

## Appendix H

### *Summary of Proposed Sustainability Measures*

# Sustainability comments

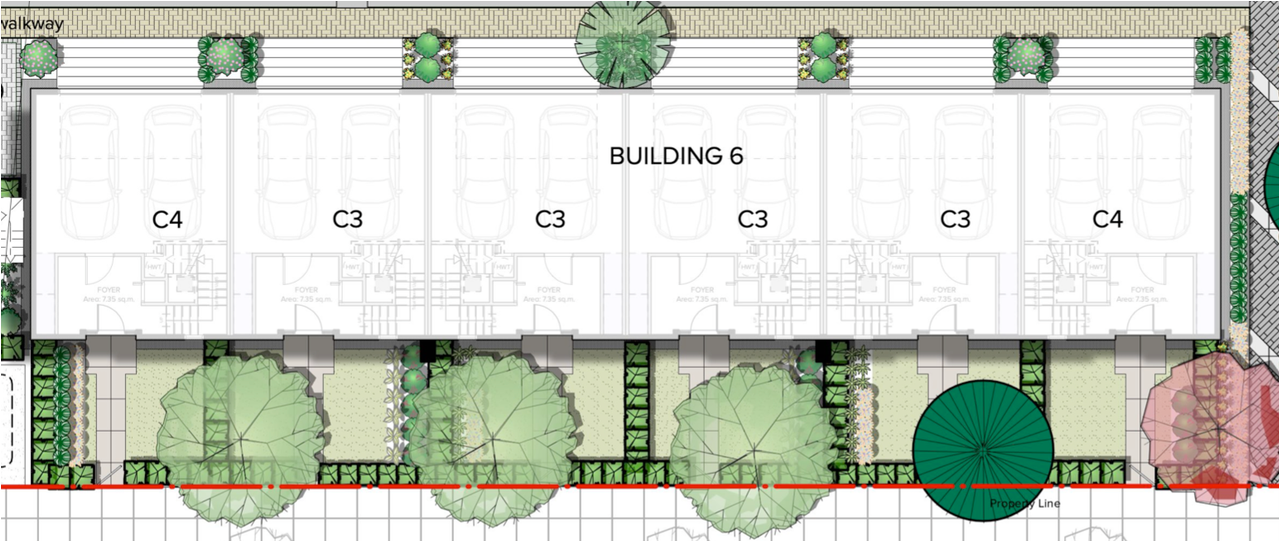
Response to City Comments 8 April, 2024.

City Comments 4 April 2024

API response in Yellow.

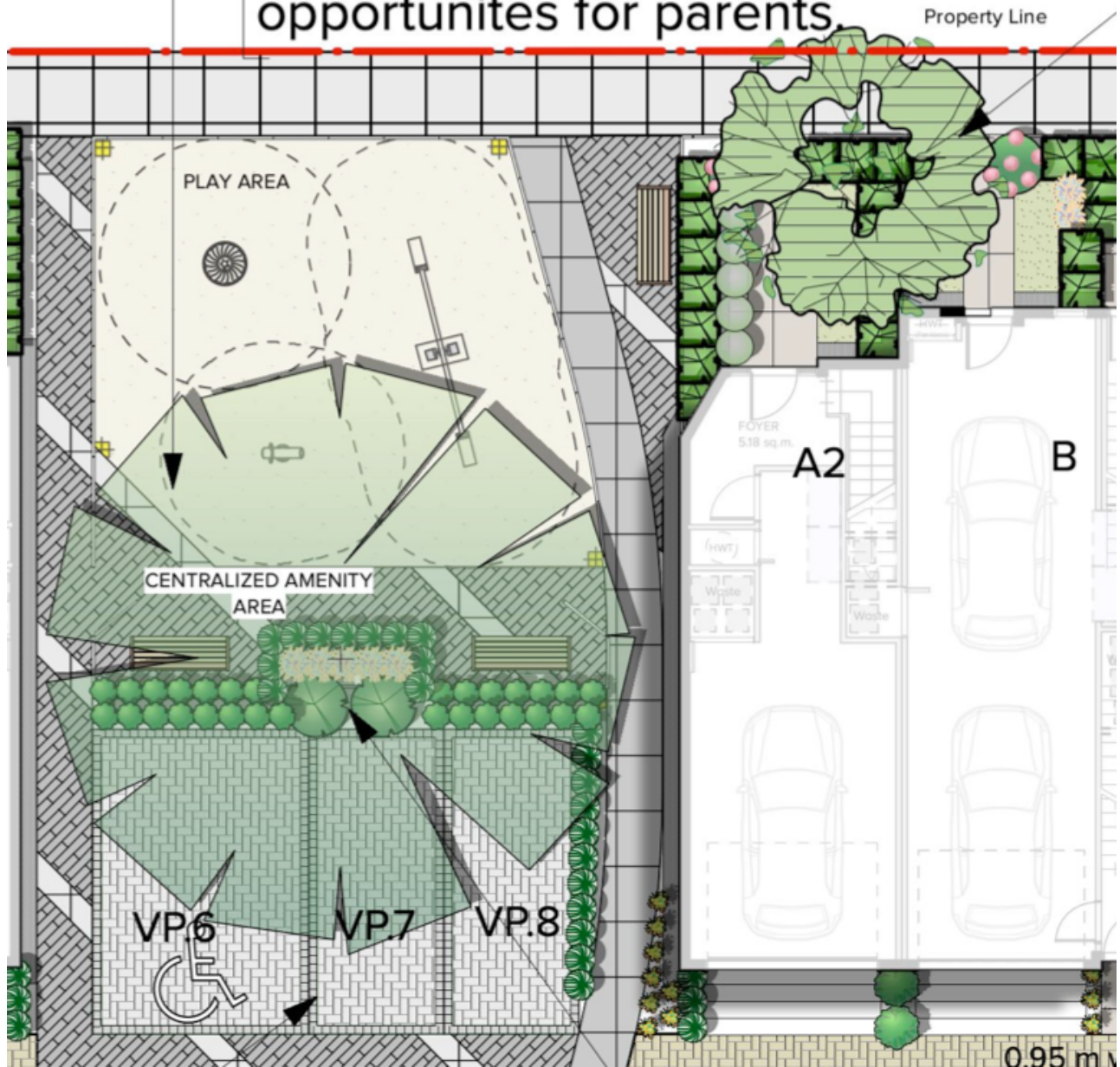
4. A few months ago, we had provided feedback from Squamish Nation, who recommended that projects consider the following:

- Climate resilient standards (e.g., HEPA smoke filters, passive cooling, and increased stormwater drainage capacity)
  - API: Individual residential units have a dedicated open area with a tree in each yard. All common amenity areas have been shaded naturally with tree canopies. Refer Images below.



and

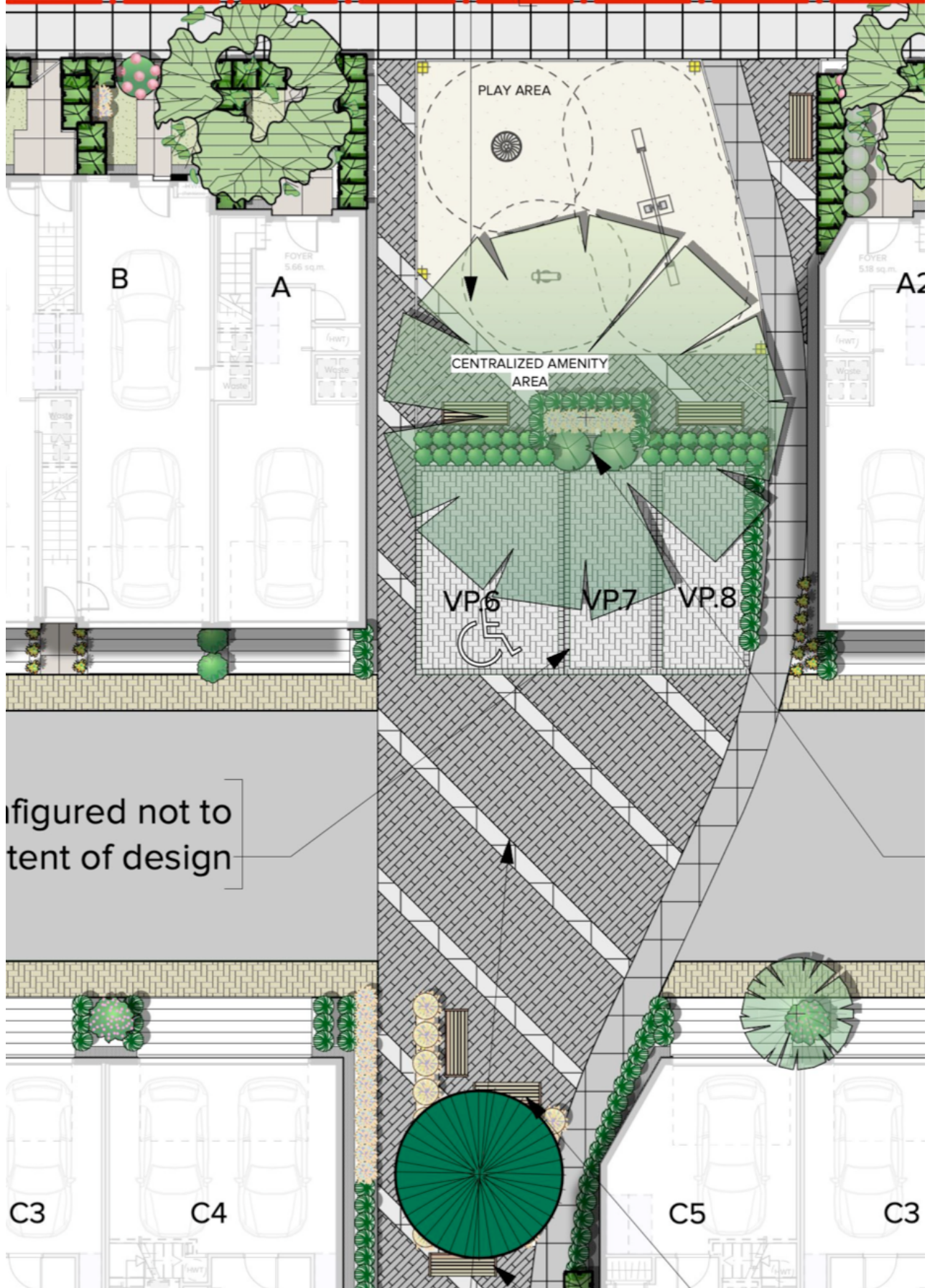
Redesigned, expanded and reinvigorated centralized amenity area with plenty of play equipments & well shaded seating opportunities for parents

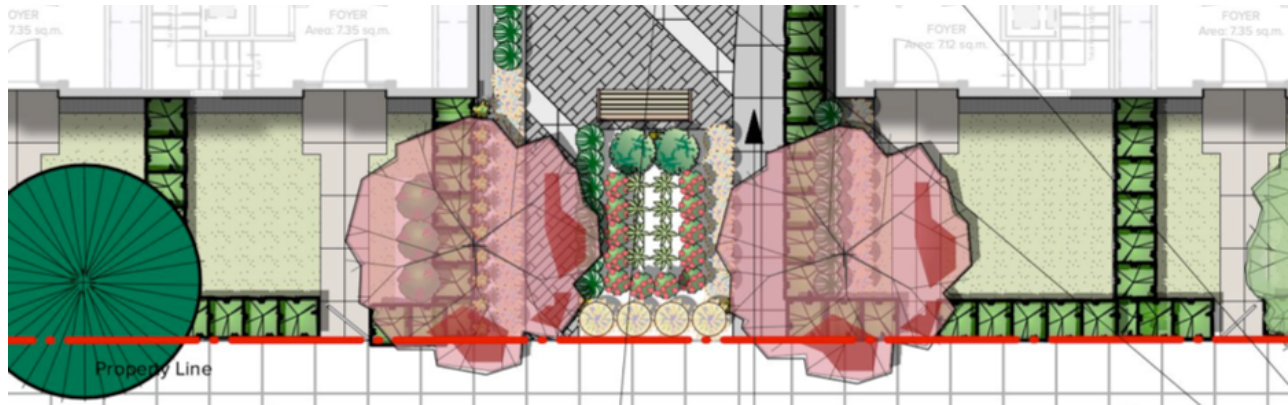


- We have tried to limit asphalt usage on site, and proposed concrete paver alternatives with a lesser heat absorption capacity. Refer Image below.

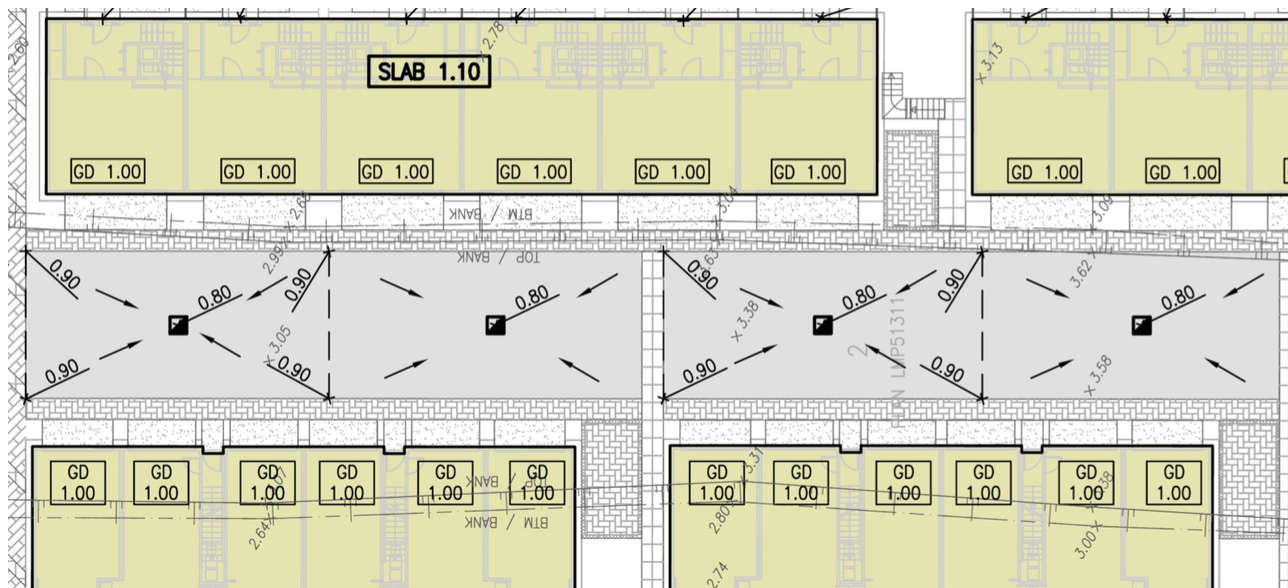


opportunities for parents



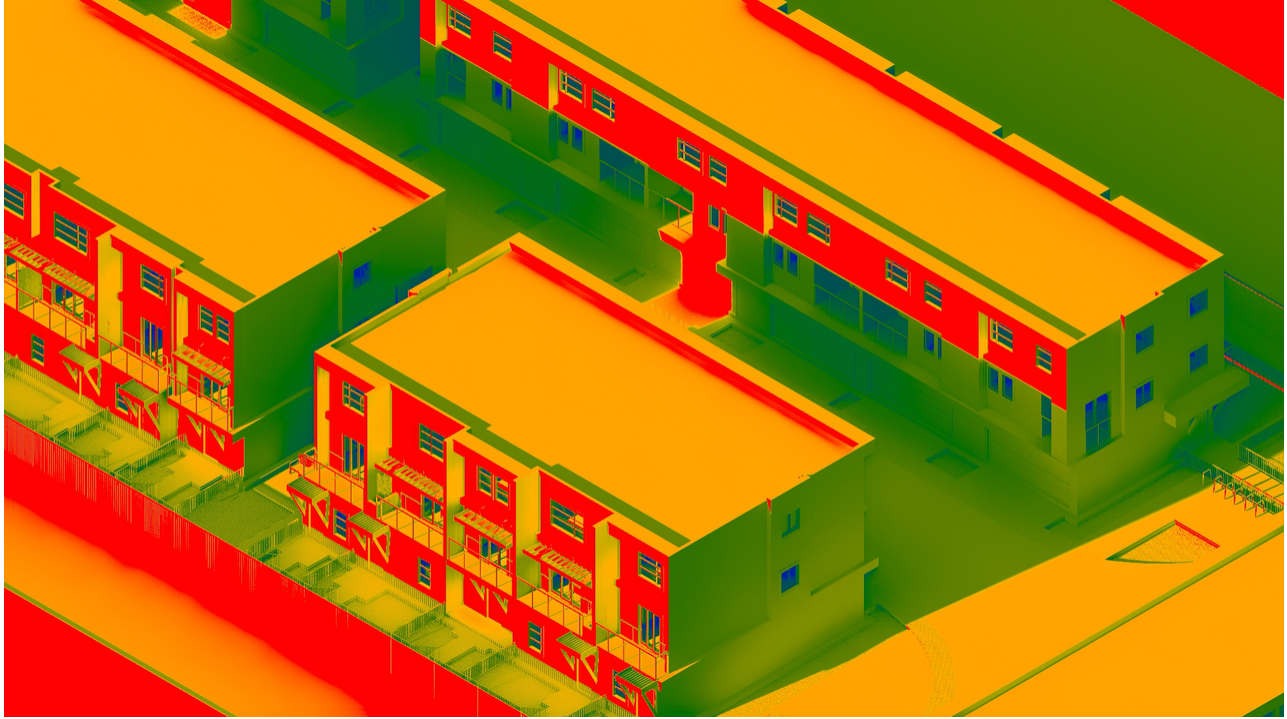


- Storm water drain system is optimized to maximize surface run-off. Catch basins are placed at regular intervals for efficient storm water drainage. Refer Image below.



- Vertical and horizontal solar protection elements have been consciously included for passive cooling. Their effects can be noted from the thermal analysis image included below.





- *Building design features to mitigate against climate impacts (e.g. increased temperatures, increased risk to (wildfire) smoke, increased rainfall and wind, external flood risks)*
  - API: Building response to heat mapping is depicted in the thermal analysis. (Red-Hot, Green-Cool)
  - Vertical solar control elements balance the intensity of heat in hot weather. Fenestrations counter the sun exposed surface and allow ventilation and comfort. Refer Image below.



- Risk of increased rainfall can be managed on site through roof drains and an efficient storm water drainage system as mentioned previously.
- Site grades allow a higher Finished Floor elevation, reducing risks to external flood.

- *Net zero carbon emissions (considering clean power/heat, building envelope, renewables, and embodied carbon)*

API: Indeed. High performance building envelope systems are visualized to be used and the flat roof also allows for insulation to be placed on the outside with much better efficiency compared to the internal batt insulation. Further, a compact design with moderate floor-to-ceiling heights, use of flat roofing systems and modulating the window sizes have been consciously done to achieve minimizing the embodied carbon.

- *Highest sustainability standards as possible (including considerations for water consideration, stormwater management, waste management, transportation, environmental conservation, and food security)*



API: Water consideration has been given special thought by utilizing native planting that reduces leaf litter and consumes limited resources such as water and maintenance. Native vegetation and bird friendly plants proposed contribute towards a sustainable on-site environment. Shrub varieties- Vaccinium Ovatum, Ribes Sanguineum, Rosa Nutkana, Mahonia Aquifolium, Mahonia Nervosa, Arctostaphylos Uva Ursi- Kinnikinnick are planted throughout the site. A compact design layout also allows for consolidated water use and self supporting building elements for not just water but also solar and wind protection. The most efficient waste management system with curb-side pickup is proposed to eliminate any need for a garbage enclosure or facility.

Overall, a design solution with emphasis on sustainability and conservation of resources is intentionally proposed which will stand well in growing climate of efficiency.

*Such time, you had mentioned to us that the above will be included as necessary – could you provide more detailed information in terms of what climate/sustainability measures are proposed as part of the project for response?*

API: As would have been obvious to the reader of this document, the design of the site not only talks about solar/wind protection by utilizing the features such as the fins and shades but also proposes to use high efficiency envelope systems. This is only enhanced by a site planning layout that supports inter building sustainability measures and consolidation of landscape features to help the overall efficiency.