BONDI JUNCTION URBAN DESIGN REVIEW REPORT

BONDI JUNCTION, NSW

- FEBRUARY 22, 2013 -

CITY PLAN URBAN DESIGN

Bondi Junction Urban Design Review, February 2013

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CONTENTS

FIGURES AND PICTURES INDEX

FIGURES

PICTURES

1. INTRODUCTION

This review has been commissioned jointly by Waverley Council and the NSW Department of Planning and Infrastructure to address a set of concerns about the planning environment in Bondi Junction. The centre has undergone a series of lengthy and involved planning processes in recent years. The scope of the Bondi Junction Urban Design Review includes site specific items as well as matters relating to generic controls. This review has a mandate to seek out issues and suggest remedies. In this sense, the brief is quite open because the scope and the content of the recommendations depend upon the findings of the analysis.

The review team has taken the attitude that much work has been done previously, including extensive consultation. Any modification that result from this review will not become effective until the first LEP amendment which is due late this year, so we will not propose changes unless there is strong reason to do so.

The key recommendations of this review relate to permitting flexibility in land use (zoning) creating a framework to consider great height. These revisions will protect solar access to important public open spaces and acknowledge opportunities for greater height on appropriate sites. These recommendations are supported with analysis including shadow studies and yield analysis. The effect of the modifications is improved amenity without significant net loss of development potential in the centre.

At the completion of the review stage, it became clear that there were issues with the DCP, including lack of hierarchy, inconsistent language and illegible diagrams relating largely to the format and the ease of use of the document, not to its effect.

This review also highlighted the need for the holistic management of development of the centre. It has considered how the planning policy fits together with the other key elements that drive the built environment in Bondi Junction. Development assessment, the public domain, traffic, pedestrian movement and mix of land use all combine to produce the quality of the built environment. Recommendations identify the need for a much stronger focus on pedestrian amenity which can be derived from improved pedestrian circulation and limiting traffic impact in the centre together with improved public domain, including footpath widening, seating opportunities and landscape.

The nature of development control and assessment is changing as a natural product of maturity of Bondi Junction. As the centre moves into a more advanced stage of its development, each new project is being built in an increasingly well-established context. Furthermore, the increasing difficulty of assembling large consolidated sites tends to mean that developers are seeking to maximise yields on smaller and smaller sites. Whereas large sites might 'create their own context' smaller sites must be more context-responsive. This requires skilful design and judgement.

Figure 1.1 Study Area

2. PURPOSE AND METHODOLOGY, BACKGROUND ASSESSMENT

Purpose and Methodology

The scope of services for the Bondi Junction Urban Design Review includes three tasks:

- Analysis of the existing built form and controls;
- Production of potential development controls; and
- Presentation and report.

This review of the appropriateness of Waverley Council's controls for the Bondi Junction Centre required a review of the controls within the Waverley Local Environmental Plan 2012 (LEP 2012) as well as the Waverley Development Control Plan 2012 (DCP 2012). The LEP 2012 was adopted by Council in December 2010 and placed on public exhibition between October and November 2011. The DCP 2012 supersedes the existing DCP 2010.

The focus of this review is to identify issues and problems with the existing development controls. The review has not sought to identify every site with greater development potential than described in the development controls. Therefore it is expected that some sites may be the subject of acceptable application for development greater than that allowed in the controls.

This review focused on the delivery of sustainable buildings that respond to the local context and topography whilst minimising amenity impacts on existing and potential neighbouring development, the public domain and residential developments in and surrounding the Bondi Junction Centre. The improvement of pedestrian access between Spring Street and the Bus and Rail interchange was also a focal point in the project which considered access and movement through the private and public domain. A review of the provisions for the Town Square as part of the Oxford Street Mall and its connectivity had been included in this part of the project. A further focus was on development options for Key Development Sites identified in the project brief. The potential development of these sites has been reviewed in the context of existing Development Controls as well as by comparison with recent development in the area.

The first task involved the collection of existing data and consultation with Waverley Council to determine the objectives and the desired outcome of the review. A peer review of the existing controls within the Bondi Junction LEP and the Waverley DCP 2012 determined their appropriateness for the production of a high quality design in the specific local context. The local context was further investigated to identify improvements for pedestrian connectivity between Spring Street and the Bus and Rail Interchange.

The result of the first task informed the second task, the amendment or production of new controls where appropriate for potential future development. Case studies have been researched and input has been sought from Waverley Council to underpin the conceptual framework for future development.

The third task included the production of a draft document that outlined the research and analysis findings. The draft document was presented to Waverley Council and the Department of Planning for comments which were incorporated into this final report.

Background Assessment

The review is framed by a number elements that include the Land Zoning, the Height of Buildings, the Floor Space Ratio (FSR), the pedestrian network, the Oxford Street Mall Town Square and the identified Key Development Sites.

Land Zoning

Under the Waverley LEP (Bondi Junction Centre) 2010, the Study Area comprises of B3 Commercial Core and B4 Mixed Use zoning. The commercial core includes both sides of the Oxford Street Mall as well as the Westfield Shopping Centre between Grafton Street and Ebley Street. The Commercial Core extends to the west and includes an area between Grafton Street and Hegarty Lane. The Mixed Use zoning includes the western part of Oxford Street, Denison Street, Westfield Centre and Bondi Road, Eastgate Shopping Centre on Spring Street and the rail and bus interchange between Grafton Street and Grosvenor Lane.

The Urban Design Review analyses the appropriateness of the zoning boundaries with a view to achieving buildings with high design quality. This especially focuses on the Key Development Sites and the appropriateness of their zoning. It also includes an assessment of the LEP zone objectives in general.

Height of Buildings

While the LEP regulations for the Height of Building controls tend to be site specific around the Oxford Street Mall, the Height of Building controls are more block-based for the rest of the study area (see Waverley LEP 2012 Height of Buildings Map). A maximum height of 60m can be achieved along Grafton Street where city and harbour views can be achieved as well in the area surrounding the Westfield and Eastgate Shopping Centres. From these allowable heights, the Height of Building controls step down to 9.5 / 12.5m in the residential areas to the south.

The Urban Design Review focuses on the impact of building height on surrounding areas as well as the creation of a centre skyline. Additionally SEPP 65 regulations and the impact on the public domain (e.g. the Oxford Street Mall with the Town Square and Clementson Park) were assessed to analyse if the desired objectives are achievable.

Floor Space Ratio (FSR)

The Urban Design Review analyses the appropriateness of the FSR controls in regard to the production of buildings displaying design excellence and potential for flexibility and adaptability. Again, this especially focuses on the previously mentioned Key Development Sites and the appropriateness of their zoning; however an assessment of the LEP zone objectives for the Bondi Junction Centre in general is also

included. It will be considered whether the inclusion of an 'incentive clause' in the LEP to allow for additional FSR would be an option.

For the purpose of this review the preferred Mixed Use building consists of 2 storeys commercial (ground Level and Level 1) and residential above (Level 2 and above). An 85% rate of the net floor space will be used for commercial levels and a 75% rate for residential levels to determine the respective Gross Floor Area (GFA).

Pedestrian Network

The Urban Design Review analyses and assesses the pedestrian network within the Study Area. Special consideration is given to increasing permeability and specifically the improvement of the pedestrian access between Spring Street and the Bus/Rail Interchange. Existing and potential connections are assessed and evaluated with the present LEP and DCP rules to determine their effectiveness in regard to increasing pedestrian access within the area. The analysis includes connections between Spring Street and the Bus/Rail Interchange, be it through buildings/block or within existing streets.

The Urban Design Review includes recommendations on how to improve the accessibility, visibility and performance of the existing arcades. Emphasis is given to access points and the public domain design in the surroundings including road lay out, paving and landscaping. Effective access to malls in the Study Area and elsewhere has been considered and analysed. This resulted in a number of positive case studies with principles and guidelines to be applied to the existing and potential connections between Spring Street – Oxford Mall – Bus and Rail Interchange. The aim is to incorporate Spring Street and connections into the Bus and Rail Interchange as part of a strong pedestrian network for Bondi Junction and improve the design quality of the public domain.

Oxford Mall – Town Square

The Urban Design Review includes an analysis and assessment of the LEP and DCP regulations for the development of the Town Square as part of the Oxford Street Mall. This considers their objectives and aims as well as their effectiveness. The development of a well designed Town Square with flexible functionality is not only essential for Oxford Street Mall but also for the Bondi Junction Centre. Furthermore the Town Square is an important stepping stone between Spring Street and Bus/Rail Interchange. Overshadowing of the Oxford Street Mall in general is addressed as a separate issue.

Key Development Sites

The Key Development Sites within the Study Area have been investigated in regard to Land Use Zoning, Height of Building, Floor Space Ratio and LEP designation to ascertain their appropriateness for achieving buildings displaying design excellence.

A peer review of the proposed Bondi Junction controls as contained in Waverley DCP 2012 will determine whether it will be necessary to produce new and/or amended controls to be incorporated as amendments to both the LEP and the DCP. An important focus is on creating buildings with flexibility and adaptability potential. Consideration is given as to whether the development of individual lots or the development of merged lots is preferable and practicable.

3. KEY ISSUES, CONSTRAINTS AND OPPORTUNITIES

Key Issues

Identity

The issue of Bondi Junction's skyline raises questions about allowable building heights. Currently, there are tower forms that protrude beyond the maximum allowable Height of Building control producing an undulating skyline. An increase in allowable building heights may provide an opportunity for an iconic building that will enhance Bondi Junction's skyline. Potentially it will be a well designed tower of architectural merit. The development of which could be completed with public domain improvements in the Bondi Junction Centre.

Public Domain

Overarching plans should be created for Bondi Junction Centre. This should include a pedestrian circulation network that identifies through site links and emphasises pedestrian connectivity between Spring Street and the Bus and Rail Interchange. Whilst a Public Domain Technical Manual exists for Bondi Junction Centre, there is a need for a strategic Public Domain Master Plan (PDMP) that establishes a clear and unified direction for the future character of the centre. This should address design details such as material selections and construction details whilst also articulating an overarching conceptual vision for the public domain of Bondi Junction. A list of prioritised projects should guide future investment.

Solar Access

There is limited public open space in the Bondi Junction Centre. Clementson Park, Oxford Street Mall, the Boot Factory Plaza, Waverley Street Mall and Eora Reserve are the last remaining public open spaces. Overshadowing of these important public spaces should be avoided to maximise their amenity and encourage their use, especially during the winter time.

Traffic

A very important amenity issue that lies beyond the scope of this review is traffic in the centre. We consider that it is vital to improve the pedestrian and cyclist environment in the near future. Currently, vehicular traffic physically and visually dominates Bondi Junction Centre. Buses travel at high speeds despite segments of the road being designated as bus only. Preference appears to be given to the access and movement of public transport and private vehicles over the pedestrian and cyclist.

To achieve greater amenity to pedestrian and cyclist access and movement in the public domain, a number of improvements can be made including the greening of the streets and public spaces, the widening of footpaths, the prioritisation of pedestrian and cyclist movement, an increase in bicycle facilities, and crucially, traffic must be reduced and calmed in the centre possibly through the introduction of shared zones.

Lot Size

Large scale lot consolidation has been a factor that has driven many of the undesirable urban design outcomes of recent years. With the gradual maturing of the centre it is entering the phase when it is no longer possible to achieve the larger lots. This means a shift away from the typology of the large freestanding tower on a podium with large structured car parks. The principal impact of this change is that the blocks with rear lane access can be developed relatively easily because they can adequately accommodate car park access, rubbish bins and fire escapes without significant impact on the active primary frontage. Blocks without rear lane access will have to consolidate to a larger scale or compromise the streets.

Urban Form

The practical development of many of the remaining sites in the centre with regard to the podium and street frontage situation is constrained. The existing controls for upper level setbacks tend to produce a 'ziggurat' block form on streets with heritage buildings. In the past, sites have been able to develop within the form because they have adopted the podium-tower form. This is a form that can only be achieved on larger sites. Now and in the future there will be fewer large sites available. The remaining sites tend to be narrower. Better development outcomes will be in the form of perimeter-block configuration with small or zero front setbacks and zero side setbacks.

Zoning

There are a complex set of strategic targets and development feasibility issues at play in the zoning of the Bondi Junction Centre. Whilst the Metropolitan Plan for Sydney 2036 has set employment growth targets for Bondi Junction as a Major Centre, there is also a desire for a mix of uses to encourage activity, diversity and vibrancy.

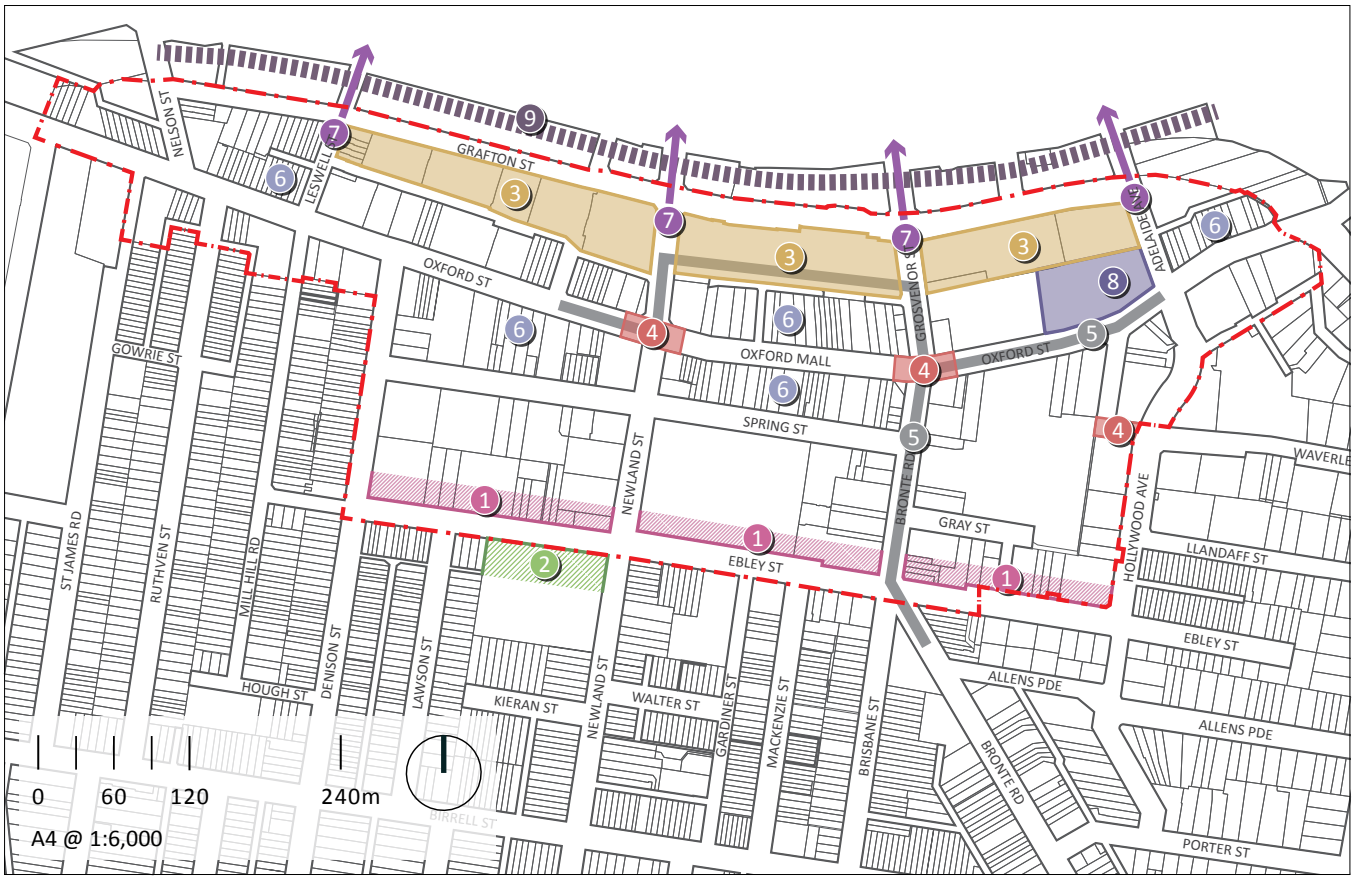


Figure 3.1 Constraints

Constraints

The following constraints for development within the Bondi Junction Centre have been identified:

- There are conflicting modes of transport connecting to Bondi Junction – pedestrians, cyclists, private motor vehicles, taxis, buses and trains;
- There are high traffic volumes which result in a public domain that is dominated by motor vehicles rather than pedestrians or cyclists;
- There are limited sites available for possible future public open space as most of the centre has already been developed;
- There are many strata title developments with more than 20 owners, thus making them less likely to redevelop in the near future;
- There are few large lots available for development (larger than 2,000 sqm), thus larger developments will require lot consolidation;
- The east-west orientation of Grafton, Oxford, Spring and Ebley Streets means that the northern side of these streets is predominantly in shade.

1. *Height increase would overshadow of areas south of Ebley Street*
2. *Special protection required for Clementson Park. Height limit to control overshadowing at 12 noon, 21 June*
3. *Tall buildings along the north side of centre block views to harbour and beyond and have shadow impacts on areas to the south. No additional height increase recommended*
4. *Poor pedestrian connection to Oxford Street Mall and Waverley Street Mall*
5. *Reduce bus travel speed to create a safer pedestrian and cycle environment*
6. *Fragmented ownership of small sites restricts location of large footprint buildings*
7. *Steep streets present accessibility issues*
8. *Solar access to Waverley Street Mall limits building heights*
9. *Physical boundary through elevated bypass road*

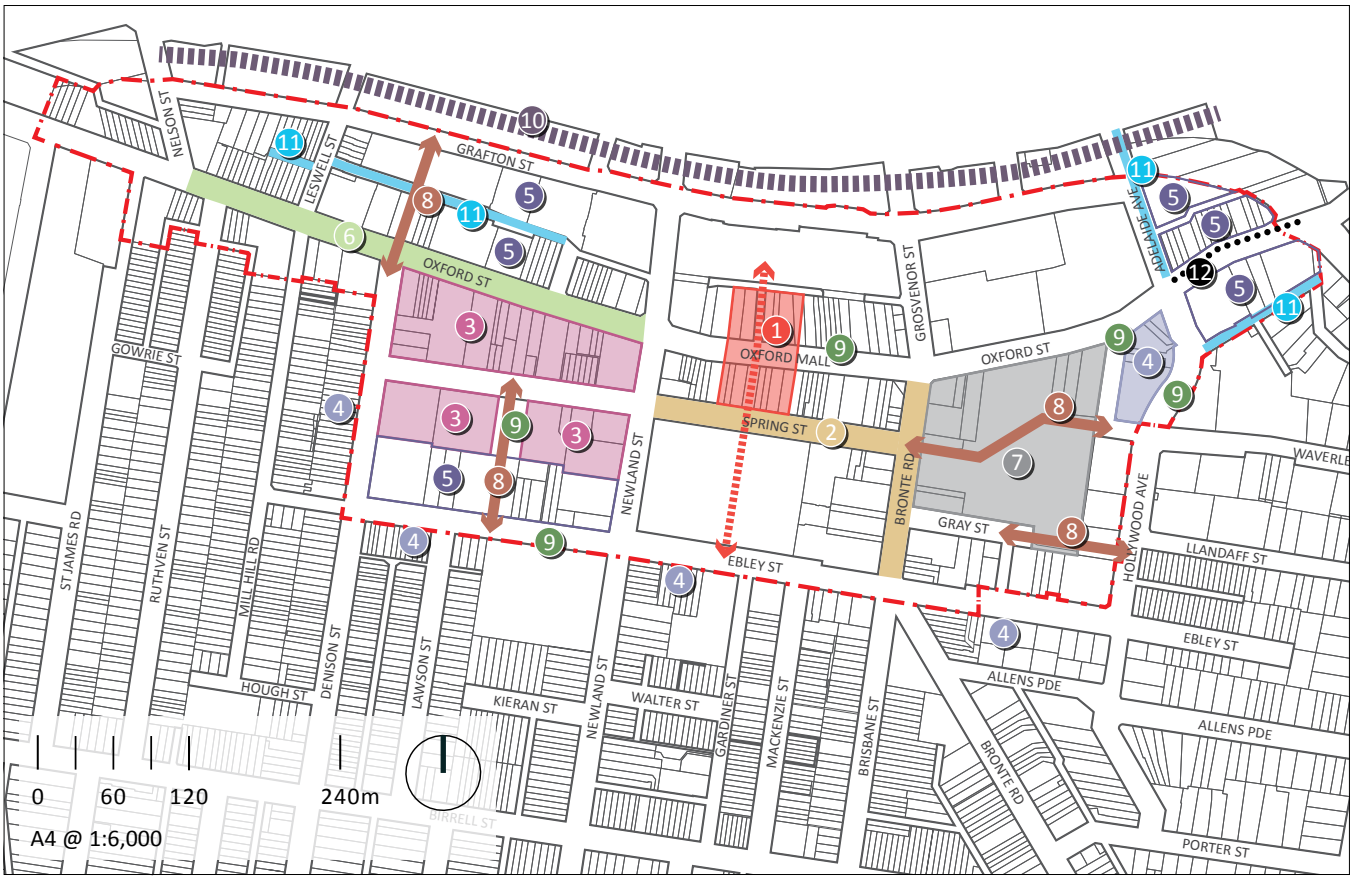


Figure 3.2 Opportunities

Opportunities

The following opportunities for development within the Bondi Junction Centre have been identified:

- To enhance the quality of the public open spaces by preventing overshadowing;
- To improve the public domain with widened footpaths, street trees and planting, improved pedestrian and cyclists connections with prioritised pedestrian and cyclist movement;
- To provide better access and circulation for all modes of transport;
- To create a more transit oriented centre where conflicts between modes are minimised;
- To increase the vibrancy and vitality of the centre with more workers, more residents and more diverse offerings such as restaurants and cafes throughout the day and evening;
- To encourage better built form outcomes that addresses the public realm at a pedestrian scale through high quality sustainable architecture;
- To enhance Bondi Junction's skyline with an iconic tower form.

1. *Improve connection from Oxford Street to Rail Interchange and Spring Street, develop proposed Town Square*
2. *Upgrade and improve public domain design, opportunities to create shared zone*
3. *Potential for additional storeys within LEP height limit*
4. *Development of transition zone with mixed use buildings*
5. *Development of mixed use buildings*
6. *Development of Oxford Street as local street with low scale block edge*
7. *Potential for height and FSR increase*
8. *Create links through blocks (preferably open to the sky)*
9. *Create solar access planes for open space*
10. *Improve relation to elevated bypass road*
11. *Opportunity for lane activation*
12. *Create a 3-meter-wider bus lane on north side of eastern block Oxford Street*

4. SUMMARY OF RECOMMENDATIONS

Recommendations in of this report relate to three main areas: Public Domain Amenity; Development Potential and; Planning Policy.

Recommendations: Public Domain Amenity

- Develop a new Public Domain Master Plan to identify key public domain projects;
- Develop a movement strategy that integrates pedestrian and vehicular movements and has a clear focus on the quality of the public domain;
- Improve the connection from the Rail Interchange to Oxford Street and further on to Spring Street possibly including the proposed Town Square;
- Use various opportunities to create links through blocks (as indicated in Figure 3.2);
- Improve public domain of Grafton Street and towards and underneath Syd Enfield Drive;
- Identify opportunities to create shared zones in parts of Spring Street and Bronte Road;
- Create solar access planes for important public open spaces within the Bondi Junction Centre;
- Prevent midwinter lunchtime overshadowing of Clementson Park by amending the Waverley LEP 2012 Height and FSR along the northern side of Ebley Street.

Recommendations: Development Potential

- Improve flexibility in land use by amending the Waverley LEP 2012 to Change the zone of the commercial core that lies to the west of Newland Street from B3 Commercial Core to B4 Mixed Use;
- Consider tall office buildings on the block between Oxford Street, Bronte Road and Gray Street (facilitating the opportunity for A-grade office space in Bondi Junction);
- Use potential for additional storeys within LEP height limit at selected locations (at present the number of storeys is limited by the DCP which at some locations does not correspond with the full LEP height potential);
- Acknowledge that certain sites may be the subject of acceptable development applications which exceed development controls, if they do not create unacceptable impacts and they meet obligations to improve infrastructure and facilities.

Recommendations: Planning Policy and Design:

- Develop a framework for Voluntary Planning Agreements and Section 94 contributions particularly for sites that might the subject of Development Applications significantly over the existing controls;
- The report suggests a set of minor corrections and refinements to the Waverley DCP 2012 structure and content to improve its usability. These are set out in Chapter 8 – Proposed Control Amendments.
- Refer to national and state legislation such as the National Construction Code (NCC) or the NSW Residential Flat Design Code (RFDC) for specific matters, e.g. determination of ceiling heights;
- Rename the SEPP 65 panel the “Design Excellence Panel” and improve its utilisation by referring a wider range of projects and seeking pre-DA review;
- Require development applications to consider impacts on surrounding sites. This may include three dimensional testing of shadowing;
- Where appropriate require development applications to illustrate how neighbouring sites can be renewed or redeveloped adjacent to the proposal;
- Introduce environmental design into the DCP including passive solar design and natural ventilation;
- Permit commercial uses on sites on the south side of Ebley Street between Hollywood Avenue and Denison Street where they face potential overshadowing from development to the north
- Conduct a block-by-block analysis to assess building massing options for redevelopment sites. This analysis may determine appropriate setbacks in the context of existing building massing, block depth, lot size and access considerations.
- Develop a strategic plan for the renewal of the area between Ebley Street and Birrell Street to consider the possible expansion of Bondi Junction southward.

Commentary on Key Recommendations

The review identified the opportunity for greater height potential on some sites in Bondi Junction. These include the block to the south of Oxford Street occupied by Westfields. There may be other sites in the centre that also have greater height potential than permitted under the existing LEP. This report does not recommend a simple change to the development controls increasing Height and FSR, because this would imply in increase in development potential without proper testing of any impact. Furthermore it would leave council with limited opportunity to fund the upgrades to infrastructure and public domain which should accompany any such large scale development.

This review proposes to resolve this by establishing a framework to permit greater development potential and to capture value in this uplift for public benefit. The framework may use voluntary planning agreements and the Section 94 plan in the process. The other related recommendation (which council has already commenced) is to develop a plan for public domain improvements so that council can explicitly identify projects to be funded though this framework.

Appropriate building setbacks on any site depend significantly on the immediate context. The context in Bondi Junction is highly varied. Therefore generic controls will not provide the optimal outcome in all instances. The DCP provides for relatively conservative (large) setbacks. This is intended to allow the assessors discretion (following advice from the design review panel) to vary setbacks in instances where this variation meets the objectives and represents an improvement over the application of the full setback. Deliberations regarding setback could be supported by a block-by-block analysis to assess building massing options for redevelopment sites. This analysis may determine appropriate setbacks in the context of existing building massing, block depth, lot size and access considerations.

With regard to the street sections in the DCP, the current controls set up a 'double step'. This is sub-optimal because it applies in some instances where there is no heritage context (though it is intended as a response to heritage). Furthermore the small 2m step is insufficient to preserve the integrity of the heritage facade. It typically leaves a two storey facade overwhelmed by the bulk of the building above it by a further four storeys. Another issue is that the reviewed information on the behaviour of wind downdraft suggests that a minimum step dimension of 6m is required to provide effective wind deflection for street level comfort (City of Melbourne Built Form Review 2012).

Therefore the street sections recommended for inclusion in the DCP consist of two types. On street blocks with no 'Heritage Items or Buildings of Historic Character', the street wall is to rise to six storeys on the lot boundary, then step back 6m before rising to full height. On street blocks with 'Heritage Items or Buildings of Historic Character', the heritage or historic facade is to be preserved (or matched on neighbouring sites), then set back 6 metres before rising to the full building height.

5. PEER REVIEW OF EXISTING CONTROLS AND URBAN FORM ANALYSIS

Previous Studies and Planning Policies

CPUD reviewed previous studies and planning policies relating to Bondi Junction to understand the context within which the existing built form and controls have developed. In the last ten years, a series of public domain, heritage, economic, traffic and transport studies have been completed as well as the Bondi Junction Town Square Precinct Urban Design Master Plan (2004) and the Bondi Junction Centre Structure Plan (2006). In 2010, the NSW Government released the Metropolitan Plan for Sydney 2036 which designates Bondi Junction as a Major Centre, i.e. the main shopping and business centre for its subregion with a 1km walking catchment characterised by an employment base of 8,000+ jobs. The Metro Plan set an employment growth target of an additional 2,000 jobs in Bondi Junction from its 2006 base employment of 12,000 to a long-term employment capacity target of 14,000 by 2036. A list of previous studies and planning policies follows:

Previous Studies and Planning Policies

Year	Title	Prepared By
1996	Waverley Local Environment Plan 1996	Waverley Council
2004	Bondi Junction Town Square Precinct Urban Design Master Plan	Jann Associates
2004	Bondi Junction Strategic Plan Economic Review	Leyshon Consulting
2004	Bondi Junction Strategic Plan Traffic and Transport Review	Arup
2004	Bondi Junction Heritage Assessment	Colin Brady and Ines Meyer
2006	Bondi Junction Centre Structure Plan	Connell Wagner
2006	Waverley Local Village Centres DCP and Public Improvement Plan Economic Assessment	Hill PDA
2006	Waverley Development Control Plan 2006	Waverley Council
2007	Bondi Junction Traffic and Transport Study	Maunsell / AECOM
2008	Bondi Junction Public Domain Technical Manual	Waverley Council
2009	Bondi Junction Planning Review - LEP Modelling	Allen Jack + Cottier
2010	Bondi Junction Business Activity Report	Waverley Council
2010	Waverley Together 2 Strategic Plan for 2010-2022	Waverley Council
2010	Metropolitan Plan for Sydney 2036	NSW Government
2010	Waverley Development Control Plan 2010	Waverley Council
2010	Waverley Local Environment Plan (Bondi Junction Centre) 2010	Waverley Council
2012	Waverley Development Control Plan 2012	Waverley Council
2012	Waverley Local Environment Plan 2012	Waverley Council

Historic Evolution

Bondi Junction's urban form has undergone significant transformation over time. In the 1940s, Oxford Street and Grafton Street were primary commercial streets, composed of fine grain multi-storey developments, surrounded by terrace houses. In the 1970s, surface parking lots began to appear as part of the lot consolidation for the future development of Westfield, Eastgate, the bus and rail interchange, as well as the commercial and residential towers on Grafton Street. In the 1980s, Westfield was built, Eastgate was under construction and the bus interchange existed at surface level with the railway station below grade. In the 1990s, Westfield had built another commercial tower, Eastgate was complete and three commercial towers existed on Grafton Street.

Today, Westfield has undertaken expansion and renovation, two residential towers have been built on top of the bus and rail interchange, and a further two residential towers exist on Grafton Street. Bondi Junction's urban form has been transformed from primarily fine grain development to primarily large-block development where a sense of human scale, pedestrian permeability and architectural diversity are lacking. A series of aerial photographs documenting this historic evolution and lot consolidation is documented on the following pages.

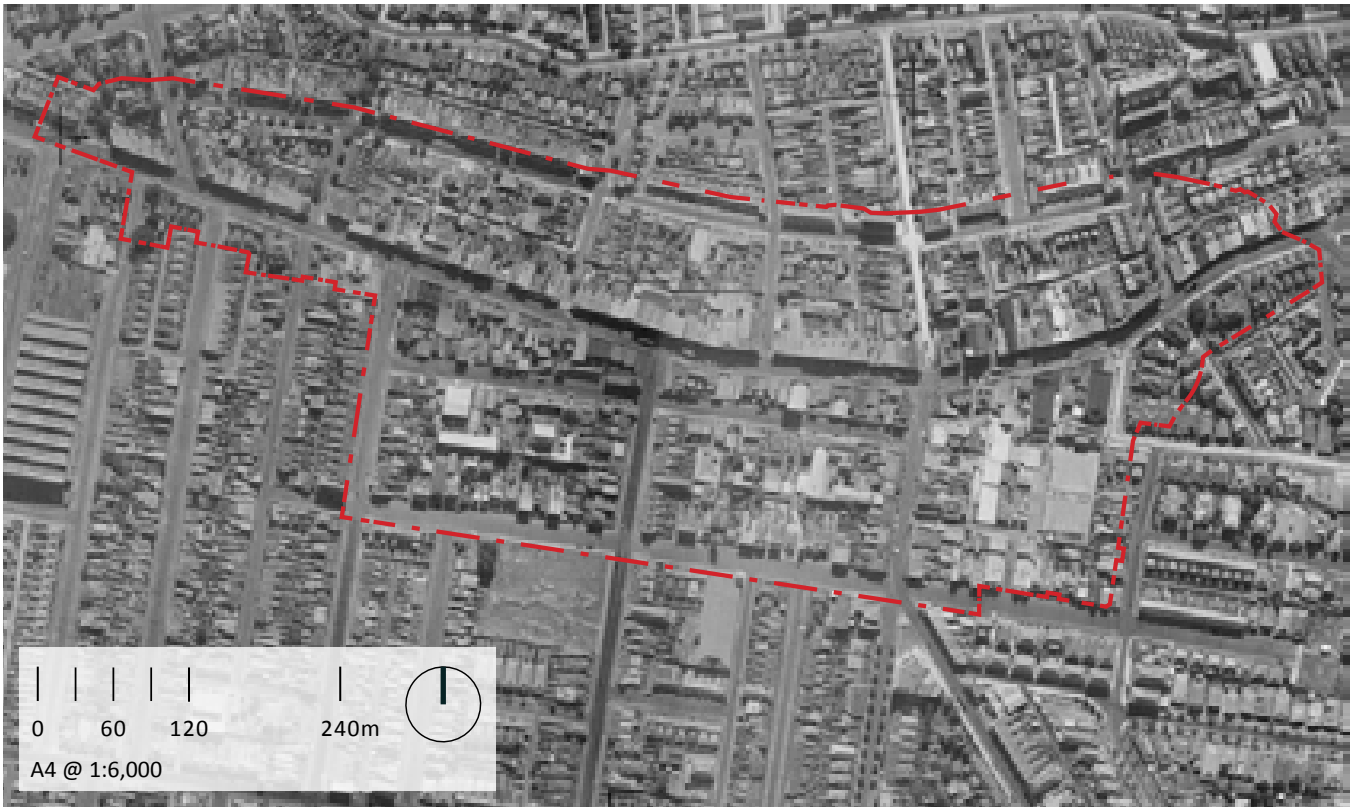


Figure 5.1 Bondi Junction 1943

Figure 5.2 Bondi Junction 1961

Figure 5.3 Bondi Junction 1970

Figure 5.4 Bondi Junction 1982

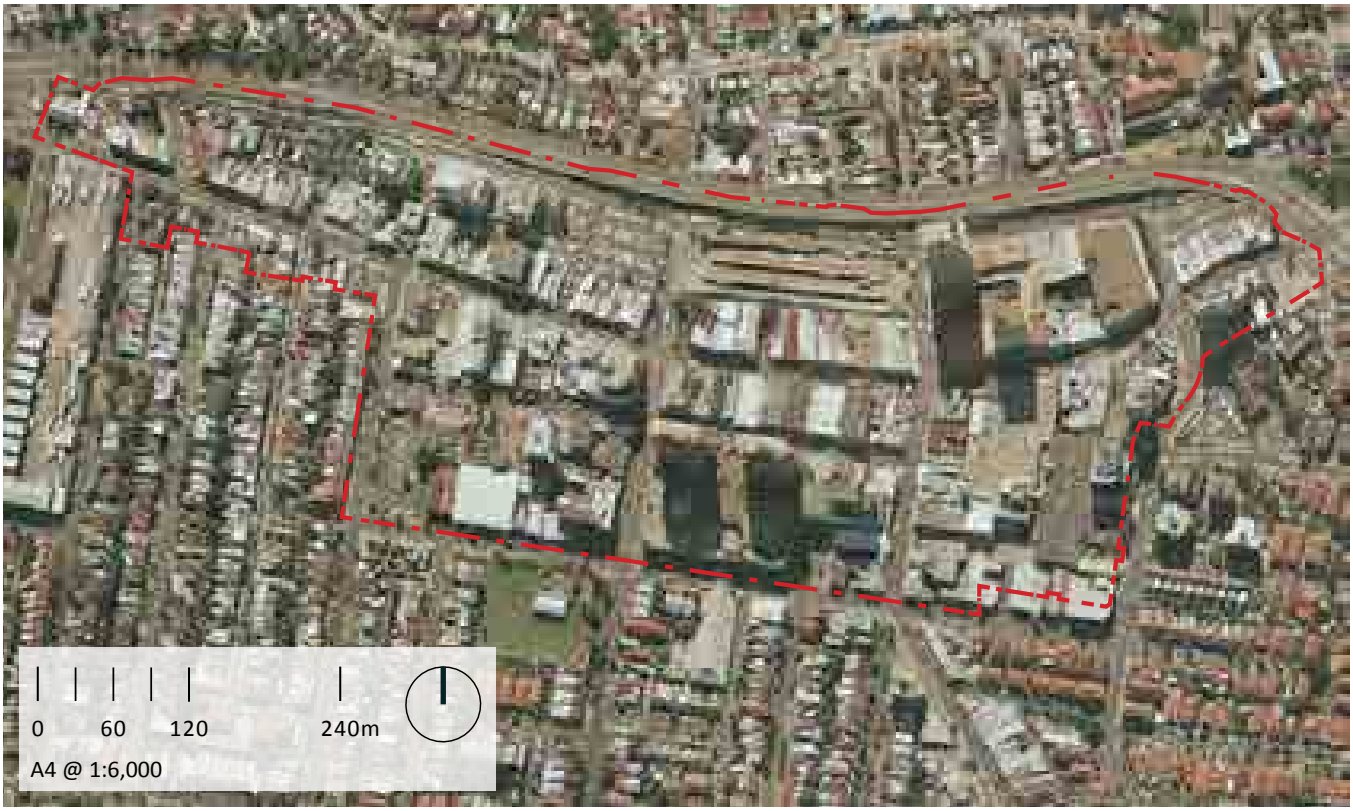


Figure 5.5 Bondi Junction 1991

Figure 5.6 Bondi Junction 2011

Impression of Bondi Junction Centre Today

Figure 5.7 Photos Index Map

Picture 5.1 Clementson Park

Picture 5.2 Waverley Street Mall

Picture 5.3 Oxford Street Mall

Picture 5.4 Rowe Street Ramp as viewed from Bus and Rail Interchange

Picture 5.5 Bronka Arcade as viewed from Spring Street

Figure 5.8 Photos Index Map 2

Picture 5.6 Historic Building (Bronte Road/Spring Street)

Picture 5.7 Historic Building (Bronte Road/Ebley Street)

Picture 5.8 Oxford Street looking West from west End of Mall

Picture 5.9 Oxford Street Looking West from Intersection with Vernon Street

Picture 5.10 Oxford Street looking East from Intersection with Mill Hill Road

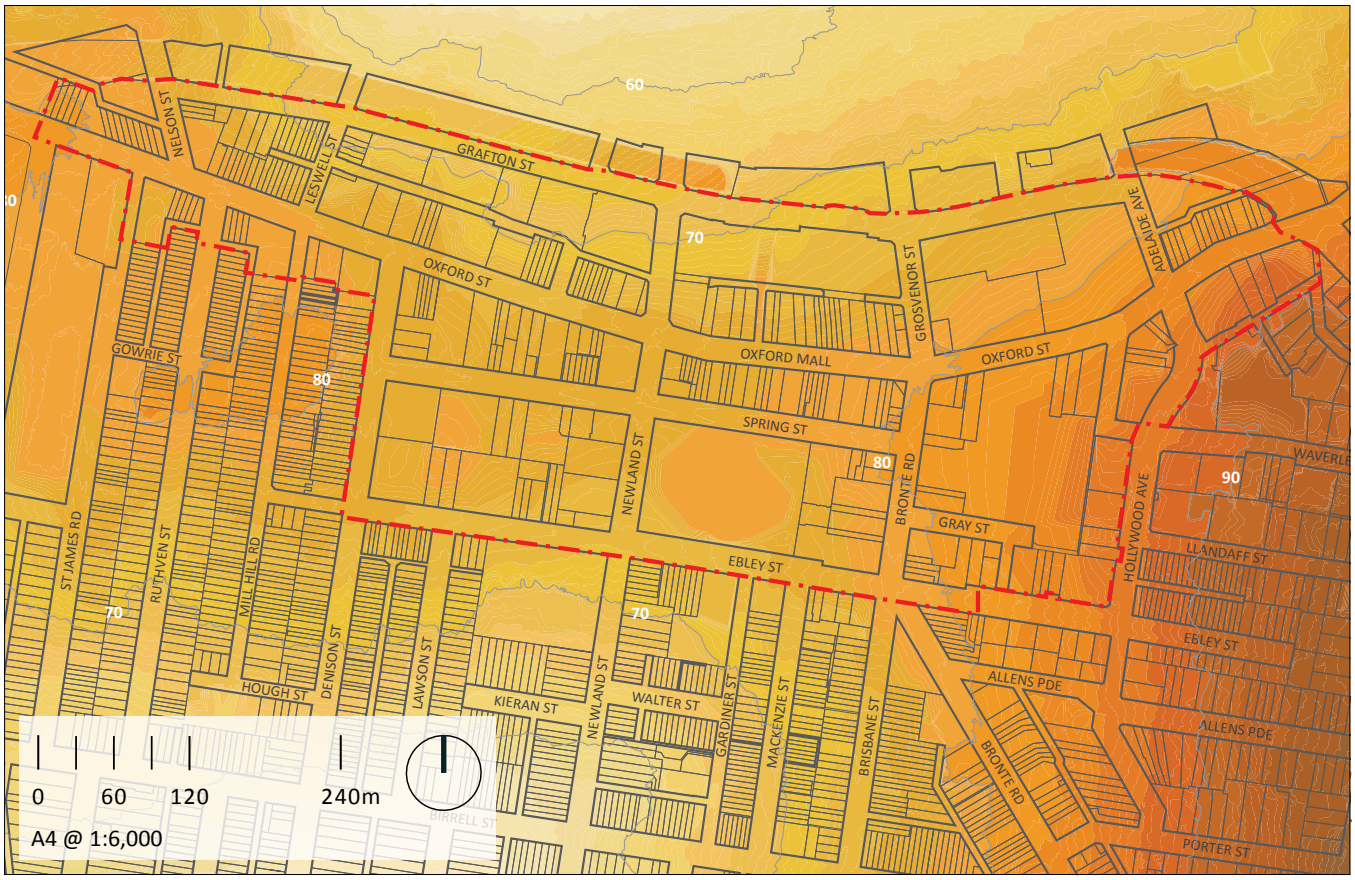


Figure 5.9 Topography

Topography

Bondi Junction sits high on a saddle approximately 80m above sea level, adjacent to Bellevue Hill and west of Waverley Reservoir – the two highest peaks in the eastern suburban area. Its location makes it a great vantage point with views to the Sydney CBD skyline, the harbour and the coast. However, Bondi Junction is exposed to significant wind which are exacerbated by the presence of residential and commercial towers that generate downdrafts affecting the condition of the streets below.

Public Domain Hierarchy

Bondi Junction's public domain includes streets, pedestrianised malls, plazas, forecourts and public open spaces. Oxford Street Mall, Waverley Mall and the Boot Factory plaza contribute to Bondi Junction's public domain. Whilst there are small plazas and forecourts, the streets form the focus for social and economic activity. Oxford Street Mall functions as the primary civic space for Bondi Junction being an active commercial street that is identifiable as the centre of the commercial core. Oxford Street, Spring Street, Newland Street (between Ebley Street and Oxford Street) and Bronte Road (between Ebley Street and Oxford Street) function as secondary streets surrounding Oxford Street Mall with active commercial uses. Denison Street, Ebley Street and Hollywood Avenue function as tertiary streets with some commercial uses at the periphery of the commercial core.

Access and Movement

Bondi Junction has a complex access and movement network with competing interests – conflicts arise between modes of transport and means of movement. Bondi Junction is not just a destination; it is also used as a thoroughfare for traffic moving through and past the centre. As a major public transit interchange, multiple bus routes connect to the centre and Bondi Junction railway station. As a result, segments of Bronte Road and Oxford Street are closed to private vehicles, allowing only buses and taxis. Pedestrians and cyclists are often subordinate to buses and private vehicles – long wait times occur at traffic lights, pedestrian crossings are missing at strategic crossing points (such as outside Westfield's entrance on Bronte Road across to Spring Street) and fences provide barriers to pedestrian desire lines. Bicycle routes exist around and to Bondi Junction Centre but not through it.

Figure 5.10 Public Open space

Public Open Space

Bondi Junction contains several small areas of public open space:

- Clementson Park on Ebley Street;
- Norman Lee Place in front of the old Boot Factory on Spring Street;
- Oxford Street Mall, pedestrian zone between Newland Street and Bronte Road;
- Rowe Street, ramp connection between Oxford Street Mall and the Transport Interchange;
- Waverley Street Mall, pedestrian zone between Oxford Street and Entrance to Westfield Parking;
- Eora Park on the corner of Hollywood Avenue and Waverley Street.

These parks and open spaces do not feature in prominent locations within the centre, instead being located on the periphery. In fact Eora Reserve is difficult to distinguish as public rather than private open space. Significant regional parklands surround the centre including Centennial Park to the west; Queens Park to the south; Waverley Park and Bronte Park to the east; and Trumper Park and Cooper Park to the north. These parks provide active recreation destinations approximately 500m to 1km from the centre but are relatively dislocated for pedestrian access.

1. Clementson Park
2. Norman Lee Place (Boot Factory)
3. Oxford Street Mall
4. Rowe Street (Between Oxford Street Mall and Transport Interchange)
5. Waverley Street Mall
6. Eora Park

Figure 5.11 Existing Building Heights

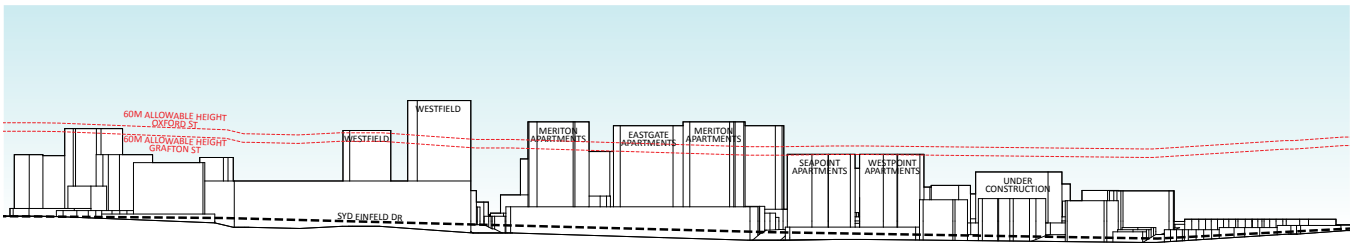
Existing Building Heights and Skyline

Bondi Junction is primarily comprised of two types of built form:

- Podium and tower high-rise developments on large consolidated lots within the commercial core;
- Small lot low-rise residential buildings surrounding the commercial core.

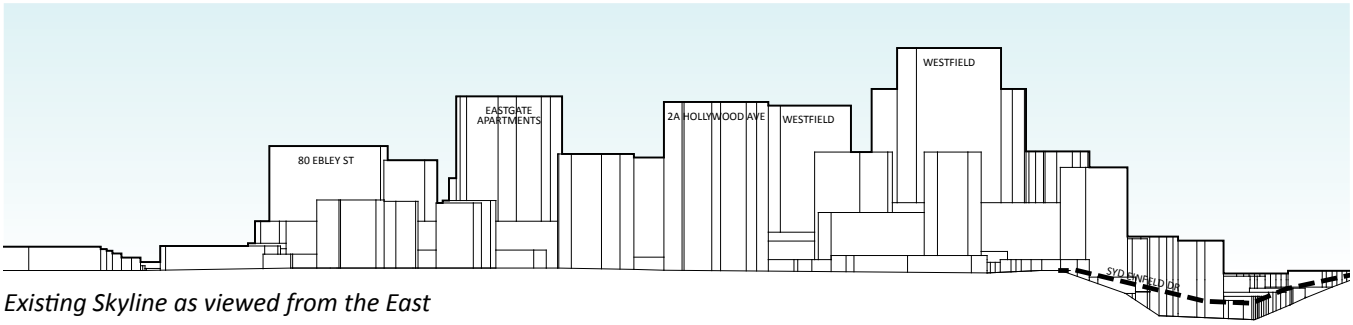
There are eight tower forms of 20+ storeys within the study area, half of which exceed the current maximum building height controls of 60m (see Figure 5.12). The skyline of Bondi Junction appears irregular and undulating when viewed from different angles. Figure 5.12 show the existing undulating skyline as well as the possible arc-shaped skyline with missing height points around the Westfield Centre to support the arc.

Picture 5.11 Existing Skyline as Viewed from North

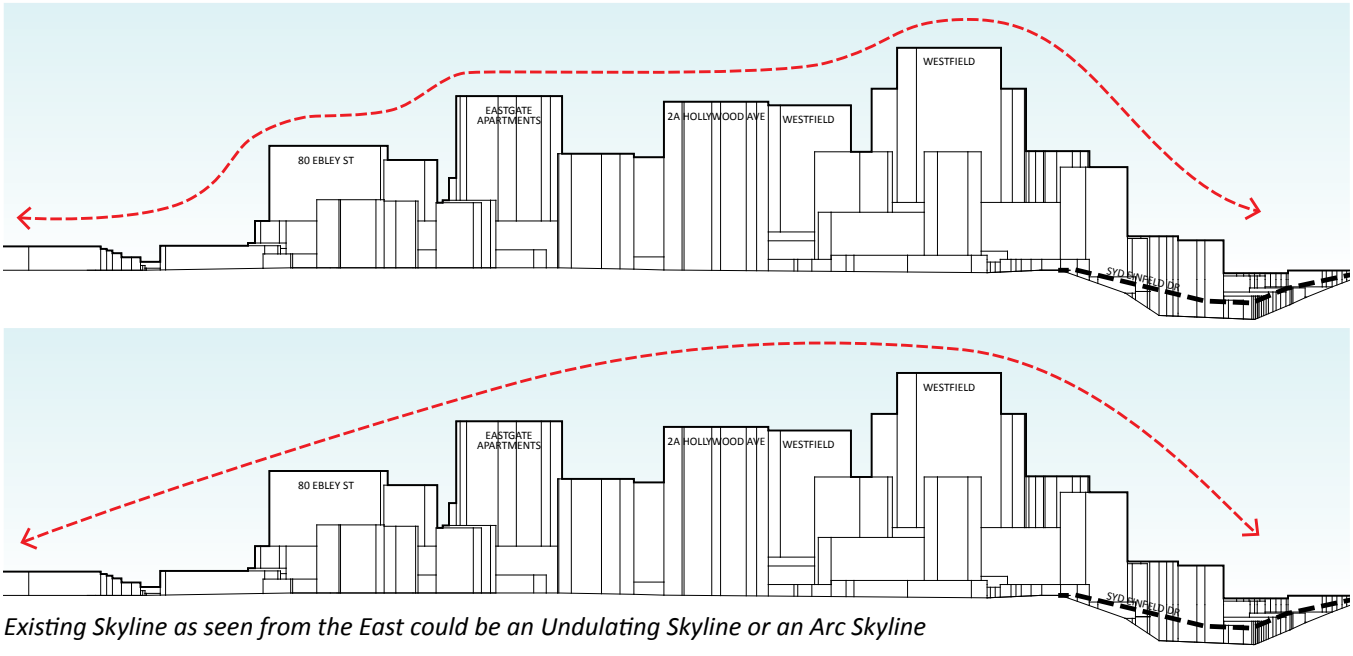


Existing Skyline as viewed from the North

Existing Skyline as seen from the North could be an Undulating Skyline or an Arc Skyline



Existing Skyline as viewed from the East



Existing Skyline as seen from the East could be an Undulating Skyline or an Arc Skyline

Figure 5.12 Skyline Analysis

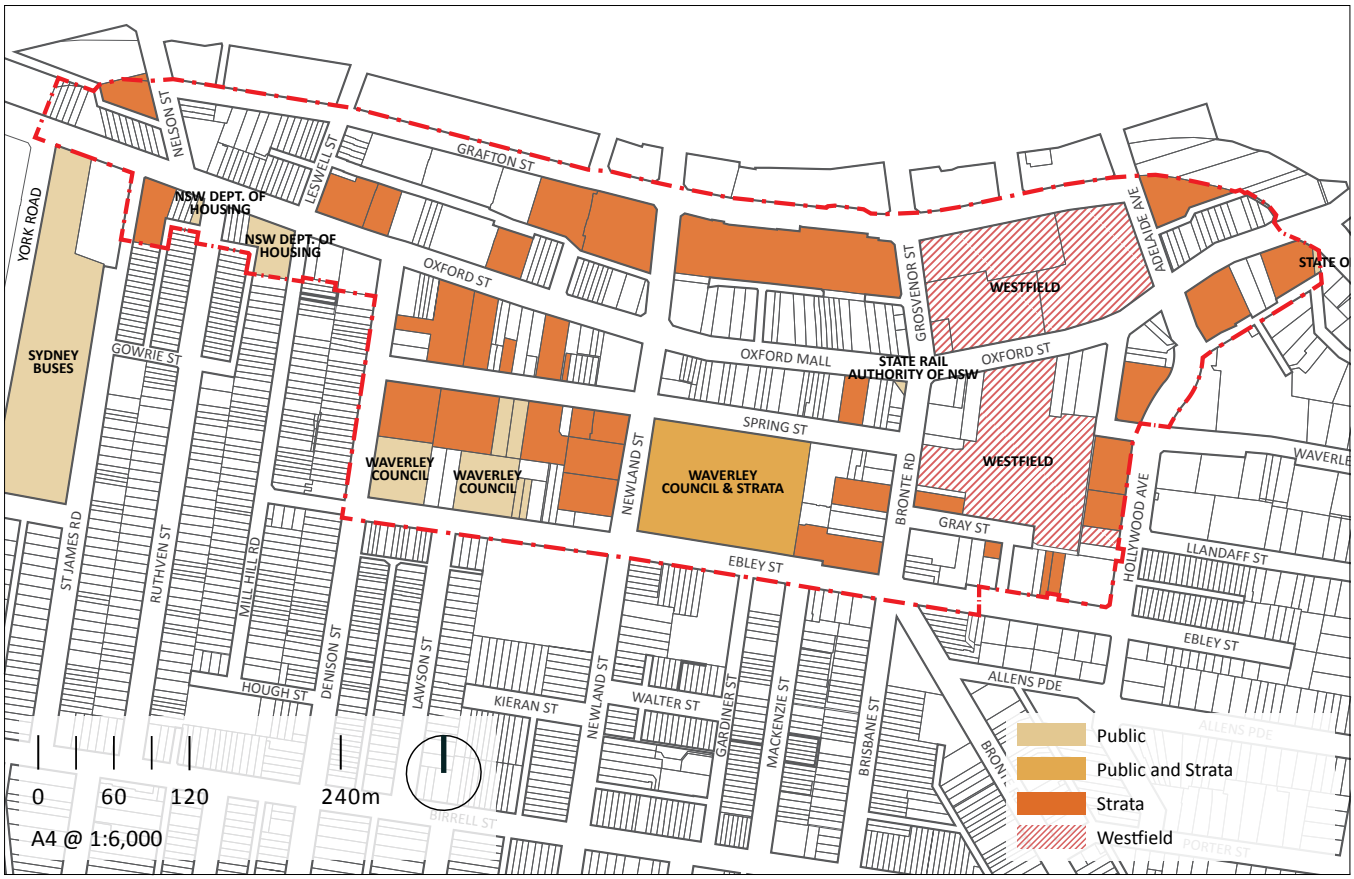


Figure 5.13 Land Ownership

Land Ownership

The largest land owner in Bondi Junction is the Westfield Group with large sites on both sides of Oxford Street. There are many developments with strata ownership that are unlikely to redevelop in the near future. In terms of public ownership, Waverley Council owns several lots facing Ebley Street and Sydney Buses own a large site on York Road.

Land Use

Bondi Junction contains a mix of retail, office, residential, community and entertainment uses. Retail uses are concentrated around Oxford Street Mall, Westfield and Eastgate while office, residential and community uses are scattered throughout the centre. This results in a mix of uses where retail, office and entertainment uses can be found directly adjacent to residential uses. Beyond the centre, residential uses dominate.

LEP Controls – Previous Changes of Zoning, Height of Buildings and Floor Space Ratio

Changes made when Waverley LEP 1996 (Bondi Junction) was superceded by Waverley LEP 2010 (Bondi Junction Centre)
The following revisions were made from the Waverley LEP 1996 (as used in Bondi Junction Centre Structure Plan 2006) to the Waverley LEP (Bondi Junction Centre) 2010:

- Zoning
  - A conversion from 3(a2) Business General, 3(a3) Business Secondary, 3(a4) Business Special (Low Intensity), 2(b) Residential – Medium Density and 2(c1) Residential – Medium and High Density to the new standard instrument zones of B3 Commercial Core and B4 Mixed Use.

- Height of Buildings
  - The provision of finer grain HOB controls along Oxford Street Mall, including some decreases for solar access and some increases on the southern side of the mall.
  - An increase in Bondi Junction generally, e.g. from 28m to 38m for sites facing Oxford Street west of Newland Street, from 28m to 60m for sites east of Westfield.

- Floor Space Ratio
  - The provision of finer grain FSR controls along Oxford Street Mall.
  - An increase in Bondi Junction generally, e.g. from 4.00:1 (with 1.00:1 residential) to 6.00:1 on the Westfield sites, from 3.00:1 to 5.00:1 for sites facing Oxford Street west of Newland Street.

Changes made when Waverley LEP 2010 (Bondi Junction Centre) was superceded by Waverley LEP 2012
The following revisions were made from the Waverley LEP (Bondi Junction Centre) 2010 to the Waverley Draft LEP 2011:

- Zoning
  - An expansion of the B3 Commercial Core boundary to include lots adjacent to Westfield fronting Ebley Street and Hollywood Avenue, lots west of Newland Street facing Oxford Street and lots facing Grafton Street with existing commercial towers.

- Height of Buildings
  - No change.

- Floor Space Ratio
  - An increase from 6.00:1 to 8.00:1 on the two Westfield sites.
  - An increase from 6.00:1 to 7.00:1 on the northern side of Oxford Street west of Adelaide Street.
  - An increase from 4.00:1 to 6.00:1 on some sites adjacent to Westfield facing Ebley Street and Hollywood Avenue.

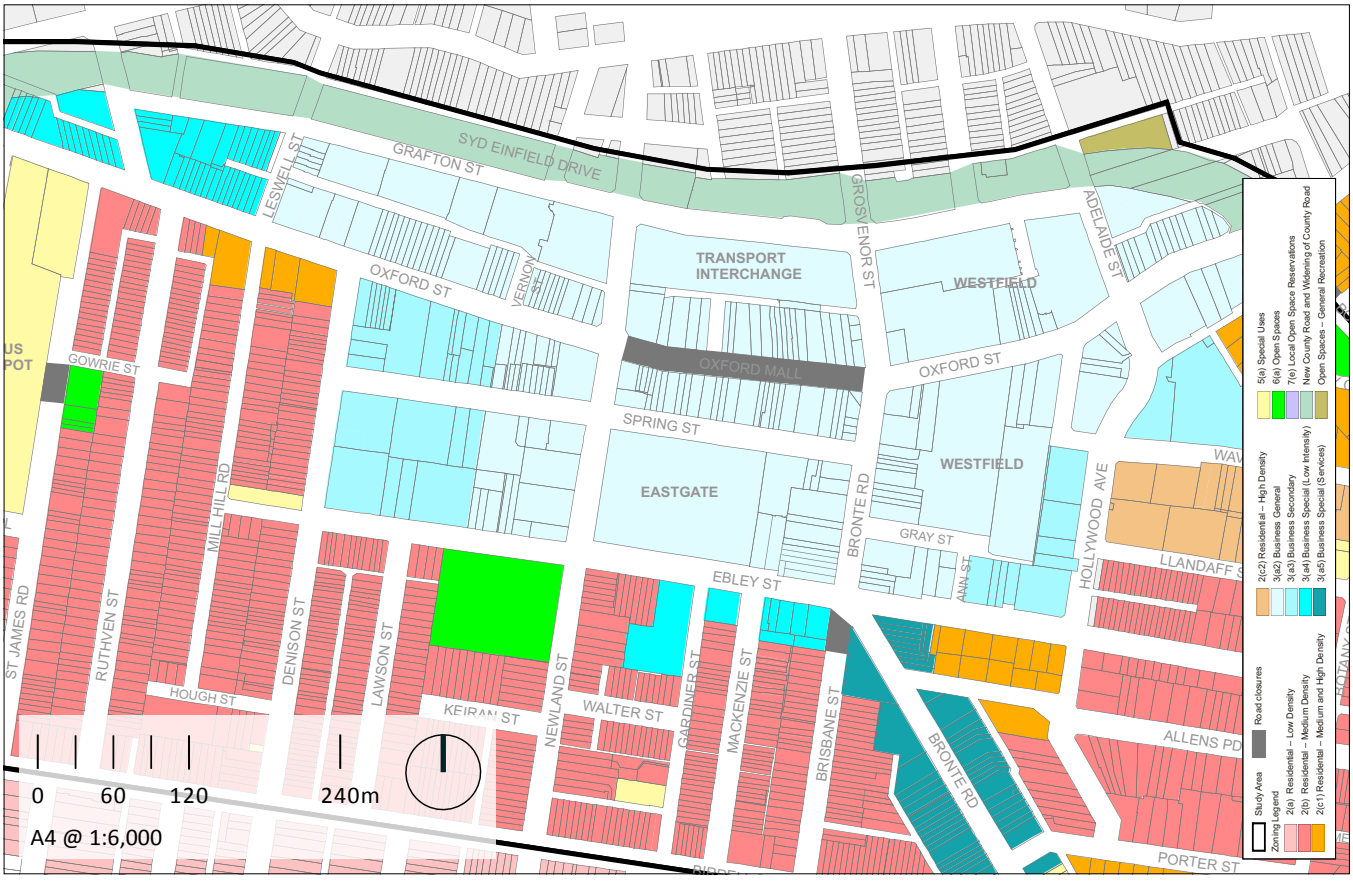


Figure 5.14 Zoning – Bondi Junction Centre Structure Plan 2006

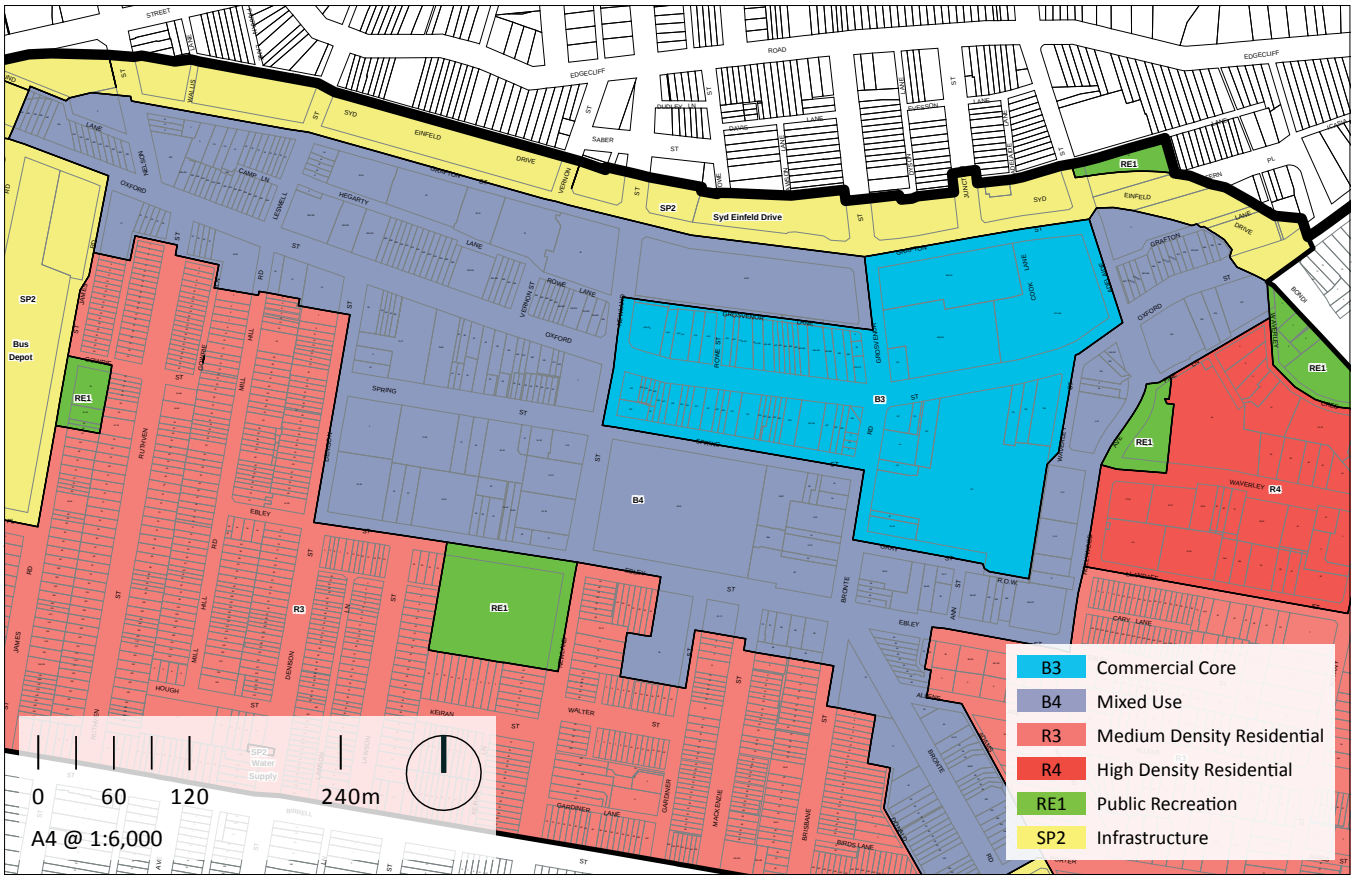


Figure 5.15 Zoning – Waverley LEP (Bondi Junction Centre) 2010

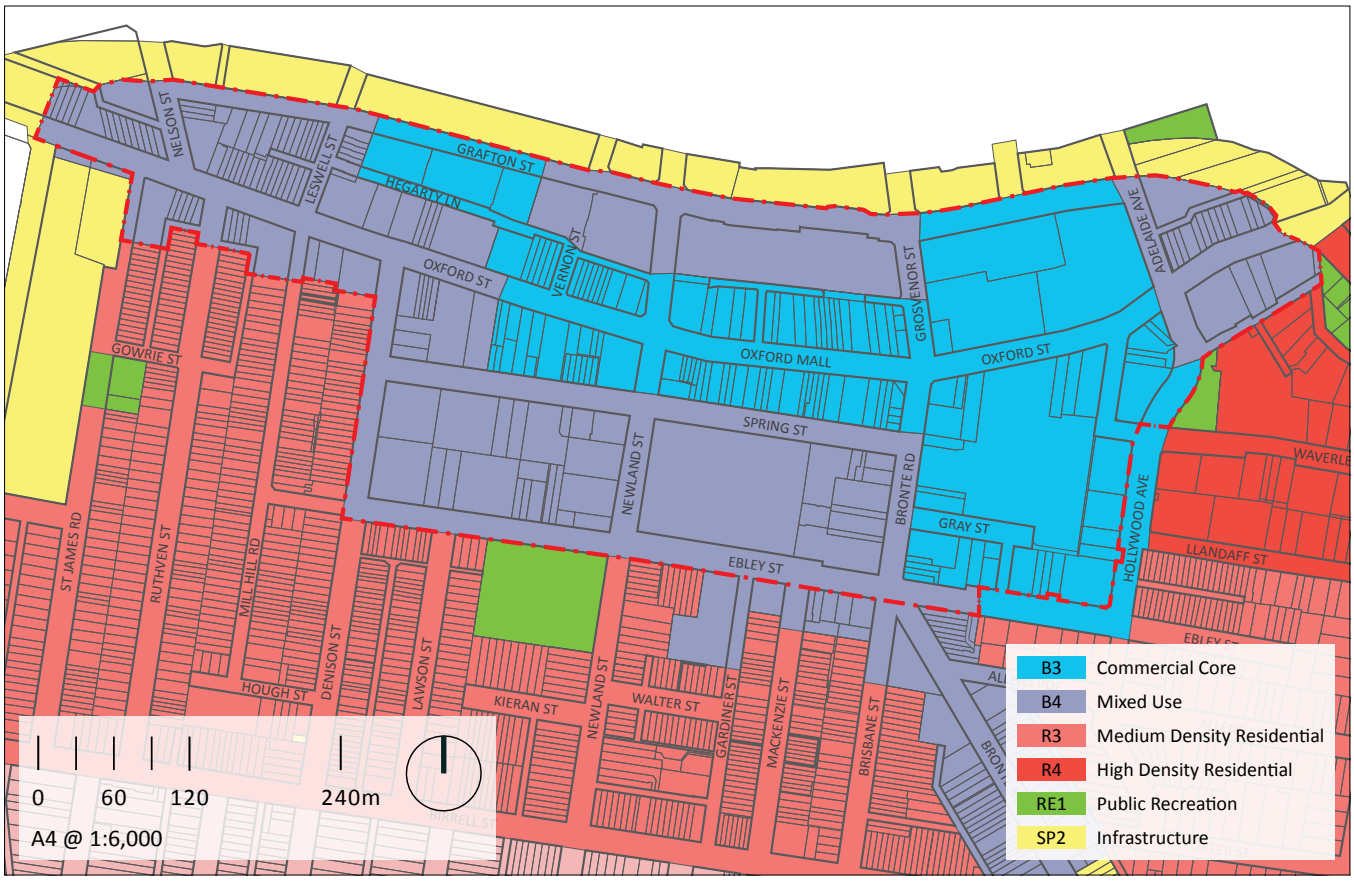


Figure 5.16 Zoning – Waverley LEP 2012

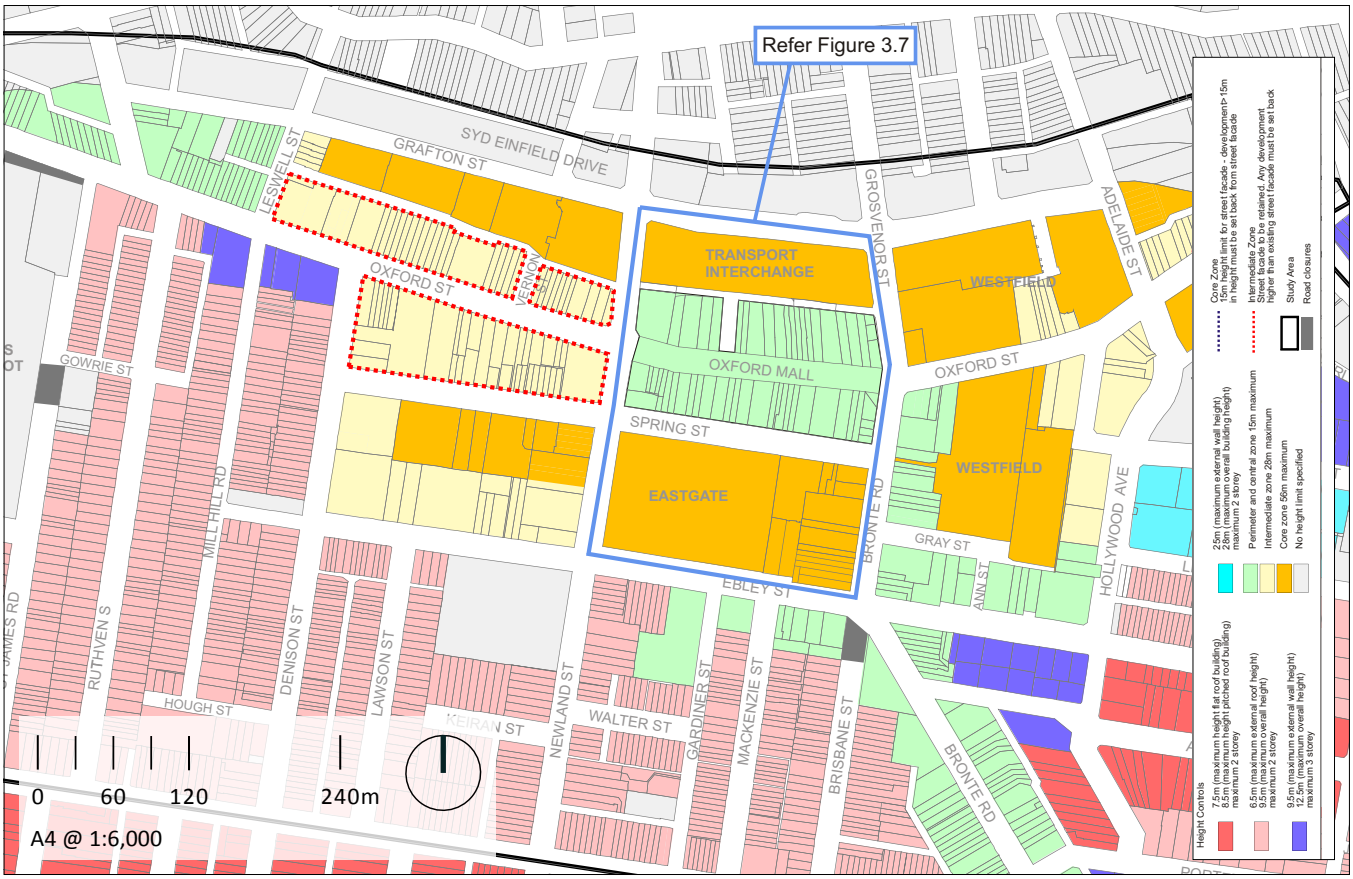


Figure 5.17 Height of Buildings – Bondi Junction Centre Structure Plan 2006

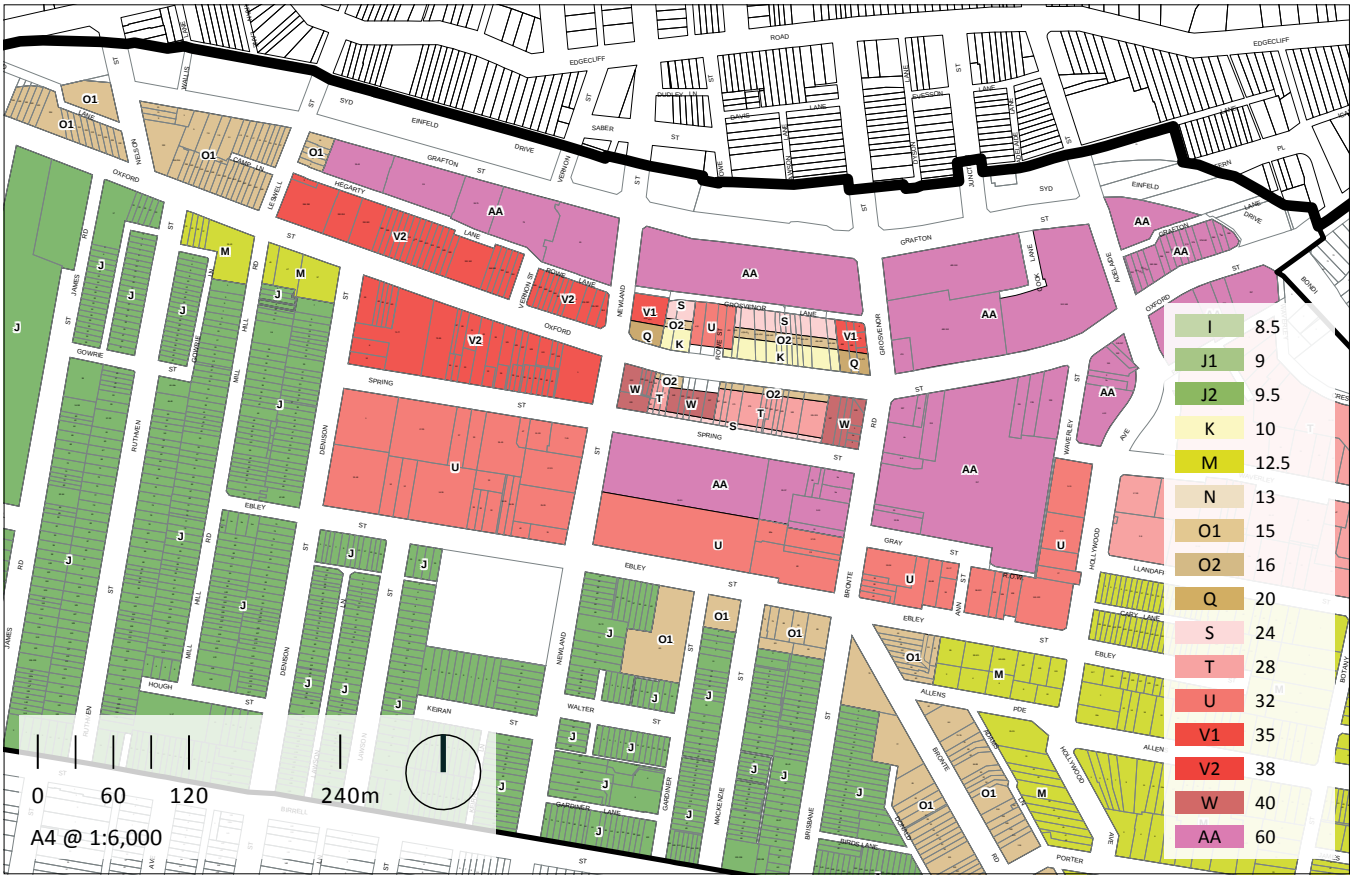


Figure 5.18 Height of Buildings – Waverley LEP (Bondi Junction Centre) 2010

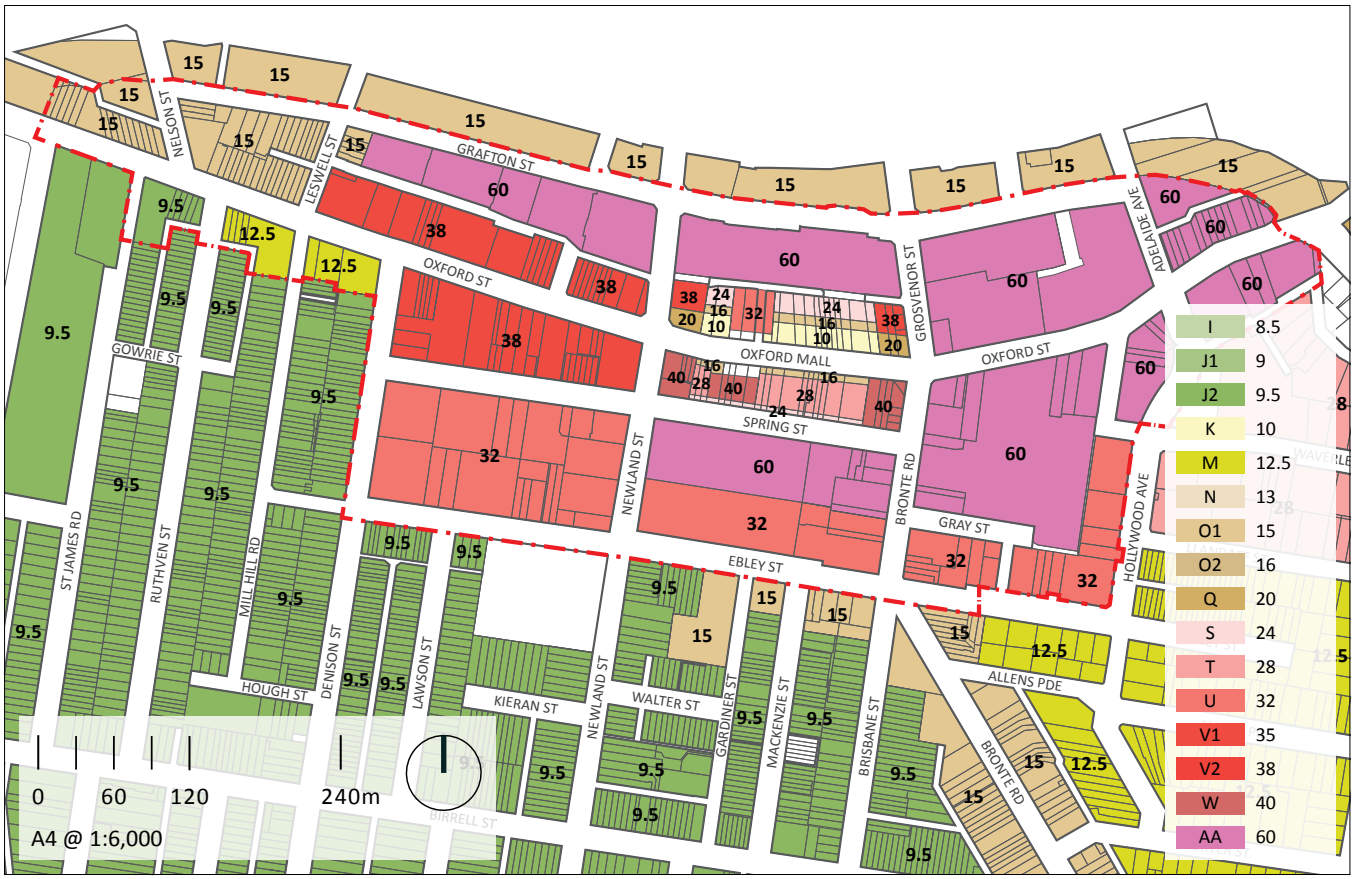


Figure 5.19 Height of Buildings – Waverley LEP 2012

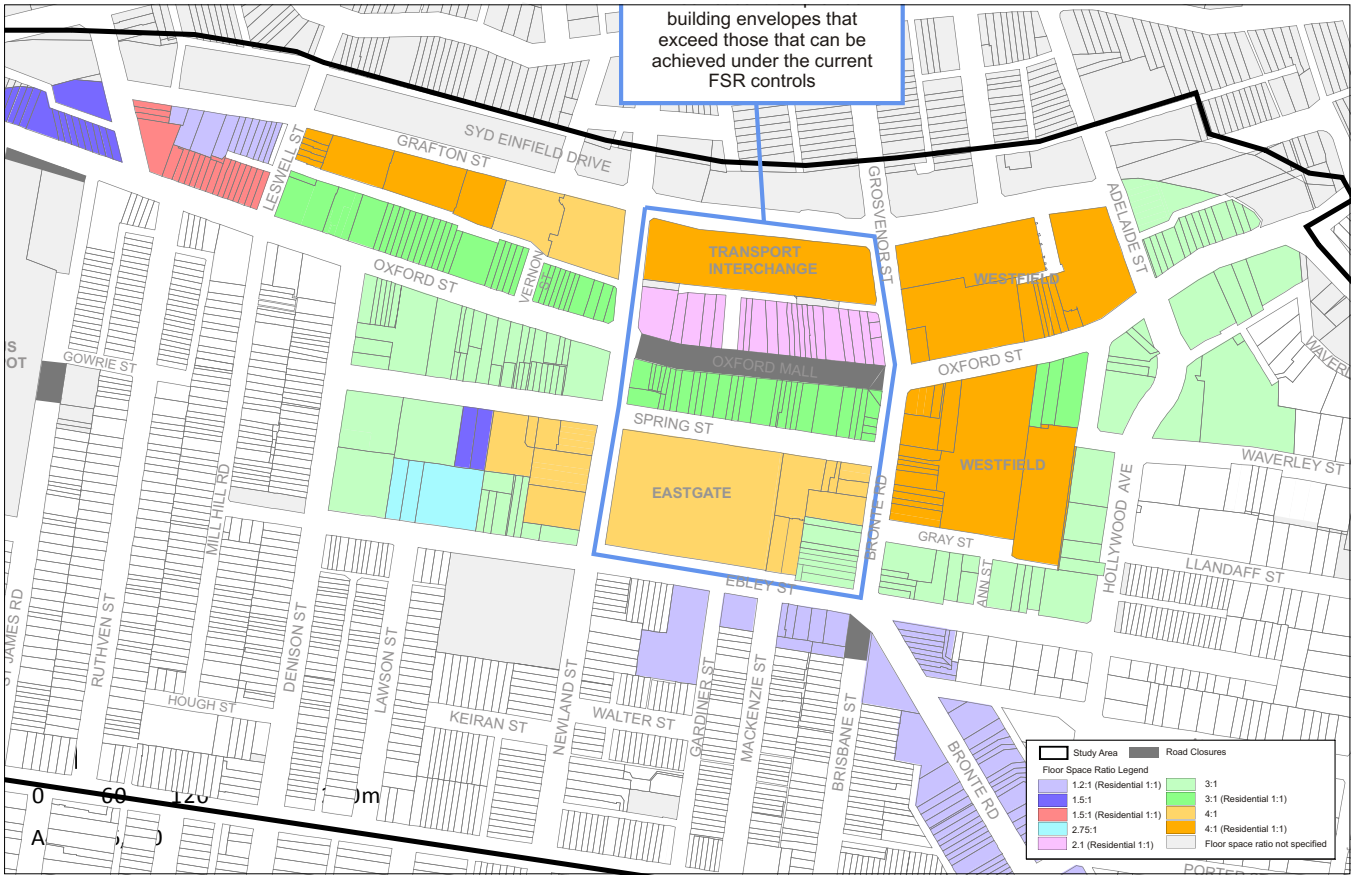


Figure 5.20 Floor Space Ratio – Bondi Junction Centre Structure Plan 2006

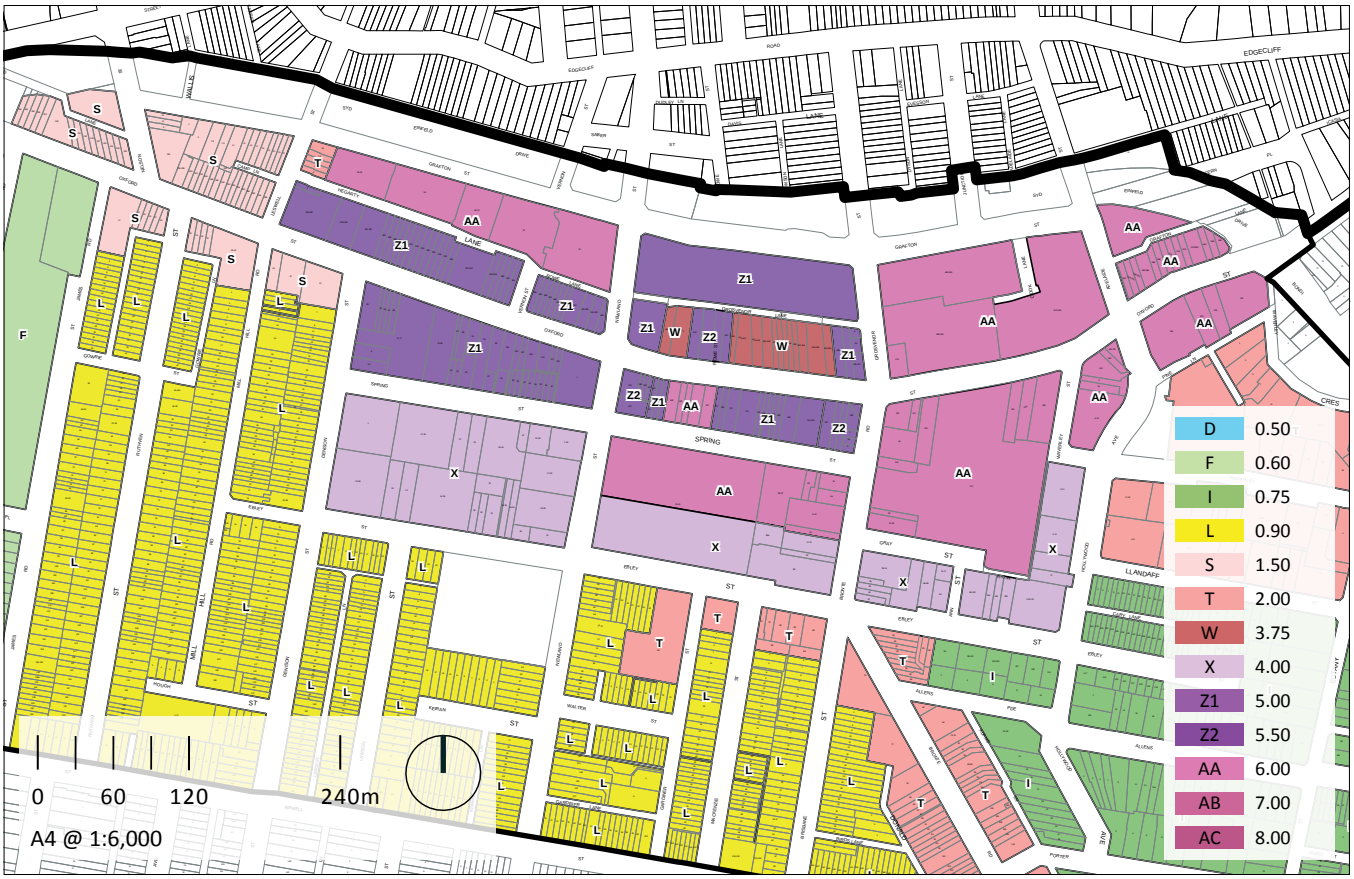


Figure 5.21 Floor Space Ratio – Waverley LEP (Bondi Junction Centre) 2010

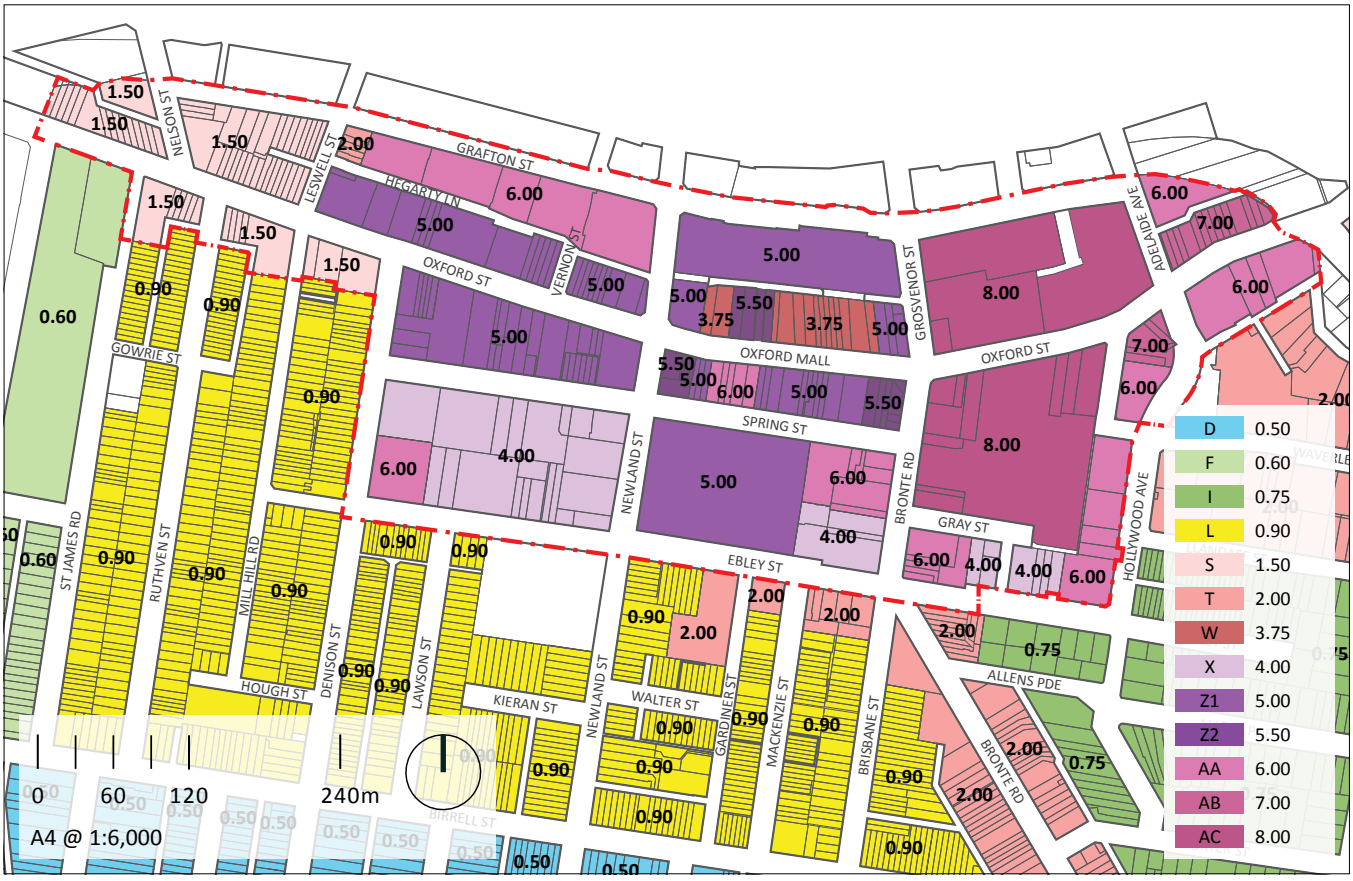


Figure 5.22 Floor Space Ratio – Waverley LEP 2012

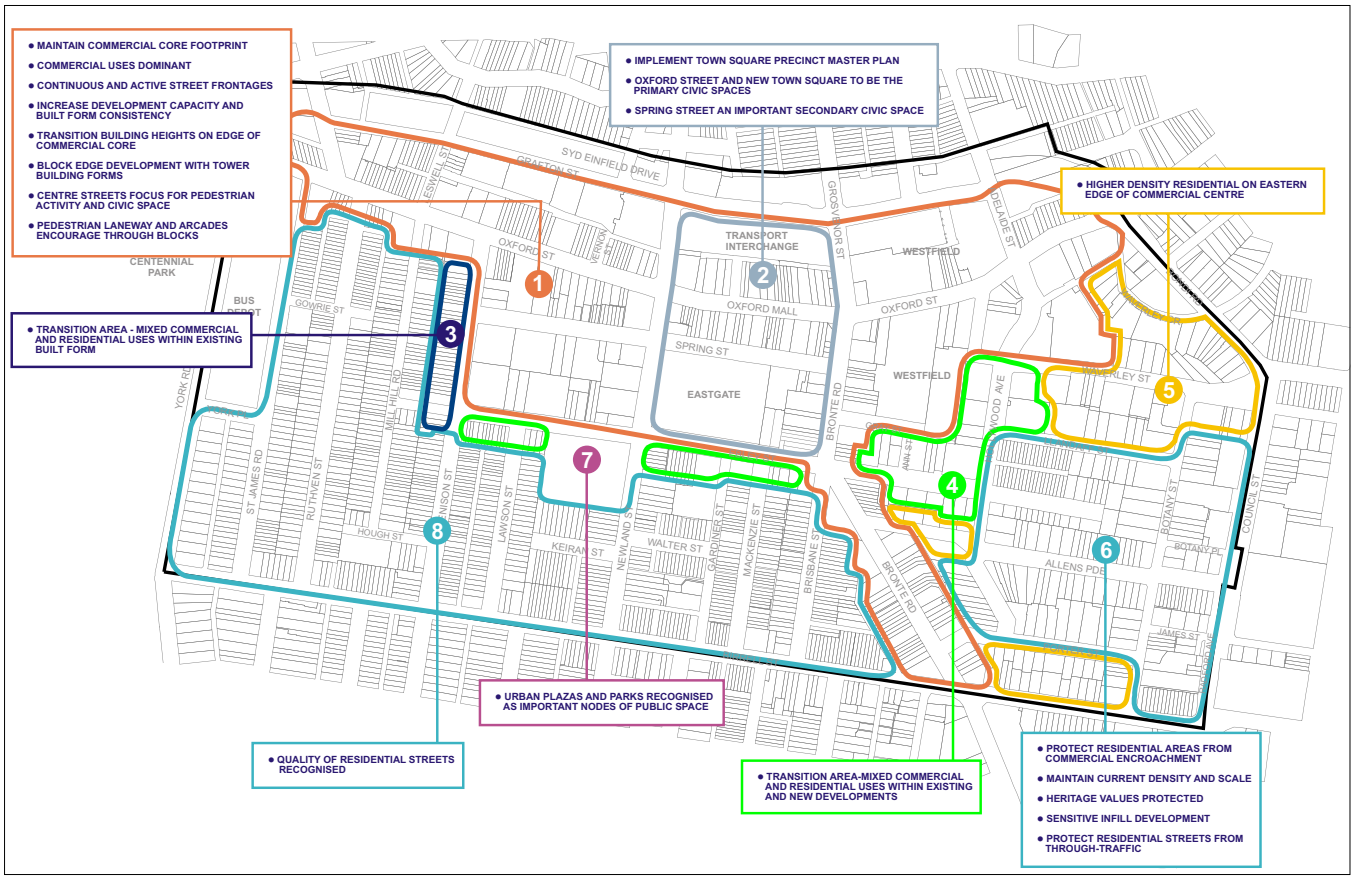


Figure 5.23 Bondi Junction Centre Structure Plan

- An increase from 4.00:1 to 6.00:1 on the Waverley Council Library site.
- An average (taken from 4.00:1 and 6.00:1) of 5.00:1 on the Eastgate site.

Over time, increases in FSR and HOB controls have led to an increase in development capacity in Bondi Junction and a prohibition of permanent residential uses (i.e. not hotel and serviced apartments) within the B3 Commercial Core zone. The Bondi Junction Centre Structure Plan identifies commercial sites that are constrained or unlikely to redevelop in the near future, such as those that have been recently refurbished, those that are strata title developments with more than 20 owners, and those that have heritage or streetscape value and those that are defined as having been developed to their full potential. The inverse of these sites are identified as potential development opportunities. It is worth noting that since the Structure Plan was completed in 2006, the change in LEP controls and consequent increase in development capacity may have changed the likelihood of development on some sites identified as constrained. Adjacent streets and laneways provide a service role within the centre.

Bondi Junction Centre Structure Plan

The Structure Plan provides a conceptual planning framework for Bondi Junction with the following strategies:

- Maintain the commercial core footprint.
- Allow for commercial uses to dominate.
- Encourage continuous and active street frontages.
- Increase the development capacity and built form consistency.
- Transition building heights on the edge of the commercial core.
- Encourage block edge development with tower building forms.
- Encourage centre streets as a focus for pedestrian activity and civic spaces.
- Encourage pedestrian laneways and arcades through blocks.
- Implement a Town Square Precinct Master Plan.
- Allow for Oxford Street and the new town square to function as the primary civic spaces.
- Allow for Spring Street to function as an important secondary civic space.

This conceptual planning framework underpins recommendations for potential control amendments to the Draft Waverley Comprehensive LEP 2011 and Draft Waverley DCP 2011 in aiming to provide controls that ensure improved pedestrian access between Spring Street and the bus and rail interchange as well as deliver sustainable buildings that respond to the topography and local context whilst minimising amenity impacts on the public domain and any neighbouring development (including residential uses) surrounding Bondi Junction.

Shadow Analysis

The shadow impact of tall buildings on their surrounding is a particular issue in most centre precincts. In Bondi Junction this issue is even more acute because the longer block orientation in east-west and the tallest buildings are located along its northern edge. Their shadow impact on neighbouring sites as well as the public domain has a significant impact on amenity in the centre. The development potential for residential uses in neighbouring sits is impacted by limited solar access caused by overshadowing of taller buildings. The quality of the public domain depends in particular on solar access, especially in pedestrian zones where visitors tend to spend more time and cafes invite a longer stay.

Overshadowing of the Public Domain

An explanation of overshadowing in Oxford Street Mall, Waverley Mall, Clementson Park and other areas is as follows:

Oxford Street Mall

The street grid of the Bondi Junction Centre follows a north-south and east-west orientation. This has a particular disadvantage for the east-west oriented streets when it comes to solar access at lunch time. Oxford Street Mall has an east-west orientation and is shaded at lunch time from buildings on its northern side (see Figure 5.24). A large number of visitors and employees are looking to have their break at a sunny spot which makes it particularly important to protect solar access to Oxford Street Mall. The ordinances in the LEP and DCP 2012 are arranged to provide solar access to Oxford Street Mall which is reflected by steps in the allowable development height along the northern block frontage.

However, the existing shadow impact of tall buildings along Grafton Street is significant. The tall tower buildings on top of the rail interchange cause significant shadow impact on Oxford Street Mall, especially during and after lunch time. It is worth noting, that the existing building height of the two tower buildings exceeds the permitted height of 60m as designated in Waverley LEP 2012.

The development potential of lots along the northern side of Oxford Street Mall is restricted by the height steps to secure solar access to Oxford Street Mall. The steps occur at 10m, 16m and 24m. These steps were introduced regardless of the actual shadow impact of the two tall towers to the north. An analysis of the actual shadow impact of the two towers indicates the areas along Oxford Street Mall with solar access on 21 June between 12pm and 2pm (see Figure 5.24). These are the relevant areas to be protected and the height step back should only be applied on buildings with impact on these areas. There is no need to lower the development potential in areas that get shaded by the two towers anyway.

The LEP Height of Buildings should reflect the aim to protect solar access to Oxford Street Mall while considering the actual existing and proposed urban environment. This includes the provisions for new buildings in context with the development of the Town Square. The built form as proposed for the Town Square development in the Waverley LEP 2012 Height of Buildings map on the northern side of Oxford Street Mall does not correspond with the Street Frontage Heights and setbacks as determined in the Waverley Development Control Plan 2012 (DCP) at this location.

Shadowing on Oxford Street Mall requires further rigorous analysis and testing.

Waverley Street Mall

The Waverley Street Mall is one of the very few areas in the Bondi Junction Centre where residents, visitors and employees can find a quiet space for a break away from traffic noise. It is important to protect solar access to Waverley Street Mall as it has a north-south orientation with good conditions for lunch time solar access. The mall is located within an area with high densities and building heights. The maximum permitted Height of Buildings on the western and eastern side of Waverley Mall is 60m which will have an impact on solar access in the morning and afternoon hours. The existing built form on the northern side (the Westfield Centre north of Oxford Street) has developed in a number of steps which have no shadow impact on Waverley Street at present (at 12pm, 21 June). Any further development within or on top of the Westfield Centre north of Oxford Street must follow this principle and cannot result in any further shadow impact on Waverley Street Mall at 12pm, 21 June. Any development application in this area should provide evidence that this aim is met. Height increase above the present 60m on the Westfield Centre north of Oxford Street is not recommended.

Clementson Park

Clementson Park is located on the south side of Ebley Street. Although located outside the actual boundary of the Bondi Junction Centre, it must be considered in the centre context. The height of development of the southern edge of the centre will determine how much solar access the park receives.

Although Centennial Park with its large open spaces and recreational facilities is within walking/cycling distance to the Bondi Junction Centre, Clementson Park plays a significant role as a local park. There is no other open space of comparable size within the Bondi Junction area and therefore it has a high value as recreation space and for community uses.

The Waverley LEP 2012 Height of Buildings map shows the northern side of Ebley Street between Denison Street and Newland Street with a blanket designation of maximum 32m. This height at the southern side of the block would have a significant shadow impact on Clementson Park. The permitted number of storeys at this location is determined through the Waverley DCP 2012 (Part E 1.26.2 Figure 36, 37, 38) which allows for a maximum of 8 storeys. It is unlikely to reach a height of 32m with 8 storeys, however for the

determination of potential shadow impact the maximum permitted height has to be taken into account.

At present the potential shadow impact on Clementson Park is controlled by the following clause in the Waverley DCP 2012 (Clause 1.11):

'All public parks, including Clementson Park, are not to be overshadowed using the following standard: Less than 40% of the park should be in shadow between 11:00am and 3:pm, at the winter solstice; less than 70% of the park should be in shadow between the times of 7:00am and 9:am, and 4:00pm and 6:00pm, at the equinox.'

This rather complex clause leaves room for interpretation and uncertainty. The actual area of Clementson Park needs to be defined and complex shadow impact studies need to be prepared for two different times of the year. It is not clear whether less than 40% should be in shadow at any time or less than 40% accumulated over the stated period of time.

A simpler approach is recommended that will deliver the desired solar access to Clementson Park and provides clear guidance to developers. As Clementson Park and any other public park within and around the centre are of such high value to visitors and residents, it is recommended to avoid any shadow impact at 12pm, 21 June. Therefore the clause should be amended to the following:

'All public parks, including Clementson Parks, are not to be additionally overshadowed at 12pm on the winter solstice.'

To support the overall goal of lunch time solar access for Clementson Park it is furthermore recommended amending the Waverley LEP 2012 Height of Buildings map to a 28m designation along the northern side of Ebley Street. It is also recommended to include a Solar Access clause for open spaces in the LEP 2012.

Other Areas

The shadow analysis for Bondi Junction Centre considers the shadow impact of existing and proposed building heights. It has shown that locations with lunch time solar access within the centre are few and valuable. It is recommended to protect those areas and increase solar access wherever possible. This is in particular applicable to streets and public domain along streets with a north-south orientation which will have a good solar access around lunch time (Bronte Road, Newland Street and Denison Street).

Overshadowing of Development Areas

An explanation of overshadowing in Bondi Junction Centre and residential areas south of the centre is as follows:

Shadow Impact within the Centre

The residential development potential of a site can be decreased by shadow impact from tall buildings that limit solar access. The control of solar access is especially important in a dense urban environment with mixed use buildings. The development potential of mixed use lots will be limited by heavy shadow impact of tall buildings in its surrounding. The Bondi Junction Centre has its tallest buildings on the northern side. A general section shows steps from 60m in the north to 38m in the central area and 32m along the southern side (see Figure 5.24 and Figure 5.25). The 60m height maximum encloses the shopping area along Oxford Street and Spring Street on its northern, eastern and southern side.

A general further height increase is not recommended, rather the increase of height at selected locations. One area that has been identified as suitable for height increase is the Westfield Centre between Oxford Street and Gray Street. This site would be available as large site to create A-grade office space and can be accessed and serviced via the ring road around the Bondi Junction. While a height increase in this area would result in limited and manageable shadow impact on areas outside the Bondi Junction Centre, it would result

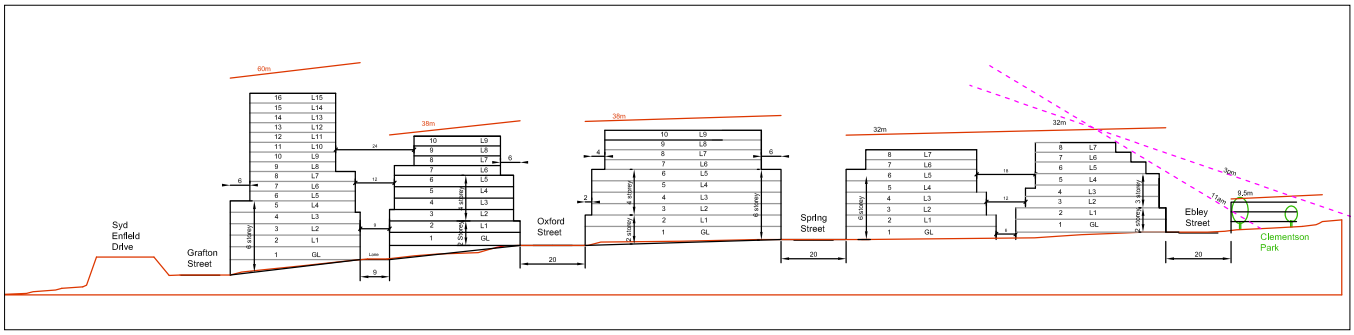


Figure 5.24 Section according to Waverley DCP and LEP 2012

0 25 50 100m

A4 @ 1:2,500

Setbacks and max. Building Height according to Waverley LEP and DCP 2012;
Ceiling heights: 4m GL, 3.5m L1 to L5, min. 2.7 L6 and above if residential;

in additional shadow impact on areas within the centre. Therefore it is not recommended to permit residential uses along the northern side of Ebley Street between Bronte Road and Hollywood Avenue nor on the western side of Hollywood Avenue between Ebley Street and Waverley Street. These areas would already receive shadow impact from any potential development on the Westfield centre even at the 60m designation as it is in the Waverley LEP 2012 Height of Building map.

Residential Areas South of the Centre

Particular consideration has been given to the residential areas south of the Bondi Junction Centre. Additional overshadowing of these areas, which also includes Clementson Park, has to be avoided. The Waverley LEP 2012 already considers the impact on this transition zone by permitting the development of offices along the western side of Denison Street and on some areas along the southern side of Ebley Street (Clause 2.5 and Schedule 1). It is recommended to extend this additional permitted use for all residential lots along the southern side of Ebley Street east of Denison Street. This way the transition between commercial and residential uses occurs in the block middle rather than in the street centre. Alternatively designation of Mixed Use zone for all lots currently zoned Residential along the south side of Ebley Street could achieve this objective.

A further height increase on the northern side of Ebley Street is not recommended as that would result in additional shadow impact beyond the first lots on the opposite southern side.

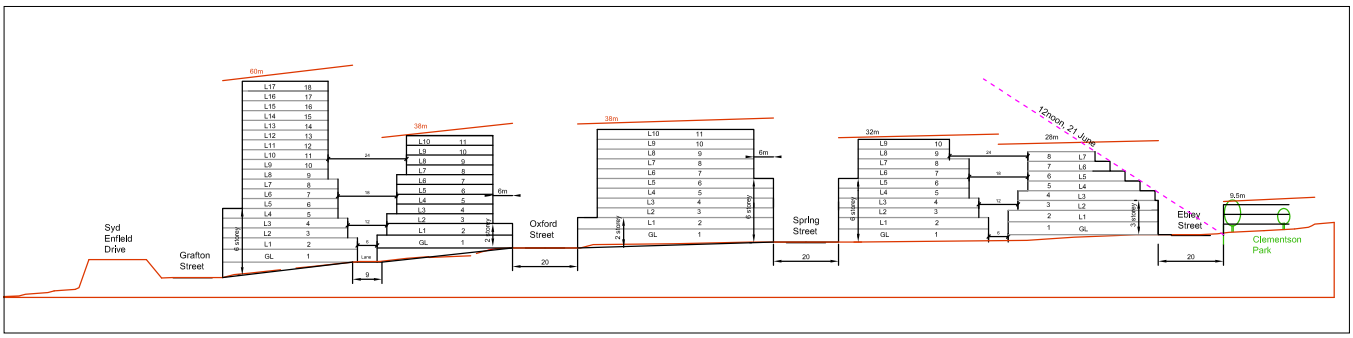
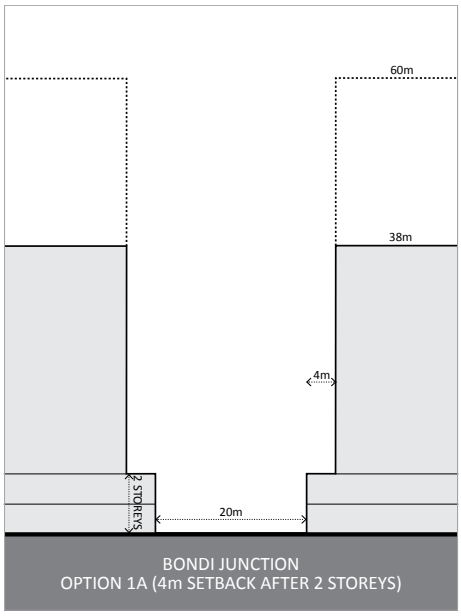
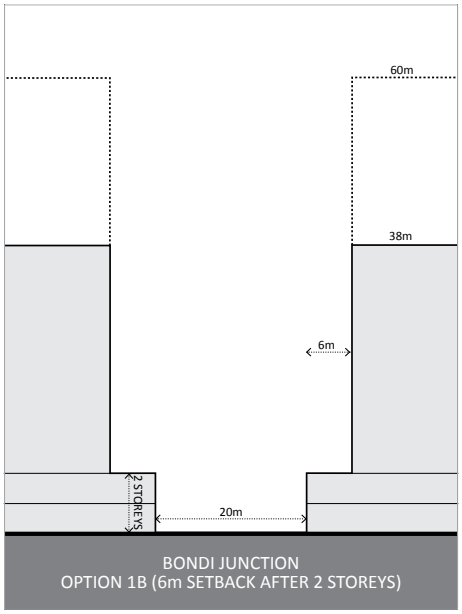


Figure 5.25 Section considering proposed amendments

A4 @ 1:2,500

Amended setbacks and max. Buidling Height;
Ceiling heights: 4m GL, 3.5m L1, residential levels above according to NCC and NSW RFDC;





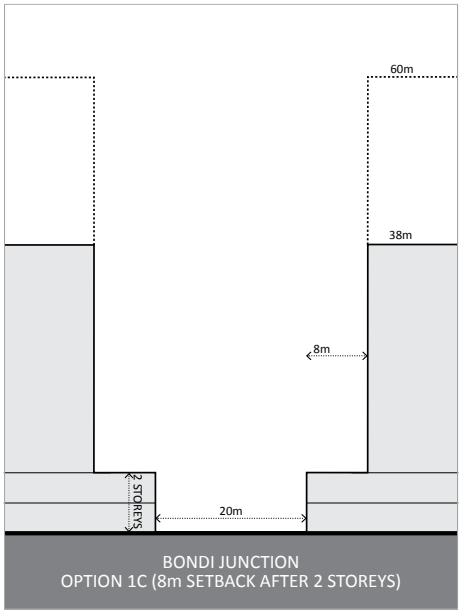


Figure 5.26 Option 1 - Two (2) Storey Block Edge

Street Setbacks

A street proportion where the street width and the block front result in approximately 1 : 1 would be appropriate for an inner city centre context such as Bondi Junction. The following options demonstrate the street proportion for block edges with a different number of storey within Bondi Junction to determine the appropriate block edge height for the centre.

This review recommends adopting option 1B (see Figure 5.26) for streets with a heritage context and option 3B (see Figure 5.28) for other streets.

Appropriate building setbacks on any site depend significantly on the immediate context. The context in Bondi Junction is highly varied. Therefore generic controls will not provide the optimal outcome in all instances. The DCP provides for relatively conservative (large) setbacks. This is intended to allow the assessors discretion (including the design review panel) to vary setbacks in instances where this variation meets the objectives and represents an improvement over the application of the full setback.

<u>Option 1</u>

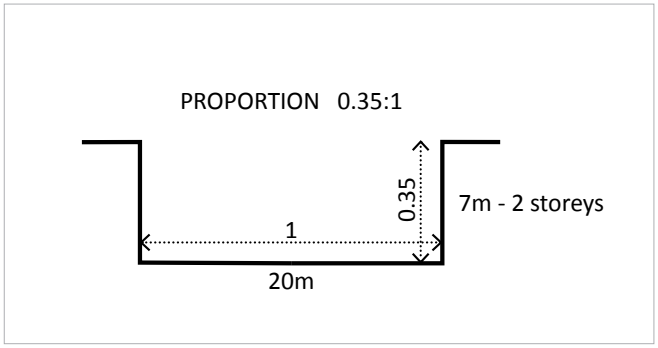
2 Storey Block Edge

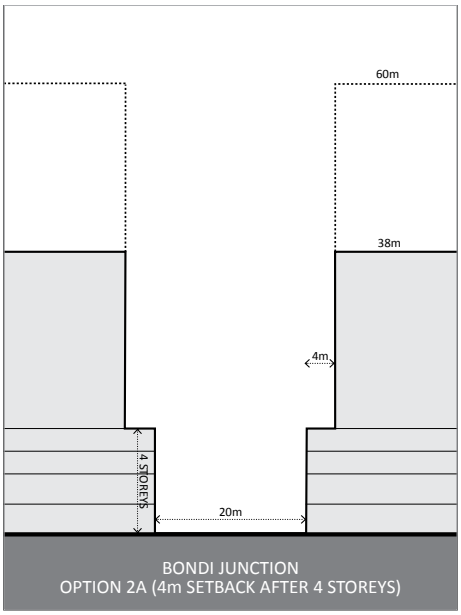
Setback options were researched to demonstrate the result of different setbacks in combination with a proposed block edge height. Particular consideration was given to the impact of downdraft winds from taller parts of the building, to the relation of street width to building height and to the retention of the 'human scale'.

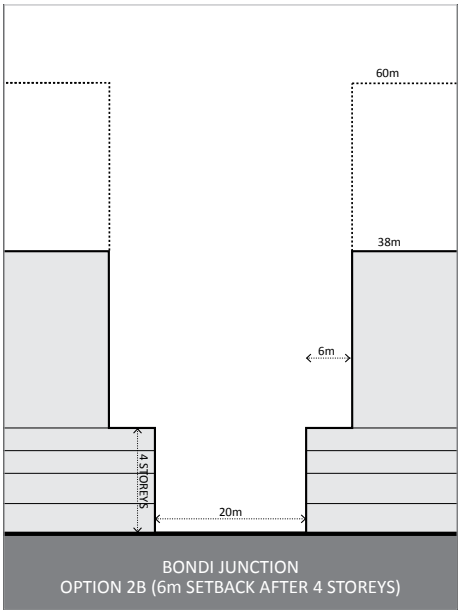
All relevant streets within the Bondi Junction Centre have an approximate width of 20m between lot boundaries. This is a classical 19th century street width with a 2 or 3 storey block edge. A 4 storey block edge still allows views of the sky or development beyond the block edge from the opposite street side while walking; however a 6 storey block edge requires deliberate effort to view beyond the opposite edge.

The setback for a 2 storey block edge is applicable in areas where there are heritage items (according to LEP Heritage Map Sheet HER_001A) or where emphasis on pedestrian amenities is paramount, for example Oxford Street between York Street and Adelaide Street, Bronte Road between Oxford Street and Birrell Street as well as Waverley Mall.

The DCP 2012 requires a double step back for areas with heritage context so as to retain the 2 storey block edge and to differentiate between the existing facades and new development. As such a 2m setback is required after the 2nd storey for the next 4 storeys. Another setback of additional 4m is proposed







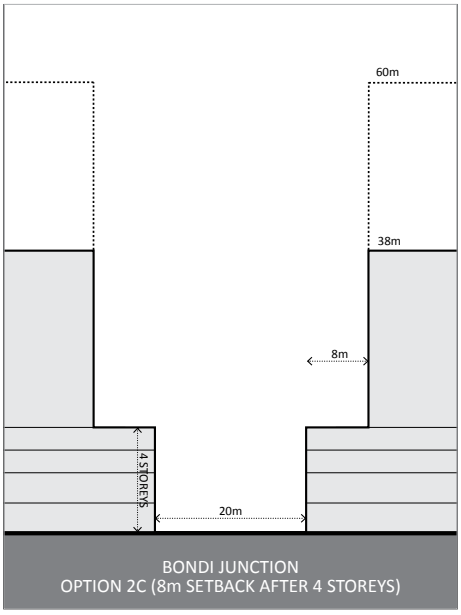


Figure 5.27 Option 2 - Four (4) Storey Block Edge

for all storeys above the 6th level. This produced a sub-optimal result in some recent developments. The 2m step back after the 2nd storey is not distinct enough to define the desired separation between old and new building.

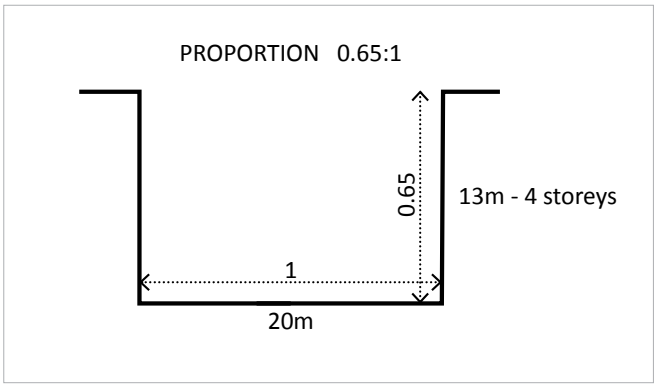
The options depicted in Figure 5.26 show setback alternatives to a 2 storey block edge. Rather than applying the subtle set back after the second storey they apply a definite separation between a 2 storey block edge and the development above. To express this separation a minimum setback of 6m is recommended after the 2nd storey. An 8m setback would result in an even clearer distinction; however the loss of developable area would be significantly larger.

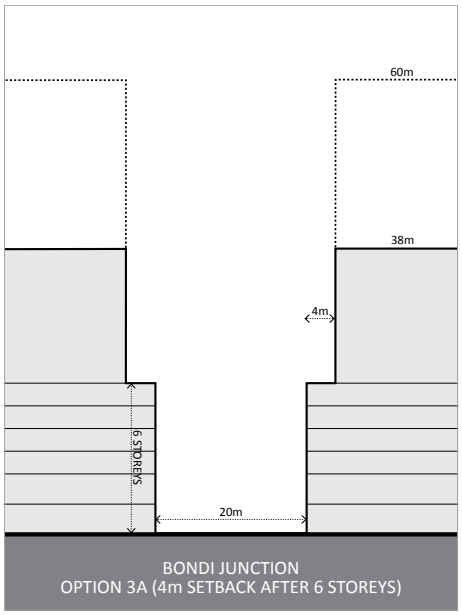
Option 2
4 Storey Block Edge

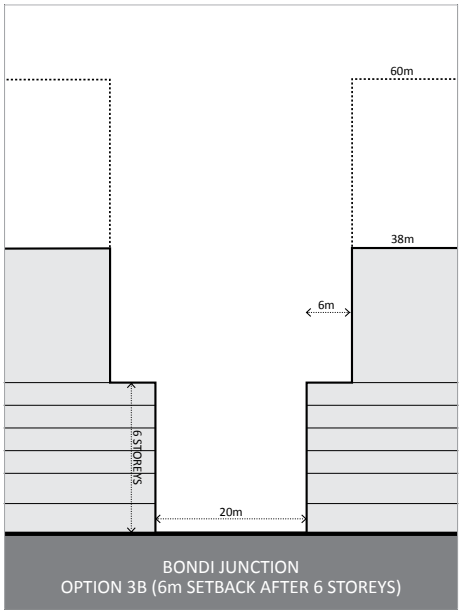
A 4 storey block edge in combination with a 20m street width allows views of the sky or development beyond the block edge from the opposite side of the street while walking. This is a classical 19th century main street frontage with shops on street level and residential or offices above. A walk up to the fourth storey was still considered to be manageable.

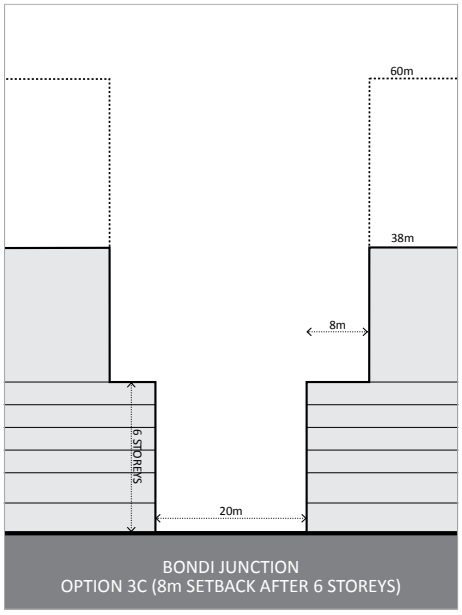
The Bondi Junction Centre context demands questioning whether a 4 storey block edge would be preferable to a 6 storey block edge in combination with a 20m street width. The preferred version of a mixed use building would have 2 to 4 commercial storeys on the lower levels with residential uses above, either in form of a perimeter block edge or as slender tower.

The options depicted in Figure 5.27 show setback alternatives for a 4 storey block edge. A distinct separation between a 4 storey block edge and the development above is required. To express this separation a minimum step back of 6m is recommended after the 4th storey. An 8m setback would result in an even clearer separation; however the loss of developable area would be significantly larger. A setback of less than 6m would result in insufficient separation between the building parts.









Option 3
6 Storey Block Edge

This is a typical block edge type for high density inner urban areas, especially in Central Business Districts (CBD). In the 18th and 19th century a 6 storey block edge would frame a boulevard or an important main street.

In the Bondi Junction Centre context a 6 storey block edge would be used to define the central commercial area with high density development potential. It is assumed that a mixed use building would have 2 to 6 commercial storeys on the lower levels with residential uses above, either in form of a perimeter block edge or as slender tower. Viewed from street level a 6 storey block edge makes the street wall more dominant than a potential tower above. A closed block edge largely closes the views to party walls of towers on neighbouring properties.

In mixed use areas the assessment of layout proposals against SEPP 65 provisions will determine the commercial and residential mix. The lower the levels the more difficult it will be to achieve the required solar access.

The options depicted in Figure 5.28 show setback alternatives for a 6 storey block edge. A distinct separation between a 6 storey block edge and the development above is desirable. To express this separation a minimum step back of 6m is recommended after the 6th storey. An 8m setback would result in a clearer separation; however the loss of developable area would be significantly larger. Setbacks of less than 6m would result in insufficient distinctive separation between the building parts.

This review recommends option 3B be applied in street without heritage context.

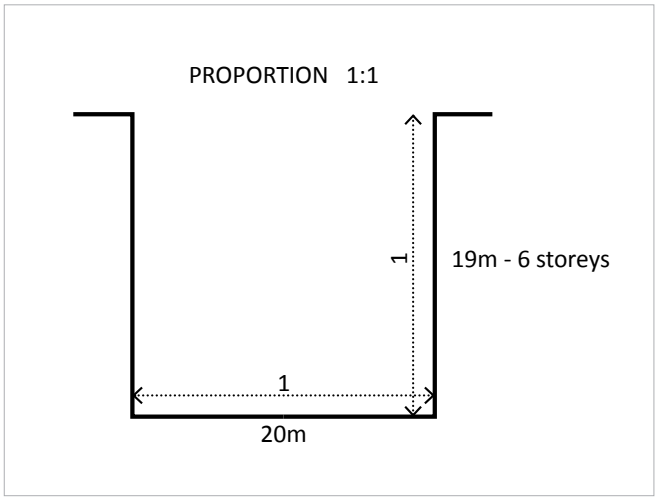


Figure 5.28 Option 3 - Six (6) Storey Block Edge

6. CONSULTATION

Workshop

A workshop with councillors, Waverley Council staff and representatives from the Department of Planning was led by City Plan Urban Design (CPUD) and held on Thursday, 26 April 2012, to seek input into possible solutions to key issues arising from an analysis of the Waverley LEP 2012 and Waverley DCP 2012. A list of attendees is provided below.

Councillors:

- Leon Goltsman (Liberal)
- Tony Kay (Liberal)
- Mora Main (Greens)
- Prue Cancian (Greens)

Council Staff:

- Tony Reed (General Manager)
- George Bramis (Acting Director, Planning and Environmental Services)
- Mark Wood (Director, Public Works and Services)
- Valerie Giammarco (Senior Strategic Planner, Urban Design and Heritage)
- David Edwards (Acting Manager, Strategic Land Use Planning)
- Mitchell Reid (Manager, Development Assessment)
- Dan Joannides (Manager, Technical Services)
- Alex Sarno (Casual Principal Strategic Planner)
- Angie Baker (Place Manager, Bondi Junction Town Centre)
- Scott Spiers (Senior Landscape Architect)

Department of Planning:

- Wayne Williamson (Planning Officer)

City Plan Services:

- Paul Walter (Director, City Plan Urban Design)
- Sue Francis (Director, City Plan Strategy & Development)
- Anna Robinson (Urban Designer)

A presentation was given by CPUD (included as Appendix A – Workshop Presentation) that provided a background to the Bondi Junction Urban Design Review; outlined the scope of the project; detailed the urban design analysis completed for the project; and articulated key issues arising from the analysis that related to zoning, building heights and future redevelopment. Workshop attendees then divided into three groups to discuss the following questions:

Zoning

- In the year 2036, what type of business and commercial space do you think should exist in Bondi Junction?
- Where in Bondi Junction do you think people should be able to live?

Height of Buildings

- Which public spaces in Bondi Junction do you think are the most important to optimise amenity for including solar access?
- Do you think the identity of Bondi Junction will benefit from variations to its current skyline?
- What do you think about the outcomes for street frontages in some of the recently developed sites in Bondi Junction?

Redevelopment

- How important do you think it is that development controls foster urban renewal and redevelopment in the next ten years?

Responses to the questions were annotated by each of the groups and at the conclusion of the discussion, one spokesperson from each group was nominated to summarise and verbally present their group's findings to the whole workshop. The responses from the groups can be summarised as follows:

Land Zoning

- A mix of commercial and residential uses is desirable in Bondi Junction.
- A compact commercial core is desirable.
- A variety of commercial office space should be available from small strata title offices to A-grade office space.
- Hotel and serviced apartments are desirable.
- Bondi Junction should be a 'hub' with increased vibrancy, diversity and night time activity including restaurant and entertainment offerings.

Height of Buildings

- Oxford Street Mall, Waverley Street Mall, Clementson Park and the Boot Factory plaza are important public open spaces.
- Clementson Park is the only 'park' in close proximity to Bondi Junction.
- There should be no further overshadowing caused to these important public open spaces by future development.
- An iconic building that contributes to the identity of Bondi Junction's skyline is suitable if it is well designed.
- An increase in the height of Bondi Junction's skyline is suitable so long as there is reasonable protection of amenity to neighbouring development (including overshadowing and wind effects) and there is a direct public benefit tied to new development.
- Slender tower forms are preferred.
- Upper level setbacks are preferred to prevent canyon like streets with tall street walls.
- Fine grain, diverse and high quality facades are preferred at ground level.
- Pedestrian permeability and through-site links are important.

Redevelopment

- It is important to see change (improvement) to Bondi Junction, whether it is in 10 years or 30 years.
- It is important that changes are high quality, benefit the people of Bondi Junction and include significant public domain improvements.

It is worth noting that as the workshop was not attended by representatives from all elected political parties, these views are not representative of the Council at large, nor the general public. These responses were discussed internally by CPUD and informed the subsequent analysis that led to the identification

of key issues and constraints pertaining to the study.

SEPP 65 Design Review Panel
Feedback was sought from SEPP 65 panellists and relates largely to opportunities to improve design outcomes through an improved engagement process. Key matters in this regard are:

- Proposals should come to the panel at earliest opportunity (e.g. pre-DA rather than waiting for fully developed DA).
- Material should be provided to the panel prior to the meeting, this should include the design together with the assessing officer's preliminary comments.
- The assessment process should closely involve the assessing officer so they understand the logic of the comments. This will serve to both improve the information flow with regard to a particular DA and over time (repeated exposure to the process) will represent a valuable up-skilling for the officer.

DA Planners
Feedback from internal DA planners was sought. Philip Bull (Area Manager, South Development Assessment Division) provided the following:

- Controls are ambiguous and difficult to navigate.
- Important controls are buried too deep in the document.
- The DCP is too long and confusing.
- Too often the circumstance arises that proponents come in with a scheme that they think complies with he controls and the assessment team does not agree and they need to argue.
- One example is the height control and control for the number of floors; proponents seek additional floors of residential build.

Presentation to Councillors
A presentation of the Draft Review was given on 31 July 2012 to the Waverley Councillors and the DoP. Feedback on proposed recommendations was sought and received over the following weeks.

The following feedback was received:

- Reconsider proposed reduction in floor height on properties facing Ebley Street between Newland and Denison Streets. This reduction in height impacts on the development potential of the Council properties being Office Works and two adjoining terraces;
- Consideration should be given to increasing the development potential, i.e. heights and FSR of the Library site at the corner of Ebley and Denison St;
- Investigate reinstatement of clause for 'Minimum street frontage of land for buildings';
- Include employment calculations associated with changes west of Newland St and Westfield Centre potential;
- Consider alternative options for allowing non-residential development south of Ebley Street instead of using Schedule 1 Additional Permitted Uses;
- Justify reasons for zone, height and FSR recommendations, particularly for sites between Hollywood Ave and Bronte Road fronting Ebley Street;
- Check proposed max. Height of Building for sites between Library and Newland Street facing Ebley Street to be consistent with proposed FSR reduction;
- Agreed that residential ceiling heights should be determined by the NSW RFDC, however the floor to floor heights for ground floor commercial in commercial developments should be retained because it is not covered by the RFDC;
- Test and confirm that a proposed FSR of 3.5:1 will achieve the desired results of not overshadowing Clementson Park. Preliminary tests indicate that the proposed FSR may still be too high for these sites depending on use;
- Reconsider proposed height for corner site of Newland and Ebley Street, as it is narrow and thus cannot accommodate the proposed 26m if it is to comply with the solar access clause;
- Extend recommendations for public domain treatment along streets under Syd Einfeld Drive;
- Consider activation of Grafton Street.

7. CASE STUDIES AND PRECEDENTS

A series of case studies and precedents were examined in relation to the Bondi Junction Urban Design Review including high quality sustainable buildings, pedestrian-scaled urban street environments and controls for street frontage heights and setbacks.

- A study of buildings of a high quality design and sustainability in Sydney's CBD provided an overview of the kind of commercial office towers that Bondi Junction can aspire towards in providing A-grade office space to attract national tenants. 1 Bligh, 30 The Bond and Darling Quarter are examples of high performing sustainable buildings that integrate environmental benefits, such as natural ventilation and operable shading devices with quality architecture.

- A study of four and six storey buildings in Sydney CBD examined how to maintain a pedestrian-scaled urban street environment with well articulated architecture.

- A study of mixed use developments around Pyrmont investigated comparable perimeter block edge forms and vertical distribution of uses.

- A mixed use development in Double Bay has been included as precedent for a built form that addresses the urban context and creates a recognizable location in the urban landscape.

- Mixed use development around the King Street Wharf in Sydney have been examined as examples of lower block edges with residential uses above.

- A study of development controls from City of Sydney and North Sydney Council was compared against those for Bondi Junction.

1 Bligh / 15-19 Bent Street, Sydney

Picture 7.1 Street and Interior View of 1 Bligh Tower

1 Bligh Street is a commercial development in Sydney's CBD with a 6 Star Green Star Office Design Rating and 5 Star Base Building NABERS Energy Rating that aims to change the face of commercial office development to the benefit of both the built environment and the greater environment as a whole. The building comprises 27 storeys of premium A-grade office space (average floor plates of 1,600sqm NLA), a double skin floor to ceiling glass facade, a naturally ventilated internal atrium approximately 135m in height and Australia's largest green wall on the ground floor. Column-free floor plates maximise workspace whilst floor to ceiling glass provides excellent views of Sydney Harbour.

30 The Bond / 30-34 Hickson Road, Millers Point

Picture 7.2 30 The Bond

30 The Bond is a nine storey commercial development and is a good example of social and environmental sustainability within commercial objectives. It was the first office building in Australia to commit to a 5 star energy rating, with lower CO^2 emissions than a typical office building. This has been achieved through the use of natural ventilation, passive chilled beam cooling and fully operable shading on the facades. On the east side of the building is a full height atrium, which features a four-storey natural sandstone wall, hewn by hand for the installation of the original gas works on the site. The base of the atrium is a public space encouraging interaction between the building's occupants and the community.

Darling Quarter / 1-5 Harbour Street, Darling Harbour

Picture 7.3 Darling Quarter

Darling Quarter, occupied by the Commonwealth Bank of Australia, has a 6 Star Green Star Rating and consists of two separate office towers sitting on top of a shared basement car park. Both towers comprise a ground floor occupied by a retail space and a commercial entrance lobby. The western part of each building has five floors of office space and the eastern part has eight floors. An atrium connects these two parts and provides greater natural day-lighting throughout the office floors. The buildings have high performance optimised facades with predominant north-south orientation and a combination of fixed and automated shading devices to maximise the passive efficiency of the design.

Sydney CBD

Picture 7.4 Four (4) and Six (6) Storeys Block Edges in Sydney CBD

Kent Street and surrounding streets in Sydney's CBD comprises of many examples of four and six storey buildings built to the front boundary line. Whilst a majority of the facades in the former warehouse precinct are ornate historical buildings, their active street frontages create a pleasant pedestrian environment. New tower developments above the historic facades are set back approximately 6 to 8m from the front facade, without ziggurat stepping, which mostly obscures the tall towers from the vision of the pedestrian, thus achieving what feels like a street width to height ratio of 1:1.

Pyrmont

Picture 7.5 Mixed Use Buildings in Pyrmont

Mixed use development in Pyrmont comprises of many examples of six to nine storey block edges. Most buildings are designed along the block perimeter and only a small number have development set back above. Commercial/Retail uses are located on the street level and along the main streets in many cases also on the first and second levels. A distinctive design separation of ground/first level and levels above separates the residential from the commercial component.

King Street, Sydney

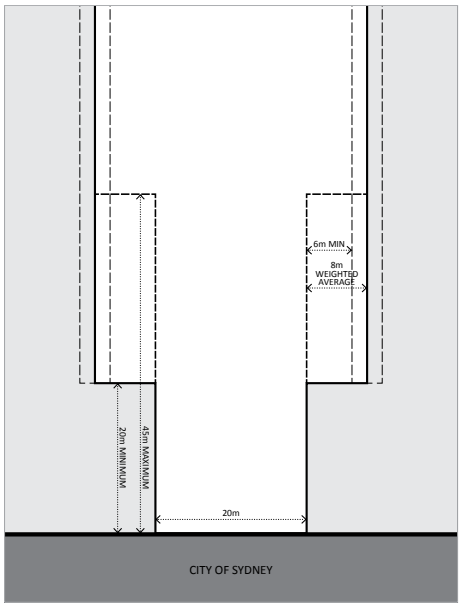
Picture 7.6 Mixed Use Buildings in King St Wharf Area

Mixed Use buildings in the King Street Wharf area in Sydney comprise of six to nine storey buildings with a distinct separation between ground/first level with commercial uses and levels above with residential uses. In some cases a double storey with commercial uses is located along the block perimeter to create the base for amenities (e.g. pool, landscaped open space) for the residents of the block.

New South Head Road / Knox Street, Double Bay

Picture 7.7 Mixed Use Buildings at New South Head Rd / Knox St, Double Bay

This Mixed Use building in Double Bay is a good example for a design that addresses the location and presents itself as iconic landmark building.



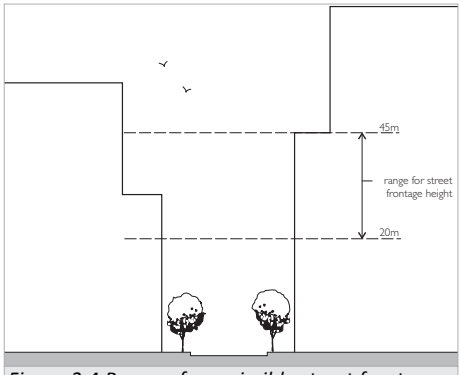


Figure 2.4 Range of permissible street frontage heights

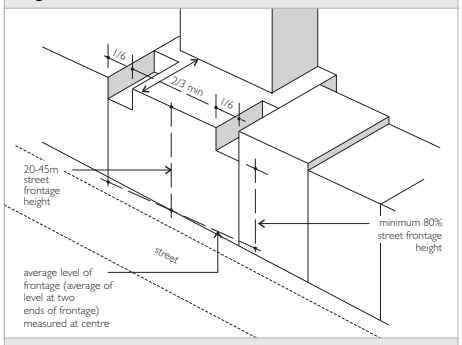


Figure 2.7 Street frontage height for corner sites

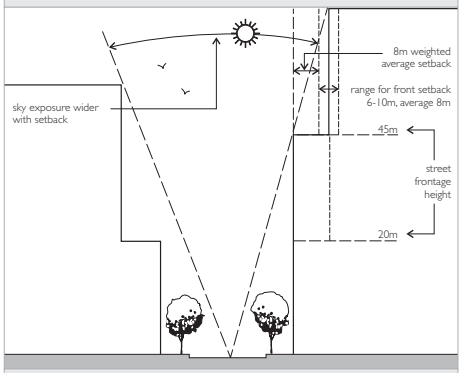


Figure 2.8 Range of permissible front setbacks

Figure 7.1 Street Frontage Heights and Setbacks - Central Sydney DCP 1996

Development Controls comparison

It has been examined how other Councils handle setback provisions for locations similar to the Bondi Junction Centre. The following excerpts from the City of Sydney Central Sydney DCP 1996 and the North Sydney DCP 2002 demonstrate different approaches to the provision of Street Frontage Heights and Building Setbacks. It has been investigated what kind of block edge those provisions create and considered if those provisions would be appropriate in similar form for the Bondi Junction Centre.

City of Sydney (Central Sydney DCP 1996)

Section 2.2: Street Frontage heights

2.2.1 The street frontage height of a new building is to be between 20 metres and 45 metres above street ground level (see Figure 2.4), except in certain Special Areas where specific street frontage heights are nominated - see Section 2.4. Within this range, the street frontage height should have regard to:

(i) the street frontage heights of adjacent buildings,

(ii) the predominant street frontage height in the vicinity of the proposed building (see Figures 2.5 and 2.6),

(iii) the location of the site in the street block, ie., corner sites can generally include special design emphasis, such as increased street frontage height of one or two storeys compared with adjacent sites (see Figure 2.7),

(iv) site size. i.e. small sites (less than 1,000 square metres) may attain a street frontage height of 45 metres regardless of the above criteria.

Section 2.3: Building setbacks

Front setbacks

Above the street frontage height, buildings are to be set back a weighted average of 8 metres. This setback may be reduced in part by up to 2 metres (to achieve architectural variety) provided the weighted average setback from the street frontage alignment is 8 metres (see Figure 2.8). No part of the building is to be set back less than 6 metres.

2.3.2 Smaller setbacks may be acceptable:

(i) on corner sites up to 1,000 square metres fronting streets or lanes at least 6 metres wide,

(ii) on corner sites where increased setbacks are provided to other streets (generally, increased setbacks are to be provided on the major pedestrian streets and/or on north-south streets) (see Figures 2.9 and 2.10),

(iii) on street blocks less than 30 metres deep from the street frontage,

(iv) to accommodate protrusions for architectural modulation and visual interest.

2.3.3 Setbacks greater than 10 metres are permissible.

2.3.4 In retail streets (see Figure 2.27), a greater setback is desirable and, where appropriate, will be determined by the consent authority. For Pitt Street Mall, which is identified as a Special Area, the setback is 15 metres (see Figure 2.21). (See also Section 2.4).

2.3.5 Any new building or additions above a heritage item in a heritage streetscape are to have a setback at least 10 metres above the street frontage height (see also Section 2.9).

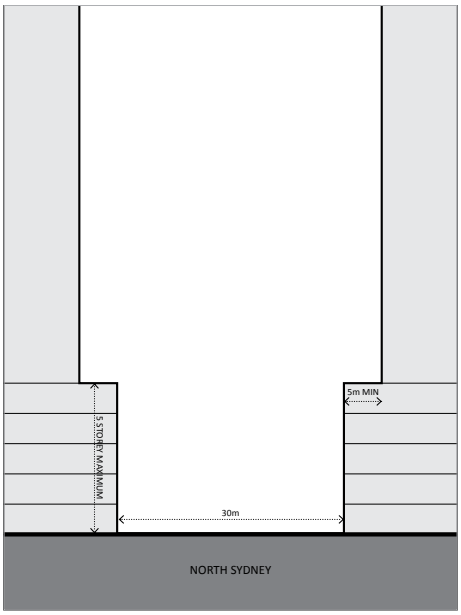


Figure 7.2 Street Frontage Heights and Setbacks - North Sydney DCP 2002

North Sydney (DCP 2002)

l. Street frontage podium height

i. Miller, Walker, Berry, Mount and Alfred Street and Pacific Highway maximum of five storeys.

ii. North of McLaren Street maximum three storeys.

iii. Podium height matches or is transitional in height between immediately adjacent buildings.

iv. Podium height matches height of adjacent heritage items.

v. Podium height may be reduced to that part of the building devoted to commercial use in mixed-use buildings.

vi. If there is no commercial component, and therefore no podium, adequate side separation should be provided for residential amenity.

m. Above podium setbacks, street frontage.

i. Miller, Walker, Berry, Mount and Alfred Streets and Pacific Highway frontages a weighted average of 5m from edge of podium.

ii. Walker and Miller Street frontages north of McLaren Street a weighted average of 3m from edge of podium.

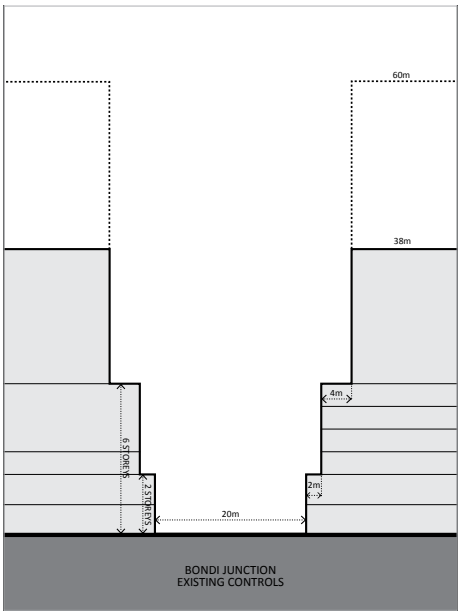


Figure 7.3 Street Alignment, Front Setbacks and Tower Building Form - Bondi Jucntion DCP 2012

Bondi Junction (DCP 2012)

Part E - Site Specific

1.0 Bondi Junction

1.6 Street alignment and Front Setbacks

The setback is not a minimum or maximum distance but rather the building is to be built along the alignment of the front boundary setback

Figure 12:

Ground and Level 1 building frontages must align with, be parallel to and on the street boundary. (Note: Where the shopfront is rather 3 than 2 storeys high Level 2 (being the third level) of the building must align with, be parallel to and on the street boundary.

Two/three storey shopfront facades

(a) Corner sites are to be built to both street alignments.

(b) On lots with 2/3 storey shopfront facades, corners may be 2, 3 or 4 storeys high.

(c) Corner sites can have elevations that are the same height as the street elevations or they can be up to four storeys high to express the street junction.

Block edge Building Forms- Level 2 to Ceiling of Level 5

(a) Lots in street with heritage buildings are to have the block edge building form above the 2/3 storey shopfronts set back from the street boundary by 2m.

(b) Developments on all other lots are to have front building elevations built to the street alignment to a maximum of 6 storeys block edge development built to the street boundary.

Tower building forms – Level 6 and above

(a) Tower building forms are to be set back a minimum of 6m from the street boundary, are to be parallel to the street boundary and oriented to the front and the rear boundary.

8. PROPOSED CONTROL AMENDMENTS

This chapter outlines the proposed control amendments to the Waverley LEP 2012 and Waverley DCP 2012 resulting from the Urban Design Review. A series of recommendations are presented on the following pages to amend the LEP, address issues of Zoning, Floor Space Ratio and Height of Buildings. Following this, a series of recommendations are presented to amend the DCP that address its structure, formatting and content.

Recommended LEP Amendments

Zoning
Change the area west of Newland Street which is presently B3 Commercial Core to B4 Mixed Use. This will allow residential development around the commercial core of Bondi Junction while maintaining a commercial mix within the transition area. The recommended change from B3 to B4 west of Newland Street will result in a theoretical loss of approximately 64,140sqm commercial floor space. It is recommended to consider an increase to the development potential of the Commercial Core zoned land between Oxford Street and Gray Street to recoup this floor space. (see section Floor Space Ratio).

Change the area contained by Oxford St/Hollywood Ave/ Waverley St (241-247 Oxford Street, 2-12 Waverley Street) from B3 Commercial Core to B4 Mixed Use to allow residential development at the fringe of the commercial core. Mixed Use zoning is appropriate to the urban context at this location and residential development in higher floor levels will benefit from views and good solar access.

Do not increase heights, FSR or change the zoning of sites between Hollywood Avenue and Bronte Road that front Ebley Street and that front Hollywood Avenue between Waverly Street and Ebley Street as requested in submissions to the Draft LEP. These sites are contiguous with the commercial core and add considerable 'critical mass' to the core. Furthermore a change of the zoning from B3 Commercial Core to B4 Mixed Use, would set up a conflict with the sites to the north (for residential solar access).

An increased height along the northern side of Ebley Street cannot be supported because this would impact on solar access to buildings with residents on the southern street side. This is applicable for the entire northern side of Ebley Street and the height limit as proposed in the LEP 2012 of 32m should be retained.

This project has identified the potential for the area between Ebley Street and Birrell Street to the considered as part of the Bondi Junction Centre, however this opportunity should be examined in the light of a whole-centre strategic plan that lies beyond the scope of this project. If such a plan found in favour of extending the centre to the south this may prompt the Ebley Street height limit of 32m to be reconsidered.

Allow non-residential uses along the southern side of Ebley Street so the transition to purely residential occurs in the mid block rather than across the street. The two primary reasons for this change are cohesive street character and avoiding overshadowing of residential premises. If the sites on the north of Ebley Street are developed to a height of 32 meters, the lower levels of the buildings on the south of the street will be wholly overshadowed in winter. This recommendation is for an area outside the actual study area boundary; however as the south side of Ebley Street will be impacted by development on the northern street side, the matter should be considered in the context of this review.

To enable offices along the south side of Ebley Street two options may be considered. Either change Schedule 1 Additional Permitted Uses (Clause 2.5) and include additional addresses along Ebley Street or expand the Mixed Use zoning to include the south side of Ebley Street where it faces Mixed Use or Commercial Core on the north. In the second case the boundary between Mixed Use and Residential zoning would run in the block middle instead of the street centre as it presently does for much of the street.

Schedule 1 Additional Permitted Uses (Clause 2.5) would require the following amendments:
'Development for the purposes of Office premises is permitted with consent' would need to be extended. At present it includes the western side of Denison St between Oxford Street and Ebley Street as well as the southern side of Ebley Street east of Newland St and 7 lots along Newland Street already have this additional permitted use. It is recommended to add addresses along the southern side of Ebley Street between Denison St and Hollywood Ave (1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 51, 53, 55, 57, 59, 61, 63, 91, 93, 95, 99-101, 103-105, 107, 109 and 113 Ebley St and 54, 56, 58, 60, 62, 64 and 66 Newland St).

The alternative option to expand the Mixed Use zoning requires further investigation and is beyond the scope of this review.

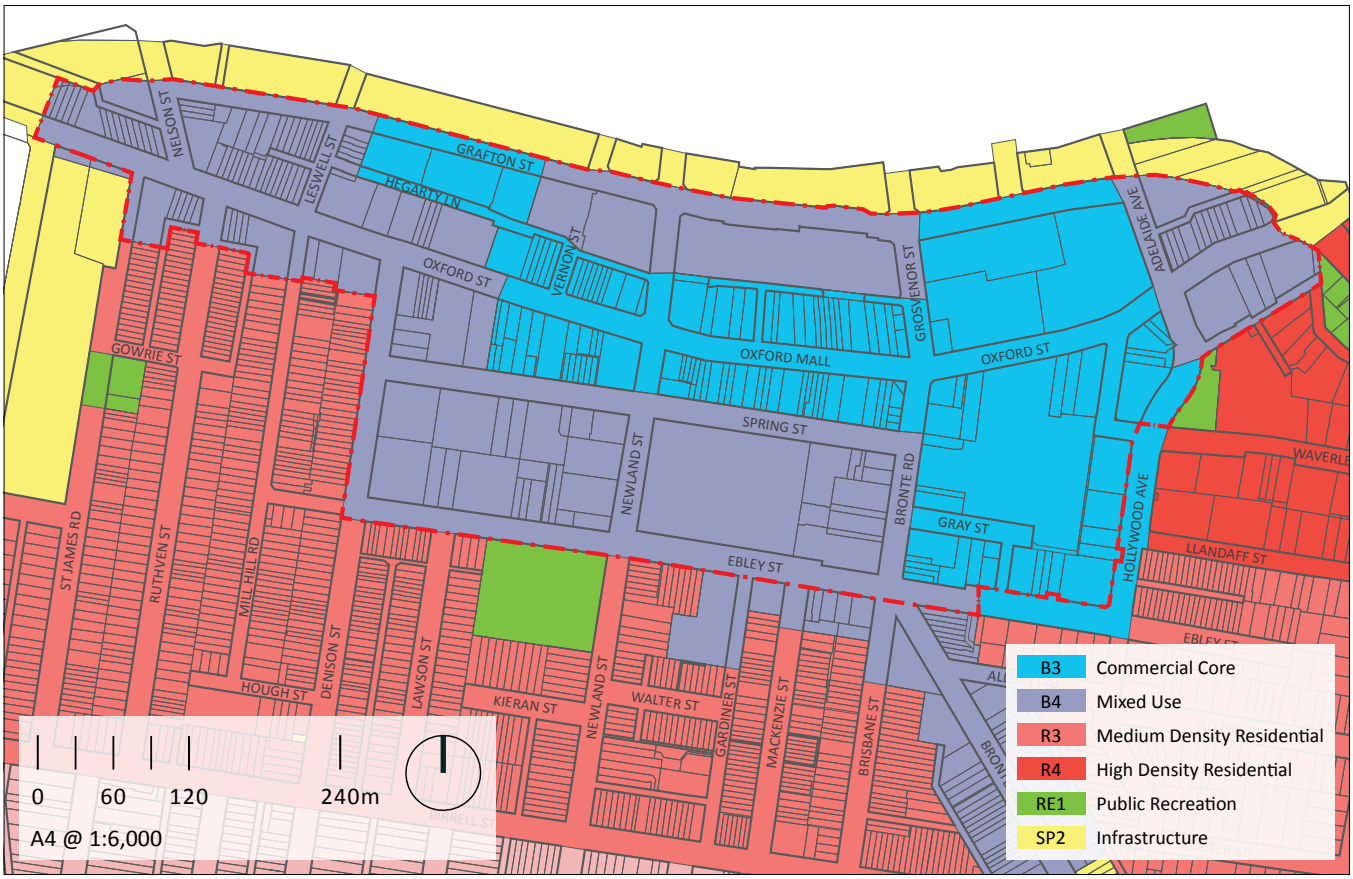


Figure 8.1 Zoning – Waverley LEP 2012

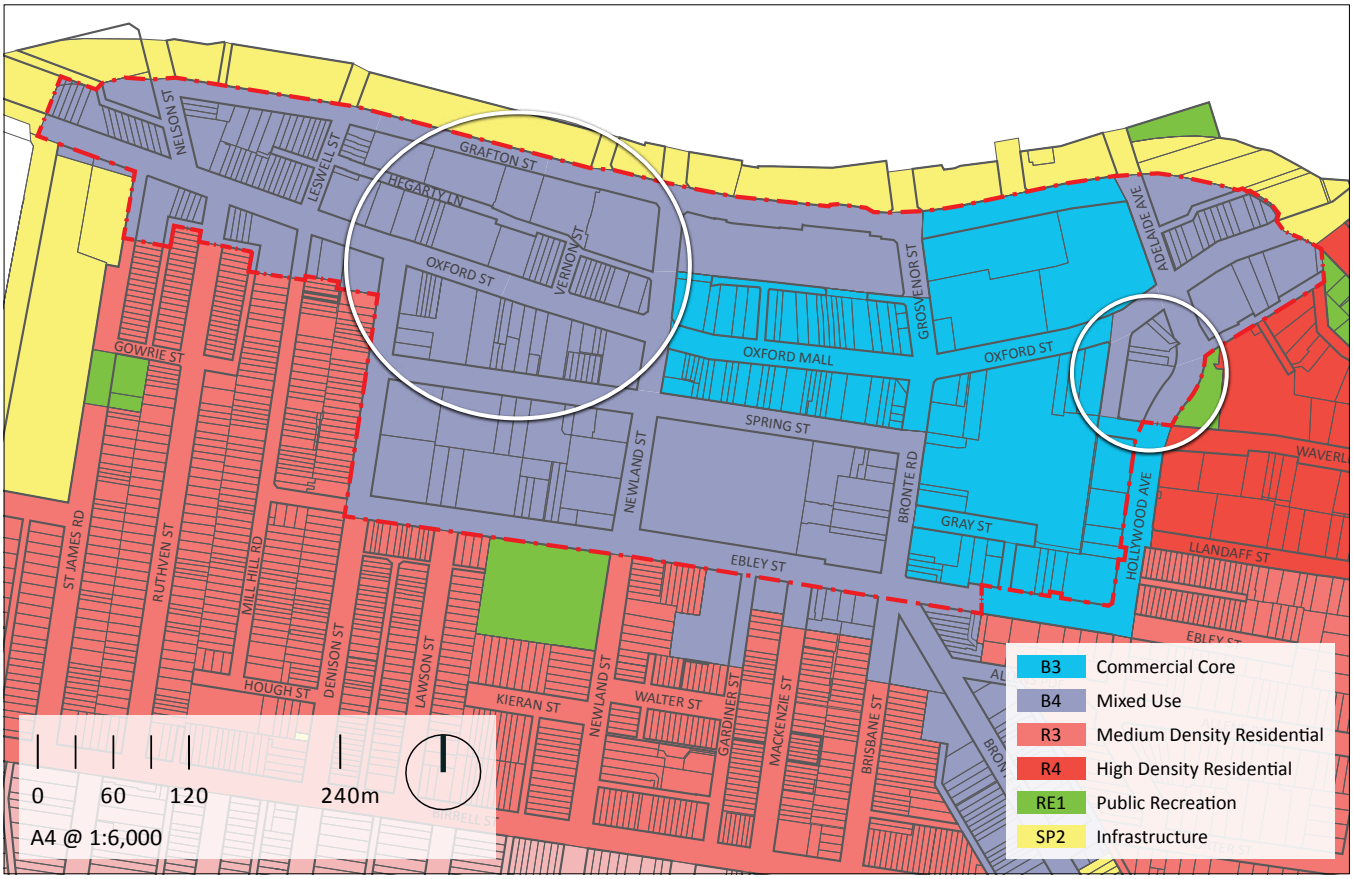


Figure 8.2 Zoning – Recommended (Changed Areas Encircled in White)

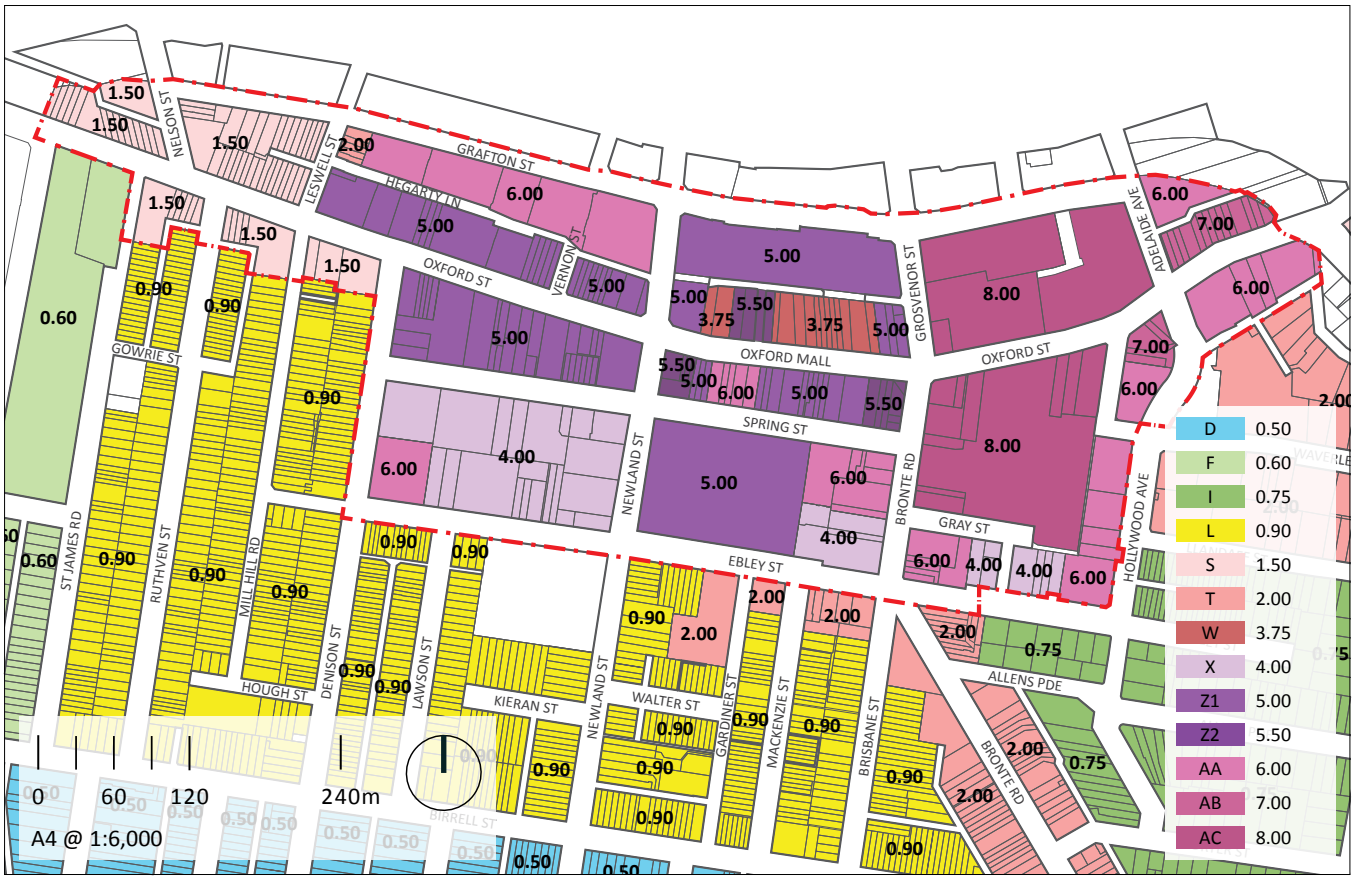


Figure 8.3 Floor Space Ratio – Waverley LEP 2012

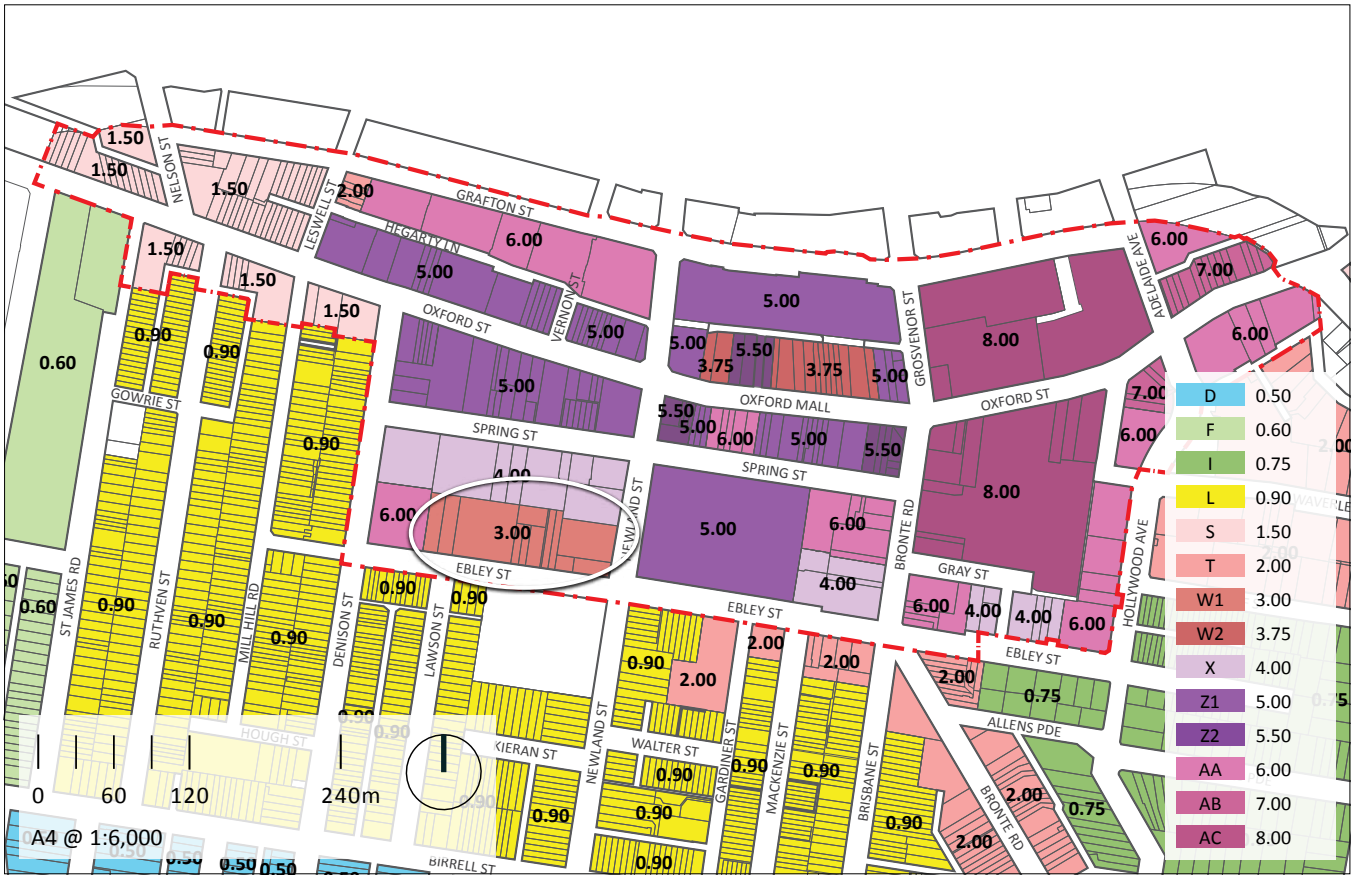


Figure 8.4 Floor Space Ratio – Recommended (Changed Areas Encircled in White)

Floor Space Ratio

Change areas west of Newland Street which are at present B3 Commercial Core to B4 Mixed Use to allow residential development while retaining the commercial mix of this area. The overall FSR should be retained as proposed in the LEP 2012.

Assuming that Ground and First Levels of Mixed Use buildings would be commercial uses and levels above residential, this recommended amendment would result in the theoretical loss of approximately 64,000sqm commercial floor space; this may be balanced by a possible gain of approximately 64,000sqm residential floor space within the Bondi Junction Centre (see Figure 8.5)

Considered an increase in the development height potential of the sites between Gray and Oxford Streets (this includes the Westfield south site and the adjacent sites fronting Oxford Street and Bronte Road). Subject to detailed investigation we consider this increase in yield could be approximately equivalent to an increase from 8:1 to 10:1. A development at this scale would result in a theoretical provision of additional approximately 38,000sqm commercial area (potentially A-grade office space).

It is recommended to reduce the FSR applying to Ebley Street properties (northern side) between Newland Street and the Library site (corner Denison Street) form 4 : 1 to 3 : 1. This change is recommended in relation to the height reduction in this area to secure solar access to Clementson Park (see below). FSR testing resulted in an achievable FSR of 3.4 due to minimum requirements for building separation and solar access. In order to encourage and support the goal of design excellence it is recommended to reduce the FSR at this location to 3 : 1. This reduction in building bulk would also support the proposed through block link in a generous width (to connect the park and the Boot Factory) at this location.

Figure 8.3 and Figure 8.4 illustrate the existing FSR in the Waverley LEP 2012 and the FSR potential.

Area	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
Description	Between Grafton St and Hegarty La	Between Hegarty La/ Vernon St / Oxford St	Between Hegarty La/ Vernon St / Oxford St / Newland St	Between Oxford St / Newland St / Spring St	Ebley St north side east of Library to corner Newland St	Between Oxford St / Bronte Rd / Gray St / Waverley St	
Change	From B3 to B4	From B3 to B4	From B3 to B4	From B3 to B4	FSR from 4:1 to 3:1	FSR from 8:1 to 10:1	
FSR impact	yes	yes	yes	yes	yes	yes	
Size	4,923 sqm	2,064 sqm	1,997 sqm	6,111 sqm	7,683 sqm	18,958 sqm	
Draft LEP FSR	6	5	5	5	4	8	
FSR change	0	0	0	0	- 1	+ 2	
Pot. GFA	29,538 sqm	10,320 sqm	9,985 sqm	30,555 sqm	7,683 sqm	37,916 sqm	
Proposed Zone	Mixed Use	Mixed Use	Mixed Use	Mixed Use	Mixed Use	Mixed Use	

Loss Residential GFA					80% 6,146 sqm		6,146 sqm
Gain Residential GFA	80% 23,630 sqm	80% 8,256 sqm	80% 7,988 sqm	80% 24,444 sqm			64,318 sqm
Summary							+ 58,172 sqm

Loss Commercial GFA	80% 23,630 sqm	80% 8,256 sqm	80% 7,988 sqm	80% 24,444 sqm	20% 1,537 sqm		65,855 sqm
Gain Commercial GFA						100% 37,916 sqm	37,916 sqm
Summary							- 27,939 sqm

B3 Commercial Core B4 Mixed Use

Figure 8.5 Recommended Floor Space Ratio

Height of Building

Change the southern front of the block edged by Spring Street/Newland Street/Ebley Street/Denison Street from 32m to 26m maximum Height of Buildings (HOB) to secure and emphasise the importance of solar access to Clementson Park. This amendment should be applied to the area between the Library site and Newland Street.

A maximum HOB of 26m allows for an 8 storey mixed use development plus rooftop design:

GL	Commercial	4.0m
L1	Commercial	3.5m
L2-L7	Residential	18.0m
		25.5m

The northern block half facing Spring St and the corner of Ebley Street and Denison Street (Council Library) should remain at 32m as there is no potential impact on Clementson Park from those locations.

An LEP Solar Access Clause in support of the height of building amendment it is also recommended. This clause addresses solar access to all open spaces in and around the Bondi Junction Centre (including Clementson Park) to foster the importance of sufficient solar access and should specify that properties affected by this clause may not be able to develop to its full potential.

The Solar Access Clause may read as follows (LEP Clause, Part 6 Additional Local Provision):
'Solar Access to open spaces in and around the Bondi Junction Centre is to be secured. New development shall not result in any additional shadow impact at 12noon on 21st June on Clementson Park, Waverley Street Mall, Eora Park, Norman Lee Place (Boot Factory), Oxford Street Mall and Rowe Street (between Oxford Street Mall and Grosvenor Lane). Sites affected by this clause may not be able to be developed to their maximum FSR or height.'

Amend the LEP Height of Building Map along the northern side of Oxford Street Mall to consider the actual shadows resulting of the tall buildings above the train station. The 10/16/24m strips along Oxford Street Mall should only be applied in areas which actually have solar access between 12noon and 2pm on 21 June. Areas which are shaded at that time by the taller buildings on the north side should be amended to show the two steps approach (20m and 38m) to allow higher development potential.

A potential area for heights greater than permitted under the LEP 2012 is identified south of Oxford Street in the sites occupied by Westfield and the adjacent sites. At this location the height could increase from 60m (as designated in the Waverley LEP 2012) to 80 and 120m. The northern half of the this area (south of Oxford Street) could accommodate a 120m building to allow for new landmark building at this location towards Oxford Street; the south-eastern part of the area could accommodate an 80m building to allow for a tall tower; the south-western part of the area should remain at 60m to avoid additional shadow impact on areas along Ebley Street and Hollywood Avenue.

The review revealed that this area is uniquely unconstrained for greater height relative to other parts of the centre. Other areas within the Bondi Junction Centre (in particular the area along the northern side of Ebley Street) were ruled out for additional height increase due to the additional impact on solar access for adjoining residential areas. Furthermore a selected height increase at this location would support the development of an arc skyline as demonstrated earlier.

Apart from the Westfield Centre site there is no other large scale development site left in the Bondi Junction Centre that could be used for the development of large scale office buildings without difficult consolidation processes.

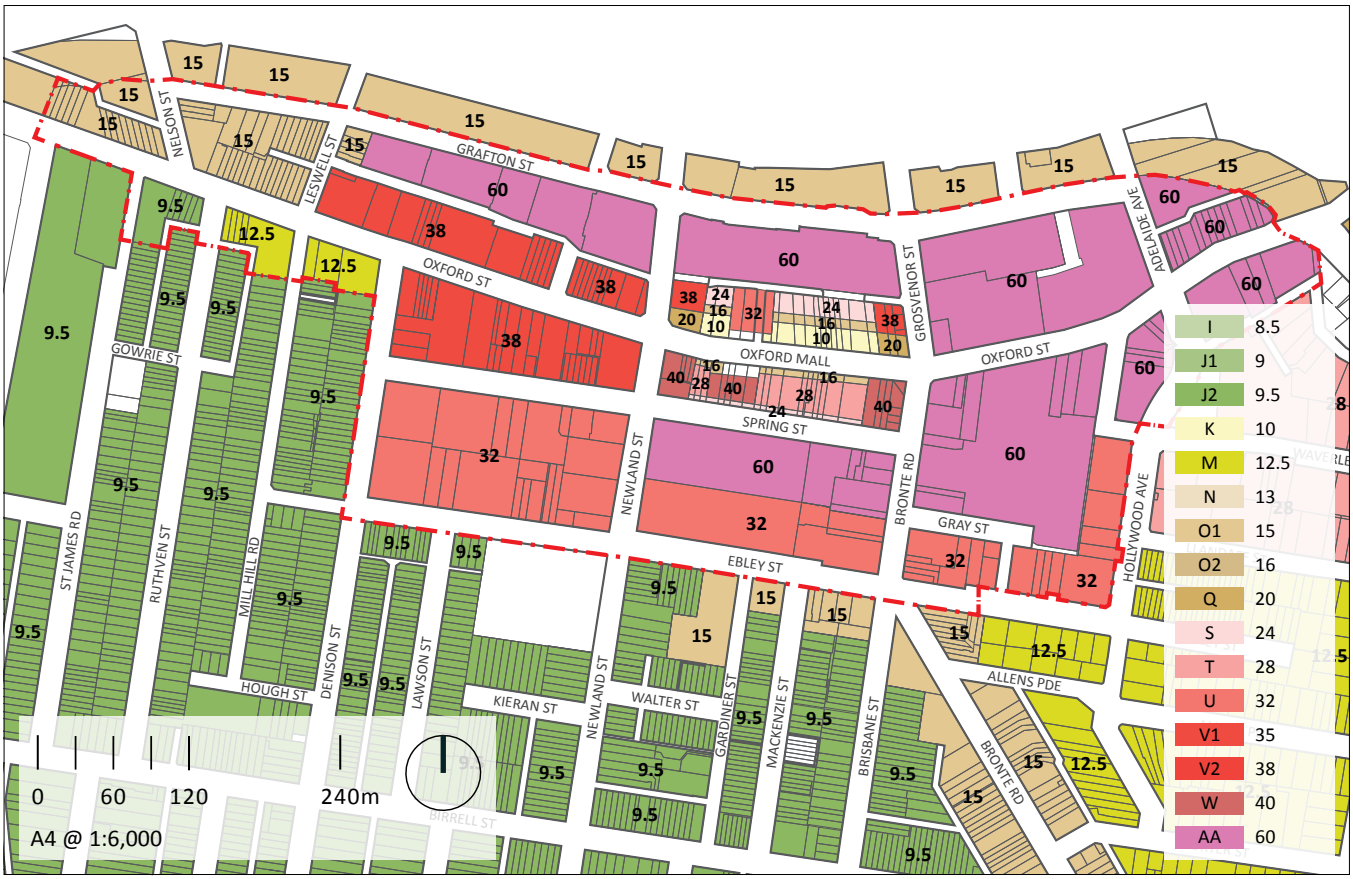


Figure 8.6 Height of Buildings – Waverley LEP 2012

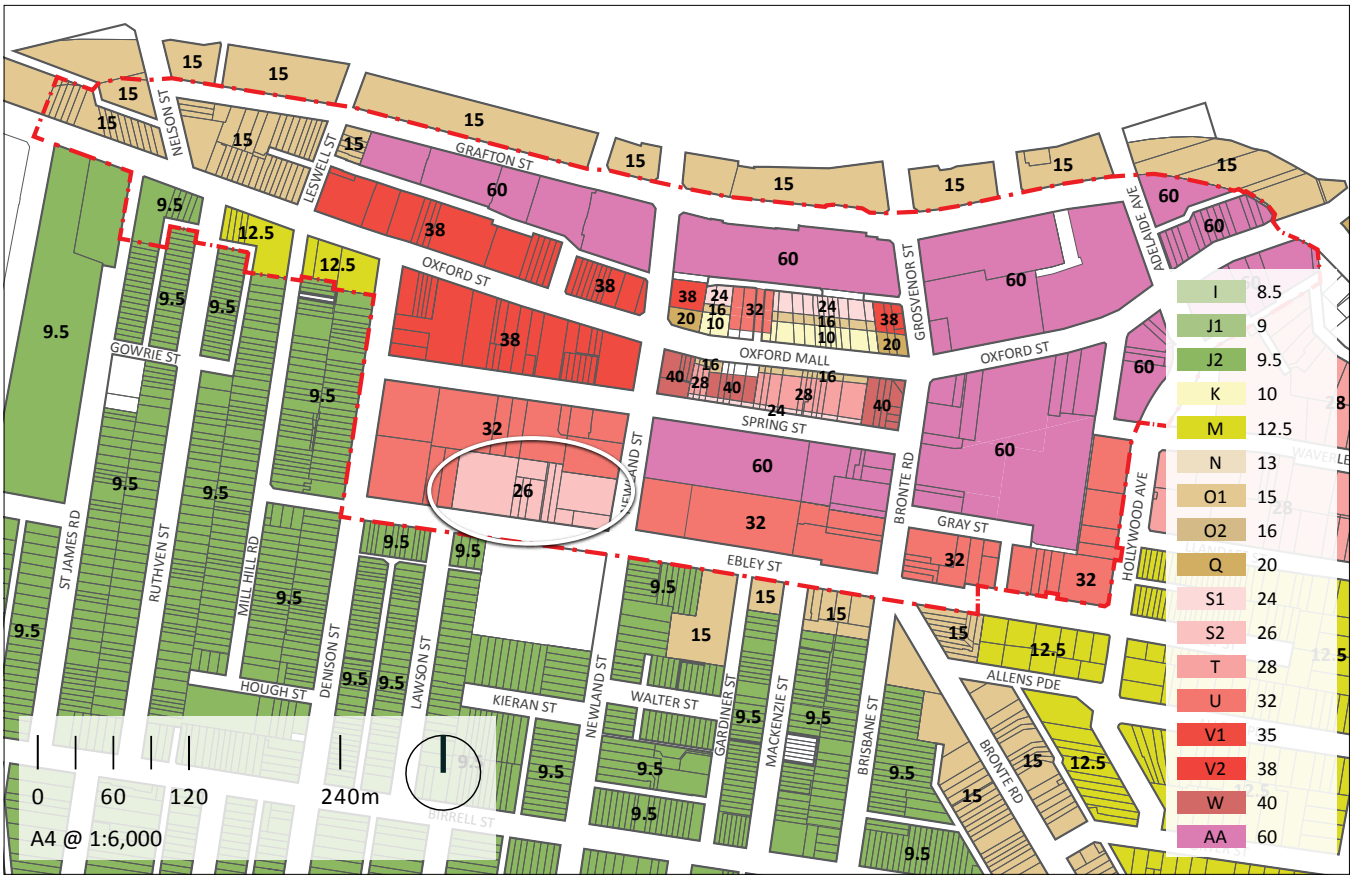


Figure 8.7 Height of Buildings – Recommended (Changed Areas Encircled in White)

Recommended DCP Amendments
The following recommended amendments pertain to the structure, formatting and content of the Waverley DCP 2012.

Structure
It is recommended that the structure from the Waverley DCP 2010 Part F1 be reinstated, i.e. 1.0 Introduction, 2.0 Urban Form Controls, 3.0 Building Design Controls, 4.0 Access and Movement, 5.0 Town Square Provisions to provide a clearly articulated hierarchy for the controls.

Formatting
It is recommended that all terminology throughout the DCP is made consistent, i.e. refer to Ground Floor, First Floor, Second Floor not Ground Level, Level 1, Level 2, etc.

It is recommended that all headings and labels use a consistent case, i.e. they should either all be in 'Capital Case' or they should all be in 'Sentence case'.

It is recommended that all diagrams and maps are represented in a clear and legible manner that can be clearly reproduced in black and white. All maps of Bondi Junction should be oriented in same direction at the same scale including a north arrow, scale bar and legible street names.

Content
It is recommended to add a note to the DCP that Part E is to be read in conjunction with SEPP 65 RFDC and Type Specific and General Clauses Part B to D.

PART E – Clause 1.0 Bondi Junction
The area, where specific provisions for the development of the town square apply, should be mentioned and highlighted in Figure 1. Furthermore there should be notes throughout Part E advising of the town square provisions where topics are overlapping or refined.

Add: 'The development of the Town Square and its vicinity is additionally specified in Clause 1.26.'

Figure 1: Add boundary for 'Town Square Provisions'

PART E – Clause 1.1 Built Form
It is recommended to reinstate the requirement for slender tower forms from the Waverley DCP 2010, Part F1 Bondi Junction Centre, 2.1 Introduction, to encourage more sustainable tower forms that have less bulk and therefore less solar impact on surrounding sites. The control will read as follows:

'Tower building forms occur in the Bondi Junction commercial zones and are designed to provide higher density development commensurate with Bondi Junction's role as a Major Centre as identified in the Sydney Metro Strategy. Encouraging a small footprint tower building is one of the key determinants of sustainability to facilitate cross ventilation, daylight access and to create diversity within the BJC skyline.'

See also LEP Floor Space ratio map with determination of area for small footprint tower buildings and new LEP Clause 4.4(5).

Eliminate Control (b), 'Corner sites may have slightly higher buildings forms to accentuate the junction of streets and the rectilinear block pattern.' Higher building forms at corners have been found to accentuate wind effects. The City of Melbourne's Built Form Review 2011 states that, 'Street corners are the most important locations in which to require tower setbacks, which are at odds with the design justification of "defining the corner". (Brisbane has specific setback controls for corners to reduce wind).'

Include a solar access for open space clause in Clause 1.1 Built Form as the provision may have impact on the potential built form of a development. Add the following control: 'Solar Access to open spaces in and around the Bondi Junction Centre is to be secured. New development shall not result in any additional shadow impact at 12noon on 21st June on Clementson Park, Waverley Street Mall, Eora Park, Norman Lee Place (Boot Factory), Oxford Street Mall and Rowe Street (between Oxford Street Mall and Grosvenor Lane). Sites affected by this clause may not be able to be developed to their maximum FSR or height.'

PART E – Clause 1.2 Building Use
Include the following control under 'Arcades, squares and through block links': 'Arcades and through block links should be grand in scale and form with high visibility and direct connectivity through to other thoroughfares, rather than be dark single-storey connections with low ceiling heights. They should encourage better pedestrian access whilst supporting pedestrian desire lines.'

Amend 'Figure 32 – Active Frontages, Through Block Links, Arcades and Squares' accordingly (see Figure 8.8).

PART E – Clause 1.3 Subdivision
No recommended amendments.

PART E – Clause 1.4 Heritage and Buildings of Historic Character
Update 'Figure 6. Buildings of historic character', to include heritage items and buildings of historic character from Waverley LEP 2012 'Heritage Map – Sheet HER_001A' in addition to those buildings of historic character currently shown, to provide a comprehensive diagram illustrating both heritage items and buildings of historic character (see Figure 8.9).

Character Statements should be established in Bondi Junction to provide qualitative direction for design. The City of Sydney's Locality Statements may serve as a guide. These should reflect the existing and the desired future character of each area within Bondi Junction. An important element of this task is to determine the extent of each character area. Presently the Junction has a diverse range of characters,

Figure 8.8 Amended DCP 2012 Figure 32 – Active Frontages, Through Block Links, Arcades and Squares

Figure 8.9 Amended DCP 2012 Part E Figure 6 – Buildings of Historic Character - ensure the consistency with Waverley LEP 2012 Heritage Map

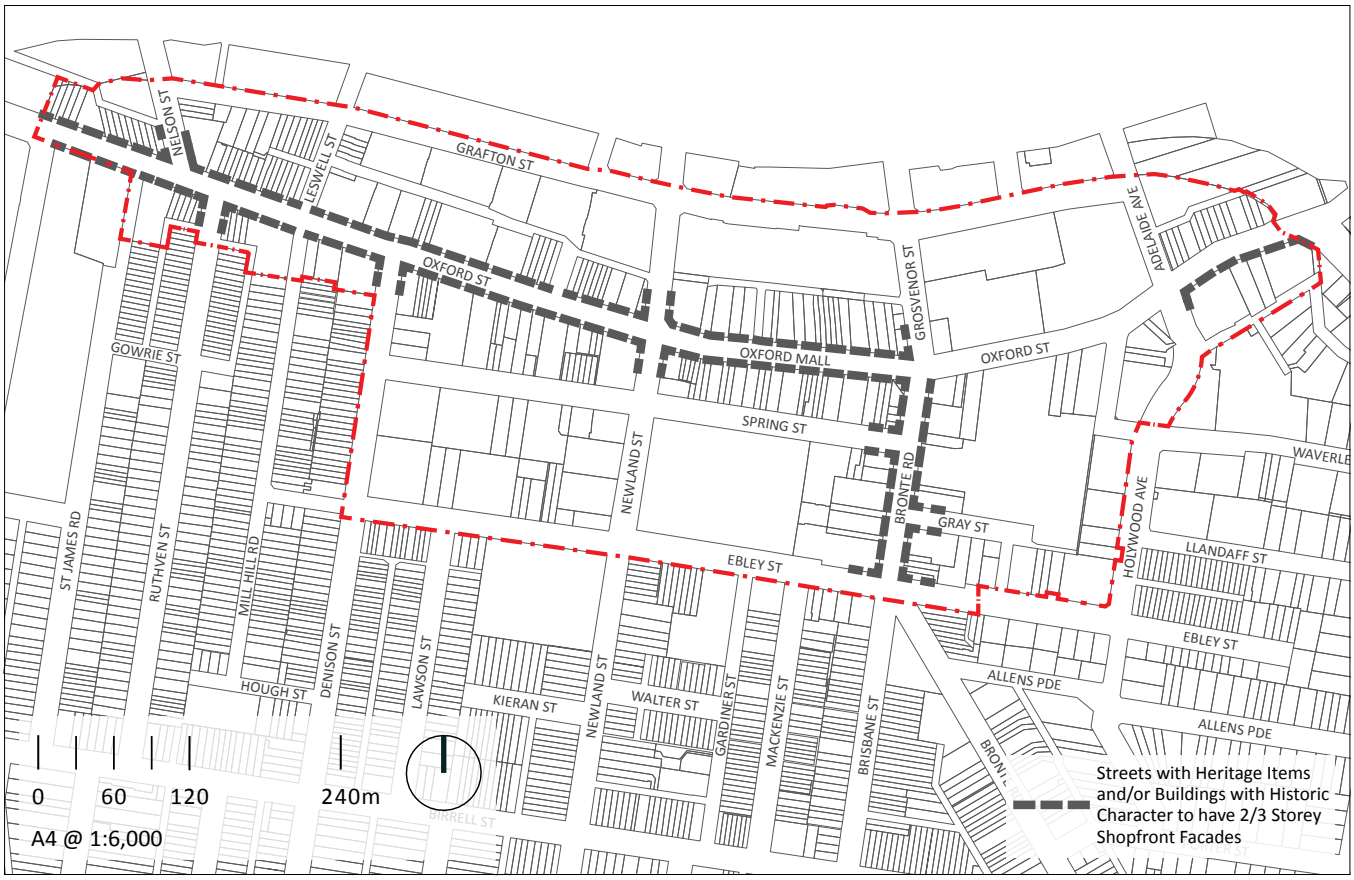


Figure 8.10 Amended DCP 2012 Part E Figure 8 – Building Elevation in Streets with Heritage and Buildings with Historic Character

Figure 8.11 Amended DCP 2012 Part E Figure 13 – Control Drawing for Building to the Street Alignment

these are largely defined by streets, block by block.

PART E – Clause 1.4.2 Streets with Heritage and Buildings of Historic Character
Update Figure 8: 'Building Elevation in Streets with Heritage and Buildings with Historic Character' to include only those parts of blocks that actually have heritage items or buildings of historic character which would be along Oxford Street and Bronte Road (see Figure 8.10).

PART E – Clause 1.5 Active Street Frontages

Amend Primary Shopping Street Frontages:
(e) Commercial and residential lobbies if accompanied by an entry and occupying less than 10% of the buildings street frontage can front the street.

10% is too small in narrow lot cases, e.g. a 10m wide lot would only allow for a 1m wide entry. The provision should be amended to allow entries according to National Construction Code (NCC) standards:
'(e) Commercial and residential lobbies if accompanied by an entry and occupying less than 10% (or the minimum requirements according to the National Construction Code) of the buildings street frontage can front the street.'

To ensure consistency with the town square provisions add: 'Active Street Frontages and Address for the development of the Town Square and its vicinity are additionally specified in Clause 1.26.5.'

Secondary Shopping Street Frontages
The existing control specifies a preferred 10m interval between doors, with a maximum of 15m. This interval should be reduced to create a more diversified and visually appealing environment for pedestrians. Amend control (b) to the following:
'One door (into entertainment, civic, community, commercial or retail uses) is preferred per 6m to 10m of street frontage.'

Figures 10 and 11: Remove 2m setback after first level to be consistent with proposed setback provisions. Either show 6m setback after first level (in case of heritage context) or 6 storey block edge on street boundary.

In the context of creating active street frontages and ensuring that minimum requirements for access can be met, it is recommended to add a clause for the provision of minimum street frontages:
'A building on land in Zone B3 Commercial Core or Zone B4 Mixed Use must have at least one street frontage of 12 metres or more to a public street (excluding service laneways). Exclusions from this rule can only be granted if the provision of active street frontages can be demonstrated anyway.'

PART E – Clause 1.6 Street Alignments and Front Setbacks
To ensure consistency with the town square provisions add: 'Street Alignment, Street Setbacks and Street Frontage Heights for the development of the Town Square and its vicinity are additionally specified in Clause 1.26.1 and 1.26.2.'

Two / three storey shopfront facades:
Eliminate Control (b) and (c) for two/ three storey shopfront facades to be consistent with the recommendation in 'Clause 1.1 Built Form' that corner sites may not have slightly higher building forms.

Update 'Figure 13. Control Drawing Building to the street alignment, Level 2-5' to show a requirement for a 6m setback only for those lots represented with a dashed line. Those would be along Oxford Street and Bronte Road. Street Corners should be included to create a consistent street character (see Figure 8.11).

Block edge Building Forms – Level 2 to Ceiling of Level 5:
It is recommended that Control (a) for 'Block edge Building Forms – Level 2 to Ceiling of Level 5' be modified to require a 6m setback, as per with the preferred option from the setback analysis, as follows:
'Lots in streets with heritage buildings are to have the block edge building form above the 2/3 storey shopfronts set back from the street boundary by 6m.'

It is recommended that 'Figure 15. Setbacks from the street – buildings in streets with heritage' be updated to be consistent with the amendment above and show a requirement for a 6m setback above the 2/3 storey shopfront (see Figure 8.12).

It is recommended that 'Figure 16. Control Diagram Corner Sites' be modified to eliminate the slightly higher building forms at corners to be consistent with the recommendation in 'Clause 1.1 Built Form' and remove the 2m setback step.

PART E – Clause 1.7 Separation
No amendments.

PART E – Clause 1.8 Side and Rear Boundary Setbacks
No amendments.

PART E – Clause 1.9 Building Footprint
To ensure consistency with the town square provisions add: 'Building Depth and Bulk for the development of the Town Square and its vicinity are additionally specified in Clause 1.26.3.'

Block edge building form,(b) Residential:
Delete 'Buildings may have greater depth than 18m only if they still achieve satisfactory daylight and natural ventilation and have habitable room depth no greater than 8m from a source of sunlight.' Greater building depths than 18m should be argued on merit and the achievement of SEPP 65 principles has to be demonstrated in the DA process.

PART E – Clause 1.10 Building Orientation
No amendments.

PART E – Clause 1.11 Number of Storeys

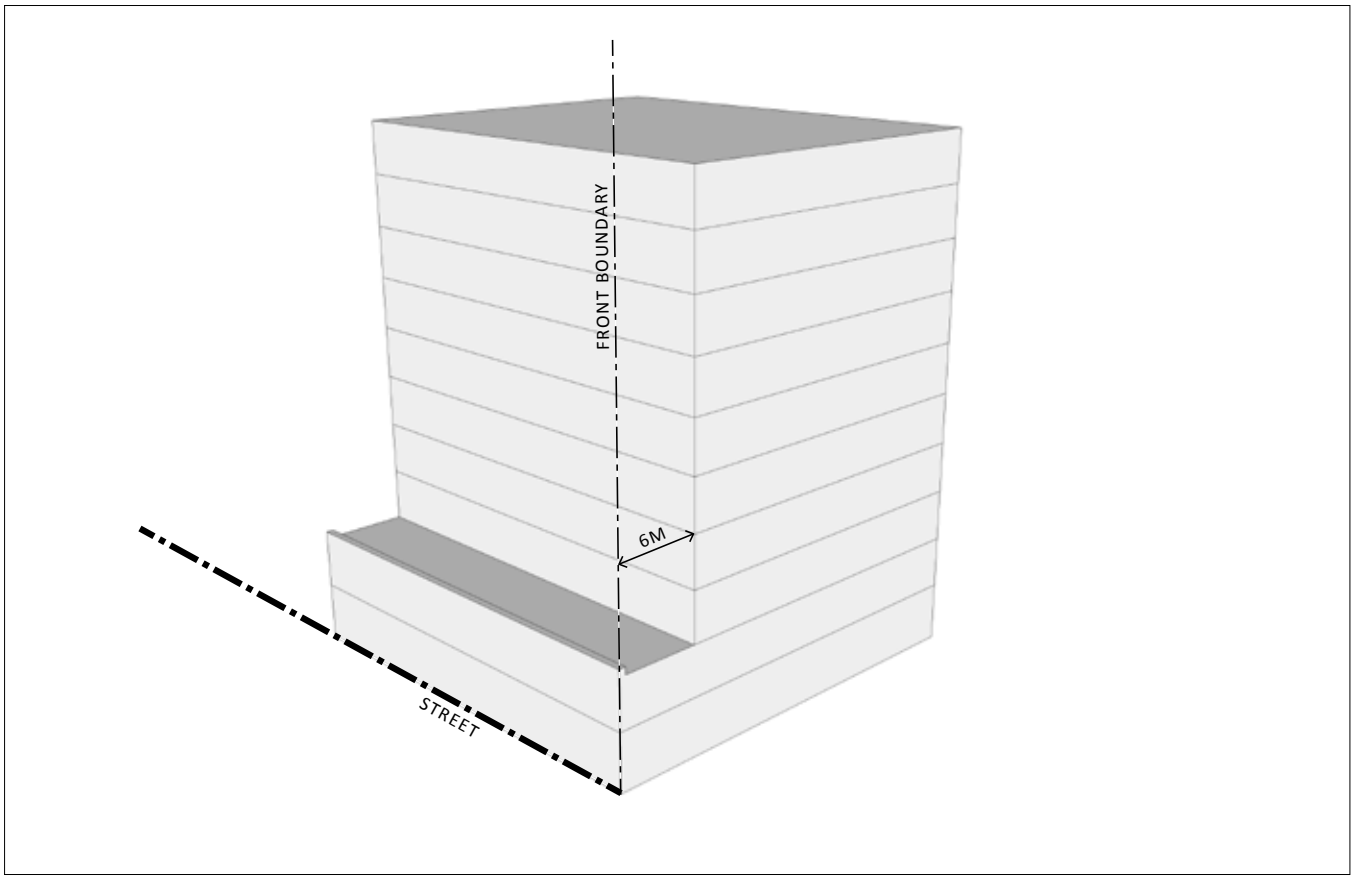


Figure 8.12 Amended DCP 2012 Part E Figure 15 – Setbacks from the Street, Buildings in Streets with Heritage

Controls (b): Delete ' All public parks, including Clementson Park are not to be overshadowed using the following standard: Less than 40% of the park should be in shadow between 11:00am and 3:00pm, at the winter solstice; less than 70% of the park should be in shadow between the times of 7:00am and 9:00am; and 4:00pm and 6:00pm, at the equinox.'

The solar access of open spaces has been addressed in the new LEP Solar Access Clause and additionally in DCP Part E – 1.1 Built Form.

PART E – Clause 1.12 Views, Vistas and Tree Preservation
No amendments.

PART E – Clause 1.13 Design Excellence
To ensure consistency with the town square provisions add: 'Building Exteriors for the development of the Town Square and its vicinity are additionally specified in Clause 1.26.8.'

It is recommended that '3.12 Green Star Environmental Rating Scheme' and BASIX from Waverley DCP Part F1 Bondi Junction be reinstated to ensure high quality sustainable building design. This clause should be inserted after Clause 1.13. All following clauses are to be renumbered accordingly.

PART E – Clause 1.14 Building Elevations
To ensure consistency with the town square provisions add: 'Building Exteriors for the development of the Town Square and its vicinity are additionally specified in Clause 1.26.8.'
PART E – Clause 1.15 Public Art in the Private Domain
No amendments.

PART E – Clause 1.16 Awnings and Colonnades
In general it is recommended that 'Clause 1.16 Awnings and Colonnades' be relocated after 'Clause 1.14 Building Elevations' due to both these clauses dealing with the facades of buildings.

To ensure consistency with the town square provisions add: 'Awnings for the development of the Town Square and its vicinity are additionally specified in Clause 1.26.6.'

Amend Control (b) 'Provide awnings on buildings as indicated in Figure 31, including around corners.'
Add to Control (e) 'Awnings are required to step with topography'.

PART E – Clause 1.17 Open Spaces at the Street Front
No amendments.

PART E – Clause 1.18 Designing Buildings for Flexibility
No amendments.

PART E – Clause 1.19 Ceiling Heights
It is recommended that 'Clause 1.19 Ceiling Heights' only considers commercial ceiling heights. For residential use instead rely on the ceiling heights prescribed by the NSW

Residential Flat Design Code and the National Construction Code (NCC).

Add to introduction paragraph: 'On residential levels the floor to floor ceiling height has to be according to the NSW Residential Flat Design Code and the NCC respectively.'

Amend Controls:
(b) Level 1: 3.5m minimum floor to floor
(c) Above Level 1, commercial use: minimum 3.5m floor to floor
Delete (d)
PART E – Clause 1.20 External Living Areas
No amendments.

PART E – Clause 1.21 Wind Mitigation
No amendments.

PART E – Clause 1.22 Reflectivity
No amendments

PART E – Clause 1.23 Roller Shutters
No amendments.

PART E – Clause 1.24 Outdoor Advertising Signs and Structures
No amendments.

PART E – Clause 1.25 Access and Movement
To ensure consistency with the town square provisions add: 'Pedestrian Amenity for the development of the Town Square and its vicinity is additionally specified in Clause 1.26.4; Vehicle Access for the Town Square area in 1.26.9.'

It is recommended that 'Figure 32. Active Frontages – Through Block Links, Arcades, Squares' be updated to include existing arcades and through block links between Spring Street, Oxford Mall and the Bus and Rail Interchange as per 'Figure 39. Through site links'; Or a note to be added: 'see also Figure 39 for through site links in the vicinity of the Town Square.'

Add example picture for through block link, for example Strand Arcade, Sydney:

Picture 8.1: Strand Arcade, Sydney

PART E – Clause 1.25.2 Vehicular and Service Access to Lots
To ensure consistency with the town square provisions add: 'Vehicle Footpath Crossings and Vehicle Access for the development of the Town Square and its vicinity are additionally specified in Clause 1.26.7 and 1.26.9.'

Control (a): Delete '.....except for lots that do not have secondary frontages or laneways'. Exception from the rule to exclude vehicular access on primary shopping streets should be considered on each specific merit.

Figure 33: Delete '(except for lots with no secondary frontages or laneways)' in key for figure

PART E – Clause 1.26 Town Square Provisions
No recommended amendments.

PART E – Clause 1.26.1 Building to Street Alignment and Street Setbacks
No recommended amendments.

PART E – Clause 1.26.2 Street Frontage Heights
'Figure 35. Street Frontage Heights' should be redrawn as it is illegible.

PART E – Clause 1.26.3 Building Depth and Bulk
Change Control (a) to match with respective LEP clause: 'On land zoned B3 Commercial Core, above street frontage height: preferred max. floor plate area of a building is 1,000sqm GFA.'

PART E – Clause 1.26.4 Pedestrian Amenity
No amendments.

PART E – Clause 1.26.5 Active Street Frontages and Address
No amendments.

PART E – Clause 1.26.6 Awnings
No amendments.

PART E – Clause 1.26.7 Vehicle Footpath Crossings
No amendments.

PART E – Clause 1.26.8 Building Exteriors
No amendments.

PART E – Clause 1.26.9 Vehicle Access
No amendments.

PART E – Clause 1.26.10 Site Facilities and Services
No amendments.

PART E – Clause 1.26.11 Special Areas
No amendments.

Demonstration of Setback Provisions

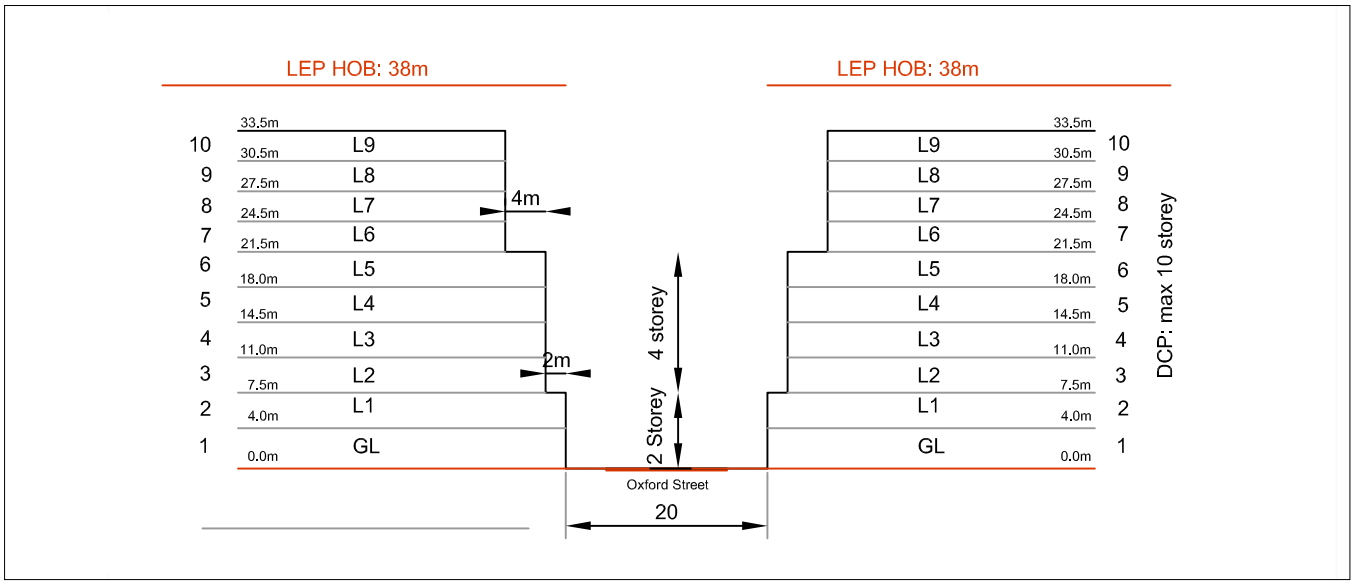


Figure 8.13 Existing Setbacks - Oxford Street

0 7.5 15 30m

A4 @ 1:750

Setbacks according to Waverley DCP 2012

Oxford Street

- 2 storey block edge; 0m setback for Ground Level and Level 1
- 2m setback for Level 2 to Level 5; additional 4m setback for Level 6 and above
- Heritage context along Oxford Street
- Ceiling height: 4m Ground Level; 3.5m Level 1 to Level 5; above Level 5: residential uses min. 2.7m

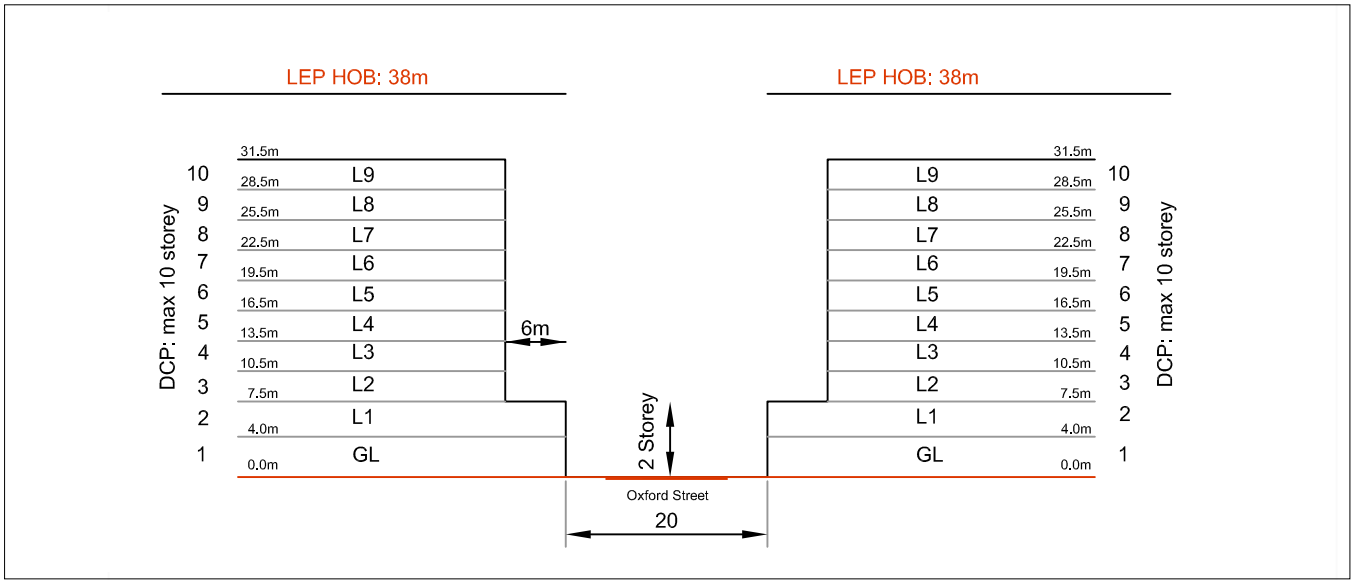


Figure 8.14 Proposed Setbacks - Oxford Street

0 7.5 15 30m

A4 @ 1:750

Proposed Setbacks

Oxford Street

- 2 storey block edge; 0m setback for Ground Level and Level 1
- 6m setback for Level 2 and above
- Heritage context along Oxford Street
- Ceiling height: 4m Ground Level; 3.5m Level 1; Level 2 and above: residential uses according to National Construction Code (NCC) and NSW Residential Flat Design Code (RFDC)

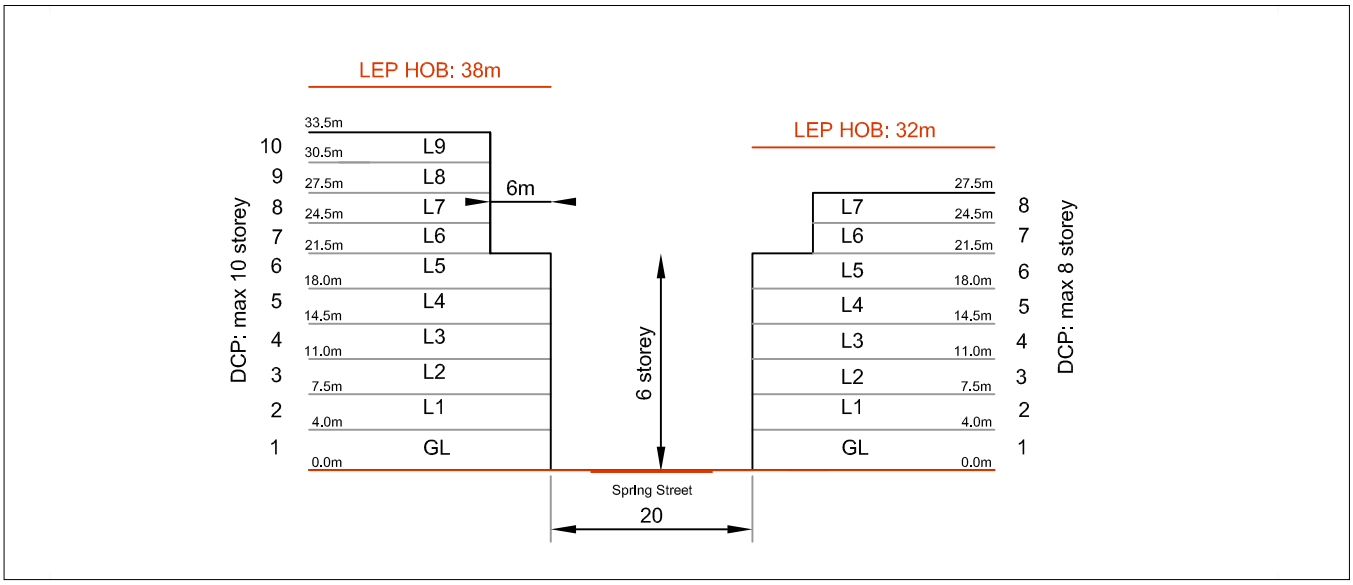


Figure 8.15 Existing Setbacks - Spring Street

0 7.5 15 30m

A4 @ 1:750

Setbacks according to Waverley DCP 2012

Spring Street

- 6 storey block edge; 0m setback for Ground Level to Level 5
- 6m setback for Level 6 and above
- No heritage context along Spring Street
- Ceiling height: 4m Ground Level; 3.5m Level 1 to Level 5; above Level 5: residential uses min. 2.7m

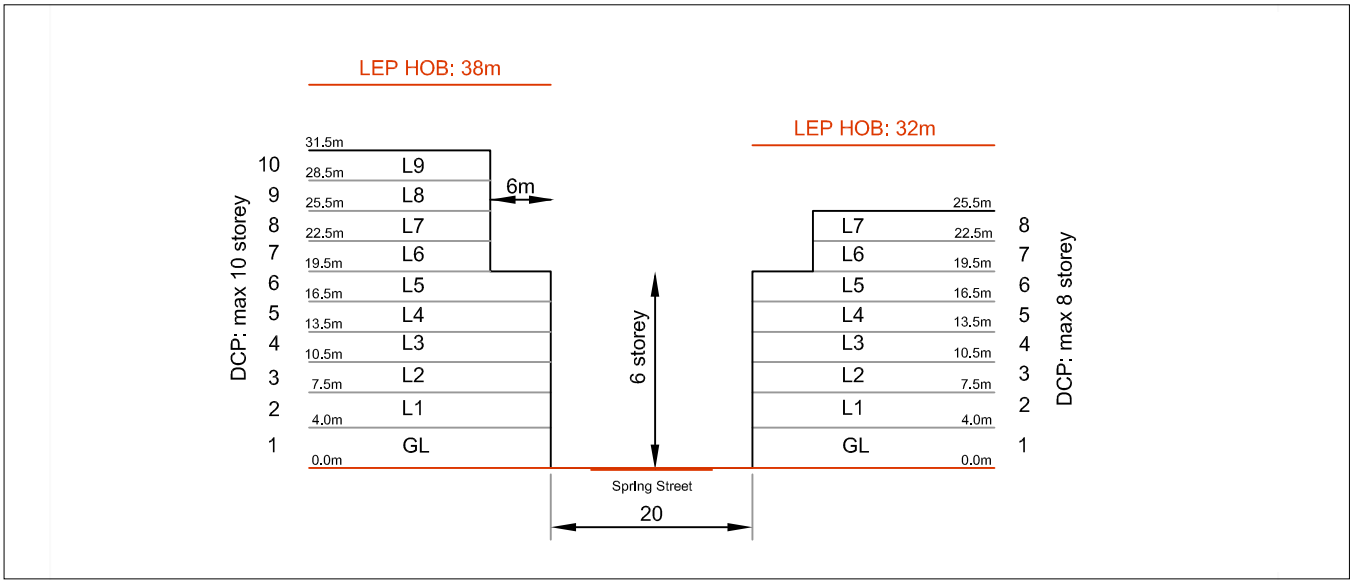


Figure 8.16 Proposed Setbacks - Spring Street

0 7.5 15 30m

A4 @ 1:750

Proposed Setbacks

Spring Street

- 6 storey block edge; 0m setback for Ground Level to Level 5
- 6m setback for Level 6 and above
- No heritage context along Spring Street
- Ceiling height: 4m Ground Level; 3.5m Level 1; Level 2 and above: residential uses according to National Construction Code (NCC) and NSW Residential Flat Design Code (RFDC)

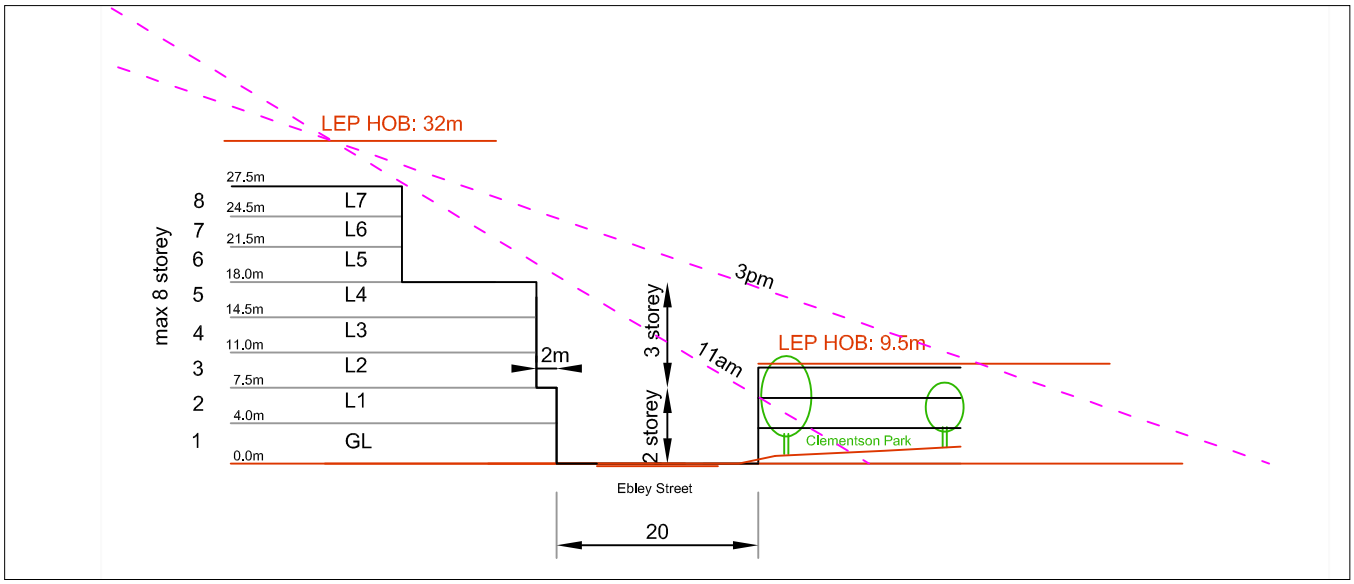


Figure 8.17 Existing Setbacks - Ebley Street

0 7.5 15 30m

A4 @ 1:750

Setbacks according to Waverley DCP 2012

Ebley Street

- 2 storey block edge; 0m setback for Ground Level and Level 1
- 2m setback for Level 2 to Level 4; stepped setback for Level 5 and above
- Heritage context provisions along Ebley Street
- Ceiling height: 4m Ground Level; 3.5m Level 1 to Level 5; above Level 5: residential uses min. 2.7m
- Results in maximum 40% overshadowing of Clementson Park between 11am and 3pm (accumulated), 21 June

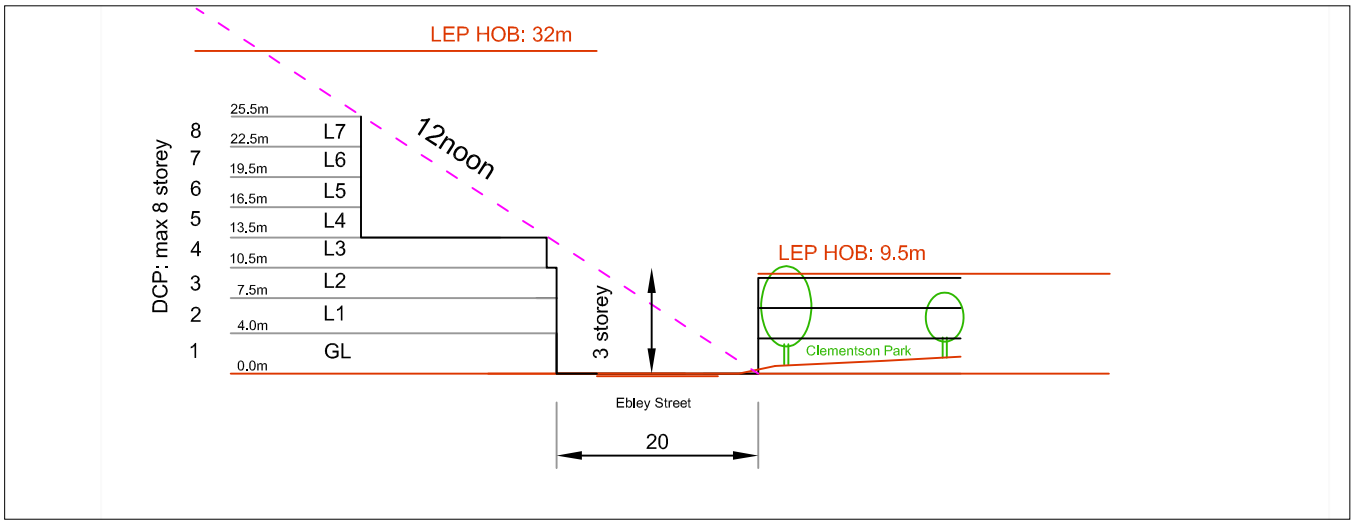


Figure 8.18 Proposed Setbacks - Ebley Street

0 7.5 15 30m

A4 @ 1:750

Proposed Setbacks

Ebley Street

- 3 storey block edge; 0m setback for Ground Level to Level 2
- Stepped setback for Level 3 and above
- No heritage context along Ebley Street
- Ceiling height: 4m Ground Level; 3.5m Level 1; Level 2 and above: residential uses according to National Construction Code (NCC) and NSW Residential Flat Design Code (RFDC)
- Results in no overshadowing of Clementson Park at 12noon, 21 June

9. KEY SITES

Figure 9.1 Key Sites Locations

The following locations were identified by Waverley Council as key sites within the Bondi Junction Centre area:

1. 344-354 Oxford Street
2. 562-564 Oxford Street
3. 570-588 Oxford Street
4. 241-247 Oxford Street, 2-12 Waverley Street
5. 28-34 Bronte Road
6. 110-122 Ebley Street

These sites are current and proposed development sites, some with submitted Development Applications. The review of the LEP 2012 ordinances focuses on the development potential of these sites in consideration of the urban context as well as the overall vision for Bondi Junction Centre. Proposed control amendments for each of these key development sites are summarised below and further detailed on the following pages.

Site	**Draft LEP 2011**	**Recommended (Changes in red)**
1. 344-354 Oxford Street	Zone: B3 Commercial Core FSR: 5.0 HOB: 38m	Zone: B4 Mixed Use FSR: 5.0 HOB: 38m
2. 562-564 Oxford Street	Zone: B4 Mixed Use FSR: 7.0 HOB: 60m	Zone: B4 MIxed Use FSR: 7.0 HOB: 60m
3. 570-588 Oxford Street	Zone: B4 MIxed Use FSR: 7.0 HOB: 60m	Zone: B4 MIxed Use FSR: 7.0 HOB: 60m
4. 241-247 Oxford Street, 2-12 Waverley Street (this amendment has been adapted during the course of the project and became already part of the Waverley Draft LEP 2011)	Zone: B3 Commercial Core FSR: 6.0 and 7.0 HOB: 60m	Zone: B4 Mixed Use FSR: 6.0 and 7.0 HOB: 60m
5. 28-34 Bronte Road	Zone: B3 Commercial Core FSR: 6.0 HOB: 32m	Zone: B3 Commercial Core FSR: 6.0 HOB: 32m
6. 110-122 Ebley Street	Zone: B3 Commercial Core FSR: 6.0 HOB: 32m	Zone: B3 Commercial Core FSR: 6.0 HOB: 32m

Figure 9.2 Summary of Proposed Control Amendments for Key Development Sites

Figure 9.3 Key Site 1 - 344-354 Oxford Street

344-354 Oxford Street

LEP 2012
Zone: B3 Commercial Core / FSR: 5.0 / HOB: 38m
Recommended
Zone: B4 Mixed Use / FSR: 5.0 / HOB 38m

Change from B3 Commercial Core to B4 Mixed Use to allow residential development while maintaining a commercial mix. No change to Floor Space Ratio (FSR) and Height of Building (HOB) as proposed in Draft LEP 2011.

The lots between Oxford Street, Vernon Street and Hegarty Lane are occupied by a one storey commercial building. The existing buildings cover approximately 85% of the site. The lot size of approximately 988sqm in combination with a proposed FSR of 5:0 : 1 results in a potential max. Gross Floor Area (GFA) of 4,940sqm. The Waverley DCP 2012 specifies a maximum of 10 storeys at this location (6 storey block edge form with 4 storeys above). To achieve this with a potential new development it would be required to have block edge levels with net floor space of 980sqm for commercial use (Ground and First Level) and 620sqm for residential use (Level 2 to Level 5). The 4 residential levels above would require a net floor plate of 470sqm per level.

These floor plates seem achievable at this location with main solar access from Oxford Street and Grafton Lane. The building depths for residential Level 2 to 5 would be around 18m, residential tower levels would be around 12m deep.

	Net Floor Space	Block Edge	6m Setback	Commercial GFA x 0.85	Residential GFA x 0.75	Achievable GFA
Ground Level to First Level	1,960sqm	x		1,666sqm		1,666sqm
Level 2 to Level 5	2,480sqm	x			1,860sqm	1,860sqm
Level 6 to Level 10	1,880sqm		x		1,410sqm	1,410sqm
						4,936sqm

Figure 9.4 FSR Test 344-354 Oxford Street

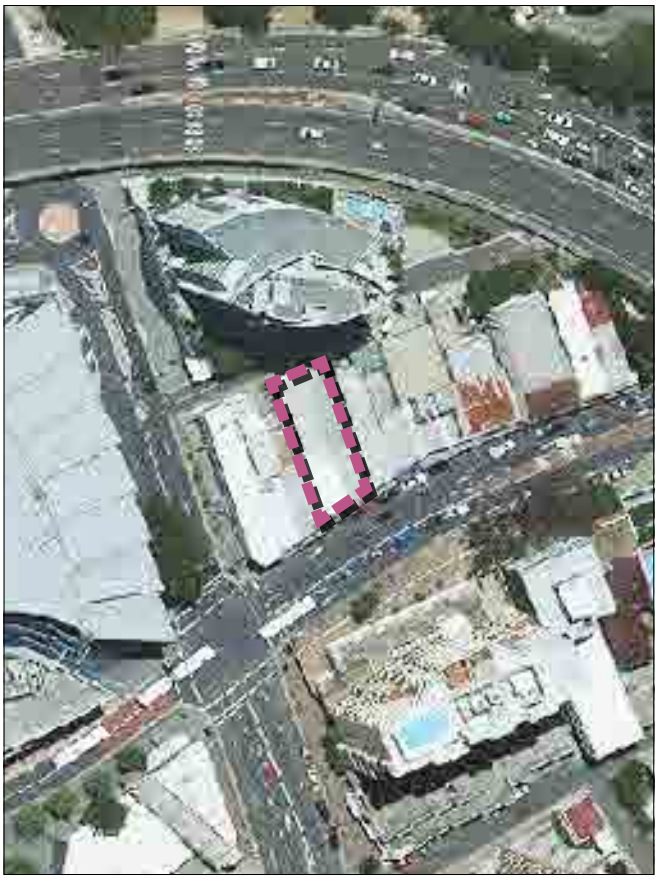


Figure 9.5 Key Site 2 - 562-564 Oxford Street

562-564 Oxford Street

LEP 2012
Zone: B4 MIxed Use / FSR: 7.0 / HOB: 60m
Recommended
Zone: B4 Mixed Use / FSR: 7.0 / HOB: 60m

No change to Zone, FSR and HOB as proposed in Draft LEP 2011. B4 Mixed Use zoning and proposed HOB and FSR are appropriate to urban context and neighbouring developments. Residential development in higher floor levels can benefit from views and good solar access.

The lot between Oxford Street and Grafton Lane is occupied by a one storey commercial building. The existing building covers approximately 100% of the site. The lot size of approximately 300sqm in combination with a proposed FSR of 7:0 : 1 results in a potential max. Gross Floor Area (GFA) of 2,100sqm. The Waverley DCP 2012 specifies a maximum of 16 storeys at this location (6 storey block edge form with 10 storey tower above). To achieve this with a potential new development it would be required to have block edge levels with net floor space of 300sqm for commercial use (Ground and First Level) and 200sqm for residential use (Level 2 to Level 5). The residential tower would require a net floor plate of 132sqm per level.

These floor plates seem achievable at this location with main solar access from Oxford Street and Grafton Lane. The building depths for residential Level 2 to 5 would be around 18m, residential tower levels would be around 12m deep.

	Net Floor Space	Block Edge	6m Setback	Commercial GFA x 0.85	Residential GFA x 0.75	Achievable GFA
Ground Level to First Level	600sqm	x		510sqm		510sqm
Level 2 to Level 5	800sqm	x			600sqm	600sqm
Level 6 to Level 15	1,320sqm		x		990sqm	990sqm
						2,100sqm

Figure 9.6 FSR Test 562-564 Oxford Street

Figure 9.7 Key Site 3 - 570-578 Oxford Street

570-578 Oxford Street

LEP 2012
Zone: B4 MIxed Use / FSR: 7.0 / HOB: 60m
Recommended
Zone: B4 MIxed Use / FSR: 7.0 / HOB: 60m

No change to Zone, Floor Space Ratio (FSR) and Height of Building (HOB) as proposed in Draft LEP 2011. B4 Mixed Use zoning and proposed HOB and FSR are appropriate to urban context and neighbouring developments. Residential development in higher floor levels can benefit from views and good solar access.

The lots between Oxford Street and Grafton Lane are occupied by one and two storey commercial buildings. The existing buildings cover approximately 90% of the site. The combined site size of approximately 631sqm in combination with a proposed FSR of 7:0 : 1 results in a potential max. Gross Floor Area (GFA) of 4,417sqm. The Waverley DCP 2012 specifies a maximum of 16 storeys at this location (6 storey block edge form with 10 storey tower above). To achieve this with a potential new development it would be required to have block edge levels with net floor space of 630sqm for commercial use (Ground and First Level) and 390sqm for residential use (Level 2 to Level 5). The residential tower would require a net floor plate of 290sqm per level.

These floor plates seem achievable at this location with main solar access from Oxford Street and Grafton Lane. The combined site width allows for a central tower part with multiple solar access options.

	Net Floor Space	Block Edge	6m Setback	Commercial GFA x 0.85	Residential GFA x 0.75	Achievable GFA
Ground Level to First Level	1,260sqm	x		1,071sqm		1,071sqm
Level 2 to Level 5	1,560sqm	x			1,170sqm	1,170sqm
Level 6 to Level 15	2,900sqm		x		2,175sqm	2,175sqm
						4,416sqm

Figure 9.8 FSR Test 570-578 Oxford Street

Figure 9.9 Key Site 4 - 241-247 Oxford Street, 2-12 Waverley Street

241-247 Oxford Street, 2-12 Waverley Street

LEP 2012
Zone: B3 Commercial Core / FSR: 7.0 / HOB: 60m
Recommended
Zone: B4 Mixed Use / FSR: 7.0 / HOB: 60m
(this recommended amendment has been adapted during the course of the project and became already part of the Waverley Draft LEP 2011)

Change from B3 Commercial Core to B4 Mixed Use for residential use to allow residential development at the fringe of the commercial core. No change to FSR and HOB as proposed in Draft LEP 2011. B4 Mixed Use zoning and proposed HOB and FSR are appropriate to urban context and fit with neighbouring developments. Residential development in higher floor levels can benefit from views and good solar access.

The lots between Oxford Street, Waverley Street and Hollywood Avenue are occupied by one and two storey commercial buildings. The existing buildings cover 100% of the site. The combined site size of approximately 1,290sqm in combination with a proposed FSR of 7:0 : 1 results in a potential max. Gross Floor Area (GFA) of 9,030sqm. The Waverley DCP 2012 specifies a maximum of 16 storeys at this location (6 storey block edge form with 10 storey tower above). To achieve this with a potential new development it would be required to have block edge levels with net floor space of 1,250sqm for commercial use (Ground and First Level) and 800sqm for residential use (Level 2 to Level 5). The residential tower would require a net floor plate of 600sqm per level.

These floor plates seem achievable at this location due to its corner position and possible solar access from three sides.

	Net Floor Space	Block Edge	6m Setback	Commercial GFA x 0.85	Residential GFA x 0.75	Achievable GFA
Ground Level to First Level	2,500sqm	x		2,125sqm		2,125sqm
Level 2 to Level 5	3,200sqm	x			2,400sqm	2,400sqm
Level 6 to Level 15	6,000sqm		x		4,500sqm	4,500sqm
						9,025sqm

Figure 9.10 FSR Test 241-247 Oxford Street, 2-12 Waverley Street

Figure 9.11 Key Site 5 - 28-34 Bronte Road

Figure 9.12 Key Site 6 - 110-112 Ebley Street

28-34 Bronte Road

LEP 2012
Zone: B3 Commercial Core / FSR: 6.0 / HOB: 32m
Recommended
Zone: B3 Commercial Core / FSR: 6.0 / HOB: 32m

No change to Zone, Floor Space Ratio (FSR) and Height of Building (HOB) as proposed in LEP 2012. B3 Commercial Core and proposed HOB and FSR are appropriate to urban context and neighbouring developments.

The corner lot of Bronte Road and Gray Street is occupied by two storey commercial buildings along Bronte Road and three storeys (Club Bondi Junction) towards Gray Street. The existing buildings cover 100% of the lot. The lot size of approximately 998sqm in combination with a proposed FSR of 6:0 : 1 results in a potential max. Gross Floor Area (GFA) of 5,988sqm. The Waverley DCP 2012 specifies a maximum of 8 storeys at this location. To achieve this with a potential new development it would be required to have a net floor plate of 880sqm per level (x 0.85 for commercial use = 748sqm per level x 8 = 5,984sqm). These commercial floor plates seem achievable at this location due to its corner position and possible solar access from two sides.

Residential development at this location is not recommended as it is on the southern side of the much larger Westfield complex. Residential amenities (in particular solar access) would hardly be achievable if development potential of the Westfield would be utilised. No change to proposed height of 32m to avoid increased shadow impact on areas along Ebley Street.

110-112 Ebley Street

LEP 2012
Zone: B3 Commercial Core / FSR: 6.0 / HOB: 32m
Recommended
Zone: B3 Commercial Core / FSR: 6.0 / HOB: 32m

No change to Zone, FSR and HOB as proposed in LEP 2012. B3 Commercial Core and proposed HOB and FSR are appropriate to urban context and neighbouring developments.

The corner site of Ebley Street and Hollywood Avenue is occupied by a three storey commercial building. The existing building covers 100% of the lot (floor plate approx. 1,600sqm). The lot size of approximately 1,640sqm in combination with a proposed FSR of 6:0 : 1 results in a potential max. Gross Floor Area (GFA) of 9,840sqm. The Waverley DCP 2012 specifies a maximum of 8 storeys at this location. To achieve this with a potential new development it would be required to have a net floor plate of 1,446sqm per level (x 0.85 for commercial use = 1,229sqm per level x 8 = 9,833sqm). Such large commercial flor plates seem achievable at this location due to its corner position and possible solar access from two sides.

Residential development at this location is not recommended as it is on the southern side of the much larger Westfield complex. Residential amenities (in particular solar access) would hardly be achievable if development potential of the Westfield site would be utilised. No change to proposed height of 32m to avoid increased shadow impact on areas on the southern side of Ebley Street and eastern side of Hollywood Avenue.

10. IMPACT ON POTENTIAL EMPLOYMENT AND RESIDENTIAL NUMBERS

Employment Numbers
An objective of the Sydney Metro Strategy 2036 is to reach an employment growth of 23% (+31,000) from 2006 to 2036 for the Sub-Region 'East' which includes Woollahra, Waverley, Randwick and Botany Bay.

Bondi Junction is identified as 'Major Centre' which is the main shopping and business centres for the subregions. It has an employment target for 2036 of 14,000 (+2,000 from 12,000 in 2006). The area requirement for a job within an office environment is an assumed approximately 25sqm per job (to be consistent with the Bondi Junction Planning Review – LEP Modelling, prepared by AJ+C in June 2009). This results in an additional requirement of approximately 38,000sqm commercial floor area within the Bondi Junction Centre.

The Bondi Junction Centre Urban Design Review recommends changing the areas west of Newland Street which are B3 Commercial Core in the LEP 2012 to B4 Mixed Use to allow residential development while maintaining a commercial mix in the area. This will result in a theoretical loss of approximately 64,318sqm commercial floor area.

As a substitute to the theoretical loss of commercial floor area it is should be explored to increase the Floor Space Ratio (FSR) of the Commercial Core between Oxford Street and Gray Street. The option for greater development exists on the Westfield area south of Oxford St for and FSR increase from 8:1 to 10:1 to enable additional commercial floor area. This amendment would result in the provision of an additional approximately 37,916sqm commercial Gross Floor Area (A-grade office space) which would cover some of the loss by changing from B3 to B4.

The recommended reduction in FSR and Height of Building (HOB) on lots facing Ebley Street between the Library and Newland Street results in the theoretical loss of approximately 1,537sqm commercial floor area.

The above results in a loss of approximately 27,939sqm potential commercial floor space compared to the Waverley LEP 2012; and in a loss of approximately 1,118 potential jobs (assuming an area requirement of 25sqm per job).

See also Figure 10.1

Residential Numbers
The Bondi Junction Centre Urban Design Review recommends changing the areas west of Newland Street which are B3 Commercial Core in the LEP 2012 to B4 Mixed Use to allow residential development while maintaining a commercial mix in the area. This will result in a theoretical gain of approximately 64,318sqm residential floor area.

The recommended reduction in FSR and Height of Building (HOB) on lots facing Ebley Street between the Library and Newland Street results in the theoretical loss of approximately 6,146sqm residential floor area.

The above results in a gain of approximately 58,172sqm potential residential floor space compared to the Waverley LEP 2012.

See also Figure 10.1

Area	1	2	3	4	5	6	Total
Description	Between Grafton St and Hegarty La	Between Hegarty La/ Vernon St / Oxford St	Between Hegarty La/ Vernon St / Oxford St / Newland St	Between Oxford St / Newland St / Spring St	Ebley St north side east of Library to corner Newland St	Between Oxford St / Bronte Rd / Gray St / Waverley St	
Change	From B3 to B4	From B3 to B4	From B3 to B4	From B3 to B4	FSR from 4:1 to 3:1	FSR from 8:1 to 10:1	
FSR impact	yes	yes	yes	yes	yes	yes	
Size	4,923 sqm	2,064 sqm	1,997 sqm	6,111 sqm	7,683 sqm	18,958 sqm	
Draft LEP FSR	6	5	5	5	4	8	
FSR change	0	0	0	0	- 1	+ 2	
Pot. GFA	29,538 sqm	10,320 sqm	9,985 sqm	30,555 sqm	7,683 sqm	37,916 sqm	
Zone	Mixed Use	Mixed Use	Mixed Use	Mixed Use	Mixed Use	Mixed Use	

Loss Residential GFA					80% 6,146 sqm		6,146 sqm
Gain Residential GFA	80% 23,630 sqm	80% 8,256 sqm	80% 7,988 sqm	80% 24,444 sqm			64,318 sqm
Summary							+ 58,172 sqm

Loss Commercial GFA	80% 23,630 sqm	80% 8,256 sqm	80% 7,988 sqm	80% 24,444 sqm	20% 1,537 sqm		65,855 sqm
Gain Commercial GFA						100% 37,916 sqm	37,916 sqm
Summary							- 27,939 sqm

Loss Jobs	945	330	320	978	61		2634
Gain Jobs						1517	1517
Summary							- 1118

B3 Commercial Core B4 Mixed Use

Assumption for Mixed Use: 20% Commercial, 80% Residential Assumption for Jobs: 25sqm per job

Figure 10.1 Summary of Impacts on Employment and Residential Numbers

11. IMPACT ON THE PUBLIC DOMAIN

The objective of the recommendations in this report is to have a great positive impact upon the public domain of Bondi Junction to create an active vibrant centre for the region. There is a need to develop a holistic strategy not just for the built form of Bondi Junction, but also its public realm; its streets, laneways, footpaths, arcades, malls and open space. There is a need for a comprehensive access, circulation and movement plan for the centre as a whole; there is a need for a comprehensive Public Domain Master Plan (PDMP) for the centre as a whole. All future development should contribute positively to the public domain.

The issues of access, circulation and movement for all modes of transport requires a comprehensive strategy to address existing conflicts and redistribute emphasis back to pedestrians and cyclists over buses, taxis and private vehicles. There is a need for a much stronger focus on pedestrian amenity and safety. Pedestrian crossings and through site links need to be prioritised to facilitate pedestrian desire lines, including a strengthened connection between Spring Street, Oxford Street Mall and the Bus and Rail Interchange. Currently, vehicular traffic physically and visually dominates the Bondi Junction Centre. Buses travel at high speeds despite segments of the road being designated as bus only. Preference is usually given to the access and movement of public transport and private vehicles over the pedestrian and cyclist. It is recommended that a traffic and transport master plan be developed for Bondi Junction to achieve better access, circulation and movement for all modes of transport in the centre.

Additionally, a strategic PDMP should establish a clear direction for the future character of the centre. This should address design details such as material selections and construction details whilst also articulating an overarching conceptual vision for the public domain of Bondi Junction. A list of prioritised projects should be established by Council to guide future investment in the public domain and inform any negotiations regarding incentives for developers who provide significant investment towards public domain improvements.

The potential increase of residential floor space (if recommendations of the review are applied) would lead to an increase of residents within the Bondi Junction Centre. Furthermore, the potential increase of commercial floor space within the Westfield Centre area would lead to an increase of employees commuting to and spending their working day in Bondi Junction. These increased numbers of users may increase the strain on all forms of transport as well as the requirements for an attractive and user friendly public domain.

12. NEXT STEPS

To improve the overall attractiveness of the Bondi Junction Centre it is recommended to prepare a number of studies and programs to address the most urgent issues within the urban context. These include and are not limited to:

- Traffic study with focus on pedestrian access and circulation including between Spring Street, Oxford Mall and the Bus and Rail Interchange;
- Implementation of shared zones with low speed bus traffic;
- Consider undertaking a block-by-block analysis to assess building massing options for redevelopment sites. Use this process to determine appropriate setbacks in the context of existing building massing, block depth, lot size and access considerations;
- Preparation of a comprehensive Public Domain Master Plan;
- Public domain improvement program with priority projects to guide future investment;
- Further investigation in Voluntary Planning Agreements and/or Section 94 contribution options;
- Amend the layout of the DCP chapter on Bondi Junction to improve the document;
- Include character statements in the DCP to provide qualitative design direction to new developments;
- Prepare a plan to Improve public domain of Grafton Street and towards/underneath Syd Enfield Drive;
- Rename the SEPP 65 panel the “design excellence panel” and improve its utilisation by referring a wider range of projects and seeking pre-DA review.
- Plan for the renewal of the area between Ebley Street and Birrell Street and possible expansion of the Junction southward.