Better Apartments Draft Design Standards

Industry Submission – September 2016

ABOUT US

Urban Development Institute of Australia (Victoria)

The Urban Development Institute of Australia (Institute) is the peak industry body for the urban development sector. In Victoria, we provide over 320 member companies with the benefits of policy and advocacy, industry intelligence, networking and business building.

Our members include developers, consultants, financial institutions, suppliers, government authorities and utilities. Together we drive industry discussion and debate and inform all levels of government to achieve successful planning, infrastructure, affordability and environmental outcomes.

SUMMARY

1. Position Summary

According to Plan Melbourne, Melbourne's population is expected to grow by 3.4 million people to 7.7 million by 2051. To accommodate this growth, Melbourne will need to provide 1.6 million more dwellings. As such, apartments have an important role in servicing the housing needs of our population now and in the future.

As a member of the Industry Reference Group, the UDIA has had the opportunity to respond to both the discussion paper and a confidentially released options for draft measures. At each stage of engagement, the UDIA has provided a through and detailed response which centred around a set of guiding principles.

However, in reviewing the *Better Apartments Draft Design Standards*, the UDIA found that many of the principles for developing and implementing an approach to delivering *Better Apartments* have largely been ignored. These include:

- The significant role apartments play in in delivering an affordable housing option in desired locations is to be maintained or improved;
- Development outcomes which are predominately driven by choice and preferences of the market are allowed to continue;
- Liveability is properly considered in the context of three components, being: interior amenities, building amenities and locational amenities; and

- Recognise the role of development outcomes which are largely driven by existing regulatory instruments and allow these to remain the responsibility of the relevant regulator (i.e the Australian Building and Construction Board is responsible for the Building Code of Australia)

In reviewing the Better Apartments Draft Design Standards, the UDIA found that these principles and the comments from the confidential review of the previously proposed design measures have largely been ignored.

Furthermore, as raised through previous discussions, the Better Apartment Draft Standards need to be considered as part of larger framework that influences decisions to invest in Victoria. To ensure that Victoria earns the title of '*the state of momentum'*, it must consider the financial and risk frameworks that affect investment decisions. The cumulative impacts of state and federal policy decisions such as lending caps imposed by the Australian Prudential and Regulation Authority; bank lending policy changes; foreign investment taxation surcharges; and Central City Design Controls stands to impact in the medium term, the state's reputation as an investment destination.

The following points are a summary of the general issues identified through the UDIA's review of the proposed measures:

1. *The proliferation of smaller apartments that were produced through a surge from the investment market has since subsided. The maturing of the market has since seen a change in the quality, types and size of apartments based on market preferences.*

2. *Based on a standard high rise apartment development, the construction costs per apartment is estimated to be approximately $62,500. This figure is likely to vary depending on the market in which the apartment serves. More affordable apartments are likely to see a more significant increase in construction costs to meet the proposed standards. See appendix B – Price Increase based on Better Apartments Draft Standards*

3. *The proposed standards will decrease the potential yield of a developable site by approximately 30% or more. As a result, the land cost component per apartment will increase.*

4. *Due to the higher costs associated with delivering apartment products, the increase in those costs will see a much higher increase in prices. These short term impacts will lead to medium term social issues as housing becomes increasingly unattainable.*

5. *The proposed building standards will reduce the number of individual sites that are currently capable of being developed for apartment development no longer capable.*

6. *Site assembly is made more difficult as the redevelopment land value becomes lower than the market value of existing uses on many sites.*

7. *Existing planning scheme provisions already determines appropriate setbacks where apartment development is considered appropriate.*

8. *Potential decrease in market activity puts Victorian jobs, economy and the state budget at risk.*

9. *The scope of the proposed standards extends beyond introducing guidelines which ensures an acceptable outcome is achieved.*

10. *There are existing regulations and provisions that address many of the elements raised by the Better Apartments Discussion Paper and the proposed design measures.*

11. *Large apartments have different spatial constraints and opportunities compared to smaller apartments rendering the standards irrelevant.*

12. *As proposed, the impractical and prescriptive nature of the standards will minimise the opportunity for innovative design outcomes to deliver better apartments. To allow for quality development to occur without inhibiting innovation, the standards will require decision makers to apply the level of discretion which is not often exercised.*

The UDIA has engaged a number of its members across the planning, architecture and development sectors of the industry to undertake a hypothetical options analysis of the impact of design controls. We have established that in their current form, the proposed apartment design controls would likely result in the following direct impacts:

- The proposed design controls will increase in the average price per apartment by more than $62,500 due to increased cost of design and construction, as well as increased development risk;

- The controls would significantly reduce the size of the apartment market by pricing out buyers who can currently enter the market at the affordable end, being the less expensive end. These buyers actively trade off on design features more likely to be associated with the higher end of the market, in order to achieve ownership; and

- The controls would reduce apartment building activity.

These outcomes are of great concern to the urban development industry and are counterproductive to the overall strategy for Melbourne's growth as identified in Plan Melbourne and Plan Melbourne Refresh.

2. Recommendations

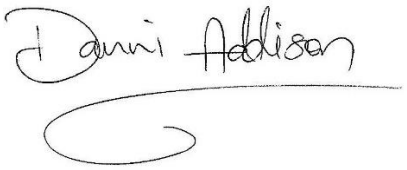
Due to the impacts associated with the proposed standards, the UDIA are not supportive of the proposed Draft Design Standards. Furthermore, due to the influences of the market, it is disappointing that calls to

introduce market based approaches were not pursued before introducing standards that may not align with market preferences.

Short of abandoning the development and introduction of standards, the UDIA have sought to identify alternative solutions which deliver the intended objective identified by the standards. The alternative solutions seek to minimise potential impacts from the standards.

Appendix A – Impact Assessment & Identification of Alternative Solutions: *Better Apartments Draft Design Standards,* provides a list of alternative solutions which are recommended for consideration.

In managing the transition, it is recommended that the standards should not be applied to development sites that have already been transacted via a contract of sale, option deed or similar, and should be applied to development sites that have transacted via a contract of sale, option deed or similar, not less than six months following the introduction of the standards.



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SUBMISSION

1. Understanding the factors that drive apartment purchases

The proliferation of smaller apartments that were produced through a surge from the investment market has since subsided. The maturing of the market has since seen a change in the quality, types and size of apartments based on market preferences.

Anecdotally, in 2014 and 2015, when apartment design became a key issue for the Andrews Government, the proportion of 1 or 2 bedroom apartments being delivered was as high as 90 – 100%. This high proportion of smaller products would only ever be sustainable if the market continued to demand 1 or 2 bedroom apartments.

However, in recent times a shift in preferences within the apartment market has developed and there has been a tangible increase in demand for 3 bedroom apartments. In response, the development industry has successfully introduced different products to cater for the much more diverse apartment market.

Before seeking to intervene in the industry's ability to respond to the demands of the housing market, it is essential that the DELWP and OVGA understand that Melbourne's apartment market is still maturing. For example, less than 10 years ago the average apartment rates were around 4,000 per annum. By 2010, this had grown to 10,000 approvals per annum. By 2014, approvals were over 14,000, making up nearly one third of all housing approvals in Melbourne.

Due to its transition towards maturity, consumer and investor preferences in the apartment market are continually changing. Limiting the ability for the development industry to deliver products directly reflecting market preferences will impact this transition and slow down building activity.

Some may argue that as the market matures, the government is responsible for ensuring that the diversity of apartment types and sizes meets the needs of the future population. This argument ignores the fact that according to the Institute's Research Partner, Charter Keck Cramer, apartments in buildings (four storeys or more) as a percentage of total housing stock in Melbourne is only 3.3%. This figure is 10% in Sydney, 30% in Chicago, 35% in Greater London, 40% in Toronto and Vancouver and 35% in Los Angeles.

Due to the low proportion of housing stock attributed to apartments, it is argued that the apartment market would balance itself out long before it reaches 10% as seen in Sydney. At present, stipulating the design of dwellings would do more harm to the apartment market than good, particularly when requirements don't align with preferences of the market.

According to the DELWP, market based approaches are going to be considered after the introduction of the standards. It is disappointing that despite calls by the industry to consider market based approaches

to inform buyers and to influence better design, the government would undertake this as an afterthought.

2. Apartment prices will increase

Higher construction costs per apartment

Based on a standard high rise apartment development, the construction costs per apartment is estimated to be approximately $62,500. This figure is likely to vary depending on the market in which the apartment serves. More affordable apartments are likely to see a more significant increase in construction costs to meet the proposed standards.

The discussion around apartments must first recognise that the most significant role apartment's play in the broader housing market is one of affordability and diversity. For many low and middle-income households, the price and rental cost of detached and semi-detached dwellings in Melbourne's inner and middle suburbs, means that an apartment is a more affordable means of housing in locations where housing prices may be unaffordable.

According to research undertaken by the UDIA's research partners Charter Keck Cramer (Charter) the current median price for a 46-50m2 one-bedroom apartment is $411,000. This is more affordable than 70% of detached housing and 58% of all existing units and flats sold in Melbourne last year. [1]

Furthermore, research conducted for the Victorian Government's own *Context Report* identified that in a survey of 70 new one-bedroom apartments sold in Melbourne's inner east, 49% were below 50m^2 and sold for less than $500,000.

According to the Real Estate Institute of Victoria, in the June quarter of 2015, there were 78 suburbs with a median house price of more than $1 million. Within areas such as these, apartments are the lowest cost option for residents. [2]

To demonstrate the direct impact the proposed standards is likely to have on affordability, the UDIA, with Plus Architecture, have produced a cost analysis of most requirements identified in the standard to identify the potential construction cost increase in meeting those standards. This analysis was based on a standard high rise apartment development and proves that an increase of approximately $62,500 will be realised on average per individual apartment.

[1] Department of Environment, Land, Water & Planning, 2015, *"Better Apartments: Minister's Forum Context Report"*, July 2015, pp.11
[2] Real Estate Institute of Victoria, 2015, "Million Dollar Suburbs, last viewed 31 July 2015, https://www.reiv.com.au/PROPERTY-DATA/High-Performers/Million-Dollar-Suburbs

When presented with these figures, the UDIA's developer members either agreed with the costs identified or suggested that they would be higher for some of the different line items. It should also be noted that depending on the target market, the potential costs associated with implementing the standards would vary. However, for apartment developments delivering products at the affordable end of the market, the increased construction costs are likely to be greater.

The UDIA has consistently advocated for a full cost benefit assessment to be undertaken by the Government which demonstrates the cost impact of any proposed design controls. To date, this has not been done, or not released.

The Government must be willing to have an honest conversation with the Victorian community about the cost impost of any proposed design controls. There is a price tag on every design proposal and unless the Government engages the community in an honest and transparent discussion about this fact, the debate will undoubtedly be won or lost on the emotive opinions of a minority few at the expense of those wanting to live or invest in an apartment.

In the absence of any such analysis, the UDIA questions the transparency and accountability of the process.

Higher land costs per apartment

The proposed standards will decrease the potential yield of a developable site by approximately 30% or more. As a result, the land cost component per apartment will increase.

A case study of Little Project's Central South Yarra development has identified that meeting the proposed standards would reduce the developable yield of the site from 357 apartments down to 213 apartments. This is a reduction of approximately 40%.

As a result of reduced yield, the land cost component which is attributed to each apartment increases. If the yield on a site decreases by 30%, an additional $300,000 per $1 million of the land's purchase price will be spread across the delivered apartment stock.

Take the following scenario, land purchased for $22.6 million is capable of being developed with 282 apartments. On average the land cost component per apartment is $80,142. In this scenario a decrease in the If as a result of the standards the potential yield is reduced by 30%, the average land cost per apartment will be $114,141, which equates to an increase of more than 40%.

However, the above scenario would only occur if the land has been purchased prior to the introduction of the standards as lower land values will gradually reduce the price of land over time. The issue with reducing yield on site is due to the complex market dynamics between developers and the vendor.

It is a common misconception that lower land values will mean that vendors will release land at a lower price. However, the assumptions that are commonly made reflect a scenario that would occur in a perfect market. Unfortunately, there is no such thing as a perfect market and there is a high level of rigidity in downward land prices.

While developers acquire sites based on the value of the land, vendors willingness to release land for purchase is based on their willingness to sell. When land values are reduced it takes some time for the expectations of vendors to match those values. However, due to the reduced supply of land, as expectations decline land values increase again as the lack of supply increases the price the market is willing to pay for apartments.

While the impact of reduced yield may not be as significant as demonstrated in the scenario above, the rigidity of downward land prices will most likely still see a significant increase in the land cost component per apartment.

Higher costs will lead to higher prices

Due to the higher costs associated with delivering apartment products, the increase in those costs will see a much higher increase in prices. These short term impacts will lead to medium term social issues as housing becomes increasingly unattainable.

Typically, a development is expected to be capable of achieving a return of 20% to meet financiers demands. This cannot be reduced as it is one of a few conditions which need to be fulfilled for financiers to approve and release funding for an apartment project. Due to the required rate of return every $10,000 of additional costs will need to achieve an additional $12,000 on the price of an apartment.

Based on the increased construction costs associated with a typical apartment being approximately $62,500, the average price for an apartment would need to increase by $75,000. Please note that this includes any increase in the land cost per apartment.

Due to the rising cost of housing around Australia and the stagnation of income growth, housing is becoming less attainable for a large proportion of the population now. According to the latest data from the Household, Income and Labour Dynamics in Australia research, the proportion of households that are owner occupied has reduced from 69 per cent in 2001 to 65 per cent in 2014. To reverse these trends, government policy needs to consider the broader impacts of their policies and how they introduce or increase barriers to home ownership.

Not only does the proposed standards impact on price and supply increases current barriers to home ownership, changes in lending policy as a result of increased risk may see larger deposits for loans amplify those barriers. The accumulative impact will inevitably leader to medium and longer term social issues associated with the unaffordability and unattainability of housing.

3. Developable land across Melbourne will be reduced

Reduced number of sites capable for development

The proposed building standards will reduce the number of individual sites that are currently capable of being developed for apartment development no longer capable.

Taking a minimum width of 20m for an efficient building envelope, Under the current proposed standards the maximum height achievable on a 30m wide site is 8 storeys. a site would need to be 32 metres wide for a 4 storey building and 44 metres wide for a building greater than 8 storeys.

The UDIA undertook a research of two precincts (Forrest Hill & St Kilda Road) which are expected to undergo renewal over the near and medium term. Under the current provisions, of the 64 sites that are considered developable (*inc. recently developed and under construction*) only 11 (17%). The proportion of sites within these precincts that are considered developable will change from 53% to 9%.

Difficulties associated with consolidation

Site assembly is made more difficult as the redevelopment land value becomes lower than the market value of existing uses on many sites.

While we agree that some sites should be consolidated to provide a desirable built form outcome and achieve reasonable setback requirements, the currently proposed standards make it difficult for consolidation to be feasible.

Due to the significantly reduced yield associated with the proposed standards, the already difficult process of site assembly becomes more difficult. A decrease in apartment yield for a site decreases the land value of a site for the purposes of redevelopment. However, within many established suburbs, market value of existing buildings would be greater than the value of the land for redevelopment under the proposed standards.

The lack of sites that can be developed for residential apartment purposes would mean a significant decrease in the supply of apartments. A constraint on supply will mean that affordable apartment products would be removed from market.

Existing Planning Scheme Provisions

Existing planning scheme provisions already determines appropriate setbacks where apartment development is considered appropriate.

It needs to be clearer within the proposed draft standards that the setbacks apply in situations where there are no provisions. Additionally, the proposed standards are recommended to be amended to align with what is considered acceptable for dealing with privacy, daylight and built form.

4. Jobs and economic growth will be threatened

Potential decrease in market activity puts Victorian jobs, economy and the state budget at risk.

While the increased costs associated with acquiring and constructing a site will increase the price necessary for apartments to achieve an adequate rate of return, the market will only pay for what they are willing and able to pay.

Victoria depends on a thriving residential property industry, not only to provide housing for its population growth, but for jobs and the health of the Victorian economy and state budget.

The residential property and construction industry contributes more than $10 billion to Victoria's economy equalling 3.6% of the Gross State Product (GSP). According to the State government's 2016/17 budget papers, over the next four years, revenue from property taxes equates to more than 40% of total taxation revenue. Furthermore, the residential property and construction industry contributes to more than 124,000 jobs representing a little over 4% of the share of total employment.

If the market is currently unable and willing to pay higher prices due to increased costs for apartment development, market activity will slow. The reduced supply of apartment product will place an upward pressure on all housing prices. Apartment market activity will reactivate once the market is willing and able to pay a price on apartments that delivers an adequate rate of return for investment in the development.

During the transition between the slowdown and when apartment projects become feasible, Victorian jobs would be cut in the development sector. Due to the sectors economic contribution, this will also have a significant impact on the Victorian economy and the state budget.

5. Preferred vs acceptable outcomes

The scope of the proposed standards extends beyond introducing guidelines which ensures an acceptable outcome is achieved.

To assist the DELWP to determine an adequate purpose for apartment design measures, the UDIA has provided an analysis of *Knox City Council v Tulcany Pty Ltd* case as observed in *[2010] VSC 583 Rozen v Macedon Ranges Shire Council & Anor*:

> *"The planning scheme does not require an ideal outcome as a prerequisite to a permit. If it did, very few, if any permits for development would ever be granted and there would be difficult differences of opinion as to whether the outcomes were in fact ideal. The Tribunal is entitled to grant a permit where it is satisfied that the permit will result in a reasonably acceptable outcome having regard to the matters relevant to its decision under the planning controls"*

The above statement further highlights the need for the apartment design standards to represent an acceptable outcome as opposed to identifying a limited view of an ideal outcome. At present, a large proportion of the proposed measures seeks to deliver what the DELWP and OVGA perceive to be an 'ideal' development outcome.

As currently proposed, implementation of the proposed standards will rule out award-winning apartment developments such as *Upper House* by Piccolo Developments, and *Eden, Haven and Sanctuary* by ISPT and Hamton.

Upper House by Piccolo Developments won the 2015 National Australian Institute of Architects Award for Best Overend in the Multiple Housing category, and *Eden, Haven and Sanctuary* by ISPT and Hamton won the 2016 National UDIA Award for High Density Housing and the President's Award.

Under the proposed Better Apartments Design Guidelines, both developments do not comply with the windows standard, which requires a window to be viewable from any point in the room. Additionally, neither complies with the proposed setback requirements nor the room-depth standard proposed.

Within our last submission, the UDIA recommended that the DELWP and OVGA reviewed, documented and showcased current examples of good design within existing development to assist in the development of practical standards. It was recommended that the DELWP and OVGA includes examples of affordable development products to ensure proposed standards don't lead to an all luxury apartment market.

To date no case studies identifying and reviewing examples of good affordable apartment developments have been developed and/or publicly released.

6. Duplication of existing regulation

There are existing regulations and provisions that address many of the elements raised by the Better Apartments Discussion Paper and the proposed design measures.

For example, the National Construction Code (NCC) Volume 1 sets out contains requirements for multi-unit residential development. Some of the elements the proposed measures are seeking to address are featured in the following sections of the NCC Volume 1:

- Section D – Access and Egress, Part D3 – Access for People with a Disability;
- Section F – Health and Amenity,
    - Part F3 – Room Heights
    - Part F4 – Light and Ventilation
    - Part F5 – Sound Transmission and Insulation
- Section J – Energy Efficiency
    - Part J0 – Energy Efficiency
    - Part J1 – Building Fabric
    - Part J2 – Glazing
    - Part J3 – Building Sealing
    - Part J5 – Air-Conditioning and Ventilation Systems
    - Part J6 – Artificial Lighting and Power

In seeking to propose additional design measures to address elements such as natural ventilation, ceiling heights, noise, energy efficiency, etc. the DELWP and OVGA have not provided any assessment as to how the NCC does not represent an acceptable outcome.

It is difficult to surmise that after the process that is undertaken to develop each edition of the NCC, that the outcomes that it delivers could be considered unacceptable. Unlike majority of the provisions introduced within the planning scheme, the changes to the NCC go through a Regulation Impact Analysis.

The key steps of the regulation impact analysis involve describing the nature and extent of the problem; stating the intended outcomes of proposed action; identifying a range of feasible policy options that are capable of addressing the problem; undertaking cost benefit analysis of these options to identify the option that would deliver the greatest net benefits to society; and consultation to incorporate the views of parties affected by the proposal.

In the absence of any review of the suitability of the NCC requirements, it would be expected that at a minimum a proper regulatory impact analysis is undertaken.

7. Irrelevance to larger apartments

Large apartments have different spatial constraints and opportunities compared to smaller apartments rendering the standards irrelevant.

For example:

- Living areas for larger apartments will likely be deeper than small apartments and the rooms much wider.
- An internal room may be entirely appropriate for a music space or multimedia room without any view to a window.
- Cross ventilation distances would be greater than 15 to 18 metres.

Much of the community's focus has been on the quality of smaller apartments and the potential impact on long term occupants, particularly renters. It is understood that there is very little concern for larger apartments as the market they serve tend to be more savvy and place a greater demand for apartments to meet their preferences due to the higher price they pay.

Due to the above mentioned reasons, it is recommended that the apartment standards do not apply to larger apartments. The threshold for what constitutes a large apartment is as follows:

- Studio or 1 bedroom: 60m^2 or greater.
- 2 bedroom: 90m^2 or greater.
- 3 or more bedrooms: 120m^2 or greater.

8. Overreliance on the use of discretion

As proposed, the impractical and prescriptive nature of the standards will minimise the opportunity for innovative design outcomes to deliver better apartments. To allow for quality development to occur without inhibiting innovation, the standards will require decision makers to apply the level of discretion which is not often exercised.

As previously identified, not even award winning apartment development would meet the proposed standards, which indicates that a vast majority of development applications will require a significant level of discretion from the standards to be applied.

According to the 2011 Council of Australian Government's *First National Report on Development Assessment Performance 2008/09*, 1 in 10 planning applications were appealed in Victoria compared to 1 in 83 in NSW and 1 in 1000 in Queensland. Furthermore, according to the Government's Planning Permit Application Reporting System (PPARS), from 1 July 2012 to 30 June 2015, of the 148 applications for more than 10 new dwellings received that are not in progress, 94 (64%) have a VCAT appeal lodged.

Requiring further discretion for apartment development will likely exacerbate, not mitigate Victoria's overreliance on the VCAT process. This is particularly concerning when the prescriptive nature of the standards sets an impracticable expectations as to what is considered an acceptable outcome.

To deliver acceptable design outcomes without exacerbating the number of applications lodged through VCAT, the standards need to better reflect a practical solution and/or approach to addressing specific amenity and functionality issues. The UDIA's proposed alternative solutions seeks to do this while respecting the overall objectives of the standard.

9. Alternative solutions

Due to the impacts associated with the proposed standards, short of abandoning the development and introduction of the standards, alternative solutions which deliver the intended objective with minimal impacts should be considered.

The UDIA believe that other options would have delivered better apartment outcomes with minimal impact of market activity and affordability. It is concerning that the government would undertake a regulatory approach before considering market based approaches, which is believed to follow the standards. However, in this late stage, the UDIA believe that short of abandoning the proposed standards, the Minister for Planning should consider the alternative solutions outlined in appendix A.

10. Managing transition

A transitional period should seek to reassure that investment in Victoria's housing is safe and that changes to the planning framework would be suitably introduced in a way that would significantly impact confidence.

The proposed minimum three-month notice before the standards come into effect does not provide sufficient time for a transition. Both site assembly and planning applications can take considerably longer than three months to complete.

The standards should not be applied to development sites that have already been transacted via a contract of sale, option deed or similar, and should be applied to development sites that have transacted via a contract of sale, option deed or similar, not less than six months following the introduction of the standards.

Furthermore, it is noted that already local councils and the Minister's office is already requiring applicants to comply with the proposed standards. It is requested that the Minister for Planning adequately and immediately informs decision makers of the application of the standards and that until such time that it is introduced, the current planning provisions apply.

11. Conclusion

The UDIA recognises and supports the Victorian Government's commitment to delivering affordable housing options that meet the long term needs of the Victorian community.

The UDIA also genuinely supports the need to protect and enhance Victoria's reputation for liveability and good design and that standards are needed to create better outcomes for apartments in Victoria.

However, as illustrated in our submission, the proposed draft design standards decrease affordability and does not ensure good design outcomes.

To ensure that affordability and housing attainability is maintained and that the design of our apartments deliver good performance outcomes, the UDIA recommends a series of amendments that focuses on the performance outcomes rather than prescribed design outcomes.

Appendix A – Impact Assessment & Identification of Alternative Solutions

Better Apartments – Draft Design Standards

Element/ Objective of Standard	Impact of Standard	Alternative Solution
Building Setback The standard seeks to ensure that new apartment buildings are setback an appropriate distance from side and rear boundaries to receive an adequate amount of daylight and privacy. *Daylight: Very High importance* ***Note:*** *The level of importance is directly taken from the Engagement Report.*	*Very High impact – Will impact all development limiting yield on developable sites and significantly reducing the availability of developable land.* • Setback requirements will limit project yield and reduce the amount of developable land. Review of St Kilda Road Precinct and Forrest Hill precinct shows that showed that less than 20% of sites within the precinct would be capable of being developed above 25m. • In many circumstances including along Melbourne's most successful strip centres a zero side setback is appropriate it reinforces a defined the street wall height informed by overlays. • Apartments can be oriented to the street and to inboard open spaces. • More often than not ground and first floor developments are commercial in nature the setback should not apply at the lower levels the standard creates an anomaly in the streetscape. • Combined with raised ceiling heights, majority of development within these precincts would likely not be capable of being developed above 9 storeys. • Taking into consideration the market value of the commercial use of existing buildings, the suitability of sites within these precincts for residential development would be further diminished with 10% or less identified as being able to be developed under the proposed setback provisions. • Provides no incentive to develop 5-8 storey buildings. Why setback a 5 storey building at 6m when a 4 storey building would be able to be setback in accordance with Clause 55, absent any overlay.	• Setbacks should continue to be identified through overlays as they currently do. It is recommended that the building setback provisions be removed.
Light Wells The standard seeks to ensure that the size and design of light wells allow adequate daylight access to an apartment. *Daylight: Very High importance*	*Low impact – will impact limited number of development. Any additional costs would unlikely have a significant impact industry wide.* • No objection to both the standard and the definition for a light well. • Preference would be that the standards focus on the lighting level achieved for the habitable room with any privacy issues addressed through other measures (i.e. staggering of windows to avoid direct outlook into habitable rooms.)	• Keep current proposed standards
Room Depth This standard seeks to ensure that each apartment is able to receive an adequate amount of daylight, including south facing single aspect apartments. *Daylight: Very High importance*	*Very High impact – Will impact a majority if not all apartment development. Impacts include a reduction in yield and potentially smaller living areas.* • At a ceiling height of 2.7m the depth of a habitable room (if not open plan) should be no greater than 5.4 metres. However, it has been identified through our interviews with a number of developers that the majority of living areas are a minimum of 6 metres. • The standard window size for apartments is approximately 1/3 of the wall facing outside. However, in most apartments, the window can be from floor to ceiling and from wall to wall. This design outcome is expected to deliver a much greater level of lighting to a room with a greater depth than 5.4 – 8 metres. • According to the NCC, all habitable rooms windows are to cover not less than 10% of floor areas. Assuming a living space of 5.4m (2.7m ceiling	• Delete Room Depth to achieve natural lighting objective through an amended windows standard to focus on achieving a specified lux level of natural light. See Windows for further detail. • Allow the NCC to continue setting the standard for ceiling height.

Element/ Objective of Standard	Impact of Standard	Alternative Solution
	height) by 4m, the window area would need to be no less than 2.16 m2. A living space with the same width, 10m in length and 2.5m ceiling height would still have a greater level of access to daylight with a floor to ceiling, wall to wall window equating to 25% of the habitable rooms floor area. • A floor to ceiling height of 2.7m is not common even amongst the most desired apartments (Provide examples). However, it is also common for good apartments to exceed the NCC requirement of 2.4m with 2.55m ceiling height within habitable rooms (excluding bulkheads) • Increasing the minimum ceiling height requirement from 2.4m to 2.7m is going to significantly impact the potential yield of development due to height restrictions being based on maximum number of metres not maximum number of storeys. The loss of floors from the increased ceiling heights will reduce the potential yield for development which can reduce the feasibility for some sites.	
Windows The standard seeks to ensure that all habitable rooms have direct access to daylight by requiring a window to be directly visible from any point in the room. *Daylight: Very High importance*	*Very High impact – Will impact a majority if not all apartment development. Impacts include a reduction in yield and potentially less features like studies. Construction costs alone will add approximately $10,500 per apartment.* • Saddleback bedrooms in many cases allows for more diversity of product in new apartment developments and often represents the most efficient use of a building's floor plate. Requiring all parts of every habitable room to have a view to the window will result in reduced efficiency and yield. This will add additional costs to the price of new dwellings and/or reduce the number of sites that could feasibly redeveloped in the short and possibly medium term. • Borrowed light is used in a number of different developments with variable outcomes to the lighting outcomes. However, because a number of developments insufficiently designed their apartments in a way that effectively uses borrowed light does not justify a blanket ban. Due to the efficiencies gained in allowing this type of apartment, development is able to produce apartments at a relatively more affordable price. • While daylight is a desirable outcome for a study, it is not unacceptable for a secondary room such as a study not to have a view to a window. The unintended consequence of the standard is that studies would not be provided. • It is understood that the purpose of the window standard being imposed on study rooms is that they may be used and sold as an additional bedroom. In this situation, we support the need for natural lighting requirements. However, in circumstances where the study is not closed off, making unusable space functional, the natural lighting requirement should be considered an ideal outcome not the minimum acceptable standard. • The apartment standards are intended to determine an acceptable standard for apartments. In regard to natural lighting, tools such as the Built Environment Sustainability Scorecard (BESS) provides a best practice. The role of the Better Apartments Draft Design Standards is to identify an acceptable practice. In terms of natural lighting, the draft	• The minimum natural lighting levels must be achieved: ○ Living areas: Daylight factor of greater than 1% for 60% of the floor area or 9m2 whichever is the greater; ○ Bedrooms: Daylight factor greater than 0.5% for 60% of the floor area (excluding light corridors and walk in robes) • At least 80% of apartments must meet the above standards. Where less than 100% of apartments meets the above standards, indoor open space must be provided with a daylight factor of 1% for 90% of the area. • The area of the internal habitable common room should be a minimum $10m^2$ plus $1m^2$ for every apartment that does not meet the above standard. *Note: Any study rooms separated from a main room such as a bedroom or living area must comply with the same standards as bedrooms.* • Proposed acceptable options seeks to ensure that studio apartments can still be provided and meet the demand of buyers and occupiers by not ruling out the inclusion of partitions. • Any concern that studios would be advertised as one bedroom apartments should be addressed through the conduct of vendor agents. • Both kitchens and study rooms are considered to be secondary rooms when compared with Living Rooms and Bedrooms. While there may be some preference from some occupants for kitchens and study rooms, this is not a minimum acceptable standard. As such, it is recommended that natural light to kitchens and study rooms be encouraged through a market based approach to give individuals the option. • The note seeks to address any concerns that a study room could be utilised and an additional bedroom.

Element/ Objective of Standard	Impact of Standard	Alternative Solution
	standards should reflect a practice below that identified in the BESS. • Also wee Building Setback and Room Depth regarding window sizes.	
Storage The standard seeks to ensure that each apartment has a reasonable amount of storage space to allow people to live comfortably and provide for different space requirements of different households. *Space: Very High importance*	*Medium Impact – Will increase the construction cost per apartment by approximately $3,500 per apartment.* • It is considered that the 6m^3 of externally accessible storage is derived from ResCode. The purpose of requiring 6m^3 of for housing was to ensure that adequate storage was available for lawnmower/bicycles, garden tools, bins etc. (Please refer to explanatory note). The reasons that 6m of storage is required for housing does not apply to apartments. Apartments have separate bicycle storage, communal bins and minimal to no outdoor/garden maintenance needs. • The proposed standards also allow for a great level of subjectivity to be applied by the assessing officers to determine what would be normally and reasonably expected to be provided in a kitchen, bathroom, bedroom and other utility storage spaces. • As the additional storage is required in addition to what would be normally and reasonably expected to be provided in a kitchen, bathroom, bedroom and other utility storage spaces, there is little information on what the storage is for and how much additional storage is considered appropriate to meet standard demands. • Proposing measures that delivers an outcome which was intended for purposes not relevant to apartments is inappropriate and ill-conceived. • The commonly accepted storage cage at the end of a car park bay is 2.6m wide by 0.6m deep by 2.2m high, which equals 3.6 cubic metres. It occupies 1.56sqm of basement floor area. For 3 bedroom apartments the commonly accepted storage amount is double (3.12sqm floor area).	• Amend the table identified for the standards as follows: ○ Studio, 1 bedroom and 2 bedroom dwelling – 3 cubic metres ○ 3 bedroom dwelling – 6 cubic metres
Noise Impact The standard seeks to ensure that new apartments achieve a reasonable standard of acoustic performance in relation to noise transmission. *Noise: High importance*	*Low Impact –Could increase construction costs. If triple glazing is required the cost could be approximately $2,000 per apartment.* • The NCC already deals with noise amenity. The DELWP and OVGA have not provided any evidence which suggests that the current NCC does not represent an acceptable outcome in addressing external noise. • It is understood that the previous concerns regarding NCC (formerly Building Code of Australia) were addressed in the 2004 amendment.	• Gather evidence regarding the shortfalls in the NCC that doesn't manage noise amenity to what is considered acceptable. • Using evidence propose that the NCC is amended to address any current gaps. • Delete noise impacts from the draft design standards.
Energy Efficiency The standard seeks to ensure that new apartments are energy efficient. *Energy Efficiency: High importance*	*No impact analysis was provided.* • In the residential sector, more and more consumers are becoming savvy to the operational costs of the household and the savings that an energy and water efficient household can deliver. While the Institute is supportive of market based approaches to improving energy and resource efficiency, mandatory requirements need to solely remain an issue for the NCC. • The limits of cooling loads rather than discussing energy ratings will have impact of reducing peak power loads from air-conditioning, but may also reduce passive solar gain in the winter resulting in not improving energy	• Introduce inspections to confirm the appropriate installation of insulation and sealing of air gaps prior to internal linings being installed; or • Mandate the building surveyors to add this inspection to their current building inspections at the footings, frame and final stages.

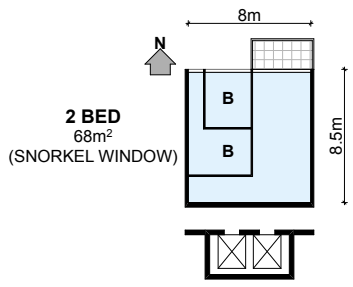
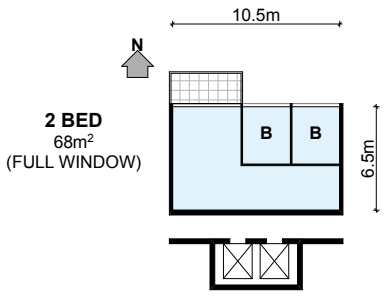
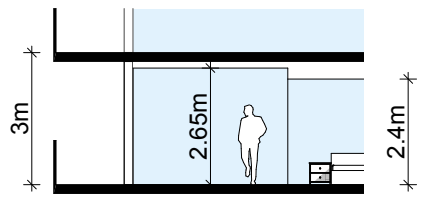
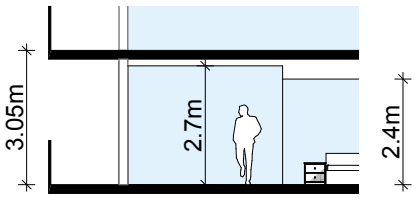
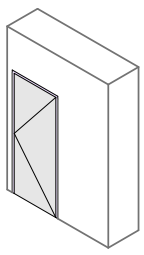
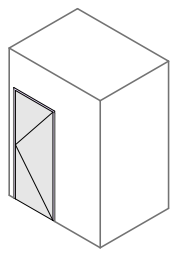
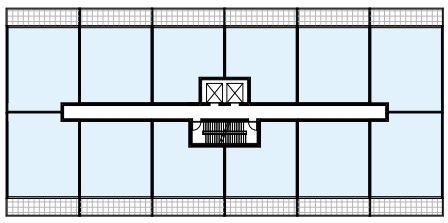
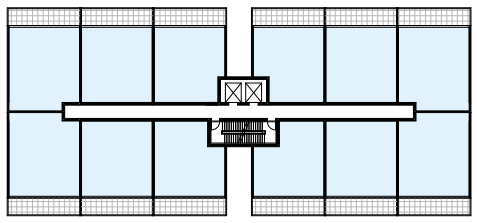
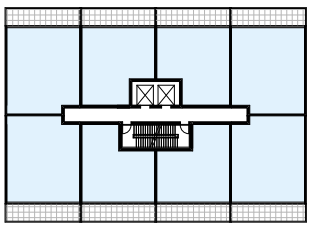
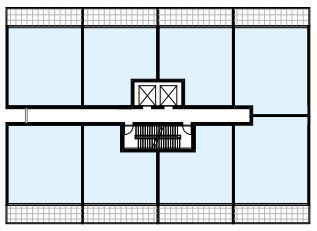
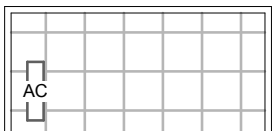
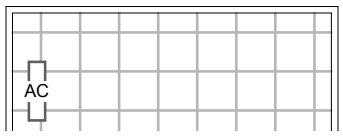
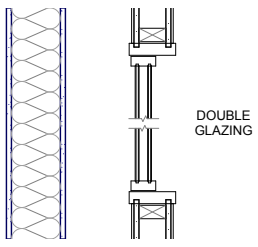
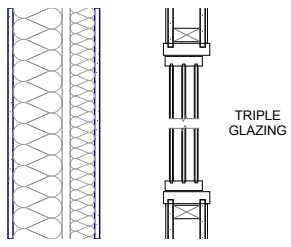
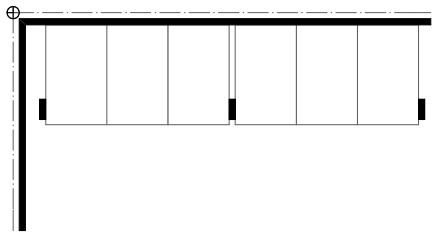
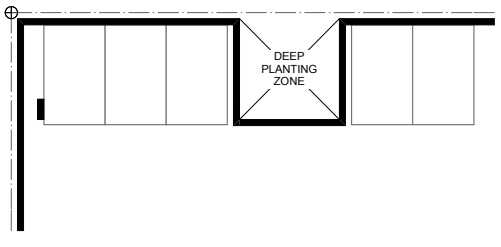
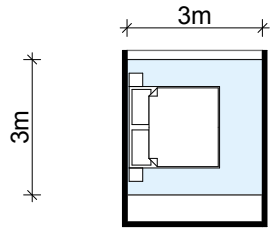
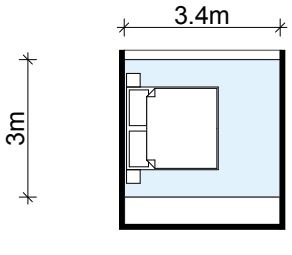
Element/ Objective of Standard	Impact of Standard	Alternative Solution
	ratings. • The required reduction in glass to achieve cooling minimums might have significant impacts on the amount of glass able to be included in dwellings • The limits of 10MJ/m^2 is too demanding and will restrict glazing too significantly with associated daylight impacts. • The conflict between natural lighting and energy efficiency requirements further demonstrates the need for some elements to remain within the NCC. • While changing the NCC takes time, this is because amendments go through a higher level of scrutiny to better ensure conflicts between standards are addressed and to ensure the cost benefit is neutral or positive. The proposed standards has not gone through enough scrutiny to justify increasing energy efficiency standards above what is required in the NCC. • The most significant issue with energy efficiency isn't the standards, but the performance of built dwellings in comparison with their design.	
Solar Access to communal outdoor open space The standard seeks to ensure that any communal outdoor open space provided on-site for residents achieves a specific amount of direct sunlight through good orientation. *Outdoor Space: Medium importance*	*Impact unknown as there are variable scenarios for delivering outcome* • Requirement punishes development that might provide a high amount of communal outdoor open space. • For example, *Development A* might have 50m^2 of communal outdoor open space, meeting the minimum allowed (50m^2 indoor communal, 50m^2 outdoor communal), with only 50% (50m^2) of that space having access to direct sunlight during the specified time. *Development B* might have 300m^2 of open space, exceeding the minimum required, with 30% (90m^2) of that space having access to direct sunlight during the specified time. Despite having a larger area of communal outdoor open space with direct access to sunlight, *Development B* does not meet the proposed standards.	• Amend the standards to state that, Communal outdoor open space located on the south side of a building should be avoided, particularly where there is no other communal outdoor open space that has access to direct sunlight for a minimum of two hours between 3pm and 21 June.
Natural ventilation The standard seeks to ensure that a significant proportion of apartments in a new development have adequate natural ventilation. *Natural Ventilation: High importance*	*Very High Impact – Approximately $9,000 per apartment additional construction cost.* • It has been identified that the proposed standard is considered appropriate for low to medium rise developments where indentation in the building creates multiple orientations. Eg. Break up bulk and form or a rectangular development while also delivering external to side cross ventilation. • The 60% minimum natural ventilation appears to be a copy from SEPP65 without any study regarding the rationale for its application in Victoria. • Victoria is a significantly different climate to NSW where the warmer and humid climates rely on natural ventilation for comfort. In Victoria most apartment dwellers do not open their windows for most the year. • Current issues within Melbourne apartments appear to be the humidity and mould that is produced from tightly sealed apartments with split systems. Criteria need to instead focus on addressing condensation issues.	• Delete standard and address any shortfalls through the NCC amendment process.

Element/ Objective of Standard	Impact of Standard	Alternative Solution
	• Solutions to cross ventilation is not always achievable due to the NCC requirements for fire safety. This is why changes to elements such as natural ventilation goes through a thorough level of scrutiny before introducing a new standard. There has been no such level of technical scrutiny of the proposed standards. • The 15m breeze path has not been justified and is very restrictive in planning an apartment. For instance, this requirement makes cross ventilating some perfectly reasonable three-bedroom apartment impossible. The breeze path as defined in the NSW apartment design guidelines is 18m.	
Private Open Space The standard seeks to ensure that each apartment is provided with an area of private open space that will meet the reasonable recreation and service needs of residents. *Outdoor Space: Medium importance*	*High impact – Approximately $5,000 per apartment in construction cost. Potentially a very high impact proposal if considered with currently proposed setback requirements.* • The engagement policy identified private open space as a design element with medium importance which puts to question the reasoning for considerably large balcony sizes. • While the large balcony sizes may be appropriate for some apartment types, the proposed sizes are considerably larger than what is able to be achieved within high rise. • The objective of the standards is to ensure that each apartment is provided with an area of private open space that will meet the reasonable recreation and service needs of residents. However, residents have varying needs for private open space. Furthermore, depending on the location of buildings and the amenities within the building, those needs may vary. • Furthermore, there are examples where the location of air-conditioning/ heating units located within private open space is designed as a functional area. For example, at one development the screening of the unit was designed to function as a breakfast bar.	• Set a minimum standard based on what can be achieved across majority of high rise developments within the city. • Through market based approach inform consumers of the balcony sizes required to fit certain size housing and require material to be disclosed to potential purchasers. • The air-conditioning/ heating unit should be included if designed in a way that makes it a useable space.
Communal open space The standard seeks to ensure that an area of communal open space is included in new apartment buildings for the benefit of residents. *Outdoor Space: Medium importance*	• No objection as aligns with what is provided amongst most developments.	• Standards are considered acceptable.
Landscaping The standard seeks to ensure that new development is responsive to its landscape context, retains significant vegetation, maintains habitat and provides for canopy trees. *Landscaping: Low importance*	*Medium Impact – Approximately $3,000 per apartment in constructions costs if deep soil areas pursued as the only option.* • The UDIA objects the landscaping standards if decision makers pursue only the deep soil areas. It should be clear that Allowance for green roofs and walls provides an adequate alternative solution to deep soil areas. • The objective seeks only one possible outcome requiring development to retain significant vegetation, maintain habitat and provide for canopy trees. Other planning regulation already requires retention of significant vegetation and maintain habitats in locations identified as being suitably required.	• Amend the standards to allow the landscaping requirements to be determined at the local level instead of a broad brush standard. • Require 80% of the site coverage to be covered in soft landscaped areas and/or with hard materials with a solar reflective index of no less than 38%.

Element/ Objective of Standard	Impact of Standard	Alternative Solution
	• The requirements for canopy trees in the objective removes any option to provide alternative forms of greening dependent on what is achievable and relevant to the context of the development site and its neighbourhood. • The requirement for canopy trees should only apply or reflect existing character areas at the local level. As a general rule the requirement for canopy trees is at odds with more intense urban development in Melbourne's inner city. • As the Better Apartments Discussion paper primarily focuses on mitigating the heat island effect caused by urbanisation, it is recommended that the objective is amended to reflect that outcome.	
Accessibility The standard seeks to ensure that apartment developments cater to the needs of people with limited mobility by introducing minimum dimensions and design requirements for entrances, corridors, doorways, bedroom and bathroom spaces. *Universal Design: Low importance*	*High Impact – Standards will add approximately $11,000 per apartment. $3,000 for accessible bedroom, $6,000 for accessible bathroom and $2,000 for accessible corridors.* • As identified in the community engagement, accessibility is not an issue that is considered important. However, as approximately 18.5% of Australia's population is reported as having a disability and the rise in age related disabilities in the face of an aging population, accessibility still needs to be addressed. • However, requiring all 1 and 3 or more bedroom apartments and 75% of 2 bedroom apartments to be built in accordance with accessibility requirements lacks efficiency and increases the cost of apartments with little to no value to a large proportion of occupants. • One bedroom apartments need to remain as affordable as possible providing an acceptable option for first home buyers to enter the market. Requiring all one bedroom apartments to meet accessibility requirements for a small proportion of the population is considered excessive. • Currently, the building standards requires 5% of room stock for hotels to be disability accessible. • Due to the standard height reached by fire engine ladders, it is recommended that majority of adaptable apartments be located within the first 6 storeys.	• 10% of apartment stock can be adapted to meet the proposed requirements.
Dwelling Entry and internal circulation The standard seeks to ensure that entries and internal common spaces are designed to provide high quality spaces that contribute to the overall amenity and functionality of the building. *Entry & Circulation: Low importance*	*High Impact – Standards will add an additional $5,000 per apartment.* • Considering the low level of importance respondents of the discussion paper place on internal circulation, there is very little benefit in imposing standards that would add approximately $5,000 per apartment. • Additionally, there are common areas such as theatres, gym showers, saunas, etc. that would be required to have natural ventilation and light. This is an unintended consequence of the prescriptive standards. • Requirements for entries is considered to be common practice and will not have a significant impact.	• Remove standard
Waste The standard seeks to ensure that waste management facilities are well	• No objection as aligns with what is provided amongst most developments.	• Standards are considered acceptable.

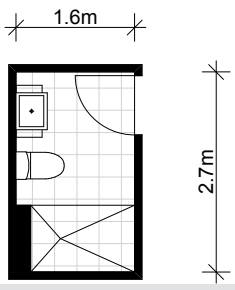
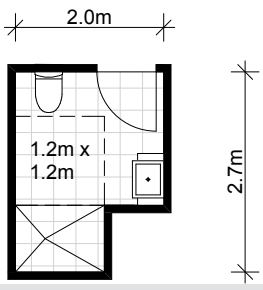
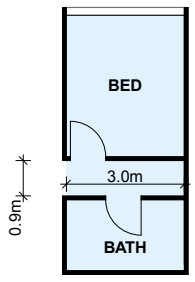
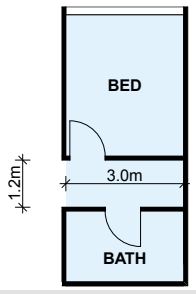
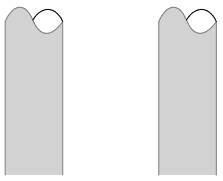
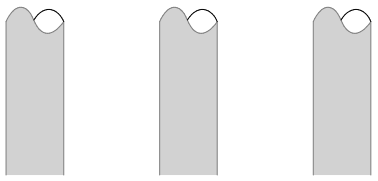
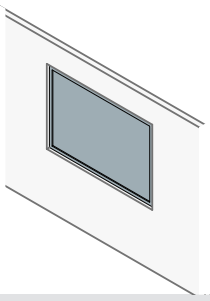
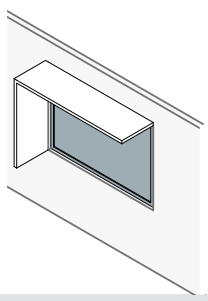
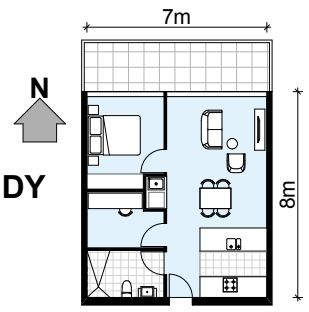
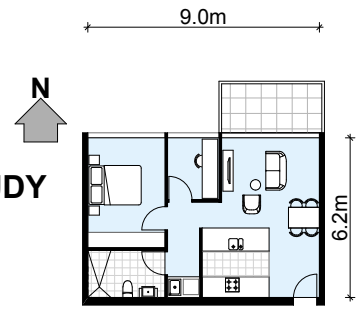
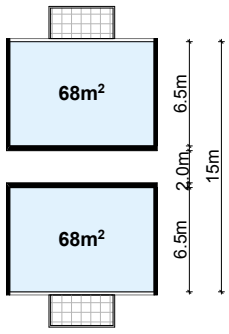
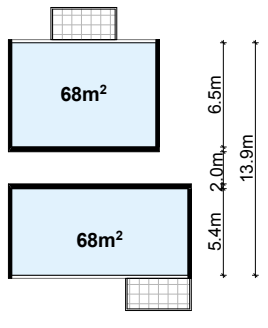
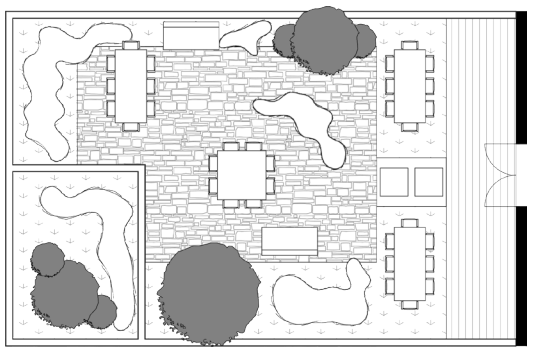
Element/ Objective of Standard	Impact of Standard	Alternative Solution
designed, and enable residents to manage their own waste easily. *Waste: Low importance*		
Water management The standard seeks to ensure that opportunities to collect and reuse rainwater and greywater are identified and implemented in new development. *Not included within discussion paper*	*Low Impact – Standards will add an additional $2,000 per apartment for piping only.* • The objective refers to greywater which can be onerous and costly due to the duplication of sewer plumbing. • Greywater and blackwater harvesting can be deployed effectively on a precinct or municipal basis and consideration should be limited to these situations.	• Amend the objective to: ○ The standard seeks to ensure that opportunities to maximise the water efficiency of the development is identified and implemented.

PRICE INCREASE BASED ON BETTER APARTMENTS DRAFT STANDARDS - 15TH August, 2016

ISSUE	CURRENT APARMENTS	REDUCED AFFORDABILITY	DESIGN STANDARDS	EXTRA COST
BEDROOM WINDOWS		LESS AREA TO PAY FOR THE CIRCULATION 4% LESS EFFICIENCY 25% LESS APARTMENTS TO PAY FOR LIFTS & CORE		$10,500
INCREASE CEILING HEIGHTS		2% EXTRA FACADE, WALLS AND STRUCTURE		$1,000
MORE STORAGE SPACE	**3m³** 	EXTRA BASEMENT & CAGE	**6m³** for 1 BED **8m³** for 2 BED **10m³** for 3 BED 	$3,500
NATURAL VENTILATION		FACADE COST $3000/m² $108,000 EXTRA COST PER FLOOR REQUIRES MORE HEATING		$9000
NATURALLY VENTILATED CORRIDORS		MORE CIRCULATION LESS SELLABLE AREA 2% LESS EFFICIENCY		$5,000
OUTDOOR SPACE	**8m²** 	LARGER BALCONIES	**10m²** 	$5,000
HIGHER ACOUSTICS		EXTRA ACOUSTIC INSULATION		$2,000
LANDSCAPE		DEEP PLANTING REDUCES CARPARK		$3,000
ACCESSIBLE BEDROOM		1.2m² LARGER		$3,000

plus architecture

PRICE INCREASE BASED ON BETTER APARTMENTS DRAFT STANDARDS - 15TH August, 2016

ISSUE	CURRENT APARMENTS	REDUCED AFFORDABILITY	DESIGN STANDARDS	EXTRA COST
ACCESSIBLE BATHROOM	4.0m² 	1.2m² LARGER	5.2m² 	$6,000
ACCESSIBLE CORRIDOR		EXTRA 0.9m²		$2,000
RECYCLED FLUSHING WATER		3RD PIPE COSTS EXTRA		$2,000
ENERGY EFFICIENCY	4.3m² 	ADD EXTERNAL SOLAR SHADING TO REDUCE HEAT LOAD	5.4m² 	$2,000
STUDIES NOW REQUIRE WINDOWS	**1 BED + STUDY** 56m² 	THEREFORE THEY ARE SMALL BEDROOMS	**1 BED + STUDY** 56m² 	
SOUTH FACING DAYLIGHTING	 NORTH FACING	1% LESS EFFICIENT		$3,500
COMMUNAL OUTDOOR SPACE		REDUCES CARPARK AND LESS SELLABLE AREA	100m²  2.5m² OPEN SPACE REQUIRED PER APARTMENT	$5,000
		ADDITIONAL COSTS OF ABOVE CHANGES		$62,500

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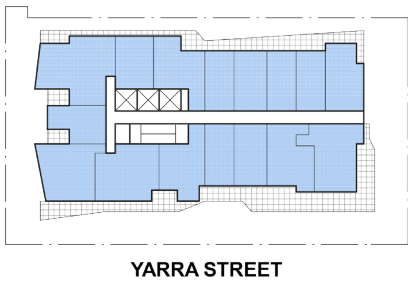
PRICE INCREASE BASED ON BETTER APARTMENTS DRAFT STANDARDS - 15TH August, 2016

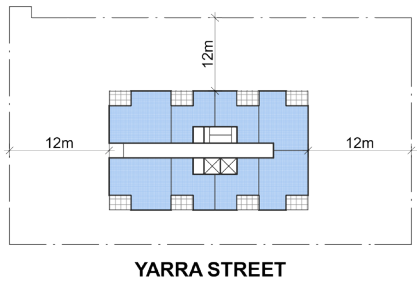
SUPPLY REDUCES, LAND PRICE INCREASES

THE YIELD OF EVERY SITE DROPS

CENTRAL SOUTH YARRA
357 APARTMENTS



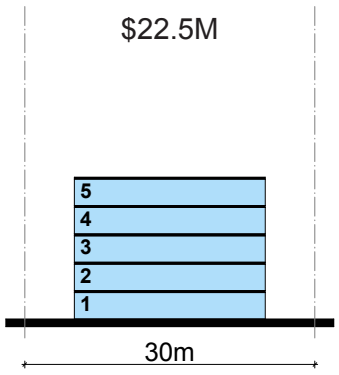
WITH STANDARDS
213 APARTMENTS
40% LESS YIELD



DEVELOPMENT OCCURS WHEN LAND VALUE IS INCREASED

(PREVIOUS PLANNING CONTROLS)

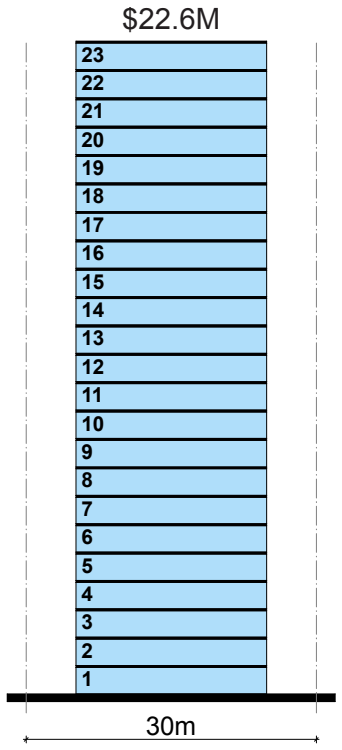
4500m² NLA
$300/m²
6% CAP RATE
$22.5M BUILDING VALUE



EXISTING OFFICE BUILDING

VALUE OF 5 STOREY OFFICE BUILDING IS SAME AS LAND VALUE FOR 276 APARTMENTS IN A 23 STOREY BUILDING

282 APARTMENTS
16,560m² NSA
$80,000/APARTMENT
$22.6M LAND VALUE



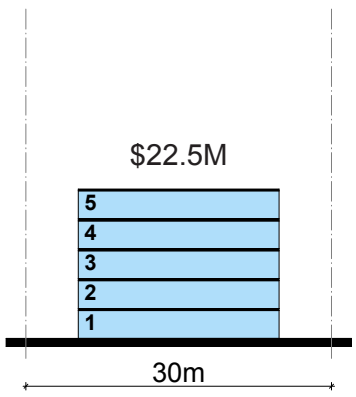
PROPOSED APARTMENT DEVELOPMENT

INCREASED LAND VALUE
THEREFORE DEVELOPMENT
IS POSSIBLE

DEVELOPMENT DOES NOT OCCUR IF LAND VALUE IS LESS

(WITH APARTMENT STANDARDS)

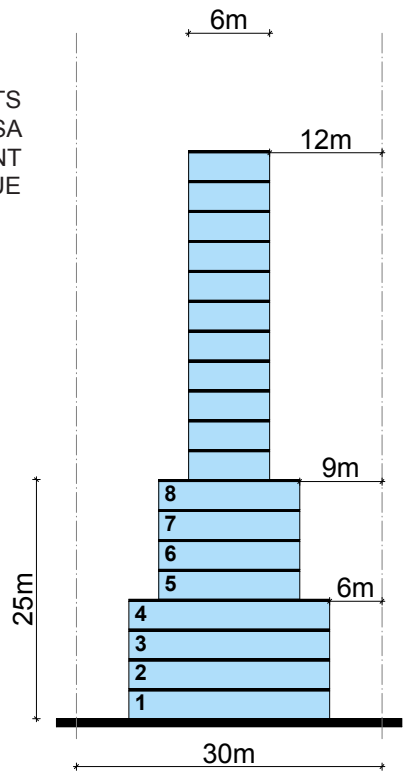
4500m² NLA
$300/m²
6% CAP RATE
$22.5M BUILDING VALUE



EXISTING OFFICE BUILDING

EXISTING BUILDING VALUE
IS MORE THAN POTENTIAL
DEVELOPMENT LAND VALUE

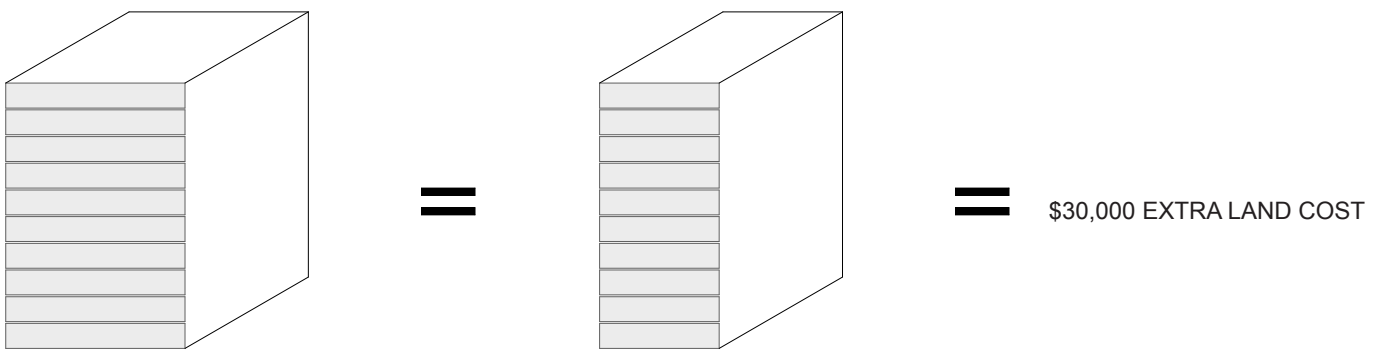
76 APARTMENTS
4,560m² NSA
$80,000/APARTMENT
$6.1M LAND VALUE



PROPOSED APARTMENT DEVELOPMENT

DECREASED LAND VALUE
THEREFORE DEVELOPMENT
IS NOT POSSIBLE

LAND COST GOES UP



1/3 LESS DEVELOPMENT ON
EACH SITE

1/3 MORE LAND COST PER
APARTMENT

$30,000 EXTRA LAND COST

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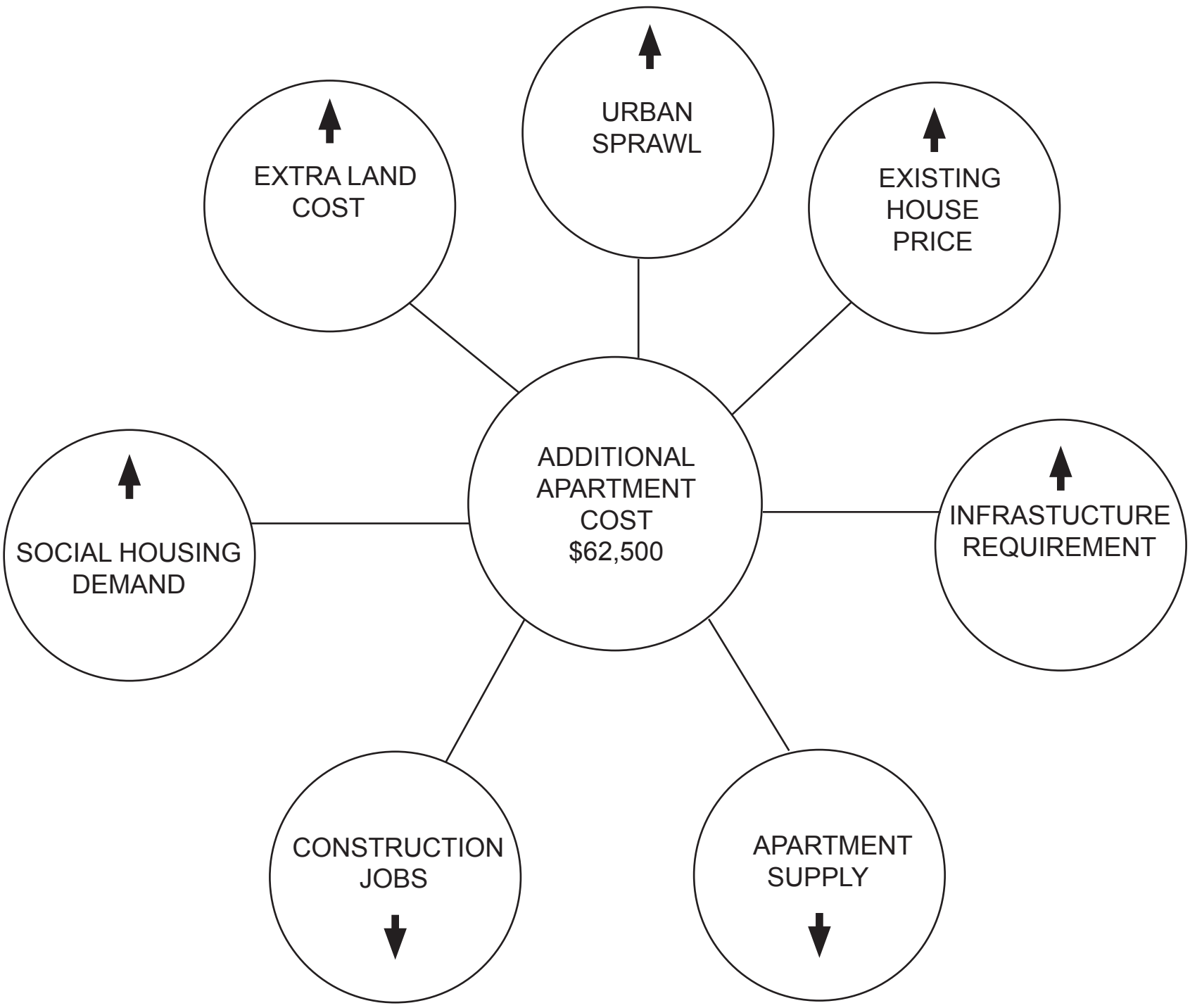
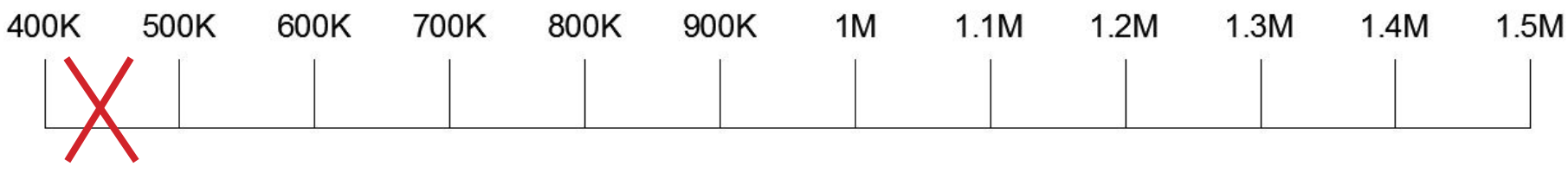
INDUSTRY IMPACT



APARTMENT STANDARDS DELETE THE AFFORDABLE APARTMENTS FROM THE MARKET



APARTMENT PRICE RANGE

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STKILDA ROAD PRECINCT

FORREST HILL PRECINCT

UDIA Diagrams

FEASIBILITY STUDY

JOB NUMBER	DATE
12319	04/05/2016

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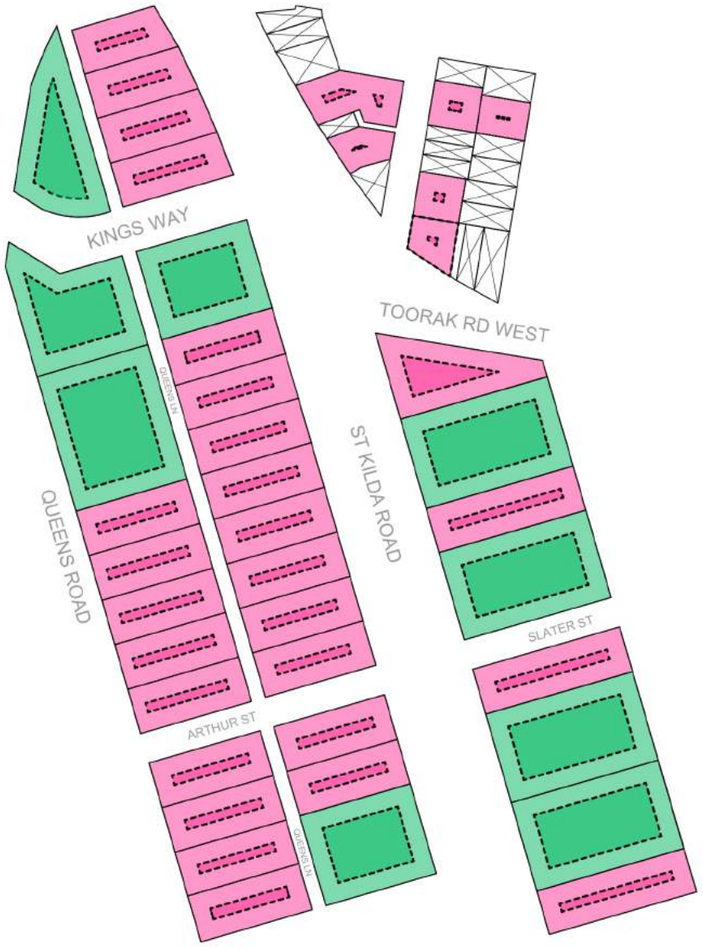
STKILDA ROAD PRECINCT



POTENTIAL IF ALL SITES WERE VACANT

12.0M SETBACK FROM BOUNDARY

DEVELOPMENT ENVELOPE ABOVE 25M IN HEIGHT

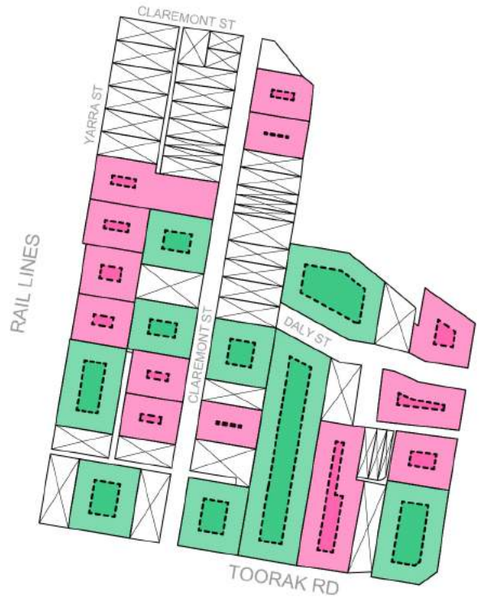
SITES TOO SMALL FOR DEVELOPMENT

SITES WITH POTENTIAL DEVELOPMENT

0 YIELD POTENTIAL SITES

MAXIMUM BUILING FOOTPRINT

FORREST HILL PRECINCT



POTENTIAL IF ALL SITES WERE VACANT

12.0M SETBACK FROM BOUNDARY

DEVELOPMENT ENVELOPE ABOVE 25M IN HEIGHT

SITES TOO SMALL FOR DEVELOPMENT

SITES WITH POTENTIAL DEVELOPMENT

0 YIELD POTENTIAL SITES

MAXIMUM BUILING FOOTPRINT

UDIA

BETTER APARTMENTS
DRAFT OPTION STUDY

ANALYSIS IF ALL SITES WERE VACANT

PROPOSED MEASURES APPLIED:

-**Building separation:** Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries.

-Daylight, Dwelling setback and frontage: Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries.

CONCLUSION:

These diagrams highlight the restrictions that will be placed upon built envelope above 25m in height. Therefore the sites have been deemed to be either *suitable for development* or *too small for development.* Sites that show a black cross have been identified as having zero built envelope above 25m with these proposed measures.

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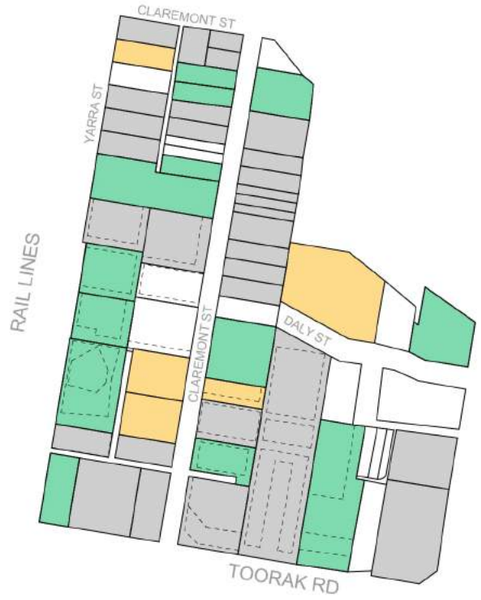
STKILDA ROAD PRECINCT

POTENTIAL REALISTIC DEVELOPMENT SITE

POTENTIAL DEVELOPMENT SITES
CURRENT REGULATIONS

- POTENTIAL DEVELOPMENT SITES
- RECENTLY DEVELOPED
- CURRENTLY UNDER CONSTRUCTION

FORREST HILL PRECINCT



POTENTIAL REALISTIC DEVELOPMENT SITE

POTENTIAL DEVELOPMENT SITES
CURRENT REGULATIONS

- POTENTIAL DEVELOPMENT SITES
- RECENTLY DEVELOPED
- CURRENTLY UNDER CONSTRUCTION

UDIA

BETTER APARTMENTS
DRAFT OPTION STUDY

REALISTIC DEVELOPMENT SITE ANALYSIS:

CONCLUSION:

Taking a more realistic approach to site potential we have identified sites within the precincts which have a reasonable chance of being developed under the current regulation measures.

Green sites have recently been developed for residential usage, yellow sites are currently under construction for residential use and white sites have been deemed inappropriate.

Typically these are inappropriate for development as the office currently on the site has a far greater commercial value that any potential returns from developing the site into multi residential.

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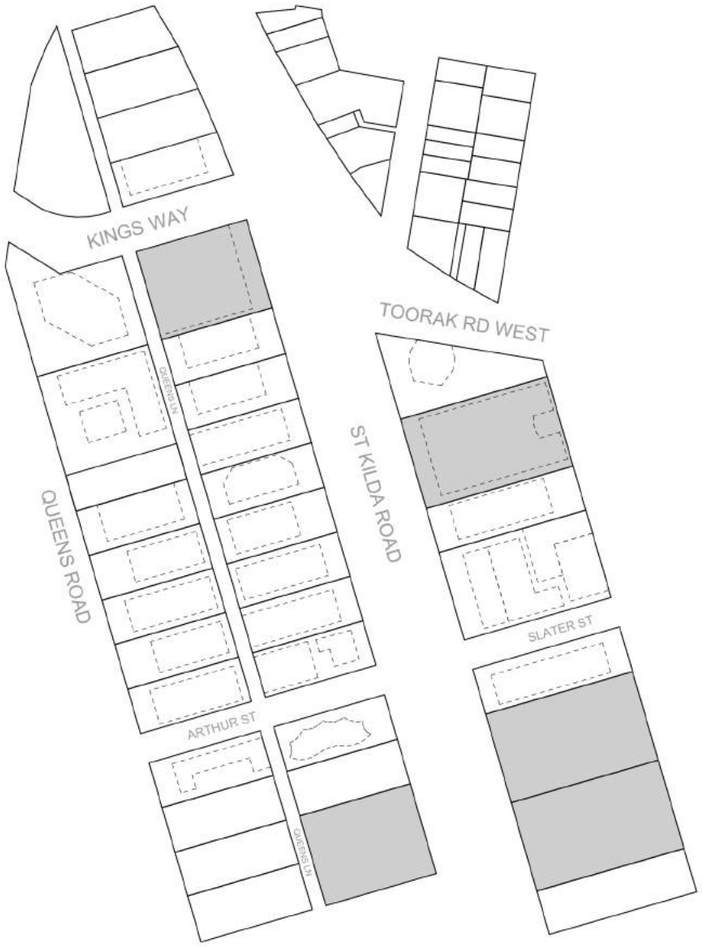
STKILDA ROAD PRECINCT



POTENTIAL REALISTIC DEVELOPMENT SITE

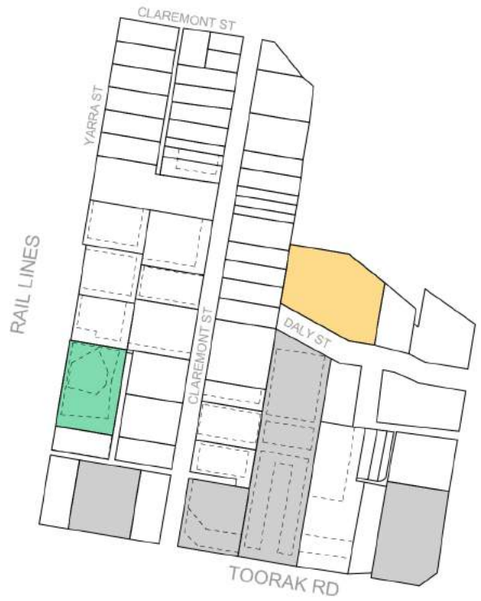
POTENTIAL DEVELOPMENT SITES
PROPOSED REGULATIONS

POTENTIAL DEVELOPMENT SITES

RECENTLY DEVELOPED

CURRENTLY UNDER CONSTRUCTION

FORREST HILL PRECINCT



POTENTIAL REALISTIC DEVELOPMENT SITE

POTENTIAL DEVELOPMENT SITES
PROPOSED REGULATIONS

POTENTIAL DEVELOPMENT SITES

RECENTLY DEVELOPED

CURRENTLY UNDER CONSTRUCTION

UDIA

BETTER APARTMENTS
DRAFT OPTION STUDY

REALISTIC DEVELOPMENT SITE ANALYSIS: (PROPOSED MEASURES)

PROPOSED MEASURES APPLIED:

-**Building separation:** Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries.

-Daylight, Dwelling setback and frontage: Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries.

CONCLUSION:

We have highlighted the sites within the precinct with development potential. When compared with the current regulations it is obvious that the number is far greatly reduced. This goes as far as preventing the majority of the recently developed or currently under construction sites when the new measures are applied.

Only the very large sites have any development potential and yield on these is greatly reduced, almost to a point where financial return from development is nearing null.

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STKILDA ROAD PRECINCT

CASE STUDY SINGLE SITES

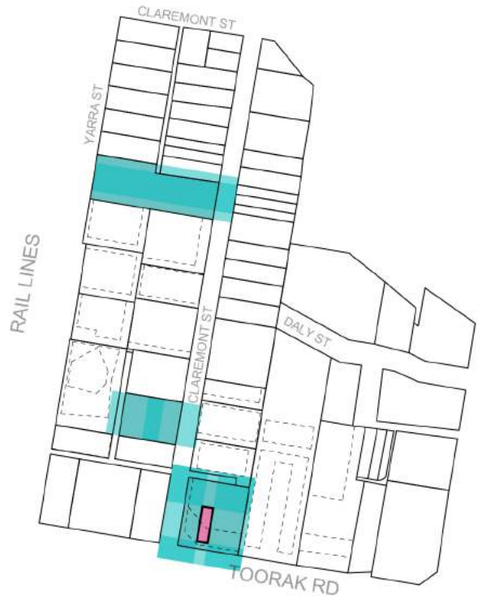
24.0M SETBACK FROM NEIGHBOUR

SUBJECT SITES

SETBACKS REQUIRED

POTENTIAL BUILT ENVELOPE

FORREST HILL PRECINCT



CASE STUDY SINGLE SITES

24.0M SETBACK FROM NEIGHBOUR

SUBJECT SITES

SETBACKS REQUIRED

POTENTIAL BUILT ENVELOPE

UDIA

BETTER APARTMENTS
DRAFT OPTION STUDY

SPECIFIC SITE CASE STUDIES:

PROPOSED MEASURES APPLIED:

-**Building separation:** Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries and 24.0m from another habitable room or balcony.

-Daylight, Dwelling setback and frontage: Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries.

CONCLUSION:

We have chosen some single sites to highlight the impact the proposed measures have on the yield potential of each site above 25m. The blue areas indicate the setbacks from neighbour buildings (24.0m) and side and rear boundaries (12.0m) that are required under the proposed measures. In this study less than half the sites have any potential built envelope.

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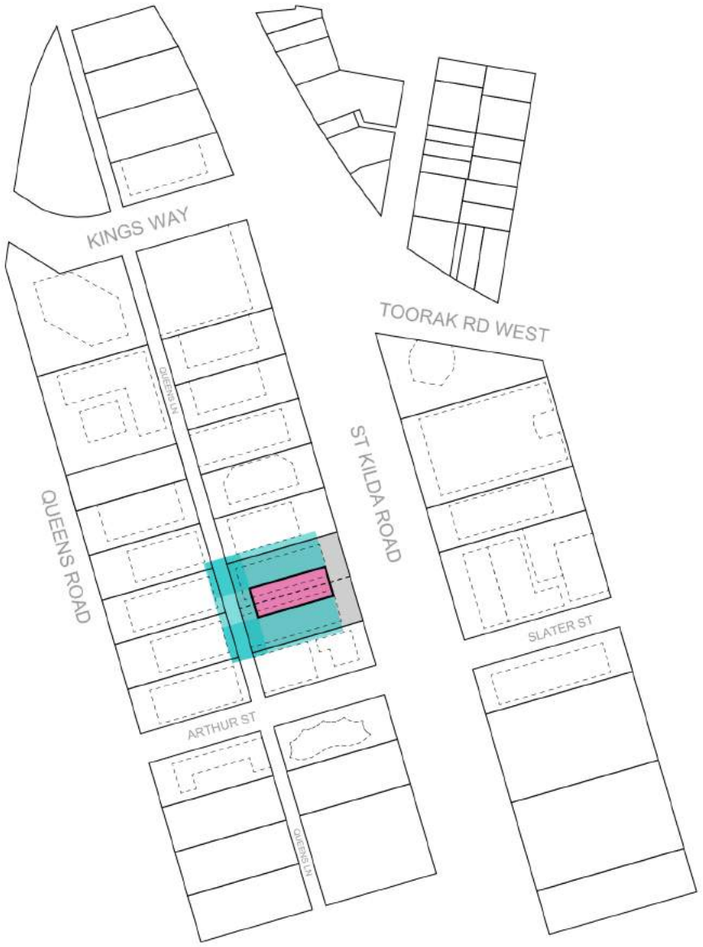
STKILDA ROAD PRECINCT



CASE STUDY JOINED SITES

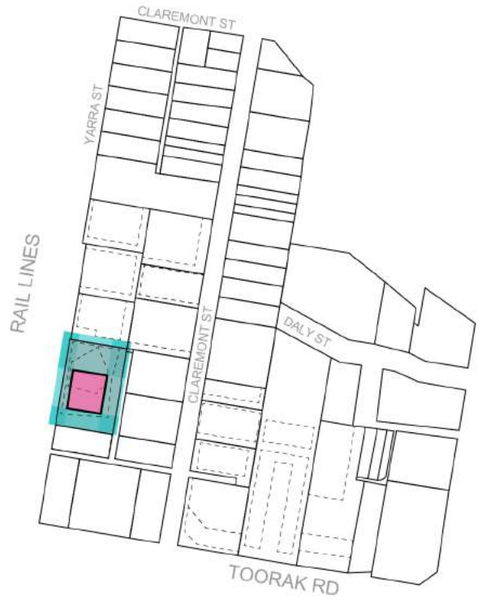
24.0M SETBACK FROM NEIGHBOUR

SUBJECT SITES

SETBACKS REQUIRED

POTENTIAL BUILT ENVELOPE

FORREST HILL PRECINCT



CASE STUDY JOINED SITES

24.0M SETBACK FROM NEIGHBOUR

SUBJECT SITES

SETBACKS REQUIRED

POTENTIAL BUILT ENVELOPE

UDIA

BETTER APARTMENTS
DRAFT OPTION STUDY

SPECIFIC SITE CASE STUDIES: (AMALGAMATED SITES)

PROPOSED MEASURES APPLIED:

-**Building separation:** Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries and 24.0m from another habitable room or balcony.

-Daylight, Dwelling setback and frontage: Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries.

CONCLUSION:

We have chosen to amalgamate sites to investigate development potential and identify how the new measures affect even the much larger sites. As with the single sites the building separation measure causes the yield to be far greatly reduced in each case.

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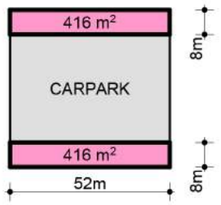
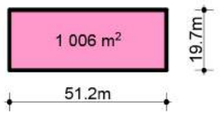
STKILDA ROAD PRECINCT

5 STOREY PODIUM



NSA =832m²
NSA = 832m²/ 68m² =12.2 APT
12 APT x 5 FLOORS = 60 APT
* NO APARTMENTS TO GROUND FLOOR

14 STOREY TOWER



85% EFFICIENCY = 855m²
NSA = 855m²/ 68m² =12.6 APT
12 APT x 14 FLOORS = 168 APT

20 STOREY TOTAL DEVELOPMENT

228 APT x $100k = $22.8M
EACH SITE VALUE = $11.4M

SITE VALUE AS A RESIDENTIAL DEVELOPMENT: $22.8M
MARKET VALUE OF EXISTING OFFICE BUILDINGS $32.0M

DEVELOPMENT NOT VIABLE

UDIA

BETTER APARTMENTS DRAFT OPTION STUDY

SITE STUDY STKILDA ROAD PRECINCT:

PROPOSED MEASURES APPLIED:

-**Building separation:** Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries and 24.0m from another habitable room or balcony.

-Daylight, Dwelling setback and frontage: Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries.

-Outlook Privacy: A habitable room window or the open side of a balcony with a direct view into a habitable room window of open side of a balcony should be setback at least 24m for buildings over 25m in height.

CONCLUSION:

Further investigations into the potential yield to calculate an estimated cost for each site when they must be amalgamated for any development to be possible. The individual site value in this case is lower than the current assets built on the sites and therefore would not be suitable for development. The yield of the two sites is now 228 apartments. Under the old planning rules, it was 250 apartments on each site: 2 x 250 = 500 apartments. The loss of apartments on just two sites is 272 apartments.

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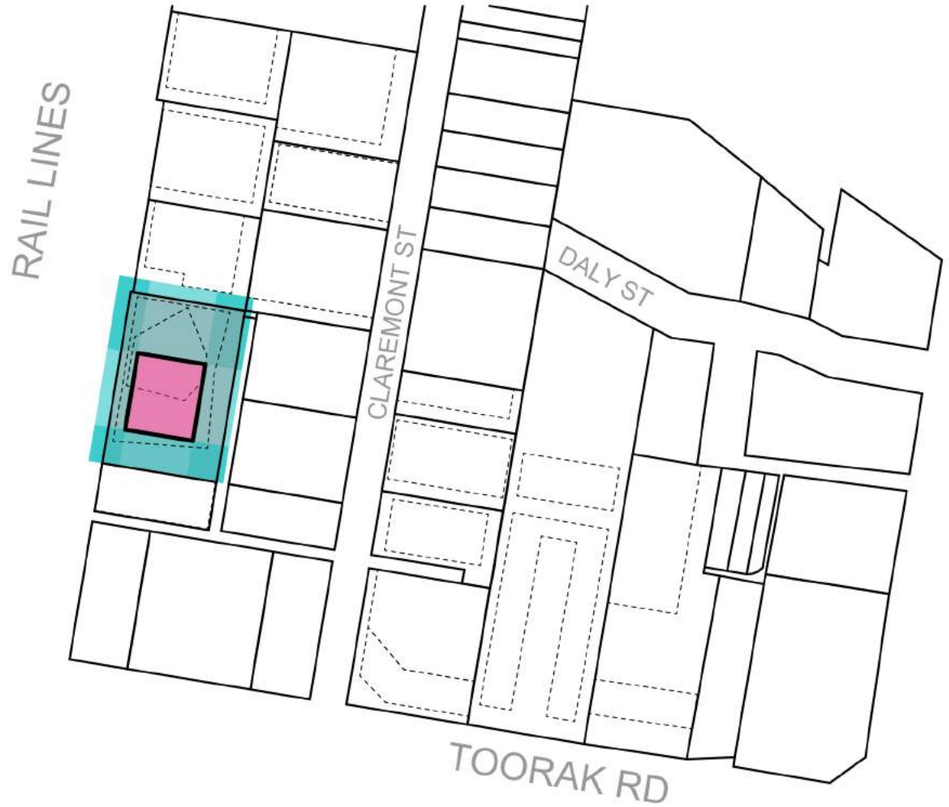
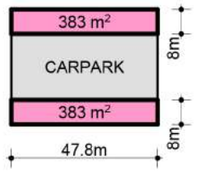
FORREST HILL PRECINCT

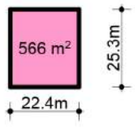


5 STOREY PODIUM



NSA = 766m²
NSA = 766m²/ 68m² =11.3 APT
11 APT x 5 FLOORS = 55 APT
* NO APARTMENTS TO GROUND FLOOR

16 STOREY TOWER



85% EFFICIENCY = 481m²
NSA = 481m²/ 68m² =7.1 APT
7 APT x 16 FLOORS = 112 APT

22 STOREY TOTAL DEVELOPMENT

167 APT x $100k = $16.7M
SITE VALUE = $16.7M

UDIA

BETTER APARTMENTS DRAFT OPTION STUDY

SITE STUDY FORREST HILL PRECINCT:

PROPOSED MEASURES APPLIED:

-**Building separation:** Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries and 24.0m from another habitable room or balcony.

-Daylight, Dwelling setback and frontage: Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries.

-Outlook Privacy: A habitable room window or the open side of a balcony with a direct view into a habitable room window of open side of a balcony should be setback at least 24m for buildings over 25m in height.

CONCLUSION

Further investigations into the potential yield to calculate an estimated cost for the site and total number of apartments. This can be compared against the actual yield delivered of a residential development of this site that was completed in 2015. The yield of the sites is now 167 apartments. Under the old planning rules, 357 apartments were built. The loss of apartments on just one site is 190 apartments.

Please refer to next page for more detail.

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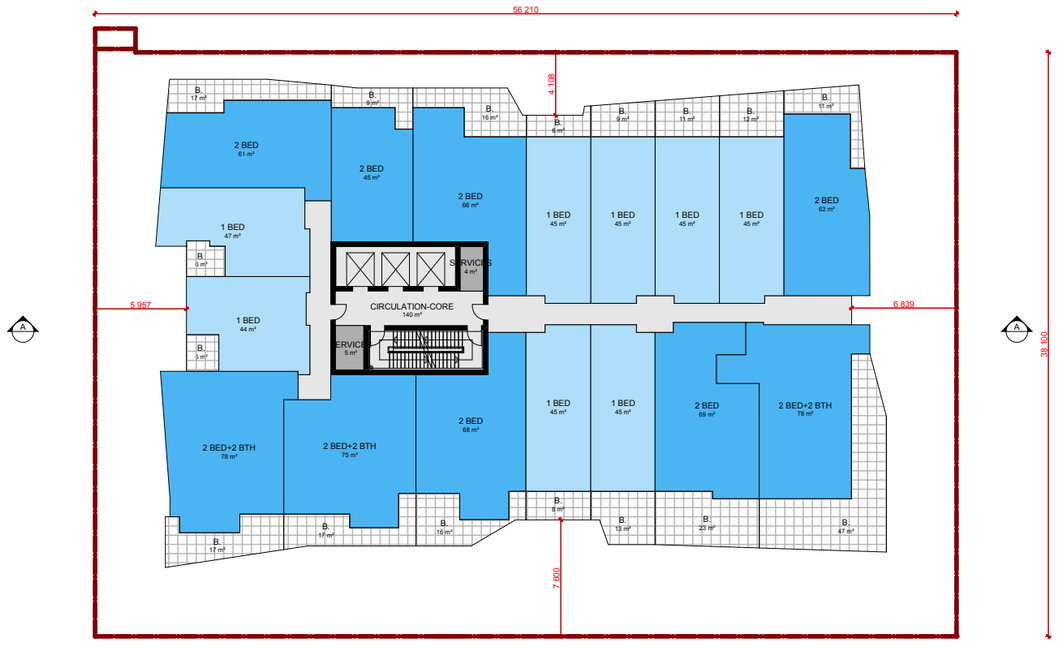
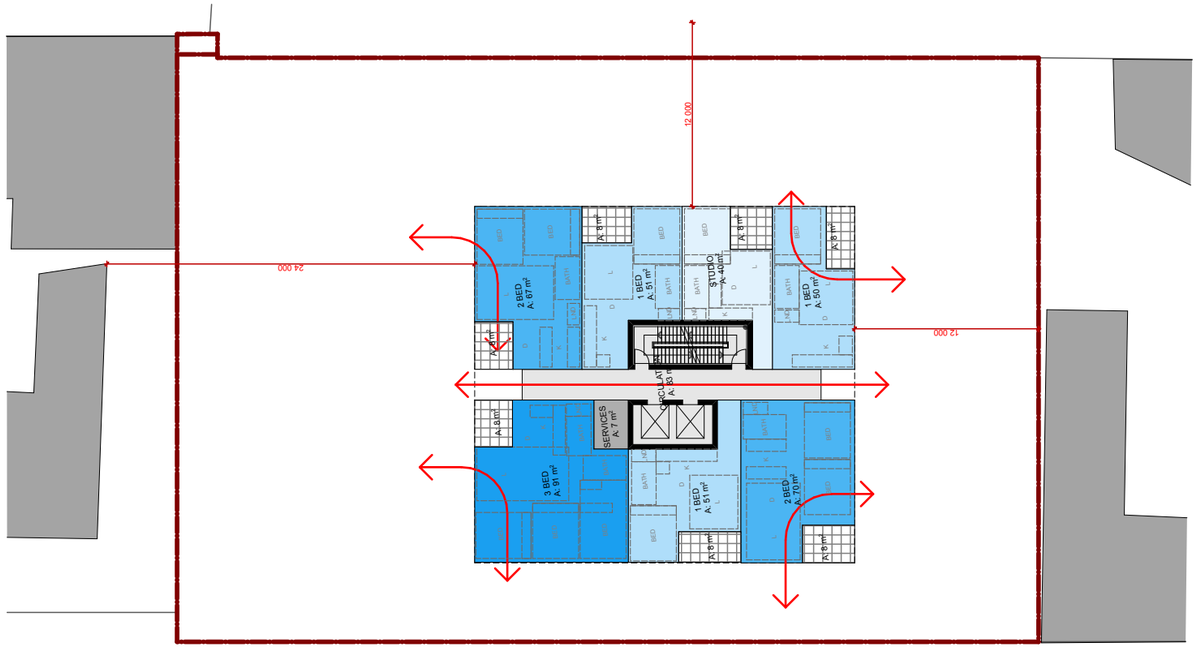
CENTRAL SOUTH YARRA AS BUILT: 357 APT



CENTRAL SOUTH YARRA NEW PROPOSAL: 167 APT



UDIA

BETTER APARTMENTS DRAFT OPTION STUDY

SITE STUDY FORREST HILL PRECINCT: (3 YARRA STREET)

PROPOSED MEASURES APPLIED:

-Outlook Privacy: A habitable room window or the open side of a balcony with a direct view into a habitable room window of open side of a balcony should be setback at least 24m for buildings over 25m in height.

-Daylight access through windows: All habitable rooms should have a window in an external wall of the building. The glass of the window should be directly visible from any location in a habitable room.

-Daylight to internal communal areas: Buildings should provide windows to circulation corridors.

-Dwelling size: A dwelling should have the following minimal floor areas: Studio 37sqm, 1 Bed 50sqm, 2 Bed 65sqm, 3 bed 90sqm.

Living rooms should meet the following minimal internal room dimensions: 1 Bedroom 3.5m x 3.5m, 2 Bedroom 3.5m x 5.0m, 3 bedroom 3.5m x 6.0m.

-Natural Ventilation: All habitable rooms less than 80m above ground level should be provided with operable windows in an external wall.

Common circulation spaces such as lobbies and corridors should be provided with natural ventilation.

-Private Open space: A dwelling or residential building should have private open space consisting of a balcony of 8.0sqm with a minimum width of 1.6m and convenient access from a living room.

CONCLUSION

We have produced a detailed feasibility study of a typical floor plate for a multi storey residential tower after applying all the aforementioned proposed measures. This can be concisely compared with a feasibility study applying the SEPP 65 measures and also with the recently completed 30 storey apartment towers as built drawings.

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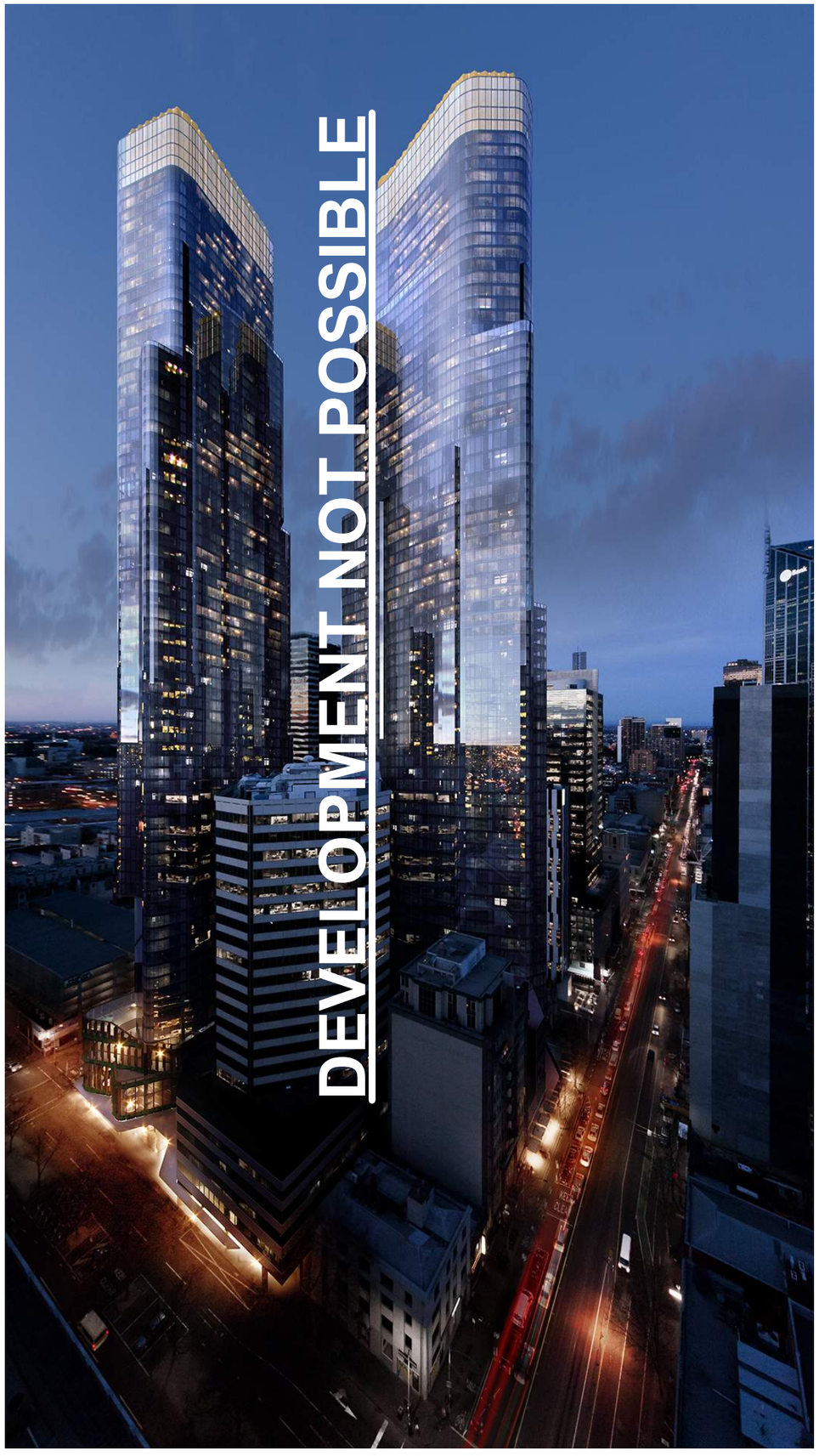
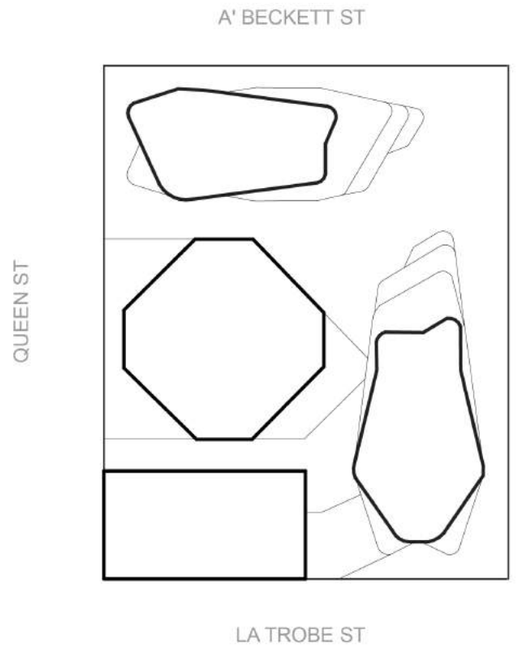
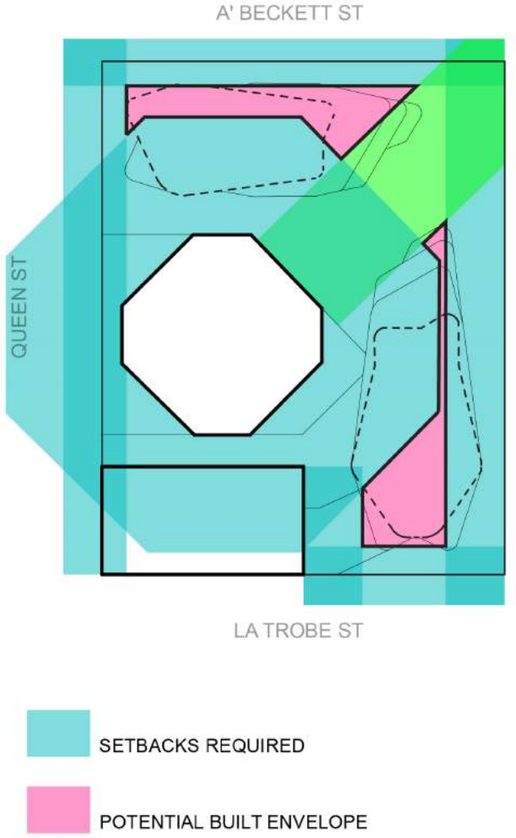


ENDORSED PLAN DIAGRAM



EFFECT OF PROPOSED MEASURES



UDIA

BETTER APARTMENTS DRAFT OPTION STUDY

CASE STUDY ENDORSED 350 QUEEN STREET:

PROPOSED MEASURES APPLIED:

-**Building separation:** Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries and 24.0m from another habitable room or balcony.

-Daylight, Dwelling setback and frontage:

Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries.

-Outlook Privacy: A habitable room window or the open side of a balcony with a direct view into a habitable room window of open side of a balcony should be setback at least 24m for buildings over 25m in height.

CONCLUSION:

The endorsed, highly commendable development, no longer has any potential yield as the setbacks from the multi-level commercial building on the site to remain, completely envelope the available site area. Side boundary site setbacks further reduce available area and finally separation between the towers of 24.0m mean the development would no longer proceed.

Disclaimer:

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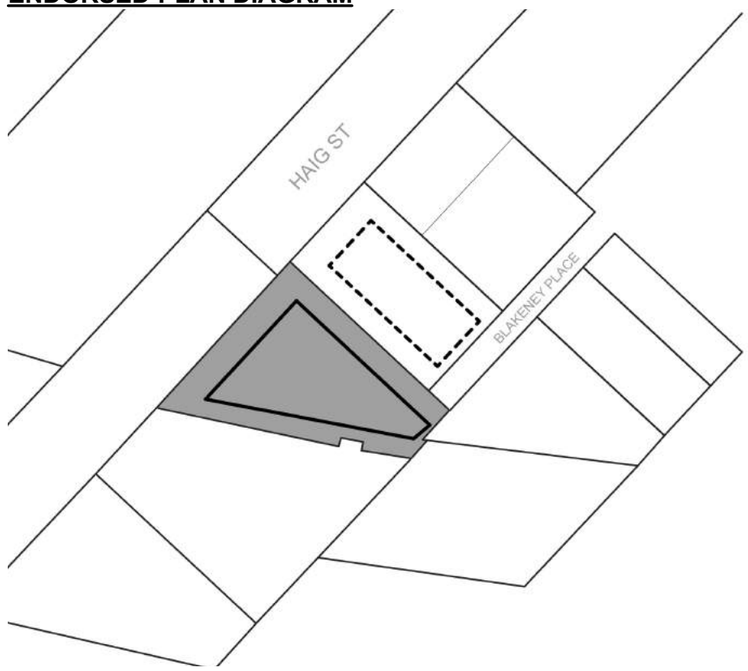
ENDORSED PLAN DIAGRAM



EFFECT OF PROPOSED MEASURES

UDIA

BETTER APARTMENTS DRAFT OPTION STUDY

CASE STUDY ENDORSED 65071 HAIG STREET

PROPOSED MEASURES APPLIED:

-**Building separation:** Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries and 24.0m from another habitable room or balcony.

-Daylight, Dwelling setback and frontage: Habitable rooms or balconies in buildings over 25m in height to be set back 12.0m from their side and rear boundaries.

-Outlook Privacy: A habitable room window or the open side of a balcony with a direct view into a habitable room window of open side of a balcony should be setback at least 24m for buildings over 25m in height.

CONCLUSION:

The endorsed, highly commendable development, will have such a reduced yield above 25m that it will likely be abandoned as a project. The endorsed neighbour apartment building triggers the need to have a 24.0m setback more than halving the available site area. Haig Street and side boundary setbacks further reduce the potential built area to an unusable and unfeasible amount.

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