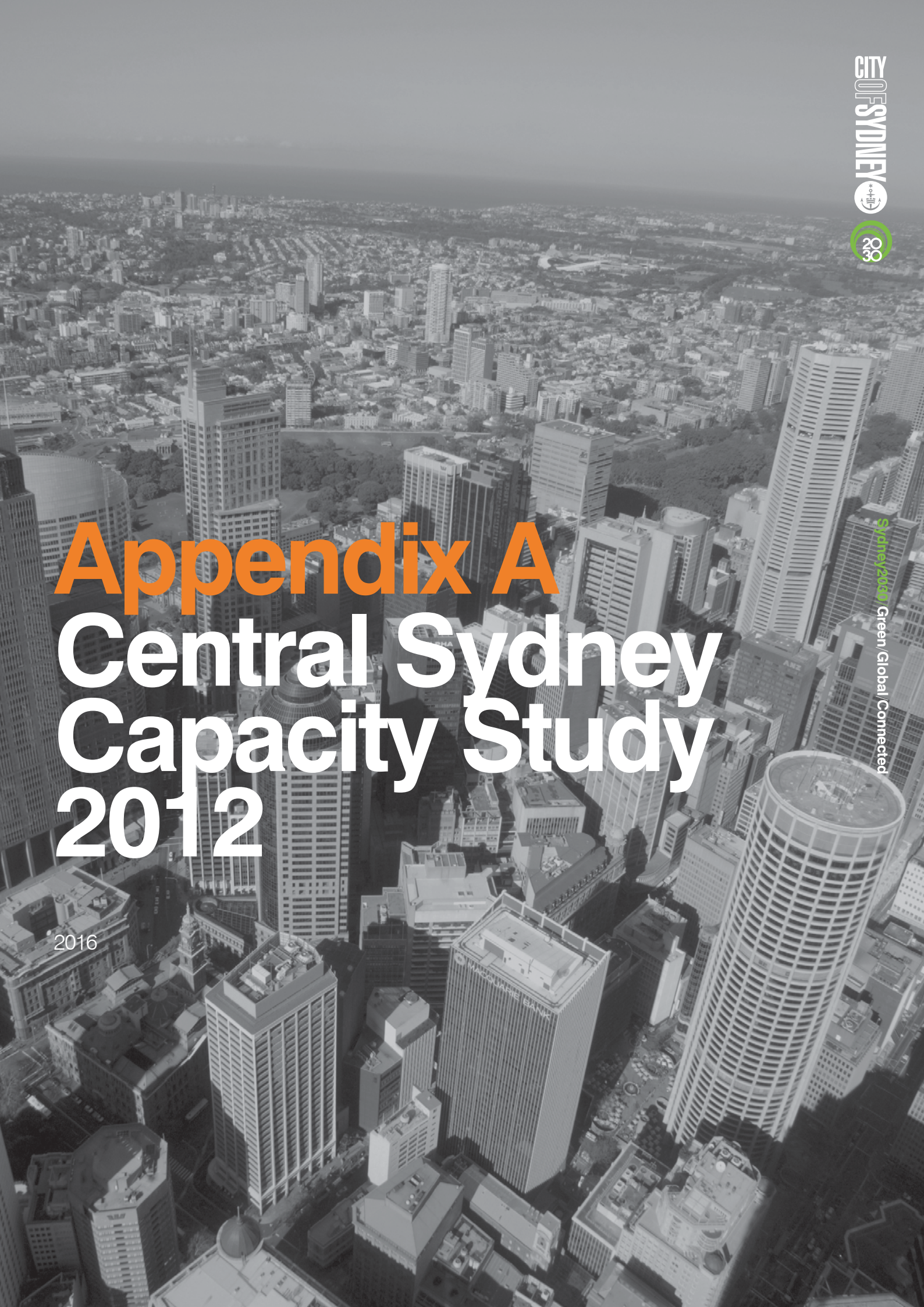


Appendix A
Central Sydney Capacity Study 2012

2016

Sydney2030 Green/Global/Connected

Contents

1
Executive summary

The Central Sydney Capacity Study draws upon the floor space data prepared through the 2012 Floor Space and Employment Survey (FES), which measures the existing floor area of the City of Sydney. To calculate Realistic Capacity the study first calculates potential Floor Space Capacity. Calculating the potential Floor Space Capacity of a property depends on determining the following variables:

- the existing floor space of a building based on the survey data of the FES;
- the Floor Space Ratio (FSR) control under Sydney Local Environmental Plan 2012 (Sydney LEP 2012) applying to the land; and
- the land area of the property.

The following properties were not included in the Floor Space Capacity calculations due to existing planning or statutory limitations:

- existing parks and open space areas;
- properties zoned RE1 Public Recreation or SP2 Infrastructure and where no FSR control applied to the land;
- State Significant Development sites such as Central Park and One Carrington Street;
- strata titled properties;
- heritage-listed buildings;
- recent development within Central Sydney, which is development undertaken in the last 25 years; and
- isolated properties within Central Sydney.

The boundary and precincts which are the focus of the Central Sydney Capacity Study match those used in previous capacity studies from 1995 to 2010. The boundary and precincts mostly align with the Sydney LEP 2012 B8 Metropolitan Centre zoning boundary and FSR precincts as well as the NSW Property Council office market report precincts.

Floor Space Capacity is calculated by taking the difference between the potential floor space capacity of a property and the existing floor space as surveyed by the FES expressed as Gross Floor Area (GFA).

Unlike previous capacity studies this capacity study then goes a step further to consider what limitation Height Capacity may play in the ability for a site to easily achieve additional capacity. To calculate Height Capacity the study takes the sites counted as having Floor Space Capacity and filters out those sites that are already built to or above their maximum height limit contained within Sydney LEP 2012. Sites with both Floor Space and Height Capacity are called Realistic Capacity sites.

Based on this method, Central Sydney has an additional Realistic Capacity of about 745,000 sqm GFA. Proposed development on State Significant Development (SSD) sites including Barangaroo, Darling Harbour and Central Park will add approximately 600,000 sqm of additional employment floor space, meaning Central Sydney has over 1.3 million square metres of additional capacity.

2
Introduction

The Central Sydney Capacity Study 2012 (the Study) is in direct response to Sustainable Sydney 2030 which seeks to retain and enhance Sydney as a globally competitive and innovative city.

As part of the City's Central Sydney Planning Review it is important to have an up-to-date understanding of how much additional employment floor space can be developed with Central Sydney under the current planning controls. With Sydney Local Environmental Plan 2012 now in place and following finalisation of the FES in late 2014, now is the time to make an accurate assessment of the potential capacity of Central Sydney.

This study uses a similar approach to that adopted under previous studies, as informed over the years by stakeholder submissions on how the City should best measure the actual capacity of the study area. Adopting a similar approach allows the City to present how the capacity of Central Sydney has changed over the last 18 years, and informs discussion of how market demands and planning policies influence floor space mix and delivery within Central Sydney.

This study looks at the area of Central Sydney only so as to ensure the efficient and well informed delivery of the Central Sydney Planning Review. A LGA wide capacity study will be undertaken by the City in the short to medium term.

The Study aims to provide an understanding of how much employment floor space can be developed within Central Sydney, where it can be developed and on what types of sites. The findings highlight some of the constraints for Central Sydney in the short to long term in regards to delivering additional employment floor space and introduce how a different approach may assist in unlocking some of the City's latent or constrained capacity.

Understanding how much floor space can be developed, where it can be developed and on what types of sites helps the City of Sydney to plan for growth.

This Study does not provide recommendations but presents a picture of capacity and touches on the issues and constraints of achieving additional capacity in an effort to promote discussion moving forward. The findings of the Study will inform the preparation of a Central Sydney Planning Strategy, which in term will inform amendments to our planning controls.

3
Glossary and abbreviations

The following are terms and abbreviations commonly used throughout this study:

The Study	Central Sydney Capacity Study 2012
The Strategy	Central Sydney Planning Strategy 2015
Central Sydney	The Central Sydney study area as shown in Figure A_01 (see Section 4)
Floor Space Capacity	Is the amount of new floor space that can be added to a site under the current planning controls excluding height. It is the potential floor space less the existing floor space.
potential floor space	Is total GFA that could be theoretically developed under the planning controls excluding height. It is calculated by multiplying the site area of a property by its FSR.
existing floor space	Is the floor area of an existing building as measured in the FES. The included area corresponds with GFA.
counted property	Is a property included in the floor space capacity calculations. It includes any property that is not an excluded property.
excluded property	Is a property excluded from the floor space capacity analysis because it is unlikely to develop. These properties include public spaces, strata buildings, heritage items, recent developments and isolated sites.
Height Capacity	Is the amount of height in metres that can be added to a building/site under the current planning controls. It is the potential height less the existing height of buildings on site.
Realistic Capacity	Is the amount of new employment floor space that can be added to a site under the current planning controls including height. It is the Floor Space Capacity sites minus those sites with no Height Capacity.
planning controls	Refers to the SLEP 2012, which sets the floor space, height, zoning and heritage controls for sites in Central Sydney.
Sydney 2030	Sustainable Sydney 2030
FES 2012	2012 Floor Space and Employment Survey
SLEP 2012	Sydney Local Environmental Plan 2012
SDCP 2012	Sydney Development Control Plan 2012
FSR	Floor Space Ratio as defined by SLEP 2012
GFA	Gross Floor Area as defined by SLEP 2012
SAPs	Sun Access Planes as defined by SLEP 2012
NFO controls	No Further Overshadowing controls as defined by SLEP 2012
height controls	Maximum height limits including SAPs and NFO controls defined by SLEP 2012
LGA	Local Government Area
SSD	Are State Significant Development sites where the NSW Government Planning Minister is the consent authority as described in the State Environmental Planning Policy (State and Regional Development) 2011 and the State Environmental Planning Policy (Major Development) 2005.

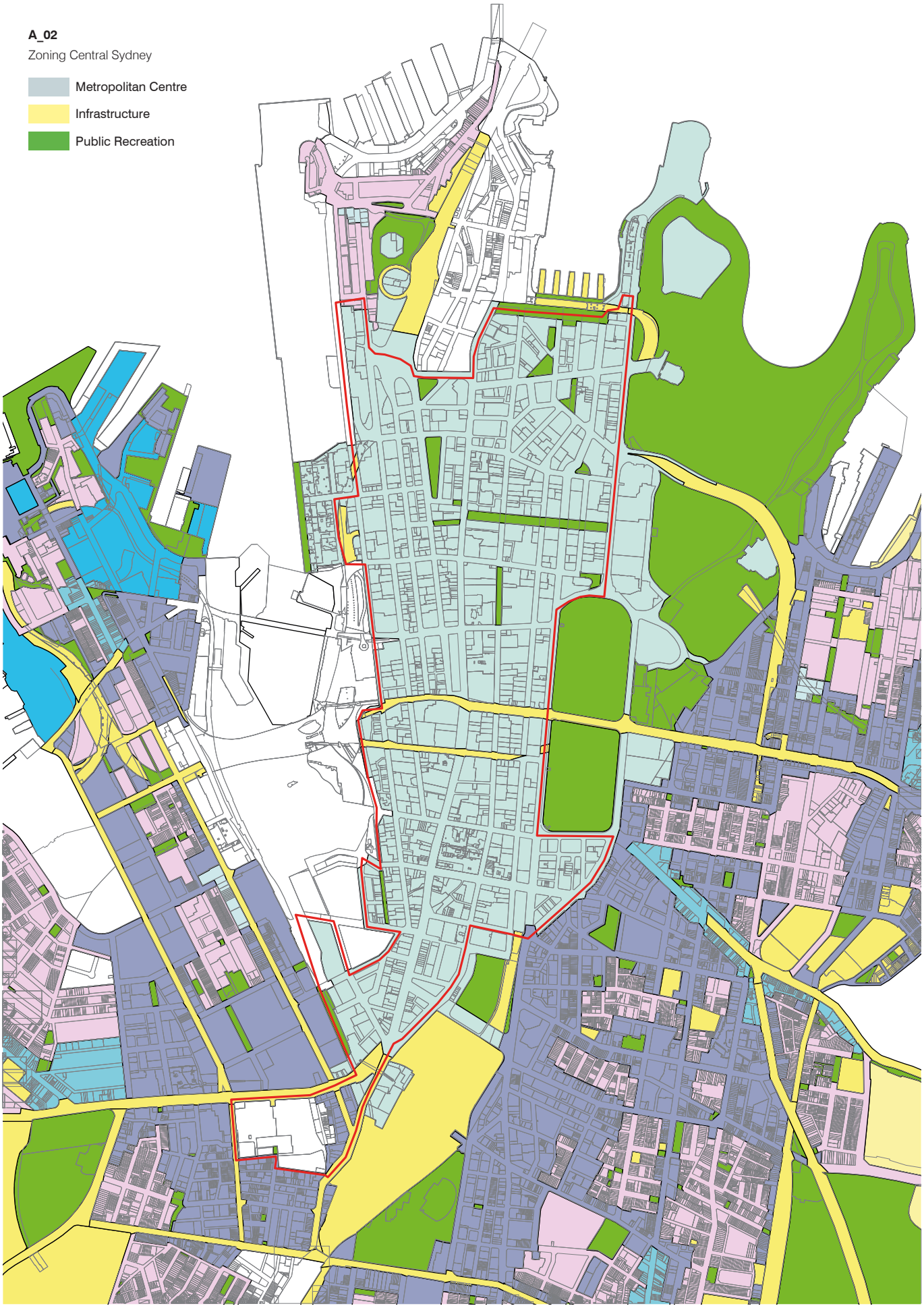
4
Study area

This capacity study is prepared for the Central Sydney area as shown in Figure 1 and 2. The boundary matches that used in the 2008 and 2010 capacity studies. It mostly aligns with the land zoned B8 Metropolitan Centre in the planning controls but excludes the Macquarie Street government precinct, Hyde Park, the Botanic Gardens, the Domain and King Street wharf.

A_01
Central Sydney
Capacity Study 2014
study area

A_02

Zoning Central Sydney



5
Method

Measuring Realistic Capacity

We first calculate Floor Space Capacity by multiplying the site area of each counted property by the FSR (to give the potential floor space). The existing floor space is then subtracted from the potential floor space.

Floor Space Capacity = potential floor space – existing floor space

Where:

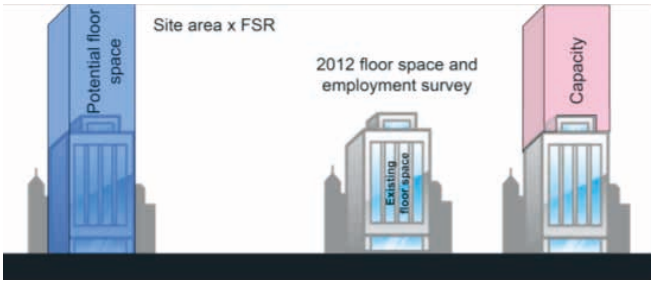
Potential floor space = site area x floor space ratio

We add the Floor Space Capacity for each counted property to determine the total floor space capacity for the whole of Central Sydney or precinct capacity for a precinct.

Some buildings have more existing floor space than is permitted under the planning controls as they may have been constructed under an earlier or different planning framework. These sites are recorded as having no capacity and not a negative capacity.

A_03

How capacity is measured in this study



Unlike previous capacity studies, we then calculate Height Capacity of counted sites by subtracting the existing height of buildings on a site from their potential maximum height (including solar access controls) under SLEP 2012.

Height Capacity = potential height – existing height

We filter out those sites that have Floor Space Capacity but no Height Capacity leaving sites with only both floor space and height capacity. We call this Realistic Capacity.

Data sources

SLEP 2012 was the source of the FSR (used to calculate potential floor space), height (used to calculate potential height) zonings and heritage item listings. The City of Sydney's property system was the source of site area and strata title information.

The FES was used for the existing floor space of buildings. It is also used alongside the City of Sydney's development monitor to identify recent development.

The FES is a census of all buildings, businesses, floor space and employment within the council area. It has been undertaken every five years since 1976, coinciding with the national Census of Population and Housing.

The City of Sydney's electronic model was used for the existing height of buildings.

Limitations of the study

The study provides an indication of the additional capacity within Central Sydney. The FES data collection occurred in 2012 with inputting and validating the field data completed by December 2012. Accordingly, any changes that have occurred after the property was surveyed would not have been taken into account.

The study uses the current FSR and height planning controls to determine the quantity of potential or additional capacity for each property. When considering any development, the consent authority must address all the relevant matters within a planning instrument, development control plan or other policy. These other matters will influence to varying degrees the ability of a property to realise the potential or additional capacity identified in this study. Accordingly, the findings in this study are indicative and do not give an undertaking by the City of Sydney as to the ability of an individual property to achieve the potential or additional capacity calculated in this study.

The study is not a policy. It's an analysis of the planning controls against the existing built form to understand where and how much employment development could occur under the current planning controls. Similar to previous studies sites considered unlikely to redevelop are excluded from capacity figures, however, this study does introduce how a different approach to excluded sites may assist in unlocking some of the City of Sydney's latent or constrained capacity.

As stated above, the capacity study considers the additional capacity of existing properties based on their existing use. It does not take into account transformation or reconfiguring existing floor space. For example, a change of use of an Property Development and Operation use to a Finance and Financial Services use would increase employment density without significantly altering the floor space of the building itself. Similarly, a trend towards increased workforce densities in offices as indicated by the recent FES research suggests that more employees could be accommodated with internal reconfiguring of the work areas but not changing the overall quantity of floor space.

The study also does not take into account the change of use of an existing employment use to a non-employment use. For example, a change of use of an existing commercial office building to a Strata residential building will not only reduce the gross amount of existing commercial floor space within Central Sydney but also it will remove the calculated Realistic Capacity for that sites as it can no longer be considered employment floor space.

Other limitations referenced throughout the study include:

- that whilst excluded, excluded sites particularly heritage items, commercial Strata properties, recent development sites and isolated sites in practice do redevelop in some circumstance and provide for additional capacity;
- that whilst sites with Floor Space Capacity and no Height Capacity are excluded, these sites can also still redevelop to provide for additional capacity.

Excluded properties

The first step in determining Floor Space Capacity is to exclude the properties that are unlikely to develop. These properties include parks and public spaces, strata subdivided buildings, heritage items, recently constructed buildings and isolated sites. They are referred to as excluded properties. Properties not excluded are counted.

Parks, public spaces and major development

Figure A_04 Public spaces and State Significant Development shows the parks, public spaces and State Significant Development sites that are excluded. Parks and public spaces are identified by the RE 1 Public Recreation zone in the planning controls. Classified roads and railway infrastructure are zoned SP2 Infrastructure. Both of these zones as well as local roads and laneways have no floor space ratio under SLEP 2012 and are therefore excluded.

State Significant Development sites within the study boundary are also shown on this map. They are managed by the NSW Government and are not subject to the City's planning controls. Although shown as excluded, the planned development is added separately to the overall development capacity for Central Sydney.

A_04

Public spaces and State Significant Development

Strata titled properties

All strata titled properties, commercial and residential, are excluded as they are difficult to redevelop under current NSW legislation. Procedures under the *Strata Schemes (Freehold Development)* Act 1973 mean that all owners in the strata plan must agree to redevelop a property. Agreement is very difficult and not expected where there are many owners and interests. There are 195 strata properties in Central Sydney as shown in Figure A_05 Strata properties.

A_05
Strata properties

Heritage items

Heritage items listed in the planning controls are excluded because the maximum potential floor space may not be able to be achieved due to the significance of the item. There are 270 heritage items in Central Sydney as shown in Figure A_06 Heritage items.

The City's heritage floor space scheme enables some of the capacity to be on-sold to other development sites. This floor space is captured in the total capacity for other sites as its purchase is a requirement of the 'accommodation floor space' bonus. Therefore the transfer of heritage floor space is not counted in this study.

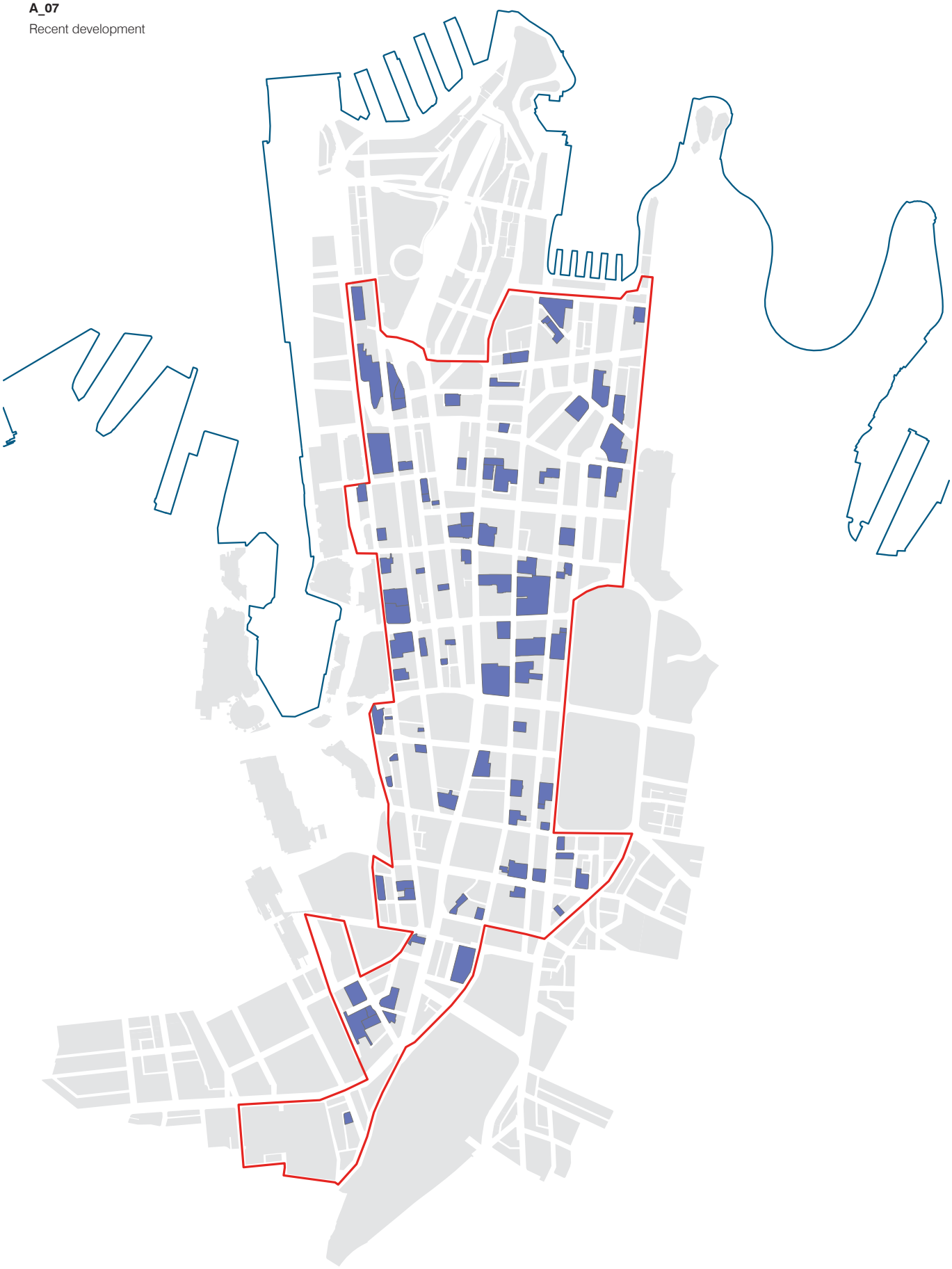
A_06
Heritage items

Recent development

Buildings constructed in the last 25 years have been excluded. Owners make a substantial capital investment in a new building which will typically be recouped over a 25 year life. Buildings are typically refurbished throughout their life so have not been excluded on this basis. 25 years is a benchmark consistent with previous studies. Buildings excluded from the count may still redevelop over the life of the planning controls depending on the market and the age of the building.

New developments that were undergoing construction at the time the FES 2012 was being prepared or have since commenced construction and are expected to be completed soon were also excluded as recent development. Recent developments are shown on Figure A_07 Recent development.

A_07
Recent development



Isolated sites

Under the planning controls sites smaller than 800 square metres are limited to 55 metres in height to ensure a good urban design outcome. This means those sites need to amalgamate with other sites to achieve the maximum floor space. Sites smaller than 800 square metres and isolated by other excluded properties have been excluded as it is unlikely under existing planning controls that they will amalgamate and achieve their full capacity. Isolated sites are shown on Figure A_08 Isolated sites.

A_08

Isolated sites

Isolated Sites

Total excluded properties

Figure A_10 Excluded properties shows all excluded properties. Where there is an overlap, the reason the property is excluded is based on a hierarchy of protecting public infrastructure then the City's capacity to influence, that is: parks and open space, strata, heritage, recent development then isolated sites; unless the characteristics of an individual site determine otherwise. For example, if a property is both strata and heritage it is shown as strata because development of strata buildings is limited by NSW legislation whereas the constraints of a heritage listing can be managed through development assessment.

Identifying properties that are unlikely to develop and the reason they are unlikely to develop will inform further research into properties that could be encouraged to redevelop through appropriate changes to the planning controls.

All those properties that are not excluded are counted in the capacity analysis. The counted sites are shown on Figure 10: Counted sites.

Understanding of the location, type and amount of capacity on a site can indicate the likelihood of a site developing and realising the capacity. For example, sites in precincts with lower demand or those that have little capacity compared to existing floor space may be less likely to develop. Table A_09 below shows the excluded sites.

A_09

Excluded and counted sites

	Sites		Land area		Existing floor space	
Heritage	270	27%	234,683	22%	1,435,835	17%
Isolated	102	10%	31,984	3%	172,392	2%
Public space and SSD	41	4%	102,259	10%	81,875	1%
Recent development	93	9%	209,762	20%	2,255,648	27%
Strata	195	19%	200,975	19%	2,140,374	26%
Excluded sites	701	70%	779,663	74%	6,086,124	73%
Counted sites	307	30%	272,784	26%	2,232,618	27%
Total	1008	100%	1,052,447	100%	8,318,742	100%

A_10
Excluded Properties

A_11
Counted Sites

Floor space ratio

To determine the floor space capacity of the counted sites, the FSR controls are used to determine the maximum potential floor space that a property can yield based on its existing use. For Central Sydney, a variable floor space ratio is applied depending on where the property is located and the type of development being undertaken.

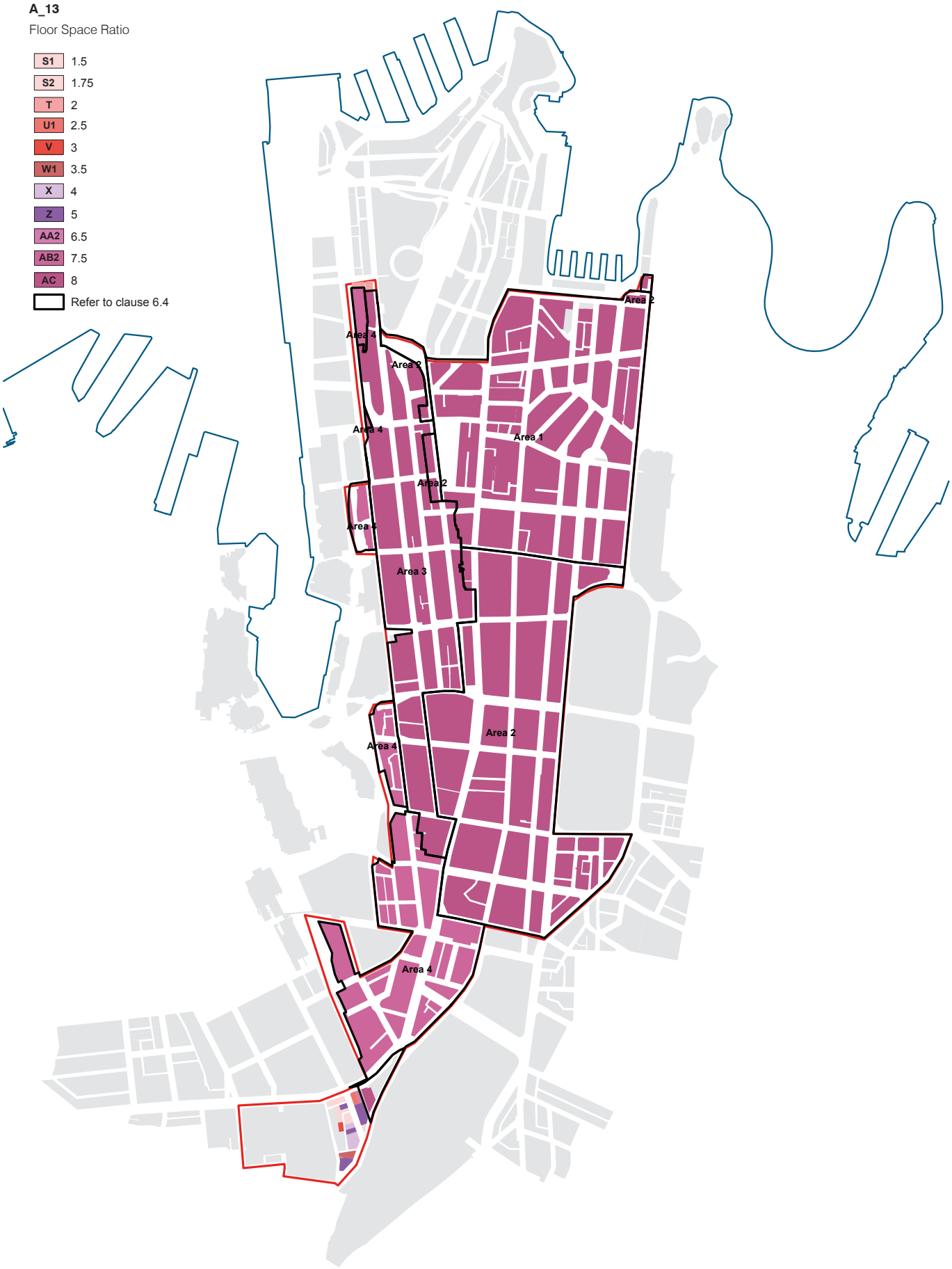
For the purposes of accurately measuring potential employment floor space capacity this study uses a single floor space ratio for each site, chosen according to the location of the site and its existing primary use identified in the FES. It is considered that this method provides the most accurate representation of potential employment floor space capacity for Central Sydney as opposed to a sites potential floor space capacity under a highest and best use scenario (non-employment in most circumstances).

The maximum FSR used is made up of a base ratio plus an accommodation bonus and a design excellence bonus. The base and bonus floor space ratios are set out in the planning controls and shown in Table 3 below with the potential ratios used in bold. The areas to which the bonuses apply are shown on Figure A_13 Floor Space Ratio.

A_12

Floor space ratios

Area	General Location	Base	Bonus	Bonus Use	Design Excellence	Max
1	Core	8	4.5	Office, business, retail, residential, serviced apartments	10%	13.75
		8	6	hotel, motel	10%	15.4
2	Midtown to Central	8	4.5	office, business, retail	10%	13.75
		8	6	residential, serviced apartments, hotel, motel	10%	15.4
3	Western edge	8	2	office, business, retail	10%	11
		8	3	residential, serviced apartments, hotel, motel	10%	12.1
4	Chinatown and Haymarket	7.5	1.5	residential, serviced apartments, hotel, motel	10%	9.9
Other	Chippendale	site by site	NA	NA	none	site by site


A_13
Floor Space Ratio
S1 1.5
S2 1.75
T 2
U1 2.5
V 3
W1 3.5
X 4
Z 5
AA2 6.5
AB2 7.5
AC 8
Refer to clause 6.4
Area 1
Area 2
Area 3
Area 4

6
Floor space capacity

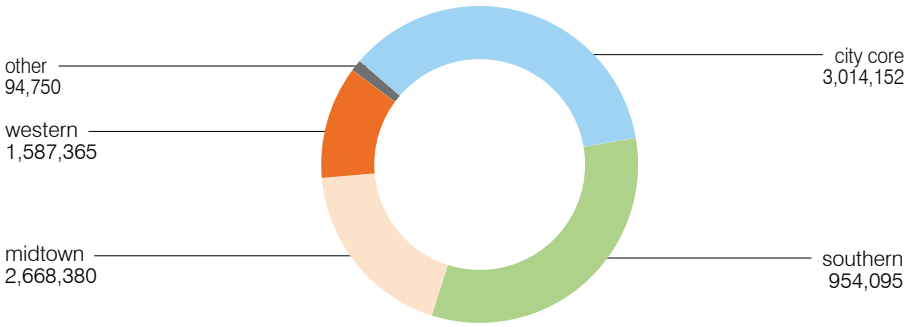
Existing floor space

There is about 8.3 million square metres of existing floor space in Central Sydney. About two thirds is located in the Core and Midtown precincts but the number of sites is similar in each precinct. This reflects the size of development that takes place in the Core and Midtown precincts. Existing floor space is shown in Table A_14 and Figure A_15.

A_14
Existing floor space

Precinct	Sites		Existing floor space		Average sqm per site
City Core	256	25%	3,014,152	36%	11,774
Midtown	234	23%	2,668,380	32%	11,403
Western	238	24%	1,587,365	19%	6,670
Southern	226	22%	954,095	11%	4,222
Other	54	5%	94,750	1%	1,755
Total	1008	100%	8,318,742	100%	8,253

AA_01
Existing floor space by precinct



Floor Space Capacity

The capacity analysis has shown there is 1,119,524 square metres of Floor Space Capacity on 285 sites in Central Sydney. There are 22 sites which are not excluded from the capacity count but have no capacity because the existing building exceeds the permitted floor space. Sites with capacity have an average size of 827 square metres and the average capacity of a site is 3,928 square metres. This indicates the available capacity is dispersed among many small sites.

If the 10 per cent floor space bonus for design excellence is removed the capacity falls to 870,179 square metres. In comparison, the 2010 Capacity Study found Central Sydney had 1,185,720 square metres of Floor Space Capacity using this methodology.

Using a highest and best use methodology to access the absolute maximum FSRs for Central Sydney, there is 1,349,869 square metres of Floor Space Capacity on 295 sites.

Floor Space Capacity is mostly found in the Midtown precinct which has about a third of the capacity. Similar proportions of capacity are found in the Core and Southern precincts, however the Southern precinct has smaller sites with, on average, less capacity on each whereas the Core and Midtown offer larger sites with a higher average capacity per site. This is likely to make it easier to realise capacity in the Core and Midtown precincts over the Southern precinct. The Western Precinct has the least amount of Floor Space Capacity.

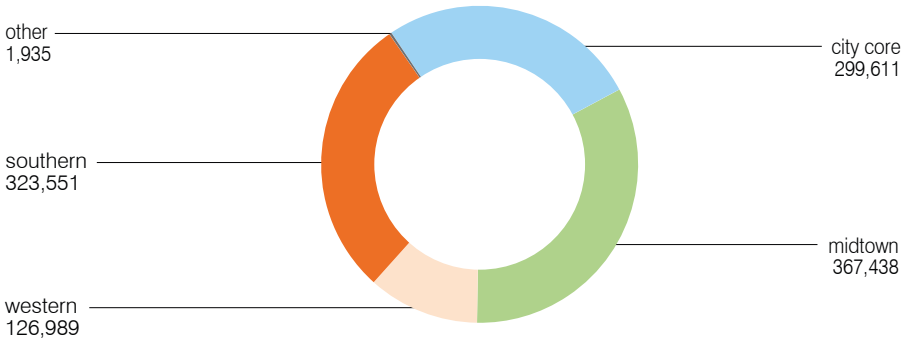
AA_02

Floor space capacity by precinct

Precinct	Sites		Capacity		Average Site Area	Average Capacity	Excluded sites
City Core	76	27%	299,611	27%	1,162	3,942	174
Midtown	65	23%	367,438	33%	860	5,653	168
Western	37	13%	126,989	11%	913	3,432	194
Southern	98	34%	323,551	29%	570	3,302	123
Other	9	3%	1,935	0%	187	215	42
Total	295	100%	1,119,524	100%	855	4,576	701

A_15

Floor space capacity by precinct



A_16

Floor Space Capacity by sub-precinct

Sub-precinct	Sites with capacity	Capacity	Proportion of Central Sydney Capacity	Average site area	Average Capacity
Midtown North	28	127,089	11%	934	4,539
Midtown South	37	240,349	22%	804	6,496
Total Midtown	65	367,438	32%	860	5,653
Western North	18	55,795	5%	1,132	3,100
Western South	19	71,194	6%	706	3,747
Total Western	37	126,989	11%	913	3,432

About one third of Floor Space Capacity is found on sites larger than 2,000 square metres. However, there are only 26 of these sites in Central Sydney making up about 10 per cent of all sites with capacity. These sites can be developed without amalgamation and can accommodate buildings with the large floor plates desirable to parts of the market.

Another third of Floor Space Capacity is found on sites smaller than 800 square metres. Under the planning controls development on these sites is restricted to 55 metres in height to ensure a good urban design outcome. These sites need to be amalgamated with other sites to achieve their full capacity which makes achieving the capacity more difficult.

One third of Floor Space Capacity is available on 15 sites that have more than 10,000 square metres of capacity. The remainder of the capacity is spread relatively evenly across sites with less than 10,000 square metres capacity.

Properties that have less than 2000 sqm of additional capacity are less likely to be redeveloped individually than a property with a substantial quantity of additional capacity. In areas such as Central Sydney, these properties may be refurbished rather than redeveloped entirely as the building owner considers the cost of redevelopment too great for the benefit of up to an additional 2000 sqm in GFA.

A_17
Capacity by site area

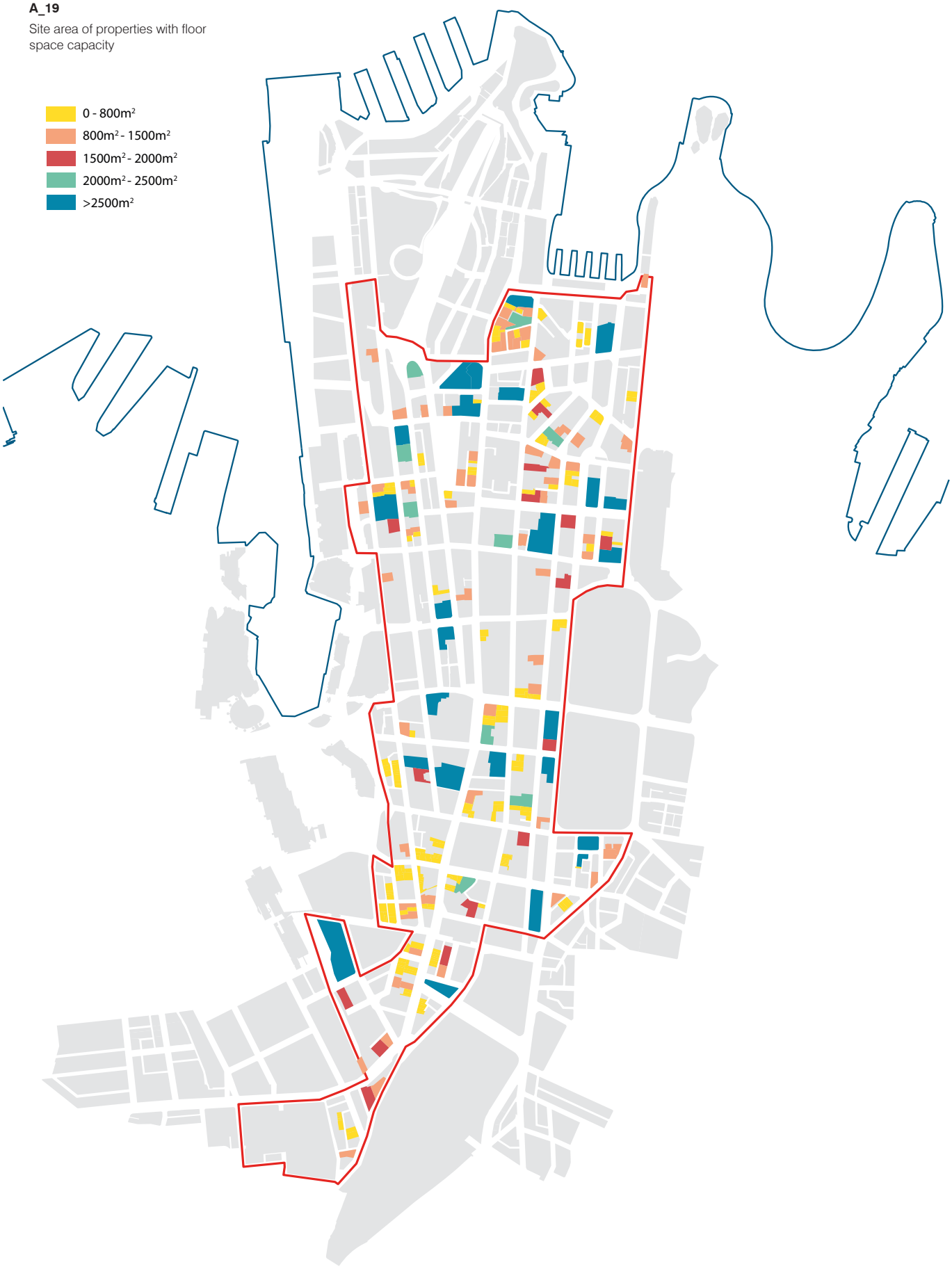
Site area	Sites		Existing floor space		Capacity	
<800	197	69%	314,327	17%	414,245	37%
800-1500	47	17%	409,716	23%	229,924	20%
1500-2000	15	5%	234,883	13%	86,106	8%
>2000	26	9%	835,735	47%	389,249	35%
Total	285	100%	1,794,661	100%	1,119,524	100%

A_18
Sites by capacity

Capacity per site	Sites		Capacity	
0-2000	132	47%	150,928	14%
2000-4000	72	25%	203,705	18%
4000-6000	37	13%	179,274	16%
6000-8000	20	7%	138,225	12%
8000-10000	9	3%	76,236	7%
>10000	15	5%	371,156	33%
Total	285	100%	1,119,524	100%

A_19

Site area of properties with floor space capacity



Notable sites

The following sites are notable due to their amount of Floor Space Capacity and the unlikelihood of development. These sites are shown in Figure A_23 Notable Sites.

1-59 Quay Street, Haymarket

This site has 70,646 square metres of capacity, the second most in Central Sydney. It is owned and used by the University of Technology Sydney. The 11,547 square metre site contains a four storey, 24,614 square metre building that is used by the University's business and law faculties. It was constructed in the mid-1980s and has been added to since. The University's City Campus Master Plan has identified the building for retention and general refurbishment pending the completion of the Dr Chau Chak Wing Building to the west. It is unlikely this building will be developed to its capacity in at least the medium term.

Sydney Square and Town Hall House

The City's long term strategic plans propose an expanded Town Hall Square creating a new civic meeting place along the George Street transport spine. The City owns four sites in the block bounded by George, Park and Pitt Streets which may form part of this new public space. Combined these sites have 16,709 square metres of capacity.

The City's offices, Town Hall House at 456 Kent Street, is one of the ten sites with the most capacity in Central Sydney. It has 16,709 square metres of capacity, which if realised would almost double the floor area of the existing building.

MLC Centre, 19-29 Martin Place

The study shows the MLC Centre (including the Commercial Travellers Association buildings) has 25,729 square metres of capacity. This is an iconic award winning building designed by Harry Seidler and built in 1978. Major facade repair and restoration works are currently being carried out at a cost of over $60 million. The site is also affected by the Hyde Park West sun access plane. Given the nature of the building and the current works it is unlikely to be redeveloped.

A_20

Capacity of notable sites

Site	Floor Space Capacity
1-59 Quay Street, Haymarket	70,646
Future Sydney Square	12,616
Town Hall House	16,709
MLC Centre	25,729
Total	-125,700 sqm

State Significant Development sites

The employment floor space capacity found on SSD sites in or adjoining Central Sydney is added to the total capacity separately. These sites are under NSW Government control and do not have floor space ratio controls under the City's planning controls. The concept plan approvals for these sites identify the maximum gross floor area. Major development sites are shown in Table 10 with their maximum employment floor space indicated.

A_21

State Significant Sites

Site	Employment GFA
Barangaroo[1] (under assessment)	455,429
Central Park (former Carlton United Brewery site)[2] (approved)	58,265
Darling Harbour Live – The Haymarket Precinct[3] (approved)	49,545
One Carrington[4] (approved)	38,532
Total	+601,771

An additional 601,771 square metres of employment floor space capacity is to be developed on the State Significant Development sites Barangaroo, Central Park (former Carlton United Brewery site), Darling Live and One Carrington. This takes the total development capacity to 1,595,595 square metres.

[1] Barangaroo, MP06_0162 MOD 8 and MOD 9 (Casino/Hotel modification application and Barangaroo Central), http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=3803

[2] Central Park (former Carlton United Breweries Site), MP 06_0171 (Mod 2) - Concept Plan, http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=3089

[3] Sydney International Convention, Exhibition and Entertainment Centre Precinct, SSD 5878, Sydney International Convention, Exhibition and Entertainment Centre Precinct - Mixed use Development in the Southern Haymarket Precinct (Concept Proposal), http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=5878

[4] City One - Thakral House / Wynyard, MP 09_0076 - Mixed Use Development, http://www.pac.nsw.gov.au/Projects/tabid/77/ctl/viewreview/mid/462/pac/182/view/readonly/myctl/rev/Default.aspx

A_22
Notable Sites

7
Height capacity

Existing height capacity

Of the 1008 sites in Central Sydney 262 are at or exceed their current maximum height control. This means that 746 sites within Central Sydney, or 74% of the total sites, have Height Capacity, or are sites not yet currently built to their maximum height control.

Of the 746 sites with Height Capacity, 240 have less than 25 metres Height Capacity and 490 sites have less than 50 metres Height Capacity. This means that 66% of sites in Central Sydney that have Height Capacity have less than 50 metres, or, 25% of total sites within Central Sydney have 50 metres or more capacity. Existing Height Capacity by precinct is shown in Table A_25 and A_26 below.

In the Midtown precinct, 61% of the sites with over 50 metres height capacity are located in midtown south (76 sites), with 39% located in midtown north (48 sites).

The distribution of available height capacity across Central Sydney correlates directly with what maximum height controls that apply in each precinct under SLEP 2012. Those precincts with a higher height limit (the City Core and Midtown precincts) have access to height capacity greater than 50 metres.

A_23

Height capacity by precinct – sites with 25 metres or more capacity

Precinct	Sites	Sites with height capacity	Proportion of sites with height capacity by precinct	Sites with >25m height capacity	Proportion of sites with >25m height capacity by precinct
City Core	256	179	70%	121	47%
Midtown	234	188	80%	159	68%
Western	238	179	75%	103	43%
Southern	226	187	83%	123	54%
Other	54	13	24%	0	0%
Total	1008	746	74%	506	50%

A_24

Height capacity by precinct – sites with 50 metres or more capacity

Precinct	Sites	Sites with height capacity	Proportion of sites with height capacity by precinct	Sites with >50m height capacity	Proportion of sites with >50m height capacity by precinct
City Core	256	179	70%	100	39%
Midtown	234	188	80%	124	53%
Western	238	179	75%	13	5%
Southern	226	187	83%	19	8%
Other	54	13	24%	0	0%
Total	1008	746	74%	256	25%

8
Realistic capacity

Realistic Capacity

Unlike previous capacity studies for Central Sydney, this capacity study considers how height controls within Central Sydney (including maximum height limits, Sun Access Plane controls and No-Further Overshadowing controls) may impact on the ability for a site to achieve its floor space capacity. By filtering Floor Space Capacity sites with those that also have Height Capacity we are left with Realistic Capacity. Realistic Capacity represents sites that have both height and floor space capacity and therefore are more likely to redevelop and provide additional capacity to the city.

Table A_29 and A_30 provide a comparison of the Floor Space Capacity and Realistic Capacity results by precinct.

The Realistic Capacity analysis has shown there is 871,115 square metres of development potential on 233 sites in Central Sydney that have both Floor Space Capacity and Height Capacity. This means that of the 285 sites that had Floor Space Capacity, 52 of those sites are either at or exceed the current height controls. This is not to say that those 52 sites could not achieve additional floor space either through infill proposals or extensions below the height limit, but it does provide an indication as to the Realistic Capacity that is more easily achievable under the existing planning control framework.

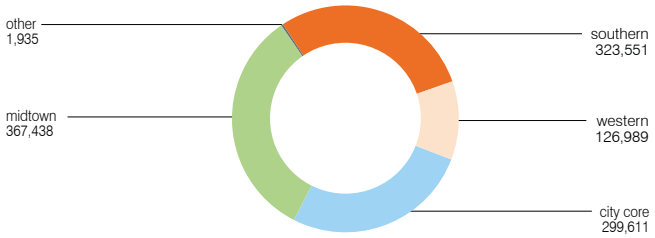
Realistic Capacity is mostly found in the Midtown and Southern precincts with about a third of the capacity each. The proportional increase in capacity for the Southern precinct is notable when comparing the Floor Space Capacity calculations and the Realistic Capacity calculations, with the Southern precinct becoming the highest proportioned location of capacity across the precincts. The ability to realise the capacity in Southern precinct however is still restricted by site area and in fact the Realistic Capacity analysis shows that site area becomes and increasing problem across all of the precincts.

The Midtown and Core precinct remain important for capacity in that they proportionally contain a high amount of Realistic Capacity, they have a large amount of capacity per site and on average they have larger site areas with the ability to achieve larger amounts of capacity. The Western precinct remains restricted in available capacity and increasingly by site area.

Figure A_27 and A_28 provide a visual comparison of the Floor Space Capacity and Realistic Capacity results by precinct.

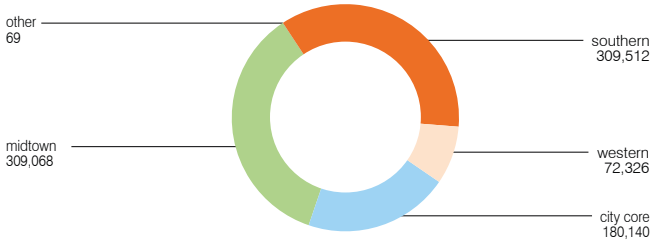
AA_03

Floor space capacity by precinct



AA_04

Height resultant capacity by precinct



A_25
Floor Space Capacity by precinct

Precinct	Sites		Capacity		Average Site Area	Average Capacity
City Core	76	27%	299,611	27%	1,162	3,942
Midtown	65	23%	367,438	33%	860	5,653
Western	37	13%	126,989	11%	913	3,432
Southern	98	34%	323,551	29%	570	3,302
Other	9	3%	1,935	0%	187	215
Total	285	100%	1,119,524	100%	855	4,576

A_26
Realistic Capacity by precinct

Precinct	Sites		Capacity		Average Site Area	Average Capacity
City Core	49	21%	180,140	21%	804	3,676
Midtown	58	25%	309,068	35%	690	5,329
Western	28	12%	72,326	8%	477	2,583
Southern	94	40%	309,512	36%	547	3,293
Other	4	2%	69	0%	52	17
Total	233	100%	871,115	100%	620	3,739

A comparison of the Floor Space Capacity figures by site area and the Realistic Capacity figures by site area below. 78% of counted sites with Realistic Capacity are sites with an area less than 800 square metres. These sites contain 45% of the potential additional Realistic Capacity for Central Sydney.

Sites with Realistic Capacity and a land area greater than 1500 sqm in Central Sydney make up 6% of the total Realistic Capacity sites. These sites contain 34% of the total additional Realistic Capacity for Central Sydney. This is a small proportion of sites that contain a large proportion of the potential additional Realistic Capacity.

50% of counted sites with Realistic Capacity had small amounts of additional capacity. Properties in Central Sydney that have less than 2000 sqm of additional capacity are less likely to be redeveloped individually than a property with a substantial quantity of additional capacity.

One third of the Realistic Capacity is available on 11 sites that have more than 10,000 square metres of capacity as compared to the 15 sites under the Floor Space Capacity calculations.

A_27
Floor Space Capacity by site area

Capacity per site	Sites		Capacity	
<800	197	69%	414,245	37%
800-1500	47	17%	229,924	20%
1500-2000	15	5%	86,106	8%
>2000	26	9%	389,249	35%
Total	285	100%	1,119,524	100%

A_28
Realistic Capacity by site area

Capacity per site	Sites		Capacity	
<800	182	78%	388,577	45%
800-1500	35	16%	184,109	21%
1500-2000	8	3%	54,432	6%
>2000	8	3%	243,997	28%
Total	233	100%	871,115	100%

A_29
Sites by Floor Space Capacity

Capacity per site	Sites		Capacity	
0-2000	132	47%	150,928	14%
2000-4000	72	25%	203,705	18%
4000-6000	37	13%	179,274	16%
6000-8000	20	7%	138,225	12%
8000-10000	9	3%	76,236	7%
>10000	15	5%	371,156	33%
Total	285	100%	1,119,524	100%

A_30
Sites by Realistic Capacity

Capacity per site	Sites		Capacity	
0-2000	117	50%	134,217	15%
2000-4000	61	26%	173,636	20%
4000-6000	23	10%	111,454	13%
6000-8000	15	6%	104,057	12%
8000-10000	6	3%	50,692	6%
>10000	11	5%	297,059	34%
Total	233	100%	871,115	100%

Sites with the most Realistic Capacity

There are 11 sites with a capacity greater than 10,000 square metres. Six are in Midtown, two are in the South, two are in the Core and one is in the Western precinct. Table A_35 shows the 20 sites with the most Realistic Capacity. These sites offer about 370,000 square metres of capacity.

A_31

Sites with the most realistic capacity

	Precinct	Site Area	Existing floor space	FSR	Potential GFA	Capacity
505-523 George St	Midtown	6,163	12,921	13.75	84,738	71,817
1-59 Quay St	Southern	11,547	24,614	8.25	95,260	70,646
101 Goulburn St	Southern	4,896	20,905	13.75	67,324	46,419
529 Kent St	Western	1,602	1150	11	17,626	16,477
33-35 Pitt St	Core	2,439	17,561	13.75	33,536	15,975
614-628 George St	Midtown	1,440	5,596	13.75	19,803	14,207
324-330 Pitt St	Midtown	2,498	20,580	13.75	34,347	13,767
13-15 Wentworth Ave	Midtown	1,229	4,407	13.75	16,905	12,498
124-136 Pitt St	Core	975	932	13.75	13,406	12,474
115-119 Bathurst St	Midtown	3,968	42,820	13.75	54,567	11,746
5-11 Wentworth Ave	Midtown	952	3,627	15.4	14,660	11,033
147-153 Castlereagh St	Midtown	1,358	9,723	13.75	18,670	8,947
59-69 Goulburn St	Southern	2,027	19,166	13.75	27,878	8,712
31 Ultimo Rd	Southern	1,766	6,201	8.25	14,566	8,365
8-14 Dalley St	Core	850	3,348	13.75	11,686	8,339
4-6 York St	Core	605	105	13.75	8,324	8,219
6 Dalley St	Core	1,014	5,836	13.75	13,946	8,110
188-194A George St	Core	1,321	10,262	13.75	18,163	7,901
252-254 Pitt St	Midtown	680	1,460	13.75	9,349	7,889
59 Phillip St	Core	725	3,391	15.4	11,164	7,773
Total						371,315

A_32

Sites with the most Capacity

9
Conclusions

The findings set out in this study create a number of challenges facing the City of Sydney and opportunities for future development. While the quantity of additional capacity is, of itself, significant, much of that additional capacity is concentrated into specific geographical areas or is fragmented.

Challenges and opportunities

78% of counted sites with Realistic Capacity are sites with an area less than 800 square metres. These sites contain 45% of the potential additional Realistic Capacity for Central Sydney. Under the existing planning controls development on these sites is restricted to 55 metres in height to ensure a good urban design outcome. These sites need to be amalgamated with other sites to achieve their full Floor Space Capacity which makes achieving the full amount of Realistic Capacity more difficult.

Similarly, 50% of counted sites with Realistic Capacity had small amounts of additional capacity. Properties in Central Sydney that have less than 2000 sqm of additional capacity are less likely to be redeveloped individually than a property with a substantial quantity of additional capacity. These properties may be refurbished rather than redeveloped entirely as the building owner considers the cost of redevelopment too great for the benefit of up to an additional 2000 sqm in GFA.

To enable this latent capacity to be drawn upon effectively multiple properties may need encouragement to undertake redevelopment jointly and have the additional capacity "pooled" across larger development sites.

Sites with Realistic Capacity and a land area greater than 1500 sqm in Central Sydney make up 6% of the total Realistic Capacity sites. These sites contain 34% of the total additional Realistic Capacity for Central Sydney. This is a small proportion of sites that contain a large proportion of the potential additional Realistic Capacity. If current planning controls were to stay in place, the use of these sites and there future redevelopment becomes critical in regards to the City meeting its strategic targets.

The Midtown and Southern precincts contain 71% of the potential additional Realistic Capacity for Central Sydney. The Southern precinct however is constrained in its ability to deliver its capacity potential as it is limited by a low average site area of 547 sqm. The Midtown precinct is less constrained with a higher average site area, the highest average Realistic Capacity per site and a high proportion of sites with a Height Capacity greater than 50 metres. This reflects known development activity over recent years with investment in the Midtown area on the increase.

The City Core contains the highest average site area across all precincts. It contains 21% of the potential additional Realistic Capacity and has the second highest average capacity per site. Given the historic desire for employment investors to develop in this precinct, this precinct should remain the primary focus for future Realistic Capacity to be realised.

The Central Sydney Capacity study shows that the Western precinct is limited in its ability to realise its available Realistic Capacity. With 8% of the available Realistic Capacity, an average site area of 477 sqm and the lowest average capacity per site (excluding 'Other' areas), the Western precinct requires a detailed review, similar to the Southern precinct, in order to unlock its potential Realistic Capacity.

10
Summary table

	City of Sydney and Bureau of Transport Statistic projections to 2036
Employment target[1]	89,000 jobs 1,700,000 sqm
Realistic employment capacity[2]	871,115 sqm
Unlikely capacity[3]	-125,700 sqm
State-significant employment capacity (SSD)	+601,771 sqm
Total	959,570 sqm
Gap	41,021 jobs 820,430 sqm

	Floor space	Number of Sites
Existing	8,318,742	1008
Floor Space Capacity	1,119,524	285
Floor Space and Height Capacity	871,115	233

	Central Sydney Sites		Land area		Floor space	
Heritage	270	27%	234,683	22%	1,435,835	17%
Isolated	102	10%	31,984	3%	172,392	2%
Public space and SSD	41	4%	102,259	10%	81,875	1%
Recent development	93	9%	209,762	20%	2,255,648	27%
Strata	195	19%	200,975	19%	2,140,374	26%
Total excluded	701	70%	779,663	74%	6,086,124	73%
Total counted	307	30%	272,784	26%	2,232,618	27%
Total	1008	100%	1,052,447	100%	8,318,742	100%

1 Floor space target based on 20sqm per employee (source Floor Space and Employment Survey 2012)

2 Sites with both height and floor space capacity

3 Known sites that will not redevelop (e.g. future Town Hall square and Town Hall House)

Precinct	Sites		Employment Capacity		Average Site Area	Average Capacity	Excluded sites
City Core	49	21%	180,140	21%	804	3,676	174
Midtown	48	25%	309,068	35%	690	5,329	168
Western	28	12%	72,326	8%	477	2,583	194
Southern	94	40%	309,512	36%	547	3,293	123
Other	4	2%	69	0%	52	17	42
Total	233	100%	871,115	100%	620	3,739	701

Site area	Sites		Employment Capacity	
<800	182	78%	388,577	45%
800-1500	35	16%	184,109	21%
1500-2000	8	3%	54,432	6%
>2000	8	3%	243,997	28%
Total	233	100%	871,115	100%

Capacity per site	Sites		Employment Capacity	
0-2000	117	50%	134,217	15%
2000-4000	61	26%	173,636	20%
4000-6000	23	10%	111,454	13%
6000-8000	15	6%	104,057	12%
8000-10000	6	3%	50,692	6%
>10000	11	5%	297,059	34%
Total	233	100%	871,115	100%

Attachment A

Detailed data

A_33
Capacity Study Block Numbers

Detailed data

Block Number	Number of Sites Per Block	Number of Sites Per Block with Floor Space Capacity	Number of Sites Per Block with Realistic Capacity	Potential Maximum GFA (sqm) Under the LEP (no exclusions)	Existing GFA (sqm)as per FES(2012)	Realistic Capacity Available (sqm)
0	1	0	0	0.00	0.00	0.00
11	22	0	0	230272.75	203417.42	0.00
21	3	1	0	32498.38	23861.48	0.00
28	22	16	15	275492.34	187469.98	73153.95
29	13	2	1	214824.34	138794.64	3731.27
30	10	4	2	77746.26	44272.80	3996.20
31	2	0	0	112506.99	103605.86	0.00
32	4	0	0	120276.00	53775.24	0.00
33	2	1	0	43867.06	19087.79	0.00
34	3	1	0	138991.28	110032.42	0.00
35	9	0	0	123871.46	89532.85	0.00
36	6	5	4	49332.33	39427.22	6243.14
37	1	0	0	45537.82	12428.82	0.00
38	1	0	0	37981.92	14928.50	0.00
39	7	0	0	102134.16	100082.00	0.00
40	16	2	0	184216.63	145474.85	0.00
41	5	1	0	115674.45	106031.49	0.00
42	6	3	3	117783.31	84504.96	9213.40
43	10	3	3	155730.60	108697.23	8893.71
44	7	3	3	116571.74	99617.48	9055.11
45	7	0	0	112478.05	100312.04	0.00
46	6	3	1	130667.56	117441.24	3422.11
47	4	1	0	39303.10	33243.51	0.00
48	4	0	0	80631.68	67234.82	0.00
49	4	0	0	105951.30	102903.35	0.00
50	6	2	0	75047.22	56953.25	0.00
51	11	1	1	86083.31	70026.21	631.48
52	1	0	0	0.00	9975.54	0.00
53	16	7	0	157565.14	108422.72	0.00
54	21	0	0	256265.89	200299.76	0.00
55	19	8	5	240338.43	183989.58	18235.38
56	6	4	4	82784.79	65448.67	6874.28
57	2	1	0	70659.03	46194.44	0.00
58	8	1	0	126596.14	101565.04	0.00
60	5	1	0	40414.85	10089.19	0.00
61	12	8	7	163147.53	127080.22	21172.79

Block Number	Number of Sites Per Block	Number of Sites Per Block with Floor Space Capacity	Number of Sites Per Block with Realistic Capacity	Potential Maximum GFA (sqm) Under the LEP (no exclusions)	Existing GFA (sqm)as per FES(2012)	Realistic Capacity Available (sqm)
62	12	4	4	99302.84	86303.15	5628.19
63	10	0	0	54567.32	34398.94	0.00
64	4	1	1	56016.30	39540.30	8218.89
65	12	0	0	53234.52	22762.97	0.00
66	7	0	0	96962.48	82495.93	0.00
67	4	1	0	189249.36	151334.39	0.00
68	8	2	1	181083.76	120088.61	12474.19
69	6	1	0	84052.32	70499.69	0.00
70	7	3	3	67019.77	55315.09	9437.71
71	9	4	3	133367.46	109790.19	7190.26
73	12	1	1	181507.25	153886.26	4263.88
74	24	0	0	104725.25	56966.86	0.00
75	11	3	2	122934.92	95767.66	2394.91
76	21	1	1	134200.05	104362.44	1570.59
77	8	0	0	276957.98	238510.17	0.00
78	10	1	1	250578.50	213238.09	6906.90
80	5	1	0	100836.77	66664.01	0.00
81	3	0	0	68749.30	7542.33	0.00
85	10	0	0	138483.67	110866.49	0.00
86	17	0	0	86288.22	51799.94	0.00
87	20	0	0	99470.10	72457.08	0.00
88	1	0	0	72903.35	29791.09	0.00
89	10	2	2	290722.37	236159.71	8366.07
90	21	9	9	298298.38	152922.88	31642.18
91	12	3	3	164185.93	124522.01	12062.37
93	9	0	0	37180.46	22811.79	0.00
94	12	2	2	98181.37	49920.03	8852.79
95	4	1	0	274184.09	64046.16	0.00
96	11	8	7	141122.88	97392.00	30289.24
97	13	0	0	137233.59	90866.22	0.00
98	2	2	0	74653.25	66363.44	0.00
114	15	11	10	77374.39	68218.83	12904.98
115	12	2	1	175157.55	97260.82	16476.66
116	15	1	1	240577.52	153494.36	71817.29
119	11	0	0	66365.74	40086.56	0.00
120	24	11	10	139496.22	92640.75	18509.37

Block Number	Number of Sites Per Block	Number of Sites Per Block with Floor Space Capacity	Number of Sites Per Block with Realistic Capacity	Potential Maximum GFA (sqm) Under the LEP (no exclusions)	Existing GFA (sqm)as per FES(2012)	Realistic Capacity Available (sqm)
121	2	1	1	103598.20	89213.74	11746.34
122	3	0	0	50807.75	34537.02	43402.33
123	18	12	12	155176.97	27999.31	45379.85
124	22	9	9	219990.47	132081.46	0.00
125	8	2	0	131172.51	88150.58	0.00
126	1	0	0	265253.71	291275.66	0.00
127	15	8	8	159685.44	104102.61	20079.94
128	2	0	0	80650.27	46030.41	0.00
129	12	0	0	109799.11	64953.30	0.00
130	10	2	2	122428.84	101207.16	2275.04
131	4	2	2	70564.66	42954.11	23530.51
132	8	5	5	62492.76	31723.39	15917.91
135	1	0	0	9739.02	5963.13	0.00
136	14	12	12	53780.58	25414.87	22878.00
137	10	6	6	48138.54	28330.11	13697.87
138	6	4	4	31189.22	11459.30	13959.20
139	24	12	12	71780.27	27642.87	16856.50
140	22	11	9	160395.15	64086.55	27848.99
141	1	1	1	67324.23	20905.41	46418.82
142	5	0	0	52720.82	21936.60	0.00
144	3	0	0	59612.00	29450.67	0.00
145	10	0	0	190723.55	150108.57	0.00
149	9	0	0	24995.41	10028.56	0.00
150	1	0	0	13595.72	5141.14	0.00
151	1	0	0	17277.97	10502.85	0.00
152	6	4	4	26797.81	11216.74	10925.69
153	21	13	13	97570.26	51656.98	18842.03
154	11	7	7	23637.59	9721.97	8462.31
155	3	0	0	23271.95	23363.00	0.00
156	1	0	6	48666.56	55498.24	0.00
158	1	0	0	22745.83	28695.92	0.00
159	11	6	0	43493.91	19154.81	6557.12
162	1	1	1	95260.44	24614.36	70646.08
163	3	1	1	40840.04	6221.49	8365.34
164	8	3	3	149735.70	108164.29	9626.90
165	1	0	0	0.00	0.00	0.00

Block Number	Number of Sites Per Block	Number of Sites Per Block with Floor Space Capacity	Number of Sites Per Block with Realistic Capacity	Potential Maximum GFA (sqm) Under the LEP (no exclusions)	Existing GFA (sqm)as per FES(2012)	Realistic Capacity Available (sqm)
779	2	1	0	30763.42	26732.63	0.00
780	7	0	0	13072.56	13633.30	0.00
782	3	0	0	1830.62	2045.35	0.00
783	5	0	0	12264.04	19710.53	0.00
784	31	8	4	4396.79	12863.22	69.32
785	4	0	0	8133.61	11080.24	0.00
786	1	0	0	0.00	5004.09	0.00
808	1	0	0	0.00	6855.98	0.00
Grand Total	1007	285	233	11905843.36	8318742.35	871115.37