

Greenwich Millennium Village

London, United Kingdom

Project Type:
Mixed-Use/Multi-Use

Case No:
C036003

Year:
2006



SUMMARY

Located on the Thames River in East London and launched in 1999, Greenwich Millennium Village (GMV) encompasses 25.8 hectares (63.8 acres) and represents a £689 million public/private investment. At buildout, expected in 2013, GMV will comprise 2,956 residential units (30 percent of which will be affordable), 6,548 square meters (70,396 square feet) of office space, and 2,325 square meters (25,000 square feet) of retail property. Designed to be sustainable, the Village is constructed with green building materials and incorporates passive solar architecture, high-grade insulation, and efficient appliances that are forecast to reduce energy consumption by 80 percent. In addition, a cogeneration power plant helps meet the project's electrical and heating needs.

FEATURES

- Mixed-Income Housing
- Urban Regeneration
- Sustainable Development
- Brownfield
- Public/Private Partnership

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LOCATION

Central City

SITE SIZE

63.8 acres/25.8 hectares

LAND USES

Multifamily Housing, Office, Retail, School, Health Clinic, Community Center, Affordable Housing, Workforce Housing, Townhouses, Condominiums

KEYWORDS/SPECIAL FEATURES

- Mixed-Income Housing
- Urban Regeneration
- Sustainable Development
- Brownfield
- Public/Private Partnership

PROJECT WEB SITE

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GENERAL DESCRIPTION

Located on the Thames River in East London and launched in 1999, Greenwich Millennium Village (GMV) encompasses 25.8 hectares (63.8 acres) and represents a £689 million public/private investment. It is part of a larger 131.5-hectare (325-acre), multibillion-pound project, transforming Greenwich Peninsula from one of the most contaminated sites in Great Britain to a mixed-use community and leisure destination.

Showcasing the latest in planning theory and sustainable design, GMV has won dozens of awards. Passive solar architecture in combination with state-of-the-art construction techniques, high-grade insulation, and efficient appliances are forecast to reduce energy consumption by 80 percent. An on-site cogeneration plant—one of the first in Britain for a multifamily housing project—supplies electrical and heating needs. Other sustainable features include clustered, high-density development that deemphasizes the auto; use of green building materials; 5.7 hectares (14 acres) of open space; and a program to reduce construction waste.

As of March 2006, two of the five phases are well underway. When finished in 2013, GMV will have 2,956 residential units (30 percent affordable), 6,548 square meters (70,396 square feet) of office space, and 2,325 square meters (25,000 square feet) of retail. Civic components include parks, a primary school, a health clinic, a member-operated yacht club, and a community center.

SITE/BACKGROUND

London grew from an outpost of the Roman Empire to a commercial hub during medieval times by virtue of its location on the Thames River. Peaking at 8.6 million in 1939, the population then declined due to the German blitz; a postwar reconstruction policy that favored construction of new utopian cities; and the advent of containerized shipping, which rendered obsolete a vast maritime infrastructure of docks and warehouses. This left East London in a state of physical and economic deterioration. Consequently, from 1981 to 1998, the British government invested billions of pounds sterling in redevelopment. Rail and subway lines were extended into the Docklands area. A high-rise commercial hub arose on the north side of the Thames at Canary Wharf. And thousands of new housing units bolstered the residential base.

One area—a peninsula on the south side of the Thames within the borough of Greenwich—lagged behind this development curve. Originally a marsh, the peninsula had been used for agriculture and then as a landfill. Toward the end of the 19th century, British Gas purchased 121.4 hectares (300 acres) east of Highway A102 (the Blackwell Tunnel Approach). There, the company constructed a shipyard, chemical plants, and gas refineries. For a century, due to those operations, hydrocarbons and heavy metals accumulated alongside decomposing Victorian wastes. After the decline of the Docklands area, British Gas attempted to redevelop the property but failed. Finally, London's last large tract of undeveloped waterfront, which happened to be close to Canary Wharf, went on the market.

English Partnerships (EP), a government agency responsible for regeneration and brownfield development, studied the parcel. There were two major problems, both costly to overcome. One was environmental remediation. The second was the parcel's insular nature: it was hemmed in by Highway A102 on the southwest and by the Thames on the northwest, north, and northeast. Successful redevelopment would require a network of transportation linkages.

In the final analysis, one imperative may have superseded all others: Britain needed a place to stage its official celebration of the millennium. After purchasing the property in 1996, EP contracted with the architecture firm of Richard Rogers Partnership to develop a conceptual plan. Designers sketched a mixed-use urban quarter with a business district at the head of the peninsula; a two-kilometer-long (1.24-mile-long) parkland spine; and housing on either side. The focal point for millennium happenings would be a domed exhibition hall (Millennium Dome) within the business district. The master plan also called for the construction of a 25.8-hectare (63.8-acre) model village at the base of the peninsula.

The site, now Greenwich Millennium Village, is a trapezoid bisected by West Parkside. It is bounded by the Thames to the northeast and by three perimeter roads: Pear Tree Way, Bugsbys Way, and John Harrison Way. Beyond Pear Tree Way on the north is a member-operated yacht club and the Thames. To the south of Bugsbys Way is a commercial zone, featuring a 14-screen cinema and big-box retail. There, Sainsbury's has constructed a flagship grocery that uses 50 percent less energy than other stores. Across John Harrison Way to the northwest is the 80-hectare (198-acre) Meridian Delta Ltd. project, which will feature 10,000 high-rise residential units, 343,600 square meters (3,693,700 square feet) of office space, 33,750 square meters (362,812 square feet) of retail, and 19.4 hectares (48 acres) of open space. Another component is the O2 riverfront entertainment district to be operated by Anschutz Entertainment Group; it centers on the Millennium Dome, now being revamped as a 23,000-seat multipurpose arena.

Located at the base of the peninsula, GMV serves, in effect, as a gateway for what—in 15 to 20 years—will be an urban quarter of 40,000 or so people. Two traffic circles accentuate this point. The Village is connected to the rest of the peninsula, to the borough of Greenwich, and to London by highways, a new station on the Jubilee line of the London Underground subway system, and bus routes. One major pedestrian/bicycle route traces the Thames River and another follows the open-space spine that traverses the length of the peninsula and terminates in the Village,

which has its own green core in the Village Square and in Southern and Ecology parks. Buses run between GMV and the North Greenwich subway station.

DEVELOPMENT PROCESS

Oil began flowing from the U.K.'s North Sea fields in 1975, and by the mid-1990s, Britain was a net exporter not only of oil, but also of gas. The trend quickly reversed, however, and toward the end of the decade, domestic oil and gas production was declining and prices were increasing. Moreover, the media was awash with reports detailing global warming and forecasting shortages of energy, potable water, and developable land.

Hence, when voters returned the Labour Party to power in 1997, after 18 years in opposition, the nation as a whole was ready to move in a sustainable direction. Sir John Egan at the Department of Trade and Industry launched an effort called "Rethinking Construction," and Lord Richard Rogers headed a task force charged with figuring out how to reuse brownfields while abetting regeneration. Deputy Prime Minister John Prescott decided that the 25.8-hectare (63.8-acre) site on Greenwich Peninsula was an ideal place to showcase their ideas.

EP announced an international competition to design and develop GMV as "a tangible living model" that would evince enhanced theories of urban design and best construction practices. An outline master plan approved by the borough of Greenwich formed the basis of the competition brief. The word *sustainable* was prominent in all related documents, and it packed a uniquely European meaning. Europeans believe that for a project to be sustainable, not only must it be environmentally sensitive and financially viable, but it also must engender a sense of community—in part by including a diverse range of residents ("mixed tenure").

Before the first round of competition proposals arrived at EP headquarters, remediation efforts were well underway. (The agency eventually invested about £225 million in remediating, servicing, landscaping, improving the transportation network, and master planning.) Other components of the peninsula master plan were also taking shape. At the tip of the peninsula, the Millennium Dome, funded by £5 billion in National Lottery proceeds, was emerging on the London skyline and so, next to it, was the North Greenwich underground station. EP had purchased an additional ten hectares (24.7 acres) on the peninsula, raising its holdings to 131.5 hectares (325 acres). Finally, the agency offered 99-year leases on the big-box lots adjacent to GMV.

Countryside Properties, a private developer based in Brentwood, England, had been a traditional U.K. homebuilder until the 1992 Earth Summit in Rio de Janeiro. Afterward, the company revised its production process, reducing waste and improving energy efficiency and water conservation. Chairman Alan Cherry formed a team to submit a proposal. Since the competition was attracting big players in the design and development world, he selected a partner with an international profile and strong financials (Taylor Woodrow, a public corporation operating in Europe and North America), a Swedish architecture firm with unique experience in sustainable housing projects (Erskine Tovatt), and a London nonprofit organization to manage the affordable housing component (Moat Housing Association).

Upon winning the competition, Countryside and Taylor Woodrow formed a joint venture company, Global Millennium Village Limited (hereafter referred to as "the developer"), to proceed in partnership with EP, the landowner. Erskine Tovatt Arkitekter (now Tovatt Architects and Planners) continues as master planner, designer of Phase I, and supporting designer in Phase II. Likewise, Moat still manages the affordable component.

DESIGN

Envisioned as a contemporary—and sustainable—version of a traditional English village, GMV was a challenge to render, first in elevations and, later, in plaster, concrete, wood, steel, and glass. The primary design challenge was to create a village on a barren site, relate it to existing social structures and infrastructure, and endow it with the capacity to grow organically into a self-managing community the designer hoped would evince "respect for human dignity, equality, and freedom."

These challenges suggested that, for starters, GMV should be dense and diverse. New housing developments in England average 24.7 units per hectare (ten units per acre). In London, the figure can exceed 123.5 units per hectare (50 units per acre). Upon completion, GMV is expected to average 185.25 units per hectare (75 units per acre). This density not only will fill a "void," but also will reduce sprawl and create a residential base to support later phases of retail and office space. The designer devised several ways of enhancing diversity. As is typical of traditional European towns, building depths and heights vary and uses are mixed. Equally if not more important is the affordable housing component, projected to constitute 30 percent of units.

The master plan features a landscaped village square (not built as of March 2006) in the first phase. Cafés, shops, and restaurants will surround the square, which will host outdoor markets and musical performances. The square is located at the intersection of West Parkside and John Harrison Way and at the terminus of the peninsula's green-space spine. Other pedestrian routes connect it to Southern and Ecology parks (on the south and east) and the Thames River (further to the east). Completed in September 2003, the rest of Phase I consists of Ecology Park, Southern Park, and a cluster of 299 flats in three buildings designed by Erskine Tovatt.

GMV shares characteristics with other Erskine Tovatt–designed communities. High perimeter walls on the north, in combination with weeping roofs that overhang, deflect winter winds and create warmer microclimates in sheltered courtyards. Interior walls open to the courtyard via balconies, terraces, large windows, and covered galleries. Artful

use of color, materials, articulation, and variable building heights and depths are intended to endow the Village with an ambience that is at once sophisticated, cozy, and whimsical.

Located in the northwest corner of the site, between Ecology Park and the Village Square, Phase I consists of seven buildings ranging in height from four to eight stories that are arranged around a courtyard. The units in this phase are a mix of one- to four-bedroom townhouses and one- and two-story condominiums.

Designed by Erskine Tovatt and U.K.-based Proctor and Matthews Architects, Phase II consists of six clusters of low- and medium-rise structures. The clusters (Becquerel, Edison, Cottrell, Farnsworth, Kilby, and Holly Courts) rise to eight stories. Each court has three or more buildings juxtaposed to form interior courtyards.

The unit and bedroom mix is the same as that in Phase I, but also includes 14 live/work units. These units feature sliding partitions that allow residents to adapt their interior space. The live/work units form a row adjacent to the parking garage so that, if businesses grow, they may potentially expand into the garage.

Scheduled for construction between 2007 and 2013, phases III, IV, and V will comprise a series of buildings arranged around interior courtyards—much like the site design in Phase II.

GREEN FEATURES

The project's green components fall into four categories: parking and transport, landscape, building construction, and combined heat and power (CHP). While mixed-use developments have the potential to significantly reduce the need for auto travel, some GMV residents do own cars. The developer plans to build an average of 0.7 parking space per residence, plus 275 spaces for nonresidential purposes, for a total of 2,345. Parking is located underground or at the periphery of the Village to reduce auto impact. Spaces are sold unbundled from for-profit residential units (the current price is £15,000 per space) and free to affordable units. Bicycle parking is more abundant. Upcoming phases typically will have one space per bedroom. For cyclists and pedestrians, an infrastructure of routes is already in place.

After removing contaminated soils and capping the ground, EP terraced the river and planted over 12,000 trees, including a reintroduced Leisham black poplar. All in all, GMV has 5.6 hectares (14 acres) of dedicated open space. Ecology Park—two lakes surrounded by marsh and woodlands—is a major component of that network. Visitors traverse the park via boardwalks punctuated with observation huts. A gatehouse on the Thames serves as a visitor center. The 1.6-hectare (four-acre) area provides habitat for many species, including warblers, swifts, and skylarks. Ecology Park fulfills two other functions: flood protection and environmental education.

The developer is concerned with both primary energy consumption and the energy embodied in manufacturing/transporting building materials. The former is reduced with passive solar design, high levels of thermal insulation, efficient appliances and windows, daylighting of interiors, and controlled lighting of common areas. The latter has been lessened by careful use of alternative and recycled materials, such as furnace slag to replace cement.

A CHP system deploys gas-fired turbines to generate electricity. Typically, 100 kilowatt-hours of electricity produce 145 kilowatt-hours of waste heat. At GMV, the developer uses that to heat water. It is distributed to homes via super-insulated pipes for supplemental space heating and as potable hot water. Use of CHP in combination with passive design and high-grade insulation means that GMV is self-sufficient in terms of hot water and heating needs. The community is, however, connected to an electrical grid, buying and selling as needed.

The developer has minimized water use by careful specification of fixtures and fittings, such as low-flush toilets, low-flow taps, and highly efficient appliances. The amount of construction waste has been reduced via a sophisticated on-site separation and recycling program.

As a public/private partnership and as a model development, GMV has been subjected to an unusual amount of probing. Stringent audits from a construction think tank, the Building Research Establishment (BRE), have led to "excellent" ratings for each subphase completed as of March 2006. Per contractual arrangements with EP, the developer must periodically report on a set of sustainability milestones.

FINANCIAL VIABILITY

Just how profitable or unprofitable GMV will prove to be may take years to ascertain. EP's initial £47.8 million investment in remediation, infrastructure, landscaping, and civic components has certainly defrayed some of the development costs. The British government also subsidizes the development of the affordable units through its Housing Corporation subsidiary. Nonetheless, the developer's costs are running about £290.25 per square meter (£27 per square foot) higher than other projects in London as of spring 2006. Generally speaking, units in a low- to mid-rise building with minor site contamination and a minimal sustainability agenda cost about £1,505 per square meter (£140 per square foot) to construct. At GMV, the figure is closer to £1,795.25 per square meter (£167 per square foot).

Jonathan Gimblett, one of the project development managers, said that most of the premium is due to higher design costs, more expensive materials, and the innovative nature of the project. He estimates the sustainable premium is 6 percent. Notably, it costs roughly £10,000 extra per home to earn BRE's Ecohomes Excellent rating.

Flats at the Village typically sell for £3,762 to £4,730 per square meter (£350 to £440 per square foot). Market

absorption has been strong (flats are selling faster than those of competitors in the area) because prospective buyers say they appreciate the project's design, sense of community, focus on sustainability, amenities, and lower projected utility bills. The developer regards GMV as an R&D investment that will lead to innovation elsewhere. Still, with lower costs, profit margins would increase and, likewise, would motivate other developers to follow suit with greener projects—a national priority.

Hence, the developer is experimenting with three strategies for minimizing costs: build faster, more efficiently, and in a denser fashion. Sophisticated construction management techniques have reduced the duration of each subphase by 10 percent, with additional gains anticipated through better sequencing, improved procurement practices, and greater use of modular and prefabricated construction (i.e., off-site construction of bathrooms and cladding systems—exterior units for insulating and enclosing a structure). Also, the developer is working with suppliers and contractors to decrease product-associated waste. That, in turn, will lower high landfill costs. Cutting in half the number of skips (large containers for bulk waste), for example, has generated a direct savings of £150,000.

Phases III, IV, and V will be denser than the first two phases, but not solely to bolster profits. The 2004 London Plan calls for higher density in order to efficiently accommodate population growth. And some residential towers at the adjacent Delta Meridian project will rise to 30 stories. Hence, the developer is seeking higher density for better integration with GMV's evolving urban context. Expenses will increase due to a higher percentage of affordable housing and the need for more community facilities.

The developer paid approximately £741,000 per hectare (£300,000 per acre) for the site. Due to the innovative nature of the project and associated risks, the developer and EP will share profits above and beyond a fixed threshold. "This is a high-level, government-driven project," says Gimblett. "For every £1 invested, EP recovers its original financial investment partly through the financial value created as a result of the success of the development, which is principally by way of a profit-sharing arrangement, and the remainder through the resulting improvements in local social and economic conditions, which benefit the wider community."

TENANTS AND MANAGEMENT

A customer survey conducted during the first quarter of 2005 indicates that 83 percent of visitors were impressed by the sustainable nature of the development. Of those who purchased units there, 83 percent did so because of the "different" design and 55 percent said a sense of community was either extremely or very important. Seventy-three percent of buyers said they felt they got a good value for the price paid.

With a 30 percent affordability target, GMV is one of the first attempts to create a large-scale, mixed-tenure community in Britain. As mentioned earlier, Moat Housing Association manages rental units for low-income residents or key workers, such as teachers and police officers. Other units are described as "shared ownership" (tenants can buy a 40 percent stake and rent the rest). Future units may be offered for sale at discounted prices to certain target groups. Affordable units are intermingled with, and indistinguishable from, flats produced by the developer to meet market demand from professionals (many of whom work at Canary Wharf) and investors (the 2012 Summer Olympics in London is already spurring interest).

To encourage resident interaction, GMV has a Web site with a resident forum and community development officer, who initiates programs and activities. For a project at this stage of completion, the developer says residents are interacting more than usual. A community center to be built in the third phase should further this goal. The developer considers the mixed-use component and the knowledge gained from such an innovative project to be the key strategic successes thus far.

EXPERIENCE GAINED

Johannes Tovatt, business partner of master planner Ralph Erskine, who died in 2004, said developers who want to engage in a project of this nature need to sort out some things at the beginning with regard to payback time and flexibility. He adds, "Whatever one talks about today, won't mean a lot in a year's time because these projects are so vast. Sometimes, only a fraction of the original design is implemented. Begin with less defined outcomes so the project is more flexible. Build adaptability into the process."

The developer stressed the importance of getting everyone—the GMV team, local councils, bankers, contractors, tradespeople, and buyers—on the same page so that they share a common understanding of a sustainable community.

The first two phases make use of about 250 distinct light fixtures, sockets, and bulbs. Architectural variation is important, but elements that fail to add tangible value should be standardized. A reduction to five light fixtures would be less expensive and easier to maintain in the long term.

As noted earlier, GMV has been subject to many audits, in part so that lessons learned could be disseminated into the construction industry and into a set of six additional "Millennium Communities" that EP is pursuing in various English settings. One BRE report focused on the waste reduction program. Top lessons were as follows: brief subcontractors on goals; establish benchmarks; allocate a clear and accessible space for waste bins; engage workers with briefings and poster campaigns; publish results; reuse as much of the waste as possible on site; and identify new outlets for and ways to use waste products.

PROJECT DATA**LAND USE INFORMATION (data for entire project at buildout expected in 2013)**

Total site area (hectares/acres): 25.8/63.8
 Number of dwelling units (phases I and II): 701 complete, 166 under construction; 228 planned
 Number of dwelling units expected at buildout: 2,956
 Gross residential density (units per gross residential hectare/acre)
 Phase I: 250/101
 Phase II: 126/51
 Expected at buildout: 186/75

Total gross office space planned (square meters/square feet): 6,540/70,396
 Total gross retail space planned (square meters/square feet): 2,323/28,826

RESIDENTIAL UNIT INFORMATION

Unit Type	Size (Square Meters/ Square Feet)	Number Built or Under Construction*	Range of Typical Initial Sale Prices/Rents
Market-Rate Units			
One-bedroom	53/570	280	£112,000–£220,000
Two-bedroom	81/871	332	£210,000–£260,000
Three-bedroom	117/1,258	95	£230,000–£650,000
Four-bedroom	114/1,226	8	£300,000–£3,500,000
Two-bedroom live/work unit	119/1,279	12	£260,000–£300,000
Three-bedroom live/work unit	133/1,430	2	£260,000–£300,000
Affordable Units			
One-bedroom	50/538	22	£94 per week
Two-bedroom	73/785	65	£100 per week
Three-bedroom	93/1,000	48	£105 per week
Four-bedroom	141/1,516	3	£111 per week

*As of February 2006.

DEVELOPMENT COST INFORMATION

Public Contribution
 Estimated EP investment in GMV (remediation, landscape, and traffic improvements): £48.7 million

Private Contribution

Estimated Developer's Costs (All Phases)	Amount	Percentage
Land purchase and construction costs	£487,972,442	76
Soft costs and general development costs (i.e., architects and consultants)	£92,714,764	14
Marketing and selling	£35,264,126	5
Contributions to local improvements	£25,214,612	4
Total developer's costs	£641,165,944	N/A

Total Project Cost: £689 million

DEVELOPMENT SCHEDULE

Site acquired: 1998
 Planning started: 1998
 Construction started: 1999
 Residential sales/leasing started: 2000
 Commercial leasing planned to start: March 2006
 Estimated Phase I completion: September 2008
 Estimated Phase II completion: September 2006
 Estimated project completion: 2013

BUILDING RESEARCH ESTABLISHMENT AUDIT DATA

	GMV Achievements for First 286 Units Constructed	Target Goals for First 286 Units Constructed	Final Target Goals at Buildout

Reduction of primary energy source consumption	65%	None	80%
Amount of energy used to manufacture construction materials	25%	15%	50%
Reduction in water consumption	20%	15%	30%
Reduction in construction costs	12%	5%	30%
Reduction in construction duration	No improvement	10%	25%
Reduction in defects upon handover	70%	50%	Zero defects
Reduction in construction waste	59%	None	50%
Percentage of affordable units	16%	None	30%
Area devoted to mix of uses	400 square meters/4,300 square feet	None	4,000 square meters/43,000 square feet

DRIVING DIRECTIONS

From London Heathrow Airport: Take the M4 motorway (junction 4A) heading toward central London. After about 16 kilometers (ten miles), the motorway ends and connects to the A4. At the roundabout, take the second exit onto Great West Road (A4). After crossing the Hammersmith Flyover, Great West Road becomes Talgarth Road, which then becomes West Cromwell Road. Turn right onto Earls Court Road (A3220). At the intersection with Old Brompton Road, Earls Court Road becomes Redcliffe Gardens and then at the intersection with Fulham Road, Redcliffe Gardens becomes Edith Grove. Almost two kilometers (1.2 miles) from the intersection of West Cromwell Road and Earls Court Road, take a left onto Cremorne Road, which becomes the Chelsea Embankment (A3212). Go 2.8 kilometers (two miles), turn right on Vauxhall Bridge (A202) and then onto Kennington Lane (A3204). Take a right onto Durham Street (A202), then turn left onto Harleyford Road (A202). Continue on the A202 for 4.8 kilometers (three miles) past the Brit Oval Cricket Ground (the street names along the A202—from Harleyford Road it will become Camberwell New Road, then Peckham Road, then Peckham High Street, and finally Queens Road), then take a left onto Kender Street, then take the next right on Besson Street (A2). Then take another right onto New Cross Road (A2). A little more than two kilometers (1.3 miles) and immediately after Deptford Broadway turn left onto Greenwich High Road (A206). After Greenwich Station, take a left onto Greenwich Church Street (A200), then make a right on King William Walk (signposted Woolwich), then turn left at the T junction onto A206 (Romney Road, which becomes Trafalgar Road). Turn left onto Blackwall Lane. Blackwall Lane becomes John Harrison Way, which runs along the western border of GMV.

Driving time: Approximately 1.5 hours in nonpeak traffic.

From Gatwick Airport: Take the M23 motorway heading north toward London. Take exit 8 onto the M25 motorway and stay on it for about 19 kilometers (12 miles). Then take exit junction 2 onto the A2. The A2 becomes East Rochester Way, then Rochester Way Relief Road, then Blackwall Tunnel Southern Approach. Take a right from the Blackwall Tunnel Southern Approach onto Blackwall Lane. Blackwall Lane becomes John Harrison Way, which runs along the western border of GMV.

Driving time: Approximately 1.15 hours in nonpeak traffic.

DIRECTIONS VIA TRANSIT

From London Heathrow Airport: Take the Heathrow Express to Paddington Station. Then transfer to the London Underground Bakerloo Line to Baker Street. Change to the Jubilee Line to Canary Wharf, and then take a taxi the rest of the way. (The nearest station is actually North Greenwich, but taxis are less likely to be found there.)

From Gatwick Airport: Take the Thameslink train to London Bridge. Transfer to the London Underground Jubilee Line to Canary Wharf and take a taxi. (The nearest station is actually North Greenwich, but taxis are less likely to be found there.)

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Courtesy of Countryside Properties

Greenwich Millennium Village (GMV) is a 25.8-hectare (63.8-acre) mixed-income, mixed-use community located along the Thames River in East London.



Courtesy of Countrywide Properties

The result of a public/private partnership, GMV is being constructed in five phases. As of spring 2006, two phases have been completed (pictured here).



Courtesy of Countryside Properties

The project comprises low- to mid-rise buildings that reach a maximum height of eight stories and are arranged around a series of courtyards. Residences in the project are a mix of one- and two-story condominiums, one- to four-bedroom townhouses, and live/work units.



Courtesy of Countryside Properties

Through English partnerships-a government agency responsible for regeneration and brownfield redevelopment-the British government spent about ?225 million to remediate the former brownfield where the community is now located.



Courtesy of Countryside Properties

Designed to be sustainable, the Village is constructed with green building materials and incorporates passive solar architecture, high-grade insulation, and efficient appliances that are forecast to reduce energy consumption by 80 percent. In addition, a cogeneration power plant helps meet the project's electrical and heating needs.



providing habitat for many species, including warblers, swifts, and skylarks, the 1.6-hectare (four-acre) Ecology park consists of two lakes surrounded by marsh and woodlands along the banks of the Thames.



Greenwich Millennium Village site plan.