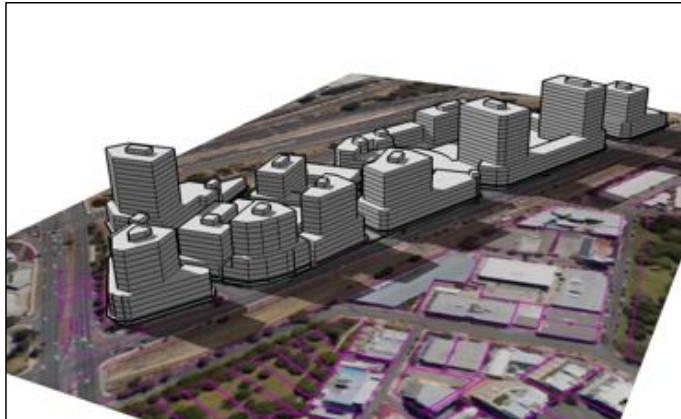


---

## Hamilton Precinct Urban Design Study



CITY of PERTH

**November 2011**

<b>Contents</b>	<b>Page</b>
INTRODUCTION	3
PART 1	
Context and site analysis	4
District context analysis	5
District context analysis conclusions	10
Site observations	11
Site analysis mapping	35
Site analysis conclusions	36
PART 2	
A vision	37
Learning form other places	38
Development framework plan and principles	43
Development framework plan	44
Development framework principles	45
PART 3	
Built form scenarios and analysis introduction	47
Scenario 1 - Minimal development scenario	49
Scenario 2 - High development scenario	52
Scenario 3 - Medium development scenario	55
RECOMMENDATION AND RATIONALE	58
REFERENCES	59

## **Introduction**

The purpose of this report is to investigate an appropriate vision, scale and form of development for future redevelopment within the Hamilton Precinct in the City of Perth.

This report builds on the principles of the City's Urban Design Framework (*An Urban Design Framework – A Vision for Perth 2029*) and the findings of an economic analysis report prepared by the AEC Group and dated 20 August 2010.

## **Background**

The City's portion of the Hamilton Precinct comprises an area of approximately 7.4 hectares and is bounded by the Mitchell Freeway to the north and east, Railway Street to the south and Loftus Street to the west. It is bordered by the City of Vincent to the north and the Town of Cambridge and the City of Subiaco to the west.

The Hamilton Precinct is currently utilised primarily for commercial and retail uses, and also accommodates several service industrial businesses. The majority of the precinct is taken up by the City West development, which functions as the major bulky goods centre for the Perth region and also accommodates SciTech, a specialist knowledge centre and planetarium. There are also a couple of relatively new commercial developments, as well as some vacant land. There is currently no residential or tourism provision located within the precinct.

Under the provisions of the Metropolitan Region Scheme (MRS), the majority of the Hamilton Precinct (excluding road reserves) is within the 'Urban' zone, whilst under the provisions of the City of Perth City Planning Scheme No.2 (CPS2) the precinct is currently classified as 'Commercial'.

The City has been aware of the redevelopment potential of the Hamilton Precinct for some time. In 2010, the City commissioned an economic analysis report and an urban design study for the precinct to establish suitable development parameters for future redevelopment. This decision was precipitated by the City's development of general guiding principles for city growth in its 2010 document; *An Urban Design Framework – A Vision for Perth 2029*, which acknowledges the opportunity to intensify mixed use development in the Hamilton Precinct based on Transit Orientated Development principles.

Additionally, at that time, the Plot Ratio and Built Form Study (Part A), undertaken by Town Planning and Urban Design on behalf of the City, identified a lack of development intensity around several transport nodes within the city, including City West.

The City engaged the AEC Group in March 2010 to undertake an economic analysis of the Hamilton Precinct. The study provided a broad strategic economic analysis of the role and function, and included the evaluation of a number of development scenarios to test the development potential of the Hamilton Precinct. The economic analysis report also highlighted the potential for the Hamilton Precinct to be developed as a vibrant medium density, mixed-use precinct close to two railway stations and within close proximity to the CBD.

## ***Context and site analysis***

Before local area planning or site master-planning is undertaken, it is important to establish an understanding of the district and local context of the area to be planned.

In respect to the district context, the urban design study for the Hamilton Precinct considered:

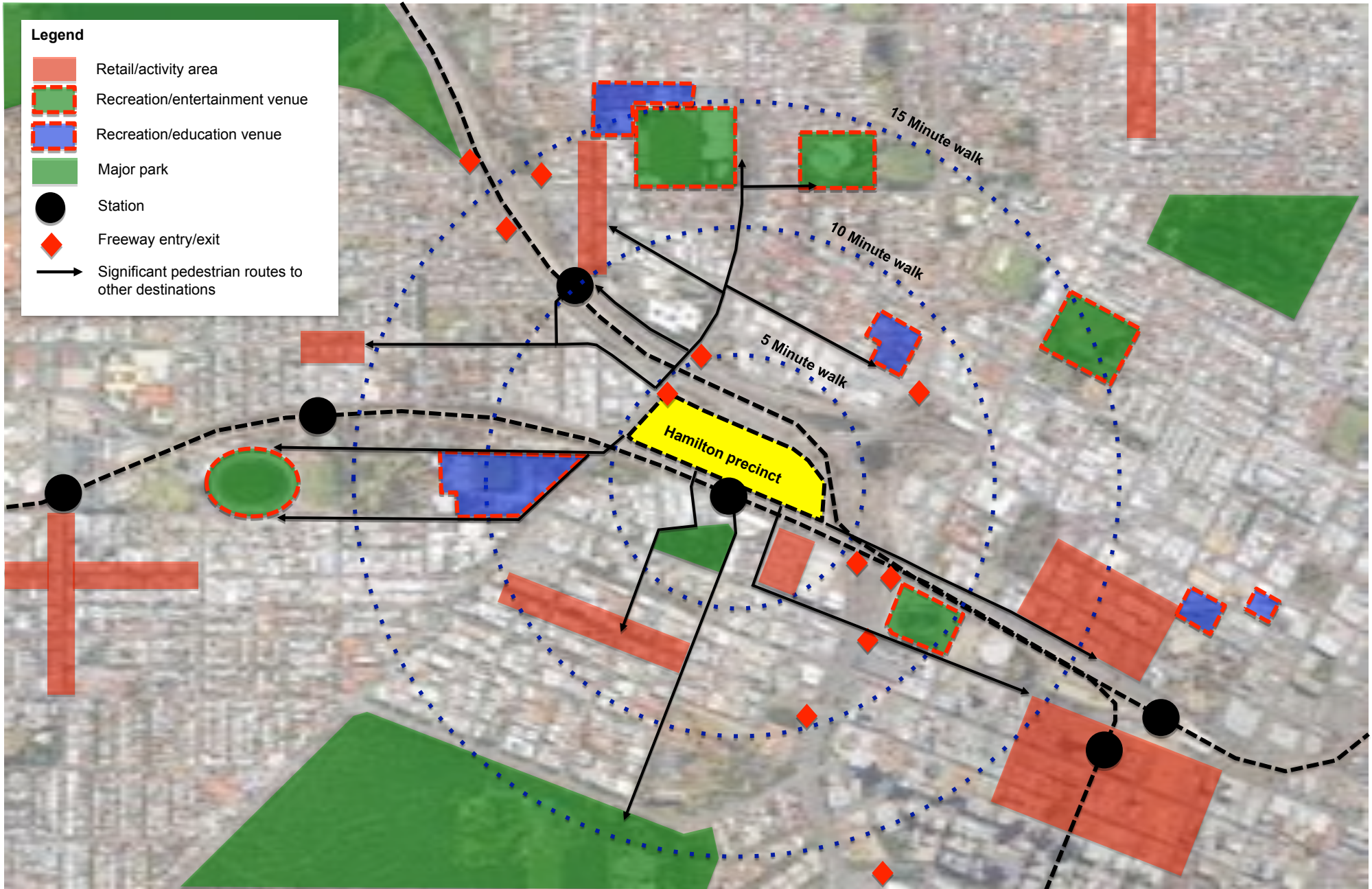
- The significant urban elements of existing amenity and infrastructure of the surrounding area (notionally extending from Subiaco, to Leederville, North Perth, Northbridge, the Perth CBD and West Perth)
- The current public transport network
- Other adjacent, or overlapping, major projects and planning initiatives that will, or may, influence the way in which the surrounding area evolves.

Conclusions drawn from the district context analysis are listed on Page 10.

In respect to the Hamilton Precinct itself and its local context, the methodology for the site analysis included:

- Undertaking a walk-through of the precinct and the adjacent area and illustrating observations through photographic images.
- Preparing a summary map identifying the significant opportunities and constraints offered by the site and its surrounds.

Conclusions drawn from the site analysis are listed on Page 36.



Significant urban elements within the surrounding district



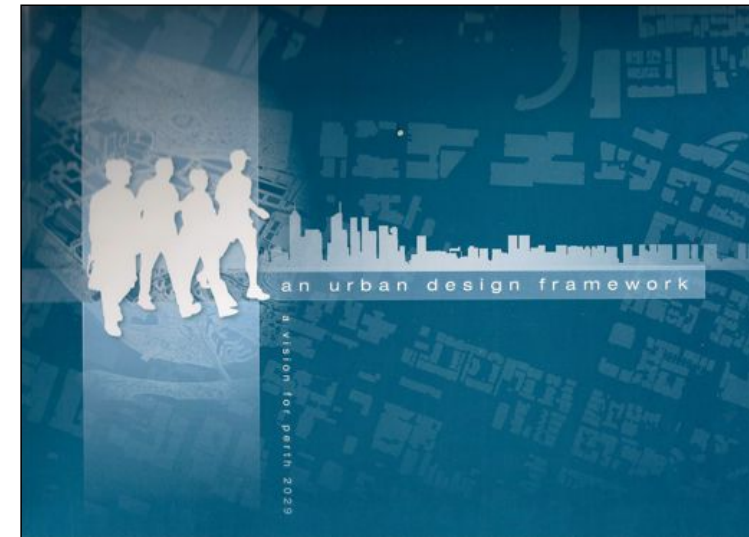
Bus routes in the surrounding district



*Other adjacent, or overlapping, major projects and planning studies*

## City of Perth urban design framework

- Identifies a notional built form for the city
- Identifies the Hamilton precinct as a potential TOD node
- Provides a suite of objectives and guiding principles for appropriate urban design responses to a city context



## Leederville master plan and built form guidelines (including WaterCorp site)

- Significant increase in residential densities and allowable commercial floor space
- Mixed use development encouraged
- Retention and enhancement of the Oxford Street commercial area
- Streetscape improvements
- Mid-rise, with some high rise on podium development envisaged



## *Other adjacent, or overlapping, major projects and planning studies*



## West Leederville planning and urban design study

- Significant increase in residential densities and allowable commercial floor space
- Mixed use development encouraged
- New West Leederville town centre focused on Cambridge Street
- Streetscape improvements
- Mid-rise development envisaged



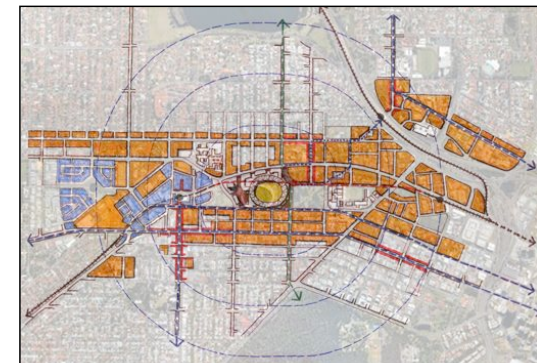
## West Perth regeneration master plan

- Significant increase in residential densities and allowable commercial floor space
- Mixed use development encouraged
- Development of 'main street' commercial along Newcastle Street
- Streetscape improvements
- Two scenarios – one with mid-rise 'European-scaled' development, and one with high rise on podium development
- Suggestion of Cleaver Street railway station (not PTA endorsed).



## City of Subiaco planning report on the major stadium location

- Illustrates why Subiaco is the logical place for a new major stadium
- Identifies the potential to see Subiaco and all of the above as the most significant single urban regeneration project in Australia
- Identifies the potential to sink the Fremantle railway between Subiaco and West Perth station



**Other adjacent, or overlapping, major projects and planning studies**

## Conclusions of the district context analysis

- The precinct is within a 15-minute walk of 3 railway stations that together provide direct access to the entire metropolitan railway network.
- The precinct is within a 7.5-minute walk of two stations that provide direct access to all other stations on the Clarkson, Mandurah, Fremantle and Armadale railway lines.
- The precinct is within a short reach of multiple entry and exit points to the metropolitan freeway system.
- The precinct is within a 15-minute walk of the Perth CBD retail core, the Northridge entertainment precinct, and three local/district scale activity centres.
- The precinct is within a 15-minute walk of 5 significant sporting/entertainment facilities, 4 educational facilities and 2 parks of regional significance.
- Of the above, the access to the regional movement network and access to local/district activity provides a good context for commercial location, but, altogether, the above provides an even better context for residential location.
- The precinct is surrounded on three sides by future major redevelopment projects. As such, with an integrated approach to planning and implementation, the precinct could form the heart of one of the largest and most significant urban regeneration projects in the country.
- Whilst the precinct is within a 15-minute walk of other centres, it is sufficiently remote from the other centres to support its own retail and food and beverage outlets, subject to a sufficiently large resident and worker population.
- The most significant pedestrian connections to the precinct, which need reinforcing, are to the northwest (towards Leederville and Leederville station), and to the south and southwest (towards West Perth and the Perth central area).

## Site observations



Only so much information can be gleaned from looking at aerial photographs and reading reports. The best way to understand a place, its attractions and failings, is to walk around and observe ...



Older buildings meet, give definition and lend character to the street - an inheritance from the days when architects had an instinctive feel for good urban design.



An example of a good street interface, but lacking the people to activate it



The rest of West Perth is visible from Plaistowe Mews, but the environment offers no clear indication of how to get there.



The station infrastructure is minimal and needs to be upgraded if it is to be considered as the focus of a TOD



The rail is sufficiently elevated at Plaistowe Mews to warrant a pedestrian underpass to West Perth (but not high enough for a road underpass).



The Perth CBD is visible and there is a path leading there, but the environment is hostile and unattractive to pedestrians.



There is a little sense from the station that Delhi Street goes anywhere – pedestrians need to be drawn sufficiently far along the street to see around the bend.



A loading dock interface with a street is an unacceptable urban design outcome.



Blank walls and an under-croft car park interface with a street are unacceptable urban design outcomes.



Even when buildings meet the street, the pedestrian amenity is limited because of the lack of shade and shelter.





An at-grade car park interface with a street is an unacceptable urban design outcome.



Bushes planted against a footpath are not a good idea as they offer ambush opportunities on unsuspecting pedestrians.



Car parking in the setback area is an unacceptable urban design outcome, regardless of whether it's done like this ...



...or this.



The rail at Campbell Street allows a simple at-grade pedestrian crossing and a sight line across to Boas Gardens.



The vacant corner site on Railway Street / Colin Place is a good design outcome waiting to happen.



Vacant sites on Troode Street are good design outcomes waiting to happen.



Under-capitalised building stock is ripe for redevelopment.



Loftus Street – transformed over time because designing for cars has taken precedence over designing for people.



It's such a hostile road environment that the path has been located as far away as possible and trees planted to hide it.



A small patch of vacant, fence-off land on an important street corner provides the first impression of the precinct on arrival from Loftus Street.



An intimidating pedestrian environment, that illustrates why underpasses are considered by urban designers as the very last resort for road crossings.



More vacant land, and on a prime corner site with a pre-made hollow for basement parking.



A new building meets the street, but still lacks pedestrian amenity. Note the shade structures over all the windows apart from the ground floor ones where the shade is needed most.



The front door faces the car park around the side rather than facing the street.





Substantial street trees; the last remaining vestige of a good street.



A redundant length of valuable road reserve has been left abandoned and unused.



The Newcastle Street precinct, only 200 metres across the Freeway but another world away.



An at-grade car park interface with a street is an unacceptable urban design outcome.



Perhaps the most attractive and intimate spaces in the whole precinct, but, again, lacking the people to activate it.



The closest thing in the precinct to a public space.



A building separated from the street by large setbacks and a level change is an unacceptable urban design outcome.



Whilst the dome is a landmark, it lacks architectural significance and is a landmark only by virtue of the fact that it isn't obscured by anything else.



An at-grade car park interface with a street is an unacceptable urban design outcome.



An opportunity for a landscape treatment to mitigate the visual hostility of a concrete wall.



An even bigger opportunity for a landscape treatment to mitigate the visual hostility of a Freeway interchange.



Another valuable but vacant corner site waiting to happen.



A ready-made 'gateway' to the city, waiting for some special treatment to turn it from a utilitarian railway bridge into an arrival statement.



The route to Northbridge is a hostile environment that offers no attraction to pedestrians to go there.



Retail as a land use does not guarantee good street. Note, this is an important pedestrian link back to the city centre.





An important and under-capitalised site, even though it's on the 'wrong side of the tracks' to the precinct.



The most important pedestrian connection from the precinct and station back to the rest of West Perth. Whilst there is passive surveillance and lighting, there is little in the way of shade and shelter and the pathway is 'utilitarian'.



The Hamilton precinct is visible from Boas Gardens, but the environment offers no clear indication of how to get there.



An unappealing public domain gives rise to hostile 'bunkertecture'. Making better places requires a leap of faith in the design of both the private and public domains.



Site analysis map

-  Highly visible location
-  Pedestrian routes to surrounding area
-  West Perth railway station
-  Primary vehicle entry to precinct
-  Secondary vehicle entry to precinct
-  Bus routes

## Conclusions of the site analysis

- The quality of the building stock is generally low, more suburban than urban in its form, non-existent, or is old enough to have paid for itself (except for two notable exceptions), and lends itself to redevelopment.
- Much of the existing building to street interface is poor – consisting of blank walls, service areas, and excessive setbacks filled with car parks.
- The quality of the public domain is poor, with very low levels of pedestrian amenity, which could be improved by intervention within the street reserves and at the building interface.
- The interface with Loftus Street is hostile to pedestrian movement and in need of improvement.
- There is limited vehicle access to the precinct (and, thus, district permeability), with access available only from three points along Railway Street (at Colin Place, Plaistowe Street, and Sutherland Street).
- Key pedestrian linkages to West Perth (via Boas Gardens, Sutherland Street), and via Railway Street to Northbridge are poor and in need of improvement.
- Whilst the freeway, Loftus Street and railway lines are sources of noise, mitigation through built form (rather than architectural detail) may compromise the delivery of a high quality public realm in the precinct's streets.
- The current aspect to the freeway is unattractive.
- The change in level across the precinct offers good potential to incorporate undercroft parking and access without excessive use of ramping.
- The rising topography assists in equitable access to views to the city centre and across the inner suburbs from upper levels.
- The West Perth station is an asset, but offers a poor user experience and is in need of upgrading if it is to be considered as an important urban station.
- The remnant street trees in Troode Street are an asset worth retaining, as are some of the older ex-industrial building frontages to the west of Plaistowe Mews.
- The site has excellent visual exposure to passing traffic, but that does not necessarily translate into accessibility.
- The street network in West Perth offers the opportunity for street vistas to and from the precinct to add value and aid legibility.

It's important in any planning initiative to state up-front a vision of what is desired. For the Hamilton Precinct, the City of Perth offers the following vision:

***In planning jargon:*** *A vibrant and sustainable, residential-rich, mixed-use precinct that compliments the Perth CBD with a diversity of uses; has a high level of pedestrian amenity; provides a strong residential hinterland to the CBD; and has good access to the regional public transport network.*

***In plain English:*** *A cool place in the middle of everywhere to live, work and hang out.*

Currently, the area is a utilitarian and uninspiring fringe area of the city centre - a motley collection of former industrial buildings, vacant sites and a suburban shopping complex with a sea of car parking, all crammed in between a tangle of road and rail infrastructure.

The vision is for this area to be reinvented as a piece of real city; an oasis of urbanity, that provides a stepping stone between the city and the increasingly important hot-spots of Leederville, West Leederville, West Perth and Subiaco.

The vision is of a place where people live, play, and work; composed of recognisably urban buildings of a comfortable urban scale that define streets and other public spaces. The edges of the streets provide commercial opportunities to engage people as they walk through the precinct.

In short, the vision is for the type of place envisaged by the Perth Urban Design Framework.

To better understand how the vision may be achieved, the following developments, from around Australia and around the world have been identified as having attributes of the City's vision.



QV2, Melbourne

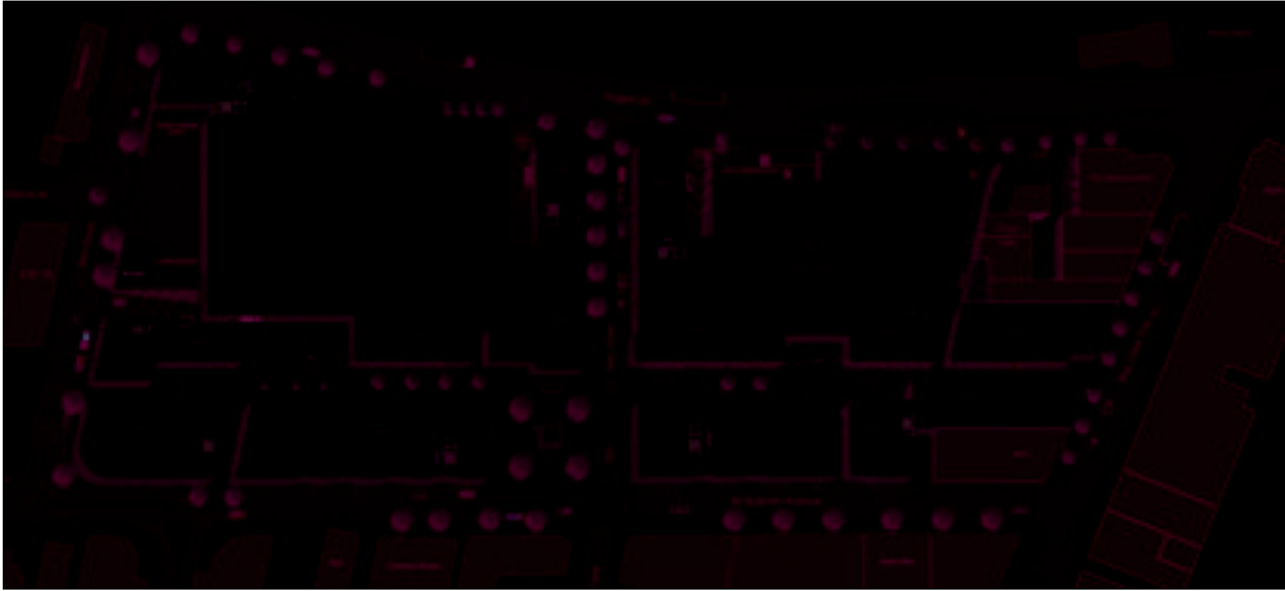


- Major CBD edge mixed-use development
- Good balance of retail, entertainment, residential, and commercial
- Incorporates large-format retailing (supermarket and discount department store)
- Good street edges, with high-rise contemporary architecture
- Incorporates a public piazza
- Very popular Melbourne destination



Rouse Hill, NSW

- Regional suburban activity centre presented as a town centre
- Predominantly retail but with significant residential, entertainment, and other commercial uses
- Incorporates large format retailing (supermarkets and discount department stores)
- Combination of pedestrian-friendly streets and open and closed malls
- Incorporates a public piazza
- Considered to be Australia's 'state of the art' suburban centre



Claremont, WA



- Major mixed use development integrated into a regional town centre
- Predominantly retail but with significant residential and other commercial uses
- Incorporates large format retailing (supermarket, department store and mini-majors)
- Combination of pedestrian-friendly street and closed malls
- Incorporates a public piazza
- Considered to be Western Australia's 'state of the art' suburban centre





The Grove, California

- Major retail development presented as town
- Predominantly retail and entertainment
- Poor interface with surrounding area, with the external face dominated by at-grade car-parking
- Some significant residential and commercial development in the overall precinct but kept separate from the activity.
- Incorporates a public piazza
- Very popular LA destination and features on the to-do tourist list



The Chancery,  
Auckland, NZ



- Major CBD edge mixed-use development
- Predominantly retail and residential, with some commercial
- Good street edges
- Incorporates a high-rise residential tower, within a predominantly pedestrian scaled network of streets and spaces
- Incorporates a mixture of open and enclosed mall spaces

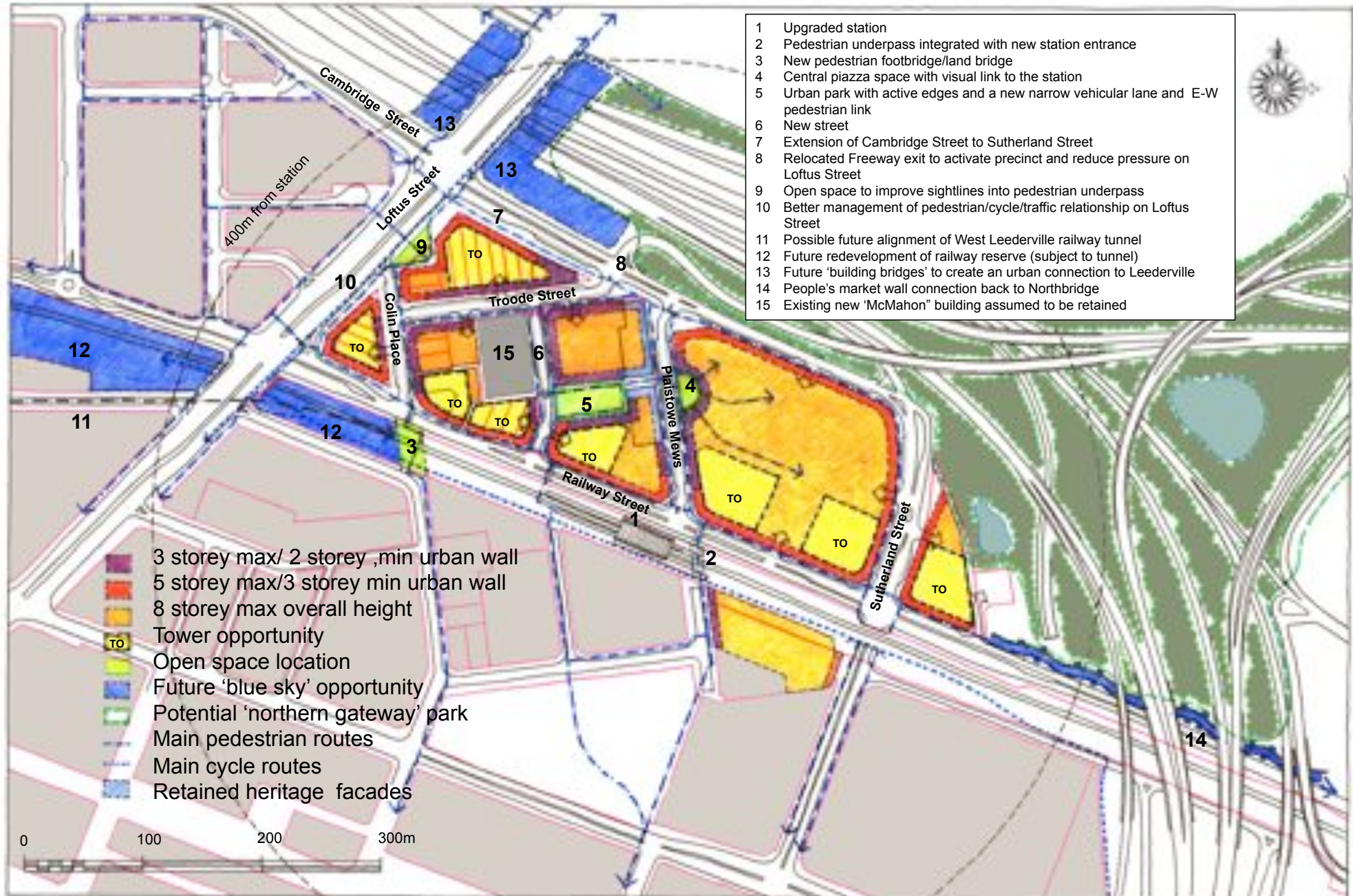
### ***Development framework plan***

A development framework plan (illustrated on page 44) has been developed to provide spatial guidance as to how redevelopment should occur within the Hamilton Precinct.

The development framework plan identifies a range of urban design considerations such as pedestrian routes, the locations of open spaces and vehicle access points, and the location of pedestrian building envelopes that are defined by height and relationship to the street. It should be noted that the building envelopes are not envisaged as the maximum extent of potential buildings but are simply envelopes that provide a reasonable degree of flexibility within which buildings are to be contained.

### ***Development principles***

In addition to the Development Framework Plan, a suite of principles has been developed to provide more detailed guidance as to how redevelopment should occur within the Hamilton Precinct. The development principles are listed on pages 45-46.



## **General**

- Address the objectives and principles contained within the Perth Urban Design Framework (2010).
- Address the vision, principles, and the development parameters of the Hamilton Precinct Urban Design Framework.
- Address the 'planning considerations' in the Model Centre Framework attached as Appendix 2 of the Western Australian Planning Commission, State Planning Policy 4.2 ([www.planning.wa.gov.au/Plans+and+policies/Publications/1925.aspx](http://www.planning.wa.gov.au/Plans+and+policies/Publications/1925.aspx)).

## **Urban Structure**

- Improve pedestrian, cycle and vehicle connectivity from the surrounding area, particularly to West Perth, Northbridge and Leederville.
- Incorporate a clearly-identifiable and publicly-accessible space for social interaction.
- Give prominence to Plaistowe Mews as the precinct's 'main street'.
- Encourage the revitalisation and on-going sustainability of the precinct and, by virtue, the surrounding area.
- Match the scale of development to the capacity constraints (either existing or known future capacity) for road, public transport, and service infrastructure.
- Identify long-term opportunities to further extend and better connect the precinct to the surrounding areas as they, too, mature.

## **Land use**

- Establish a significant resident and worker population to increase utilisation of the public transport network and reduce car dependence.
- Establish a mix of uses that ensures the precinct is well-populated and well-served at all times of the day throughout the week.
- Establish a scale of development that can be economically proven; large enough to support a range of local services; but modest enough not to detract from the Perth central area.
- Establish housing with a range of sizes, prices and tenure arrangements with a view to enabling greater housing affordability.
- Establish, or retain, uses that serve as major attractors and make the precinct a destination of choice.

## **Built form**

- Locate taller buildings where they can aid legibility on the southern periphery of the precinct, generally along Railway Street, as it is further away from the impacts of the Freeway, or on gateway entrances or close to the train station.
- Locate taller buildings to minimise overshadowing of public spaces.
- Incorporate universal accessibility into all new development.
- Incorporate high quality architectural design that enhances the precinct's role as a 'first point of contact' for northern and western suburban visitors to the city centre.
- Incorporate 'green' rooftops and gardens/courtyards on the roof of podium buildings to provide additional visual and recreational amenity to apartment residents.

## **Street interface**

- Maintain a comfortable and attractive scale of building at the interface to streets and other spaces.
- Treat all streets as 'urban' rather than 'sub-urban' streets.
- Provide continuity of pedestrian cover to the edge of all streets within and adjacent to the precinct with a building interface.

- Avoid excessive areas of blank walls and provide opportunities for passive surveillance of all publicly-accessible areas.
- Encourage pedestrian movement at street level (where possible) rather than via the use of bridges or underpasses, utilising controlled crossings at major crossing points.

### ***Vehicle access and parking***

- Locate car-parking areas under, behind, on, or within buildings, and screen from publically accessible areas.
- Demonstrate the impact of development on the surrounding street network and identify any necessary improvements to maintain an acceptable level of service.
- Minimise the number of vehicle crossovers to service and parking areas.

### ***Landscape***

- Retain existing mature street trees.
- Establish a simple but high quality landscape treatment to all of the streets within and surrounding the precinct.
- Establish street trees wherever possible.
- Potential for a 'northern gateway' park to compliment the John Oldham Park to the south of the city. Hundreds of thousands of people pass through it each day on car, train or bike.

### ***Resilience***

- Incorporate best practice energy and water efficient design.
- Design internal spaces with the flexibility to accommodate different uses over a building's life.

### ***Heritage***

- Retain the heritage listed buildings fronting the western edge of Plaistowe Mews.

It is envisaged that the above principles, in conjunction with the objectives and the principles of the City of Perth UDF and the planning considerations of the Model Centre Framework would inform any future planning controls for the area.

### ***Introduction to the built form scenarios and analysis***

Three scenarios were modelled and analysed to test the Development Framework Plan and the associated principles, and to help determine an appropriate scale of building for the Hamilton Precinct.

The scenarios identified three potential built forms ranging from a conservative three-storey approach to redevelopment (scenario 1), to a far more intense redevelopment strategy (scenario 2) that capitalised on WA's growing economic good fortune. The third scenario was an in-between scenario that more closely matched the economic analysis and findings undertaken by the AEC Group.

For each scenario, a conceptual 3D massing model was developed, based on the attributes of the Development Framework Plan and the associated principles. Whilst not fully-resolved architectural solutions, the 3D models were sufficient to enable indicative floorspace figures to be derived from a built-form outcome rather than the traditional approach of deriving floorspace figures from plot ratio figures alone. It should be noted that the 3D models are not representations of the building envelopes described in the Development Framework Plan, but represent an indicative built form that may arise within those envelopes.

Each 3D scenario model was measured at each floor level and a gross-to-net percentage of 66% was applied to determine an indicative net floor area. The 66% figure represents a conservative gross-to-net ratio in the knowledge that, typically, gross-to-net ratios range from around 60% to 80% depending on the type, form, and scale of building. In addition, gross-to-net ratios are dependant dependant on constraints such as the need to achieve a reasonably regular structural grid and adequate depths of floor plates and, as such, the higher percentage, often seen as a target by developers, is often difficult to achieve in reality.

Indicative building floorspace figures were grouped together on a sub-area basis, with the plan on page 48 indicating the various sub areas. Based on the net floorspace of each scenario, a resulting indicative plot ratio for each sub-area could then be derived for the relevant built form.



*Sub-areas used in the calculation of the notional development yields from the 3D model*





*Scenario 1 (3-storey minimum development) viewed from the south west*



*Scenario 1 (3-storey minimum development) viewed from the north east*

**Scenario 1: 3-storey minimum development**

	Sub-area A	Sub-area B	Sub-area C	Sub-area D	Sub-area E	Sub-area F	Sub area G	Totals
<b>Notional site area</b>	<b>28,271</b>	<b>18,656</b>	<b>6,162</b>	<b>2,474</b>	<b>2,135</b>	<b>4,344</b>	<b>4,357</b>	<b>66,399</b>
<b>Gross Areas</b>								
Ground semi-basement	4,000	2,000	1,000		0	0	0	<b>7,000</b>
Ground main	26,250	11,130	5,425	2,400	2,150	2,300	3,200	<b>52,855</b>
1st floor	17,250	8,950	5,425	2,200	1,475	1,875	2,950	<b>40,125</b>
2nd floor	17,250	8,950	5,425	2,200	1,475	1,875	2,950	<b>40,125</b>
3rd floor	0	0	0	0	0	0	0	<b>0</b>
4th floor	0	0	0	0	0	0	0	<b>0</b>
5th floor	0	0	0	0	0	0	0	<b>0</b>
6th floor	0	0	0	0	0	0	0	<b>0</b>
7th floor	0	0	0	0	0	0	0	<b>0</b>
8th and above	0	0	0	0	0	0	0	<b>0</b>
Upper level multiplier	0	0	0	0	0	0	0	<b>0</b>
Retained buildings	0	9,200	0	0	0	2,100	0	<b>11,300</b>
<b>Total gross area</b>	<b>64,750</b>	<b>40,230</b>	<b>17,275</b>	<b>6,800</b>	<b>5,100</b>	<b>8,150</b>	<b>9,100</b>	<b>151,405</b>
Gross to net multiplier	0.66	0.66	0.66	0.66	0.66	0.66	0.66	
<b>Total net area</b>	<b>42,735</b>	<b>26,552</b>	<b>11,402</b>	<b>4,488</b>	<b>3,366</b>	<b>5,379</b>	<b>6,006</b>	<b>99,927</b>
<b>Effective plot ratio</b>	1.51	1.42	1.85	1.81	1.58	1.24	1.38	

	Existing	Scenario	AEC Group recommendations				
	Floorspace	Floorspace	Av. du area	Dwelling units	Floorspace	Av. du area	Dwelling units
Residential floorspace	0	42,071	100	421	60,000	100	600
Retail floorspace	17,880	24,880			24,880		
Office floorspace	22,340	32,976			52,100		
Industrial	1,985	0			0		
Other (Hotel, etc)	0	0			18,000		
<b>Total</b>	<b>42,205</b>	<b>99,927</b>			<b>154,980</b>		

**Notes**

Areas are approximate only

Precinct B includes the Macmahon building, which is assumed to be retained.

Precinct F includes the Centra site with the assumption that the existing building will be retained and expanded.



*Scenario 2 (high development scenario) viewed from the south west*



*Scenario 2 (high development scenario) viewed from the north east*

**Scenario 2: High development scenario**

	Sub-area A	Sub-area B	Sub-area C	Sub-area D	Sub-area E	Sub-area F	Sub area G	Totals
<b>Notional site area</b>	<b>28,271</b>	<b>18,656</b>	<b>6,162</b>	<b>2,474</b>	<b>2,135</b>	<b>4,344</b>	<b>4,357</b>	<b>66,399</b>
<b>Gross Areas</b>								
Ground semi-basement	4,000	2,000	1,000	0	0	0	0	<b>7,000</b>
Ground main	26,250	11,225	5,425	2,400	2,150	3,500	3,800	<b>54,750</b>
1st floor	23,500	10,300	5,425	2,400	1,725	3,500	3,500	<b>50,350</b>
2nd floor	14,475	10,300	5,425	2,400	1,725	3,500	3,500	<b>41,325</b>
3rd floor	11,350	4,600	4,450	2,100	1,200	2,500	3,250	<b>29,450</b>
4th floor	11,350	4,600	4,450	2,100	1,200	2,500	2,775	<b>28,975</b>
5th floor	5,000	2,550	1,275	975	1,200	1,600	1,125	<b>13,725</b>
6th floor	5,000	2,550	1,275	975	1,200	1,600	1,125	<b>13,725</b>
7th floor	3,275	1,525	1,275	975	1,200	1,600	1,125	<b>10,975</b>
8th and above	26,200	6,100	10,200	3,900	1,200	6,400	4,500	<b>58,500</b>
Upper level multiplier	8	4	8	4	1	4	4	
Retained buildings	0	9,200	0	0	0	0	0	<b>9,200</b>
<b>Total gross area</b>	<b>130,400</b>	<b>55,750</b>	<b>40,200</b>	<b>18,225</b>	<b>12,800</b>	<b>26,700</b>	<b>24,700</b>	<b>308,775</b>
Gross to net multiplier	0.66	0.66	0.66	0.66	0.66	0.66	0.66	
<b>Total net area</b>	<b>86,064</b>	<b>36,795</b>	<b>26,532</b>	<b>12,029</b>	<b>8,448</b>	<b>17,622</b>	<b>16,302</b>	<b>203,792</b>
<b>Effective plot ratio</b>	3.04	1.97	4.31	4.86	3.96	4.06	3.74	

	Existing	Scenario	AEC Group recommendations				
	Floorspace	Floorspace	Av. du area	Dwelling units	Floorspace	Av. du area	Dwelling units
Residential floorspace	0	93,660	100	937	60,000	100	600
Retail floorspace	17,880	24,880			24,880		
Office floorspace	22,340	67,251			52,100		
Industrial	1,985	0			0		
Other (Hotel, etc)	0	18,000			18,000		
<b>Total</b>	<b>42,205</b>	<b>203,792</b>			<b>154,980</b>		

**Notes**

Areas are approximate only

Precinct B includes the Macmahon building, which is assumed to be retained.

Precinct F includes the Centra site with the assumption that the existing building will ultimately be redeveloped.



*Scenario 3 (medium development scenario) viewed from the south west*



*Scenario 3 (medium development scenario) viewed from the north east*



**Scenario 3: Moderate development scenario**

	Sub-area A	Sub-area B	Sub-area C	Sub-area D	Sub-area E	Sub-area F	Sub area G	Totals
<b>Notional site area</b>	<b>28,271</b>	<b>18,656</b>	<b>6,162</b>	<b>2,474</b>	<b>2,135</b>	<b>4,344</b>	<b>4,357</b>	<b>66,399</b>
<b>Gross Areas</b>								
Ground semi-basement	4,000	2,000	1,000	0	0	0	0	7,000
Ground main	26,250	11,225	5,425	2,400	2,150	3,700	3,800	54,950
1st floor	14,475	10,300	5,425	2,400	1,725	3,700	3,500	41,525
2nd floor	14,475	10,300	5,425	2,400	1,725	3,700	3,500	41,525
3rd floor	6,775	4,600	3,775	1,825	1,200	3,325	3,250	24,750
4th floor	6,775	4,600	3,775	1,825	1,200	3,325	2,775	24,275
5th floor	3,275	2,550	1,275	0	0	0	1,125	8,225
6th floor	3,275	2,550	1,275	0	0	0	0	7,100
7th floor	3,275	1,525	1,275	0	0	0	0	6,075
8th and above	19,650	6,100	-	-	-	-	-	25,750
Upper level mutliplier	6	4	0	0	0	0	0	
Retained buildings	0	9,200	0	0	0	0	0	9,200
<b>Total gross area</b>	<b>102,225</b>	<b>55,750</b>	<b>28,650</b>	<b>10,850</b>	<b>8,000</b>	<b>17,750</b>	<b>17,950</b>	<b>241,175</b>
Gross to net multiplier	0.66	0.66	0.66	0.66	0.66	0.66	0.66	
<b>Total net area</b>	<b>67,469</b>	<b>36,795</b>	<b>18,909</b>	<b>7,161</b>	<b>5,280</b>	<b>11,715</b>	<b>11,847</b>	<b>159,176</b>
<b>Effective plot ratio</b>	<b>2.39</b>	<b>1.97</b>	<b>3.07</b>	<b>2.89</b>	<b>2.47</b>	<b>2.70</b>	<b>2.72</b>	

	Existing	Scenario	AEC Group recommendations				
	Floorspace	Floorspace	Av. du area	Dwelling units	Floorspace	Av. du area	Dwelling units
Residential floorspace	0	63,768	100	638	60,000	100	600
Retail floorspace	17,880	24,880			24,880		
Office floorspace	22,340	52,528			52,100		
Industrial	1,985	0			0		
Other (Hotel, etc)	0	18,000			18,000		
<b>Total</b>	<b>42,205</b>	<b>159,176</b>			<b>154,980</b>		

**Notes**

Areas are approximate only

Precinct B includes the Macmahon building, which is assumed to be retained.

Precinct F includes the Centra site with the assumption that the existing building will ultimately be redeveloped.

***Recommendation and Rationale***

Based on a consideration of the three scenarios, and a range of broader citywide issues, the recommendation of this study is for the City of Perth to encourage redevelopment within the Hamilton Precinct based on Scenario 2; the most ambitious of the three scenarios.

The 3D modelling for Scenario 2 suggested that the built form derived from the Urban Design Framework and associated principles could reasonably deliver development with a plot ratio that is typically in the range of 3.0 to 4.0:1, given the need to respond to constraints such as the need to achieve a reasonably regular structural grid and adequate depths of floor plates.

In the case of the precinct's core (sub-areas A and B), it is recommended that the maximum plot ratio be raised where there is provision of specific public facilities to the satisfaction of the City of Perth. In all cases, an appropriate minimum plot ratio should apply to residential use, and an appropriate maximum plot ratio should apply to non-residential uses. This split approach to plot ratio is consistent with the City's approach in West Perth, and is intended to provide an incentive to include residential development and avoid the precinct developing into a monoculture of nine-to-five commercial uses.

The recommendation to pursue Scenario 2 is based on the following rationale:

- The Hamilton Precinct is strategically located between two railway stations (West Perth and Leederville) and, as such, is an ideal location for relatively intense Transit-Orientated Development, as identified in the City's Urban Design Framework (*An Urban Design Framework – A Vision for Perth 2029*).
- Whilst the AEC Group economic analysis recommended residential and non-residential floorspace targets for the precinct, there is no guarantee that all of the land will be redeveloped in the short-to-medium term, so the overall development capacity of the precinct needs to be high enough to factor in the undeveloped sites if the AEC Group's target floorspace is to be achieved.
- The resultant built form derived from the Urban Design Framework and associated principles is appropriate to the precinct's relationship to the CBD area and West Perth.
- Through the consultation process, there was widespread support from landowners in the precinct for the more ambitious scenario.
- The taller built form provides a strong visual cue in the broader city landscape that the Hamilton Precinct is a strategic TOD location.

Finally, it is recommended that the City amend its planning scheme, CPS2, to incorporate development controls consistent with the Urban Design Framework Plan.

## ***Statutory documents***

- Metropolitan Region Scheme: WAPC
- City of Perth City Planning Scheme No. 2: City of Perth

## ***Policies and reports***

- An Urban Design Framework – A Vision for Perth 2029: City of Perth; 2010
- Plot Ratio and Built Form Study (Part A): City of Perth/The Planning Group; 2010
- Capital City Planning Framework: WAPC; 2011
- Directions 2031 and Beyond; WAPC; 2010
- Leederville Master Plan and Built Form Guidelines: Town of Vincent; 2009 (rev 2010)
- West Perth Regeneration Master Plan: Town of Vincent; 2008
- West Leederville Planning and Urban Design Study: Town of Cambridge; 2010
- Subiaco – The Home of Football in WA; City of Subiaco; 2010
- Hamilton Precinct Economic Analysis: AEC Group; 2010
- Hamilton Master Plan Report: GRA; 2009