## 6.2 VIEWS

The RFDC does not contain a numerical rule of thumb associated with orientation towards a view, as view orientation can not be quantified in this way. The absence of a numerical target to maximise views does not mean that orientation towards a view is a lesser amenity consideration than achieving a numerical RFDC target. For other amenity considerations each proposal should be assessed on merit and in a situation where expansive park and water views are available in a southerly direction it should be considered that there is a greater amenity benefit provided to future occupants by orienting dwellings towards that view rather than orienting away from it. Diagram 6.2 illustrates how the units have been planned to maximise amenity via capture of key available views

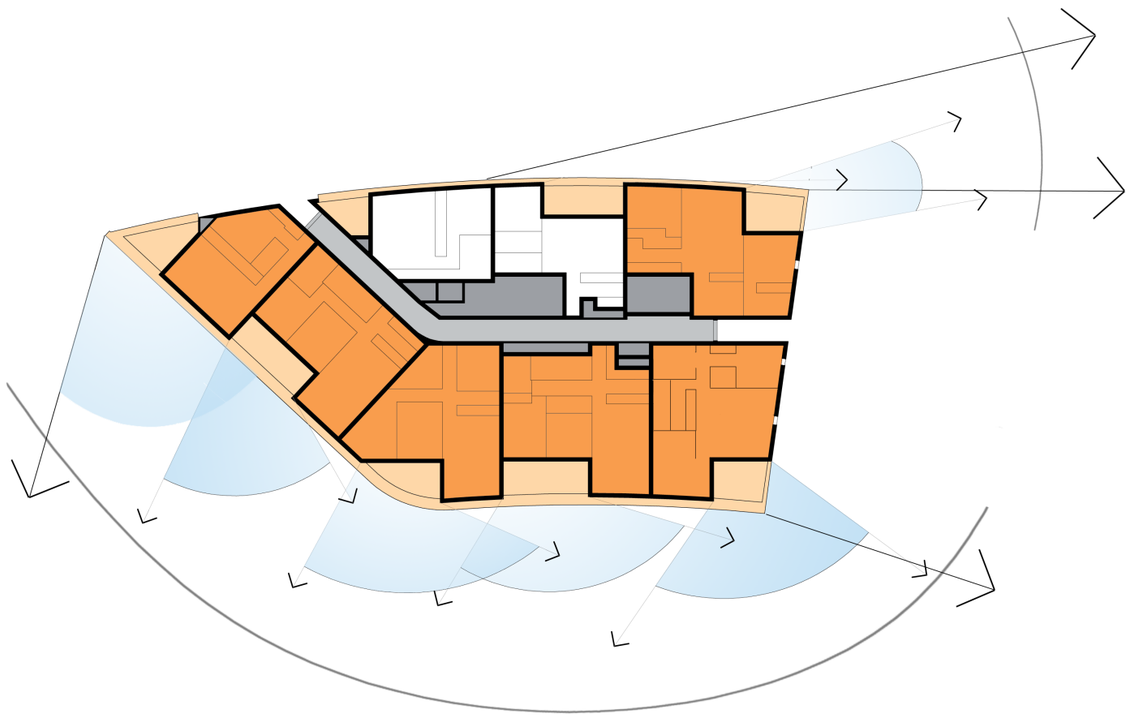


Diagram 6.2 - Views

## 6.3 SOLAR ACCESS

The RFDC establishes a numerical 'Rules of Thumb' to provide 2 hours solar access (in denser urban environments) to 70% of units and to limit the number of apartments facing south to 10%.

The Concept Plan approval acknowledges the site conditions and other amenity considerations associated with Building 6 and provides a reduced solar access target of 60% for Building 6. On completion of the building 61% of units will achieve 2 hours solar access which is consistent with the Concept Plan approval. Diagrams 6.6-6.9 demonstrate which units will receive 2 hours solar access.

Other strategies to increase daylight penetration into the units include:

- South facing glazing can be full height, expansive, and generally unshaded which substantially increases 'Skylight' penetration
- Balconies are generally placed beside living areas (rather than in front), this strategy locates living room windows closer to the light source and hence increases daylight levels.

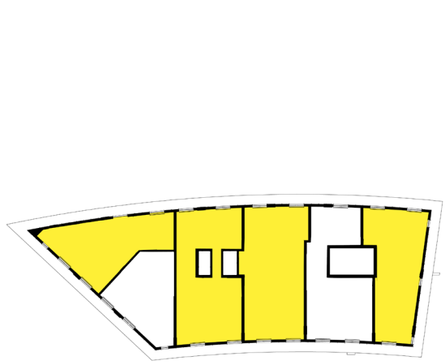



Diagram 6.2 Level 12 Solar Access

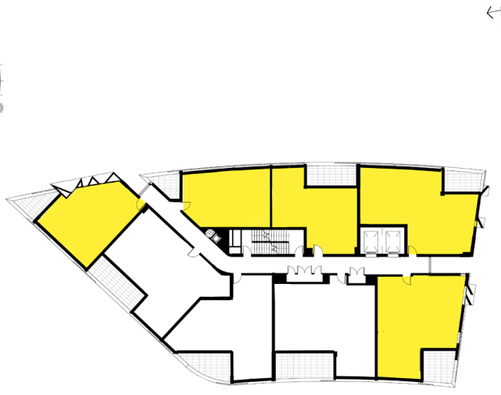


Diagram 6.4 Level 2-10 Solar Access

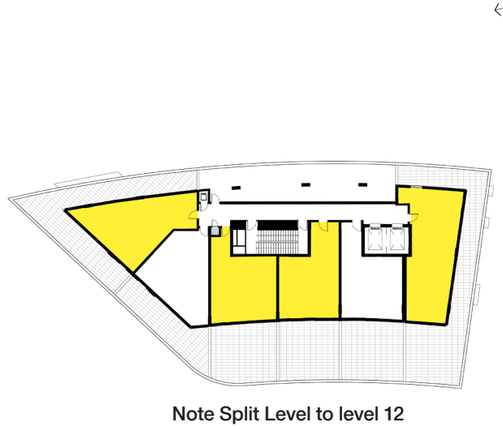



Diagram 6.3 Level 11 Solar Access

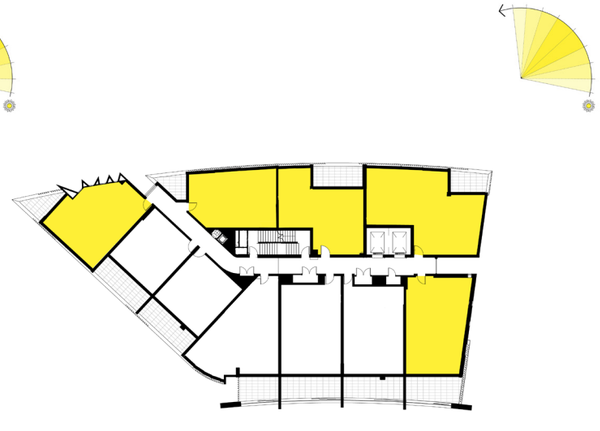


Diagram 6.5 Level 1 Solar Access

## 6.4 PRIVACY

Privacy for future occupants of Building 6, Building 7 and Building 11 is enhanced via several methods including:

- Building planning
- View orientation
- Window size
- Screening
- Materiality

Given the public nature of the perimeter circulation around the ground floor of Building 6, privacy to units located on ground floor requires careful consideration. To address this, ground floor units are maisonette type units with entry from level 1 above. The bedrooms located on ground floor are elevated from the public domain and incorporate additional winter gardens with adjustable screens on top of solid balustrades which provide an enhanced privacy buffer (refer diagram 6.11). This sectional diagram maintains visual connectivity to the park but provides separation between residents and pedestrians. Living spaces are accessed from level 1 affording private elevated views across the park.

The units located in Building 6 nearest to the future Building 7 are shown in diagram 6.7. The most desirable outlook for units nearest Building 7 is either north towards potential water views or south towards expansive park and water views, only a second bedroom and bathrooms have a primary orientation towards Building 7 which enables a design wherein any windows on the north east facade can be generally small in aperture.

Any windows which are located on the north-east facade are proposed to have adjustable louvre screens to provide further privacy to future residents whilst allowing solar access to the units to be maintained as required. These types of screening devices can be seen in diagrams 6.7 - 6.10.

The north-west facade of Building 6 is located approximately 18 metres away from future Building 11 (across Brodie Spark Drive). The north-west facade incorporates louvre screening elements which both provide privacy and assist in reducing solar gain in the summer months. The continuous balustrade which is clear glazed to the south facade is proposed to be more solid in tone on the north west facade to provide more private internal and external spaces. These measures can be seen in diagram 6.10.

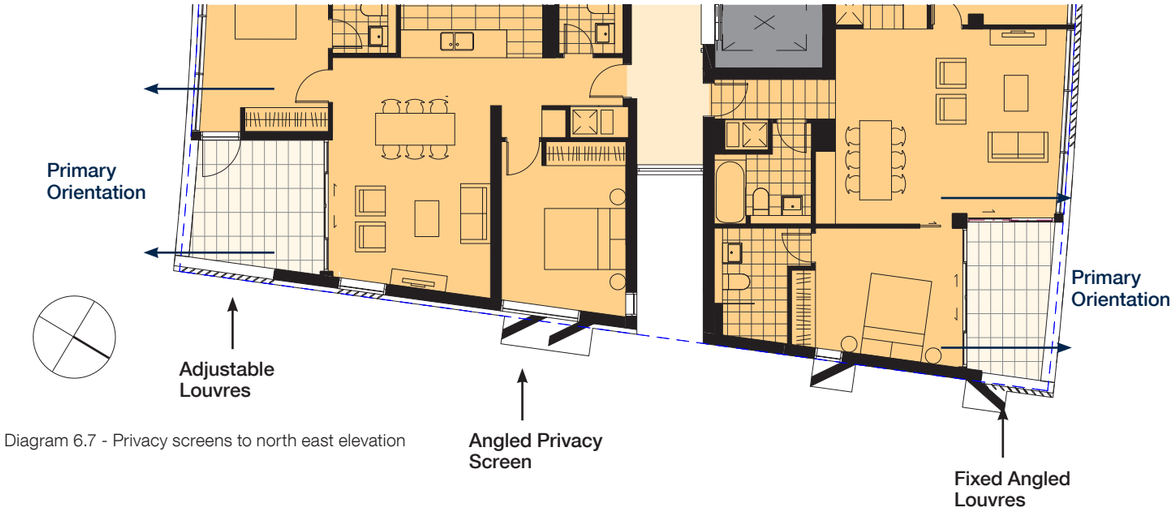



Diagram 6.7 - Privacy screens to north east elevation

Diagram 6.9 Privacy Screens -All Saints School by Candalepas Associates


Diagram 6.10

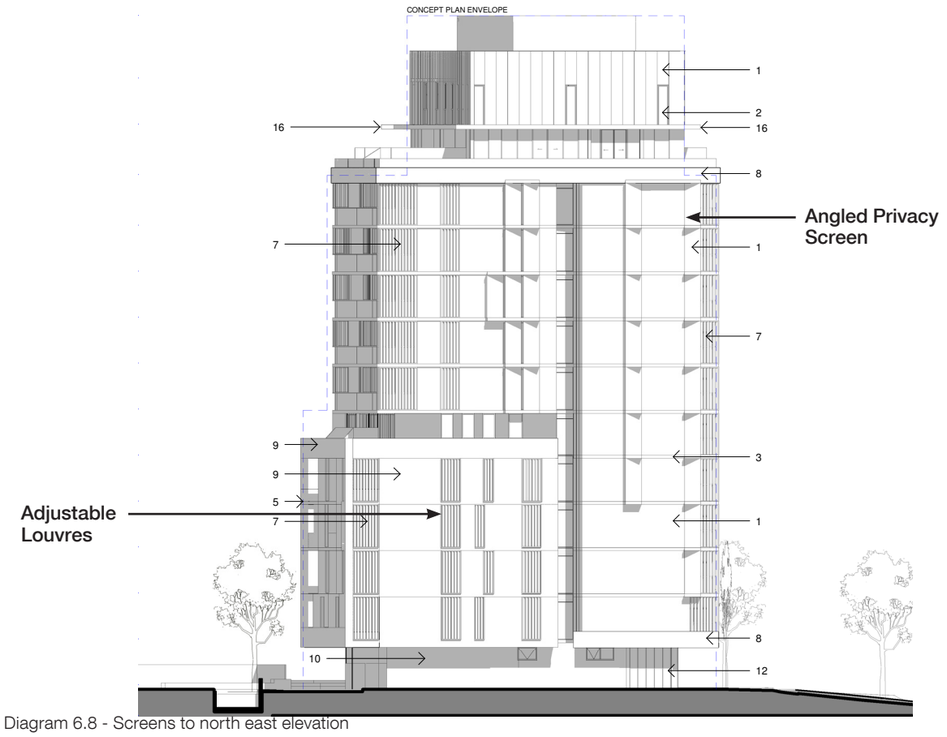



Diagram 6.8 - Screens to north east elevation

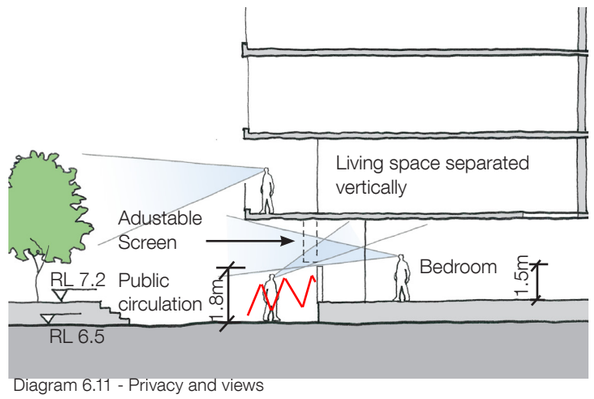



Diagram 6.11 - Privacy and views

## 6.5 VENTILATION

The Concept Plan requires that all residential development on the site achieves 60% cross ventilation in line with the RFDC rule of thumb.

Cross ventilation is achieved by the following strategies which are indicated in the adjacent diagrams:

- Ground floor and penthouse units are maisonette type units which draw air upwards in a stack affect through double height voids, (refer diagram 6.11)
- The number of single level cross ventilating units is increased by introducing vertical slots in the typical plan,
- Provision of corner units where possible.

The proposal achieves 68% cross ventilation, exceeding the 60% target for cross ventilation.

Diagrams 6.12- 6.15 and the table below identifies which units achieve cross ventilation.

The vertical slots referred to above are also used to provide natural daylight and ventilation to the public corridors, significantly improving the amenity to these spaces for building users. (Refer diagram 6.16).

The RFDC suggests that 25 % of all apartments should have kitchens with direct access to a window to assist with kitchen ventilation. The proposed development will achieve 16 apartments with windows in the kitchen, equating to 18% of all apartments. An additional 15 apartments are naturally ventilated with the cross ventilation air flow path via the kitchen. As a result, 31 apartments (or 35% of all apartments) will achieve natural ventilation to the kitchen which is compliant with the RFDC requirements.

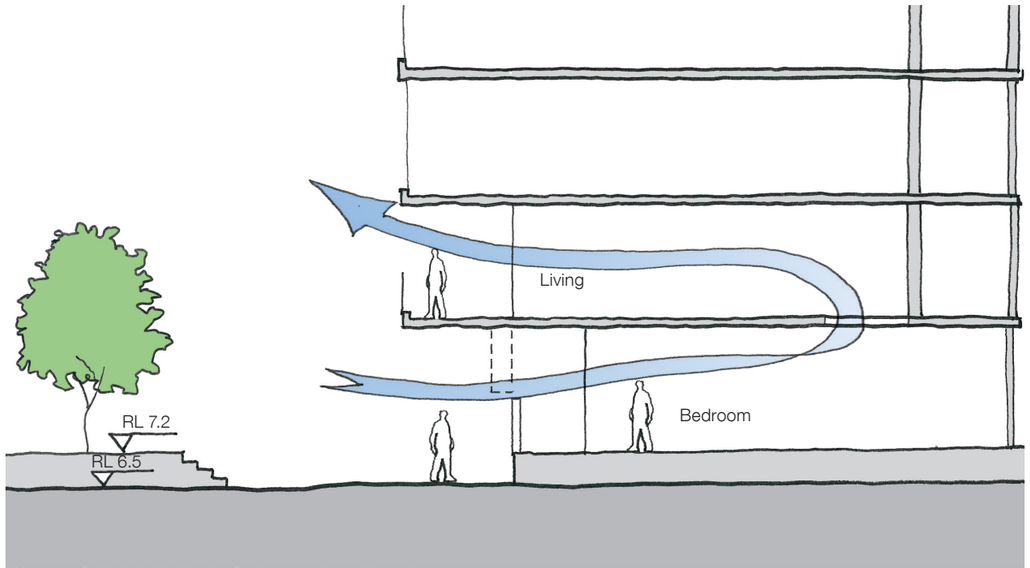
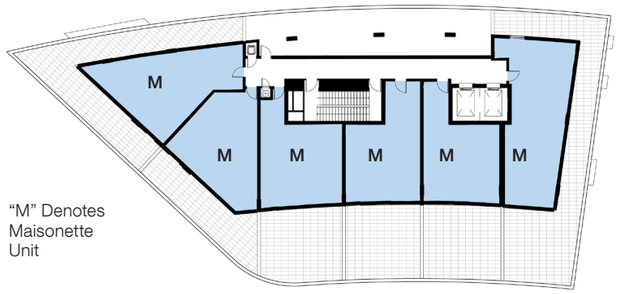



Diagram 6.11 - Ventilation to 2 storey maisonette units




"M" Denotes Maisonette Unit

Diagram 6.12 - Ventilation Levels 11 & 12

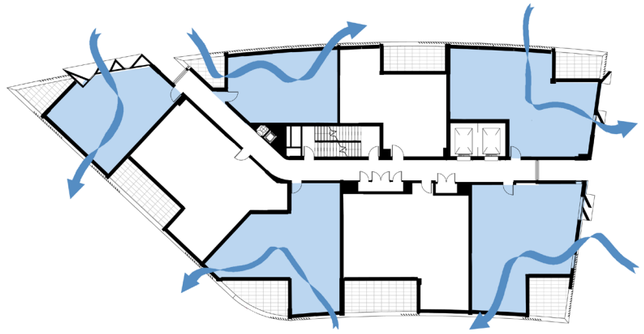


Diagram 6.13 - Ventilation Levels 6 - 10

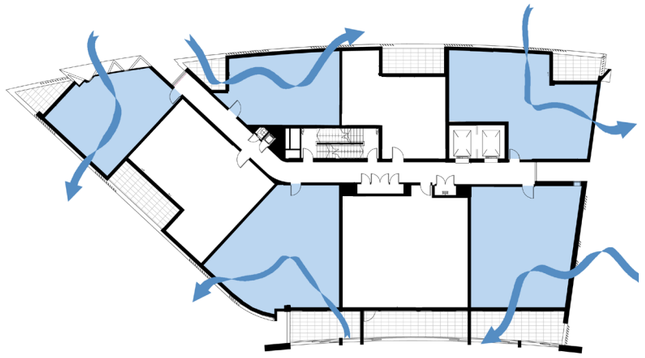
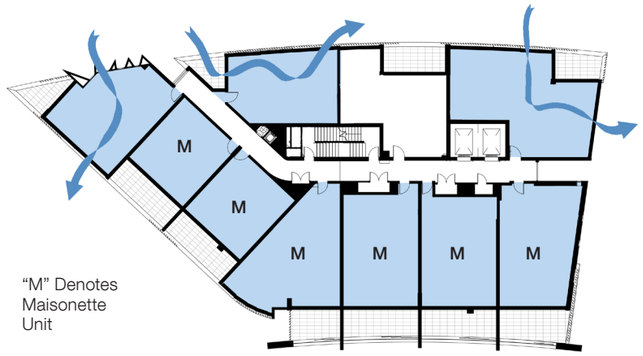


Diagram 6.14 - Ventilation Levels 2 - 5




"M" Denotes Maisonette Unit

Diagram 6.15 - Ventilation Levels G & 1

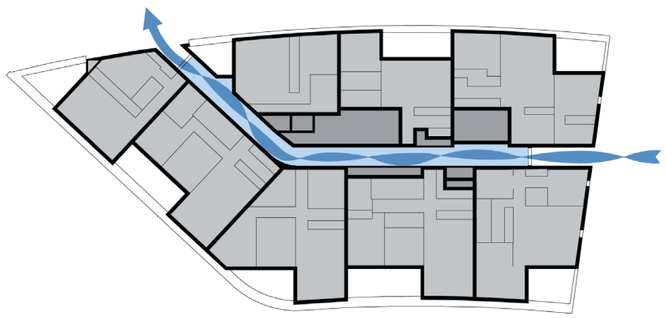


Diagram 6.16 - Apartment natural ventilation

| FLOOR | TOTAL | TOTAL UNITS |
|---|---|---|
| Ground- L1 | 9 | 10 |
| Level 2 | 5 | 8 |
| Level 3 | 5 | 8 |
| Level 4 | 5 | 8 |
| Level 5 | 5 | 8 |
| Level 6 | 5 | 8 |
| Level 7 | 5 | 8 |
| Level 8 | 5 | 8 |
| Level 9 | 5 | 8 |
| Level 10 | 5 | 8 |
| Level 11-12 | 6 | 6 |
| **TOTAL** | **60** | **88** |
| | **PERCENTAGE (OF 88 UNITS)** | **68%** |

Natural Ventilation Calculation

# 7.0 SUSTAINABILITY

*SEPP65 principle 5 clause 13 states:*
*Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction.*
*Sustainability is integral to the design process. Aspects include demolition of existing structures, recycling of materials, selection of appropriate and sustainable materials, adaptability and reuse of buildings, layouts and built form, passive solar design principles, efficient appliances and mechanical services, soil zones for vegetation and reuse of water.*

The proposed development has met the targets set out in the Building & Sustainability Index (BASIX). A BASIX certificate is included with the Project Application. Furthermore, the proposal embodies excellent sustainable design objectives as indicated in diagram 7.1 and summarised as:

- Connection to a black water treatment plant for facilitating reuse of black water for laundries, toilet flushing and irrigation in the local area
- Good natural ventilation strategies in excess of the RFDC minimum standards
- Sun shading elements to reduce solar gain where required
- Excellent daylight access to private and public spaces to reduce the reliance on artificial lighting
- Highly glazed south facades combined with shallow unit plans which provide good daylight levels without the need for solar shading
- CO2 monitoring in carpark areas to vary fan speed and reduce energy use
- Energy efficient appliances as detailed in the BASIX certificate

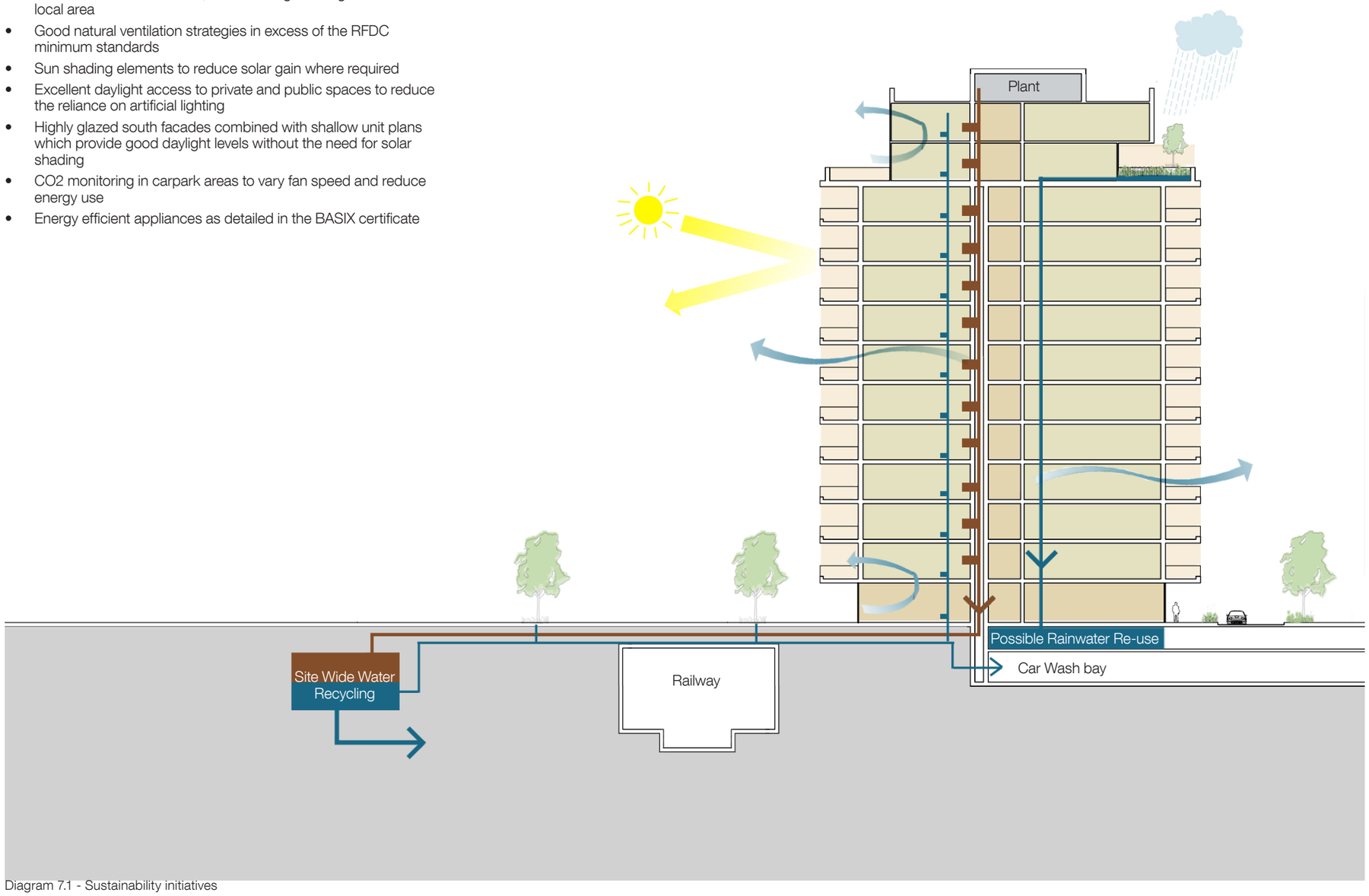



Diagram 7.1 - Sustainability initiatives