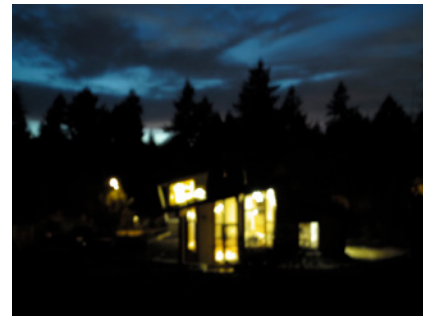


Collins View Residence

2009 Portland, Oregon

certified LEED Platinum

LEED for Homes Pilot Program



SITE & PROGRAM

Located in an established Southwest Portland Oregon neighborhood, the site slopes gently from east to west, has a grove of native Douglas Firs and enjoys excellent southern solar exposure. The new house footprint is built on a previously developed portion of the site to minimize soil disturbance, preserve and restore the remnant native northwest landscape and reuse the existing driveway alignment. The design arranges interior spaces and outdoor private areas to the east and south, away from the public street, emphasizing views back to the existing grove of trees and gardens on the property.

Building type: Private Residence

Project type: New Construction

Project scope: Full contract

Client: Private

Size: Area: 1820 sf

(1320 sf main house, 500 sf guest lower level)

Schedule: Completed 2009

General Contractor: Ierulli Construction LLC

Constructive Form

Architecture and Design LLC

www.constructiveform.com

Collins View Residence

2009 Portland, Oregon

certified LEED Platinum

LEED for Homes Pilot Program



The clients for this project were interested in exploring and integrating a number of environmental responses into their new home. The house form allows for natural ventilation and passive solar heating, supported by a hydronic heating system. The house is free of fossil fuels, has a metered solar electric system, and is pre-plumbed for solar hot water. A high efficiency air-to-water heat pump provides for the hydronics and domestic hot water.

The sloped ceilings, corner windows, large glass areas, operable clerestory, and interior door transoms enhance visual and qualitative connections to the site landscape and provide a more spacious feeling to the efficient home, and the shallow depth of the house ensures balanced natural light to all rooms. The project was awarded LEED Platinum certification for its range of environmental design strategies.

This project was selected for the 2009 Build It Green Home Tour sponsored by the City of Portland Bureau of Planning and Sustainability.



Collins View Residence

2009 Portland, Oregon

certified LEED Platinum
LEED for Homes Pilot Program



Pervious concrete driveway
100% of Stormwater treated on site



Reflective Metal Roof
Rainwater Collection for site irrigation
Flow-thru planters
Storm Water Swale



Site Restoration
Native Landscaping



High Efficient Plumbing Fixtures &
Combined Heating / Domestic Hot Water High
Efficient Heat Pump System Specifications:
- dual flush toilets
- low flow faucet aerators and showerheads
- on-demand hot water pump at remote fixture
- combined heat pump, heating & domestic HW
system
- in wall plumbing for future solar HW, if needed

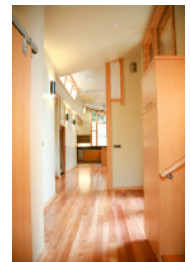
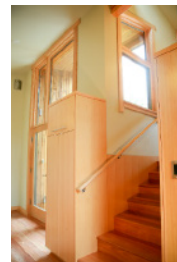
Collins View Residence

2009 Portland, Oregon

certified LEED Platinum
LEED for Homes Pilot Program

Project Team

Architect:	Constructive Form Architecture and Design LLC
Survey:	NW Surveying, Inc.
Geotechnical engineer:	Foster Gambee Geotechnical PC
Structural engineer:	Nordling Structural Engineers LLC
Mechanical engineer:	InSpec Design and DAIKIN AC
LEED Consulting:	Earth Advantage
General Contractor:	Ierulli Construction LLC
Excavation:	DS Excavation Inc.
Foundations:	TMC Construction Inc.
Mechanical:	Jacobs Heating & Air Conditioning Inc.
Electrical:	S & E Electric Inc.
Plumbing:	Silver Mountain Plumbing Inc
Solar Photovoltaics:	Stapleton Electric & Solar LLC
Solar HW rough-in:	Ra Energy LLC
Painting:	Mim's Painting Company
Insulation:	Knez Insulation Company
Millwork:	Heritage Woodcraft Inc.
Drywall:	Dave's Drywall Construction
Tile:	Cactus Marble & Tile LLC
Flooring:	Great NW Flooring Inc. (Marmoleum), Banzai Ltd (Hardwood)
Roofing & Sheet Metal:	Willamette Roofing Inc.
Pervious Concrete: (driveway)	Evolution Paving Resources LLC and LM Construction of Brush Prairie Inc.
Exp. Aggregate Concrete:	RFC Concete



Collins View Residence

2009 Portland, Oregon

certified LEED Platinum
LEED for Homes Pilot Program

Materials and Specifications

Exterior

Pervious concrete driveway:	Stoneycrete, Ultimate pervious concrete mix, 1/8" aggregate
Exterior siding (rainscreen):	Cement fiberboard siding & soffit panels, smooth (Mfg: HardiPanel) Metal Siding & flashing: matches roof Rainscreen: Homeslicker
Metal roof, siding, flashing:	Shear panels, sheathing @ walls, roof and floor: CDX plywood 12" standing seam, galvalume finish (Mfg: Custom-Bilt CB-150) ice and water shield continuous membrane (Mfg:
Cedar trim:	5/4" tight knot cedar with stained finish
Exterior Window, sash doors	doug. fir, aluminum clad factory finish, lo-e, 2G u value=0.28 fixed, u=0.30 at casements, awnings (Mfg: Loewen Windows and Doors)
Exterior windows, @ baths:	Aluminum, low e, 2G (Mfg: Marlin)
Framing:	Advanced framing, continuous rim joists, solid wood framing 24" framing module at walls and roof, 16" framing at floor
Insulation (incl all int, walls):	Formaldehyde-free batt insulation: R-21 at walls, R-38 floors, R-42 ceiling and all
Adhesives, Sealants, Foam:	Low or no VOC

Interior

Doors (new):	solid core, urea-formaldehyde free, stave cores, hemlock veneers
Door (salvaged):	'Kalamein' steel wrapped solid wood door @ pantry (salvaged from Rebuilding Center)
Flooring, stair treads:	FSC certified, eucalyptus wood flooring w/ low VOC sealer at Living, Bedrooms Marmoleum at Baths, Kitchen and Pantry
Countertops:	solid surface from 100% recycled paper, phenolic resin (Mfg: PaperStone)
Millwork:	VGDF veneers, plywood urea-formaldehyde free boxes
Interior Trim:	doug. fir., flat with low VOC clear sealer
Appliances:	Energy Star rated refrigerator / bottom freezer, dishwasher, washer / dryer Electric Induction cooktop and convection oven
Paint:	low VOC @ ceilings & walls (Mfg: Sherwin-Williams, Resilient @ exterior, Duration @ interior)

Systems

All electric home, PGE clean wind energy.

Heating system: (Space and Domestic Hot Water)	DAIKIN Altherma high efficiency Air-to-Water Heat pump, variable 10? - 35,000 BTUs Mfg: DAIKIN AC, North American pilot project Estimated BTUh demand: 21,000 - 24,000 range
In-floor hydronic heating: Hydronic wall heaters (@ lower): Hot Water pump at Kitchen sink:	Wirsbo pex, w/ 1.5" concrete slab Mfg: Runtal, Buderus recirculating on-demand pump (Mfg: Metlund S02)
HRV system:	Lifebreath 200Max, 152-207 cfm, 74% efficiency
Solar Photovoltaic Systems:	2.4 kWh system, 10 polycrystalline panel modules, Fronius IG2000 inverter
Wood Stove:	RAIS Gabo, with outside air combustion
Cistern:	550 gallons, galvalume (Mfg: WaterHarvest Slimline Water Tanks)
Misc:	ETO rebate (\$1750), final LEED points (100 earned, 89.0 reqd), HERS 62 rating, Blower door test results (0.25), 38% Floor area to Glazing ratio

