SITE MODELLING



Purpose

The purpose of this exercise is to show what development is possible with amalgamated sites across two different scenarios, exploring different build types and to test economic feasibility.

The block models will provide an example of what intensified development could look like to provide reassurance and inspiration to people on what can be achieved. The models will enable analysis of aspects such as yield and building bulk, as well as parking and open spaces.

The models are built to be compliant with the national medium density residential standards (listed below), with the maximum height increased to 16m to enable four-storey development.

These sites have been selected solely for demonstration, and are not indicative of any planned development. The models do not explore issues of building design and appearance. Precedent imagery is provided to show similar developments with good urban design outcomes.

Sites selected

This exercise has selected real sites in Richmond, which could be enabled for development in the future. Both models use two amalgamated sites to show the benefits of developing over larger sites, rather than the limited development opportunities available on one. Single site developments have not been modelled as examples of this already exist.

MDRS Standards

Building Height	Maximum	16m + 1m pitched roof
Height in relation to Boundary	Maximum	4m + 60 degree recession plane
Setbacks	Minimum	Front yard: 1.5m Side yard: 1m Rear yard: 1m (excluded on corner sites)
Building Coverage	Maximum	Ground floor: 20m², 3m dimension Above ground floor: 8m², 1.8 m dimension
Outdoor Living Spaces (one per unit)	Minimum	Ground floor: 20m², 3m dimension Above ground floor: 8m², 1.8 m dimension
Outlook Space (per unit)	Minimum	Principal living room: 4m depth, 4m width All other habitable rooms: 1m depth, 1m width
Landscaped Area	Minimum	20% of the developed site with grass or plants

Precendent buildings



Mixed-use with ground floor commercial and upper residential with private balcony space (Example 1)



Terraced-housing designed to front the street or a private driveway (Example 1)



Apartments providing balconies over a green pedestrian link to improve on-site and public amenity (Example 2)



Walk-up apartments using gabled-roof form and modulation to read as terraced housing (Example 2)

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Example 1: Mixed-Use Development

This development explores land-use opportunities opposite the Town Centre to maximise location and connectivity. This proposal amalgamates two sites, providing mixed-use commercial and residential. The ground floor comprises retail and hospitality, the second floor could also serve as private offices. The upper storeys provide residential, with large apartments or studios. The rear of the site is used for terraced-housing. These could be configured as large multi-storey units or walk-up apartments depending on the market. While this proposal allows for more than one car-park per unit, some of the site currently used for car-parking could be used to extend the terraced housing deeper into the site to supply more housing.

Example Proposal Features:

- Site size 1839m²
- Ground floor commercial (306m²)
- Min 16 residential units
- Choice of unit composition (studios, apartments, terraced housing)
- 20 car parks (one per unit plus visitor parking)
- Complies with national MDRS standards

Benefits

- High yield Varied building bulk
 - Unit size variety (65m² to 97.5m²)
- Unit-type flexibility (apartments or large family terraced homes)
- Addresses the street
- Communal and private green space
- Accessible units
- Off-street parking hidden from street view
- Sympathetic to neighbouring buildings



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Example 2: Apartments with Pedestrian Link

This site explores what is possible to build with an amalgamated site that straddles an existing pedestrian connection. The pedestrian connection is integrated into the on-site communal open space, enhancing both the on-site amenity and the connectivity for the public realm. Small private outdoor spaces and balconies are complemented by large communal outdoor spaces and facilities.

If on a slope, northern-facing balconies can be used to maximise aspect and outlook to the inlet. Large sites such as these can use onsite amenity for outlook, reducing the overlooking and privacy impact on neighbouring properties. Robust landscape and planting strategies as well as built-form screening provide a buffer between new builds and neighbouring properties. Dual aspect apartments allow for larger apartment sizes, ranging from two to three bedrooms.

Example Proposal Features:

- Site size 4163m²
- 44 residential units
- 23 car parks (fewer than one per unit space for car-share)
- · Complies with national MDRS standards

Benefits

- High yield
- Unit size variety (88m² to 128m²)
- Unit-type flexibility (apartments or large family apartments)
- Dual aspect
 - Maximising solar orientation and utilising on-site amenity for outlook
- Addresses the street
- Communal green space enhances pedestrian connectivity
- Accessible units
 - Off-street parking hidden from street view
- Sympathetic to neighbouring buildings

