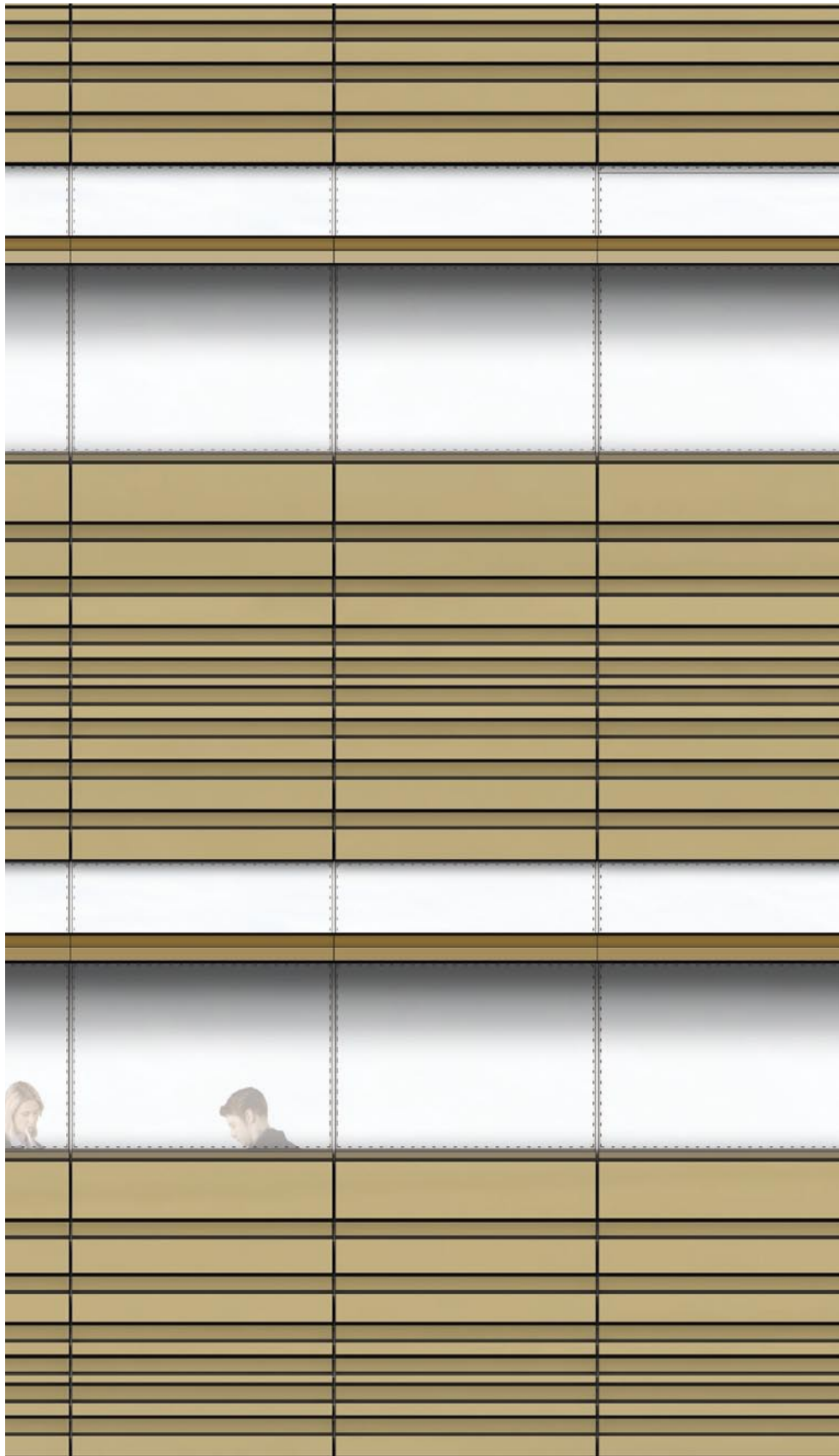
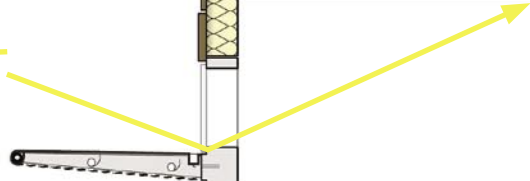


Facade Details

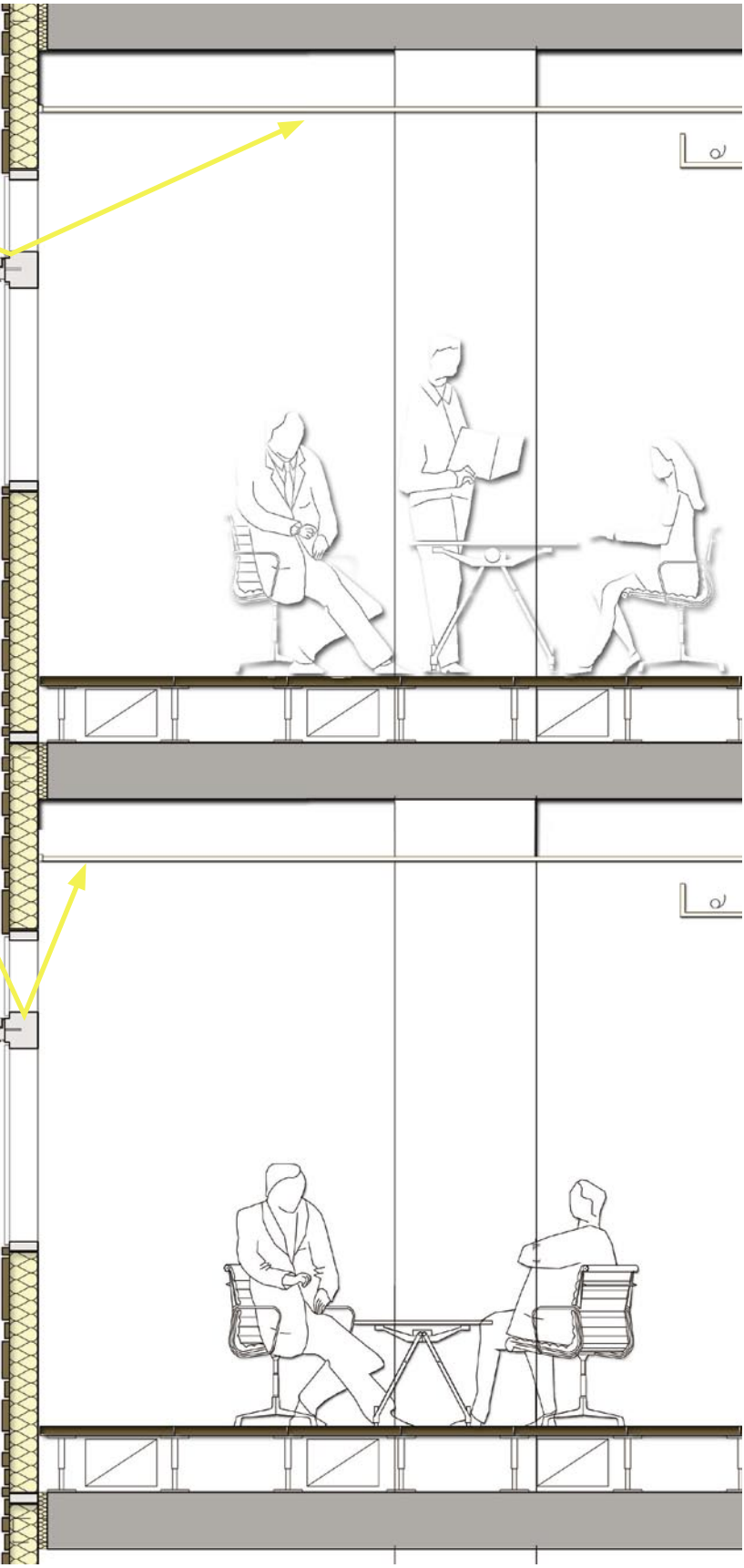
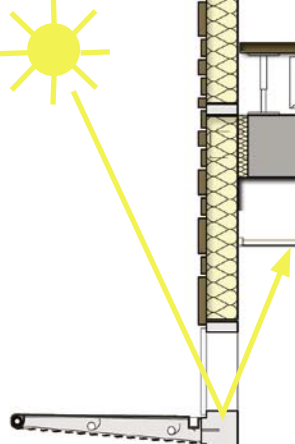
Office



Winter Sun 12:00
21th of December



Summer Sun 12:00
21th of June



Facade Details

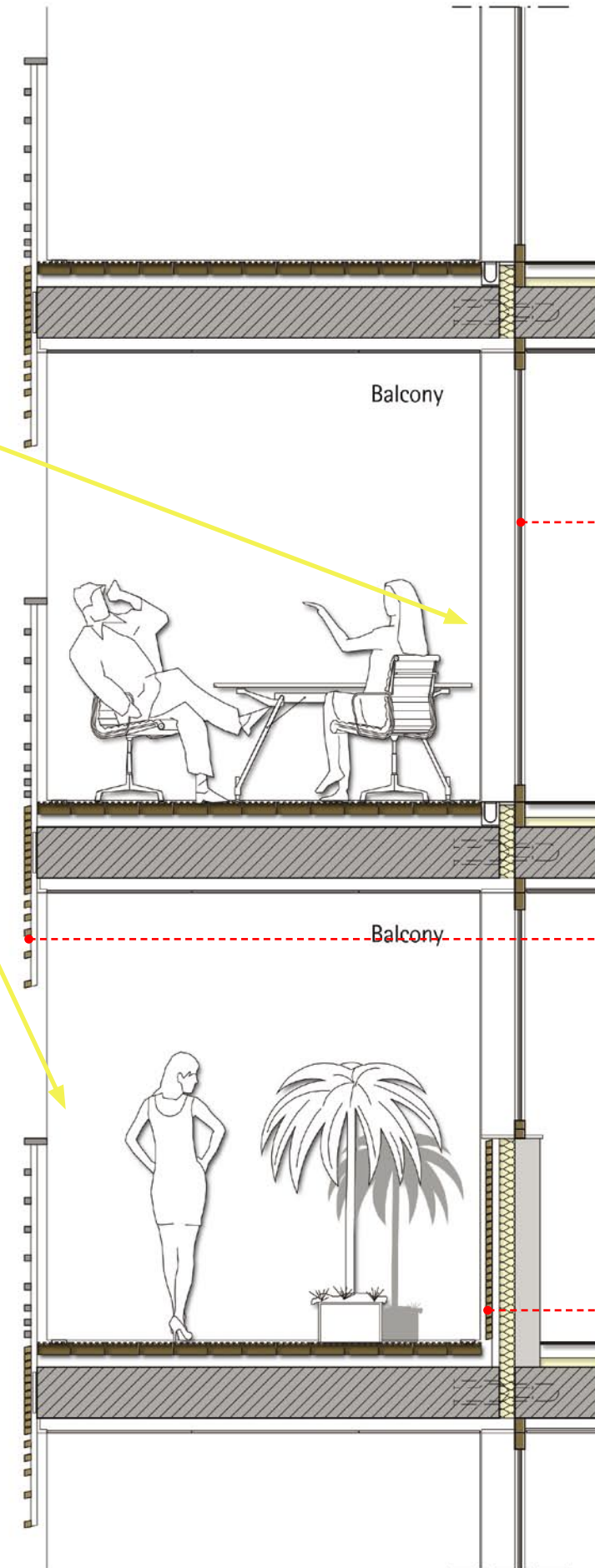
Residential



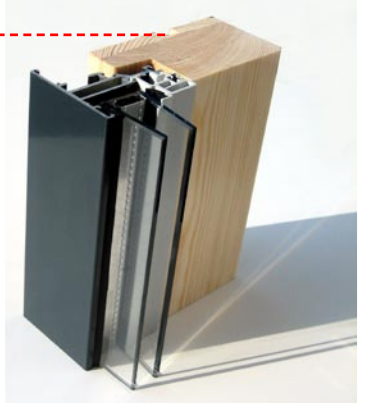
Winter Sun 12:00
21th of December



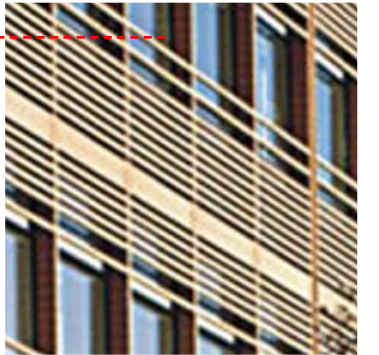
Summer Sun 12:00
21th of June



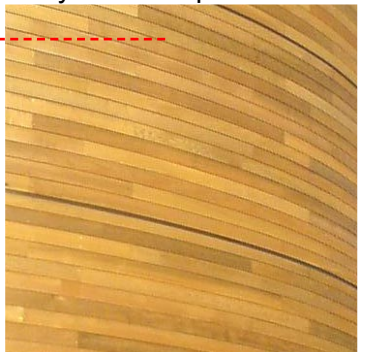
Windows



Louvers

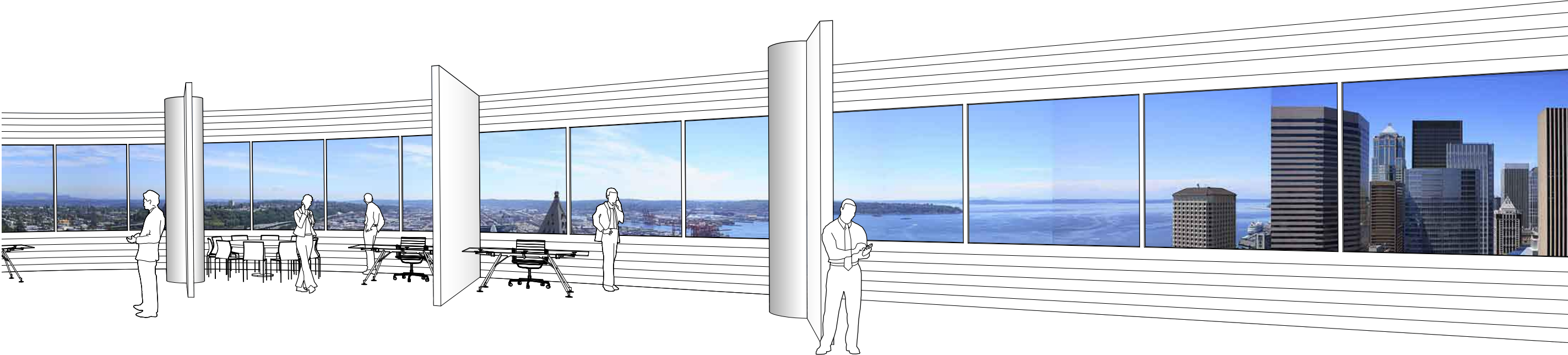


Recycled Composite Material



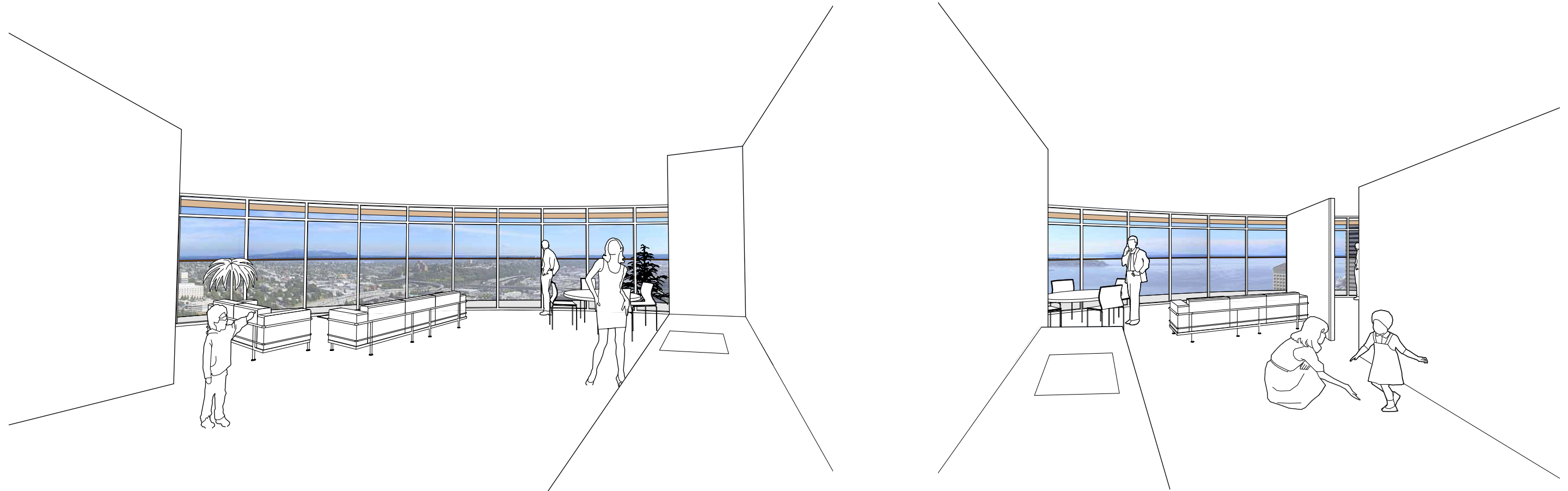
Office Tower

View from Typical Office Floor



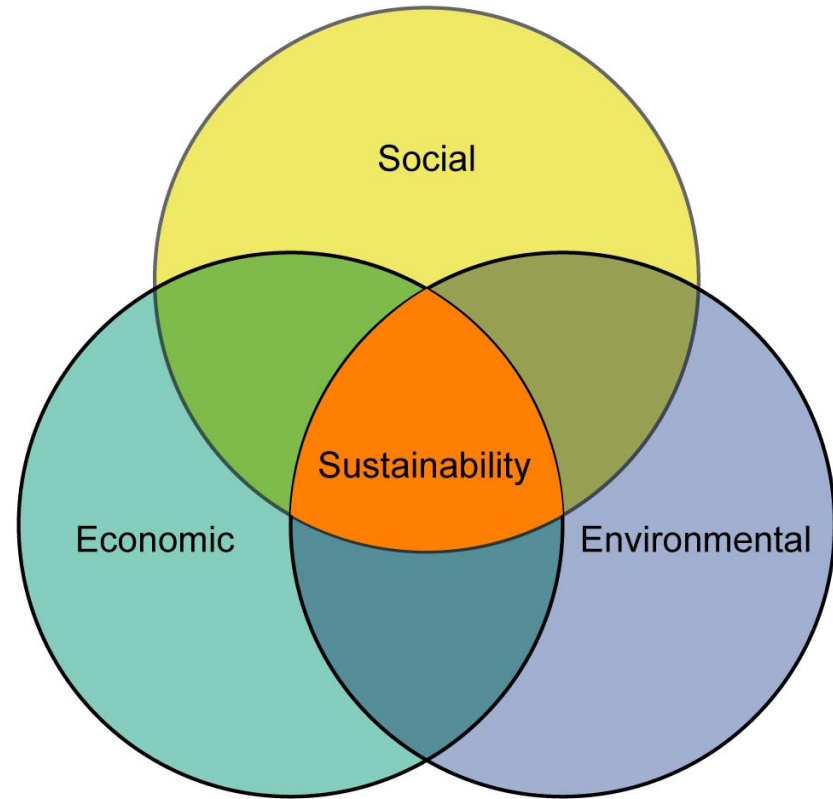
Residential Tower

Views from Typical Residential Units



Sustainability

Design Focus Areas and Process



The Triple Bottom Line



Energy Strategy



Water Conservation and Recycling



Indoor Environment



Site and Microclimate



Waste Reduction



Landscape and Habitat



Urban Activation



Transportation Alternatives



Sustainability Education and Public Art



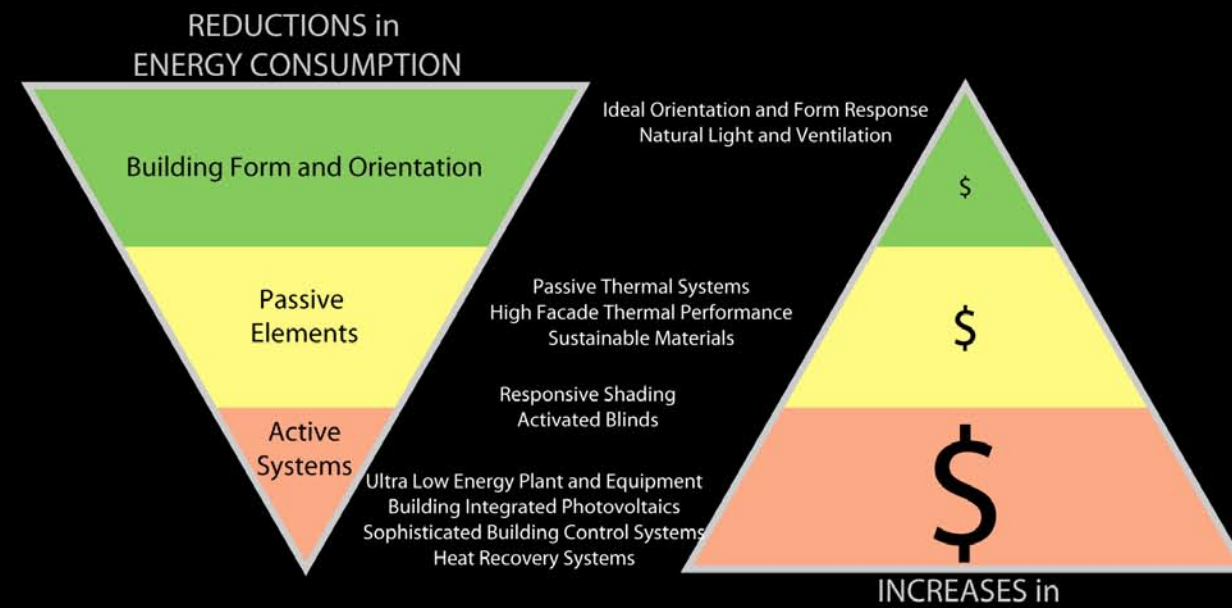
Sustainability Achievements

LEED Assessment Rating

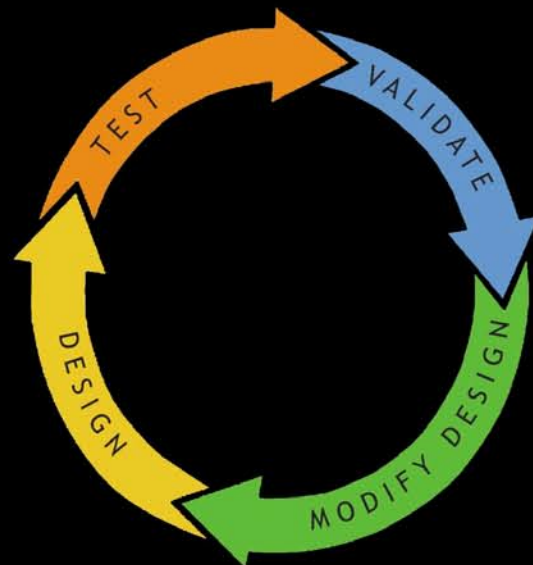
Minimizing the western exposure
Shaping due to wind pressures
Daylight & view access on floor plate

Glazing Ratio, U-Values,
Solar Heat Gain Coefficient
Airtightness

Efficient HVAC systems
Lighting control systems
Heat recovery systems
Renewable energy systems
Water-efficient fixtures
Appliance selection

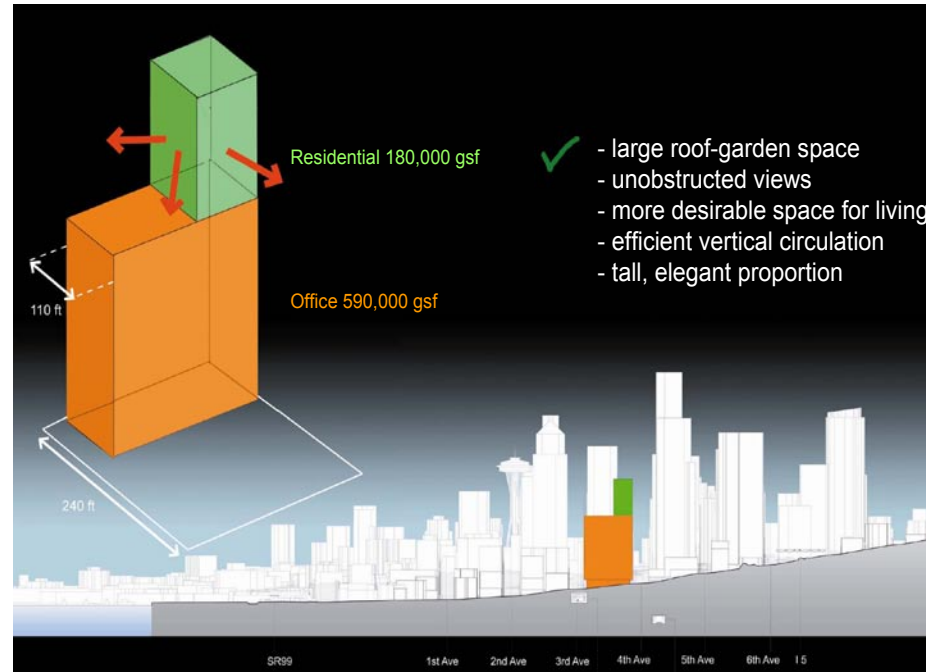


Targets and the Design Process



Sustainability Concepts

Urban Activation



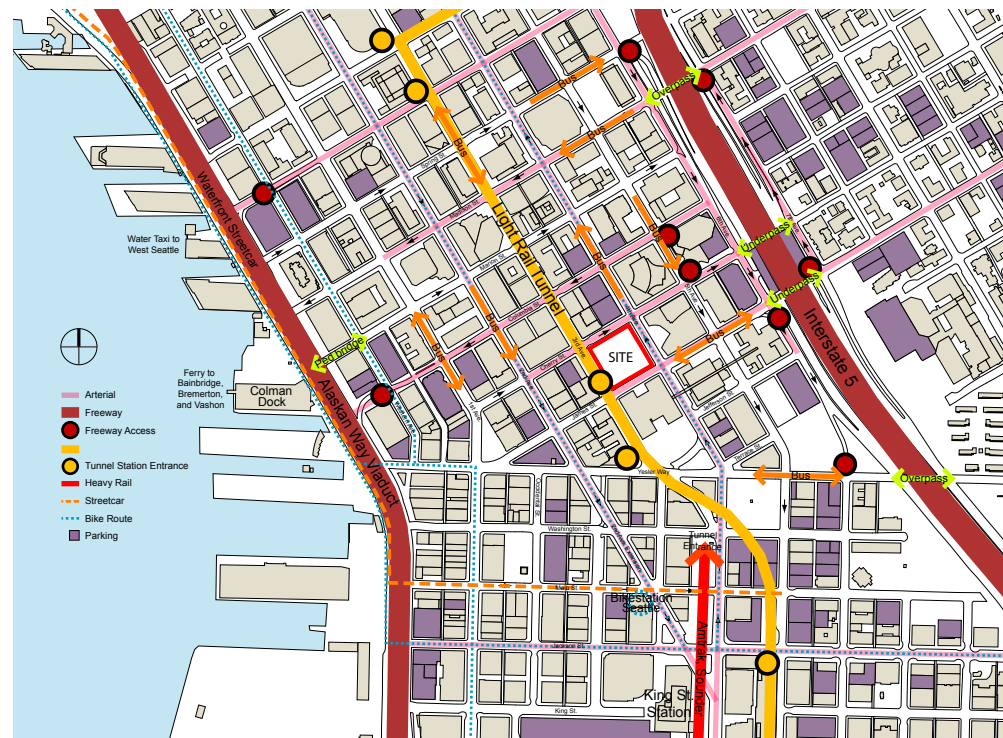
High density mixed use development.



Living, working and recreation in one development. Civic gathering space at the heart of the city.

Sustainability Concepts

Transportation Alternatives



Location well connected to public transport.



Metro connection to site.

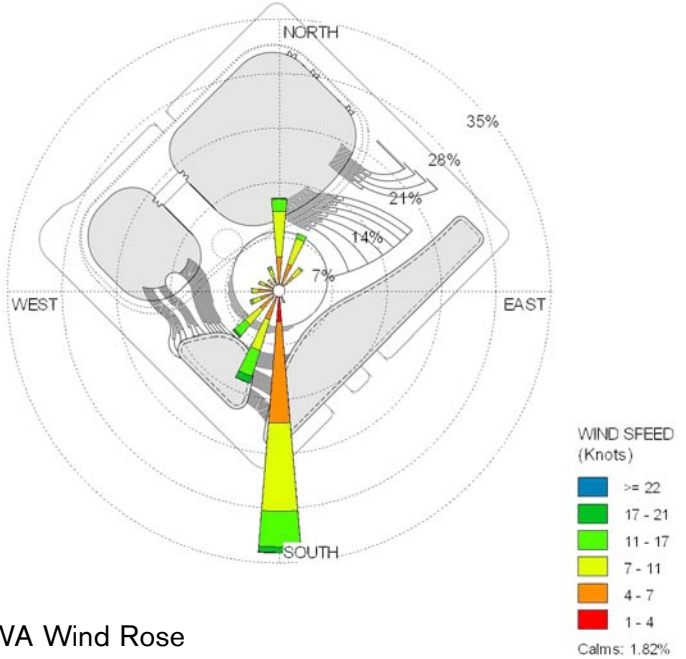
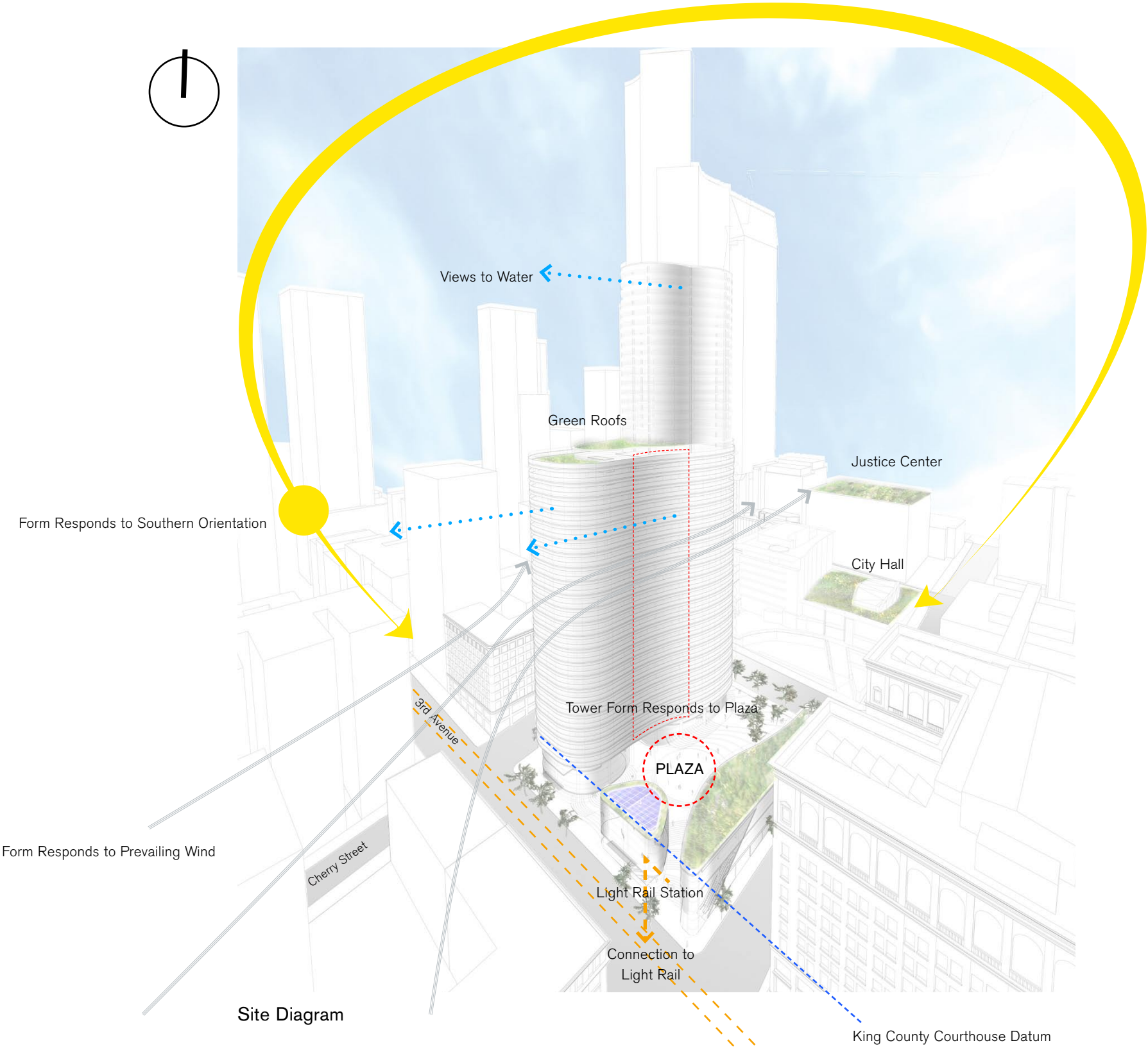


Bicycle and pedestrian friendly.

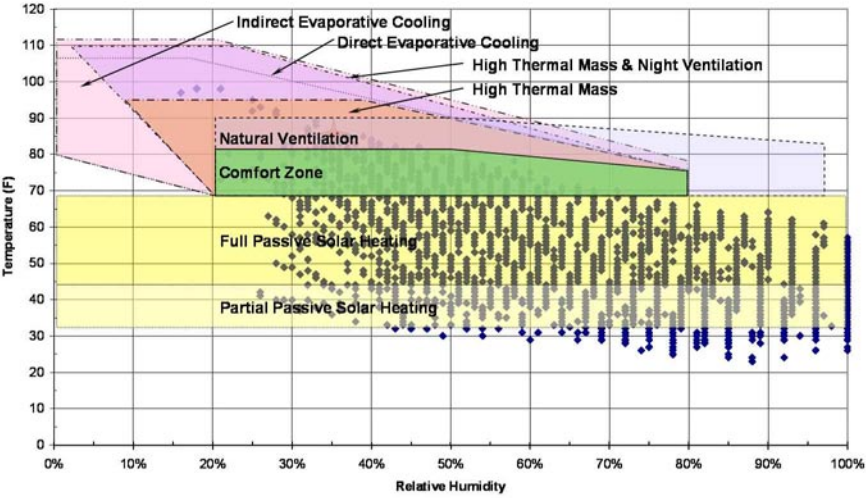
Sustainability Concepts

Site and Microclimate

City Comment A-1



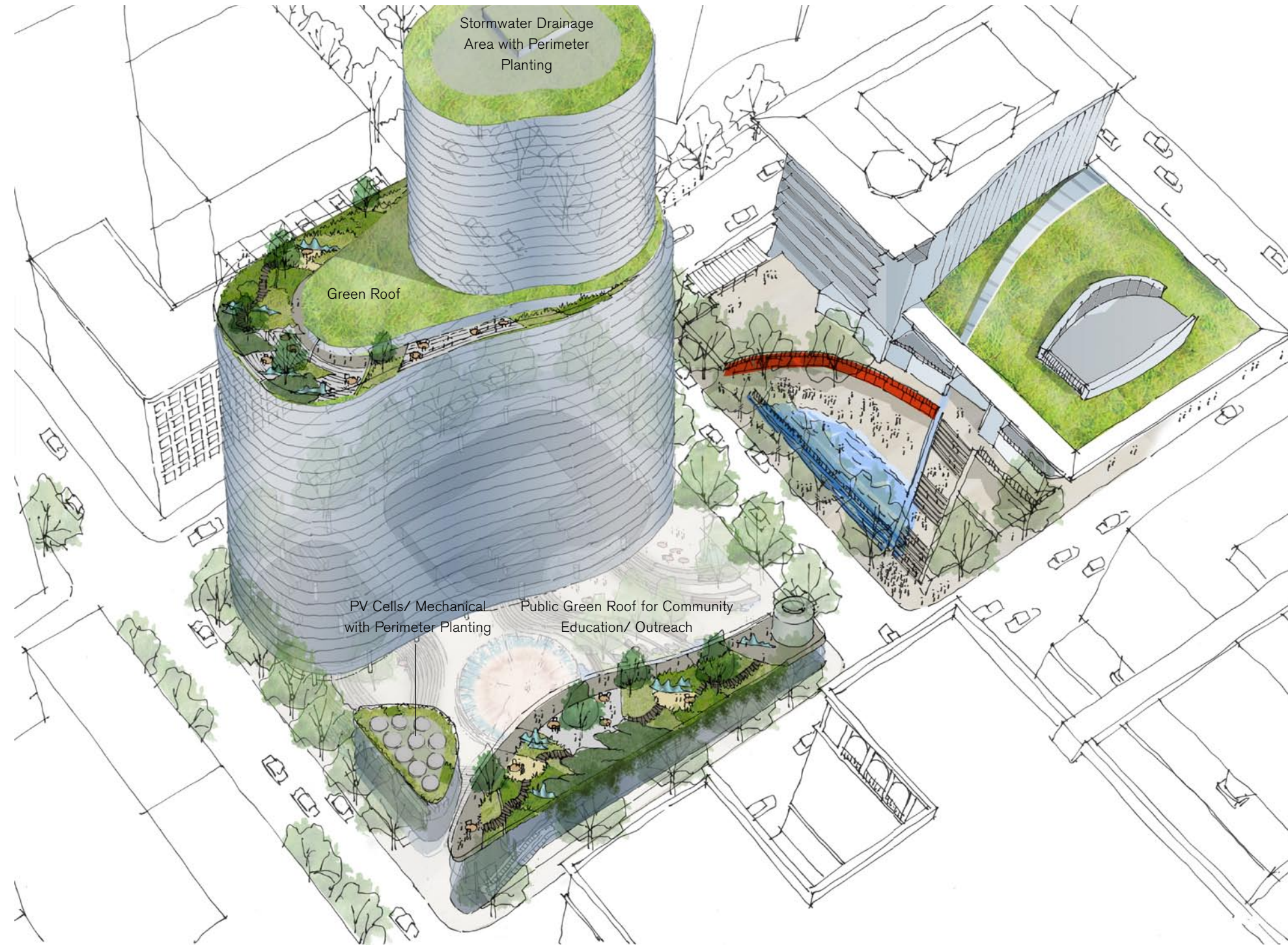
Seattle, WA Wind Rose



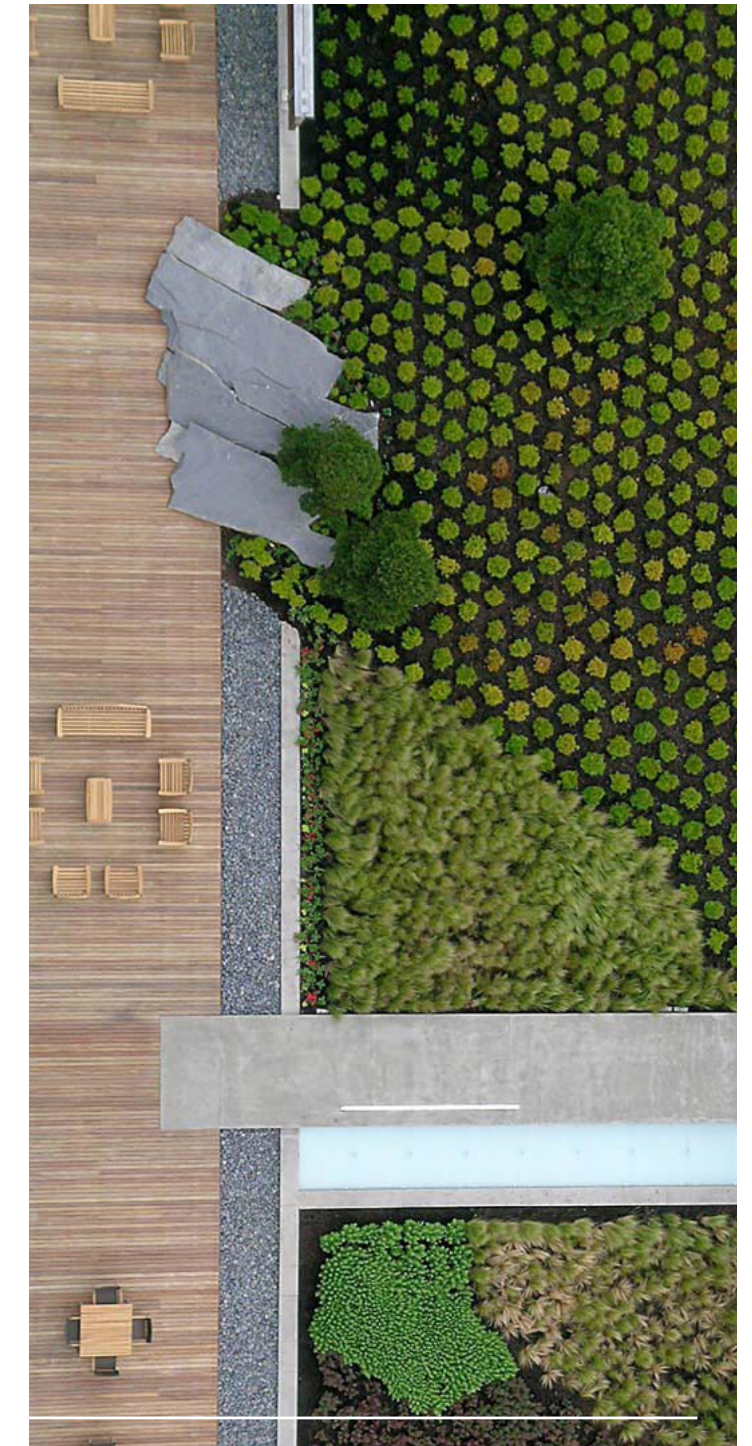
Seattle, WA Bioclimatic Chart

Sustainability Concepts

Landscape and Habitat

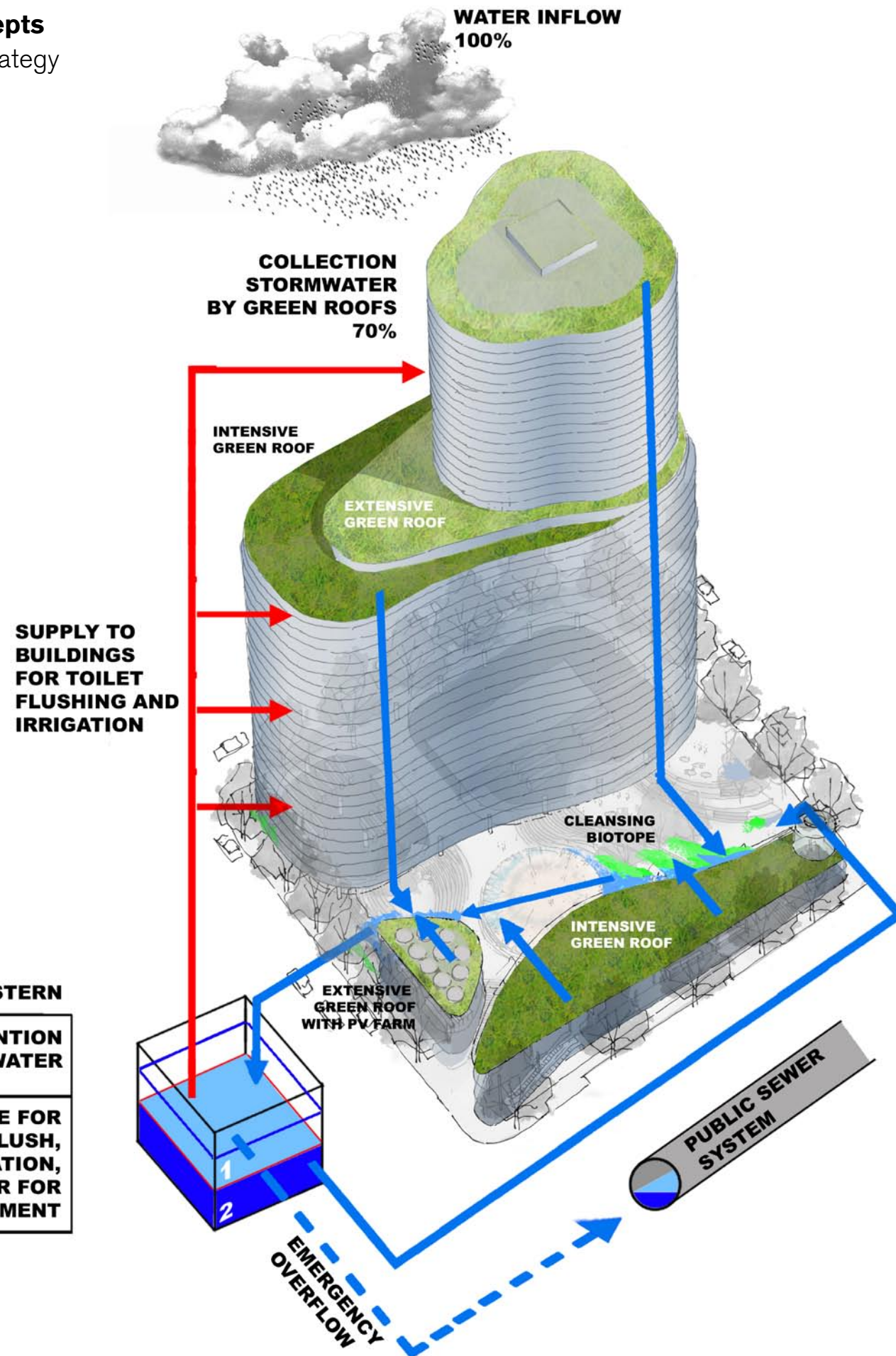


Landscaping Concept- Atelier Dreiseitl

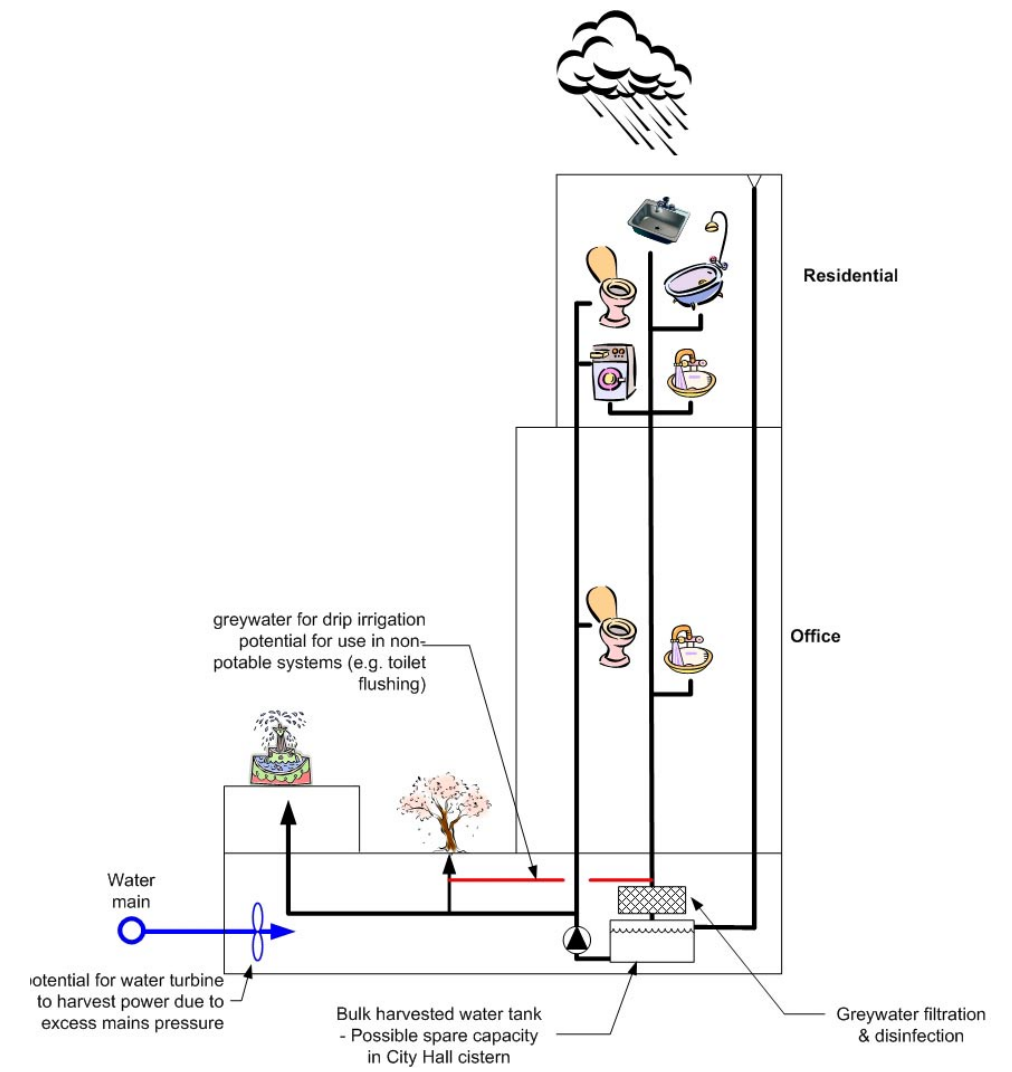


Green Roof References

Sustainability Concepts
Water Conservation Strategy



Conceptual Sketch



Water Collection and Distribution Diagram

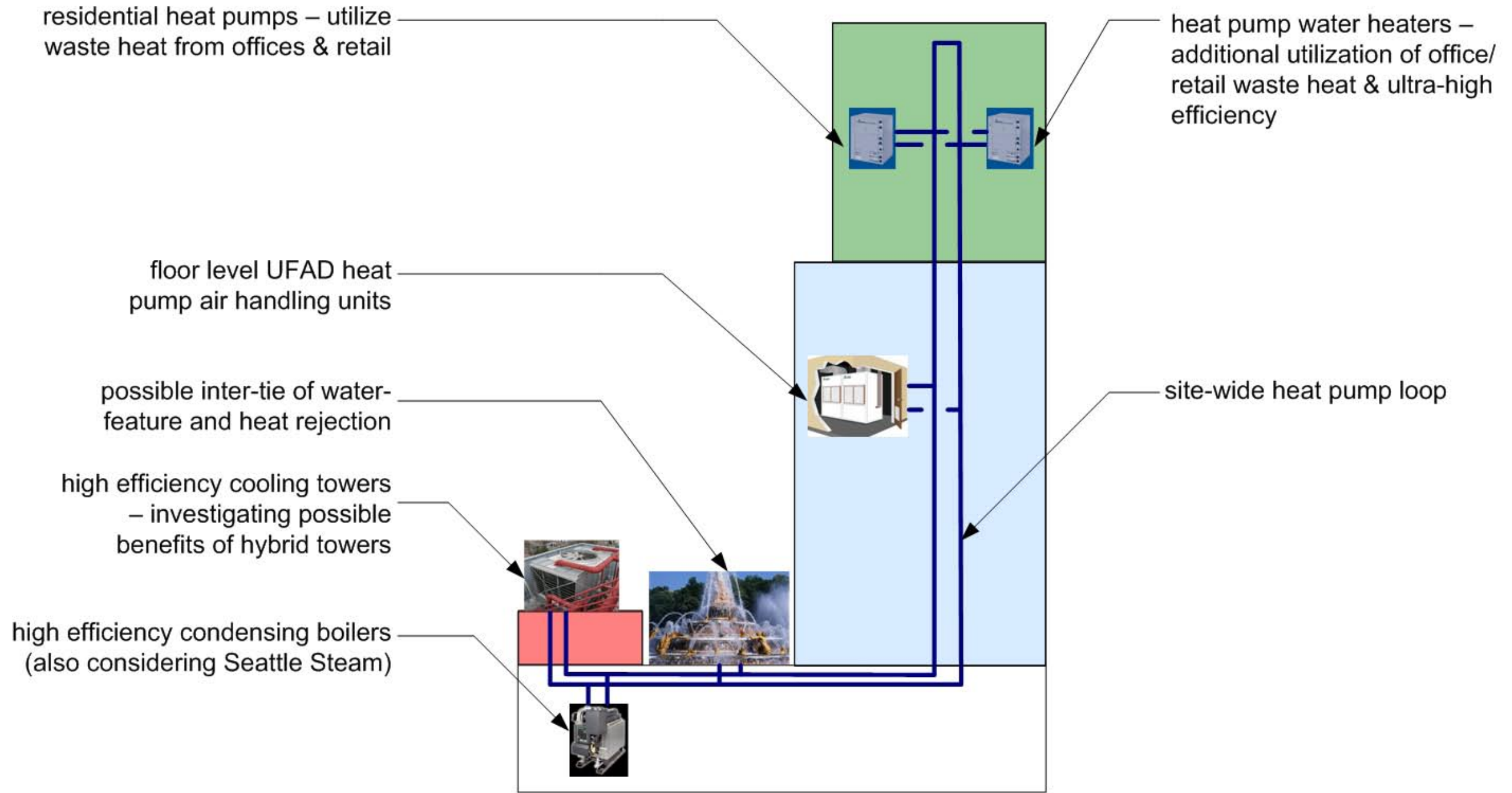
Low Flow Fixtures		
Toilets	Low volume gravity tank toilets Low volume pressurized toilets Dual flush toilets Waterless toilets	Offers significant water savings over traditional fixtures Waterless toilets offer almost 100% savings
Urinals	Low volume urinals	Offers significant water savings over traditional fixtures Waterless urinals offer almost 100% savings
Showerheads	Low volume showerheads	Offers significant water savings over traditional fixtures Energy savings can be realized by reduced hot water usage
Faucets	Low volume kitchen and lavatory faucets, using aeration, flow control or devices Sensor activated faucets Automatic shut-off faucets	Offers significant water savings over traditional fixtures Energy savings can be realized by reduced hot water usage
Clothes Washers	High efficiency, front loading washers	Offers significant water savings Energy savings can be realized by reduced operational costs and hot water usage
Dishwashers	Water efficient dishwashers	Offers significant water savings over traditional fixtures Energy savings can be realized by reduced operational costs and hot water usage



Aligns with City incentives.

Sustainability Concepts

HVAC Strategy

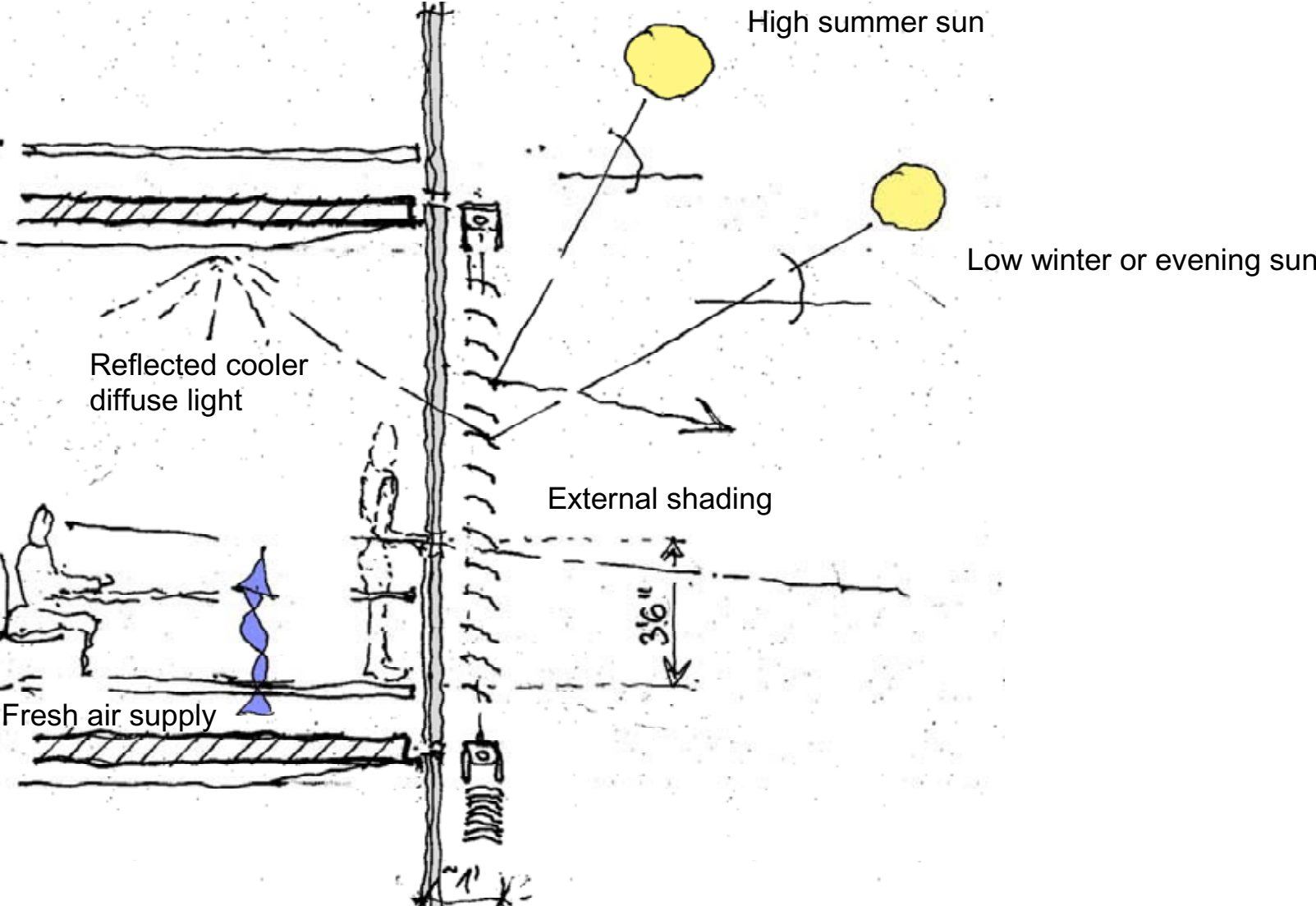


Potential scheme:
site-wide heat pump loop

Conceptual Diagram of General Heating and Cooling System

Sustainability Concepts

Solar Strategy: Shading

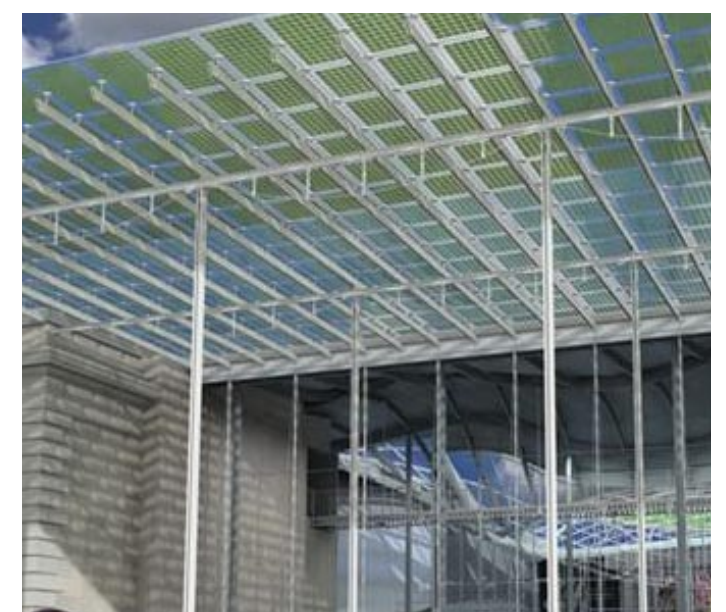
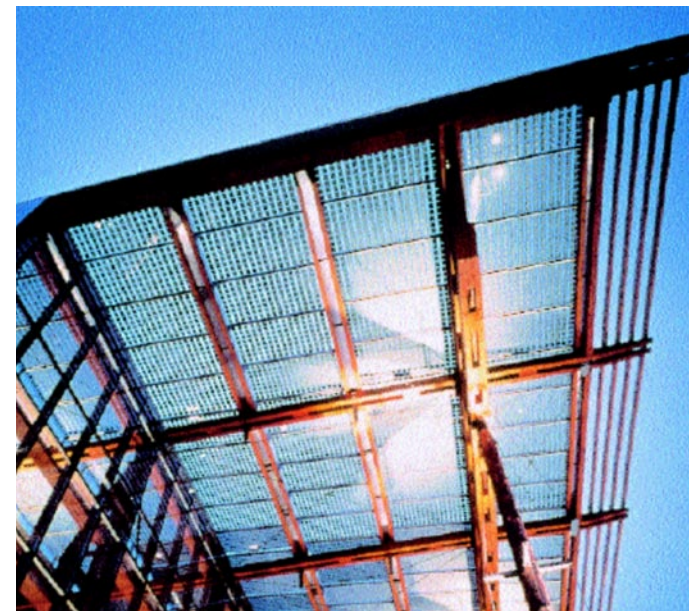


Facade Concept Sketch- Arup



Facade References

Sustainability Concepts
Solar Strategy: Photovoltaics



Sustainability Concepts

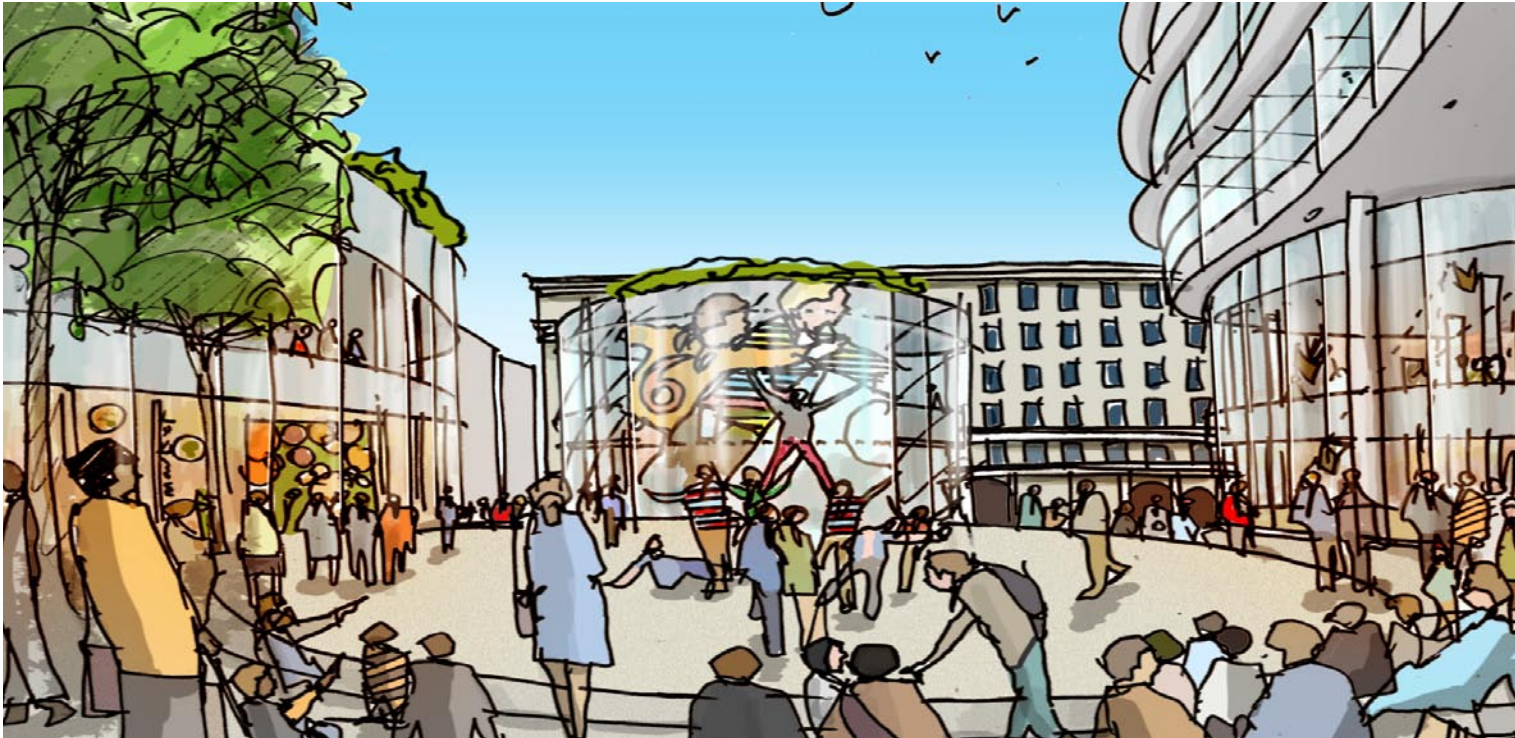
Waste Reduction



Recycling and Composting

Sustainability Concepts

Sustainability Education and Public Art



Public Education and Art



Water and Wind

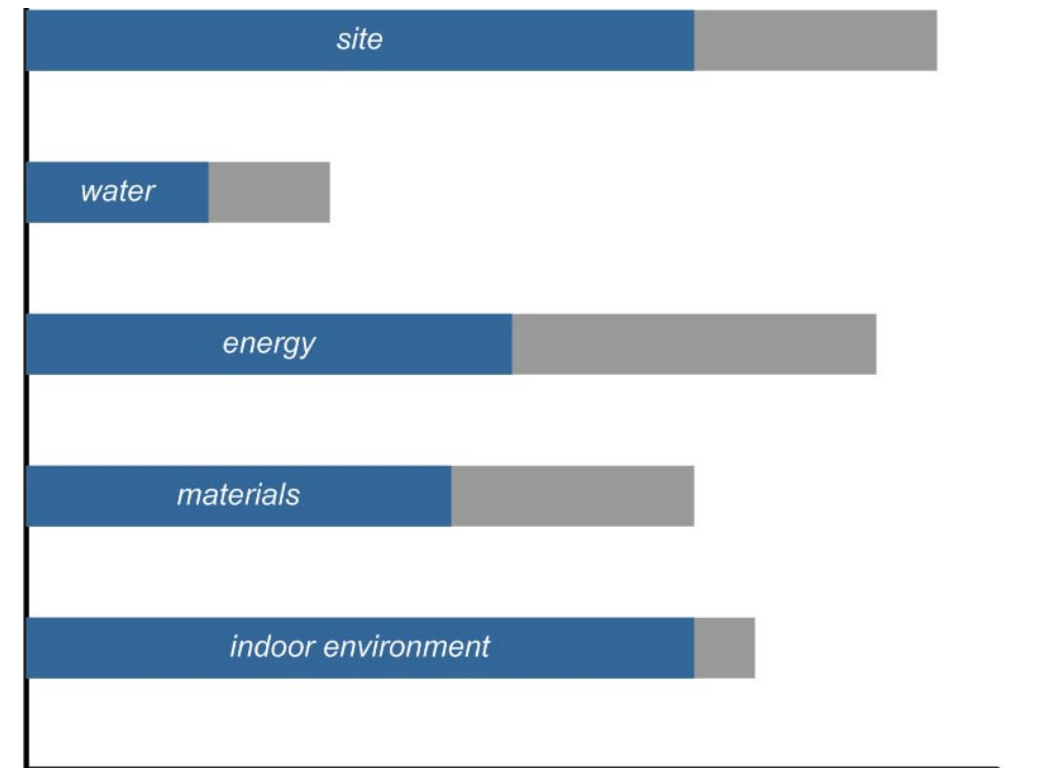


Sustainability Concepts

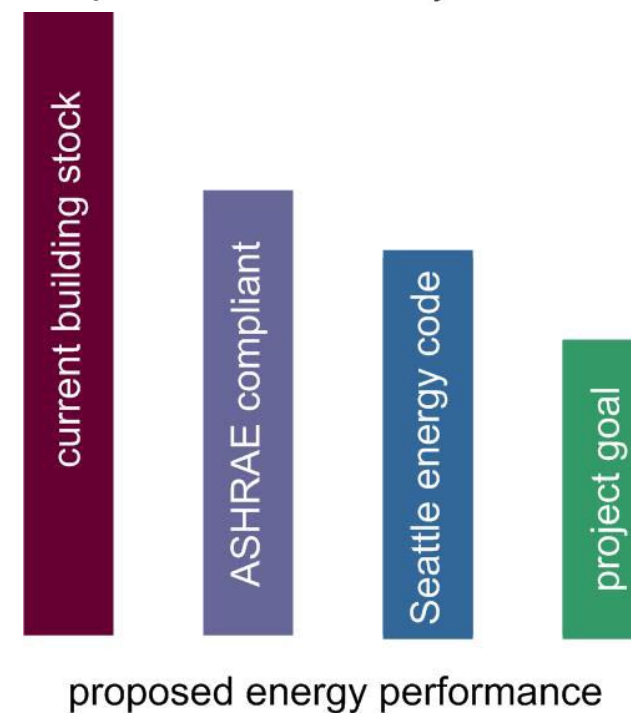
Sustainability Achievements

Advantages of proposed sustainable development over conventional building

- reduced global warming impact and ozone depletion impact
- energy savings – 15% or more beyond minimum requirements
- water savings – 20-30% or more greater than minimum requirements
- reduced urban heat island effect – green roofs and site plantings
- dense multi-use development with civic component
- alternative commuter options and incentives
- better air quality & ventilation
- a healthier home environment
- daylight & views
- a more productive work environment
- healthier & sustainably produced materials
- site recycling programs
- decreased chum costs and material impacts (reduced long term waste)
- improved construction practices



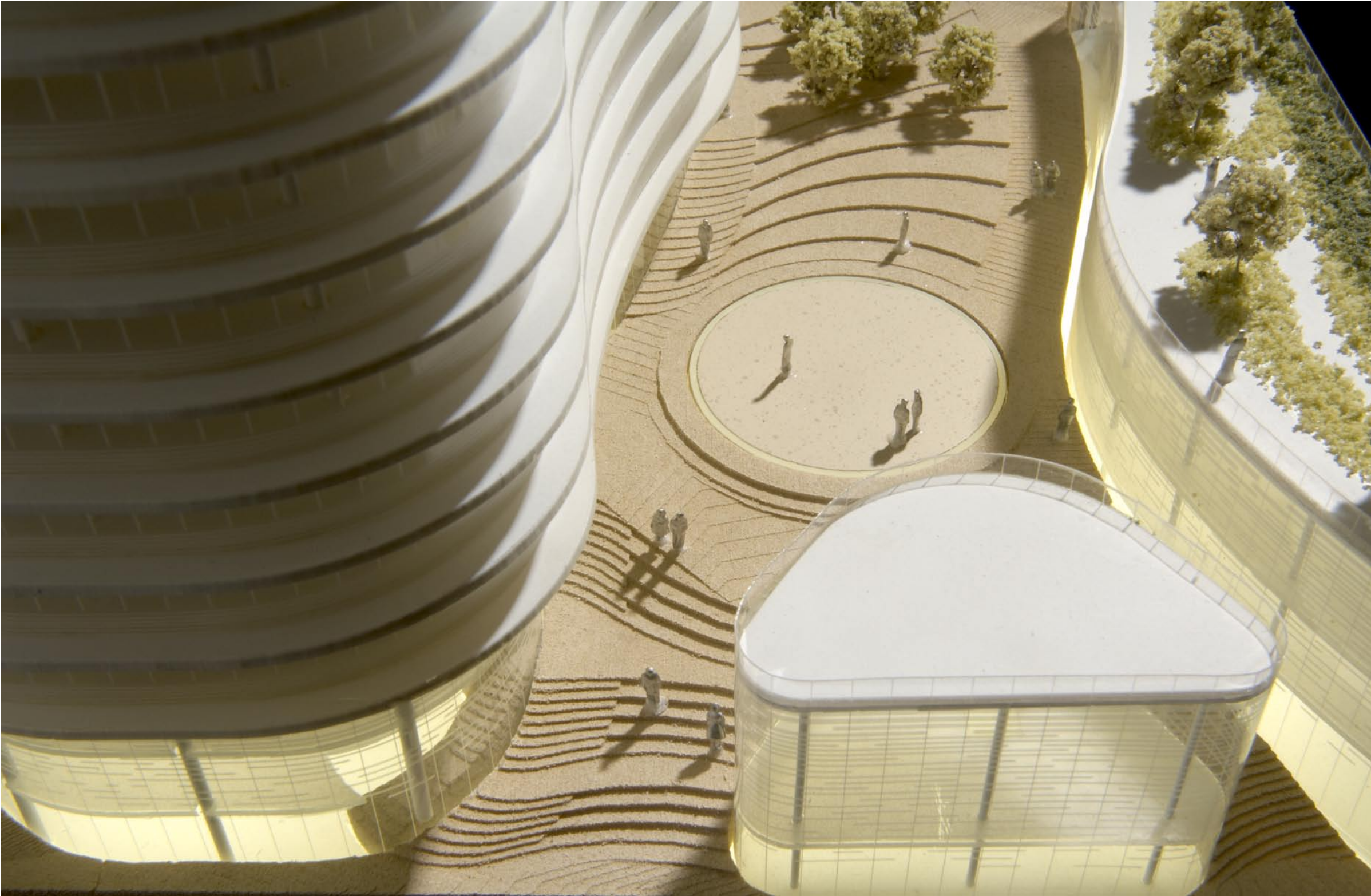
Proposed Sustainability/LEED Performance max. potential target



proposed energy performance

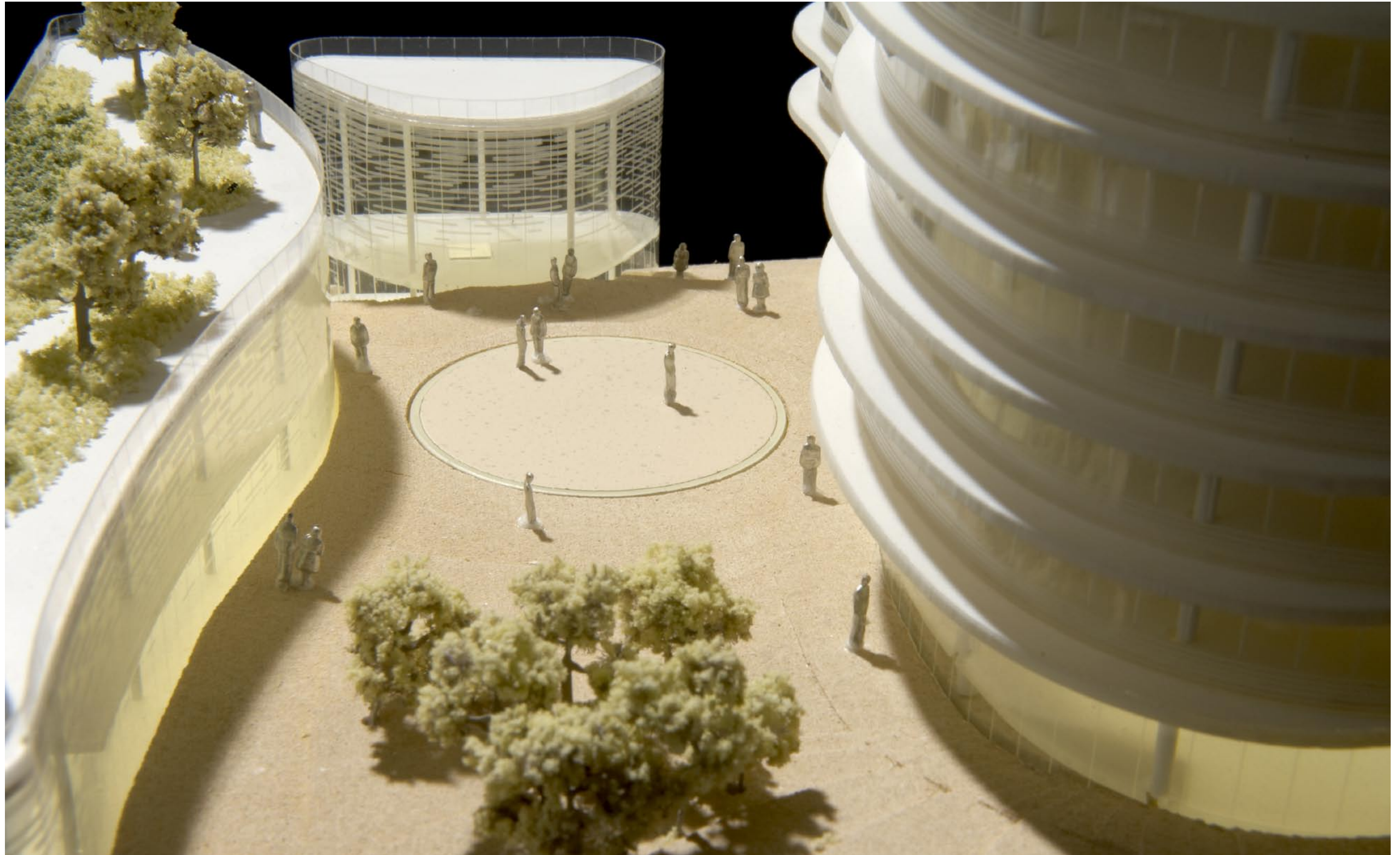
Model Photos

Plaza



Model Photos

Plaza



Visualisation

View from Terminal 18



Visualisation
Seattle Skyline at Night

City Comment A2



Visualisation

Seattle Skyline

City Comment A2

