

RESIDENTIAL BUILDINGS

Measures to reduce greenhouse gas emissions from residential buildings conserve the energy associated with interior and exterior lighting, building heating and cooling systems, and water supply and treatment.

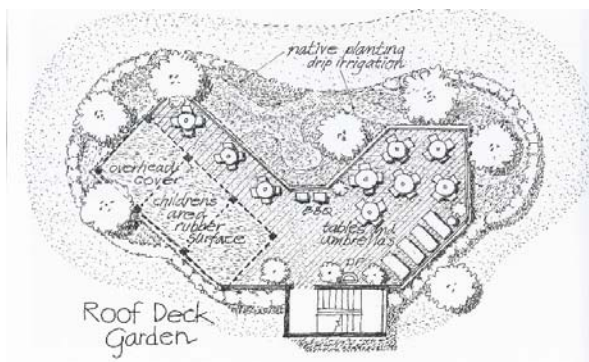
OPEN SPACE & LANDSCAPING

SHORT-TERM

- *Create Green Spaces for Tenants for a Sense of Community*
- *Design and contribute to a community garden*
- *Activate pool area with plants*

MIDTERM

- *Create community space between Two Courtyards @ roof top*
- *Minimize Parking Access*
- *Design & build a green façade – green grid – Green Screen to reduce heat gain and improve air-quality*
- *Cut street curb for carpool drop-off*
- *Build Window Boxes for each apartment unit for herbs & flowers to also reduce heat gain and improve air-quality.*
- *Install permeable paving Street trees can provide sun-shading for units.*
- *Plant street trees for heat gain reduction*
- *Use photovoltaic panels to shade parking spaces.*
- *Paint the parking lot a light color to reduce heat island effects.*



ENERGY EFFICIENCY

SHORT-TERM

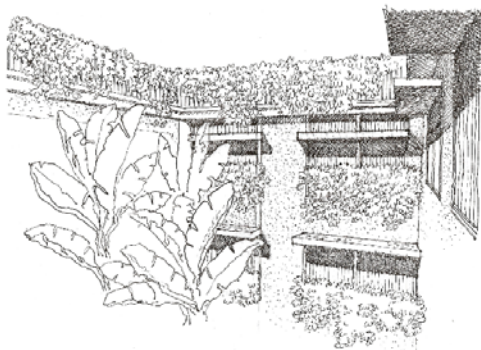
- *Conduct an energy audit*
- *Evaluate existing heating system and determine whether replacement with a more energy-efficient system is feasible (for example, replace electric radiant heating in ceilings with through-wall heat pumps).*
- *Upgrade to compact fluorescents in residential units.*
- *Upgrade garage lighting to T8s with electronic ballasts.*
- *Install occupancy sensors.*
- *Install ceiling fans – energy star*
- *Install Energy Star-compliant HVAC units*
- *Install window film on south and west facing glazing.*

MID-TERM

- *Deactivate radiant heating, and replace with heat pumps for heating & cooling*
- *Install solar thermal for swimming pool*
- *Install electrical meters over phone line*
- *Design and install awnings at windows*

LONG-TERM

- *Daylight Harvesting: Design & install light shelves & photo-sensors. Reflect more light into courtyard for daylighting. Install skylights and tubular daylighting pipes on top floors.*



- *Replace single-glazed windows with dual-glazed windows.*
- *Establish a rooftop garden for insulation, stormwater reduction, and as a tenant amenity.*
- *Install solar thermal hot water heating.*
- *Install photovoltaic panels for solar electric.*

WATER CONSERVATION

SHORT-TERM

- *Install flow restrictors at faucets.*
- *Install low-flow shower heads in residential units.*
- *Carry out water leak inspections annually(sudden changes in monthly water bills can provide clues about leaks).*
- *Set hot-water temperature at lowest acceptable setting.*
- *Establish native plantings in open space areas.*

MID-TERM

- *Install ultra-low flush toilets*
- *Collect rainwater for landscaping*
 - *Mid- term rain barrels*
 - *Long-term – on grade cistern*
- *Replace or cover concrete open space areas with plantings and/or permeable paving.*
- *Grade outside surfaces to direct stormwater to existing infiltration puts.*



LONG-TERM

- *Install grey water system for irrigation and toilet flushing.*
- *Collect runoff from the roof in a large cistern in the building basement for use in irrigation.*
- *Over the long-term, replace parking spaces with native landscaping and compost bins.*

DWP RECOMMENDATIONS

Lighting: upgrade fluorescent fixtures to T8 lamps with electronic ballasts; Install photocell light fixtures at offices and occupancy sensors in hallways, restrooms, and offices.

HVAC: Repair, seal and insulate ducts; Shut off air supply to vacant spaces; Balance system. Maintain fans and pumps

Energy Management System: Install to control lighting and HVAC

Building Structure: Add insulation and use a “white coating” when re-roofing.

Water Conservation: Install low-flow aerators on faucets. Check for water leaks. Inspect and repair irrigation system monthly.

Renewable Energy: Consider photovoltaic panels on the roof.

Billings: Look for deviations in monthly bills that may indicate water leaks

For further information and assistance, please visit <http://www.wilshirecenter.com/cooldistrict>.