

City Green Building

Make green building standard practice in Seattle through education, technical assistance and incentives.



History

- Conservation
- Environmental Stewardship
- Growth Management
- Sustainability



Green Building Program

- 1998 – Sustainable Building Action Plan
- 1999 – NW Regional Sustainable Building Action Plan
- 2000 – City of Seattle adopts LEED as standard for municipal buildings
- 2000 – Partners to launch Built Green for residential market

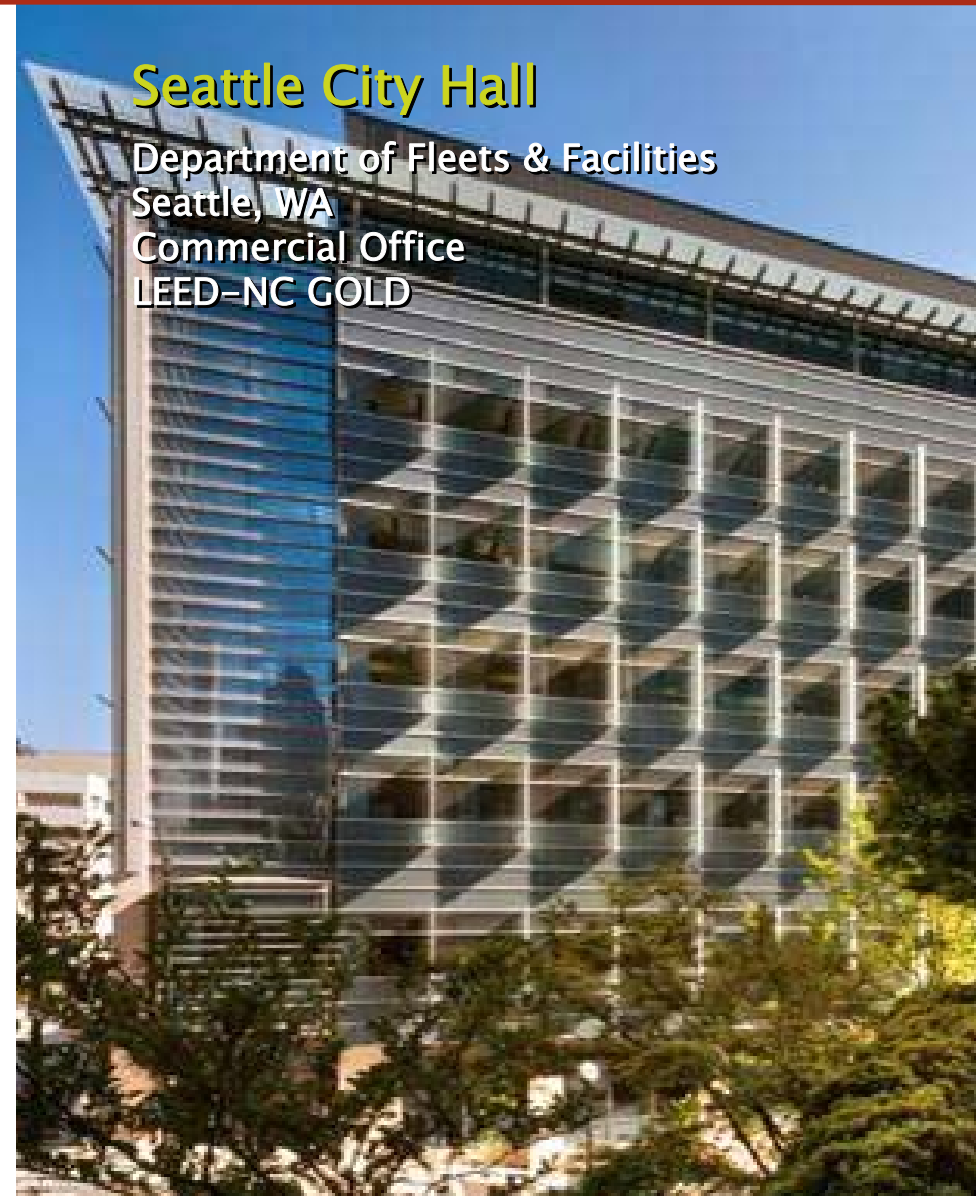


*reconnecting
communities
to nature*

City's LEED™ Buildings

■ LEED GOLD Ratings

- ◆ Airport Way Center Building-C
- ◆ Carkeek Park Environmental Learning Center
- ◆ Cedar River Water Treatment Facility Operations Building
- ◆ Seattle City Hall
- ◆ Yesler Community Center



Seattle City Hall

Department of Fleets & Facilities
Seattle, WA
Commercial Office
LEED-NC GOLD

Image: Bassetti Architects & Nic LeHoux, Photographer

City's LEED™ Buildings

■ LEED SILVER Ratings

- ◆ Airport Way Center Building-A
- ◆ Central Library
- ◆ Seattle Justice Center

Seattle Justice Center

Department of Fleets & Facilities
Seattle, WA
Commercial Office
LEED-NC SILVER



Image: NBBJ Architects & Christian Richters, Photographer

City's LEED™ Buildings

■ LEED CERTIFIED Ratings

- ◆ Fisher Pavilion
- ◆ Highpoint Community Center

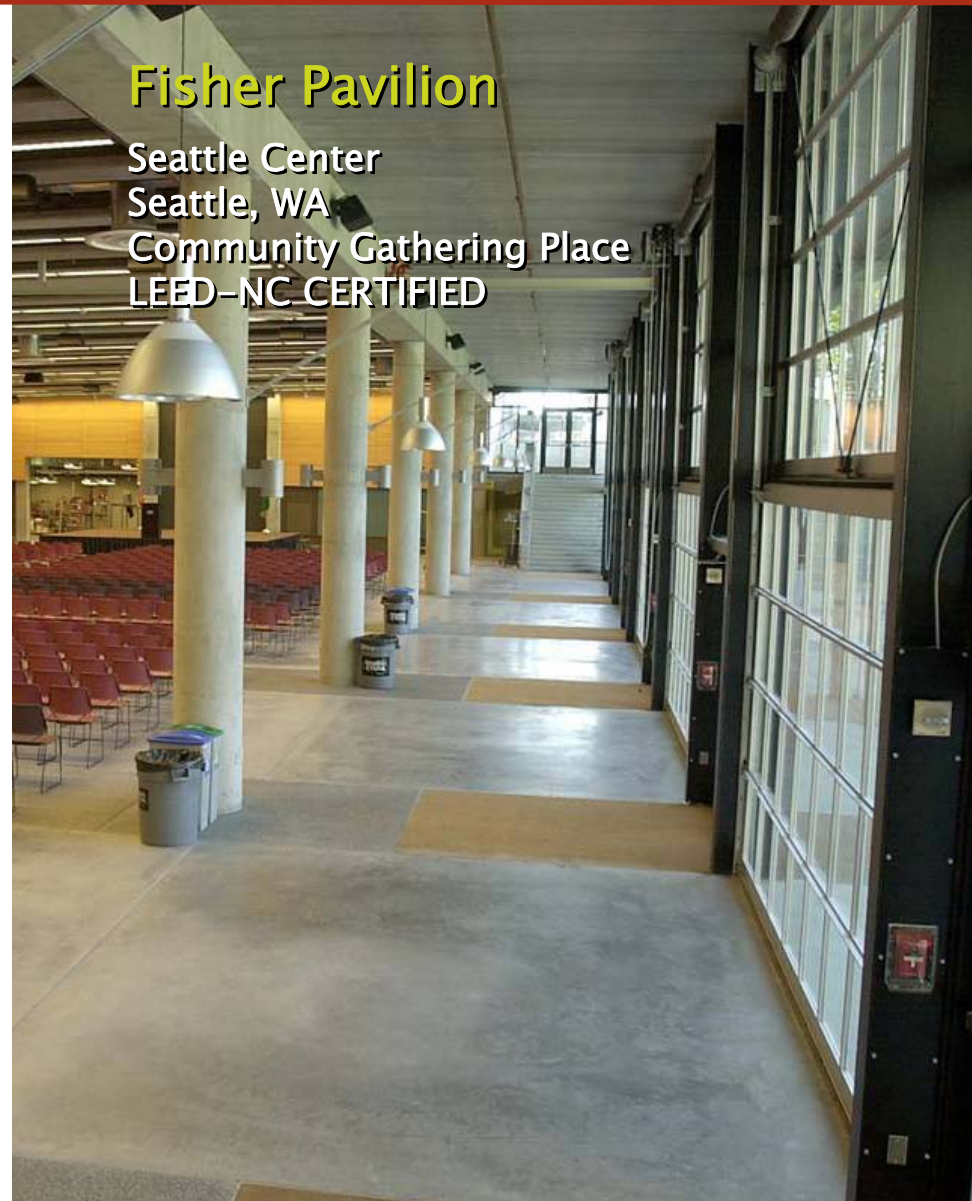
Fisher Pavilion

Seattle Center

Seattle, WA

Community Gathering Place

LEED-NC CERTIFIED



SUBTERRANEAN DESIGN CREATES THERMAL BUFFER

City's LEED™ Buildings

■ Pending certification

- ◆ North Cascades Environmental Learning Center
- ◆ Northgate Branch Library & Community Center
- ◆ SPU Operations Control Center
- ◆ Southwest Precinct

Southwest Police Precinct

Department of Fleets & Facilities
Seattle, WA
Office, Community Room
LEED-NC SILVER *anticipated*



DESIGN RESPONSIVE TO NORTHWEST CLIMATE

LEED in Seattle's Market

- **Strongest market in U.S.**
 - ◆ 28 LEED certified buildings
 - ◆ 3 million square feet
 - ◆ Over \$768 million capital investment

Seattle Biomedical Research Institute

Harbor Properties & Vulcan, Inc.
Seattle, WA
Laboratory, Office & Retail
LEED-CS SILVER

*more funding
can be applied
directly to
research*



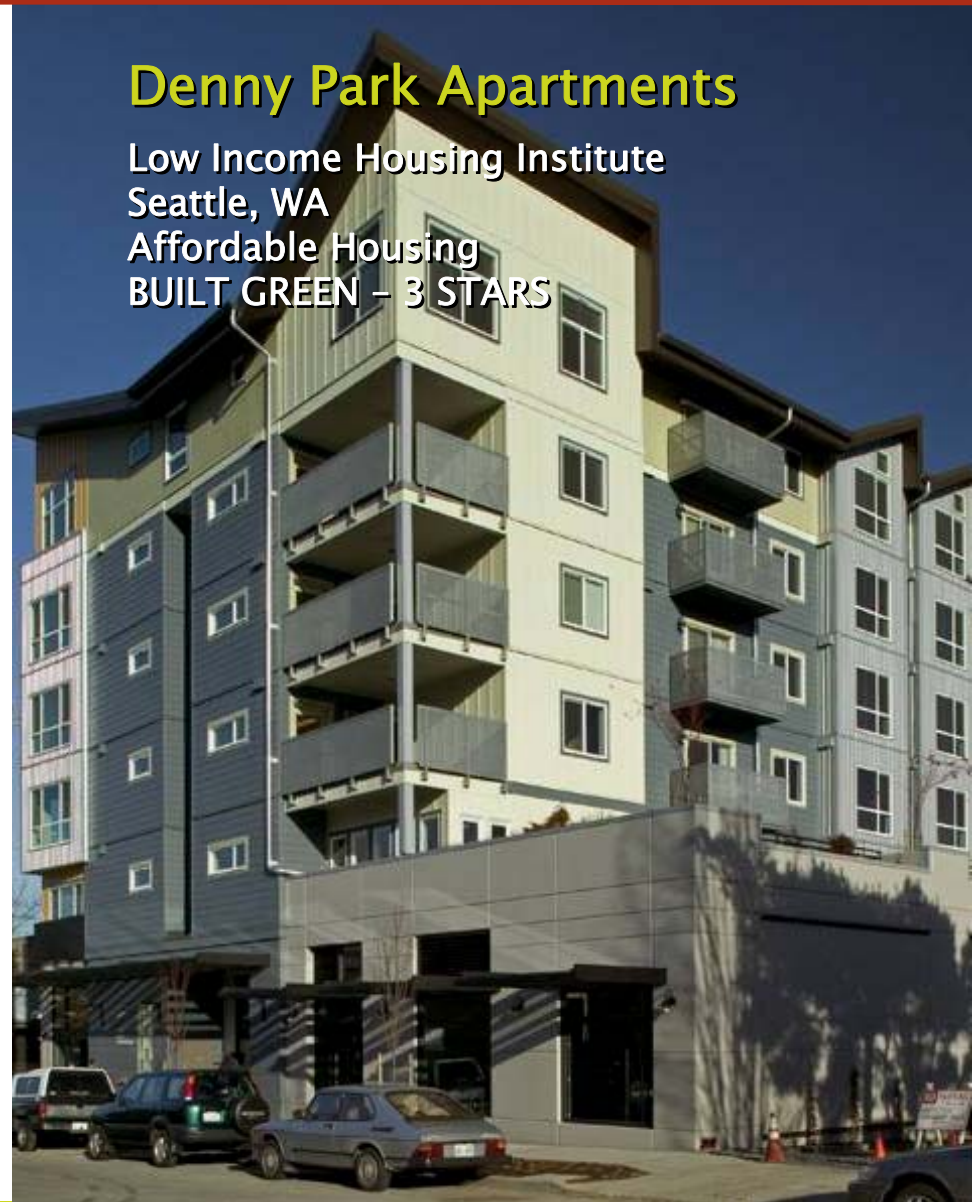
ADVANCES SBRI'S LIFE-SAVING INFECTIONS DISEASE RESEARCH

Built Green Residential Program

- 560 single family & townhouses
- 920 multifamily units in 11 projects
- In 2006, 22% residential new construction market

Denny Park Apartments

Low Income Housing Institute
Seattle, WA
Affordable Housing
BUILT GREEN – 3 STARS



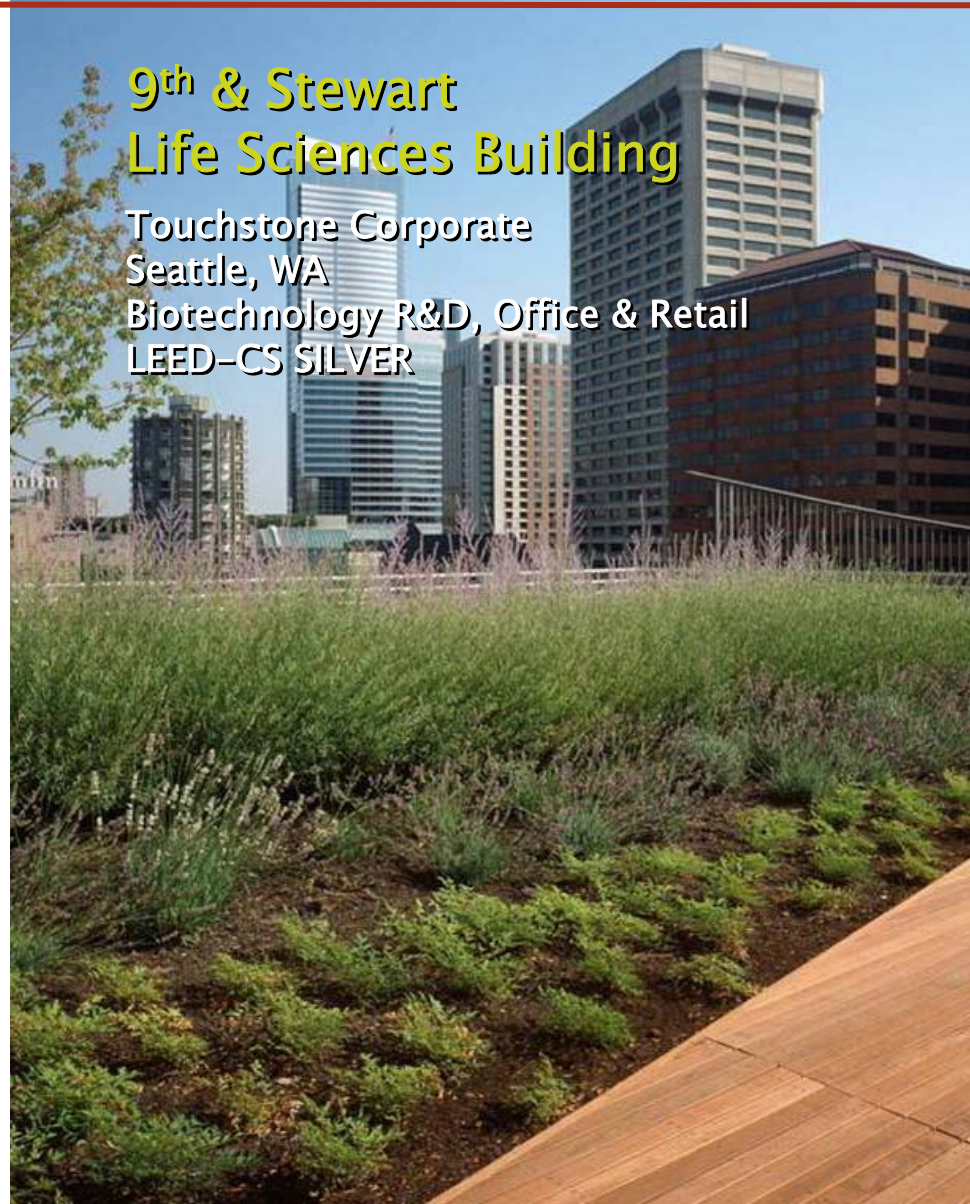
SERVING HOUSEHOLDS AT 30% – 60% BELOW MEDIAN INCOME

LEED in the Marketplace

- 800 certified
- 5,325 registered
- 950 million square feet
- \$238 billion capital investment

9th & Stewart Life Sciences Building

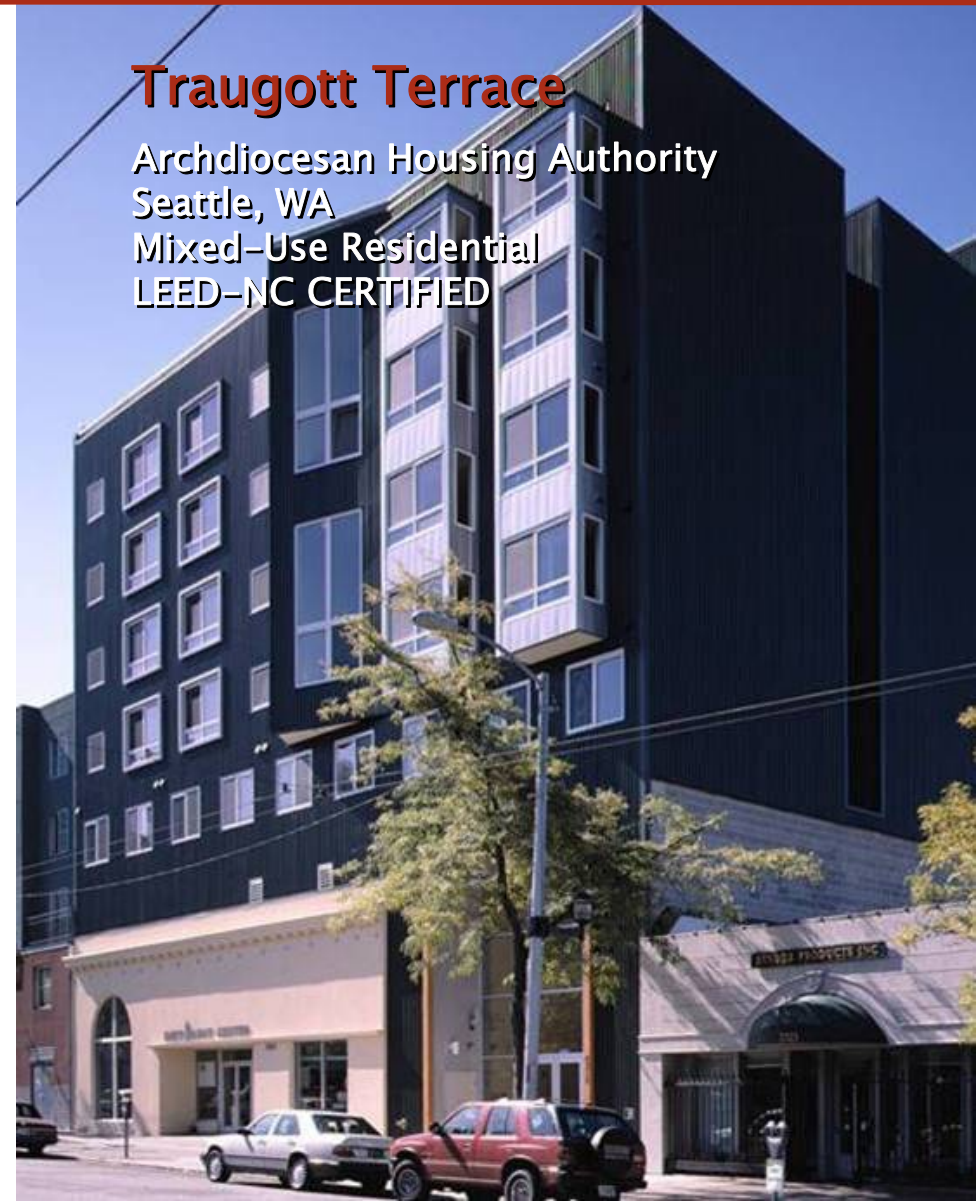
Touchstone Corporate
Seattle, WA
Biotechnology R&D, Office & Retail
LEED-CS SILVER



CREATING LONG-TERM VALUE & APPRECIATION

Top 10 Markets

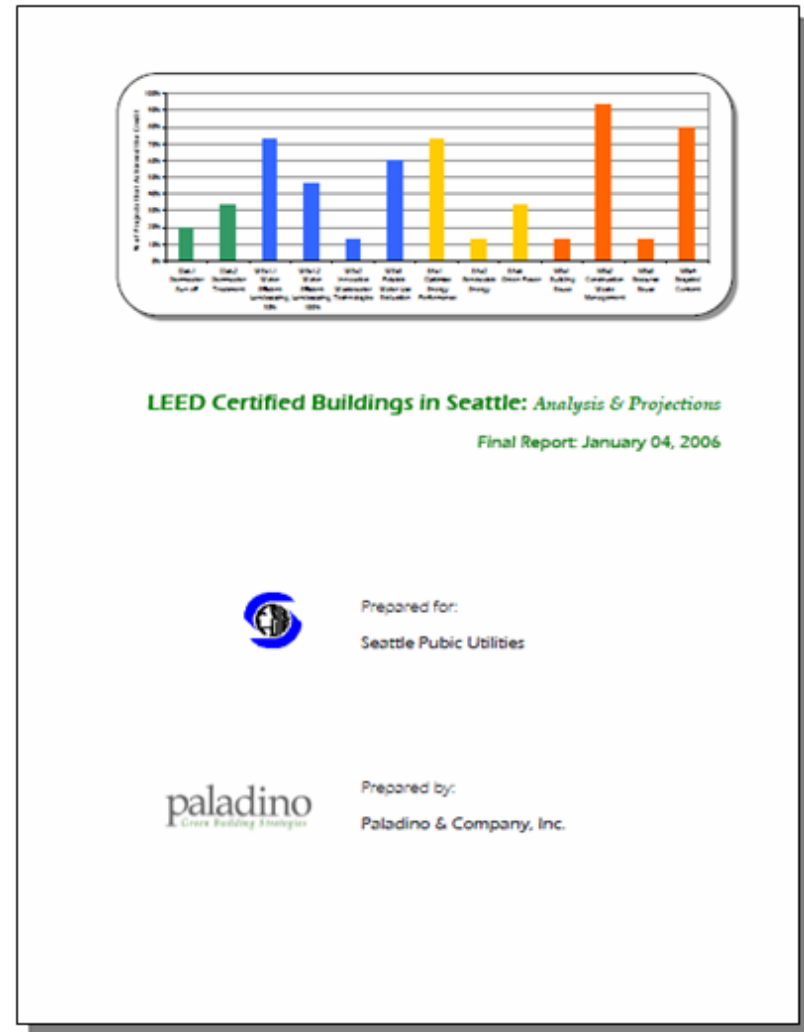
Chicago	163
Portland	143
Seattle	126
New York	115
Washington	109
Atlanta	100
Los Angeles	98
Houston	83
San Francisco	74
Grand Rapids	66



NATION'S FIRST LEED CERTIFIED AFFORDABLE HOUSING PROJECT

Performance of LEED™ Buildings

- **Assessment of 15 LEED certified buildings**
 - ◆ Approx. 1.6 million gallons / year of stormwater run-off diverted from drainage system
 - ◆ Annual potable water savings of 3.2 million gallons
 - ◆ 22,012 tons of waste recycled
 - ◆ Saved 6.9 million kWh of electricity and 73,000 Therm of gas each year*



* LEED-NC&CS projects; compared to ASHRAE 90.1

Owners of LEED Buildings

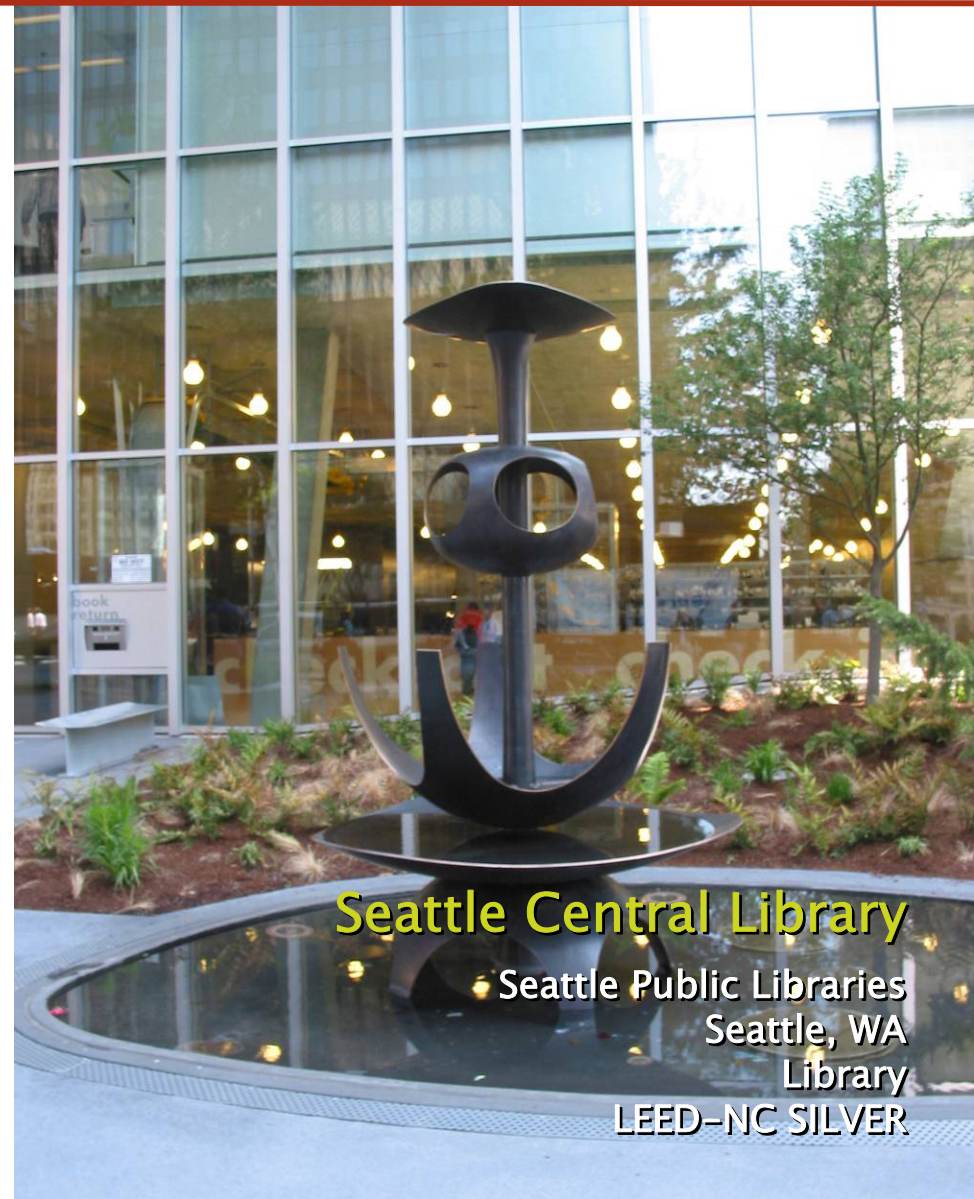
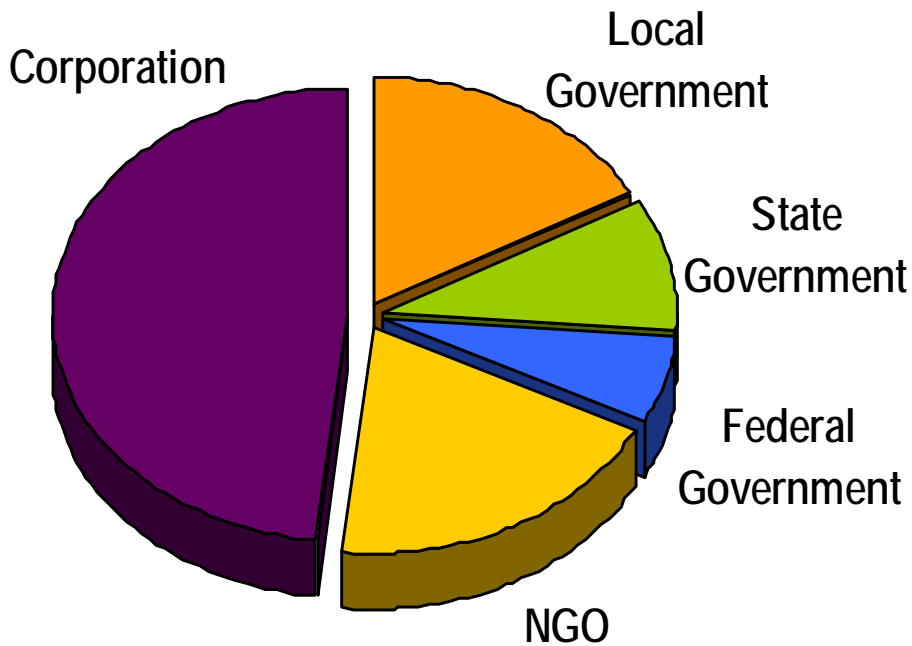


Image: Pragnesh Parikh, OMA-LMN

Mayor's Priorities

- **Climate Protection**
- **Restore our Waters**
- **Urban Forests & Ecology**
- **Healthy People & Communities**



Climate Protection

- **Meet and exceed Kyoto targets**
- **US Mayors Climate Protection Agreement; 2030 Challenge**
 - ◆ **Climate Solutions Guide to Advance Green Buildings, Neighborhoods and Infrastructure**



Restore our Waters

- Improve water quality and habitat in the Puget Sound, lakes, rivers and creeks



Urban Forests & Ecology

- Increase the canopy cover by two-thirds in 30 years
- Restore urban forests



Healthy People & Communities

- **Creating healthy, livable urban centers**
- **Promoting sustainable practices**
- **Improving environmental justice**

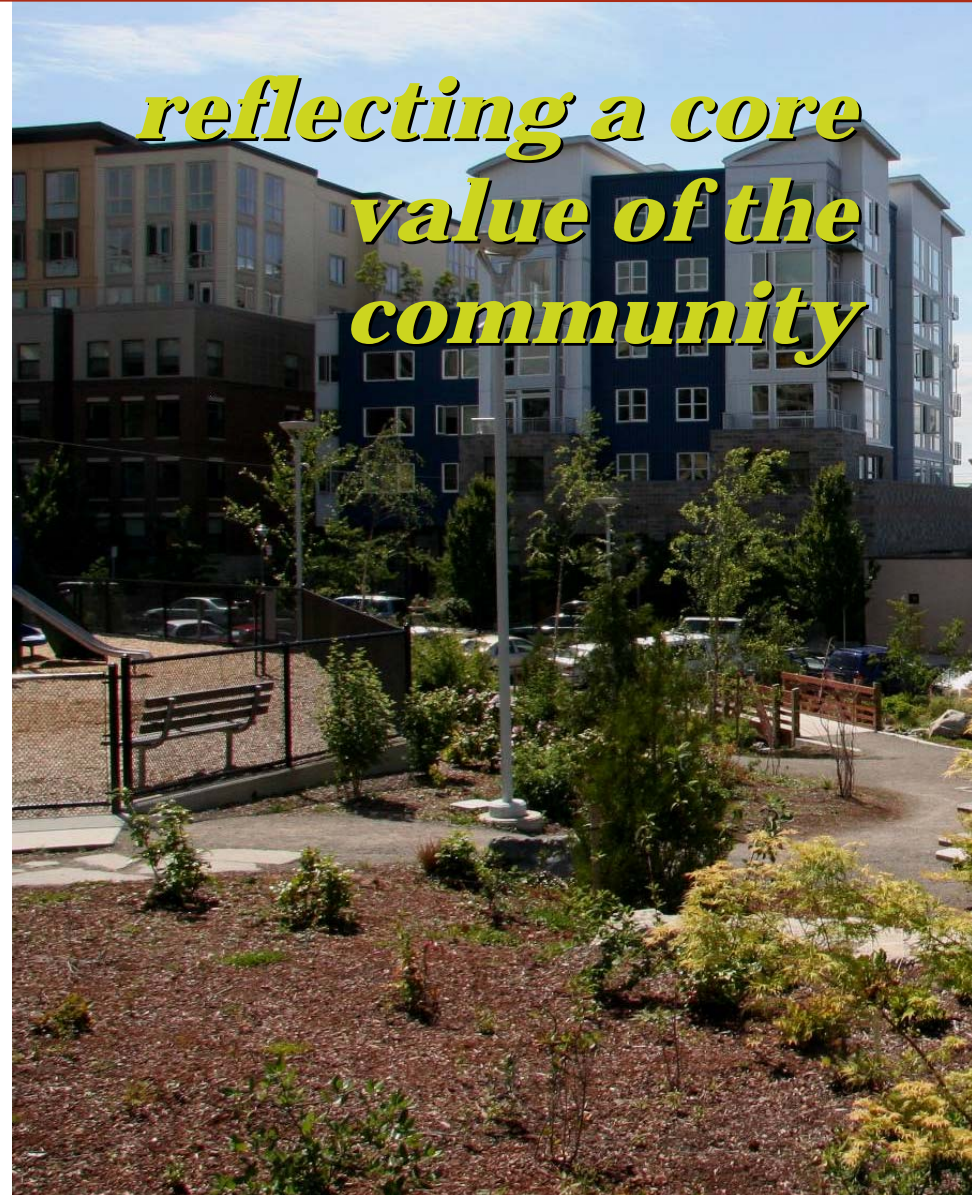


Neighborhood Planning

- Neighborhood character
- Parks & open space
- Transportation
- Housing
- Sustainable development

Alcyone Apartments

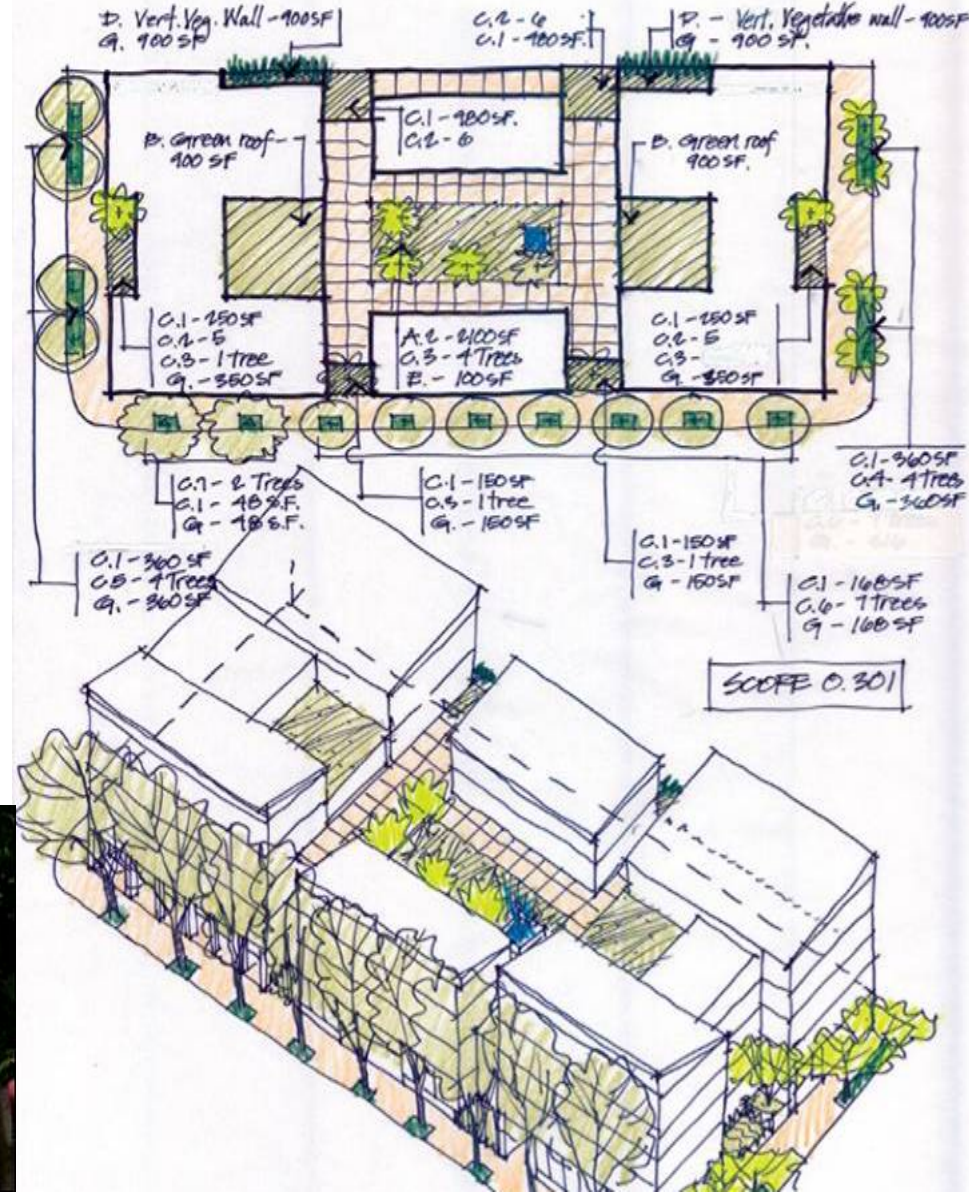
Harbor Properties & Vulcan, Inc.
Mixed-use Residential
LEED-NC Certified



HEALTHY LIVING ENVIRONMENT FOR A CONTEMPORARY LIFESTYLE

Land Use

- Green Building Height or Density Bonus
- Seattle Mixed Zone
- Seattle Green Factor



Green Urbanism

- Vision
- Broad goals
- Performance metrics
- Strategies
- Financial model
- Mechanisms
- Long-range implementation plan

Pre-development Metrics™ : Baseline Concept

To measure the success of sustainable strategies at the urban neighborhood scale, the Plan creates the concept of Pre-development Metrics™. Pre-development Metrics™ allow progress to be measured towards the goal of living within the constraints of the natural forces within a site or neighborhood. The plan establishes baseline environmental metrics that assume a pre-development site condition approximating that of a mature mixed-conifer forest.

In its pre-development condition, the 54-acre study area generated the following metrics:

Habitat

- 99% tree cover
- broad diversity of wildlife species

Water (per year)

- 42 million gallons of total precipitation over study area
- 19.2 million gallons of stormwater runoff
- 32 million gallons of groundwater recharge
- 9.8 million gallons of transpiration
- 3.2 million gallons of evaporation

Solar Energy (per year)

- 182 million kWh incident on site
- 2 million kWh used by photosynthesis
- 153 million kWh reflected / absorbed / re-radiated

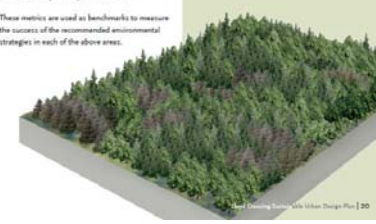
Carbon Balance (per year)

- 653 tons of CO₂ used
- 493 tons of oxygen released
- 158 tons of carbon fixed as biomass

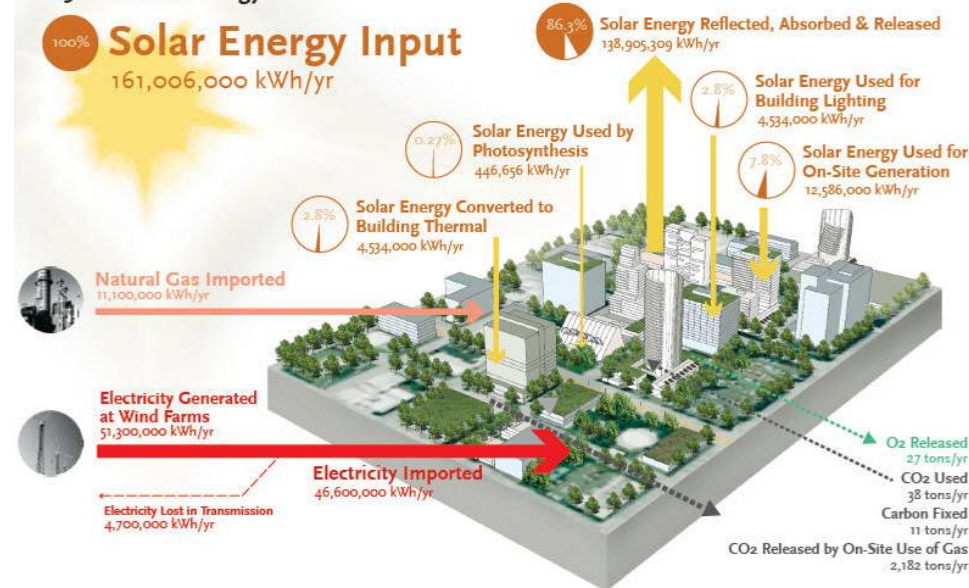
These metrics are used as benchmarks to measure the success of the recommended environmental strategies in each of the above areas.

Pre-development Metrics Goal

Use the pre-development condition of the 53 blocks as a 34 acre mixed-conifer forest as a target environmental impact metric.



2050 Per Plan Energy Use Conditions



Note: This concept plan is not intended to represent specific planned or required development proposals.

Lloyd Crossing Sustainable Urban Design Plan & Catalyst Project

Carbon Balance
Net add to atmosphere: 2,144 tons/yr

Lloyd Crossing Sustainable Design Plan, Portland Development Commission

Thank you

www.seattle.gov/dpd/greenbuilding

