Firm Profile and Selected Work

Murphy International Development

&

DREAM COLLABORATIVE

www.murphyintldev.com

www.dreamcollaborative.com

Overview

About us

Murphy International Development and DREAM Collaborative have forged a strategic alliance linking renewable energy solutions and the built environment. Buildings consume at least 40% of the world's energy and as such we are committed to furthering the integration of renewable energy and smart growth strategies into the planning and design of buildings, communities and cities worldwide. Our work is organized into four primary areas of expertise:

Clean and Renewable Energy : We provide design as well as turn-key solutions to achieve sustainable, low carbon built environments by harnessing building and community scale renewable and clean energy resources in wind, solar, waste to energy, geothermal, CHP onsite generation, and smart-grid infrastructure.

Sustainability : We address the ecology of the buildings and communities we design and also balance economical, social, and environmental realities and aspirations. We utilize established green certification programs such as LEED, lead community engagement, establish skills transfer procedures, and develop guidelines to support sustainable building operation and management practices.

Planning : We create places for people that are both inspiring and sustainable by balancing the needs of today with the vision for the communities of tomorrow whether it is an existing urban neighborhood, new building, campus or community. In our projects our goal is to make connections that maximize the use and value of cultural, natural, and infrastructural resources.

Architecture : We design sustainable building solutions that respond effectively to client needs, budget, the surrounding context, culture, and climate. We deliver cutting edge green buildings through the use of state of the art design strategies, energy efficiency and renewable energy technologies, and position your property as a smart grid ready asset.

Clean and Renewable Energy Solutions

The MIDC Team is made up of a unique group of talented individuals who each bring their own special abilities to the project in order to offer a complete package of services and optimize project potential.

The MIDC Team develops, builds, and operates electric-generating facilities fueled primarily by wind, solar and clean renewable resources, such as waste to energy, geothermal and other managed waste streams. The team includes people with extensive experience in the renewable energy development arena, resource recovery, recycling, waste to energy, wind, hydro, energy production/sales, installation, construction/erection, operations/maintenance, financing, electrical engineering, mechanical engineering, safety, the legal arena and the energy industry.

The MIDC Team, services independent power producers, commercial developers and community based developers of renewable and conventional electrical power producing systems. The team works with community based developers by using our expertise to structure, design and build the project while assisting the client with the financing thru our network of investors. The team also manages direct renewable energy investments for a variety of institutional and corporate clients. Particular funds include; leasing pools and tax managed equity funds for institutional investors seeking long-term direct investments in the energy industry. To do so the team forms and manages joint ventures through which it invests its own funds in conjunction with those of institutional, utility, and corporate investment partners. Typical investment sizes range from distributed generation portfolios to utility scale projects $50,000 to +$ 200 million.

MIDC's operating/development team is a multidisciplinary group of finance managers, engineers, plant operators, and field service tradesmen who focus on assisting energy industry clients meet the highest performance.

Areas of Service

Electrical Engineering
High voltage power systems
Low voltage power systems
Substations
Wind Power Collection Grids
Transformer capacity
Power factor optimization
U.G. cable systems
Overhead distribution
Protection & Control
Transmission Grid Security Review
Lightning protection
Troubleshooting & reliability
Motor driven gas compressors

Distributed Generation Engineering
System planning
Utility interconnection
Developmental Support
Low cost power centers
Power factor correction
Reliability review
Failure analysis & Troubleshooting
Construction Management

Construction Supervision & Start-up Coordination
Installation supervision
Quality conformance
Start - up procedures
Project commissioning
Final acceptance

Generation Strategy Review
Wind Power
Distributed generation
ISO/RTO Strategy
Interconnection Strategy
Load Management Strategy
COOP Specialized Solutions
Deregulation Strategy
New technology options-SMART Grid
Security review & tactical planning

Energy Management Services
Demand control
Power factor
Peak shaving
Energy storage
Deregulation issues
Operating cost savings

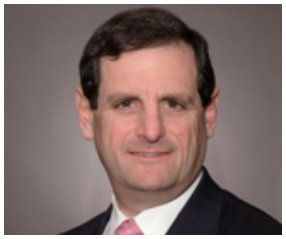
Management Team

Douglas Murphy- President

Douglas has, as founding member or investor, developed a diverse portfolio of renewable energy projects from both greenfield to acquisition and repowering. Wind developments have included nearly 400,000 acres of resource lands across North America and reaching around the globe currently totally over 1000 MW. From site identification, leasing or purchase, resource evaluation, to development planning and finance Douglas has successfully developed renewable energy projects with; Shell Wind Energy, Innogy/RWE, Airtricity, BP, Invenergy, Orion Energy, PGE, Leucadia National, EnXco and Veolia Environmental.

Bevin Etienne, PHD - Technical Director

Dr. Etienne has over 10 years experience in the research and development of renewable energy technologies, commercial and industrial energy audits and energy efficiency; renewable energy resource assessment, small scale renewable energy solutions – various alternatives, hybrid energy systems, rural electrification systems, planning and project development for wind, geothermal, solar thermal and solar PV energy systems, economics and financing of power plants and systems, life cycle analysis and technology trade off for renewable energy systems, optimization modeling of energy systems with a focus on the supply and demand side management of energy and grid integration.



David Abraham, CFO

David Abraham has served as CFO and advisor to energy, media and telecommunications companies. He was a founding principal and CFO of Geothermal Management Services, LLC, completing eight separate transactions to assemble all the related assets, subsequently divested at a profit. He represented a large corporate investor in alternative energy projects, closing several equity and leasing transactions on its behalf. As an independent adviser, David has completed over $800 million of transactions, including private placements of debt and equity, strategic partner transactions, asset sales and acquisitions, project financings and various other advisory services.

Experience & Portfolio Highlights

MIDC works with public and private clients, providing a range of renewable energy and efficiency services. Projects highlighted here represent our work with renewable energy; wind, solar, geothermal, hybrid, and specialty projects. Clientele include community, agricultural, government and private businesses. Our goals -

Giving back to the community

Reducing our own environmental impact

We made the most of our innovation and technology expertise to take further steps towards minimizing our own and collective environmental footprints. We have achieved significant reductions in our carbon footprint and have made further progress towards our goals of achieving the Carbon Trust Standard and ISO 14001 accreditation.

Bahrain World Trade Center

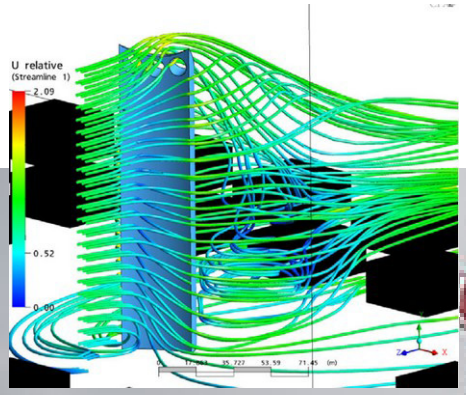
Owner(s)
DTZ Bahrain, HAJ, BWTC
Location
Manama, Bahrain
Industry
Architectural integrated Wind Turbines
Status
Operational
Power Station Information
Primary Fuel - Wind
Installed Capacity
675 Kilowatts
Leadership
Mr. Douglas Murphy

MIDC principal, D.Murphy, formed Norwin America, LLC investing in a Danish turbine manufacturer pioneering community, resort, and agricultural wind turbine installation successes. Originated the Bahrain World Trade Centre building integration use of (3) -225 kW WTG's mounted on bridges between two skyscrapers. This project is the first wind powered skyscraper in the world and featured by a National Geographic documentary. The BWTC won awards for the incorporation of renewable energy into its large-scale building design, including the 2009 NOVA Award in Innovation, the Best Tall Building Award, Mena Region for 2008, the EDIE Award for Environmental Excellence 2007 and the LEAF Award for Best Use of Technology within a Large Scheme 2006. Atkins won the 2008 Architect Best Tall Buildings from CTBUH. Popular Science Magazine recognized BWTC as the Best of What's New 2008 Engineering, Top TechnologyAward.

Strata Building

Owner(s)
R/E Investor
Location
South London
Industry
Architectural integrated Wind Turbines
Status
Operational
Power Station Information
Primary Fuel - Wind
Installed Capacity
57 kilowatts
Leadership
Mr. Douglas Murphy

As Board of Director for Norwin A/S, MIDC D.Murphy had oversight for the Strata Building aka the Razor at Elephant and Castle in Southwark, London. Strata is a 148-metre, 43 floors, 408 apartment sky scraper - the tallest residential building in London. Strata is the first building in the world to incorporate wind turbines within its structure. The three nine-meter wind turbines will produce 50MWh of electricity per year - sufficient energy to provide power for the common areas of the building.the Building. This world-renowned project Propels Wind Energy to Urban Future.



A wind model of the building and its urban environment was created to optimize the design and placement of the wind turbines to maximize energy generation.

Stillwater Geothermal

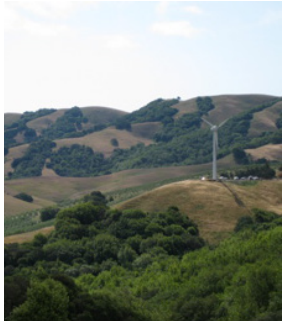
Owner(s)
ENL
Location
Fallon, Nevada USA
Industry
Plant Site, Production well, Expansion
Status
Operational
Power Station Information
Primary Fuel - Geo Thermal
Installed Capacity
33 Megawatts
Leadership
Mr. Douglas Murphy
Mr. David Abraham

MIDC's principles, D.Murphy and D.Abraham, formed Geothermal Management Services, LLC and acquired the Stillwater Project through eight separate transactions; repowering from 6MW performance to 12.5 MW nameplate. Geothermal Management Services LLC to performs all facets of the geothermal development and power production: management, land acquisition, geothermal resource identification & development, engineering, operations and technical execution. Developed additional 20MW using new adjacent wellfield and unique underground gathering system. Sold to ENEL.

McEvoy Ranch

Owner(s)
McEvoy Ranch
Location
Marin County, CA, USA
Industry
Agricultural Wind Farm
Status
Operational
Power Station Information
Primary Fuel - Wind
Installed Capacity
225 Kilowatts
Leadership
Mr. Douglas Murphy

MIDC's, Norwin America team provided the 225 kW wind turbine at McEvoy Ranch, a commercial olive farm and processing facility near Petaluma in Marin County. We supported the design, and installation of the turbine that now provides approximately 2/3 of the ranch's power. The McEvoy wind turbine is the first wind project completed with PG&E SGIP incentives and is the largest privately owned agricultural windmill in California. The project received Assemblyman Jarred Huffman's Sustainable North Bay award.



Biglow Canyon Wind Farm

Owner(s)
Portland General Electric
Sherman County, Oregon USA
Location
Sherman County, Oregon USA
Industry
Agricultural Wind Farm
Status
Operational
Power Station Information
Primary Fuel - Wind
Installed Capacity
450 Megawatts
Leadership
Mr. Douglas Murphy

MIDC's principal D. Murphy, as a founder of Zephyr Power Development LLC, developed the site including the Land Investigation and Lease, Wind Evaluation; Anemometer siting, data logging and analysis, Financial Modeling, Turbine Selection & Layout. Then established the JV equity partnership negotiated with Innogy (RWE) negotiating the final sale to Portland General Electric with RWE/Orion.

Hybrid Wind and Solar Energy Project

Owner(s)
Rosalie Resort
Location
Dominica, West Indies
Industry
Eco-tourist resort sustainable system
Status
Operational
Power Station Information
Primary Fuel - Wind, Solar, Deisel Hybrid
Installed Capacity
225/12.5/220 kilowatts
Leadership
Mr. Douglas Murphy
Dr. Bevin Etienne

Renewable Energy Design & Installation of a Class 1 NORWIN 225 kW wind turbine on a 40-meter monopole tower in Dominica. The wind turbine is expected to generate 586,000kWh of clean energy per year offsetting 160 metric tons of CO2 emissions annually. Sustainable Planning and Development integrated the wind turbine in a hybrid configuration with solar and diesel generation. The eco-resort is on one of the more renowned turtle nesting beaches on the island for Leatherback, Hawksbill and Green Turtles and the home of the ROSTI Turtle Initiative. The wind turbine is the first utility scale wind project completed and operational in the Organization of Eastern Caribbean States (OECS) member countries.

Planning,Architecture and Sustainable Solutions

DREAM Collaborative provides design, planning, and project development services to create healthy, sustainabile and inspiring built environments globally. DREAM Collaborative has received awards for its work in urban revitalization and sustainable development projects from the American Institute of Architects and the President's Round Table. By integrating mixed use, residential, commercial, life science, hospitality and other uses they have created unique opportunities to transform existing cities into healthier and more vibrant places to live. We have also been recognized for our work in creating holistic new master planned communities in emerging economies that honours existing economies and traditional ways of living while improving construction methods and integrating renewable and clean energy technologies, and sustainable ecologicall practiteces.

Our work accounts for the fact that buildings in communities globally consume more energy than any other industry. For this reason DREAM Collaborative's design, energy and development specialists work closely on every assignment to develop :

1. Apropriate planning and passive design strategies

2. Improved material selection, energy efficient building envelope design, energy efficient lighting, and equipment and applicance selection

3. On-site and community-scale renewable and clean energy technologies

Areas of Service

Development and Planning
Feasibility Studies
Master Planning
Urban Design
Urban Renewal
Community Engagement

Architecture
Feasibility Studies
Program and Needs Assessment
Conceptual Design
Construction Documentation & Administration
Interior Design
Sustainable Building Design
Building Information Modelling (BIM)
Concept Vision Renderings

Energy Efficiency
Energy Use Analysis
Energy Audits
Energy efficiency technology selection
Existing Building Energy Efficiency Retrofits

Renewable Energy and Clean Energy
Solar Technologies
Wind Technologies
CHP on site generation
Renewable Energy Technology Selection
Smart Grid

Sustainable Design
Sustainability Charrettes and Team Leadership
Sustainable Education
LEED Process Management

Grant Assistance & Procurement
Research and assistance for grants and other funding sources appropriate to your building and location offered by public and private sources including local utilities

Principal Team

Gregory Minott, AIA, LEED AP - Founder and Principal
Gregory has over 12 years of experience in a range of award winning green building and planning projects. Most recently he was awarded 2010 Young Architect of the Year by the American Institute of Architects for his important contributions in master planning, urban design, and architecture in the US. He has developed an expertise in designing LEED certified green buildings, planning for urban renewal strategies and smart-growth communities. These communities integrate clean energy, transportation and dense mixed-use neighborhoods that maximizes choices for residents and businesses.

Troy Depeiza, LEED AP - Founder and Principal
Troy Depeiza is a founding Principal of D.R.E.A.M Collaborative. He has gained over 13 years of experience on diverse building types. His most recent accomplishments with the Plaza at Dudley Square and The Eli and Edythe Broad Institute in Cambridge, MA have emerged out of his commitment to transform and enhance the built environment. Currently, Troy is leading a specialized team to complete a LEED certifiable laboratory project for a leading global pharmaceutical company. Troy's ongoing commitment to service in the industry has won him healthy, long standing relationships with clients, contractors, and engineers.

Bevin Etienne, PhD - Energy Specialist
Bevin specializes in the research, development and implementation of clean and sustainable energy technologies. Bevin was Project Coordinator for OAS/DSEC Wind Turbine Pilot Project in Dominica. He secured grant funding, supervised capital equipment, and site selection from inception to construction. Currently, Bevin performs system analysis and design for medium and small scale hybrid energy projects. His specific responsibilities include energy audits, on site renewable energy assessment and technology implementation, and measurement and verification of renewable energy and energy efficient technologies.

Principal Team

Kevin Brodber. Assoc. AIA - Project Manager
As a project manager Kevin's responsibilities span the full scope of services offered by DREAM Collaborative, including fast track design, programming, design, renovation, codes, technical coordination, sustainable design and Anti terrorism Force Protection. Past Project types range from highly technical facilities such as air traffic control towers to child development centers, educational facilities, administration offices, barracks, civic buildings, libraries, public safety facilities and lodging. Mr. Brodber has also led several design reviews leading teams through an analysis of green building solutions and construction materials and techniques.

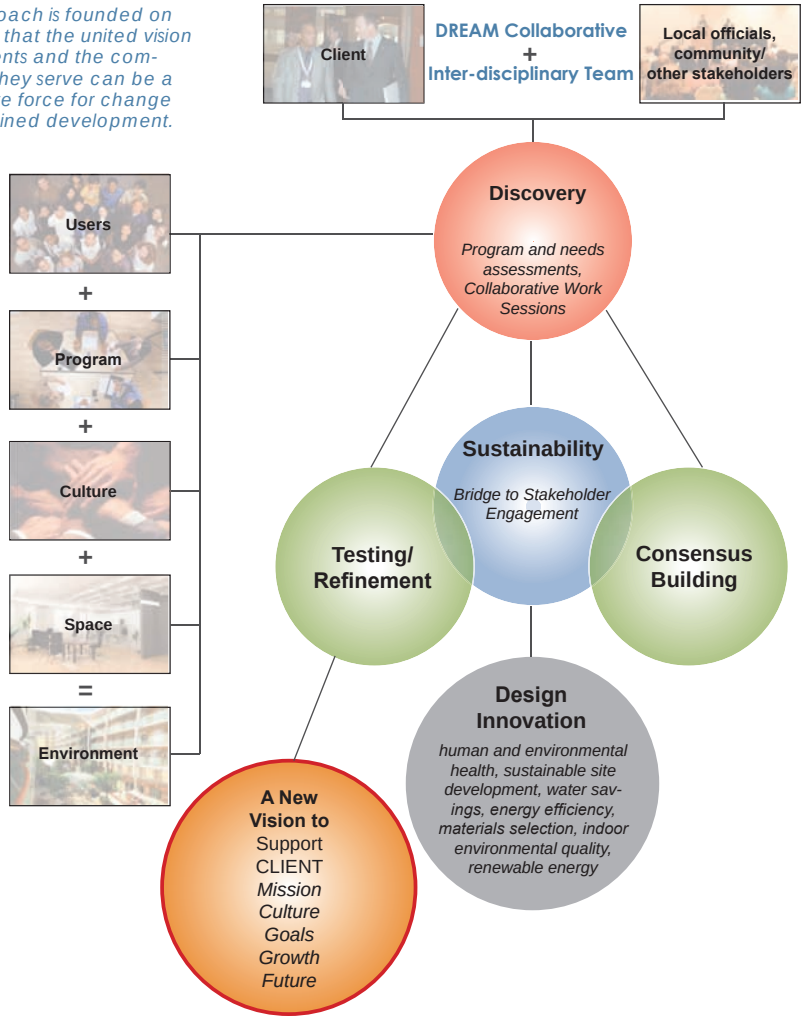
Sustainable Design

Our sustainable design approach:

- Plan environments that are sensitive to the culture and climate of the place
- Design buildings that are flexible and able to accommodate change
- Integrate social, aesthetic, technological, environmental and economic priorities
- Limit consumption of resources and reduce pollution
- Design comprehensively: form and structure, flexibility and durability, orientation, heating, cooling, ventilation and lighting strategies, all contribute to the energy required to build and maintain buildings
- Harness renewable and clean energy sources
- Recognize that sustainable design is a bridge to community engagement.

Our Process

Our approach is founded on the belief that the united vision of our clients and the communities they serve can be a productive force for change and sustained development.



Dudley Square Redevelopment

Location
Roxbury, MA
Industry
Urban Revitalization and Sustainable Design
Services
Master Planning, Urban Design
Project
235,000 SF
$75 million USD

Awarded Best Build Design by the American Insitute of Architects/Boston Society of Architects -2008

The planned removal of two vacant buildings and the relocation of the existing Boston B-2 Police Station on Dudley Street to Washington Street result in a large site redevelopment opportunity.

The goal was then to craft an urban design strategy and build intervention that both re-establishes the southern edge of the Dudley Square Commercial District and reintegrates this edge into the whole district becomes a design challenge.

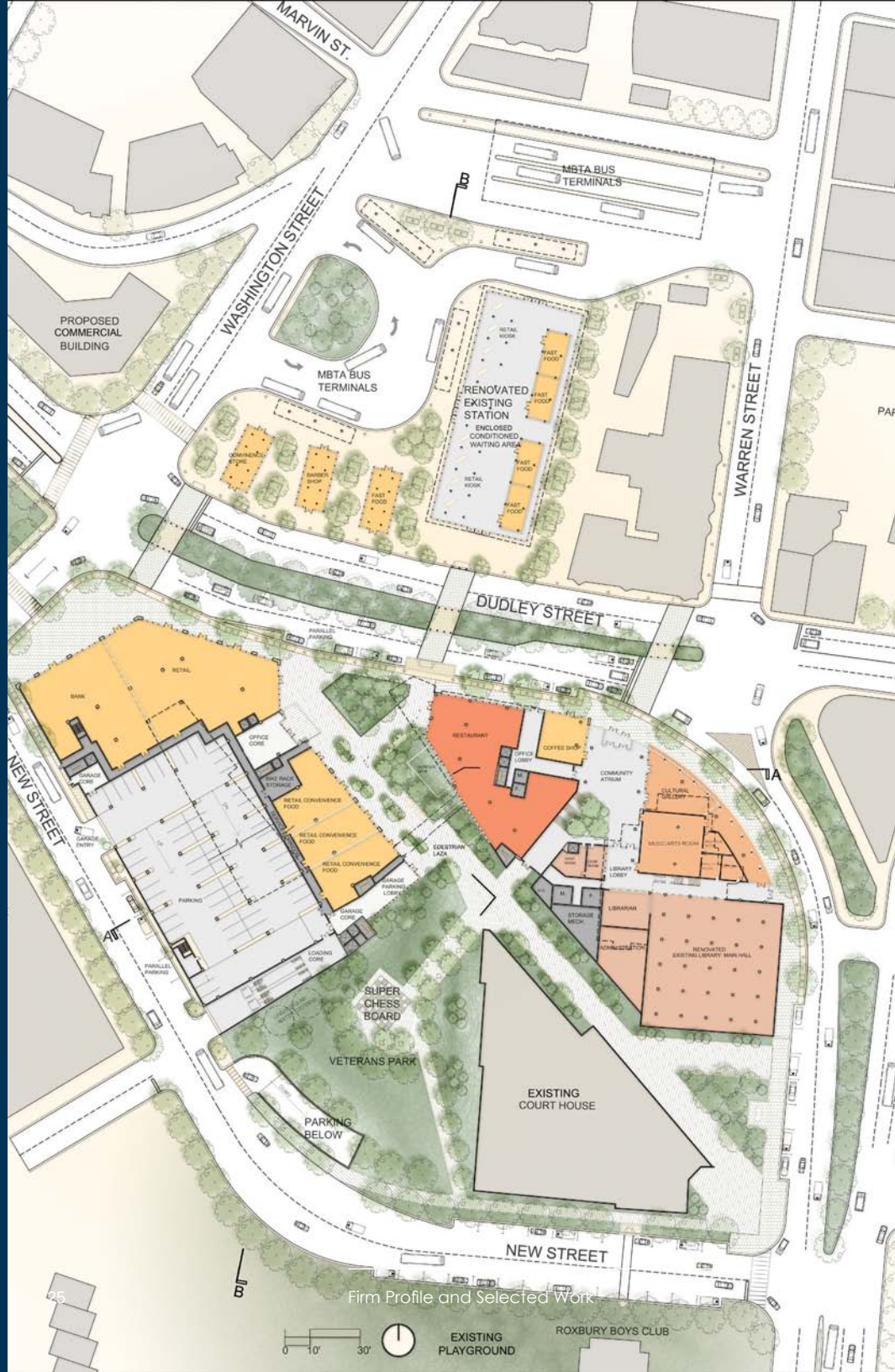
The overall design explores the aspirations of the Roxbury community, and takes advantage of the site location in Dudley Square, as well as the large number of commuters that travel the area daily. A new pedestrian plaza creates a gateway to the area and is anchored by a small business incubator building to the east and a larger commercial office building to the west linked by a glass bridge. Within these buildings a mix of community and arts space, retail, dining, and office space is provided, in addition to underground parking.

Environmentally conscious strategies were utilized throughout the project. Waste from the site's demolished buildings will be recycled to build the new plaza, which will gradually incline from Dudley Street to the courthouse building. The south facing office atrium in the commercial building, as well as other strategies throughout the project will seek to increase energy efficiency by maximizing daylight and reducing cooling and heating loads. Photo voltaic louvres installed above the atrium provides power to the facility as well as shading for the atrium. The park, the heavily planted plaza, and a green roof on the community building will add much needed vegetation, and will help moderate the impact of paved surfaces on the area's micro climate.

(above) Aerial view of plaza created by new mixed use green buildings across from improvements to transportation hub (below) Pedestrian Plaza creates new gateway to the area while providing several amenities.

Their submission was the most compelling in the sense that we could actually imagine it being built…We all thought that, if you could do this, it would truly make the square a better place.

- Kairos Shen, Chief Planner, City Of Boston



The community atrium also acts as the new entry for the public library and provides cultural/retail space for the community. Streetscapes have been designed to create a pedestrian friendly environment.

Dry Valley Development Master Plan

Location
Trewlawny, Jamaica WI
Industry
Affordable Housing
Services
Master Planning, Infrastructure Development, Sustainable Design and Clean Energy
Project Scope
700 Acres
1000 Housing Units
$100 million USD

The 700 acre Dry Valley Development Master Plan was prepared for the National Housing Trust of Jamaica, a quasi-public agency providing affordable housing solutions to residents of Jamaica.The Design for Dry Valley has been developed around sustainable, new urbanist principles that prioritize walkable, livable, compact mixed-use communities in order to reduce the dependence on automobiles for weekly needs and maximize choice and opportunities for residents.

The fundamental elements of the master plan design have been organized around three primary neighborhoods totalling 1000 housing solutions, with a balanced mix of human activity. These neighborhoods are located in the central areas of the site and are each less than a ¼ mile in radius from their center to edges, making each neighborhood within a comfortable walking distance to each other. Each neighborhood is divided into two housing clusters that are organized around central parks and playgrounds easily accessible to all residents. A fourth lower density neighborhood containing a mix of larger service lots and tourism uses has also been planned. The neighborhoods have been connected to each other and to a town center by an efficient and ecologically sensitive roadway and pedestrian system.

(above) Aerial View of community with mixed use town center in foreground, neighborhood clusters and community-scale renewable energy technology beyond. (below) Town center with open space and mixed use buildings.

This Sustainability Road Map directs a holistic approach to a sustainable society, economy, and environment

(below) Perspective of typical neighborhood cluster featuring a distinctive housing type organized around central open space where children can play safely and neighbours can meet. (right) Typical housing unit designed to reflect local Georgian tradition and take advantage of renewable energy technologies and innovative building systems.

Station Landing Master Plan

Location
Medford, MA
Industry
Mixed Use Development
Services
Master Planning, Architecture, Interior Design
Project
16 acre master plan
127 Unit Condominium Building-
$50 million USD
Architect
Elkus-Manfredi Architects
Project Role: Gregory Minott as Project Architect while at Elkus Manfredi Architects

Station landing is a 16 acre transit oriented brownfield redvelopment master plan. Located along the mystic river with spectacular views to Boston, Station Landing is a new vibrant mixed use community in Medford. The master-plan includes the ground up construction of over a million square feet of mixed use office, retail and residential space, designed to LEED standards. Station Landing is located adjacent to mass transit and is designed with the pedestrian in mind with wide brick lined sidewalks, outdoor cafes, and a lush water front park.

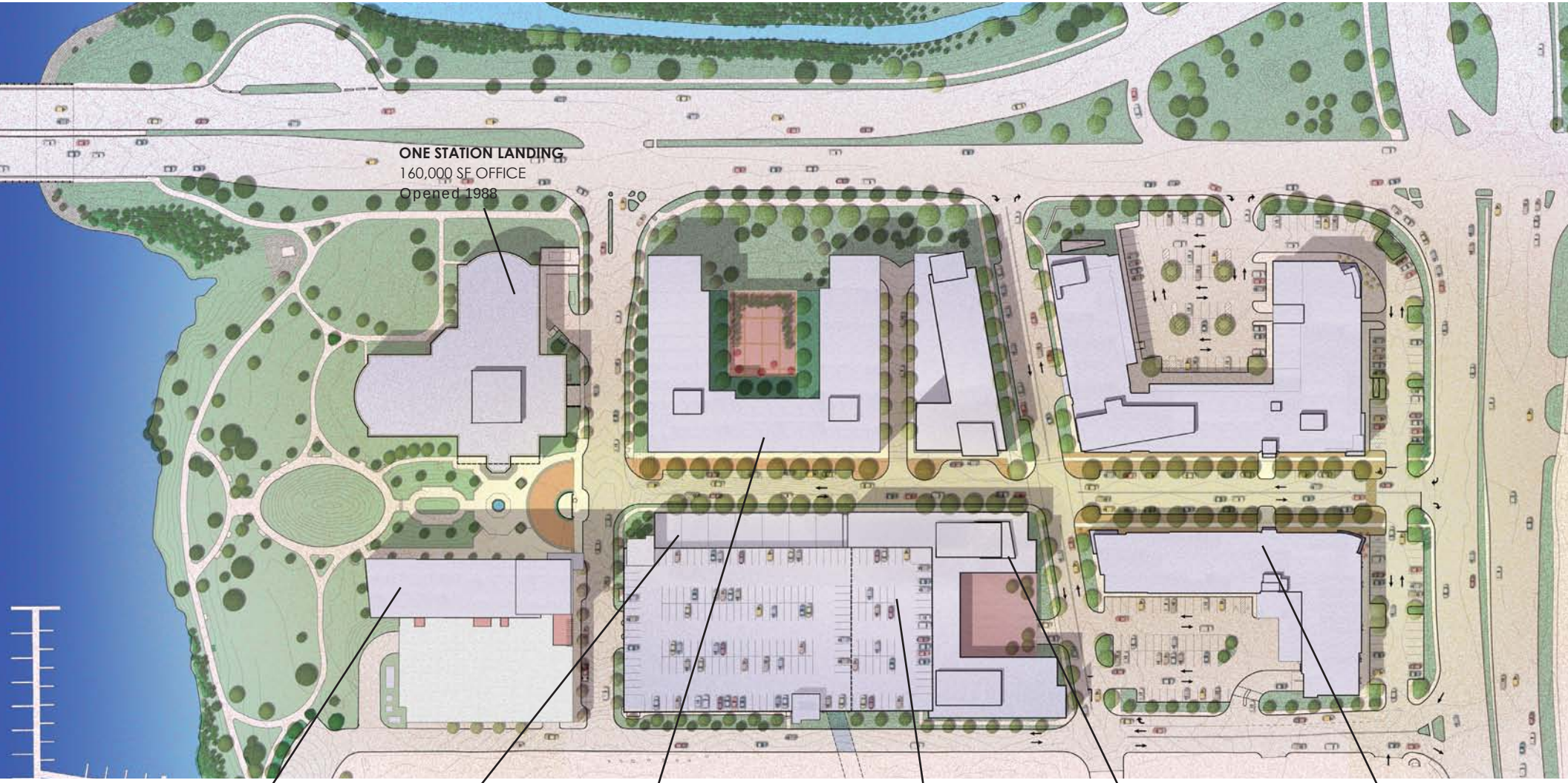
Skyline at Station Landing is a new 12 story 127 unit residential condominium tower that was completed in 2007 as part of the 16 acre masterplan. The waterfront site was a previously underdeveloped brownfield site. The building was designed to meet strict energy codes and energy star standards while giving each unit great views of the Boston skyline.


Photo:Robert Benson

Interior condominium lobby featuring contemporary design and sustainable materials as well as energy efficient lighting and abundant daylight from north facing low-e windows.


Photo:Robert Benson

Station Landing has been planned as a mixed use 24 hour neighborhood designed with the pedestrian in mind with wide brick lined sidewalks, outdoor cafes, and a lush water front park.



PHASE II SKYLINE AT STATION LANDING
127 CONDOMINIUM UNITS
204 STRUCTURED PARKING SPACES

PHASE IV
10 TOWNHOUSE CONDOS

PHASE V
370,000 SF HOTEL/RESIDENTIAL
300 STRUCTURED PARKING SPACES

PHASE IV
450-500 GARAGE SPACES
6000 SF RETAIL

PHASE III FITNESS CENTER
50,000 SF RETAIL

PHASE I ARBORPOINT AT STATION LANDING
292 Multi-Family Units(East/West)
64,750 SF Retail
233 Surface Parking Spaces
413 Below Grade Parking Spaces

(left) Axonometric of typical one bedroom unit wiht an open efficient planning concept. (below)Contempory lobby design featuring rapidly renewable materials and abundant daylight. (right) Elegant exterior design with modern design elements and contextual use of materials.

Photo:Robert Benson

Photo:Robert Benson

Novartis Institutes Mixed Use Office Building

Location
Cambridge, MA
Industry
Green Building Design
Services
Planning, Architecture, Interior Design
Project
65,000 SF
$28 million USD
Architect
Elkus-Manfredi Architects
Role: Gregory Minott as Project Designer while at Elkus Manfredi Architects

This new headquarters for Novartis completes their campus in Cambridge. The new 65,000 square foot building was designed to provide an identity for Novartis and designed to a LEED NC Gold certification. Sustainable strategies include, building orientation to maximize daylight and shading, gray water reuse, interior courtyard to maximize daylight, high performance curtain wall system, energy effecient lighting and HVAC systems are just a few strategies used.

The interior plan was organized to give all work spaces abundant access to daylight with open office space occupying space along the perimeter while meeting rooms and private offices were placed on the interior of the plan.


Photo: Anton Grassl

Iconic north facing facade with saw tooth building massing to maximize daylighting and views to interior spaces.


Photo: Anton Grassl

Orman Residence

Location
Calgary, Canada
Industry
Private Residence
Services
Architecture, Interior Design
Architect
Gray Watt Partners
Role: Gregory Minott as Project Architect

This residence fills a long, narrow site on the Elbow River in an eclectic residential neighborhood of downtown Calgary. The house feartures a play of masses in a modern architectural language. Inside, the spaces are defined by levels to create an open floor plan. A small courtyard notched from the footprint leads you to the entry into the house. The entry opens to the focal architectural feature of the interior an elegant staircase ascending from the entry to the private living spaces on the floor above. Insulated concrete form construction provides significant energy savings particularuly in Calgary's harsh winters. The building orientation and window openings maximize daylight to the interior along this narrow site

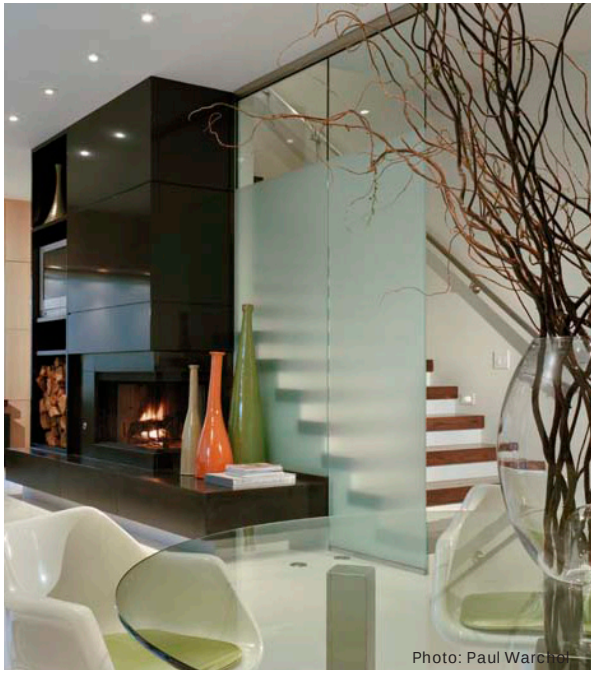


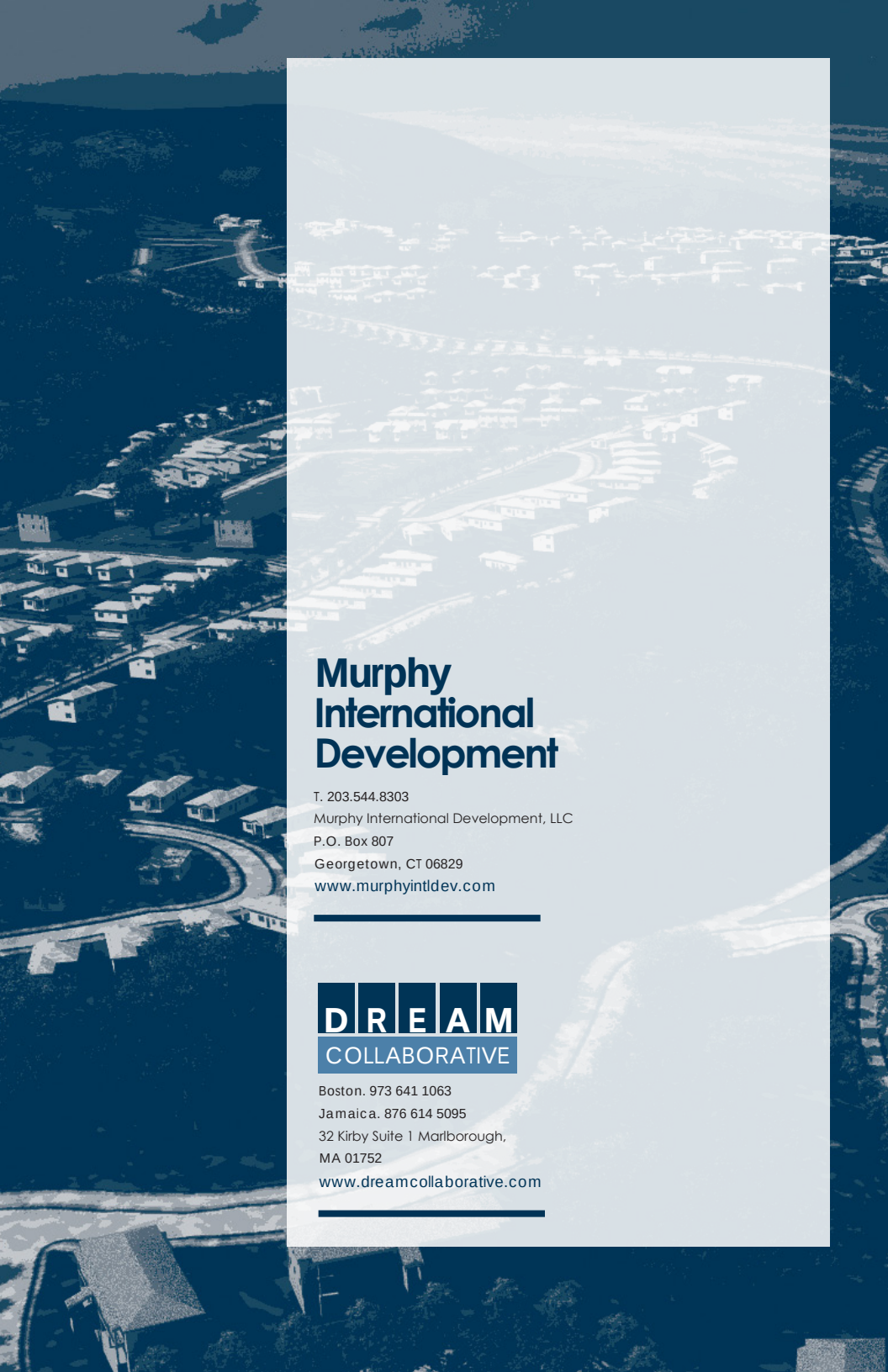
Photo: Paul Warchol

The house was designed with a modern aesthetic. A small courtyard, notched from the footprint, leads to the entry situated midway along the length of the house.


Photo: Paul Warchol

From the outside the house features generous living spaces and provides connections to the interior through large walls of windows.

Photo: Paul Warchol



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