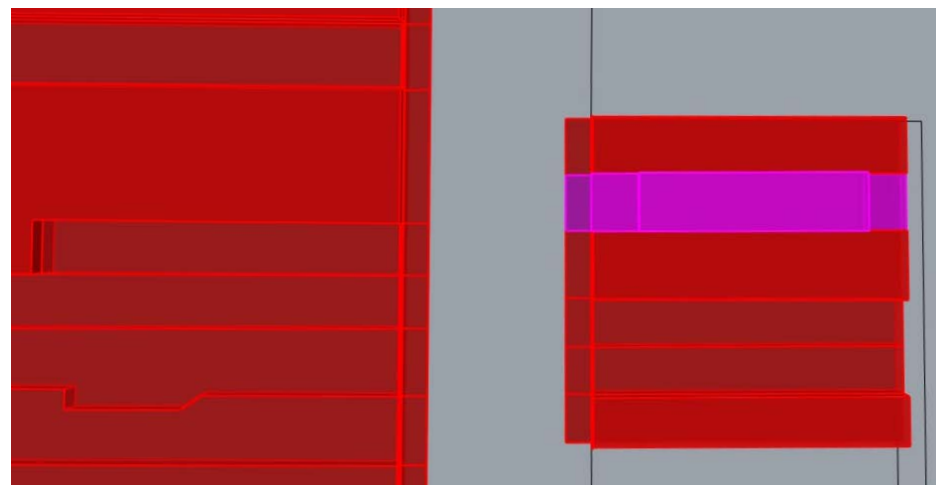
All heights and setbacks are in accordance with the Draft Design Guidelines.

*All Calculations are approximate.

Typology- 4 storey Shop Top development. 3 storey height at street edge to reinforce the existing parapet scale along the street edge, with a 5m front setback on the 4th level. 5m rear setback to sensitive residential interface.



View of Built Form



Built Form Analysis:

The model demonstrates a 5m rear setback on the upper two stories to demonstrate requirements of development with a sensitive interface ie. Low density residential.

(This may need to be increased to reflect taller development similar to Dandenong Road Design Guidelines.)

Consolidated Site: Strategic Site

(3 Sites)

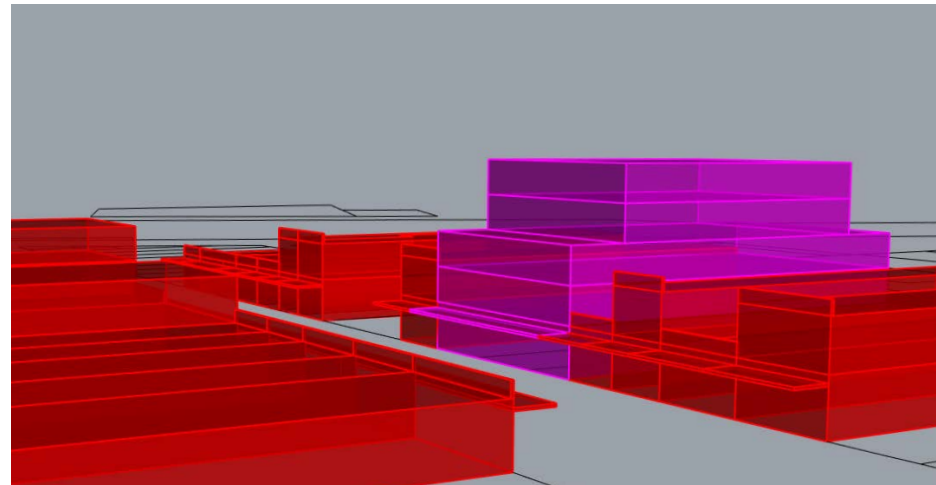
Total Site Area: 633m²

Site Coverage: 633m² (100%)

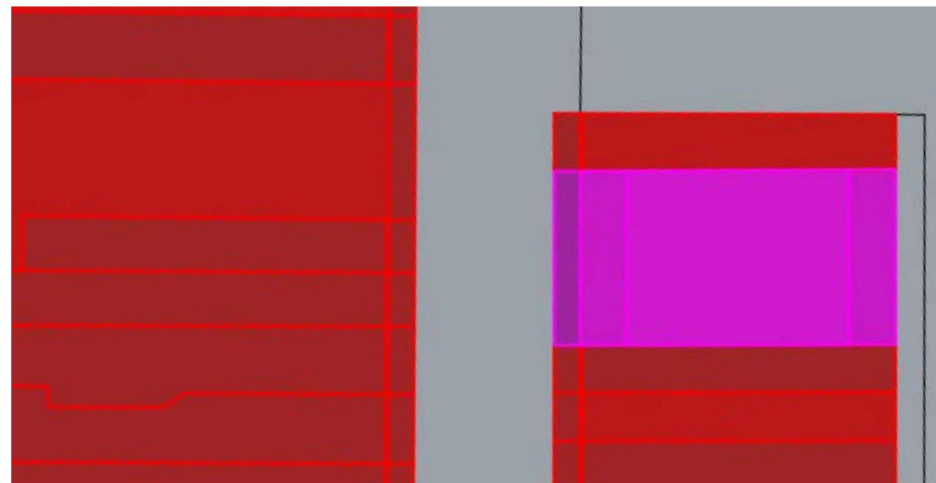
All heights and setbacks are in accordance with the Draft Design Guidelines.

*All Calculations are approximate.

Typology- 6 storey Shop Top development. 3 storey height at street edge to reinforce the existing parapet scale along the street edge, with a 5m front setback on the 4th level and a further 5m setback on the top (6th) level. These upper level front setbacks are also reflected on the rear of the development.



View of Built Form



Plan view of Built Form

Built Form Analysis:

The consolidation of three sites with a six storey development with setbacks ensures there is enough developable area to provide a greater design and internal amenity outcome.

The upper level setbacks will ensure the developments visual bulk will be minimised from street level, particularly from the opposite side of the street.

The rear upper level setbacks are important to consider when backing onto a residential lot. The 5m front setbacks reflected on the rear in this built form model may need to be increased?

CZ1: Apartment Mixed Use Typology

Strategic Site:

Total Site Area: 3,222m²

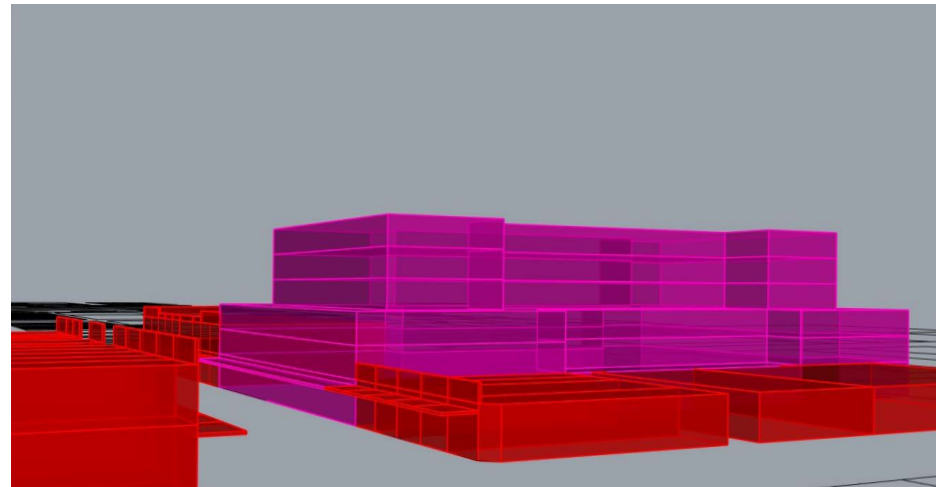
Site Coverage: 3,003m² (93%)

All heights and setbacks are in accordance with the Schedule to the Zone and comply with ResCode.

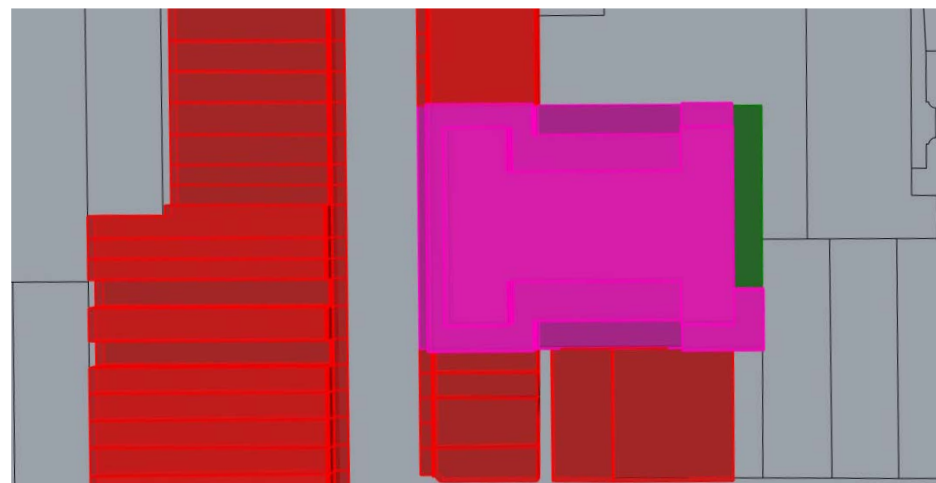
*All Calculations are approximate.

Typology- 6 storey Mixed Use Development on Strategic Site. 3 storey height at street edge to reinforce the existing parapet scale along the street edge, with a 5m front setback and rear setback on the upper 3 levels.

The second and third levels are have 6m side setbacks at the middle of the site with a further 8m on the upper 3 levels.



View of Built Form



Plan view of Built Form

Built Form Analysis:

This strategic development site could accommodate a supermarket on the ground floor with a considerable apartment yield within the upper levels.

The front setbacks will achieve a minimised effect on streetscape visual dominance, however the rear setbacks will need to be carefully considered when the site abuts a lower scale residential property.

Combination of Design Guidelines & Community Benefit Requirement

This modelling tests the application of the design guidelines in combination with the community benefits recommendations of the *Community Benefits Discussion Paper*. It also references the provisions of DD09 as they currently apply to the site and are an example of how the design guidelines can become more targeted to specific sites and contexts.

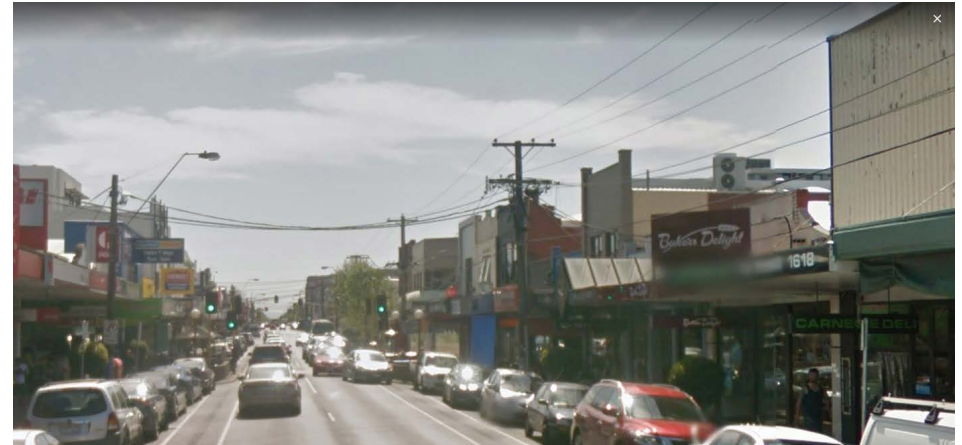
The sample site for the *Shop Top* typology is located at 88 Koornang Road, Carnegie, within DD09 (area 2), which contains the following provisions relating to building height/envelope:

- An application to construct a building that exceeds a building height of 10.5m should be accompanied by a site context and design response report
- A maximum preferred building height of 20m, comprising up to 6 storeys

The draft design guidelines recommend the following with relation to building height/envelope in the context of the sample site:

- Buildings between 3-5 storeys at the street edge, depending on local context, to reinforce the dominant parapet scale along the streetscape.
- Buildings to have a zero front setback to contribute to an active retail environment.
- Overall scale of 4-6 storeys preferred, depending on context, lot sizes and interface conditions, with upper levels setback from the street edge by 5m.

The *Community Benefits Discussion Paper* recommends three thresholds that could relate to building height, at which different tiers of community benefit are required. Whilst the recommendations refer to 'podium', in this example the word the 'podium' is replaced with 'street edge'. The street edge height can notionally be the 10.5m threshold at which a site context report is required.



Street View Looking North Along Koornang Road to Sample Site

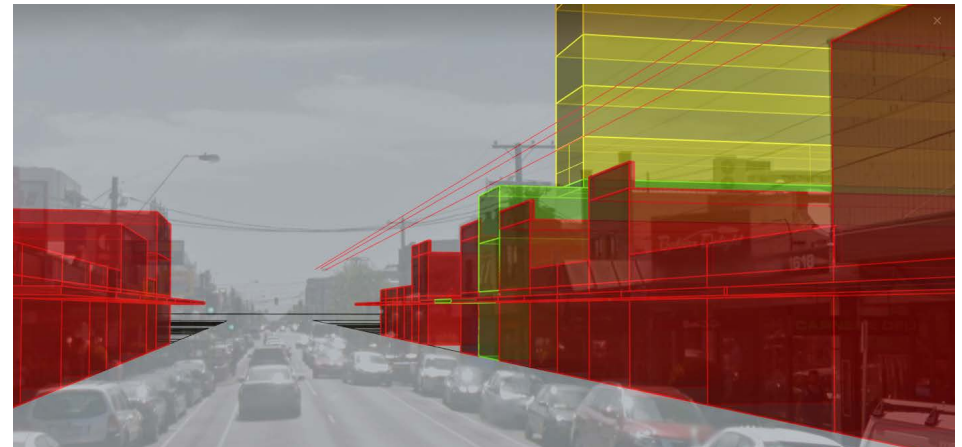
The following table details how these combined provisions, guidelines and recommendations could apply to DD09-02:

Threshold (up to)	Height	Setback	Community Benefit Requirement
Preferred Street Edge Height	10.5m	0m	Standard Development Contributions Levy
Preferred Building Height	20m (6 storeys)	5m for first level above Street Edge Height, additional 1.67m for every 1m of additional height above this	2nd Tier Community Benefit Provision
Maximum Building Height	N/A	As above	3rd Tier Community Benefit Provision

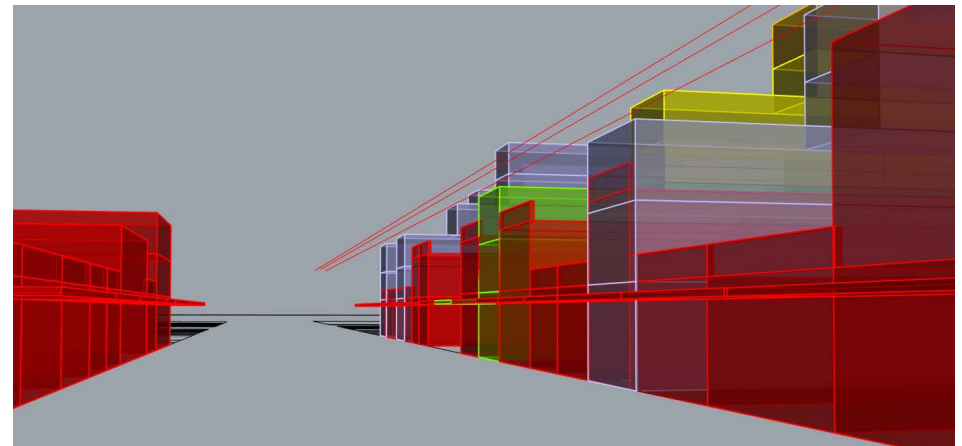
The modelling adjacent shows this approach as it as applied to the sample site at 88 Koornang Road.

The modelling is looking strictly at building height and does not reflect the further setbacks from frontage that would be required to meet the General requirement of DD09 2.0 to minimise visual bulk to the street.

The second image experiments with a general setback of 1.67m for every 1m of height above the Street Edge (5m for every storey), with a maximum of two setback steps. This maintains built form of the upper levels behind the Street Edge preferred height of 10.5m when viewed from eye-height at the front boundary on the opposite side of the street.



Street View Looking North Along Koornang Road



Modelling of Potential Community Benefit Height Thresholds

Single Site (GRZ1 example)

Single Site:

Total Site Area: 768m²

Site Coverage: 429m² (55%)

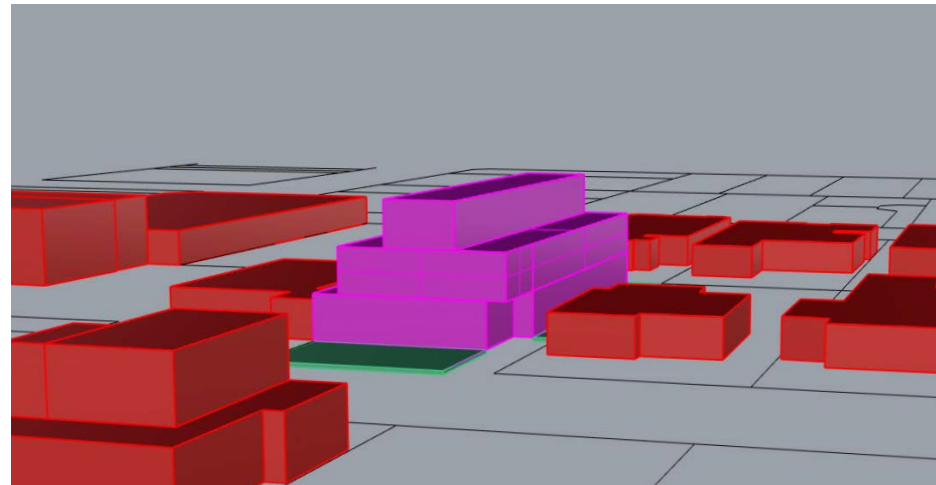
Garden Area: 288m² (37%)

All heights and setbacks are in accordance with the Schedule to the Zone and comply with ResCode.

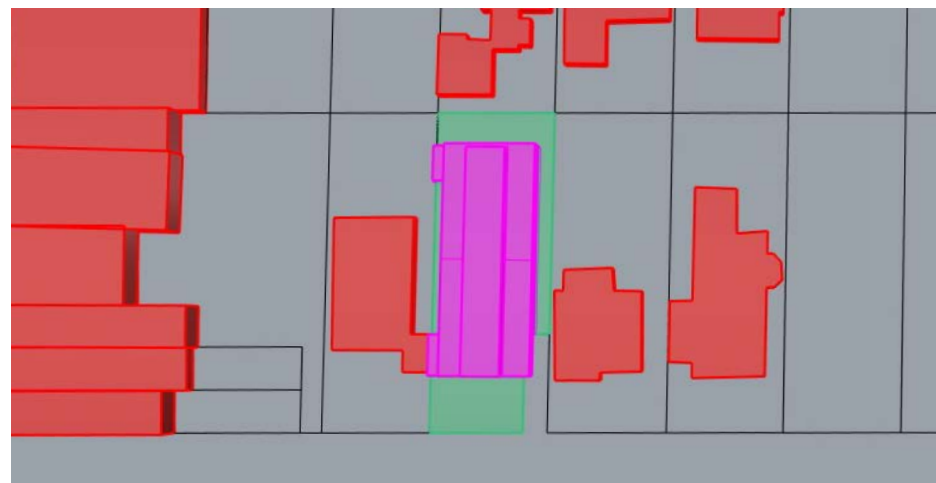
Including the Garden Area has resulted in a greater rear setback of 5m than required under ResCode.

*All Calculations are approximate.

Typology- 2 storey Townhouses along frontage with apartment style development making up the remaining of the form. Or front and rear townhouses with basement parking.



View of Built Form



Plan view of Built Form

Built Form Analysis:

As a single site development this built form could accommodate two narrow townhouses with the potential to develop a small studio like apartment on the third level. However to meet ResCode and Zone requirements a third level on such a lot may not be achievable.

Although the Garden Area is primarily provided in the front and rear setbacks, the scale of the development would not significantly impact on the streetscape character.

***GRZ2** - Due to the architectural form of this example, the additional 11.5m rear setback of the third level as required by the schedule to the zone does not have a negative effect on the developable yield.

****RGZ1** - Although a fourth storey is allowable under RGZ1, the requirements of ResCode does not allow for this on such a narrow site. The rear setback would also not need to be as large as the provision of Garden Area is not required.

2 Site Consolidation (GRZ1 example)

Site Consolidation (2 sites):

Total Site Area: 1545m²

Site Coverage: 941m² (60%)

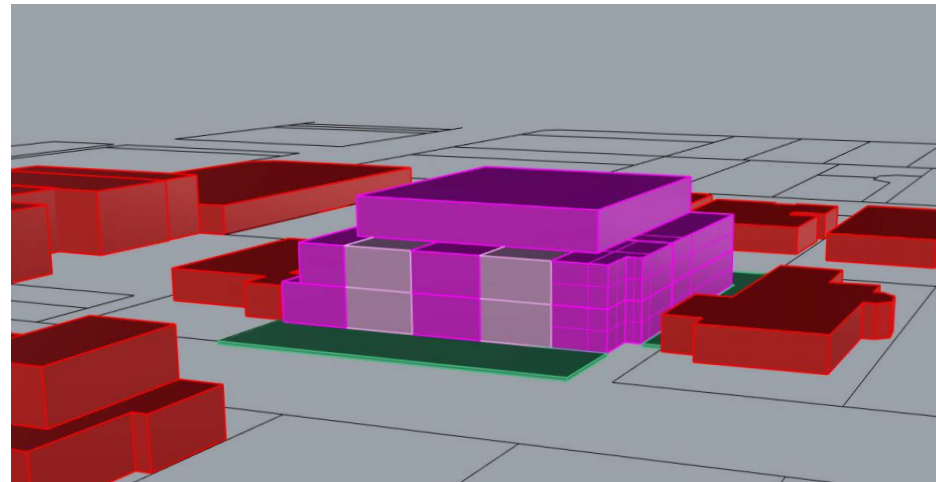
Garden Area: 562m² (36%)

All heights and setbacks are in accordance with the Schedule to the Zone and comply with ResCode.

Including the Garden Area has resulted in a greater rear setback of 7m than required under ResCode.

*All Calculations are approximate.

Typology- 2 storey Townhouses along frontage with apartment style development making up the remaining of the form and basement parking.



View of Built Form



Plan view of Built Form

Built Form Analysis:

This built form complies with all requirements, however is visually dominant within the streetscape. This is due to the 35% Garden Area being almost entirely provided within the front and to a lesser extent rear setback. With a 1m side setback to provide the remaining Garden Area, this built form does not allow for a visually 'greened' landscaped outcome when viewed from the street or neighbouring side properties.

Due to the nature and size/scale of the consolidated lot, this development requires rear outlook apartments.

***GRZ2** - An additional 11.5m rear setback on the third level is required by the schedule to the zone.

****RGZ1** - A fourth storey is allowable under the RGZ1 along with a lesser rear setback as the provision of Garden Area is not required.

3 Site Consolidation (GRZ1 example)

Site Consolidation (3 sites):

Total Site Area: 2306m²

Site Coverage: 1352m² (58%)

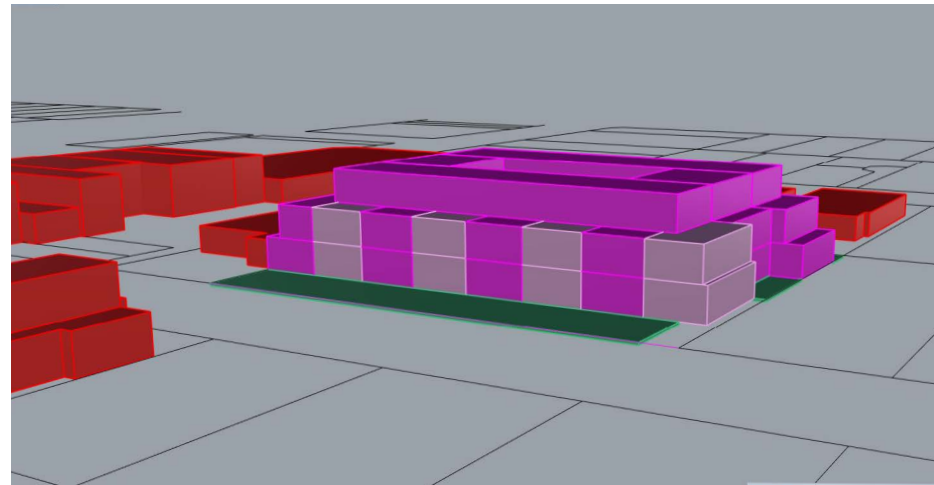
Garden Area: 1165m² (38%)

All heights and setbacks are in accordance with the Schedule to the Zone and comply with ResCode.

Including the Garden Area has resulted in a greater rear setback of 4m than required under ResCode.

*All Calculations are approximate.

Typology- 2 storey Townhouses along frontage with apartment style development making up the remaining of the form with a central courtyard and basement parking.



View of Built Form



Plan view of Built Form

Built Form Analysis:

This architectural form allows for the street frontage to be constructed as townhouses or articulated to suggest a townhouse development, with the remainder of the form to be developed as various sized apartments.

The central courtyard ensures greater amenity for residents, however does little to minimise the visual bulk from the street or neighbouring properties.

***GRZ2** - The schedule to the zone specifies a 11.5m third storey rear setback, resulting in this built form to not achieve a habitable width to develop a third level along the rear, with a great loss to the overall yield.

****RGZ1** - Under the RGZ1 a fourth storey is allowable. The built form could accommodate a central courtyard or an indented rear courtyard ensures greater amenity for residents, yet does not have to provide the Garden Area requirement.

4 Site Consolidation (GRZ1 example)

Double Frontage Site Consolidation:

Total Site Area: 3095m²

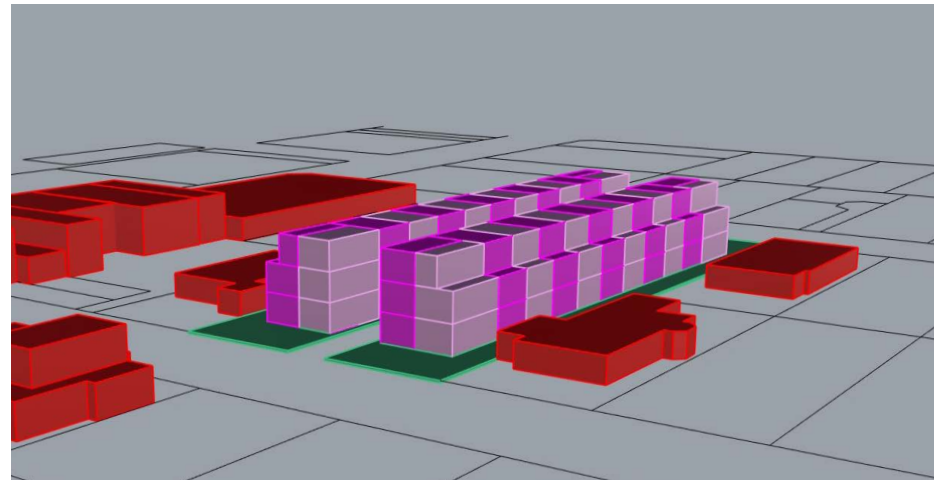
Site Coverage: 1360m² (44%)

Garden Area: 1165m² (37%)

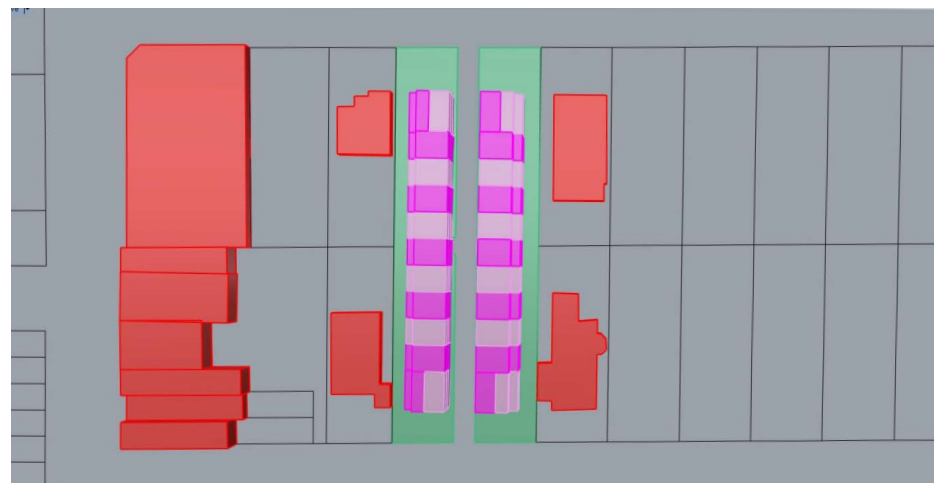
All heights and setbacks are in accordance with the Schedule to the Zone and comply with ResCode.

*All Calculations are approximate.

Typology- 3 storey Townhouses, with internal laneway and basement parking.



View of Built Form



Plan view of Built Form

Built Form Analysis:

Although compliant with all requirements, this built form example requires a laneway through the site to be constructed by the developer. Although it would greatly diminish the visual bulk of the development from both street frontages it ensures the primary outlook of all townhouses is to the newly constructed laneway.

Of note with this built form example is the visual barrier and interruption caused to the continuation of backyard site lines and landscaping. However further manipulation and reduction of form to accommodate this, would result in a poor yield outcome for the site.

***GRZ2** - This development is not effected by the GRZ2 as there is no 'rear' therefore no additional rear setback is required.

****RGZ1** - The additional height allowable under the RGZ1 results in this built form example to become visually awkward and obtrusive within the streetscape. The provision of ground level courtyards for individual townhouses would ensure larger side setbacks in lieu of the Garden Area provision.

2 Site Consolidation - Setback Analysis (GRZ1 example)

Site Consolidation (2 sites):

Total Site Area: 1545m²

Site Coverage: 840m² (54%)

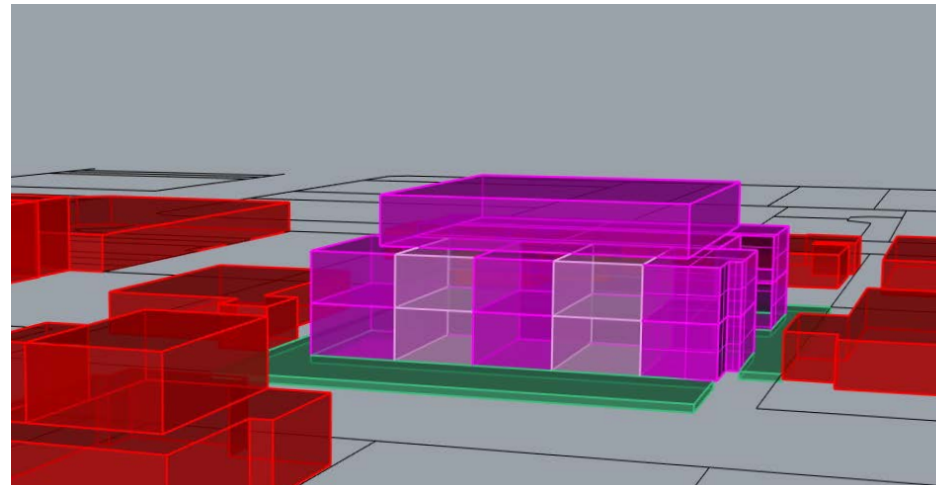
Garden Area: 663m² (43%)

All heights and setbacks are in accordance with the Schedule to the Zone and comply with ResCode.

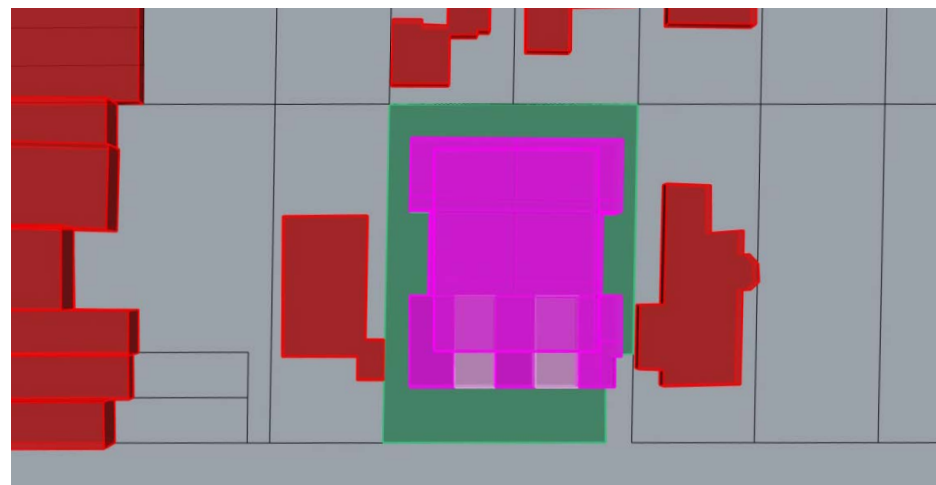
This model provides an analysis of setbacks; 5.5m minimum setback for primary outlooks of apartments and 3m minimum setback for all other side and rear setbacks.

*All Calculations are approximate.

Typology- 2 storey Townhouses along frontage with apartment style development making up the remaining of the form and basement parking.



View of Built Form



Plan view of Built Form

Built Form Analysis:

This built form complies with all requirements, however also tests potential mandatory minimum setbacks for primary outlooks.

A minimum 3m minimum setback has been applied to the side and rear setbacks (as the front setback is determined via ResCode). The areas of primary outlook of the built form has had a 5.5m minimum setback provided. In this example, a 5.5m setback is provided at the rear and along sections of both sides of the built form.

These minimum setbacks in addition to the ResCode requirements allow for an additional 101m² or 8% of Garden Area on ground level.

Due to the nature and size/scale of the consolidated lot, this development requires rear and side outlook apartments.

***GRZ2** - An additional 11.5m rear setback on the third level is required by the schedule to the zone. Although the third level will be minimised due to this setback it will not greatly effect the potential overall yield.

****RGZ1** - A fourth storey is allowable under the RGZ1.



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