



Frontier Advisors

Frontier Advisors has been at the forefront of institutional investment advice in Australia for over two decades and provides advice over more than \$260B in assets across the superannuation, charity, public sector and higher education sectors.

Frontier's purpose is to enable our clients to generate superior investment and business outcomes through knowledge sharing, customisation, client empowering technology and an alignment and focus unconstrained by product or manager conflict.



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Defining core property

First, to broadly define secondary property. Current methods to identify secondary property include proprietary data, institutional analysis, IPD/MSCI data and sales data. For investors, over the longer term, as a whole, secondary property underperforms prime property on a risk adjusted basis as set out in this paper. Further, on average, secondary property has a higher income return, but poorer levels of capital growth.

However, the simple definition of secondary property, is that it is not "core/prime" property, and that core property can be defined on the basis of the high quality of tenant covenant, the building and the location. The difficulty comes with measuring these criteria. Furthermore, the definition will vary between regions and by property types and hence data needs to be divided into subsectors.

Below we have provided a potential definition of "core" property and, as a preamble, we provide an outline of the basic theories of rent and land use, plus some defining characteristics of core property.

Theories of rent and land use

The central place theory

The central place theory describes the spatial pattern of urbanisation. Central place theory does a good job of describing the location of commerce, trade and service activity (it also does a good job of describing consumer market oriented distribution and manufacturing).

Based on the distribution of activity and aggregation of the highest order economic pursuits such as legal, finance, banking, IT and other high margin services to a central place, it is justifiable to extend this logic such that the most "core" property assets ought to be found at the highest order central places, and that these places will attract the most desirable and creditworthy cash flow generators.

The bid rent theory

This theory is a geographical economic theory that refers to how the price and demand for property change as the distance from the central business district (CBD) increases. It states that different land users will compete with one another for land close to the city centre. This is based upon the idea that retail and commercial establishments wish to maximise their profitability, so they are much more willing to pay more for land close to the CBD and less for land further away from this area. This theory is based upon the reasoning that the more accessible the area (i.e. the greater the concentration of customers), the more profitable these places will be.



Core property defined

Both central place theory and bid rent theory mainly conclude that location is a (perhaps "the") defining characteristic of core property in the context of driving maximum and strongest cash flow. Looking at the meaning of "core" itself, it simply translates into "centrum" and can be described as property at the centre of the city or, in shopping centre terms, the dominant centre of the retail hierarchy. The phrase core property is not conclusively defined in academia, however, and is used mostly to describe either a portfolio strategy type or investment intention/risk attitude.

Broadly speaking property grades are assessed by risk, stability and quality aspects, with core property being the best in class for all of these attributes, while secondary property is generally of lower quality in one or more of these aspects. In general, core property assets can be seen as lower risk assets, with core property funds seen as funds that have stabilised cash flows, mature modern assets that are developed to their highest and best use, minimal transaction activity and potentially strong inflation hedging benefits overall. This broad definition can be expanded across risk, stability and quality aspects dimensions summarised as follows (a full description of core property characteristics is given in Appendix 1).

Risk

Most important in core property assets is a stable, long term cash flow, supported by some modest growth. Value retention is also a key consideration of property investment

generally, which is largely driven by tenant solvency (creditworthiness over time), low vacancy/downtime and minimal income fluctuations. Market liquidity must also be closely monitored.

Stability

Core property assets must be able to withstand differing levels of market absorption rates, new competing stock/ supply and changing vacancy levels.

Quality

Core property assets are situated in high quality locations that are consistent with the central place theory and bid rent theory. Core property assets possess high quality physical attributes such as views, natural light, access from an attractive street setting, lobby and lift finishes, amenities, presentation and maintenance. The prestige, image, quality of the buildings and surrounding neighbourhood strongly influence the grade of the building.

Additional qualitative dimensions

Tenant and landlord behaviours are strong underlying drivers behind the headline performance and fundamental figures of core and other property types, but a lack of suitable data presents challenges when representing these effects in quantitative terms. Some of these behaviours, and the influence they have on property performance, are discussed below.

Movements through the quality chain

In times of market or economic stress, there is a tendency for landlords to lower their rental expectations in order to maintain high occupancy. In turn, tenants are encouraged to move up the quality chain as they can achieve greater utility for the same cost. This affects asset owners in the lower quality space, who subsequently face reduced demand for

their space. Leasing secondary property space naturally becomes more difficult and vacancy levels are higher for longer. As markets subsequently improve, marginal tenants in higher quality assets are squeezed out as rental costs rise.

Quality of cash flows

Cash flows in core property are expected to be regular and stable in the form of rental income. A key risk of property investing is therefore anything that will hinder or halt future cash flows. The lowest risk tenants, being those tenants that sign the longest leases and are of the highest credit quality, naturally demand the strongest physical characteristics. As outlined, these include high grade physical, functional and technical asset features as well as tenancies in central locations.



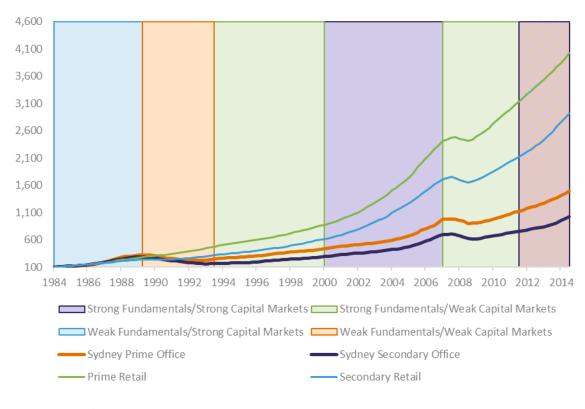
Property performance

Property performance is influenced by a combination of capital market drivers and local marketplace fundamentals.

The economic environment, both locally and internationally, also forms a backdrop that influences both of these factors. In the next few sections of this paper, we analyse the risk and return characteristics for core and secondary (or non–core) property and how they are affected by capital markets, local marketplace fundamentals and the broader economic environment. Importantly, we assess whether the behaviour of the two property sub–sectors leads to a preference for one over the other.

As background, Chart 1 shows the performance of the Australian core retail against secondary retail, as well as, Sydney core office against Sydney secondary office over the past thirty years.

Chart 1: Prime versus secondary returns – 1984 to 2015



Source: IPD, Frontier



Chart 1 demonstrates reasonably clearly that over the longer term, and over a full cycle (or indeed several cycles), core property provided comparable or better returns relative to non–core property. However, the more interesting question is how the two sectors perform in different operating environments, and whether this can give a perspective on portfolio hold periods and relative risk. For this purpose, we have divided the first 27 years since 1984 into four distinct periods, as highlighted above, and we assess the two sub–sectors in these market environments in a later section of this paper.

The full 30 year return history makes evident the outperformance of core property relative to non–core property, driven primarily by core property's more resilient performance in the more testing investment periods. Chart 2 shows a truncated index to provide performance for the 1994 to 2014 period, so as to avoid the downturn of the early 1990s. With this reset, performance is more comparable over the 20 year period.

On the right of both charts, we include an additional period (2012 to 2015) which is an initial call on the current environment, and we have a dual assessment of this at this stage.

1,000 900 800 700 600 500 400 300 200 100 1994 1996 1998 2000 2004 2006 2008 2010 Strong Fundamentals/Strong Capital Markets Strong Fundamentals/Weak Capital Markets Sydney Prime Office Sydney Secondary Office - Prime Retail Secondary Retail

Chart 2: Prime versus secondary returns - 1994 to 2015

Source: IPD, Frontier



Pricing, valuations and the economic environment

As with any asset, property is priced off a base risk–free rate. Added to the risk free rate is a premium for the risks that are present in that market and inherent to the asset. The premium above the risk free rate represents the return that an investor is willing to earn to gain exposure to the asset. It is important to understand that yields that contribute to the performance of both primary and secondary property move in both directions over long cycles.

Fundamentals are controlled and impacted at a local level, with these factors determining the intrinsic value of an asset. Some of the key drivers of fundamental valuations include: vacancy levels and supply of space; new developments and relative obsolescence; tenant demand; rental levels and expected growth profiles; and locational attributes.

The general economic backdrop impacts the market and local economic drivers, by affecting: the demand for space; business confidence in conducting commercial activity; consumer confidence in retail spending; and manufacturing and logistical requirements which are affected by production and consumption factors. International factors can also influence the local property market.





Case studies

These four case studies analyse some of the high level themes that drove property returns in different market environments over the most recent thirty years. We observe some fundamental drivers of value (being demand and supply) and capital market pricing drivers to better understand what has driven performance for each period of time observed.

When conducting these case studies, we use performance and market data from the Sydney office market as a proxy for the broader Australian property market. As already noted, in a relatively young and highly illiquid asset class, the Sydney office market has the longest available history of data to observe cycles. Further, the depth of the transactions in this market provide confidence that the data used is representative of a broad market, rather than large, single assets.



Case study 1:

Strong fundamentals/strong capital markets

Following a period of decline and then stagnation during the early to mid–2000s, the property market leading up to the global financial crisis (GFC) was characterised by a substantial spike in core and secondary rents as demonstrated in Chart 3. Driving this rise in rents was a fall in vacancy rates, as demonstrated in Chart 4, which fell sharply after a mild development cycle during the early 2000s in the key markets of Sydney and Melbourne.

Concurrently, capital markets were generously pricing risk which fuelled a wave of strong leverage, particularly in the REIT market, which drove values higher. What became apparent in the period leading up to the GFC was that this risk pricing was somewhat speculative and exceeded fundamentals.

As demonstrated in Chart 5, the difference between yields on core and non–core property narrowed to a level well below its long term average, even to the point that the two were almost offering equivalent yields despite the added riskiness of non–core assets.

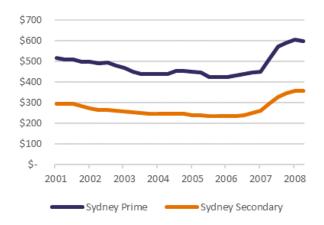
Real annual GDP growth was at the higher end of the expected range, at 3.4% per annum, and largely stable during this period. Fuelled by the stable economic environment,

positive fundamentals and the abundance of debt and equity capital, both core and non–core property had a very strong period of growth.

Real annual GDP growth was at the higher end of the expected range, at 3.4% per annum, and largely stable during this period. Fuelled by the stable economic environment, positive fundamentals and the abundance of debt and equity capital, both core and non–core property had a very strong period of growth. As demonstrated in Chart 6, non–core property performed more strongly over this period.

However, when a crisis did eventuate, the over—leverage and speculative purchasing that was present in this market resulted in these assets falling far more sharply as demonstrated in the next section.

Chart 3: Office net effective rents (\$/sqm) 2001 – 2008



Source: Colliers

Chart 4: Office vacancy rates 2001 – 2008

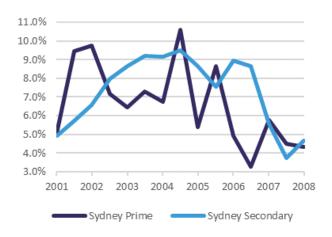
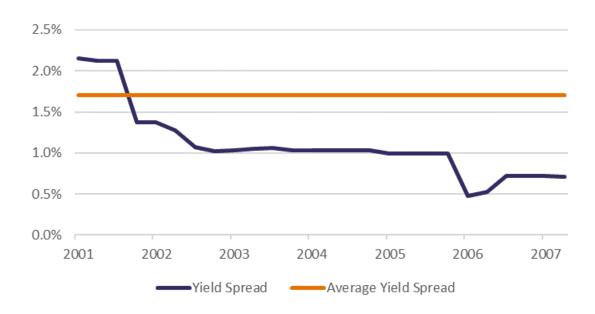


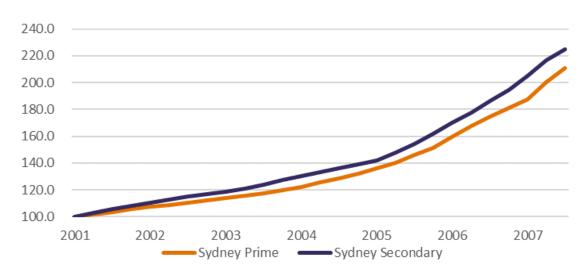


Chart 5: Yield spread Sydney prime office vs secondary office 2001–2008



Source: Colliers, Frontier

Chart 6: Balanced portfolio returns (2015 to 2030)



Source: IPD



Case study 2:

Strong fundamentals/weak capital markets

Following the exuberance of the pre-GFC period, the supply of capital abated, in particular from debt markets, despite fundamentals remaining at reasonable levels.

As the level of leverage was high relative to history, and lenders were sceptical about extending credit, many highly geared property asset owners were unable to refinance and subsequently breached lending covenants as valuations experienced some volatility. Driving this negative sentiment was a lower economic growth environment, during which real GDP growth was 2.2% per annum.

The GFC environment was significantly more unstable and investors became very risk averse resulting in negative returns for both core and non–core property. Due to the high leverage and more volatile assets, secondary assets suffered a sharper, larger and more extended downturn, along with a slower recovery, than core property as shown in Chart 7.

115.0 Real GDP growth averaged 1.4% Real GDP growth averaged 2.6% 110.0 П П 105.0 П П 100.0 П 95.0 90.0 П, 85.0 2008 2009 2010 2011 Sydney Prime Sydney Secondary

Chart 7: Office returns index 2008 - 2011

Source: IPD, RBA

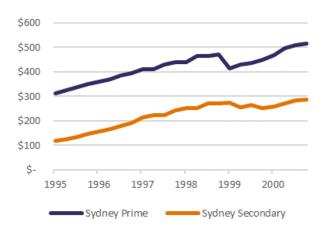


A similar environment was witnessed during the recovery from the recession of the early 1990s. As demonstrated in Chart 8, rents were rising over this time as there was very little new supply entering the market. As shown in Chart 9, vacancy rates declined sharply from 1994 and remained low for an extended period of time.

Despite strong fundamentals, investors were not pricing risk particularly aggressively. As Chart 10 shows, the yield premium for non—core assets over core assets was above, or at the higher end, of the normal range for most of the period.

While this mid to late 1990s period shared similar attributes to the GFC period in terms of fundamentals, property returns in the 1990s were much stronger due to the better economic environment. During this period, real GDP growth was stable and in line with expectations, between 3.0% and 3.5% per annum. Core and non–core subsequently posted positive returns and generally performed quite similarly, as shown in Chart 11.

Chart 8: Net effective rents (\$/sqm) 1995 – 2000¹



Source: Colliers

1. No data is available prior to 1995.

Chart 9: Office Vacancy Rates 1994 – 2000

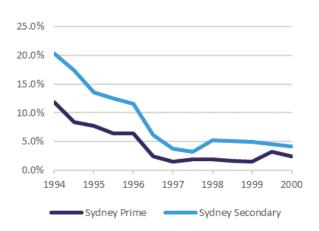
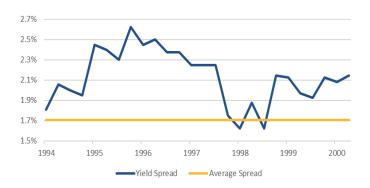


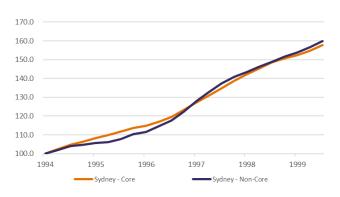
Chart 10: Yield spread Sydney core office vs Non-Core Office 1994 – 2000¹



Source: Colliers, Frontier

1. Prior to 1995 the rate of change for A–grade is used as a proxy

Chart 11: Office returns index 1994 – 2000



Source: IPD



Case study 3:

Weak fundamentals/strong capital markets

The mid to late 1980s witnessed an immense development/developer led market exuberance.

Contributing to this was a cocktail of debt, with banks competing aggressively in the domestic market and with the recently licenced offshore banks. Rental expectations were aggressive and an expansive view was built—in to valuations, with rental growth expectations for prime buildings and core assets being very aggressive. The strong economic environment contributed to this confidence, with real GDP growth between 3.5% and 4.0% per annum exceeding the longer term average of 3.0% per annum.

This optimism flowed into the secondary market and many secondary assets were purchased well above fundamental value.

There were substantial returns being generated in the late 1980s from commercial real estate and, as Chart 12 shows, core assets slightly outperformed non—core assets in this strong cycle.

350.0

250.0

200.0

150.0

1984

1985

1986

1987

1988

1989

Sydney - Core

Sydney - Non-Core

Chart 12: Office returns index 1984 – 1990

Source: IPD



Case study 4:

Weak fundamentals/weak capital markets

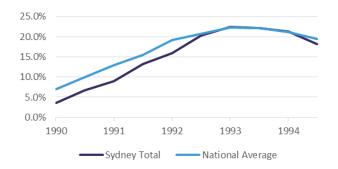
In the early 1990s, commercial property markets faced a dramatic reversal of fortunes.

A strong period of new supply had just ended, with no less than seventeen large, trophy assets reaching practical completion in Melbourne and Sydney alone. Tenancy demand evaporated, with vacancies exceeding 20% nationally.

Yield spreads between core and non—core office assets expanded until 1991, before stabilising above their long term averages. This persisted as a result of low confidence in a weak economic environment, and only slowed after real GDP growth improved. Overall, this was a low growth period, with real annual GDP growth averaging 2.0% per annum overall, characterised by a recession and the start of the subsequent recovery.

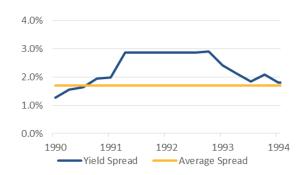
During this period, any assets that had issues from a fundamental perspective, such as vacancy, capital expenditure requirements, secondary locations and physical obsolescence, were severely marked down. Adding in the effects of leverage, some asset owners experienced losses greater than their investments.

Chart 13: Office Vacancy Rates 1990 – 1994¹



Source: Colliers, Frontier

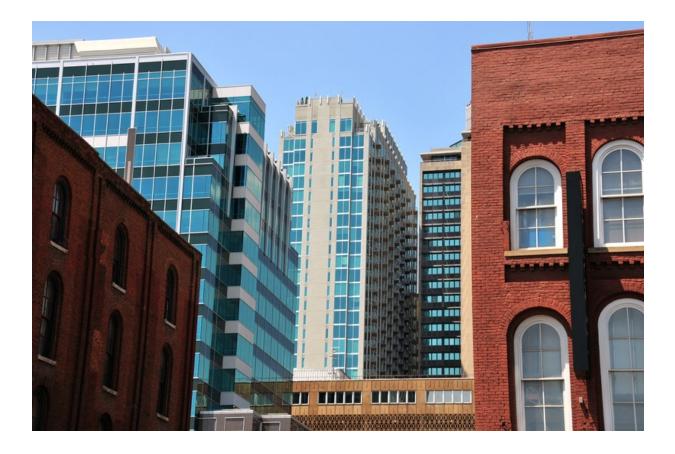
Chart 14: Yield Spread Sydney Prime
Office vs Secondary Office 1990 – 1995²



Source: Colliers, Frontier

- 1. Data for prime and secondary vacancy rates are not available prior to 1994. Sydney office has been used as a proxy for prime.
- 2. Prior to 1995 the rate of change for A–grade is used as a proxy for Secondary Office.





During this period, the level of illiquidity dramatically magnified, particularly for secondary assets.

As shown in Chart 15, core assets outperformed secondary assets during this period, suffering far less downside to performance and recovering earlier from the property recession.

100.0

90.0

Real GDP growth averaged 3.9%

80.0

70.0

60.0

1990

1991

1992

1993

1994

Sydney - Non-Core

Sydney - Core

Chart 15: Office returns index 1990 - 1994

Source: IPD, RBA



Observations

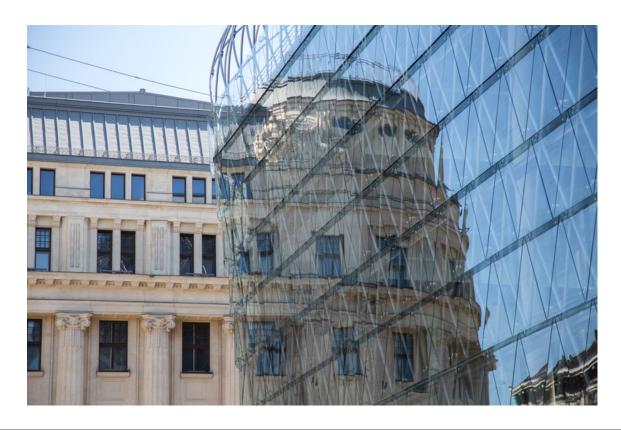
Property behaves cyclically – there are periods of growth and contraction and the drivers of these change with each cycle. As demonstrated by the four case studies presented, the phases of each cycle are linked to marketplace fundamentals, capital markets and the broader economic environment.

When supported by strong supply and demand, core property performs in line with non–core property. Conversely, when fundamentals are stretched, core property returns are superior. The qualitative factors driving these fundamentals generally support core real estate in downturns by providing greater liquidity and sustaining higher quality cash flows.

Risk pricing of property is strongly linked to the prevailing economic environment. Aggressive yields naturally result in stronger returns for non–core property, however this has historically been followed by a significant correction. Over long periods of strong economic growth, core and non–core property have a similar return profile. In an extended low growth environment, core property shows greater resilience to losses and produces stronger absolute returns. When negative economic shocks are experienced, there is an observable trend that core property retains value better than non–core property.

Historically, core property has demonstrated it provides superior risk adjusted outcomes to non–core over the long term and through the property cycles. In the upcoming property cycles (and there will be more cycles), we see no current basis or reason for this to change, including in the current phase.

Frontier therefore recommends core property form the substantial basis of a long term property investor's portfolio. Non–core property can and should be used opportunistically but requires more active portfolio management to mitigate the inherent risks. Importantly, a strict buy and sell discipline is required to avoid the cyclical periods of negative returns (shown in the case studies), which can be significant. However, these negative periods are difficult to time accurately and pose an added, portfolio management risk for consideration.





The final word

This discussion has highlighted core property as being characterised as an investment strategy and style that is determined by risk averseness, and security demands and concerns. The major requirements of a core property asset for investors are: stable cash and income usually producing 70% to 80% of total return, with a high degree of liquidity; a low LVR (depending on the market); and a stable, solvent and well-known tenant structure with both single tenancy and multi-tenant strategies, for long lease periods and likely to have low re-letting risks, low downtime and as well as strong market appeal.

Additionally, vacancies have to be very low, space should have As discussed, over time, in the long term, Frontier believes an ability to dominate its market, properties have to possess minimal functional, physical and locational obsolescence and generally be of the youngest generation of buildings (office/ industrial), with little or no redevelopment required (retail exempt), a high degree of sustainability and high-quality green credentials. Core property markets are viewed as mature, transparent and of sufficient size to provide strong liquidity, low volatility and a general market perception of being a secure investment. Core property has a long-term investment period between 8 to 15 years, and sometimes

Portfolio construction should be focused on the expected riskreturn relationships of the key sectors and sub-sectors of the property market. Over the long term, investors expect that the attributes of core property will ensure a better riskadjusted return than lower quality, non-core assets. Generally, this has been the case in previous down turns. There are arguments that sufficient diversification will limit this downside and that stability of returns can be generated from non-core assets.

that core property should outperform non-core property in a risk-adjusted sense. Ultimately, experience and judgement has a large effect on the decision making process in property. It is important to ensure a formal, systematic approach to portfolio planning that optimises risk-adjusted returns, providing a mix of strong income yield and sound capital growth over time. It is also important to have an extremely strong view about the skills, experience and motivations of the particular property managers in the market place and how this impacts or enhances their ability to add value.



Appendix 1: Core Property Characteristics

Core property comes with certain "must haves" that generally Core property physical attributes include the following. are assessed by risk, stability and volatility aspects.

- Value retention is of high importance tenant solvency (credit worthiness over time), low vacancy/ downtime and minimal income fluctuations.
- High quality locations that are consistent with the central place theory and bid rent theory.
- Most important is cash flow and growth over the long term, usually associated with metropolitan market areas and premium markets due to the inherent prerequisites of high market liquidity and the ability to consistently attract premium tenants.
- Number, structure and quality of services along with the prestige, image, quality of the buildings and the immediate surrounding neighbourhood. The area must • be able to attract premium tenants and maintain a strong image and identity.
- Aspects of the assets ability to withstand differing levels of market absorption rates, new competing stock/supply and changing vacancy levels are key.

- The architectural merits of a core property building have to meet a balancing act of being unique, with high levels of architectural appeal, but at the same time being subtle and timeless to meet the changing needs of stakeholders over the longer term.
- High quality space including: high quality views, natural light, high quality access from an attractive street setting, high quality lobby and lift finishes, high quality lift ride with good handling capacities, high quality amenities, high quality presentation and maintenance.
- An environmental rating of a high level, large efficient floor plates and high loading floor capacity.
- Mechanical plant and equipment of a high quality and long term service life.
- High quality tenant services and common area finishes of a high standard.
- Ample power and backup power, with high efficiency lighting and energy consumption.
- Building intelligence systems with full property management and operational on-site team, regular building management committee meetings, online tenant service request systems, building user guides and risk management systems.
- Security to all public areas, main lobbies, carparks, loading docks, goods lifts and all points of entry and exit.





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